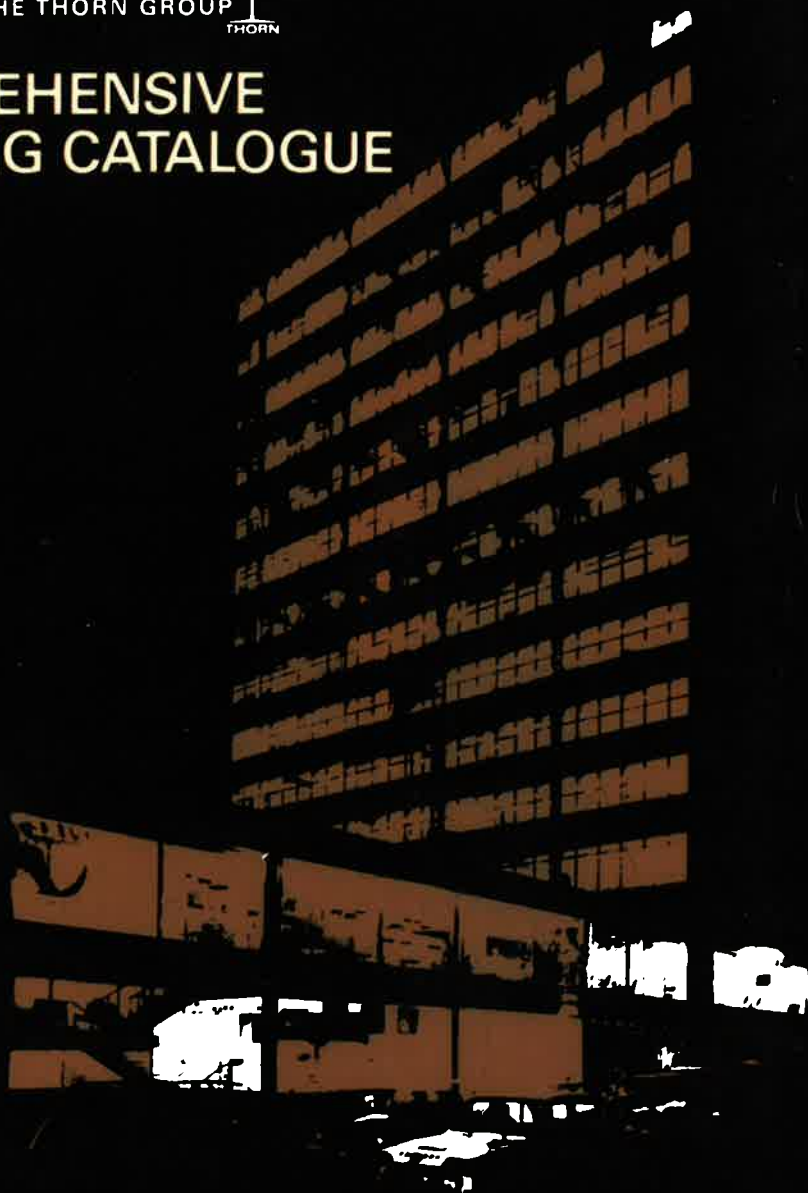


# THORN LIGHTING LTD

A MEMBER OF THE THORN GROUP



## COMPREHENSIVE LIGHTING CATALOGUE



atlas mazda ekco  
1969/70





# THORN LIGHTING LIMITED

---



A Member of the Thorn Group

**Thorn Lighting Limited now manufactures and  
sells Atlas, Mazda and Ekco brand lighting products.**

This catalogue lists and describes all fittings, equipment, accessories, lamps and fluorescent tubes normally manufactured by Thorn Lighting Limited.

In order to assist its customers and its own organisation, Thorn Lighting is rationalising its many ranges of fittings and the brands in which any specific range is available is clearly shown at the top of the catalogue page. Fittings are now listed under one catalogue number only which is usually the Atlas catalogue number, but the former Ekco and Mazda catalogue numbers are cross referenced back to the Atlas number in the Thorn Lighting Comprehensive Price List, copies of which may be obtained on request to any Thorn Lighting Regional Headquarters.

A complete range of lamps and tubes is offered in Mazda brand, but Atlas brand are also available for general service and projector lamps and the three brands for most ratings of fluorescent tubes. An indication of the brand availability is given in the introduction of each section which appears on the section inside the front cover.

The locations and addresses of Thorn Lighting order offices and regional headquarters are given overleaf.

## PRICES

Note all references to prices shown on section divider pages are superseded by the following:-

The 'Retail Price' is that suggested as appropriate in U.K. for retail sale.

The 'Contract Price' is that suggested as appropriate for sales to users in particular installations and is not subject to normal discount.

'Net Trade Prices' are those applicable to direct sale in U.K. by Thorn Lighting Limited. They refer to all lamps and tubes except Photoflash bulbs which are listed as suggested Retail Prices.

---

# Main Index & Introduction

## Thorn Lighting Order Offices

---

### SOUTHERN

**Atlas Lamps and Lighting Division**  
Thorn Industrial Estate,  
Homesdale Road,  
Bromley, BR1 2QP,  
Kent.  
Tel: 01-460 9966  
Telex: Thorn Bromley 25823

**Atlas and Mazda Lamps and Lighting Division**  
Angel Road Works,  
402 Angel Road,  
Edmonton,  
London, N.18.  
Tel: 01-807 3050  
Telex: Thorn Edmonton 23157

**Ekco Lamps and Lighting Division**  
Fawe Street,  
Morris Road,  
Poplar,  
London, E.14.  
Tel: 01-987 2090

**Mazda Lamps and Lighting Division**  
11 Avon Trading Estate,  
Avonmore Road,  
London, W.14.  
Tel: 01-603 3377

Drury Lane,  
St. Leonards-on-Sea,  
Hastings,  
Sussex.  
Tel: Hastings 2734

5 Richfield Avenue,  
Reading,  
Berks.  
Tel: Reading 53257

West Quay Trading Estate,  
West Quay Road,  
Southampton, SO9 1FF.  
Tel: Southampton 27401

### SOUTH WEST, SOUTH WALES

**Atlas and Ekco Lamps and Lighting Division**  
Thorn House,  
Penarth Road,  
Cardiff, CF1 7YP,  
Wales.  
Tel: Cardiff 31491  
Telex: Thorn Cardiff 49334

**Mazda Lamps and Lighting Division**  
6 Gwynneth Street,  
Cardiff, CF2 4XY,  
Wales.  
Tel: Cardiff 27495

1/5 Trinity Street,  
Bristol 2,  
Somerset.  
Tel: Bristol 51494

### MIDLANDS

**Atlas, Mazda and Ekco Lamps and Lighting Division**  
Thorn House,  
Aston Church Road,  
Saltley,  
Birmingham 8.  
Tel: 021-327 1535  
Telex: Thorn Birmingham 33235

Ashforth Street,  
Nottingham, NG3 4BJ.  
Tel: Nottingham 51115

### NORTH WEST, NORTH WALES

**Atlas, Mazda and Ekco Lamps and Lighting Division**  
2 Claytonbrook Road,  
Clayton,  
Manchester 11.  
Tel: 061-223 1322  
Telex: BLI Manchester 668642

### NORTH EAST

**Atlas, Mazda and Ekco Lamps and Lighting Division**  
Thorn House,  
3 Ring Road,  
Lower Wortley,  
Leeds 12.  
Tel: Leeds 636321  
Telex: Thorn Leeds 55110

Earlsway,  
Team Valley Estate,  
Gateshead, NE11 0RX.  
Co. Durham.  
Tel: Low Fell 879211  
Telex: BLI Gateshead 53429

### SCOTLAND

**Atlas, Mazda and Ekco Lamps and Lighting Division**  
Thorn House,  
Lawmoor Street,  
Glasgow C.5,  
Scotland.  
Tel: South 5151  
Telex: Thorn Glasgow 77630

### NORTHERN IRELAND

**Atlas, Mazda and Ekco Lamps and Lighting Division**  
10 Severn Street,  
Belfast, BT4 1FB,  
Northern Ireland.  
Tel: Belfast 56004/5 and 51477  
Telex: Thorn Belfast 74695



# Thorn Lighting Organisation

---

Thorn Lighting Limited has nine regions giving a nation-wide coverage. In each region there is a regional headquarters controlled by a regional manager assisted by trade and technical sales managers. To obtain the best service, customers are recommended to take action as hereunder:-

**For information, advice, lighting schemes, lighting engineers, literature and publications** - contact the Thorn Lighting headquarters in your area, **To place an order or to make enquiries about availability or deliveries** - contact the nearest order office, preferably, but not essentially, of the dominant brand in your order.

A list of Thorn Lighting Headquarters is given below and a list of Order Offices on the opposite page.

**Head Office and Showrooms:**  
**Thorn House, Upper Saint Martin's Lane,**  
**London, W.C.2.** Telex: Thorn London 21521

## REGIONAL HEADQUARTERS:

LONDON REGION	11 Avon Trading Estate, Avonmore Road, London, W.14. Telephone: 01-603 3377
EASTERN REGION	Angel Road Works, 402 Angel Road, Edmonton, London, N.18, Telephone: 01-807 3050 Telex: Thorn Edmonton 23157
SOUTH EAST REGION	Thorn Industrial Estate, Homesdale Road, Bromley, BR1 2QP, Kent, Telephone: 01-460 9966 Telex: Thorn Bromley 25823
SOUTH WEST REGION	Thorn House, Penarth Road, Cardiff, CF1 7YP, Telephone: CARDIFF 31491 Telex: Thorn Cardiff 49334
MIDLANDS REGION	Thorn House, Aston Church Road, Saltley, Birmingham 8, Telephone: 021-327 1535 Telex: Thorn Birmingham 33235
NORTH WEST REGION	2 Claytonbrook Road, Clayton, Manchester 11, Telephone: 061-223 1322 Telex: BLI Manchester 668642
NORTH EAST REGION	Thorn House, 3 Ring Road, Lower Wortley, Leeds 12, Telephone: LEEDS 636321 Telex: Thorn Leeds 55110
SCOTLAND	Thorn House, Lawmoor Street, Glasgow, C.5, Telephone: SOUTH 5151 Telex: Thorn Glasgow 77630
NORTHERN IRELAND	10 Severn Street, Belfast BT4 1FB, Telephone: BELFAST 56004/5 and 51477 Telex: Thorn Belfast 74695



# FLUORESCENT FITTINGS



# Fluorescent fittings

## Introduction

---

Almost every major advance in the field of fluorescent lighting has been a direct result of our research.

Thorn Lighting's leading position has been maintained by the rigorous standards of

production and technical design.

Thorn Lighting fluorescent lighting fittings cover a

wide range. There is at least one Thorn Lighting

design to meet precise requirements, in light

produced, efficiency and in appearance of the fitting.

for almost every type of installation.

\*Prices\* shown are those recommended as appropriate in U.K. for retail sale.

\*Nett user prices\* are those recommended as appropriate in U.K. for direct sale to users.

# atlas mazda ekco

## Fluorescent lighting fittings index

<i>Range name</i>	<i>description</i>	<i>page</i>
<b>Atlantic 3</b>	Introduction and features	CA5/CA6
	A3A Batten fittings	CA7
	A3C Opal diffuser fittings	CA8
	A3E Two-tone diffuser fittings	CA9
	A3G Prismatic prismatic controller fittings	CA10
	A3L Angle reflector fittings	CA11
	A3N Vitreous enamelled reflector fittings – open end	CA12
	A3U Plastic trough reflector fittings	CA13
	A3V Vitreous enamelled reflector fittings – closed end	CA14
	A3X Metal reflector fittings – closed end	CA15
	A3Y Metal reflector fittings – unslotted – open end	CA16
	A3Z Metal reflector fittings – slotted – open end	CA17
	A3 Batten and reflector fittings – 4 tubes	CA18
<b>Durham 2</b>	Introduction and features	CA19/20
	281 series – Batten fittings	CA21
	420/421 – Prismatic controller fittings	CA22
	422 series – Opal diffuser fittings	CA23
	423 series – Opal diffuser fittings	CA24
	424/425 series – Opal diffuser fittings	CA25
	282 series – Metal reflector fittings	CA26
	284 series – Plastic reflector fittings	CA27
	298 series – Angle reflector fittings	CA28
<b>New Super Netapak</b>	Introduction and features	CA29
	NSN.1/NSN.2 Batten fittings	CA30
	420 Prismatic Fittings	CA31
	424 Diffuser Fittings	CA32
	NOD Opal diffuser fittings	CA33
	NPC Prismatic prismatic controller fittings	CA34
	NOR Metal reflector fittings	CA35
	NPR Plastic reflector fittings	CA36
	NAR Angle reflector fittings	CA37
<b>London line</b>	Introduction and features	CA38
	KG Batten fittings	CA39
	KGA Metal frame fittings	CA40
	KGB Metal frame fittings	CA41
	KGW Metal frame fittings	CA42
	KGD Plastic diffuser fittings	CA43
	KGF/KGN Metal frame fittings	CA44
	KGP Prismatic controller fittings	CA45
	KSP Wafer Slim fittings	CA46
	F72526 Shallow Prismatic fitting	CA47
<b>Format</b>	Introduction and features	CA49
	1. SM/2. SM Surface fittings	CA50/51
	3. SM/4. SM Surface fittings	CA52/53
	5. SM/O. SM/O.SM Surface fittings	CA54/55
	1. FM Frameless Module fittings	CA56/57
	2. FM Frameless Module fittings	CA58/59
	1. TM Trimmed Module fittings	CA60/61
	2. TM Trimmed Module fittings	CA62/63

# atlas mazda ekco

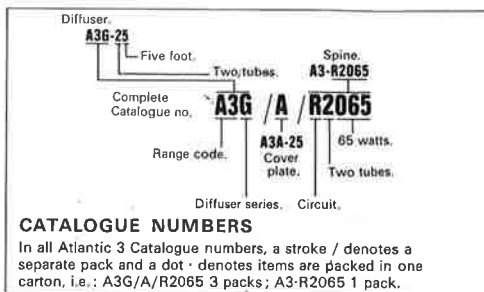
## Fluorescent lighting fittings index

<i>Range name</i>	<i>description</i>	<i>page</i>
<b>Invincible</b>	Introduction and features LU Corrosion resistant fittings LV Corrosion resistant fittings LW Corrosion resistant fittings Flameproof fittings Flameproof fittings 11/44501-11/44502 Dust-tight fittings 11/47550 Food-factory fitting 061/062 series – Angled floodlight fittings OF Hospital Asymmetrical Fitting	CA64 CA65 CA66 CA67 CA68 CA69 CA70 CA71 CA72 CA73 CA74
<b>Popular Pack</b>	Introduction, features and accessories PP Batten fittings PPA Angle reflector fittings PPC Prismatic controller fittings PPD Plastic diffuser fittings PPF Metal frame fitting PPO Plastic trough reflector fitting – open end PPR Metal trough reflector fittings PPT "Twindustrial" metal trough reflector fitting Sentinel One-Plus-One Attachment Double Twin Batten and reflector fittings KU5. P. Clipluve	CA75/CA76 CA77 CA78 CA79 CA80 CA81 CA82 CA83 CA84 CA85 CA86 CA87 CA88
<b>Arrow-slim</b>	LX Batten fittings LXA Raffia and LXB Lustre metal baffle fittings LXC Plastic angle diffuser fittings LXE Metal trough reflector and LXF two-tone diffuser WGB Weave-glint and Tropicana metal baffle fittings	CA89 CA90 CA91 CA92 CA93
<b>Minipack</b>	LJ Batten fittings Minipack attachments 'Au Pair' Homelight 'One up' Diffuser light	CA94 CA95 CA96 CA97
<b>Domestic</b>	LS, LST Viewpoint – combined light and shaver point fittings	CA98
<b>Circular fittings</b> ( <i>"Circline"</i> )	4.NLI Netaline batten fittings 4.MLB Litepak batten fittings CEA, CFA, CFG Fittings LSG, SPG Fittings WHG, ITG, WBG Fittings ODC1, ODC1 Fittings	CA99 CA100 CA101 CA102 CA103 CA104
<b>Suspension Sets</b>	A, B, G, H, K, Sets	CA105
<b>Trunking</b>	Introduction AA Atlantic trunking AA Liteline trunking LT Lightweight trunking	CA106 CA107/CA108 CA109/CA110 CA111/CA112

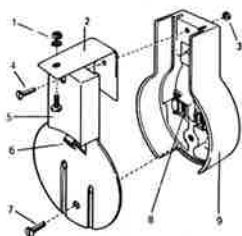
On the following pages are illustrated a wide variety of fittings, offering at least one design to meet the precise lighting and aesthetic needs of almost every installation. In appearance, the fittings are superb, and the efficiency outstanding. Yet design-skill and quantity production techniques have kept costs down.

In particular, the Atlantic 3 range has the advantage of the cost-saving 5ft 65w, 6ft 85w and 8ft 85w circuits. Thus making the Atlantic 3 range not only the most elegant and efficient of fluorescent fittings, but also the most economical.

Acrylic stoved enamel is used throughout—dove grey to B.S.381 C colour no. 694 on the spine and white on all reflecting surfaces.

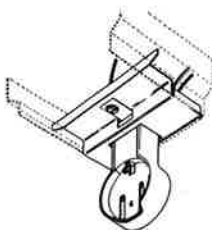


## FEATURES OF THE ATLANTIC 3 SPINE

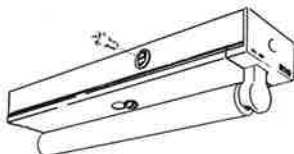


**Lampholders.** Spring loaded to ensure safe and efficient removal of lamp from either end of the fitting. Essential when lamp replacement is considered.

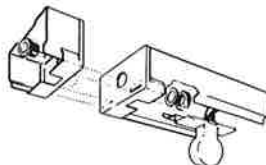
- |                    |                  |                    |
|--------------------|------------------|--------------------|
| 1 Earth connection | 4 CSK/head screw | 7 CSK/head screw   |
| 2 Spring bracket   | 5 Cover moulding | 8 Terminal contact |
| 3 Full nut         | 6 Earth spring   | 9 Body moulding    |



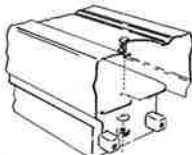
**Lampholder assembly.** Ensures fast positive positioning of the lampholders. No screwdriver or other tools required, simply slide assembly into position. Considerable time saved particularly when initial installation is carried out.



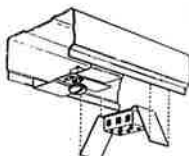
**Side entry fuse.** Fuse can be quickly removed from the fitting without disturbing either lamp, reflector or diffuser attachment, without, in fact, touching the fitting. A tremendous time saver particularly when maintenance is carried out.



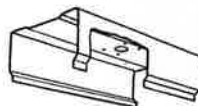
**Strong plastic end plates.** provide automatic continuous run alignment by use of the locating bosses and slots in the end plates. Extremely useful where long continuous rows of batten fittings are to be installed, considerable time can be saved in alignment.



**Welded-in screw studs** to facilitate gear replacement. Control gear can be easily and quickly removed, even if fitting is mounted direct to the ceiling.



**Snap-in terminal block** to improve wiring facilities, with larger cable capacity accepting two 7/029 cables. Easily removed for wiring and simply snapped back into position.

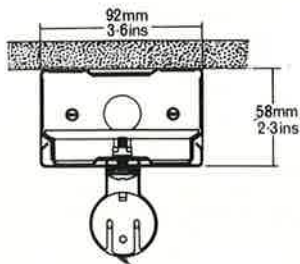


**Conduit box mounting.** To facilitate mounting to conduit boxes dimpled drilling points on 2in centres are provided (to be drilled on site). This method ensures perfect close ceiling mounting when conduit boxes are recessed. This eliminates the need for any special close ceiling suspension brackets.

# atlas

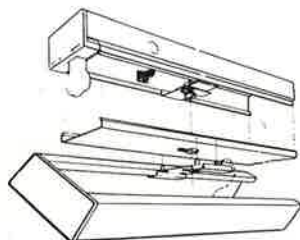
## Atlantic 3

### FEATURES OF THE ATLANTIC 3 SPINE (continued)



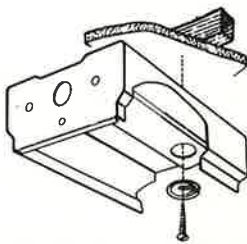
**Slim cross section**, perfect close ceiling mounting, completely closed drip-proof back, essential points to be considered particularly when mounting direct to the ceiling, and where neat lines are essential. (For complete dimensions see page CA7).

**British Standard.** These fittings comply with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



**Fast, positive attachment fixing** by the addition of two support brackets (3 for 8ft) enables all diffuser attachments to be simply hooked on and off during maintenance. Reflector attachments are simply removed by loosening and sliding two thumb screws to engage with keyhole slots in the reflectors.

**Voltage.** All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

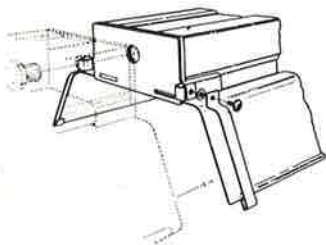


**Slotted washers** may be used to engage fitting with screws fixed in the ceiling at the  $\frac{3}{4}$ in suspension hole positions. The mains lead is brought into the spine through one of the vacant suspension holes. Supplied as standard with all Atlantic fittings.

**Additional entries.** In addition to the fixing centre dimensions indicated for each fitting there are knockout positions in each end cap and also in the back of the spine, to take  $\frac{3}{4}$ in conduit as follows:

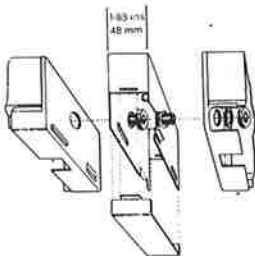
4ft spine at centre and at 43-75in centres  
5ft spine at centre and at 55-5in centres  
6ft spine at centre and at 66in centres  
8ft spine at centre and at 90-75in centres

### ATLANTIC 3 MOUNTING ACCESSORIES



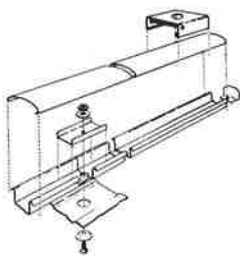
**Trough jointing strap assembly, A3.4653**, is used when open end metal troughs are mounted continuously and closes the gap between adjacent reflectors ensuring perfect alignment when spines are rigidly mounted.

Cat. no. A3.4653 12 per pack  
(7s 0d each)



**Continuous mounting, jointing piece, A3.4654**, is available when closed end trough or diffuser fittings are required to be mounted continuously. This item is provided with a suspension hole  $\frac{3}{4}$ in diameter in the top to minimize the number of suspension points required.

Cat. no. A3.4654 12 per pack  
(8s 0d each)



**Universal Suspension Sets.** This suspension set comprises a metal channel for fixing to the back of the Atlantic 3 spine and which forms a through-wiring channel providing means for engagement of universal suspension brackets. The top of the channel is closed with a snap-on PVC cover strip.

#### Universal Suspension Sets

Cat. no.	Price £ s d		Packing quantity	Length in mm
A3.4660	14	0 each for 4ft spines	6 per pack	47-77 1213
A3.4661	16	0 each for 5ft spines	6 per pack	61-08 1551
A3.4662	1 3	0 each for 8ft spines	6 per pack	95-53 2426

Details of suitable rod and chain suspension sets which are available as extras are given on page CA105.



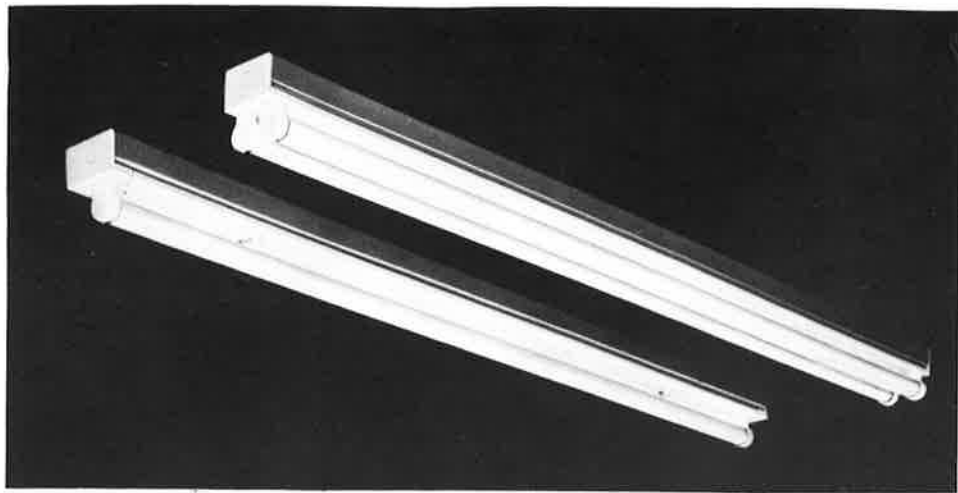
# atlas

## Atlantic A3A batten fittings

The Atlas Atlantic 3 basic spine plus the series 'A' reflector cover plate produces a range of single and twin tube batten fittings in 8ft, 6ft, 5ft and 4ft lengths. The new 6ft 85w high efficiency circuit is now available to boost the supremacy of this range even further. These general purpose fittings can be used in any location where an unshielded fluorescent tube is acceptable.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



A3A/R1065

A3A/R2065

### RANGE AND PRICES (applicable to UK only)

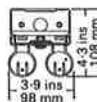
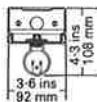
#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price			Components			Retail Price		
				No	P.T.	d	Cover plate	Price	No P.T.	Spine	Price	No P.T.
				£	s	d	Cat. no.	£ s d		Cat. no.	£ s d	£ s d
4ft	40w Single	Quickstart	A3A/Q1040	5	13	0	A3A-24	8 0		A3-Q1040	5 5 0	
4ft	40w Twin	Quickstart	A3A/Q2040	8	7	0	A3A-24	8 0		A3-Q2040	7 19 0	
5ft	65w Single	Resonant Start	A3A/R1065	6	6	0	A3A-25	9 0		A3-R1065	6 17 0	
5ft	65w Twin	Resonant Start	A3A/R2065	9	14	0	A3A-25	9 0		A3-R2065	9 5 0	
6ft	85w Single	Resonant Start	A3A/R1685	6	12	0	A3A-26	10 0		A3-R1685	6 2 0	
6ft	85w Twin	Resonant Start	A3A/R2685	9	19	0	A3A-26	10 0		A3-R2685	9 9 0	
8ft	85w Single	Quickstart	A3A/Q1085	8	0	0	A3A-28	17 0		A3-Q1085	7 3 0	
8ft	*85w Twin	Quickstart	A3A/Q2085	12	7	0	A3A-28	17 0		A3-Q2085	11 10 0	
8ft	125w Single	Quickstart	A3A/Q1125	9	8	0	A3A-28	17 0		A3-Q1125	8 11 0	
8ft	125w Twin	Quickstart	A3A/Q2125	15	9	0	A3A-28	17 0		A3-Q2125	14 12 0	

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices.

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3A/Q1040	49.3	1253	9.7	4.4	24	610
A3A/Q2040	49.3	1253	13.7	6.1	24	610
A3A/R1065	61.2	1554	12.3	5.7	24	610
A3A/R2065	61.2	1554	18.5	8.3	24	610
A3A/R1685	71.6	1819	13.0	5.9	24	610
A3A/R2685	71.6	1819	19.3	8.7	24	610
A3A/Q1085	95.6	2429	19.3	8.7	48	1220
A3A/Q2085	95.6	2429	29.1	13.2	48	1220
A3A/Q1125	95.6	2429	21.3	9.6	48	1220
A3A/Q2125	95.6	2429	31.1	14.0	48	1220



# atlas

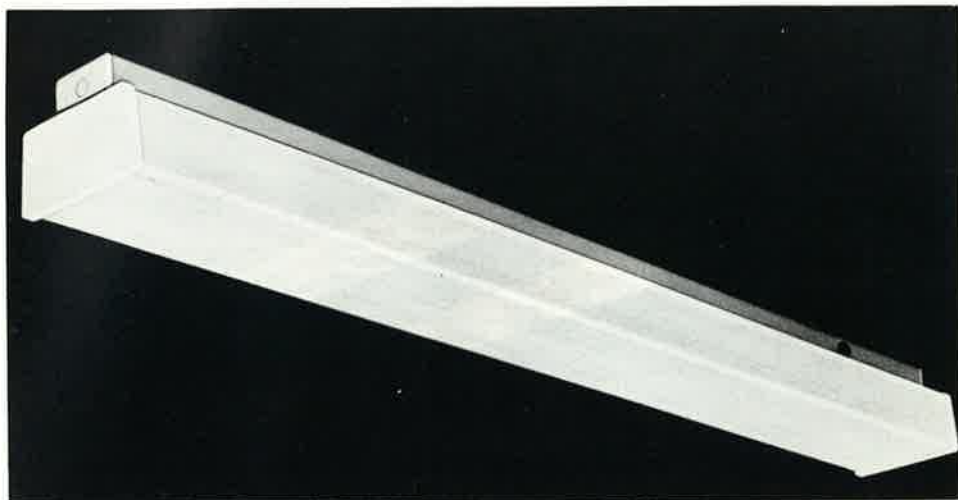
## Atlantic A3C diffusers

This series of diffusers has been produced to provide an economic but attractive lighting fitting for general commercial lighting applications. The new 6ft 85w high efficiency circuit is now available with this attachment. The basic Atlantic 3 batten can be fitted with brackets which support the opal diffuser. The diffuser is extruded with a reeded pattern on the outside to ensure easy cleaning. Clip-on white plastic

moulded end plates are detachable for fast wipe-through cleaning. Cool running of the tube is ensured by ventilation provided between batten and diffuser.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



A3C/A/R1065

### RANGE AND PRICES (applicable to UK only)

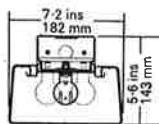
#### Complete fitting

Complete fitting										Components										
Nom. length	Rating	Circuit	Cat. no.	Retail Price ex. P.T.			P.T.			Diffuser Cat. no.	Retail Price ex. P.T.			P.T.			Batten Cat. no.	Retail Price No P.T.		
				£	s	d	s	d	£		s	d	s	d	£	s		d		
4ft	40w Single	Quickstart	A3C/A/Q1040	8	1	0	12	11		A3C-24	2	8	0	12	11		A3A/Q1040	5	13	0
4ft	40w Twin	Quickstart	A3C/A/Q2040	10	15	0	12	11		A3C-24	2	8	0	12	11		A3A/Q2040	8	7	0
5ft	65w Single	Resonant Start	A3C/A/R1065	8	16	0	13	5		A3C-25	2	10	0	13	5		A3A/R1065	6	6	0
5ft	65w Twin	Resonant Start	A3C/A/R2065	12	4	0	13	5		A3C-25	2	10	0	13	5		A3A/R2065	9	14	0
6ft	85w Single	Resonant Start	A3C/A/R1685	9	7	0	14	9		A3C-26	2	15	0	14	9		A3A/R1685	6	12	0
6ft	85w Twin	Resonant Start	A3C/A/R2685	12	14	0	14	9		A3C-26	2	15	0	14	9		A3A/R2685	9	19	0
8ft	85w Single	Quickstart	A3C/A/Q1085	12	0	0	21	6		A3C-28	4	0	0	21	6		A3A/Q1085	8	0	0
8ft	*85w Twin	Quickstart	A3C/A/Q2085	16	7	0	21	6		A3C-28	4	0	0	21	6		A3A/Q2085	12	7	0
8ft	125w Single	Quickstart	A3C/A/Q1125	13	8	0	21	6		A3C-28	4	0	0	21	6		A3A/Q1125	9	8	0
8ft	125w Twin	Quickstart	A3C/A/Q2125	19	9	0	21	6		A3C-28	4	0	0	21	6		A3A/Q2125	15	9	0

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices.

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3C/A/Q1040	50-6	1284	12-3	5-6	24	610
A3C/A/Q2040	50-6	1284	16-3	7-4	24	610
A3C/A/R1065	62-4	1584	15-6	7-1	24	610
A3C/A/R2065	62-4	1584	21-7	9-8	24	610
A3C/A/R1685	72-9	1851	16-8	7-5	24	610
A3C/A/R2685	72-9	1851	23-0	10-4	24	610
A3C/A/Q1085	96-9	2460	24-5	11-0	48	1220
A3C/A/Q2085	96-9	2460	34-3	15-2	48	1220
A3C/A/Q1125	96-9	2460	26-5	12-0	48	1220
A3C/A/Q2125	96-9	2460	36-3	16-2	48	1220



# atlas

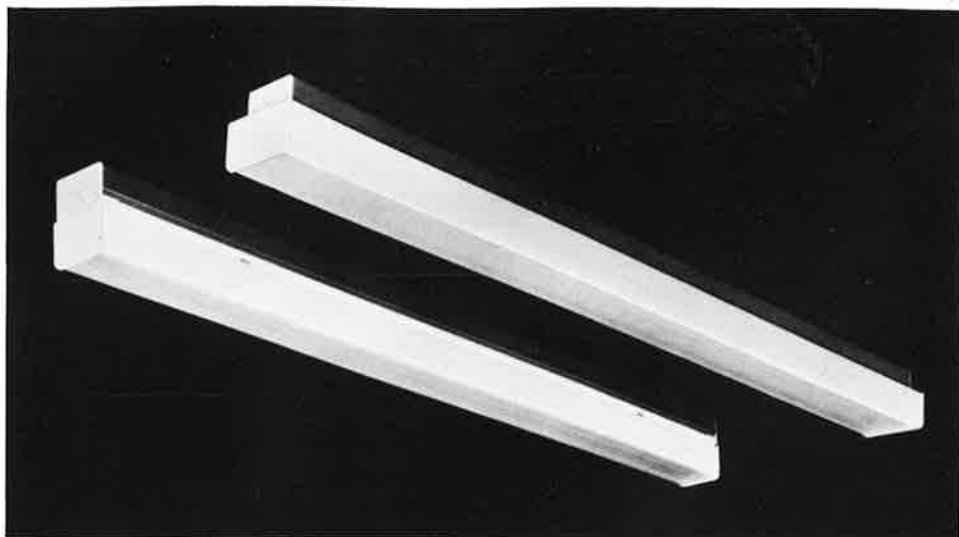
## Atlantic A3E two-tone diffusers

Light control in a compact form is achieved by these two-tone extruded diffusers. The sides are in opal to give adequate shielding and freedom from glare whilst the bottom is clear reeded to achieve high efficiency. The diffusers are supported on spring clips which engage with the cover plate on both versions. Injection moulded white end caps are cemented in position.

These fittings are made to take the new 6ft 85w high efficiency circuit.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



A3E/A/R1065

A3E/A/R2065

### RANGE AND PRICES (applicable to UK only)

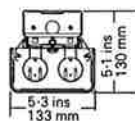
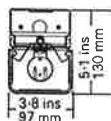
#### Complete fitting

Complete fitting										Components									
Nom. length	Rating	Circuit	Cat. no.	Retail Price ex. P.T.			P.T. s	d	Diffuser Cat. no.	Retail Price ex. P.T.			P.T. s	d	Batten Cat. no.	Retail Price No P.T.			
				£	s	d				£	s	d				£	s	d	
4ft	40w Single	Quickstart	A3E/A/Q1040	7	9	0	9	8	A3E-14	1	16	0	9	8	A3A/Q1040	5	13	0	
4ft	40w Twin	Quickstart	A3E/A/Q2040	10	13	0	12	5	A3E-24	2	6	0	12	5	A3A/Q2040	8	7	0	
5ft	65w Single	Resonant Start	A3E/A/R1065	8	6	0	10	9	A3E-15	2	0	0	10	9	A3A/R1065	6	6	0	
5ft	65w Twin	Resonant Start	A3E/A/R2065	12	6	0	14	0	A3E-25	2	12	0	14	0	A3A/R2065	9	14	0	
6ft	85w Single	Resonant Start	A3E/A/R1685	9	1	0	13	2	A3E-16	2	9	0	13	2	A3A/R1685	6	12	0	
6ft	85w Twin	Resonant Start	A3E/A/R2685	12	19	0	16	2	A3E-26	3	0	0	16	2	A3A/R2685	9	19	0	
8ft	85w Single	Quickstart	A3E/A/Q1085	11	6	0	17	9	A3E-18	3	6	0	17	9	A3A/Q1085	8	0	0	
8ft	*85w Twin	Quickstart	A3E/A/Q2085	16	11	0	22	7	A3E-28	4	4	0	22	7	A3A/Q2085	12	7	0	
8ft	125w Single	Quickstart	A3E/A/Q1125	12	14	0	17	9	A3E-18	3	6	0	17	9	A3A/Q1125	9	8	0	
8ft	125w Twin	Quickstart	A3E/A/Q2125	19	13	0	22	7	A3E-28	4	4	0	22	7	A3A/Q2125	15	9	0	

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices.

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
A3E/A/Q1040	49.3	1253	10.8	5.5	24	610
A3E/A/Q2040	50.3	1278	15.7	7.1	24	610
A3E/A/R1065	61.2	1554	14.1	6.5	24	610
A3E/A/R2065	62.2	1579	20.8	9.5	24	610
A3E/A/R1685	71.6	1821	15.1	6.8	24	610
A3E/A/R2685	72.6	1846	22.1	9.9	24	610
A3E/A/Q1085	95.6	2429	22.1	9.9	48	1220
A3E/A/Q2085	96.6	2454	32.4	14.6	48	1220
A3E/A/Q1125	95.6	2429	24.1	11.0	48	1220
A3E/A/Q2125	96.6	2454	34.4	15.6	48	1220



# atlas

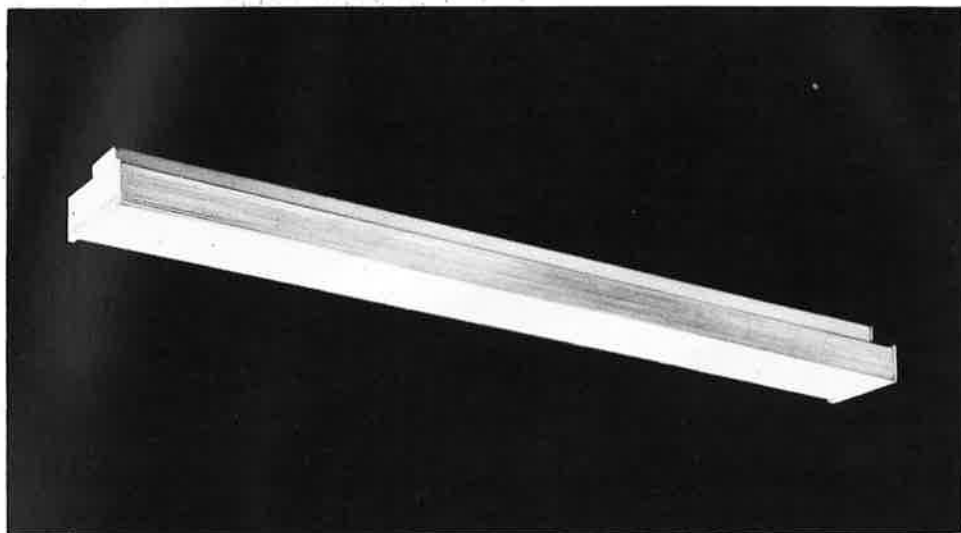
## Atlantic A3G 'prismatone' prismatic controllers

This attractive prismatic light controller is unique by virtue of the fact that it is manufactured with a clear prismatic base and grey tinted prismatic side panels. These side panels significantly cut down side glare and give the fitting a distinctive appearance. The end plates are white with a contrasting horizontal band on which is embossed the name 'prismatone'.

In black. Brackets are supplied with the controller to locate it onto the Atlantic 3 spine.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



A3G/A/R2685

CA10

### RANGE AND PRICES (applicable to UK only)

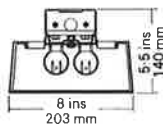
Complete fitting

Complete fitting				Components																				
Nom. length	Rating	Circuit	Cat. no.	Retail Price ex. P.T.			P.T.			Diffuser Cat. no.	Retail Price ex. P.T.			P.T.			Batten Cat. no.	Retail Price ex. P.T.			No P.T.	£	s	d
				£	s	d	£	s	d		£	s	d	£	s	d		£	s	d				
5ft	65w Single	Resonant Start	A3G/A/R1065	11	3	0	1	6	1	A3G-25	4	17	0	1	6	1	A3A/R1065	6	6	0				
5ft	65w Twin	Resonant Start	A3G/A/R2065	14	11	0	1	6	1	A3G-25	4	17	0	1	6	1	A3A/R2065	9	14	0				
6ft	85w Single	Resonant Start	A3G/A/R1685	12	5	0	1	10	4	A3G-26	5	13	0	1	10	4	A3A/R1685	6	12	0				
6ft	85w Twin	Resonant Start	A3G/A/R2685	15	12	0	1	10	4	A3G-26	5	13	0	1	10	4	A3A/R2685	9	19	0				
8ft	85w Single	Quickstart	A3G/A/Q1085	15	5	0	1	18	11	A3G-28	7	5	0	1	18	11	A3A/Q1085	8	0	0				
8ft	*85w Twin	Quickstart	A3G/A/Q2085	19	12	0	1	18	11	A3G-28	7	5	0	1	18	11	A3A/Q2085	12	7	0				
8ft	125w Single	Quickstart	A3G/A/Q1125	16	13	0	1	18	11	A3G-28	7	5	0	1	18	11	A3A/Q1125	9	8	0				
8ft	125w Twin	Quickstart	A3G/A/Q2125	22	14	0	1	18	11	A3G-28	7	5	0	1	18	11	A3A/Q2125	15	9	0				

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3G/A/R1065	62.4	1585	16.7	7.6	24	610
A3G/A/R2065	62.4	1585	22.9	10.4	24	610
A3G/A/R1685	72.9	1850	18.3	8.4	24	610
A3G/A/R2685	72.9	1850	24.6	11.2	24	610
A3G/A/Q1085	96.9	2460	26.4	12.0	48	1220
A3G/A/Q2085	96.9	2460	36.2	16.5	48	1220
A3G/A/Q1125	96.9	2460	28.4	12.9	48	1220
A3G/A/Q2125	96.9	2460	38.2	17.4	48	1220



CA10

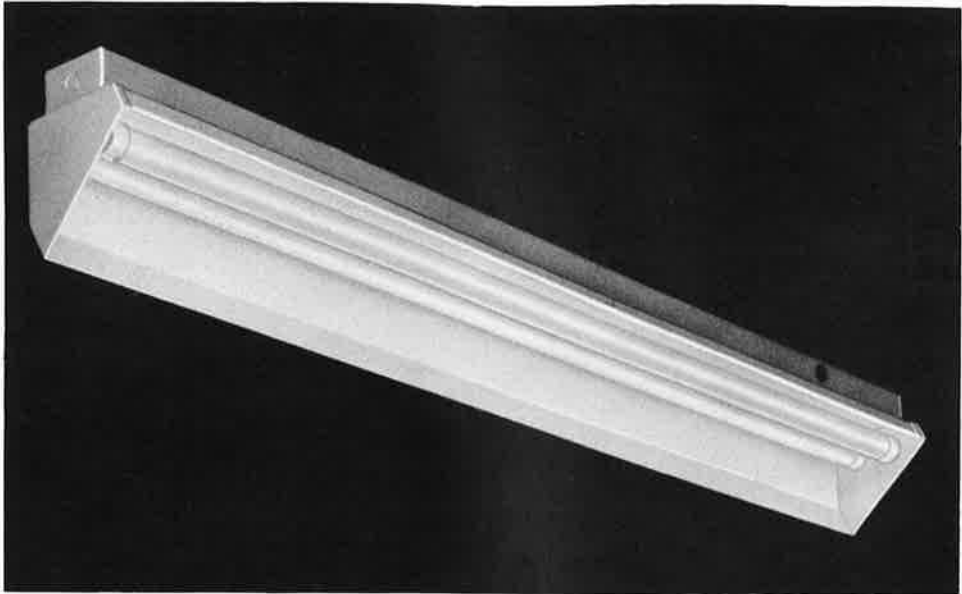
# atlas

## Atlantic A3L reflectors

Lighting of vertical surfaces is effectively achieved using this angle reflector. It is particularly suitable for Chalk Boards, Wall Charts and Shop Window use. Speedily attached to the standard Atlantic 3 spine, the reflector is suitable for single or twin tube operation and is finished with acrylic white enamel. All metal reflecting surfaces are white but spine is painted dove grey to B.S.381C colour no. 694.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



A3L/R2065

### RANGE AND PRICES (applicable to UK only)

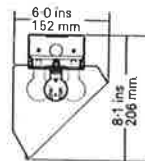
#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price			Reflector Cat. no.	Retail Price			Spine Cat. no.	Retail Price		
				£	s	d		£	s	d		£	s	d
5ft	65w Single	Resonant Start	A3L/R1065	8	8	0	A3L-25	2	11	0	A3-R1065	5	17	0
5ft	65w Twin	Resonant Start	A3L/R2065	11	16	0	A3L-25	2	11	0	A3-R2065	9	5	0
8ft	85w Single	Quickstart	A3L/Q1085	10	19	0	A3L-28	3	16	0	A3-Q1085	7	3	0
8ft	*85w Twin	Quickstart	A3L/Q2085	15	6	0	A3L-28	3	16	0	A3-Q2085	11	10	0
8ft	125w Single	Quickstart	A3L/Q1125	12	7	0	A3L-28	3	16	0	A3-Q1125	8	11	0
8ft	125w Twin	Quickstart	A3L/Q2125	18	8	0	A3L-28	3	16	0	A3-Q2125	14	12	0

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices.

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3L/R1065	61.4	1561	18.8	8.5	24	610
A3L/R2065	61.4	1561	25.0	11.3	24	610
A3L/Q1085	95.9	2435	29.6	13.3	48	1220
A3L/Q2085	95.9	2435	39.1	16.7	48	1220
A3L/Q1125	95.9	2435	31.6	14.3	48	1220
A3L/Q2125	95.9	2435	41.1	18.7	48	1220



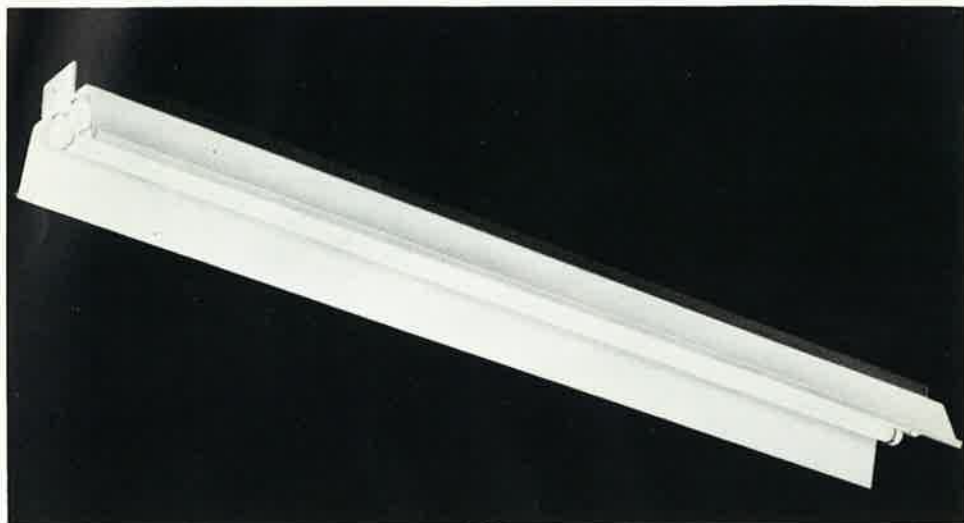
# atlas

## Atlantic A3N reflectors

Vitreous enamel finished 6ft open end slotted top trough reflector. The large slots give a generous proportion of upward lighting and reduce brightness contrast. Convection currents through the slots assist in reducing dirt accumulation on the reflector surfaces, therefore increasing efficiency. The vitreous finish will withstand the most vigorous cleaning which is necessary in dirty atmospheres. The new 6ft 85w high efficiency circuit is used to give maximum economy.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



A3N/R2685

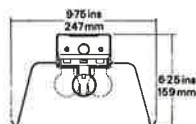
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price			Components			Retail Price		
				No	P.T.	d	Reflector Cat. no.	Retail Price No	P.T.	d	Spine Cat. no.	Retail Price No
6ft	85w Single	Resonant Start	A3N/R1685	10	15	0	A3N-26	4	13	0	A3-R1685	6
6ft	85w Twin	Resonant Start	A3N/R2685	14	2	0	A3N-26	4	13	0	A3-R2685	9

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3N/R1685	71.6	1817	29.3	13.2	24	610
A3N/R2685	71.6	1817	35.6	16.1	24	610



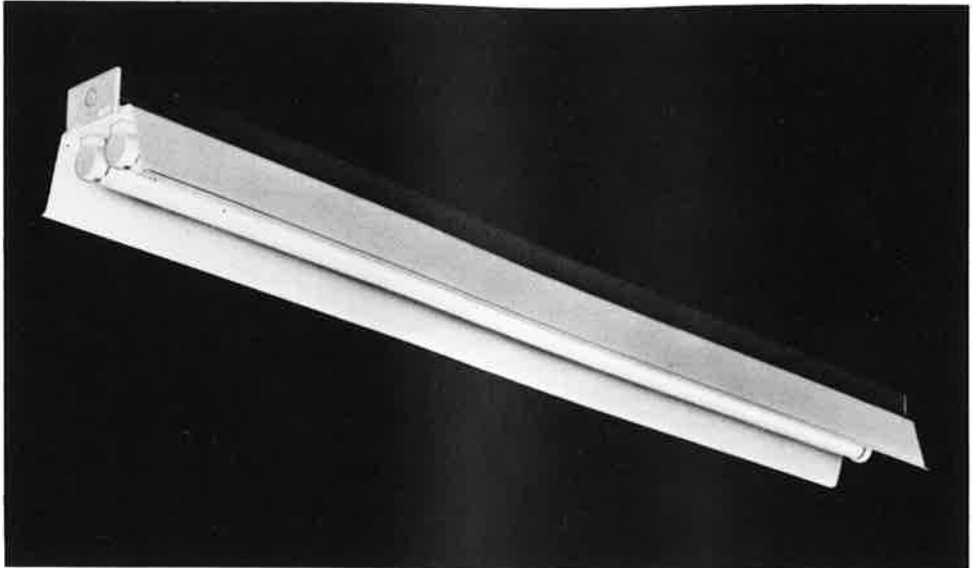
# atlas

## Atlantic A3U opal reflectors

When a high degree of diffused upward lighting is required this one-piece translucent medium opal plastic trough reflector is an ideal choice. The same reflector is suitable for both single and twin lamps and is speedily attached to the standard Atlantic 3 spine.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

**These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.**



A3U/R2065

### RANGE AND PRICES (applicable to UK only)

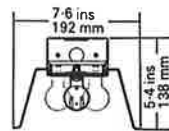
Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price			Components			Retail Price		
				No	P.T.	d	Plastic Trough	Retail Price	No P.T.	Spine	No P.T.	d
5ft	65w Single	Resonant Start	A3U/R1065	8	6	0	A3U-25	2 9 0	A3-R1065	5 17 0		
5ft	65w Twin	Resonant Start	A3U/R2065	11	14	0	A3U-25	2 9 0	A3-R2065	9 5 0		
6ft	85w Single	Resonant Start	A3U/R1685	8	18	0	A3U-26	2 16 0	A3-R1685	6 2 0		
6ft	85w Twin	Resonant Start	A3U/R2685	12	5 0		A3U-26	2 16 0	A3-R2685	9 9 0		
8ft	85w Single	Quickstart	A3U/Q1085	10	14	0	A3U-28	3 11 0	A3-Q1085	7 3 0		
8ft	*85w Twin	Quickstart	A3U/Q2085	15	1 0		A3U-28	3 11 0	A3-Q2085	11 10 0		
8ft	125w Single	Quickstart	A3U/Q1125	12	2 0		A3U-28	3 11 0	A3-Q1125	8 11 0		
8ft	125w Twin	Quickstart	A3U/Q2125	18	3 0		A3U-28	3 11 0	A3-Q2125	14 12 0		

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices.

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
A3U/R1065	61.2	1554	12.6	5.7	24	610
A3U/R2065	61.2	1554	18.8	8.6	24	610
A3U/R1685	71.6	1819	13.6	6.3	24	610
A3U/R2685	71.6	1819	19.8	9.0	24	610
A3U/Q1085	95.6	2429	19.7	8.9	48	1220
A3U/Q2085	95.6	2429	29.2	13.1	48	1220
A3U/Q1125	95.6	2429	21.7	9.9	48	1220
A3U/Q2125	95.6	2429	31.2	14.1	48	1220



# atlas

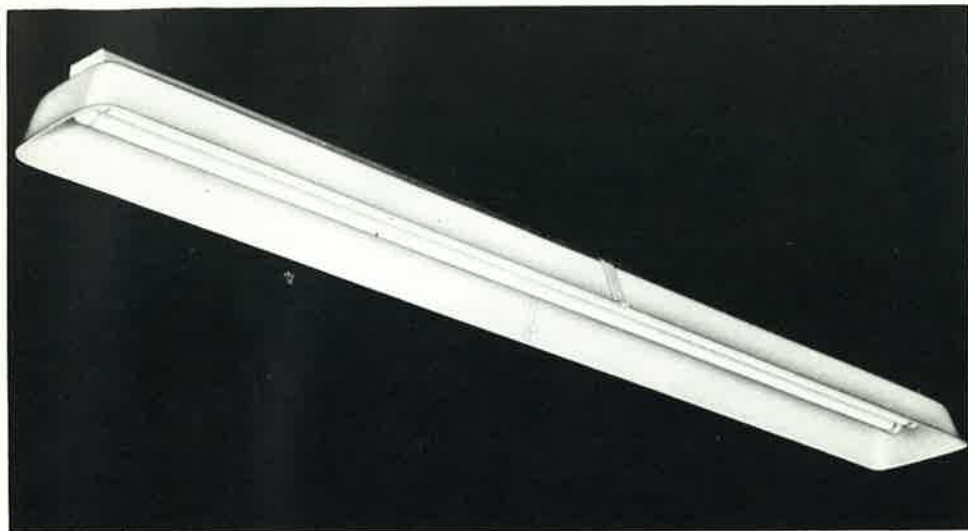
## Atlantic A3V reflectors

Vitreous enamel finished 8ft closed end slotted top metal trough reflector supplied in two halves with centre joining assembly. Centre assembly is fixed to centre bridge on the standard Atlantic 3 8ft spine. Reflectors are held by a knurled screw engaging in a keyhole slot in reflector and are clamped securely against the joining bar at the centre. The large slots give a generous proportion of upward lighting and reduce brightness contrast. Convection currents through the slots assist in

reducing dirt accumulation on the reflector surfaces, therefore increasing efficiency. The vitreous finish will withstand the most vigorous cleaning which is necessary in dirty atmospheres.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



A3V/Q2085

### RANGE AND PRICES (applicable to UK only)

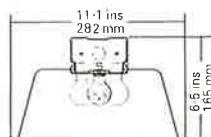
#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price			Reflector Cat. no.	Retail Price			Spine Cat. no.	Retail Price		
				£	s	d		£	s	d		£	s	d
8ft	85w Single	Quickstart	A3V/Q1085	16	3	0	A3V-28	9	0	0	A3-Q1085	7	3	0
8ft	*85w Twin	Quickstart	A3V/Q2085	20	10	0	A3V-28	9	0	0	A3-Q2085	11	10	0
8ft	125w Single	Quickstart	A3V/Q1125	17	11	0	A3V-28	9	0	0	A3-Q1125	8	11	0
8ft	125w Twin	Quickstart	A3V/Q2125	23	12	0	A3V-28	9	0	0	A3-Q2125	14	12	0

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices.

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3V/Q1085	101	2565	42.6	19.2	48	1220
A3V/Q2085	101	2565	52.1	23.7	48	1220
A3V/Q1125	101	2565	44.6	20.2	48	1220
A3V/Q2125	101	2565	54.1	24.7	48	1220





# atlas

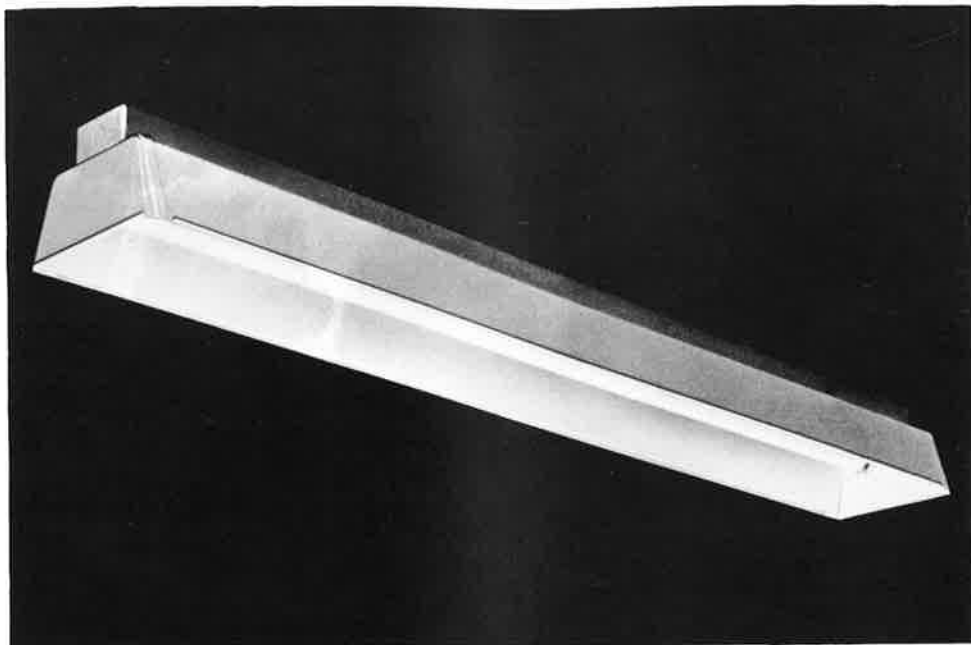
## Atlantic A3X reflectors

This closed end metal reflector is provided with a slotted top to give upward lighting which will reduce brightness contrast. Due to the flared edges of the slots it has been possible to make them much longer than usual. Increased convection currents with the slotted reflector lead to a self-cleaning effect since air currents carry dust particles away from the reflecting surfaces. The same reflector is employed for single

and twin lamps and is readily attached to the standard Atlantic 3 spine.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

**These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.**



A3X/R1065

### RANGE AND PRICES (applicable to UK only)

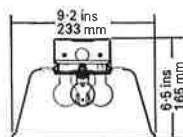
#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price			Reflector Cat. no.	Retail Price			Spine Cat. no.	Retail Price		
				£	s	d		£	s	d		£	s	d
5ft	65w Single	Resonant Start	A3X/R1065	8	5	0	A3X-25	2	8	0	A3-R1065	5	17	0
5ft	65w Twin	Resonant Start	A3X/R2065	11	13	0	A3X-25	2	8	0	A3-R2065	9	5	0
8ft	85w Single	Quickstart	A3X/Q1085	10	19	0	A3X-28	3	16	0	A3-Q1085	7	3	0
8ft	*85w Twin	Quickstart	A3X/Q2085	15	6	0	A3X-28	3	16	0	A3-Q2085	11	10	0
8ft	125w Single	Quickstart	A3X/Q1125	12	7	0	A3X-28	3	16	0	A3-Q1125	8	11	0
8ft	125w Twin	Quickstart	A3X/Q2125	18	8	0	A3X-28	3	16	0	A3-Q2125	14	12	0

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices.

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3X/R1065	62.7	1592	18.8	8.6	24	610
A3X/R2065	62.7	1592	25.0	11.4	24	610
A3X/Q1085	97.1	2467	29.6	13.2	48	1220
A3X/Q2085	97.1	2467	39.1	17.7	48	1220
A3X/Q1125	97.1	2467	31.6	14.2	48	1220
A3X/Q2125	97.1	2467	41.1	18.7	48	1220



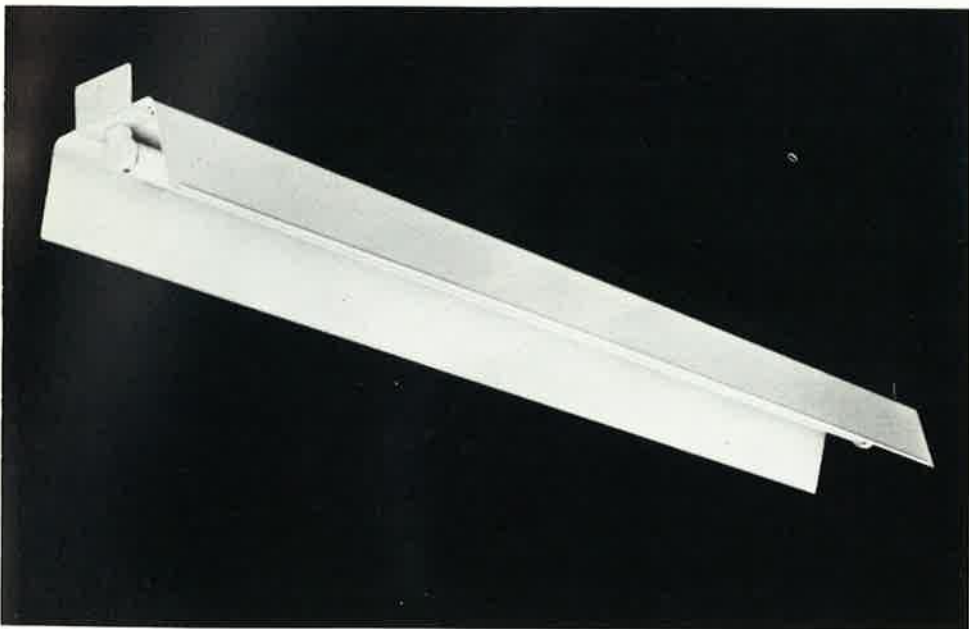
# atlas

## Atlantic A3Y reflectors

This open end closed top metal reflector is readily adaptable to continuous mounting employing the A3.4653 jointing strap. The reflector is suitable for those locations where no upward lighting is required, for example, under a glazed roof. The same reflector is used for single and twin lamp operation and is speedily attached to the standard Atlantic 3 spine.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



A3Y/R1065

### RANGE AND PRICES (applicable to UK only)

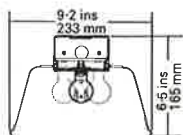
#### Complete fitting

Complete fitting							Component													
Nom. length	Rating	Circuit	Cat. no.	Retail Price			Reflector Cat. no.	Retail Price			Spine Cat. no.	Retail Price								
				No P.T.	£	s d		No P.T.	£	s d		No P.T.	£	s d						
5ft	65w Single	Resonant Start	A3Y/R1065	7	9	0	A3Y-25	1	12	0	A3-R1065	5	17	0						
5ft	65w Twin	Resonant Start	A3Y/R2065	10	17	0	A3Y-25	1	12	0	A3-R2065	9	5	0						
8ft	85w Single	Quickstart	A3Y/Q1085	9	16	0	A3Y-28	2	13	0	A3-Q1085	7	3	0						
8ft	*85w Twin	Quickstart	A3Y/Q2085	14	3	0	A3Y-28	2	13	0	A3-Q2085	11	10	0						
8ft	125w Single	Quickstart	A3Y/Q1125	11	4	0	A3Y-28	2	13	0	A3-Q1125	8	11	0						
8ft	125w Twin	Quickstart	A3Y/Q2125	17	5	0	A3Y-28	2	13	0	A3-Q2125	14	12	0						

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices.

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3Y/R1065	61.2	1554	18.8	8.6	24	610
A3Y/R2065	61.2	1554	25.0	11.4	24	610
A3Y/Q1085	95.6	2429	29.6	13.2	48	1220
A3Y/Q2085	95.6	2429	39.1	17.7	48	1220
A3Y/Q1125	95.6	2429	31.6	14.2	48	1220
A3Y/Q2125	95.6	2429	41.1	18.7	48	1220



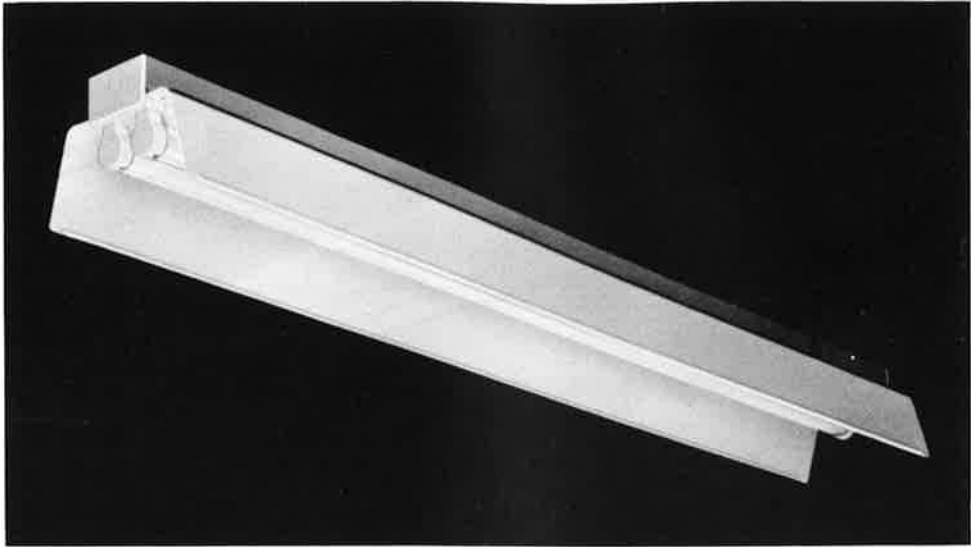
# atlas

## Atlantic A3Z reflectors

An open end metal reflector with large flared slots to give a generous proportion of upward lighting and reduce brightness contrast. Convection currents through the slots assist in reducing dirt accumulation on the reflector surfaces, therefore maintaining efficiency. The new 6ft 85w high efficiency circuit is now available to increase the versatility of this reflector even further.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

**These fittings comply fully with B.S.3820: 1964 for Class 1, ordinary, indoor, normal atmospheres.**



A3Z/R2065

### RANGE AND PRICES (applicable to UK only)

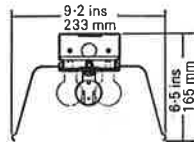
#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price No P.T.			Components			Retail Price No P.T.			Retail Price No P.T.		
				£	s	d	Reflector Cat. no.	£	s	d	Spine Cat. no.	£	s	d	
4ft	40w Single	Quickstart	A3Z/Q1040	6	13	0	A3Z-24	1	8	0	A3-Q1040	5	5	0	
4ft	40w Twin	Quickstart	A3Z/Q2040	9	7	0	A3Z-24	1	8	0	A3-Q2040	7	19	0	
5ft	65w Single	Resonant Start	A3Z/R1065	7	9	0	A3Z-25	1	12	0	A3-R1065	5	17	0	
5ft	65w Twin	Resonant Start	A3Z/R2065	10	17	0	A3Z-25	1	12	0	A3-R2065	9	5	0	
6ft	85w Single	Resonant Start	A3Z/R1685	7	19	0	A3Z-26	1	17	0	A3-R1685	6	2	0	
6ft	85w Twin	Resonant Start	A3Z/R2685	11	6	0	A3Z-26	1	17	0	A3-R2685	9	9	0	
8ft	85w Single	Quickstart	A3Z/Q1085	9	16	0	A3Z-28	2	13	0	A3-Q1085	7	3	0	
8ft	*85w Twin	Quickstart	A3Z/Q2085	14	3	0	A3Z-28	2	13	0	A3-Q2085	11	10	0	
8ft	125w Single	Quickstart	A3Z/Q1125	11	4	0	A3Z-28	2	13	0	A3-Q1125	8	11	0	
8ft	125w Twin	Quickstart	A3Z/Q2125	17	5	0	A3Z-28	2	13	0	A3-Q2125	14	12	0	

\*A cheaper 8ft twin circuit is available, further details can be obtained from the regional offices.

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3Z/Q1040	49-3	1253	14-4	6-5	24	610
A3Z/Q2040	49-3	1253	17-5	8-1	24	610
A3Z/R1065	61-2	1554	18-1	8-2	24	610
A3Z/R2065	61-2	1554	24-3	11-1	24	610
A3Z/R1685	71-6	1819	18-8	8-5	24	610
A3Z/R2685	71-6	1819	25-1	11-4	24	610
A3Z/Q1085	95-6	2429	28-6	12-9	48	1220
A3Z/Q2085	95-6	2429	36-1	17-2	48	1220
A3Z/Q1125	95-6	2429	30-6	13-9	48	1220
A3Z/Q2125	95-6	2429	40-1	18-2	48	1220



# atlas

## Atlantic A3A-A3F-A3Z 4 tube fittings

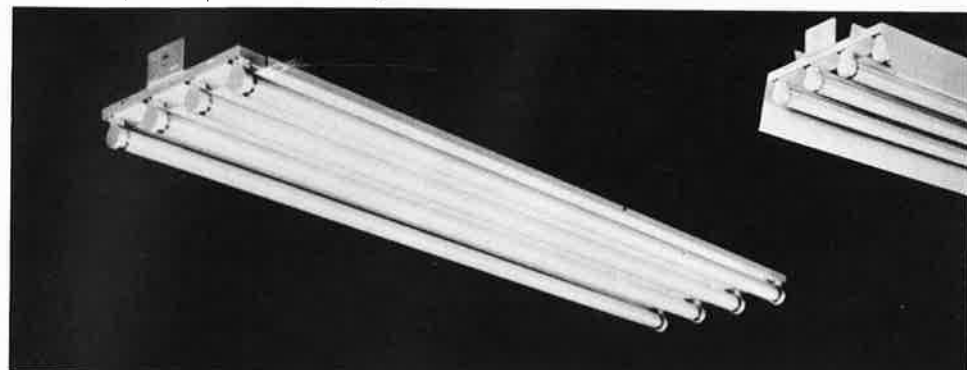
Four-tube batten available in 5ft and 8ft sizes with open top (A3A series) and closed top (A3F series), these fittings comprise centrally positioned slim section spine with carrier housings at each end for lampholder mounting which are joined by the outer rails or wide channel cover travelling the full length of the fitting.

The reflector version (A3Z series) has a two-piece metal reflector, which replaces the outer rails. The

reflector is designed to give a high degree of downward light combined to a generous proportion of upward light particularly suitable for industrial applications.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820: 1964 for Class 1, ordinary, indoor, normal atmospheres.



A3F/T4085

A3Z/T4085

### RANGE AND PRICES (applicable to UK only)

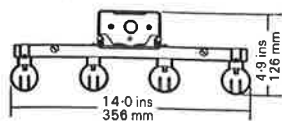
#### Complete fitting

Complete fitting				Components										
Nom. length	Rating	Circuit	Cat. no.	Retail Price			Cover plate	Retail Price			Spine	Retail Price		
				No P.T.	£	s d		No P.T.	£	s d		Cat. no.	No P.T.	£
5ft	65w Four	Resonant Start	A3A/R4065	21	13	0	A3A-45	1	11	0	A3-R4065	20	2	0
8ft	85w Four	Twinstart	A3A/T4085	22	9	0	A3A-48	1	13	0	A3-T4085	20	15	0
5ft	65w Four	Resonant Start	A3F/R4065	22	12	0	A3F-45	2	10	0	A3-R4065	20	2	0
8ft	85w Four	Twinstart	A3F/T4085	23	14	0	A3F-48	2	19	0	A3-T4085	20	15	0
5ft	65w Four	Resonant Start	A3Z/R4065	24	0	0	A3Z-45	3	18	0	A3-R4065	20	2	0
8ft	85w Four	Twinstart	A3Z/T4085	25	8	0	A3Z-48	4	13	0	A3-T4085	20	15	0

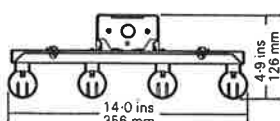
### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
A3A/R4065	61.2	1554	37.0	17.6	24	610
A3A/T4085	95.6	2429	47.0	21.3	48	1220
A3F/R4065	61.2	1554	41.0	19.4	24	610
A3F/T4085	95.6	2429	53.0	24.1	48	1220
A3Z/R4065	61.2	1554	46.8	21.0	24	610
A3Z/T4085	95.6	2429	60.0	27.4	48	1220

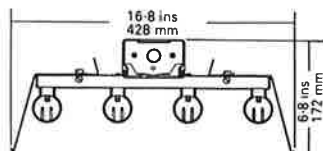
A3A series



A3F series



A3Z series

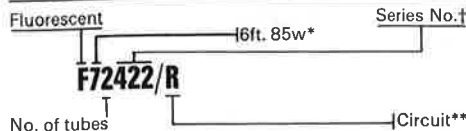


This is a very versatile fitting which offers designers, installers and users many advantages. With its wide range of diffusers, controllers and reflectors, architects and interior designers enjoy real design scope while every detail of the range has been planned to make installation and maintenance a straight-forward job.

The range makes use of the cost saving 5ft 65w, 6ft 85w and 8ft 85w circuits and also saves capital with the 8ft 125w switchstart circuit.

Acrylic stoved enamel is used throughout – Dove Grey to B.S.381C Colour no. 694 on the spine and White on all reflecting surfaces.

## CATALOGUE NUMBERS



\*6=5ft. 65w

7=6ft. 85w

8=8ft. 125w

9=8ft. 85w

\*\*Q=Quickstart

R=Resonant Start

S=Switchstart

†281=Batten

282=Metal Reflector

284=Plastic Reflector

298=Metal Reflector, Angled

420=Prismatic Controller (1 tube)

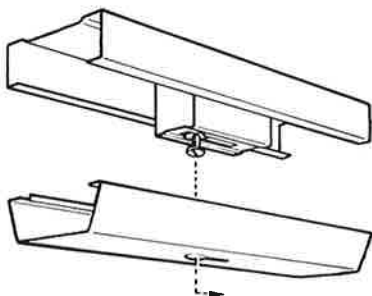
421=Prismatic Controller (2 tube)

422=Opal Diffuser (Broad reeded)

423 Opal Diffuser (Plain)

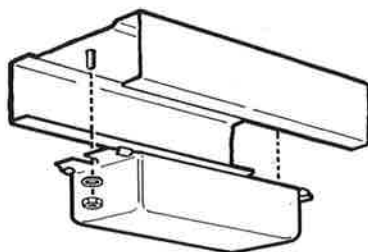
424 Opal Diffuser (1 tube)

425 Opal Diffuser (2 tube)



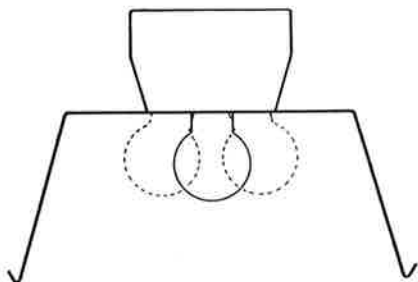
### SLIM COMPACT BATTEN

Two-tone batten – cover white and backplate dove grey. B.S. fixing centres. Same section batten for all sizes of fitting. The cover is easily attached to the backplate by two screws and keyhole slots.



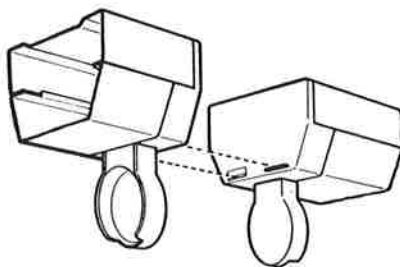
### CONTROL GEAR

All inductive components Permaset filled for quietness and reliability. All gear to B.S.2818. Held by fixed screws. High temperature PVC wiring.



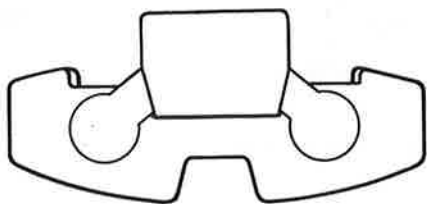
### REFLECTORS

Same reflector for single- and twin-tube fittings – stockholding minimised.



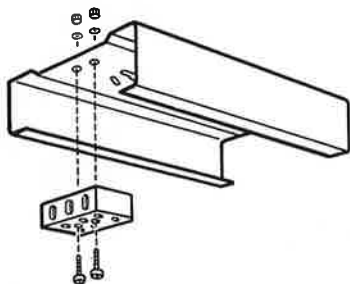
### INTERLOCKING ENDS

Interlocking plastic end-caps permit batten and reflector fittings to be mounted in rigid continuous lines, as well as certain diffusers.



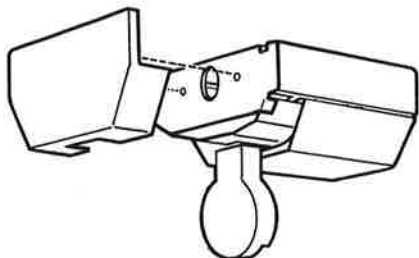
### DIFFUSER SHAPES

Alternative positions for twin lampholders permit the use of flat, modern diffusers with standard batten.



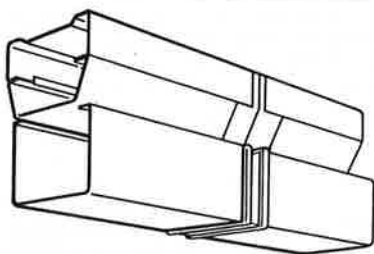
### TERMINAL BLOCK

A robust three-way terminal block makes wiring easy. Accepts two 7/029 cables.



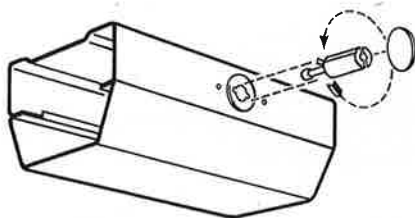
### PLASTIC ENDCAPS

The ends of the backplate and cover are steel welded in position. These ends are covered in white plastic endcaps, giving a rigid fitting with an attractive appearance.



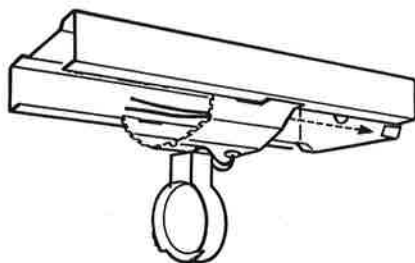
### DIFFUSERS IN CONTINUOUS LINES

A unique arrangement permits continuous rigid lines of diffusers and avoids plastic expansion problems.



### SIDE ENTRY FUSE

Fuse can be quickly removed or installed without disturbing reflector or diffuser. A boon for maintenance.



### LAMPHOLDERS

The trouble-free, time-proven lampholders are mounted on a plate which is locked into the ends of the fitting without tools.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.

Details of suitable rod and chain suspension sets which are available as extras are given on page CA105.

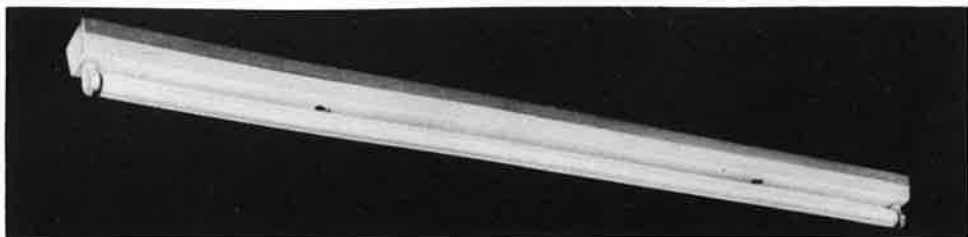
# ekco

## Durham 2 - 281 batten fittings

These battens are the basic fittings for the range. They are high quality, general purpose fittings, and can be used without attachments wherever an unshielded fluorescent tube is acceptable. Three tube batten fittings can be supplied to order – price and delivery on application.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



F71281/R



F72281/R

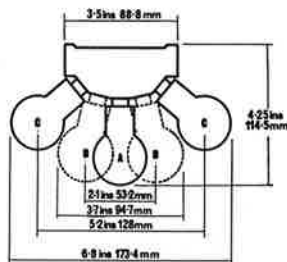
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price No P.T.	£	s	d
5ft	65w Single	Resonant Start	F61281/R	6	7	0	
5ft	65w Twin	Resonant Start	F62281/R	9	14	0	
6ft	85w Single	Resonant Start	F71281/R	6	12	0	
6ft	85w Twin	Resonant Start	F72281/R	10	0	0	
8ft	85w Single	Quickstart	F81281/Q	8	11	0	
8ft	85w Twin	Quickstart	F92281/Q	13	5	0	
8ft	125w Single	Quickstart	F81281/Q	9	8	0	
8ft	125w Twin	Quickstart	F82281/Q	15	9	0	
8ft	125w Single	Switchstart	F81281/S	7	11	0	
8ft	125w Twin	Switchstart	F82281/S	11	17	0	

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
F61281/R	60.8	1545	12.3	5.6	24	610
F62281/R	60.8	1545	18.5	8.4	24	610
F71281/R	71.3	1811	13.0	6.0	24	610
F72281/R	71.3	1811	19.3	8.8	24	610
F91281/Q	95.3	2421	19.3	8.8	48	1220
F92281/Q	95.3	2421	29.1	13.2	48	1220
F81281/Q	95.3	2421	21.3	9.7	48	1220
F82281/Q	95.3	2421	31.1	14.1	48	1220
F81281/S	95.3	2421	20.8	9.5	48	1220
F82281/S	95.3	2421	30.1	14.7	48	1220



## Durham 2 - 420/421 prismatic controller fittings

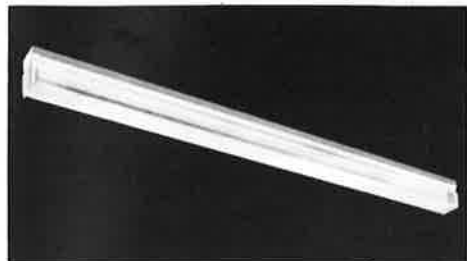
The transparent extruded controllers have prisms on the sides and a prismatic pattern on the base, giving a highly efficient fitting. The clip-on end-caps are plastic, with a white surround to an inset polished metallic panel.

The single tube fittings have been specially designed for mounting in continuous lines without spacers or adaptors. The twin fittings are primarily for individual use. When set in lines the ends of the twin battens must be at least 2in apart.

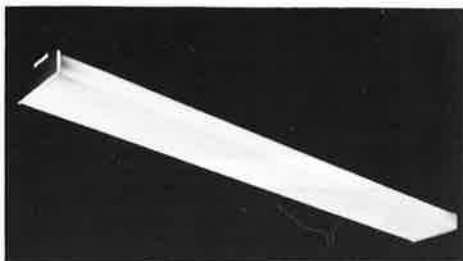
Ventilation is provided between the controller and the batten to ensure cool running. The controller is attached to the batten by brackets and has an easy swing-over action.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



F71420/R



F72421/R

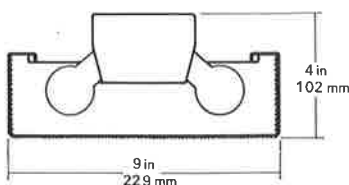
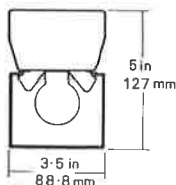
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price ex. P.T.				P.T.	£	s	d	Components				Batten Cat. no.	Retail Price ex. P.T.				P.T.	£	s	d
				£	s	d						Diffuser Cat. no.	£	s	d		£	s	d					
5ft	65w Single	Resonant Start	F61420/R	8	11	0		11	10			D5420	2	4	0	11	10			F61281/R	6	7	0	
5ft	65w Twin	Resonant Start	F62421/R	12	18	0		17	2			D5421	3	4	0	17	2			F62281/R	9	14	0	
6ft	85w Single	Resonant Start	F71420/R	8	17	0		12	1			D7420	2	5	0	12	1			F71281/R	6	12	0	
6ft	85w Twin	Resonant Start	F72421/R	13	13	0		19	7			D7421	3	13	0	19	7			F72281/R	10	0	0	
8ft	85w Single	Quickstart	F91420/Q	11	15	0		17	2			D8420	3	4	0	17	2			F91281/Q	8	11	0	
8ft	85w Twin	Quickstart	F92421/Q	17	16	0		1	4	5		D8421	4	11	0	1	4	5		F92281/Q	13	5	0	
8ft	125w Single	Quickstart	F81420/Q	12	0	0		17	2			D8420	3	4	0	17	2			F81281/Q	9	8	0	
8ft	125w Twin	Quickstart	F82421/Q	20	0	0		1	4	5		D8421	4	11	0	1	4	5		F82281/Q	15	9	0	
8ft	125w Single	Switchstart	F81420/S	10	15	0		17	2			D8420	3	4	0	17	2			F81281/S	7	11	0	
8ft	125w Twin	Switchstart	F82421/S	16	8	0		1	4	5		D8421	4	11	0	1	4	5		F82281/S	11	17	0	

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres
	in	mm	lb	kg	
F61420/R	60.8	1545	14.3	6.5	24 610
F62421/R	62.3	1581	22.0	10.0	24 610
F71420/R	71.3	1811	15.4	7.1	24 610
F72421/R	72.6	1841	23.5	10.7	24 610
F91420/Q	95.3	2421	22.4	10.2	48 1220
F92421/Q	96.6	2454	34.6	15.7	48 1220
F81420/Q	95.3	2421	24.4	11.1	48 1220
F82421/Q	96.6	2454	36.6	16.6	48 1220
F81420/S	95.3	2421	23.9	10.9	48 1220
F82421/S	96.6	2454	35.6	16.2	48 1220





# ekco

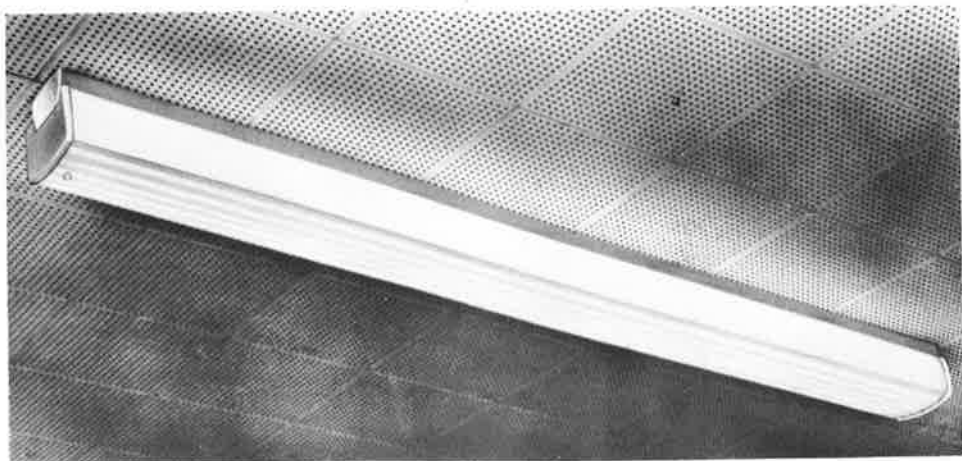
## Durham 2 - 422 opal diffuser fittings

These extruded broad reeded opal plastic diffusers are suitable for general lighting applications. The same diffuser is used for single and twin tube fittings. The clip-on end-caps are grey plastic, which contrasts with the white end of the batten. These fittings have been specially designed for mounting in continuous lines without spacers or adaptors. Ventilation is provided between the diffuser and the

batten to ensure cool running. The diffuser is attached to the batten by brackets and has an easy swing-over action.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

**These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.**



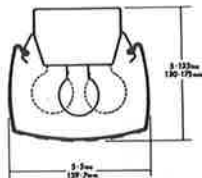
F72422/R

### RANGE AND PRICES (applicable to UK only)

Complete fitting				Components															
Nom. length	Rating	Circuit	Cat. no.	Retail Price (ex P.T.)			P.T.	Diffuser Cat. no.			Retail Price (ex. P.T.)			P.T.	Batten Cat. no.	Retail Price (No P.T.)			
				£	s	d	s	d			£	s	d	s		£	s	d	
5ft	65w Single	Resonant Start	F61422/R	8	12	0	12	1	D5422		2	5	0	12	1	F61281/R	6	7	0
5ft	65w Twin	Resonant Start	F62422/R	11	19	0	12	1	D5422		2	5	0	12	1	F62281/R	9	14	0
6ft	85w Single	Resonant Start	F71422/R	9	2	0	13	5	D7422		2	10	0	13	5	F71281/R	6	12	0
6ft	85w Twin	Resonant Start	F72422/R	12	10	0	13	5	D7422		2	10	0	13	5	F72281/R	10	0	0
8ft	85w Single	Quickstart	F91422/Q	11	17	0	17	9	D8422		3	6	0	17	9	F91281/Q	8	11	0
8ft	85w Twin	Quickstart	F92422/Q	16	11	0	17	9	D8422		3	6	0	17	9	F92281/Q	13	5	0
8ft	125w Single	Quickstart	F81422/Q	12	14	0	17	9	D8422		3	6	0	17	9	F81281/Q	9	8	0
8ft	125w Twin	Quickstart	F82422/Q	18	15	0	17	9	D8422		3	6	0	17	9	F82281/Q	15	9	0
8ft	125w Single	Switchstart	F81422/S	10	17	0	17	9	D8422		3	6	0	17	9	F81281/S	7	11	0
8ft	125w Twin	Switchstart	F82422/S	15	3	0	17	9	D8422		3	6	0	17	9	F82281/S	11	17	0

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
F61422/R	60-8	1545	15-8	7-2	24	610
F62422/R	60-8	1545	22-0	10-0	24	610
F71422/R	71-3	1811	17-2	7-9	24	610
F72422/R	71-3	1811	23-5	10-7	24	610
F91422/Q	95-3	2421	24-8	11-3	48	1220
F92422/Q	95-3	2421	34-6	15-7	48	1220
F81422/Q	95-3	2421	26-8	12-2	48	1220
F82422/Q	95-3	2421	36-6	16-6	48	1220
F81422/S	95-3	2421	26-3	12-0	48	1220
F82422/S	95-3	2421	35-6	16-2	48	1220



**ekco**

## Durham 2 - 423 opal diffuser fittings

These extruded opal diffusers are suitable for general lighting applications. The diffusers are for twin tube fittings only. The clip-on end-caps are grey plastic, and contrast with the white ends of the batten.

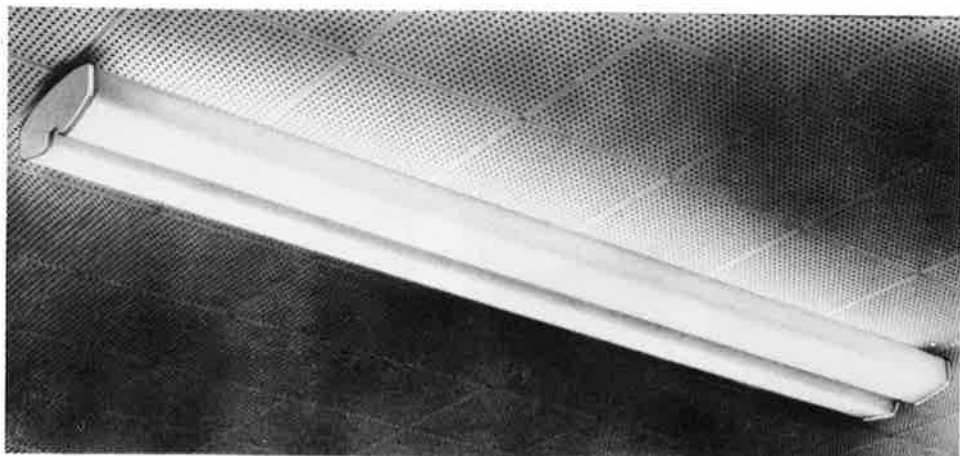
The fittings are primarily for individual use. When mounted in lines the ends of the battens must be at least 2in apart.

Ventilation is provided between the diffuser and the

batten to ensure cool running. The diffuser is attached to the batten by brackets and has an easy swing-over action.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



F72423/R

### RANGE AND PRICES (applicable to UK only)

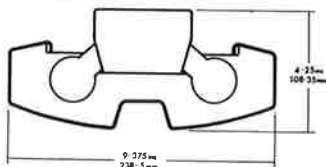
#### Complete fitting

				Components																
Nom. length	Rating	Circuit	Cat. no.	Retail Price (ex. P.T.)			P.T.	Diffuser Cat. no.			Retail Price (ex. P.T.)			P.T.	Batten Cat. no.	Retail Price (No P.T.)				
				£	s	d		£	s	d	£	s	d			£	s	d		
5ft	65w Twin	Resonant Start	F62423/R	13	2	0	18	3	0	D5423	3	8	0	18	3	F62281/R	9	14	0	
6ft	85w Twin	Resonant Start	F72423/R	13	9	0	18	8	0	D7423	3	9	0	18	8	F72281/R	10	0	0	
8ft	85w Twin	Quickstart	F92423/Q	18	1	0	1	5	9	D8423	4	16	0	1	5	9	F92281/Q	13	5	0
8ft	125w Twin	Quickstart	F82423/Q	20	5	0	1	5	9	D8423	4	16	0	1	5	9	F82281/Q	15	9	0
8ft	125w Twin	Switchstart	F82423/S	16	13	0	1	5	9	D8423	4	16	0	1	5	9	F82281/S	11	17	0

#### Components

#### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
F62423/R	62.0	1575	23.5	10.7	24	610
F72423/R	72.4	1838	25.2	11.5	24	610
F92423/Q	96.4	2448	38.9	17.7	48	1220
F82423/Q	96.4	2448	40.9	18.6	48	1220
F82423/S	96.4	2448	39.9	18.2	48	1220



# ekco

## Durham 2 - 424/425 opal diffuser fittings

The extruded reeded opal diffusers are suitable for general lighting applications. Different sized diffusers are used for single and twin fittings. The clip-on end-caps are plastic with a white surround to an inset polished metallic panel. The single tube fittings have been specially designed for mounting in continuous lines without spacers or adaptors. The twin tube fittings are primarily for individual use. When set in lines the ends of the twin battens must

be at least 2in apart.

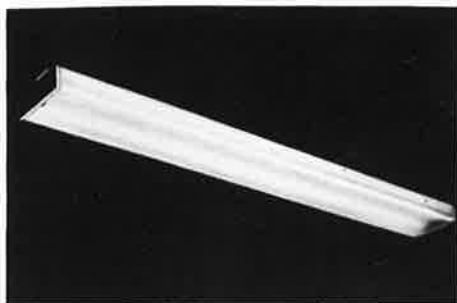
Ventilation is provided between the diffuser and the batten to ensure cool running. The diffuser is attached to the batten by brackets and has an easy swing-over action.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



F71424/R



F72425/R

### RANGE AND PRICES (applicable to UK only)

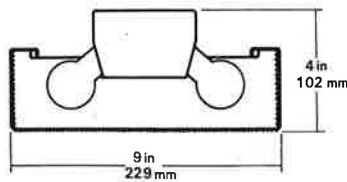
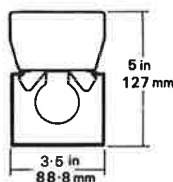
#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price (ex. P.T.)			P.T.	Diffuser Cat. no.	Retail Price (ex. P.T.)			P.T.	Batten Cat. no.	Retail Price (No P.T.)		
				£	s	d	£	£	£	s	d	£	£	£	s	d
5ft	65w Single	Resonant Start	F61424/R	8	0	0	8 11	D5424	1	13	0	8 11	F61281/R	6	7	0
5ft	65w Twin	Resonant Start	F62425/R	12	9	0	14 9	D5425	2	15	0	14 9	F62281/R	9	14	0
6ft	85w Single	Resonant Start	F71424/R	8	10	0	10 2	D7424	1	18	0	10 2	F71281/R	6	12	0
6ft	85w Twin	Resonant Start	F72425/R	13	0	0	16 1	D7425	3	0	0	16 1	F72281/R	10	0	0
8ft	85w Single	Quickstart	F91424/Q	10	18	0	12 8	D8424	2	7	0	12 8	F91281/Q	8	11	0
8ft	85w Twin	Quickstart	F92425/Q	17	3	0	1 1	D8425	3	18	0	1 1	F92281/Q	13	5	0
8ft	125w Single	Quickstart	F81424/Q	11	15	0	12 8	D8424	2	7	0	12 8	F81281/Q	9	8	0
8ft	125w Twin	Quickstart	F82425/Q	19	7	0	1 1	D8425	3	18	0	1 1	F82281/Q	15	9	0
8ft	125w Single	Switchstart	F81424/S	9	18	0	12 8	D8424	2	7	0	12 8	F81281/S	7	11	0
8ft	125w Twin	Switchstart	F82425/S	15	15	0	1 1	D8425	3	18	0	1 1	F82281/S	11	17	0

#### Components

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
F61424/R	60.8	1545	14.3	6.5	24	610
F62425/R	62.3	1581	22.0	10.0	24	610
F71424/R	71.3	1811	15.4	7.1	24	610
F72425/R	72.6	1841	23.5	10.7	24	610
F91424/Q	95.3	2421	22.4	22.4	48	1220
F92425/Q	96.6	2454	34.6	15.7	48	1220
F81424/Q	95.3	2421	24.4	11.1	48	1220
F82425/Q	96.6	2454	36.6	16.6	48	1220
F81424/S	95.3	2421	23.9	10.9	48	1220
F82425/S	96.6	2454	35.6	16.2	48	1220



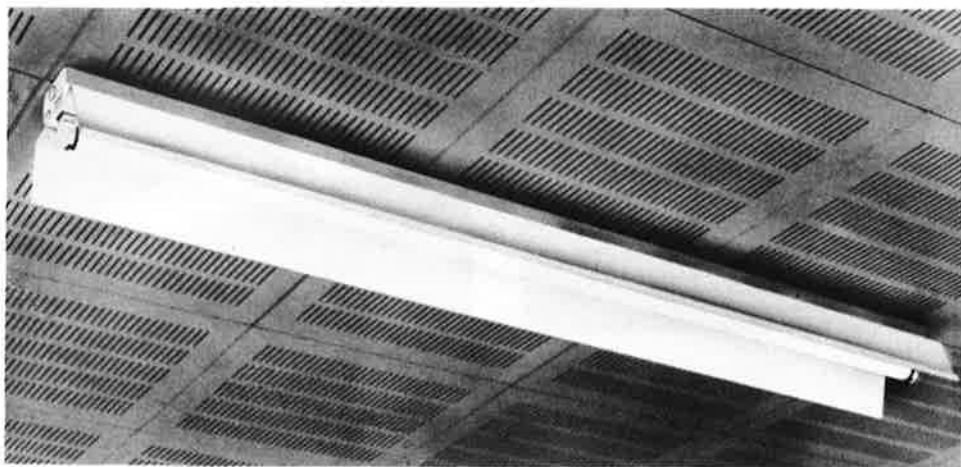
## Durham 2 - 282 metal reflector fittings

The reflector has slots for upward lighting which reduces the brightness contrast against the ceiling. The slots also induce convection currents, which help to keep the reflector clean. The reflector is attached to the batten by the batten cover retaining screws in keyhole slots. This fixing is quick and rigid. Closed end reflector fittings with or without slots for upward

lighting can be supplied to special order (price and delivery on application).

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



F71282/R

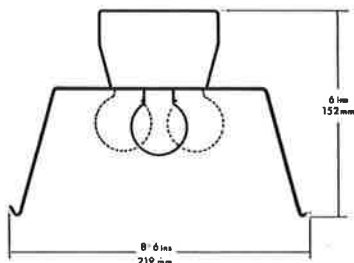
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

				Components														
Nom. length	Rating	Circuit	Cat. no.	Retail Price (No P.T.)			Reflector			Retail Price (No P.T.)			Batten			Retail Price (No P.T.)		
				£	s	d	Cat. no.	£	s	d	Cat. no.	£	s	d				
5ft	65w Single	Resonant Start	F61282/R	7	19	0	K5282	1	12	0	F61281/R	6	7	0				
5ft	65w Twin	Resonant Start	F62282/R	11	6	0	K5282	1	12	0	F62281/R	9	14	0				
6ft	85w Single	Resonant Start	F71282/R	8	9	0	K7282	1	17	0	F71281/R	6	12	0				
6ft	85w Twin	Resonant Start	F72282/R	11	17	0	K7282	1	17	0	F72281/R	10	0	0				
8ft	85w Single	Quickstart	F91282/Q	11	4	0	K8282	2	13	0	F91281/Q	8	11	0				
8ft	85w Twin	Quickstart	F92282/Q	15	18	0	K8282	2	13	0	F92281/Q	13	5	0				
8ft	125w Single	Quickstart	F81282/Q	12	1	0	K8282	2	13	0	F81281/Q	9	8	0				
8ft	125w Twin	Quickstart	F82282/Q	18	2	0	K8282	2	13	0	F82281/Q	15	9	0				
8ft	125w Single	Switchstart	F81282/S	10	4	0	K8282	2	13	0	F81281/S	7	11	0				
8ft	125w Twin	Switchstart	F82282/S	14	10	0	K8282	2	13	0	F82281/S	11	17	0				

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
F61282/R	60.8	1545	19.6	8.9	24	610
F62282/R	60.8	1545	25.9	11.7	24	610
F71282/R	71.3	1811	21.7	9.9	24	610
F72282/R	71.3	1811	28.0	12.7	24	610
F91282/Q	95.3	2421	30.8	14.0	48	1220
F92282/Q	95.3	2421	41.6	18.4	48	1220
F81282/Q	95.3	2421	32.8	14.9	48	1220
F82282/Q	95.3	2421	42.6	19.3	48	1220
F81282/S	95.3	2421	32.3	14.7	48	1220
F82282/S	95.3	2421	41.6	18.9	48	1220



# ekco

## Durham 2 - 284 plastic reflector fittings

The opal reflector allows diffused upward lighting and reduces the brightness contrast against the ceiling. The reflector is attached quickly and positively to the batten by the batten cover retaining screws in keyhole slots.

*All fittings are suitable for use on 240v 50Hz supplies.*

*Other voltages on application.*

**These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.**



F61284/R

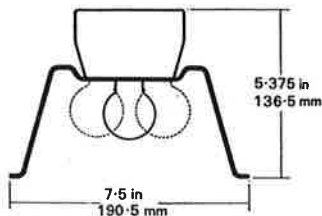
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Complete fitting				Complete										
Nom. length	Rating	Circuit	Cat. no.	Retail Price (No P.T.)			Reflector Cat. no.	Retail Price (No P.T.)			Batten Cat. no.	Retail Price (No P.T.)		
				£	s	d		£	s	d		£	s	d
5ft	65w Single	Resonant Start	F61284/R	8	16	0	K5284	2	9	0	F61281/R	6	7	0
5ft	65w Twin	Resonant Start	F62284/R	12	3	0	K5284	2	9	0	F62281/R	9	14	0

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
F61284/R	60.8	1545	15.8	7.2	24	610
F62284/R	60.8	1545	22.0	10.0	24	610

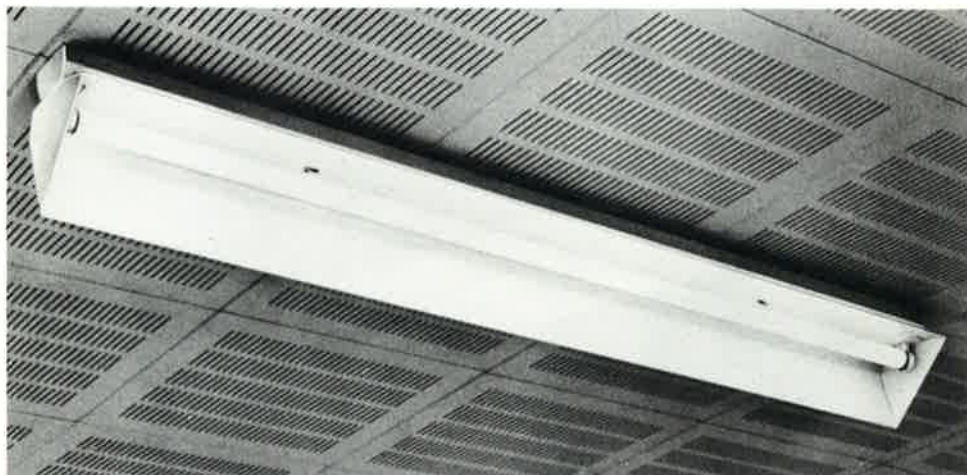


## Durham 2 - 298 angle reflector fittings

The fitting is suitable for notice boards, display areas and similar locations. The reflector is attached to the batten cover retaining screws in keyhole slots. This fixing is quick and rigid.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



F71298/R

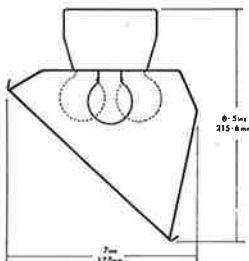
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price (No P.T.)			Reflector Cat. no.	Retail Price (No P.T.)			Batten Cat. no.	Retail Price (No P.T.)		
				£	s	d		£	s	d		£	s	d
5ft	65w Single	Resonant Start	F61298/R	8	18	0	K5298	2	11	0	F61281/R	6	7	0
5ft	65w Twin	Resonant Start	F62298/R	12	5	0	K5298	2	11	0	F62281/R	9	14	0
6ft	85w Single	Resonant Start	F71298/R	9	12	0	K7298	3	0	0	F71281/R	6	12	0
6ft	85w Twin	Resonant Start	F72298/R	13	0	0	K7298	3	0	0	F72281/R	10	0	0
8ft	85w Single	Quickstart	F91298/Q	12	7	0	K8298	3	16	0	F91281/Q	8	11	0
8ft	85w Twin	Quickstart	F92298/Q	17	1	0	K8298	3	16	0	F92281/Q	13	5	0
8ft	125w Single	Quickstart	F81298/Q	13	4	0	K8298	3	16	0	F81281/Q	9	8	0
8ft	125w Twin	Quickstart	F82298/Q	19	5	0	K8298	3	16	0	F82281/Q	15	9	0
8ft	125w Single	Switchstart	F81298/S	11	7	0	K8298	3	16	0	F81281/S	7	11	0
8ft	125w Twin	Switchstart	F82298/S	15	13	0	K8298	3	16	0	F82281/S	11	17	0

#### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
F61298/R	60-8	1545	20-3	9-2	24	610
F62298/R	60-8	1545	26-5	12-0	24	610
F71298/R	71-3	1811	22-4	10-4	24	610
F72298/R	71-3	1811	28-7	13-1	24	610
F91298/Q	95-3	2421	31-8	14-5	48	1220
F92298/Q	95-3	2421	41-6	18-9	48	1220
F81298/Q	95-3	2421	33-8	15-4	48	1220
F82298/Q	95-3	2421	43-6	19-8	48	1220
F81298/S	95-3	2421	33-3	15-2	48	1220
F82298/S	95-3	2421	42-6	19-4	48	1220



# mazda

## New Super Netapak

The New Super Netapak range has extra qualities for long service.

The New Super Netapak range will provide many thousands of neat and efficient light sources, 'workers' for industry and commerce at keen competitive prices.

With today's changing values, statements like these are not accepted at face value so we have re-assessed the characteristics of these top quality fittings to bring out the real **advantages** over general merchandising ranges of lighting equipment.

### These advantages are:

- 1** A wide choice of basic packs including highest lighting efficiency lamps and control gear to give you the most economic long term lighting service.
- 2** Quality reflectors and other attachments to give the control necessary for high standards of lighting throughout their maintained life.
- 3** Electrical accessory extras that save time and money on installation and maintenance.
  - (a) Starterless control gear.
  - (b) Fuse carrier accessible from outside.
  - (c) Ample connection or loop-in terminal block. Removable for wiring. (Will accept  $2 \times 7/029"$ )
  - (d) Lamps supplied with fittings.
 (See detailed specification on individual sheets.)
- 4** Prices are keen in comparison with fittings having all these features.

White acrylic stove enamel is used throughout on all reflecting surfaces and the basic spine.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.

Details of suitable rod and chain suspension sets which are available as extras are given on page CA105.

### Easy Lampholder Assembly (no tools required)

Bi-pin lampholder springloaded for either end re-lamping Shrouding for lamp cap

Welded end piece

Lampholder plate

Spine

### Easy Attachment Assembly (no tools required)

3/4in end conduit knockout entry

Continuous mounting locations

White Acrylic painted spine and Channel cover

Lampholder plate

Typical diffuser support bracket

Coin slot finger screw works through keyhole slots

### Neat Overall Appearance

Batten

Typical diffuser in 'ON' position

Typical diffuser in re-lamping position



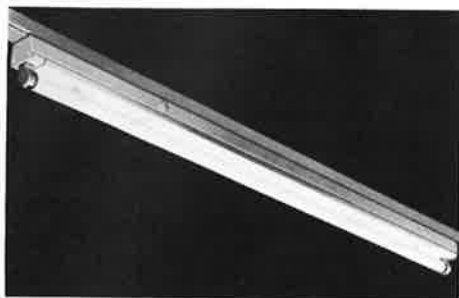
# mazda

## New Super Netapak batten fittings

The spine is manufactured from high quality sheet steel treated with a full bonderising and rust inhibiting process before finishing in white acrylic paint. Robust metal platforms support spring loaded bi-pin lampholders, and a 3 in conduit entry is available through knockouts. A side entry circuit fuse can be easily removed for maintenance purposes. Each New Super

Netapak is packaged complete with White tube(s).  
*All fittings are suitable for use on 240v 50Hz supplies.*  
*Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



5.NSN.1 + 5.NCC



5.NSN.2 + 5.NCC

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price ex. P.T.			Net Trade Tube Price s d			P.T. s d		
				£	s	d	£	s	d	£	s	d
5ft	65w Single	Resonant Start	5.NSN.1 + 5.NCC	6	1	0	8	0	2	10		
5ft	65w Twin	Resonant Start	5.NSN.2 + 5.NCC	9	8	0	16	0	5	8		
6ft	85w Single	Resonant Start	6.NSN.1 + 6.NCC	6	6	0	10	2	—			
6ft	85w Twin	Resonant Start	6.NSN.2 + 6.NCC	9	13	0	20	4	—			
8ft	85w Single	Quickstart	8.NSN.185 + 8.NCC	8	0	0	12	2	—			
8ft	85w Twin	Quickstart	8.NSN.285 + 8.NCC	12	8	0	24	4	—			
8ft	125w Single	Quickstart	8.NSN.1 + 8.NCC	9	3	0	12	2	—			
8ft	125w Twin	Quickstart	8.NSN.2 + 8.NCC	15	0	0	24	4	—			

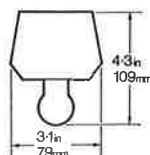
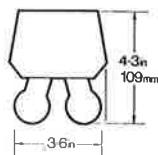
Each fitting is packaged complete with White tube(s). Price of fitting does not include tubes.

#### Components

Spine Cat. no.	Cover plate Cat. no.	Retail Price No P.T.			Price No P.T.		
		£	s	d	£	s	d
5.NSN.1	5.NCC	9	0				
5.NSN.2	5.NCC	9	0				
6.NSN.1	6.NCC	10	0				
6.NSN.2	6.NCC	10	0				
8.NSN.185	8.NCC	17	0				
8.NSN.285	8.NCC	17	0				
8.NSN.1	8.NCC	17	0				
8.NSN.2	8.NCC	17	0				

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
5.NSN.1 + 5.NCC	60.9	1548	11.5	5.2	24	610
5.NSN.2 + 5.NCC	60.9	1548	17.5	7.9	24	610
6.NSN.1 + 6.NCC	71.3	1812	12.7	5.8	24	610
6.NSN.2 + 6.NCC	71.3	1812	18.2	8.3	24	610
8.NSN.185 + 8.NCC	95.3	2421	18.0	8.1	48	1220
8.NSN.285 + 8.NCC	95.3	2421	26.3	11.9	48	1220
8.NSN.1 + 8.NCC	95.3	2421	20.0	9.1	48	1220
8.NSN.2 + 8.NCC	95.3	2421	30.5	13.8	48	1220



Width of spine top 2.6"

Depth from top to widest part of spine 1.8"



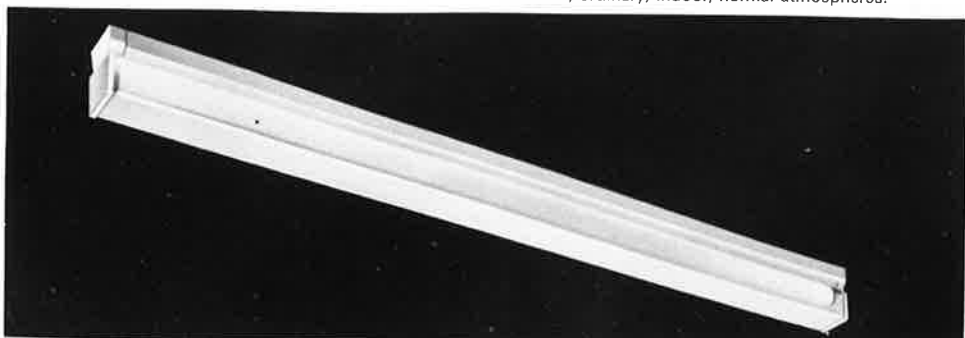
# New Super Netapak – 420 Prismatic Controller fittings

The transparent extruded controllers have prisms on the sides and a prismatic pattern on the base, giving a highly efficient fitting. The clip-on end-caps are plastic, with a white surround to an inset polished metallic panel. The fittings have been specially designed for mounting in continuous lines without spacers or adaptors.

Ventilation is provided between the controller and the batten to ensure cool running. The controller is attached to the batten by brackets and has an easy swing-over action.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



5.NSN.1 + 5.NCC + D5420

## RANGE AND PRICES (applicable to UK only)

### Complete fitting

Nom. Length	Rating	Circuit	Cat. no.	Retail Price ex. P.T. £ s d	P.T. s d	Net Trade Price s d	Tubes P.T. s d
5ft	65w Single	Resonant Start	5.NSN.1 + 5.NCC + D5420	8 5 0	11 10	8 0	2 10
6ft	85w Single	Resonant Start	6.NSN.1 + 6.NCC + D7420	8 11 0	12 1	10 2	—
8ft	85w Single	Quickstart	8.NSN.185 + 8.NCC + D8420	11 4 0	17 2	12 2	—
8ft	125w Single	Quickstart	8.NSN.1 + 8.NCC + D8420	12 7 0	17 2	12 2	—

Each fitting is packaged complete with White tube. Complete fitting price does not include tube.

### Components

Diffuser Cat. no.	Retail Price ex. P.T. £ s d	P.T. s d	Batten Cat. no.
D5420	2 4 0	11 10	5.NSN.1 + 5.NCC
D7420	2 5 0	12 1	6.NSN.1 + 6.NCC
D8420	3 4 0	17 2	8.NSN.185 + 8.NCC
D8420	3 4 0	17 2	8.NSN.1 + 8.NCC

### DIMENSIONS

Cat. no.	Length in mm	Weight (inc. tubes) lbs kg	Fixing Centres in mm
5.NSN.1 + 5.NCC + D5420	60.9 1548	13.5 6.1	24 610
6.NSN.1 + 6.NCC + D7420	71.3 1812	15.1 6.9	24 610
8.NSN.185 + 8.NCC + D8420	95.3 2421	15.8 9.5	48 1220
8.NSN.1 + 8.NCC + D8420	95.3 2421	23.1 10.5	48 1220

# mazda

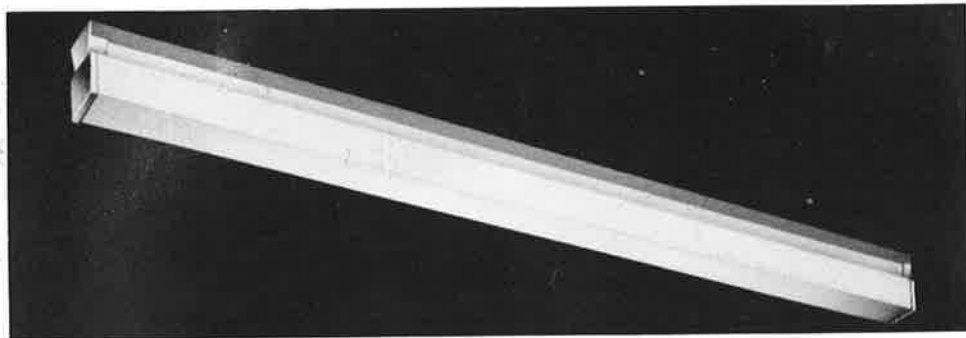
## New Super Netapak - 424 Opal Diffuser fittings

The extruded reeded opal diffusers are suitable for general lighting applications. The clip-on end-caps are plastic with a white surround to an inset polished metallic panel. The fittings have been specially designed for mounting in continuous lines without spacers or adaptors.

Ventilation is provided between the diffuser and the batten to ensure cool running. The diffuser is attached to the batten by brackets and has an easy swing-over.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



5.NSN.1 + 5.NCC + D5424

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. Length	Rating	Circuit	Cat. no.	Retail Price Fitting ex. P.T.			P.T.			Net Trade Price Tube(s) ex. P.T.			P.T.		
				£	s	d	£	s	d	£	s	d	£	s	d
5ft	65w Single	Resonant Start	5.NSN.1 + 5.NCC + D5424	7	14	0	8	11		8	0		2	10	
6ft	85w Single	Resonant Start	6.NSN.1 + 6.NCC + D7424	8	4	0	10	2		10	2				
8ft	85w Single	Quickstart	8.NSN.185 + 8.NCC + D8424	10	7	0	12	8		12	2				
8ft	125w Single	Quickstart	8.NSN.1 + 8.NCC + D8424	11	10	0	12	8		12	2				

Each spine is packaged complete with White tube. Price of fitting does not include tube.

#### Components

Diffuser Cat. no.	Retail Price ex. P.T.			P.T. s d	Batten Cat. no.	P.T. s d
	£	s	d			
D5424	1	13	0	8 11	5.NSN.1 + 5.NCC	
D7424	1	18	0	10 2	6.NSN.1 + 6.NCC	
D8424	2	7	0	12 8	8.NSN.185 + 8.NCC	
D8424	2	7	0	12 8	8.NSN.1 + 8.NCC	

#### DIMENSIONS

Cat. no.	Length		Weight (inc. tubes)		Fixing Centres	
	in	mm	lbs	kg	in	mm
5.NSN.1 + 5.NCC + D5424	60.9	1548	13.5	6.1	24	610
6.NSN.1 + 6.NCC + D7424	71.3	1812	15.1	6.9	24	610
8.NSN.185 + 8.NCC + D8424	95.3	2421	15.8	9.5	48	1220
8.NSN.1 + 8.NCC + D8424	95.3	2421	23.1	10.5	48	1220

# mazda

## New Super Netapak NOD diffuser fittings

The NOD range of diffusers has been developed to provide an economic attachment pleasing to the eye. Extruded from medium density polystyrene this externally reeded pattern diffuser has clip-on white plastic injection moulded end plates which can be easily removed for speedy internal cleaning. Quick and simple fixing of this diffuser to the New Super Netapak spine is achieved by two simple brackets which clip under retaining screws. The diffuser simply hooks onto these brackets and this method also allows the unit to be hinged down for relamping whilst in position on the fitting.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



5.NSN.2 + 5.NCC + 5.NOD

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price ex. P.T.				P.T.	Nett Trade Price Tubes				P.T.
				£	s	d	£		s	d	£	s	
5ft	65w Single	Resonant Start	5.NSN.1 + 5.NCC + 5.NOD	8	11	0	13	5	8	0	2	10	
5ft	65w Twin	Resonant Start	5.NSN.2 + 5.NCC + 5.NOD	11	18	0	13	5	16	0	5	8	
6ft	85w Single	Resonant Start	6.NSN.1 + 6.NCC + 6.NOD	9	1	0	14	9	10	2			
6ft	85w Twin	Resonant Start	6.NSN.2 + 6.NCC + 6.NOD	12	8	0	14	9	1	0	4		
8ft	85w Single	Quickstart	8.NSN.185 + 8.NCC + 8.NOD	12	0	0	1	1	6	12	2		
8ft	85w Twin	Quickstart	8.NSN.285 + 8.NCC + 8.NOD	16	8	0	1	1	6	1	4	4	
8ft	125w Single	Quickstart	8.NSN.1 + 8.NCC + 8.NOD	13	3	0	1	1	6	12	2		
8ft	125w Twin	Quickstart	8.NSN.2 + 8.NCC + 8.NOD	19	0	0	1	1	6	1	4	4	

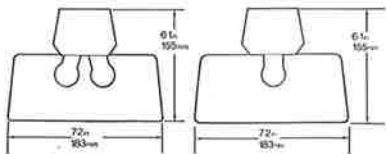
Each fitting is packaged complete with White tube(s). Price of fitting does not include tube(s).

#### Components

Diffuser Cat. no.	Retail Price			P.T.			Batten Cat. no.
	ex. £	P.T. s	d	£	s	d	
5.NOD	2	10	0	13	5		5.NSN.1 + 5.NCC
5.NOD	2	10	0	13	5		5.NSN.2 + 5.NCC
6.NOD	2	15	0	14	9		6.NSN.1 + 6.NCC
6.NOD	2	15	0	14	9		6.NSN.2 + 6.NCC
8.NOD	4	0	0	1	1	6	8.NSN.185 + 8.NCC
8.NOD	4	0	0	1	1	6	8.NSN.285 + 8.NCC
8.NOD	4	0	0	1	1	6	8.NSN.1 + 8.NCC
8.NOD	4	0	0	1	1	6	8.NSN.2 + 8.NCC

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes)		Fixing centres in	mm
			lb	kg		
5.NSN.1 + 5.NCC + 5.NOD	62.4	1584	14.8	6.7	24	610
5.NSN.2 + 5.NCC + 5.NOD	62.4	1584	20.8	9.4	24	610
6.NSN.1 + 6.NCC + 6.NOD	72.9	1851	16.5	7.5	24	610
6.NSN.2 + 6.NCC + 6.NOD	72.9	1851	22.0	10.0	24	610
8.NSN.185 + 8.NCC + 8.NOD	96.9	2460	23.2	10.4	48	1220
8.NSN.285 + 8.NCC + 8.NOD	96.9	2460	31.5	14.2	48	1220
8.NSN.1 + 8.NCC + 8.NOD	96.9	2460	25.2	11.3	48	1220
8.NSN.2 + 8.NCC + 8.NOD	96.9	2460	35.7	16.1	48	1220



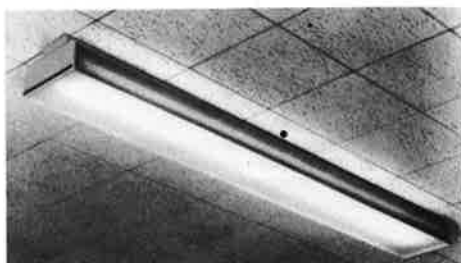
# mazda

## New Super Netapak NPC prismatic controller fittings

This very attractive controller has been produced to provide a quality attachment at an economic price. The sides are of extruded prism formation with a glare reducing smoke grey tint and the base is of a clear prismatic formation. Ends are injection moulded in white plastic finish with a thin silver band. This combination produces a result of such pleasing effect that this fitting can with confidence be installed in boardrooms, top class hotels – indeed wherever quality and appearance are important. Quick and easy fixing to the spine is by two simple brackets which also allow the unit to be hinged down for relamping whilst in position on the fitting.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



5.NSN.2 + 5.NCC + 5.NPC

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price per fitting			P.T.			Tube(s) Net Trade			P.T. Lamp		
				£	s	d	£	s	d	s	d	s	d	s	d
5ft	65w Single	Resonant Start	5.NSN.1 + 5.NCC + 5.NPC	10	18	0	1	6	1	8	0	2	10		
5ft	65w Twin	Resonant Start	5.NSN.2 + 5.NCC + 5.NPC	14	5	0	1	6	1	16	0	5	8		
6ft	85w Single	Resonant Start	6.NSN.1 + 6.NCC + 6.NPC	11	19	0	1	10	4	10	2	—			
6ft	85w Twin	Resonant Start	6.NSN.2 + 6.NCC + 6.NPC	15	6	0	1	10	4	20	4	—			
8ft	85w Single	Quickstart	8.NSN.185 + 8.NCC + 8.NPC	15	5	0	1	18	11	12	2	—			
8ft	85w Twin	Quickstart	8.NSN.285 + 8.NCC + 8.NPC	19	13	0	1	18	11	24	4	—			
8ft	125w Single	Quickstart	8.NSN.1 + 8.NCC + 8.NPC	16	8	0	1	18	11	12	2	—			
8ft	125w Twin	Quickstart	8.NSN.2 + 8.NCC + 8.NPC	22	5	0	1	18	11	24	4	—			

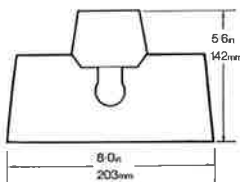
Each fitting is packaged complete with White tube(s). Price of fitting does not include tube(s).

#### Components

Diffuser Cat. no.	Retail Price ex. P.T.			P.T.	Batten Cat. no.	Price ex. P.T.		
	£	s	d	£		£	s	d
5.NPC	4	17	0	1 6 1	5.NSN.1 + 5.NCC	6	1	0
5.NPC	4	17	0	1 6 1	5.NSN.2 + 5.NCC	9	8	0
6.NPC	5	13	0	1 10 4	6.NSN.1 + 6.NCC	6	6	0
6.NPC	5	13	0	1 10 4	6.NSN.2 + 6.NCC	9	13	0
8.NPC	7	5	0	1 18 11	8.NSN.185 + 8.NCC	8	0	0
8.NPC	7	5	0	1 18 11	8.NSN.285 + 8.NCC	12	8	0
8.NPC	7	5	0	1 18 11	8.NSN.1 + 8.NCC	9	3	0
8.NPC	7	5	0	1 18 11	8.NSN.2 + 8.NCC	15	0	0

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
5.NSN.1 + 5.NCC + 5.NPC	62.4	1584	16.0	7.2	24	610
5.NSN.2 + 5.NCC + 5.NPC	62.4	1584	22.0	10.0	24	610
6.NSN.1 + 6.NCC + 6.NPC	72.9	1851	18.1	8.2	24	610
6.NSN.2 + 6.NCC + 6.NPC	72.9	1851	23.6	10.7	24	610
8.NSN.185 + 8.NCC + 8.NPC	96.9	2460	25.2	11.4	48	1220
8.NSN.285 + 8.NCC + 8.NPC	96.9	2460	33.5	15.2	48	1220
8.NSN.1 + 8.NCC + 8.NPC	96.9	2460	27.2	12.3	48	1220
8.NSN.2 + 8.NCC + 8.NPC	96.9	2460	37.2	16.8	48	1220



# mazda

## New Super Netapak NOR reflector fittings

An open end metal reflector with adequate upward light slots to reduce contrasts and also allow the free flow of convection currents, reducing the accumulation of unwanted dust and dirt, and retaining reflection efficiency. Constructed from heavy gauge sheet steel and treated with a full bonderising and rust inhibiting process before application of white acrylic stove enamel, the combination of which ensures easy cleaning and extra long life. Simple fixing to the New Super Netapak spine is achieved by two captive screws.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



5.NSN.2 + 5.NOR

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price per fitting ex. P.T. £ s d	Tube(s) Nett Trade Price £ s d	P.T. s d
5ft	65w Single	Resonant Start	5.NSN.1 + 5.NOR	7 4 0	8 0	2 10
5ft	65w Twin	Resonant Start	5.NSN.2 + 5.NOR	10 11 0	16 0	5 8
6ft	85w Single	Resonant Start	6.NSN.1 + 6.NOR	7 13 0	10 2	—
6ft	85w Twin	Resonant Start	6.NSN.2 + 6.NOR	11 0 0	1 0 4	—
8ft	85w Single	Quickstart	8.NSN.185 + 8.NOR	9 16 0	12 2	—
8ft	85w Twin	Quickstart	8.NSN.285 + 8.NOR	14 4 0	1 4 4	—
8ft	125w Single	Quickstart	8.NSN.1 + 8.NOR	10 19 0	12 2	—
8ft	125w Twin	Quickstart	8.NSN.2 + 8.NOR	16 16 0	1 4 4	—

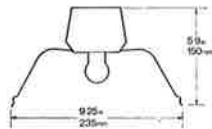
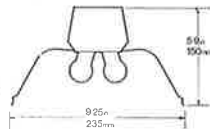
Each fitting is packaged complete with White tube(s). Price of fitting does not include tube(s).

#### Components

Reflector Cat. no.	Price ex. P.T. £ s d	Spine Cat. no.	Price ex. P.T. £ s d
5.NOR	1 12 0	5.NSN.1	6 1 0
5.NOR	1 12 0	5.NSN.2	9 8 0
6.NOR	1 17 0	6.NSN.1	6 6 0
6.NOR	1 17 0	6.NSN.2	9 13 0
8.NOR	2 13 0	8.NSN.185	8 0 0
8.NOR	2 13 0	8.NSN.285	12 8 0
8.NOR	2 13 0	8.NSN.1	9 3 0
8.NOR	2 13 0	8.NSN.2	15 0 0

### DIMENSIONS

Cat. no.	Length in mm	Weight (inc. Tubes) lb kg	Fixing centres in mm
5.NSN.1 + 5.NOR	60.9 1541	18.5 8.4	24 610
5.NSN.2 + 5.NOR	60.9 1541	25.2 11.5	24 610
6.NSN.1 + 6.NOR	71.3 1812	21.2 10.1	24 610
6.NSN.2 + 6.NOR	71.3 1812	27.7 12.5	24 610
8.NSN.185 + 8.NOR	95.3 2421	29.4 13.3	48 1220
8.NSN.285 + 8.NOR	95.3 2421	39.3 17.8	48 1220
8.NSN.1 + 8.NOR	95.3 2421	31.4 14.2	48 1220
8.NSN.2 + 8.NOR	95.3 2421	43.2 19.6	48 1220



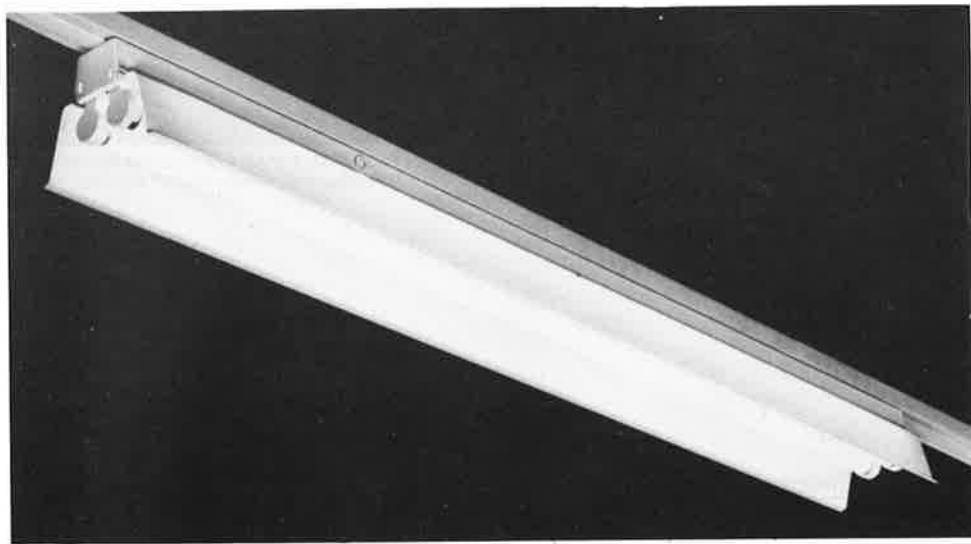
# mazda

## New Super Netapak NPR reflector fittings

An open end opal plastic reflector which allows ample upward diffused light. Constructed from medium opal plastic it is very easy to keep clean and gives a long life. Simple fixing to the New Super Netapak spine is achieved by two captive screws.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



5.NSN.2 + 5.NPR

### RANGE AND PRICES (applicable to UK only)

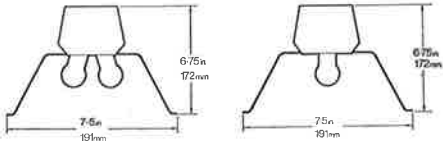
Complete fitting				Retail Price			Tubes			
Nom. length	Rating	Circuit	Cat. no.	ex. P.T.	£	s	d	Net Trade Price	P.T.	
					£	s	d	£	s	d
5ft	65w Single	Resonant Start	5.NSN.1 + 5.NPR		8	1	0	8	0	2 10
5ft	65w Twin	Resonant Start	5.NSN.2 + 5.NPR		11	8	0	16	0	5 8
6ft	85w Single	Resonant Start	6.NSN.1 + 6.NPR		8	12	0	10	2	
6ft	85w Twin	Resonant Start	6.NSN.2 + 6.NPR		11	19	0	20	4	

Each fitting is packaged complete with White tube(s). Price of fitting does not include tubes.

Components			Retail Price			Spine		
Reflector	Cat. no.		£	s	d	Cat. no.		
5.NPR			2	9	0	5.NSN.1		
5.NPR			2	9	0	5.NSN.2		
6.NPR			2	16	0	6.NSN.1		
6.NPR			2	16	0	6.NSN.2		

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
5.NSN.1 + 5.NPR	60.9	1541	13.5	6.1	24	610
5.NSN.2 + 5.NPR	60.9	1541	20.4	9.2	24	610
6.NSN.1 + 6.NPR	71.3	1812	15.2	6.9	24	610
6.NSN.2 + 6.NPR	71.3	1812	21.7	9.8	24	610



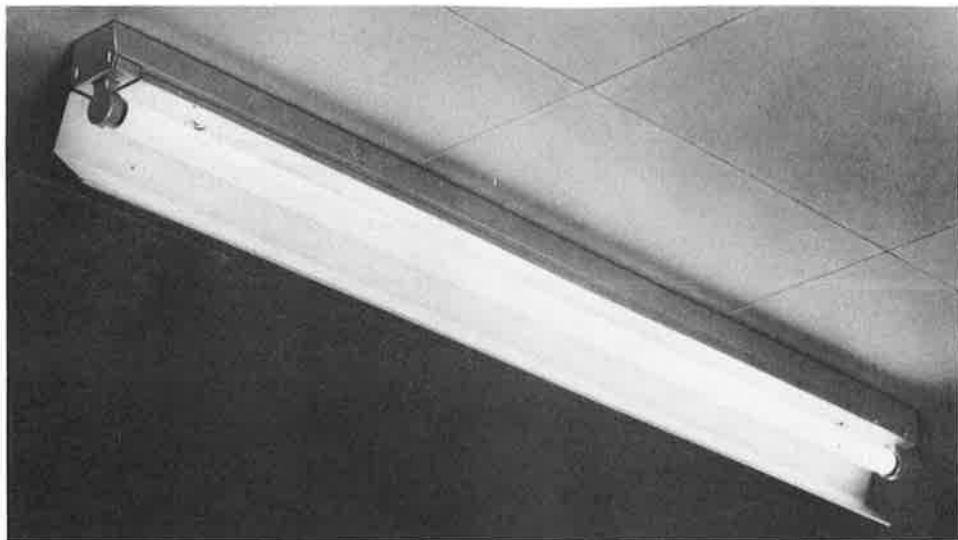
# mazda

## New Super Netapak NAR reflector fittings

A one-piece sheet metal reflector designed to give directional control which is especially useful for lighting vertical surfaces. Constructed from heavy gauge sheet steel and treated with a full bonderising and rust inhibiting process before application of white acrylic stove enamel, the combination of which ensures easy cleaning and long life. Easy and quick fixing to the New Super Netapak Spine is achieved by the use of two captive screws.

*All fittings are suitable for use on 240v 50Hz supplies.  
Other voltages on application.*

**These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.**



5.NSN.1 + 5.NAR

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price ex. P.T.			Tubes Net Trade Price			P.T.	
				£	s	d	£	s	d	s	d
5ft	65w Single	Resonant Start	5.NSN.1 + 5.NAR	6	15	0	5	8	0	2	10
5ft	65w Twin	Resonant Start	5.NSN.2 + 5.NAR	10	2	0	8	16	0	5	8

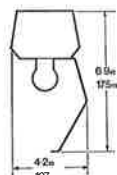
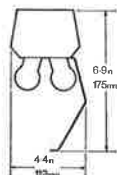
Each fitting is packaged complete with White tube(s). Price of fitting does not include tubes.

#### Components

Reflector Cat. no.	Retail Price			Spine Cat. no.
	£	s	d	
5.NAR	1	3	0	5.NSN.1
5.NAR	1	3	0	5.NSN.2

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
5.NSN.1 + 5.NAR	60.9	1541	14.0	6.3	24	610
5.NSN.2 + 5.NAR	60.9	1541	20.9	9.5	24	610



# atlas

## London line

### The 'London line' fittings

The 'London line' range of fittings uses a basic batten in 5ft, 6ft and 8ft lengths. These spines use the most advanced and efficient circuitry available on the market to control the economical braided cathode fluorescent tubes. The attachments available for fixing to this batten provide a range of fittings lending a new meaning to elegance of design, whilst providing correctly controlled lighting. The range of fittings and attachments gives 27 alternatives which provide for flexible architectural application. With the attachments available light can be controlled to give a sparkling brilliance down to the strict glare control of a BZ1 classification as described by the I.E.S. code.

### The 'London line' satin anodised aluminium frame fittings

These aluminium frame fittings are the pride of the 'London line' range. You can purchase them as the aluminium frame alone, or the aluminium frame with a band in black leather finish, or the aluminium frame with a band in wood grain finish. Which you choose is a question of personal taste, for all three are superbly designed.

There is also a choice of attachments for these frames.

- 1 A prismatic controller panel.
- 2 An opal dish.
- 3 A metallized louvre panel.

The frames are available in 6ft or 8ft modular sizes and incorporate all the advanced design features of the 'London line' fittings.

### To sum up

You will see from the following pages that the 'London line' range offers a really wide choice of superb fittings. They are designed for people who demand the very best fluorescent lighting. They combine advanced technical design with restful light, thoroughbred good looks with unprecedented reliability. We are certain you will find no range of fittings that will match the 'London line', aesthetically or otherwise.

All fittings are suitable for use on 240V 50Hz supplies. Other voltages on application.

These fittings comply with B.S.3820:1964. For categories — Class 1, ordinary, indoor, normal atmospheres.

White acrylic stove enamel is used throughout on all reflecting surfaces and the basic spine.

### The 'London line' KS slim prismatic

This 'London line' fitting has been developed to satisfy a demand for a 'wafer slim' prismatic fitting which fits neatly onto the ceiling with the minimum projection. It is available in true module sizes of 6ft x 1ft and 8ft x 1ft using the new Super Six 6ft 85w Resonant circuit and the Super Eight 8ft 85w Quickstart circuit.

### Four important design features

- 1 'WAFER SLIM', projecting only 3½in from the ceiling. Ideal for the modern trend of low ceiling heights. Designed also for architects who want to see only an area of light (virtually no spine is visible).
- 2 Modular sizes i.e. either 6ft x 1ft or 8ft x 1ft. Ideal for use on modular ceilings. They can be used either singly or in multiples. They can be used continuously mounted or to form patterns — their use is limited only as far as your imagination.
- 3 Utilises the new 6ft 85w Resonant circuit and 'Super Six' tube, and the tried and proved 8ft 85w Quickstart circuit and 'Super Eight' tube.
- 4 Prismatic diffuser achieves high efficiency with low BZ rating.



# atlas

## London line KG batten fittings

A shallow section batten encloses control gear to operate two 5ft 65w tubes, two 6ft 85w tubes or two 8ft 85w tubes. Wide spaced lamps are held in spring loaded bi-pin holders. Suitable for installing behind suspended translucent ceilings on chain, rod or close ceiling mountings.

*All fittings are suitable for use on 240v 50Hz supplies.  
Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



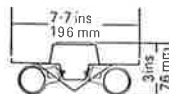
KG-R2685

### RANGE AND PRICES (applicable to UK only)

Complete fitting					
Nom. length	Rating	Circuit	Cat. no.	Retail Price	
				£	s d
5ft	65w Twin	Resonant Start	KG-R2065	10	0 0
6ft	85w Twin	Resonant Start	KG-R2685	10	9 0
8ft	85w Twin	Quickstart	KG-Q2085	14	16 0

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
KG-R2065	60.0	1524	20.7	9.4	24	610
KG-R2685	70.4	1780	24.2	10.9	24	610
KG-Q2085	94.4	2399	30.6	13.8	48	1220



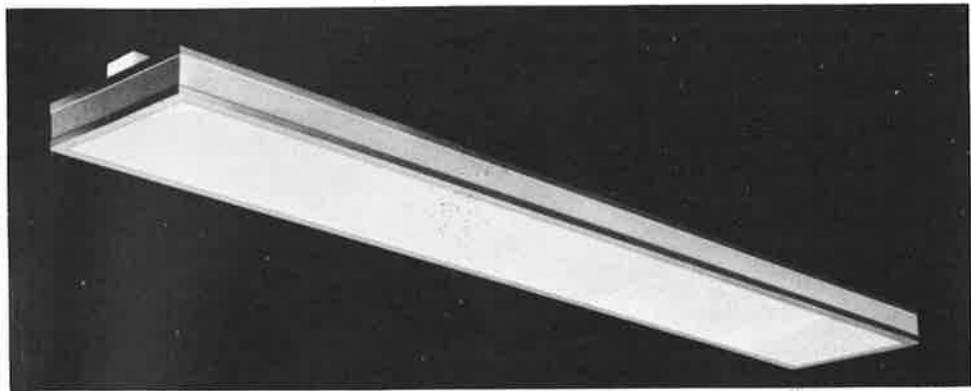
# atlas

## London line KGA fittings

This range within the 'London line' name can be fitted with either a metallized louvre, opal dish or prismatic controller (as shown). The satin anodized extruded aluminium frame surrounding the fitting provides precise detailing and a crisp appearance to the fitting made possible by this method of manufacture.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



KGA/C/R2685

### RANGE AND PRICES (applicable to UK only)

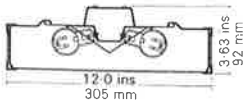
Complete fitting				Retail Price				P.T.			
Norm. length	Rating	Circuit	Cat. no.	£	s	d		£	s	d	
6ft	85w Twin	Resonant Start	KGA/C/R2685	19	15	0		2	9	11	
6ft	85w Twin	Resonant Start	KGA/O/R2685	21	2	0		2	17	2	
6ft	85w Twin	Resonant Start	KGA/M/R2685	29	13	0		5	3	0	
8ft	85w Twin	Quickstart	KGA/C/Q2085	26	17	0		3	4	9	
8ft	85w Twin	Quickstart	KGA/O/Q2085	29	6	0		3	17	10	
8ft	85w Twin	Quickstart	KGA/M/Q2085	41	1	0		7	0	10	

Components											
Diffuser Cat. no.	Retail Price			P.T.	£ s d			Frame Cat. no.	Retail Price		
KGC-26	2	18	0	15	7			KGA-26	6	8	0
KGO-26	4	5	0	1	2	10		KGA-26	6	8	0
KGM-26	12	16	0	3	8	8		KGA-26	6	8	0
KGC-28	3	18	0	1	1	0		KGA-28	8	3	0
KGO-28	6	7	0	1	14	1		KGA-28	8	3	0
KGM-28	18	2	0	4	17	1		KGA-28	8	3	0
Batten Cat. no.	Retail Price			P.T.	£ s d			Batten Cat. no.	Retail Price		
KG-R2685	10	9	0					KG-R2685	10	9	0
KG-R2685	10	9	0					KG-R2685	10	9	0
KG-Q2085	14	16	0					KG-Q2085	14	16	0
KG-Q2085	14	16	0					KG-Q2085	14	16	0

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
KGA/C/R2685	72	1829	30.4	13.8	24	610
KGA/O/R2685	72	1829	30.7	13.9	24	610
KGA/M/R2685	72	1829	31.0	14.0	24	610
KGA/C/Q2085	96	2438	40.1	18.2	48	1220
KGA/O/Q2085	96	2438	40.9	18.5	48	1220
KGA/M/Q2085	96	2438	41.6	18.8	48	1220

A - Satin Anodized Aluminium Frame.  
C - Prismatic Controller Panel.  
O - Opal Plastic Dish.  
M - Metallized Louvre.



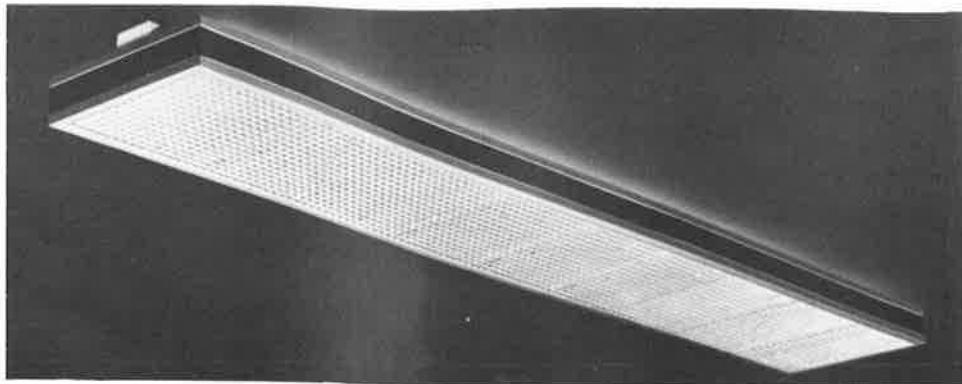
# atlas

## London line KGB fittings

The KGB range of fittings is available in 6ft 85w or 8ft 85w with a choice of diffusers – an opal dish, prismatic controller or metallized louvre (as shown). This fitting complements the modern decor and functional appearance found in many prestige office and reception areas or quality shops and stores.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



KGB/M/R2685

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Norm. length	Rating	Circuit	Cat. no.	Retail Price £ s d			P.T. £ s d		
6ft	85w Twin	Resonant Start	KGB/C/R2685	20	9	0	2	13	8
6ft	85w Twin	Resonant Start	KGB/O/R2685	21	16	0	3	0	11
6ft	85w Twin	Resonant Start	KGB/M/R2685	30	7	0	5	6	9
8ft	85w Twin	Quickstart	KGB/C/Q2085	27	7	0	3	7	5
8ft	85w Twin	Quickstart	KGB/O/Q2085	29	16	0	4	0	6
8ft	85w Twin	Quickstart	KGB/M/Q2085	41	11	0	7	3	6

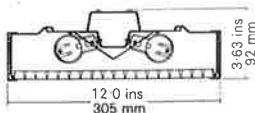
#### Components

Diffuser Cat. no.	Retail Price			P.T.	Frame Cat. no.	Retail Price			P.T.	Batten Cat. no.	Retail Price						
	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d		
KGC-26	2	18	0	15	7	KGB-26	7	2	0	1	18	1	KG-R2685	10	9	0	
KGO-26	4	5	0	1	2	10	KGB-26	7	2	0	1	18	1	KG-R2685	10	9	0
KGM-26	12	16	0	3	8	8	KGB-26	7	2	0	1	18	1	KG-R2685	10	9	0
KGC-28	3	18	0	1	1	0	KGB-28	8	13	0	2	6	5	KG-Q2085	14	16	0
KGO-28	6	7	0	1	14	1	KGB-28	8	13	0	2	6	5	KG-Q2085	14	16	0
KGM-28	18	2	0	4	17	1	KGB-28	8	13	0	2	6	5	KG-Q2085	14	16	0

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb		kg	Fixing centres in		mm
KGB/C/R2685	72	1829	30.4	13.8		24	610	
KGB/O/R2685	72	1829	30.7	13.9		24	610	
KGB/M/R2685	72	1829	31.0	14.0		24	610	
KGB/C/Q2085	96	2438	40.1	18.2		48	1220	
KGB/O/Q2085	96	2438	40.9	18.5		48	1220	
KGB/M/Q2085	96	2438	41.6	18.8		48	1220	

B – Satin Anodized Aluminium Frame with Black Leather effect trim.  
C – Prismatic Controller Panel.  
O – Opal Plastic Dish.  
M – Metallized Louvre.



# atlas

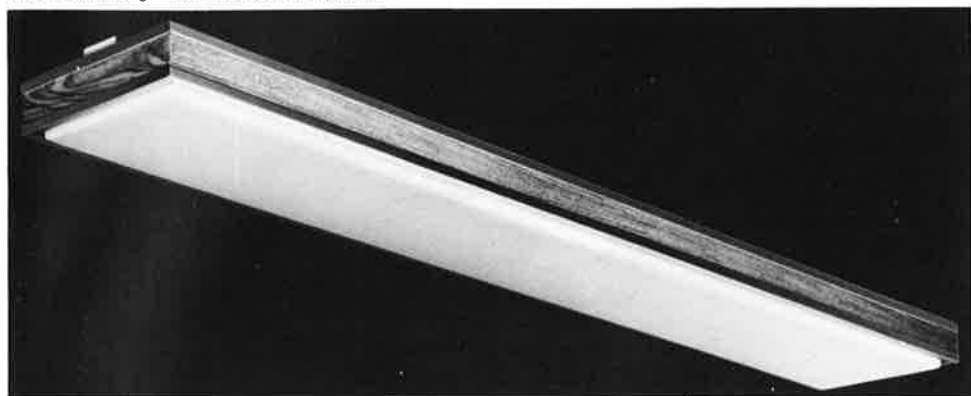
## London line KGW fittings

The KGW range is basically the standard KGA range of fittings. In this case, however, the aluminium trim has a wood grained surround to complement certain types of decor found in many modern offices, showrooms, reception areas, etc. This fitting is available in 6ft twin and 8ft twin ranges with a choice of a prismatic

controller, metallized louvre or opal diffuser dish (as shown).

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



KGW/O/R2685

### RANGE AND PRICES (applicable to UK only)

Complete fitting					Retail Price			P.T.		
Norm. length	Rating	Circuit	Cat. no.		£	s	d	£	s	d
6ft	85w Twin	Resonant Start	KGW/C/R2685		20	9	0	2	13	8
6ft	85w Twin	Resonant Start	KGW/O/R2685		21	16	0	3	0	11
6ft	85w Twin	Resonant Start	KGW/M/R2685		30	7	0	5	6	9
8ft	85w Twin	Quickstart	KGW/C/Q2085		27	7	0	3	7	5
8ft	85w Twin	Quickstart	KGW/O/Q2085		29	16	0	4	0	6
8ft	85w Twin	Quickstart	KGW/M/Q2085		41	11	0	7	3	6

### Components

Diffuser Cat. no.	Retail Price £ s d	P.T. £ s d	Frame Cat. no.	Retail Price £ s d	P.T. £ s d	Batten Cat. no.	Retail Price £ s d
KGC-26	2 18 0	15 7	KGW-26	7 2 0	1 18 1	KG-R2685	10 9 0
KGO-26	4 5 0	1 2 10	KGW-26	7 2 0	1 18 1	KG-R2685	10 9 0
KGM-26	12 16 0	3 8 8	KGW-26	7 2 0	1 18 1	KG-R2685	10 9 0
KGC-28	3 18 0	1 1 0	KGW-28	8 13 0	2 6 5	KG-Q2085	14 16 0
KGO-28	6 7 0	1 14 1	KGW-28	8 13 0	2 6 5	KG-Q2085	14 16 0
KGM-28	18 2 0	4 17 1	KGW-28	8 13 0	2 6 5	KG-Q2085	14 16 0

### DIMENSIONS

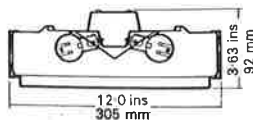
Cat. no.	Length in mm	Weight (inc. Tubes) lb	Weight (inc. Tubes) kg	Fixing centres in	Fixing centres mm
KGW/C/R2685	72 1829	30.4	13.8	24	610
KGW/O/R2685	72 1829	30.7	13.9	24	610
KGW/M/R2685	72 1829	31.0	14.0	24	610
KGW/C/Q2085	96 2438	40.1	18.2	48	1220
KGW/O/Q2085	96 2438	40.9	18.5	48	1220
KGW/M/Q2085	96 2438	41.6	18.8	48	1220

W - Satin Anodized Aluminium Frame with Wood Grain effect trim.

C - Prismatic Controller Panel.

O - Opal Plastic Dish.

M - Metallized Louvre.



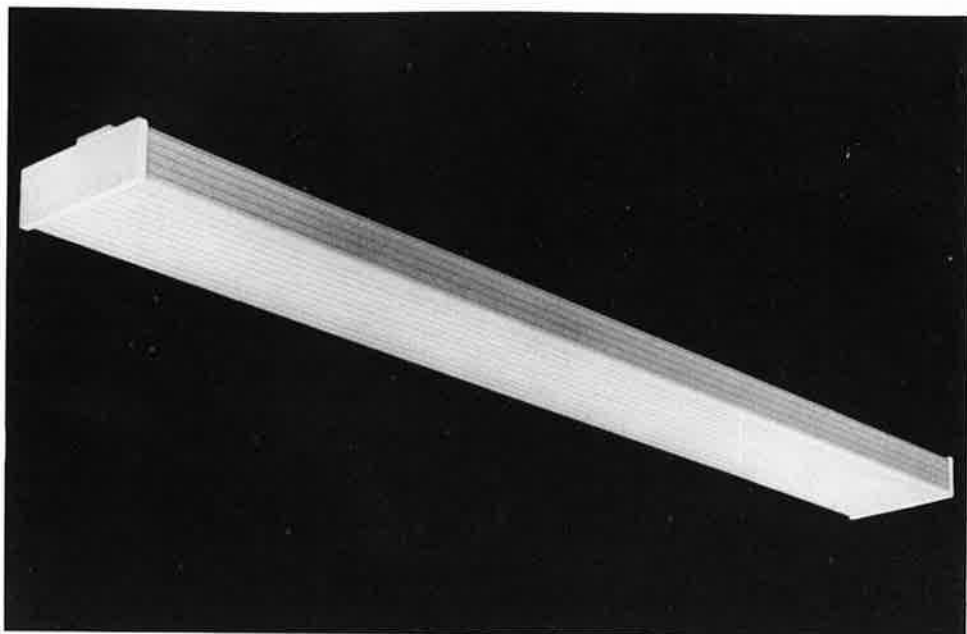
# atlas

## London line KGD fittings

Two choices of KGD fitting are available, one using the new 6ft 85w circuit with the 'Super Six' tubes and the other using the tried and tested 8ft 85w circuit with the 'Super Eight' tubes. The twin tube fittings project only 3½in from the ceiling which makes them ideal for general commercial and office applications, particularly where low ceilings exist. With the diffuser in place the spine is barely visible thus providing a clean lined fitting preferred by so many of today's architects.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

**These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.**



KGD/R2685

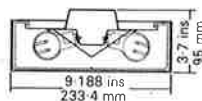
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Retail Price				P.T.	Diffuser Cat. no.	Retail Price				P.T.	Batten Cat. no.	Retail Price			
				£	s	d		£	s	d	£	s	d	£	s	d	£	s	d
5ft	65w Twin	Resonant Start	KGD/R2065	12	15	0		14	9	KGD-25	2	15	0	14	9	KG-R2065	10	0	0
6ft	85w Twin	Resonant Start	KGD/R2685	13	9	0		16	1	KGD-26	3	0	0	16	1	KG R2685	10	9	0
8ft	85w Twin	Quickstart	KGD/Q2085	18	14	0		1	0	KGD-28	3	18	0	1	0	KG-Q2085	14	16	0

#### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
KGD/R2065	61.8	1568	24.0	10.9	24	610
KGD/R2685	72.2	1834	27.0	12.2	24	610
KGD/Q2085	96.2	2443	35.6	16.1	48	1220



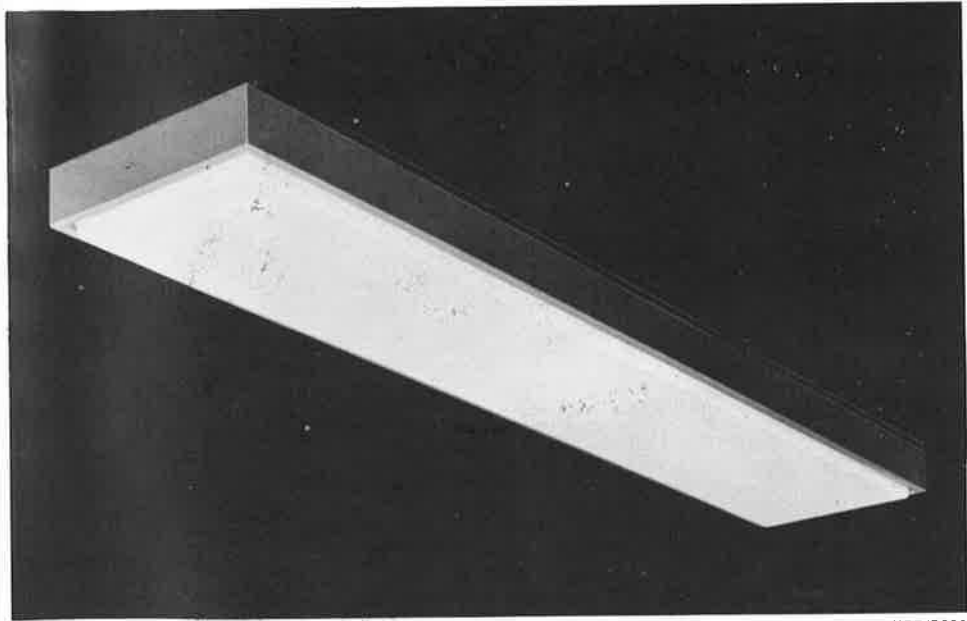
# atlas

## London line KGF and KGN fittings

The metal frames of the Atlas KGF and KGN fittings are slotted to give sparkle. The frame which hooks on to the standard 5ft 65w twin KG batten is finished in mushroom to B.S.2660 colour no. 3-036. The KGF fitting has an opal dish diffuser for controlled general lighting whereas the KGN has a clear prismatic panel for a low glare coefficient together with a light distribution biased downwards over working surfaces.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

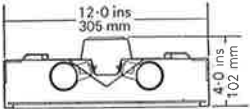
These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



KGF/R2065

### RANGE AND PRICES (applicable to UK only)

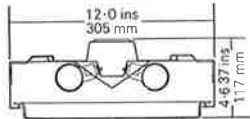
Complete fitting						Components												
Nom. length Rating		Circuit	Cat. no.	Retail Price £ s d			P.T. £ s d	Diffuser Cat. no.		Retail Price £ s d			P.T. £ s d	Batten Cat. no.		Retail Price £ s d		
5ft	65w Twin	Resonant Start	KGF/R2065	19	4	0	2 9 4	KGF-25	9	4	0	2 9 4	KG-R2065	10	0	0		
5ft	65w Twin	Resonant Start	KGN/R2065	17	1	0	1 17 10	KGN-25	7	1	0	1 17 10	KG-R2065	10	0	0		



KGN/R2065

### DIMENSIONS

Cat. no.	Length in mm	Weight (inc. Tubes) lb kg	Fixing centres in mm
KGF/R2065	72-6 1588	35-7 16-2	24 610
KGN/R2065	82-6 1588	35-7 16-2	24 610



KGF/R2065

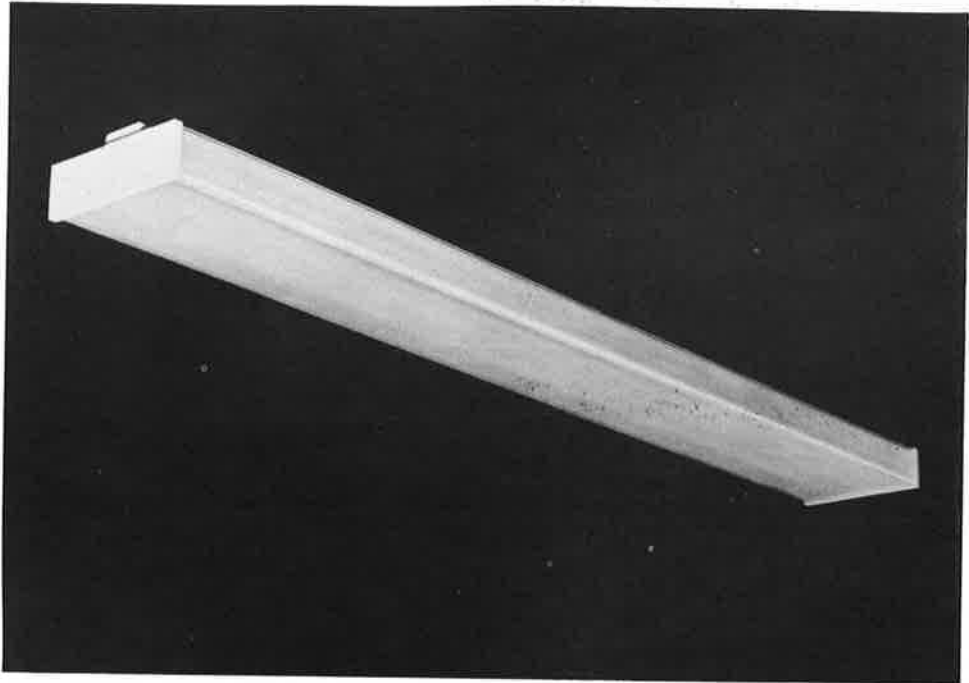
# atlas

## London line KGP fittings

This fitting is available in 5ft, 6ft and 8ft twin lamp sizes. This diffuser in the Atlas range incorporates a specially developed optical system. The configuration of the chassis and lamp combination is well suited to light control through prisms and allows a crisp, modern rectangular shape of controller to be used. The side prisms direct the light to provide a low glare zone and the prisms in the base of the controller concentrate the light downwards and prevent almost all the light from being emitted at angles above 30° from the horizontal. This results in a fitting with a high technical performance yet with a low BZ classification.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



KGP/Q2085

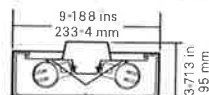
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Complete Wiring										Components																	
Nom. length		Rating	Circuit	Cat. no.	Retail Price			P.T.			Diffuser Cat. no.		Retail Price			P.T.			Batten Cat. no.		Retail Price						
					£	s	d	£	s	d			£	s	d	£	s	d			£	s	d				
5ft	65w	Twin	Resonant Start	KGP/R2065	13	4	0	17	2		KGP-25	3	4	0	17	2		KG-R2065	10	0	0						
6ft	85w	Twin	Resonant Start	KGP/R2685	14	2	0	19	7		KGP-26	3	13	0	19	7		KG-R2685	10	9	0						
8ft	85w	Twin	Quickstart	KGP/Q2085	19	7	0	1	4	5	KGP-28	4	11	0	1	4	5	KG-Q2085	14	16	0						

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fitting centres	
	in	mm	lb	kg	in	mm
KGP/R2065	61.8	1568	24.2	11.0	24	610
KGP/R2685	72.2	1834	27.5	12.4	24	610
KGP/Q2085	96.2	2443	36.6	16.6	48	1220



# atlas

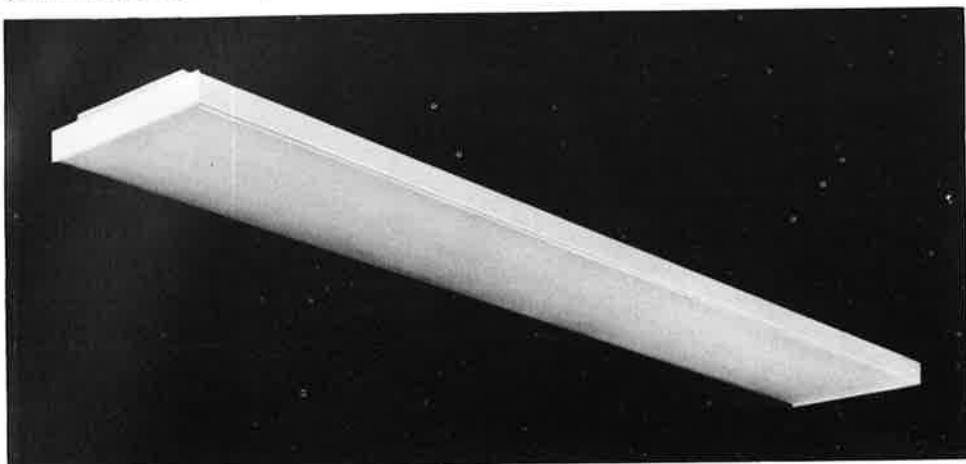
## London line KSP fittings

This 'Wafer Slim' fitting has a unique lightness and elegance of appearance. The complete ceiling mounted fitting only projects 3 3/4 in from the ceiling which makes it ideal for modern low ceilings where more cumbersome fittings might tend to 'weigh down' the ceiling. These fittings provide a high technical efficiency with a low glare index and also give the impression of a panel of

light due to the fact that from almost all normal angles of vision the spine is invisible.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



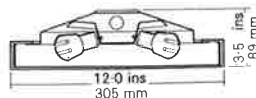
KSP/R2685

### RANGE AND PRICES (applicable to UK only)

Complete fitting				Components											
Nom. length	Rating	Circuit	Cat. no.	Contract Price	P.T.	Diffuser	Contract Price	P.T.	Batten	Contract Price	P.T.				
ft				£ s d	£ s d	Cat. no.	£ s d	£ s d	Cat. no.	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d
6ft	85w Twin	Resonant Start	KSP/R2685	11 19 0	2 4 0	KSP-26	2 17 0	18 4	KS-R2685	9 2 0	1 5 8				
8ft	85w Twin	Quickstart	KSP/Q2085	16 1 0	3 0 6	KSP-28	4 1 0	1 6 1	KS-Q2085	12 0 0	1 14 5				

### DIMENSIONS

Cat. no.	Length	Weight (inc. Tubes)	Fixing centres		
	in mm	lb kg	in mm	in mm	in mm
KSP/R2685	72 1829	28.0 12.7	24 610		
KSP/Q2085	96 2438	33.9 15.3	48 1220		





# atlas

## Shallow prismatic fitting

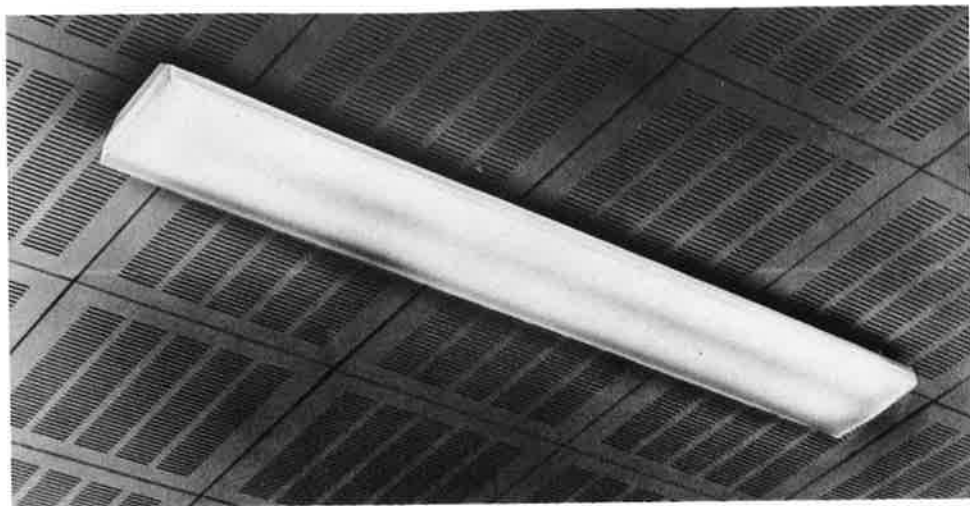
The neat and modern appearance of this fitting is achieved by a clean simplicity of line. The prismatic enclosure is formed from clear polystyrene, designed to direct light mainly downwards. The enclosure is supported on a full length flange along both sides of the metal spine and angle brackets permit individual adjustment. Fitting can be readily mounted close to ceiling, alternatively, suspended on conduit or chain. Designed for use with twin 6ft 85w tubes.

The Shallow Prismatic fitting is specifically designed

for mounting in continuous lines with through wiring. Separate end fins allow easy installation and removal of the prismatic controller.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



F.72526

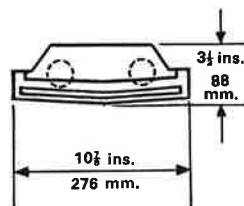
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Contract Price				P.T.				Components			
				£	s	d		£	s	d		Diffuser Cat. no.	Contract Price £ s d	P.T. £ s d	
6ft	85w Twin	Resonant Start	F.72526	13	6	0		2	16	0		D.7526	3 10 0	1 2 7	

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
F.72526	71.6	1816	33.1	15.1	24	610





a comprehensive range of  
modular fittings  
for fluorescent lighting

Take a look at our new 'Format' range and you will see that we have combined art and science to present you with an attractively designed and infinitely adaptable range of modular fluorescent fittings.

'Format' blends functional efficiency with distinction of styling. The design is based on information obtained from a survey of architects. We asked them which features would be most acceptable to them in this field of lighting.

We took note of the various requirements of strength, elegance, adaptability, ease of installation and servicing and, not least, continuously reliable performance.

Then we went away and designed 'Format', a versatile range comprising 88 different fittings in Surface, Trimmed Module and Frameless Module versions. Here is the basis for every possible layout, a specification for every fluorescent lighting application.

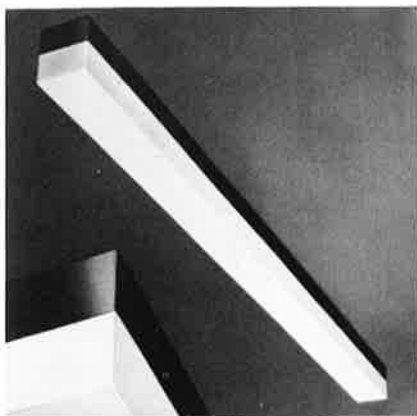
'Format' also looks ahead to the metric future of 1971. The Surface (SM) types are in metric dimensions, and the recessed fittings (TM & FM) types can be ordered in a metric module if required.

In producing 'Format' we have set out to meet as closely as possible the real needs of the architect, now and in the future. It is for you to judge how well we have succeeded.

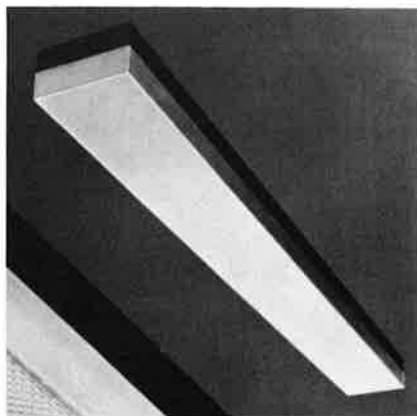
# atlas

## Format 1SM & 2SM fittings

D=OPAL DIFFUSER O=OPAL SIDES, PRISMATIC BASE P=PRISMATIC CONTROLLER



1.SMD/1685



2.SMP/2685

An attractive surface mounted fitting having a black metal body with a choice of attractive attachments. With modern building methods in mind the overall depth of the fitting has been kept to a shallow 115mm. Sizes to meet most requirements are available. The body of the fitting is of welded construction to form a rigid unit and is manufactured from sheet metal which is bonderized and stove enamelled, semi-matt black outside and gloss white inside, with a hard alkylid paint. Fittings are supplied with secure spring clips for attachment fixing.

Attachments seat against polyurethane foam gaskets secured to the housing to make the fittings dust-excluding. They consist of fabricated re-entrant opal diffusers, prismatic controllers or opal sides with prismatic base types.

Control gear is prewired and fixed in the housing and tubes are held by spring loaded bi-pin lampholders to facilitate either end relamping. All fitting wiring is to a 3-way fused terminal block for customers' incoming mains connections. All circuits are of the switchless start type.

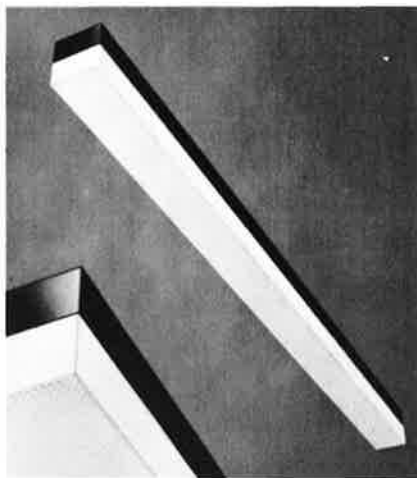
The main cable entry is at the centre (the 2.SMB.2685 has additional entries at 305mm (12in) each side of the centre) or by knockouts in each vertical end of the fitting. All cable entry holes are 19.8mm dia. ( $\frac{3}{4}$ in) and a plastic grommet is provided to give a fair lead to the incoming wires.

Close ceiling mounting is recommended although suspension by 4- $\frac{3}{4}$ in diameter conduit (2- $\frac{3}{4}$ in diameter on 100mm wide fittings) can be used. (As illustrated.) Allowance has been made in the design for continuous mounting of fittings by the use of standard contractors' items through 19.8mm knockouts in the ends of the housings. (As illustrated.)

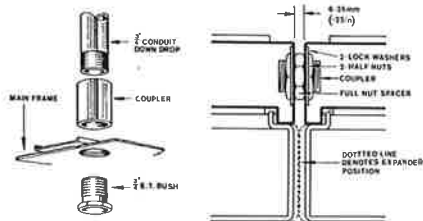
These fittings comply with B.S. 3820: 1964 for Class 1, ordinary, indoor, normal atmospheres.

The complete fitting (excluding tubes) is guaranteed for three years provided that it is correctly installed and maintained and is not subject to mis-use from any cause. Tubes are not fitted as standard. Ambient temperature at fitting level should not exceed 25°C.

Prices are for fittings suitable for use on 240v 50Hz supplies. Prices for fittings for other supplies on application.



1.SMO/1685



# atlas

## Format 1SM & 2SM fittings

D=OPAL DIFFUSER O=OPAL SIDES, PRISMATIC BASE P=PRISMATIC CONTROLLER

### RANGE AND PRICES (applicable to UK only)

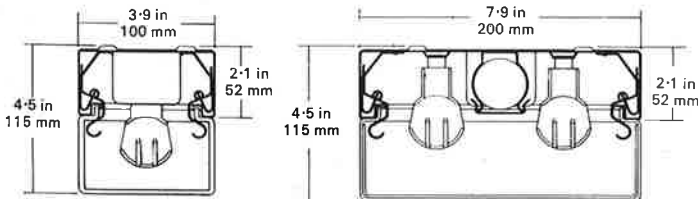
Complete fitting				Cat. no.	Contract Price (ex. P.T.)			P.T.		
Nom. length	Rating	No. of tubes	Circuit		£	s	d	£	s	d
4ft	40w	One	Quickstart	1.SMD/1040	6	4	0	1	6	4
4ft	40w	One	Quickstart	1.SMO/1040	8	7	0	2	0	2
4ft	40w	One	Quickstart	1.SMP/1040	8	18	0	2	3	9
6ft	85w	One	Resonant Start	1.SMD/1685	7	11	0	1	12	2
6ft	85w	One	Resonant Start	1.SMO/1685	9	14	0	2	6	0
6ft	85w	One	Resonant Start	1.SMP/1685	10	5	0	2	9	7
4ft	40w	Two	Quickstart	2.SMD/2040	10	4	0	1	18	7
4ft	40w	Two	Quickstart	2.SMO/2040	11	17	0	2	9	3
4ft	40w	Two	Quickstart	2.SMP/2040	12	7	0	2	12	5
6ft	85w	Two	Resonant Start	2.SMD/2685	12	2	0	2	5	1
6ft	85w	Two	Resonant Start	2.SMO/2685	13	9	0	2	13	9
6ft	85w	Two	Resonant Start	2.SMP/2685	14	0	0	2	17	4

Components		Diffuser Cat. no.	Contract Price (ex. P.T.)			Spine Cat. no.	Contract Price (ex. P.T.)		
Complete fitting Cat. no.			£	s	d		£	s	d
1.SMD/1040		1.SMD.4	1	10	0	1.SMB.1040	4	14	0
1.SMO/1040		1.SMO.4	3	13	0	1.SMB.1040	4	14	0
1.SMP/1040		1.SMP.4	4	4	0	1.SMB.1040	4	14	0
1.SMD/1685		1.SMD.6	1	18	0	1.SMB.1685	5	13	0
1.SMO/1685		1.SMO.6	4	11	0	1.SMB.1685	5	13	0
1.SMP/1685		1.SMP.6	4	12	0	1.SMB.1685	5	13	0
2.SMD/2040		2.SMD.4	2	11	0	2.SMB.2040	7	13	0
2.SMO/2040		2.SMO.4	4	4	0	2.SMB.2040	7	13	0
2.SMP/2040		2.SMP.4	4	14	0	2.SMB.2040	7	13	0
2.SMD/2685		2.SMD.6	3	2	0	2.SMB.2685	9	0	0
2.SMO/2685		2.SMO.6	4	9	0	2.SMB.2685	9	0	0
2.SMP/2685		2.SMP.6	5	0	0	2.SMB.2685	9	0	0

### DIMENSIONS

Cat. no.	Fitting size		length in	width in	Approx. weight (inc. tubes)		Fixing centres		length in	width in
	length mm	width mm			kg	lb	length mm	width mm		
1.SMD/1040	1300	100	51.2	3.9	5.1	11.2	610	*CL	24.0	*CL
1.SMO/1040	1300	100	51.2	3.9	5.1	11.2	610	*CL	24.0	*CL
1.SMP/1040	1300	100	51.2	3.9	5.1	11.2	610	*CL	24.0	*CL
1.SMD/1685	1850	100	72.8	3.9	6.6	14.7	900	*CL	35.4	*CL
1.SMO/1685	1850	100	72.8	3.9	6.6	14.7	900	*CL	35.4	*CL
1.SMP/1685	1850	100	72.8	3.9	6.6	14.7	900	*CL	35.4	*CL
2.SMD/2040	1300	200	51.2	7.9	8.4	18.5	610	100	24.0	3.9
2.SMO/2040	1300	200	51.2	7.9	8.4	18.5	610	100	24.0	3.9
2.SMP/2040	1300	200	51.2	7.9	8.4	18.5	610	100	24.0	3.9
2.SMD/2685	1850	200	72.8	7.9	10.9	24.0	900	100	35.4	3.9
2.SMO/2685	1850	200	72.8	7.9	10.9	24.0	900	100	35.4	3.9
2.SMP/2685	1850	200	72.8	7.9	10.9	24.0	900	100	35.4	3.9

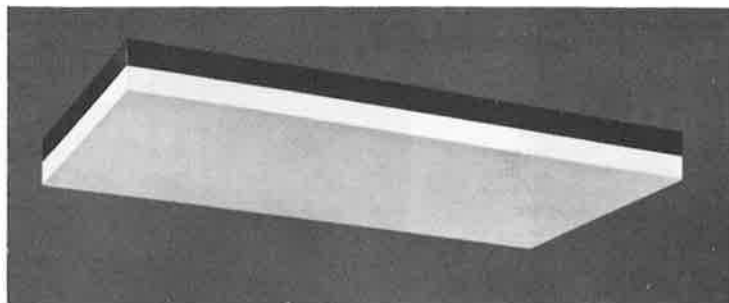
\*CL - centre line



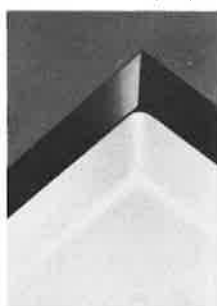
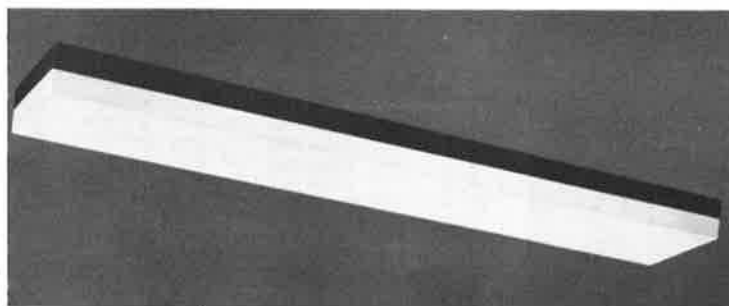
# atlas

## Format 3SM & 4SM fittings

D = OPAL DIFFUSER O = OPAL SIDES, PRISMATIC BASE



4.SMO/3685



3.SMD/2685

An attractive surface mounted fitting having a black metal body with a choice of attractive attachments.

With modern building methods in mind the overall depth of the fitting has been kept to a shallow 115mm. Sizes to meet most requirements are available.

The body of the fitting is of welded construction to form a rigid unit and is manufactured from sheet metal which is bonderized and stove enamelled, semi-matt black outside and gloss white inside, with a hard alkyd paint. Fittings have snap action toggles for attachment fixing.

Attachments seat against polyurethane foam gaskets secured to the housing to make the fittings dust-excluding. They consist of one-piece re-entrant opal diffusers or fabricated opal sides with prismatic base types.

Control gear is prewired and fixed in the housing and tubes are held by spring loaded bi-pin lampholders to facilitate either end relamping. All fitting wiring is to a 3-way fused terminal block for customers' incoming mains connections. All circuits are of the switchless start type.

The main cable entry is at the centre but alternative entries are provided (except on 4SMB3040) at 305mm (12in) each side of the centre or by knockouts in each vertical end of the fitting.

All cable entry holes are 19.8mm dia. (3/4in) and a plastic grommet is provided to give a fair lead to the incoming wires.

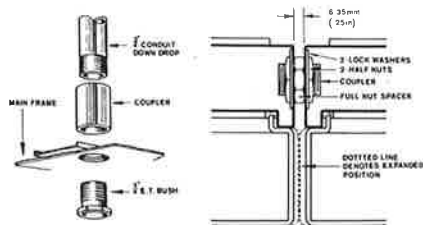
Close ceiling mounting is recommended although suspension by 4-1/2in diameter conduit can be used. (As illustrated.)

Allowance has been made in the design for continuous mounting of fittings by the use of standard contractors' items through 19.8mm knockouts in the ends of the housings. (As illustrated.)

These fittings comply with B.S. 3820: 1964 for Class 1, ordinary, indoor, normal atmospheres.

The complete fitting (excluding tubes) is guaranteed for three years provided that it is correctly installed and maintained and is not subject to mis-use from any cause. Tubes are not fitted, as standard Ambient temperature at fitting level should not exceed 25°C.

Prices are for fittings suitable for use on 240v 50Hz supplies. Prices of fittings for other supplies on application.



# atlas

## Format 3SM & 4SM fittings

D = OPAL DIFFUSER O = OPAL SIDES, PRISMATIC BASE

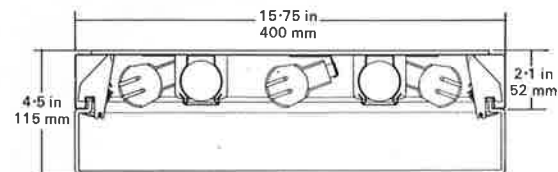
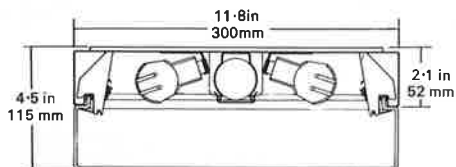
### RANGE AND PRICES (applicable to UK only)

Complete fitting						Contract Price			P.T.		
Nom. length	Rating	No. of tubes	Circuit	Cat. no.		£	s	d	£	s	d
6ft	85w	Two	Resonant Start	3.SMD/2685		15	1	0	3	4	1
6ft	85w	Two	Resonant Start	3.SMO/2685		16	13	0	3	14	4
4ft	40w	Three	Quickstart	4.SMD/3040		15	12	0	2	19	9
6ft	85w	Three	Resonant Start	4.SMD/3685		18	17	0	3	12	2
6ft	85w	Three	Resonant Start	4.SMO/3685		20	9	0	4	2	5

Components		Contract Price			P.T.			Spine			Contract Price			P.T.		
Complete fitting	Diffuser	(ex. P.T.)			£ s d			Cat. no.			(ex. P.T.)			£ s d		
Cat. no.	Cat. no.															
3.SMD/2685	3.SMD.6	5	6	0	1	14	2	3.SMB.2685	9	15	0	1	9	11		
3.SMO/2685	3.SMO.6	6	18	0	2	4	5	3.SMB.2685	9	15	0	1	9	11		
4.SMD/3040	4.SMD.4	4	13	0	1	10	0	4.SMB.3040	10	19	0	1	9	9		
4.SMD/3685	4.SMD.6	5	16	0	1	17	1	4.SMB.3685	13	2	0	1	15	1		
4.SMO/3685	4.SMO.6	7	7	0	2	7	4	4.SMB.3685	13	2	0	1	15	1		

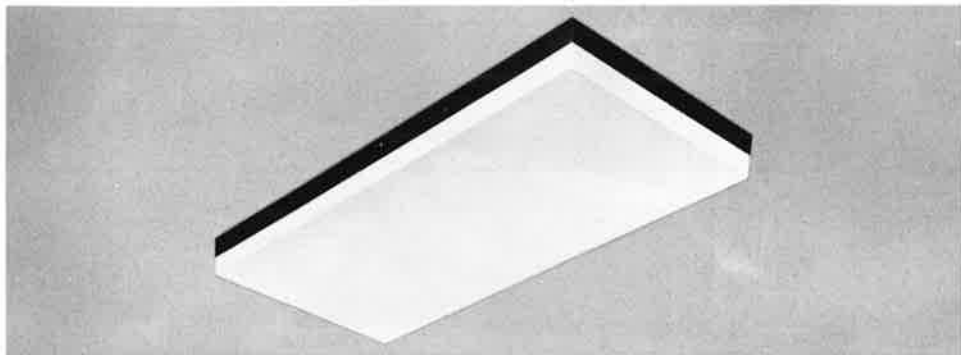
### DIMENSIONS

Cat. no.	Fitting size		length in	width in	Approx. weight		Fixing centres			
	length mm	width mm			(inc. tubes) kg	lb	length mm	width mm	length in	width in
3.SMD/2685	1850	300	72.8	11.8	13.4	29.5	900	100	35.4	3.9
3.SMO/2685	1850	300	72.8	11.8	13.4	29.5	900	100	35.4	3.9
4.SMD/3040	1300	400	51.2	15.75	13.7	30.2	610	200	24.0	7.9
4.SMD/3685	1850	400	72.8	15.75	17.9	39.5	900	200	35.4	7.9
4.SMO/3685	1850	400	72.8	15.75	17.9	39.5	900	200	35.4	7.9



## Format 5SM, QSM & OSM fittings

D=OPAL DIFFUSER O=OPAL SIDES, PRISMATIC BASE



An attractive surface mounted fitting having a black metal body with a choice of attractive attachments. With modern building methods in mind the overall depth of the fitting has been kept to a shallow 115mm. Sizes to meet most requirements are available. The body of the fitting is of welded construction to form a rigid unit and is manufactured from sheet metal which is bonderized and stove enamelled, semi-matt black outside and gloss white inside, with a hard alkyd paint. Fittings are supplied with snap action toggles for attachment fixing.

Attachments seat against polyurethane foam gaskets secured to the housing to make the fittings dust-excluding. They consist of one-piece re-entrant opal diffusers or fabricated opal sides with prismatic base types. Control gear is prewired and fixed in the housing and linear tubes are held by spring loaded bi-pin lampholders to facilitate either end relamping. All fitting wiring is to a 3-way fused terminal block for customers' incoming mains connections. All circuits are of the switchless start type, except for the circular fitting which is switchstart.

On the circular fitting a cable entry is provided centrally together with slotted holes to suit a small conduit box. Cable entry on the square fitting is offset on the centre line of the fitting by 203mm (8in). On linear fittings the main cable entry is at the centre (the 5.SMB.4685 has additional entries at 305mm (12in) each side of the centre) or by knockouts in each vertical end of the fitting. All cable entry holes are 19.8mm dia. (3/4in) and a plastic grommet is provided to give a fair lead to the incoming wires.

Close ceiling mounting is recommended although suspension by 4-3/4in diameter conduit can be used. (As illustrated.) The circular fitting is only for surface mounting.

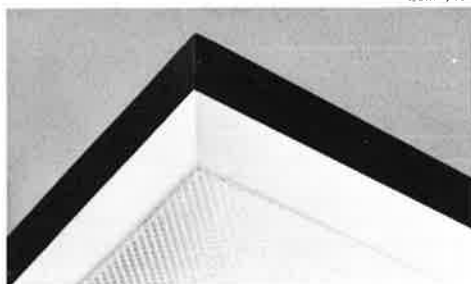
Allowance has been made in the design for continuous mounting of linear fittings by the use of standard contractors' items through 19.8mm knockouts in the ends of the housings. (As illustrated.)

These fittings comply with B.S. 3820: 1964 for Class 1, ordinary, indoor, normal atmospheres. The complete fitting (excluding tubes) is guaranteed for three years provided that it is correctly installed and maintained and is not subject to mis-use from any cause. Ambient temperature at fitting level should not exceed 25°C.

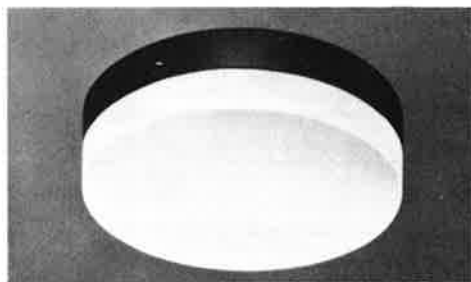
Tubes are not fitted as standard except on the circular fitting which is supplied complete with 32w and 40w Warm White tubes.

Prices are for fittings suitable for use on 240v 50Hz supplies. Prices of fittings for other supplies on application.

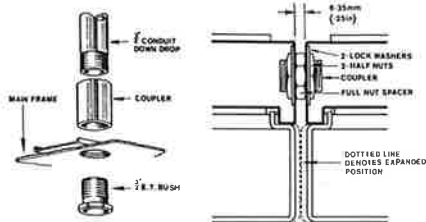
5.SMD/4040



Q.SMO/4020



O.SMD.3240





# atlas

## Format 5SM, QSM & OSM fittings

D — OPAL DIFFUSER    O — OPAL SIDES, PRISMATIC BASE

### RANGE AND PRICES (applicable to UK only)

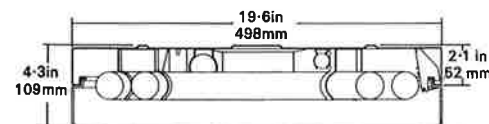
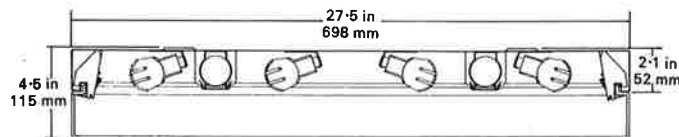
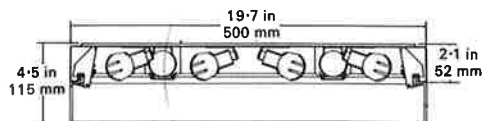
Complete fitting					Contract Price (ex. P.T.)			P.T.		
Nom. length	Rating	No. of tubes	Circuit	Cat. no.	£	s	d	£	s	d
4ft	40w	Four	Quickstart	5.SMD/4040	20	9	0	3	17	4
4ft	40w	Four	Quickstart	5.SMO/4040	21	0	0	4	0	11
6ft	85w	Four	Resonant Start	5.SMD/4685	24	15	0	4	13	7
6ft	85w	Four	Resonant Start	5.SMO/4685	26	7	0	5	3	10
2ft	20w	Four	Quickstart	Q.SMD/4020	13	8	0	2	7	0
2ft	20w	Four	Quickstart	Q.SMO/4020	13	14	0	2	8	11
Circ.	32w + 40w	Two	Switchstart	O.SMD/3240	10	4	0*	2	5	0

\* This fitting is packed complete with warm white tubes. Price of fitting does not include tubes. Net trade price of tubes £24.0. P.T. 15s 9d.

Components														
Complete fitting Cat. no.	Diffuser Cat. no.	Contract Price (ex. P.T.)			P.T.			Spine Cat. no.	Contract Price (ex. P.T.)			P.T.		
		£	s	d	£	s	d		£	s	d	£	s	d
5.SMD/4040	5.SMD.4	6	4	0	1	19	11	5.SMB.4040	14	5	0	1	17	5
5.SMO/4040	5.SMO.4	6	15	0	2	3	6	5.SMB.4040	14	5	0	1	17	5
5.SMD/4685	5.SMD.6	7	10	0	2	8	4	5.SMB.4685	17	5	0	2	5	3
5.SMO/4685	5.SMO.6	9	2	0	2	18	7	5.SMB.4685	17	5	0	2	5	3
Q.SMD/4020	Q.SMD.2	4	8	0	1	8	4	Q.SMB.4020	9	0	0	18	8	
Q.SMO/4020	Q.SMO.2	4	14	0	1	10	3	Q.SMB.4020	9	0	0	18	8	
O.SMD/3240	O.SMD.Circ.	2	19	0	19	0		O.SMB.3240	7	5	0	1	6	

### DIMENSIONS

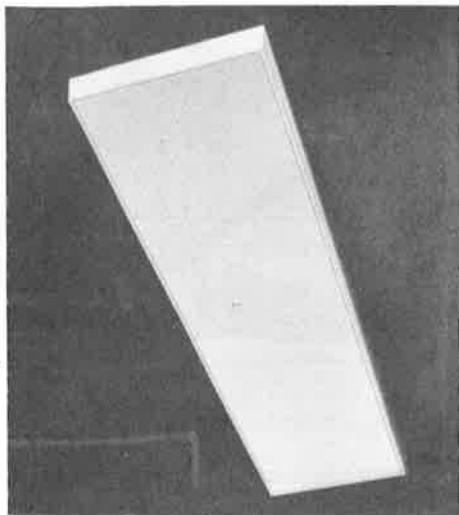
Cat. no.	Fitting size length mm	width mm	length in	width in	Approx. weight (inc. tubes)		Fixing centres length mm	width mm	length in	width in
					kg	lb				
5.SMD/4040	1300	500	51.2	19.7	17.9	39.5	610	200	24.0	7.9
5.SMD/4040	1300	500	51.2	19.7	17.9	39.5	610	200	24.0	7.9
5.SMD/4685	1850	500	72.8	19.7	23.3	51.4	900	200	35.4	7.9
5.SMD/4685	1850	500	72.8	19.7	23.3	51.4	900	200	35.4	7.9
Q.SMD/4020	698	698	27.5	27.5	13.3	29.3	406	406	16	16
Q.SMD/4020	698	698	27.5	27.5	13.3	29.3	406	406	16	16
O.SMD.3240	498	dia	19.6	dia	7.2	15.8	4 x 4.8 dia on 305 PCD		4 x 2.8 dia on 12 PCD	



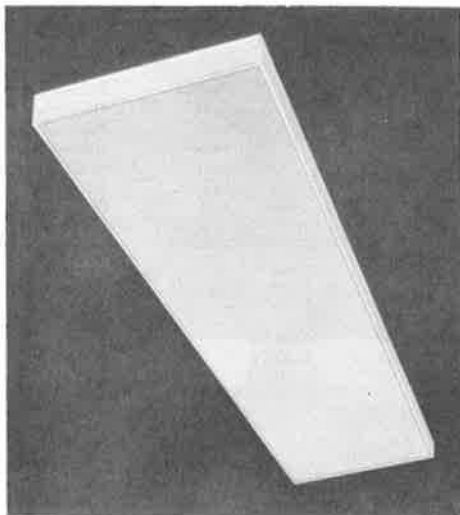
# atlas

## Format 1FM fittings

D=OPAL DIFFUSER P=PRISMATIC CONTROLLER



1.FMD/2040



1.FMP/2040

An attractive recessed modular fitting, designed for use in a wide range of suspended ceilings. It can be fitted with either an opal diffusing dish or clear prismatic controller and when these are in place, no metalwork is visible. With modern building methods in mind the overall depth of the recessed housing has been kept as shallow as possible. Sizes to meet panel layouts of 1ft x 4ft and 6ft are available.

The body and invisible trim are welded to form a rigid unit which can be installed in the aperture of a false ceiling in minimum time. The control gear is prewired and fixed to the inside of the housing.

The diffuser or controller attachments are simply offered straight up to the housing and are securely held by snap action toggle catches.

Three standard methods of suspension have been allowed for in the design of these fittings, as follows:

- Normal  $\frac{3}{4}$ in diameter conduit through  $\frac{1}{2}$ in diameter holes, or
- Side suspension arms (TM 4600), fully adjustable for levelling, engage on the ceiling structure. This method allows the suspended ceiling to be fully installed before the lighting fittings are added.
- Side suspension by wood screws into suitable wooden battens located each side of the fitting.

Housings are constructed in sheet metal which is bonderized and stove enamelled white with a hard alkyd paint. Diffusers are fabricated from opal extrusion sections and controllers from clear prismatic sections.

Tubes just project through the ends of the fitting and allowance must be made during installation for up to 3in clear void space at one end of the fitting to allow for tube replacement. If required there are available, as optional extras, end box assemblies for closing the opening in the ends of the housings.

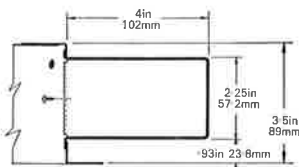
All control gear is of the switchless start type wired back to a 3-way fused terminal block for customers' incoming mains connections. Tubes are held by clip-in spring clips and lampholders are of the shrouded bi-pin push-on pattern.

This FM-Range is offered based on British Modular dimensions at the present time but can be supplied, on application, to Metric Modular dimensions of 300mm x 1200mm and 1800mm.

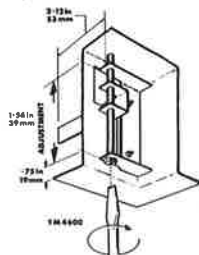
These fittings comply with B.S. 3820:1964 for Class 1, ordinary, indoor, normal atmospheres.

The complete fitting (excluding tubes) is guaranteed for three years provided that it is correctly installed and maintained and not subject to mis-use from any cause. Ambient temperature at fitting level should not exceed 25°C. It is suggested that advice be sought from your nearest Atlas office on the use of these fittings.

Prices are for fittings suitable for use on 240v 50Hz supplies. Prices of fittings for other supplies on application.



OPTIONAL END BOX  
1.TM 4601



# atlas

## Format 1FM fittings

D = OPAL DIFFUSER P = PRISMATIC CONTROLLER

Information given in these tables is for the 'D' (Diffuser) version.

The 'P' (Prismatic) version is identical and data/price is obtained by substituting 'P' for 'D' in the catalogue numbers.

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Contract Price (ex. P.T.) £ s d	P.T. £ s d
4ft	40w	One	Quickstart	1.FMD/1040	8 3 0	1 18 11
4ft	40w	Two	Quickstart	1.FMD/2040	11 10 0	2 6 11
6ft	85w	One	Resonant Start	1.FMD/1685	10 6 0	2 9 11
6ft	85w	Two	Resonant Start	1.FMD/2685	14 12 0	3 1 1

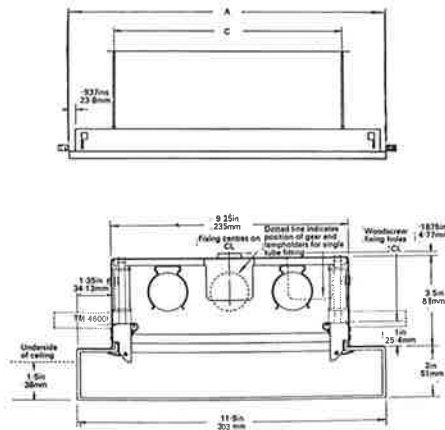
#### Components

Complete fitting Cat. no.	Diffuser Cat. no.	Contract Price (ex. P.T.) £ s d	P.T. £ s d	Housing Cat. no.	Contract Price (ex. P.T.) £ s d	P.T. £ s d
1.FMD/1040	1.FMD.4	3 12 0	1 3 2	1.FMB.1040	4 11 0	15 9
1.FMD/2040	1.FMD.4	3 12 0	1 3 2	1.FMB.2040	7 18 0	1 3 9
1.FMD/1685	1.FMD.6	4 16 0	1 10 11	1.FMB.1685	5 10 0	19 0
1.FMD/2685	1.FMD.6	4 16 0	1 10 11	1.FMB.2685	9 16 0	1 10 2

### DIMENSIONS

Cat. no.	Fitting size mm Dim. 'A'	width mm	length in Dim. 'A'	width in	Approx. weight (inc. tubes) kg lb	Fixing centres length mm Dim. 'C'	width mm	length in Dim. 'C'	width in
1.FMD/1040	1217	303	47.9	11.9	9.4 20.7	914	*CL	36	*CL
1.FMD/2040	1217	303	47.9	11.9	11.7 25.4	914	*CL	36	*CL
1.FMD/1685	1827	303	71.9	11.9	15.8 34.8	1372	*CL	54	*CL
1.FMD/2685	1827	303	71.9	11.9	18.7 41.9	1372	*CL	54	*CL

\*CL - centre line.



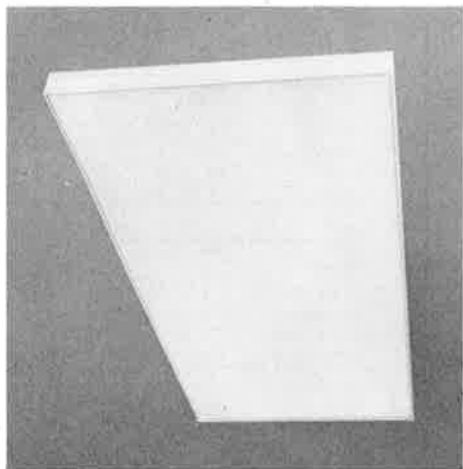
### ACCESSORIES

Cat. no.	Description	Contract (ex. P.T.) £ s d	P.T. £ s d
TM 4600	Side suspension arm set (4 per set)	1 14 0	—
1.TM 4601	End box set	11 0 0	3 7

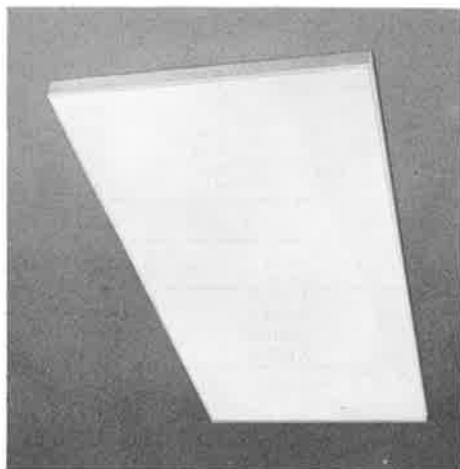
# atlas

## Format 2FM fittings

D = OPAL DIFFUSER P = PRISMATIC CONTROLLER



2.FM/P/4040



2.FM/D/4040

An attractive recessed modular fitting, designed for use in a wide range of suspended ceilings, having no visible metalwork when installed with either an opal diffusing dish or a clear prismatic controller.

With modern building methods in mind the overall depth of the recessed housing has been kept as shallow as possible. Sizes to meet panel layouts of 2ft x 2ft, 4ft, 6ft and 8ft are available.

The body and invisible trim are welded to form a rigid unit which can be installed in the aperture of a false ceiling in minimum time. The control gear is prewired and fixed to gear trays which are simply hooked into the housing and hinged into position – this arrangement facilitates servicing from below the unit or trays may be completely removed, if desired, for workshop servicing away from the fitting.

The diffuser or controller attachments are simply offered straight up to the housing and are securely held by snap action toggle catches.

Four standard methods of suspension have been allowed for in the design of these fittings, as follows:

- Normal  $\frac{3}{4}$ in diameter conduit through  $\frac{1}{2}$ in diameter holes, or
- Side suspension arms (TM4600) onto the suspended ceiling structure (this method allows the suspended ceiling to be fully installed before the lighting and is fully adjustable for levelling of the fitting relative to the ceiling), or
- Adjustable suspension (KL4601) for use where a top fixing is required but conduit is not suitable, or
- Side suspension by wood screws into suitable wooden battens located each side of the fitting.

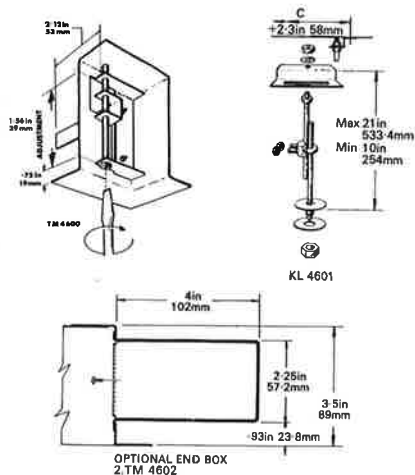
Housings are constructed in sheet metal which is bonderized and stove enamelled white with a hard alkyd paint. Diffusers are fabricated from opal extrusion sections and controllers from clear prismatic sections. Tubes just project through the ends of the fitting and allowance must be made during installation for up to 3in clear void space at one end of the fitting to allow for tube replacement. If required there are available, as optional extras, end box assemblies for closing the opening in the ends of the housings.

All control gear is of the switchless start type, wired back to a 3-way fused terminal block for customers' incoming mains connections. Tubes are held by clip-in spring clips and lampholders are of the shrouded bi-pin push-on pattern.

This FM Range is offered based on British Modular dimensions at the present time but can be supplied, on application, to Metric Modular dimensions of 600mm x 600mm, 1200mm, 1800mm and 2400mm.

These fittings comply with B.S. 3820:1964 for Class 1, ordinary, indoor, normal atmospheres. The complete fitting (excluding tubes) is guaranteed for three years provided that it is correctly installed and maintained and not subject to mis-use from any cause. Ambient temperature of fitting level should not exceed 25°C. It is suggested that advice be sought from your nearest Atlas office on the use of these fittings.

*Prices are for fittings suitable for use on 240v 50Hz supplies. Prices of fittings for other supplies on application.*



# atlas

## Format 2FM fittings

D=OPAL DIFFUSER P=PRISMATIC CONTROLLER

Information given in these tables is for the 'D' (Diffuser) version.

The 'P' (Prismatic) version is identical and data/price is obtained by substituting 'P' for 'D' in the catalogue numbers.

### RANGE AND PRICES (applicable to UK only)

Complete fitting						Contract Price (ex. P.T.)		P.T.	
Nom. length	Rating	No. of tubes	Circuit	Cat. no.		£	s d	£	s d
2ft	20w	Two	Quickstart	2.FM/D/2020		9	17 0	2	7 10
2ft	20w	Four	Quickstart	2.FM/D/4020		13	0 0	2	12 6
4ft	40w	Two	Quickstart	2.FM/D/2040		13	15 0	3	4 0
4ft	40w	Three	Quickstart	2.FM/D/3040		16	10 0	3	9 5
4ft	40w	Four	Quickstart	2.FM/D/4040		19	5 0	3	14 10
6ft	85w	Two	Resonant Start	2.FM/D/2685		17	11 0	4	0 4
6ft	85w	Three	Resonant Start	2.FM/D/3685		21	2 0	4	6 10
6ft	85w	Four	Resonant Start	2.FM/D/4685		24	13 0	4	13 4
8ft	85w	Two	Quickstart	2.FM/D/2085		23	8 0	5	8 0
8ft	85w	Three	Quickstart	2.FM/D/3085		27	15 0	5	14 8
8ft	85w	Four	Quickstart	2.FM/D/4085		32	2 0	6	1 4

Components		Contract Price (ex. P.T.)		P.T.		Gear Tray		Contract Price (ex. P.T.)		P.T.		Housing		Contract Price (ex. P.T.)		P.T.	
Complete fitting	Diffuser	£	s d	£	s d	Cat. no.		£	s d	£	s d	Cat. no.		£	s d	£	s d
2.FM/D/2020	2.FMD.2	4	1 0	1	6 1	2.TM.2020		3	3 0	4	8	2.FMB.2		2	13 0	17	1
2.FM/D/4020	2.FMD.2	4	1 0	1	6 1	2.TM.4020†		6	6 0	9	4	2.FMB.2		2	13 0	17	1
2.FM/D/2040	2.FMD.4	4	8 0	1	8 4	2.TM.2040		5	10 0	10	10	2.FMB.4		3	17 0	1	4 10
2.FM/D/3040	2.FMD.4	4	8 0	1	8 4	2.TM.3040*		8	5 0	16	3	2.FMB.4		3	17 0	1	4 10
2.FM/D/4040	2.FMD.4	4	8 0	1	8 4	2.TM.4040††		11	0 0	21	8	2.FMB.4		3	17 0	1	4 10
2.FM/D/2685	2.FMD.6	5	13 0	1	16 5	2.TM.2685		7	2 0	13	0	2.FMB.6		4	16 0	1	10 11
2.FM/D/3685	2.FMD.6	5	13 0	1	16 5	2.TM.3685**		10	13 0	19	6	2.FMB.6		4	16 0	1	10 11
2.FM/D/4685	2.FMD.6	5	13 0	1	16 5	2.TM.4685†††		14	4 0	26	0	2.FMB.6		4	16 0	1	10 11
2.FM/D/2085	2.FMD.8‡	8	16 0	2	16 8	2.TM.2085		8	14 0	13	4	2.FMB.8		5	18 0	1	18 0
2.FM/D/3085	2.FMD.8‡	8	16 0	2	16 8	2.TM.3085***		13	1 0	20	0	2.FMB.8		5	18 0	1	18 0
2.FM/D/4085	2.FMD.8‡	8	16 0	2	16 8	2.TM.4085††††		17	8 0	26	8	2.FMB.8		5	18 0	1	18 0

\*2.TM.3040 = 2.TM.1040 + 2.TM.2040

\*\*2.TM.3685 = 2.TM.1685 + 2.TM.2685

\*\*\*2.TM.3085 = 2.TM.1085 + 2.TM.2085

†2.TM.4020 = 2 x 2.TM.2020

††2.TM.4040 = 2 x 2.TM.2040

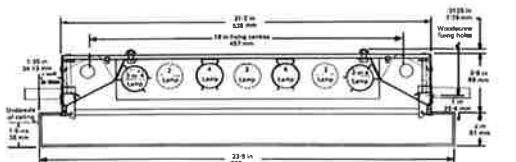
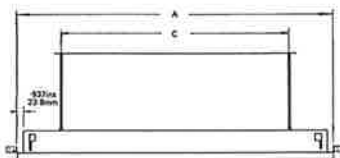
†††2.TM.4685 = 2 x 2.TM.2685

††††2.TM.4085 = 2 x 2.TM.2085

‡2.FMD.8 = 2 x 2.FMD.4

### DIMENSIONS

Cat. no.	Fitting size		length		width		Approx. weight		Fixing centres		length		width	
	length mm	width mm	length in	width in	length in	width in	kg	lb	length mm	width mm	length in	width in	length in	width in
2.FM/D/2020	608	608	23-9	23-9	9-5	20-9	457	457	18	18	18	18	18	18
2.FM/D/4020	608	608	23-9	23-9	12-5	27-6	457	457	18	18	18	18	18	18
2.FM/D/2040	1217	608	47-9	23-9	16-9	37-3	914	457	36	18	18	18	18	18
2.FM/D/3040	1217	608	47-9	23-9	19-0	41-9	914	457	36	18	18	18	18	18
2.FM/D/4040	1217	608	47-9	23-9	21-2	46-8	914	457	36	18	18	18	18	18
2.FM/D/2685	1827	608	71-9	23-9	27-1	59-8	1372	457	54	18	18	18	18	18
2.FM/D/3685	1827	608	71-9	23-9	30-3	66-8	1372	457	54	18	18	18	18	18
2.FM/D/4685	1827	608	71-9	23-9	34-5	76-1	1372	457	54	18	18	18	18	18
2.FM/D/2085	2436	608	95-9	23-9	41-2	90-8	1372	457	54	18	18	18	18	18
2.FM/D/3085	2436	608	95-9	23-9	45-4	100-0	1372	457	54	18	18	18	18	18
2.FM/D/4085	2436	608	95-9	23-9	50-7	111-8	1372	457	54	18	18	18	18	18



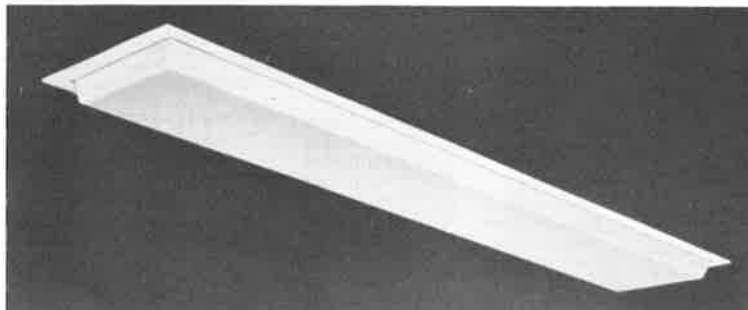
### ACCESSORIES

		Contract Price (ex. P.T.)		P.T.	
Cat. no.	Description	£	s d	£	s d
KL 4601	Adjustable suspension set (4 per set)	2	14 8	—	—
TM 4600	Side suspension arm set (4 per set)	1	11 6	—	—
2.TM 4602	End box set	12	9 4	2	2

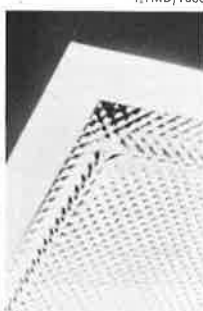
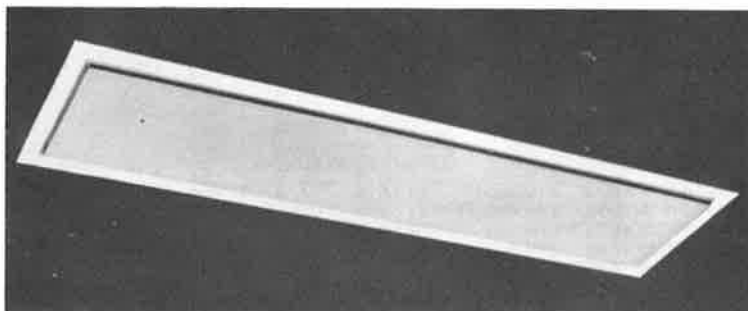
# atlas

## Format 1TM fittings

D = OPAL DIFFUSER P = PRISMATIC CONTROLLER



1,TMD/1685



1,TMP/1685

An attractive recessed modular fitting, designed for use in a wide range of suspended ceilings, having a slender, visible metal trim surrounding either an opal diffusing dish or a clear prismatic controller.

With modern building methods in mind the overall depth of the recessed housing has been kept as shallow as possible. Sizes to meet panel layouts of 1 ft x 4 ft, 6 ft or 8 ft are available.

The body and trim are welded to form a rigid unit which can be installed in the aperture of a false ceiling in minimum time. The control gear is prewired and fixed to the inside of the housing.

The diffuser or controller attachments are simply inserted into the trim where they should be centralized and are then retained by concealed springs and stops.

Three standard methods of suspension have been allowed for in the design of these fittings, as follows:

- Normal  $\frac{3}{4}$  in diameter conduit through  $\frac{3}{4}$  in diameter holes, or
- Side suspension arms (TM 4600) onto the suspended ceiling structure (this method allows the suspended ceiling to be fully installed before the lighting and is fully adjustable for levelling of the fitting relative to the ceiling), or
- Side suspension by wood screws into suitable wooden battens located each side of the fitting.

Housings are constructed in sheet metal which is bonderized and stove enamelled white with a hard alkyd paint. Diffusers are moulded from opal sheet and controllers from clear sheet.

Tubes just project through the ends of the fitting and allowance must be made during installation for up to 3 in clear void space at one end of the fitting to allow for tube replacement. If required there are available, as optional extras, end box assemblies for closing the openings in the ends of the housings.

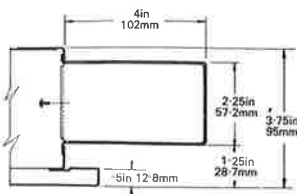
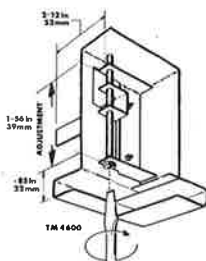
All control gear is of the switchless start type wired back to a 3-way fused terminal block for customers' incoming mains connections. Tubes are held by clip-on spring clips and lampholders are of the shrouded bi-pin push-on pattern.

This TM Range is offered based on British Modular dimensions at the present time but can be supplied, on application, to Metric Modular dimensions of 300mm x 1200mm, 1800mm and 2400mm.

These fittings comply with B.S. 3820: 1964 for Class 1, ordinary, indoor, normal atmospheres.

The complete fitting (excluding tubes) is guaranteed for three years provided that it is correctly installed and maintained and not subject to mis-use from any cause. Ambient temperature at fitting level should not exceed 25°C. It is suggested that advice be sought from your nearest Atlas office on the use of these fittings.

Prices are for fittings suitable for use on 240v 50Hz supplies. Prices of fittings for other supplies on application.



# atlas

## Format 1TM fittings

D=OPAL DIFFUSER P=PRISMATIC CONTROLLER

Information given in these tables is for the 'D' (Diffuser) version.

The 'P' (Prismatic) version is identical and data/price is obtained by substituting 'P' for 'D' in the catalogue numbers.

### RANGE AND PRICES (applicable to UK only)

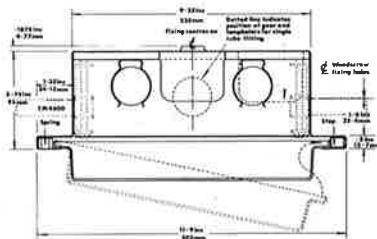
Complete fitting						Contract Price (ex. P.T.)	P.T.
Nom. length	Rating	No. of tubes	Circuit	Cat. no.		£ s d	£ s d
4ft	40w	One	Quickstart	1.TMD/1040		8 3 0	1 8 11
4ft	40w	Two	Quickstart	1.TMD/2040		11 10 0	2 6 11
6ft	85w	One	Resonant Start	1.TMD/1685		10 6 0	2 9 11
6ft	85w	Two	Resonant Start	1.TMD/2685		14 12 0	3 1 1
8ft	85w	One	Quickstart	1.TMD/1085		13 14 0	3 6 10
8ft	85w	Two	Quickstart	1.TMD/2085		18 5 0	3 16 4

Components		Contract Price (ex. P.T.)		P.T.	Contract Price (ex. P.T.)		P.T.
Complete fitting	Diffuser Cat. no.	£ s d	£ s d		£ s d	£ s d	£ s d
1.TMD/1040	1.TMD.4	2 16 0	18 0	1.TMB.1040	5 7 0	1 0 11	
1.TMD/2040	1.TMD.4	2 16 0	18 0	1.TMB.2040	8 14 0	1 8 11	
1.TMD/1685	1.TMD.6	4 0 0	1 5 9	1.TMB.1685	6 6 0	1 4 2	
1.TMD/2685	1.TMD.6	4 0 0	1 5 9	1.TMB.2685	10 12 0	1 15 4	
1.TMD/1085	1.TMD.8	4 9 0	1 8 8	1.TMB.1085	9 5 0	1 18 2	
1.TMD/2085	1.TMD.8	4 9 0	1 8 8	1.TMB.2085	13 16 0	2 7 8	

### DIMENSIONS

Cat. no.	Fitting size length mm Dim. 'A'	width mm Dim. 'B'	length in Dim. 'A'	width in Dim. 'B'	Approx. weight (inc. tubes) kg lb	Fixing centres length mm Dim. 'C'	width mm Dim. 'D'	length in Dim. 'C'	width in Dim. 'D'
1.TMD/1040	1217	303	47-9	11-9	9-4 20-7	914	*CL 36	*CL	
1.TMD/2040	1217	303	47-9	11-9	11-5 25-4	914	*CL 36	*CL	
1.TMD/1685	1827	303	71-9	11-9	15-8 34-8	1372	*CL 54	*CL	
1.TMD/2685	1827	303	71-9	11-9	19-0 41-9	1372	*CL 54	*CL	
1.TMD/1085	2436	303	95-9	11-9	24-2 53-4	1372	*CL 54	*CL	
1.TMD/2085	2436	303	95-9	11-9	28-4 62-6	1372	*CL 54	*CL	

\*CL - centre line.



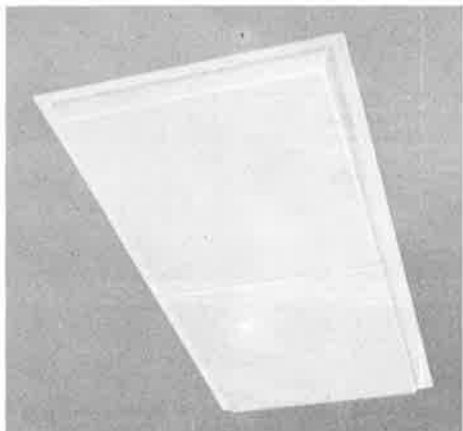
### ACCESSORIES

Cat. no.	Description	Contract (ex. P.T.)			P.T.
		£	s	d	
TM 4600	Side suspension arm set (4 per set)	1	14	0	—
1.TM 4601	End box set	11	0	3	7

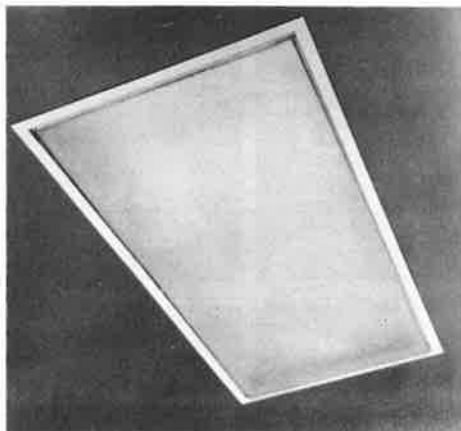
# atlas

## Format 2TM fittings

D=OPAL DIFFUSER P=PRISMATIC CONTROLLER



2TM/D/4040



2TM/P/4040

An attractive recessed modular fitting, designed for use in a wide range of suspended ceilings, having a slender, visible metal trim surrounding either an opal diffusing dish or a clear prismatic controller.

With modern building methods in mind the overall depth of the recessed housing has been kept as shallow as possible. Sizes to meet panel layouts of 2ft x 2ft, 4ft, 6ft and 8ft are available.

The body and trim are welded to form a rigid unit which can be installed in the aperture of a false ceiling in minimum time.

The control gear is prewired and fixed to gear trays which are simply hooked into the housing and hinged into position – this arrangement facilitates servicing from below the unit or the trays may be completely removed, if desired, for workshop servicing away from the fitting.

The diffuser or controller attachments are simply inserted into the trim where they should be centralized and are then retained by concealed springs and buffers. Four standard methods of suspension have been allowed for in the design of these fittings, as follows:

- Normal  $\frac{3}{4}$ in diameter conduit through  $\frac{3}{4}$ in diameter holes, or
- Side suspension arms onto the suspended ceiling structure (this method allows the suspended ceiling to be fully installed before the lighting and is fully adjustable for levelling of the fitting relative to the ceiling), or
- Adjustable suspension for use where a top fixing is required, but conduit is not suitable, or
- Side suspension by wood screws into suitable wooden battens located each side of the fitting.

Housings are constructed in sheet metal which is bonderized and stove enamelled white with a hard alkyd paint. Diffusers are moulded from opal sheet and controllers from clear sheet. 2ft x 8ft diffusers and controllers are each supplied in two half panels.

Tubes just project through the ends of the fitting and allowance must be made during installation for up to 3in clear void space at one end of the fitting to allow for tube replacement. If required there are available, as optional extras, end box assemblies for closing the openings in the ends of the housings.

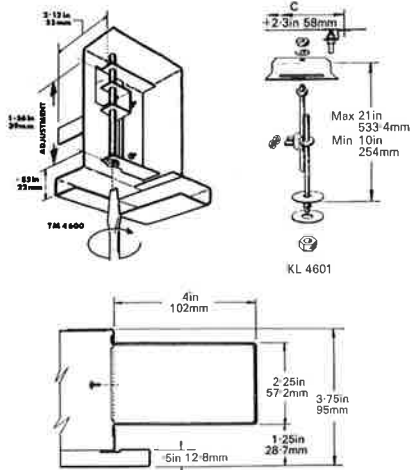
All control gear is of the switchless start type wired back to a 3-way fused terminal block for customers' incoming mains connections. Tubes are held by clip-in spring clips and lampholders are of the shrouded bi-pin push-on pattern.

This TM Range is offered based on British Modular dimensions at the present time but can be supplied, on application, to Metric Modular dimensions of 600mm x 600mm, 1200mm, 1800mm and 2400mm.

These fittings comply with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.

The complete fitting (excluding tubes) is guaranteed for three years provided that it is correctly installed and maintained and not subject to mis-use from any cause. Ambient temperature at fitting level should not exceed 25°C. It is suggested that advice be sought from your nearest Atlas office on the use of these fittings.

Prices are for fittings suitable for use on 240v 50Hz supplies. Prices of fittings for other supplies on application.





# atlas

## Format 2TM fittings

D=OPAL DIFFUSER P=PRISMATIC CONTROLLER

Information given in these tables is for the 'D' (Diffuser) version.

The 'P' (Prismatic) version is identical and data/price is obtained by substituting 'P' for 'D' in the catalogue numbers.

### RANGE AND PRICES (applicable to UK only)

Complete fitting				Contract Price (ex. P.T.)				P.T.			
Nom. length	Rating	No. of tubes	Circuit	Cat. no.	£	s	d	£	s	d	
2ft	20w	Two	Quickstart	2.TM/D/2020	9	12	0	2	7	11	
2ft	20w	Four	Quickstart	2.TM/D/4020	13	0	0	2	12	6	
4ft	40w	Two	Quickstart	2.TM/D/2040	13	15	0	3	4	0	
4ft	40w	Three	Quickstart	2.TM/D/3040	16	10	0	3	9	5	
4ft	40w	Four	Quickstart	2.TM/D/4040	19	5	0	3	14	10	
6ft	85w	Two	Resonant Start	2.TM/D/2685	17	11	0	4	0	4	
6ft	85w	Three	Resonant Start	2.TM/D/3685	21	2	0	4	6	10	
6ft	85w	Four	Resonant Start	2.TM/D/4685	24	13	0	4	13	4	
8ft	85w	Two	Quickstart	2.TM/D/2085	23	8	0	5	8	0	
8ft	85w	Three	Quickstart	2.TM/D/3085	27	15	0	5	14	8	
8ft	85w	Four	Quickstart	2.TM/D/4085	32	2	0	6	1	4	

Components				Contract Price (ex. P.T.)				P.T.			
Complete fitting	Diffuser	Contract Price	P.T.	Gear Tray	Contract Price	P.T.	Housing	Contract Price	P.T.		
Cat. no.	Cat. no.	(ex. P.T.)	£ s d	Cat. no.	(ex. P.T.)	£ s d	Cat. no.	(ex. P.T.)	£ s d		
2.TM/D/2020	2.TMD.2	3 5 0	1 0 11	2.TM.2020	3 3 0	4 8	2.TMB.2	3 9 0	1 2 3		
2.TM/D/4020	2.TMD.2	3 5 0	1 0 11	2.TM.4020†	6 6 0	9 4	2.TMB.2	3 9 0	1 2 3		
2.TM/D/2040	2.TMD.4	3 12 0	1 3 2	2.TM.2040	5 10 0	10 10	2.TMB.4	4 13 0	1 10 0		
2.TM/D/3040	2.TMD.4	3 12 0	1 3 2	2.TM.3040*	8 5 0	16 3	2.TMB.4	4 13 0	1 10 0		
2.TM/D/4040	2.TMD.4	3 12 0	1 3 2	2.TM.4040††	11 0 0	21 8	2.TMB.4	4 13 0	1 10 0		
2.TM/D/2685	2.TMD.6	4 17 0	1 11 3	2.TM.2685	7 2 0	13 0	2.TMB.6	5 12 0	1 16 1		
2.TM/D/3685	2.TMD.6	4 17 0	1 11 3	2.TM.3685**	10 13 0	19 6	2.TMB.6	5 12 0	1 16 1		
2.TM/D/4685	2.TMD.6	4 17 0	1 11 3	2.TM.4685†††	14 4 0	26 0	2.TMB.6	5 12 0	1 16 1		
2.TM/D/2085	2.TMD.8	7 19 0	2 12 2	2.TM.2085	8 14 0	13 4	2.TMB.8	6 15 0	2 3 6		
2.TM/D/3085	2.TMD.8	7 19 0	2 12 2	2.TM.3085***	13 1 0	20 0	2.TMB.8	6 15 0	2 3 6		
2.TM/D/4085	2.TMD.8	7 19 0	2 12 2	2.TM.4085††††	17 8 0	26 8	2.TMB.8	6 15 0	2 3 6		

\*2.TM.3040 = 2.TM.1040 + 2.TM.2040

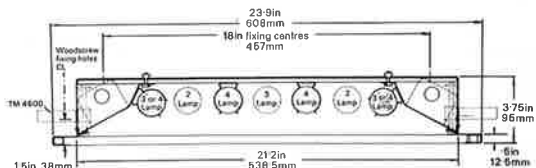
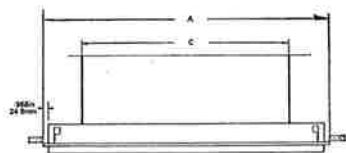
\*\*2.TM.3685 = 2.TM.1685 + 2.TM.2685

\*\*\*2.TM.3085 = 2.TM.1085 + 2.TM.2085

†2.TM.4020 = 2 x 2.TM.2020  
††2.TM.4040 = 2 x 2.TM.2040  
†††2.TM.4685 = 2 x 2.TM.2685  
††††2.TM.4085 = 2 x 2.TM.2085

### DIMENSIONS

Cat. no.	Fitting size		width		length		width		Approx. weight		Fixing centres		length		width	
	length in Dim 'A'	mm	in	mm	length in Dim 'A'	mm	in	mm	(inc. tubes) kg	lb	length in Dim 'C'	mm	length in Dim 'C'	mm	in	mm
2.TM/D/2020	608	608	23.9	23.9	9.5	20.9	457	457	18	18						
2.TM/D/4020	608	608	23.9	23.9	12.5	27.6	457	457	18	18						
2.TM/D/2040	1217	608	47.9	23.9	16.9	37.3	914	457	36	18						
2.TM/D/3040	1217	608	47.9	23.9	19.0	41.9	914	457	36	18						
2.TM/D/4040	1217	608	47.9	23.9	21.2	46.8	914	457	36	18						
2.TM/D/2685	1827	608	71.9	23.9	27.1	59.8	1372	457	54	18						
2.TM/D/3685	1827	608	71.9	23.9	30.3	66.8	1372	457	54	18						
2.TM/D/4685	1827	608	71.9	23.9	34.5	76.1	1372	457	54	18						
2.TM/D/2085	2436	608	95.9	23.9	41.2	90.8	1372	457	54	18						
2.TM/D/3085	2436	608	95.9	23.9	45.4	100.0	1372	457	54	18						
2.TM/D/4085	2436	608	95.9	23.9	60.7	111.8	1372	457	54	18						



### ACCESSORIES

		Contract Price (ex. P.T.)				P.T.	
Cat. no.	Description	£	s	d			
KL 4601	Adjustable suspension set (4 per set)	2	19	0	—		
TM 4600	Side suspension arm set (4 per set)	1	14	0	—		
2.TM 4602	End box set	14	0	4	2		

# atlas

## Invincible range

Invincible range is the name given to a selection of fittings each of which has been carefully designed to ensure satisfactory performance under certain arduous service conditions. The range comprises the following fittings:

**LU series** diffuser fitting is completely enclosed with a glass fibre canopy and a plastic enclosure which is simply clipped into position. This fitting is resistant to numerous adverse conditions and suitable applications would be certain chemical laboratories, pickle factories and food factories.

**LV series** vapourproof fitting. Completely enclosed single or twin tube opal enclosure resistant to corrosion by water vapour, high humid conditions, certain chemicals, etc., and suitable for use in food factories (where the relamping features are of extreme importance), storage bays and general conditions where frequent washing is required. (This fitting is not jetproof.)

**LW series** fibreglass batten. As well as corrosion resistance, this design has been fully tested to international specifications for rainproof and dustproof fittings. It is vapourproof and is suitable for use in hydrogen atmospheres where fittings need to be pressurised. When used in conjunction with the plastic cylinders a strong fitting is the result, resisting mechanical damage. These cylinders also enable the fitting (coupled with the necessary low temperature control gear) to be used in temperatures down to  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ). Suitable applications for this fitting would be certain chemical laboratories, plating shops, pickle factories, food factories, cold stores and general indoor and outdoor applications. These fittings are also suitable for use in Division 2 areas, see below.

**Dust-Tight.** This fitting has been designed in accordance with the following requirements:

- (a) British Standard Specification No. 3820:1964 Class 1 construction for Outdoor Pendant use.
- (b) Jetproof to B.S.3820 Clause 18 (iii).
- (c) Dust-tight to B.S.3820 Clause 18 (iv).
- (d) Oil Companies Materials Association Specification No. ELEC. 7 for use in Division 2 areas.
- (e) Approved for Division 2 areas H.M.F.I. ref. 1 009/9/60 - Division 2.

Suitable applications for these fittings would be flour mills, certain laboratories, food factories, Division 2 areas and areas which are frequently hosed down. It may also be pressurised.

**Flameproof.** In addition to being certified as suitable for use in all Division 1 areas having flammable atmospheres falling within the General Industrial Groups II and III the fitting is also dust-tight and rainproof so it may be used in areas containing explosive dusts or outside, e.g. an oil loading jetty.

**Food Factory.** This fitting is ideal for applications where hygiene is of the utmost importance. There are no crevices to harbour dirt or dust and the enclosing acrylic prevents any possible danger in the event of a lamp being broken.

The fitting is sealed by a neoprene gasket to prevent the ingress of steam or moisture and its easily wiped surfaces

make it most suitable for use in laundries.

Often damp and sometimes humid atmospheres exist in paper mills and an enclosed protected type of fitting may be the only real solution. This fitting is ideal for such situations coupled with easy maintenance for those awkward, inaccessible, out of the way places. There are many suitable applications for an enclosed protected fitting of this type, such places as abattoirs and bottling plants, in fact anywhere where hygiene is of importance or where some protection is needed because of the damp or humid atmosphere.

**Angled Floodlight.** This is a versatile fluorescent floodlight for interior use or use in protected situations outside. It is available for single or twin tube operation with clear or opal laminated glass cover. The fitting is *not* flameproof but could be used for floodlighting garage workshop areas, greasing bays, canopied loading bays, etc.

**Division 2.** Two publications are currently used to ensure that fittings for use in these remotely dangerous areas are mechanically and electrically safe (although it is anticipated that a British Standard will shortly be published). These are:

### British Standard Code of Practice CP.1003

**Part 3:1967**, defines a Division 2 area as:

'An area within which any flammable or explosive substance, whether gas, vapour or volatile liquid, although processed or stored, is so well under conditions of control that the production (or release) of an explosive or ignitable concentration in sufficient quantity to constitute a hazard is only likely under abnormal conditions.'

An area falling within this category is sometimes known as a 'Remotely Dangerous Area'.

**OCMA Specification no. Elec 7. Electric light fittings for application in Division 2 areas**, details the general mechanical and electrical requirements of a lighting fitting, the essential design features of which are, briefly:

(a) Industrial type equipment should not in normal operation produce an arc or spark in contact with the atmosphere. If sparking is inherent in normal operation, equipment suitable for Division 1 areas must be used (i.e. flameproof, pressurised, intrinsically safe, etc.).

(b) In normal operation there cannot develop surface temperatures, or hot spot which can create an ignition hazard.

(c) Industrial equipment and its component parts should be adequate in mechanical strength to prevent failure through external impact which may arise in normal use.

Further details can be obtained from any regional office shown in this catalogue.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

# atlas

## Invincible LU corrosion-resistant fittings

This corrosion-resistant fibreglass fitting is suitable for any application where excessive humidity is present such as swimming baths, slaughter houses, breweries, or where corrosive elements are involved, such as some plating shops, dye works, chemical works, or where fittings are used outdoors.

The fibreglass body has bushes moulded in the back to receive the gear tray. The tray carries the usual components and brackets are provided at each end to support the lampholders. These same brackets provide fixing for a metal reflector to enclose the gear. The lamps are enclosed with a vacuum-formed plastic cover which is supported from the fibreglass canopy by means of injection moulded brackets secured

against the edge of the canopy. A gasket is positioned between the canopy and cover to form an effective seal. The plastic cover is held firmly against the gasket by six plastic clips (four on the 2ft) which engage over the lip of the glass fibre canopy and the plastic cover. The cover is easily removed by disengaging and hinging the clip downwards.

All fittings are suitable for 240v 50Hz supplies. Other voltages on application.

These fittings comply with B.S.3820:1964. For categories - Class IIA, rainproof, dustproof, outdoors and chemically corrosive (except for 2ft which are not dustproof).



LUD.R1065



LUD.R2065

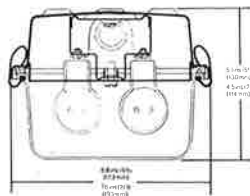
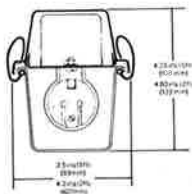
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Complete fitting					Contract Price (No P.T.)		Components				P.T. (When sold as a spare)				
Nom. length	Rating	No. of tubes	Circuit	Cat. no.	£	s	d	Enclosure Cat. no.	Contract Price	£	s	d	£	s	d
2ft	20w	One	Quickstart	LUD.Q1020	5	19	0	LUD.12	1	7	0		8	9	
2ft	20w	Two	Quickstart	LUD.Q2020	7	3	0	LUD.22	1	11	0		10	0	
5ft	65w	One	Resonant Start	LUD.R1065	7	7	0	LUD.15	1	18	0		12	3	
5ft	65w	Two	Resonant Start	LUD.R2065	12	6	0	LUD.25	2	13	0		17	1	

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
LUD.Q1020	28-0	711	7-5	3-4	19-7	500
LUD.Q2020	28-0	711	9-7	4-4	19-7	500
LUD.R1065	62-8	1594	15-3	6-9	24	610
LUD.R2065	62-8	1594	21-7	9-8	24	610



# atlas

## Invincible LV corrosion-resistant fittings

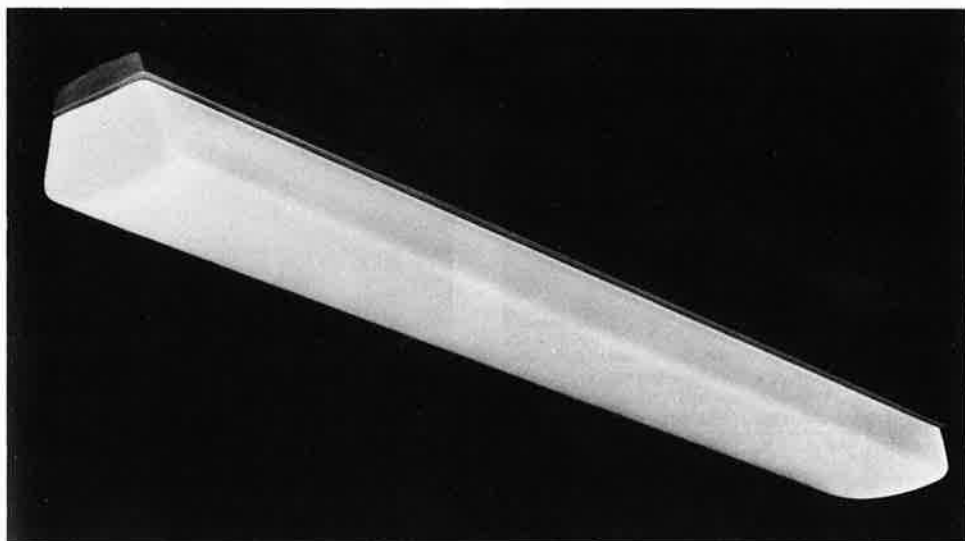
This fitting has been designed for use in the many adverse atmospheric conditions where corrosive fumes and water vapour prevent the use of conventional lighting fittings.

The fitting is sealed against these extraneous conditions by a wiper gasket between the plastic-coated steel canopy and opal plastic enclosure. A concealed quick release catch is used to attach the enclosure to the canopy, the wiper gasket eliminating any need to clamp these two items together thus relieving the enclosure of all strain. The lamps are fitted into the enclosure bowl, minimising any possibility of broken glass falling from the fitting in the event of lamps being broken during maintenance. All internal metal parts including the removable control gear tray, are specially coated to withstand these adverse conditions.

Eye bolts are provided on the back of the channel to receive a male hook attached to either a 3in rod or chain with consumer hooks. Chain or rod suspension only is recommended for use with this fitting. Mains entry is via a cable gland in back of fitting using three-core cable. Suspensions must be a minimum of 3in long to obtain access to the enclosure release mechanism on the back of the fitting.

*All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*

These fittings comply with B.S.3820:1964. For categories – Class I, drip-proof, dustproof, indoors, high humidity and chemically corrosive.



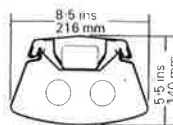
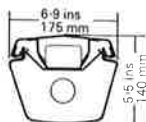
LVD/R2065

### RANGE AND PRICES (applicable to UK only)

Complete fitting				Components				P.T. (When sold as spare)				Spine				Contract Price			
Nom. length	Rating	Circuit	Cat. no.	Contract Price (No P.T.)	£	s	d	Enclosure Cat. no.	Contract Price	£	s	d	£	s	d	Cat. no.	£	s	d
5ft	65w Single	Resonant Start	LVD/R1065	15	12	0		LVD.15	4	3	0	1	6	9		LV.R1065	11	9	0
5ft	65w Twin	Resonant Start	LVD/R2065	20	1	0		LVD.25	6	0	0	1	18	8		LV.R2065	14	1	0

### DIMENSIONS

Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
LVD/R1065	62.5	1587	29.3	13.3	24	610
LVD/R2065	62.5	1587	36.7	16.6	24	610



# atlas

## Invincible LW corrosion-resistant fittings

This range of fittings is designed to combat the most arduous atmospheres. Some fittings in this range are designed to withstand conditions of high humidity and temperatures down to  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ) (special low temperature control gear is used for operation at these temperatures, also a special double walled cylinder - LWD.15 is necessary). The body is moulded in two halves from glass reinforced fibre, each half screwed together against a neoprene gasket with four nylon screws to form a joint which is proof against most hostile atmospheres. The lamps are fitted into special sealed lampholders which either grip the glass of the fluorescent tube (LWM types) or grip the outside of a LWC-15 plastic cylinder to maintain a completely weatherproof fitting. Cable entry is achieved via grommets holes in the top or one end of the fitting.

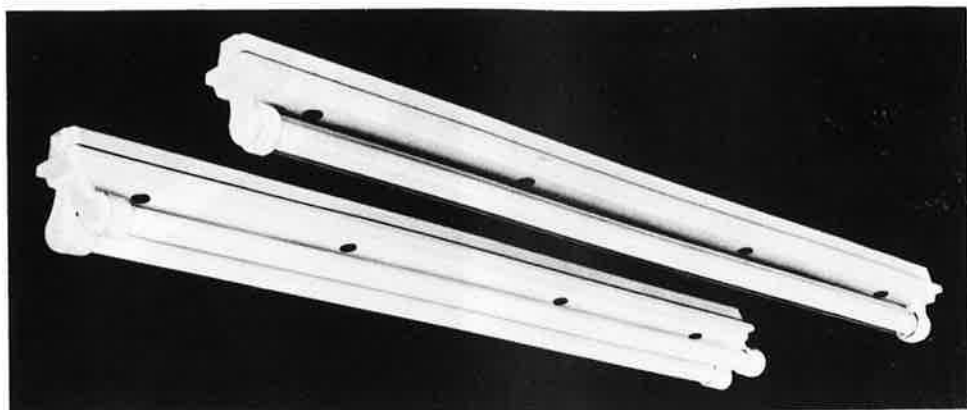
The LWC-15 plastic cylinder attachment can be provided to give complete mechanical protection to the fluorescent tube. All internal metal parts including the removable control gear tray, are coated to withstand these adverse conditions during maintenance.

A plastic trough reflector - LWU-25 - is available to give added protection to the tube and to concentrate the light in the downward plane.

These fittings are suitable for use in Div. 2 areas without modification when used with a plastic cylinder.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

These fittings comply with B.S.3820:1964. For categories - Class IIA, rainproof, dustproof, outdoors and chemically corrosive.



\*LWM/R2065 and LWC/R1065

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Complete fitting				Components														
Nom. length	Rating	Circuit	Cat. no.	Contract Price (No P.T.)			Plastic Cylinder or Lampholder Ring Assembly	Cat. no.	Contract Price (No P.T.)			P.T. (When sold as spare)	Botton (less Lampholder ring)	Cat. no.	Contract Price (No P.T.)			
				£	s	d			£	s	d				£	s	d	
5ft	65w Single	Resonant Start	LWM/R1065	9	8	0	AME.M6116		5	0	—	—	LW.R1065		9	3	0	
5ft	65w Twin	Resonant Start	LWM/R2065	14	13	0	AME.M6116×2		10	0	—	—	LW.R2065		14	3	0	
5ft	65w Single	Resonant Start	LWC/R1065	10	17	0	LWC.15		1	14	0	11	0	LW.R1065		9	3	0
5ft	65w Twin	Resonant Start	LWC/R2065	17	11	0	LWC.15×2		3	8	0	22	0	LW.R2065		14	3	0
5ft	80w Single	Switchstart	LWM/S1080	10	2	0	AME.M6116		5	0	—	—	LW.S1080		9	17	0	
5ft	80w Single	Switchstart	*LWC/S1080	11	11	0	LWC.15		1	14	0	11	0	LW.S1080		9	17	0
5ft	80w Single	Switchstart	*LWD/S1080	12	15	0	LWD.15		2	18	0	18	8	LW.S1080		9	17	0

A plastic trough reflector, Cat. no. LWU.25 is available for above fittings. Single tube and twin tube at £2 11s 0d Contract Price extra.

\* Suitable for temperatures ranging between  $5^{\circ}\text{C}$  ( $41^{\circ}\text{F}$ ) and  $-5^{\circ}\text{C}$  ( $23^{\circ}\text{F}$ ) at 240v only. [ $15^{\circ}\text{C}$  ( $59^{\circ}\text{F}$ ) for short periods].

† Suitable for temperatures ranging between  $5^{\circ}\text{C}$  ( $41^{\circ}\text{F}$ ) and  $-10^{\circ}\text{C}$  ( $14^{\circ}\text{F}$ ) at 240v only. [ $15^{\circ}\text{C}$  ( $59^{\circ}\text{F}$ ) for short periods].

‡ Suitable for temperatures ranging between  $5^{\circ}\text{C}$  ( $41^{\circ}\text{F}$ ) and  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ) at 240v only. [ $15^{\circ}\text{C}$  ( $59^{\circ}\text{F}$ ) for short periods].

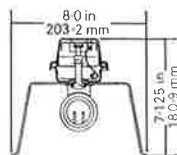
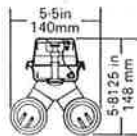
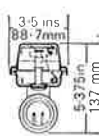
[Note: Standard 65w fittings may be used in an ambient temperature up to  $40^{\circ}\text{C}$  ( $104^{\circ}\text{F}$ )]

MS (Metal Strip) grade tubes (MCFA/U) are recommended for use with these fittings.

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres
	in	mm	lb	kg	
LWM/R1065	62.5	1587	17.8	8.1	24 610
LWM/R2065	62.5	1587	23.7	10.8	24 610
LWC/R1065	62.5	1587	19.8	9.0	24 610
LWC/R2065	62.5	1587	27.7	12.5	24 610
LWM/S1080	62.5	1587	17.8	8.1	24 610
LWC/S1080	62.5	1587	19.8	9.0	24 610
LWD/S1080	62.5	1587	22.3	10.1	24 610

All 65w fittings incorporating a plastic cylinder (LWC.15) have been approved by H.M. Factory Inspectorate for use in Division 2 areas.



# atlas

## Flameproof Range

MoP Certificate No. 6055, for Groups II, III  
Temperature Range:-Z

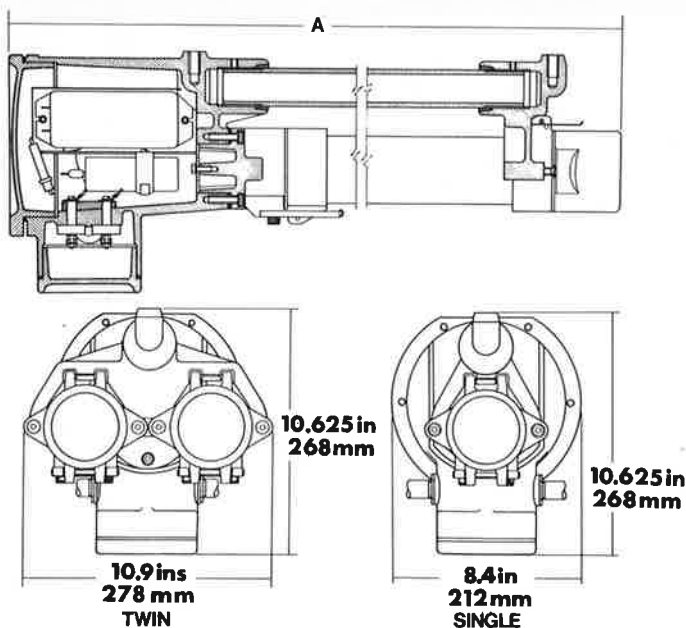
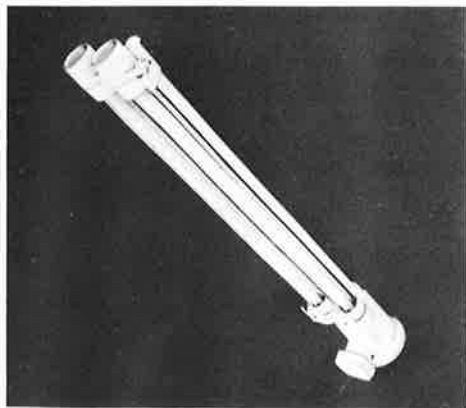
The design comprises cast aluminium end boxes rigidly supported by a steel connecting tube. The main casting incorporates switchless control gear, on a removable tray, for either single or twin tube operation and also an underslung mains cable entry to facilitate installation. The remote end casting is removable, yet fully captive, for relamping purposes. All visible joints are gasketed as necessary, to ensure that the fitting is dust-tight and weatherproof. All external screws are in stainless steel and have socket heads.

Maintenance of the fitting for relamping is either from one end or below and if required, the glass tube assembly or gear tray can be removed completely without disturbing the incoming mains supply. 2 x 1" ET entries are standard, but alternative entries can be supplied to special order.

An all white exterior finish is applied to the fitting after assembly. Reflectors with or without wire guards are available.

All fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.

The fittings comply with B.S.229:1957; B.S. 889:1965 and B.S. 3820:1964 rainproof and dust-tight.



## RANGE AND PRICES (applicable to U.K. only)

### Complete fitting

Nom. tube length	Rating	Circuit	Cat. no.	Contract Price £ s d		
2ft	40w Single	Quickstart	FP1240	24	0	0
2ft	40w Twin	Quickstart	FP2240	40	0	0
4ft	40w Single	Resonant Start	FP1040	26	15	0
4ft	40w Twin	Resonant Start	FP2040	45	0	0
5ft	65w Single	Resonant Start	FP1065	27	10	0
5ft	65w Twin	Resonant Start	FP2065	45	10	0
6ft	85w Single	Resonant Start	FP1685	29	10	0
6ft	85w Twin	Resonant Start	FP2685	47	10	0

## OPTIONAL EXTRAS AND SPARES

Cat. no.	Description	Contract Price £ s d		
FP12	2ft Glass tube assembly	*		
FP14	4ft Glass tube assembly	*		
FP15	5ft Glass tube assembly	*		
FP16	6ft Glass tube assembly	*		
FPG22	2ft wire guard	*		
FPG24	4ft wire guard	*		
FPG25	5ft wire guard	*		
FPG26	6ft wire guard	*		
FPR22	2ft reflector	*		
FPR24	4ft reflector	*		
FPR25	5ft reflector	*		
FPR26	6ft reflector	*		
FP4600	Adjustable suspension bracket	*		
FP4601	3/4" ET Flameproof plug	*		
FP4602	1/2" White eye bolt	*		
FP4603	Gear cover gasket	*		
FP4604	Terminal cover gasket	*		
FP4605	Glass tube gasket	*		
FP4606	Adaptor gasket	*		

\*It is regretted that at the time of going to press these prices were not available.

## DIMENSIONS

Cat. no.	Dim 'A' length		width		Approx. Wt. (incl. tube)		Fixing Centres	
	mm	in	mm	in	kg	lbs	mm	in
FP1240	971	38.2	212	8.4	17.0	37.5	700	27.6
FP2240	971	38.2	278	10.9	22.7	50.0	700	27.6
FP1040	1581	62.2	212	8.4	23.9	52.7	1310	51.6
FP2040	1581	62.2	278	10.9	28.8	63.4	1310	51.6
FP1065	1862	74.1	212	8.4	26.3	57.9	1611	63.4
FP2065	1862	74.1	278	10.9	32.1	70.8	1611	63.4
FP1685	2147	84.5	212	8.4	29.0	64.0	1876	73.9
FP2685	2147	84.5	278	10.9	35.4	78.0	1876	73.9

With reflector width of all sizes becomes 290mm - 11.42 ins.

With reflector and wire-guard width of all sizes becomes 300mm - 11.8 ins.

### Additional Reflector Weight

	kg	lbs		kg	lbs
2ft	2.77	6.15	0.30	0.7	
4ft	4.81	10.65	0.83	1.8	
5ft	5.85	12.9	1.09	2.4	
6ft	6.85	15.1	1.36	3.0	

### Additional Wire-Guard Weight

# atlas

## Invincible Dust-tight fittings

The housing, which is common to either one or two lamp fittings, consists of an inverted trough shape with sloping sides to discourage the collection of dust. Into the bottom surface is attached a clear plastic window by means of a special gasket to form a dust-tight, jetproof and vapourproof seal.

One end of the fitting is permanently sealed and the other end has a removable plate, normally held in position by six captive screws. This plate is suitably gasketed to maintain the 'proofness' of the fitting. The housing is manufactured in sheet steel and following a thorough rustproofing process is finished with high quality white acrylic paint. External screws, etc. are in stainless steel.

The reflector/gear tray assembly for either one or two 5ft 65w lamps slides in from one end and is fitted with mains terminal block (clamping type), earth point and circuit fuse which are easily accessible when the end plate of the housing is removed.

Single and twin lamp reflector/gear assemblies are completely interchangeable.

Suspension is normally to the stainless steel hooks provided, at 1410mm (55½in) centres, but fittings can

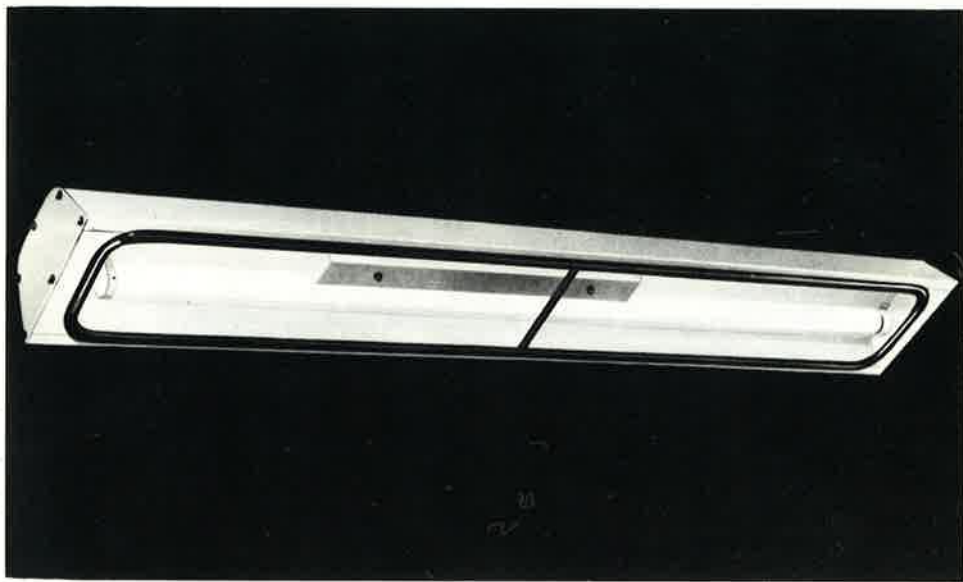
be mounted to purpose made brackets by means of ½in Whit. screws at the same centres.

Provision is made in the fitting for mains wiring to be looped in and out if required through 2 x ¾" ET holes adjacent to one suspension point. Also the method of installation is such that for normal servicing it is not necessary to remove the mains wiring from the fitting.

This fitting has been designed in accordance with the following requirements:

- (a) British Standard Specification No. 3820:1964 Class 1 construction for Outdoor Pendant use.
- (b) Jetproof to B.S.3820 Clause 18 (iii).
- (c) Dust-tight to B.S.3820 Clause 18(vi).
- (d) Oil Companies Materials Association Specification No. ELEC 7 for use in Division 2 areas.
- (e) Approved for Division 2 areas H.M.F.I. Ref. 1009/9/60 - Division 2.

It should be noted that a Dust-tight fitting is so designed that dust of a specified nature and fineness cannot enter the fitting whereas in a dustproof fitting dust may be allowed to enter the fitting to an extent agreed between manufacturer and user.



### RANGE AND PRICES (applicable to UK only)

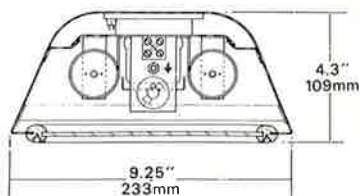
#### Complete fitting

Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Contract Price (No P.T.)		
					£	s	d
5ft	65w	One	Resonant Start	11/44501	15	16	0
5ft	65w	Two	Resonant Start	11/44502	19	15	0

### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
11/44501	61.5	1562	34.8	15.7	55.5	1410
11/44502	61.5	1562	40.7	18.4	55.5	1410

[Note: Single tube version may be used up to an ambient temperature of 40°C (104°F) - Twin tube to 25°C (77°F)].



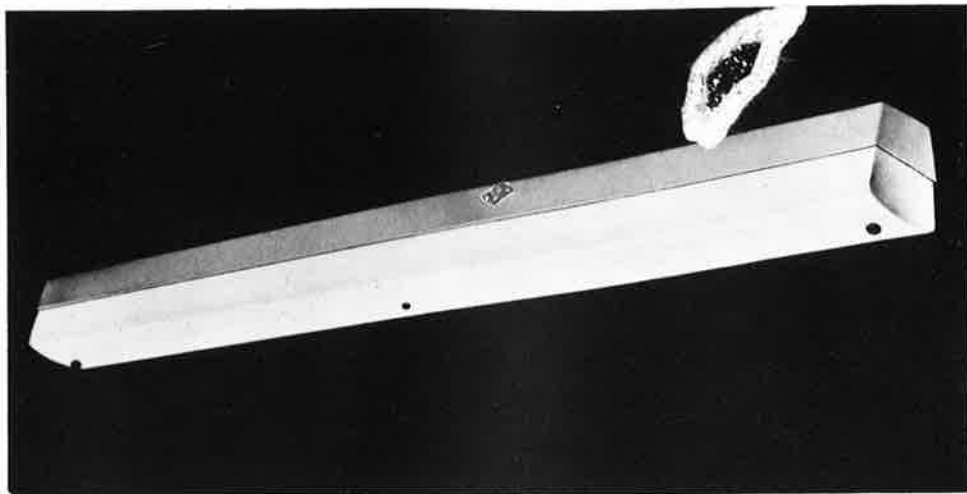


The fitting comprises a heavy gauge sheet steel housing, with flush seam welded ends, degreased and bonderised then given a high quality white acrylic finish. A  $\frac{1}{8}$  in thick 040 opal acrylic closure with robustly constructed 068 white acrylic rebated ends encloses the tubes.

The housing, with closure in position, has a smooth exterior to minimise the collection of moisture or dirt. The acrylic closure follows the shape of the housing metal work which is designed to overlap the acrylic diffuser and act as a water-shed. The closure is held in position by three captive nylon screws, and seats firmly on to a neoprene gasket which is cemented to

an internal continuous channel inside the housing. The control gear is mounted on the upper side of a reflector gear tray and spring loaded bi-pin lampholders are mounted to the under side of this tray. Wiring is PVC insulated, colour coded and terminates in a 3-way fused socket which fits a 3-pin plug earthed to the inside of the main fitting housing. The control gear tray complete with gear, wiring and lampholders is removable as a complete unit by loosening three fixing screws, removing the tray and unplugging.

*This fitting is suitable for use on 240v 50Hz supplies. Other voltages on application.*



11/47550

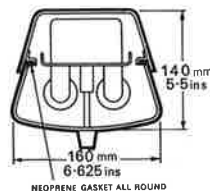
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Complete fitting					Components							
Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Contract Price (No P.T.) £ s d			Enclosure Cat. no.	Contract Price (ex. P.T.) £ s d			P.T. (When sold as a spare) £ s d
5ft	65w	Two	Resonant Start	11/47550	14	10	0	18/14055	4	16	0	1 10 11

#### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
11/47550	63.5	1613	33.7	15.3	24	610

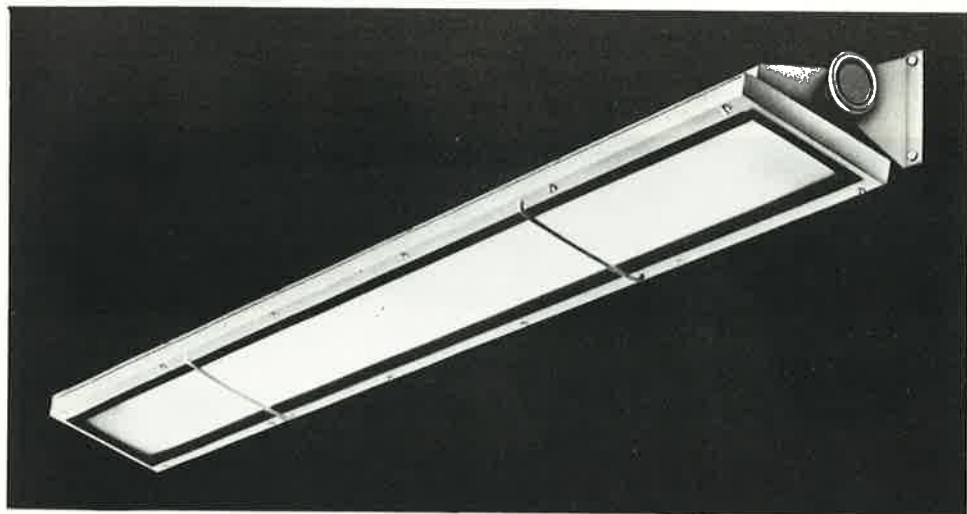


# ekco

## Angled floodlight fittings

For some floodlighting applications. Not suitable for certified flammable areas. Zinc-coated steel finished grey stoved enamel. Supplied with two fixing brackets, allowing 100° pivoting. These fittings comply with B.S.3820: 1964 for Class 1, drip-proof, indoor, normal atmospheres.

*These fittings are suitable for use on 240v 50Hz supplies. Other voltages on application.*



FX61062/R

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

					Contract Price (No P.T.)			Components			Contract Price (ex. P.T.)			P.T. (When sold as a spare)			
Nom. length	Rating	No. of tubes	Circuit	Cat. no.	£	s	d	Enclosure Cat. no.	£	s	d	£	s	d	£	s	d
5ft	65w	One	Resonant Start	FX61061/R*	22	7	0	NX6930*	2	3	0	13	11				
5ft	65w	Two	Resonant Start	FX62061/R*	25	1	0	NX6930*	2	3	0	13	11				
5ft	65w	One	Resonant Start	FX61062/R†	22	18	0	NX6931†	2	11	0	16	5				
5ft	65w	Two	Resonant Start	FX62062/R†	25	9	0	NX6931†	2	11	0	18	5				

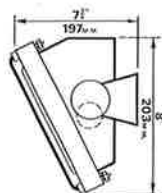
\* Clear laminated glass.

† Opal laminated glass.

#### DIMENSIONS

Cat. no.	Length		Weight (inc. Tubes)		Fixing centres	
	in	mm	lb	kg	in	mm
FX61061/R	69	1753	39.6	17.9	67.6*	1718
FX62061/R	69	1753	44.7	20.2	67.6*	1718
FX61062/R	69	1753	39.6	17.9	67.6*	1718
FX62062/R	69	1753	44.7	20.2	67.6*	1718

\* 2 holes at 4.25in (108mm) centres and 0.375in (9.5mm) diameter

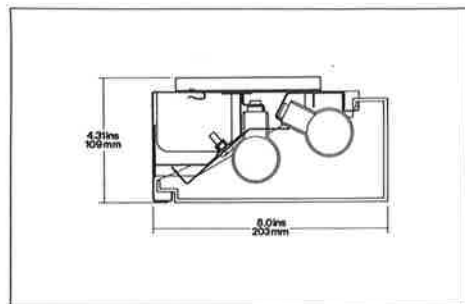
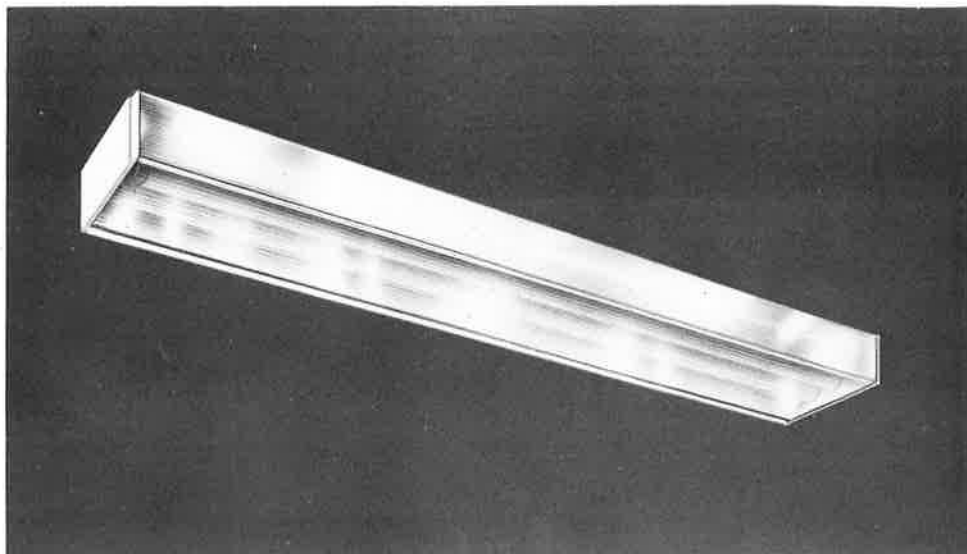


# atlas mazda ekco

## Asymmetrical fitting

This fitting has been developed for use in installations where extra quality is required in the lighting. A higher luminance is provided on the

walls and vertical surfaces than can be provided by fittings with conventional light distributions. Full details of the fitting performance are given in the main fittings catalogue.



### RANGE AND DIMENSIONS

Nominal Length	Rating	Circuit	Catalogue Numbers Complete Fitting	Spine	Controller	O/A length mm	ins	Weight Kg	lbs	Fixing centres mm	ins
5ft	65W Twin	Resonant Start	ASYC/2065	ASY.R2065	ASY.C25	1563	61 $\frac{1}{2}$	10.4	23.2	610 x 82	24 x 3.25
6ft	85W Twin	Resonant Start	ASYC/2685	ASY.R 2685	ASY.C26	1830	72	11.8	26.0	610 x 82	24 x 3.25
8ft	85W Twin	Quick start	ASYC/2085	ASY.R 2085	ASY.C28	2440	96	14.0	31.3	1220 x 82	48 x 3.25

These fittings are made to special order—further details on application.

### Installation

This fitting is not balanced about the centre and should be fixed at four points. Spines can butt to form continuous rows.

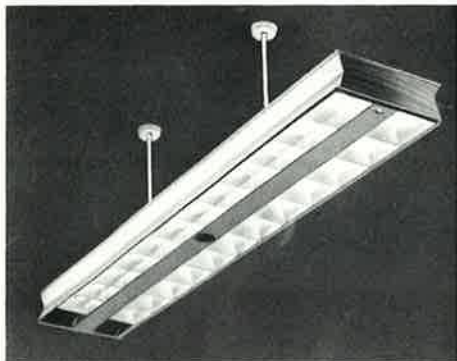
# atlas

## OF fittings

This fitting has been designed for various applications and is equally suitable for use in hospital wards or without the centrally mounted night light in commercial applications.

Hospital lighting is a specialised subject and generally requires special consideration for each particular project. Thorn Lighting have designed and manufactured a considerable number of "special" fittings for various hospital installations.

Further information and prices for all these fittings can be obtained on application to your local Thorn Lighting office.



OFL/Q2080

Construction of the main spine, containing the Quickstart control gear, is in steel. The main reflector, attached to the underside of the spine is in satin etched and anodised aluminium, and incorporates steel baffles, painted BS.8-089 colour, the assembly being easily removable for cleaning. The side reflectors are also satin etched and anodised aluminium. If required, the reflector is available without cross baffles. Particular attention has been paid to minimising projections on all surfaces, in order that in situ cleaning can be easily and thoroughly carried out and horizontal surfaces have also been reduced to a minimum.

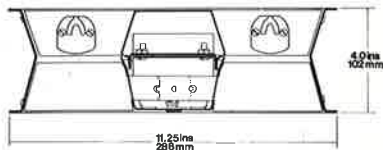
The two fluorescent tubes can be simply removed without disturbing any part of the fitting.

A centrally arranged night lighting fitting is incorporated into the spine projecting through the main reflector, and screening for the 25w night light is provided by a stove enamelled cylinder.

These fittings can be supplied with or without transverse louvers. If louvers are not required, delete L from catalogue number.

### RANGE AND DIMENSIONS

Nominal Length	Rating	Circuit	Cat. No.	Length mm.	ins	Fixing centres mm	ins
5ft	65W Twin	Resonant Start	OFLR2065	1567	61.75	610	24



# atlas ekco

## New Popular Pack introduction

### 8ft, 6ft, 5ft, 4ft and 2ft fluorescent fittings – single and twin tube

The New Popular Pack is designed as a range of general purpose fittings – completely versatile which will be acceptable in innumerable situations. Unique in design and appearance it offers a wide variety of fittings from the basic spine to a whole range of new and well-proven attachments. Compact, robust and reliable, the Popular Pack represents excellent value for money.

#### Construction

All New Popular Packs are completely wired and fully tested to ensure satisfactory and consistent performance. Components include dependable long-life ballasts and capacitors, spring-mounted lampholders and reliable starter switches.

Metal attachments described in the following pages are finished in white stoved enamel to give hard wear and maximum efficiency in use.

Diffusers and prismatic controllers are extruded in light stabilised polystyrene with white plastic spring-mounted end plates.

Fittings comply with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.

#### Appearance

Streamlined slim channel finished in attractive hard wearing dove grey stoved enamel (colour number 694, B.S.381 C) with white coverplate and white plastic integral lampholder and endplates.

The vertical grey sides minimise cleaning.

#### Performance

Maximum light at minimum cost is provided due to low watts loss control gear and high maintained light output from fluorescent tubes with a life of 7500 hours in the 8ft, 6ft, 5ft and 4ft sizes.

#### Ease of installation

Time and money is saved as a result of the fast fixing features of New Popular Packs.

#### Best light investment

The superior design, built-in quality and finish of the New Popular Pack combine to achieve and set a new high standard in the lighting industry at prices which, throughout the entire range, are keenly competitive and represent truly outstanding fluorescent value.

#### Three year guarantee

The New Popular Pack is guaranteed for a period of three years from date of purchase. The guarantee includes the metal spine, control gear, internal wiring and accessories, but excludes the starter switch and fluorescent tube which are subject to separate guarantees. In the event of the fitting, or any components thereof becoming faulty after installation and during the period of guarantee, the fitting or component (with the exception of the starter switch and fluorescent tube) will be repaired or replaced at the Company's discretion at no charge, provided it has been used correctly and returned carriage paid and adequately packed to the nearest Company depot.

### 6ft 85w New Popular Pack fittings

The increase in demand for this high efficiency fitting in the New Popular Pack range has resulted from the growing awareness of the benefits inherent in the 6ft 85w rating.

The advantages to the user, compared to the 5ft 65w rating are

- Up to 30% more light
- Semi-resonant start instead of switchstart
- Individually fused fitting
- Lower temperature starting

With these advantages it is obvious why the 6ft New Popular Pack fittings are proving more popular than ever, for the value represented by the 6ft fitting is the best bargain in lighting since 'new lamps for old'.

#### Latest additions to the range

##### 6ft Twindustrial Popular Pack

This addition to the New Popular Pack range is a 6ft twin tube slotted metal reflector fitting packed complete (basic fitting, reflector and tubes) in one carton and marks a new method of marketing in this field.

Many applications call for this type of fitting and there is now provided the one-pack facility with its consequent advantages in transportation, stocking and general convenience.

Very competitive in price and with SRS control gear the Twindustrial fitting now becomes the first choice for any industrial lighting scheme for this type of fitting.

See page CA84 of the Fluorescent Fittings Section for full details.

##### 6ft Sentinel Popular Packs

New Popular Pack fittings can now be used under canopies outdoors and in many corrosive atmospheres in combination with the 'Sentinel' glass-fibre and acrylic enclosures specially designed for this use.

Available in single and twin types in the 6ft size the single tube version encloses a standard 6ft single tube batten fitting which is teamed with the enclosure on site by the installer.

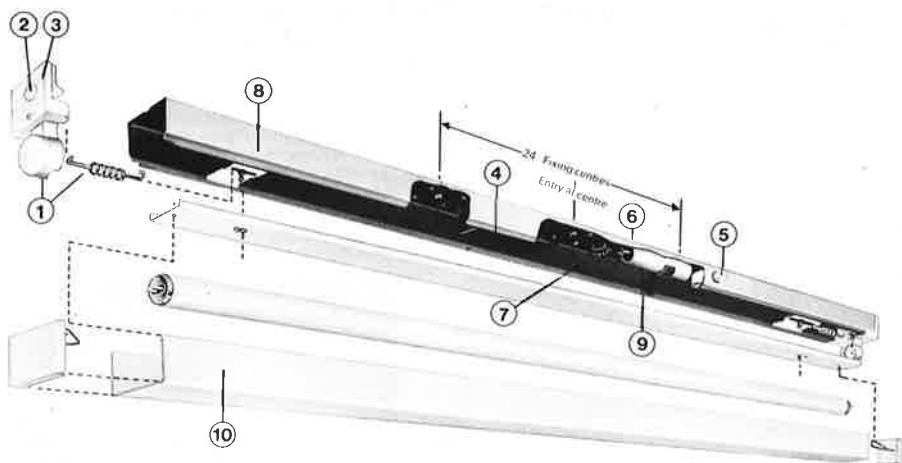
The twin version is supplied complete (batten, tubes and enclosure) in one carton.

These new enclosures make the New Popular Pack range even more versatile than before.

See page CA85 of the Fluorescent Fittings Section for full details.

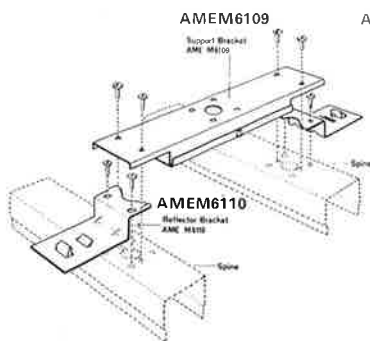
# atlas ekco

## New Popular Pack



### Top ten features

- 1 Spring mounted lampholders ensure the tube is always secure. The lampholders automatically locate the ends.
- 2 End conduit entry through knockouts in the lampholders for greater efficiency.
- 3 Through wiring facilities making the Popular Pack even more flexible.
- 4 Solid filled control gear for long life and reliable operation.
- 5 Starter switch readily accessible through side of fitting.
- 6 New pin terminals on ballast and capacitor obviate danger of broken wires caused by overtight screws.
- 7 Three way terminal block for mains connection.
- 8 The two-tone grey and white finish enables the Popular Pack to blend with all colour schemes.
- 9 All fittings are power factor corrected **except** the 2ft single. The 8ft fittings operate at 0.66 leading.
- 10 The PPC prismatic control attachment is available with Popular Packs – cutting glare but retaining high light output.



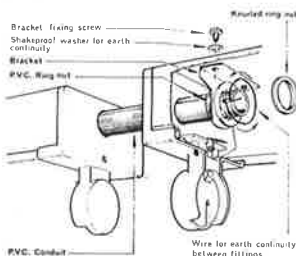
#### AMEM6100 Price 5s each

Continuous Mounting Coupler which is used to maintain the correct spacing in continuous runs of fittings with or without attachments. This accessory can also be used for through-wiring providing the correct grade of high temperature cable is used.

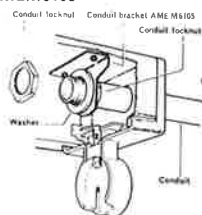
#### AMEM6101 Free on request

Patress Block Cover can be used to shield a conduit box or alternatively to cover marks left on the ceiling by original fitting or ceiling plate.

#### AMEM6100



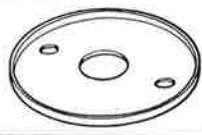
#### AMEM6105



#### AMEM6110 Price 12s 6d per pair

These reflector attachment brackets are accessories for use with AMEM6109 to provide a four tube reflector form of the Popular Pack fitting. See page CA87 for further details.

#### AMEM6101



#### AMEM6105 Free on request

End Conduit Bracket is used when fittings are installed on surface conduits systems or where conduit is required to enter at the end of the fitting.

#### AMEM6109 Price 19s 0d per pair

The use of these suspension brackets in conjunction with two twin Popular Pack batten fittings provides an economically priced four tube fitting. Further details of such arrangements are given on p.1 CA87

# atlas ekco

## New Popular Pack PP batten fittings

The New Popular Pack batten is available in 2ft, 4ft, 5ft, 6ft and 8ft single tube and twin tube fittings. The batten is packed complete with tube(s) in the same carton which effectively reduces handling costs. Spring-loaded lampholders are incorporated which earth and embrace the lamp cap to prevent any strain of the lamp pins. Relamping from either end is possible even on 8ft fittings. The spine totally encloses the control gear and the cover plate is speedily detached. The starter switch is readily accessible through the side of the fitting. End conduit entry is achieved through knock-outs in the ends of the lampholders and a bracket -

Cat. no. AMEM6105 - is available free of charge to secure the conduit into the fitting. Through-wiring facilities are available using the end entries and accessory Cat. no. AMEM6100 available at 5s extra. For continuous mounting a space of  $\frac{1}{2}$  in between battens and trough reflectors and  $\frac{1}{2}$  in between diffusers is essential so that correct maintenance can be performed. The spine is painted grey to B.S.381C colour no. 694. The reflector plate is painted white for maximum reflection.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



PP265

PP65

### RANGE AND PRICES (applicable to UK only)

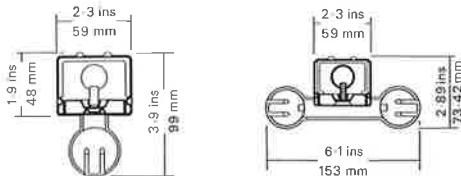
Complete fitting - mains voltage (230/240v)

Nom. length	Rating	Circuit	Cat. no.	Fitting price £ s d	Net trade Tube(s) price £ s d	Tube P.T. s d
2ft	20w Single	Switchstart	PP.20	2 5 0	7 9	2 9
2ft	20w Twin	Switchstart	PP.220	3 15 0	15 6	5 6
4ft	40w Single	Switchstart	PP.40	3 1 0	7 7	2 9
4ft	40w Twin	Switchstart	PP.240	6 2 0	15 2	5 6
5ft	65w Single	Switchstart	PP.65	3 10 0	8 0	2 10
5ft	65w Twin	Switchstart	PP.265	7 8 0	16 0	5 8
6ft	85w Single	Resonant Start	PPQ.685	3 15 0	10 2	—
6ft	85w Twin	Resonant Start	PPQ.2685	7 19 0	1 0 4	—
8ft	125w Single	Switchstart	PP.125	5 11 0	12 2	—
8ft	125w Twin	Switchstart	PP.2125	10 15 0	1 4 4	—

The above fittings are packed complete with White tube(s).  
Price of fitting does not include tube(s).

### DIMENSIONS

Cat. no.	Length in mm	Weight (inc. Tubes) lb kg	Fixing centres in mm
PP.20	24.2 615	4.0 1.8	19.7 500
PP.220	24.2 615	4.75 2.16	19.7 500
PP.40	48.2 1224	5.75 2.6	24.0 610
PP.240	48.2 1224	9.0 4.1	24.0 610
PP.65	60.1 1525	7.5 3.4	24.0 610
PP.265	60.1 1525	12.0 5.45	24.0 610
PPQ.685	70.4 1788	9.5 4.32	24.0 610
PPQ.2685	70.4 1788	14.75 6.7	24.0 610
PP.125	94.4 2398	11.5 5.23	48.0 1220
PP.2125	94.4 2398	17.5 7.95	48.0 1220



Standard fitting 230/240v 50Hz - other voltages shown to order at no extra charge.  
Prices for fittings for other supplies on application.

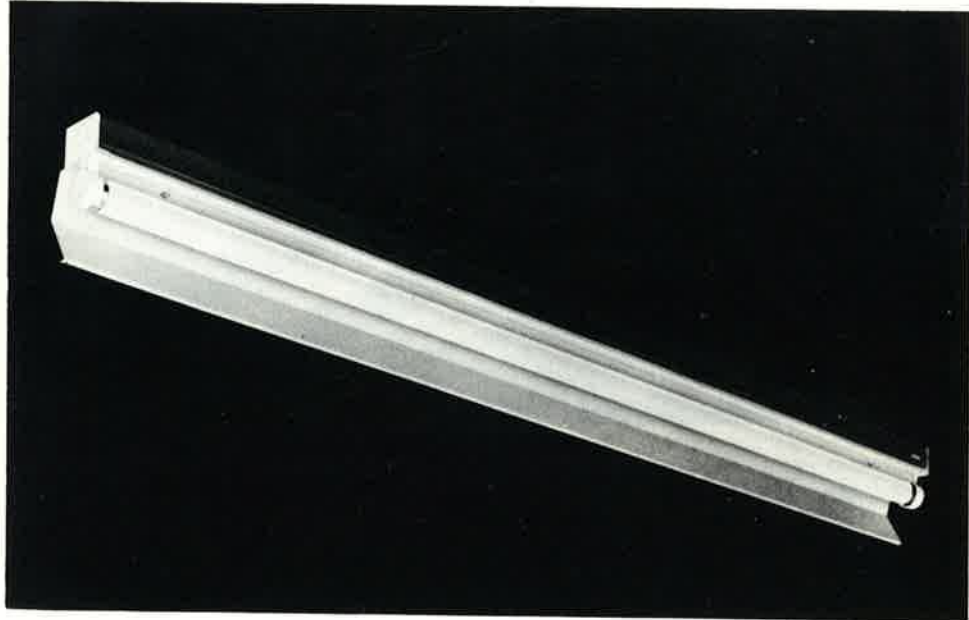
20w 2ft	40w 4ft	65w 5ft	85w 6ft	125w 8ft
200/210v, 220v and 250v	—	—	—	250v

All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas ekco

## New Popular Pack PPA angle reflector

This asymmetrical metal reflector is attached to the Popular Pack spine by means of screws fitted into slideable spring nuts retained in the spine. These screws engage into keyhole slots in the reflector. Applications – blackboards, wall charts, shop window lighting, etc. The reflector is finished in white stoved enamel for maximum reflection and fittings may be close ceiling or conduit mounted. These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



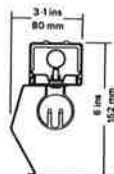
PPA65

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Fitting price £ s d	Net trade Tube price s d	Tube P.T. s d	Reflector Cat. no.	Price £ s d
4ft	40w Single	Switchstart	PPA/40	4 10 0	7 7	2 9	PPA.4	1 0 0
5ft	65w Single	Switchstart	PPA/65	4 11 0	8 0	2 10	PPA.5	1 1 0
6ft	85w Single	Resonant Start	PPA/Q685	4 19 0	10 2	—	PPA.6	1 4 0
8ft	125w Single	Switchstart	PPA/125	7 12 0	12 11	—	PPA.8	2 1 0

The above fittings are packed complete with White tubes.  
Price of fitting does not include Tube(s).



### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
PPA.40	48.2 1124	8.75 4.0	24 610
PPA.65	60.1 1525	11.25 5.1	24 610
PPA.85	70.4 1788	13.25 6.0	24 610
PPA.125	94.4 2398	17.25 7.85	48 1220

Standard fitting 230/240v 50Hz – other voltages shown to order at no extra charge.  
Prices for fittings for other supplies on application.

40w 4ft	65w 5ft	85w 6ft	125w 8ft
200/210v, 220v and 250v	—	—	250v

All fitting prices shown are those suggested as appropriate in UK for retail sale.

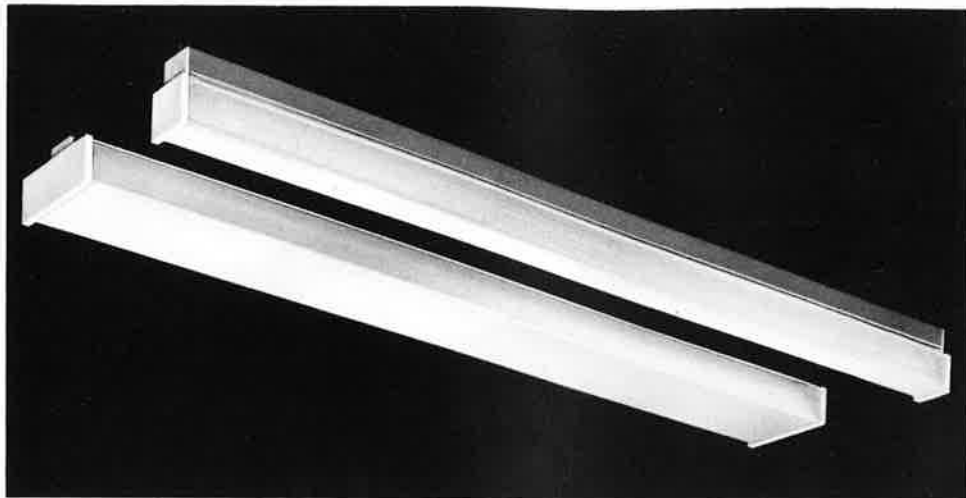


# atlas ekco

## New Popular Pack PPC prismatic controller attachment

The diffuser, only recently introduced to the Popular Packs and now firmly established, is of transparent extruded plastic with side prisms, the base is embossed with a fine prismatic pattern. These diffusers are quickly attachable or detachable from the batten by the 'clip on' action of the end-caps.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor normal atmospheres.



PPC/265

PPC/65

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	fitting price £ s d	Net trade Tube(s) price £ s d	Tube P.T. s d	Diffuser P.T. £ s d	Diffuser Cat. no.	Price £ s d
2ft	20w Single	Switchstart	PPC/20	3 3 0	7 9	2 9	4 10	PPC.2	18 0
2ft	20w Twin	Switchstart	PPC/220	5 1 0	15 6	5 6	7 0	PPC.22	1 6 0
4ft	40w Single	Switchstart	PPC/40	4 8 0	7 7	2 9	7 3	PPC.4	1 7 0
4ft	40w Twin	Switchstart	PPC/240	8 8 0	15 2	5 6	12 5	PPC.24	2 6 0
5ft	65w Single	Switchstart	PPC/65	5 0 0	8 0	2 10	8 1	PPC.5	1 10 0
5ft	65w Twin	Switchstart	PPC/265	10 6 0	16 0	5 8	15 7	PPC.25	2 18 0
6ft	85w Single	Resonant Start	PPC/Q685	5 12 0	10 2	—	10 0	PPC.6	1 17 0
6ft	85w Twin	Resonant Start	PPC/Q2685	11 7 0	1 0 4	—	18 3	PPC.26	3 8 0
8ft	125w Single	Switchstart	PPC/125	7 19 0	12 2	—	12 11	PPC.8	2 8 0
8ft	125w Twin	Switchstart	PPC/2125	14 19 0	1 4 4	—	2 2 7	PPC.28	4 4 0

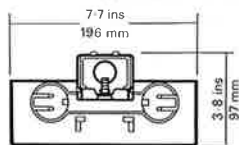
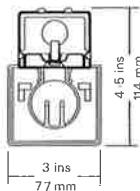
The above fittings are packed complete with White tube(s).

Price of fitting does not include tube(s).

#### DIMENSIONS

Cat. no.	Length in	mm	Weight lb	kg	Fixing centres in	mm
PPC/20	25-1	638	4-64	2-1	19-7	500
PPC/220	25-1	638	6-25	2-84	19-7	500
PPC/40	49-1	1248	7-0	3-2	24-0	610
PPC/240	49-1	1248	11-5	5-23	24-0	610
PPC/65	61-0	1550	9-2	4-2	24-0	610
PPC/265	61-0	1550	13-5	6-2	24-0	610
PPC/Q685	71-4	1818	10-0	4-5	24-0	610
PPC/Q2685	71-4	1818	14-3	6-5	24-0	610
PPC/125	95-4	2428	14-4	6-5	48-0	1220
PPC/2125	95-4	2428	21-5	9-8	48-0	1220

All fitting prices shown are those suggested as appropriate in UK for retail sale.



Standard fitting 230/240v 50Hz — other voltages shown to order at no extra charge.

Prices for fittings for other supplies on application.

20w 2ft	40w 4ft	65w 5ft	85w 6ft	125w 8ft
200/210v, 220v and 250v	—	—	—	250v

All fitting prices shown are those suggested as appropriate in UK for retail sale.

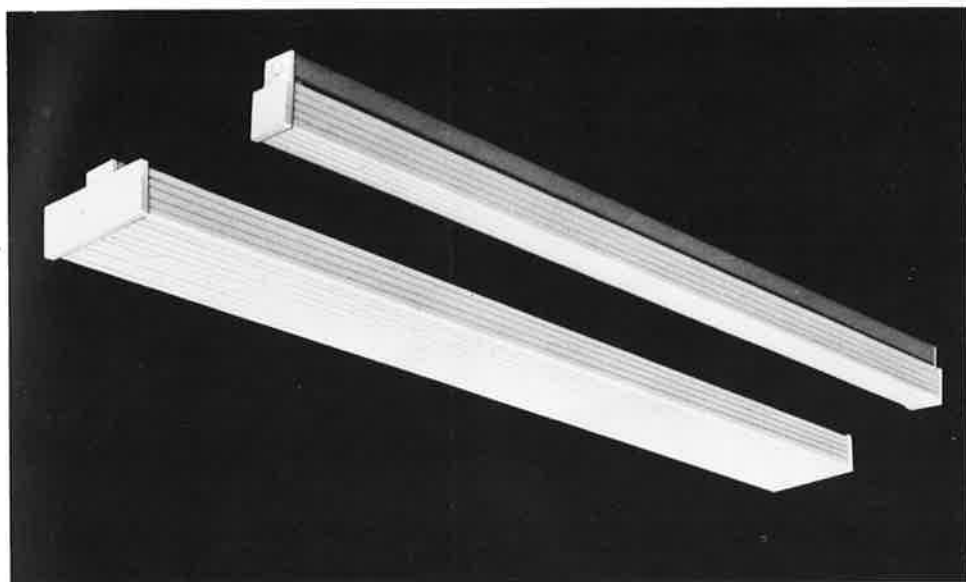
# atlas ekco

## New Popular Pack PPD plastic diffuser attachment

This white opal diffuser in extruded plastic with external reeding provides an extremely attractive and efficient fitting designed for general commercial and display use. The white plastic end-plates are simply fitted to the spine and enable the diffuser to be

quickly and easily removed for cleaning and general maintenance.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor normal atmospheres.



PPD/265

PPD/65

### RANGE AND PRICES (applicable to UK only)

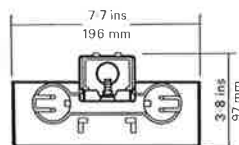
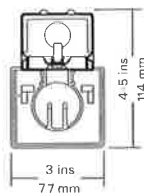
#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Fitting price £ s d	Net trade Tube(s) price £ s d	Tube P.T. s d	Diffuser P.T. £ s d	Diffuser Cat. no.	Price £ s d
2ft	20w Single	Switchstart	PPD/20	3 0 0	7 9	2 9	4 1	PPD.2	15 0
2ft	20w Twin	Switchstart	PPD/220	4 13 0	15 6	5 6	4 10	PPD.22	18 0
4ft	40w Single	Switchstart	PPD/40	4 2 0	7 7	2 9	5 8	PPD.4	1 1 0
4ft	40w Twin	Switchstart	PPD/240	8 3 0	15 2	5 6	11 0	PPD.24	2 1 0
5ft	65w Single	Switchstart	PPD/65	4 13 0	8 0	2 10	6 3	PPD.5	1 3 0
5ft	65w Twin	Switchstart	PPD/265	9 19 0	16 0	5 8	13 9	PPD.25	2 11 0
6ft	85w Single	Resonant Start	PPD/Q685	5 2 0	10 2	—	7 3	PPD.6	1 7 0
6ft	85w Twin	Resonant Start	PPD/Q2685	10 18 0	1 0 4	—	15 10	PPD.26	2 19 0
8ft	125w Single	Switchstart	PPD/125	7 11 0	12 2	—	10 9	PPD.8	2 0 0
8ft	125w Twin	Switchstart	PPD/2125	14 13 0	1 4 4	—	1 1 0	PPD.28	3 18 0

The above fittings are packed complete with White tube(s).  
Price of fitting does not include Tube(s).

#### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
PPD/20	25.1 638	4.5 2.0	19.7 500
PPD/220	25.1 638	5.75 2.6	19.7 500
PPD/40	49.1 1248	6.75 3.0	24.0 610
PPD/240	49.1 1248	11.0 5.0	24.0 610
PPD/65	61.0 1547	8.75 4.0	24.0 610
PPD/265	61.0 1547	14.5 6.6	24.0 610
PPD/Q685	71.4 1818	10.75 4.9	24.0 610
PPD/Q2685	71.4 1818	17.25 7.8	24.0 610
PPD/125	95.4 2428	13.0 5.9	48.0 1220
PPD 2125	95.4 2428	21.25 9.6	48.0 1220



Standard fitting 230/240v 50Hz – other voltages shown to order at no extra charge.  
Fitting prices for other supplies on application.

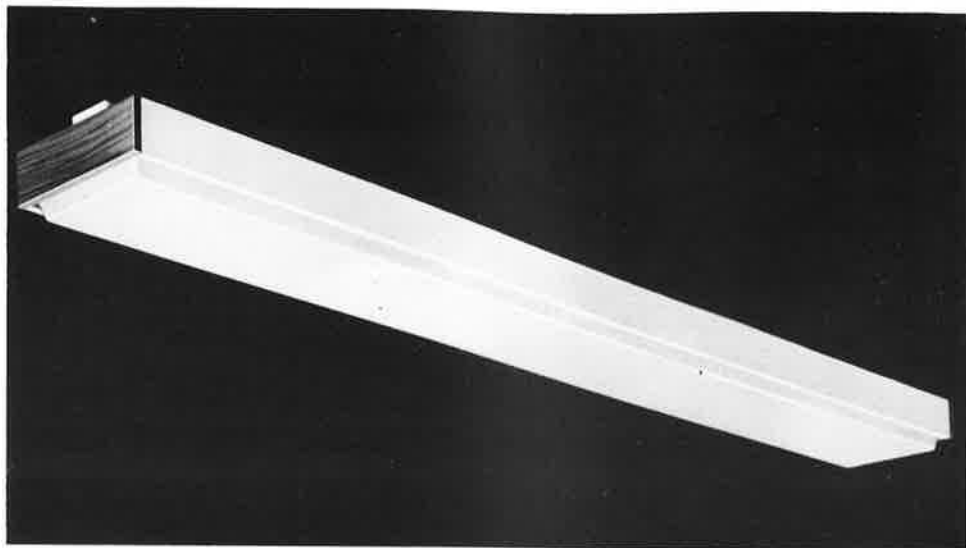
20w 2 ft	40w 4ft	65w 5ft	85w 6ft	125w 8ft
200/210v, 220v and 250v	—	—	—	250v

All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas ekco

## New Popular Pack PPF metal frame attachment

This extremely attractive metal frame attachment is finished in white stoved enamel gloss with smart wooden end-plates. The equally attractive plastic opal dish is easily installed into the base of the frame for quick lamp replacement. Mounting is by rod, chain or close ceiling suspension. These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor normal atmospheres.



PPF/265

### RANGE AND PRICES (applicable to UK only)

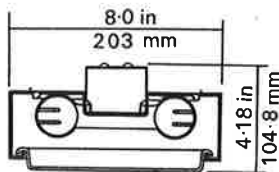
#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Fitting price £ s d	Net trade Tubes price s d	Tube P.T. s d	Attachment P.T. £ s d	Attachment Cat. no.	Price £ s d
5ft	65w Twin	Switchstart	PPF/265	13 17 0	16 0	5 8	1 14 8	PPF.25	6 9 0

The above fitting is packed complete with White tubes.  
Price of fitting does not include tube(s).

### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
PPF/265	61.1 1515	18.5 8.4	24 610



Standard fitting 230/240v 50Hz – the following voltages are also available at no extra charge, 200/210v, 220v and 250v.

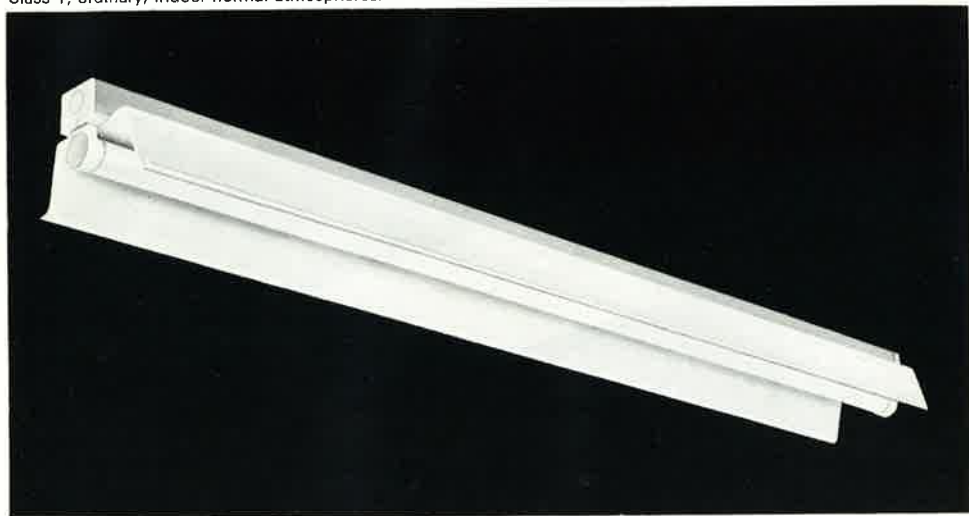
Fitting prices for other supplies on application.

All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas ekco

## New Popular Pack PPO plastic trough reflector

This opal plastic trough reflector provides generous upward light and an even spread of light in the downward plane. The plastic material is strong and sufficiently light-fast to maintain its efficiency with adequate maintenance throughout the life of the fitting. The reflector is easily attached to the spine by two screws retained by slideable spring nuts. This fitting complies fully with B.S.3820:1964 for Class 1, ordinary, indoor normal atmospheres.



PPO/65

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

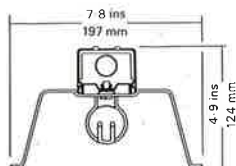
Nom. length	Rating	Circuit	Cat. no.	Fitting price			Net trade Tube price		Tube P.T. s d	Reflector Cat. no.	Price, No P.T.		
				£	s	d	£	s			£	s	d
5ft	65w Single	Switchstart	PPO/65	5	19	0	7	3	2 7	PPO.5	2	9	0

The above fitting is supplied with white tube.

Price of fitting does not include tube(s).

### DIMENSIONS

Cat. no.	Length		Weight		Fixing centres	
	in	mm	lb	kg	in	mm
PPO/65	60.1	1525	10.1	4.6	24	610



Standard fitting 230/240v 50Hz – the following voltages are also available at no extra charge. 200/210v, 220v and 250v.

Fitting prices for other supplies on application.

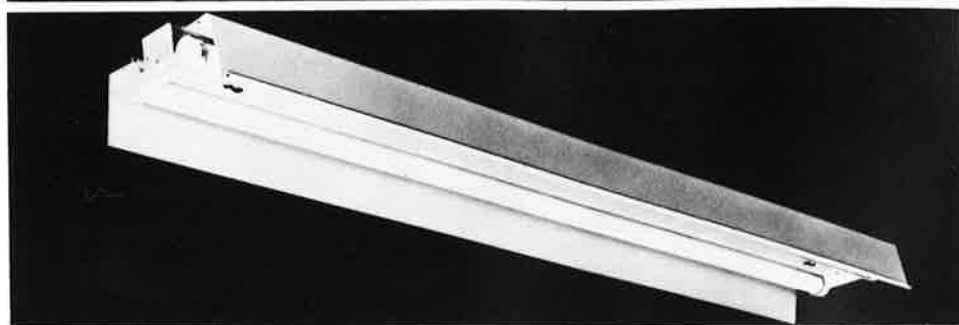
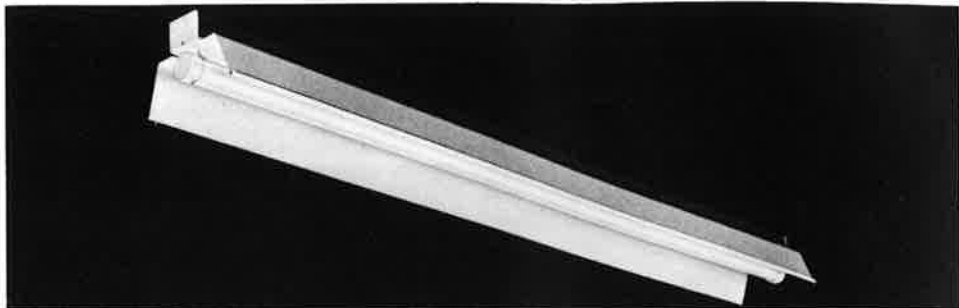
All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas ekco

## New Popular Pack PPR metal reflector

This open-ended metal trough reflector gives generous upward lighting. Finished in white stoved enamel, it is easily fitted by means of sliding captive screws for the one piece single tube reflector. The twin reflector is supplied in two halves which are simply clipped onto two brackets positioned behind the batten,

providing an extremely attractive and efficient attachment. These reflectors are suitable for many industrial applications where high efficiency and easy maintenance are important features. These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



PPR/65

PPR/265

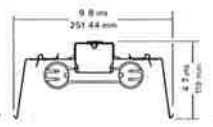
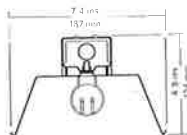
### RANGE AND PRICES (applicable to UK only)

Complete fitting				Fitting price		Nettrade Tube(s) price		Tube P.T.		Reflector Cat. no.		Price. No P.T.	
Nom. length	Rating	Circuit	Cat. no.	£	s d	£	s d	£	s d			£	s d
4ft	40w Single	Switchstart	PPR/40	4	6 0	7	7	2	9	PPR.4		1	5 0
4ft	40w Twin	Switchstart	PPR/240	7	16 0	15	2	5	5	PPR.24		1	14 0
5ft	65w Single	Switchstart	PPR/65	4	16 0	8	0	2	10	PPR.5		1	6 0
5ft	65w Twin	Switchstart	PPR/265	9	3 0	16	0	5	8	PPR.25		1	15 0
6ft	85w Single	Resonant Start	PPR/Q685	5	5 0	10	2	—	—	PPR.6		1	10 0
6ft	85w Twin	Resonant Start	PPR/Q2685	10	0 0	1	0 4	—	—	PPR.26		2	1 0
8ft	125w Single	Switchstart	PPR/125	7	16 0	12	2	—	—	PPR.8		2	5 0
8ft	125w Twin	Switchstart	PPR/2125	13	4 0	1	4 4	—	—	PPR.28		2	9 0

The above fittings are packed complete with White tube(s).  
Price of fitting does not include tube(s).

### DIMENSIONS

Cat. no.	Length in	mm	Weight lb	kg	Fixing in	centres mm
PPR/40	48.2	1224	10.5	4.75	24	610
PPR/240	48.2	1224	13.75	6.3	24	610
PPR/65	60.1	1525	13.75	6.3	24	610
PPR/265	60.1	1525	19.0	8.6	24	610
PPR/Q685	70.4	1788	16.5	7.5	24	610
PPR/Q2685	70.4	1788	18.1	8.2	24	610
PPR/125	94.4	2398	20.25	9.2	48	1220
PPR/2125	94.4	2398	27.25	12.25	48	1220



Standard fitting 230/240v 50Hz - other voltages shown to order at no extra charge.  
Fitting prices for other supplies on application.

40w 4ft	65w 5ft	85w 6ft	125w 8ft
200/210v, 220v and 250v	—	—	250v

All fitting prices shown are those suggested as appropriate in UK for retail sale.

## New Popular Pack 'Twindustrial' twin reflector fitting

This new twin, open-ended metal reflector fitting is one of the latest additions to the Popular Pack range. It incorporates all the well-proven design features of the existing Popular Pack types plus a number of additional features of maximum advantage in a fitting for industrial use.

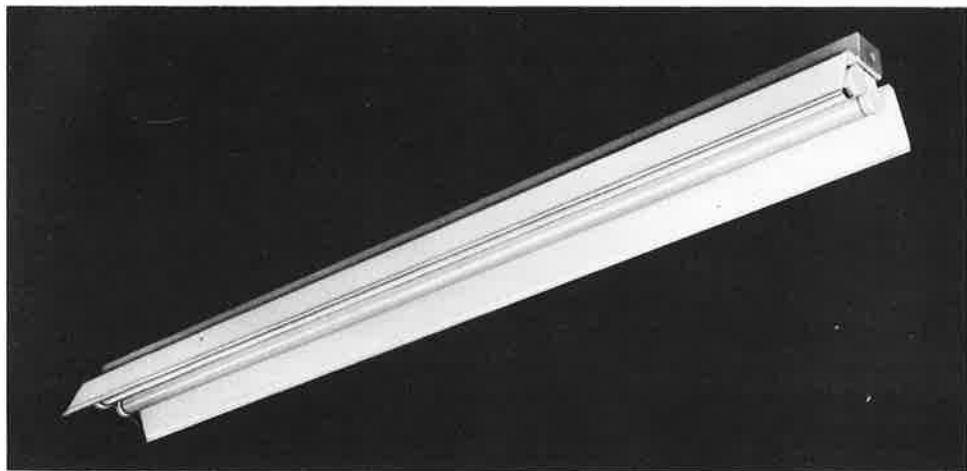
Metal end-plates incorporating knock-outs are used and the tube spacing enables a smaller but equally efficient reflector to be employed.

The fitting being produced primarily for industrial use is packed complete, that is basic spine, reflector

and tubes in one carton giving advantages throughout the distribution chain in stocking, component availability, transportation and general convenience.

The spine is finished in grey stoved enamel to B.S.381C, colour 694 and the reflector in white stoved enamel.

This fitting complies fully with B.S.3820:1964 for Class 1, ordinary, indoor normal atmospheres.



PPTQ.2685

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Fitting Price £ s d	Net Trade Tubes Price s d	P.T.
6ft	85w Twin	Resonant Start	PPTQ.2685	9 5 0	1 0 4	NIL

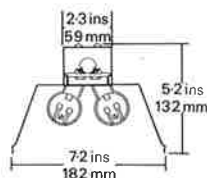
The above fitting is packed complete with White tubes.  
Price of fitting does not include tubes.

### DIMENSIONS

Cat. no.	Length in	mm	Weight lb	kg	Fixing centres in	mm
PPTQ.2685	70.4	1788	14.75	6.7	24	610

Standard fitting 230/240v 50Hz.

Fitting prices for other supplies on application.



All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas ekco

## Sentinel Popular Pack

The scope and versatility of the Popular Pack range has now been further extended by the introduction of the Sentinel Enclosures. These enclosures combined with 6ft Popular Pack fittings fulfill the protection needs for many under canopy, open building and corrosive situations.

The construction is a simple but effective 2-piece structure, formed by the combination of a grey glass fibre canopy and an acrylic lower moulding. Six captive clips provide easy, positive fastening and soft gaskets seal the enclosures from external environmental conditions.

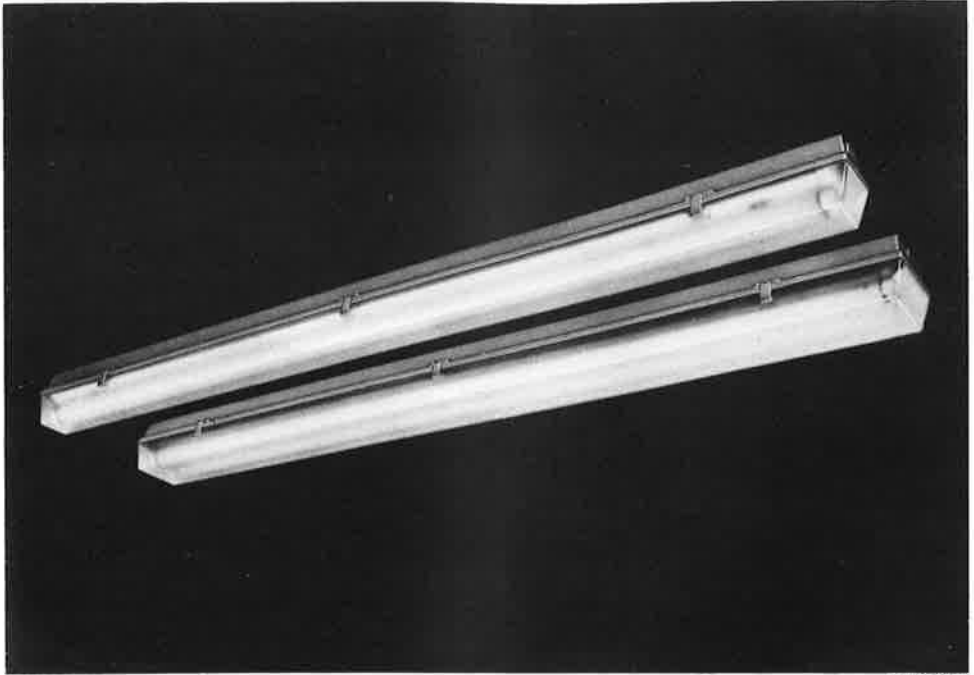
The Sentinel is available in Single and Twin forms. The single enclosure is supplied separately for use with a standard 6ft 85 watt batten PPO 685 while the twin

is supplied complete in one pack i.e. batten, tubes and enclosures.

Comparable fittings generally employ 5ft tubes as the accepted size but with the 6ft 85 watt tube the Sentinel supplies some 30% more light, which is particularly important in situations for which this product will be employed.

Although functional in design the grey glass fibre canopy and clear stippled lower enclosure form a combination which is attractive in appearance and tough in use.

These fittings comply fully with B.S.3820:1964 for categories - Class I, rainproof, dustproof, outdoors and chemically corrosive.



PPO685 & PPU6

PPUQ 2685

### RANGE AND PRICES (applicable to UK only)

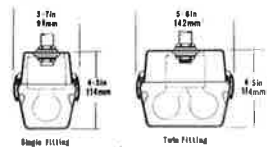
#### Fitting type

Nom. length	Rating	Circuit	Cat. no.	Description	Fitting or Attachment Price			Net Trade Tube(s) Price			Tube Purchase Tax
					£	s	d	£	s	d	
6ft	85w Single	Resonant Start	PPQ685 PPU6	Single 6ft 85w batten Single tube enclosure	3	15	0	10	2		None None
6ft	85w Twin	Resonant Start	PPUQ2685	Twin Sentinel fitting	17	4	0	1	0	4	None

The above fittings are packed complete with White tube(s).  
Price of fitting does not include tube(s).

### DIMENSIONS

Cat. no.	Length		Fixing centres		Weight	
	in	mm	in	mm	lb	kg
PPQ685 & PPU6	72.8	1850	24	610	13	5.9
PPUQ 2685	72.8	1850	24	610	20	9.1



Standard fitting 230/240v 50Hz.

Fitting prices for other supplies on application.

All fitting prices shown are those suggested as appropriate in UK for retail sale.

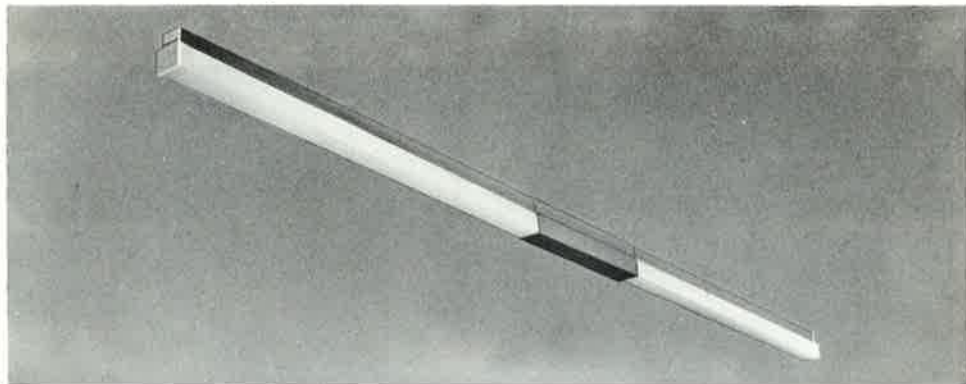
# atlas

## Popular Pack One-Plus-One attachment

The One-Plus-One attachment is a new and interesting method for illuminating interior areas. The fitting is formed from a combination of a central box housing and two individual Pop Pack fittings in tandem; an arrangement that can be extended to give a continuous structure. This is particularly suitable for schools, supermarkets, shops and all indoor establishments where a good general level of illumination is required. The One-Plus-One can be used to form combinations of various sizes, dependent only on the type of Pop Pack employed, with a choice of opal diffuser or prismatic controller attachments.

This new form of lighting is not solely functional the end product having clean lines and an attraction in appearance in addition to the worthwhile simplification in wiring and installation. It should be noted that the One-Plus-One is suitable for ceiling mounting only.

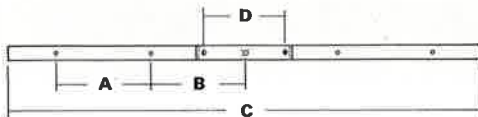
These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres when used in conjunction with Popular Pack fittings mentioned.



### PRICE (applicable to UK only)

Cat. no.	Attachment Price			P. Tax		Dimensions		weight		fixing centres	
	£	s	d	s	d	length in	mm	lb	kg	in	mm
<b>AMEM 6180</b>											
<b>One-Plus-One</b>	<b>1</b>	<b>18</b>	<b>0</b>	<b>10</b>	<b>3</b>	24	610	3.25	1.5	18	457
										and centre BS box piercing	

Prices and details of fittings for use with the One-Plus-One attachment are given on pages CA77 and CA79.



### Arrangement Data

Dimensions shown include various size fittings combined with the One-Plus-One attachment.

Nom. fitting size	A		B		C PPC or PPD		D	
	in	mm	in	mm	in	mm	in	mm
2ft	19.7	500	14.06	357	72.93	1852	18	457
4ft	24	610	23.91	607	120.93	3070	18	457
5ft	24	610	29.86	758	144.73	3655	18	457
6ft	24	610	35.01	889	165.33	4199	18	457
8ft	48	1220	35.01	889	213.33	5418	18	457

All fitting prices shown are those suggested as appropriate in UK for retail sale.



# atlas ekco

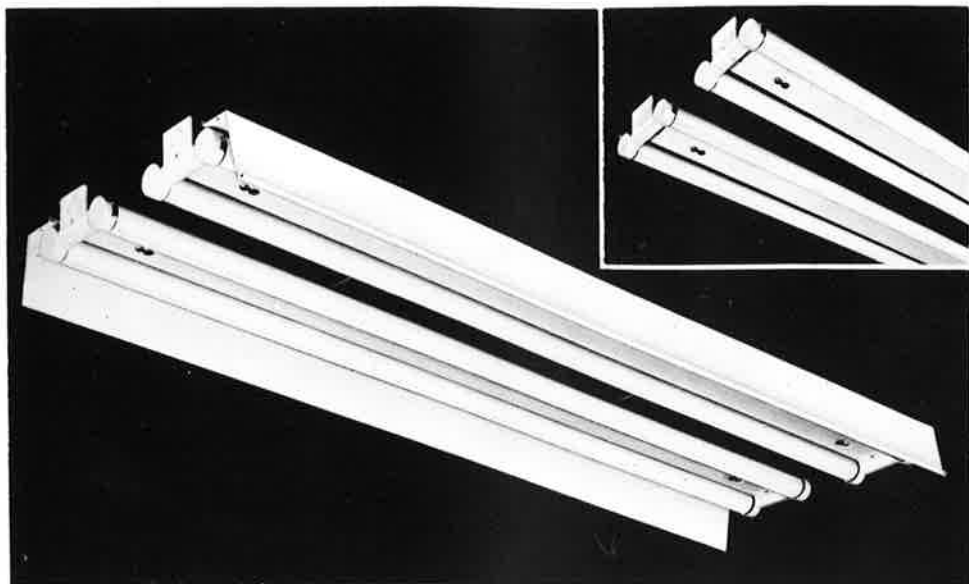
## 'Double Twin' Popular Pack arrangements

By the use of the accessories detailed below it is possible to assemble economically priced four tube fitting arrangements.

These are made up of standard twin batten fittings in various lengths coupled together by two suspension bridges AMEM6109 or alternative to this combination reflector cheeks can be added by means of the special brackets AMEM6110.

Twindustrial reflector fittings can also be used coupled together in this way.

Individual twin fitting details and prices are given on pages CA77, CA83 and CA84



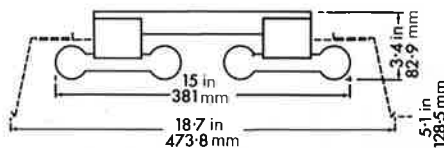
### RANGE AND PRICES (applicable to UK only)

Fitting type	Accessories	Total price of accessories £ s d
<b>4 tube batten and Twindustrial fittings</b>		
5ft, 6ft and 8ft	2, AMEM6109 bridges	19 0
<b>4 tube reflector fitting</b>		
5ft	2, AMEM6109 bridges, 4, AMEM6110 brackets, 1, PPR25 reflector	3 18 0
6ft	2, AMEM6109 bridges, 4, AMEM6110 brackets, 1, PPR26 reflector	4 5 0
8ft	2, AMEM6109 bridges, 6, AMEM6110 brackets, 1, PPR28 reflector	6 4 0

Price of fitting does not include tube(s).

### DIMENSIONS

Batten fitting	Length in mm	Weight lb kg	Fixing centres in mm
5ft	60.1 1525	24.1 11.0	24 610
6ft	70.4 1788	25.3 11.5	24 610
8ft	94.4 2398	37.5 17.1	48 1220
<b>Cheek/Reflector fitting</b>			
5ft	60.1 1525	37.5 17.1	24 610
6ft	70.4 1788	38.5 17.5	24 610
8ft	94.4 2398	52.5 23.9	48 1220
<b>Double Twindustrial Reflector fitting</b>			
6ft	70.4 1788	31 14.1	24 610

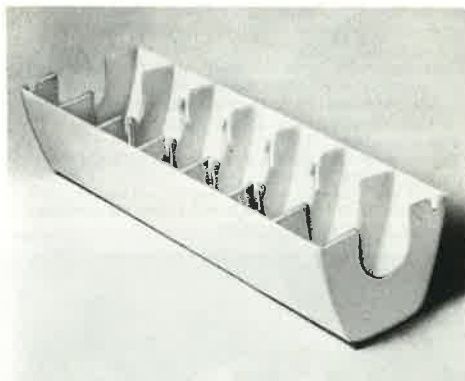


All fitting prices shown are those suggested as appropriate in UK for retail sale.

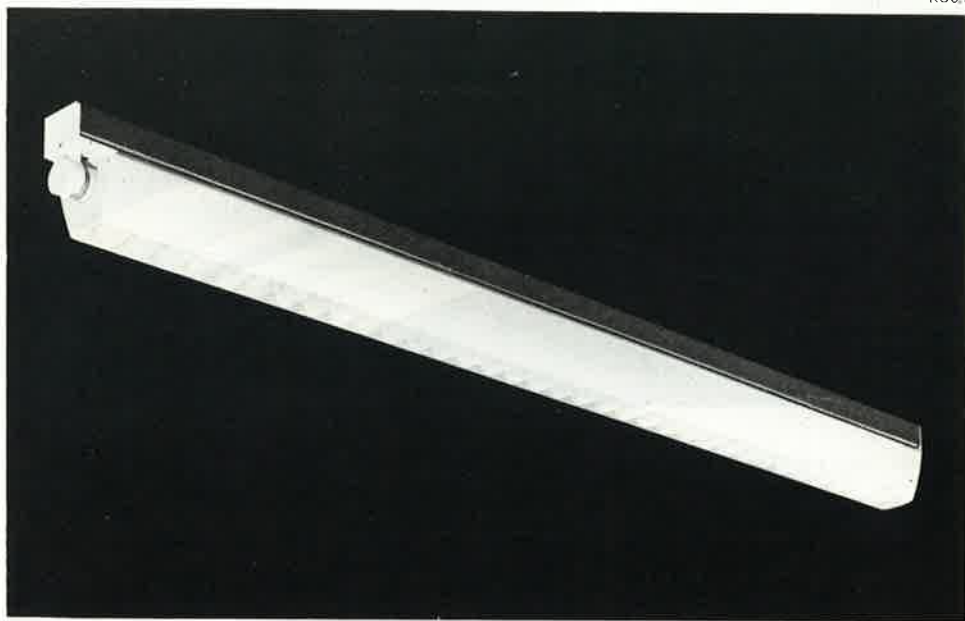
# atlas ekco

## New Popular Pack 'Clipluve' sectional louvres

Bare lamp shielding in an economical form is provided by these practical and decorative opal plastic units which clip directly on to the lamp. KU5,P pack contains five 11-5 in. (292mm) sections suitable for bi-pin tubes. Four, five, six or eight sections are required according to the length of tube. The sections are fully interlocking to ensure alignment and are quickly detachable in sections for easy maintenance and washing. (Patent no. 751990.) 'Clipluve' meets the maximum brightness requirements set by the 'Standards for School Regulations 1959'.



KU5,P

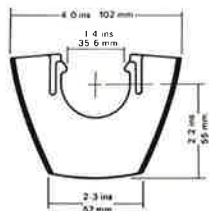


KU5,P 'Clipluve' on PP,65 Batten

### PRICE (applicable to UK only)

Cat. no.	Price		P.T.	
	£	d	£	d
KU5,P	19	0	6	2
5-piece pack				

Price shown is that suggested as appropriate in UK for retail sale.



# atlas

## Arrow-slim LX batten fittings

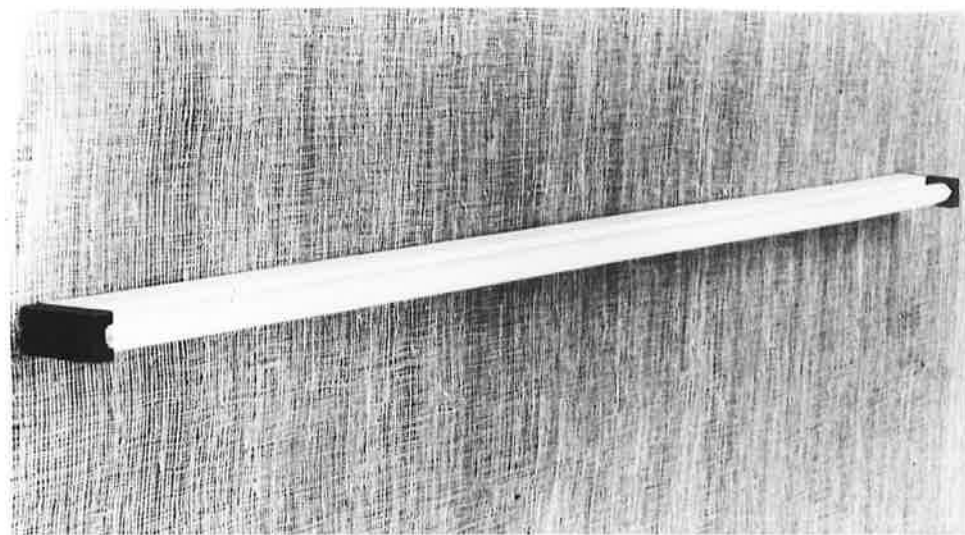
**LXS single batten fitting.** The 'Arrow-slim' basic batten, with its three-position twist lampholder, can be used in any location where an unshielded fluorescent tube is acceptable. These ultra-slim batten fittings are available in 3ft 30w and 5ft 50w sizes and are supplied ready packed complete with Warm White tubes.

*In exceptionally quiet locations care should be taken that the small amount of operating noise of these fittings is not amplified by the structure on which they are mounted. 'Softening' the mounting by rubber grommets will minimise the noise.*

Fluorescent fittings (except special types) are unsuitable for situations where very frequent switching takes place.

A pull switch AMEM6119 is available for wall mounted fittings at 9s 0d.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor normal atmospheres.



LX.S1050

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Rating	Circuit	Cat. no.	Fitting Price £ s d	Net Trade Tube Price s d	Tube P.T. s d
30w Single	Switchstart	LX.S1030	2 18 0	8 1	2 11
50w Single	Switchstart	LX.S1050	4 6 0	8 9	3 9

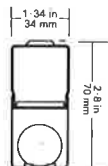
The above fittings are packed complete with Warm White tube.  
Price of fitting does not include tube.

Voltages: These fittings are suitable for 230/240v 50Hz.

Fitting prices for other supplies on application.

#### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
LX.S1030	36 914	4.25 1.83	24 610
LX.S1050	59.9 1521	6.0 2.72	24 610



All fitting prices shown are those suggested as appropriate in UK for retail sale.

## Arrow-slim LXA-LXB attachments

**LXA raffia attachment.** This woven raffia diffuser blends simply with furnishings of bedrooms, lounges, hallways, etc., and is easily clipped on to the tube by spring clips situated at each end of the attachment.

**LXB metal baffle.** Complementary to the LXA attachment this lustre finished baffle can be used in similar situations where upward and downward lighting is required to accentuate textures, paintings, etc. The baffle is attached easily and quickly to the tube by spring clips.

*In exceptionally quiet locations care should be taken that the small amount of operating noise of these fittings is not amplified by the structure on which they are mounted. 'Softening' the mounting by rubber grommets will minimise the noise.*

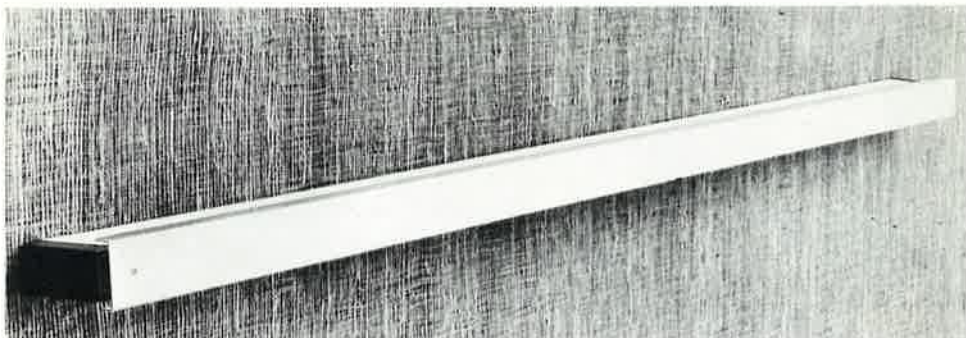
Fluorescent fittings (except special types) are unsuitable for situations where very frequent switching takes place.

A pull switch AMEM6119 is available for wall mounted fittings at 9s 0d.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



LXA/S1050



LXB/S1050

### RANGE AND PRICES (applicable to UK only)

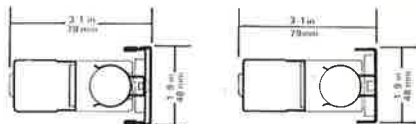
Complete fitting

Rating	Circuit	Cat. no.	Fitting Price £ s d	Net Trade Tube Price s d	Tube P.T. s d	Attach. P.T. s d	Attach. Cat. no.	Price £ s d
30w Single	Switchstart	LXA/S1030	3 14 0	8 1	2 11	4 4	LXA.13	16 0
50w Single	Switchstart	LXA/S1050	5 9 0	8 9	3 2	6 3	LXA.15	1 3 0
30w Single	Switchstart	LXB/S1030	4 5 0	8 1	2 11	7 3	LXB.13	1 7 0
50w Single	Switchstart	LXB/S1050	6 4 0	8 9	3 2	10 3	LXB.15	1 18 0

The above fittings are packed complete with Warm White tubes.  
Price of fitting does not include tube(s).

### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
LXA/S1030	36 914	4.45 2.0	24 610
LXA/S1050	60 1524	6.5 2.95	24 610
LXB/S1030	36 914	4.55 2.1	24 610
LXB/S1050	60 1524	7.7 3.5	24 610



Available in 230/240v 50Hz.  
Fitting prices for other supplies on application.

All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas

## Arrow-slim LXC diffuser

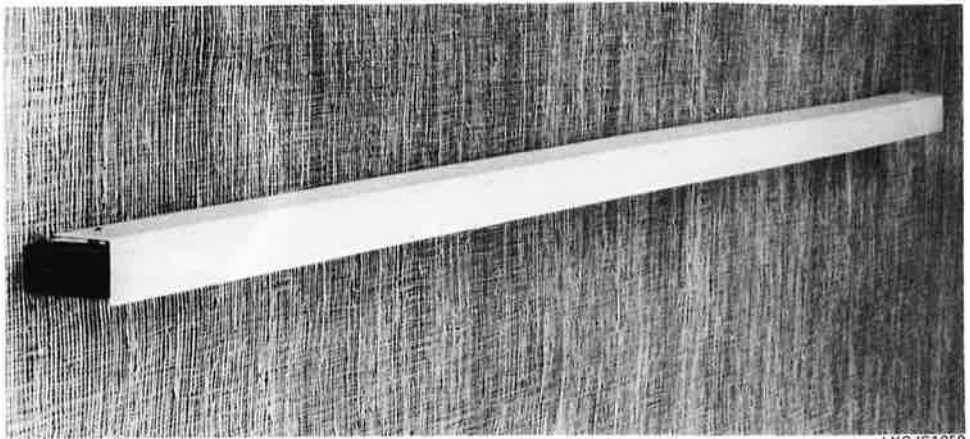
**LXC diffuser attachment.** This diffuser is extruded from opal plastic and is easily attached to the tube by spring clips. The diffuser may be used with a wall mounted batten fitting to give unobstructed downward light and general diffused light. Inverted or vertical mounting positions are also possible.

*In exceptionally quiet locations care should be taken that the small amount of operating noise of these fittings is not amplified by the structure on which they are mounted. 'Softening' the mounting by rubber grommets will minimise the noise.*

Fluorescent fittings (except special types) are unsuitable for situations where very frequent switching takes place.

A pull switch AMEM6119 is available for wall mounted fittings at 9s Od.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



LXC/S1050

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Rating	Circuit	Cat. no.	Fitting Price £ s d	Net Trade Tube Price s d	Tube P.T. s d	Diffuser P.T. s d	Diffuser Cat. no.	Price s d
30w Single	Switchstart	LXC/S1030	3 10 0	8 1	2 11	3 3	LXC.13	12 0
50w Single	Switchstart	LXC/S1050	5 2 0	8 9	3 2	4 4	LXC.15	16 0

The above fittings are packed complete with Warm White tubes.

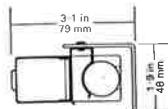
Price of fitting does not include tube(s).

Voltages: These fittings are suitable for 230/240v 50Hz.

Fitting prices for other supplies on application.

### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
LXC/S1030	36 914	4.75 2.2	24 610
LXC/S1050	60 1524	8.0 3.6	24 610



All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas

## Arrow-slim LXE and LXF attachments

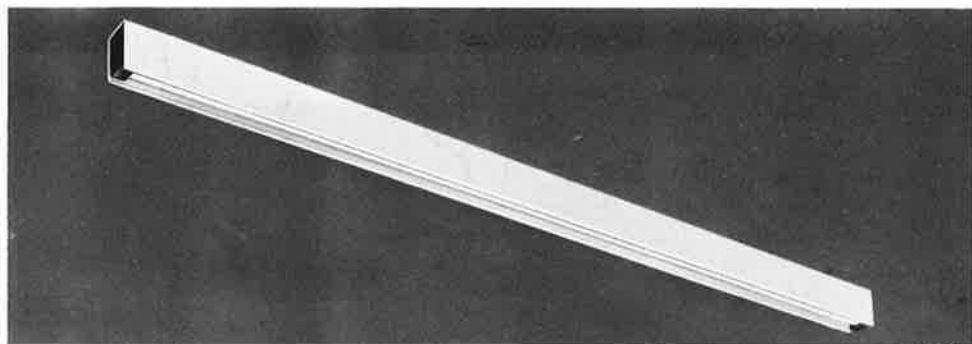
**LXE metal trough reflector.** This white finished reflector is ideal for situations where the maximum downward lighting is required such as shop window, pelmets and similar locations. Fixing is achieved by placing the reflector over the LX batten where it is held by the normal suspension fixings.

**LXF two-tone single diffuser:** Extruded plastic diffuser with clear fine reeded base and opal sides which gives an even downward distribution of light, yet cuts fitting brightness to the minimum. Ideally suited for small shops and stores where an attractive yet unobtrusive fitting is desirable. Fixing is by means

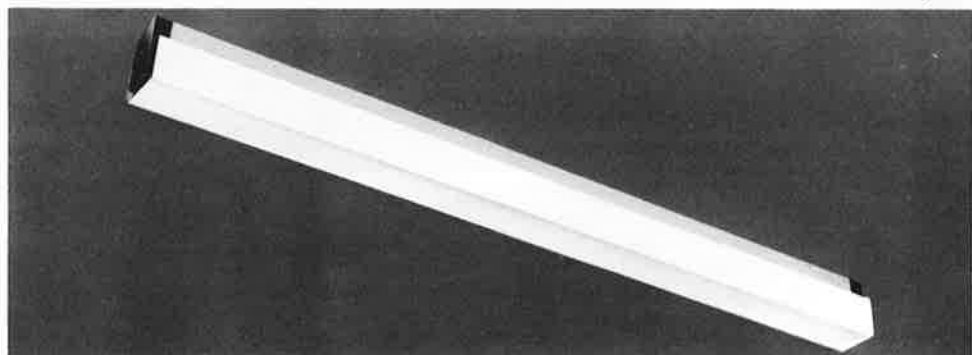
of spring clips fitted to the end of the diffuser. *In exceptionally quiet locations care should be taken that the small amount of operating noise of these fittings is not amplified by the structure on which they are mounted. 'Softening' the mounting by rubber grommets will minimise the noise.*

Fluorescent fittings (except special types) are unsuitable for situations where very frequent switching takes place. A pull switch AMEM6119 is available for wall mounted fittings at 9s 0d.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.



LXE/S1050



LXF/S1030

### RANGE AND PRICES (applicable to UK only)

Complete fitting				Fitting Price		Net Trade Tube Price		Tube P.T.		Attach. P.T.		Attach. Cat. no.		Price	
Rating	Circuit	Cat. no.		£	s d	£	s d	s	d	s	d			£	s d
30w Single	Switchstart	LXE/S1030		3	14 0	8	1	2	11	4	4	LXE.13		16	0
50w Single	Switchstart	LXE/S1050		5	8 0	8	9	3	2	5	11	LXE.15		1	2 0
30w Single	Switchstart	LXF/S1030		3	18 0	8	1	2	11	5	5	LXF.13		1	0 0
50w Single	Switchstart	LXF/S1050		5	14 0	8	9	3	2	7	7	LXF.15		1	8 0

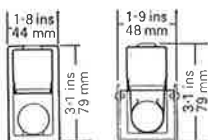
The above fittings are packed complete with Warm White tube.

Price of fitting does not include tube.

### DIMENSIONS

Cat. no.	Length in	mm	Weight lb	kg	Fixing centres in	mm
LXE/S1030	36	914	5.75	2.61	24	610
LXE/S1050	60	1524	11.3	5.1	24	610
LXF/S1030	36	914	4.75	2.2	24	610
LXF/S1050	60	1524	7.0	3.2	24	610

Available in 230/240v 50Hz.  
Fitting prices for other supplies  
on application.



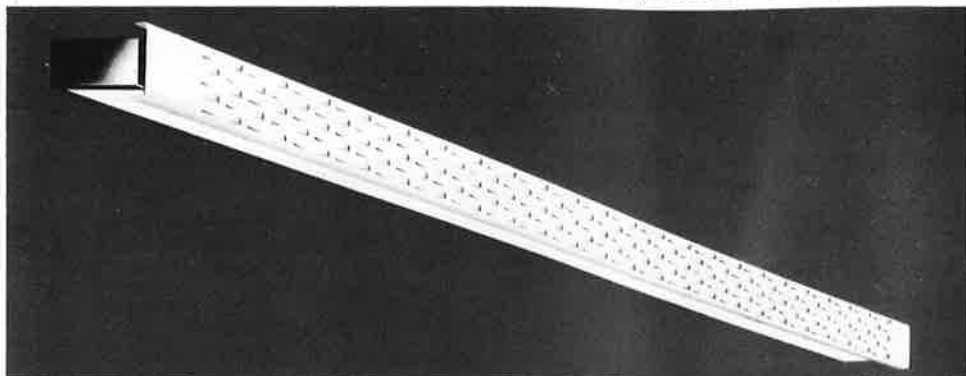
All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas

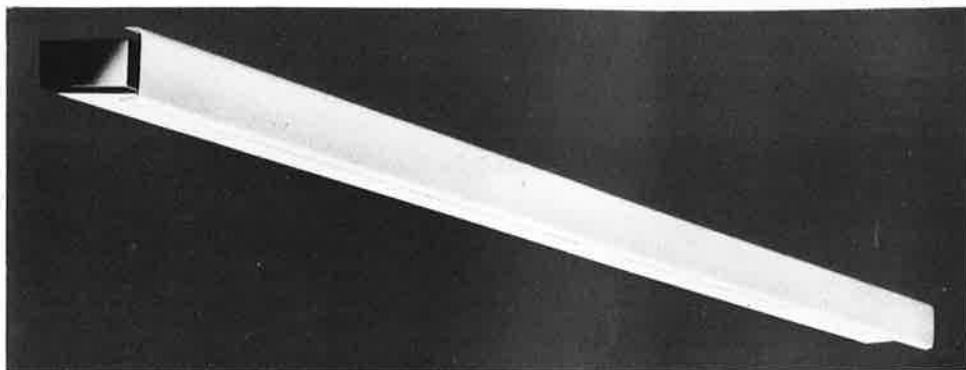
## Arrow-slim WGB and TB attachments

### Arrow-slim 'Weave Glint Baffle' attachment.

This attractive pierced metal baffle gives a pleasant, interesting inter-woven effect, screening the lamp from direct view, yet providing upward and downward lighting to walls, papers, textures, paintings, etc. The baffle is finished white outside and red inside, the red finish providing a soft background glow when lit. This baffle is very easily attached by spring clips to the lamp.



5WGB/LX.S1050



5TB/LX.S1050

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

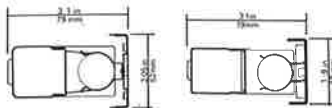
Rating	Circuit	Cat. no.	Fitting Price £ s d	Net Trade Tube Price s d	Tube P.T. s d	Attach. Cat. no.	Price £ s d	Attach. P.T. s d
30w Single	Switchstart	3WGB/LX.S1030	3 16 0	8 1	2 11	3WGB	18 0	4 10
50w Single	Switchstart	5WGB/LX.S1050	5 11 0	8 9	3 2	5WGB	1 5 0	6 9
30w Single	Switchstart	3TB/LX.S1030	3 14 0	8 1	2 11	3TB	16 0	4 4
50w Single	Switchstart	5TB/LX.S1050	5 9 0	8 9	3 2	5TB	1 3 0	6 3

The above fittings are packed complete with Warm White tube.

Price of fitting does not include tube.

### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
3WGB/LX.S1030	36 914	4.6 2.1	24 610
5WGB/LX.S1050	60 1524	6.65 3.1	24 610
3TB/LX.S1030	36 914	4.0 1.81	24 610
5TB/LX.S1050	60 1524	5.8 2.62	24 610



Available in 230/240v 50Hz.

Fitting prices for other supplies on application.

All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas

## LJ Series Minipack fittings

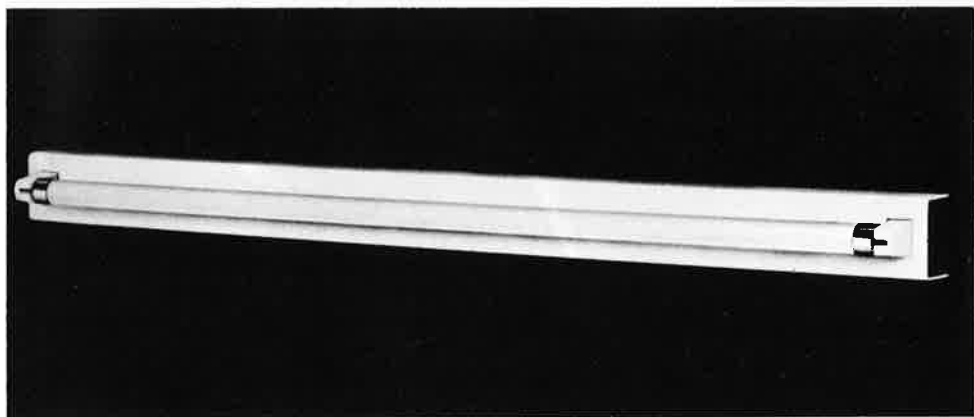
The Minipack is the smallest fluorescent fitting to be offered for everyday use. They provide miniature fluorescent lighting for many uses including display cabinets, public notice signs, hotel mirrors and the range of attachments (see overleaf) broadens the application even further. The 12 in long version gives more light than a 40w tungsten lamp. Especially impressive, the 21 in model gives a better output than three 30w tungsten striplights. The low volt d.c. versions are suitable for caravans, cars, commercial transport signs, mobile shops, emergency lighting, etc. The body assembly has two-tone colouring – the channel cover is white and the channel and end plates are grey. To gain access to the control gear, the white moulded lamp holders are rocked slightly forward to

release the cover which can be completely removed for installation and servicing.

**PULL SWITCH**, Cat. No. AMEM6117. A pull switch is an added convenience and is available for all models except the L.J.R1008. 12 fitting at 9s extra.

**SHELF CLIPS**, Cat. No. AMEM6118. An elegant form of accent lighting is to use this fitting to illuminate objects on shelves. For this purpose two single clips are available which locate inside the batten and securely onto the shelf, accommodating shelf thickness up to 1 in. Price 2s per pair.

These fittings comply with B.S.3820:1964 for fully Class 1, ordinary, indoor normal atmospheres.



LJS1013

### RANGE AND PRICES (applicable to UK only)

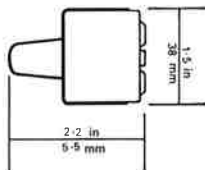
Complete fitting – 230/250v 50Hz mains voltage

Rating	Circuit	Cat. no.	Fitting Price £ s d	Net Trade Tube Price s d	Tube P.T. s d
8w Single	Switchstart	L.J.S1008.H	2 7 0	6 3	2 3
13w Single	Switchstart	L.J.S1013.H	2 10 0	9 6	3 5
Transistor operated fitting – 6v d.c.					
8w Single	Quickstart	L.J.R1008.6	6 12 0	6 3	2 3
Transistor operated fitting – 12v d.c.					
8w Single	Quickstart	L.J.R1008.12	6 1 0	6 3	2 3
13w Single	Quickstart	L.J.R1013.12	6 3 0	9 6	3 5
Transistor operated fitting – 24v d.c.					
8w Single	Quickstart	L.J.R1008.24	6 7 0	6 3	2 3
13w Single	Quickstart	L.J.R1013.24	6 8 0	9 6	3 5

The above fittings are packed with Warm White tube.  
Price of fitting does not include tube.

### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
L.J.S1008.H	12.75 324	2.0 0.85	11 279
L.J.S1013.H	21.75 552	2.5 1.1	18 457
L.J.R1008 low volt dc	12.75 324	1.2 0.55	11 279
L.J.R1013 low volt dc	21.75 552	2.0 0.85	18 457



All fitting prices shown are those suggested as appropriate in UK for retail sale.



# atlas

## LJA, LJN, LGB, TB Minipack attachments

Minipacks offer a choice of four attractive attachments suitable for all domestic and commercial situations.



### LJA Raffia attachment

This woven natural raffia attachment blends simply with furnishing of bedrooms, hallways, lounges etc. and is easily clipped on to the tube by a spring clip mounted at each end of the attachment.

LJA,121



### LJN Opal plastic diffuser

This attractive white opal diffuser is designed for more general use, with its clean simple appearance, it is suitable for any application. The diffuser is attached easily and quickly by spring clips.

LJN,121



### LGB Line Glint baffle

A slotted metal attachment finished in white stoved enamel for wall mounting use, which gives a very pleasing effect screening the lamp from view yet providing outward and downward lighting.

21,LGB



### TB Tropicana baffle

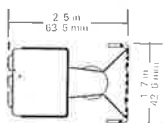
Stiffened orange linen baffle particularly suitable for wall mounting giving a delightful effect and helping to create 'atmosphere'. Most suitable for modern interiors giving upward and downward lighting whilst screening the lamp from direct view.

21,TB

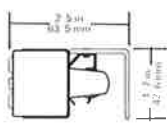
## RANGE AND PRICES (applicable to UK only)

### Attachments only

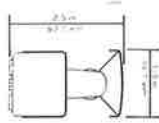
Type	Size (in)	Cat. no.	Price s d	P.T. s d	Total s d
Raffia	12	LJA.112	11 0	3 0	14 0
Raffia	21	LJA.121	13 0	3 6	16 6
Opal Plastic	12	LJN.112	9 0	2 5	11 5
Opal Plastic	21	LJN.121	10 0	2 9	12 9
Line Glint	12	12.LGB	9 0	2 5	11 5
Line Glint	21	21.LGB	12 0	3 3	15 3
Tropicana	12	12.TB	11 0	3 0	14 0
Tropicana	21	21.TB	13 0	3 6	16 6



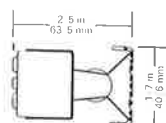
LJA



LJN



LGB



TB

All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas

## 'Au Pair' Homelight

The Atlas Au Pair is the newest addition to the range of domestic fluorescent fittings; designed specifically to meet the requirements of home lighting situations, the shallow modern construction will enhance the decor of most rooms.

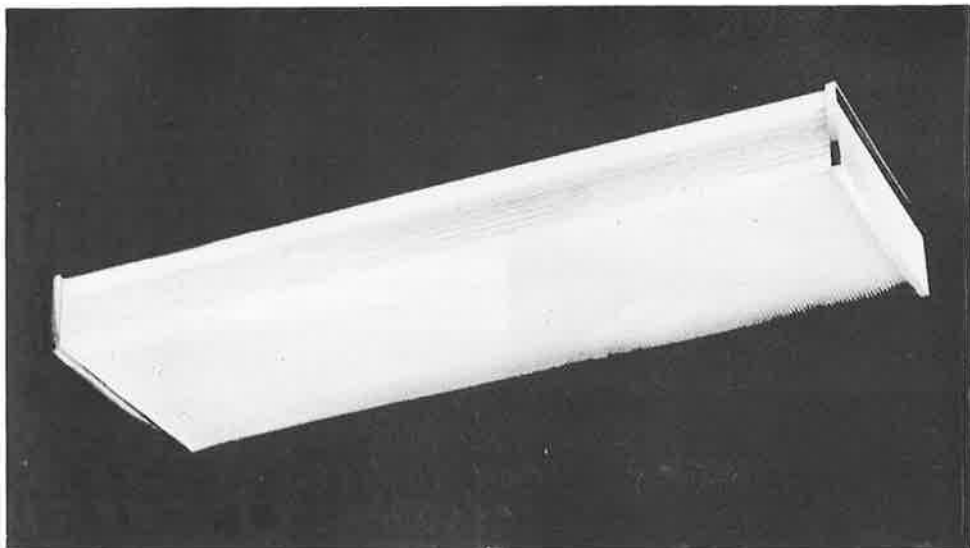
By virtue of the enclosed structure, dust and flies are excluded from the fitting, an aspect that makes the Au Pair particularly suitable for kitchen environments. The use of this fitting, however, is not limited to the kitchen. The Au-Pair has many other uses in the home such as hall-ways, stair-cases, landings and bathrooms where its enclosed good looks and low running cost

ideally suit such situations.

Full use is made of the prismatic controller in channelling light in the downward, vertical direction where it is most needed. In addition glare, sometimes experienced with other types of diffuser, is effectively controlled.

Easy and quick to install the Au Pair, with its compact, sophisticated design meets the requirements for a functional yet attractive domestic fitting.

These fittings comply fully with B.S.3820:1964 for Class 1, ordinary, indoor, normal atmospheres,



### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

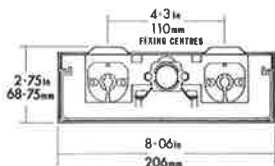
Nom. length	Rating	Circuit	Cat. no.	Fitting Price £ s d	Fitting P.T. s d	Net Trade Tube Price £ s d	Tube P.T. s d
2ft	20w Twin	Switchstart	SK.220	4 10 6	16 10	15 6	5 6

The above fitting is packed complete with Warm White tubes.  
Price of fitting does not include tube(s).

### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
SK.220	24.8 630	6.25 2.76	15.75 400

Standard fitting 230/240v 50Hz.



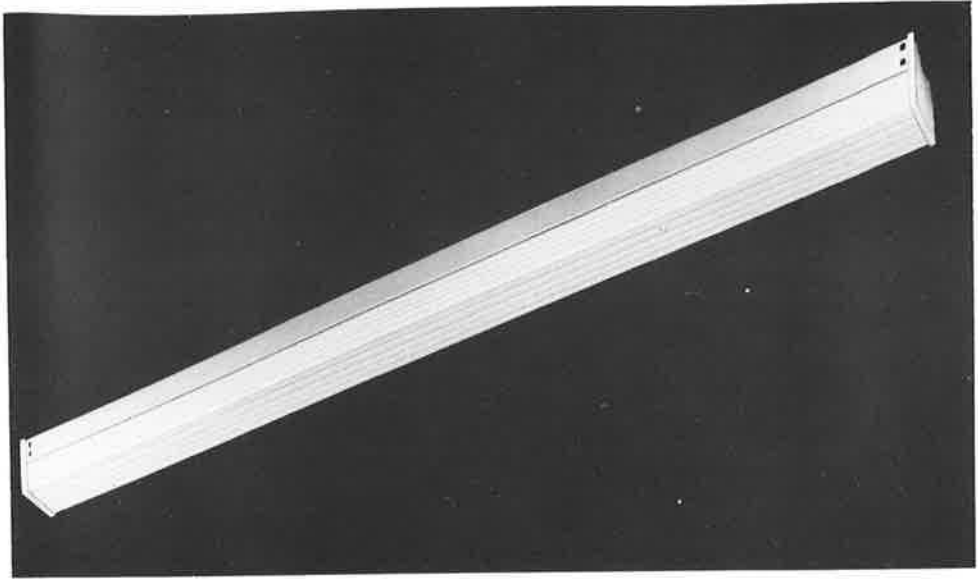
All fitting prices shown are those suggested as appropriate in UK for retail sale.

# atlas 'One-Up' Diffuserlight

As the name of this new fitting implies it has a number of 'One-Up' features and the first of these is its very attractive streamlined appearance. The basic fitting is finished in white stoved enamel with a white opal diffuser. The diffuser endplates are also in white plastic with a trim of metallic appearance giving a soft sparkle effect.

The fitting is extremely easy to install, the ceiling bracket being fixed first and the completely assembled fitting is then latched onto the bracket.

By virtue of the fittings construction it is possible to obtain more light from a 4ft fitting than ever before. This fitting gives some 7% more light than a more conventional arrangement. Another 'one-up' feature is the price, and details of this are given below.



1,UP

## RANGE AND PRICES (applicable to U.K. only)

### Complete fitting

Size	Circuit	Cat.no.	Fitting Price £ s d	Fitting P.T. s d	Net Trade Tube Price £ s d	Tube P.T. s d
4ft Single	Switchstart	1,UP	3 12 0	11 11	7 7	2 9

The fitting is packed complete with 40w Warm White tube.  
Price of fitting does not include tube.

### DIMENSIONS

Cat.no.	Length in mm	Weight lb kg	Fixing centres in mm
1,UP	48.4 1193	5.6 2.55	11 280



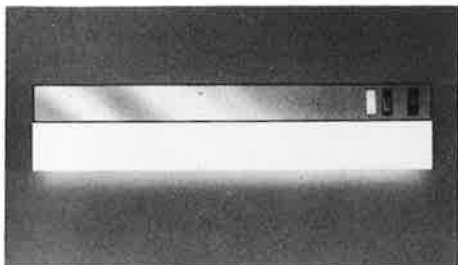
Available 230/240v 50Hz only

All fitting prices shown are those suggested as appropriate in UK for retail sale.

## 'Viewpoint' combined light and shaver point

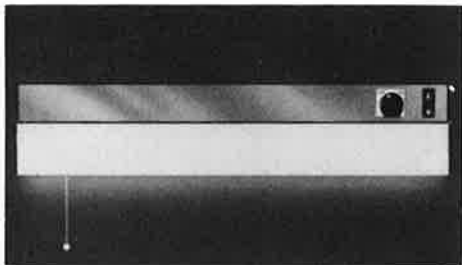
These fluorescent fittings are designed specifically for use in hotels, hostels and homes with one model for bedroom and general purpose use and the other model for use in the bathroom.

The fittings employ the 15w 18in (1in diam.) Warm White tube, the most efficient tube in the shorter sizes. Both models have a body of slate grey plastic fixed to a substantial steel backplate. The front panel has a brushed silver trim.



LS.15

The **LS.15** is the general purpose type incorporating a shuttered mains voltage shaver socket and is suitable for use in all rooms *excluding the bathroom*.



LST.15

The **LST.15** is the bathroom model and this has a dual voltage output (115/230v) from the shaver socket, from a double wound transformer to B.S.3052 and a pull-switch. This fitting complies with the requirements of the I.E.E. Regulations for bathroom equipment.

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Fitting	Circuit	Cat. no.	Fitting Price £ s d	Fitting P.T. £ s d	Net Trade Tube Price s d	Tube P.T. s d
Gen. purpose (bedroom) type	Switchstart	LS.15	6 10 0	1 10 0	7 3	2 7
Bathroom type	Quickstart	LST.15	9 13 0	1 10 0	7 3	2 7

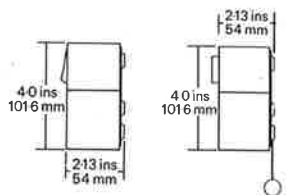
Fittings are packed complete with a 15w Warm White tube.  
Price of fitting does not include tube

### DIMENSIONS

Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
LS.15	18.5 470	4.5 2.0	11 279
LST.15	18.5 470	7.13 3.33	11 279

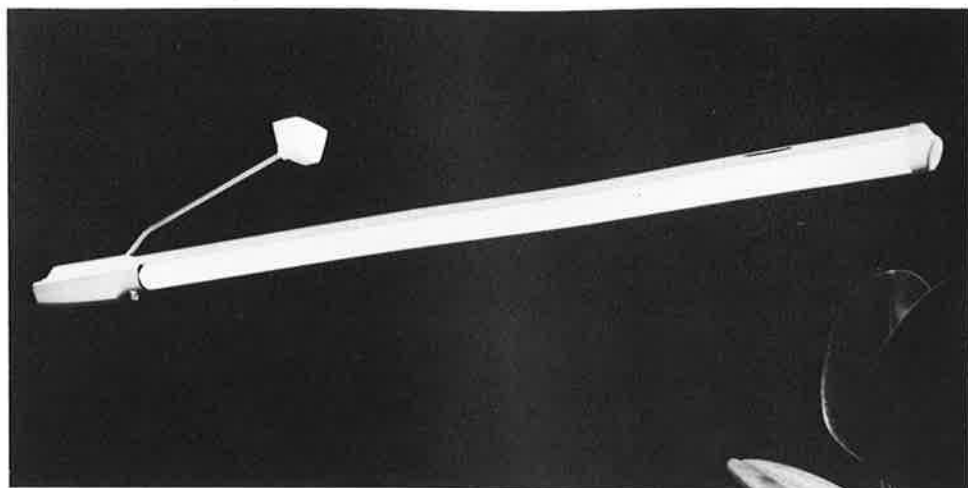
Standard fitting 230/240v 50Hz.

Fitting prices for other supplies on application.



All fitting prices shown are those suggested as appropriate in UK for retail sale.

This fitting of contemporary design for the home, hotels, offices or any other application where appearance matters, must rate as the most attractive of its kind. The end cover comes in a choice of three exciting colours, the rest of the fitting being finished in white gloss enamel apart from the plated support arm. The Netaline is packed complete for quick installation in a robust carton with instruction leaflet. The fitting is guaranteed for 12 months.



4.NLI.B

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Size	Circuit	Colour	Cat. no.	Fitting Price £ s d	Fitting P.T. s d	Net Trade Tube Price s d	Tube P.T. s d
4ft Single	Switchstart	Seville yellow	4.NLI.Y	3 12 0	12 0	7 7	2 9
4ft Single	Switchstart	Starmist blue	4.NLI.B	3 12 0	12 0	7 7	2 9
4ft Single	Switchstart	Beau white	4.NLI.W	3 12 0	12 0	7 7	2 9

The above fittings are packed complete with 40w Warm White tube.  
Price of fitting does not include tube.

### DIMENSIONS

Length in	mm	Weight lb	kg
56.75	144	2.5	1.13

Standard fitting 230/240v 50Hz.

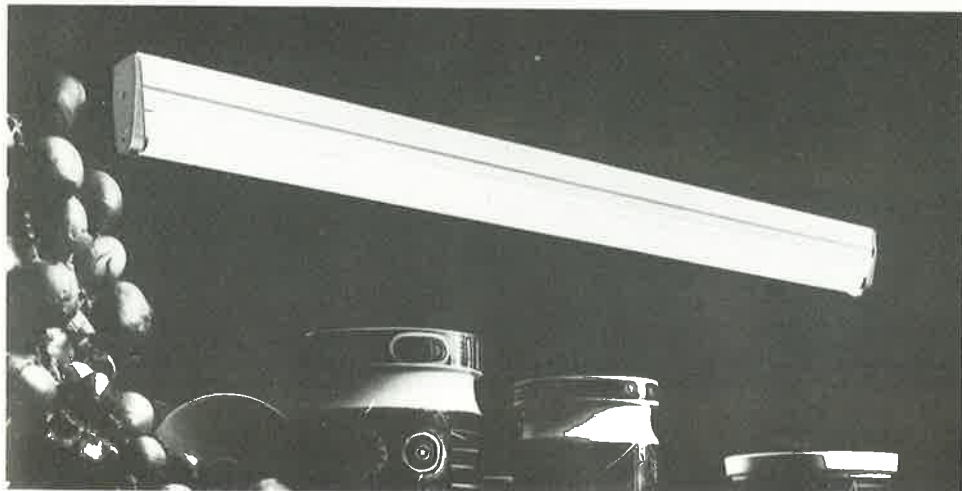
All fitting prices shown are those suggested as appropriate in UK for retail sale.



# mazda

## Litepak

The new 4ft Litepak is a slim-sectioned, single lamp, fluorescent fitting, manufactured from top quality steel, with a full bonderising and rust inhibiting process before application of white stove enamel. Plastic moulded light blue end-pieces form a one piece end to the channel. These ends are each secured by means of a single recessed screw and are spring-loaded to facilitate re-lamping and channel cover fixing. In addition the moulding of the end piece is extended to act as a lampholder shroud and provide a re-lamp guide. Every Litepak is assembled complete with control gear, channel cover, Warm White lamp and full instruction leaflet, all packed in a strong attractive carton.



4.MLB.1

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

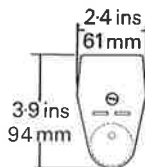
Rating	Circuit	Cat. no.	Fitting Price £ s d	Fitting P.T. s d	Net Trade Tube Price s d	Tube P.T. s d
40w Single	Switchstart	4.MLB.1	2 10 0	6 1	7 7	2 9

The above fitting is packed complete with 4ft Warm White tube.  
Price of fitting does not include Tube.

#### DIMENSIONS

Length in	mm	Weight lb	kg	Fixing Centres in	mm
49	1224	5.5	2.5	24	612

Standard fitting 230/240v 50Hz.



All fitting prices shown are those suggested as appropriate in UK for retail sale.

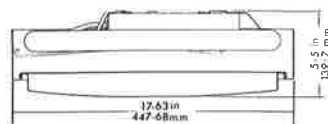
# mazda

## ‘Circline’ fluorescent fittings

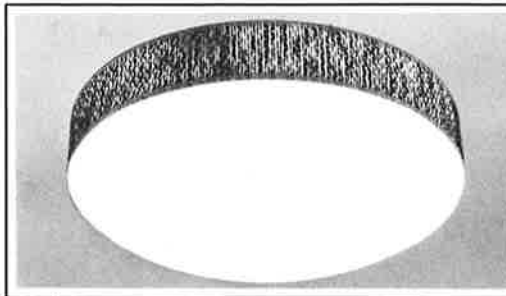
The range of ‘Circline’ fittings has been designed for use in both domestic and commercial applications. Basically a triangular shaped gear tray containing 40w switchstart control gear which is completely hidden from view by the wide range of attractive diffusers, these fittings blend with all decors and colour schemes.



**CFA fitting.** This attractive anodized aluminium attachment is simply assembled by locating over the centre screw on the gear tray and securing with the black plastic knob. A white opal dish is then inserted to form a neat and attractive fitting for use in many domestic and commercial interiors. This fitting is packed in one carton complete with gear tray, aluminium attachment and tube.

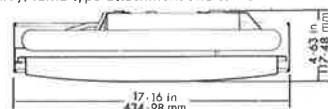


CFA.40



**CFG fitting.** This fitting is basically the same as the CFA above except that the aluminium attachment is replaced by a very modern raffia type attachment designed for use in practically all modern interiors. The attachment is particularly attractive in domestic situations.

This fitting is packed in one carton complete with gear tray, raffia type attachment and tube.



CFG.40

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Rating	Circuit	Cat. no.	Fitting price £ s d	Fitting P.T. £ s d	Net Trade Tube Price £ s d	Tube P.T. s d
40w Single	Switchstart	CFA.40	6 1 0	1 5 1	1 3 0	8 3
40w Single	Switchstart	CFG.40	5 0 0	19 6	1 3 0	8 3

These fittings are packed complete with 40w Warm White tube.  
Price of fitting does not include tube(s).

Available in 230/240v 50Hz only.

All fitting prices shown are those suggested as appropriate in UK for retail sale.

# mazda

## 'Circline' fluorescent fittings

**Large Sparkle Glass diffuser fitting.** This bowl diffuser is moulded in clear glass with a smooth upper surface for easy cleaning and a random embossed, patterned lower surface which sparkles even when the fitting is unlit. A pleasing radial pattern is silk screened in white on the upper surface of the glass and this is attached to the fitting by a white plastic knob with an aluminium insert. The glass completely obscures the fluorescent tube from view.



CF/LSG

**Sparkle Glass diffuser fitting.** This very attractive diffuser is moulded in clear glass with a smooth upper surface for easy cleaning. The very modern pattern of the diffuser will harmonise with almost any decor and give a good amount of soft, well diffused light. The glass bowl is held to the fitting by a white plastic knob with aluminium insert which holds the glass flush to the tube.



CF/SPG

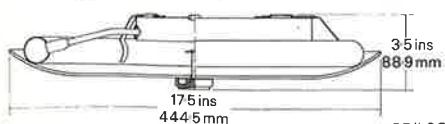
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

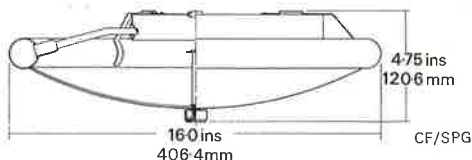
Rating	Circuit	Cat. no.	Fitting Price £ s d	Fitting P.T. s d	Net Trade Tube Price £ s d	Tube P.T. s d
40w Single	Switchstart	CF/LSG	4 9 0	16 7	1 3 0	8 3
40w Single	Switchstart	CF/SPG	3 10 0	11 6	1 3 0	8 3

These fittings are packed complete with 40w Warm White tube.  
Price of fitting does not include tube.

#### Standard fitting 230/240v 50Hz.



CF/LSG



CF/SPG

All fitting prices shown are those suggested as appropriate in UK for retail sale.

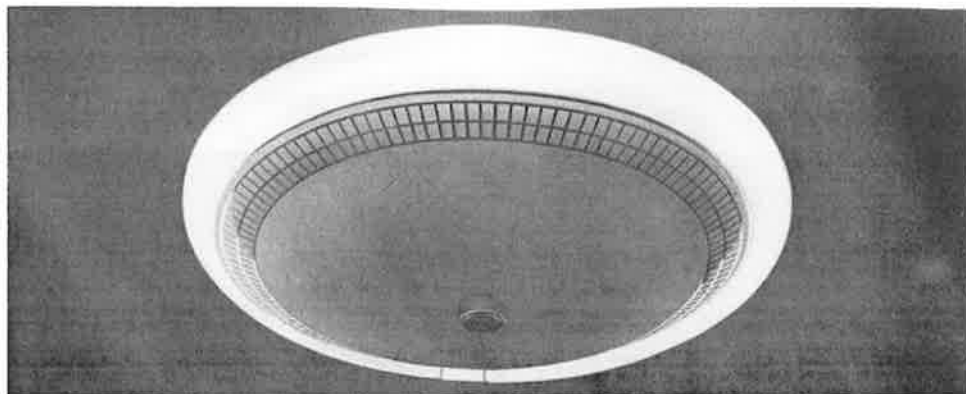


# mazda

## 'Circline' fluorescent fittings

**White Glass diffuser fitting.** This extremely attractive diffuser fitting moulded in smooth glass for ease of cleaning is especially suitable where a relatively plain diffuser bowl is required to suit a particular decor. The diffuser bowl is held flush to the fluorescent tube by a smart white knob with an aluminium insert.

**Ivory and Wedgwood Blue Pattern glass fitting.** Both these attractive fittings are suitable for almost any situation. The smooth glass bowl with its attractive geometrical pattern comes in either blue or ivory and is held firmly up to the fluorescent tube by the white plastic knob with aluminium insert.



CF/WHG



CF/WBG

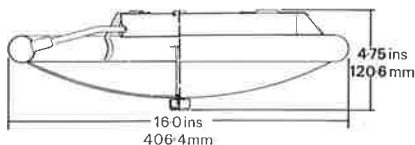
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Rating	Circuit	Description	Cat. no.	Fitting Price £ s d	Fitting P.T. a d	Net Trade Tube Price £ s d	Tube P.T. s d
40w Single	Switchstart	White glass	CF/WHG	3 2 0	9 4	1 3 0	8 3
40w Single	Switchstart	Wedgwood blue glass	CF/WBG	3 2 0	9 4	1 3 0	8 3
40w Single	Switchstart	Ivory glass	CF/ITG	3 2 0	9 4	1 3 0	8 3

These fittings are packed complete with a 40w Warm White tube.  
Price of fitting does not include tube.

Standard fitting 230/240v 50Hz.

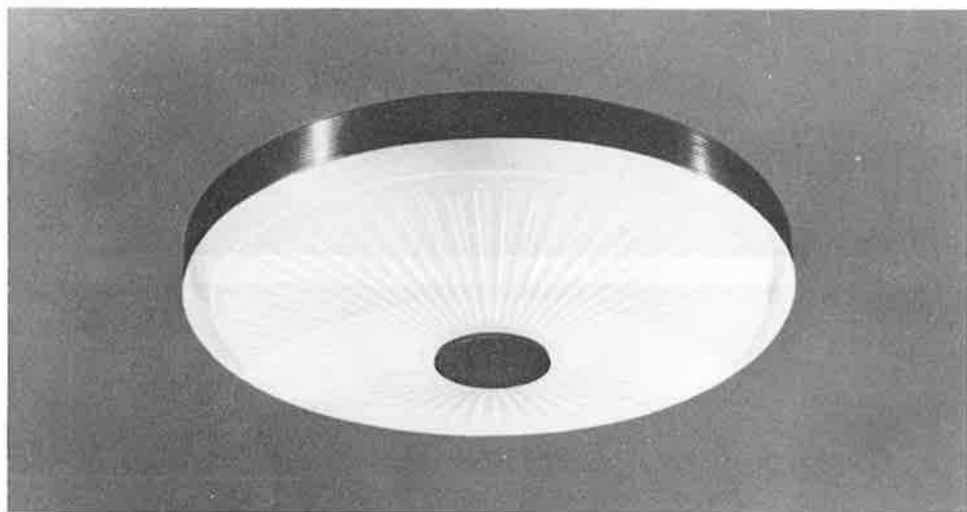


All fitting prices shown are those suggested as appropriate in UK for retail sale.

# mazda

## 'Circline' fluorescent fittings

This new introduction to the 'Circline' range is basically a triangular-shaped gear tray which is completely enclosed by a white plastic diffuser with an attractive pattern and outside copper coloured trim. The fixing knob has a matching copper base and is countersunk so as to enhance the clean modern lines of the fitting. It is available in both single (40w) and twin (40w + 32w) versions, the twin version giving a correspondingly greater amount of light and is especially desirable when a higher degree of illumination is required. Both these fittings are packed complete with Warm White tube(s) in attractive, robust packs.



CF/ODC,2 (CF/ODC,1 has similar appearance)

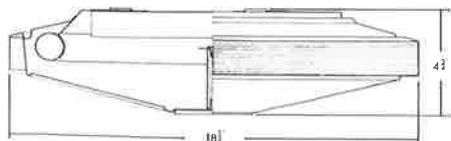
### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

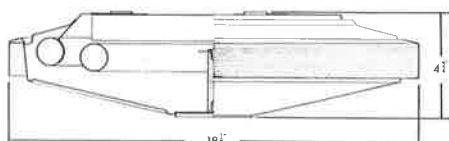
Rating	Circuit	Cat. no.	Fitting Price £ s d			Fitting P.T. £ s d			Net Trade Tube Price £ s d			Tube P.T. £ s d		
40w Single	Switchstart	CF/ODC.1	5	10	0	1	2	2	1	3	0	8	3	
40w + 32w Twin	Switchstart	CF/ODC.2	7	0	0	1	2	2	2	4	0	15	9	

These fittings are packed complete with Warm White tube(s).  
Price of fitting does not include tube(s).

Standard fitting 230/240v 50Hz.



CF/ODC,1



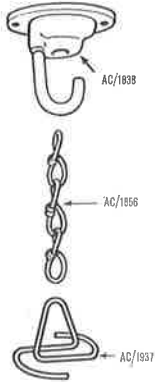
CF/ODC,2

All fitting prices shown are those suggested as appropriate in UK for retail sale.

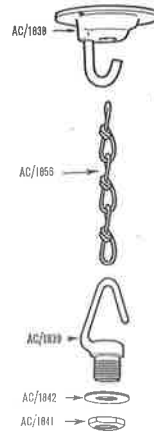
Suspension sets are available for all Thorn lighting fittings. Reference should be made to maximum loading table and respective weight of fitting to determine the type of suspension required. Standard lengths of rod or chain sets is 30in. Other lengths in multiples of

6in will be supplied on request. Half sections of the suspension sets are illustrated. Catalogue number relates to complete set.

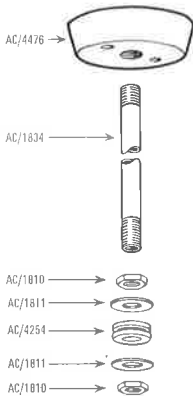
Catalogue number for individual parts of suspension sets are shown on the diagrams.



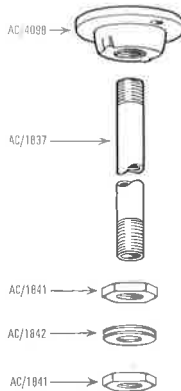
**Suspension Set A.30 (Light Duty)**  
Two malleable iron hooked ceiling plates, two 30in lengths of chain, two spring loops.  
Price 10s 6d.



**Suspension Set K.30 (Heavy Duty)**  
Two dome hook plates, jack chain for two 30in lengths, two  $\frac{3}{4}$  E.T. suspension hooks, back-nuts and washers. Price 19s.



**Suspension Set B.30**  
Two pressed ceiling plates, two  $\frac{1}{2}$ in by 30in rods screwed 26 T.P.I., grommets, locknuts, washers. White finish. Price £1 1s 0d.



**Suspension Set H.30**  
Heavy duty conduit suspension including two  $\frac{1}{2}$ in by 30in rods with ball joint ceiling plates and back-nuts. White finish. Price £1 3s 0d.

### Max. loading table

Cat. no.	Maximum loading lb per set
A.30	40
B.30	68
H.30	270
K30	60

# atlas Trunking

---

Three trunking systems, all neat and of slim appearance, capable of supporting larger loads than usual for their size and yet maintaining structural rigidity throughout, have been introduced to meet both industrial and commercial requirements. Many time-saving features are employed and the lightness of the trunking together with a small number of component parts makes it easier to handle and install. Drilling is kept to a minimum, being necessary only for mains entry. With the aid of junction boxes, many flexible layouts can be produced to cover large areas. The closed top-hat section is designed to accommodate suspended ceilings when flush mounting of the lightweight trunking is required. The **Atlantic trunking system** is designed for use in industrial applications and is a mild

steel rolled section of large dimensions and is manufactured from 18 S.W.G. galvanized sheet steel. The **New Lightweight trunking system** is intended for use in commercial installations where appearance is of prime importance, and is extruded in aluminium. It has many time-saving features.

The **Liteline trunking system** has been developed where a neat yet low priced system is required for use in commercial or industrial installations. The trunking is small and compact in design and suitable for surface mounting or recessed into a false ceiling using top-hat section, catalogue no. AL4512.

Details of maximum suspension centres and loading can be obtained from regional offices.

# atlas

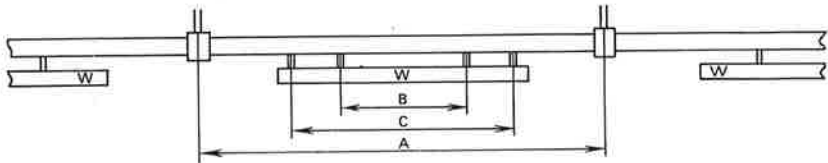
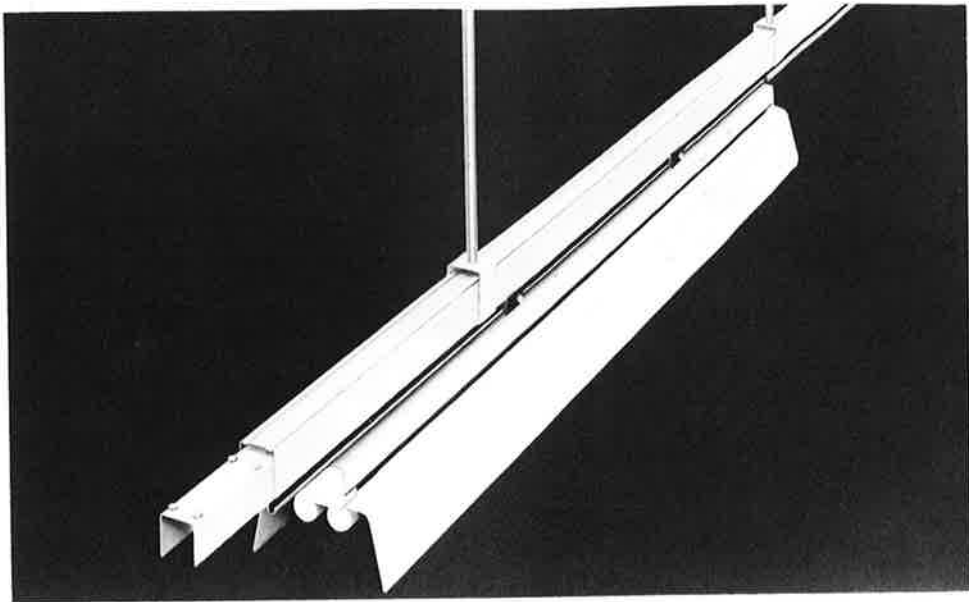
## Atlantic trunking

This trunking system is adapted to receive lighting fittings on its underside, and provides a structural support for the fittings whilst creating adequate through-wiring capacity. The system has been designed to reduce installation time to the minimum. The closed-top trunking is suspended by saddle brackets attached to down-drops from the ceiling or roof structure, and joint pieces hold the sections rigidly in line and provide earth continuity. Close ceiling mounting is also possible. Brackets are attached to the fittings by means of a threaded bush, nut and washer supplied. The brackets engage with the batten flanges of the trunking and allow the fitting to be hinged from the trunking during installation, maintenance or subsequent modification of the through-wiring in the

trunking. Clip-in, 15 amp terminal blocks are available for inter-connection and looping in. Cable carriers are included in each trunking length to retain the cables neatly in position.

The trunking mouth is closed by a black snap-on P.V.C. cover strip which is easily cut to length on site to fit between fittings. This part is not required of course when the fittings are continuously mounted. To ensure satisfactory earth continuity between the fittings and the trunking an earth screw is provided on the jointing piece, a jumper cable being necessary to complete the bond.

Standard trunking is made from galvanized sheet steel. **Maximum recommended trunking suspension centres 15ft (4.57 metres).**



### Deflections for Atlantic Trunking

Dim. A	Dim. B	Weight W	Deflection
15ft (4.57 metres)	24in (0.61 metres)	40lb (18 kgs)	0.1in (2.54mm)

For spans less than 15ft the deflection on this trunking was not measurable.

NOTES. The above deflections were measured using maximum weight Atlantic 3 fittings, i.e. A3Z/R4065 at 24in suspension centres and A3Z/T4085 at 48in centres and suspended as detailed above. These figures assume that all loads are counter-balanced and the final trunking span will be adequately supported at the termination point.

All Atlantic fittings incorporate additional suspension points at the centre and towards the ends of the fitting. These can be

Dim. A	Dim. B	Weight W	Deflection
15ft (4.57 metres)	48in (1.22 metres)	86lb (25 kgs)	0.17in (4.32mm)

utilized in addition to or instead of the standard to obtain further rigidity and so reduce the deflection.

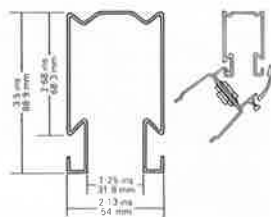
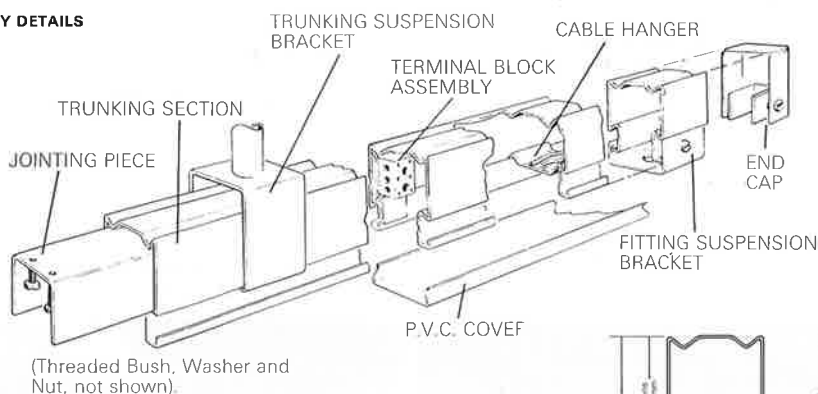
It is important when designing trunking installations to ensure that the deflection between spans does not exceed 1/300th of the total span, e.g., an installation requires trunking to be suspended at 15ft spans.

$$\therefore \text{maximum deflection} = \frac{15 \times 12}{300} = 0.6\text{in (15.24mm)}$$

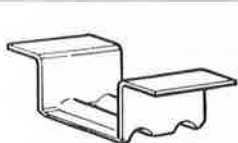
# atlas

## Atlantic trunking

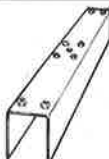
### ASSEMBLY DETAILS



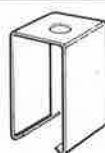
### Complete Parts List



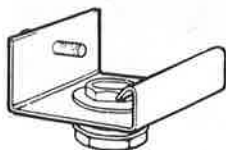
AA 4702 Cable Support Price 3d.



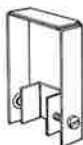
AA 4703 Straight Coupling Price 8s. 0d.



AA 4704 Trunking Suspension Price 2s. 0d.



AA 4705 Fitting Suspension Price 4s. 0d.



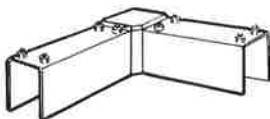
AA 4706 End Cap Price 3s. 0d.



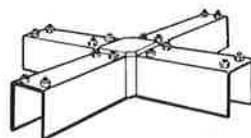
AA 4707 P.V.C. Cover Price 7s. 0d.



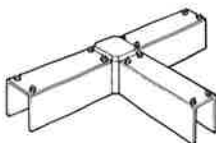
AA 4708 Terminal Block Assembly Price 5s. 0d.



AA 4709 Horizontal Coupling Price £1 2s. 0d.



AA 4712 4-Way Coupling Price £1 10s. 0d.



AA 4713 'T' Coupling Price £1 8s. 0d.



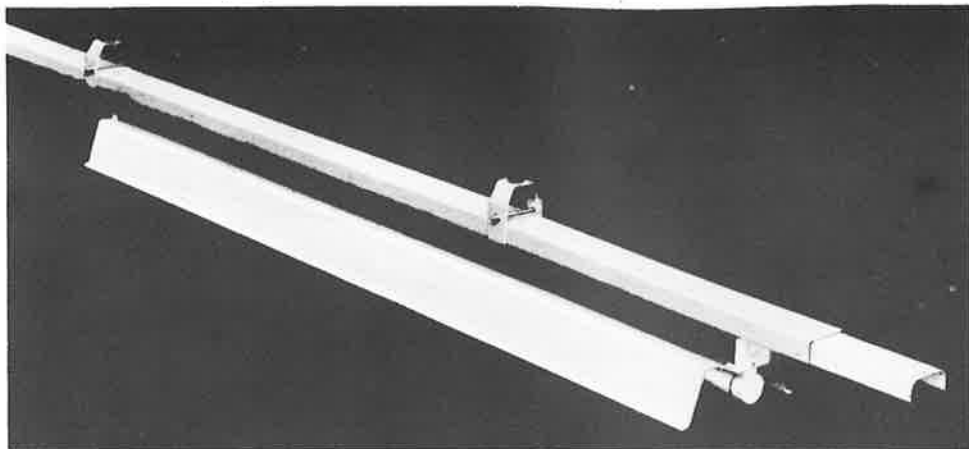
AA 4721 Trunking, 15ft length Price £2 10s. 0d.

## Universal system for factories, shops, offices, etc.

Liteline Trunking is a universal system for carrying overhead lighting, electric fittings or cables for industrial and commercial buildings.

Liteline Trunking can either be suspended, fixed flush to a ceiling or, by means of the Top Hat Section, incorporated into a suspended ceiling. Having a cross section of only 2½in x 1½in it is available in 4.5 metre (14'9") lengths of 18 gauge cold rolled steel. The paint surface is a single dip coat finish and is light grey in colour to BS.2660.9-094. In certain

circumstances it may be necessary to apply a final finishing coat for increased durability. Simple jointing by slide-in straight coupling piece secured by 8 screws ensuring earth continuity, and removable clip-in PVC cover fillets enable easy installation. The fittings and accessories have been designed to allow continuous, unobstructed runways for the cables. **Maximum recommended suspension centres 3.35 metres (11ft).**



### NEAT AND RIGID

The trunking is small and compact in design and suitable for surface mounting installations. The design of the channel section ensures maximum rigidity and weight carrying capacity over unsupported spans up to 3.35 metres (11ft).

### EASY TO WIRE

When trunking is erected, there are no obstructions whatsoever and, therefore, cable can be fed into the trunking with ease.

Up to two lighting fittings can be supplied from any point by fitting a Parablock connector.

### FLEXIBLE

The numerous junction pieces enable horizontal diversions of 90° to be made from the main trunking run.

### COLOUR

The BS.2660.9-094 light grey colour is attractive yet unobtrusive and is therefore ideal for commercial office schemes.

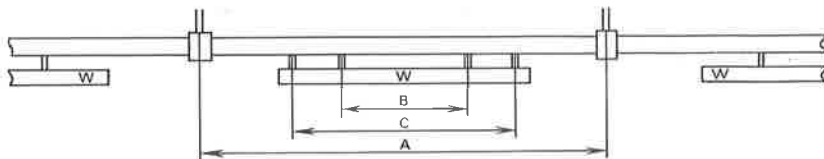
### SIMPLE INSTALLATION

Simple jointing by slide-in straight coupling piece secured by 8 screws ensuring earth continuity. Easily removable clip-in PVC cover fillet. 'Clip-over' suspension stirrup suitable for chain or conduit. Universal Girder Clamps for R.S.J. mounting.

means of a special 'T' Bolt Assembly, which also facilitates alterations to lighting layouts. Fittings with larger conduit fixings can be mounted by means of a suitable reducer. A Top Hat Section can be supplied where it is required to fit a flush mounted suspended ceiling.

### VERSATILE

Any type of fitting with 1.9cm (¾in) conduit hole fixing can be suspended from any point by



### Deflections for Atlas Liteline Trunking

Dim. A	Dim. B	Weight W	Deflection
3.35 metres (11ft)	0.61 metres (24in)	18 kgms (40lb)	6.35mm (0.25in)

NOTES. The above deflections were measured using maximum weight Atlantic 3 fittings, i.e. A3Z/R4065 at 24in suspension centres and A3Z/T4085 at 48in centres and suspended as detailed above. These figures assume that all loads are counter-balanced and the final trunking span will be adequately supported at the termination point.

All Atlantic fittings incorporate additional suspension points at the centre and towards the ends of the fitting. These can be

Dim. A	Dim. C	Weight W	Deflection
3.35 metres (11ft)	1.22 metres (48in)	25 kgms (55lb)	5.1mm (0.20in)

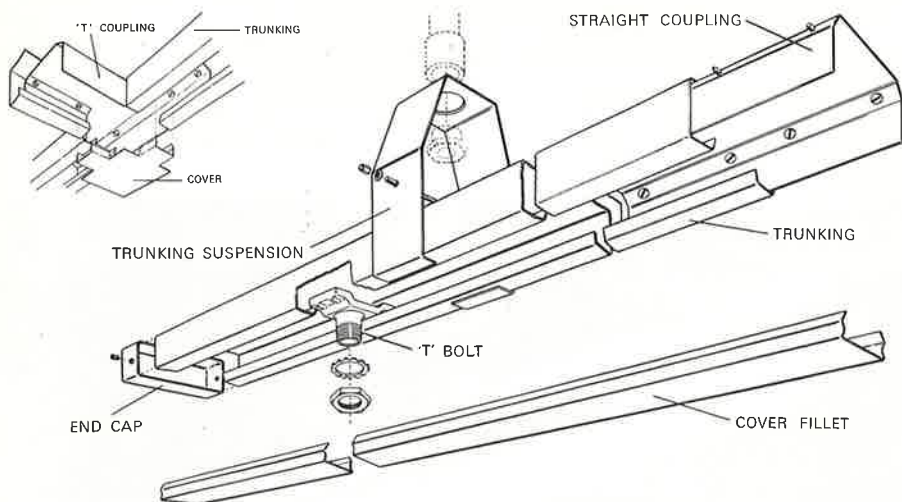
utilized in addition to or instead of the standard to obtain further rigidity and so reduce the deflection.

It is important when designing trunking installations to ensure that the deflection between spans does not exceed 1/300th of the total span, e.g. an installation requires trunking to be suspended at 11ft spans.

$$\therefore \text{maximum deflection} = \frac{11 \times 12}{300} = 0.44\text{in (11.2mm)}$$

# atlas

## Liteline trunking



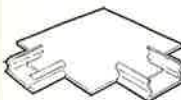
**Cat. no. AL4500**  
**Trunking Section**  
4.5 metres (14'9")  
length. Weight 6.3kg  
(13.9lb) 6.67cm  
(2.6in) wide x 3.2cm  
(1.3in) deep  
Price £112s 0d.\*



**Cat. no. AL1003**  
**End Cap**  
Weight 0.01kg (1/4oz)  
Price 3s 0d.\*



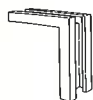
**Cat. no. AL1006**  
**Horizontal Coupling**  
Weight 0.5kg  
(1lb 3oz)  
Price 13s 0d.\*



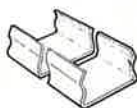
**Cat. no. AL1009**  
**Cover Assembly**  
Weight 0.06kg (2oz)  
Price 2s 0d.\*



**Cat. no. AL4512**  
**Top Hat Section**  
4.5 metres (14'9")  
length. Weight 3.5kg  
(7lb 10oz)  
10.6cm (4 1/4in) wide  
x 4.3cm (1 1/2in) deep  
Price £115s 0d.\*



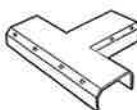
**Cat. no. AL1015**  
**Vertical-Horizontal**  
**Coupling (External)**  
Weight 0.7kg  
(1lb 10oz)  
Price 17s 0d.\*



**Cat. no. AL1001**  
**PVC Cover Fillet**  
1.8 metres (5'11")  
length. Weight 0.17kg  
(6oz)  
Price 4s 0d.\*



**Cat. no. AL1004**  
**Trunking**  
**Suspension**  
Weight 0.11kg (4oz)  
3.8cm (1 1/2in) wide x  
8.6cm (3 3/4in) deep  
Price 3s 0d.\*



**Cat. no. AL1007**  
**'T' Coupling**  
Weight 0.7kg  
(1lb 10oz)  
Price 12s 0d.\*



**Cat. no. AL1010**  
**Girder Clamp**  
**Assembly**  
Weight 0.14kg (5oz)  
Price 2s 0d.\*



**Cat. no. AL1013**  
**Parablock**  
**Connector**  
Weight 0.03kg (1oz)  
takes cable up to 7/036  
Price 5s 0d.\*

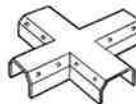
\*Not subject to standard discount



**Cat. no. AL1002**  
**Straight Coupling**  
Weight 0.5kg  
(1lb 3oz)  
Price 6s 0d.\*



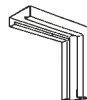
**Cat. no. AL1005**  
**'T' Bolt (Fitting**  
**Suspension)**  
Weight 0.09kg (3oz)  
Price 1s 6d.\*



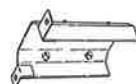
**Cat. no. AL1008**  
**4-way Coupling**  
Weight 0.9kg  
(2lb 1oz)  
Price 15s 4d.\*



**Cat. no. AL1011**  
**Suspension Bracket**  
Weight 0.03kg (1oz)  
Price 1s \*



**Cat. no. AL1014**  
**Vertical-Horizontal**  
**Coupling (Internal)**  
Weight 0.7kg  
(1lb 10oz)  
Price 17s 0d.\*

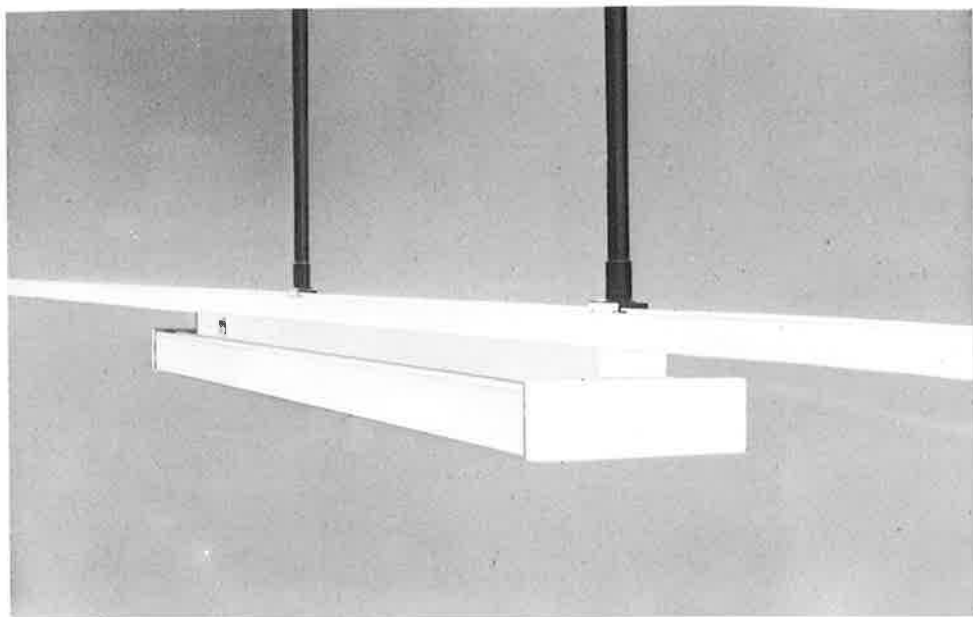


**Cat. no. AL1016**  
**Stop-End Junction**  
Weight 0.5kg  
(1lb 3oz)  
Price £1 0s 0d.\*



# atlas

## New lightweight trunking



This ultra slim section anodised aluminium trunking is particularly suitable for office, store and display lighting applications where more industrial forms are too bulky and may present an unsatisfactory appearance.

Two types of trunking section are available—one for surface mounting or conduit suspension and another type for recessing into suspended ceilings. (See illustration).

The trunking suspension assembly is used to connect the trunking section to the  $\frac{3}{4}$  in conduit down-drop.

The fitting is connected to the trunking section by means of the fittings suspension assembly. By this means extreme flexibility of suspension centres for the trunking and spacing of the fittings along the trunking is achieved.

The coupling piece to join the lengths of trunking together is fitted internally and is locked with set-screws without drilling the trunking.

A PVC cover closes the open mouth of the trunking between fittings and a black finished end-plate

closes the end of the trunking. This end-plate incorporates a knock-out to receive conduit which is used to feed into the trunking and make bends, clear obstacles, etc. between the trunking runs.

Through wiring cables are retained in the trunking by fibre support pieces.

**Maximum recommended trunking suspension centres 8ft.**

NOTE: A gap of at least  $\frac{1}{4}$  in must be left between trunking lengths during installation to allow for expansion.



NOTE: The above deflections were measured using maximum weight Popular Pack fittings. These figures assume that all loads are counter-balanced and the final

trunking span will be adequately supported at the termination point. It is **important** when designing trunking installations to ensure that the deflection between spans does not exceed 1/300th of the total span. For

### Deflections for Atlas New Lightweight Trunking

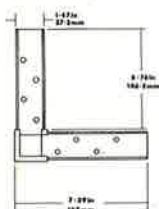
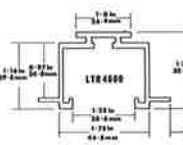
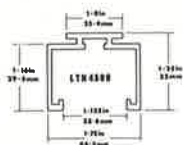
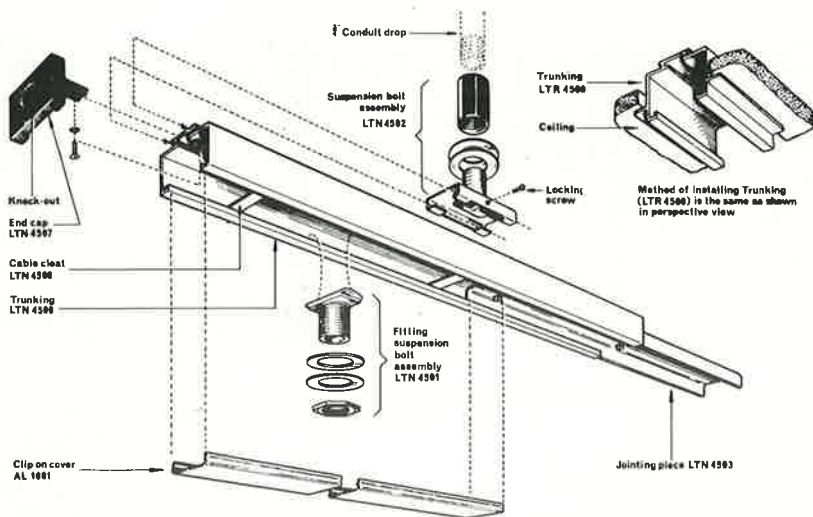
Dim A.	Dim B.	Weight W.	Deflection
8 ft	24 in	20 lb	0.225
8 ft	48 in	30 lb	0.225

example, an installation requires trunking to be suspended at 8 ft spans. Therefore maximum deflection

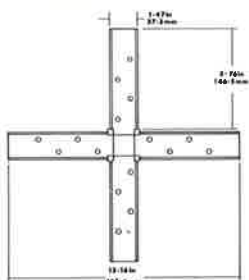
$$= \frac{8 \times 12}{300} = 0.32 \text{ in.}$$

# atlas

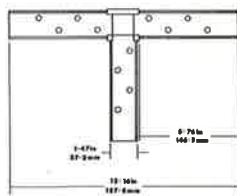
## New lightweight trunking



LTB 4504



LTB 4506



LTB 4508

### Components Table

Catalogue no.	Description	Packing	Nett Price £ s. d.
LTN 4500	4.5 Metre Length Trunking		2 19 0
LTR 4500	4.5 Metre Length Trunking for Recessing		3 0 0
LTN 4501	Fittings Hanger Assembly		2 0
LTN 4502	Trunking Hanger Assembly		4 0
LTN 4503	Jointing Piece	Bulk	5 0
LTN 4504	2-way Coupling		1 6 0
LTN 4505	3-way Coupling	Packed	1 15 0
LTN 4506	4-way Coupling		2 2 0
LTN 4507	End Cap		3 0
LTN 4508	Cable Cleats		3
AL 1001*	1.8 Metre P.V.C. Cover		4 0

\*As used with Liteline Trunking

# INCANDESCENT AND DISCHARGE – INTERIOR



# Incandescent and discharge — interior

## Introduction

---

Thorn Lighting have introduced a whole new art of tungsten lighting decor. Crystal, coloured glass, spun aluminium, copper, acrylic, opal satin glass, polystyrene, chromium, polyester resin, these are just some of the materials brought to the task of beautiful lighting.

Thorn fittings are available as pendants, triple-pendants, wall brackets, adjustable pendants, scatter lamps, spotlights, desk lamps, ceiling fittings, surface mounted or completely recessed, for numerous domestic, commercial, display and other applications. Many of the fittings illustrated can use the exciting new **\*Korolux** lamp recently developed for commercial and display applications. When using these lamps control gear is necessary and consequently the **\*Korolux** pack has been developed to make the use of this splendid light source as easy as that of tungsten filament lamps. Creative imagination is obviously the keynote of Thorn design. Efficiency and reliability are the invisible bonus!

**\*Prices** shown are those recommended as appropriate in U.K. for retail sale.

**\*Nett user prices** are those recommended as appropriate in U.K. for direct sale to users.

# Incandescent and Discharge Interior Index

<i>Range name</i>	<i>description</i>	<i>page no.</i>
<b>Modern</b>	Introduction Glassware and Suspension XY Metal Reflectors XJ, XK Ceiling Fittings XL, XW1 Wall Brackets Construction Detail Glass and Suspension Details, Prices	CB5, 6 CB7 CB8 CB8 CB9 CB10, 11
<b>Modern Junior</b>	WX Series Glassware and Suspension	CB12, 13
<b>Novelle</b>	NLH Series	CB14
<b>Modern</b>	WO Occasional Lamp WAM and WA Adjustable Pendant WH100, WR100 WS1100 Spotlight	CB14 CB15 CB16 CB16
<b>Top Spot</b>	VTC60, VTD60	CB17
<b>Linklight</b>	WL Series WE Series	CB18, 19 CB20
<b>Cubelight</b>	WM Series	CB21
<b>Scatterlight</b>	SC Series and Suspension	CB22
<b>Chelsea</b>	J, Range Glassware & Suspension	CB23, 24
<b>Nova Cylinder</b>		CB25
<b>Nova</b>	Cylinder Range NCA, NDA, NFT, NLT Fittings, MR, MT Fittings NC, ND, NF, NL Fittings Dimensions and Prices	CB25 CB26 CB27 CB28
<b>Kolorlux Pack</b>	PKC80, PKC125 PKA80, PKA125, PKM80, PKM125 PKT80, PKT125 PKO80, PKO125, PKB80, PKB125	CB29 CB30 CB31 CB32
<b>Mini Dimmer</b>		CB33
<b>Display Range</b>	Introduction VS2060 Surface Mounted Fittings VL, VX, VZ Attachments for VS2060 VS2100 Surface Mounted Fitting VL, VZ Attachments for VS2100 VCB, VCM, VU Cylinder Baffle VW Wall Washer for VU VC Cylinder Range VL, VX, VZ Attachments for VC Fitting VR100 Recessed Fitting VL, VP, VS, VX, VY, VZ Attachments for VR100 VR200 Recessed Fitting VL, VO, VX, VY, VZ Attachments for VR200 DNM Surface Mounted Fitting DP Recessed JC Recessed VJ Junior Recessed Vertical Fitting	CB34 CB35 CB35 CB35 CB36 CB36 CB37 CB37 CB38 CB38 CB39 CB39 CB40 CB40 CB41 CB41 CB41 CB41
<b>Main Voltage Spotlights</b>	VH, VHB, V1, VQ Series, K1100/1150 Filters VA, DL, DS, VF, VG, VM Series	CB42 CB43
<b>Low Voltage Spotlights</b>	DB, DS Series ES Tungsten Halogen K1150 Colour Filter DAS, DCS Fittings TRF Low Voltage Transformer	CB44 CB44 CB44 CB45 CB45
<b>Interior Floodlight</b>	EU Tungsten Halogen	CB46
<b>Hospital</b>	OE, OG Low Brightness	CB47
<b>Opalite</b>	MN Series	CB48
<b>Industrial</b>	Introduction HBR/G250, G400 HBR/G700, HBR/G1000 HBIX/G400 HBT/X400 HBT	CB49 CB50 CB51 CB52 CB53 CB54



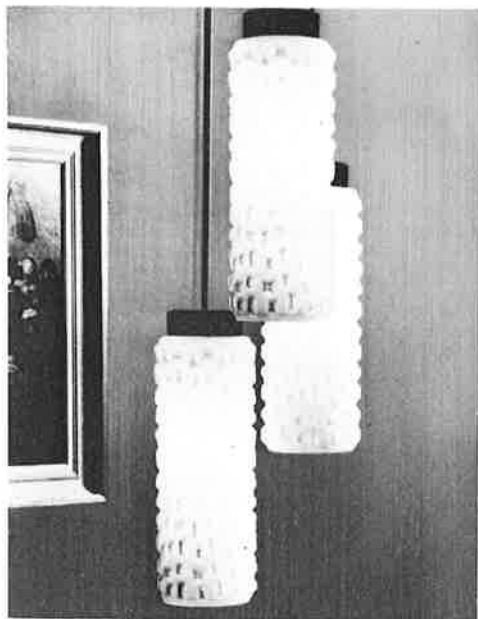
The Modern range, an exciting range of tungsten lighting fittings offers an interesting variety of glass diffusers and metal reflectors. Both satin opal and clear crystal glass have been used to fine effect, with surface treatment and texture giving qualities valuable for use in present-day interiors.

The link through this great variety is the suspension design with its distinctive black cap. Pendants – one, three and five-way are arranged for straight drops, radiating arms or spreader assemblies. Close ceiling mounting and wall brackets cover all applications. Fourteen glasses provide a wide scope of choice for the interior designer. Three superb spherical glasses may be used in combination with certain cylindrical inner to create a richness of texture and colour. Sparkle from the

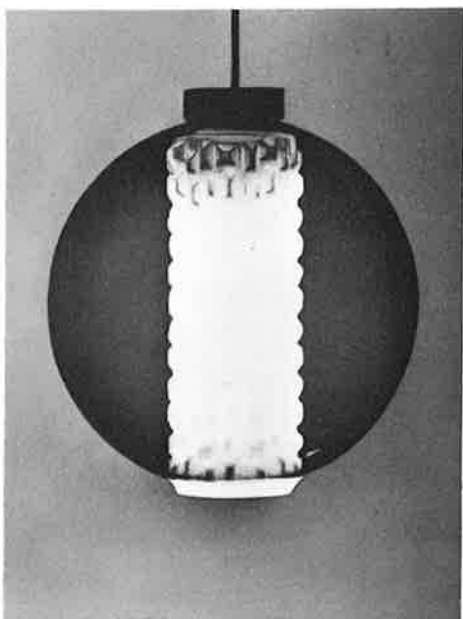
bubbled sphere shows crystal at its best; amethyst and twilight blue add that subtle touch of colour. Elegant conical metal reflectors, in polished and lacquered copper and aluminium with a white skirt extend the range: splendid and cool in turn. Concentric louvres in white plastic are available for both types. The pendant assemblies, as used for the glassware, support the reflectors, the black cap again making a pleasant emphasis against the copper or aluminium.

Two ceiling fittings of crystal glass supported in black finished metal framing complements the Modern range. A range capable of varied and extensive use.

Examples of glass fittings on suspension. For ordering details see pages CB10/CB11

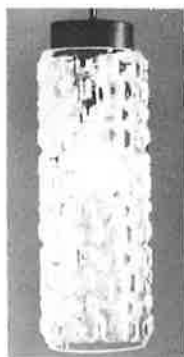


XDO. Satin opal glass on three-way pendant, XP3.



XAT. Twilight outer sphere with XDO satin opal inner, single pendant, XP1.





XDC, Crystal glass, on single pendant, XP1.



XEQ, Stepped satin opal glass on single pendant, XP1.



XBC, Bubbled glass with XDC clear crystal inner, Using XR1 ceiling mounting.



XFL, Satin opal cylinder on single pendant, XP1.



XGS, Large diameter short satin opal cylinder on single pendant, XP1.



XYO, Long barrel satin opal glasses, on five-way spreader pendant, XS5.



XUO, Long satin opal glasses on three-arm pendant, XC3.



Examples of Double glass fittings, For ordering details see pages CB10/CB11



XBC, Bubbled glass with XDC clear crystal inner, Using XP1 single pendant.



XAT, Twilight sphere with clear crystal inner, on XP1 single pendant.



XAM, Amethyst sphere with XEO stepped satin, opal inner, on XP1 single pendant.

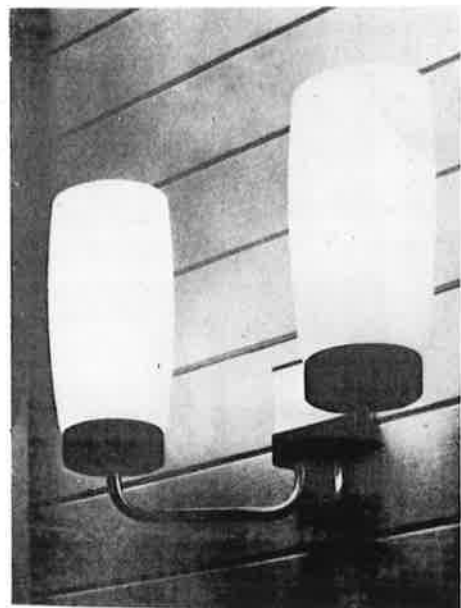


XYC, Polished copper (or XYA Aluminium) reflector with XYL louvre attachment on XP1 single pendant.

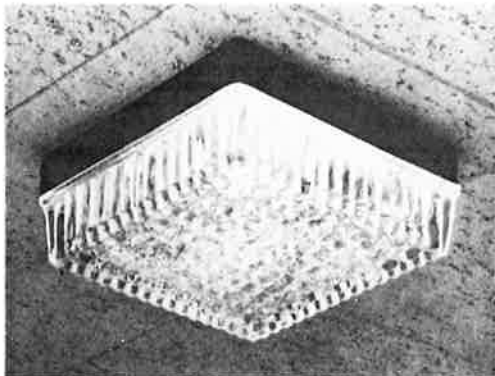
Examples of wall brackets and close ceiling fittings. For ordering details see pages CB9/CB10.



XLI. Single wall bracket using short clear crystal glass, XDS.



XL2. Twin wall bracket using short barrel satin opal glasses, XZO.



XJ.2040. Square ceiling fitting with clear crystal glass ; 2 x 40w lamps.



XK.2040. Circular ceiling fitting with clear crystal glass ; 2 x 40w lamps.



XWI. Single wall bracket using short clear crystal glass, XDS.

## Straight drop pendants single and three-way XP1 and XP3.

The basic lampholder and gallery assembly (1) can be used with every glass and metal reflector. It is suspended on a black cable (2) normally 2ft 6in long for the single pendant, in which is incorporated two copper straining wires (3) securely anchored at lampholder and ceiling plate (4). The weight of the single suspension without glass is  $\frac{3}{4}$ lb, 0.3kg. The illustration shows a cross section of a typical pendant set. The glass is mounted on a metal spider (5) and can easily be removed for cleaning. Unscrewing the black knurled bush (6) permits the cast cap (7) to be raised and allows for the glass to be lifted by a sideways movement over the spider.

For single pendants with cable drops longer than standard there is an 8ft suspension in kit form, Cat. no. XP1/8 kit. This pendant is supplied with ceiling plate unassembled enabling the cable to be cut to the desired length. Following instructions provided, the ceiling plate is easily connected to the cable.

Also available is a three-way multipendant XP3, the standard length of each cable being 6ft. With the addition of the AC4895 looping block, the three-way suspension can easily be converted into a looped, free ranged pendant.

## Close ceiling unit XR1.

Suitable for all types of glasses, bracket (8) permits mounting direct to ceiling or B.E.S.A. box. To remove glass for cleaning, it is only necessary in this instance to unscrew the specially designed glass retaining ring (9).

## Arm type pendants three and five-way XC3 and XC5.

These multipendants have a central cast ceiling plate (10) with a white plastic cover (11) screwed on to the central boss. This cover retains the slider (12) in position on the back casting. The sliders which carry polished brass arms (13) are suitably attached to the back casting through keyhole slots. The cable length is 6ft for each pendant terminating in the standard Modern range lampholder assembly.

## Spreader type pendants three and five-way XS3 and XS5.

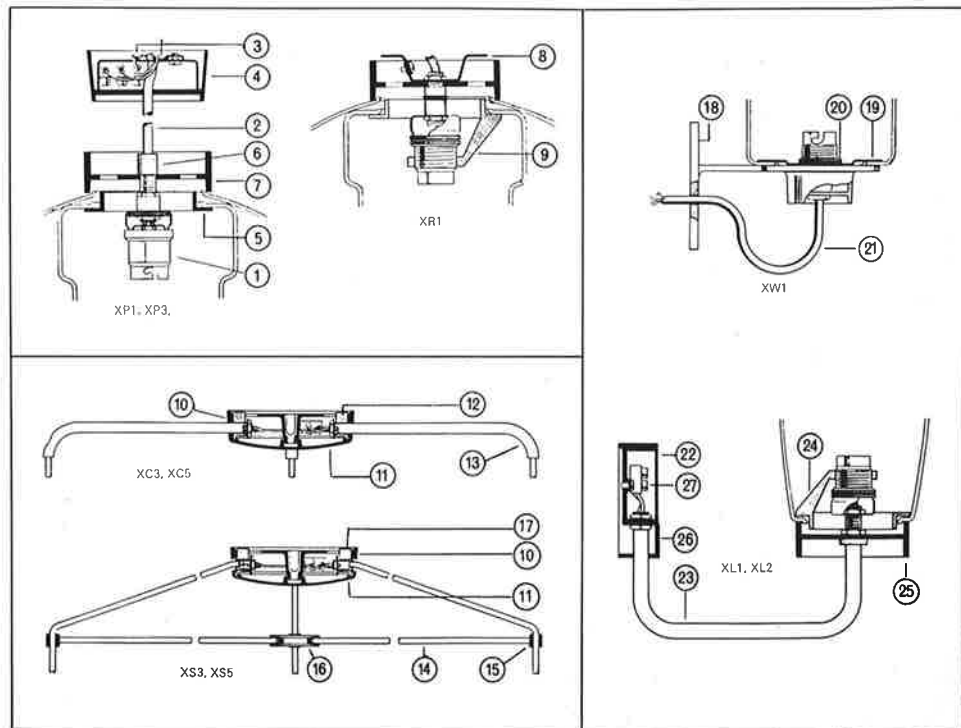
This suspension has, in common with the XC series, a matching plate (10) and cover (11), but incorporates a three or five-way black anodized spreader (14). The cable suspensions pass through polished brass collars (15) and the black anodized rods (16) meet centrally at the polished cast brass ring (16). The spreader can be adjusted *in situ* to any forward position on a cable length of 6ft. The cable is anchored into a slider (17) which is suitably attached to the ceiling plate casting through keyhole slots.

## Wall bracket XW1.

A wall mounting unit is available for use with any of the glasses up to 4in maximum diameter. The wall fixing plate casting (18) also carries a glass support cap from a slender connecting arm. The glass is retained by a clamping piece (19) secured by the shade ring (20). The black cable connection (21) is looped from the lampholder and passes back through the wall plate. It is finished black in keeping with the Modern range.

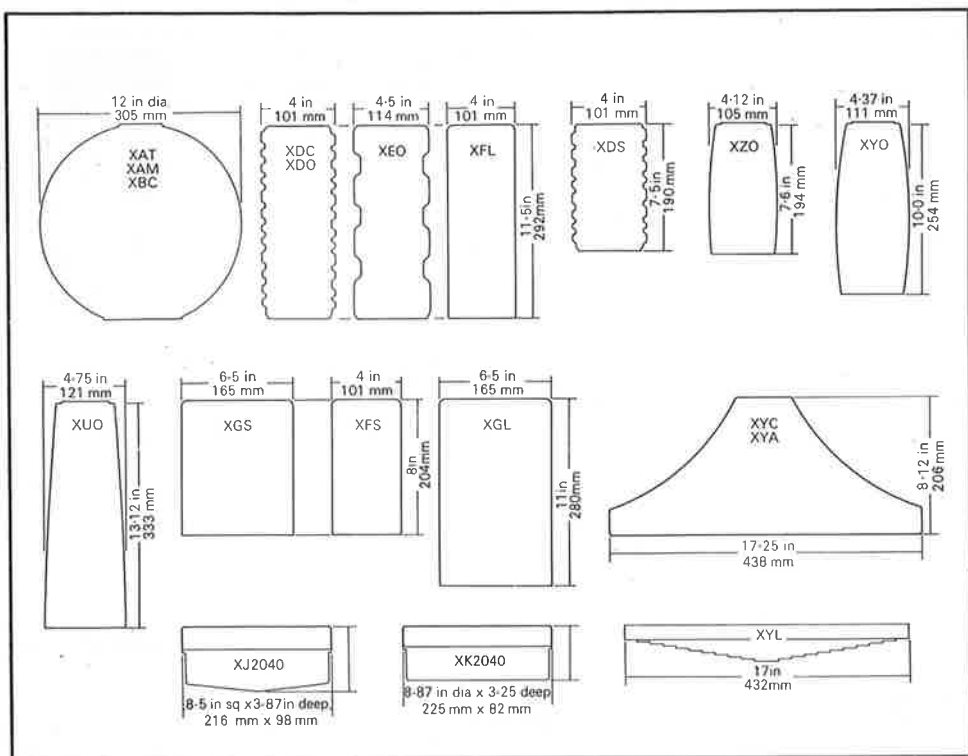
## Wall bracket XL1 and XL2.

Single and twin wall brackets have been designed with a polished brass back plate cover (22) and slender tubular brass arms (23). Any of the glasses in the range can be used. The retaining ring (24) clamps the glass against the black cast cap (25). Removal of the brass cover (22) from the black finished casting (26) exposes the fixing points and terminal block (27) which makes mounting an easy and fast operation. The arms can be swivelled to any desired angle and can be used reversed (glass open downwards) if required. All fittings comply with B.S.3820.



# atlas

## Modern glasses



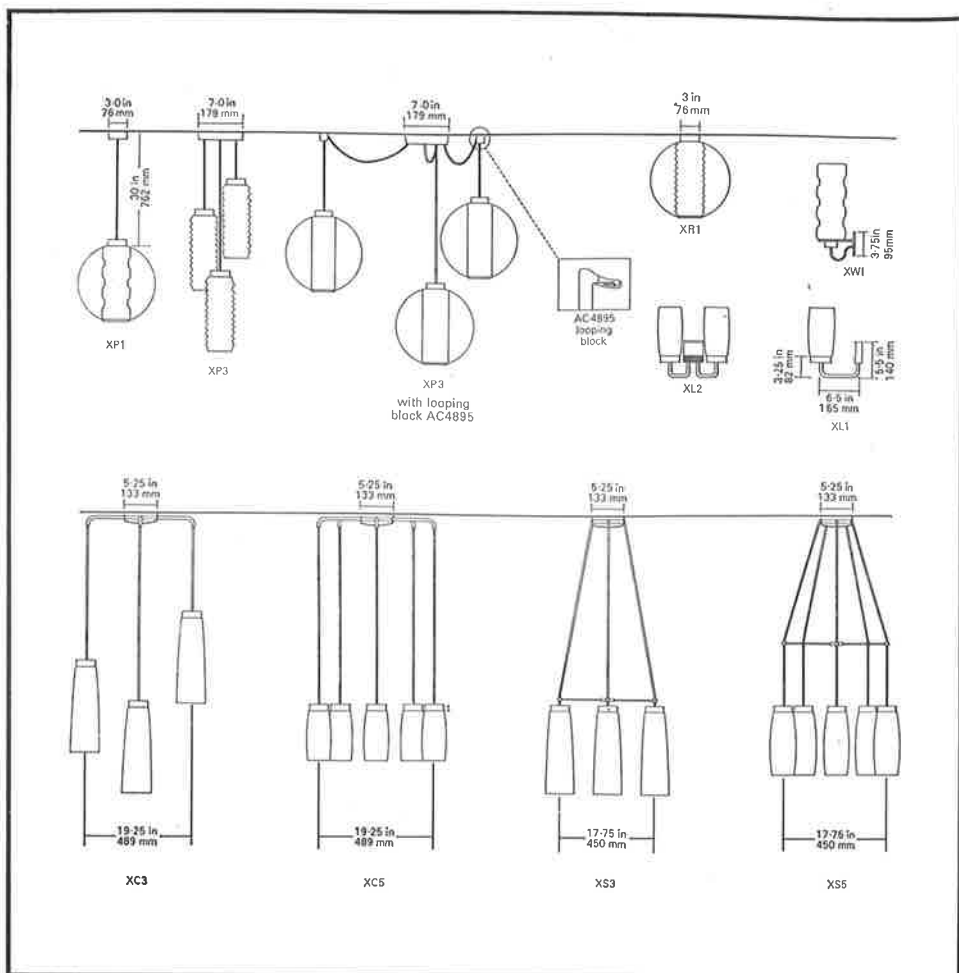
### PRICES OF GLASSES. Ordering details: glasses and suspensions to be ordered separately.

		Cat. no.	Maximum wattage	Weight of fitting (ex. lamps)		Price*			P.T.		
				lb	kg	£	s	d	£	s	d
<b>Glasses outer</b>	Bubbled sphere	XBC	150	3½	1.58	3	5	0	14	7	
	Twilight sphere	XAT	150	3½	1.58	3	5	0	15	6	
	Amethyst sphere	XAM	150	3½	1.58	3	5	0	15	6	
<b>Glasses inner (or single)</b>	Long crystal	XDC	150	1½	0.68	1	10	0	7	2	
	Dimpled opal	XDO	150	1½	0.68	1	13	0	7	11	
	Stepped opal	XEO	150	1½	0.68	1	10	0	7	2	
	Plain cylinder	XFL	150	¾	0.34	1	7	0	6	6	
	Short crystal	XDS	100	1½	0.57	1	9	0	6	11	
<b>Glasses single</b>	Short barrel	XZO	100	¾	0.23	1	1	0	5	1	
	Long barrel	XYO	150	¾	0.34	1	7	0	6	6	
	Long U shaped	XUO	150	1	0.45	1	14	0	8	2	
	Large short	XGS	150	1	0.45	1	17	0	8	10	
<b>Single glasses – plain cylinder</b>	Small short	XFS	100	¾	0.22	18			4	4	
	Large long	XGL	200	1½	0.80	1	15	0	8	5	
	Round	XK2040	2x40	4	1.8	3	14	0	17	8	
<b>Ceiling fittings – complete</b>	Square	XJ2040	2x40	6½	2.94	4	5	0	1	0	4
	Copper	XYZ	100	4½	2.0	8	13	0	2	1	3
<b>Metal reflectors</b>	Aluminium	XYA	100	2	0.9	4	12	0	1	2	0
	Louvre	XYL	100	¾	0.22	1	2	0	5	3	

\*Prices applicable to the United Kingdom.  
Weights are less suspensions.

# atlas

## Modern suspensions



### PRICES OF SUSPENSIONS.

Glasses indicated are typical examples only. Glasses and suspensions to be ordered separately.

		Cat. no.	Weight (ex. lamps)		Price*			P.T.	
			lb	kg	£	s	d	£	s d
Straight drop	Single	XP1	2	0.3	1	10	0	7	2
	Single	XP1/8 KIT	2	0.3	1	13	0	7	11
	3-way	XP3	3	1.36	4	17	0	1	3 2
Looping block		AC.4895			—	2	0	—	—
Close ceiling	unit	XR1			1	8	0	6	9
Arm pendant	3-way	XC3	3½	1.6	6	16	0	1	12 5
	5-way	XC5	5½	2.49	10	8	0	2	9 7
Spreader pendant	3-way	XS3	3	1.37	6	7	0	1	10 4
	5-way	XS5	4	1.8	9	11	0	2	5 7
Wall bracket	Single	XW1	2	0.34	1	19	0	9	4
	Single	XL1	1½	0.56	3	0	0	14	4
	Twin	XL2	2	0.90	5	1	0	1	4 1

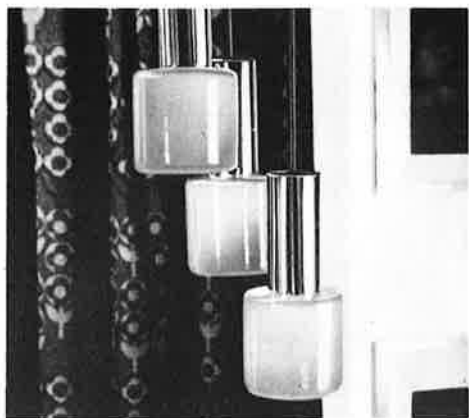
\*Prices applicable to the United Kingdom.

Weights are less glasses.

# atlas

## Modern junior

---



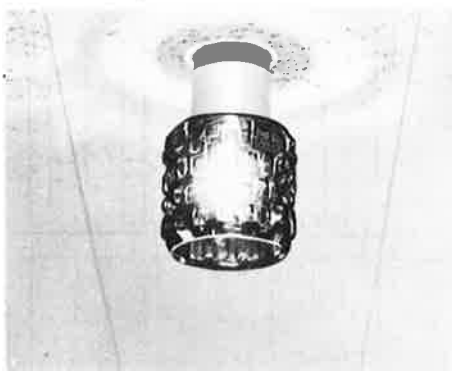
WXP3, Triple suspension with orange glass WXG,R



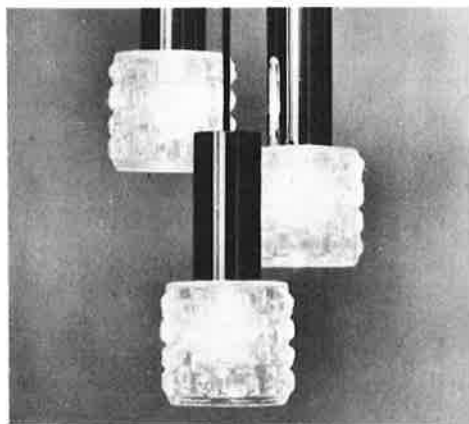
WXB1, Wall bracket using green glass WXG,G.



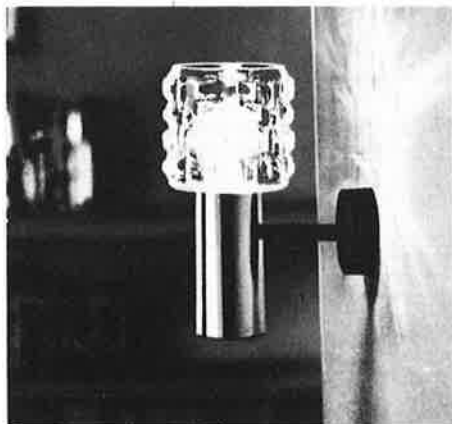
WXP1, Single suspension with amber glass WXG,A.



WXC1, Close ceiling fitting with amber glass WXG,A.



WXP3, Triple suspension with clear glasses WXG,C.



WXB1, Wall bracket, clear glass WXG,C.

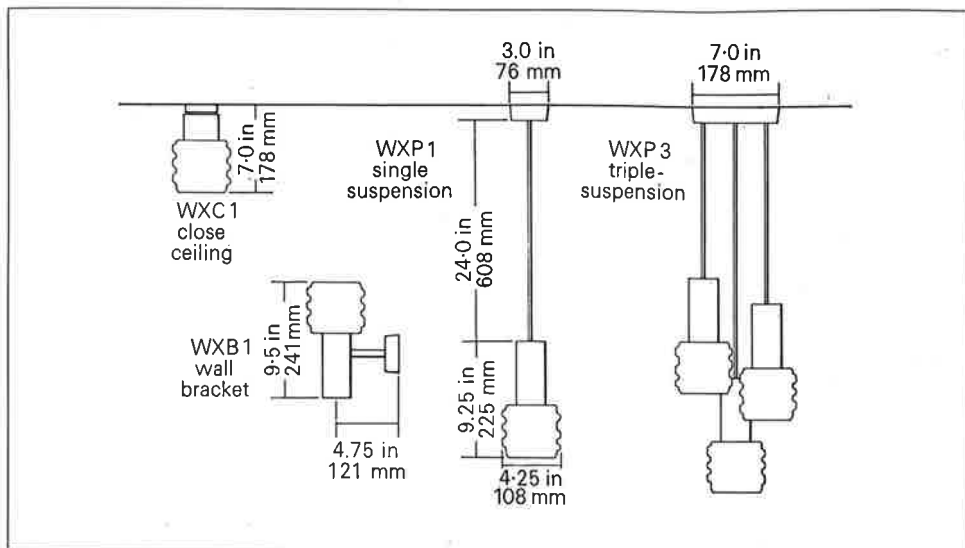
The Atlas Modern Junior range offers a low priced means of enjoying the charm of crystal glass and giving your decor that extra touch of luxury. Available in amber as well as clear, the crystal glass matches the larger design in pattern and texture.

Colour – the keynote of modern installations – has been included in this versatile range, White Opal Satin Etched, Orange Flashed Opal and Green Flashed Opal glassware

being recent additions.

These fittings can be used singly or in clusters over a dining table or high on the ceiling in hallways, etc. A matching wall bracket is also included in the range.

Suspended on a black cable, the lampholder is shrouded in a chromium plated shield. Glass packed complete with 60w lamp.



### ORDERING DETAILS. Glasses and Suspensions to be ordered separately.

Glass	Cat. no.	Colour	Weight (ex. lamp)		Price*			P.T.
			oz	kg	£	s	d	
	WXG.A	Amber	14.0	0.4	1	2	0	5 3
	WXG.C	Clear	14.0	0.4	1	2	0	5 3
	WXG.G	Green*flashed opal	14.0	0.4	1	8	0	6 9
	WXG.O	White opal satin etched	14.0	0.4	1	2	0	5 3
	WXG.R	Orange flashed opal	14.0	0.4	1	8	0	6 9

Packed complete with 60w lamp.

Suspensions	Cat. no.	Suspension	Weight		Price*			P.T.
			lb	kg	£	s	d	
	WXP1	Single	1.0	0.45	1	3	0	5 6
	WXP3	Triple	2.5	1.2	3	4	0	15 3
	WXB1	Wall bracket	1.0	0.45	1	12	0	7 8
	WXC1	Close ceiling	0.5	0.22	1	3	0	5 6

\*Prices applicable to the United Kingdom.

# atlas

## Novelle and Occasional lamp

### Novelle

When efficient lighting without glare is required, satin opal glass provides the answer. Take a simple gallery suitable for close ceiling mounting, add a decorative gold or red fabric trim and you have NOVELLE. This attractive fitting using the same basic components as the very popular NOVA range is suitable for homes, hotels, universities, in fact any interior where well designed yet simple fittings are required.

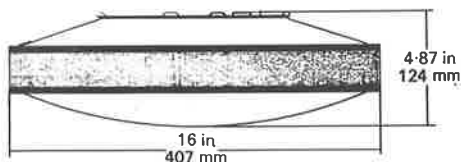
Cat. no.	Colour	Lamp watts	Price*			P.T.		
			£	s	d	£	s	d
NLH100R	Red	100	3	0	0	14	4	
NLH100G	Gold	100	3	0	0	14	4	
NLH200R	Red	2 x 100	5	5	0	1	5	1

\*Prices applicable to the United Kingdom.

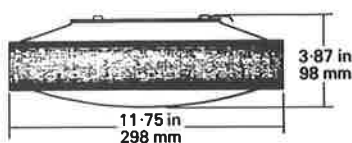


NLH 200R

NLH 200

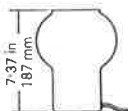


NLH 100



### Occasional lamp

Glass occasional lamp for brightening up those dim corners and decorating the room with glowing colours. The orange and white glasses are a perfect foil for each other and find numerous resting places, such as occasional or coffee tables, book shelves, ladder racks and room dividers. Subdued light for TV or supper parties makes your house guests admire your décor.



Colour	Cat. no.	Price*			P.T.		
		£	s	d	£	s	d
Orange opal	WO1060R	2	14	0	12	11	
White opal	WO1060W	2	14	0	12	11	

\*Prices applicable to the United Kingdom.  
Packed with 60W lamp.



WO 1060R



# atlas

## Modern adjustable pendants

### Adjustable pendant

A multi-purpose pendant fitting adjustable to any convenient height by means of a ceiling mounted rise and fall unit.

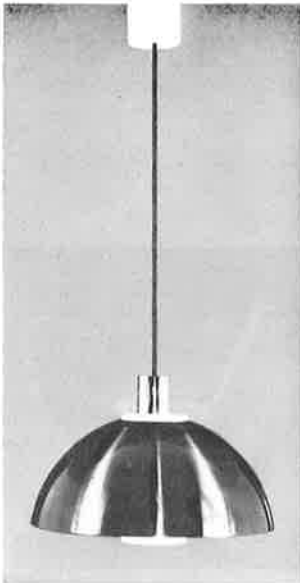
The reflector of spun aluminium is available finished in a variety of colours comprising brushed silver, amber, purple, blue or painted matt black and is suspended on contrasting black cable carried from a white ceiling cover. An opal cylindrical inner ensures well diffused light whilst adding decor to the main design. Diffusers in

orange or white acrylic which will enhance the design of any modern interior are also available in place of the spun aluminium reflector.

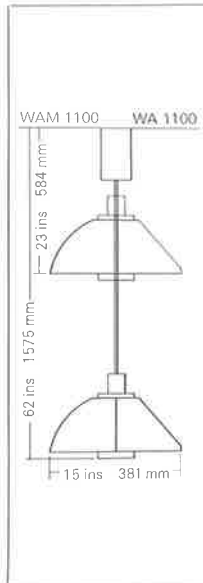
Over the dining table the fitting provides height adjustment for comfort and emphasis on the table decoration. Over the dressing table the correct lighting position is achieved for make-up, etc., numerous other applications include bed-side lighting, study, nursery, etc. The lampholder is shrouded in a chromium plated shield. Packed complete with 100w lamp.

Colour	Cat. no.	Weight (ex. lamp)			Price*			P.T.		
		lbs	ozs	kg	£	s	d	£	s	d
Brushed silver reflector	WAM1100S	3	10	1.6	5	17	0	1	7	11
Matt black reflector	WAM1100M	3	10	1.6	5	17	0	1	7	11
Amber reflector	WAM1100A	3	10	1.6	6	7	0	1	10	4
Blue reflector	WAM1100B	3	10	1.6	6	7	0	1	10	4
Purple reflector	WAM1100P	3	10	1.6	6	7	0	1	10	4
Orange diffuser	WA1100R	3	5	1.5	5	10	0	1	6	3
White diffuser	WA1100W	3	5	1.5	5	10	0	1	6	3

\*Prices applicable to the United Kingdom.  
Prices include lamp.



WAM 1100A



WAM 1100S



WA 1100R

## Modern domestic cylinders and spotlights

### Ceiling cylinder

**WH100** A high quality surface mounted cylinder in a brushed silver finish with low brightness baffles to eliminate glare. Provides the basic functional lighting to modern standards with visual comfort – the very solution to many lighting problems. Packed complete with 100w general service lamp with clip-on auxiliary reflector. Used in conjunction with bezel ring assembly, Cat. no. WR100 enables unit to recess into ceiling. Adjustment is provided permitting varying degrees of projection. Concealed support brackets enabling quick fixing to all types of suspended ceilings are also provided.

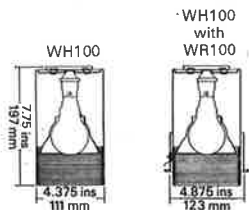
	Cat. no.	Price*	P.T.
		£ s d	s d
Ceiling cylinder	WH 100	3 17 0	18 5
Adjustable bezel ring	WR 100	1 6 0	—

\*Prices applicable to the United Kingdom.



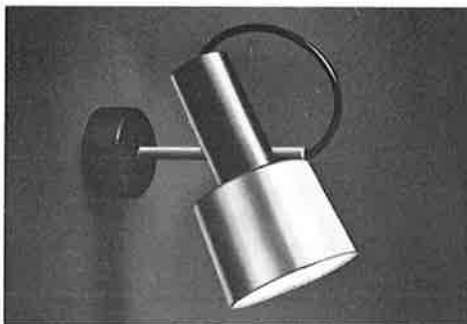
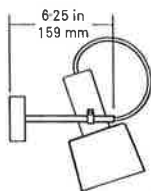
WH 100 with WR 100

WH 100



### Domestic spotlight

Concentrated patches of light to emphasize house plants, paintings, flower vases and ornaments lift the room from even dullness to living three dimensional gaiety. This adjustable spotlight is designed for wall or ceiling mounting in natural anodized aluminium finish with black painted relief. For use with 100w internally silvered spot lamp. Packed complete with lamp and mounting bracket.



WS 1100

	Cat. no.	Price*	P.T.
		£ s d	s d
Adjustable spotlight	WS 1100	3 3 0	15 1

\*Prices applicable to the United Kingdom.

## Top spot

This versatile spotlight offers effect lighting that brings **flair** to your decor, light for **working** or relaxing and makes an attractive addition to the home. Simple and functional in design the Top Spot uses a standard general service lamp in place of special types normally used in conventional spots.

The reflector of the desk lamp version (Cat. no. VTD 60) finished in eggshell black is externally mounted via a bright chrome support rod on to a black rectangular metal base.

There is an adjusting screw for tilting the reflector to any position and a rocker switch in the base, both of which are finished in bright red in contrast with the eggshell black and chrome. Elongated slots in the base allow the fitting to be hung on the wall.

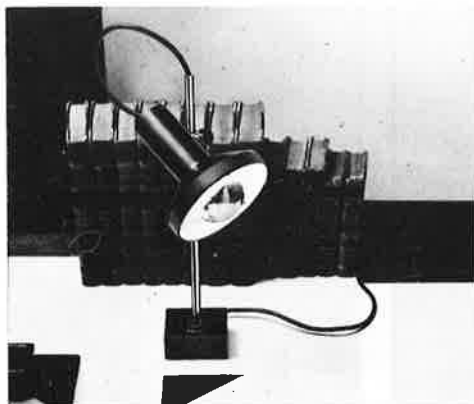
A ceiling mounting version with reflector and back plate finished in gloss white (Cat. no. VTC 60W), or matt black (Cat. no. VTC 60B) is also available.

These inexpensive fittings have a wide range of applications in the home. They are invaluable as a desk lamp as well as for lighting pictures or *objets d'art*. They can be used as a bed-side light or in living areas and are extremely useful for handyman jobs or home hobbies.

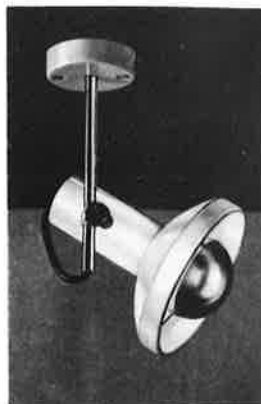
Both units are wired complete with an adequate length of black P.V.C. flex and supplied complete with 60w lamp.

	Cat. no.	Price*			P.T.		
		£	s	d	£	s	d
Desk lamp	VTD 60	4	3	0	19	10	
Ceiling fitting	VTC 60W	2	18	0	13	11	
Ceiling fitting	VTC 60B	2	18	0	13	11	

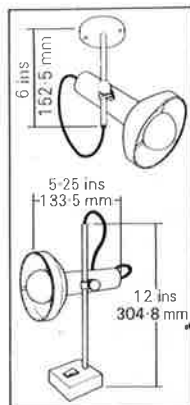
\*Prices applicable to the United Kingdom.



VTD 60 Desk lamp.



VTC 60w Ceiling fitting.

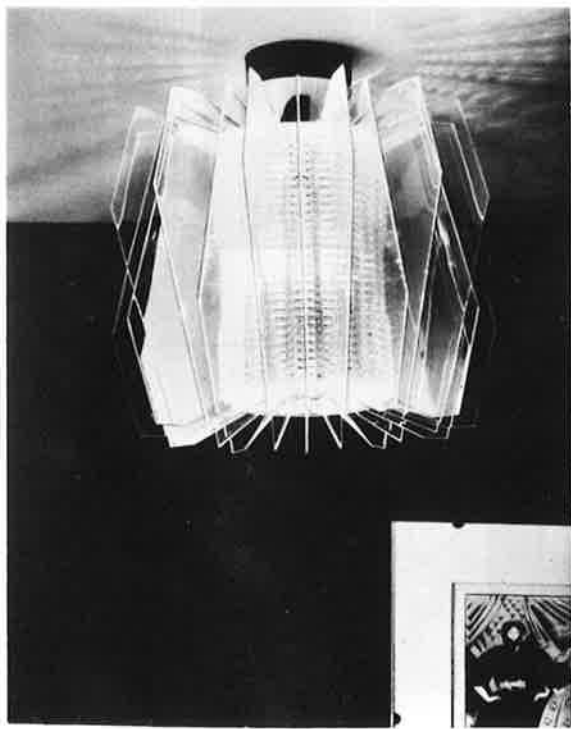


# atlas

## Link-lite

The dramatic possibilities of 'edge-lighting' are exploited to the full in this superb range of lighting fittings. Suitable for both commercial and domestic situations, the Link-lite introduces a highly original and remarkably effective lighting technique, and represents an entirely new concept in design and adaptability. By the careful use of a variety of finned crystal styrene diffusers, the fitting achieves an effect that combines sparkling attractiveness with functional efficiency. As the light shines through the diffuser, the edges of the

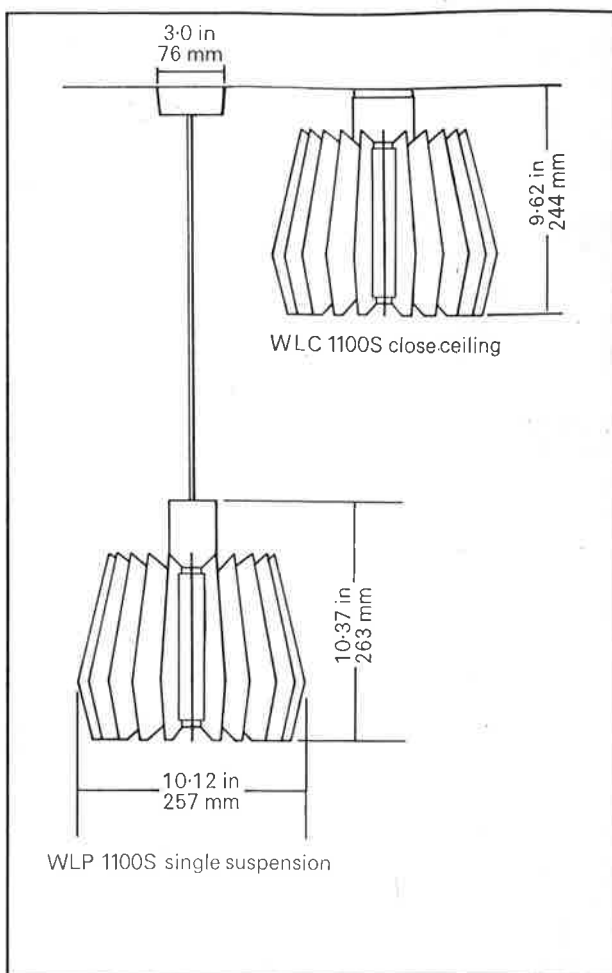
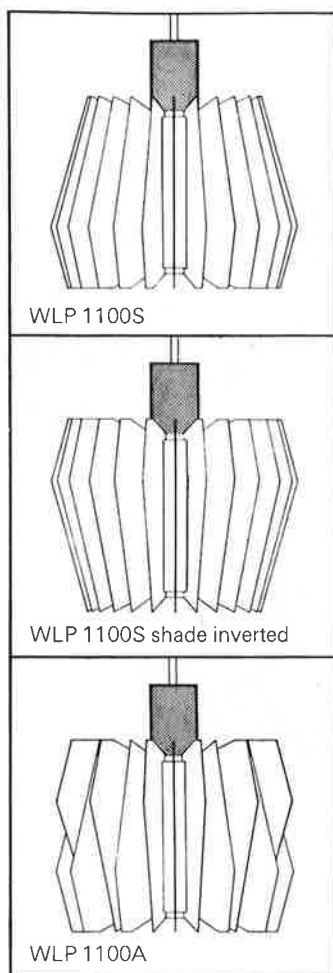
finns are strongly highlighted in a pleasing and unusual way, forming a decorative pattern that completely surrounds the fitting. This pattern is varied by inverting some or all of the fins, so that many different regular or irregular patterns are achieved (see diagrams). For suspensions the range is fitted with a contrasting chrome cylinder with a black cable assembly, and is available either as a single pendant, or, if required, as a close-ceiling-mounted unit, Reg. Design no's, 925530 and 925531.



WLC 1100A close ceiling version



WLP 1100S single suspension.



## PRICES\*

### fin arrangement

#### Single suspension

	Cat. no.	Lamp watts	Weight (ex. lamp)		Price	P.T.	
			lb	oz	kg	£	s d
Asymmetrical	WLP1100A	100	3	10	1.6	4 17	0 1 3 2
Symmetrical	WLP1100S	100	3	10	1.6	4 17	0 1 3 2
<b>Close ceiling</b>							
Asymmetrical	WLC1100A	60	3	10	1.6	4 17	0 1 3 2
Symmetrical	WLC1100S	60	3	10	1.6	4 17	0 1 3 2

\*Prices applicable to the United Kingdom.

Packed complete with clear lamp in decorative box.

# atlas

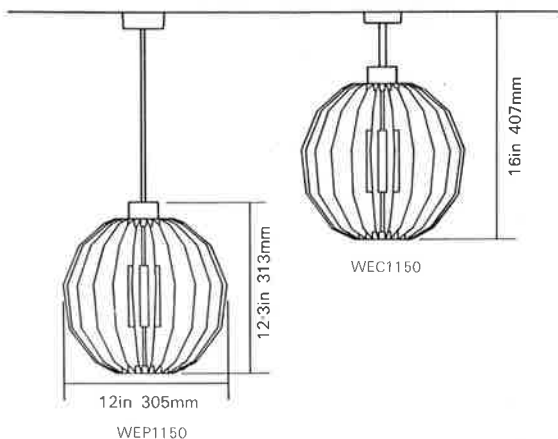
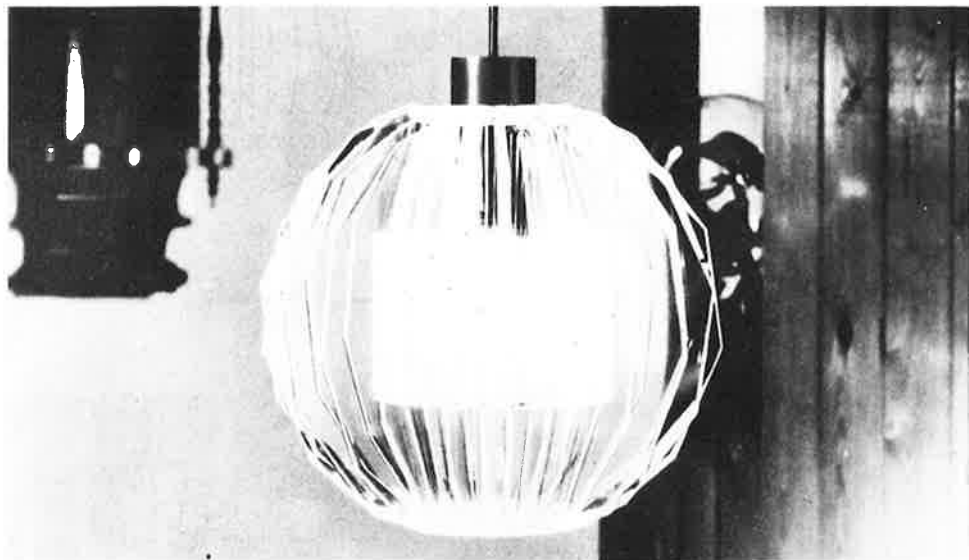
## Link-lite 2

Linklite 2 is a bold new development of the same technique as the original highly successful Linklite fitting using a 150w clear lamp to provide higher illumination without loss of form or sparkle. This fitting which was 'hailed' by the Electrical Light Fitting Association with an Elfa award for good design is available in two versions.

A single pendant on a 2' 6" length of black cable giving an overall drop of 3' 5" and a close ceiling version with an overall drop of 16". Fitted with a unique

reversible lampholder support which permits the use of a 100w lamp whilst still maintaining the same light centre as the 150w lamp. This lampholder support is housed in a chrome cylinder which blends with both the black flex and ceiling plate as well as the polished styrene fins. This inexpensive range has many applications in the home, hotels, restaurants, bars and boutiques etc. Packed complete with 150w clear single coiled lamp in decorative box.

REGISTERED DESIGN NO. 939,946.



### RANGE AND PRICES (applicable to UK only)

	Cat. no.	Lamp Watts	Weight lb	kg	Price £ s d	P.T. £ s d
Single Suspension	WEP1150	100/150	4	1.8	5 6 0	1 5 4
Close Ceiling	WEC1150	100/150	4	1.8	5 6 0	1 5 4
Including 150w Clear single coiled lamp.						

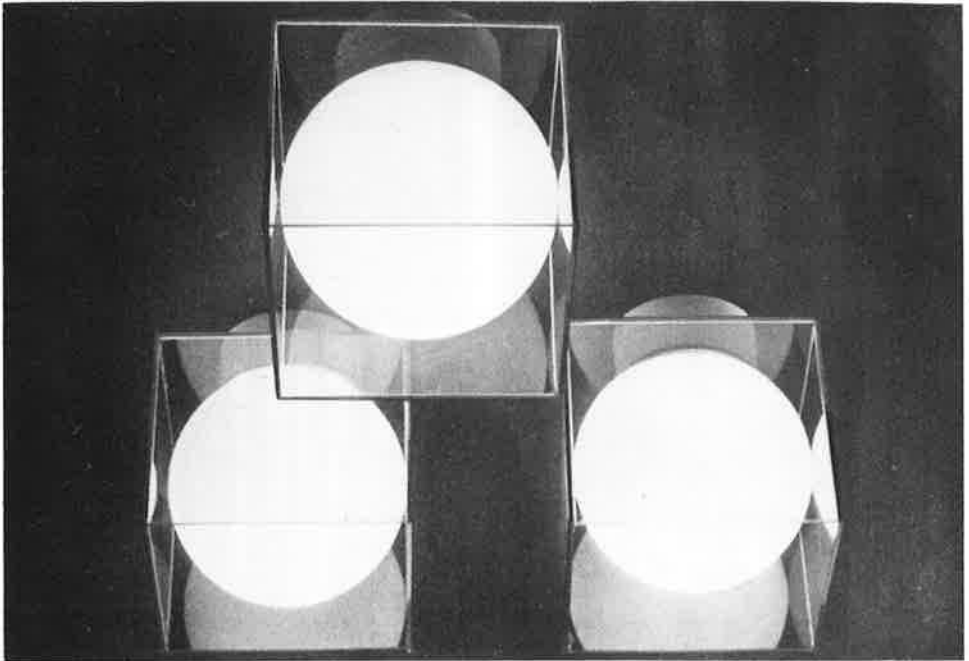
\* Prices applicable to the United Kingdom.

A new and attractive range of decorative lighting fittings of classic simplicity. The Cubelight range is built round a satin etched white opal screw neck sphere to which is added a perspex cube outer in Twilight or Amber colour. Direct mounting to wall or ceiling is achieved by means of a white plastic heat resistant gallery and gasket.

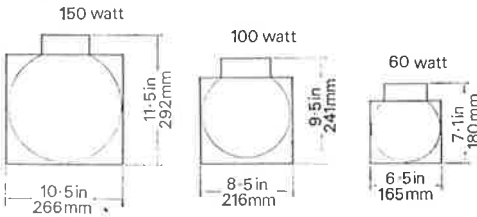
This colourful range of decorative units is available in 60w, 100w and 150w lamp sizes as single units

but equally attractive arrangements can be created by having regular or abstract patterns of cubes scattered on the ceiling.

These inexpensive units have a wide range of applications in the home, hotel or restaurant. Also available is a table stand adaptor complete with cable and switch which can simply be added to any size of cube when a table lamp is required.



WM 60A



## PRICES\*

Cat. no.	Lamp watts	Colour	Weight (ex. lamp)		Price			P.T.			
			lb	oz	kg	£	s	d	£	s	d
WM60A	60	Amber	2	0	0.9	3	16	0	18	2	
WM60T	60	Twilight	2	0	0.9	3	16	0	18	2	
WM100A	100	Amber	3	8	1.6	4	19	0	1	3	8
WM100T	100	Twilight	3	8	1.6	4	19	0	1	3	8
WM150A	150	Amber	5	8	2.5	7	12	0	1	16	3
WM150T	150	Twilight	5	8	2.5	7	12	0	1	16	3
WMT	Table stand adaptor		8		0.2	1	0	0			4 10

\*Prices applicable to the United Kingdom.

# atlas

## Scatter light

A new range of elegant lighting fittings introduces an entirely new effective lighting technique, suitable for both commercial and domestic situations. Well proportioned pieces of Polyester Resin crazed to give a sparkling effect are available in clear, amber or red. The lamp which is concealed in a contrasting chrome cylinder allows the light to be directed through the resin dramatically highlighting its form. For suspension the range is available with a black cable assembly

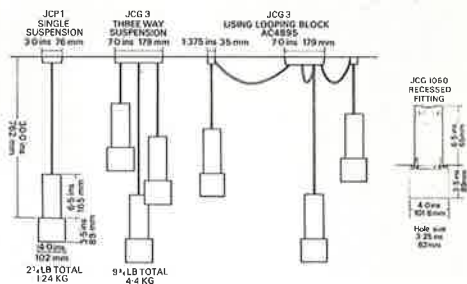


JCG3 with diffusers

with contrasting chrome cylinder either in a single or three-way pendant which can be converted into the looped free hanging type of suspension with the addition of AC.4895 cable suspension holder. A compact unit is also available for recessing into the ceiling surface to provide an inconspicuous source. A matching range of Scatter light discs are available in the form of attachments to our Display Range. For further details see page CB38 of this section.



JCG1060 with diffuser  
For fixing details refer to page CB40



### PRICES\*

		Cat. no.	Price			P.T.	
			£	s	d	£	s d
<b>Cylinder diffuser</b>	Clear	SCC	2	6	0	11	0
	Amber	SCA	2	6	0	11	0
	Red	SCR	2	6	0	11	0
<b>Suspensions</b>	Single pendant	JCP1	2	5	0	10	9
	Three pendant group	JCG3	6	9	0	1	10 9
	Recessed fitting	JCG1060	2	1	0		
	Cable suspension holder	AC4895	2	0			
<b>Lamps</b>			Net Trade Price			P.T.	
A special reflector lamp with diffusing front surface is recommended for these fittings.			s d			d	
	Wattage	Name	Caps	Volts			
	60	Chelsea lamp	B. C.	200/210 220/230 240/250	2 1		9

\*Prices applicable to the United Kingdom.



# atlas

## Chelsea handwrought glass

Atmosphere is more important than lighting levels in many sophisticated surroundings and bars, restaurants and clubs are typical examples. The Chelsea glass has a special place in providing the tools for such applications. Elegant in the extreme, the range of Chelsea glass fittings successfully blends traditional craftsmanship with modern design. The sparkling handwrought glass is available in clear, ruby and

amber in shapes that permit within the scopes of various multiple assemblies complete changes of lighting effect. Light which is directed through the thick glass section from within a chromium plated sleeve dramatically highlights the form and colour. Available for single, or three-way suspension and a matching wall bracket.



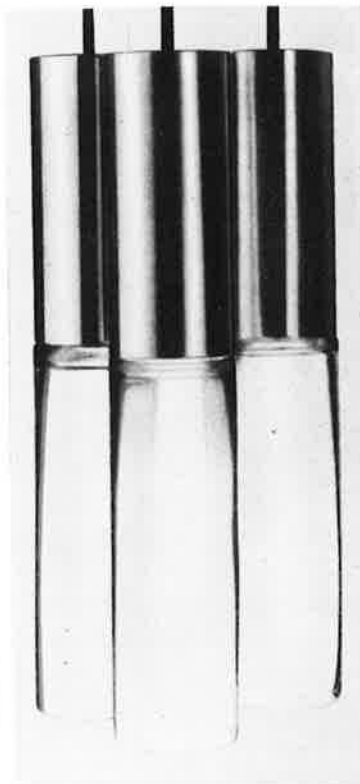
JYC



JZA



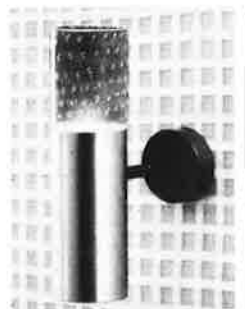
JCG3



JYA



JFR



JCB1



JCG1060

### JCG3

Three-way pendant JCG3 with three JFR ruby glasses.

### JYA

Amber glasses on three-way pendant JCG3.

### JZA

Amber glass on single pendant JCP1.

### JFR

Ruby glass on JCP1 pendant.

### JYC

Clear glasses on JCP1 Pendant.

### JCB1

Wall bracket with JZR ruby glass.

### JCG1060

Recessed fitting with JFA amber glass.

# atlas

## Chelsea handwrought glass

### GLASSES

Range of glasses, Ordering details: glasses and suspensions should be ordered separately.

JZ glass, A shimmering crystal unit that sparkles with light and fire. Available in clear, amber and in cased ruby. In the latter glass the bubbles are in a clear glass overlay, giving the effect of twinkling stars against a glowing red ground.

JY glass, A glass of superbly elegant proportions. The subtle colours are enhanced by the transmission of light through the crystal itself, the lower end glowing with striking hues where the light is released in clear or amber.

JF glass, This simple yet striking flare shape provides an effective contrast to the JZ glass. Available in clear or amber and in cased ruby.

### SUSPENSIONS

Single suspension JCP1. This includes a black ceiling plate and cable with chromium plated outer cylinder. The cable (standard length 2ft 6in) incorporates two straining wires securely anchored at lampholder and ceiling plate.

Three-way suspensions JCG3. Using a finely proportioned 7in diameter ceiling plate this multiple pendant can be hung

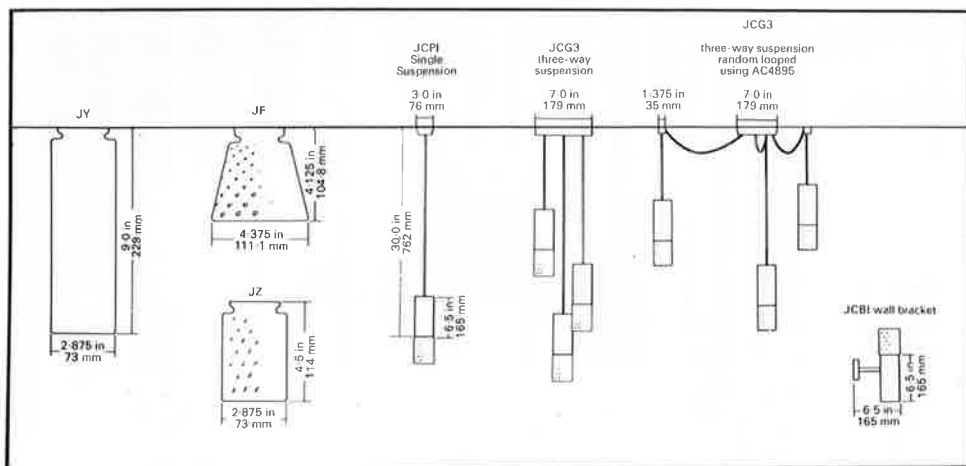
directly in a closely grouped arrangement or with the addition of the AC4895 cable suspension holder can be converted into the looped free hanging type of suspension. Supplied with 6ft of cable per drop.

Wall bracket JCB1. Single wall bracket with black tubular arm and wall plate with chromium cylinder.

**Recessed Unit JCG1060.** A compact unit for recessing into the ceiling surface to provide an inconspicuous source. Fitting with glass supporting cylinder enables all Chelsea range glassware to be used. Also available fitted with metal cylinder (copper anodized finish) Cat. no. JCA1060 for particulars refer to page CB40.

**Fitting and removal.** When the chromium plated sleeve is raised the claws spread and the glass is placed in position. The sleeve is then lowered causing the claws to grip the neck of the glass positively and safely. The black flex, itself an integral part of the design, incorporates two straining wires securely anchored at lampholder and ceiling plate.

**Lamps.** A special internally silvered reflector lamp with diffusing front surface is recommended for these fittings, 60 watt, Chelsea lamp, B.C. cap. 200/210 220/230, 240/250 volts, Price 2s 1d, p.t. 9d. All fittings comply with B.S.3820.



### PRICES\*

#### Glasses

Cat. no.	Colour	Weight (ex. lamp)	Price	P.T.
		lb kg	£ s d	£ s d
JZC	Clear	1 1/2 0.68	2 19 0	14 1
JZA	Amber	1 1/2 0.68	2 19 0	14 1
JZR	Ruby	1 1/2 0.68	2 19 0	14 1
JYC	Clear	1 1/2 0.80	4 11 0	1 1 9
JYA	Amber	1 1/2 0.80	4 11 0	1 1 9
JFC	Clear	1 1/2 0.55	2 19 0	14 1
JFA	Amber	1 1/2 0.55	2 19 0	14 1
JFR	Ruby	1 1/2 0.55	2 19 0	14 1

\*Weights are less suspensions and lamp.

#### Suspensions

Cat. no.	Suspension	Weight	Price	P.T.
		lb kg	£ s d	£ s d
JCP1	Single pendant	1/2 0.22	2 5 0	10 9
JCB1	Wall bracket	1/2 0.22	2 14 0	12 11
JCG3	Three pendant group	3 1.36	6 9 0	1 10 9
JCG1060	Recessed fitting	1/2 0.33	2 1 0	—
AC4895	Cable suspension holder	— —	2 0	—

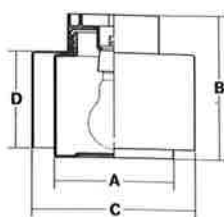
\*Prices applicable to the United Kingdom.

# atlas Nova Cylinder range

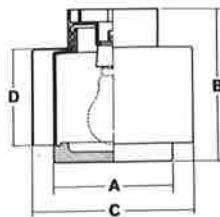
Whatever the interior, the Nova Cylinder range can be the right answer. The simplicity of the design of these new glasses will allow them to blend in with any interior decor.

Two types of satin opal glass, one with a satin opal base and one with an intriguing clear lens base are available in 100w and 150w sizes and an optional glass trim for both sizes completes the range. These inexpensive fittings can be used singly to provide general illumination, but will also be very effective when used in regular or abstract patterns scattered on a ceiling. Nova Cylinders are particularly suitable for the home, hotels, restaurants and any interior where low ceilings are encountered.

The MP100 and the MHS trim are available now. The remainder of the range will be available from November 1969.



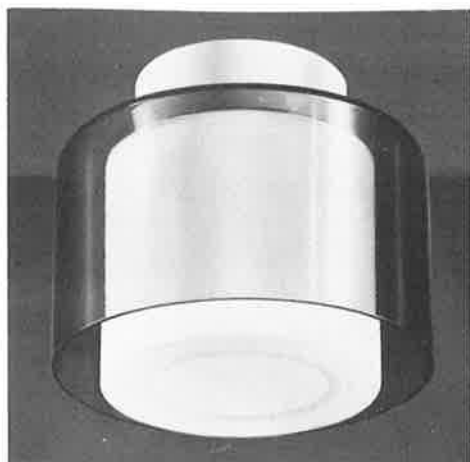
MP 100 and MP 150  
MHS and MHL Trims



ML 100 and ML 150  
MHS and MHL Trim



ML 100



MP 100 with MHS Trim

## DIMENSIONS AND WEIGHTS

Cat. No.	A		B		C		D		Weight	
	mm	ins.	mm	ins.	mm	ins.	mm	ins.	KG.	lbs
ML 100	140	5.5	178	7.00	—	—	—	—	—	2 1/2
ML 100 + MHS	140	5.5	178	7.00	190	7.5	116	4.57	1.92	4 1/2
ML 150	180	7.06	247	9.75	—	—	—	—	2.14	4 3/4
ML 150 + MHL	180	7.06	247	9.75	260	10.25	182	7.18	3.17	7
MP 100	140	5.5	168	6.62	—	—	—	—	.80	1 1/2
MP 100 + MHS	140	5.5	168	6.62	190	7.5	116	4.57	1.47	3 1/4
MP 150	180	7.06	238	9.375	—	—	—	—	1.36	3
MP 150 + MHL	180	7.06	238	9.375	260	10.25	182	7.18	2.38	5 1/2

## PRICES

### Complete fitting

### Component Glassware

### Gallery

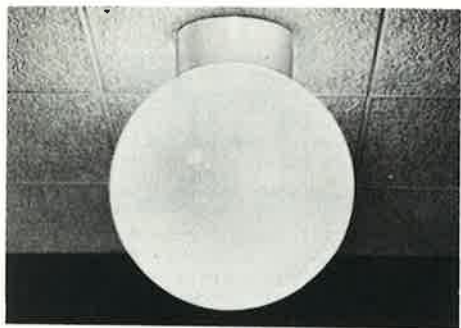
Cat. no.	Lamp Watts	Price £ s d	P.T. £ s d	Cat. no.	Description	Price £ s d	P.T. £ s d	Cat. no.	Price £ s d	P.T. £ s d
ML100	100	3 0 0	16 1	MLG100	Satin Opal cylinder with clear base	2 6 0	12 4	MTCB1100	14 0	3 9
ML150	150	4 9 0	1 3 10	MLG150	Satin Opal cylinder with clear base	3 15 0	20 1	MTCB1100	14 0	3 9
MP100	100	1 18 0	10 3	MPG100	Plain Satin Opal cylinder	1 4 0	6 6	MTCB1100	14 0	3 9
MP150	150	3 7 0	17 0	MPG150	Plain Satin Opal cylinder	2 13 0	14 3	MTCB1100	14 0	3 9

### Attachments

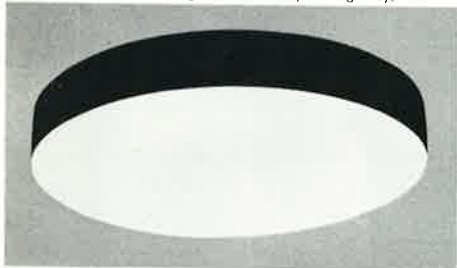
Cat. no.	Description	Price £ s d	P.T. £ s d
MHS	Small amber glass trim 100w size	1 8 0	7 6
MHL	Large amber glass trim 150w size	2 14 0	14 6

# atlas

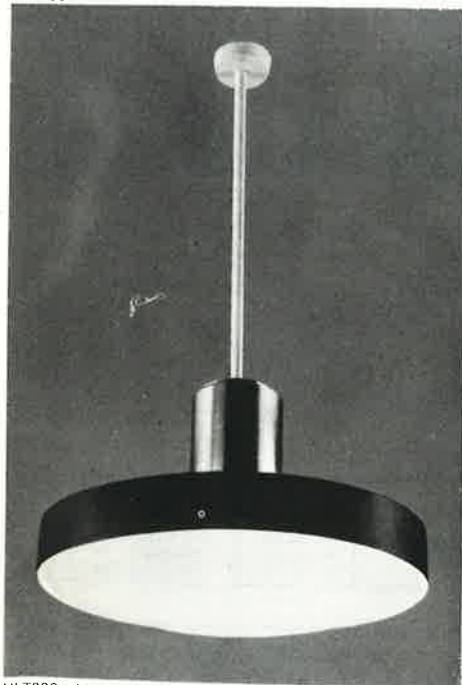
## Nova range



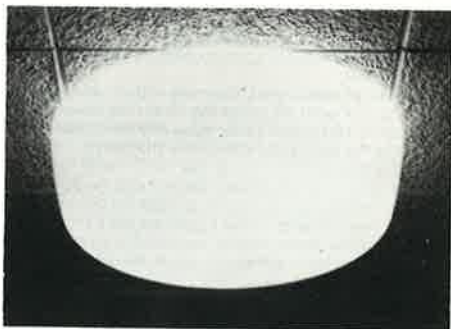
MTC1100. Screw-necked globe on white plastic gallery.



NLT200



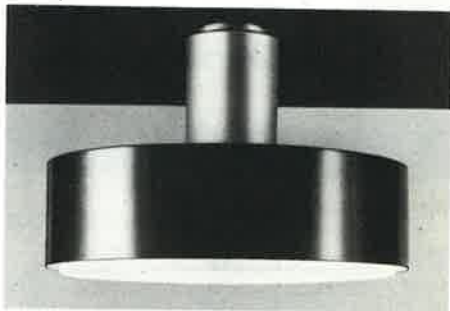
NLT200 with suspension rod



MR2100 Unit with concealed metal work



NCA200



NDA200



NFT200

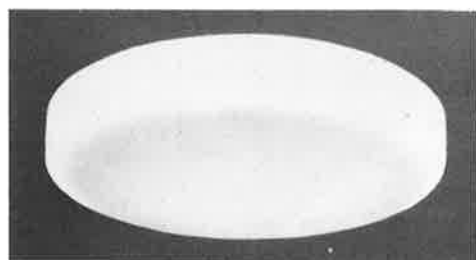
The successful range of satin etched Nova glassware designed to meet the demand for new and interesting shapes in modern interiors has now been extended to include new glasses and modifications in suspensions.

### Flanged cap gallery

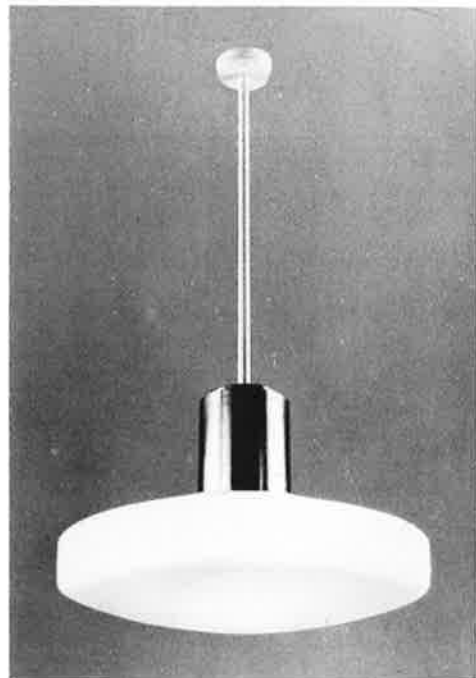
For suspending the glass just off the ceiling or on a half-inch suspension rod (standard length 18") the flanged cap gallery is available in 100w BC, 100w ES, or 200w ES versions. The 100w BC version will accept two glasses, the ND100 and the NF100. The 100w ES versions, ND100.ES and NF100.ES will accept the exciting new 80w **\*Kolorlux** lamp. The 200w ES versions will accept two 200w size glasses, the ND200.ES and the NF200.ES, both suitable for GLS or 125w **\*Kolorlux** lamps.

### Lever release gallery

For mounting directly onto walls or ceilings a lever release gallery is available and will accept two glasses in 100w size, the NC100 and the NL100 and two glasses in the 200w size, the NC200 and the NL200. The glass is removed by a simple lever release concealed behind the glass.



NL200



NF200 with suspension rod

### Decorative trims

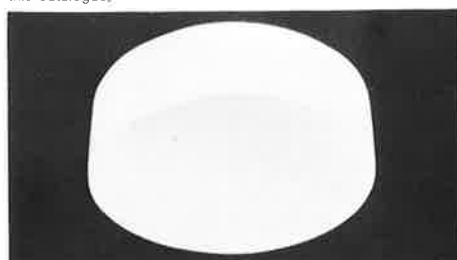
If required a decorative black painted metal trim Cat. no. NT100 and NT200 may be added to the NF and NL series of fittings. There is also available a metal trim for the NC and ND series, this item finished in a lacquered gun-metal colour, Cat. no. NA100 and NA200.

### Screw neck spheres

Also available are screw neck white opal glass spheres with heat resistant white plastic galleries in 60w (MTC 1060), 100w (MTC 1100), 150w (MTC 1150) sizes. The 100w version fitted with an ES lampholder (MTC 1100.ES) will accept the new 80w **\*Kolorlux** lamp and the 150w version with an ES lampholder (MTC 1150.ES) will accept the new 125w **\*Kolorlux** lamp. Suitable for ceiling or wall mounting.

To complete the range a further white opal glass is available in two sizes, 100w and 200w using again the lever release gallery. Cat. no. MR 1100 and MR 2100. Suitable for ceiling or wall mounting.

**N.B.** **\*Kolorlux** lamps require to be operated through control gear. Details of the control gear boxes available are on page CD40 of this Catalogue.



NC200



ND200



NF200

### PRICES\*

#### Complete Fitting

Cat. no.	Lamp watts	Lamp cap	Overall diameter		Overall depth		Weight (ex. lamp)		Price*			P.T.		
			in	mm	in	mm	lb	kg	£	s	d	£	s	d
NC100	100	BC	8-0	204	4-0	102	1 1/2	0-8	2	8	0		12	11
NC200	2 x 100	BC	14-0	356	5-0	127	2 1/2	1-0	3	16	0		1	0
ND100	100	BC	8-0	204	8-62	219	2	0-9	3	10	0		18	10
ND100ES	80°K	ES	8-0	204	8-62	219	2	0-9	3	13	0		19	7
ND200ES	200/125°K	ES	14-0	356	10-12	257	3 1/2	1-6	5	1	0		1	7
NF100	100	BC	11-0	279	8-5	216	2 1/2	1-1	3	8	0		18	4
NF100ES	80°K	ES	11-0	279	8-5	216	2 1/2	1-1	3	11	0		19	1
NF200ES	200/125°K	ES	15-25	387	10-0	254	4	1-8	4	17	0		1	6
NL100	100	BC	11-0	279	3-87	98	2 1/2	1-1	2	6	0		12	5
NL200	2 x 100	BC	15-25	387	4-87	124	4	1-8	3	12	0		19	5
MR1100	100	BC	9-62	244	4-75	120	2 1/2	1-0	2	2	0		11	4
MR2100	2 x 100	BC	13-5	343	5-5	140	4	1-8	3	6	0		17	10
MTC1060	60	BC	6-0	152	7-5	190	1 1/2	0-6	1	2	0		6	0
MTC1100	100	BC	8-0	203	9-5	241	1 1/2	0-8	1	12	0		8	7
MTC1100ES	80°K	ES	8-0	203	9-5	241	1 1/2	0-8	1	15	0		9	5
MTC1150	150	BC	10-0	254	11-5	292	2	0-9	2	9	0		13	2
MTC1150ES	125°K	ES	10-0	254	11-5	292	2	0-9	2	12	0		14	0

**Suspension** – ordered separately AME, M.6113/18, Rod suspension 18in – 12s Od.†

**Trims** – to be ordered separately.

Cat. no.	For use on	Overall diameter		Overall depth		Weight (ex. lamp)	Price*			P.T.
		in	mm	in	mm	lb	kg	£	s	d
NA100	NC100, ND100, ND100ES	8-87	225	3-37	85	$\frac{1}{2}$	-11	1	8	0
NA200	NC200, ND200ES	15-0	381	4-12	105	1	-45	1	18	0
NT100	NF100, NF100ES, NL100	11-12	282	1-87	48	$\frac{1}{2}$	-11	1	5	0
NT200	NF200ES, NL200	15-37	390	2-12	54	6 ozs	-17	1	15	0

#### Components

Glassware					Gallery				
Cat. no.	Price*			P.T.	Cat. no.	Price*			P.T.
	£	s	d	£ s d		£	s	d	£ s d
NCG100	1	7	0	7 3	NCB100	1	1	0	5 8
NCG200	2	12	0	14 0	NCB200	1	4	0	6 6
NCG100	1	7	0	7 3	NFB100	2	3	0	11 7
NCG100	1	7	0	7 3	NFB100ES	2	6	0	12 4
NCG200	2	12	0	14 0	NFB200ES	2	9	0	13 2
NFG100	1	5	0	6 9	NFB100	2	3	0	11 7
NFG100	1	5	0	6 9	NFB100ES	2	6	0	12 4
NFG200	2	8	0	12 11	NFB200ES	2	9	0	13 2
NFG100	1	5	0	6 9	NCB100	1	1	0	5 8
NFG200	2	8	0	12 11	NLB200	1	4	0	6 6
MRG1100	1	1	0	5 8	NCB100	1	1	0	5 8
MRG2100	2	2	0	11 4	NCB200	1	4	0	6 6
MTCG1060	11	0	3	0	MTCB1060	11	0	3	0
MTCG1100	18	0	4	10	MTCB1100	14	0	3	9
MTCG1100	18	0	4	10	MTCB1100ES	17	0	4	7
MTCG1150	1	15	0	9 5	MTCB1150	14	0	3	9
MTCG1150	1	15	0	9 5	MTCB1150ES	17	0	4	7

\*Prices applicable to United Kingdom.

†For other suspension lengths, alter suffix accordingly, i.e./18=18".

# atlas

## The Atlas °Kolorlux package deal

When we announced the new °Kolorlux lamp, we had thousands of enquiries for fittings which could use this revolutionary new concept in commercial lighting. Here is our answer. A package deal. In one pack you get an 80w or 125w °Kolorlux lamp (roughly equivalent in light output to 3 x 100w or 5 x 100w

tungsten lamps), the spine, and the control gear. In the companion pack you have the right reflector or diffuser for the fitting of your choice. In one deal, here is everything one needs to improve lighting, cut running expenses, reduce maintenance cost. And it's designed so that it is particularly easy to install.

### °Kolorlux packs for factory lighting

Ever thought that it might be possible to cut the cost of maintenance men's time on lighting replacements to one seventh of what it is now? That's roughly the saving that the increased life of °Kolorlux lamps can show compared with traditional tungsten lighting. Sometimes the lamp needs to be sheltered from normal

viewing. Where that happens, use the industrial reflector shown on page CB31.

°Kolorlux gives you about a quarter of usual running costs. And it gives you a very pleasant light into the bargain.



#### RANGE AND PRICES (applicable to UK only)

Complete fitting (excluding lamp)					Components				
Rating	Cat. no.	Retail Price			P.T.	Retail Price			Spine Pack (ex. lamp)
		£	s	d	£ s d		£	s	Cat. no.
80w	PKC80	6	16	0	—	Cover	2	3	0
125w	PKC125	7	6	0	—	PKC18	2	3	0
						PKC18	2	3	0
									PK125
									4 13 0
									5 3 0

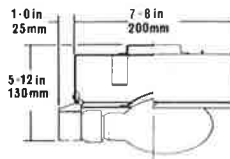
#### Lamps

80w	°Kolorlux MBF (packed with Spine Pack)	£1 17 6	Nett trade price
125w	°Kolorlux MBF (packed with Spine Pack)	£2 3 9	Nett trade price

#### DIMENSIONS

Cat. no.	Width/Length in	mm	Height in	mm	Weight lb.	kg
PKC/80	7.87	200	5.12	130	7	3.17
PKC/125	7.87	200	5.12	130	7	3.17

Fixing. Besa box grouping 2" conduit hole centred.



PKC/80  
PKC/125

weight 7lb.3-17kg.

# atlas

## °Kolorlux packs for general offices, public buildings, shops, airports, hotels and restaurants

We've been working for some time on trying to bring indoors the cheerful light of a fine bright morning.  
°Kolorlux is probably our nearest to it so far.  
°Kolorlux is a high intensity light source, like the sun, so that it gives a pleasant 'contoured' light - with a

nice balance of light and shade. It's an ideal light for interiors, whether they are workaday offices or grand airport terminals.  
And °Kolorlux costs less to run, and is easier to maintain than almost any other type of lighting.



### RANGE AND PRICES (applicable to UK only)

Complete fitting (excluding lamp)							Components													
Rating	Cat. no.	Retail Price			P.T.			Diffuser Description	Cat. no.	Retail Price			P.T.			Spine Pack (ex. lamp)	Retail Price			
		£	s	d	£	s	d			£	s	d	£	s	d	Cat. no.	£	s	d	
80w	PKA80	12	3	0	2	0	3	Opal Acrylic sided Prismatic base	PKA18	7	10	0	2	0	3	PK80	4	13	0	
125w	PKA125	12	13	0	2	0	3	Opal Acrylic sided Prismatic base	PKA18	7	10	0	2	0	3	PK125	5	3	0	
80w	PKM80	12	14	0	2	3	2	Metal sided Prismatic base	PKM18	8	1	0	2	3	2	PK80	4	13	0	
125w	PKM125	13	4	0	2	3	2	Metal sided Prismatic base	PKM18	8	1	0	2	3	2	PK125	5	3	0	

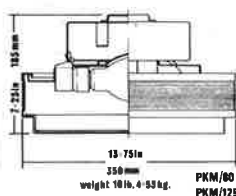
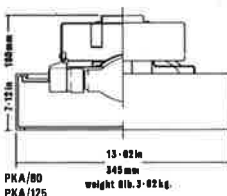
### Lamps

80w	°Kolorlux MBF (packed with Spine Pack)	£1 17 6	Nett trade price
125w	°Kolorlux MBF (packed with Spine Pack)	£2 3 9	Nett trade price

### DIMENSIONS

Cat. no.	Width/Length in mm	Height in mm	Weight lb kg
PKA/80	13-62 345	7-12 180	8 3-62
PKA/125	13-62 345	7-12 180	8 3-62
PKM/80	13-75 350	7-25 185	10 4-53
PKM/125	13-75 350	7-25 185	10 4-53

Fixing. Besa box grouping 2" conduit hole centred

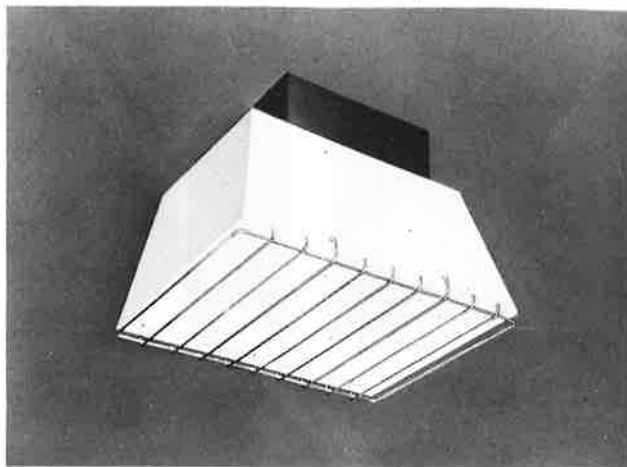




# atlas °Kolorlux packs for indoor sports arenas and gymnasiums

°Kolorlux packs are ideal for indoor sports arenas — as they are for all large indoor areas, such as warehouses, loading bays, and other places where good lighting is vital. Longer life for the lamp means greater reliability.

You're less likely to need to fit a new lamp just before the big match. (Or when factory production would be held up, for that matter.) Plus lower running costs. And a clear bright light that enables you to concentrate on the job in hand.



## RANGE AND PRICES (applicable to UK only)

Complete fitting (excluding lamp)				Components			
Rating	Cat. no.	Retail Price £ s d	P.T. £ s d	Closed end (metal trough) Cat. no.	Retail Price £ s d	Spine Pack (ex. lamp) Cat. no.	Retail Price £ s d
80w	PKT80	7 17 0	—	PKT18	3 4 0	PK80	4 13 0
125w	PKT125	8 7 0	—	PKT18	3 4 0	PK125	5 3 0

Optional extra PKG wire guard for use with PKT18 metal trough price 15/- no P.T.

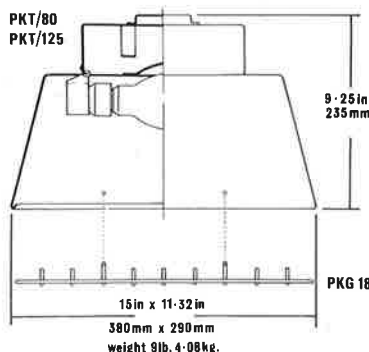
## Lamps

80w	°Kolorlux MBF (packed with Spine Pack)	£1 17 6	Nett trade price
125w	°Kolorlux MBF (packed with Spine Pack)	£2 3 9	Nett trade price

## DIMENSIONS

Cat. no.	Width/Length in mm	Height in mm	Weight lb kg
PKT/80	15.0 x 11.32 380 x 290	9.25 235	9 4.08
PKT/125	15.0 x 11.32 380 x 290	9.25 235	9 4.08

Fixing, Besa box grouping 2" conduit hole centred.



# atlas

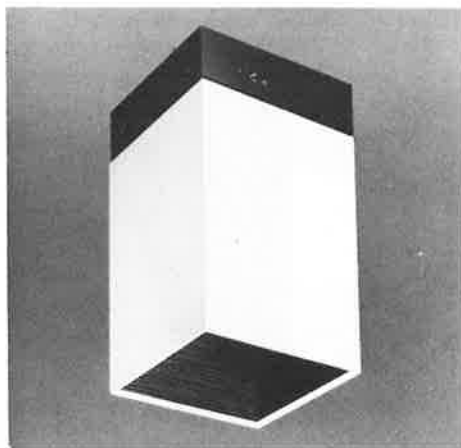
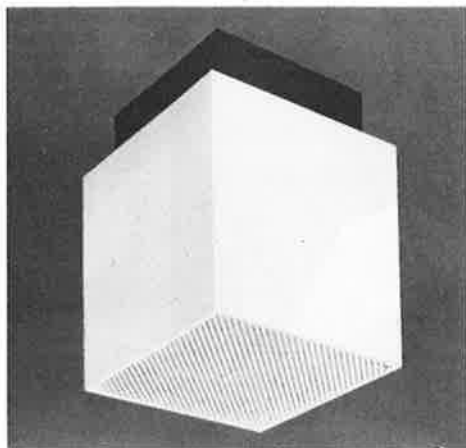
## °Kolorlux packs for display purposes in hotels, exhibitions, shops, stores and boutiques

Good display lighting sells.

°Kolorlux gives excellent display lighting. Its modelling effect on products is always pleasant, and its

controlled light improves display value.

And it's cheap to leave on all night. And it lasts and lasts.



### RANGE AND PRICES (applicable to UK only)

#### Complete fitting (excluding lamp)

#### Components

Rating	Cat. no.	Retail Price £ s d	P.T. £ s d	Diffuser Description	Cat. no.	Retail Price £ s d	P.T. £ s d	Spine Pack (ex. lamp) Cat. no.	Retail Price £ s d
80w	PKO80	10 11 0	1 11 8	Opal Acrylic sided Prismatic base	PKO18	5 18 0	1 11 8	PK80	4 13 0
125w	PKO125	11 1 0	1 11 8	Baffle unit with reflector	PKB18	5 18 0	1 11 8	PK125	5 3 0
80w	PKB80	8 19 0	1 3 1	Baffle unit with reflector	PKB18	4 6 0	1 3 1	PK80	4 13 0
125w	PKB125	9 9 0	1 3 1	Baffle unit with reflector	PKB18	4 6 0	1 3 1	PK125	5 3 0

#### Lamps

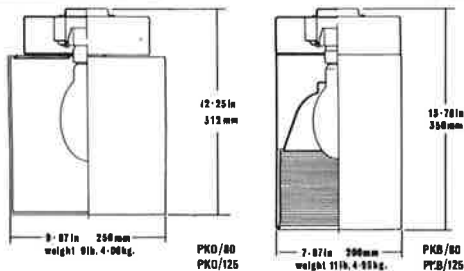
80w °Kolorlux MBF (packed with Spine Pack) £1 17 6 Nett trade price

125w °Kolorlux MBF (packed with Spine Pack) £2 3 9 Nett trade price

### DIMENSIONS

Cat. no.	Width/Length in mm	Height in mm	Weight lb kg
PKO/80	9-87 250	12-25 325	9 4-08
PKO/125	9-87 250	12-25 325	9 4-08
PKB/80	7-87 200	13-75 350	11 4-98
PKB/125	7-87 200	13-75 350	11 4-98

Fixing: Besa box grouping 2" conduit hole centred.

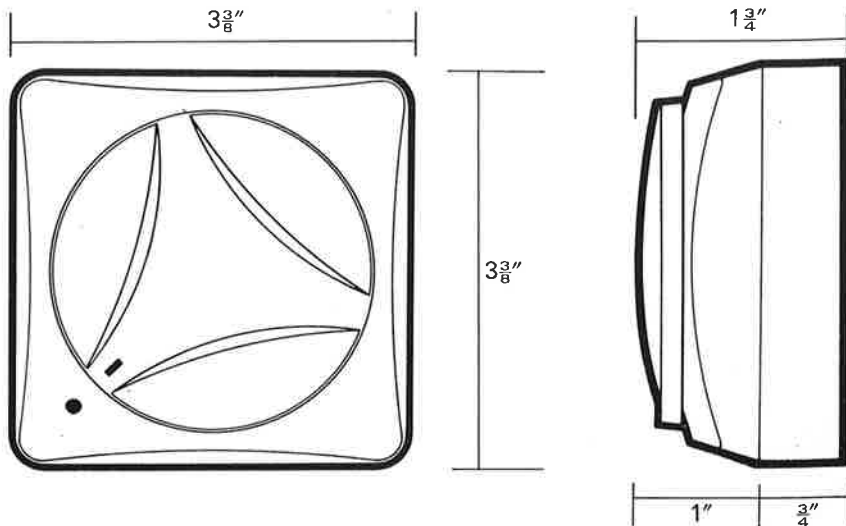


# Mini-dimmer for incandescent lamps

The Atlas Mini-Dimmer is a solid state device designed to produce smooth, reliable, and economic dimming of incandescent lamps up to 300w total load on 200/250 50 Hz supplies. It is ideally suited for use in conjunction with display and similar fittings for tungsten filament lamps.

This dimmer may be substituted directly for any single pole on-off switch mounted on a standard  $3\frac{3}{8}$ " square switch plate. A special mounting frame is supplied with each dimmer for use with "plaster-depth" or other shallow switch boxes.

Suppression against interference on radio and television is provided within the unit,



Cat. no.	Rating	Price £ s d	P.T.
SS300	300w	4 19 6	NIL

The price shown is that suggested as appropriate in UK for retail sale.

# atlas

## Display lighting



Scatterlight Diffuser  
VSA, 100, VSC, 100, VSR, 100



Pin Hole VP, 100



'O' Lighter VO, 200



Crystal Glass Dish  
VX, 100, VX, 200



Large Satin Opal  
Glass Dish VY, 100, VY, 200



Louvre  
VL, 100, VL, 200, VL, 2100



Small Opal Glass Dish  
VZ, 100, VZ, 200, VZ, 2100

The fittings shown in this section of the catalogue are specially designed to meet the demand for the wide variety of techniques employed in modern display lighting. Versatility is achieved by a series of seven attachments that can be applied equally well to any of a range of surface-mounted or recessed fittings and, in some instances, a cylindrical fitting which can be adjusted to be semi-recessed. Many of these fittings will accept the new "Kolorlux" lamp as well as the conventional tungsten filament lamp, thus allowing the user to obtain high levels of light without losing the dramatic effect of the point source and still retaining an acceptable colour on his merchandise. The necessary gear may be mounted remote from the fittings and a gearbox is available, see page CB40 for details.

Attachments include:

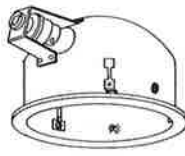
Surface-mounted recessed and semi-recessed fittings which take the attachments are illustrated below. With these basic fittings practically every type of display lighting problem can be solved.



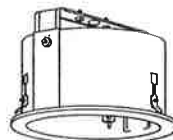
Surface Mounted Fittings  
VS, 2060 B, VS, 2060 A 2 x 60w,  
VS, 2100 B, VS, 2100 A 2 x 100w  
VS, 2100, BES, VS, 2100, AES 2 x 80w \*Kolorlux



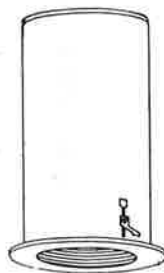
Surface or  
Semi-Recessed Cylinder  
VC, 100, A VC, 100, B, 100w  
VC, 100, AES, VC, 100, BES \*Kolorlux



Recessed Fittings  
VR, 100, 100w  
VR, 100, ES 80w \*Kolorlux  
VR, 200, 200w  
125w \*Kolorlux



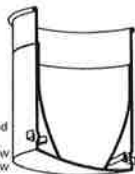
Ceiling Ring Assembly  
VCM, 100



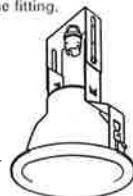
Recessed  
Fitting  
VU, 150,  
150w



Surface or  
Semi-Recessed  
Cylinder  
VCB, 100, 100w  
VCB, 150, 150w



Wall Washer  
Attachment  
VW, 150



Junior  
Recessed Fitting  
VJ, 200, 100, 150 &  
200w VJ, 200ES,  
80/125w \*Kolorlux

For display lighting that requires adjustment in direction and light distribution, spot and flood fittings are available for operation through mains or a low voltage transformer. The table below shows the illumination level produced at various distances from the lamp. All fittings comply with B.S.3820.

Lamp	Fitting(s)	Peak illumination lumens/sq. ft			Beam angle	Rated life- hours	Net Trade Lamp price*		P.T.
		3ft	6ft	9ft			s	d	
150w reflector flood	VHB, VH, VQ, VI, DS, VG, DL, VCB	140	35	16	100°	1000	12	9	4 7
150w reflector spot	VHB, VH, VQ, VI, DS, DL, VG, VU, VCB	400	100	44	60°	1000	12	9	4 7
100w reflector spot	VHB, VH, VQ, VI, VCB	240	60	27	60°	1000	7	7	2 9
150w sealed beam reflector flood	VHB, VH, VG, ER, VU	330	80	37	70°	1500	15	0	5 4
100w crown silvered	VM, 100	640	160	70	40°	1000	4	11	1 9
50w 12v reflector spot†	DAS	1000	250	110	15°	1000	8	10	3 2
50w 12v crown silvered†	DB, DS	3000	750	330	8°	1000	4	6	1 7

\*Prices applicable to United Kingdom.

†For connection to mains via transformer.

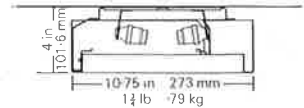
# atlas

## Surface mounted fittings

### Basic Units VS.2060

2 x 60w surface mounting ceiling fitting of spun aluminium construction, is available in natural anodized and black painted finishes. Cable entry and fixing holes suitable for 2in B.E.S.A. box centres are provided. All fittings are supplied complete with lampholders.

Cat. no.	Wattage	Finish	Price*			P.T.		
			£	s	d	£	s	d
VS.2060A	2 x 60w	natural anodized	3	15	0	1	0	2
VS.2060B	2 x 60w	black painted	3	15	0	1	0	2



Three attachments are available each complete with its own support ring and are fitted via three bayonet slots to the basic unit.



Plastic louvre



Small satin etched opal glass bowl



Clear crystal glass dish

### Prices\* and dimensions of complete fitting

	Complete Cat. no.	Height in mm	Diameter in mm	Weight (ex lamps) lb kg	Price* £ s d	P.T. s d
Plastic louvre	VSL.2060A	4.75 120	10.75 273	2 0.90	4 17 0	26 1
	VSL.2060B	4.75 120	10.75 273	2 0.90	4 17 0	26 1
Clear crystal dish	VSX.2060A	5.5 139	10.75 273	5 1/2 2.48	5 13 0	30 5
	VSX.2060B	5.5 139	10.75 273	5 1/2 2.48	5 13 0	30 5
Small satin etched glass bowl	VSZ.2060A	4.75 120	10.75 273	3 1/4 1.47	5 9 0	29 4
	VSZ.2060B	4.75 120	10.75 273	3 1/4 1.47	5 9 0	29 4

### Attachments

	Attachment Cat. no.	Wattage	Price £ s d	P.T. s d
Plastic louvre	VL.200	2 x 60w	1 2 0	5 11
Clear crystal glass dish	VX.200	2 x 60w	1 18 0	10 3
Small satin etched opal glass bowl	VZ.200	2 x 60w	1 14 0	9 2

\*Prices applicable to the United Kingdom.

# atlas

## Surface mounted fittings

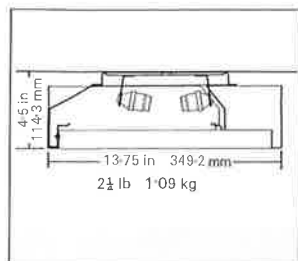
### Basic Units VS.2100 and VS.2100ES

2 x 100w and 2 x 80w \*Kolorlux surface mounting ceiling fitting of spun aluminium construction, is available in natural anodized and black painted finishes. Cable entry and fixing holes suitable for 2in B.E.S.A. box centres are provided. All fittings are supplied complete with lampholder.

Cat. no.	Wattage	Finish	Price* £ s d	P.T. £ s d
VS.2100A	2 x 100w	natural anodized	3 19 0	2 1 3
VS.2100B	2 x 100w	black painted	3 19 0	2 1 3
VS.2100A.ES	2 x 80w *Kolorlux	natural anodized	4 5 0	1 1 1
VS.2100B.ES	2 x 80w *Kolorlux	black painted	4 5 0	1 1 1

Two attachments are available each complete with its own support ring and are fitted via three bayonet slots to the basic unit.

Note: \*Kolorlux lamps can be used on AC circuits only, and each lamp must be controlled by a ballast circuit. See pp CF5 and CD43.



Plastic louvre



Small satin etched opal glass bowl

### Prices\* and dimensions of complete fitting

	Complete Cat. no.	Lamp Cap	Height in mm	Diameter in mm	Weight (ex lamp) lb kg	Price £ s d	P.T. £ s d
Plastic louvre	VSL.2100A	BC	5-25 133	13-75 349	2 1/2 1.13	5 6 0	1 8 6
	VSL.2100B	BC	5-25 133	13-75 349	2 1/2 1.13	5 6 0	1 8 6
Small satin etched opal glass bowl	VSZ.2100A	BC	5-5 139	13-75 349	3 1/2 1.7	6 11 0	1 15 2
	VSZ.2100B	BC	5-5 139	13-75 349	3 1/2 1.7	6 11 0	1 15 2
	VSZ.2100A.ES	ES	5-5 139	13-75 349	3 1/2 1.7	6 16 0	1 16 6
	VSZ.2100B.ES	ES	5-5 139	13-75 349	3 1/2 1.7	6 16 0	1 16 6

### Attachments

	Attachment Cat. no.	Wattage	Price £ s d	P.T. £ s d
Plastic louvre†	VL.2100	2 x 100w	1 7 0	7 3
Small satin etched opal glass bowl	VZ.2100	2 x 100w/2 x 80w *Kolorlux	2 12 0	14 0

\*Prices applicable to the United Kingdom.  
†Not available for use with \*Kolorlux lamps.

# atlas

## Cylinder range

### VCB.100 and VCB.150

A new cylindrical unit incorporating low brightness baffles which completely eliminate the glare usually associated with spotlights. Constructed of spun aluminium the fitting has a brushed silver finish. The fitting is designed for use with 100w internally silvered lamp or 100w general service lamp with clip-on auxiliary reflector Cat. no. VA.100. A matching unit to the VCB.100 is the VCB.150, for use with 150w internally silvered lamp, PAR.38 sealed beam or 150w general service lamp with auxiliary reflector VA.150. This fitting will also accept the new 80w and 125w \*Kolorlux\* lamp with auxiliary reflector VA.150.

Three separate mountings can be achieved from the one basic unit.

### Semi-recessed - ceiling ring assembly

Basic unit Cat. no. VCB.100 and VCB.150, when used in conjunction with ceiling ring assembly Cat. no. VCM.100 enables projection to be adjusted from 1 1/4 in to 5 1/2 in below ceiling level. Adjustable support brackets are provided enabling quick fixing to all types of suspended ceilings to be achieved. These are attached from inside the fitting, are out of sight and eliminate the need for any other form of fixing. Anodized aluminium finish with polished rim.

### Suspended

By using suspension rod Cat. no. AME.M.6113/18 basic unit can be suspended 18in from ceiling on white rod and ceiling plate.

\*See note on previous page.

AME.M.6113/18in. Rod suspension 18in. Price 12s. Basic unit and suspension rod ordered separately.

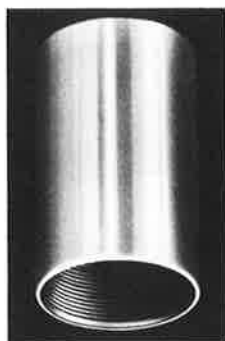
### VU.150 recessed baffle fitting

This fitting is designed for use with 150w internally silvered lamp or 150w general service lamp with clip-on auxiliary reflector Cat. no. VA.150 and for the new 80 or 125w \*Kolorlux\* lamps whose life of 7,500 hours makes them especially useful when the mounting position of the fitting is not easily accessible. Suitable also for use with the COOL RAY PAR 38 lamp. Black painted finish incorporating low brightness baffles completely eliminating glare, the light source being hidden from the normal angles of view. The fittings are recessed into the ceiling and are fixed in position by adjustable brackets enabling quick fixing to all types of suspended ceiling to be achieved. Being attached within the fitting they are out of sight and also eliminate the need for any other fixings. Fitted E.S. lampholder.

### VW.150 wall washer

Wall washing has become an important technique in enhancing the size and scale of interiors, creating a feeling of greater space. A special specular reflector directs spilled light from the lamp to the upper part of the wall. The complete assembly fits easily into the base of the VU.150 recessed baffle fitting by means of spring clips and can be rotated to any position.

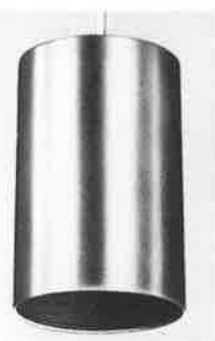
Wall washer attachment, Cat. no. VW.150. Price £1 12s 0d.



VCB.100 and VCB.150



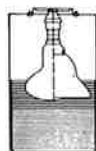
Semi-recessed



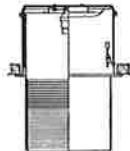
Suspended



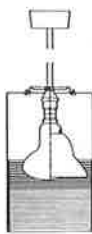
Top VU.150  
Bottom VU.150 with VW.150



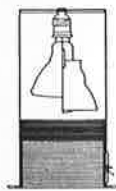
VCB.100 and VCB.150



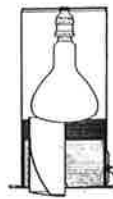
Semi-recessed



Suspended



VU.150



VW.150

### Prices\* and dimensions

Cat. no.	Cap	Height in	mm	Diameter in	mm	Weight (ex. lamp) lb	kg	Ceiling hole size in	mm	Price £ s d	P.T. £ s d
VCB.100	BC	10-62	270	6-37	162	1 1/2	0-67	—	—	4 6 0	1 3 1
VCB.150	ES	10-62	270	6-37	162	1 1/2	0-67	—	—	4 11 0	1 4 5
VCM.100†	—	9-37 (max.) 5-37 (min.)	238 (max.) 136 (min.)	8-0	203	2 1/4	1-2	7-25	184	2 1 0	—
VU.150	ES	13-25	337	8-25	210	4	1-8	6-75	172	5 18 0	—

\*Prices applicable to the United Kingdom.

†Basic unit and ceiling ring assembly ordered separately.

# atlas

## Cylinder range attachments

### VC.100

A range of cylindrical units spun in aluminium is available in natural anodized or black painted finishes and is designed to accommodate a 100w internally silvered lamp, 100w general service lamp with VA.100 auxiliary reflector or 80w \*Kolorlux lamp using VA.150 auxiliary reflector.\* Three separate mountings can be achieved from the one basic unit.

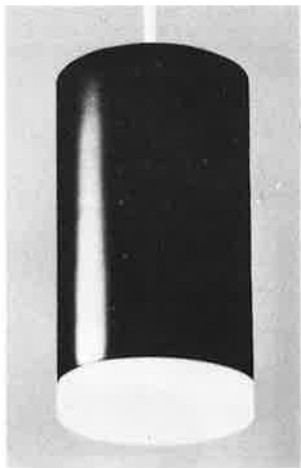
- Suspended, by using AME.M.6113/18in suspension rod.
- Semi-recessed, when used in conjunction with ceiling ring assembly Cat. no. VCM.100 detailed on previous page.

\*See note on p. CB35.

- Surface mounted, by fixing direct to the ceiling. Three attachments are available, a satin etched opal bowl, a plastic louvre and a clear crystal glass dish.

### Basic unit

Cat. no.	Wattage	Finish	Price*			P.T.		
			£	s	d	£	s	d
VC.100A	100	Natural anodized	3	16	0	20	5	
VC.100B	100	Black painted	3	16	0	20	5	
VC.100A.ES	80* <sup>K</sup>	Natural anodized	3	19	0	21	3	
VC.100B.ES	80* <sup>K</sup>	Black painted	3	19	0	21	3	



Suspended



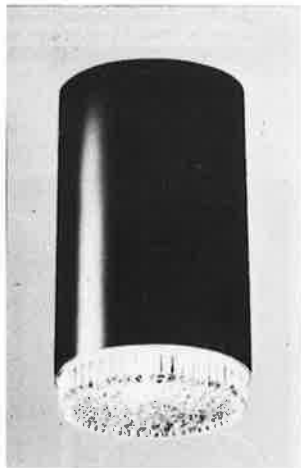
Satin etched opal bowl



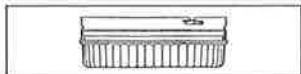
Semi-recessed



Plastic louvre



Surface mounted



Clear crystal glass dish

### Suspension

By using white suspension rod and ceiling plate Cat. no. AME.M.6113/18 the basic unit can be suspended 18in from ceiling.

AME.M.6113/18in. Rod suspension 18in. Price 12s 0d.

Basic unit and suspension rod ordered separately.

### Prices and dimensions of complete fitting

	Cat. no.	Lamp cap	Finish	Height in	mm	Diameter in	mm	Weight (ex. lamp) lb	kg	Price*			P.T.		
										£	s	d	£	s	d
Satin etched opal bowl	VCZ.100A	BC	Anodized	11.87	301	6.37	162	2½	1.1	5	4	0	1	8	0
	VCZ.100B	BC	Black	11.87	301	6.37	162	2½	1.1	5	4	0	1	8	0
	VCZ.100A.ES	ES	Anodized	11.87	301	6.37	162	2½	1.1	5	7	0	1	8	10
	VCZ.100B.ES	ES	Black	11.87	301	6.37	162	2½	1.1	5	7	0	1	8	10
Plastic louvre†	VCL.100A	BC	Anodized	11.37	289	6.37	162	1½	0.8	4	6	0	1	3	1
	VCL.100B	BC	Black	11.37	289	6.37	162	1½	0.8	4	6	0	1	3	1
Clear crystal glass dish	VCX.100A	BC	Anodized	12.25	311	6.37	162	4½	2.1	5	5	0	1	8	2
	VCX.100B	BC	Black	12.25	311	6.37	162	4½	2.1	5	5	0	1	8	2
	VCX.100A.ES	ES	Anodized	12.25	311	6.37	162	4½	2.1	5	8	0	1	9	0
	VCX.100B.ES	ES	Black	12.25	311	6.37	162	4½	2.1	5	8	0	1	9	0

\*Prices applicable for United Kingdom.

†Not available for use with \*Kolorlux lamp.



# atlas

## Recessed fittings

### Basic units VR.100 and VR.100ES

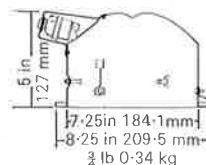
1 x 100w and 1 x 80w "Kolorlux" recessed units of spun anodized aluminium construction with a polished rim. Adjustable support brackets are provided enabling quick fixing to all types of suspended ceiling to be achieved. These are attached from within the fitting, are out of sight and eliminate the need for any other fixings.

Cat. no.	Wattage	Price £ s d
VR.100	100	2 8 0
VR.100ES	80w "Kolorlux"	2 10 0

Six attachments are available each fitted with its own support ring and are fitted via three bayonet slots to the basic unit.

Note: For details of ballasts for "Kolorlux" lamps see p. CD40

ceiling hole size: 7.25in 184.1mm



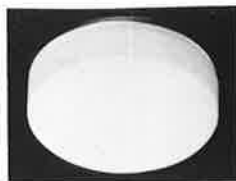
plastic louvre



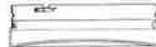
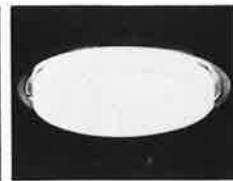
clear crystal glass dish



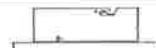
large satin etched opal glass bowl



small satin etched opal glass bowl

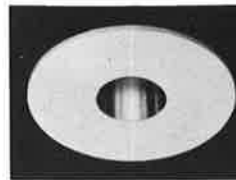


scatterlight disc



New discs of polyester resin in amber, clear and red with internal crazing and polished edges give to this range an attachment that uses the most colourful and exciting material of the year.

pin-hole attachment



Combination of two reflectors concentrates light from upper reflector through lower reflector past a very small aperture (only 2 1/2 in) to produce a wide angle beam from a minimum light source. Spun aluminium construction, finished eggshell white to match ceiling. An auxiliary attachment for use with VR.100.

### Prices and dimensions of complete fitting

	Cat. no.	Lamp	Height in	mm	Diameter in	mm	Weight (exc. lamp) lb	kg	Total price* £ s d
Plastic louvre	VRL.100	100w	5.75	146	8.25	209	1	0.45	2 18 0
Pin-hole attachment	VRP.100	100w	5.0	127	8.25	209	1 1/2	0.8	5 2 0
Scatterlight disc - amber	VRSA.100	60w	6.5	165	8.25	209	3 1/2	1.45	5 8 0
- clear	VRSC.100	60w	6.5	165	8.25	209	3 1/2	1.45	5 8 0
- red	VRSR.100	60w	6.5	165	8.25	209	3 1/2	1.45	5 8 0
Clear crystal glass dish	VRX.100	100w	6.25	159	8.25	209	3 1/2	1.7	3 17 0
	VRX.100ES	80w "Kolorlux"	6.25	159	8.25	209	3 1/2	1.7	3 19 0
Large satin etched opal glass bowl	VRY.100	100w	6.87	175	8.25	209	2 1/2	1.0	4 2 0
	VRY.100ES	80w "Kolorlux"	6.87	175	8.25	209	2 1/2	1.0	4 4 0
Small satin etched opal glass bowl	VRZ.100	100w	5.87	149	8.25	209	1 1/2	0.68	3 16 0
	VRZ.100ES	80w "Kolorlux"	5.87	149	8.25	209	1 1/2	0.68	3 18 0

### Attachments

	Cat. no.		Price £ s d	P.T. s d
Plastic louvre	VL.100		10 0	2 9
Pin-hole attachment	VP.100		2 14 0	—
Scatterlight disc	VSA.100	Amber disc	3 0 0	16 2
	VSC.100	Clear disc	3 0 0	16 2
	VSR.100	Red disc	3 0 0	16 2
Clear crystal glass dish	VX.100		1 9 0	7 10
Large satin etched opal glass bowl	VY.100		1 14 0	9 2
Small satin etched opal glass bowl	VZ.100		1 8 0	7 7

Attachments are taxable when supplied separately.

\*Prices applicable to the United Kingdom.

# atlas

## Recessed fittings

### Basic unit VR.200

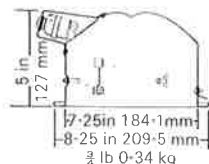
1 x 200w and 1 x 125w °Kolorlux recessed units of spun anodized aluminium construction with a polished rim. Adjustable support brackets are provided enabling quick fixing to all types of suspended ceiling to be achieved. These are attached from within the fitting, are out of sight and eliminate the need for any other fixings.

Cat. no.	Wattage	Price £ s d
VR.200	200/125w °Kolorlux	2 10 0

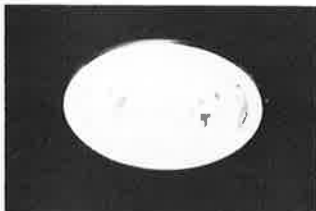
Five attachments are available each fitted with its own support ring and are fitted via three bayonet slots to the basic unit.

Note: For details of ballasts for °Kolorlux lamps see page CD40

ceiling hole size: 7-25in 184-1mm



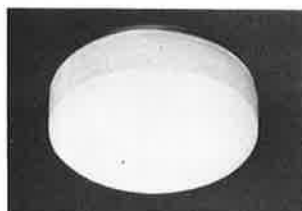
Plastic louvre



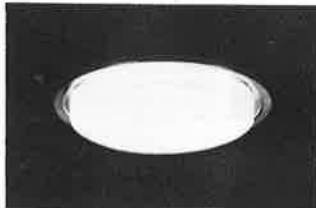
Clear crystal glass dish



Large satin etched opal glass bowl



Small satin etched opal glass bowl



'O' lighter attachment



### 'O' lighter attachment

Complete new display concept with a downward beam controlled through an annular slot with a centre disc cutting off lamp glare. The result is a glare free light of narrow distribution. Of spun aluminium construction, finished eggshell white to match ceiling. An auxiliary attachment for use with VR.200.

### Prices\* and dimensions of complete fitting

	Cat. no.	Lamp	Height in	mm	Diameter in	mm	Weight (ex. lamp) lb	kg	Total price £ s d
Plastic louvre†	VRL.200	200w	6-37	162	10-75	273	1 1/4	0-56	3 12 0
'O' lighter attachment†	VRO.200	200w	5-6	143	10-75	273	2 1/4	1-0	6 16 0
Clear crystal glass dish	VRX.200	200/125w °Kolorlux	7-0	178	10-75	273	4 1/2	2-15	4 8 0
Large satin etched opal glass bowl	VRV.200	200/125w °Kolorlux	7-5	190	10-75	273	3 1/2	1-47	4 8 0
Small satin etched opal glass bowl	VRZ.200	200/125w °Kolorlux	6-4	165	10-75	273	2 1/2	1-13	4 4 0

### Attachments

	Cat. no.	Price £ s d	P.T. s d
Plastic louvre†	VL.200	1 2 0	5 11
'O' lighter attachment†	VO.200	4 6 0	—
Clear crystal glass dish	VX.200	1 18 0	10 3
Large satin etched opal glass bowl	VY.200	1 18 0	10 3
Small satin etched opal glass bowl	VZ.200	1 14 0	9 2

Attachments are taxable when supplied separately.

\*Prices applicable to the United Kingdom.

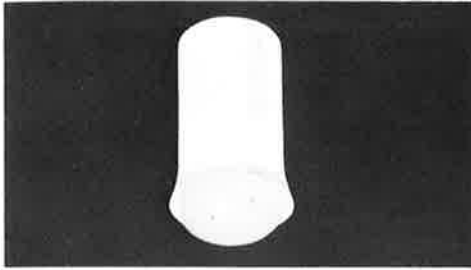
†Not available for use with °Kolorlux lamp.

# atlas

## Recessed fittings

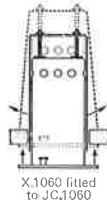
### DNM.1040

This very attractive and compact unit is designed for mounting on the ceiling surface. It provides sparkle wherever needed and is also useful as a police light. Finished in white enamel the fitting includes a brass BC batten lampholder for fixing the unit on to a block which should be recessed into the ceiling. For B.E.S.A. box fitting use adaptor plate Cat. no. DNM.4600. Price 4s 0d.

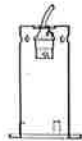


### JCA.1060 small recessed unit

These compact units are recessed into the ceiling surface to provide an inconspicuous source. Attachments can be fitted to these units and comprise a metal cylinder (copper anodized finish) and a glass supporting cylinder enabling all 'Chelsea' range wrought glassware and scatterlight diffusers to be fitted. Both the above attachments convert this unit to a semi-recessed one. X.1060 bracket for clamping direct to ceiling board. Adjustment is provided for variations in ceiling thickness. Dimensions and weights of complete fitting are shown below.



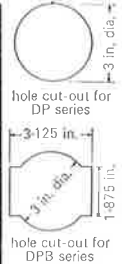
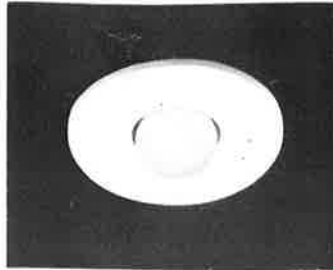
X.1060 fitted to JCA.1060  
Showing method of fixing to ceiling board



JCA.1060

### DP.1040 and DPB.1040

These compact units can be recessed into the ceiling surface, to provide an inconspicuous source extremely useful for police lights and can also be used to provide sparkle wherever needed. The range of fittings uses a 40w round bulb and can be provided with fixings for a B.E.S.A. box recessed behind the ceiling (DP.1040) or else fixed to the ceiling surface by means of an additional bracket (DPB.1040).

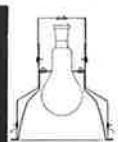
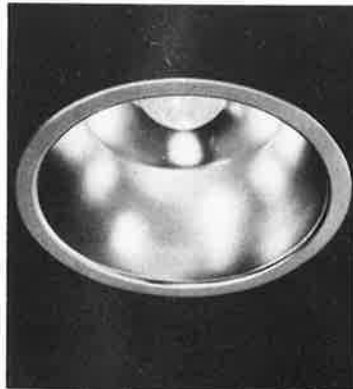


### VJ.200 junior recessed vertical lamp fitting for 100/200w lamp

A recessed unit of spun anodized aluminium construction for use with G.L.S. lamp mounted in the vertical position, giving maximum reflector illumination from clear lamp. Adjustable lampholder mounting permits the use of 100, 150 and 200w BC lamps from the same fitting. Adjustable support brackets are provided enabling quick fixing to all types of suspended ceilings to be achieved.

### VJ.200ES junior recessed vertical lamp fitting for 80/125w \*Kolorlux.

A matching unit to the above fitted with E.S. lampholder for use with \*Kolorlux lamp. For details of Ballasts for \*Kolorlux lamp see page CD40.



Cat. no.	Lamp Watts	Cap	Mounting	Diameter		Height		Hole size		Weight (ex. lamp)		Price*	P.T.
				in	mm	in	mm	in	mm	oz	kg	£ s d	s d
DNM.1040	40 mushroom	BC	—	2.5	63	4.0	102	—	—	8	0.22	17 0	4 7
DP.1040	40 round bulb	BC	Above ceiling	4.62	117	3.0†	76	—	—	8	0.22	1 4 0	—
DPB.1040	40 round bulb	BC	Ceiling surface	4.62	117	3.0	76	—	—	12	0.33	1 10 0	—
JCA.1060	60	BC	—	4.25	108	6.5	165	3.25	82	8	0.22	1 13 0	—
JCA.1060	60	BC	—	4.25	108	11.5	292	3.25	82	10	0.28	2 4 0	—
VJ.200	100-200	BC	—	8.0	203	12.0	304	7.37	187	16	0.45	2 19 0	—
VJ.200ES	80/125w *Kolorlux ES	—	—	8.0	203	12.0	304	7.37	187	16	0.45	3 2 0	—

†2.75in (70mm) projection behind ceiling surface.

\*Prices applicable to the United Kingdom.

Components: JCA.1060 basic unit £1 13s 0d. A.1060 cylinder 11s 0d. X.1060 bracket 10s 0d.

# atlas

## Mains voltage spotlights

### VHB.100 and VHB.150 cylindrical spotlights with fitted baffles

A cylindrical spotlight VHB.100 unit incorporating low brightness baffles which completely eliminate the glare usually associated with spotlights. Finished in white (suffix W) and brushed silver (suffix S). Supplied complete with adjustable mounting bracket which allows for swivel and up and down adjustment. Designed for use with 100w internally silvered or general service lamp with auxiliary reflector Cat. no. VA.100. Wired with BC lampholder. The VHB.150 a matching unit to the VHB.100 for use with 150w internally silvered lamp or 150w general service lamp with auxiliary reflector Cat. no. VA.150 and PAR.38 lamp. The 80w "Kolorlux" lamp may also be used with the VA.150 auxiliary reflector. For details of control gear see p.CD40  
Supplied wired complete with ES lampholder.

Cat. no	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp)		Price* £ s d
							lb	kg	
VHB.100W	BC	100	7.5	190	4.5	114	1	0.45	3 7 0†
VHB.100S	BC	100	7.5	190	4.5	114	1	0.45	3 10 0††
VHB.150W	ES	150	10.0	254	5.75	150	1½	0.67	3 16 0
VHB.150S	ES	150	10.0	254	5.75	150	1½	0.67	4 0 0

†P.T. 18s 0d

††P.T. 18s 10d



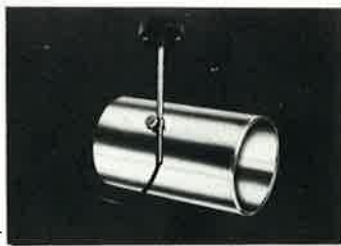
### VH.100 and VH.150 cylindrical spotlights

Adjustable spotlight VH.100 for use with 100w internally silvered lamp or 100w G.L.S. with auxiliary reflector Cat. no. VA.100. Finished in white (suffix W) and brushed silver (suffix S) fixing is obtained by a clamping block which allows for swivel and up and down adjustment. Supplied wired complete with BC lampholder and bracket for both wall and ceiling mounting. Attachments are available and comprise a metal concentric louvre and glass filter both of which clip in the rim of the cylinder. The VH.150, a matching unit to the VH.100 for use with 150w internally silvered lamp or 150w G.L.S. with auxiliary reflector Cat. no. VA.150 and PAR.38 lamp. The 80w "Kolorlux" lamp may also be used with the VA.150 auxiliary reflector. For details of control gear see p.CD40. Supplied wired complete with ES lampholder.

Cat. no	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp)		Price* £ s d
							lb	kg	
VH.100W	BC	100	7.5	190	4.5	114	1	0.45	2 17 0†
VH.100S	BC	100	7.5	190	4.5	114	1	0.45	2 19 0††
VH.150W	ES	150	10.0	254	5.75	150	1½	0.67	3 5 0
VH.150S	ES	150	10.0	254	5.75	150	1½	0.67	3 8 0

†P.T. 15s 4d

††P.T. 15s 10d



### VI.100 and VI.150 spotlight holders

Spotlight holders for use with 100w and 150w silvered spot lamps, finished in white (suffix W) and natural anodized (suffix A). Fixing is obtained by using a clamping block which allows for swivel and up and down adjustment. Supplied wired complete with lampholder and mounting bracket. Dimensions length 6-0in (152mm); back plate diameter 3-0in (76mm). Provides for both wall and ceiling mounting.

Cat. no	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp)		Price* £ s d
							oz	kg	
VI.100W	BC	100	4-12	104	2-0	50	9	0.25	1 5 0†
VI.100A	BC	100	4-12	104	2-0	50	9	0.25	1 6 0††
VI.150W	ES	150	5-25	133	2-25	57	12	0.33	1 17 0
VI.150A	ES	150	5-25	133	2-25	57	12	0.33	1 19 0

†P.T. 6s 9d

††P.T. 7s 0d

colour filters for use with

VH.100 VW.100		s	d	VH.150 VQ.150 DB.1050 ES.1050	£	s	d
K.1100B	Blue	16	0	K.1150B	Blue	1	2
K.1100R	Red	16	0	K.1150R	Red	1	2
K.1100G	Green	16	0	K.1150G	Green	1	2
K.1100A	Amber	16	0	K.1150A	Amber	1	2

louvre L.1100 100w for use with VH.100, VQ.100: 8s 0d

L.1150 150w for use with VH.150, VQ.150: 10s 0d



### VQ.100 and VQ.150 spotlights

Spotlight holders for use with 100w and 150w internally silvered lamps, finished in white (suffix W) and natural anodized (suffix A) fixing is obtained by using a clamping block which allows for swivel and up and down adjustment, also provides for both wall and ceiling mounting. Attachments are available and comprise a metal concentric louvre and glass filter both of which clip in the rim of the reflector. Supplied wired complete with lampholder and mounting bracket. Dimensions: Length 6-0in (152mm); back plate diameter 3-0in (76mm).

Cat. no	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp)		Price* £ s d
							oz	kg	
VQ.100A	BC	100	7.5	190	4.5	114	8	0.22	2 10 0†
VQ.100W	BC	100	7.5	190	4.5	114	8	0.22	2 4 0††
VQ.150A	ES	150	10.0	254	5.75	150	14	0.40	3 0 0
VQ.150W	ES	150	10.0	254	5.75	150	14	0.40	2 13 0

\*Prices applicable to the United Kingdom

†P.T. 13s 5d

††P.T. 14s 10d



# atlas

## Mains voltage spotlights



VF.200

### VF.200 indoor floodlight

An adjustable floodlighting fitting designed for indoor use with a 200w G.L.S. pearl lamp and 125w \*Kolorlux.† Manufactured in super purity aluminium. Full focusing adjustment is provided, with adjustable bracket for mounting to a B.E.S.A. box. A black concentric louvre is supplied.

Cat. no.	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp) oz	kg	Price* £	s	d
VF.200	ES	200/125 *K	9.5	241	9.5	241	1 1/2	0.67	4	6	0



VM.100

### VM.100 adjustable high intensity spotlight

A versatile spotlight unit designed for use with a 100w crown-silvered three pin BC lamp. The reflector spun in anodised aluminium is fully adjustable for focusing. Fixing is by means of a clamping block fitted to a 6" (153mm) chromium stem which allows for swivel and up and down movement. Mounting for wall or ceiling is also provided. For colour effects in display lighting a range of four fittings are included using coloured anodised reflectors painted egg shell black outside. Used together the right colour mix can be achieved whilst obtaining an overall matching appearance. Supplied wired with lampholder.

Cat. no.	Reflector colour	Lamp cap	Lamp watts	Length in	mm	Diameter in	mm	Weight oz	kg	Price* £	s	d
VM100	Natural	3-pin BC	100	6.0	153	7.25	184	10	0.28	2	13	0
VM100B	Blue	3-pin BC	100	6.0	153	7.25	184	10	0.28	3	0	0
VM100G	Green											
VM100R	Red											
VM100Y	Yellow											



DS.1150

### DS.1150 swivel spotlight fitting

Recessed gimbal ring fitting adjustable through wide angles providing emphasis lighting from an inconspicuous source. Cat. no. DS.1150 accommodates a 150w spotlight lamp and 80/125w \*Kolorlux using VA.150 auxiliary reflector.† Soffit ring and reflector finished in white gloss, spacing ring and louvre matt black.

Cat. no.	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp) lb	kg	Price* £	s	d
DS.1150	ES	150 80/125 *K	9.54	241	9.5	241	2.0	0.90	3	0	0

†7.5 in (190 mm) projection behind ceiling.



DL.1150

### DL.1150 adjustable spotlight fitting

This spotlight has been designed for use with a 150w reflector spotlight lamp. Fitted with a specially designed swivel joint giving a wide degree of adjustment, it is finished in anodised silver. A matt black louvre is supplied. Also suitable for use with 150w general service lamp with auxiliary reflector cat. no. VA.150.

Cat. no.	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp) oz	kg	Price* £	s	d
DL.1150	ES	150	12.5	318	6.0	152	14	0.40	3	13	0

### VG.100 adjustable spotlight holder 100w

An adjustable spotlight holder for use with 100w reflector spotlight or general service lamp with auxiliary reflector cat. no. VA.100. Giving a wide degree of adjustment. Finished matt black it is suitable for all or base mountings and fits unobtrusively into any display. Supplied wired complete with BC lampholder.

### VG.150 adjustable spotlight holder 150w

A matching unit to the VG.100 for use with 150w reflector spotlight or general service lamp with auxiliary reflector cat. no. VA.150. A cool running fitting ideal for use with COOL-RAY Par 38 lamp (indoors) supplied wired complete with ES lampholder.

Cat. no.	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp) oz	kg	Price* £	s	d
VG.100	BC	100	3.25	82	2.25	57	8	0.22	1	5	0
VG.150	ES	150	3.25	82	2.25	57	8	0.22	1	5	0

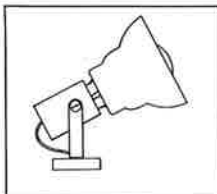
\*\* P.T. 6.9d

### Accessories

#### Auxiliary reflectors

Cat. no.	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp) oz	kg	Price* £	s	d
VA.100	—	100	2.5	63	4.25	108	1	0.028	13	0	
VA.150	—	150	3.75	95	5.0	127	2	0.056	15	0	

\* Prices applicable to the United Kingdom. † For details of control gear see p. CD40.



VA.150

# atlas

## Low voltage spotlights



DB.1050

### DB.1050

Completely eliminating the possibility of light spill, the DB.1050 fitting uses an internally crown-silvered 12v 50w lamp which directs a very high proportion of its output into a patch of light subtending an angle of only 8°. Although only 6in in diameter, the performance of the fitting is remarkable, providing an average illumination of some 400 lux at a distance of 15ft. Universal adjustment is provided and the lamp can be focused to obtain a small spot of light of roughly twice the normal intensity. It can be fitted with a simple filter holder for use with the wide range of colour filters, enabling effects to be heightened by the use of colour. Details of the filter and holder available as shown on this page.

Cat. no.	Diameter		Overall length		Pillar height		Weight (ex. lamp)		Retail Price*	
	in	mm	in	mm	in	mm	oz	kg	£	s d
DB.1050	6	152	4.75	121	4	102	12	0.34	2 11	0



DS.1050L

### DS.1050L

This recessed gimbal ring fitting is adjustable through wide angles, and provides very high intensity lighting from an inconspicuous source. The lamp and reflector unit and, therefore, the performance of the fitting, is basically the same as for the DB.1050. A filter and holder is available. Cut-out hole in ceiling 7.5in (190mm). Four fixing holes on 8.375in (212mm) P.C.D.

Cat. no.	Diameter		Overall length		Weight (ex. lamp)		Retail Price*	
	in	mm	in	mm	lb	kg	£	s d
DS.1050L	9.5	241	5.0	127	2	0.9	4 2	0

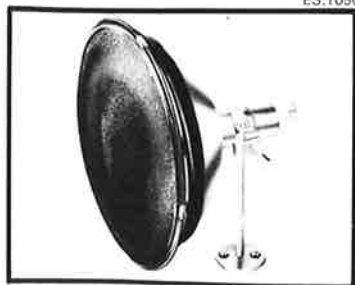


ES.1050

### ES.1050 tungsten halogen low voltage display fitting

The ES.1050 low voltage display fitting couples for the first time the advantages of tungsten halogen lamp development to the optical efficiency of the Atlas low voltage reflector fitting. The tungsten halogen lamp is rated at 12v 50w, its extreme compactness enabling a far greater degree of light control to be achieved—peak intensity of 85,000 candelas is over twice that of fittings with conventional lamps. Lamp life, at 2,000 hours, is also doubled, and the simplicity of lamp contact and lampholder ensures trouble-free operation. The fitting also has the advantage of the transformer being an integral part of the design.

Cat. no.	Diameter		Overall length		Height (mounting bracket)		Weight (ex. lamp)		Retail Price*		P.T.*
	in	mm	in	mm	in	mm	lb	kg	£	s d	s d
ES.1050	6.0	152	5.5	139	5.25	133	4	1.8	6 4	0	—
Lamp											
THD/50/12	—	10.5	—	42	—	—	—	—	18	0	6 5+



Glass colour filters

### Glass colour filters

Complete with holder for use with DB.1050, DS.1050L and ES.1050.

	£		s	d*		£		s	d*
K.1150B	Blue	1	2	0	K.1150G	Green	1	2	0
K.1150R	Red	1	2	0	K.1150A	Amber	1	2	0

### Transformer

It is necessary with all low voltage fittings to use a specially designed transformer to provide the correct working voltage to the lamp. Details of this transformer is given on page CB38.

\*Prices applicable to the United Kingdom.

# atlas

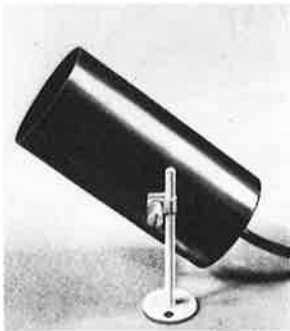
## Low voltage spotlights



### DAS.1050

This fitting consists of a neat lampholder housing mounted on a 4in pillar providing complete universal adjustment. The housing is locked into position by a simple clamping screw. A 12v 50w internally silvered, parabolic shaped lamp, with ES cap, is used which gives a narrow beam of light of high intensity. The small size of the fitting enables it to be concealed easily, either within a display, or behind features in a window or room.

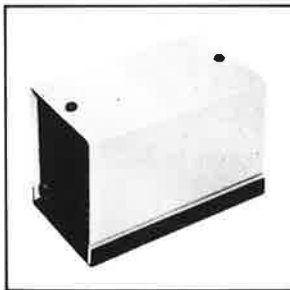
Cat. no.	Diameter (lamp dia.) in mm	Overall length (inc. lamp) in mm	Pillar height in mm	Weight (ex. lamp) oz kg	Price* £ s d
DAS.1050	2.5 64	4.5 114	4 102	6 0.17	1 5 0



### DCS.1050

In order to be able to provide a compact and adjustable light source, the unit has a cylindrical mask, with the result that both the lamp and lampholder are completely enclosed. A 12v 50w internally silvered, parabolic shaped lamp, with ES cap, is used giving a narrow beam of light of high intensity. As with other items in this series of display fittings, the clamp and pillar assembly provide universal adjustment.

Cat. no.	Diameter in mm	Overall length in mm	Pillar height in mm	Weight (ex. lamp) oz kg	Price* £ s d
DCS.1050	3.0 76	5.75 146	4 102	8 0.22	1 19 0



### Transformer

It is necessary with all low voltage fittings to use a specially designed transformer to provide the correct working voltage to the lamp. Details of this transformer is given below together with the catalogue number of the fitting for which it has been designed.

Cat. no.	Primary tapping	Sec. output	Length in mm	Width in mm	Height in mm	Weight lb kg	For use with	Price* £ s d
TRF. 2338F	240v	12v	4.25 108	3 76	3.63 92	4½ 1.9	1-DAS.1050 1-DB.1050 1-DCS.1050 1-DS.1050L	2 19 0

Fixing holes for TRF.2338F – four holes 0.1875 diameter on 2.75in (70mm) x 2.25in (57mm) centres.

Each of the low voltage fittings illustrated in this catalogue is wired complete with 6ft of high temperature cable. Any variation to this length will result in loss of efficiency and premature lamp failure.

\*Prices applicable to the United Kingdom.

# atlas

## Tungsten halogen interior floodlight

Floodlighting can be applied to any interior where strong emphasis for a relatively large area is required, or where indirect lighting from compact high intensity fittings is appropriate.

The EU.750 floodlight fitting, used either directly or indirectly has been designed for these purposes. The beam spread is 60° x 130° the former being normal to the axis of the lamp. When mounted horizontally the rear cut-off is near vertical. Maximum spacing of fittings should not exceed the height of mounting, and depths of 6ft can comfortably be catered for by one row of fittings. The distribution characteristics lend themselves ideally to shop window lighting where high intensities with the minimum capital costs – both in lighting equipment and shop fitting – can be achieved. The small size of the lamp provides excellent modelling showing a marked improvement in the definition of a display over more

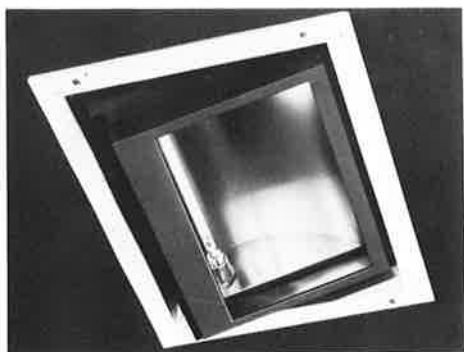
conventional general lighting systems. The sharp forward cut-off of the fitting may make supplementary fluorescent lighting necessary at the window back.

When installed to illuminate a 6ft cube an average illumination of 60 lumens per sq ft will be achieved. At the same distance fittings on about 8ft centres provide an average illumination of 90 lumens per sq ft.

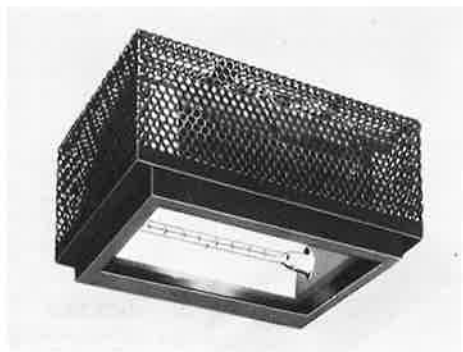
Description	Beam spread	Rated lamp life
750w	60° x 130°	2,000 hours

When the fitting is surface mounted a stirrup, enabling up to a 15° adjustment, is available – Cat. no. EUB.

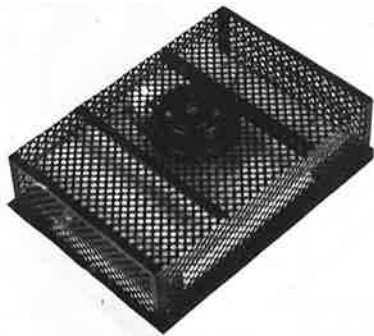
The EU.750 can also be recessed by means of a frame trim assembly – Cat. no. EUT – with provisions for a 15° adjustment. When recessing the fitting care should be taken to ensure that a minimum size void of 7.5in high, 24in long and 18in wide is left round the fitting to provide equal free space around the fitting.



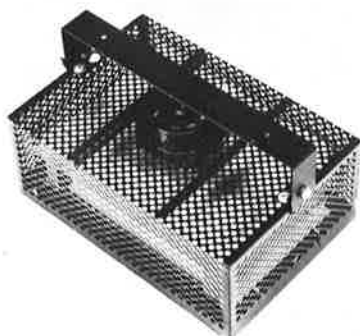
EU.750 fitted with EUT trim assembly, front view



EU.750 floodlight fitting



EU.750 fitted with EUT trim assembly, rear view



EU.750 fitted with EUB swivel bracket assembly

### Prices and dimensions

Cat. no.	Lamp watts	Length in mm	Height in mm	Width in mm	Weight (exc. lamp) lb kg	Price* £ s d
EU.750	750	12.25 311	7.125 181	8.5 216	8 3.6	12 18 0
EUT trim assembly†		14.75 375	2.00 51	11.25 286		+
EUB swivel bracket		12.5 318	2.5 above fitting	62mm		+
TDH/750/240 lamp 750						2 18 6

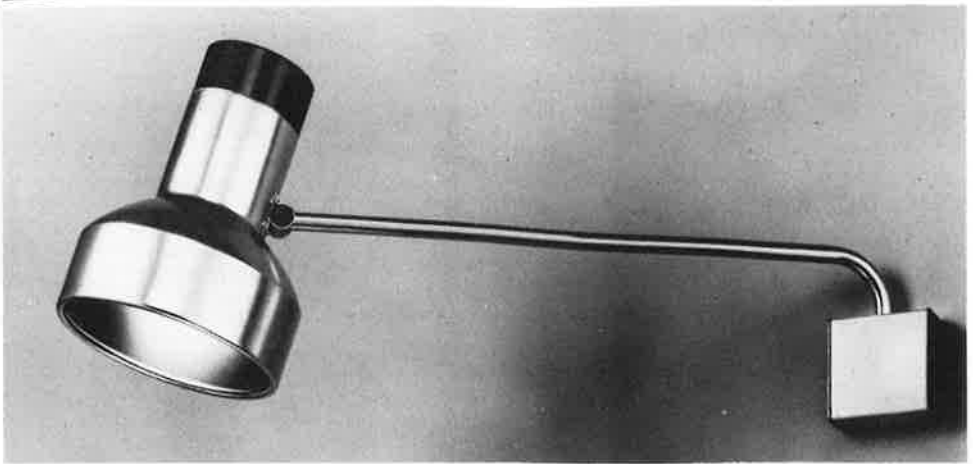
\*Price applicable to the United Kingdom.

†Hole size: length 13.25in, width 9.5in. ‡Price on application.



# atlas

## Hospital low brightness fittings



OE,0.1060 adjustable wall fitting

### OE,0.1060 adjustable wall fitting

Wall fitting for local lighting where function and appearance are important. The efficient design – about 300 lux 4ft away using a 60w lamp – permits bed head lighting wall mounted between 5ft and 6ft from floor. Carefully controlled reflector brightness provides comfortable conditions for opposite and adjacent patients. The reflector is of spun aluminium satin etched and anodized, supported by an anodized duraluminium rod mounted on a cast aluminium back plate Stoved Enamel B,S,9.098. Horizontal adjustment is obtained through an angle of approximately 160° and vertical through an angle of 20° either side. Wired complete with BC lampholder to accommodate one 60w lamp. Arranged for B,E,S,A. mounting.

### OE,1.0075 adjustable wall fitting

Matches OE,0.1060 but fitted with watch light with push switch control. (Made to order only.)

### OG,1150 low brightness glass fitting

Centre ward lighting fitting for mounting on 18in suspension rod (Cat. no. AME,M 6113/18) or alternatively ceiling mounted using ceiling cap extension (Cat. no. OH/S). With cut off angle of 40° from the horizontal, mounting heights are arranged so that cut off occurs between a third and half-way up length of bed. Mounting height ratios down centre of ward should not exceed 1½:1. The diameter of the cylinder has been chosen to provide acceptable brightness characteristics for a diffusing fitting, and the acid etching of the glass overcomes the problem of lamp reflection on the inside of the glass cylinder creating an area of high brightness. Arranged to accommodate 1 x 150w lamp.

### OG,1165 low brightness glass fitting

A matching unit to the OG,1150 but fitted with watch light for 15w Pygmy lamp.



OG,1150

## Dimensions

Cat. no.	Diameter in	mm	Height in	mm	Weight (ex. lamp) lb	kg	Projection to centre of reflector in	mm	Price
OE,0.1060 OE,1.0075	6.3*	161*	8.5†	216†	1½	0.8	19.5	470	On application
OG,1150 OG,1165	9.5	241	13.87	352	3½	1.4	—	—	On application

\*Reflector diameter. †Reflector height.

# atlas

## Opalite range

This compact range of fittings has been designed to comply with the Ministry of Education standards for brightness limits and cut-off angles. Care has been taken to create an efficiently balanced distribution of light between the upper and lower hemispheres to ensure that the overall efficiency of an installation will be high.

The polystyrene shade has been so designed, that any specular reflections which could possibly cause irritation, have been eliminated.

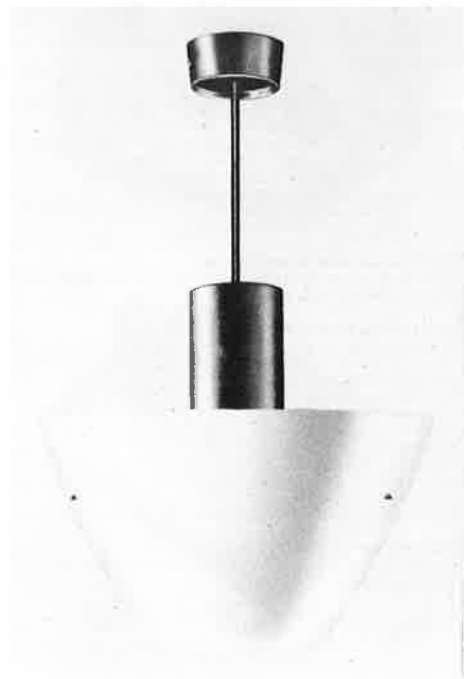
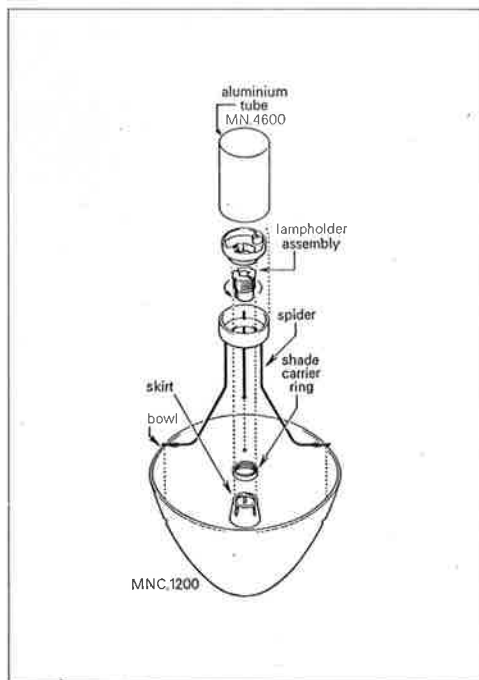
Either a 150w or 200w lamp can be accommodated in this shade which is mounted on to a metal gallery by a three-way spider.

Fittings are supplied complete with BC lampholder and are available for close ceiling mounting as well as cable suspension.

Cable suspension is by means of a black plastic ceiling plate and a 30in length of smooth black flex. A black aluminium cylinder (Cat. no. MN.4600) is also available which fits over the lamp gallery and provides a cover to the lamp cap and holder.



MNC.1200



MNS.1200

### Prices and dimensions

Cat. no.	Type	Bowl diameter in mm	Bowl depth in mm	Height overall in mm	Weight (ex. lamp) lb kg	Price* £ s d	P.T. s d
MNC.1200	Close ceiling	12.0 305	7.0 178	11.0 280	1 0.45	1 5 0	6 9
MNS.1200	Cable suspension	12.0 305	7.0 178	30.0 762	1 1/2 0.56	1 10 0	8 1
MN.4600	Cylinder	2.87 73	Diameter	3.75 95	2 oz 56 g	3 0	10

\*Prices applicable to the United Kingdom.

**HB Range** This range of fittings has been designed for use in installations where mounting heights of between 15ft and 60ft are available.

The range comprises Gear and Lampholder assemblies for 250w, 400w, 700w or 1000w lamps having internal reflectors with an additional reflector shield to further increase the useful downwards illumination and to provide a mechanical protection to the lamp. Fitted with wire guard as standard.

There is also a Lampholder assembly for use when control gear is mounted remotely, to service the same lamp range and employing the same reflector shield assemblies.

**HBI Range** This is a new fitting for a completely new lamp of the Mercury Halide type. We call the lamp the 400w °Kolorarc because not only do we get some 30% more light but also improved colour rendering.

The fitting consists of a spun anodised aluminium reflector to take a 400w MBIF lamp and give a BZ1 distribution. This reflector, fitted with a wire guard as optional extra, can be attached to a gear and lampholder housing or to a lampholder assembly only when control gear is mounted remotely.

This reflector may also be used with the HB range, in place of the reflector shield, to extend this range for use with MBF and MBF °Kolorlux lamps in the 400w rating.

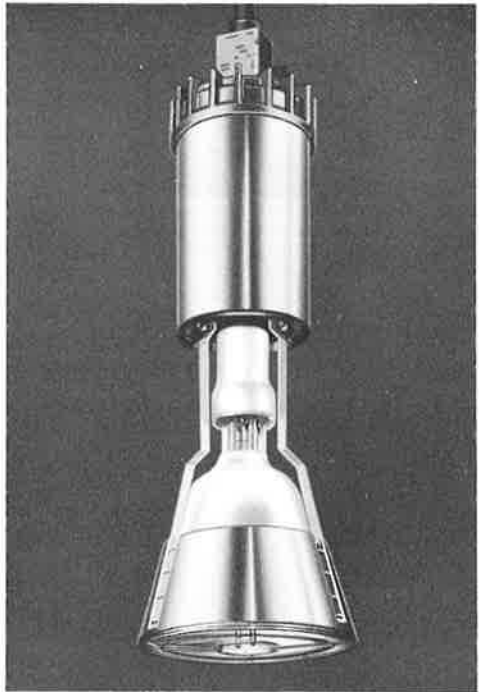
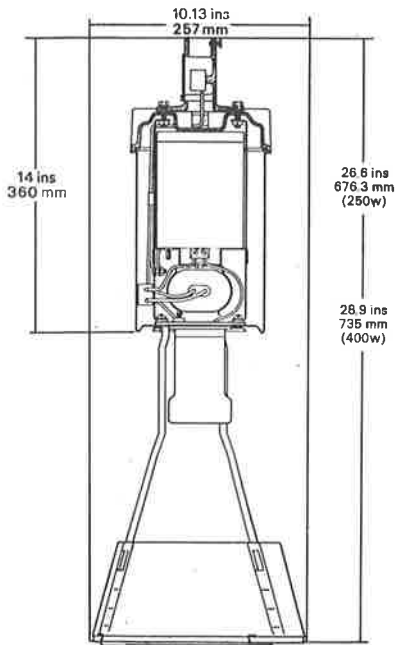
# atlas

## HBR/G250 and G400 fittings

These fittings have been designed for use in installations where mounting heights of between 15ft and 30ft are available and are suitable for use in practically all types of industry where the ambient temperature at fitting level does not exceed 35°C (95°F). This fitting is particularly recommended for new installations or for replacing existing tungsten fittings where higher illumination values with reduced maintenance are required. The fittings incorporate relevant instant start control gear for operating either a 250w or 400w MBFR high pressure mercury vapour reflector lamp on 240v 50Hz supplies. (Other supplies on application.) The fitting

is easily installed via a 1in diameter conduit entry on the top of the fitting into a separate wiring box to facilitate wiring to the mains without dismantling the fitting. A reflector shield is provided as standard to ensure the maximum downward light output and at the same time affording protection to the lamp. A protective wire guard is provided for fitting into the base of the reflector. A version for use with remotely mounted control gear is also available. (See HBT p. CB53.)

*\*Note: The HBR400 reflector shield can be replaced by an HBX400 reflector (see p. CB53) for use with 400w MBF lamps.*



HBR/G400

### RANGE AND PRICES (applicable to UK only)

Complete fitting				Components				Reflector				Wire Guard			
Rating	Cat. no.	Contract Price £ s d		Control gear housing including gear Cat. no.	Contract Price £ s d			Cat. no.	Contract Price £ s d			Cat. no.	Contract Price £ s d		
250w	HBR/G250	10 16 0		HBG.250	9 4 0			HBR.400	1 12 0			Included			
400w	HBR/G400	11 1 0		HBG.400	9 9 0			HBR.400	1 12 0			Included			
*400w	HBX/G400	15 1 0		HBG.400	9 9 0			HBX.400	5 13 0			HB.4601	6 0		

### DIMENSIONS

Cat. no.	Max. diameter in	Max. length in	Weight inc. lamp lb	kg
HBR/G250	10.13 257	26.6 676.3	15.5	7.02
HBR/G400	10.13 257	28.9 735	20.25	9.17
HBX/G400	18.75 476	30.4 772.1	23.75	10.77

Note: The HBR400 reflector shield can be replaced by an HBX400 reflector (see p. CB53) for use with 400w MBF lamps.

# atlas

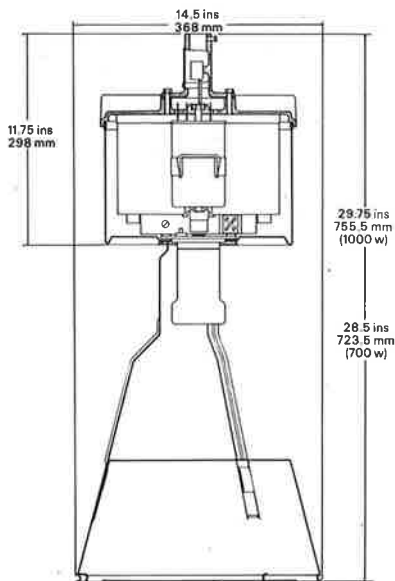
## HBR/G700 and G1000 fittings

These fittings have been designed for use in installations where mounting heights of between 30ft and 60ft are available and are suitable for use in practically all types of industry where the ambient temperature at fitting level does not exceed 30°C (86°F).

This fitting is particularly recommended for new installations or for replacing existing tungsten fittings where higher illumination values with reduced maintenance are required.

The fittings incorporate relevant instant start control gear for operating either a 700w or 1000w MBFR high-

pressure mercury vapour reflector lamp on 240v 50Hz supplies. (Other supplies on application.) The fitting is easily installed via a 1 in diameter conduit entry on the top of the fitting into a separate wiring box to facilitate wiring to the mains without dismantling the fitting. A reflector shield is provided as standard to ensure the maximum downward light output and at the same time affording protection to the lamp. A protective wire guard is provided for fitting into the base of the reflector. A version for use with remotely mounted control gear is also available. (See HBT p. CB54)



HBR/G1000

### RANGE AND PRICES (applicable to UK only)

Complete fitting					Components									
		Contract Price			Control gear housing including gear	Contract Price			Reflector 700/1000w	Contract Price				
Rating	Cat. no.	£	s	d	Cat. no.	£	s	d	Cat. no.	£	s	d		
700w	HBR/G700	18	17	0	HBG.700	16	8	0	HBR.1000	2	9	0		
1000w	HBR/G1000	19	11	0	HBG.1000	17	2	0	HBR.1000	2	9	0		

### DIMENSIONS

Cat. no.	Max. diameter		Max. length		Weight incl. lamp	
	in	mm	in	mm	lb	kg
HBR/G700	14.5	368	28.5	723.5	37.75	17.1
HBR/G1000	14.5	368	29.75	755.5	40.25	18.2

# atlas

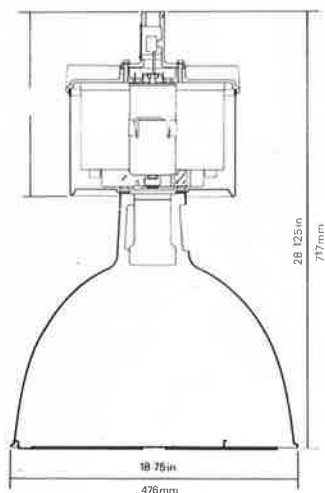
## HBIX/G400 °Kolorarc fitting

This new fitting has been designed for use in installations where mounting heights between 20ft and 50ft are available and is suitable for use in practically all types of industry and is particularly recommended for new installations or for replacing existing tungsten fittings where higher illumination values with reduced maintenance are required.

The fitting incorporates instant start control gear to operate a 400w MBIF °Kolorarc lamp on 240v 50Hz (220v 50Hz on application.) The fitting is easily installed via a 1in diameter conduit entry, on the top of

the fitting, into a separate wiring box to facilitate wiring to the mains without dismantling the fitting.

A reflector in anodised aluminium is provided to give a BZ1 high efficiency downward light output; slots are provided at the top of the reflector to provide a small proportion of upward light to prevent a 'tunnel' effect and also to allow a flow of air over the lamp and reflecting surfaces which helps to reduce maintenance. A protecting wire guard is available as an optional extra. (Cat. no. HB.4601.)



HBIX/G400

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

Rating	Lamp type	Cat. no.	Contract Price £ s d		
400w	MBIF	HBIX/G400	21	15	0

#### Components

Control gear housing incl. gear			Contract Price £ s d		
Cat. no.			16	2	0
HBIG.400					

Reflector			Contract Price £ s d		
Cat. no.			5	13	0
HBX.400					

Optional Wire Guard			Contract Price £ s d		
Cat. no.			HB.4601	6	0

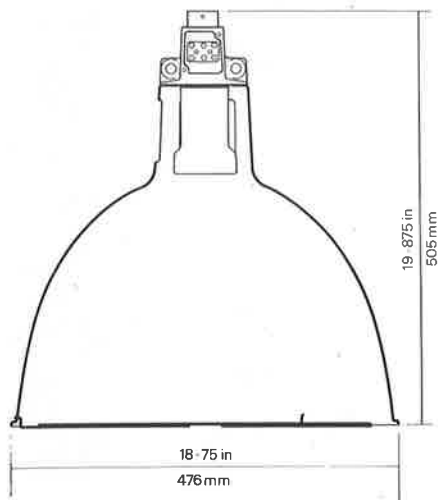
### DIMENSIONS

Cat. no.	Max. diameter in	Max. length mm	Weight inc. lamp lb	kg
HBIX/G400	18.75 476	28.125 717	40.5 18.3	

# atlas HBT/X400 fitting

This new fitting has been designed for use in installations where mounting heights between 20ft and 50ft are available. It is suitable for use in practically all types of industry and is particularly recommended for new installations or for replacing existing tungsten fittings where higher illumination values with reduced maintenance are required. A reflector in anodised aluminium is provided to give

a BZ1 high efficiency downward light output; slots are provided at the top of the reflector to provide a small proportion of upward light to prevent a 'tunnel' effect and also to allow a flow of air over the lamp and reflecting surfaces which helps to reduce maintenance. A protecting wire guard is available as an optional extra. (Cat. no. HB.4601). This fitting is for use with remotely mounted control gear.



HBT/X400

## RANGE AND PRICES (applicable to UK only)

### Complete fitting

Rating	Lamp type	Cat. no.	Contract Price £ s d	Top Cat. no.	Contract Price £ s d	Reflector Cat. no.	Contract Price £ s d	Optional Wire Guard Cat. no.	Contract Price £ s d
*400w	MBIF or MBF	HBT/X400	8 3 0	HBT	2 10 0	HBX.400	5 13 0	HB.4601	6 0

### Components

## DIMENSIONS

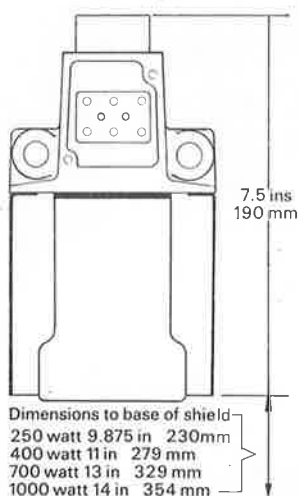
Cat. no.	Max. diameter in mm	Max. length in mm	Weight inc. lamp lb kg
HBT/X400	18.75 476	19.875 505	5.25 2.38

\*This fitting may also be used with 300, 500, 750, and 1000w G.L.S. lamps

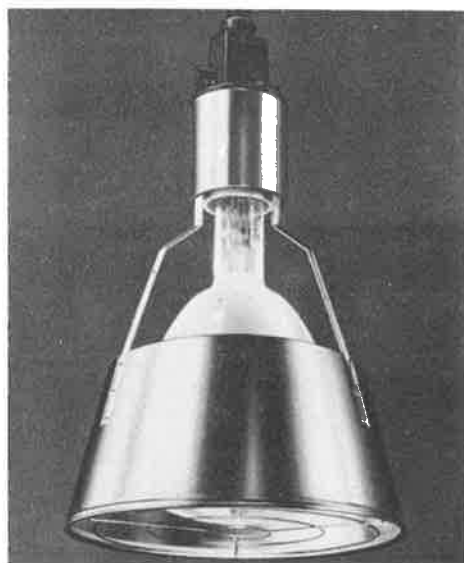
# atlas

## HBT fittings

These fittings have been designed for use in installations where mounting heights of between 15ft and 60ft are available, and are particularly recommended for installations where a high illumination value with low maintenance is required. This fitting will accept either a 250w, 400w, 700w or 1000w MBFR high pressure mercury vapour reflector lamp for use with remotely mounted control gear. The fitting is easily installed via a 1in diameter conduit entry on top of the fitting.



A reflector shield is provided as standard to ensure the maximum downward light output and at the same time affording protection to the lamp. A protective wire guard is provided for fixing to the base of the reflector. A version incorporating instant starting H.P.F. control gear is available. (See HBR/G. p. CB50 & 51.)  
*Note: The HBR400 reflector can be replaced by an HBX400 reflector (See p. CB53) for use with 400w MBF lamps.*



HBT/R1000

### RANGE AND PRICES (applicable to UK only)

#### Complete fitting

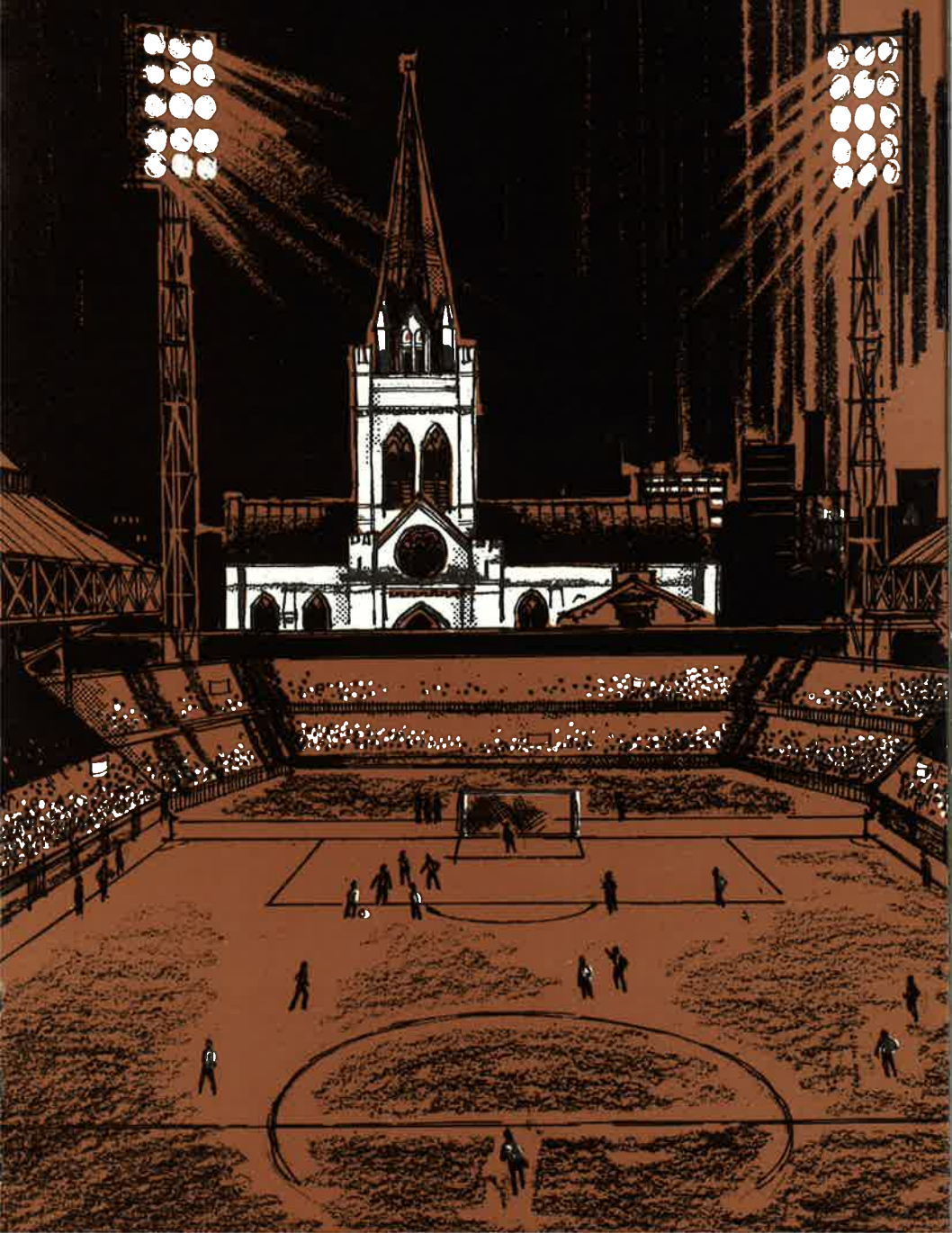
Complete fitting			Components										
Rating	Lamp type	Cat. no.	Contract Price £ s d			Top Cat. no.	Contract Price £ s d			Reflector including Guard Cat. no.	Contract Price £ s d		
250w, 400w	MBFR	HBT/R400	4	2	0	HBT	2	10	0	HBR.400	1	12	0
700w, 1000w	MBFR	HBT/R1000	4	19	0	HBT	2	10	0	HBR.1000	2	9	0

#### DIMENSIONS

Cat. no.	Max. diameter		Max. length		Weight (less lamp)	
	in	mm	in	mm	lb	kg
HBT	4.2	106.4	7.5	190	1.75	0.79
HBR.400	10.13	257	—	—	1.5	0.68
HBR.1000	14.5	368	—	—	1.75	0.79



# INCANDESCENT AND DISCHARGE EXTERIOR



# **Incandescent and discharge — exterior**

## **Introduction**

---

The scope for outdoor lighting is growing. The combined Thorn Lighting range of weatherproof fittings and lanterns cover practically all space lighting and requirements.

The 'Escort' range of 'bulkhead and wellglass' fittings suit pedestrian walkways and precincts.

The floodlights use the latest discharge lamps developed in our research laboratories and tungsten halogen lamps as well as the more traditional sources.

Street lanterns, nearly all using modern efficient discharge lamps, are used for industrial roads, forecourts, etc. as well as for street lighting.

'Prices' shown are those recommended as appropriate in U.K. for retail sale.

'Nett user prices' are those recommended as appropriate in U.K. for direct sale to users.

# atlas mazda ekco

## Incandescent and Discharge exterior Index

Range Escort	Description	Page
	LGI Tungsten Bulkhead	CC4
	MBF Prismatic Bulkhead	CC5
	Division 2 wellglass	CC6
	OB Fluorescent Bulkhead	CC6
	EKF, EMF Tungsten/mercury wellglass	CC7
Floodlighting	WPC, WPW Patio	CC8
	ER, M36 Miniflood	CC9
	SUN Tungsten halogen Sunflood	CC10, 11
	TID/TIS Tungsten halogen flood	CC12
	M25 Floodlight projector	CC13
	M25F Floodlight projector	CC14
	M28 Light duty floodlight projector	CC15
	400 Area floodlight	CC16
	M30 Linear sodium flood	CC17
	OD Linear halide flood	CC18
Street lighting	Index and Price List	CC19-22
	<i>Group A</i>	
	Alpha One - SOX sodium	CC23
	Alpha Two - 5ft fluorescent	CC24
	Alpha Three - mercury fluorescent	CC25, 26
	Alpha Three - mercury fluorescent with gear	CC27
	Alpha Five - linear sodium	CC28
	Alpha Six - linear sodium	CC29
	Alpha Seven - mercury fluorescent	CC30
	Alpha Seven - with gear	CC31
	Alpha Nine - SOX sodium	CC32
	Alpha Nine - with gear	CC33
	Alpha Ten - SOX sodium	CC34
	<i>Group B</i>	
	Beta One - top entry GLS/mercury	CC35
	Beta Four - top entry GLS/mercury	CC36
	Beta Five -	CC37
	Beta Six - side entry 2ft fluorescent	CC38
	Beta Seven - side entry mercury	CC39
	Beta Eight - side entry sodium	CC40
	Beta Nine - side entry mercury	CC41
	<i>Group A</i>	
	Gamma One - post top 5ft fluorescent	CC42
	<i>Group B</i>	
	Gamma Two - post top 2ft fluorescent	CC43
	<i>Group A</i>	
	Gamma Three - post top mercury fluorescent	CC44
	Gamma Four - post top three-lamp mercury	CC45
	<i>Group B</i>	
	Gamma Five - post top GLS/mercury	CC46
	Gamma Six - post top GLS/sodium/mercury	CC47
	Gamma Seven - post top GLS/mercury/fluorescent	CC48
	Gamma Eight - post top GLS/sodium/mercury/fluorescent	CC49
	Gamma Nine - post top GLS/sodium/mercury/fluorescent	CC50
	<i>Miscellaneous</i>	
	High Tower - high mast lantern	CC51
	Footway fluorescent fittings	CC52
	Leader columns	CC53, 54

# atlas

## Escort tungsten bulkhead fittings

---

**Application** Bulkhead fittings for incandescent light source in a pleasing style. Well made and efficient, sets new standards of simplicity in installation and servicing, with prolonged periods between maintenance. The shallow, square styling is simple and attractive, blending well with any wall finish or decorative scheme.

Low initial cost is a feature of the Atlas miniature incandescent bulkhead fittings, which are particularly suitable for installations where manual or time switch control is in operation.

**Description** Sturdily built in aluminium alloy they will withstand abnormal wear and tear, being completely weatherproof and protected against corrosion and theft. Every fitting is fully tested before leaving the factory and is supplied individually packed, complete with instructions for installation and maintenance.

These fittings have pleasing lattice glass diffusers and are much shallower than most. They accommodate 40, 60 or 100w lamps, and incorporate an anti-theft locking device.

**Lamps** 40-100w GLS BC (ES to order).

**Glass diffuser** A replaceable prismatic diffuser is supplied which is retained in position by two special captive vandal proof nylon screws. The diffuser fits inside the lip of the body pressing and closes on to a soft foam plastic gasket for weather proofing.

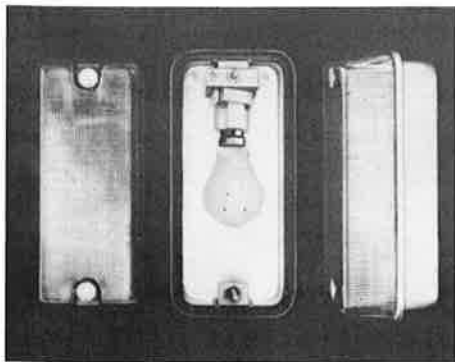
**Body pressing** This is in aluminium alloy, anodised finish which is highly corrosion resistant. Conduit 'knockouts' are provided at each end. There is also provision for Besa box and conduit in the back. The units can either be semi-recessed or surface mounted.

**Dimensions** Overall length: 10.5in (265mm); Overall width: 4.75in (120mm); Overall height: 4in (100mm); Weight: 2.75lb (1.25kg).

**Cat. no.** LGI.1100

**Price** (applicable to UK only)

Recommended Retail Price **£2 2s 0d.**



Escort bulkhead

# Division 2 wellglass fitting and MBF bulkhead fitting



Division 2 wellglass fitting

## Division 2 wellglass

### Application

This fitting (approved for use in Division 2 areas) is for indoor or outdoor use in petrol refineries, chemical plants, mines and similar situations where inflammable gases could occur accidentally in the atmosphere. It is specifically designed for use near, but outside those areas in which flameproof fittings must be used. Made in a corrosion resistant alloy it is particularly suitable for coastal areas with a salt laden atmosphere.

### Description

The top canopy is manufactured from LM6-M aluminium alloy. The casting is tapped 1in E.T. top entry with alternative entries available to special order: side entry, 1in E.T. and 45° angle entry 1in E.T. A heat-resisting wellglass is held in position by a galvanised wire guard which has a glass centring ring. The wellglass is fixed securely by pressure applied through the wire guard which is clamped to the canopy by screwed pads with brass wing screw fastening. Neoprene gaskets seal the wellglass to the canopy.

To re-lamp the fitting the pressure pads wing screw is released and the wire guard lifted and rotated anti-clockwise sufficiently to release three of the wire guard support lugs from the top casting. The glass and guard may be removed **completely** by continuing to support the guard, rotating **anti-clockwise** and unhooking.

The unit is complete with a special ES lampholder. Weight: fitting 5½lb (2.49kg), reflector 1lb (0.45kg).

### Lamps

150/200w GLS tungsten (ES cap)

160w MBTL (ES cap)

### Dimensions

Height 14½in (37.5cm)

Diameter 10½in (26.4cm)

Reflector diameter 14in (35.6cm)

Cat. no. 31/93024

Price (applicable to UK only)

Recommended Retail Price **£6 11s 0d.**

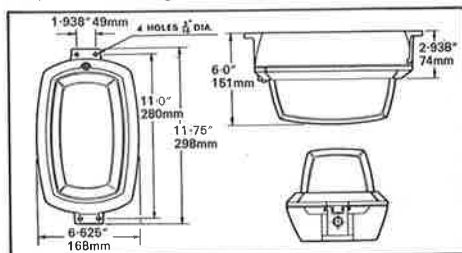
## 50w MBF/U bulkhead

This modern styled bulkhead has a body cast in corrosion resistant LM6 aluminium alloy with light control provided by a prismatic glass held firmly in position by a hinged glazing ring. The glass itself is held against the ring by clips. This ring seats on to a tubular neoprene gasket cemented firmly into a special recess in the cast body. (The cast metalwork has a sprayed aluminium finish on the exterior and the interior is painted white.)

**50w MBF/U** The control gear is fixed directly to the back of the casting inside, together with a porcelain terminal block suitable for looping 7 x 0.036in cable. A separate earth terminal is provided. An ES porcelain lampholder is mounted in front of a diffused aluminium reflector. The reflector is slotted at one end and has a keyhole slot at the other so that it can be easily removed from its two locating screws. A separate earth wire is provided to earth the reflector. An alternative gearless version suitable for 150w GLS has a porcelain ES lampholder mounted on an easily removable bracket with a separate earth terminal provided on the casting. Insulating sleeves are provided to protect the incoming cable.



MBF/U bulkhead fittings



## RANGE AND PRICES (applicable to UK only)

Cat. no.	Description	Recommended Retail Price		
		£	s	d
TG3049	50w MBF/U prismatic bulkhead complete with 240v control gear but less lamp	8	1	0
TG3050	150w G.L.S. prismatic bulkhead less lamp	4	1	0
TG3053	Wire guard		14	0
	50w MBF/U lamp ES cap	1	7	6*
Weight	Approximately 12lb.			
Entry	¾in E.T. conduit top and bottom			

\* Net Trade Price

# Escort fluorescent bulkhead

## Application

An elegant, tough, stormproof fitting for surface or recess mounting anywhere outdoors. In factories, barracks, goods yards or docks; in precincts, transport cafes, tunnels or car parks. This Atlas Escort is a security guard that can stay on duty till dawn, with no time off.

## Description

A tough fitting comprising pressure die cast aluminium body with high impact acrylic cover (wire guards are not a necessary accessory with this unit).

The opal cover is secured with two captive screws opened only by special key provided with each fitting and retained when open with a plastic toggle.

Switchstart gear for 2 or 3 8w 12in fluorescent T5 lamps is mounted under a hinged reflector tray. Stock fittings are L.P.F. (single lamp versions and H.P.F.

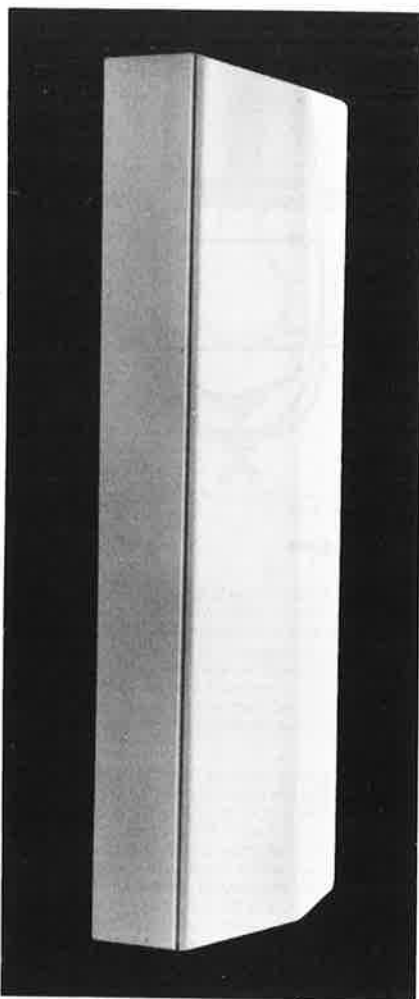
2 lamp versions are available to special order). A plug isolates lamp circuits on opening the hinged tray.

For easy installation the die cast body includes 3in

E.T. entries at ends and 3in knockout in centre back (2 plugs are provided). Wireways are cast in from the end entries to the central terminal block as well as alternative drill indents for fixing holes.

Tubes are packed with each fitting for convenience.

A bezel trim is available for use when the bulkhead is recessed.



Escort fluorescent bulkhead

## RANGE AND PRICES (applicable to UK only)

Cat. no.	Description	Recommended Retail Price			P.T. s d	Total		
		£	s	d		£	s	d
OB.2008	2 lamp parallel wired SS circuit L.P.F. 2 x 8w 12in fluorescent tubes	6	9	0				
		11	4		4 0	15	4	
OB.3008	3 lamp series and single SS circuit L.P.F. 3 x 8w 12in fluorescent tubes	7	3	0				
		17	0		6 0	1	3	0
OBB	Bezel trim	11	0					
OBD	Spare opal cover	16	0					
OBK	Key	1	0					

# atlas

## Escort wellglass fittings

These attractive Atlas Wellglass fittings meet a wide range of industrial and municipal needs. Available in two sizes, suitable for 60/200w tungsten lamps and 80/125w mercury vapour lamps, the series utilises a screw neck gallery of cast aluminium alloy construction suitable for either side or top entry. The latter is also suitable for direct Besa box mounting. The two sizes of glass cater for 100w or 200w ratings but employ a common screw neck detail to match the galleries, is internally etched and is fitted complete with a weatherproof seal. A white nylon reflector may be fitted if required over the screw neck of the glassware and is available to both sizes. For wall or corner mounting, bracket assemblies are available for use with the side entry gallery.



EKF.1200 side entry using AMEM6122 wall bracket



EMF.1200 top entry with AMEM6121 reflector and AMEM6122 bracket



EKF.1100 side entry using AMEM6114 corner bracket

### RANGE AND PRICES (applicable to UK only)

#### Wellglass fittings

Cat. no.	Type	Lamp watts	Lampholder	Recommended Retail Price		
				£	s	d
EKF.1100	Side entry	60/100	BC	1	6	0
EMF.1100	Top entry	60/100	BC	1	6	0
EKF.1200	Side entry	150/200 80/125 MBF/U*	ES	1	13	0
EMF.1200	Top entry	150/200 80/125 MBF/U*	ES	1	13	0

\* For use with external control gear.

#### Attachments

Cat. no.	Type	Lamp watts	Dimensions		Weight	Recommended Retail Price		
			in	mm	oz	g	£	s
AMEM6120	Reflector	60/100	7.25	184 dia.	3	85	6	0
AMEM6121	Reflector	150/200	8.62	219 dia.	2	56	9	0
AMEM6122	Wall bracket	—	4.75	120 length	4	113	8	0
AMEM6114	Corner bracket	—	6.0	152 square	12	340	25	0
			4.75	120 projection				

#### Fitting dimensions

Cat. no.	Diameter		Height		Weight	
	in	mm	in	mm	lb	kg
EKF.1100, EMF.1100	4.5	114	7.37	187	2	0.90
EKF.1200, EMF.1200	5.75	146	9.25	235	2½	1.12

All fittings comply with B.S.3820.

# atlas

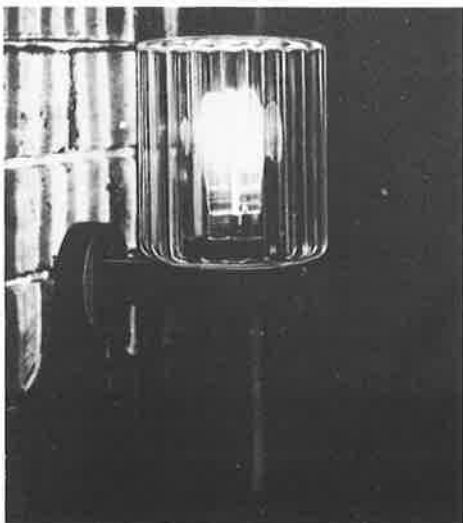
## Escort patio fittings

Lighting outside the house is becoming more popular and allows the building and its surroundings to be fully utilised. An air of well-being is created for visitors and occupants. Besides providing functional lighting for driveways and paths, paved areas adjacent to the house can be exploited for cocktails on a summer evening.

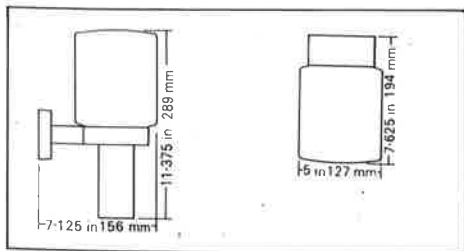
The Patio light can either be wall mounted or mounted under a canopy and clear ribbed or plain opal glasses are available. The fitting has a dark grey, weather-resistant and non-corrosive finish and takes a 60W lamp.



WPC1060/R Canopy with clear ribbed glass



WPW1060/R Wall bracket, clear ribbed glass



### RANGE AND PRICES (applicable to UK only)

Cat. no.	Fitting description	Recommended Retail Price		
		£	s	d
WPC1060/D	Canopy, opal glass	3	2	0
WPC1060/R	Canopy, clear ribbed glass	3	2	0
WPW1060/D	Wall bracket, opal glass	4	14	0
WPW1060/R	Wall bracket, clear ribbed glass	4	14	0
<b>Glasses</b>				
WPD	Opal glass	16	0	
WPR	Clear ribbed glass	16	0	



**Application** The Miniflood is a weatherproof lampholder housing and mounting assembly for exterior application. Designed for use with the 150w mains voltage Sealed Reflector Spot or Flood lamp it may be used for general area floodlighting and is particularly suitable for all forms of emphasis lighting such as bill boards, directional signs, forecourts, entrances, car parks, drive-ways, gardens, lawns, shrubberies, etc.

**Description** The basic units supplied with various forms of mounting comprise a satin finished extruded aluminium case housing ready wired ES lampholder. Weather-proofing is completed by a silicone rubber sealing ring between case and lamp. Adjustment and locking by means of a slotted thumb screw. The ER.1150 is wired for connection to conduit installations alternative wall mounting brackets AMEM6122 and corner mounting bracket AMEM6114 being available. The M36.1150 is supplied with 6ft of PVC 3-core cable and a black polythene coated steel bracket which allows fixing to conduit or by woodscrew, as well as free standing.



ER.1150 miniflood lamp



M36.1150 miniflood

## RANGE AND PRICES (applicable to UK only)

Cat. no.	Description	Recommended Retail Price		
		£	s	d
ER.1150	Miniflood (less brackets, less lamp)	1	17	0
M36.1150	Miniflood (with brackets, less lamp)	2	0	0
AMEM6122	Wall mounting bracket	8	0	
AMEM6114	Corner mounting bracket	1	5	0

## DIMENSIONS

Cat. no.	Length		Height	Diameter	
	in	mm		in	mm
ER.1150 incl. lamp	7.5	191	—	4.75	121.5
M36.1150 incl. lamp	7.5	191	—	4.75	121.5
M36.1150 mounting bracket	4 1/8	105	5 3/8	132	—

	Type	Watts	Voltage	Cap	Price			P.T.			Total		
					£	s	d	£	s	d	£	s	d
Sealed beam reflector lamps (Par 38)	Spot	150	220/230, 240, 250	ES	16	9	6	0			1	2	9
Sealed beam reflector lamps (Par 38)	Flood	150	220/230, 240, 250	ES	16	9	6	0			1	2	9
Colour-Ray sealed beam reflector lamps (Par 38)	Spot	150	220/230, 240, 250	ES	1	10	9	12	5		2	3	1

Standard colours: blue, green, red and yellow.

# Sunflood - 500w tungsten halogen floodlight

## Special features

Size and performance. The main body is 8in long, 6½in wide and 4in deep overall. The separated cool terminal chamber is 4½in long by 1½in wide and 1½in deep, overall. The complete fitting weighs 2lb. From this compact unobtrusive unit a better distribution for area lighting is obtained than from the conventional forward throw, open type, area fitting, which is some four times as large and costs much more.

**Application** The Sunflood is a general purpose open floodlight for outdoor area lighting. This includes car parks, factory yards, building sites, forecourts, playgrounds, flower beds and many others.

*Note:* In outside locations the canopy cover must not be aimed above the horizontal position and it is essential that the lamp be operated with its long axis within 4in of the horizontal. For interior use it is recommended that advice be obtained from the Lighting Engineering Department at your local regional office. For addresses see back cover.

**Description** The main body is pressure die-cast in LM6-M aluminium alloy and has specially designed external cooling fins.

A reflector, of magnesium aluminium alloy, is hammer finished, chemically brightened and anodised and is secured to the main body, by a single stainless steel screw.

Completing the main housing is the lampholder bracket assembly and wiring to the terminal block housing.

The lampholders consist of single fine silver 'button' contacts, mounted on nickel-silicon-copper alloy leaf springs, tempered and plated and housed in porcelain shrouds. Wiring from each holder to the terminal block

is carried out with 23-0076 silicon rubber cable additionally protected with varnished glass sleeving. A pressure die-cast, LM6-M aluminium alloy, terminal block housing completes the fitting, and provides cable-entry and mounting through a ½in E.T. tapped boss. The housing is secured to main body by means of a specially designed knuckle joint, which allows for downward vertical aim and provides an effective heat-shield between wiring chamber and main body. Inside the housing there is a two-way porcelain terminal block insulated completely by a moulded polypropylene shield and an earth terminal connector.

**Accessories** Designed for simple fixing, see page 414.

**Spigot** For 2in o.d. tubing an aluminium alloy spigot cap can be used. Cat. no. AMEM6106. Finish: black.

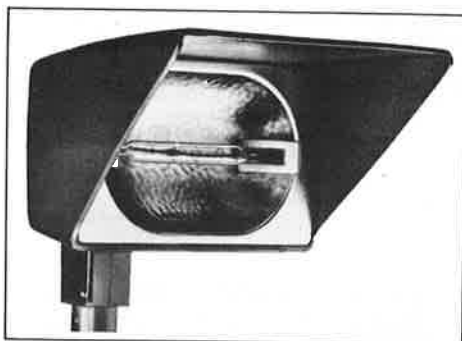
**Bracket** For piers, walls, etc., an aluminium cast bracket can be added. Cat. no. AMEM6107.

Finish: black. For clamping to poles of diameters ranging from 1in to 2in. A U bolt ½in diameter M.S. finished zinc plate can be supplied for use with the AMEM6107 bracket. Cat. no. AMEM6108.

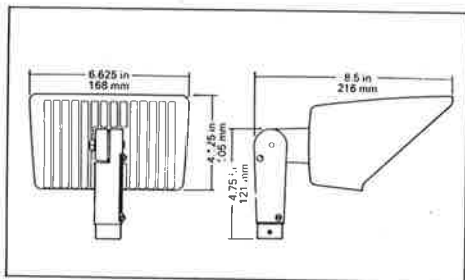
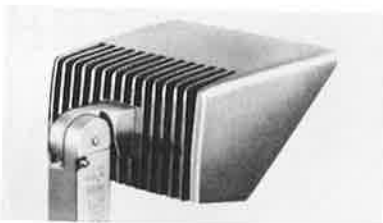
**Corner wall bracket** Cat. no. AMEM6112.

Finish: black.

**Wireguard** (lamp protection) Cat. no. AMEM6156 stainless steel. Clip hinge fixing.



Sunflood 500w



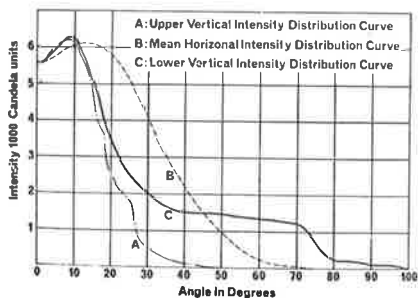
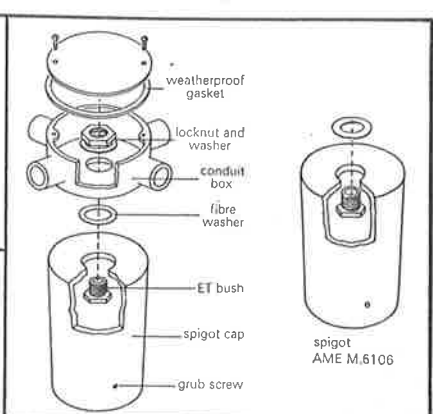
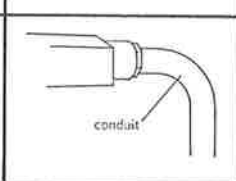
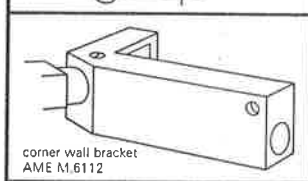
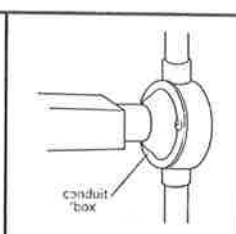
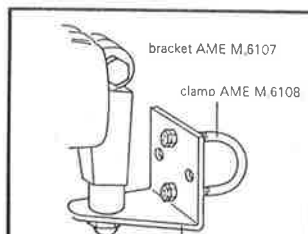
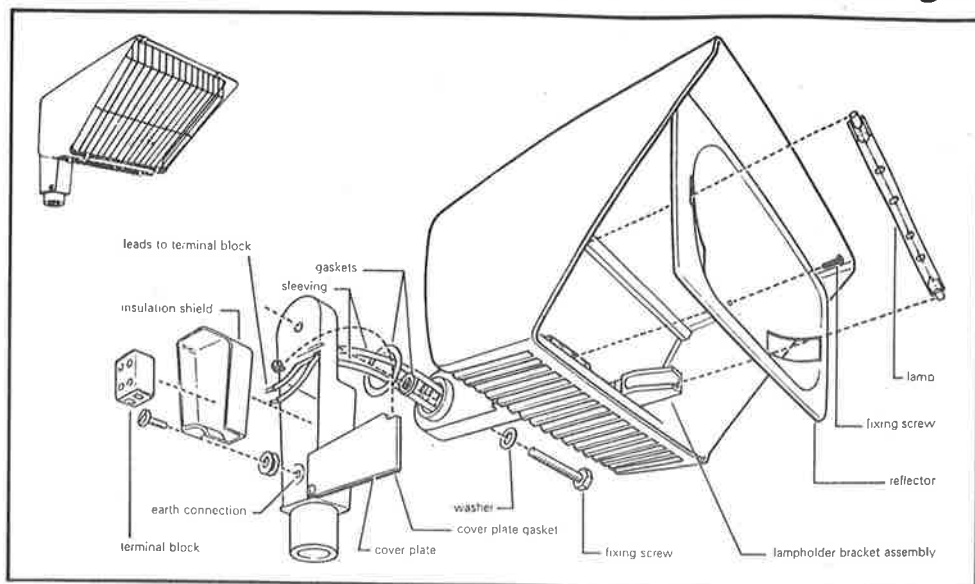
## RANGE AND PRICES (applicable to UK only)

Cat. no.	Prices recommended for retail sale	£	s	d
SUN 500 Floodlight		5	18	0
500w TH Linear 200/250v or 110/120v lamp		2	17	9*
AMEM6156 Wireguard		17	0	
AMEM6106 Spigot		1	3	0
AMEM6107 Bracket		11	0	
AMEM6108 U bolt and clamps		2	0	
AMEM6112 Corner bracket		1	5	0

\* Net Trade Price

# atlas

## Sunflood - 500w tungsten halogen floodlight



### LAMP

Cat. no.	Type	Class	Watts	Lumens
SUN.500	Tungsten halogen	THD	500	10,000

### FITTING

Beam angle	1/10 peak illumination	1/2 peak illumination	1/10 Beam factor	Peak candelas	I.E.S. classification
70° 88°	38° 58°	0-63	6,200	Extra wide	

Beam lumens = Lamp lumens × beam factor.

# atlas

## 750w/1500w tungsten halogen floodlights

**Application** This tungsten halogen floodlight is ideally suited to all applications where a constant high luminous output and compact fitting are parallel requirements.

The physical size enables good control over the vertical spread and very high intensities, both of which make the specular versions particularly suitable for floodlighting tall buildings or columns. Conversely, this floodlight, together with wall mounting adaptor unit, is most suitable for precinct and city centre lighting. Mounted at heights of 35 feet upwards on buildings, it provides street lighting of a very high quality from unobtrusive sources.

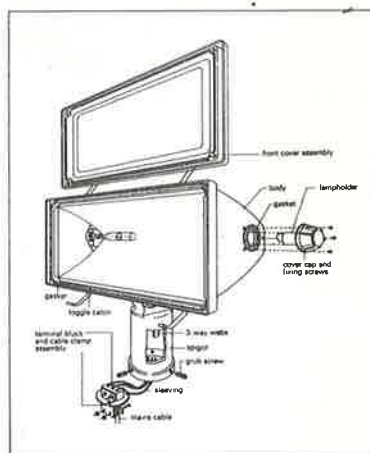
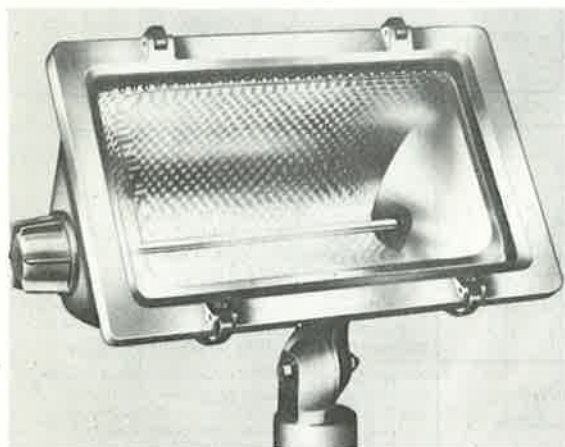
**Description** The tungsten halogen fitting consists of a die cast aluminium body with external cooling fins, attached to a pole mounted unit giving an entry for a 2in length of 2in diameter tube. Angular adjustment of the body in the vertical plane is provided for by means of a central knuckle joint. A choice of diffused or specular reflectors is available, both of which are manufactured from high purity

aluminium, anodised and sealed to give the required finish.

The projector is enclosed and made completely weatherproof by a borosilicate glass screen held in a cast aluminium frame and sealed against a silicon rubber gasket.

Access to the fitting for lamp changes or maintenance is obtained from the front by releasing the four stainless steel toggle catches securing the 'window' assembly. Two of these fixings are captive to act as hinges and retain the frame when in the open position. The terminal block and earthing assembly provided with each fitting are located in the pole mounting unit thereby ensuring the minimum working temperature.

The fitting is fully adjustable through the knuckle joint in the vertical plane and can be swivelled on the pole or mounting foot to give horizontal adjustment. Tungsten halogen lamps of this rating must be operated with the long axis within 4in of the horizontal.



### RANGE AND PRICES (applicable to UK only)

Cat. no.	Lamp/description	Recommended retail price* £ s. d.		
TID1000	750w/1000w diffuse reflector	15	1	0
TIS1000	750w/1000w specular reflector	15	1	0
TID1500	1500w diffuse reflector	15	1	0
TIS1500	1500w specular reflector	15	1	0
TID/BS1000	750w/1000w diffuse reflector, box spigot	17	15	0
TIS/BS1000	750w/1000w specular reflector, box spigot	17	15	0
TID/BS1500	1500w diffuse reflector, box spigot	17	15	0
TIS/BS1500	1500w specular reflector, box spigot	17	15	0
TID/CA1000	750w/1000w diffuse reflector, cross arm spigot	17	15	0
TIS/CA1000	750w/1000w specular reflector, cross arm spigot	17	15	0
TID/CA1500	1500w diffuse reflector, cross arm spigot	17	15	0
TIS/CA1500	1500w specular reflector, cross arm spigot	17	15	0
TIH	Hood	1	12	0
TIW	Wing (one only)		19	0
AMEM6124	Footplate		16	0
AMEM6123	Wall mounting bracket	1	5	0

\*Excluding lamps

# mazda

## M25 junior floodlight projector

**Application** For major floodlighting including airfield aprons, railway sidings, marshalling yards and sports stadia on tower or column mountings. A specialised use is the lighting of city centre squares and precinct lighting from the roof of high tower blocks.

**Lamps** 300/500w GLS or B2 projector 250/400w MBF/U.

**Description** The projector is of robust construction and made from first quality materials, selected to withstand corrosive atmospheres found in industrial locations.

The projector comprises six major components.

A reflector spun from super purity aluminium, polished and anodised is secured internally to an aluminium alloy ring casting which itself is pivoted in a galvanised steel stirrup assembly. A heat-resisting front glass cover secured into the reflector by a neoprene gasket, makes a weatherproof seal.

Gasketed and fastened to the body casting by stainless steel studs and wing nuts through slotted cast-on lugs, is an easily removable lampholder housing at the base of which is a detachable cast cover plate.

To complete the assembly, an auxiliary reflector is fixed between main reflector and main body casting a GES lampholder, on a plated steel bracket, is fixed to the appropriate pre-set focus position; and the cover plate and cap encloses a cool wiring chamber containing porcelain terminal block, earth connection and cable gland.

The stirrup assembly provides locking bolts, with plastic coated heads and handles, D.V. bearing quadrant marked 0°-180°. All castings are aluminium alloy, LM6-M.

Available, modified for use in Division 2 areas to special order.

**Special features and maintenance** The floodlight once aimed need not be moved for re-lamping, which is effected by removing lampholder housing complete with lamp, from body casting.

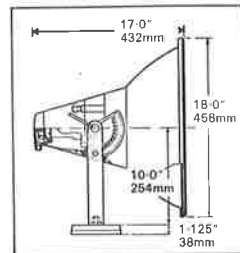
The terminal block, earth screw and supply cable are located within the cool wiring chamber at base of lampholder casting, affording easy access along with protection from lamp heat.

The neoprene gasket and method of glazing provide a very effective weatherproof seal.

Details of discharge lamp control gear and weatherproof boxes on separate pages.



M25 junior floodlight



### RANGE AND PRICES (applicable to UK only)

Cat. no.	Mounting	Reflector	Weight		Nett User Price*		
			lb	kg	£	s	d
M25.S 500	2 x 3/8" diameter clear holes at 6" centre	specular	20	9.07	13	9	0
M25.D 500	2 x 3/8" diameter clear holes at 6" centre	diffuse	20	9.07	13	16	0

\* Complete with Baseplate.

# mazda

## M25F floodlight projector

**Application** For major floodlighting including airfield aprons, railway sidings, marshalling yards and large sports stadia; high tower mounting.

**Lamps** 750/1500w GLS or B2 projector: 1000w MBF/U or MB/U: 1000w MBI.

**Description** The projector is of robust construction and made from first quality materials, selected to withstand corrosive atmospheres found in industrial locations.

The projector comprises six major components. A reflector spun from super purity aluminium, polished and anodised is secured internally to an aluminium alloy body casting which itself is pivoted in a galvanised steel stirrup assembly. A heat-resisting front glass cover secured into the reflector by a neoprene gasket, makes a weatherproof seal.

Gasketed and fastened to the body casting by stainless steel studs and wing nuts through slotted cast-on lugs, is an easily removable lampholder housing at the base of which is a detachable cast cover plate.

To complete the assembly, an auxiliary reflector is fixed between main reflector and main body casting; a GES lampholder is provided and the cover plate end cap encloses a cool wiring chamber containing porcelain terminal block, earth connection and cable gland.

The stirrup assembly provides locking bolts, with plastic coated heads and handles and D.V. bearing quadrant marked 0°-90° at 2½° intervals. A cast baseplate, marked with azimuth bearing angles, 0°-180°, is available as an optional extra. All castings are aluminium alloy, LM6-M.

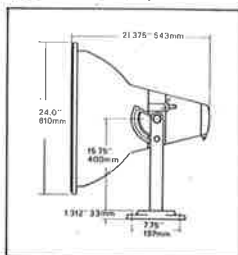
**Special features and maintenance** Provision is made for accurate lamp focusing by adjustment of three thumbscrews with screwdriver slot. The floodlight once aimed need not be moved for re-lamping, which is effected by removing lampholder housing complete with lamp, from body casting. A re-setting stop situated in the quadrant makes it possible to swivel the fitting on its horizontal axis for cleaning front glass. The fitting then returns to its predetermined aiming position.

The terminal block, earth screw and supply cable are located within the cool wiring chamber at base of lampholder casting, affording easy access along with protection from lamp heat.

The neoprene gasket and method of glazing provides a very effective weatherproof seal. For replacement of glass front cover a special glazing tool is available (M25 Glazing Tool).



M25F floodlight projector



### RANGE AND PRICES (applicable to UK only)

Cat. no.	Reflector	Weight lb kg	Mounting	Nett User Price £ s d
M25.D 1500*	Diffuse	28 12.7	1 x 3/4 in hole	19 10 0
M25.S 1500*	Specular	28 12.7	1 x 3/4 in hole	19 10 0
M25.BP	Baseplate (optional extra)		2 x 3/4 in diameter, 7 1/2 in centre	1 5 0

\*Excluding baseplate.

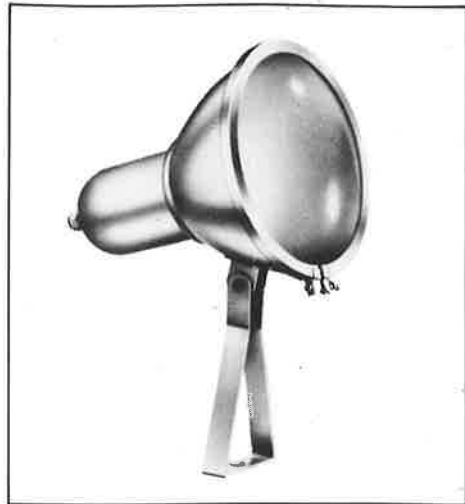
# mazda

## M28 light duty floodlight

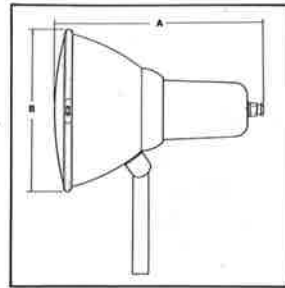
**Application** The M28 is designed for general purpose light duty floodlighting for 150/500 watt tungsten GLS lamps. It is sturdily built and finished to withstand severe weather conditions.

**Description** The three floodlights in this range are of similar general construction but the 150w size does not incorporate a focusing rod. The floodlight bodies are manufactured from heavy gauge sheet steel, the whole assembly being subjected to an efficient anti-corrosive process and finished in a high quality, high temperature stoved aluminium lacquer. The porcelain lampholder is mounted on a brass focusing rod (200/300/500w sizes only) which passes through a bush in the back end of the body and is retained in the desired position by a winged head clamping screw. On the M28, 150/200 types the heavy moulded heat-resisting front glass is permanently rolled into position at the mouth of the reflector which is itself attached to the main body of the floodlight by two brass toggle bolts and knurled nuts. This joint is made weatherproof by a rubber gasket. On the M28,500 the reflector and main body are one piece and the heat resisting front glass is mounted in a rubber gasket at the mouth of reflector and is held in position by a detachable retaining ring. The complete assembly is supplied mounted in an adjustable steel stirrup.

**Mounting** The stirrups of M28,150 and M28,200 have 2 x  $\frac{1}{4}$ in diameter clearance holes at 1in centres. M28,500 stirrup has 1 x  $\frac{1}{2}$ in diameter hole in centre of base.



M28 light duty floodlight M28, 200



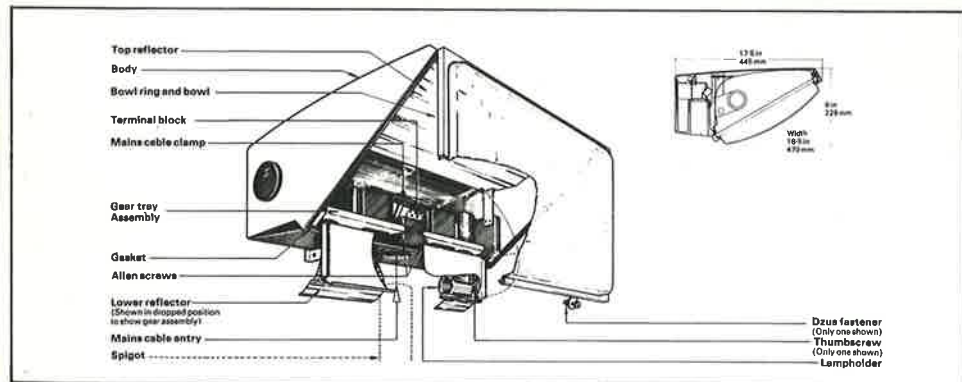
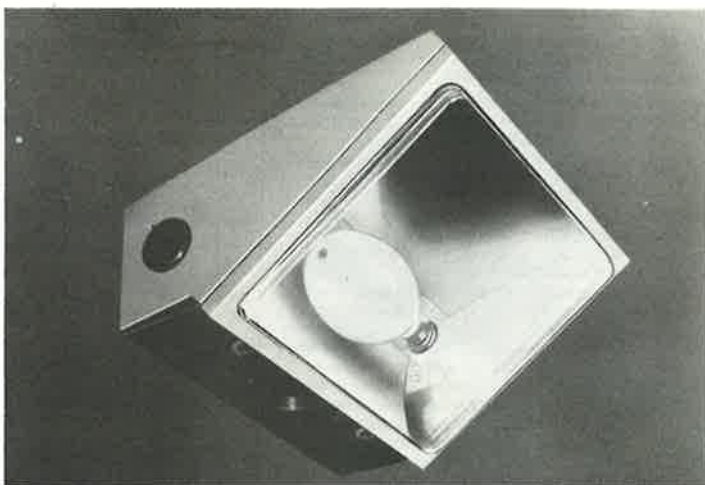
### RANGE AND PRICES (applicable to UK only)

Cat. no.	Lamp	Cap	Weight lb	Dimensions		Nett user price £ s d
				A	B	
M28.150	150 GLS	BC	3 $\frac{1}{2}$	10.75in	273mm 8.0in 204 mm	2 12 0
M28.200	200w GLS	ES	5 $\frac{1}{2}$	15.75in	400mm 10.0in 254mm	4 2 0
M28.500	300w/500w GLS	GES	10 $\frac{1}{2}$	21.75in	552mm 12.0in 305mm	6 5 6

# atlas

## 400w area floodlight

The new floodlight, **winner of the 1969 E.L.F.A. Design award**, is a sophisticated, totally enclosed flood for post top mounting and is supplied complete with either \***Kolorlux** or \***Kolorarc** integral precision wound control gear. It achieves a high light output with good optical control and asymmetric light distribution which makes it ideal for area floodlighting. The 400w area floodlight is suitable for use in car-parks, garage forecourts, industrial situations, security lighting, some road lighting, and many other applications.



**Construction** The 400w area flood is basically an LM6M silicon-aluminium alloy support casting with central spigot cap. The casting supports the appropriate precision wound control gear.

**Body** The fitting body of G.R.P. is moulded in one piece and incorporates a channel section carrying a silicone rubber gasket which provides a seal between body and casting.

**Bowl** A one-piece vandal-resistant "MAKRALON" clear Polycarbonate moulding.

**Bowl Ring** A G.R.P. moulding with corrosion-resistant hinges at the top for easy access. Fastening

is by two DZUS coin-slot clips and the bowl ring seats on a silicone rubber gasket for full weatherproofing.

**Spigot** A 2" diameter x 4 1/2" long spigot cap is clamped to the pole by two Allen screws for easy mounting.

**Reflector** Two-piece, of chemically polished aluminium, giving an asymmetric light distribution. The lower portion hinges down to give easy access to the control gear and the Allen screws.

**Wiring** Mains wiring is fed via a cable clamp to a 3-way 10 amp terminal block taking up to twin 7/-036 cable and earth.

### RANGE AND PRICES (applicable to UK only)

Cat. no.	Lamp	Cap	Type	Weight lb kg	Price £ s d
OA.C.400	400w *Kolorarc	GES	MBIF/U	47 22	26 18 0 each*
OA.K.400	400w *Kolorlux	GES	MBF/U	34 15-4	19 16 0 each*

Cat. no.	Description	Price £ s d
OAB.6	6" Outreach Wall Bracket	3 18 0 each*
OAB.10	10" Outreach Wall Bracket	5 3 0 each*

\*Contract Price.



# mazda

## M30 linear sodium floodlight

**Application** The M30 Floodlight is designed for general area lighting and for illuminating building facades and signs. Floodlights of this type are also used extensively to provide increased illumination at major road junctions and similar locations.

**Description** Projector body – heavy gauge zinc coated sheet steel with internal specular reflector of aluminium. Armour plate glass front secured in a rubber weatherproof sealing gasket.  
Access for servicing and lamp replacement is effected by removing the die-cast aluminium end cap which has three way quick release key hole slots.  
Finish – stove enamel grey.  
Mounting cradle, wall brackets and pole clamps – mild steel strip cast aluminium LM6 and steel rod.  
Control gear box – heavy gauge galvanised steel fitted with a hinged lid, fully gasketed. A removable tray for control gear is supplied complete with mains terminal block.  
Finish – stove enamel grey.

The range of equipment comprises the following:  
M30 140w or 200w linear sodium floodlight complete with control gear box and side straps for floor mounting. Weight 62lb.\*  
M30/F floodlight body only complete with brackets for wall mounting. Weight 26½lb.  
M30/FP floodlight body only complete with cradle and clamps for pole mounting on 2in to 5½in diameter poles. Weight 34lb.  
M30/GB gear box only for wall or surface mounting. Weight 33lb.\*  
M30/GBP gear box only with pole clamps for 2in to 5½in diameter poles. Weight 37lb.\*

\*The floodlights and gear boxes are not supplied with gear, but the weights shown include gear.

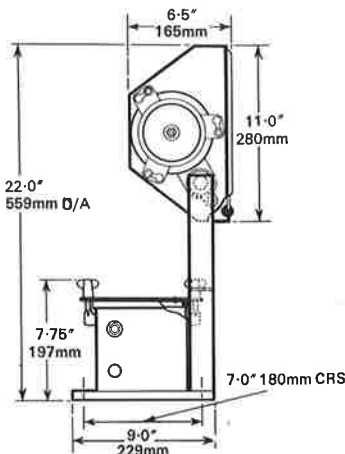


M30 linear sodium floodlight

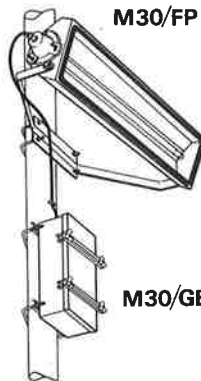
### RANGE AND PRICES (applicable to UK only)

Cat. no.	Nett	User Price
	£	s d
M30 (excluding gear)	17	18 0
M30/F	13	15 0
M30/FP	14	0 0
M30/GB (excluding gear)	4	11 0
M30/GBP (excluding gear)	5	4 0
Set of 140w SLI gear 220/250v	5	5 9
Set of 140w SLI gear 190/220v	6	9 6
Set of 200w SLI gear 220/250v	8	14 3

See Section CD of this catalogue for details of gear sets

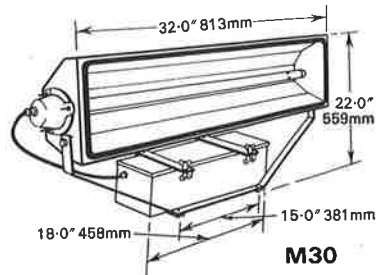


M30

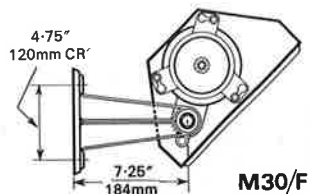


M30/FP

M30/GBP



M30



M30/F

# atlas

## 750w linear mercury halide floodlight

### Application

An entirely new lamp, fitting and control gear concept from BLI Research Laboratories engineered to produce a high efficiency controlled distribution floodlight of good colour.

The Asymmetric light distribution obtained from the OD.0750 floodlight gives a very sharp run-back with a wide fan distribution. This is suitable for high tower lighting, apron floodlighting, marshalling yard lighting, dockyard lighting, container berth lighting, and general floodlighting of buildings and areas.

### 750w. MBIL/H Lamp

The appearance and physical size of the new 750w "MBIL/H" linear mercury halide lamp is similar to that of a 1500w tungsten halogen lamp, in that it is approximately 10" long and  $\frac{3}{4}$ " in diameter with a single contact at each end. Whereas most discharge lamps have an outer envelope to maintain a uniform thermal equilibrium around the arc tube, the fused silica MBIL/H lamp relies on the lighting fitting to act as the "envelope"

### Description

The complete unit is in two interconnected parts:

**Floodlight:** Aluminium cast body finned for maximum heat dissipation.

Specially designed aluminium reflector to obtain an asymmetric light distribution.

A toughened borasilicate glass front for maximum safety. This is opened to maintain lamp by releasing four Allen type screws and by operating a Castell lock. A stirrup from the Floodlight to the control gear box enables full adjustment in the vertical plane to be made to the Floodlight.

**Control Box:** This is similar in design to the Floodlight, cast in aluminium and finned for maximum heat dissipation.

A removable top cover for access to the terminal block is provided.

The control gear is integral with the box and is power factor corrected.

There is an inter-connecting flexible PVC covered high voltage cable between the two units.

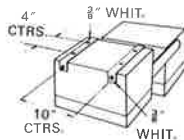
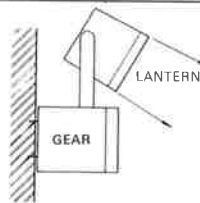
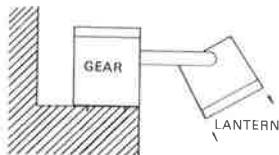
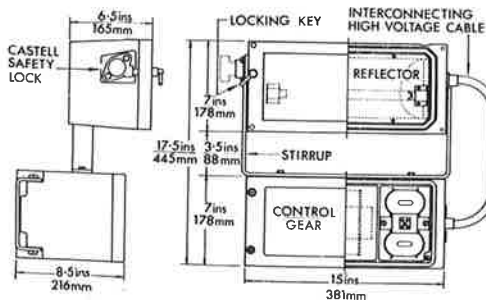
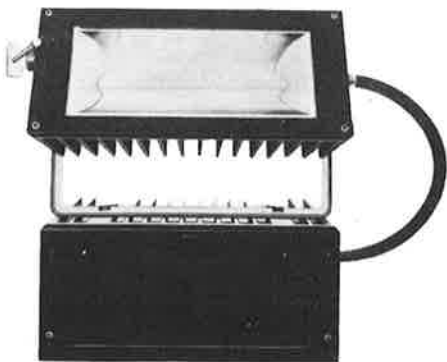
### Price applicable to UK only

		Price £ s d		
OD.0750	Floodlight complete with Control gear	70 lbs.	84	19 0*
750w	MBIL/H Lamp		9	10 0†

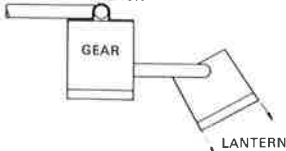
\* Net user price

† Net Trade Price

750w linear mercury halide floodlight



"T" SHAPED OUTREACH



# atlas

## Street Lighting Index and Price List

description	catalogue number	page	contract price		
alpha one			£	s	d
	<i>complete fitting</i>				
Semi-cut-off for 55w SOX	PSD/E.1085	CC23	8	2	0
Semi-cut-off for 90w SOX	PSD/E.1140	CC23	8	4	0
alpha two with gear					
	<i>complete fitting</i>				
Lantern for 3 x 5' - 80w MCFA/U	QKC/D.Q3080,4	CC24	31	13	0
Lantern for 4 x 5' - 80w MCFA/U	QKC/D.Q4080,4	CC24	39	0	0
alpha three					
	<i>complete fitting</i>				
Semi-cut-off 250/400w MBF/U °Kolorlux	PNE.1400/S	CC25	11	13	0
Cut-off 400w MBF/U °Kolorlux	PNE.1400/C	CC26	12	6	0
Cut-off 250w MBF/U °Kolorlux	PNE.1250/C	CC26	12	2	0
Aero Screened 400w MBF/U °Kolorlux	PNF.1400/S	CC25	12	18	0
Aero Screened 250w MBF/U °Kolorlux	PNF.1250/S	CC25	12	18	0
alpha three with gear					
	<i>complete fitting</i>				
Semi-cut-off 400w MBF/U °Kolorlux 240v 50Hz	PNE.B.400/S,4	CC27	20	2	0
Semi-cut-off 250w MBF/U °Kolorlux 240v 50Hz	PNE.B.250/S,4	CC27	18	17	0
Cut-off 400w MBF/U °Kolorlux 240v 50Hz	PNE.B.400/C,4	CC27	20	17	0
Cut-off 250w MBF/U °Kolorlux 240v 50Hz	PNE.B.250/C,4	CC27	19	14	0
alpha five					
	<i>complete fitting</i>				
For 140/200w Linear Sodium Lamp	QA.1200	CC28	9	0	0
For 135w SOX lamp	QX.1150	CC28	9	6	0
alpha six less or with gear					
	<i>complete fitting</i>				
CO Lantern for 140/200w SLI/H	QR.1200	CC29	10	4	0
CO Lantern with Gear 140w SLI/H 240v 50Hz	QR.1140,4	CC29	12	1	0
CO Lantern with Gear 200w SLI/H 240v 50Hz	QR.1200,4	CC29	19	16	0
alpha seven					
	<i>complete fitting</i>				
400w or 250w MBF/U °Kolorlux	PJC/G.1400	CC30	8	10	0
alpha seven with gear					
	<i>complete fitting</i>				
Lantern complete for 400w MBF °Kolorlux 240v	PJC/G/B.400/4	CC31	15	7	0
Lantern complete for 250w MBF °Kolorlux 240v	PJC/G/B.250/4	CC31	14	2	0
alpha nine less or with gear					
	<i>complete fitting</i>				
SCO Lantern (less gear) 90w SOX	QS.0100	CC32	5	17	0
SCO Lantern (with gear) for 90w SOX 240v 50Hz	QS.1100	CC33	14	0	0
alpha ten					
	<i>complete fitting</i>				
CO Lantern for 90w SOX	QE.1100	CC34	17	17	0
CO Lantern for 55w SOX	QE.1085	CC34	16	18	0

# atlas

## Street Lighting Index and Price List

description	catalogue number	page	contract price		
<b>beta one</b>			<b>£</b>	<b>s</b>	<b>d</b>
	<i>complete fitting</i>				
For 100/150w G.L.S.	PBG/Y/1150 2BC	CC35	2	3	0
For 150w G.L.S.	PBG/Y/1150 ES	CC35	2	6	0
For 80w or 125w MBF/U °Kolorlux	PBG/Y/1150 3BC	CC35	2	4	0
<b>beta four</b>					
	<i>complete fitting</i>				
For 60/150w G.L.S.	PEB/Y/2BC.1200	CC36	3	6	0
For 80w MBF/U °Kolorlux	PEB/Y/3BC.1200	CC36	3	6	0
For 60/150w G.L.S.	PEC/S/Z/2BC.1200	CC36	3	12	0
For 150/200w G.L.S.	PEC/S/Z/ES.1200	CC36	3	12	0
For 80/125w MBF/U °Kolorlux	PEC/S/Z/3BC.1200	CC36	3	12	0
For 60/150w G.L.S.	PEB/D/2BC 1200	CC36	2	19	0
For 150/200w G.L.S.	PEB/D/ES.1200	CC36	2	19	0
For 80/125w MBF/U °Kolorlux	PEB/D/3BC.1200	CC36	2	19	0
For 60/150w G.L.S.	PEF/Z/2BC.1200	CC36	2	10	0
For 150/200w G.L.S.	PEF/Z/ES.1200	CC36	2	10	0
For 80/125w MBF/U °Kolorlux	PEF/Z/3BC.1200	CC36	2	10	0
<i>vandal resistant versions</i>	<i>complete fitting</i>				
60/150w G.L.S.	PEB/V/G/2BC.1200	CC36	3	15	0
150/200w G.L.S.	PEB/V/G/ES.1200	CC36	3	15	0
80/125w MBF/U °Kolorlux	PEB/V/G/3BC.1200	CC36	3	15	0
60/150w G.L.S.	PEC/V/G/Z/2BC.1200	CC36	4	8	0
150/200w G.L.S.	PEC/V/G/Z/ES.1200	CC36	4	8	0
80/125w MBF/U °Kolorlux	PEC/V/G/Z/3BC.1200	CC36	4	8	0
<b>beta five less or with gear for 35w SOX</b>					
	<i>complete fitting</i>				
Side entry standard ¾" spigot 240v 50Hz	PTC/D.1060.4	CC37	8	12	0
Side entry standard ¾" spigot with					
vandal resistant bowl 240v 50Hz	PTC/V.1060.4	CC37	9	4	0
Side entry ¾" spigot (less gear)	PTC/D.0060	CC37	4	4	0
Side entry ¾" spigot (less gear) with					
vandal resistant bowl	PTC/V.0060	CC37	4	16	0
Side entry standard 1" spigot 240v 50Hz	PTH/D.1060.4	CC37	8	12	0
Side entry standard 1" spigot with					
vandal resistant bowl 240v 50Hz	PTH/V.1060.4	CC37	9	4	0
Side entry 1" spigot (less gear)	PTH/D.0060	CC37	4	2	0
Side entry 1" spigot (less gear) with					
vandal resistant bowl	PTH/V.0060	CC37	4	14	0
Top entry standard ¾" spigot 240v 50Hz	PTT/D.1060.4	CC37	8	13	0
Top entry standard ¾" spigot with					
vandal resistant bowl 240v 50Hz	PTT/V.1060.4	CC37	9	5	0
Top entry ¾" spigot (less gear)	PTT/D.0060	CC37	4	2	0
Top entry ¾" spigot (less gear) with					
vandal resistant bowl	PTT/V.0060	CC37	4	14	0
Top entry standard 1" spigot 240v 50Hz	PTK/D.1060.4	CC37	8	13	0
Top entry standard 1" spigot with					
vandal resistant bowl 240v 50Hz	PTK/V.1060.4	CC37	9	5	0
Top entry 1" spigot (less gear)	PTK/D.0060	CC37	4	3	0
Top entry 1" spigot (less gear) with					
vandal resistant bowl	PTK/V.0060	CC37	4	15	0
Side entry Aeroscreened ¾" spigot 240v 50Hz	PTE/A/D.1060.4	CC37	9	18	0
Side entry Aeroscreened ¾" spigot with					
vandal resistant bowl 240v 50Hz	PTE/A/V.1060.4	CC37	10	10	0
Side entry Aeroscreened 1" spigot 240v 50Hz	PTM/A/D.1060.4	CC37	9	18	0
Side entry Aeroscreened 1" spigot					
with vandal resistant bowl 240v 50Hz	PTM/A/V.1060.4	CC37	10	10	0
Top entry Aeroscreened ¾" spigot 240v 50Hz 240v 50Hz	PTF/A/D.1060.4	CC37	10	6	0
Top entry Aeroscreened ¾" spigot with					
vandal resistant bowl 240v 50Hz	PTF/A/V.1060.4	CC37	10	18	0
Top entry Aeroscreened 1" spigot	PTL/A/D.1060.4	CC37	10	5	0
Top entry Aeroscreened 1" spigot with					
vandal resistant bowl 240v 50Hz	PTL/A/V.1060.4	CC37	10	17	0

# atlas

## Street Lighting Index and Price List

description	catalogue number	page	contract price
<b>beta six with gear</b>			£ s d
Two 2 ft. 40w Fluorescent Tubes 240v 50Hz	<i>complete fitting</i> POD/C.Q2240.4	CC38	9 8 0
Two 2 ft. 40w Fluorescent Tubes 240v 50Hz vandal resistant lantern	PQV/C.Q2240.4	CC38	9 18 0
<b>beta seven</b>			
For 80/125w MBF/U/°Kolorlux Glass refractor	<i>complete fitting</i> PZB/G/3BC.1125	CC39	4 5 0
For 80/125w MBF/U/°Kolorlux Vandal resistant bowl	PZB/V/3BC.1125	CC39	4 17 0
<b>beta eight less gear or with gear</b>			
Lantern for 60w SLI/H	<i>complete fitting</i> QJH/D.0060	CC40	5 14 0
Lantern for 55w SOX	QJS/D.0060	CC40	5 9 0
Lantern (with gear) for 55w SOX	QJS/D.1060.4	CC40	10 17 0
<b>beta nine less gear or with gear</b>			
For 100/150w GLS	<i>complete fitting</i> QZ/P.1200 3BC	CC41	3 16 0
For 80/125w MBF/°Kolorlux	QZ/P.1200 2 BC	CC41	3 16 0
For 150/200w GLS	QZ/P.1200 ES	CC41	3 16 0
For 80w with gear 200/250v 50Hz	QZB/P.1080.T	CC41	9 2 0
For 125w with gear 200/250v 50Hz	QZB/P.1125.T	CC41	9 6 0
<b>gamma one with gear</b>			
For 4 x 5' 80w MCFA/U 200/250v 50Hz Tubes	<i>complete fitting</i> PVD/Q4080.T	CC42	62 13 0
<b>gamma two</b>			
For 4 x 2' 40w 3500 °K MCFA/U 200/250v 50Hz Tubes	<i>complete fitting</i> PVD/B/S4240.T	CC43	18 0 0
For 2 x 2' 40w 3500 °K MCFA/U 200/250v 50Hz Tubes	PVD/B/S2240.T	CC43	15 6 0
<b>gamma three</b>			
For 250/400w MBF/U °Kolorlux	<i>complete fitting</i> PX.1400	CC44	15 3 0
<b>gamma four (3ft dia)</b>			
<i>diffuse bowl less reflector</i>	<i>complete fitting</i>		
For 2 x 250w MBF/U °Kolorlux	PWD/C/B.2500	CC45	37 17 0
For 2 x 400w MBF/U °Kolorlux/°Kolorarc			
For 2 x 500w GLS			
For 3 x 250w MBF/U °Kolorlux	PWD/C/B.3400	CC45	38 14 0
For 3 x 400w MBF/U °Kolorlux/°Kolorarc			
<i>pinspot bowl with reflector</i>	<i>complete fitting</i>		
For 2 x 250w MBF/U °Kolorlux	PWE/C/Z/B.2500		44 0 0
For 2 x 400w MBF/U °Kolorlux/°Kolorarc			
For 2 x 500w GLS			
<b>gamma four (4ft dia)</b>			
For 3 x 400w MBF/U °Kolorlux/°Kolorarc	<i>complete fitting</i> QWD/C/B.3400	CC45	58 6 0
For 3 x 140/200w SLI/H	QWD/C/B.3200	CC45	on application
For 3 x 135w SOX	QWD/C/B.3150	CC45	on application
<b>gamma five</b>			
For 100/150w G.L.S.	<i>complete fitting</i> PWB/Y/2BC.1200	CC46	6 5 0
For 150/200w G.L.S.	PWB/Y/ES.1200	CC46	6 8 6
For 80/125w MBF/U °Kolorlux	PWB/Y/3BC.1200	CC46	6 6 0

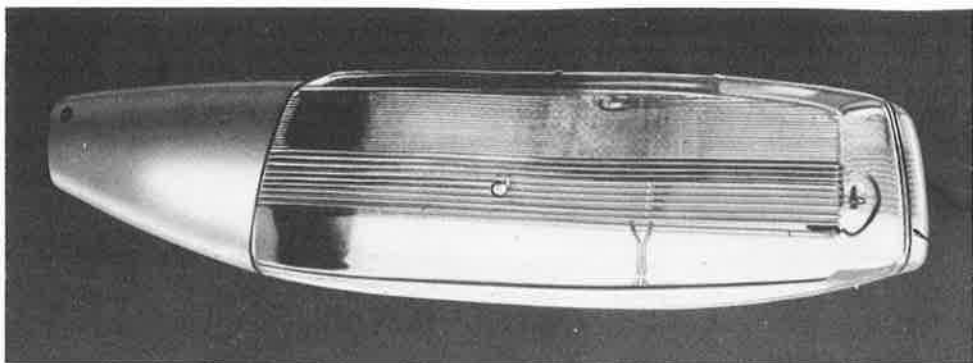
# atlas

## Street Lighting Index and Price List

description	catalogue number	page	contract price		
<b>gamma five (contd)</b>					
For 100/150w G.L.S.	PWB/X/2BC.1200	CC46	£	s	d
For 150/200w G.L.S.	PWB/X/ES.1200	CC46	6	5	0
For 80/125w MBF/U °Kolorlux	PWB/X/3BC.1200	CC46	6	8	0
For 100/150w G.L.S.	PWD/2BC.1200	CC46	6	6	0
For 150/200w G.L.S.	PWD/ES.1200	CC46	4	19	0
For 80/125w MBF/U °Kolorlux	PWD/3BC.1200	CC46	5	2	0
<i>with vandal resistant bowl</i>					
For 100/150w G.L.S.	PWW/Y/2BC.1200	CC46	9	7	0
For 150/200w G.L.S.	PWW/Y/ES.1200	CC46	9	10	0
For 80/125w MBF/U °Kolorlux	PWW/Y/3BC.1200	CC46	9	8	0
For 100/150w G.L.S.	PWW/X/2BC.1200	CC46	9	7	0
For 150/200w G.L.S.	PWW/X/ES.1200	CC46	9	10	0
For 80/125w MBF/U °Kolorlux	PWW/X/3BC.1200	CC46	9	8	0
For 100/150w G.L.S.	PWT/3BC.1200	CC46	8	6	0
For 150/200w G.L.S.	PWT/ES.1200	CC46	8	9	0
For 80/125w MBF/U °Kolorlux	PWT/3BC.1200	CC46	8	7	0
<b>gamma six less gear or with gear</b>					
<i>Packages only</i>					
Post-top base assembly – less gear (excluding lampholder)	QIB 1200	CC47	3	10	0
Post-top base assembly – 80w MBF with gear 240v 50 Hz	QIB 1080.4	CC47	6	2	0
Post-top base assembly – 125 MBF with gear 240v 50 Hz	QIB 1125.4	CC47	6	9	0
Post-top base assembly – 35w SOX with gear 240v 50 Hz	QIB 1035.4	CC47	10	4	0
Post-top base assembly – less gear C/W PE cell socket					
ex-lampholder	QIB 1200 P	CC47	4	3	0
Post-top base assembly – 80w with gear C/W PE cell socket					
240v 50 Hz	QIB 1080.4.P	CC47	6	15	0
Post-top base assembly – 125w with gear C/W PE					
cell socket 240v 50Hz	QIB 1125.4.P	CC47	7	3	0
Post-top base assembly – 35w with gear C/W PE					
cell socket 240v 50 Hz	QIB 1035.4.P.	CC47	10	17	0
20" Diameter canopy	QIC 1200	CC47	1	17	0
10½" Diameter canopy	QIF 1200	CC47	1	2	0
Acrylic opal bowl	QID 1200	CC47	1	12	0
Anti-vandal opal bowl	QIV 1200	CC47	2	3	0
Assymetric glass dome refractor	PWY 1200	CC47	13	0	
2 BC lampholder	AMEL 1085	CC47	3	0	
3 BC lampholder	AMEL 1086	CC47	3	0	
ES lampholder	AMEL 1087	CC47	3	0	
By mixing the above components <i>as required</i> a complete lantern can be ordered (see leaflet)					
<b>gamma seven</b>					
<i>complete fitting</i>					
For 100w G.L.S.	PRC/P.1100	CC48	5	1	0
For 80w MBF/U °Kolorlux	PRC/P.1080	CC48	4	19	0
<b>gamma eight</b>					
<i>complete fitting</i>					
For 60/150w G.L.S. (triangular spigot)	QPD/B.1200	CC49	7	8	0
For 150/200w G.L.S. (triangular spigot)	QPD/E.1200	CC49	7	10	0
For 80/125w MBF/U °Kolorlux (triangular spigot)	QPD/M.1200	CC49	7	12	0
For 35w SOX (triangular spigot)	QPD/S.1200	CC49	8	7	0
For 60/150w G.L.S. (3" x 3" spigot)	QPR/B.1200	CC49	7	10	0
For 150/200w G.L.S. (3" x 3" spigot)	QPR/E.1200	CC49	7	12	0
For 80/125w MBF/U °Kolorlux (3" x 3" spigot)	QPR/M.1200	CC49	7	14	0
For 35w SOX (3" x 3" spigot)	QPR/S.1200	CC49	8	9	0
<b>gamma nine less gear or with gear</b>					
<i>complete fitting</i>					
For 100/150w G.L.S.	QT.1200/2BC	CC50	6	2	0
For 150/200w G.L.S.	QT.1200/ES	CC50	6	2	0
For 80/125w MBF/U °Kolorlux	QT.1200/3BC	CC50	6	2	0
For 35/55w SOX	QT.1060	CC50	6	12	0
For 4 x 2' 40w MCFA/U 240v 50 Hz	QTQ.4240.4	CC50	14	11	0
For 2 x 2' 40w MCFA/U 240v 50 Hz	QTQ.2240.4	CC50	11	4	0
<b>high mast lantern with gear</b>					
<i>complete fitting</i>					
For 1000w MBF/U °Kolorlux 240v 50 Hz	HT.1000	CC51	43	3	0
<b>footway fluorescent fittings with gear</b>					
<i>complete fitting</i>					
Surface mounted 2 x 2' – 40w	SF12119/Q2240	CC52	22	12	0
Recessed subway 2 x 2' – 40w	PUQ/2240.T.	CC52	21	9	0
Ceiling mounted 2 x 2' – 40w	SF12120/Q2240	CC52	16	8	0
<b>leader columns</b>					
	CC53				
	CC54				

# atlas

## Alpha one/semi-cut-off sodium lantern



For the lighting of main highways and motor-roads, this sodium lantern is particularly suitable. Street lighting engineers everywhere will appreciate its unique features, such as the Opticell described right, its superb construction and its clean, modern appearance and excellent efficiency (71% DLOR). It was awarded a Gold Medal at The Eleventh Milan Triennale of Architectural and Industrial Art and has been accepted by the Council of Industrial Design for Design Index. The lantern meets the requirements of Street Lantern Specification BS.1788:1964 in conjunction with Street Lighting Code of Practice CP.1004:1963.

PSD/E1140 on a 2551 steel column



### specification

**Special features.** The hermetically sealed lamp enclosure and light control system – the Opticell, is a unified assembly of two plastic mouldings, a reflector with the lamp support and two support pins. The sodium lamp is inserted through an aperture at one end which is then tightly closed by a combined lampholder and sealing cap held in place by two quick-release clips. By this method the interior is completely sealed and very considerable periods will elapse before attention other than lamp replacement is necessary.

The support pins engage with slots in the end support. Releasing a special retaining toggle allows the Opticell to be easily hinged down to give ready access to the sealing cap. The end support is corrosion resisting.

**Optical system.** Based on the principle that, to achieve maximum efficiency, light from the source should be redirected as little as possible to achieve the desired distribution, the Light Control system ensures a highly satisfactory optical performance. It is achieved by careful siting of the various elements of the Opticell. The use of a high proportion of reflecting prisms ensures effective control with the lamp in this position.

Because the globe is hermetically sealed the prisms do not, of course, require additional protection and are therefore moulded on the interior surface of the Opticell.

**Materials.** The Opticell is made from a special heat- and weather-resisting grade of clear plastic which has been developed specifically for this application. The end support is corrosion-resisting aluminium alloy and other metal components are of carefully selected grades of stainless steel or aluminium.

**Finish.** The plastic globe is treated with an antistatic compound. Aluminium parts are either anodised or subjected to a 'Bonderite' process before being stoved to a matt aluminium.

**Installation.** The end support has an entry for a  $4\frac{1}{2}$ " (114mm) length of  $1\frac{1}{4}$ " B.S.P., (1 1/4" – 43mm O/D) unthreaded barrel. A spirit level platform is incorporated in the Opticell to obtain accurate levelling. This is achieved by the adjustment of the three  $\frac{3}{8}$ " B.S.W. hardened socket set screws that grip the barrel. Wiring is brought to a heavy-duty porcelain terminal block and from this a flexible P.V.C. cable, clamped at each end, passes to the sealing cap.

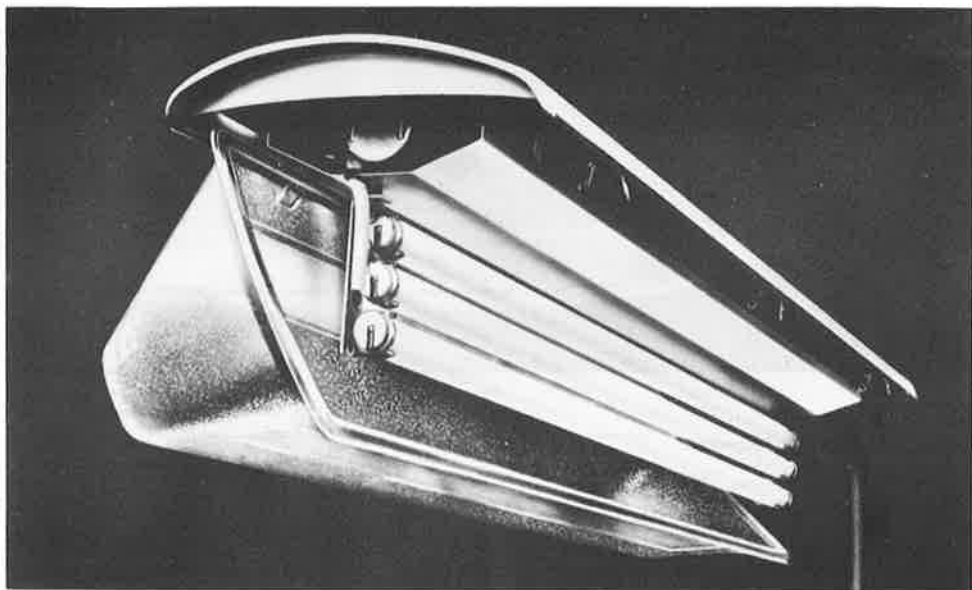
**Catalogue numbers.**  
PSD/E1085 lantern for 55w SOX  
PSD/E1140 lantern for 90w SOX

**Lamps.** 55w or 90w SOX.

For complete catalogue numbers and ordering guide see separate list included in street lighting catalogue.

# atlas

## Alpha two/fluorescent lantern



This is a refractor lantern for three or four 5' 80w fluorescent lamps (Type MCFA/U). It provides good light distribution on the road. It is economical in use with reliable components which keep maintenance costs to the minimum. It has a good daytime appearance. The lantern is supplied wired complete with Quick Start Control gear.

**APPLICATION** For Group A roads. This lantern is particularly suitable for lighting city centres, boulevards, promenades, car parks and similar places of assembly.

### specification

Light distribution is as recommended in the British Standard Code of Practice CP.1004:Part 1:1952. The canopy is made from magnesium aluminium alloy sheet which is cemented and screwed to silicon aluminium alloy end castings. The lamps are protected by an acrylic bowl which hinges sideways on acrylic hinge blocks cemented to the bowl. Quick release catches secure the bowl, and maintain an even pressure on the sponge rubber gasket, thus making a weatherproof seal. All external parts are of non-corrosive material. A slight tapering of the bowl, with the absence of welded joints in the canopy contribute to the clean, functional appearance of the lantern. The Quick Start Control gear is mounted on a tray which is concealed by a hinged sheet metal cover. The gear is wired for 'half-night' burning but

is looped at terminal block, which makes circuit 'full-night' burning. To convert to 'half-night', the loop should be removed. The brackets carrying the lampclips are bolted to the cover at either end. Push-on Bi-pin lampholders are fitted.

**Light control.** Optical control is by means of sealed-in acrylic refractor plates on the inside of the bowl.

**Mounting.** Side entry cantilever for 1½" B.S.P. (1½" - 48mm O/D) plain tube, 19½" (489mm) max. length. The lantern is designed for mounting at an angle of 10° above the horizontal.

### Catalogue numbers.

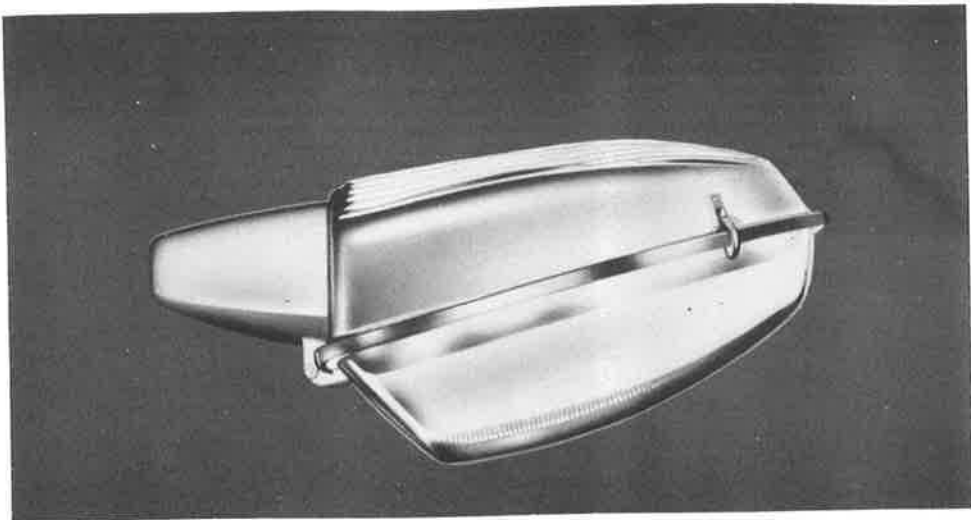
QKC/D.Q3080.4 -  
3 x 5' 80w MCFA/U lamps, 240v 50Hz.  
QKC/D.Q4080.4 -  
4 x 5' 80w MCFA/U lamps, 240v 50Hz.

QKC/D.Q3080.4 on a concrete column



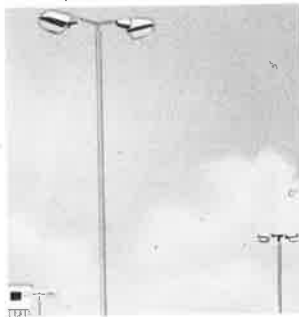


## Alpha three/semi-cut-off mercury-fluorescent lantern



The outcome of a long investigation into the needs of modern street lighting, this lantern fully meets the requirements of Street Lantern Specification B.S.1788:1964 for semi-cut-off distribution in conjunction with Street Lighting Code of Practice CP.1004:1963. Excellent visibility for drivers and pedestrians, absence of glare and good light colour are provided by a lantern of most advanced design. It has been accepted by the Council of Industrial Design for Design Index. The good light colour is achieved by the use of °Kolorlux and °Kolorarc lamps in this lantern, flesh tones, in particular, becoming natural. Both lamps also give improved lumen output, 21,500 and 27,000 respectively, with correspondingly increased luminous efficacy.

PNE1400/S on a 3071 DB steel column



#### specification

**Special features.** The lantern consists of two parts comprising:—

(a) canopy and support assembly,  
(b) injection-moulded, prismatic bowl. The former embodies fixed lampholder and mains terminal block. The bowl is secured to the canopy by means of hinge and toggle catches, on release of which the bowl opens to gain access to lamp and terminal block. A neoprene gasket acts as a seal between canopy and bowl, which, because of its rigidity, forms a most effective seal with the gasket against ingress of moisture and dirt.

**Optical system.** The effectiveness of an optical system is primarily determined by its relative size compared with the source, thus the light from a fluorescent mercury lamp cannot be efficiently controlled by a system designed for the much smaller plain mercury lamp although the converse does not apply. Moreover, since the fluorescent lamp will tend to obscure any specular reflector at the high angles and any other control system does not normally give a sharp enough run back from the peak, it is difficult to achieve a peak intensity at a reasonably high angle and yet provide the good cut-off so necessary with these high brightness lamps. These difficulties are completely overcome in this lantern by using a reflector system in which a large proportion of the light sent into the peak is directed around the end of the lamp instead of underneath.

The injection moulded refractor bowl redistributes downward light into the main beam and controls light in the 0° – 30° zone.

**Materials.** The reflector is made from a special high purity aluminium alloy, and the bowl is injection-moulded from U.V. stabilised acrylic. Other parts are cast in corrosion resisting aluminium alloy or fabricated from stainless steel. Great care has been taken to avoid any possibility of electrolytic corrosion.

**Finish.** The reflector is anodised, other aluminium parts are subjected to a 'Bonderite' process and stoved. The plastic bowl is treated by an antistatic compound.

**Installation.** The end support has an entry for a 5" (127mm) length of 1½" B.S.P. (1½" – 43mm O/D) unthreaded barrel. The lantern may be levelled by the adjustment of the three ¾" B.S.W. hardened socket set screws that grip the barrel. Wiring is brought to three insulated and protected terminals in the canopy. A cable clamp is provided for the incoming leads.

**Lamps.** 250w or 400w MBF/U °Kolorlux or 400w °Kolorarc mercury-fluorescent lamps.

#### Catalogue numbers.

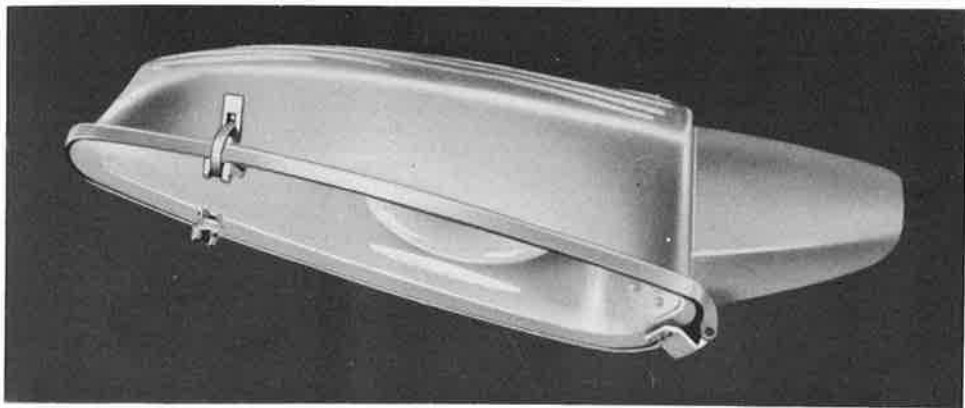
PNE1400/S Semi-cut-off lantern for 250/400w lamps.

Aero screened lanterns are available to order as PNF1400/S and PNF1250/S.

#### Replacement bowls.

PN4412 Semi-cut-off,  
PN4404 Aero screened.

## Alpha three/cut-off mercury-fluorescent lantern



The outcome of a long investigation into the needs of modern street lighting, this lantern fully meets the requirements of Street Lantern Specification B.S.1788:1964 for cut-off distribution, in conjunction with Street Lighting Code of Practice CP.1004:1963. Excellent visibility for drivers and pedestrians, absence of glare and good light colour are provided by a lantern of most advanced design. It has been accepted by the Council of Industrial Design for Design Index. The good light colour is achieved by the use of "Kolorlux and "Kolorarc lamps in this lantern, flesh tones, in particular, becoming natural. Both lamps also give improved lumen output, 21,500 and 27,000 respectively with correspondingly increased luminous efficacy.

PNE 1400/C on a steel column



### specification

**Special features.** The lantern consists of two parts comprising :-

- (a) canopy (incorporating light control system) and support assembly,
- (b) Flat-glass bowl.

The former embodies fixed lampholder and mains terminal block. The glass bowl is clamped to the canopy by means of hinge and toggle catches, on release of which the bowl can be hinged to gain access to the lamp and terminal block.

A neoprene gasket acts as a seal between canopy and bowl. The lantern has been designed for use with the fluorescent mercury lamp.

**Optical system.** The effectiveness of an optical system is primarily determined by its relative size compared with the source, thus the light from a fluorescent mercury lamp cannot be efficiently controlled by a system designed for the much smaller plain mercury lamp although the converse does not apply.

Moreover, since the fluorescent lamp will tend to obscure any specular reflector at the high angles and any other control system does not normally give a sharp enough run back from the peak, it is difficult to achieve a peak intensity at a reasonably high angle and yet provide the good cut-off so necessary with these high brightness lamps. These difficulties are completely overcome in this lantern by using a reflector system

in which a large proportion of the light sent into the peak is directed around the end of the lamp instead of underneath. The distribution is then built up by the contribution from a series of facets and reflector surfaces and excellent performance is achieved. This is indicated by the distribution diagram and optical data.

**Materials.** The reflector is made from a special high purity aluminium alloy, and the bowl from heat-resisting glass. Other parts are cast in corrosion resisting aluminium alloy or fabricated from stainless steel. Great care has been taken to avoid any possibility of electrolytic corrosion.

**Finish.** The reflector is anodised, other aluminium parts are subjected to a "Bonderite" process and stoved.

**Installation.** The end support has an entry for a 5" (127mm) length of 1½" B.S.P. (1½" - 43mm O/D) unthreaded barrel. The lantern may be levelled by the adjustment of the three ⅜" B.S.W. hardened socket set screws that grip the barrel. Wiring is brought to three insulated and protected terminals in the canopy. A cable clamp is provided for the incoming leads.

Lamps. 250w or 400w lamp.

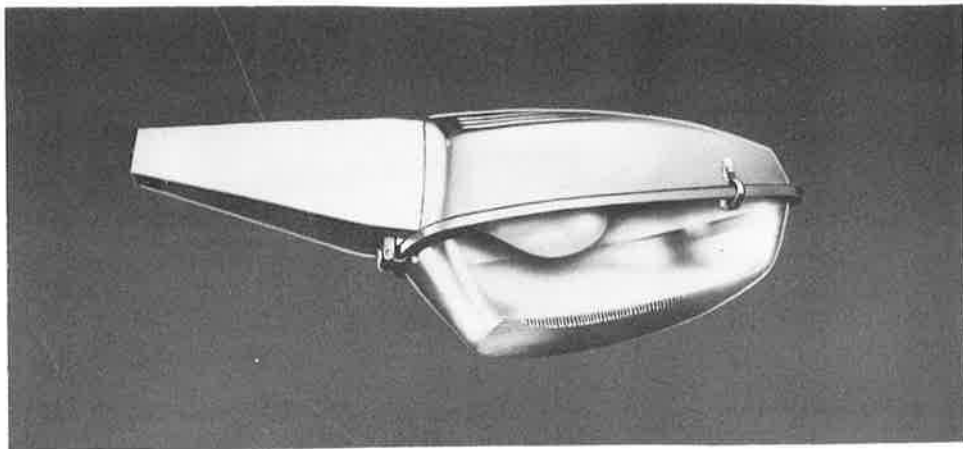
**Catalogue numbers.**

PNE1400/C cut-off lantern for 400w MBF/U, "Kolorlux or "Kolorarc lamps, PNE1250/C cut-off lantern for 250w MBF/U or "Kolorlux lamps.

Replacement bowls PN4409 cut-off.

# atlas

## Alpha three/semi-cut-off with gear slipper mercury-fluorescent lantern



This design with gear slipper is a reflector lantern for 1 – 400w or 250w mercury fluorescent lamp. The accurately formed reflector canopy ensures optimum performance and semi-cut-off light distribution to BS.1788:1964, and provides excellent visibility for both drivers and pedestrians with absence of glare, a notable feature. For Group A roads at mounting heights 8, 10 or 12 metres.



### specification

This lantern is manufactured in strict accordance to the requirements of BS.1788:1964.

The canopy is a single piece pressing of high purity aluminium alloy (BA213), with the interior surfaces polished and anodised to provide an efficient reflector. Securely fixed to the canopy is an end support casting of LM6-M aluminium alloy, which also provides a housing for auxiliary control gear, lampholder bracket and terminal block, and/or fuses as required. This end support casting accepts a 5" (127mm) length of 1½" B.S.P. (1½" – 43mm O/D) plain tube for mounting and a removable anodised aluminium alloy panel facilitates access to the control gear for inspection and maintenance.

To form a completely weatherproof enclosure a U.V. stabilised injection moulded, acrylic bowl is securely hinged and fastened to the canopy with four substantial toggle catches. The bowl itself seats evenly onto a neoprene gasket, giving easy compression and a highly effective seal. It is a common and negative practice, to reduce the intensity of light in the 0°-30° Downward Zone, as required by BS.1788:1964, by opalising the bowl underneath the light source. This new injection-moulded bowl, with a prismatic base makes a positive contribution to the optical efficiency of the lantern.

**Materials.** LM6-M and BA213 aluminium alloys used in this lantern are highly

corrosion resistant to all atmospheres except those heavily charged with acid chemicals. For these latter atmospheres an external protective paint finish applied on site will greatly increase the life of the lantern.

The bowl material is U.V. stabilised acrylic carefully designed and manufactured to a volume/heat ratio which eliminates the possibility of bowl distortion and opalising from U.V. radiation.

Toggle-catch spring and pins are made from corrosion resisting stainless steel. Exhaustive tests have been made with a variety of auxiliary control gear and where necessary built-in heat sinks avoid over heating in high ambient temperatures.

**Light control.** Semi-cut-off distribution is achieved by specular reflectors, allied to accurate lamp positioning.

**Mounting.** Side-entry requiring 5" (127mm) x 1½" B.S.P. (1½" – 43mm O/D) plain tube.

**Lamps.** 250w and 400w MBF/U °Kolorlux mercury fluorescent lamps.

**Catalogue numbers.**

PNE/B400/S.2 400w 220v 50Hz

PNE/B400/S.4 400w 240v 50Hz

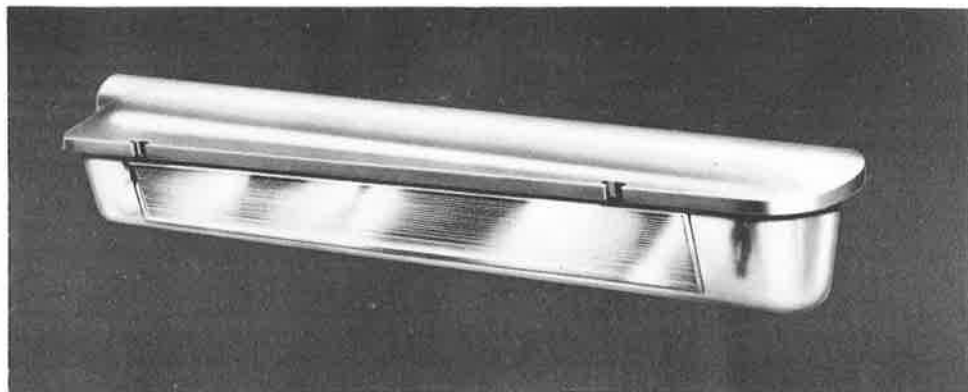
PNE/B250/S.2 250w 220v 50Hz

PNE/B250/S.4 250w 240v 50Hz

PNE/DW400/S.2 250/400w 220v 50Hz

N.B. A cut-off version of this lantern with flat glass cover in place of acrylic bowl is available, Catalogue Numbers as above but with /C in place of /S.

## Alpha five/semi-cut-off sodium lantern



The sodium discharge source is accepted as ideal for the lighting of traffic routes. Now, in the large 140w and 200w linear versions and 135w SOX lamp version, a source is available that meets the higher lighting levels demanded by the steadily increasing traffic on the roads and meets the requirements of Street Lantern Specification BS.1788:1964 in conjunction with Street Lighting Code of Practice CP.1004:1963. The lantern takes full advantage of the characteristics of this source providing an ideal distribution with the sharp run back above the peak now considered so desirable if glare is to be minimised.

*QA1200 on a 3587 steel column*



### specification

The unit comprises a cast aluminium canopy with acrylic enclosing bowl and conforms to the requirements of BS.1788 for street lighting lanterns. The canopy is a single piece silicon aluminium alloy casting incorporating a separate internal reflector of polished aluminium. At the bracket entry end of the linear versions a single support and bracket carries a push-on type lampholder and terminal block. At the roadway end, a bi-pin lampholder mounted permanently on an oil-impregnated leaf spring ensures positive lamp location.

On the 135w SOX lantern a single support and bracket, at the bracket entry end, carries a porcelain lampholder and terminal block. At the roadway end a fixed lamp support is provided.

Reflector plates are sealed to the inside of the one piece acrylic enclosing bowl. The bowl seats evenly on a hollow section neoprene gasket located within the canopy. Easy compression of the gasket ensures

a weatherproof seal between the enclosing bowl and the canopy. The enclosing bowl is hinged sideways from the canopy by means of stainless steel hinge pivots which allow the bowl to be swung down or completely removed for servicing and maintenance. Two stainless steel fasteners and retaining clips secure the bowl in position.

**Light control.** Light distribution is controlled by an internal reflector of polished aluminium in conjunction with refractor plates sealed to the inside of the acrylic enclosing bowl.

**Mounting.** Side entry for  $4\frac{1}{4}"$  (108mm) maximum length  $1\frac{1}{4}"$  B.S.P. ( $1\frac{1}{8}"$  - 43mm O/D) plain tube.

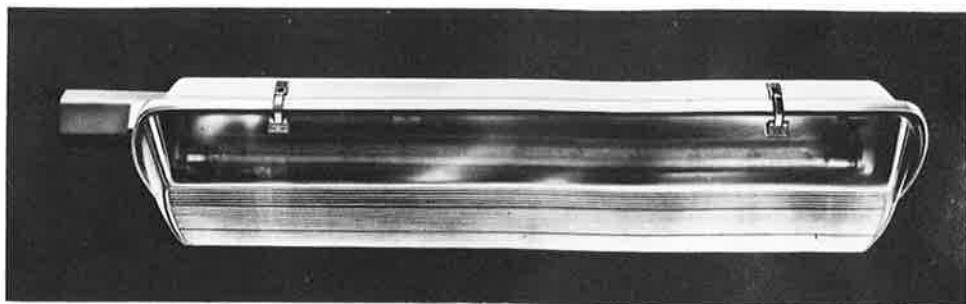
**Lamps.**  
140/200w SLI/H.  
135w SOX.

**Catalogue numbers.**  
QA1200-140/200w linear sodium lamps.  
QX1150-135w SOX lamp.

**Replacement bowls.**  
QL4800-140/200w SLI/H.  
QX4800-135w SOX.

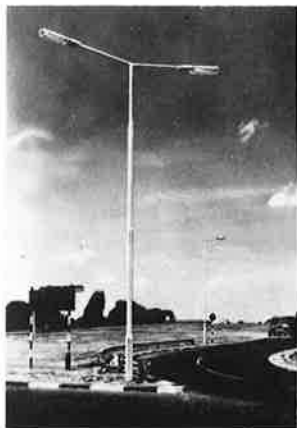
# atlas

## Alpha six/cut-off sodium lanterns



QR1200

Following the highly successful lantern used on the M4, 3-lane, motorway, this subsequent development of the design accommodates the well-proven, highly efficient, 20,000 lumen, 140w SLI/H, or the 25,000 lumen, 200w SLI/H lamp and provides a cut-off distribution to BS.1788:1964. The glass-fibre reinforced plastic canopy, acrylic bowl and high silicon content, aluminium alloy end support, combine to provide a high strength/weight ratio lantern, suitable for mounting on 10, 12 or 15 metre columns of smaller cross-sectional area and light construction. Single-lamp 140/200w version and end supports accommodating control gear give a variety of types to fulfil all requirements demanded by Groups A1 C, D and F of the Code of Practice CP.1004:1963.



### specification

The canopy is a pressure-moulding from polyester pre-impregnated glass-fibre mat and has a high strength/weight ratio with high impact resistance and excellent weathering properties. The modern technique employed in the production of these canopies, eliminates completely, "operator error".

The mix of polyester resin and glass-fibre is laboratory-controlled, to extremely fine tolerances, in a pre-prepared form for pressure-moulding, thus removing from operators the onus of mixing, quality control, storage of resins, fillers, reinforcement, etc., and results in a first-class product.

The bowl enclosing the canopy is of formed acrylic, side-hinged to the main body and secured by corrosion resistant toggle catches. The enclosure is gasketed to prevent ingress of dust and moisture. The base of the lantern bowl is recessed which contributes to the light control. End supports are die-cast LM6-M aluminium alloy providing "with gear" or "less gear" versions, as listed. In the "with gear" supports, the gear compartment is enclosed by a polypropylene cover. A raised channel formed in the pressure-moulded canopy

locates accurately within a spine on the end support casting, which is firmly secured to the canopy by stainless steel bolts, reinforcing plates and neoprene washers. Cable access to the canopy is via a neoprene grommet/gasket, which prevents ingress of dust and moisture.

**Optical System.** Light Control is by accurately formed and positioned reflectors and to give a cut-off distribution in accordance with BS.1788:1964.

**Installation.** A side-entry spigot-bore is incorporated in the end support and requires 5" (127mm) x 1 1/2" B.S.P. (1 1/8" - 43mm O/D) plain tube for mounting. Designed attitude is 0°-10° uplift.

*Note:* Provision is made for the fixing of all known types of Photo-Electric Control Units.

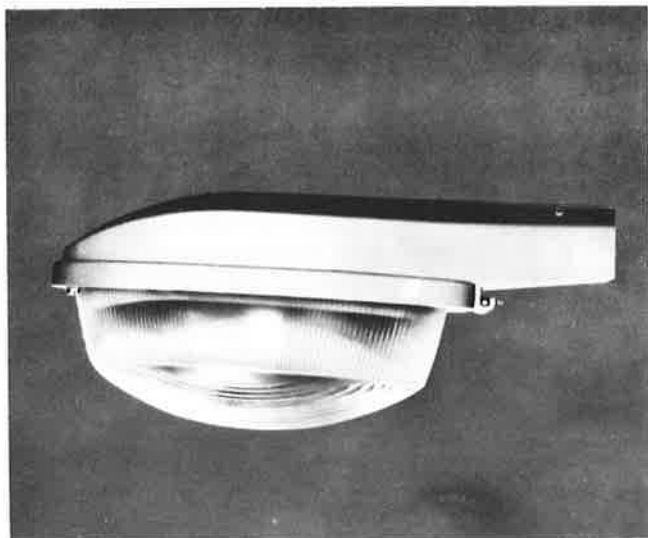
### Catalogue numbers

- QR1200 for 140/200w SLI/H lamps.
- QR1140.4 for 140w SLI/H lamp - gear included, 240v 50 Hz
- QR1200.4 for 200w SLI/H lamp - gear included, 240v 50 Hz

# atlas

## Alpha seven/mercury-fluorescent lantern

The fluorescent bulb of the lamp reduces inherent brightness of the light source and so reduces the likelihood of glare from the lantern. The prism design co-operates with the mercury-fluorescent lamp to produce a main beam at  $76^\circ$  from the downward vertical which is designed to provide a good road surface brightness in relation to modern practice in mounting heights and spacing. When used with °Kolorlux lamps, colour rendering is enhanced, flesh tones in particular becoming natural.



*PJC/G, 1400 on an 8F concrete column*



### specification

**Special features.** One-piece cast light alloy body combines end support and Opticell into one unit, with smooth outer glass refractor bowl hinged to give easy access to interior on releasing two captive screws. An asbestos gasket between body and refractor bowl ensures full weather protection. The smooth outer surface of refractor bowl resists grime and dirt accumulation, thus requiring less cleaning attention. The bowl is of heat resisting glass.

**Optical system.** The internally moulded prisms of the refractor bowl are designed to give a concentrated beam of high intensity at peak level. Re-directing as much light as possible to the road surface, the optical system ensures that the maximum light from the mercury lamp is distributed to the lower hemisphere.

**Materials.** The lantern body is made from a silicon aluminium casting, specially selected for its resistance to

corrosion. The gasket is made from asbestos. Other components are non-ferrous metals.

**Finish.** The internal surface of the body is finished in white enamel and the outer in aluminium.

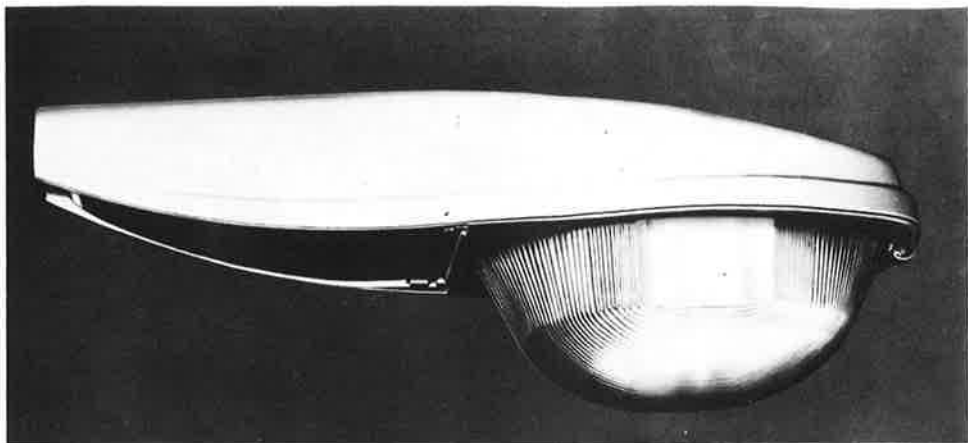
**Installation.** The end support has an entry for a  $5\frac{3}{8}$ " (136mm) length of  $1\frac{1}{4}$ " B.S.P. ( $1\frac{1}{8}$ " - 43mm O/D) plain barrel. This is gripped by three  $\frac{3}{8}$ " B.S.W. set screws to the column bracket. Wiring is brought to a heavy duty porcelain terminal block. A cable clamp is provided for the incoming leads.

**Lamps.** 250w or 400w colour corrected mercury type MBF/U °Kolorlux or 400w °Kolorarc.

**Catalogue number.** PJC/G, 1400

**Replacement bowls.** PJG1400  
For complete catalogue numbers and ordering guide see separate list included in street lighting catalogue.

## Alpha seven/with gear mercury-fluorescent lantern



This is an enclosed refractor lantern for 1 – 400w or 250w Mercury fluorescent lamp, and offers a fully integrated lantern complete with lamp auxiliary control gear. For Group A roads. The lantern gives a non-cut-off medium angle beam light distribution at 76° from the downward vertical which is designed to give good road surface brightness.



## specification

The lantern comprises a canopy including gear housing and glass bowl mounted in a bowl supporting ring.

The canopy and gear housing is a single piece casting of LM6-M aluminium alloy, and provides a housing for auxiliary control gear, lampholder bracket and terminal block and/or fuses as required. The end support casting is designed to accept a 5" (127mm) length of 1½" B.S.P. (1¼" – 43mm O/D) plain tube, and an easily removable anodised aluminium alloy panel facilitates access to the control gear for inspection and maintenance.

The heat resisting glass refractor bowl has a smooth exterior surface to minimise the collection of dirt and is securely fixed into the bowl ring by four robust retaining clips. The bowl ring cast from LM6-M aluminium alloy, is hinged to the canopy at one end and secured by a stainless steel toggle catch at the other. Asbestos gaskets located between the glass bowl ring, and the bowl ring canopy ensure full protection from the weather. The whole bowl ring assembly can be removed quickly from the canopy, if required, to assist maintenance.

Instant and easy access may be gained to the control gear by the hinged gear housing cover.

**Materials.** LM6-M and BA213 aluminium alloys used in this lantern are highly

corrosion resistant to all atmospheres except those heavily charged with acid chemicals. For these latter atmospheres an external protective paint finish applied on site will greatly increase the life of the lantern.

The internally moulded prisms of the glass refractor bowl are designed to give a concentrated beam of high intensity at peak level, re-directing a large amount of light onto the road surface, thus ensuring that the maximum amount of light output from the lamp is used. The bowl itself is of heat resisting glass.

Exhaustive tests have been made with a variety of auxiliary control gear and where necessary built-in sinks avoid overheating in high ambient temperatures.

**Light Control.** Light distribution is controlled by the glass refractor bowl.

**Mounting.** Side entry for a 5" (127mm) length of 1½" B.S.P. (1¼" – 43mm O/D) plain barrel.

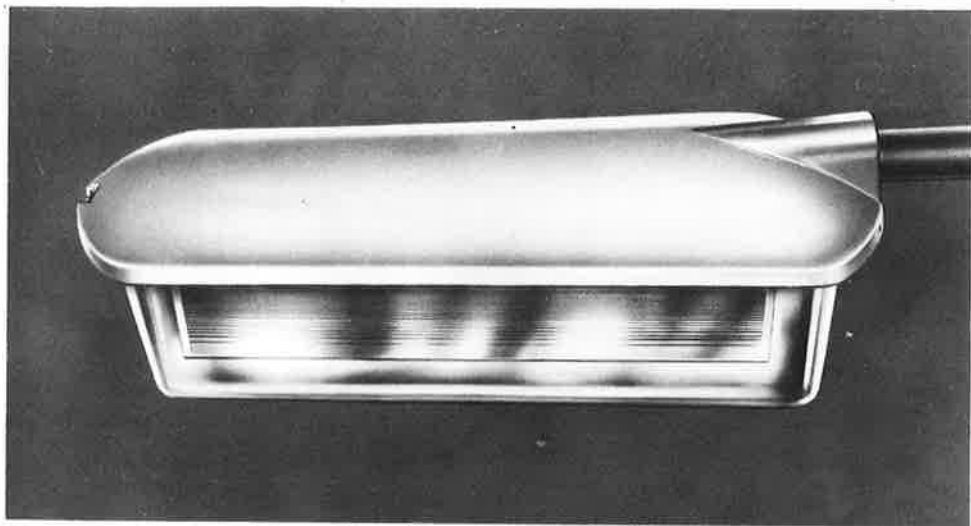
**Lamps.** 250w or 400w MBFU "Kolorlux mercury fluorescent lamps.

**Catalogue numbers.**

PJC/G.B400.2 – 400w/220v 50Hz  
PJC/G.B400.4 – 400w/240v 50Hz  
PJC/G.B250.2 – 250w/220v 50Hz  
PJC/G.B250.4 – 250w/240v 50Hz  
PJC/G.DW400.2 – 250/400w/200v 50Hz

# atlas

## Alpha nine/semi-cut-off sodium lantern



A semi-cut-off lantern for use on traffic routes Group A2 and A3 of Code of Practice CP.1004:1963 Parts I and II.

*QS0100 on a 2517 steel column*



### specification

The unit comprises a cast aluminium canopy with acrylic enclosing bowl and conforms to the requirements of BS.1788 for street lighting lanterns.

The canopy is a single piece silicon aluminium alloy casting with a special paint finish to assist light distribution. At the roadside end a single support bracket carries a 2-pin BC porcelain lampholder whilst a fixed lamp support, cable-clamp, terminal block and separate earth terminal are located at the bracket-mounting end of the canopy.

Refractor plates are sealed to the inside of the one piece acrylic enclosing bowl. The bowl seats evenly on a neoprene gasket located within the canopy.

Easy compression of the gasket ensures

a weatherproof seal between the enclosing bowl and the canopy. The enclosing bowl is hinged from the canopy by means of stainless steel hinge pivots which allow the bowl to be swung down or completely removed for servicing and maintenance. A stainless steel fastener and retaining clip secure the bowl in position.

**Light control.** Light distribution is controlled by refractor plates sealed to the inside of the enclosing bowl.

**Mounting.** Side-entry requiring 4" (102mm) x 1 1/4" B.S.P. (1 1/8" - 43mm O/D) plain tube.

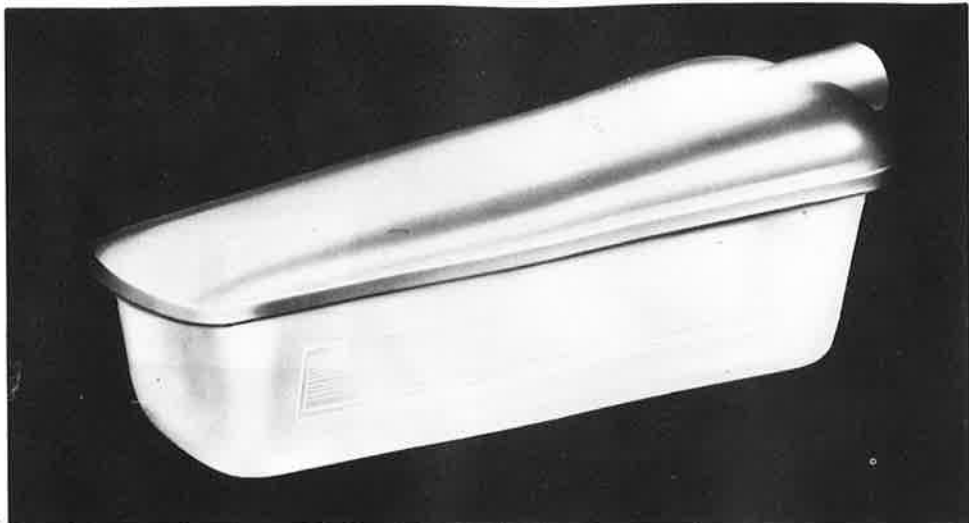
**Catalogue number.** QS0100.

**Lamp.** 90w SOX.



# atlas

## Alpha nine/semi-cut-off with gear sodium lantern



A semi-cut-off lantern for use on traffic routes Group A2 and A3 of Code of Practice CP.1004:1963 Parts I and II.

*QS1100 on heavy gauge steel column carrying overhead lines*



### specification

The unit comprises a cast aluminium canopy with perspex enclosing bowl and conforms to the requirements of BS.1788 for street lighting lanterns.

The canopy is a single piece silicon aluminium alloy casting which includes suitable auxiliary control gear ready wired and fixed to the canopy.

Refractor plates are sealed to the inside of the one piece perspex enclosing bowl. The bowl seats evenly on a hollow section neoprene gasket located within the canopy. Easy compression of the gasket ensures a weatherproof seal between the enclosing bowl and the canopy.

The enclosing bowl is hinged side-ways from the canopy by means of stainless steel hinge pivots which allows the bowl to be swung down or completely removed for servicing and maintenance.

Two stainless steel fasteners and retaining clips secure the bowl in position.

The unit includes a terminal block, earth terminal and cable clamp located adjacent the bracket entry.

At the roadside end a single support bracket carries a 2-pin BC porcelain lampholder, whilst a fixed lamp support is located at the bracket-mounting end of the canopy.

Light control, Semi-cut-off distribution is effected by refractor plates.

Mounting, Side-entry requiring 4" (102mm) x 1½" B.S.P. (1½" - 43mm O/D) plain tube.

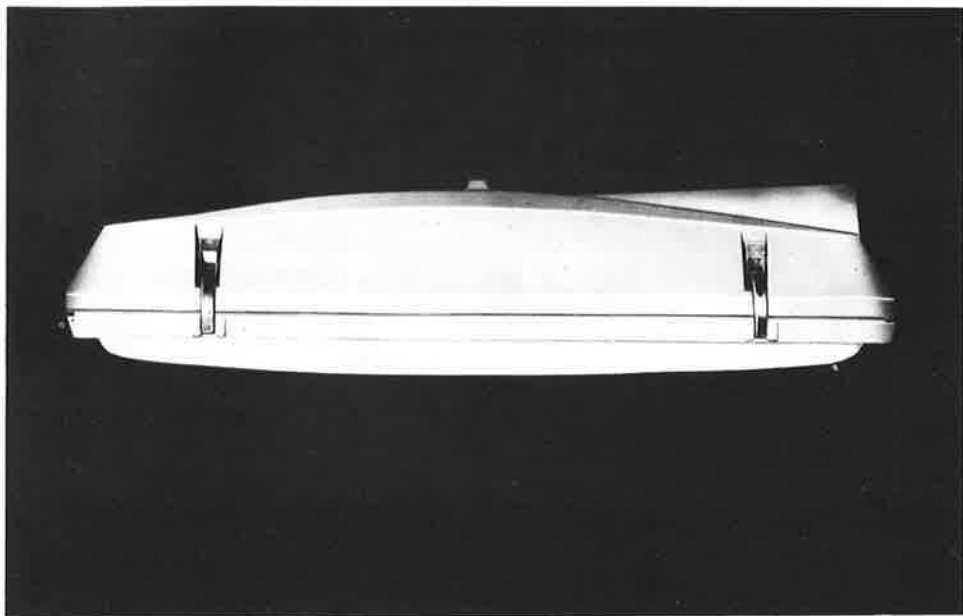
Catalogue number, QS1100.

Lamp, 90w SOX

Supply, 220/250v 50Hz.

# atlas

## Alpha ten/cut-off sodium lantern



This lantern was specifically designed to house a 90w SOX lamp and give a cut-off distribution to BS.1788:1964, for motorway slip-road lighting.

*QE1100 on 8 metre steel column*



### specification

The broad canopy of LM6-M aluminium alloy is designed to give efficient cut-off distribution from a shallow cross-sectional area, thus reducing windage area and allowing its use on slender steel columns.

A shallow 'dished' acrylic bowl encloses the canopy by means of a substantial bowl-ring side-hinged to the main body and secured by corrosion-resistant toggle catches. The enclosure is gasketed to prevent ingress of dust and moisture.

**Optical system.** A polished, anodised aluminium overlap reflector provides cut-off distribution to BS.1788:1964 with a Downward Light Output Ratio of 61% giving 7,470 lumens lower hemispherical flux from a 90w SOX lamp.

**Materials.** The canopy and bowl-ring are cast from LM6-M aluminium alloy, a well tried and proven alloy for exterior use; reflector is formed from high-duty aluminium and the bowl is vacuum-formed clear acrylic.

**Finish.** The canopy and bowl-ring are 'as cast' to allow the natural formation of a protective oxidised skin. The reflector is 'Phosbrite' brightened, to give a specular surface, anodised to BS.1615 Grade AA5 and sealed.

**Installation.** A side-entry spigot-barrel is incorporated in the canopy and requires  $4\frac{1}{4}"$  (108mm) long x  $1\frac{1}{4}"$  B.S.P. ( $1\frac{1}{8}"$  = 43mm O/D) plain tube. Tangentially opposed  $\frac{3}{8}"$  Whit, locking grub screws secure the lantern to the column spigot and parallel alignment to the road surface is achieved by spirit level. Incoming cables are threaded through the spigot-barrel to a heavy porcelain terminal block via a fibre-plate cable-clamp, which will accept extra cable when photocell control is used.

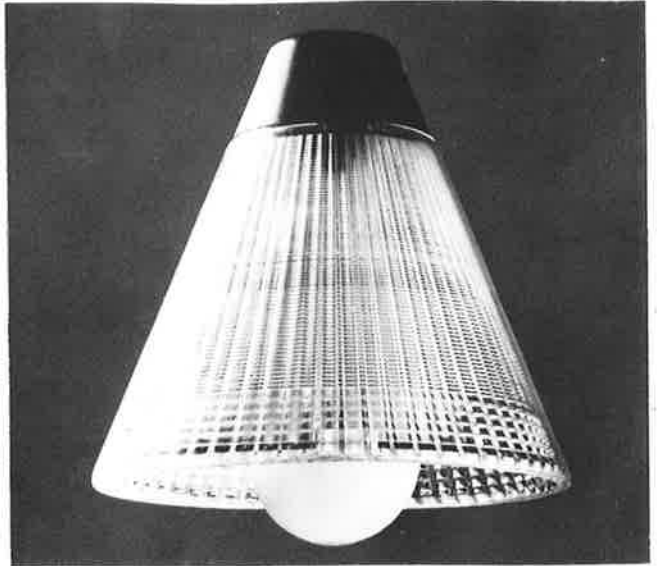
**Catalogue numbers.** QE1100 for 90w SOX lamp.  
QE1085 for 55w SOX lamp.

# atlas

## Beta one/open lantern

This lantern is designed for Group B lighting and is therefore very simple, robust and inexpensive. Its distribution makes it equally suitable for footways or the urban street. It has been accepted by the Council of Industrial Design for Design Index. This lantern meets the requirements of Street Lantern Specification BS.1788:1964. When used with °Kolorlux lamps colour-rendering is enhanced, flesh-tones in particular becoming natural.

PBG/Y/1150 2BC on a 1506 steel column



### specification

**Special features.** The refractor is a two-part assembly of clear plastic injection mouldings, attached by a single-turn thread to a robust diecast aluminium gallery. The exterior is perfectly smooth and the interior vertical prisms have well rounded tips. Thus dirt accumulation is discouraged and the lantern remains remarkably clean for long periods. The refractor is located correctly by a single 'click' spring.

**Optical system.** The refractor has been specially designed for both tungsten filament lamps and mercury discharge lamps, and gives a broad distribution particularly suited to modern Group B lighting. Since the refractor design was based on a relatively large source from the outset it is recommended that pearl lamps be used although they are not essential. The refractor intercepts an unusually large amount of light from the source, some of which is emitted in the upward direction to avoid a sharp shadow line on buildings and trees. A feature of the refractor is that it is to some extent self-compensating for changes of source position and the normal manufacturing tolerances of lamps have little effect on the distribution of this lantern. A two way non axial distribution is provided which is particularly suitable for Group B roads

and which meets the requirements of CP.1004 code of practice.

**Materials.** The injection moulded refractors, cover and gallery cap are manufactured in a special heat and weather-resisting grade of plastic. The interior of the gallery is pressure diecast in aluminium-silicon alloy. The locking spring is stainless steel and the lampholder is porcelain.

**Finish.** The gallery cap is made from black plastic and the refractor treated with an anti-static compound.

**Installation.** The gallery has a top entry which is tapped  $\frac{3}{8}$ " B.S.P. thread. A locking set screw is incorporated and the road side is clearly indicated.

Lamps, 100w or 150w tungsten filament lamps or 80w or 125w mercury discharge lamps.

**Catalogue numbers.**

**Lantern with Sealed Refractor.**

PBG/Y/1150 2BC 100-150w GLS  
PBG/Y/1150 ES 150w GLS  
80w/125w MBF/U °Kolorlux  
A 3-pin BC version is also available  
cat. no. PBG/Y/1150 3BC.

For complete catalogue numbers and ordering guide see separate list included in street lighting catalogue.

# atlas

## Beta four/top entry lantern

An unobtrusive lantern ideal for many applications, it can be used with new columns, wall brackets, conversion schemes, or as a replacement unit. This lantern meets the requirements of Street Lantern Specification BS.1788:1964. When used with °Kolorlux lamps colour-rendering is enhanced, flesh tones in particular becoming natural.

3-pin BC versions are also available for 80/125w MBF/U °Kolorlux lamps – amend cat. nos. of ES versions to read 3BC, e.g. PEB/Y/3BC 1200.

PEC/S/Z/3BC 1200 on LCI Leader column



### specification

The one-piece body is die-cast from silicon aluminium alloy.

The acrylic bowls are supported by a stainless steel hinge-pin and toggle catch. An effective seal between canopy and bowl is provided by a neoprene gasket.

The lantern is suitable for use with tungsten filament lamps from 80w to 200w G.L.S. or mercury-fluorescent lamps 80w or 125w MBF/U °Kolorlux. A focusing adjustment to cater for all lamp wattages is incorporated in the lampholder support, behind the internal reflector of anodised aluminium.

**Materials.** The canopy is die-cast from LM6M silicon aluminium alloy and the reflector is anodised aluminium.

The opal and stippled bowls are vacuum-formed from acrylic sheet, whilst the refractor bowl is injection-moulded acrylic.

**Finish.** The body is finished inside and out with aluminium paint.

**Installation.** Top entry is provided, tapped  $\frac{3}{8}$ " B.S.P. with a grub screw for connection to bracket.

**Optical systems.** There are six types of lantern, offering a variety of light distributions, as follows:—

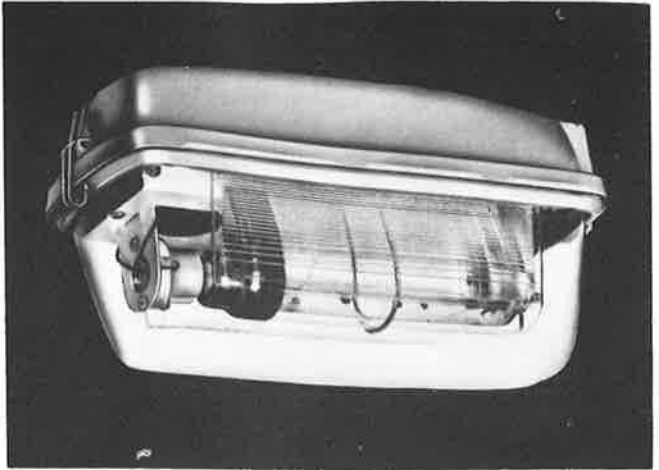
	Lamps.	Catalogue numbers.
1. Injection-moulded, asymmetric refractor bowl.	60/150w G.L.S. 80w MBF/U °Kolorlux	PEB/Y/2BC 1200 PEB/Y/3ES 1200
2. Vacuum-formed, opal acrylic bowl giving general distribution.	60/150w G.L.S. 150/200w G.L.S. 80/125w MBF/U °Kolorlux	PEB/D/2BC 1200 PEB/D/ES 1200
3. Vacuum-formed, stippled acrylic bowl with asymmetric glass dome refractor.	60/150w G.L.S. 150/200w G.L.S. 80/125w MBF/U °Kolorlux	PEC/S/Z/2BC 1200 PEC/S/Z/ES 1200
4. Clear, vandal-resistant bowl giving general distribution.	60/150w G.L.S. 150/200w G.L.S. 80/250w MBF/U °Kolorlux	PEB/V/G/2BC 1200 PEB/V/G/ES 1200
5. Clear, vandal-resistant bowl with asymmetric glass dome refractor.	60/150w G.L.S. 150/200w G.L.S. 80/125w MBF/U °Kolorlux	PEC/V/G/Z/2BC 1200 PEC/V/G/Z/ES 1200
6. Open type, with asymmetric glass dome refractor only.	60/150w G.L.S. 150/200w G.L.S. 80/125w MBF/U °Kolorlux	PEF/Z/2BC 1200 PEF/Z/ES 1200

For breakdown of packages see ordering guide list in street lighting catalogue.

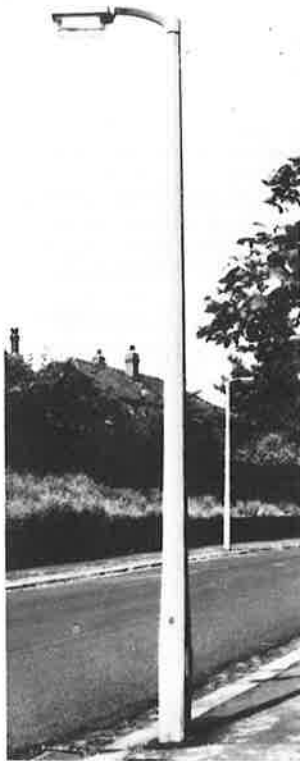
# atlas

## Beta five/sodium lantern

This lantern is designed for Group B road lighting at a mounting height of approximately 15 ft and a spacing of 90-120 ft. This lantern meets the requirements of Street Lantern Specification BS.1788:1964.



*PTH/D.1060.4 on a concrete column*



### specification

**Special features.** A special feature of the lantern is the bowl design which improves the speed and efficiency of lantern cleaning. Being quickly detachable, it can be removed completely from the lantern without releasing retaining screws, for complete immersion in a container of detergent – a far more satisfactory method than cleaning with a wet cloth.

Because of this feature, it is also an attractive proposition for users who change and clean refractor bowls in bulk at their depots. An increasing number of the larger Public Lighting Authorities are now adopting this method.

The standard lantern is supplied with a vacuum-formed acrylic bowl with sealed-in refractor plates. The lantern can be supplied to meet requirements of the aero screen distribution specification No. HE6/80/01 by the attachment of a glass fibre canopy to the standard lantern.

A vandal-resistant bowl moulded from high-impact resistant material is available and may be ordered as a replacement item or as a special feature of a complete lantern.

**Materials.** The canopy and bowl retaining ring are made in die-cast aluminium alloy having a high resistance to corrosion. Mounting for side entry is  $\frac{3}{8}$ " B.S.P. (1  $\frac{3}{16}$ " – 27mm O/D) or 1" B.S.P. (1  $\frac{15}{16}$ " – 33mm O/D) x  $3\frac{1}{2}$ " (89mm) and for top entry  $\frac{3}{8}$ " B.S.P. or 1" B.S.P. threaded, to BS.1788. The top entry version will accept  $1\frac{1}{2}$ " length of thread.

**Lamps.** All lanterns catalogued /1060.4 have the lamp control gear housed within the lantern canopy – an essential feature when the lantern is used on the latest types of slim steel, concrete and aluminium columns, which have smaller base compartments than the older, more bulky, column designs. Adequate space is then available for mounting time switch fuses and sealing chamber and for maintaining this equipment.

Where it is preferred to mount the control gear in the column, lanterns catalogued /0060 are available.

**Lamp.** 35w SOX.

### Catalogue numbers.

PTC/D.1060.4  $\frac{3}{8}$ " B.S.P., side entry, 240v 50Hz

PTH/D.1060.4 1" B.S.P., side entry, 240v 50Hz

PTT/D.1060.4  $\frac{3}{8}$ " B.S.P., top entry, 240v 50Hz

PTK/D.1060.4 1" B.S.P., top entry, 240v 50Hz

PTH/D.0060 1" B.S.P., side entry

PTT/D.0060  $\frac{3}{8}$ " B.S.P., top entry

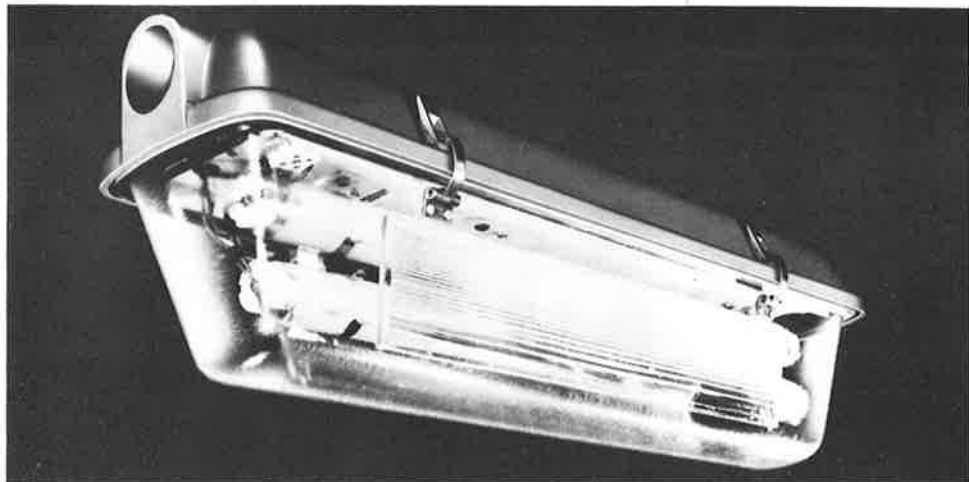
PTD.1060 Refractor bowl

PTV.1060 Vandal-resistant bowl

For complete catalogue numbers and ordering guide see separate list included in street lighting catalogue.

# atlas

## Beta six/fluorescent lantern



An enclosed side entry lantern for use with 2-40w 24" MCFA/U fluorescent lamps. For Group B roads, this lantern conforms to the requirements of the revised BS.1788:1964.

*POD/C.Q.2240.4 on a steel column*



### specification

The canopy consists of a one piece aluminium die-casting which houses the auxiliary control gear mounted on a sheet steel gear tray, finished in stove enamel white. Easy access to the control gear and socket entry can be obtained as the gear tray is removable by simply slackening the two keyhole slot fixings.

The enclosure is made by a formed perspex bowl, with sealed-in refractor plates. Side hinging is achieved by means of stainless steel hinged pivots which allow the bowl to be swung down or completely removed during servicing or maintenance. Two robust toggle catches secure the bowl in position against a square section neoprene gasket to achieve the necessary weatherproof joint.

The unit includes a cable clamp, terminal block and earth screw situated adjacent to the bracket entry.

Positive positioning is achieved at both ends by 1½" diameter lamp clips mounted on steel support brackets. Electrical contact is made through 'push-on' Bi-pin lampholders, the supply leads to which

are colour coded for ease of identification during lamp changes.

A vandal-resistant bowl can be supplied for this lantern.

Auxiliary control gear housed inside the canopy consists of an instant start ballast unit, and capacitor for operation on a 240v 50Hz a.c. supply.

Bracket entry is for a 1½" B.S.P., (1½" - 43mm O/D) plain x 4" (102mm) long spigot.

**Special features.** (a) The cover bowl is quickly removable from the lantern for cleaning or during routine maintenance. The actual cleaning operation can, therefore, take place at a more convenient level.

(b) For maintenance or in the event of a control gear failure, the gear tray can be easily removed from the lantern by simply slackening the two keyhole slot fixings and disconnecting the supply at the terminal block.

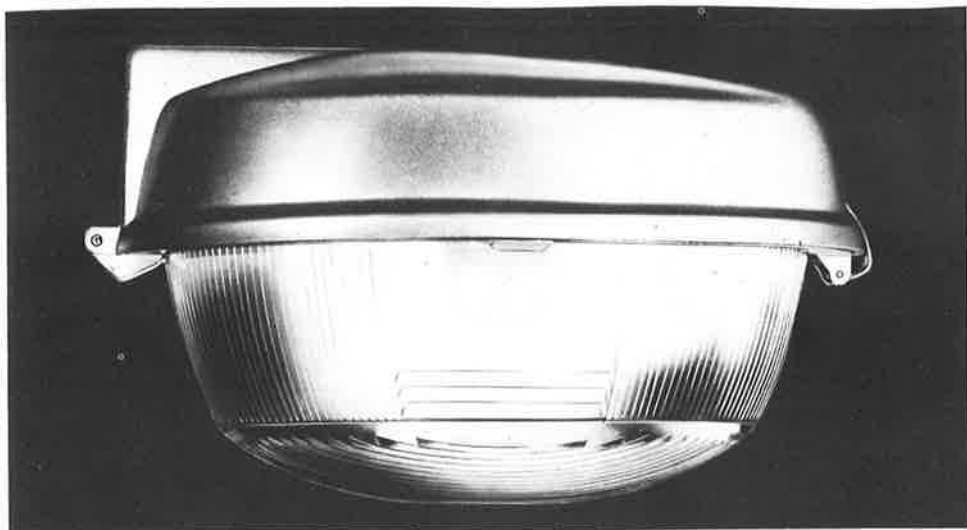
(c) Slim neat appearance.

**Weight,** 15½ lb (7kg) including control gear.

**Catalogue number.** POD/C.2240.4 with reflector bowl, POV/C.2240.4 with vandal-resistant bowl.

# atlas

## Beta seven/side-entry mercury fluorescent lantern



This sturdily built and compact Group B lantern of neat and attractive appearance is particularly suitable for the lighting of residential streets and other Group B roads. The optical system has been carefully designed to illuminate the foot-ways, kerb lines and carriage-ways to the standards required by the Code of Practice. Either the 80 watt or 125 watt lamp may be used and with "Kolorlux lamps colour-rendering is enhanced, flesh-tones in particular becoming natural.

*PZB/G/3BC 1125 on an LCI Leader aluminium column.*



### specification

**Special features.** The refractor bowl is held firmly in the bezel ring which in turn is hinged to the one-piece cast light alloy body to give access to the interior on release of the toggle catch. A gasket forms the seal between the refractor bowl and body. A deep flange on the cast body gives added weather protection. The smooth surface of the refractor bowl resists grime and dirt accumulation.

**Optical system:** The refractor bowl has been designed to direct as much light as possible to the lower hemisphere without the use of reflectors and from the photometric performance this, it will be noted, has been achieved.

Alternatively the lantern can be fitted with a vandal-resistant bowl made from high impact resistant material.

**Materials.** The lantern body is made from a silicon aluminium casting,

specially selected for its resistance to corrosion. The gasket is made from felt.

**Finish.** Internal surface: stove enamel white. Outer surface: natural.

**Installation.** The end support has an entry for a  $3\frac{1}{2}$ " (89mm) length of 1" B.S.P. (1- $\frac{1}{16}$ " - 33mm O/D) plain barrel. This is gripped by two  $\frac{1}{4}$ " B.S.W. set screws to the column bracket. Heat resistant glass braided sleeves are provided for the protection of incoming leads which are connected to the terminal block and gripped by a cable clamp.

**Lamps.** 125 watt or 80 watt MBF/U "Kolorlux fluorescent-mercury lamps.

**Catalogue numbers (complete fittings).** PZB/G/3BC 1125 80/125w MBF/U

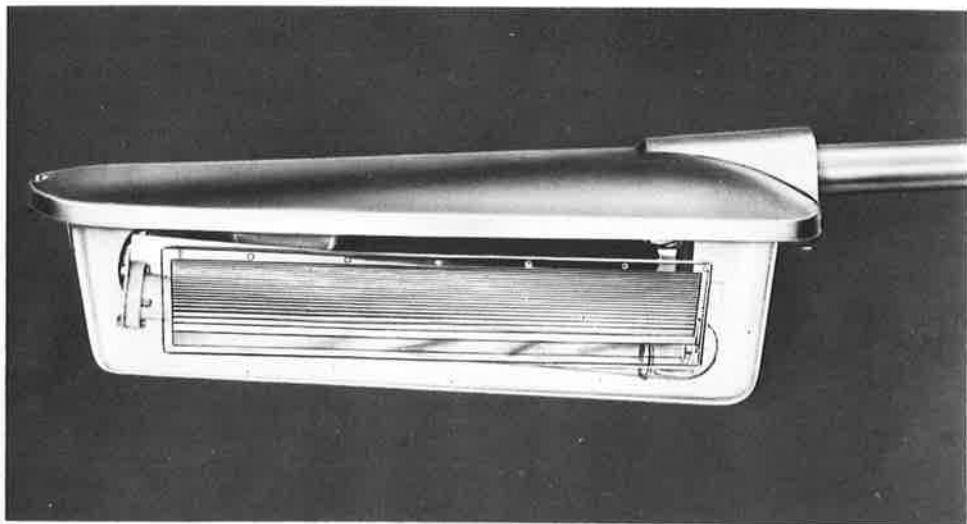
"Kolorlux with glass refractor bowl,

PZB/V/3BC 1125 80/125w MBF/U

"Kolorlux with vandal-resistant bowl,

# atlas

## Beta eight/sodium lantern



The lantern which meets the requirements of BS.1788:1964 is suitable for Group B1 lighting, using 60w SLI/H or 55w SOX lamps and comprises a one-piece silicon aluminium alloy canopy with end hinged acrylic refractor bowl.

*QJH/D 0060 on a concrete column*



### specification

The canopy is die-cast from silicon aluminium alloy and is enclosed by a vacuum-formed acrylic bowl with sealed-on refractor plates. The bowl is hinged at the road-side end and a stainless steel clip secures it at the bracket end. The bowl seats evenly on to a neoprene gasket to ensure a rain-proof enclosure.

A stove-enamelled sheet-steel channel carries the lampholders and supports and screws on to the top casting.

For the SLI/H version one fixed and one retractable lampholder are mounted at either end and the channel also carries the thermal relay.

For the SOX version the channel can be provided complete with control gear.

**Light control.** Sealed-in refractor plates in the bowl provide a near semi-cut-off distribution.

**Materials.** The canopy is die-cast from LM6M aluminium alloy and the vacuum-formed bowl and refractor plates are from acrylic sheet.

**Finish.** The interior of the canopy and sheet-steel channel/tray are stove-enamelled white.

**Installation.** Side-entry is provided requiring 4" (102mm) of 1" B.S.P. (1 1/8" - 33mm O/D) plain tube.

**Lamps.** 60w SLI/H or 55w SOX.

**Catalogue numbers.**

QJH/D 0060 for 60w SLI/H.

QJS/D 0060 for 55w SOX.

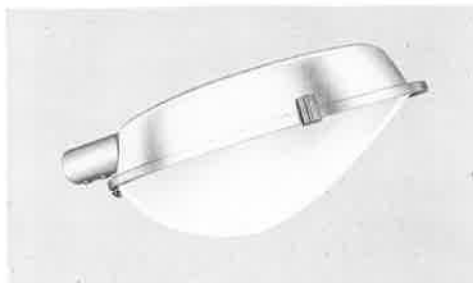
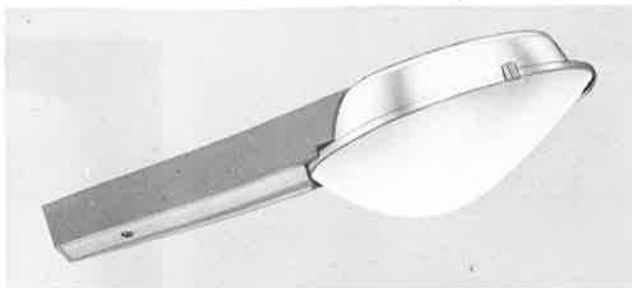
QJS/D 1060.4 for 55w SOX - with 240v 50Hz gear.

Vandal-resistant bowl versions are available, 'V' instead of 'D' in catalogue number.

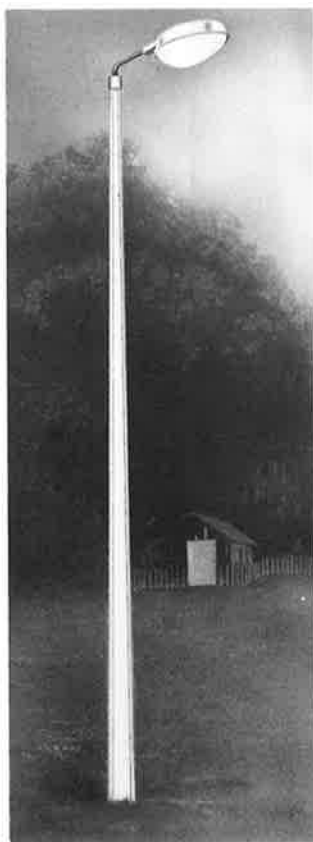


## Beta nine/side-entry mercury fluorescent lantern

An enclosed lantern for Group B roads, where good colour and appearance are important. Materials and construction to BS 1788. When used with °Kolorlux lamps, colour rendering is enhanced, flesh tones in particular, becoming natural.



QZ/P1200 on LC Leader  
Aluminium Column



## specification

A lightweight lantern of pleasing appearance, designed and manufactured with easy maintenance a prime factor, it consists of two main parts:

- canopy and support assembly
- patterned plastic bowl.

**Construction** Both less and with gear end supports are joined to the canopy by the same means. An internal casting, carrying cable clamp, earth terminal and lampholder, is bolted through the canopy, to the end support casting, the joint being gasketed to form an effective seal. The bowl is secured to the canopy by means of a 'hook-off' hinge and two plastic toggles, an effective seal being maintained by a neoprene gasket.

**Optical System** Highly specular parabolic reflectors formed by the elliptical plan shape of the canopy and an overlamp reflector, redirect the major portion of the light flux along the road axis.

**Materials** All castings are of LM6 aluminium alloy and the canopy is a high purity aluminium pressing.

The bowl is vacuum-formed from 'pinpoint' acrylic. The 'hook-off' hinge and external screws are of stainless steel and bowl toggles are high impact plastic.

Finish Castings are 'as cast' to allow the natural formation of a protective oxidised skin. The canopy interior is 'Phosbrite' brightened and the canopy entirely anodised and sealed.

**Installation** A side-entry spigot bore in the end supports, requires  $3\frac{1}{2}$ " (89mm) length of 1" BSP ( $1\frac{5}{8}$ " - 33mm OD) plain tube for mounting. Two  $\frac{3}{8}$ " BSW socket grub screws secure the lantern to bracket arm.

Lamps 100/200w GLS or 80/125w fluorescent mercury discharge MBF °Kolorlux.

**Catalogue Numbers**  
QZ/P1200 2BC 100/200w GLS  
QZ/P1200 ES 150/200w GLS 80/125w  
MBF/U °Kolorlux.

QZB/P1080.T Geared 80w, 200/250w  
50Hz.

QZB/P1125.T Geared 125w, 200/250w  
50Hz.

Available to order:—

Vandal bowl versions,

"V" instead of "P"

220v Geared versions,

"2" instead of "T"

Lanterns with P.E. Cell sockets,

MF11871/Cat. No.

Lanterns with clear acrylic bowl

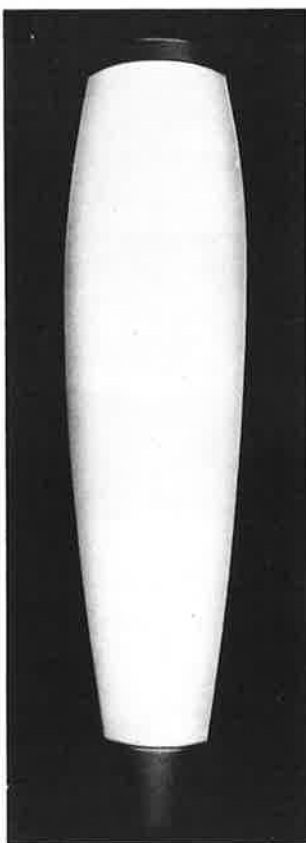
MF14084/Cat. No.

# atlas

## Gamma one/vertical fluorescent lantern

Appearance, elegance and slim modern lines are the dominant features of this lantern. With its all-round distribution of light, its main use will be for lighting avenues, promenades, ornamental gardens and those streets which are the object of particular civic pride.

*PVD/Q4080,T on a 2560 steel column*



### specification

**Special features.** In this lantern the plastic diffuser and caps are manufactured as one piece which stands on a small ring gasket at its lower end. By means of a large clamping screw, which passes through a gland attached to the cap, the diffuser is tightened down on to the gasket, thus virtually achieving an hermetic seal. In this way, no attention is needed between tube changes – an infrequent operation with the long, reliable life of fluorescent tubes.

The lantern incorporates quick start control gear (except the PF capacitor) for four 5ft 80w tubes.

**Materials.** The diffuser is manufactured from opal plastic sheet, the cap being of the same material but coloured and

cemented to it. The base is a substantial casting of corrosion-resisting aluminium silicon alloy.

**Finish.** The diffuser and cap are treated with an anti-static compound. The base is 'Bonderite' processed and stove enamelled grey.

**Installation.** The lantern requires a spigot 3" (76mm) in diameter by 5" (127mm) long which is gripped by three  $\frac{3}{4}$ " B.S.W. set screws in the base.

**Lamps.** Four 5ft 80w white MCFA/U tubes. Catalogue number, PVD/Q4080,T.

**Note.** Two AMEC2216 capacitors are required for remote mounting.

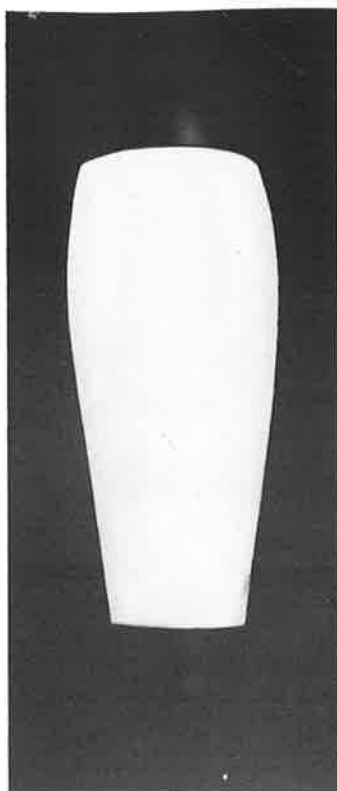
For complete catalogue numbers and ordering guide see separate list included in street lighting catalogue.

# atlas

## Gamma two/vertical fluorescent lantern

Appearance, elegance and slim modern lines are the dominant features of this lantern. With its all-round distribution of light, its main use will be for lighting avenues, promenades, ornamental gardens and those streets which are the object of particular civic pride.

*PVD/B/S4240.T on a 1510 steel column*



### specification

**Special features.** In this lantern the plastic diffuser and cap are manufactured as one piece which stands on a small ring gasket at its lower end. By means of a large clamping screw, which passes through a gland attached to the cap, the diffuser is tightened down on to the gasket, thus virtually achieving an hermetic seal. In this way, no attention is needed between tube changes – an infrequent operation with the long, reliable life of fluorescent tubes. The lantern incorporates starter switches only, for two or four 2ft 40w tubes. The remainder of the control gear (less P.F.C. capacitor) is supplied on a ballast tray for mounting in the base of the column.

**Materials.** The diffuser is manufactured from opal plastic sheet, the cap being of the same material but coloured and cemented to it. The base is a substantial casting of corrosion-resisting aluminium silicon alloy.

**Finish.** The diffuser and cap are treated with an anti-static compound. The base casting is 'Bonderite' processed and stove-enamelled grey.

**Installation.** The lantern requires a 3" (76mm) by 3" (76mm) diameter spigot. The gear tray, to which the chokes only are fitted, and the capacitor should be mounted remote from the lantern.

**Lamps.** Four 2ft 40w MCFA/U tubes.

**Catalogue numbers.**  
PVD/B/S4240.T 4 tube lantern and gear tray, 200/250v 50Hz.  
AMEC2216 capacitor.  
PVD/B/S2240.T 2 tube lantern and gear tray, 200/250v 50Hz.  
AMEC2234 capacitor.

For complete catalogue numbers and ordering guide see separate list in street lighting catalogue.

# atlas

## Gamma three/post top lantern

This lantern has the advantage of modern appearance as well as meeting the requirements of lighting engineers guided by the Code of Practice. Designed to be used with mercury lamps, suitable for city squares. When used with °Kolorlux or °Kolorarc lamps colour-rendering is enhanced, flesh tones in particular becoming natural.

PX.1400 on a 2010 steel column



### specification

**Special features.** One-piece assembly of opal plastic bowl with spigot cap, mounts directly onto column top. On release of toggle catches canopy hinges open to give easy access for installation, maintenance and lamp replacement. When closed the canopy completely seals bowl opening.

**Optical system.** Symmetrical distribution using 250 or 400w mercury lamp providing glare-free lighting from diffused globe.

**Materials.** The canopy is a weather-proofed aluminium spinning and the diffusing bowl from plastic. Stainless steel is used for exterior components to obviate corrosion. The impregnated rot-proof felt gasket forms the seal between the opal bowl and canopy. The spigot cap is cast in aluminium silicon alloy. The seal between the spigot cap

and the bowl is maintained with a plastic neoprene sealing ring. Great care has been taken to avoid any possibility of electrolytic corrosion.

**Finish.** The canopy is treated with acrylic enamel inside and outside to ensure lasting finish and adequate protection from adverse weather conditions.

**Installation.** The spigot cap has a 3" (76mm) diameter x 3" (76mm) long entry and is secured to the column top by three 3/8" B.S.W. socket screws.

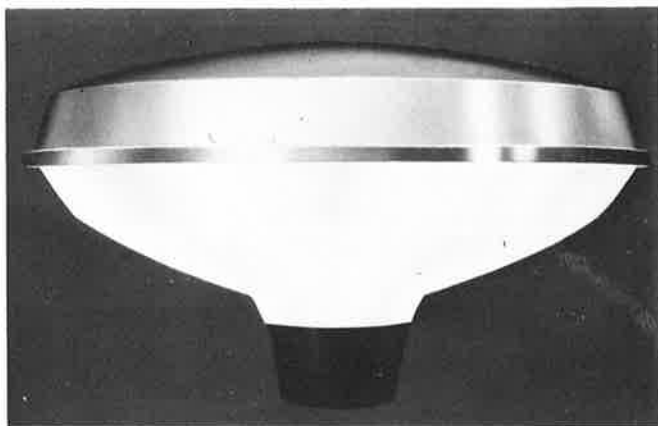
**Lamps.** 250/400w MBF/U °Kolorlux or 400w °Kolorarc.

**Catalogue number.** PX.1400

For complete catalogue numbers and ordering guide see separate list included in street lighting catalogue.

## Gamma four/post top multi-lamp lantern

This lantern provides a modern answer to the need for unobtrusive good looks in street furniture. It is particularly suitable for principal streets and city squares where lighting levels to Group G of the B.S. Code of Practice are required. The lantern has been accepted by the Council of Industrial Design for Design Index. Two sizes of lantern are available to provide the correct aesthetic proportions with varying heights of column. The 3ft (.9m) diameter lantern is recommended for 8 or 10 metre mounting heights and the 4ft (1.2m) diameter for 10, 12 or 15 metre mounting heights. When used with "Kolorlux and "Kolorarc lamps colour-rendering is enhanced, flesh-tones in particular becoming natural.



## specification

**Special features.** The spun aluminium canopy is fixed to a centre spine which terminates in a base casting that is attached to the spigot of the column. To this base casting is screwed an outer section and by unscrewing this it is possible to lower the plastic bowl down to three pegs provided in the column itself. This gives access for lamp changing and maintenance. The canopy can be removed completely by releasing three retaining stays, and the bowl can then be lifted over the spine of the lantern should this be necessary.

**Optical system.** The lantern is designed to provide lighting levels to Group G of the B.S. Code of Practice and houses either 250w or 400w MBF/U, or 500w tungsten filament lamps. The canopy is designed to give a good cut-off above the horizontal and to direct maximum light into the lower hemisphere. Two forms of distribution are available. With the catalogue number E series, a reflector system with pinspot plastic bowl is provided to give a two-way axial distribution so that if desired the lantern may be used in staggered formation for kerbside mounting. The catalogue number D series with opal plastic bowl is identical in construction but omits the reflector system in order to provide symmetrical distribution.

**Materials.** The canopy is made from sheet aluminium and the diffusing bowl from plastic. The base casting is of close grain cast iron and the outer section is cast in aluminium silicon alloy. Stainless steel is used for components that might otherwise corrode, and the reflectors in type PWE are of super purity aluminium. An expanded neoprene gasket forms a seal between the plastic bowl and the canopy, and the seal between the cast spigot and bowl is maintained with a plastic foam sealing ring. Great care has been taken to avoid any

possibility of electrolytic corrosion. **Finish.** The reflector in series PWE is electrolytically polished and anodised, and other internal parts are subjected to a "Bonderite" process and stove enamelled. The canopy is specially treated with an acrylic enamel finish to ensure a long life. The plastic cover is treated with an anti-static compound.

**Installation.** The spigot cap has an entry of  $5\frac{1}{2}$ " (140mm) x 3" (76mm) dia, and is locked to the spigot with three bolts. When installation is carried out the outer spigot casting and bowl are passed over the shaft of the column, which should not exceed  $4\frac{1}{2}$ " (4" B.S.P.) in diameter including finish, and are supported by three pegs equally spaced around the shaft of the column at 18" from the top. The canopy is then attached to the main support by three tie rods screwed to the gallery which houses a terminal block and cable clamp. The bowl is then raised with the outer threaded portion of the spigot cap which is then screwed tightly into position.

**Lamps.** 250 or 400w MBF/U "Kolorlux or 400w "Kolorarc mercury-fluorescent lamps, 500w G.L.S. lamps 140/200w SLI/H 135w or SOX lamps.

**Catalogue numbers.** PWD/C/B2500

3' (.9m) dia, lantern with opal bowl for 2 x MBF/U or G.L.S. lamps.

PWD/C/B3400 3' (.9m) dia, lantern with opal bowl for 3 x MBF/U or G.L.S. lamps, PWE/C/B2500 3' (.9m) dia, lantern with two-way axial reflector system for 2 x MBF/U or G.L.S. lamps.

QWD/C/B3400 4' (1.2m) dia, lantern with opal bowl for 3 x MBF/U, MBI/F or HPS lamps.

QWD/C/B3200 4' (1.2m) dia, lantern with opal bowl for 3 x 140w or 200w SLI/H lamps.

QWD/C/B3150 4' (1.2m) dia, lantern with opal bowl for 3 x 135w SOX lamps.

For complete catalogue numbers and ordering guide see separate list in street lighting catalogue.

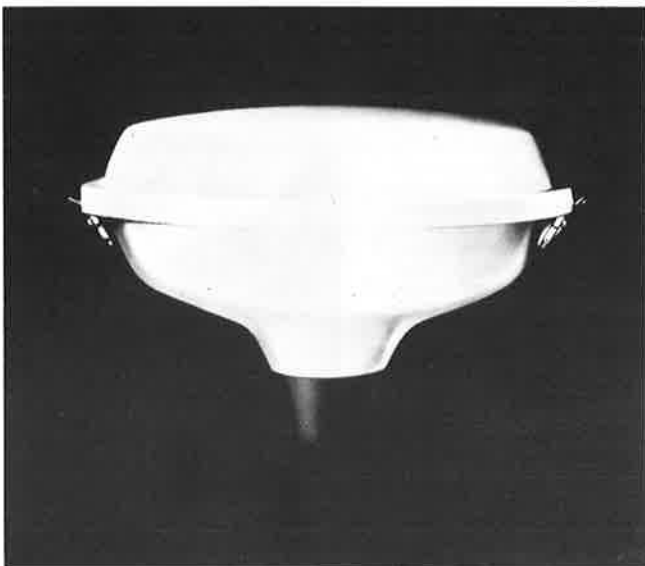
PWD/C/B3400 on a 2560 DB steel column



# atlas

## Gamma five/post top lantern

This unit represents a new approach to the problem of matching column and lantern for Group B lighting. The lantern and column have been designed as one unit to present a pleasing daylight appearance. The lantern and column have been accepted by the Council of Industrial Design for Design Index. When used with "Kolorlux lamps colour-rendering is enhanced, flesh-tones in particular becoming natural.



PWB/Y/3BC 1200 lantern on a 1500/G5 steel column



### specification

**Special features.** The globe forms a structural part of this lantern and is formed from extra thick plastic sheet. Apart from the mechanical advantages, the simplicity afforded by this construction makes the lantern particularly resistant to malicious damage. The globe is attached directly to the belled out end of the column and access is gained by hinging back the canopy. Standard lanterns use either tungsten or mercury fluorescent lamps.

**Optical system.** The lantern is available with symmetric or asymmetric refractors with a clear plastic globe. Alternatively it may be used without refractors and with an opal globe to give a general distribution for amenity lighting.

**Materials.** The canopy is made from an aluminium spinning and a diffusing bowl from plastic. Stainless steel is used for components that might otherwise corrode. An impregnated rot-proof felt gasket forms the seal between the plastic bowl and the canopy, and the join between lantern and column is made by a neoprene foam sealing ring.

**Finish.** The canopy is specially treated with an acrylic enamel to ensure a lasting finish. The internal parts of the canopy are also finished in acrylic enamel.

**Installation.** The lantern is securely fixed to the top of the column by two  $\frac{3}{4}$ " Whit bolts. The special steel column Cat. No. 1500/G5 is required for mounting the lantern. For a 3" (76mm) dia. spigot column, spigot cap Cat. No. PW4601 and for Leader triangular spigot columns spigot cap Cat. No. PW4602 can be supplied. Lamps, 100/200w tungsten filament, or 80-125w/MBF/U "Kolorlux.

#### Catalogue numbers.

<b>Lantern with clear bowl.</b>	<b>Symmetrical</b>
Asymmetrical	
100-150w G.L.S.	
PWB/Y/2BC 1200	PWB/X/2BC 1200
150-200w G.L.S. or	
80-125w MBF/U "Kolorlux	
PWB/Y/ES 1200	PWB/X/ES 1200
A 3 pin BC version is also available	
Cat. nos PWB/Y/3BC 1200 and	
PWB/X/3BC 1200	

**Lantern with opal bowl.**

100-150w G.L.S.	PWD/2BC 1200
150-200w G.L.S.	PWD/ES 1200
80-125w MBF/U "K'lux	PWD/3BC 1200

This lantern can be supplied with a vandal-resistant bowl if required. For complete catalogue numbers and ordering guide see separate list included in street lighting catalogue.

# Gamma six/post top lantern for sodium, mercury or GLS lamps



The gamma six QI series has been designed to incorporate all modern trends in streetlighting practice, such as Photo-cell unit operation, anti-vandal materials, compliance with BS 1788: 1964 and easy maintenance features. The construction for Photo-cell unit fixing is unique and carries Patent Application No. 22834/69. Nine basic components can be interchanged to give 44 versions, all of which can be supplied with a twist and lock type Photo-cell unit socket, if required.

## Catalogue Numbers (Packages)

QIB1200 Post-top base assembly – Less gear  
 QIB1080.4 Post-top base assembly – 80w MBF/U with gear 240v 50Hz  
 QIB1125.4 Post-top base assembly – 125w MBF/U with gear 240v 50Hz  
 QIB1035.4 Post-top base assembly – 35w SOX with gear 240v 50Hz  
 QIC1200 20" diameter canopy  
 QIF1200 10 3/4" diameter canopy  
 QID1200 Acrylic Bowl  
 QIV 1200 Anti-vandal Bowl  
 PWY1200 Asymmetric Glass Dome Refractor  
 AMEL1085 2-Pin B.C. Lampholder  
 AMEL1086 3-pin B.C. Lampholder  
 AMEL1087 E.S. Lampholder

Space will not allow the listing of 88 complete Lantern catalogue numbers, which are made up by a combination of letters and numerals of the components listed above.

## Examples

QIB/C/D1200 E.S. = Less gear lantern, with 20" canopy (QIC), acrylic bowl (QID) and E.S. lampholder.  
 QIB/C/V/Y1200 2BC = Less gear lantern, with 20" canopy (QIC), anti-vandal bowl (QIV), glass dome refractor (PWY) and 2 pin B.C. lampholder.  
 QIB/F/D1125.4.P = 125W geared lantern, with 10 3/4" canopy (QIF), acrylic bowl (QID) and P.E. cell socket, (P).

*N.B. In order to conform with International standards, it is National policy to standardise on E.S. caps for 80/125w discharge lamps in the next few years. 80w and 125w geared lanterns, therefore, will be provided with E.S. lampholders unless otherwise specified.*

## specification

Four different base castings are available, 'less gear', 'with gear mercury' and 'with gear sodium'. A common spine is fixed to the base castings and carries the lampholder, Photo-cell socket fixing bracket, glass dome refractor, where required, and nylon threaded inner ring and top-cap, which provides for closure of canopy to bowl.

Two canopies of spun aluminium alloy are stocked, a 20" diameter coolie-hat type and a 10 1/4" diameter close-fitting type, to give further variation in appearance.

Both bowls are injection-moulded and are internally reeded for greater diffusion of the light source, so reducing glare; (a) in opal Diakon and (b) in opal MT Diakon, a high-impact material giving anti-vandal properties. A sealed-ring extruded neoprene gasket is provided with each bowl to ensure an effective seal between canopy and bowl.

In the 'with gear' base castings, the control gear is mounted on a removable gear-tray for easy maintenance.

**Optical System** With the glass dome refractor, asymmetric non-axial distribution is provided. The reeded bowls, without

dome refractor give general symmetrical distribution.

**Materials** The base castings are low-pressure cast in L.M.6M aluminium alloy. Canopies are spun aluminium alloy. The acrylic bowl is injection-moulded in equivalent density to 030 opal sheet. The injection-moulded anti-vandal bowl is of MT Diakon, an extremely high impact plastic. The top-cap and inner ring are moulded in high-grade nylon.

**Finish** The canopy and base casting exteriors are finished matt black and the canopy interiors glossy white, both stove-enamelled. The top cap is a self-colour matt black, moulding.

**Installation** The lantern requires a 76 mm (3") diameter x 76 mm (3") long spigot for mounting. Locking of lantern to spigot is achieved by means of 3 x 3/8" BSW stainless steel socket head grub screws. An installation and wiring information sheet is provided with each base casting assembly.

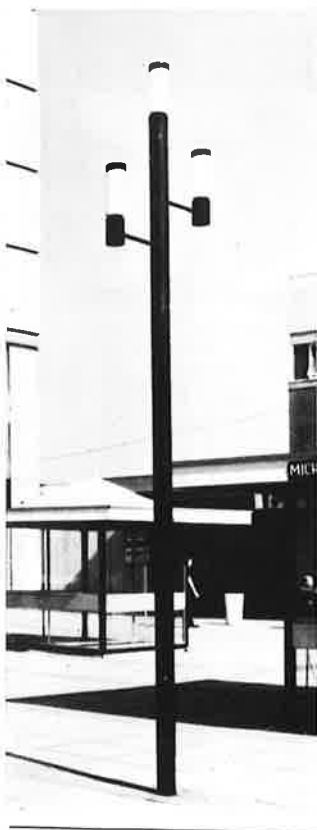
**Lamps** 160w MBTF Mercury Tungsten, 100/200w GLS Tungsten, 80/125w MBF/U Mercury Fluorescent or 35 SOX Sodium.

# atlas

## Gamma seven/amenity lantern

In recent years following the success of lanterns which received design awards in 1960, there has been a trend towards an integrated design between lantern and column. This design extends the trend by completely merging the individual units into a single identity of the utmost simplicity in the form of a plain cylindrical column and lantern. The result is a most attractive unit which was highly commended in the Council of Industrial Design's competition for Group B lamp posts held in 1963. The lantern is designed to give a symmetrical distribution and is particularly suitable for access roads, pedestrian areas, precinct and forecourt lighting.

*PRC/P1080 lanterns on special steel column.*



*PRC/P1100 lantern on 1540/G7 steel column and wall bracket PRK1100.*

### specification

The lampholder assembly is mounted directly on to the support strap in the column. Incoming mains cable is passed through the support strap and retained by a cable clamp. The glass cylinder assembly comprising cylinder and support casting with gasket seating and glazing clips is secured to the column by three socket set screws. The top cap is secured by springs and is easily removed for lamp replacement.

The column is made from 4½" (114mm) O.D. tube, with a cable entry at the base for incoming supply. Three grub screws at the top of the column clamp the lantern in position, and the column is suitably

primed for painting after erection. The columns are supplied with door covering the base compartment which contains a baseboard giving space for fixing 80w lamp control gear and supply termination. To extend the versatility of the lantern a wall bracket has been developed for use in areas where columns are not suitable. The lantern is clamped in the same manner as on the columns.

#### Catalogue numbers.

PRC/P1100 for 100w G.L.S. lamp.  
PRC/P1080 for 80w MBF/U °Kolorlux.  
PRK1100 Wall-mounting bracket.  
PRM1100 Corner wall-mounting bracket.



# atlas

## Gamma eight/post top lantern

The combination of this lantern and 'Leader' aluminium alloy column, designed as a unit, provides the ideal solution for street lighting where the day and night appearance are important.

This graceful design will harmonise with any natural or architectural surrounding and can be used, without hesitation, for residential and similar locations. When used with °Kolorlux lamps colour-rendering is enhanced, flesh-tones in particular becoming natural.



QP D/M 1200 on a Leader LCI column.



### specification

This design is an enclosed post top lantern of aluminium with an 030 opal perspex bowl. These materials have been chosen for their serviceability and resistance to corrosion.

The lantern is suitable for use with 60/200w G.L.S., 80/125w MBF/U °Kolorlux or 35w SOX lamps. Each lantern is complete with a cast aluminium alloy spigot cap for direct mounting to 'Leader' columns or on to columns having a 3" (76mm) x 3" (76mm) dia. spigot.

**Canopy.** Spun aluminium, internally sprayed white.

**Spigot cap.** LM6 aluminium alloy to BS.1490.

**Bowl.** 030 opal acrylic.

Junctions between acrylic and canopy, acrylic and spigot cap sealed with neoprene gaskets.

**Internal fittings.** Mild steel, cadmium plated.

**Lampholders.** Porcelain, B.C., E.S., 3-pin B.C.

A vandal-resistant bowl is available for this lantern.

### equipment

Cat. no.	Lamp	Lampholder
<b>Lantern with triangular spigot cap</b>		
QP D/B 1200	100/150w G.L.S.	2-pin B.C.
QP D/E 1200	150/200w G.L.S.	E.S.
QP D/M 1200	80/125w MBF/U °Kolorlux	3-pin B.C.
QP D/S 1200	40w SOX	2-pin B.C.
<b>Lantern with 3" (76mm) x 3" (76mm) spigot cap</b>		
QP R/B 1200	100/150w G.L.S.	2-pin B.C.
QP R/E 1200	150/200w G.L.S.	E.S.
QP R/M 1200	80/125w MBF/U °Kolorlux	3-pin B.C.
QP R/S 1200	40w SOX	2-pin B.C.

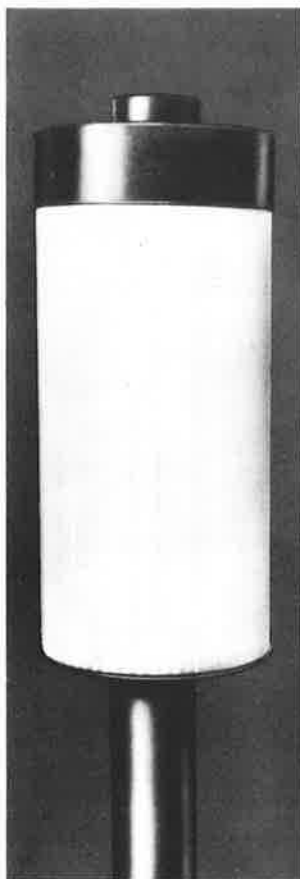
# atlas

## Gamma nine/post-top lantern

The cylindrical design and contrasting matt black and opal white of the metal parts and diffuser, make this lantern most suitable for modern environs. Simplicity of design facilitates the use of high quality materials and provides for ease of maintenance.

**Application.** For Group B streets, pedestrian precincts, small squares and garden areas, where aesthetic appearance is of some importance. When used with °Kolorlux lamps colour-rendering is enhanced, flesh-tones in particular becoming natural.

QT.Q 4240,4 on tubular steel column,



### specification

The base casting of LM6M aluminium alloy is suitable for mounting on 3" x 3" dia. spigot and supports an extruded acrylic cover bowl, which is capped by an aluminium alloy spinning. The canopy and bowl are securely positioned and located centrally, by an aluminium alloy nut, which screws on to the lampholder bracket. All metal parts are finished matt black.

**Light control.** Symmetrical distribution.

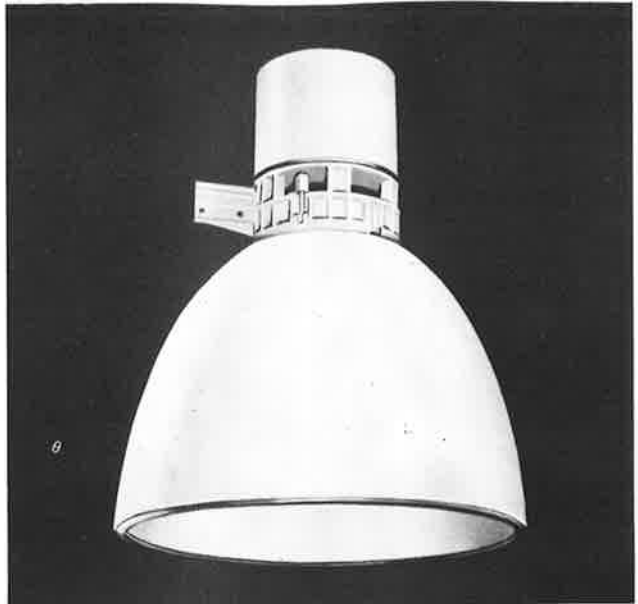
**Installation.** Post top requiring 3" (76mm) x 3" (76mm) dia. tube.

Cat. No.	Lamps
QT.1200/2BC	100/150w G.L.S.
QT.1200/ES	150/200w G.L.S.
QT.1200/3BC	80/125w MBF/U
QT.1060	40/60w SOX
QT.Q 4240,4	4 x 2' 40w MCFA/U 240v 50Hz
QT.Q 2240,4	2 x 2' 40w MCFA/U 240v 50Hz

# atlas

## High tower lantern

Mercury fluorescent cut-off lantern. The lantern was developed primarily for high mast installations of 80' (24.4m) and over, for lighting complex junctions, but can also be used for marshalling yards, car parks and large service areas.



HT1000 on 100' (30.48m) high mast column.

### specification

The lantern accommodates a 1 kW MBF<sup>®</sup> Kolorlux lamp and control gear and is constructed in two parts. The lamp housing/reflector is of spun aluminium construction, enclosed by a heat-resisting glass cover, glazed to the bottom aperture, and secured to the main body by three quick release swing-down bolts. The main body is cast in high silicon content aluminium alloy and provides the side-entry spigot location and gear housing. An aluminium can, secured by a small finial, encloses the gear.

**Special features.** The 1 1/4" (43mm) B.S.P. spigot has a location spline to correctly orientate the lantern to column. Entry for external service cables by-passes the hot area around lampholder and lamp.

The lampholder incorporates a lamp steady to prevent vibratory lamp unscrewing. All internal wiring of heat-resisting PVC covered cable with additional glass sleeve protection on wiring to lampholder.

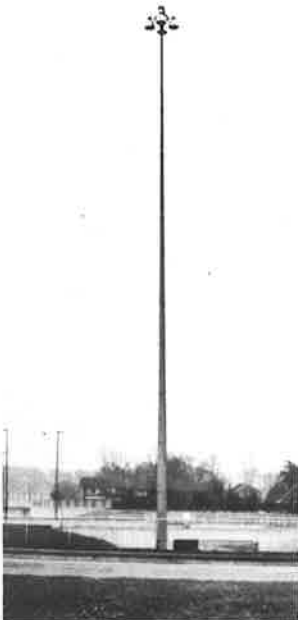
**Installation.** Side-entry requiring 6" (152mm) x 1 1/4" B.S.P. (1 1/8" O/D) plain tube.

**Light control.** Cut-off with peak at 45°, L.O.R. 66%

**Lantern details.**  
**Catalogue number,** HT,1000 240v 50Hz

**Dimensions.**  
Height 32.5 in (825.5 mm)  
Overall diameter 25.75 in (654 mm)  
Weight\* 57 lb (25.86 kg)  
Windage area 2.45 nett (.06 sqm)

\*With lamp and control gear

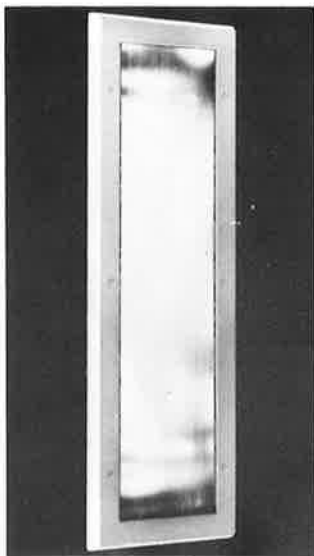


# atlas

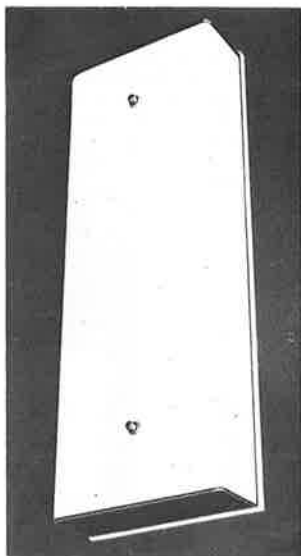
## Footway fluorescent fittings



SF12119/Q2240



PUQ/2240T



SF12120/Q2240

Fluorescent fittings using two 2' 40w MCFA/U lamps, suitable for wall or ceiling mounting in subways, shopping arcades, pedestrian precincts and footpaths. Materials and construction to BS.1788:1964.

### specification

**SF12119/Q2240.** The lantern body is die-cast LM6, M aluminium alloy and has screwed and plugged  $\frac{3}{4}$ " conduit entries at each end and centre-back. The diffuser is a formed opal acrylic bowl, firmly supported in a cast aluminium alloy frame, which is side-hinged by means of stainless steel hinges and fastened by two captive S.S. finger screws. A square-section neoprene gasket between bowl and body provides a rain-proof seal.

240v 50 Hz instant-start control gear is mounted on a white stove-enamelled steel tray/reflector, which has slotted fixing-holes to facilitate easy removal for maintenance.

**Light control.** General distribution from reflector/diffuser.

**Installation.** Wall-fixing by  $4 \times \frac{3}{4}$ " dia. bolts through body.

**PUQ/2240T.** Completely weather-proofed and protected against corrosion, this fitting is particularly suitable for recessed mounting in subways and multi-storey car parks.

A sturdily built mild steel body houses instant-start control gear and is finished inside and out stove enamelled white. The reflector, which carries the two lamps, is easily removed by slackening off two screws and affords easy access to the 200/250v 50 Hz control gear for maintenance.

The fitting is enclosed by an opal acrylic diffuser, cemented into a cast aluminium frame, which is securely fixed to the body, by six stainless steel screws.

**Light control.** General distribution from reflector/diffuser.

**Installation.** Surface or recessed fixing by  $4 \times \frac{1}{4}$ " dia. holes in backplate.

**SF12120/Q2240.** A stiffened aluminium backplate carries a gear tray and reflector cover, both of which are sheet steel, stove enamelled white. Access to the 240v 50 Hz control gear is achieved by removing four finger nuts and if necessary gear tray can be removed completely. Lamps are positioned on the reflector by plastic-coated clips and bi-pin, push-on lampholders are provided, wired with colour-coded cable for easy identification. The enclosure is made by a formed acrylic diffuser, secured against a neoprene gasket by two captive finger nuts.

Cable entry is provided in centre backplate.

**Light control.** General distribution from reflector/diffuser.

**Installation.** Canopy/ceiling fixing by  $4 \times \frac{1}{4}$ " dia. bolts through backplate.

Prices - on application

# atlas

## Leader aluminium columns

'Leader' aluminium columns are suitable for all Group B street lighting applications. They are appearance designed for use in locations adjacent to civic centres and other prestige areas. The available alternative combination of column, bracket and lantern provides an efficient lighting source for residential roads, factory sites and works access or perimeter roads. Ease and economy of installation plus strength and durability are other inherent qualities which recommend 'Leader' aluminium columns for general use. Light in weight, about 32 lb., the columns can be easily handled and erected by one man, thus dispensing with the need for expensive and heavy lifting tackle or other special equipment.



### Leader LC.1

COLUMN

Material, HE9P aluminium alloy.  
Spigot Castings, LM6M aluminium alloy.  
Baseboard, Hardwood.  
Lock, Stainless steel DZUS type.  
Base compartment—24" x 3¼".  
Weight—30 lb.  
Catalogue number, LC.1.



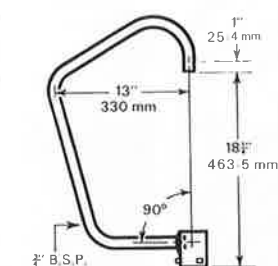
### Leader LC.2

COLUMN

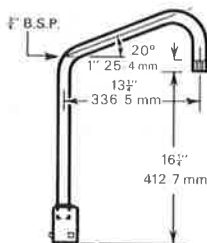
Material, HE9P aluminium alloy.  
Spigot Castings, LM6M aluminium alloy.  
Baseboard, Hardwood.  
Lock, Stainless steel DZUS type.  
Base compartment—24" x 3¼".  
Weight—32 lb.  
Catalogue number, LC.2.

# atlas

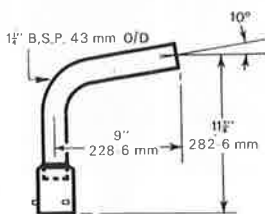
## Leader aluminium columns



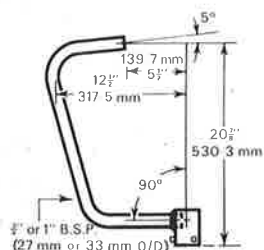
LC.B



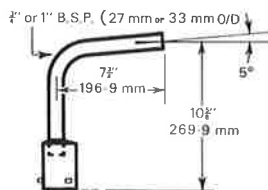
LC.D



LC.A



LC.C LC.F



LC.E LC.G

Description	Weight	Contract Price		
		£	s.	d.
LC.1. Leader 15ST aluminium column only	30 lb.	20	19	0
LC.2. Leader 15 aluminium column only	32 lb.	22	12	0
LC.A. Bracket-side entry 1 1/2" B.S.P., plain with outreach	1 lb. 14 oz.	1	12	0
LC.B. Bracket-top entry 3/4" B.S.P., threaded, zero outreach	2 lb. 9 oz.	2	2	0
LC.C. Bracket-side entry 3/4" B.S.P., plain, zero outreach	2 lb. 1 oz.	1	12	0
LC.D. Bracket-top entry 3/4" B.S.P., threaded with outreach	2 lb. 2 oz.	1	15	0
LC.E. Bracket-side entry 3/4" B.S.P., plain with outreach	1 lb. 9 oz.	1	5	0
LC.F. Bracket-side entry 1" B.S.P., plain, zero outreach	2 lb. 4 oz.	2	5	0
LC.G. Bracket-side entry 1" B.S.P., plain with outreach	1 lb. 10 oz.	1	11	0
LC.K. Key—for base compartment door		4	0	
LC.S. 3" x 3" spigot adaptor		17	0	

# CONTROL GEAR AND ACCESSORIES



# Control gear and accessories

## Introduction

---

Thorn Lighting Control Gear and Accessories have achieved a reputation for consistently high quality at economical prices by a policy of close co-operation between our research and engineering departments, and the factory where the equipment is made. All manufacture is carried out at Spennymoor, Co. Durham, in what is probably the largest control gear factory in Europe. A high proportion of its output is exported.

The standard of quality control and inspection at the factory is extremely high, and ensures that most Thorn Lighting control gear units comply with the requirements of B.S. specifications.

\*Prices' shown are those recommended as appropriate in U.K. for retail sale.

\*'Nett user prices' are those recommended as appropriate in U.K. for direct sale to users.



# Control gear and accessories 1969/70

Introduction to section	CD2	<b>Range</b>	<b>Description</b>	<b>Page</b>
Contents and Index	CD3	<b>Fluorescent</b>	8ft 125w .....	CD6/7
Index of Catalogue Nos.	CD4	<b>Control Gear</b>	8ft and 6ft 85w .....	CD8/9
Index	CD5	<b>Circuit</b>	5ft 80w .....	CD10/11
8ft 125w components	CD6	<b>Components</b>	5ft 65w .....	CD12/13
Types and circuit diagrams	CD7		5ft 50w and 4ft 40w .....	CD14/15
8ft and 6ft 85w components	CD8		3ft 30w .....	CD16/17
Types and circuit diagrams	CD9		2ft 40w and 16in 40w .....	CD18/19
5ft 80w components	CD10		2ft 20w .....	CD20/21
Types and circuit diagrams	CD11		18in 15w .....	CD22/23
5ft 65w components	CD12		21in 13w and 12in 8w .....	CD24/25
Types and circuit diagrams	CD13		9in 6w and 6in 4w .....	CD26/27
5ft 50w and 4ft 40w components	CD14	<b>Capacitors</b>	AME C Series for Fluorescent	
Types and circuit diagrams	CD15		Circuits .....	CD37
3ft 30w components	CD16	<b>Starter Switches</b>	155 Series .....	CD38
Types and circuit diagrams	CD17	<b>Control Gear</b>	AME M Series for Exterior and	
2ft 40w and 16in 40w components	CD18	<b>Boxes</b>	Interior use .....	CD39/40
Types and circuit diagrams	CD19	<b>Accessories</b>	Replacements for fittings .....	CD41
2ft 20w components	CD20		Lampholders .....	CD42/45
Types and circuit diagrams	CD21		Starter Switch Sockets .....	CD46
18in 15w components	CD22		Fluorescent tube support clips .....	CD47
Types and circuit diagrams	CD23		Terminal blocks and Fuse holders .....	CD48
21in 13w and 12in 8w components	CD24	<b>Electrical Data</b>	For Fluorescent Circuits .....	CD49/50
Types and circuit diagrams	CD25	<b>Mercury Discharge</b>	AME 5 Series .....	CD28/29
9in 6w and 6in 4w components	CD26	<b>Lamp Circuit</b>		
Types and circuit diagrams	CD27	<b>Components</b>		
Tables and circuit diagrams	CD28	<b>Capacitors</b>	AME C Series for Mercury	
Mercury discharge circuit components	CD29		Discharge Circuits .....	CD29
Tables and circuit diagrams	CD30	<b>Sodium Discharge</b>	AME 5 Series .....	CD30/31
Sodium discharge circuit components	CD31	<b>Lamp Circuit</b>		
Special mercury lamp control gear	CD32	<b>Components</b>		
Special mercury lamp control gear continued	CD33	<b>Capacitors</b>	AME C Series for Sodium	
Xenon Lamp control gear	CD34		Discharge Circuits .....	CD31
Xenon Lamp control gear continued	CD35	<b>Special Mercury</b>	Components and Circuits for	
Step-up transformers and installation notes	CD36	<b>Control Gear</b>	MBW/U—MB/D ME/D—C.S.I.	
Capacitor table	CD37		lamps .....	CD32/33
Starter switches	CD38	<b>Compact Source</b>	Components and Circuits for	
Control gear boxes	CD39	<b>Xenon Lamp</b>	XE/D—XB Linear Source	
Control gear boxes continued	CD40	<b>Control Gear</b>	Lamps .....	CD34/35
Replacement accessories	CD41	<b>Theatre Lighting</b>	Activities .....	CD51
Lampholders	CD42		Thorn O-File .....	CD52
Lampholders	CD43	<b>Emergency</b>	Unit for use with Miniature and	
Lampholders	CD44	<b>Lighting System</b>	Popular Pack Transistorised	
Lampholders	CD45		Fittings .....	CD53
Starter switch sockets	CD46	<b>Step-Up</b>	AME 4 Series .....	CD36
Fluorescent tube support clips	CD47	<b>Transformers and</b>		
Terminal blocks and fuse holders	CD48	<b>Installation Notes</b>		
Electrical data for circuits	CD49			
Electrical data for pop packs etc.	CD50			
Theatre lighting division	CD51			
Theatre lighting activities	CD52			
Emergency lighting	CD53			

# Alphabetical index

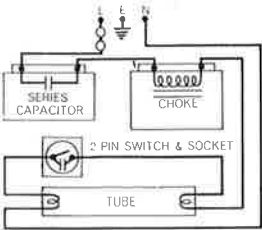
<i>Catalogue no.</i>	<i>Description</i>	<i>Page</i>	<i>Catalogue no.</i>	<i>Description</i>	<i>Page</i>
A3 4669	A3 terminal block	CD41	AME C 2235	30 mfd capacitor	CD29
AME A 5016	2-Pin Starter Socket Base	CD46	AME C 2236	25 mfd capacitor	CD29
AME A 5019/X	2-Pin Starter Socket Base	CD46	AME C 2278	15 mfd 350v capacitor	CD29
AME A 5025	2-Pin Starter Socket Base	CD46	AME C 2241	5 mfd capacitor pin terminals	CD37
AME A 5079	Fused T/B with Mains Plug	CD48	AME C 2275	60 mfd 250v capacitor	CD32
AME A 5051	S/S Socket for PP Fittings	CD41	AME C 2276	80 mfd 250v capacitor	CD32
AME B 1502	Spring loaded circular lampholder	CD45	AME C 2280	16 mfd capacitor street lighting use	CD29
AME B 1506	Bi-pin lampholder with socket	CD43	AME C 2281	13 mfd capacitor street lighting use	CD29
AME B 1507	Lampholder – Pillar Type	CD43	155/100	6–8w AC plastic starter switch	CD38
AME B 1512	Bi-pin grip-pin lampholder	CD45	155/200	15–20w AC plastic starter switch	CD38
AME B 1515	Adaptor for bi-pin to BC lampholder conversion	CD47	155/400	30–40w AC plastic starter switch	CD38
			155/500	Universal AC 2-pin plastic starter switch	CD38
AME B 1523	Bi-pin button lampholder with eyeletted fixing holes	CD45	155/501	50w AC plastic starter switch	CD38
AME B 1524	Bi-pin button lampholder	CD45		240v only	CD38
AME B 1529	Y-type adjustable grip-pin lampholder	CD45	155/600	6ft 85w AC plastic starter switch	CD38
AME B 1533/B	Bi-pin lampholder	CD41	155/800	125w AC plastic starter switch	CD38
AME B 1535	Circular tube lampholder	CD47		230/250v only	CD38
AME B 1537	Arrow-slim bi-pin lampholder	CD41	AME 41299	5ft 80w QS unit	CD11
AME B 1538	Twin Arrow-slim bi-pin lampholder	CD41	AME 42343	8ft 125w QS 220v supply voltage step-up transformer HDS only	CD36
AME B 1548/A	Bi-pin lampholder	CD41	AME 42350	8ft 125w QS/SS or 85w QS 220v supply voltage step-up transformer	CD36
AME B 1548/B	Bi-pin lampholder	CD43		8ft 125w QS or 85w QS 200/210v supply voltage step-up transformer	CD36
AME B 1548/A3	Atlantic 3-bi-pin lampholder	CD43	AME 42355	4ft 40w and 3ft 30w QS unit	CD15
AME B 1548/SN	Super Netapack lampholder	CD41		2 x 20w QS unit	CD20
AME B 1549	Sleeve used with B1550L/H	CD41	AME 47004	110v Step-up transformer	CD36
AME B 1550	L/H for LW fitting	CD41	AME 47046	8ft 125w QS unit (pin terminals)	CD6
AME B 1555/Z	Bi-pin Plastic lampholder	CD44	AME 47048	Pulse transformer	CD34
AME B 1556/3	Bi-pin lampholder (LJ fitting)	CD41	AME 47060	400w tapped mercury choke	CD29
AME B 1558	Sealing Ring	CD41	AME 47075	250w tapped mercury choke	CD29
AME B 1561	Grip-pin type lampholder	CD44	AME 53157.T	125w mercury choke	CD29
AME B 1562	Single bi-pin lampholder for PP fittings	CD41	AME 53158.T	125w tapped mercury choke	CD29
AME B 1563	Twin bi-pin lampholder for PP fittings	CD41	AME 53159.4	80w mercury choke	CD29
AME B 1573	Bi-pin Plastic lampholder	CD45	AME 53159.T	80w tapped mercury choke	CD29
AME C 2051	Radio interference suppression filter	CD37	AME 53162.4	1000w tapped mercury choke	CD29
AME C 2053	General radio interference suppression capacitor	CD37	AME 53162.T	60w SLI choke	CD31
AME C 2092	3-5 mfd capacitor for 40w SS and PS circuits	CD37	AME 53164.T	135w SOX ballast	CD31
AME C 2139	Radio interference suppression capacitor for QS ballasts	CD37	AME 53165.4	200w SLI instant start ballast	CD31
AME C 2156	3 mfd capacitor – tag terminals	CD37	AME 53166.T	200w SLI tapped ballast	CD31
AME C 2163	2-85 mfd capacitor for 50w SS circuit	CD37	AME 53172.H	45w/60w/85w SOH and	CD31
AME C 2167	6-8 mfd capacitor for special series circuit (low temperature operation)	CD37	AME 53182.T	35w/55w SOX ballast	CD29
AME C 2173	7-2 mfd capacitor for 125w SS circuit	CD37	AME 53182.4	50w mercury choke	CD29
AME C 2181	7-2 mfd capacitor for 125w SS circuit	CD37	AME 53184.4	400w mercury choke	CD29
AME C 2185	7-8 mfd capacitor for 125w QS circuit	CD37	AME 53193.4	400w M.B.I. choke	CD29
AME C 2200	8-4 mfd capacitor for 85w SRS circuit	CD37	AME 53195.T	400w CSI control gear box	CD34
AME C 2201	8 mfd capacitor for 80w SS and PS circuits	CD37	AME 53196.4	400w M.B.I. half choke	CD29
AME C 2202	8 mfd capacitor for 80w SS and QS circuits	CD37	AME 53197.T	250w mercury choke	CD29
AME C 2204	3-5 mfd capacitor for 30/40w SS and QS circuits	CD37	AME 53198.4	140w SLI and 90w SOX ballast	CD31
AME C 2206	5 mfd capacitor for 85w QS circuit	CD37	AME 53232.4	2kw (2 electrode) starter	CD34
AME C 2207	6 mfd capacitor for 65w SS (HDS/PP) fitting	CD37	AME 53233.4	2kw (3 electrode) starter	CD32
AME C 2214	13 mfd capacitor street lighting use	CD29	AME 53235	250w ME/D choke	CD35
AME C 2216	15 mfd capacitor street lighting use	CD29	AME 53239	250/500/1000w XE/D starter	CD29
AME C 2218	20 mfd capacitor street lighting	CD29	AME 53243.4	1000w ½ mercury choke	CD24
AME C 2220	8-4 mfd capacitor pin terminals	CD37	AME 62810.L	21in 13w SS choke	CD24
AME C 2221	8 mfd capacitor pin terminals	CD37	AME 62810.H	12in 8w SS choke	CD24
AME C 2222	8 mfd capacitor pin terminals	CD37	AME 62880.H	2–12in 8w SS choke	CD9
AME C 2224	3-5 mfd capacitor pin terminals	CD37	AME 63213.4	2 x 85w twin start ballast	CD7
AME C 2226	5 mfd capacitor pin terminals	CD37	AME 63219.4	8ft 125w SS HPF combined ballast	CD17
AME C 2228	7-8 mfd capacitor pin terminals	CD37	AME 66004.4	3ft 30w Arrow-slim choke	CD15
AME C 2229	2-85 mfd capacitor pin terminals	CD37	AME 66020.4	5ft 50w SS (Arrow-slim) choke	CD19
AME C 2234	8 mfd capacitor street lighting use	CD29	AME 66057.4	4ft 40w SS choke	CD23
			AME 66064.4	15w SS/QS choke	CD23
			AME 66065.4	3ft 30w or 2 x 18in 15w SS/QS choke	CD11
			AME 68028.4	80w SS HPF combined ballast	CD11
			AME 68041.4	80w QS HPF combined ballast	CD13
			AME 68061.4	65w SS HPF ballast	CD19
			AME 69035.T	2–2ft 40w SS choke	CD19

# Alphabetical index (continued)

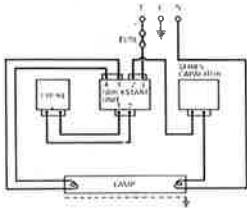
<i>Catalogue no.</i>	<i>Description</i>	<i>Page</i>	<i>Catalogue no.</i>	<i>Description</i>	<i>Page</i>
AME 69046.4	65w SS choke	CD13	AME L 1101	Lampholder for 400w CSI lamp	CD41
AME 69053.4	30w SS HPF combined ballast	CD17	AME L 1107	Architectural lampholder	CD42
AME 69054.4	40w SS HPF combined ballast	CD15	AME M 6028	Weatherproof lamp cap	CD47
AME 69057.4	4ft 40w SS (HDS) choke (lamp pins)	CD15	AME M 6064	PVC Starter switch holder	CD46
AME 69058.4	2ft 20w SS (HDS) choke (lamp pins)	CD21	AME M 6077	500/2kw Xenon lamp housing	CD35
AME 69063.4	30w QS HPF combined ballast	CD17	AME M 6078	250w Xenon lamp housing	CD35
AME 69064.4	40w QS HPF combined ballast	CD15	AME M 6169	Control gear box	CD40
AME 69072.4	2ft 20w QS LPF ballast	CD21	AME M 6171	Control gear box	CD39
AME 69082.4	2 x 2ft 40w QS ballast	CD19	AME M 6172	Control gear box	CD40
AME 69145.4	30w SS choke (pin terminals)	CD17	AME M 6173	Control gear box	CD39
AME 69160.4	21in 13w Minipack choke	CD25	AME M 6174	Control gear box	CD39
AME 69161.4	5ft 65w SRS HPF ballast	CD13	AME M 6175	Gear box ("Kolorlux)	CD40
AME 69163.4	65w SRS ballast (pin terminals)	CD13	AME M 6176	Gear box ("Kolorlux)	CD41
AME 69165.4	6ft 85w SRS ballast (pin terminals)	CD9	RX 2463	Emergency Lighting Unit	CD53
AME 69166.4	8ft 125w SS choke (pin terminals)	CD7	AME T 1265	3-way terminal block	CD48
AME 69175.4	4ft 40w QS choke	CD15	AME T 1267	2 amp fuse	CD46
AME 69179.4	5ft 80w SS choke (pin terminals)	CD11	AME T 1268	5 amp fuse	CD46
AME 69180.4	5ft 80w QS choke (pin terminals)	CD11	AME T 1281	PVC terminal block	CD48
AME 69181.4	8ft 125w QS choke (pin terminals)	CD7	AME T 1299	3 amp fuse	CD46
AME 69190.4	85w QS ballast (pin terminals)	CD9	AME T 1302	1 amp fuse	CD46
AME 69193.4	65w SRS ballast (pin terminals)	CD13	AME T 1303	0.75 amp fuse	CD46
AME 69194.4	8ft 125w HPF QS ballast	CD7	AME T 1304	Moulded fuse holder	CD48
AME 69195.4	2ft 20w LPF SS ballast	CD21	AME T 1306	3-way terminal block	CD48
AME 69204.4	6ft 85w SRS ballast	CD9	AME T 1311	Moulded cap for cartridge fuse	CD41
AME 69159.H	12in 8w Minipack choke	CD25	AME Y 5200	1in spring support clip	CD47
AME 69229.4	5ft 80w/6ft 85w SS choke	CD9	AME Y 5201	1½in spring support clip	CD47
AME 69230	125w SS choke (pin terminals)	CD7	AME Y 5204	¾in spring support clip	CD47
AME 69257.4	32w choke - Circline fittings	CD17	AME Y 5240	Earth clip for AME B 1502 lampholder	CD45
AME L 1063	L/H used with TIS fitting	CD41	AME Y 5257	Circular tube support clip	CD47

# Circuit/components for 8ft 125w tubes

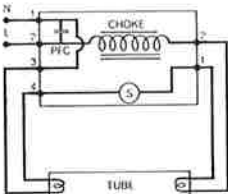
## Circuit diagrams



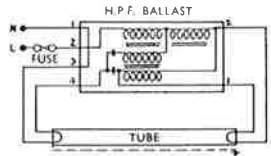
2 Leading power factor starter switch circuit



5 Quickstart circuit, Separate choke

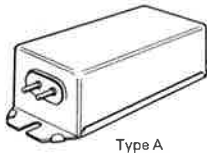


13 Starter switch circuit for HPF ballasts

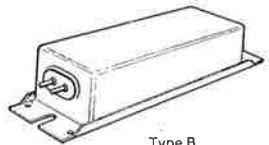


18 Quickstart circuit for 8ft 125w

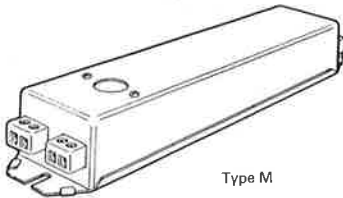
## Control gear types



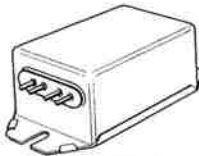
Type A



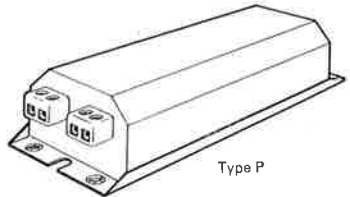
Type B



Type M

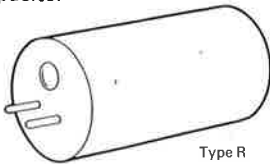


Type N



Type P

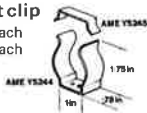
## Capacitor



Type R

### Capacitor support clip

AME Y5244 Price 6d each  
AME Y5245 Price 6d each



## Starter socket base



AME A5019/X  
Starter socket base for bi-pin  
small canister switch  
Price 3s 0d each

AME Y5267  
Earth contact, optional extra  
Price 2d each

## Starter switch

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/800	AC Glow	230/250v	White	3 0

# Circuit/components for 8ft 125w tubes

Control gear for 240v 50Hz supply

## Choke or ballast

Cat. no.	AME 69230-4†	AME 69166-4†	AME 69181-4†	AME 63219-4	AME 69194-4
Price	£2 10s 0d	£2 10s 0d	£2 10s 0d	£3 17s 0d	£5 10s 0d
Type of control gear	Switchstart choke	Switchstart choke	Quickstart choke	H.P.F. Switchstart ballast	H.P.F. Quickstart ballast
Width	1-78in 45mm	2-5in 64mm	2-5in 64mm	2-5in 64mm	3in 76mm
Height	1-67in 42mm	1-875in 48mm	1-875in 48mm	1-875in 48mm	2in 51mm
Overall length	8-5in 215mm	6-75in 172mm	6-75in 172mm	13-25in 336mm	16-625in 422mm
Fixing centres	8in 203mm	6in 152mm	6in 152mm	12in 317mm	16in 406mm
Weight	4lb 1-8kg	4-5lb 1-9kg	4-5lb 1-9kg	5-75lb 2-6kg	11-5lb 5-2kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see over)	Type B	Type A	Type A	Type M	Type P
Circuit diagram (see over)	No. 2	No. 2	No. 5	No. 13	No. 18

## Capacitor

Cat. no.	AME C2173†	AME C2173†	AME C2228†	Included in ballast	Included in ballast
Price	£1 16s 0d	£1 16s 0d	£1 16s 0d	above	above
Capacitance mfd	7-2 ±5%	7-2 ±5%	7-8 ±5%	—	—
Volts rating	440v	440v	440v	—	—
Length (inc. terminals)	8-15in 207mm	8-15in 207mm	8-25in 209mm	—	—
Diameter	1-5 in 38mm	1-5in 38mm	1-5in 38mm	—	—
Illustrated type (see over)	Type R	Type R	Type R	—	—
Capacitor clips (see over)	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—	—

## Starter switch

Cat. no.	155/800	155/800	—	155/800‡	—
Price	5s 0d	5s 0d	—	5s 0d	—

## Switch socket

Cat. no.	AME A5019/X	AME A5019/X	—	Included in ballast	—
Price	3s 0d	3s 0d	—	above	—

## Quickstart unit (for use with appropriate choke above)

Cat. no.	—	—	AME 47060†	—	Included in ballast
Price	—	—	£2 3s 0d	—	above
Width	—	—	2-5in 64mm	—	—
Height	—	—	1-875in 48mm	—	—
Overall length	—	—	6-75in 172mm	—	—
Fixing centres	—	—	6in 152mm	—	—
Weight	—	—	4-5lb 1-9kg	—	—
Filling	—	—	Polyester resin	—	—
Illustrated type (see over)	—	—	Type N	—	—

## Other voltage ratings available

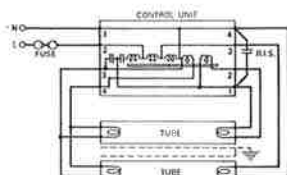
200/210v	Not available	Not available	AME 42355 Step-up transformer with AME 69181-4	Not available	Not available
220v	AME 42343 Step-up transformer with AME 69230-4	AME 42350 Step-up transformer with AME 69166-4	AME 42350 Step-up transformer with AME 69181-4	Not available	Not available
250v	AME 69230-5	AME 69166-5	AME 69181-5 with AME 47060	Not available	Not available

‡ Order starter switch separately.

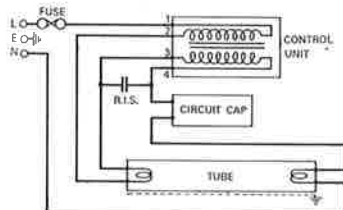
† These units have lamp pin terminals.

# Circuit/components for 8ft and 6ft 85w tubes

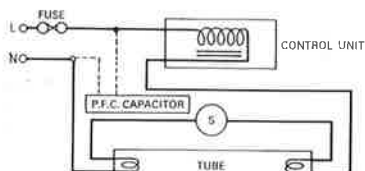
## Circuit diagrams



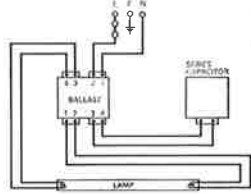
6 8ft 85w Twinstart circuit for two tubes



7 6ft 85w Semi-resonant start circuit

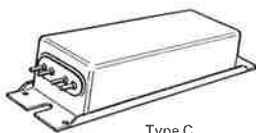


1 Standard starter switch circuit with optional PFC capacitor

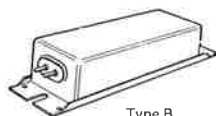


4 Single 8ft 85w Quickstart circuit Combined choke and transformer

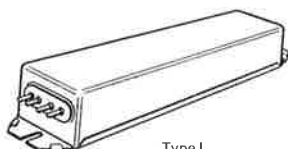
## Control gear types



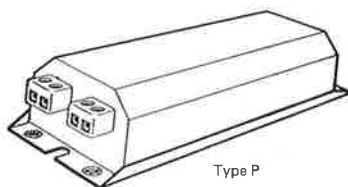
Type C



Type B

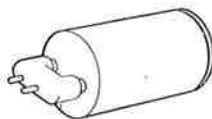


Type L

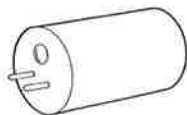


Type P

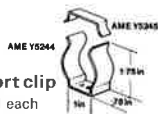
## Capacitors



Type Q



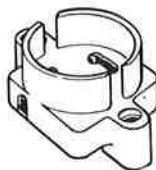
Type R



### Capacitor support clip

AME Y5244 Price 6d each  
AME Y5245 Price 6d each

## Starter socket base



AME A5019/X  
Starter socket base for bi-pin  
small canister switch  
Price 3s 0d each  
AME Y5267  
Earth contact, optional extra  
Price 2d each

## Starter switch

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/600	AC Glow	240v	White	5 0

# Circuit/components for 8ft and 6ft 85w tubes

Control gear for 240v 50Hz supply

## Choke or ballast

Cat. no.	AME 69190-4†	AME 63213-4	AME 69229-4†	AME 69165-4†	AME 69204-4†
Price	£3 11s 0d	£8 4s 0d	£2 10s 0d	£2 12s 0d	£2 12s 0d
Tube length and wattage	8ft 85w	2-8ft 85w	6ft 85w	6ft 85w	6ft 85w
Type of control gear	Quickstart ballast	HPF Twinstart ballast	Switchstart choke	Semi-resonant start ballast	Semi-resonant start ballast
Width	2.5in 64mm	3in 76mm	1.87in 48mm	2.5in 64mm	1.875in 48mm
Height	1.875in 48mm	2in 51mm	1.5in 38mm	1.875in 48mm	1.5in 38mm
Overall length	9.75in 248mm	16.5in 418mm	8.5in 215mm	6.75in 172mm	8.5in 215mm
Fixing centres	9in 227mm	16in 406mm	8in 203mm	6in 152mm	8in 203mm
Weight	6.5lb 2.2kg	11.5lb 5.2kg	4lb 1.8kg	4lb 1.8kg	4lb 1.8kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see over)	Type L	Type P	Type B	Type L	Type C
Circuit diagram (see over)	No. 4	No. 6	No. 1	No. 7	No. 7

## Capacitor

Cat. no.	AME C2226†	Included in ballast above	AME C2207†	AME C2220†	AME C2220†
Price	£1 3s 0d	—	£1 3s 0d	£1 7s 0d	£1 7s 0d
Capacitance mfd	5 ± 5%	—	6 ± 10%	8.4 ± 5%	8.4 ± 5%
Volts rating	440v	—	250v	250v	250v
Length (inc. terminals)	6.2in 157mm	—	5.125in 131mm	4.5in 114mm	4.5in 114mm
Diameter	1.5in 38mm	—	1.25in 32mm	1.5in 38mm	1.5in 38mm
Illustrated type (see over)	Type R	—	Type R	Type Q	Type Q
Capacitor clips (see over)	AME Y5244 and AME Y5245	—	AME Y5259	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245

## Starter switch

Cat. no.	—	—	155/600	—	—
Price	—	—	5s 0d	—	—

## Switch socket

Cat. no.	—	—	AME A5019/X	—	—
Price	—	—	3s 0d	—	—

## Quickstart unit (for use with appropriate choke above)

Cat. no.	Included in ballast above	—	—	—	—
Price	—	—	—	—	—
Width	—	—	—	—	—
Height	—	—	—	—	—
Overall length	—	—	—	—	—
Fixing centres	—	—	—	—	—
Weight	—	—	—	—	—
Filling	—	—	—	—	—
Illustrated type (see over)	—	—	—	—	—

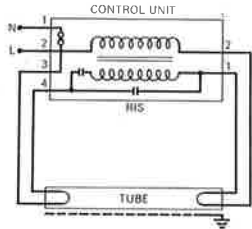
## Other voltage ratings available

200/210v	AME 42355 Step-up transformer with AME 69190-4	Not available	AME 69229-1	Not available	Not available
220v	AME 42350 Step-up transformer with AME 69190-4	AME 69222-2	AME 42350 Step-up transformer with AME 69229-4	AME 42350 Step-up transformer with AME 69165-4	Not available
250v	AME 69190-5	AME 69006-5	AME 69229-5	AME 69204-5	AME 69204-5

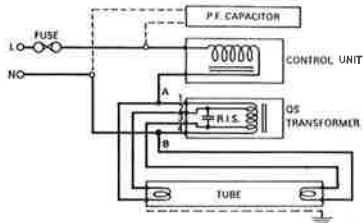
† These units have lamp pin terminals.

# Circuit/components for 5ft 80w tubes

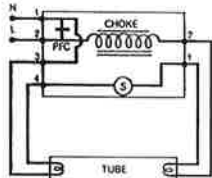
## Circuit diagrams



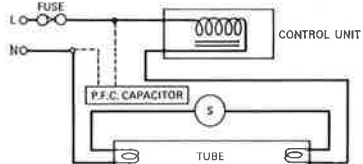
16 HPF ballast (S.R.S. circuit)



8 Tapped Quickstart transformer circuit

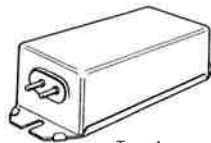


13 Starter switch circuit for 5ft 80w HPF ballasts

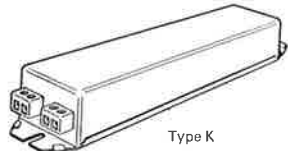


1 Standard starter switch circuit with optional PFC capacitor

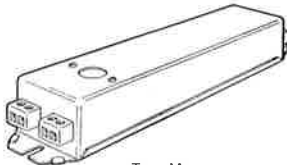
## Control gear types



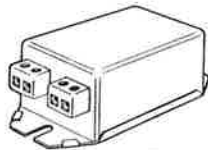
Type A



Type K

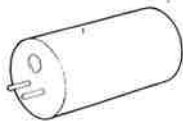


Type M



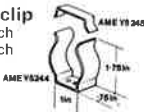
Type O

## Capacitors

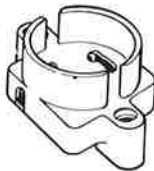


Type R

Capacitor support clip  
AME Y5244 Price 6d each  
AME Y5245 Price 6d each



## Starter socket base



AME A5019/X  
Starter socket base for bi-pin  
small canister switch  
Price 2s 10d each

AME Y5267  
Earth contact, optional extra  
Price 3s 0d each

## Starter switch

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/500	AC Glow	200/250v	White	3 0



# Circuit/components for 5ft 80w tubes

Control gear for 240v 50Hz supply

Choke or ballast

Cat. no.	AME 69179-4†	AME 69180-4†	AME 68028-4*	AME 68041-4
Price	£2 10s 0d	£2 10s 0d	£2 19s 0d	£3 17s 0d
Type of control gear	Switchstart choke	Quickstart choke	HPF Switchstart ballast	HPF SRS ballast
Width	2.5in 64mm	2.5in 64mm	2.5in 64mm	2.5in 64mm
Height	1.875in 48mm	1.875in 48mm	1.875in 48mm	1.875in 48mm
Overall length	6.75in 172mm	6.75in 172mm	12.25in 311mm	13.25in 336mm
Fixing centres	6in 152mm	6in 152mm	11.5in 292mm	12.5in 317mm
Weight	4.25lb 1.9kg	4.25lb 1.9kg	5.25lb 2.4kg	6.75lb 3kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see over)	Type A	Type A	Type M	Type K
Circuit diagram (see over)	No. 1	No. 8	No. 13	No. 16

## Capacitor

Cat. no.	AME C2222†	AME C2222†	Included in ballast above	Included in ballast above
Price	£1 3s 0d	£1 3s 0d	—	—
Capacitance mfd	8 ±10%	8 ±10%	—	—
Volts rating	250v	250v	—	—
Length (inc. terminals)	4.23in 106mm	4.23in 106mm	—	—
Diameter	1.5in 38mm	1.5in 38mm	—	—
Illustrated type (see over)	Type R	Type R	—	—
Capacitor clips (see over)	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—	—

## Starter switch

Cat. no.	155/500	155/500‡	—
Price	3s 0d	3s 0d	—

## Switch socket

Cat. no.	AME A5019/X	Included in ballast above	—
Price	3s 0d	—	—

## Quickstart unit (for use with appropriate choke above)

Cat. no.	—	AME 41299	—	—
Price	—	£1 1s 0d.	—	—
Width	—	2.5in 64mm	—	—
Height	—	1.875in 48mm	—	—
Overall length	—	4in 102mm	—	—
Fixing centres	—	3.5in 89mm	—	—
Weight	—	2.25lb 1kg	—	—
Filling	—	Polyester resin	—	—
Illustrated type (see over)	—	Type O	—	—

## Other voltage ratings available

200/210v	AME 69014-T	AME 62831-T	Not available	Not available
220v	AME 69014-T	AME 26831-T	Not available	Not available
250v	AME 69014-T	AME 62831-T	Not available	Not available

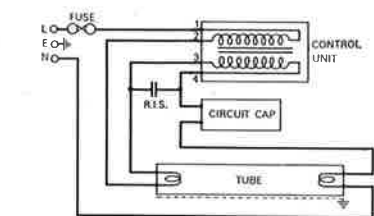
† These units have lamp pin terminals.

‡ Starter switch to be ordered separately.

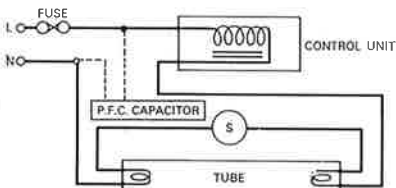
\* This ballast can also be used with one 6ft 85w lamp together with one starter switch Cat. no. 155/600.

# Circuit/components for 5ft 65w tubes

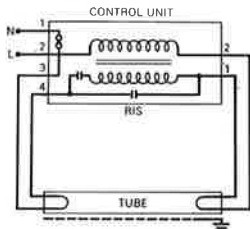
## Circuit diagrams



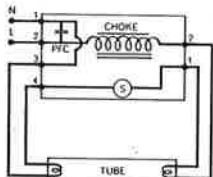
7 Semi-resonant start circuit



1 Standard starter switch circuit with optional PFC capacitor

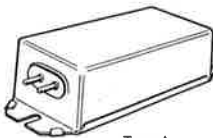


16 HPF ballast (S.R.S. circuit)

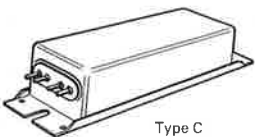


13 Starter switch circuit for HPF ballasts

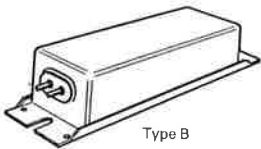
## Control gear types



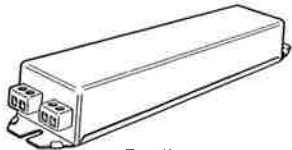
Type A



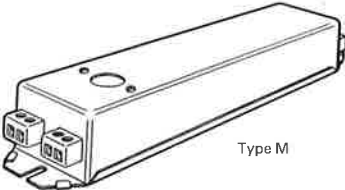
Type C



Type B

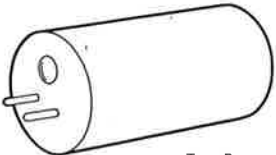


Type K



Type M

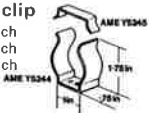
## Capacitor



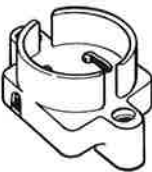
Type R

### Capacitor support clip

AME Y5244 Price 6d each  
AME Y5245 Price 6d each  
AME Y5259 Price 6d each



## Starter socket base



AME A5019/X  
Starter socket base for bi-pin small canister switch  
Price 3s 0d each

AME Y5267  
Earth contact, optional extra  
Price 2d each

## Starter switch

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/500	AC Glow	200/250v	White	3 0

# Circuit/components for 5ft 65w tubes

Control gear for 240v 50Hz supply

## Choke or ballast

Cat. no.	AME 69046-4†		AME 69163-4†		AME 69193-4†		AME 68061-4		AME 69161-4	
Price	£1 16s 0d		£2 12s 0d		£2 12s 0d		£2 17s 0d		£3 11s 0d	
Type of control gear	Switchstart choke		Semi-resonant start ballast		Semi-resonant start ballast		HPF Switchstart ballast		HPF Semi-resonant start ballast	
Width	1-875in	48mm	2-5in	64mm	1-875in	48mm	2-5in	48mm	2-5in	64mm
Height	1-5in	38mm	1-875in	48mm	1-5in	38mm	1-875in	48mm	1-875in	48mm
Overall length	6-5in	171mm	6-5	165mm	8-5in	215mm	10-75in	273mm	11-25in	285mm
Fixing centres	6in	152mm	6in	152mm	8in	203mm	10in	254mm	10-5in	268mm
Weight	2-75lb	1-2kg	4-25lb	1-9kg	4lb	1-8kg	4lb	1-8kg	6-5lb	2-95kg
Filling	Polyester resin		Polyester resin		Polyester resin		Polyester resin		Polyester resin	
Illustrated type (see over)	Type B		Type A		Type C		Type M		Type K	
Circuit diagram (see over)	No. 1		No. 7		No. 7		No. 13		No. 1A	

## Capacitor

Cat. no.	AME C2241†		AME C2220†		AME C2220†		Included in ballast above	Included in ballast above
Price	£1 3s 0d		£1 7s 0d		£1 7s 0d		—	—
Capacitance mfd	5 ±10%		8-4 ±5%		8-4 ±5%		—	—
Volts rating	250v		250v		250v		—	—
Length (inc. terminals)	5-125in	131mm	4-5in	114mm	4-5in	114mm	—	—
Diameter	1-25in	32mm	1-5in	38mm	1-5in	38mm	—	—
Illustrated type (see over)	Type R		Type R		Type R		—	—
Capacitor clips (see over)	AME Y5259		AME Y5244 and AME Y5245		AME Y5244 and AME Y5245		—	—

## Starter switch

Cat. no.	155/500	—	—	155/500 ‡	—
Price	3s 0d	—	—	3s 0d	—

## Switch socket

Cat. no.	AME A5019/X	—	—	Included in ballast above	—
Price	3s 0d	—	—	—	—

## Quickstart unit (for use with appropriate choke above)

Cat. no.	—	—	—	—	—
Price	—	—	—	—	—
Width	—	—	—	—	—
Height	—	—	—	—	—
Overall length	—	—	—	—	—
Fixing centres	—	—	—	—	—
Weight	—	—	—	—	—
Filling	—	—	—	—	—
Illustrated type (see over)	—	—	—	—	—

## Other voltage ratings available

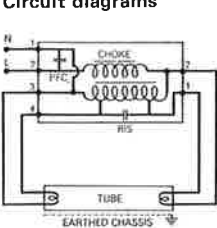
200/210v	AME 69046-1	AME 69163-1	Not available	Not available	Not available
220v	AME 69046-2	AME 69163-2	AME 69245-2	AME 68061-2	AME 69161-2
250v	AME 69046-5	AME 69163-5	Not available	Not available	Not available

† These units have lamp pin terminals.

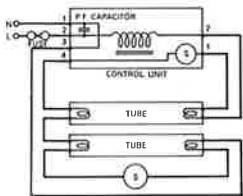
‡ Starter switch to be ordered separately.

# Circuit/components for 5ft 50w and 4ft 40w tubes

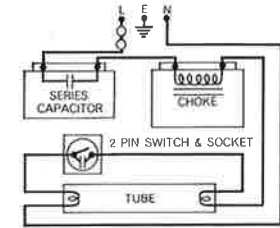
## Circuit diagrams



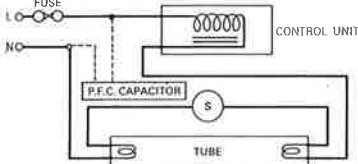
14 Quickstart circuit for HPF ballasts



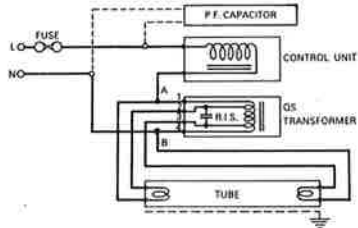
15 Starter switch circuit for twin 20w tubes for HPF ballasts



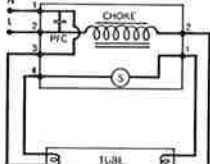
2 Leading power factor starter switch circuit used with 5ft 50w and 8ft 125w tubes



1 Standard starter switch circuit with optional PFC capacitor

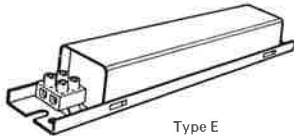


8 Tapped Quickstart transformer circuit

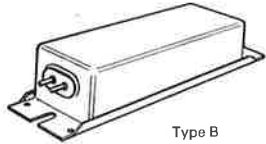


13 Single starter switch circuit for HPF ballasts

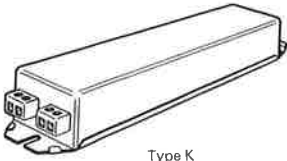
## Control gear types



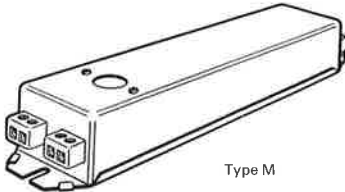
Type E



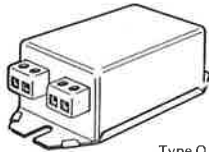
Type B



Type K

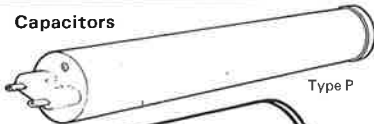


Type M

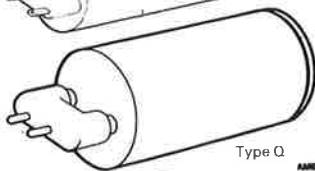


Type O

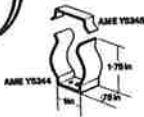
## Capacitors



Type P

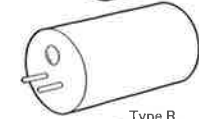


Type Q



Capacitor support clip

AME Y5244 Price 6d each  
AME Y5245 Price 6d each  
AME Y5259 Price 6d each



Type R

## Starter switch socket



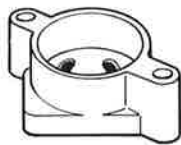
AME A5019/X  
Starter socket base for bi-pin small canister switch  
Price 3s 0d each

AME Y5267  
Earth contact, optional extra  
Price 2d each

## Starter switches

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/400	AC Glow	200/250v	White	3 0
155/501	AC Glow	240v only	White	5 0

## Starter socket base



AME A5025  
Starter socket base for bi-pin small canister switch  
Price 3s 0d

# Circuit/components for 5ft 50w & 4ft 40w tubes

Control gear for 240v 50Hz supply

Choke or ballast

Cat. no.	AME 69057-4†	AME 69175-4†	AME 69054-4**	AME 69064-4	AME 66020-4
Price	£1 16s 0d	£1 16s 0d	£2 5s 0d	£2 14s 0d	£1 16s 0d
Tube length and wattage	4ft 40w	4ft 40w	4ft 40w	4ft 40w	5ft 50w
Type of control gear	Switchstart choke	Quickstart choke	HPF Switchstart ballast	HPF Quickstart ballast	Switchstart choke
Width	1-875in 48mm	1-875in 48mm	1-875in 48mm	1-875in 48mm	1-25in 32mm
Height	1-5in 38mm	1-5in 38mm	1-625in 41mm	1-625in 41mm	1-3in 34mm
Overall length	5-06in 129mm	5-06in 129mm	9in 229mm	10in 254mm	8-75in 224mm
Fixing centres	4-5in 114mm	4-5in 114mm	8-5in 215mm	9-5in 241mm	8-5in 215mm
Weight	2lb 0-9kg	2lb 0-9kg	2-5lb 1-1kg	3-5lb 1-6kg	1-875lb 0-8kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin	Varnish
Illustrated type (see over)	Type B	Type B	Type M	Type K	Type E
Circuit diagram (see over)	No. 1	No. 8	No. 13	No. 14	No. 2

Capacitor

Cat. no.	AME C2092†	AME C2224†	Included in ballast above	Included in ballast above	AME C2163
Price	16s 0d	16s 0d	—	—	£1 3s 0d
Capacitance mfd	3-5 ±10%	3-5 ±10%	—	—	2-85 ±5%
Volts rating	250v	250v	—	—	440v
Length (inc. terminals)	3-375in 86mm	2-25in 57mm	—	—	6in 152mm
Diameter	1-25in 32mm	1-5in 38mm	—	—	1-25in 32mm
Illustrated type (see over)	Type R & Q	Type R & Q	—	—	Type P
Capacitor clips (see over)	AME Y5259	AME Y5244 and AME Y5245	—	—	AME Y5259

Starter switch

Cat. no.	155/400	—	155/400‡	—	155/501
Price	3s 0d	—	3s 0d	—	5s 0d

Switch socket

Cat. no.	AME A5019/X	—	Included in ballast above	—	AME A5025
Price	3s 0d	—	—	—	3s 0d

Quickstart unit (for use with appropriate choke above)

Cat. no.	—	AME 47004*	—	Included in ballast above	—
Price	—	£1 3s 0d	—	—	—
Width	—	2-3in 59mm	—	—	—
Height	—	1-56in 39mm	—	—	—
Overall length	—	4-125in 105mm	—	—	—
Fixing centres	—	3-5in 89mm	—	—	—
Weight	—	2lb 0-9kg	—	—	—
Filling	—	Polyester resin	—	—	—
Illustrated type (see over)	—	Type O	—	—	—

Other voltage ratings available

200/210v	AME 69057-1	AME 69057-1 with AME 47004	Not available	Not available	Not available
220v	AME 69057-2	AME 69057-2 with AME 47004	AME 69054-2 *	Not available	Not available
250v	AME 69057-5	AME 69057-5 with AME 47004	Not available	Not available	Not available

\* Quickstart unit Cat. no. AME 47045 is used in fittings – use above Quickstart unit for replacements.

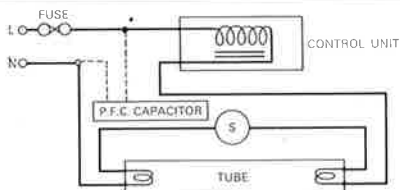
\*\* A series pair of 2ft 20w tubes can also be used – see circuit diagram no. 15 on opposite page.

† These units have lamp pin terminals. For non-fittings use, connection with terminal block T1281/2 can be used to mount on to choke pins.

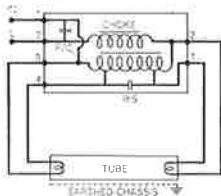
‡ Starter switch to be ordered separately.

# Circuit/components for 3ft 30w tubes

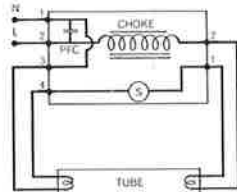
## Circuit diagrams



1 Standard starter switch circuit with optional PFC capacitor

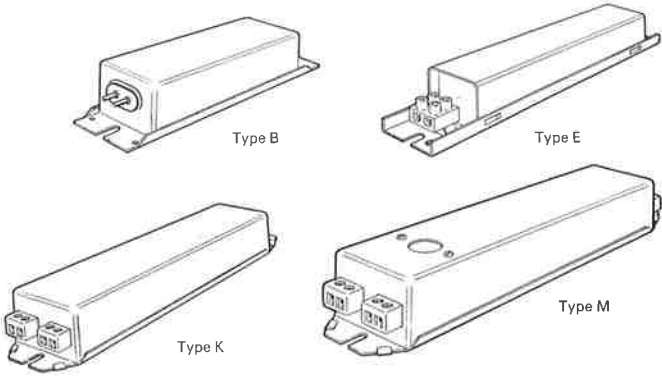


14 Quickstart circuit for HPF ballasts

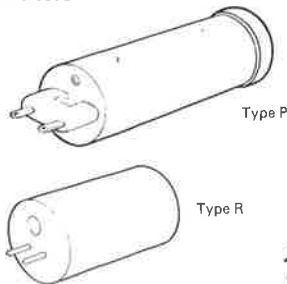


13 Starter switch circuit for HPF ballasts

## Control gear types



## Capacitors



### Capacitor support clip

AME Y5244 Price 6d each  
AME Y5245 Price 6d each



## Starter socket base



AME A5019/X  
Starter socket base for bi-pin  
small canister switch  
Price 2s 10d each  
  
AME Y5267  
Earth contact, optional extra  
Price 2d each

## Starter switch

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/400	AC Glow	200/250v	White	3 0

# Circuit/components for 3ft 30w tubes

Control gear for 240v 50Hz supply

## Choke or ballast

Cat. no.	AME 69145-4†	AME 66004-4*	AME 69063-4	AME 69053-4	AME 69257-4**
Price	£1 16s 0d	£1 16s 0d	£2 14s 0d	£2 5s 0d	£1 16s 0d
Type of control gear	Switchstart choke	Switchstart choke	HPF Quickstart ballast	HPF Switchstart ballast	Switchstart choke
Width	1-875in 48mm	1-25in 31mm	1-875in 48mm	1-875in 48mm	1-875in 48mm
Height	1-5in 38mm	1-3in 34mm	1-625in 41mm	1-625in 41mm	1-5in 38mm
Overall length	5-06in 129mm	8-06in 203mm	10in 254mm	9in 229mm	5-06in 129mm
Fixing centres	4-6in 114mm	7-75in 197mm	9-5in 241mm	8-5in 215mm	4-6in 114mm
Weight	2lb 0-9kg	1-875lb 0-8kg	3-5lb 1-6kg	2-5lb 1-1kg	2lb 0-9kg
Filling	Polyester resin	Varnish	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see over)	Type B	Type E	Type K	Type M	Type B
Circuit diagram (see over)	No. 1	No. 1	No. 14	No. 13	No. 1

## Capacitor

Cat. no.	AME C2224†	AME C2156	Included in ballast above	Included in ballast above	—
Price	16s 0d	17s 0d	—	—	—
Capacitance mfd	3-5 ±10%	3 ±10%	—	—	—
Volts rating	250v	250v	—	—	—
Length (inc. terminals)	2-25in 57mm	3in 76mm	—	—	—
Diameter	1-5in 38mm	1-25in 32mm	—	—	—
Illustrated type (see over)	Type R	Type P	—	—	—
Capacitor clips (see over)	AME Y5244 and AME Y5245	AME Y5259	—	—	—

## Starter switch

Cat. no.	155/400	155/400	—	155/400‡	155/400
Price	3s 0d	3s 0d	—	3s 0d	3s 0d

## Switch socket

Cat. no.	AME A5019/X	AME A5019/X	—	Included in ballast above	—
Price	3s 0d	3s 0d	—	—	—

## Quickstart unit (for use with appropriate choke above)

Cat. no.	—	—	Included in ballast above	—	—
Price	—	—	—	—	—
Width	—	—	—	—	—
Height	—	—	—	—	—
Overall length	—	—	—	—	—
Fixing centres	—	—	—	—	—
Weight	—	—	—	—	—
Filling	—	—	—	—	—
Illustrated type (see over)	—	—	—	—	—

## Other voltage ratings available

200/210v	Not available	AME 66004-1	Not available	Not available	Not available
220v	Not available	AME 66051-2	Not available	Not available	Not available
250v	Not available	Not available	Not available	Not available	Not available

‡ Starter switch to be ordered separately.

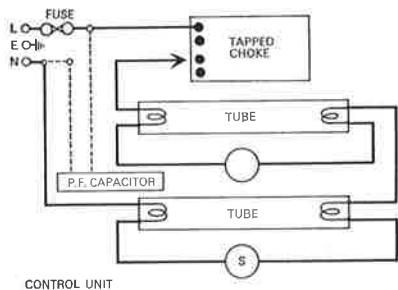
† This choke is used in Arrowslim fitting.

† This choke has lamp pin terminals. For non-fittings use, connection with terminal block T1281/2 can be used to mount on to choke pins.

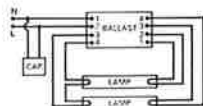
\*\* 32 watt choke used in Circline fittings.

# Circuit/components for 2ft 40w and 16in 40w tubes

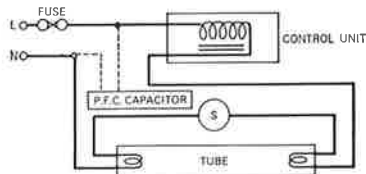
## Circuit diagrams



10 Starter switch circuit for series pair tube operation

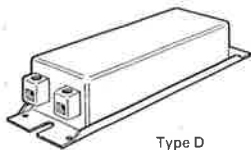


12 40w 2ft Instant start twin lamp circuit

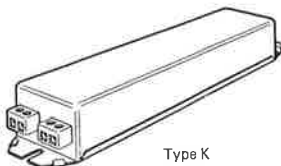


1 Standard starter switch circuit with optional PFC capacitor

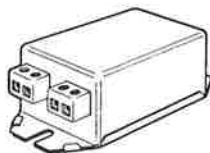
## Control gear types



Type D



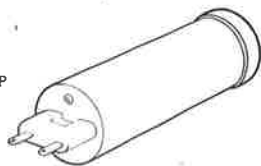
Type K



Type O

## Capacitor

Type P

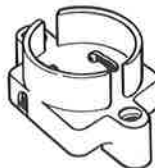


### Capacitor support clip

AME Y5244 Price 6d each  
AME Y5245 Price 6d each



## Starter socket base



AME A5019/X  
Starter socket base for bi-pin small canister switch  
Price 3s 0d each

AME Y5267  
Earth contact, optional extra  
Price 2d each

## Starter switches

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/200	AC Glow	100/250v	White	3 0
155/400	AC Glow	200/250v	White	3 0



# Circuit/components for 2ft 40w and 16in 40w tubes

Control gear for 240v 50Hz supply

## Choke or ballast

Cat. no.	AME 69035-T*	AME 69082-4	AME 69286-4*
Price	£2 17s 0d	£3 14s 0d	£1 16s 0d
Tube length and wattage	2-2ft 40w	2-2ft 40w	16in 40w
Type of control gear	Switchstart choke	Quickstart ballast	Switchstart choke
Width	2.5in 64mm	2.5in 64mm	1.875in 48mm
Height	1.875in 48mm	1.875in 48mm	1.5in 38mm
Overall length	6.75in 172mm	9.75in 247mm	5.06in 129mm
Fixing centres	6in 152mm	9in 228mm	4.5in 114mm
Weight	4.25lb 1.9kg	6lb 2.7kg	2lb 0.9kg
Filling	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see over)	Type O	Type K	Type D
Circuit diagram (see over)	No. 10	No. 12	No. 1

## Capacitor

Cat. no.	AME C2202	AME C2202	Not included
Price	£1 3s 0d	£1 3s 0d	—
Capacitance mfd	8.0 $\pm$ 10%	8.0 $\pm$ 10%	—
Working volts	250v	250v	—
Length (inc. terminals)	3.875in 98mm	3.875in 98mm	—
Diameter	1.5in 38mm	1.5in 38mm	—
Illustrated type (see over)	Type P	Type P	—
Capacitor clips (see over)	AME Y5244 + AME Y5245	AME Y5244 + AME Y5245	—

## Starter switch

Cat. no.	2 x 155/200	—	155/400
Price	3s 0d each	—	3s 0d
Switch socket (see over)	2 x AME A5019/X	—	AME A5019/X
Price	3s 0d each	—	3s 0d

## Quickstart unit (for use with appropriate choke above)

Cat. no.	—	Included in ballast above	—
Price	—	—	—
Width	—	—	—
Height	—	—	—
Overall length	—	—	—
Fixing centres	—	—	—
Weight	—	—	—
Filling	—	—	—
Illustrated type (see over)	—	—	—

## Other voltage ratings available

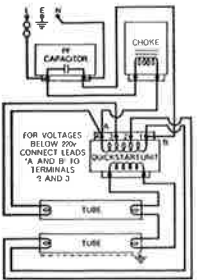
200/250v AME 69035-T	200/250v AME 69035-T with AME 47001 Q/S unit	200/210v AME 66057-1
		220v AME 62999-2
		250v AME 69057-5

\* Used in circline fittings.

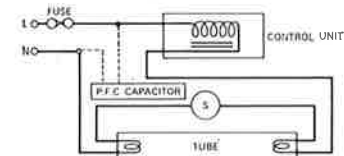
‡ Tapped choke 200/250v.

# Circuit/components for 2ft 20w tubes

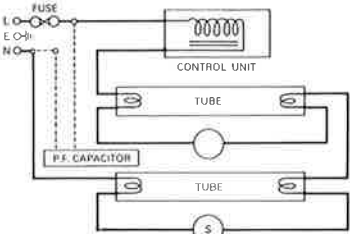
## Circuit diagrams



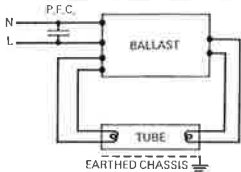
11 Twin tube Quickstart circuit



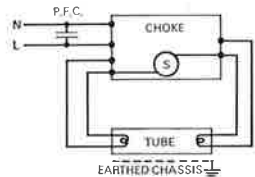
1 Standard starter switch circuit with optional P.F. capacitor



10 Starter switch circuit for series pair tube operation

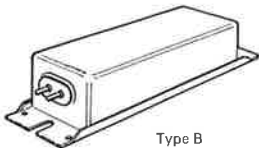


16 Quickstart circuit for LPF ballasts

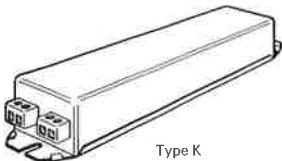


17 Starter switch circuit for LPF ballasts

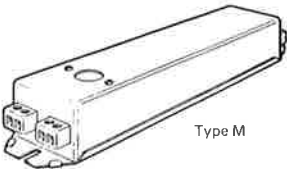
## Control gear types



Type B



Type K

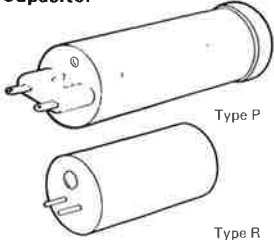


Type M



Type O

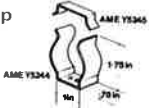
### Capacitor



Type P

Type R

Capacitor support clip  
AME Y5244 Price 6d each  
AME Y5245 Price 6d each



### Starter socket base



AME A5019/X  
Starter socket base for bi-pin  
small canister switch  
Price 3s 0d each  
  
AME Y5267  
Earth contact, optional extra  
Price 2d each

### Starter switch

Cat. no.	Type	Circuit voltage	Can colour	Price s. d.
155/200	AC Glow	100/250v	White	3 0

# Circuit/components for 2ft 20w tubes

Control gear for 240v 50Hz supply

Choke or ballast

Cat. no.	AME 69058-4†		AME 69057-4†		AME 69057-4†		AME 69072-4		AME 69195-4	
Price	£1 16s 0d		£1 16s 0d		£1 16s 0d		£3 12s 0d		£2 8s 0d	
Tube length and wattage	2ft 20w		2-2ft 20w		2-2ft 20w		2ft 20w		2ft 20w	
Type of control gear	Switchstart choke		Quickstart choke		Switchstart choke		Quickstart LPF ballast		Switchstart LPF ballast	
Width	1-875in	48mm	1-875in	48mm	1-875in	48mm	1-875in	48mm	1-875in	48mm
Height	1-5in	38mm	1-5in	38mm	1-5in	38mm	1-5in	38mm	1-5in	38mm
Overall length	5-06in	129mm	5-06in	129mm	5-06in	129mm	6-75in	172mm	9-00in	228mm
Fixing centres	4-5in	114mm	4-5in	114mm	4-5in	114mm	6-5in	165mm	8-5in	215mm
Weight	2lb	0-9kg	2lb	0-9kg	2lb	0-9kg	2-50lb	1-13kg	2-25lb	1-02kg
Filling	Polyester resin		Polyester resin		Polyester resin		Polyester resin		Polyester resin	
Illustrated type (see over)	Type B		Type B		Type B		Type K		Type M	
Circuit diagram (see over)	No. 1		No. 11		No. 10		No. 16		No. 17	

Capacitor

Cat. no.	Not included		AME C2224†		AME C2224†		AME C2204		AME C2204	
Price	—		16s 0d		16s 0d		16s 0d		16s 0d	
Capacitance mfd	—		3-5 ± 10%		3-5 ± 10%		3-5 ± 10%		3-5 ± 10%	
Working volts	—		250v		250v		250v		250v	
Length (inc. terminals)	—		2-25in	57mm	2-25in	57mm	2-25in	57mm	2-25in	57mm
Diameter	—		1-5in	38mm	1-5in	38mm	1-5in	38mm	1-5in	38mm
Illustrated type (see over)	—		Type R		Type R		Type P		Type P	
Capacitor clips (see over)	—		AME Y5244 and AME Y5245		AME Y5244 and AME Y5245		AME Y5244 and AME Y5245		AME Y5244 and AME Y5245	

Starter switch

Cat. no.	155/200	—	2 x 155/200	—	155/200
Price	3s 0d	—	3s 0d each	—	3s 0d
Switch socket (see over)	AME A5019/X	—	AME A5019/X	—	AME A5019/X
Price	3s 0d	—	3s 0d each	—	3s 0d

Quickstart unit (for use with appropriate choke above)

Cat. no.	—	AME 47046	—	—	—
Price	—	£1 3s 0d	—	—	—
Width	—	2-31in	59mm	—	—
Height	—	1-56in	39mm	—	—
Overall length	—	4-625in	117mm	—	—
Fixing centres	—	4in	102mm	—	—
Weight	—	2lb	0-9kg	—	—
Filling	—	Polyester resin		—	—
Illustrated type (see over)	—	Type O		—	—

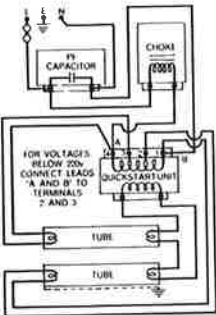
Other voltage ratings available

	200/210v	200/210v	200/210v	Not available	Not available
AME 69058-1	200/210v	AME 69057-1	AME 69057-1	—	—
220v	220v	220v	220v	Not available	Not available
AME 69058-2	220v	AME 69057-2	AME 69057-2	—	—
250v	250v	250v	250v	Not available	Not available
AME 69058-5	250v	AME 69057-5	AME 69057-5	—	—

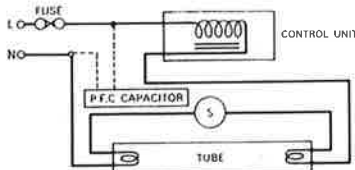
† These units have lamp pin terminals. For non-fittings use, connection with terminal block T1281/2 can be used to mount on to the choke connector pins.

# Circuit/components for 18in 15w tubes

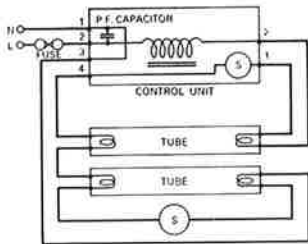
## Circuit diagrams



11 Twin tube Quickstart circuit

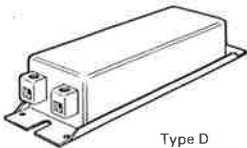


1 Standard starter switch circuit with optional PFC capacitor

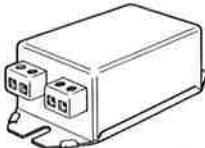


15 Twin tube starter switch circuit for HPF ballasts

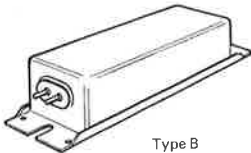
## Control gear types



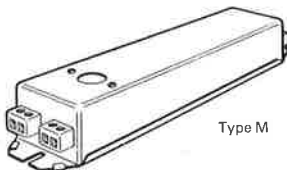
Type D



Type O

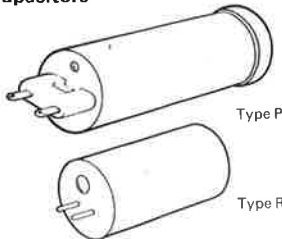


Type B



Type M

## Capacitors

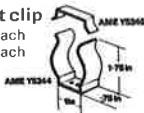


Type P

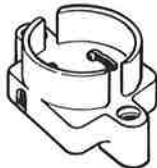
Type R

### Capacitor support clip

AME Y5244 Price 6d each  
AME Y5245 Price 6d each



## Starter socket base



AME A5019/X  
Starter socket base for  
bi-pin small canister switch  
Price 3s 0d each

AME Y5267  
Earth contact, optional extra  
Price 2d each

## Starter switch

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/200	AC Glow	100/250v	White	3 0

# Circuit/components for 18in 15w tubes

Control gear for 240v 50Hz supply

## Choke or ballast

Cat. no.	AME 66064-4	AME 69053-4	AME 66065-4
Price	£1 16s 0d	£2 5s 0d	£1 16s 0d
Tube length and wattage	18in 15w	2-18in 15w	2-18in 15w
Type of control gear	Switchstart choke	HPF Switchstart ballast	Quickstart choke
Width	1-875in 48mm	1-875in 48mm	1-875in 48mm
Height	1-5in 38mm	1-625in 41mm	1-5in 38mm
Overall length	5-06in 129mm	9in 229mm	5-06in 129mm
Fixing centres	4-5in 114mm	8-5in 215mm	4-5in 114mm
Weight	2lb 0-9kg	2-5lb 1-1kg	2lb 0-9kg
Filling	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see over)	Type D	Type M	Type D
Circuit diagram (see over)	No. 1	No. 15	No. 11

## Capacitor

Cat. no.	Not included	Included in ballast above	AME C2204
Price	—	—	16s 0d
Capacitance mfd	—	—	3-5 ±10%
Working volts	—	—	250v
Length (inc. terminals)	—	—	2-25in 57mm
Diameter	—	—	1-5in 38mm
Illustrated type (see over)	—	—	Type P
Capacitor clips (see over)	—	—	AME Y5244 + AME Y5245

## Starter switch

Cat. no.	155/200	2-155/200	—
Price	3s 0d	3s 0d each	—
Switch socket (see over)	AME A5019/X	2-AME A5019/X	—
Price	3s 0d	3s 0d each	—

## Quickstart unit (for use with appropriate choke above)

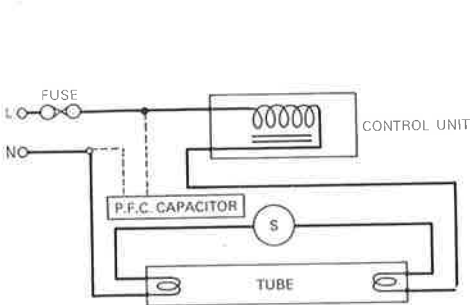
Cat. no.	—	—	AME 47046
Price	—	—	£1 3s 0d
Width	—	—	2-31in 59mm
Height	—	—	1-56in 39mm
Overall length	—	—	4-625in 117mm
Fixing centres	—	—	4in 102mm
Weight	—	—	2lb 0-9kg
Filling	—	—	Polyester resin
Illustrated type (see over)	—	—	Type O

## Other voltage ratings available

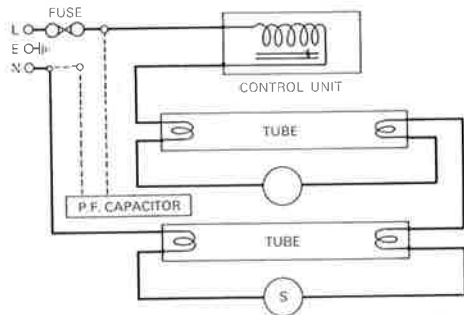
200/210v AME 66064-1	Not available	200-210v AME 66065-1
220v AME 62993-2	Not available	220v AME 69154-2
250v AME 69058-5	Not available	250v AME 69058-5

# Circuit/components for 21in 13w and 12in 8w tubes

## Circuit diagrams

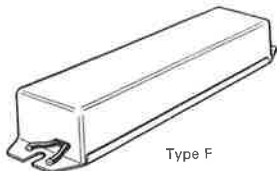


1 Standard starter switch circuit with optional PFC capacitor



10 Starter switch circuit for series pair tube operation

## Control gear types

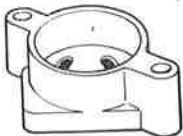


Type F

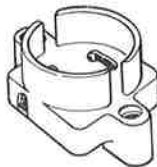


Type G

## Starter socket bases



**AME A5025**  
Starter socket base for bi-pin small canister switch  
Price 3s 0d



**AME A5019/X**  
Starter socket base for bi-pin small canister switch  
Price 3s 0d each

**AME Y5267**  
Earth contact, optional extra  
Price 2d each

## Starter switches

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/500	AC Glow	200/250v	White	3 0
155/400	AC Glow	200/250v	White	3 0
155/100	AC Glow	230/250v	White	4 0

# Circuit/components for 21in 13w and 12in 8w tubes

Control gear for 230/250v 50cs supply

Choke or ballast

Cat. no.	AME 62810-L	AME 69160-4*	AME 69159-H*	AME 62810-H	AME 62880-H
Price	£1 0s 0d	£1 0s 0d	£1 0s 0d	£1 0s 0d	£1 0s 0d
Tube length and wattage	21in 13w	21in 13w	12in 8w	12in 8w	2-12in 8w
Type of control gear	Switchstart choke	Switchstart choke	Switchstart choke	Switchstart choke	Switchstart choke
Width	1-75in 45mm	1-3in 33mm	1-3in 33mm	1-75in 45mm	1-75in 45mm
Height	1-625in 41mm	0-875in 22mm	0-875in 22mm	1-625in 41mm	1-625in 41mm
Overall length	3-75in 95mm	7-5in 190mm	7-5in 190mm	3-75in 95mm	3-75in 95mm
Fixing centres	3-5in 89mm	7-25in 184mm	7-25in 184mm	3-5in 89mm	3-5in 89mm
Weight	1-25lb 0-6kg	1-25lb 0-6kg	1-25lb 0-6kg	1-25lb 0-6kg	1-25lb 0-6kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see over)	Type G	Type F	Type F	Type G	Type G
Circuit diagram (see over)	No. 1	No. 1	No. 1	No. 1	No. 10

## Capacitor

Cat. no.	Not included	Not included	Not included	Not included	Not included
Price	—	—	—	—	—
Capacitance mfd	—	—	—	—	—
Working volts	—	—	—	—	—
Length (inc. terminals)	—	—	—	—	—
Diameter	—	—	—	—	—
Illustrated type (see over)	—	—	—	—	—
Fixing clips (see over)	—	—	—	—	—

## Starter switch

Cat. no.	155/500	155/500	155/400	155/500	2-155/100
Price	3s 0d	3s 0d	3s 0d	3s 0d	4s 0d each
Switch socket (see over)	AME A5019/X	AME A5025	AME A5025	AME A5019/X	2-AME A5019/X
Price	3s 0d	3s 0d	3s 0d	3s 0d	3s 0d each

## Quickstart unit (for use with appropriate choke above)

Cat. no.	—	—	—	—	—
Price	—	—	—	—	—
Width	—	—	—	—	—
Height	—	—	—	—	—
Overall length	—	—	—	—	—
Fixing centres	—	—	—	—	—
Weight	—	—	—	—	—
Filling	—	—	—	—	—
Illustrated type (see over)	—	—	—	—	—

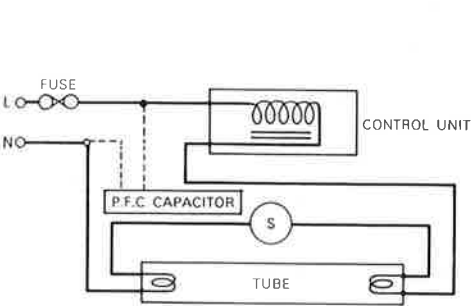
## Other voltage ratings available

	220v	200/220v	200/220v	200/220v	200/220v
	Use above choke	AME 69160-L	AME 69159-L	AME 62810-L	2 x AME 62810-L
	—	220/250v	—	—	—
	—	AME 62810-L	—	—	—

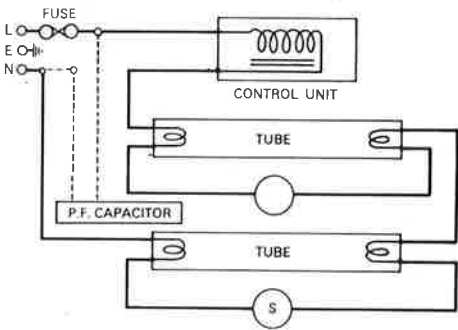
\* These chokes are used in L.J. Minipack fittings.

# Circuit/components for 9in 6w and 6in 4w tubes

## Circuit diagrams

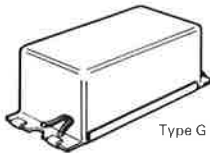


1 Standard starter switch circuit with optional PFC capacitor



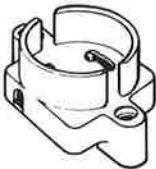
10 Starter switch circuit for series pair tube operation

## Control gear type



Type G

## Starter socket base



**AME A5019/X**  
Starter socket base for bi-pin small canister switch  
Price 3s 0d each

**AME Y5267**  
Earth contact, optional extra  
Price 2d each

### Starter switches

Cat. no.	Type	Circuit voltage	Can colour	Price s d
155/400	AC Glow	200/250v	White	3 0
155/100	AC Glow	230/250v*	White	4 0

\*Two in series.



# Circuit/components for 9in 6w and 6in 4w tubes

Control gear for 230/250v 50Hz supply

## Choke or ballast

Cat. no.	AME 62810-H	AME 62810-L	AME 62810-H	AME 62810-H
Price	£1 0s 0d	£1 0s 0d	£1 0s 0d	£1 0s 0d
Tube length and wattage	9in 6w	2-9in 6w	6in 4w	2-6in 4w
Type of control gear	Switchstart choke	Switchstart choke	Switchstart choke	Switchstart choke
Width	1-75in 45mm	1-75in 45mm	1-75in 45mm	1-75in 45mm
Height	1-625in 41mm	1-625in 41mm	1-625in 41mm	1-625in 41mm
Overall length	3-75in 95mm	3-75in 95mm	3-75in 95mm	3-75in 95mm
Fixing centres	3-5in 89mm	3-5in 89mm	3-5in 89mm	3-5in 89mm
Weight	1-25lb 0-6kg	1-25lb 0-6kg	1-25lb 0-6kg	1-25lb 0-6kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see over)	Type G	Type G	Type G	Type G
Circuit diagram (see over)	No. 1	No. 10	No. 1	No. 10

## Capacitor

Cat. no.	Not included	Not included	Not included	Not included
Price	—	—	—	—
Capacitance mfd	—	—	—	—
Working volts	—	—	—	—
Length (inc. terminals)	—	—	—	—
Diameter	—	—	—	—
Illustrated type (see over)	—	—	—	—
Fixing clips (see over)	—	—	—	—

## Starter switch

Cat. no.	155/400	155/100	155/400	2-155/100
Price	3s 0d	4s 0d each	3s 0d	4s 0d each
Switch socket (see over)	AME A5019/X	2-AME A5019/X	AME A5019/X	2-AME A5019/X
Price	3s 0d	3s 0d each	3s 0d	3s 0d each

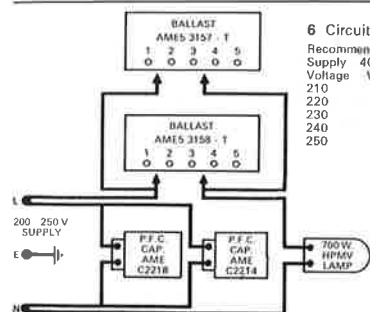
## Quickstart unit (for use with appropriate choke above)

Cat. no.	—	—	—	—
Price	—	—	—	—
Width	—	—	—	—
Height	—	—	—	—
Overall length	—	—	—	—
Fixing centres	—	—	—	—
Weight	—	—	—	—
Filling	—	—	—	—
Illustrated type (see over)	—	—	—	—

## Other voltage ratings available

200/220v	200/220v	200/220v	200/220v
AME 62810-L	2 x AME 62810-L	AME 62810-L	2 x AME 62810-L

# Circuit/components for mercury discharge lamps



6 Circuit for 700w MB lamp

Recommended Tappings

Supply 400w AME 35157-T

Voltage Tapping

210 200 2-3

220 210 1-3

230 220 2-4

240 230 1-4

250 240 2-5

250w AME 53158-T

Voltage Tapping

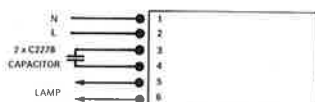
210 1-3

220 2-4

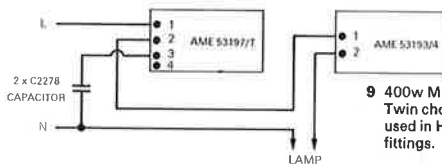
230 1-4

240 2-5

250 1-5



8 400w MBI single ballast. AME 53195-T



9 400w MBI Twin choke circuit used in HBIG400 fittings.

## Standard voltage units 230/250v 50Hz supply

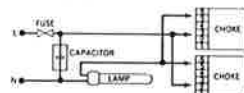
Lamp	Choke	Capacitor Catalogue no.	Value	Circuit Diagrams
1000w MB	2 x AME 53243-4	2 x C2236	2 x 26 $\mu$ F	3
400w MB	AME 53193-4	C2218	20 $\mu$ F	1
400w MBI	AME 53195-T	2 x C2278	30 $\mu$ F	8
400w MBI	AME 53193-4† AME 53197-T†	2 x C2278	30 $\mu$ F	9
250w MB	AME 53198-4	C2214	13 $\mu$ F	1
125w MB	AME 53159-4	C2234	8 $\mu$ F	1
80w MB	AME 53162-4	C2234	8 $\mu$ F	1
50w MB	AME 53184-4*	C2203	6 $\mu$ F	1

\* For use in fittings only.

† Used in H.B.I.G. Fittings.



1 Circuit for 400w MB lamp. 250w MB lamp. 125w MB lamp. 80w MB lamp.



3 Circuit for 1000w MB lamp

## Tapped voltage units 200/250v 50Hz supply

Lamp		Supply Voltage	Catalogue no.	Choke	Catalogue no.	Capacitor
				Tapping		Value
1000w MB	190	2 x AME 53164-T Connected in parallel	2-3	2-3	2 x C2236	50 mfd
	200					
	210					
	220					
	230					
	240					
700w MB	200	53157-T and 53158-T*	See circuit diagram no. 6	C2218 and C2214*	20 $\mu$ F 13 $\mu$ F	
	210					
	220					
	230					
	240					
	250					
400w MB	200	53157-T	2-3	C2218	20 $\mu$ F	
	210					
	220					
	230					
	240					
	250					
250w MB	200	53158-T	2-3	C2214	13 $\mu$ F	
	210					
	220					
	230					
	240					
	250					
125w MB	200	53159-T	1-2	C2234	8 $\mu$ F	
	210					
	220					
	230					
	240					
	250					
80w MB	200	53162-T	1-2	C2234	8 $\mu$ F	
	210					
	220					
	230					
	240					
	250					

\* In parallel.

# Circuit/components for mercury discharge lamps

## Ballasts for single lamp operation 230/240v 50Hz. A.C. supply only

Catalogue no.	Rating	Type	Weight lbs kg	Nett Price £ s d
†AME 53184-4	50w HPMV	K	2.75 1.2	1 8 0
AME 53162-4	80w HPMV	V	4.0 1.8	1 7 0
AME 53159-4	125w HPMV	T	6.0 2.72	1 17 0
†AME 53198-4	250w HPMV	T	5.6 2.54	2 12 0
†AME 53193-4	400w HPMV	S	8.5 3.86	3 8 0
†AME 53195-T	400w MBI	X	18 8.16	7 1 0
†**AME 53197-T	400w MBI	S	8.5 3.86	3 13 0
†AME 53193-4		S	8.5 3.86	3 8 0
AME 53157-T	700w HPMV	U	12 5.5	4 9 0
†AME 53198-4		T	5.6 2.54	2 12 0
†*AME 53243-4	1000w HPMV	S	8.5 3.86	3 4 6

\* 2 ballasts connected in parallel are used with one lamp.

\*\* This arrangement used in H.B.J.G. 400 fittings.

† For use in fittings only.

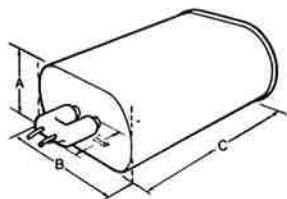
‡ The heat dissipation from these ballasts is extremely efficient and it is therefore necessary to ensure that cables in close proximity to the ballast surface are high temperature grade or suitably protected by high temperature sleeving.

## Tapped ballast 200/250v 50Hz A.C. supply

Catalogue no.	Rating	Nett Price £ s d
AME 53162-T	80w	1 15 0
AME 53159-T	125w	2 0 0
AME 53158-T	250w	3 13 0
AME 53157-T	400w	4 9 0
AME 53164-T	1000w	4 10 0

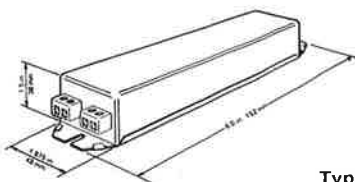
## Power factor correction capacitors

This range of capacitors is unfused and suitable for continuous operation on 275v 50Hz in the temperature range -40°C to +70°C. Fixing is achieved by means of a removable saddle which clips over the capacitor. This enables the capacitor to be mounted horizontally or vertically. The capacitor is packed complete with saddle.

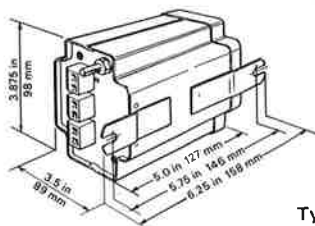


Catalogue no.	Capacitance mfd.	Working voltage	Dimensions			Nett Price £ s d
			Depth A in mm	Width B in mm	Height C in mm	
AME C2234	8	250	1 3/8 35	2 1/2 57	2 3/4 70	14 0
AME C2214	13	250	2 1/8 54	3 1/8 79	2 3/4 67	18 0
AME C2281	13	440	2 1/8 54	3 1/8 79	4 1/8 105	1 11 0
AME C2216	15	250	2 1/8 54	3 1/8 79	3 7/8 76	1 3 0
AME C2218	20	250	2 1/8 54	3 1/8 79	5 1/8 128	1 7 0
AME C2236	25	250	2 1/8 54	3 1/8 79	4 1/2 114	1 10 0
AME C2235	30	300	2 1/8 67	3 1/8 92	5 1/8 133	1 12 0
AME C2278	15	350	2 1/8 54	3 1/8 79	4 1/2 120	1 12 0
AME C2203†	6	250	5 1/8 130	1 1/2 32 diameter		11 0
AME C2280	16	250	2 1/8 54	3 1/8 79	3 7/8 70	1 3 0

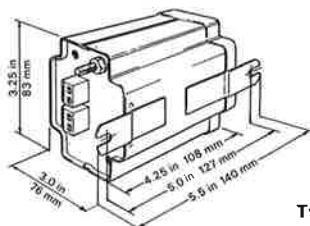
\* For use in fittings only.



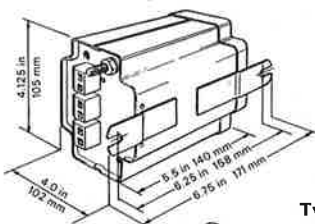
Type K



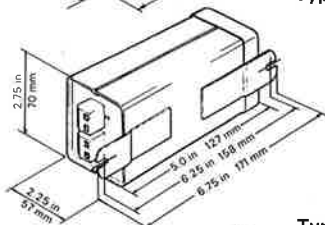
Type S



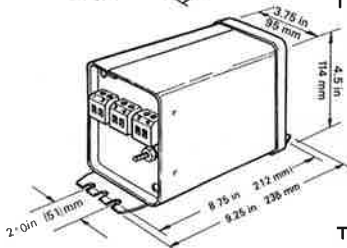
Type T



Type U

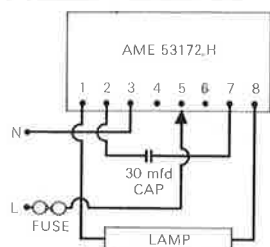


Type V

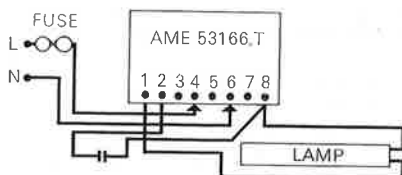


Type X

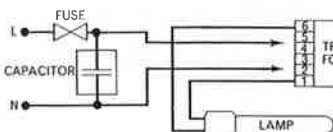
# Circuit/components for sodium discharge lamps



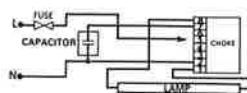
2 Circuit for 200w SLI/H sodium discharge lamp on 230/250v 50Hz supply.



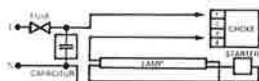
4 Circuit for Instant start for 135w SOX sodium discharge lamp.  
Note: Ballast must not be operated without externally connected capacitor.



5 45w/60w/85w/140w SO/H and SOI/H 35w/55w/90w SOX.



8 Circuit for 140w SLI/H sodium discharge lamp (starter switch).



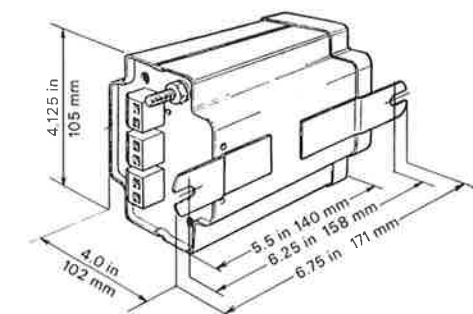
7 Circuit for 60w SLI sodium discharge lamp (starter switch).

## Sodium Gear components for Sodium lamp circuits

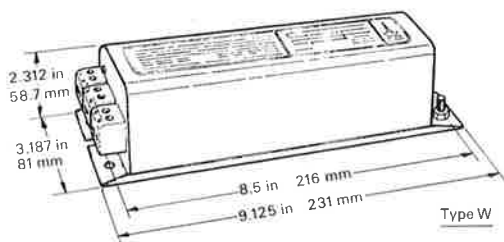
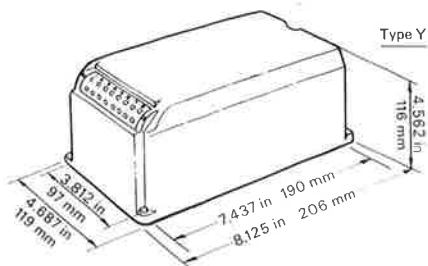
Lamp	Voltage	Transformer		Capacitor Catalogue no.	Capacitance MFD	Circuit Diagram
		Catalogue no.	Tappings			
45/60/85w SO/H and SOI/H	200	AME 53182/T	2-3	C2214 for 85w C2216 for 45/60w	13 15	5
	210		2-3			
	220		2-4			
	230		2-4			
	240		2-5			
	250		2-5			
140w SO/H, SOI/H and SLI/H	240	AME 53232-4		C2218	20	5
35/55w SOX	240	AME 53182/4	2-3	C2280	16	5
90w SOX	240	AME 53232-4		C2236	25	5
135w	190	AME 53166/T	LN	C2281	13	4
	200		6-7			
	210		6-8			
	220		5-7			
	230		5-8			
	240		4-7			
	250		4-8			
	260		3-7			
60w SLI/H (Starter switch)	240	AME 53165/4	3-8	C2234	8	7
200w SLI/H	230	AME 53172/H	NL	C2235	30	2
Instant start	240		3-4			
	250		3-5			
			3-6			

# Circuit/components for sodium discharge lamps

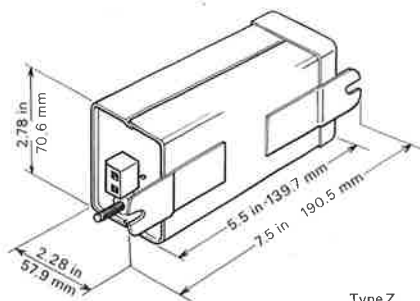
Type U



Type Y



Type W



Type Z

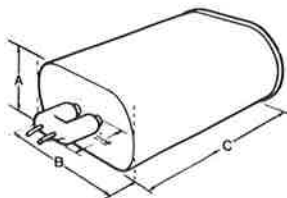
## Lamp ballasts for sodium lamp circuits

Catalogue no.	Supply at 50Hz only	Rating and lamp type	Weight lbs kg	Type	Nett Price £ s d
AME 53182-T	200/250v	45, 60w or 85w SO/H or SOI/H	7.5 3.38	W	3 10 0
AME 53182-4	230/240v	35w or 55w S.O.X.	7.5 3.38	W	3 4 0
AME 53232-4	240v	140w SLI or 90w S.O.X.	12.6 5.82	U	3 14 0
AME 53166-T*	190/250v	135w S.O.X.	15.5 7.09	Y	6 13 0
AME 53172-H	230/250v	200w SLI/H	15.5 7.09	Y	7 2 0
AME 53172-T	200/240v				7 5 0
AME 53165-4	240v	60w SLI/H	4.5 2.05	Z	1 15 0

\* Not to be used without capacitor Cat. no. AME C2281

## Power factor correction capacitors

This range of capacitors is unfused and suitable for continuous operation on 275v 50Hz in the temperature range -40°C to +70°C. Fixing is achieved by means of a removable saddle which clips over the capacitor. This enables the capacitor to be mounted horizontally or vertically. The capacitor is packed complete with saddle.



Catalogue no.	Capacitance mfd	Working voltage	Dimensions Depth A in mm	Width B in mm	Height C in mm	Nett Price £ s d
AME C2234	8	250	1 3/8 35	2 1/8 57	2 3/8 70	14 0
AME C2214	13	250	2 1/8 54	3 1/8 79	2 3/8 67	18 0
CAME2281	13	440	2 1/8 54	3 1/8 79	4 1/8 105	1 11 0
AME C2216	15	250	2 1/8 54	3 1/8 79	3 3/8 76	1 3 0
AME C2218	20	250	2 1/8 54	3 1/8 79	3 3/8 95	1 7 0
AME C2236	25	250	2 1/8 54	3 1/8 79	4 1/8 114	1 10 0
AME C2235	30	300	2 1/8 67	3 1/8 92	5 1/8 133	1 12 0
AME C2280	16	250	2 1/8 54	3 1/8 79	3 3/8 76	1 3 0

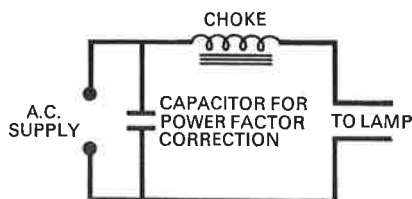
# Special mercury control gear

## Lamp type MBL/D

### a.c. operation

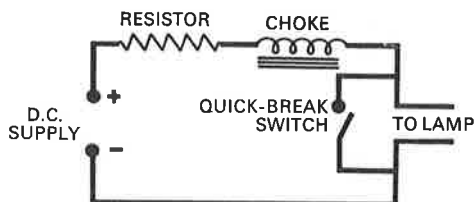
Rating	Choke Cat. no.	Nett price £ s d	Capacitor Cat. no.	Rating mfd	Nett price £ s d
125w	53159-4	1 17 0	C2234	8	14 0

### A.C. OPERATION



### d.c. operation

Rating	Supply volts d.c.	Resistance ohms	Current rating amps	Choke Cat. no.	Nett price £ s d
125w	200	79	2-3	53159-4	1 17 0
	210	87			
	220	95			
	230	105			
	240	112			
	250	123			

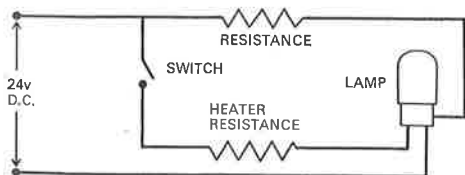


## Lamp types M1 and M2

### M1 Lamps d.c. operation

Rating	Supply volts	Series resistance	Heater resistance
4-5w	24 d.c.	24 ohms	30 ohms

### M1 and M2 LAMPS - CIRCUIT DIAGRAMS

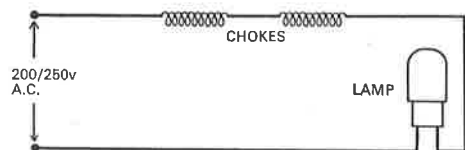


M1 LAMPS - 24v D.C. OPERATION

### M2 Lamps a.c. operation

Supply volts	Operating current	Chokes in series	Recommended Price £ s d
200/250 a.c.	0.9 amp	62830-4 and 62825	2 6 6 and 1 3 6

Alternatively series resistances may be used in place of the two series chokes of values between 480 ohms to give operating currents in the range 0.5 to 1.5 amps



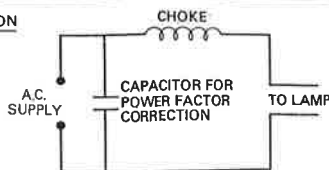
M2 LAMPS - 200/250v A.C. OPERATION

# Special mercury control gear

## Lamp type MB/D

Rating	Choke			Capacitor		
	Cat. no.	Nett price £ s d		Cat. no.	Rating mfd	Nett price £ s d
125w	53159-4	1 14 3		C2234	8	12 6

### A.C. OPERATION



## Lamp type ME/D

### a.c. operation

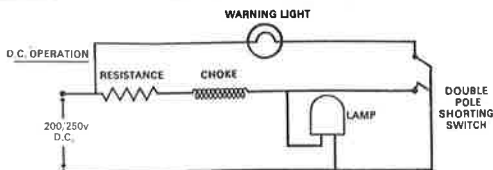
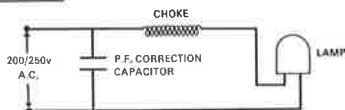
Rating	Supply a.c.	Choke			Capacitor			Starting capacitor
		Cat. no.	Nett price each £ s d		Cat. no.	Rating mfd	Nett price each £ s d	
250w	200/250v	AME 53235	11 11 0		AME C2275	60	8 6 0	—
1000w	200/250v	AME 53235(4)	11 11 0		3 x AME C2275	3 x 80	10 15 0	0.5 mfd

### d.c. operation

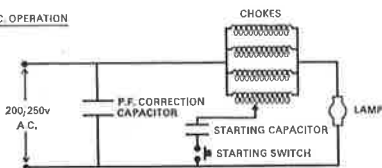
Supply volts d.c.	250w			100w		
	Series resistance ohms	Choke	Nett Price £ s d	Series resistance ohms	Current rating amps	
200	35.2	AME 53235	11 11 0	8.9	22.5	
210	37.0	AME 53235	11 11 0	9.5	22.0	
220	40.6	AME 53235	11 11 0	10.2	21.6	
230	43.3	AME 53235	11 11 0	10.9	21.0	
240	46.0	AME 53235	11 11 0	11.5	20.8	
250	48.7	AME 53235	11 11 0	12.2	20.4	

## ME/D LAMPS - CIRCUIT DIAGRAMS 250w LAMPS

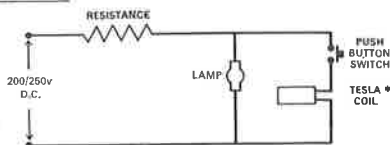
### A.C. OPERATION



### A.C. OPERATION



### D.C. OPERATION

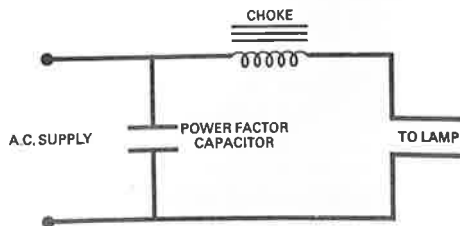


\*Obtainable from :-  
Edwards High Vacuum Ltd., Crawley, Sussex,  
type T1 or equivalent

## Lamp type MBW/U

Rating	Choke			Capacitor		
	Cat. no.	Nett price £ s d		Cat. no.	Rating mfd	Nett price £ s d
125w	53159-4	1 17 0		C2234	8	14 0

### CIRCUIT DIAGRAM



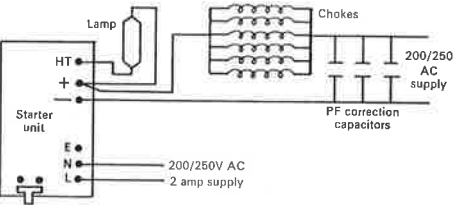
# Compact source Xenon lamp control gear

## Lamp type XB linear source

Rating	Starter		Chokes		Capacitors		Mains current amps	Net price		
	Cat. no.	Net price	Cat. no.	Net price each £ s d	Mfd	Cat. no.		£	s	d
1kw	AME 53239	£56†	6 x AME 53235	11 11 0	240 or 300	3 x AME C2276 3 x AME C2276 + AME C2275	7½ 5	10	15	0
								10	15	0
								8	6	0

† Strictly net prices – not subject to normal discounts.

### Circuit diagram

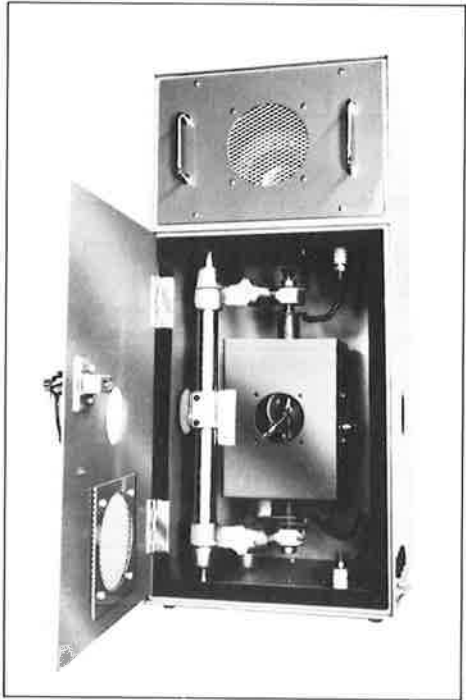


## Lamp housings

Cat. no.	Dimensions		Width in mm	Breadth in mm	Base to optical centre in mm	Net price £ s d
	Height in mm					
AME M6077	26 680		12 304	12 304	10 254	on application
AME M6078	10 254		6 152	6 152	5 127	on application

† Strictly net price – not subject to normal discounts

Universal housings are available to accommodate 250w, 500w and 2kw Xenon lamps. The housings include forced draught cooling and are suitable for laboratory research and development work, and also for industrial applications. The base of the housing provides location for a standard optical bench.





# Compact source Xenon lamp control gear

## Lamp type XE/D a.c. lamps 200/250v 50Hz

Rating	Starter		Chokes		Watts loss	Net price each		Capacitors		Mains current amps	Net price each	
	Cat. no.	Net price	Cat. no.			£	s	Mfd	Cat. no.		£	s
250w	AME 53239	£60.4.0	2 x AME 53235	100	11 11 0	11	11	0	160 or 200	2 x AME C2275 2 x AME C2275 + AME C2276	5 2	8 6 0 8 6 0 10 15 0
500w	AME 53239	£60.4.0	6 x AME 53235	150	11 11 0	11	11	0	240 or 300	3 x AME C2276 3 x AME C2276 + AME C2275	8½ 4½	10 15 0 10 15 0 8 6 0

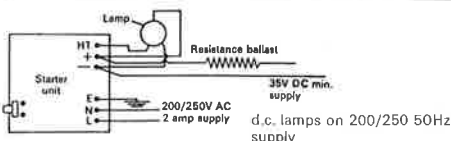
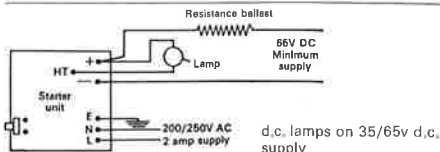
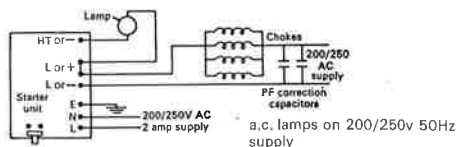
## d.c. lamps on 35/65v d.c. supply

Rating	Starter		Series resistance		Current amps
	Supply volts d.c.	Cat. no.	Net Price	Ohms	
250w	65v min	AME 53239	£60.4.0	V - 16.5	15
500w	65v min	AME 53239	£60.4.0	V - 22	23
2kw	65v min	AME 53233	£94.12.0	V - 25	80
2 electrode				80	
3kw	35v min	AME 53234	£69.18.0	V - 27	74
3 electrode				74	

## d.c. lamps on 200/250v 50Hz supply

Rating	Starter		Rectifier ballast		Net price
	Cat. no.	Net price	Cat. no.		
250w	AME 53239	£60.4.0†	AME 53236	£150†	
500w	AME 53239	£60.4.0†	AME 53236	£150†	
2kw 2 electrode	AME 53233	£94.12.0†	AME 53237	£277†	
2kw 3 electrode	AME 53234	£69.18.0†	AME 53238	£203†	

† Strictly net prices - not subject to normal discounts.



## Lamp type 400w compact source iodide

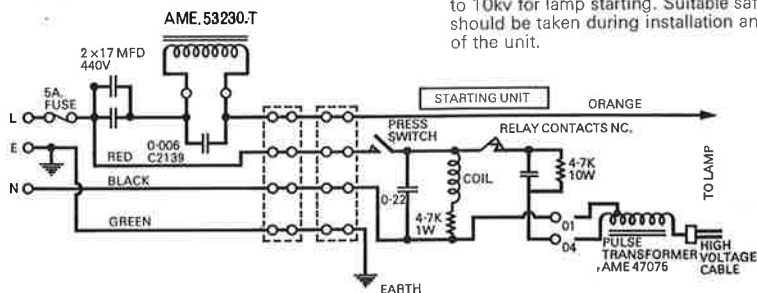
Cat. no.	Description	Weight lbs	kg	Net price £ s d
AME 53196-4	Control gear box complete with gear	26	11.8	22 5 0
Houses the following components:				
AME 53230.T	Ballast			4 2 0*
AME 47075	Pulse transformer			3 15 0*
AME C2139	0.006 mfd capacitor			4 0**
† Capacitor	34 mfd 440v (2 x 17mfd) B.I.C.C. Ltd			
† Relay	Magnetic Devices Ltd REF. 325/T5 14084/2			
† Toggle Switch (S.P. Biased 5A)				
† Resistor (wirewound)	4.7kΩ 10w			
† Resistor (carbon)	4.7kΩ 1w			
† Capacitors 2 off	0.22 mfd 1000v (Non-Inductive)			

\* Component net price.

\*\* Recommended price.

† Embodiment users can obtain these items direct from appropriate manufacturers as shown above.

## Circuit diagram



**Warning** This unit generates high voltage pulses up to 10kv for lamp starting. Suitable safety precautions should be taken during installation and operation of the unit.

# Transformers, chokes and installation notes

## Installation notes

Certain factors must be considered when installing fluorescent lighting equipment which do not apply to the installation of non-reactive loads such as tungsten filament lamps. The following notes will help to understand these special requirements:

- 1 Cable ratings – a factor of 1½ is normally applied to the rating of distribution cables, i.e. not more than a 4 amp load on a 5 amp circuit.
- 2 Fuse ratings – when HRC fuses or quick reaction protective devices are used to control a circuit it may be necessary to halve the normal rating to allow for switching surges, i.e., a 5 amp HRC fuse may be limited to a maximum of 2½ amps.
- 3 Wall switches – because of the high voltage surges that occur when switching fluorescent tubes on or off, a 'quick-make and slow-break' switch action is preferable. Certain quick break actions and switches with an earthed metal plate or mechanism may be unsuitable for fluorescent lighting.
- 4 Harmonics and neutral current – all fluorescent tube circuits produce a certain amount of harmonic distortion which increases the neutral current in a 3-phase 4-wire system. Where the fluorescent lighting forms a large part of the electrical load, a full-size neutral must be used and the main 4-core distribution cables should have their current rating reduced by a factor of 17 per cent.

- 5 Gear noise – all control gear having a laminated iron core will produce noise due to the magnetisation of the laminations. The noise level varies according to the type of circuit and the wattage rating. Although all Thorn control gear is suitable for use in offices and factories having a normal background noise level, this control gear could become audible when the ambient noise becomes reduced, e.g., in an office outside normal working hours. Advice should be sought regarding suitable gear for use in exceptionally quiet locations. The method of mounting the fitting and the surface on which it is fixed plays a very important part in securing satisfactory operation in difficult conditions.
- 6 Radio and television interference – fluorescent tubes emit a certain amount of high frequency radiation particularly near end of life which can be picked up by radio and television sets. If the tube is more than 8 to 10 feet from a set which has a good outdoor aerial with a screened lead, interference is not normally experienced. Care should be taken, however, when using portable radios or television set with indoor aerials close to the fluorescent tube.
- 7 When control gear is not enclosed within a lighting fitting, it is recommended that it should be mounted on a non-combustible material.

For more detailed information on installation and maintenance of fluorescent lighting equipment, see the Thorn Technical Pocket-book.

## Supply voltage step-up transformers— (used in conjunction with 240v circuits)

Cat. no.	AME 42343*	AME 42350	AME 42355	AME 47048
Price	£1 9s 0d	£1 9s 0d	£1 9s 0d	£2 6s 0d
Voltage range	220v	220v	200/210v	110v
Tube length, wattage and circuit	8ft 125w SS	8ft 125w SS 8ft 125w QS 8ft 85w QS 6ft 85w SRS	8ft 125w QS 8ft 85w QS 6ft 85w SRS	4ft 40w SS/QS 5ft 65w SS/SRS 5ft 80w SS

## Dimensions

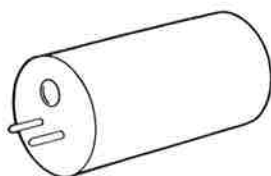
	2-187in	56mm	2-5in	64mm	2-5in	64mm	2-5in	64mm
Width	1-43in	35mm	1-875in	48mm	1-875in	48mm	1-875in	48mm
Height	4in	102mm	4in	102mm	4in	102mm	6-75in	172mm
Overall length	3-5in	89mm	3-5in	89mm	3-5in	89mm	6in	152mm
Fixing centres	1lb	0-45kg	2lb	0-9kg	2lb	0-9kg	4-125lb	1-86kg
Weight	Varnish		Polyester resin		Polyester resin		Polyester resin	
Insulation								

\*For use in HD or PP series fittings.

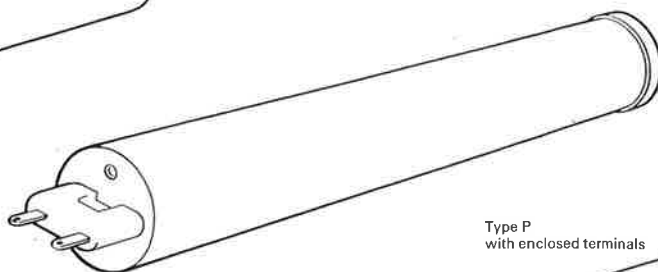
## Conversion chokes (50Hz supply)

Used in series with 200/210v choke on 240/250v supply

Cat. no.	Tube	Fixing centres in	Weight lb	Length in	Height in	Width in	Illustrated type	Price £ s d
AME 62825	5ft 80w	3½	1½	3½	1½	1½	G	1 5 0
AME 62824	4ft 40w	3½	1½	3½	1½	1½	G	1 2 0

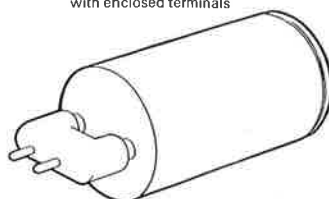


Type R  
with lamp pin terminals



Type P  
with enclosed terminals

Type Q  
with enclosed pin terminals



## Standard PFC capacitors

To B.S.4017

Cat. no., Tag terminals (Type P)	Pin terminals (Type R or Q)	Tube and circuit	Capacitance mfd	Volts working	Length including terminals in mm	Diameter in mm	Fixing clips	Price £ s d
AME C2185	AME C2228	8ft 125w QS	$7.8 \pm 5\%$	440v	$7\frac{1}{2}$ 197	$1\frac{1}{2}$ 38	A	1 16 0
AME C2181	AME C2173	8ft 125w SS	$7.2 \pm 5\%$	440v	$7\frac{1}{2}$ 197	$1\frac{1}{2}$ 38	A	1 16 0
AME C2206	AME C2226	8ft 85w QS	$5.0 \pm 5\%$	440v	$6\frac{1}{8}$ 156	$1\frac{1}{2}$ 38	A	1 3 0
AME C2200	AME C2220	6ft 85w and 5ft 65w SRS	$8.4 \pm 5\%$	250v	$4\frac{1}{2}$ 114	$1\frac{1}{2}$ 38	A	1 7 0
—	AME C2207	6ft 85w SS	$6.0 \pm 10\%$	250v	$5\frac{1}{8}$ 130	$1\frac{1}{2}$ 32	B	1 3 0
AME C2201	AME C2221	5ft 80w SS/PS	$8.0 \pm 10\%$	250v	$3\frac{7}{8}$ 98.5	$1\frac{1}{2}$ 38	A	1 3 0
AME C2202	AME C2222	5ft 80w SS/QS	$8.0 \pm 10\%$	250v	$3\frac{7}{8}$ 98.5	$1\frac{1}{2}$ 38	A	1 3 0
—	AME C2241	5ft 65w SS	$5.0 \pm 10\%$	250v	$5\frac{1}{8}$ 130	$1\frac{1}{2}$ 32	B	1 3 0
AME C2163	AME C2229	5ft 50w SS	$2.85 \pm 5\%$	440v	6 152	$1\frac{1}{2}$ 32	B	1 3 0
—	AME C2092	4ft 40w SS/PS	$3.5 \pm 10\%$	250v	$3\frac{3}{8}$ 86	$1\frac{1}{2}$ 32	B	16 0
AME C2204	AME C2224	4ft 40w QS	$3.5 \pm 10\%$	250v	$2\frac{3}{4}$ 57	$1\frac{1}{2}$ 38	A	16 0
AME C2156	—	3ft 30w SS	$3.0 \pm 10\%$	250v	3 76	$1\frac{1}{2}$ 32	B	16 0
AME C2167	—	Special series type	$6.8 \pm 5\%$	440v	$7\frac{1}{16}$ 241	$1\frac{1}{2}$ 38	A	1 16 0

A — AME Y5244 + AME Y5245. B — AME Y5259.

## Radio interference suppression capacitors

0.005 mfd 800v a.c. working.

Only required for those units which do not incorporate a 0.005 mfd suppressor within the starter switch or Quickstart container.

Cat. no.	For use with	Voltage range	Description	Price £ s d
AME C2139	QS ballasts	200/250v	With two $1\frac{1}{2}$ in lead wires	4 0
AME C2051	RIS filter	$2 \times 0.005$ mfd plus $1 \times 0.1$ mfd in delta connection		4 0
AME C2053	General use	200/250v	0.01 mfd suppressor	2 0

N.B. Where additional suppression is required use the AME C2051 filter unit.

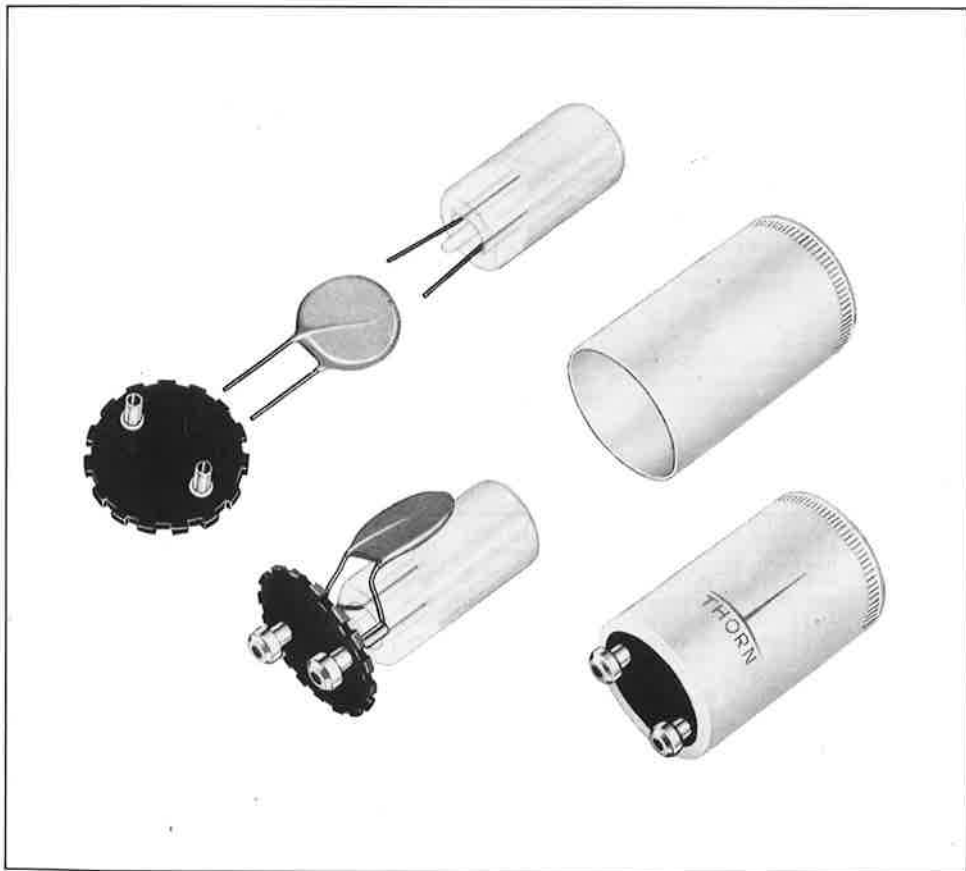
# Starter switches

## Constructional features

Several important features are embodied in Thorn starter switches including:

- (a) Solid pins are secured to the insulated base disc and solderless junctions connect these pins to the interior wiring.
- (b) A ceramic disc type radio interference suppression capacitor is fitted internally to each canister. This type of RIS capacitor is far superior to the 'waxed paper and foil' type, since short circuit faults have been eliminated as a possible cause of failure.

The various stages in the production of standard Thorn Glowswitch starter switches are summarised in the illustration. Individual components shown in the first stage are welded together to form the symmetrical electrode switch shown in the second stage. After the completed glow-bottle is sealed off – top of fourth stage – the lead wires of the bottle and ceramic disc suppressor are clamped inside the terminals – bottom of fifth stage. The plastic canister is then shrunk on to the insulated base disc.



## 2-pin small can

Cat. no.	Type	Application	Circuit voltage	Can colour	Height in mm	Diameter in mm	Price s d
155/500	AC Glow	4w, 6w, 8w, 13w, 30w, 40w, 65w and 80w	200/250v	White	1 1/2 38	1 1/2 20.6	3 0
155/400	AC Glow	4w, 6w, 8w, 30w and 40w	200/250v	White	1 1/2 38	1 1/2 20.6	3 0
155/200	AC Glow	Single 15w, 20w and 2ft 40w	100/250v	White	1 1/2 38	1 1/2 20.6	3 0
155/100	AC Glow	4w, 6w, 8w, Series Pair	230/250v	White	1 1/2 38	1 1/2 20.6	4 0
155/300	AC Glow	125w leading circuit	230/250v	White	1 1/2 38	1 1/2 20.6	5 0
155/600	AC Glow	6ft 85w	240v	White	1 1/2 38	1 1/2 20.6	5 0
155/501	AC Glow	50w leading circuit	240v	White	1 1/2 38	1 1/2 20.6	5 0

\* Use two 155/200 for two 15w, 20w, or 2ft 40w tubes in series on 200/250v only.

# Control gear boxes

The sheet metal boxes are made of 16swg mild steel and the weatherproof types are sealed with closed cell neoprene sponge gaskets.

The finish on the interior boxes consists of bonderising and spraying with dark battleship grey gloss. Exterior boxes are bonderised, sprayed with bonding primer and finished with dark battleship grey gloss.

**1000w H.P.M.V. or 400w M.B.I.**

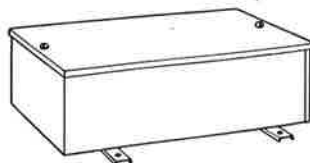
**AME M6173 (interior use) Nett user price £2 15s 0d (Sheet metal)**

## Internal dimensions

Length 16·75in (425mm)  
Width 9·625in (244mm)  
Height 5·875in (149mm)

## External dimensions

Length 17·06in (425mm)  
Width 9·75in (247mm)  
Height 5·875in (149mm)  
Fixing centres  
11in x 11in x 0·31in diameter  
(279mm) (279mm) (7·92mm)



**AME M6174 (weatherproof box)**

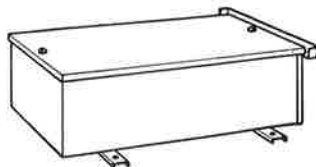
**Nett user price £3 6s 0d (Sheet metal)**

## Internal dimensions

Length 16·75in (425mm)  
Width 9·625in (244mm)  
Height 5·125in (130mm)

## External dimensions

Length 17·25in (437mm)  
Width 9·75in (247mm)  
Height 6·125in (155mm)  
Fixing centres  
11in x 11in x 0·31in diameter  
(279mm) (279mm) (7·92mm)



**80/400w H.P.M.V. or 45/200w SLI/H S.O.X. SOI/H**

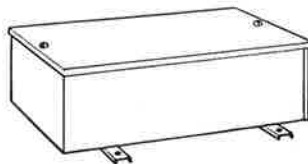
**AME M6171 (interior use) Nett user price £2 4s 0d (Sheet metal)**

## Internal dimensions

Length 16·06in (407mm)  
Width 5·75in (146mm)  
Height 5·0in (127mm)

## External dimensions

Length 16·375in (416mm)  
Width 6·18in (157mm)  
Height 5·875in (149mm)  
Fixing centres  
11in x 7in x 0·31in diameter  
(279mm) (178mm) (7·92mm)



# Control gear boxes

**AME M6172 (weatherproof box)**  
**Nett user price £2 11s 0d (Sheet metal)**

## Internal dimensions

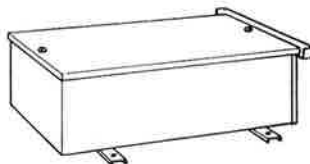
Length 16.0in (406mm)  
 Width 5.68in (144mm)  
 Height 5.125in (130mm)

## External dimensions

Length 16.563in (420mm)  
 Width 6.625in (168mm)  
 Height 6.438in (163mm)

## Fixing centres

11in x 7in x 0.312in diameter  
 (279mm) (178mm) (7.92mm)



**AME M6169 Nett user price £4 19s 0d**

This control gear box is made of high quality aluminium designed to accommodate a larger range of control gear for exterior use.

To accommodate either:

- 1 80w or 125w MBF type control gear with time switch and fuses.
- 2 35/40w SOX 55/60w SOX 140w SOI, or 140w SLI type control gear with time switch and fuses.
- 3 250w or 400w MBF type control gear with time switch and fuses only.
- 4 200w SLI control gear only, no time switch.



## Internal dimensions (baseboard)

Length 15.25in (387mm)  
 Width 5.0in (127mm)  
 Height 4.75in (121mm)

## Fixing centres

11in x 7in  
 (279mm) (178mm)

## Control gear boxes for use with °Kolorlux lamps

**80w °Kolorlux lamp**  
 Cat. no. AME M6175 Price £4 18s 0d

Accommodates one 80w H.P.M.V. ballast and capacitor with T/B input and fuse holder.

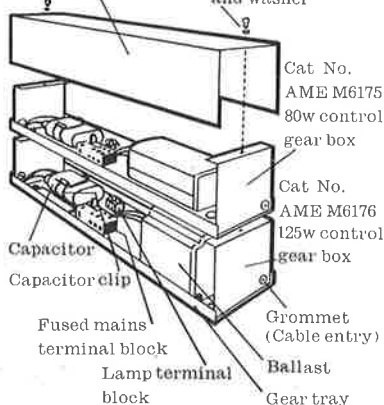
## 125w °Kolorlux lamp

Cat. no. AME M6176 Price £5 12s 0d

Accommodates one 125w H.P.M.V. ballast and capacitor with T/B input and fuse holder.

Control gear box cover  
 (only one shown)

Cover fixing screw  
 and washer

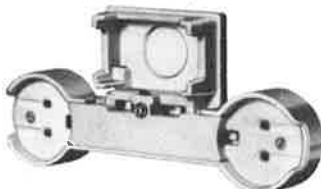


# Replacement accessories

**AME B1562** Single bi-pin white plastic grip-pin lampholder for Popular Pack series fittings. **3s 0d** each.



**AME B1563** Twin bi-pin white plastic grip-pin lampholder for Popular Pack series fittings. **5s 0d** each.



**AME B1537** Single tube Arrow-Slim bi-pin lampholder. For replacement use only. **3s 0d** each.  
**AME B1538** Twin tube Arrow-Slim bi-pin lampholder. For replacement use only. **5s 0d** each.



**AME B1535** Circular tube lampholder. **2s 0d** each.  
**AME Y5257** Circular support clip. Each tube needs 3 clips. **1s 0d** each.



**AME B1548 A3** New Atlantic 3 range bi-pin lampholder. Grip-pin white plastic pedestal type. **4s 0d** each.



**AME B1533/B** Bi-pin lampholder for food factory fitting. **3s 0d** each.



**AME B1556/3** Single tube (Minipack fitting) plastic bi-pin lampholder with screw terminals. **3s 0d** each.



**A3 4669** 10amp 3-way terminal block with spring clip for Atlantic 3 fittings. **4s 0d** each.



**AME A5051** Starter Socket for Popular Pack fittings **3s 0d** each.



**AME B1548/SN** New Super Netapak. **3s 0d** each. **AME B1548/A** Shallow surface, 4-lamp fitting. **4s 0d** each. Each lampholder, when ordered as a spare for a particular fitting is supplied complete with special mounting bracket and a 9in loop of cable which can be cut at the desired point.



**AME T1304** Moulded fuse holder complete with loading cap T1311 and spring fixing clip, excluding fuse. **3s 0d** each.

**AME T1311** Moulded loading cap for use with cartridge fuse to BS.1362, excluding fuse. **1s 0d** each



**AME T1265** Moulded 3-way terminal block, with fuse carrier in LINE terminal, excluding fuse. **3s 0d** each



**AME L1063** Lampholder for tungsten halogen fitting. **11 0d** each.



**AME B1573** White plastic bi-pin lampholder. **3s 0d** each.



**AME B1550** Lampholder. **16s 0d** each.  
**AME B1549** Sealing sleeve set (2 off). **4s 0d** each.  
**AME B1558** Sealing ring. **1s 0d** each. Components for lampholder assembly used in LW fittings.



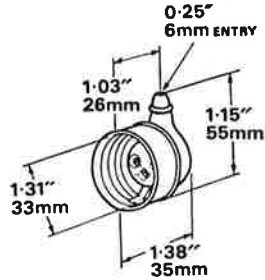
**AME L1101** Lampholder for 400w compact source iodide lamp. **10s 0d** each.



# Lampholders

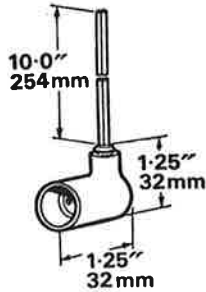
## AME B1577 Price 6s 0d

Push-on bi-pin lampholder has a neoprene sleeve which securely grips the end of the lamp and is fitted with a plastic insert containing lamp pin contacts and earthing arrangement for instant start lamps. This lampholder is useful for corrosive atmospheres and is drip-proof.



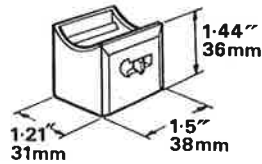
## AME B1579 Price 5s 0d

Miniature lampholder moulded in light grey PVC supplied with 10in leads.



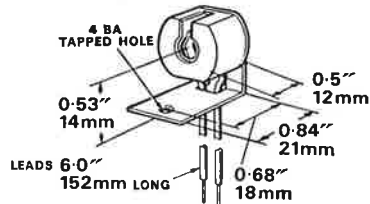
## AME L1107 Price 9s 0d

Special lampholder for architectural lamps moulded from creamed coloured phenolic. Fixed with a single 4BA screw.



## AME B1578 Price 7s 0d

Miniature bi-pin lampholder fitted with 6in wiring tails and moulded from white urea formaldehyde; this assembly is mounted on a cadmium plated steel bracket.



Fixing centres for	in	mm
12in	11*	279
9in	8*	203
6in	5*	127

\*Tolerance  $\pm \frac{1}{32}$  in - 0in

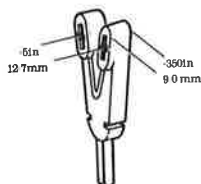


## CD43

## Lampholders

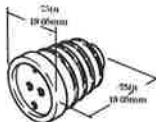
For T5 ( $\frac{5}{8}$ in, 15mm diameter) miniature  
bi-pin fluorescent tubes  
AME B1529 Price 2s 0d

(Details for lampholder when used with  $\frac{3}{16}$  in diameter – T5 – tubes only.) A high-temperature PVC moulding with double-sided plated brass contacts crimped to twin 23/0076 white high-temperature PVC flexible cable. No earth contact available. When used to support the tube the channel should be pierced to accept slots as shown. The holder can then be inserted from the back and turned 90 degrees into position with final length adjustment after tube is inserted.



**AME B1561 Price 1s 0d**

White PVC moulding with paxolin insert. Plated brass contacts with solder tag connections. This holder is assembled by threading the incoming cables through the PVC moulding and soldering them to the solder tags on the paxolin insert. This insert is then pressed into the PVC moulding.

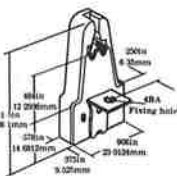


**AME B1556/2 Price 3s 0d**

White urea mouldings with bright steel bracket.  
Single-sided phosphor bronze lamp pin contacts with  
pinch screw cable entry terminals.

### Fixing details

Dimensions below are recommended distances between fixing centres.

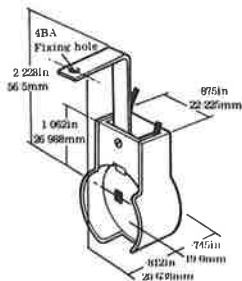


**For T8 (1in, 26mm diameter) bi-pin  
fluorescent tubes  
AME B1529**

The AME B1529 tube holder shown for T12 tubes is also suitable for T8 tubes.

**AME B1555/Z Price 4s 0d**

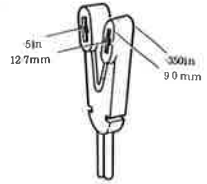
White urea mouldings with shroud to give tube cap support. Side pressure phosphor bronze lamp pin contacts with incoming cable crimped to contacts. A separate cable grip is incorporated. Cable is high temperature 14/0076 white PVC flexible in 12in loop which can be cut at any point to suit the wiring layout. Other loop lengths available on request. This holder has no current carrying springs or moving parts. Earth connections is made via mounting bracket. This bracket enables the holder to be mounted on a fixed or detachable bridge across the channel. A locating notch or other means must be provided to stop rotation. Lampholder is vertical with a nominal length tube.



Tube size		in	mm
5ft	1500mm	56.859	1444.2
3ft	895mm	33.031	840.0
18in	438mm	15.031	381.8

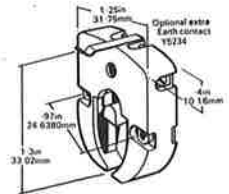
## AME B1529 Price 2s 0d

A high-temperature white PVC moulding with double-sided plated brass contacts crimped to flat twin 23/0076 white high-temperature PVC flexible cable. The extra firm contact grips make this holder suitable for vertical tubes subjected to vibration. No earth clip is available. Specify lead length when ordering.



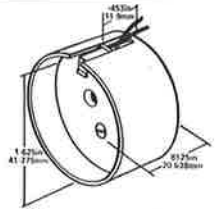
## AME B1524 Price 2s 0d

White urea moulding with paxolin backplate. Single-sided phosphor bronze tube contacts with pinch screw terminals for incoming cables. Earth contact Y5234 is available as an optional extra. 6BA tubular tapped nuts are provided for fixing. This lampholder is not suitable for use with 8ft tubes which have large tolerances in length.



## AME B1573 Price 3s 0d

A white urea two-piece moulding with an earth spring and deep skirt which covers the tube cap giving additional support. Removable double-sided side-pressure contacts are riveted to special pinch screw cable terminals. For wiring, 3-core flexible cable is stripped as shown and wired to terminals which are then inserted into the pockets in the body moulding and secured by front cover plate. The split in the flexible cable is housed inside the holder.



## AME B1512 Price 2s 0d

A white urea two-piece moulding with phosphor bronze earth clip and double-sided phosphor bronze lamp pin contacts. Pinch screw cable terminals. A recess allows a neat termination of 2-core or 3-core flexible cable.



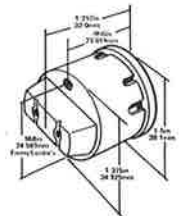
## AME B1523 Price 2s 0d

This lampholder is similar to AME B1524 but the 6BA tubular tapped nuts are replaced by 6BA clearance fixing holes. This lampholder is not suitable for use with 8ft tubes which have large tolerances in length. Earth contact Y5234 is available for this holder (see AME B1524).



## AME B1502 Price 5s 0d

White urea moulding with double-sided independently sprung phosphor bronze tube pin contacts and pinch screw terminals for incoming cables. 6BA tubular tapped nuts are provided for fixing. Earth contact (Cat. no. Y5240) is available as an optional extra. This holder is not suitable for use with 8ft tubes which have large tolerances in length.



# Starter switch sockets

## AME M6064/12/Loop Price 1s 0d

White PVC moulding enclosing starter switch contacts crimped to 12in loop 14/0076 white PVC cable which can be cut at a point to suit wiring layout. This holder does not support the starter switch and the Y5274 black oil dipped spring steel clip can be supplied. The clip latches into a square hole (0.22in min. to 0.23in max. square) in the fittings chassis.



## AME A5016 Price 3s 0d

White urea moulding with paxolin backplate. Plate brass switch contacts crimped to 12in loop 14/0076 white PVC cable which can be cut at a point to suit wiring layout. No earth contact available.

## AME A5025 Price 3s 0d

As AME A5016 but supplied with one 6.5in PVC lead and one 17.5 in glass braided lead for spring bracket mounting. For Arrow-slim fittings replacement.



## AME A5019/X Price 3s 0d

White urea moulding with paxolin backplate, Phosphor bronze switch contacts. Draw nut terminals giving side and rear cable entries. Earth clips (Cat. no. Y5267) are held by the holder fixing screws and pass through gaps in the holder skirt. This holder is supplied without earth clips which must be ordered separately if required. When mounted on 3/8in distance pieces behind fitting chassis the starter switch projects enough for easy removal.



## FUSES

### AME T1267, T1268, T1299, T1302, T1303

All fuses comply with B.S.1362 dimensions and must be used with T1265, A5079 and T1304 fuseholders.

Cat. no.	Rating	Colour	Price
AME T1302	1 amp	Green	1s 0d
AME T1303	0.75 amp	Red	1s 0d
AME T1267	2 amp	Blue	1s 0d
AME T1299	3 amp	Grey	1s 0d
AME T1268	5 amp	Grey	1s 0d



# Fluorescent tube support clips

## AME Y5204, Y5200, Y5201 Price 6d each

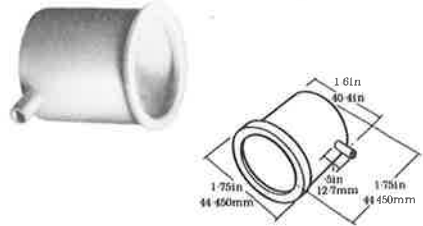
A range of nickel plated spring steel tube support clips which can be used around the glass of the tube or around the metal cap. When used around the lamp cap to earth the cap to the metalwork of the fitting chassis any paint should be scraped from the chassis to give good continuity. Phosphor bronze and polythene coated clips are also available – details on request.



Tube dia.	A in	mm	B in	mm	C in	mm	Cat. no.
1"	0-2968	7-54	0-4062	10-3124	0-3125	7-9248	AME Y5204
1 1/8"	0-5	12-7	0-7031	17-856	0-376	9-625	AME Y5200
1 1/4"	0-6562	16-6624	1-0312	26-1874	0-355	9-017	AME Y5201

## Weatherproof sleeve (for T12 1 1/2in, 38mm diameter) bi-pin fluorescent tubes AME M6028 Price 5s 0d

White neoprene moulding suitable for use with AME B1512 lampholder. It is recommended that AC1981 circular flex be used for connection to lampholder and the cable entry into the cap be made waterproof with silicone grease.



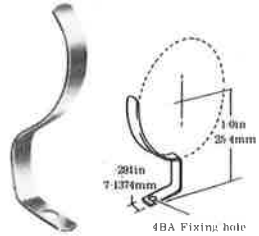
## AME Y5257 Price 1s 0d

A nickel plated spring steel support clip for circular fluorescent tubes. Three clips are required per tube, mounted inside the tube circumference.

*Note:* The fixing details are approximate and must be adjusted to suit lamp used because of variation in lamp size from different manufacturers.

### Fixing details

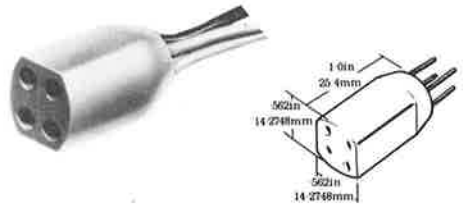
22 watt tube:	5 3/4in radius
32 watt tube:	9 1/4in radius
40 watt tube:	13 1/4in radius



## Lampholder for circular fluorescent tubes

### AME B1535 Price 2s 0d

A single moulding high-temperature white PVC body with 12in PVC 14/0076 leads (one pair, yellow for starter holder connection, one lead, white, for choke connection and one lead, black, for connection to neutral supply terminal). Split cylinder grip pin brass contacts crimped to leads.



## Bi-pin to B.C. adaptor

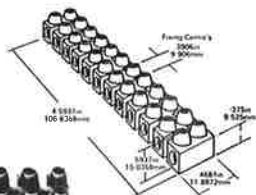
### AME B1515 Price 2s 0d

Bi-pin/B.C. adaptor with earth contact. A pair of these adaptors enables modern bi-pin tubes to be used where B.C. lampholders are fitted in a fitting.

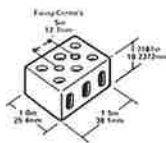
Two adaptors required per tube.



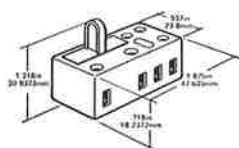
AME T1281/4 is a 4-way terminal block).



on terminal block.



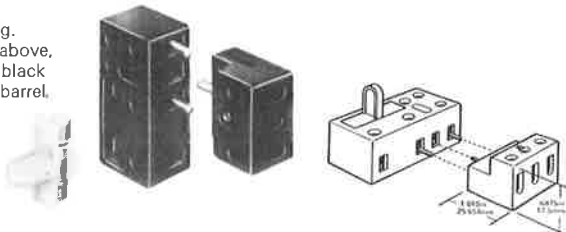
Fuses to be ordered separately.



contacts. Fuses to be ordered separately.



Fuses to be ordered separately.



# Data for tube circuits

**Electrical data for Standard 240v 50Hz tube circuits.** Average performance tested at 25°C to B.S. 2818 specification.

Includes control gear used in Atlantic, Durham, New Super Netapack, Troffer and Modular type fittings.

	Tube size	8ft	8ft	6ft	5ft	5ft	4ft
	Diameter	1½in	1½in	1½in	1½in	1½in	1½in
	Nominal tube watts	125	85	85	80	65	40
	Lamp cap	Bi-pin	BP Super 8	BP Super 6	BC or BP	BP Super 5	BP
<b>Single Tube Switchstart</b>	Actual lamp watts	123	85	84	76	64	39½
	Average tube volts	150	184	120	100	110	102
	Average tube amps	0.94	0.55	0.80	0.87	0.67	0.44
	Rated life (hours)	7,500	7,500	7,500	7,500	7,500	7,500
	Total circuit watts	144*	—	95*	94½*	80*	50*
	Lagging power factor	0.64†	—	0.87	0.85	0.85	0.85
<b>Single Tube Switchless Start</b>	Total volt amps	226	—	108	110	91	60
	Mains current at 240v	0.94	—	0.45	0.46	0.38	0.25
	Min. starting temperature	0°C	—	+5°C	0°C	0°C	0°C
	% Harmonics per phase	15%	—	17%	17%	17%	17%
	Total circuit watts	154*	100*	96*	99*	79*	53*
	Lagging power factor	0.98	0.99	0.86	0.85	0.91	0.85
<b>Twinstart</b>	Total volt amps	158	100	110	116	87	62
	Mains current at 240v	0.66	0.42	0.46	0.48	0.36	0.26
	Min. starting temperature	+5°C	+5°C	-5°C	+5°C	-5°C	+5°C
	% Harmonics per phase	8%	7%	25%	17%	25%	17%
	Total circuit watts	—	207	—	—	—	—
	Lagging power factor	—	0.95	—	—	—	—
<b>Single Tube Switchstart</b>	Total volt amps	—	218	—	—	—	—
	Mains current at 240v	—	0.91	—	—	—	—
	Min. starting temperature	—	+5°C	—	—	—	—
	% Harmonics per phase	—	17%	—	—	—	—
	Tube size	3ft	3ft	2ft	2ft	18in	18in
	Diameter	1½in	1in	1½in	1½in	1½in	1in
<b>Single Tube Switchless Start</b>	Nominal tube watts	30	30	40	20	15	15
	Lamp cap	BP	BP	BP	BP	BP	BP
	Actual lamp watts	29½	30	37	19½	15	15
	Average tube volts	85	98	47	58	48	57
	Average tube amps	0.39	0.36	0.88	0.37	0.36	0.34
	Rated life (hours)	5,000	5,000	5,000	5,000	5,000	5,000
<b>Single Tube Switchstart</b>	Total circuit watts	39	39	58*	30*	25*	25*
	Lagging power factor	0.85	0.85	0.85	0.34**	0.30**	0.31**
	Total volt amps	46	46	69	90	85	81
	Mains current at 240v	0.19	0.19	0.29	0.37	0.36	0.34
	Min. starting temperature	0°C	0°C	0°C	0°C	0°C	0°C
	% Harmonics per phase	17%	17%	17%	17%	17%	17%
<b>Single Tube Switchless Start</b>	Total circuit watts	42*	42*	—	—	—	—
	Lagging power factor	0.85	0.85	—	—	—	—
	Total volt amps	50	50	—	—	—	—
	Mains current at 240v	0.21	0.21	—	—	—	—
	Min. starting temperature	+5°C	+5°C	—	—	—	—
	% Harmonics per phase	17%	17%	—	—	—	—
<b>Series Pair Switchstart</b>	Total circuit watts	—	—	94*	50*	40*	40*
	Lagging power factor	—	—	0.85	0.85	0.85	0.85
	Total volt amps	—	—	110	59	47	47
	Mains current at 240v	—	—	0.46	0.25	0.20	0.20
	Min. starting temperature	—	—	0°C	0°C	0°C	0°C
	% Harmonics per phase	—	—	17%	17%	17%	17%
<b>Series Pair OS Switchless Start</b>	Total circuit watts	—	—	100*	54*	44*	44*
	Lagging power factor	—	—	0.85	0.85	0.85	0.85
	Total volt amps	—	—	118	63	52	52
	Mains current at 240v	—	—	0.49	0.26	0.22	0.22
	Min. starting temperature	—	—	+5°C	+5°C	+5°C	+5°C
	% Harmonics per phase	—	—	17%	17%	17%	17%

\*\*Uncorrected value. Allow 0.85 if power factor capacitor is fitted.

†Special 80w cold store circuit operates at 0.91 amps with 0.49 leading power factor.

‡8ft 125w and 5ft 50w starter switch circuits operate with a series type capacitor at a leading power factor. See circuit diagram No. 2 on Page 508.

\*The above circuit watts for control gear tested in accordance with B.S. 2818 may be reduced by up to 5% when operating in some fittings, i.e., the circuit watts reduce as the lamp operating temperature increases.

# Data for tube circuits

**Electrical Data for 240v 50Hz Single tube circuits.** Average performance tested at 25°C to B.S. 2818 specification.

Control gear used in PP, LX and LJ Fittings.

Tube size	8ft	6ft	5ft	5ft	4ft
Diameter	1½in	1½in	1½in	1in	1½in
Nominal tube watts	125	85	65	50	40
Lamp cap	Bi-pin Super 8	Bi-pin Super 6	Bi-pin Super 5	Bi-pin	Bi-pin
Actual lamp watts	123	84	64	50	39.5
Average tube volts	150	120	110	165	102
Average tube amps	0.94	0.80	0.67	0.38	0.44
Rated life (hours)	7,500	7,500	7,500	5,000	7,500
Circuit type	SS	SRS	SS	SS	SS
Total circuit watts	145*	103*	80*	62*	50*
Mains current amps	0.91	0.50	0.38	0.39	0.25
Total volt amps	220	120	91	93	60
Lagging power factor	0.66†	0.86	0.85	0.69†	0.85
Min. starting temperature	0°C	-5°C	0°C	+5°C	0°C
% Harmonics per phase	15%	25%	17%	17%	17%
Tube size	—	3ft	2ft	21in	12in
Diameter	—	1in	1½in	½in	½in
Nominal tube watts	—	30	20	13	8
Lamp cap	—	Bi-pin	Bi-pin	Small Bi-pin	Small Bi-pin
Actual lamp watts	—	30	19.5	13	8
Average tube volts	—	90	58	92	55
Average tube amps	—	0.36	0.37	0.17	0.17
Rated life (hours)	—	5,000	5,000	5,000	5,000
Circuit type	—	SS	SS	SS	SS
Total circuit watts	—	39*	30*	19*	14*
Mains current amps	—	0.325	0.37	0.17	0.17
Total volt amps	—	78	90	41	41
Lagging power factor	—	0.55**	0.34**	0.46**	0.34**
Min. starting temperature	—	0°C	0°C	0°C	0°C
% Harmonics per phase	—	17%	17%	17%	17%

\*\*Uncorrected value. Allow 0.85 if power factor capacitor is fitted.

† Leading power factor.

SRS - Semi-Resonant Start

SS - Switchstart

\* The above circuit watts for control gear tested in accordance with B.S. 2818 may be reduced by up to 3% when operating in some fittings, i.e., the circuit watts reduce as the lamp operating temperature increases.



# atlas mazda ekco

## Theatre lighting division

Since the first successful demonstration of the ability to dim fluorescent lamps in 1949, engineers of Thorn Lighting Ltd have developed a variety of systems suited to the wide range of applications involving the use of variable lighting equipment. From the simplest "up and down" dimmer for the small lecture theatre or auditorium to the large scale complex installations involved in majestic Son et Lumière presentations – Thorn engineers and designers have provided equipment to suit each application.

Since no two installations are even remotely alike in terms of size, function or the type of control required, the equipment is virtually tailored to each customer's needs and involves very close co-operation between the Development Engineer and the Works staff – once the final customer requirements have been obtained after detailed discussions.

Applications include cinemas, clubs, restaurants, ballrooms, lecture theatres, fashion shows and, as previously mentioned, Son et Lumière presentations.

These provide the opportunity for Theatre Lighting Division to demonstrate the close liaison between the lighting artist and the engineer. Apart from producing magnificent effects which lend drama to the history of the subject, the control of the lighting equipment (using the well-known Thorn Aura system) is operated by the same recording tape upon which the voices and music are carried. Once the subject has been treated – in terms of light and sound – to the complete satisfaction of the producer the Aura system ensures that night after night exactly the same presentation can be enjoyed by the public, whilst all the operator has to do is to press the switch.

For special applications involving variation of light – whether for Exhibitions, Illuminations or even for the control of light for certain industrial requirements – it is probable that Theatre Lighting Division will have the answer.

All enquiries should be routed to:

Theatre Lighting Division,  
Great Cambridge Road,  
Enfield, Middlesex.



Plaza/Paramount Cinema, Haymarket.



Son et Lumière – St. Paul's Cathedral.



IBM Lecture Theatre, Hursley.

# atlas mazda ekco

## Theatre lighting division—THORN Q-FILE

### ELECTRONIC LIGHTING CONTROL SYSTEM FOR STAGE AND TV STUDIOS

The Q-File electronic memory control system is a major breakthrough in stage and studio lighting control techniques.

A proved and tested system, Q-File has received world-wide acclaim since it gives the lighting director/operator unprecedented scope in his art. With Q-File more than a hundred lighting plots can be 'filed' (memorized) electronically during rehearsal and recalled instantly in any order at the press of a button. The need for detailed handwritten records is eliminated.

Dimmer levels can be stored for all circuits in every memory.

The most complex fade effects can be easily achieved.

Instant manual access is always possible to all circuits for modification purposes. A preset or auxiliary facility enables lighting plots to be prepared or modified without disturbing lighting circuits already in use.

Despite the many new facilities all basic controls are accommodated on a panel only 2 sq ft (.2 sq m) in area.

Highly stable control and dimmer circuits ensure precise repeatability of planned effects.

#### For the Lighting Operator

Ease of operation and more facilities. All controls can be reached from a normal sitting position. The usual 'wings' of individual controls are eliminated and the small control panel makes it easy to leave ample desk space for script, notepad, etc.

During rehearsal all details of each lighting cue, including dimmer settings, are instantly recorded in any one of a hundred electronic memories. Handwritten records are reduced to the noting of memory numbers and the nature of the cue, e.g. cut, add, crossfade, time, etc.

During a performance, a predetermined lighting change is initiated simply by selection of the new memory number and operation of the appropriate cue button. The ultimate in operational simplicity is obtained by using the sequential memory facility which enables the cue button both to initiate the change and to select numerically, the next memory in readiness for the following cue. By this means, in a straightforward production, all lighting sequences from house lights to house lights could be controlled by operations involving no more than two buttons!

#### To the Studio Planner and Architect

Space problems disappear with a control panel the size of a child's desk top. The lighting operator can be located in a position best suited to his function, and the usual bulky 'wings' of individual controls are eliminated.

The control equipment cabinets can be mounted remotely from the control desk. High efficiency thyristor type dimmers are mounted in similar compact cabinets each housing up to 20 individual dimmers, but requiring a floor area of only 4 sq ft. The use of semi-conductor devices minimises waste heat generation and simplifies ventilation problems in the dimmer room.

The Thorn system has no moving parts or contacts apart from the desk controls. All transistors and diodes are of the high reliability silicon type with a virtually infinite life, and the electronic circuits have been designed by engineers with experience in exacting military and missile applications. The system has thus very high inherent reliability.

All enquiries should be routed to:

Theatre Lighting Division,  
Great Cambridge Road,  
Enfield, Middlesex.



Southern TV Studio Lighting control panel.



Thorn Q-File control desk—BBC Studio 8.



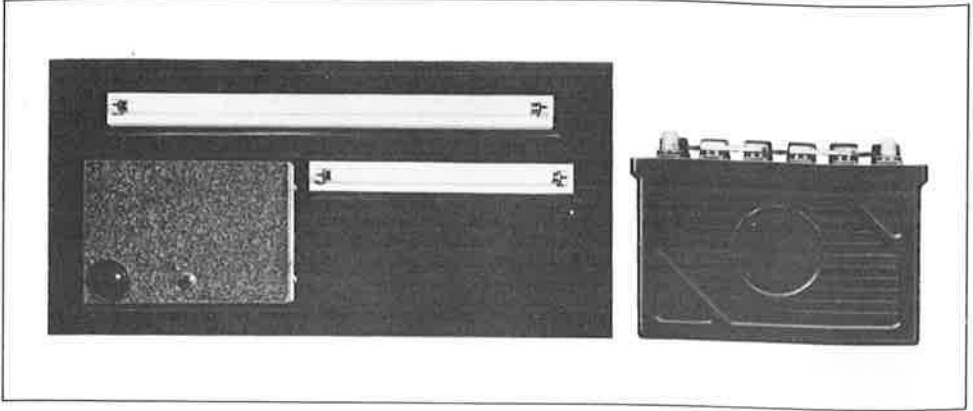
The latest Q-File control panel.



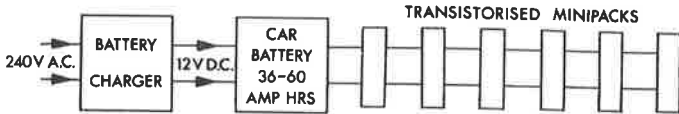
Q-File dimmer racks.

# Emergency lighting

## Emergency lighting system for use with Transistorised Miniature and Popular Pack fittings



Details of Transistorised Miniature and Popular Pack fittings are shown in Section 2.



Automatic emergency lighting prevents hazards and panic should the mains supply fail. Atlas Transistorised Miniature and Popular Pack fittings with an efficiency three to four times greater than the corresponding tungsten lamps makes the maximum use of standby batteries.

A fully automatic 12 volt battery charger complete with mains hold-off relay.

Catalogue no. RX 2463

Nett Price £21 10s 0d

Suitable for use with 6 – 13 w 21in Transistorised Miniature fitting  
or 8 – 8w 12in Transistorised Miniature fitting  
or 2 – 40w 4ft Transistorised Popular Pack fitting  
or 4 – 20w 2ft Transistorised Popular Pack fitting



# FLUORESCENT TUBES



# Fluorescent tubes

## Introduction

---

Thorn Lighting Ltd has the finest fluorescent tube works in Western Europe making the extensive range of tubes described in this section of the catalogue, including the de luxe colours which are receiving increasing acknowledgment for interior lighting installations where good colour rendering and colour appearance are important.

The popular ratings of fluorescent tubes are available in Atlas, Mazda and Ekco brands, but the slower selling types are not stocked in all brands. However, any tube shown in this catalogue can be supplied from any Thorn Lighting Office.

'Prices' shown are those recommended as appropriate in U.K. for retail sale.

'Nett user prices' are those recommended as appropriate in U.K. for direct sale to users.

# Fluorescent 1969/70

Index	CE3
Price list and availability	CE4
Colour appearance	CE5
Colour appearance continued	CE6
Dimensions	CE7

Electrical data	CE8
Light output	CE9
Light output continued	CE10
Spectral distribution	CE11
Spectral distribution continued	CE12

# Fluorescent tubes

## Net Trade Prices

**Straight Tubes** – 8 ft, 6 ft, 5 ft, 4 ft, 3 ft, 2 ft, 21", 18", 12", 9", 6".

Watts Length Diameter	125w 8 ft 1 1/2" each s. d.	85w 6 ft 1 1/2" each s. d.	85w 6 ft 1 1/2" each s. d.	80w 5 ft 1 1/2" BC each s. d.	65/80w 5 ft 1 1/2" each s. d.	50w 5 ft 1" each s. d.	40w 4 ft 1 1/2" each s. d.	30w 3 ft 1 1/2" & 1 1/4" each s. d.	40w 2 ft 1 1/2" each s. d.	20w 2 ft 1 1/2" each s. d.	15w 18" 1 1/2" & 1 1/4" each s. d.	13w 21" 1 1/2" each s. d.	8w 12" 1 1/2" each s. d.	6w 9" 1 1/2" each s. d.	4w 6" 1 1/2" each s. d.
White	12/2	12/2	10/2	9/1	8/-	8/9	7/7	8/1	8/1	7/9	7/3	9/6	8/3	6/3	6/3
Warm White	12/2	12/2	10/2	9/1	8/-	8/9	7/7	8/1	8/1	7/9	7/3	9/6	8/3	6/3	6/3
Daylight	12/2	12/2	10/2	9/1	8/-	8/9	7/7	8/1	8/1	7/9	7/3	9/6	8/3	6/3	6/3
Purchase Tax Extra	—	—	—	3/3	2/10	3/2	2/9	2/11	2/11	2/9	2/7	3/5	2/3	2/3	2/3
Natural	13/10	13/10	11/8	10/10	9/8	10/5	8/7	9/1	9/1	8/10	8/1	—	6/7	6/7	6/7
Northlight/Col. Match	13/10	13/10	11/8	10/10	9/8	—	8/7	9/1	9/1	8/10	8/1	—	—	—	—
De Luxe Warm White	13/10	13/10	—	10/10	9/8	—	8/7	9/1	9/1	8/10	8/1	—	—	—	—
*Kolor-rite	13/10	13/10	11/8	10/10	9/8	10/5	8/7	9/1	9/1	8/10	—	—	—	—	—
Tropical Daylight	—	—	—	—	—	—	—	—	—	—	8/1	—	—	—	—
Purchase Tax Extra	—	—	—	3/11	3/6	3/9	3/1	3/3	3/3	3/2	2/11	—	2/4	2/4	2/4
De Luxe Natural	16/1	16/1	13/5	12/8	11/-	11/11	9/11	10/7	10/7	10/1	9/5	—	—	—	—
Purchase Tax Extra	—	—	—	4/6	3/11	4/3	3/7	3/9	3/9	3/7	3/4	—	—	—	—
Artificial Daylight	24/9	24/9	19/10	—	15/8	—	14/10	—	—	13/2	12/5	—	—	—	—
Purchase Tax Extra	—	—	—	—	5/7	—	5/4	—	—	4/9	4/5	—	—	—	—
Amalgam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	—	—	12/6	—	—	—	—	—	—	—	—	—	—	—	—
Warm White	—	—	12/6	—	—	—	—	—	—	—	—	—	—	—	—
Natural	—	—	14/4	—	—	—	—	—	—	—	—	—	—	—	—
Reflector Tubes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	14/8	14/8	12/4	10/10	9/8	—	9/3	—	—	9/4	—	—	—	—	—
Warm White	14/8	14/8	12/4	10/10	9/8	—	9/3	—	9/9	—	—	—	—	—	—
Daylight	—	—	12/4	10/10	9/8	—	9/3	—	—	—	—	—	—	—	—
Purchase Tax Extra	—	—	—	3/11	3/6	—	3/4	—	3/6	3/4	—	—	—	—	—
Reflector Tube	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Natural	—	—	—	11/4	—	—	—	—	—	—	—	—	—	—	—
Purchase Tax Extra	—	—	—	4/1	—	—	—	—	—	—	—	—	—	—	—
Colours	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pink, Green, Blue, Red,	—	—	24/-	—	16/-	—	15/9	15/9	15/9	14/9	—	—	—	—	—
Gold, Peach	—	—	—	—	—	—	5/8	5/8	5/8	5/3	—	—	—	—	—
Purchase Tax Extra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Radar Red	—	—	—	55/-	—	—	52/-	—	—	—	—	—	—	—	—
Purchase Tax Extra	—	—	—	19/8	—	—	18/7	—	—	—	—	—	—	—	—
Ultra Violet (Non Filter)	—	—	—	16/-	—	—	15/6	—	—	14/9	14/9	—	10/9	—	—
Purchase Tax Extra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Blacklight Blue U.V.	—	—	—	—	—	—	122/-	—	—	—	51/-	—	33/0	31/-	29/-
Purchase Tax Extra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gro-lux	—	—	—	26/5	—	—	25/-	22/3	—	20/9	16/6	22/3	14/6	—	—
Purchase Tax Extra	—	—	—	9/6	—	—	8/11	8/-	—	7/5	5/11	8/-	5/2	—	—

\*Pink only †Available 1" diameter only  
 ‡125w 8 ft BC tubes now obsolete. Limited stock available. Prices White,  
 Warm White, Daylight – 14/9 + 5/3 P.T.; Natural – 16/5 + 5/10 P.T.

METAL STRIP – A limited range of the more popular tubes in 2' – 5' lengths can be supplied with metal strip (MCFA/U). 2/- extra per tube plus 9d Purchase Tax.

### Circular Tubes Warm White only

		l	s	d	P.T.
16" dia.	40w	1	3	0	8/3
12" dia.	32w	1	1	0	7/6
8 1/2" dia.	22w	1	1	0	7/6

### Tube Grades

There are different grades of tube to suit various types of control gear and the correct type must be used to obtain satisfactory starting performance.

#### GP (General Purpose Quickstart) grade tubes (MCFE/U)

The GP Quickstart tube is manufactured to give satisfactory starting with all switch or switchless start control gear and is now supplied as the standard tube for use in all fittings. For switchless start circuits the metal chassis must extend the full length of the tube and be bonded to earth. The metalwork must not be more than half-inch from the tube. Quickstart, Resonant-start and other switchless start circuits must only be used on 200–250v 50 Hz supplies where the neutral conductor is at earth potential.

#### MS (Metal Strip) grade tubes (MCFA/U)

This tube is only necessary for special conditions, e.g. where earthed metalwork is not adjacent the tube, it has a metallic conducting strip cemented to the outside of the tube, connected to both caps, which must be earthed.

A limited range of the more popular tubes in 2' – 5 ft lengths can be supplied with metal strip (MCFA/U). 1/- extra per tube plus 4d Purchase Tax.

### Fluorescent Tube Packing Quantities

8 ft and Circles: 12  
 Blacklight Blue: 24  
 All others: 25

### Fluorescent Tube Packing

Size	8" and Circles	Blacklight Blue	All Others
Standard Case			
Quantity	12	24	25

### Rated Life and Group Replacement

The rated life of all B.L.I., 4 ft, 5 ft, 6 ft and 8 ft 1 1/2" diameter lamps is 7500 hours. The rated life of all other ratings is 5000 hours. In many situations it is advantageous to replace lamps in bulk (Group Replacement) rather than as individual lamps fail.

Among the benefits of Group Replacement are:

- A saving in initial cost ● a higher average level of lighting ● more uniform lighting ● less interruption to work ● a saving in running cost

Further information on Group Replacement is available from our Regional Offices.

### Bi-Pin/BC Adaptor

AME B1515 Adaptor converting bi-pin lamp cap to BC. The overall length of a 5 ft bi-pin tube with these adaptors does not exceed the length of a BC tube. 1s 9d each.



### Guarantee

Any fluorescent tube failing within 12 months from the date of purchase by the user (or prior to 3000 hours burning whichever is the shorter) except through misuse, will be replaced free of charge.



# Fluorescent tubes

## Colour appearance and colour rendering

There is a natural tendency to consider the light output of a fluorescent tube as the main criterion but it must be remembered that this is only part of the consideration.

In general, the colours with the highest light output have the poorest colour rendering properties and similarly, the colours with the lowest light output have the best colour rendering properties.

Good colour rendering is a most important factor in creating an acceptable and attractive environment. There are many situations where the use of a de luxe colour such as \*Kolor-rite or De-Luxe Natural can produce a stimulating atmosphere which far outweighs

the small additional cost.

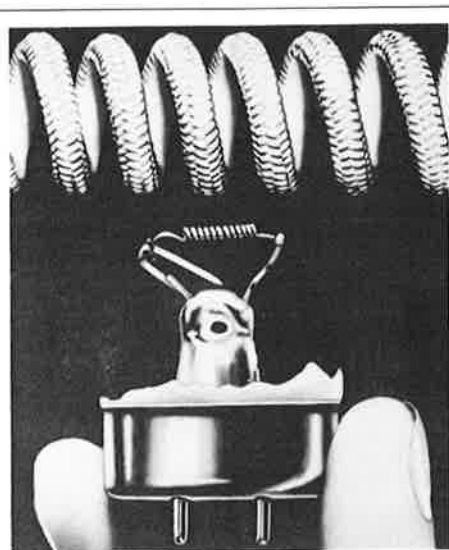
The importance of colour appearance and colour rendering properties is recognised in the I.E.S. Code "Recommendations For Lighting Building Interiors" published in March 1968 and below is given an extract from the Code.

Overleaf is a table showing in detail the recommended applications for the standard range of fluorescent tubes. It should be noted that different ratings of the same colour tube will have slight variations in appearance because of the different loading. Difference ratings should not therefore be mixed in an installation where colour consistency is important.

### Colour appearance and colour rendering properties of fluorescent lamps

(Extract from I.E.S. Code)

Colour rendering requirements	Colour appearance	Suitable lamp types	Relative lamp efficacy
Interiors in which advantage must be taken of high lamp efficacy and where some colour distortion is acceptable, e.g. most industrial premises	Cool	DAYLIGHT	100% to 95%
	Intermediate	WHITE	
	Warm	WARM WHITE	
Interiors in which good colour rendering is desirable but where a small degree of colour distortion is admissible, e.g. shops, homes, hotels, restaurants, art rooms	Cool	NORTHLIGHT COLOUR MATCHING	75% to 65%
	Intermediate	NATURAL	
	Warm	De Luxe Warm White	
Circumstances in which particular requirements must be met:			
Where lamps are used to produce special effects, e.g. the lighting of foodstuffs	Intermediate	De Luxe Natural *Kolor-rite	65% to 50%
Where clinical examinations are carried out in hospitals and surgeries	Intermediate	*Kolor-rite (see Note 3)	
Where accurate colour matching depends on simulation of daylight	Cool	Artificial Daylight	45% to 40%



### Braided cathode

#### Super Phosphors

The braided cathode filament – British Patent 131059 – is now being used exclusively in 5 ft 65/80w and 80w (BC) tubes as well as 6 ft 85w, 8 ft 85w and 8 ft 125w tubes.

The exclusive braided cathodes used in B.L.I. fluorescent tubes give more efficient operation, fewer early failures and longer life than conventional coiled coil cathode.

This cathode consists of a hollow mesh cylinder which is formed by braiding eight very thin strands of tungsten wire together. This means that the emitter is held within the hollow cylinder thus forming a solid core.

The release of electrons is better controlled than with a coiled coil filament and this results in the braided cathode having approximately 70% greater electron emission.

1 The lamp names in capitals are the standard designations as in BS1853.

2 When fluorescent lamps are used to supplement daylight, the choice of lamp colour in the first two categories of colour rendering requirements must be made with special care; the final choice will probably depend upon the amount of daylight in the working area and the length of time in which daylight is dominant.

3 At the time of going to press the use of \*Kolor-rite lamps in hospitals is subject to Ministry of Health approval.

# Fluorescent tubes

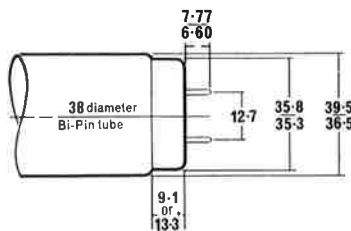
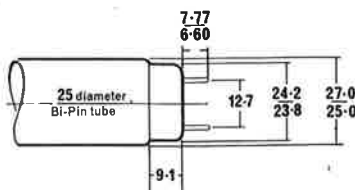
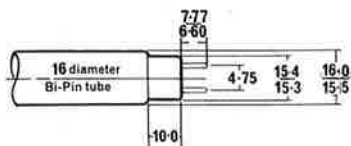
## Colour appearance and colour rendering

Tube colour	Percentage of White Tube lumens	Colour rendering quality	Colour appearance	Application and remarks
<b>Industrial lighting</b>				
White and Warm White	98	Fair	Intermediate	General illumination at maximum efficiency. Buildings requiring artificial illumination to blend with natural daylight. Minimum of 300 lux must be provided to avoid an excessively cold appearance.
Daylight	94	Fair	Cool	
Artificial Daylight	41	Very Good	Cool	Areas where accurate colour matching is carried out. A minimum of 600 lux must be provided. Conforms to BS950:Part One
<b>Commercial lighting</b>				
White and Warm White	98	Fair	Intermediate	General and drawing offices requiring maximum lighting efficiency. General office lighting particularly where required to blend with natural daylight. Minimum of 300 lux necessary.
Natural	70	Good	Intermediate	
°Kolor-rite	65	Very Good	Intermediate	Offices, showrooms, studios, colleges, hospitals. Office buildings requiring a warm effect, flattering to the complexion.
De Luxe Warm White	66	Good	Warm	
<b>Display lighting</b>				
Northlight/ Colour Matching	59	Good	Cool	Tailors (Colour matching areas), furriers and for wintry effects. Minimum of 600 lux necessary to avoid an excessively cold appearance.
Natural	70	Good	Intermediate	
De Luxe Natural	49	Very Good	Intermediate	Florists, fishmongers, butchers, grocers, supermarkets and brightly coloured merchandise.
°Kolor-rite	65	Very Good	Intermediate	The first choice where true reproduction of colour is required, gives the effect of a sunny day.
De Luxe Warm White	66	Good	Warm	Furniture, restaurants, lounges and for domestic settings; tungsten filament lamp effect.
White	100	Fair	Intermediate	General display lighting requiring maximum light output, but without the need for good colour quality.
Colours	—	Poor	Poor	Green, gold, blue, red, pink, peach for special effects.
<b>Domestic lighting</b>				
White or Warm White	98	Fair	Warm	Rooms requiring maximum light output.
De Lux Warm White	66	Good	Warm	Rooms requiring a warmer colour light blending with tungsten filament lamps.
Pink	25	Poor	Warm	Decorative lighting giving a very warm effect.
Peach	65			
<b>Special applications</b>				
Green	95	Poor	Poor	Saturated colours for display, floodlighting, stage lighting.
Peach	60			
Gold	55			
Pink	25			
Blue	20			
Red	5			
Gro-lux	30	—	—	This special tube colour has been developed for plant growth purposes, i.e. its spectral energy is ideally suited to seed germination and rapid plant growth. It is also ideal for aquarium lighting where it stimulates aquatic plant growth. Gro-lux tubes have a lavender colour appearance with a strong red and blue rendering effect. Although yellows are poor, foliage has a rich green appearance. Colouring of tropical fish, plants and flowers looks especially vivid under Gro-lux tubes.
Ultra-violet (Non-filter)	—	—	—	The Ultra-violet tube emits a large proportion of its energy as invisible ultra-violet radiation between 300 and 400 nanometres. The tube also emits a small amount of visible light at the blue end of the spectrum but where this light is undesirable it can be filtered out by using Woods glass filters which transmit the invisible ultra-violet only.
Blacklight Blue	—	—	—	Ultra-violet tubes as above (but with black glass bulb) which transmit ultra-violet only filtering out the visible light.
Radar Red	—	—	—	A bright magenta red colour with a higher light output than Red — originally used for radar rooms but also gives a strong red effect to meat and bacon displays.

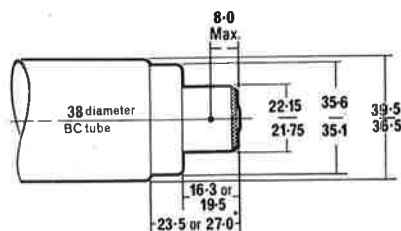
# Fluorescent tubes

## Dimensions

Dimensions in millimetres unless otherwise stated



Longer Caps used on 8' tubes



### Straight tubes

Rated wattage	Nominal dimensions		cap	Length, base face to base face (max.) mm.	Length, base face to end of opposite cap pins		Length, overall	
	in.	mm.†			max.	min.	max.	min.
125	96 x 1 1/2	2400 x 38	Bi-Pin	2374.9	2382.0	2378.4	2389.1	—
125	96 x 1 1/2	2400 x 38	BC	—	—	—	2444.7	2432.0
85	96 x 1 1/2	2400 x 38	Bi-Pin	2374.9	2382.0	2378.4	2389.1	—
85	72 x 1 1/2	1800 x 38	Bi-Pin	1763.8	1770.9	1768.4	1778.0	—
65/80	60 x 1 1/2	1500 x 38	Bi-Pin	1500.0	1507.1	1504.8	1514.3	—
80	60 x 1 1/2	1500 x 38	BC	—	—	—	1530.4	1517.6
50	60 x 1	1500 x 25	Bi-Pin	1500.0	1507.1	1504.8	1514.3	—
40	48 x 1 1/2	1200 x 38	Bi-Pin	1199.4	1206.5	1204.1	1213.6	—
40	24 x 1 1/2	600 x 38	Bi-Pin	589.8	596.9	594.5	604.0	—
30	36 x 1 1/2	900 x 38	Bi-Pin	894.6	901.7	899.3	908.8	—
30	36 x 1	900 x 25	Bi-Pin	894.6	901.7	899.3	908.8	—
20	24 x 1 1/2	600 x 38	Bi-Pin	589.8	596.9	594.5	604.0	—
15	18 x 1 1/2	450 x 38	Bi-Pin	437.4	444.5	442.1	451.6	—
15	18 x 1	450 x 25	Bi-Pin	437.4	444.5	442.1	451.6	—
13	21 x 3/8	525 x 16	Bi-Pin min.	516.8	523.9	521.5	531.0	—
8	12 x 3/8	300 x 16	Bi-Pin min.	288.2	295.3	292.9	302.4	—
6	9 x 3/8	225 x 16	Bi-Pin min.	212.0	219.1	216.7	226.2	—
4	6 x 3/8	150 x 16	Bi-Pin min.	135.8	142.9	140.5	150.0	—

† Note the new metric designations of tubes

### Circular tubes

Lamp watts	Nominal diameter	Inside Lamp diameter/glass mm.		Inside Lamp diameter/base mm.		Outside Lamp diameter*		* Bulb diameter mm.	
	in.	max.	min.	max.	min.	max.	min.	max.	min.
22	8 $\frac{1}{4}$	160.4	151.1	155.6	150.8	215.9	203.2	30.9	26.2
32	12	245.3	237.3	246.1	239.7	311.2	298.5	34.1	29.4
40	16	346.9	338.9	347.7	341.3	412.8	400.0	34.1	29.4

\* Base and glass dimensions the same

# Fluorescent tubes

## Electrical data

Electrical data for standard 240v 50HZ tube circuits. Average performance tested at 25°C to BS2818

The figures on this page are for control gear used in Atlantic, Durham, New super Netapack, Troffer, Modular, and similar fittings. For control gear in Popular Pack, Minipack, Arrow-slim, and similar fittings see the British Lighting Industries Fitting's catalogue.

Tube size	8 ft	8 ft	6 ft	5 ft	5 ft	5 ft	4 ft	3 ft	3 ft
Diameter	1½ in.	1½ in.	1½ in.	1½ in.	1½ in.	1 in.	1½ in.	1½ in.	1 in.
Nominal tube watts	125w	85w	85w	80w	65w	50w	40w	30w	30w
Lamp cap	Bi-pin	BP Super 8	BP Super 6	BC or BP	BP Super 5	BP	BP	BP	BP
Actual lamp (watts)	123	85	84	76	64	50	39½	29½	30
Average tube (volts)	150	184	120	100	110	165	102	85	98
Average tube (amps.)	0.94	0.55	0.80	0.87	0.67	0.38	0.44	0.39	0.36
Rated life (hours)	7500	7500	7500	7500	7500	5000	7500	5000	5000

### Single Tube Switchstart

Total circuit (watts)	144	—	95	94†	77	62	50	39	39
Lagging power factor	0.64‡	—	0.87	0.85	0.85	0.69‡	0.85	0.85	0.85
Total volt amps.	226	—	108	110	90	90	60	46	46
Mains current at 240v	0.94	—	0.45	0.46	0.37	0.38	0.25	0.19	0.19
Min. starting temperature	0°C	—	+5°C	0°C	0°C	+5°C	0°C	0°C	0°C
% Harmonics per phase	15%	—	16%	17%	17%	15%	17%	17%	17%

### Single Tube Switchless Start

Total circuit (watts)	154	100	96	99	79	—	53	42	42
Lagging power factor	0.98	0.99	0.86	0.85	0.91	—	0.85	0.85	0.85
Total volt amps.	158	100	110	116	87	—	62	50	50
Mains current at 240v	0.66	0.42	0.46	0.48	0.36	—	0.26	0.21	0.21
Min. starting temperature	+5°C	+5°C	—5°C	+5°C	—5°C	—	+5°C	+5°C	+5°C
% Harmonics per phase	8%	7%	25%	17%	25%	—	17%	17%	17%

### Twinstart

Total circuit (watts)	—	207	—	—	—	—	—	—	—
Lagging power factor	—	0.95	—	—	—	—	—	—	—
Total volt amps.	—	218	—	—	—	—	—	—	—
Mains current at 240v	—	0.91	—	—	—	—	—	—	—
Min. starting temperature	—	+5°C	—	—	—	—	—	—	—
% Harmonics per phase	—	17%	—	—	—	—	—	—	—

Tube size	2 ft	2 ft	18 in.	18 in.	21 in.	12 in.	9 in.	6 in.
Diameter	1½ in.	1½ in.	1½ in.	1 in.	¾ in.	¾ in.	¾ in.	¾ in.
Nominal tube watts	40w	20w	15w	15w	13w	8w	6w	4w
Lamp cap	BP	BP	BP	BP	Small BP	Small BP	Small BP	Small BP
Actual lamp (watts)	37	19½	15	15	13	8	8	4
Average tube (volts)	47	58	48	57	92	55	43	30
Average tube (amps.)	0.88	0.37	0.36	0.34	0.17	0.17	0.16	0.15
Rate life (hours)	5000	5000	5000	5000	5000	5000	5000	5000

### Single Tube Switchstart

Total circuit (watts)	58	30	25	25	19	14	12	10
Lagging power factor	0.85	0.34*	0.30*	0.31*	0.46*	0.34*	0.31*	0.28*
Total volt amps.	69	90	85	81	41	41	39	36
Mains current at 240v	0.29	0.37	0.36	0.34	0.17	0.17	0.16	0.15
Min. starting temperature	0°C	0°C	0°C	0°C	0°C	0°C	0°C	0°C

### Series Pair Switchstart

Total circuit (watts)	94	50	40	40	—	22	18	14
Lagging power factor	0.85	0.85	0.85	0.85	—	0.52*	0.46*	0.39*
Total volt amps.	110	59	47	47	—	41	39	36
Mains current at 240v	0.46	0.25	0.20	0.20	—	0.17	0.16	0.15
Min. starting temperature	0°C	0°C	0°C	0°C	—	0°C	0°C	0°C

### Series Pair QS Switchless Start

Total circuit (watts)	100	54	44	44	—	—	—	—
Lagging power factor	0.85	0.85	0.85	0.85	—	—	—	—
Total volt amps.	118	63	52	52	—	—	—	—
Mains current at 240v	0.49	0.26	0.22	0.22	—	—	—	—
Min. starting temperature	+5°C	+5°C	+5°C	+5°C	—	—	—	—

\* Uncorrected value. Allow 0.85 if power factor capacitor is fitted.

† Special 80w cold store circuit operates at 0.91 amps. with 0.49 leading power factor.

‡ 8 ft 125w and 6 ft 80w starter switch circuits operate with a series type capacitor at a leading power factor of 0.63.

The above circuit watts for control gear tested in accordance with BS2818 may be reduced by up to 5% when operating in some fittings as the circuit watts reduce as the lamp operating temperature rises.

# Fluorescent tubes

## Light output

### Lumen outputs

The lumen outputs quoted in this catalogue are measured at 25°C in accordance with British Standard 1853.

### Initial lumens

Initial lumens are measured after 100 hours operation.

### Super white

6ft 85w white tubes use super white phosphors giving higher lumen output.

### Lighting design lumens

The 'Lighting Design Lumens' quoted are the lamp outputs at 2000 hours and are recommended as a guide to lighting engineers planning scheme layouts.

Lumen output beyond 2000 hours decreases by 2% to 3% per 1000 hours use according to the colour and loading.

### Initial lumens

	8 ft 125w	8 ft Super 8 85w	6 ft Super 6 85w	5 ft Super 5 80w*	5 ft Super 5 65w*	5 ft 50w	4 ft 40w	3 ft 1 1/2 in. 30w	3 ft 1 in. 30w	2 ft 40w	2 ft 20w	18 in. 1 1/2 in. 15w	18 in. 1 in. 15w
White	9000	7100	6800	5400	4900	3500	2800	1950	2200	2000	1200	800	850
Warm White	8800	6900	6050	5300	4800	3500	2800	1900	2150	1950	1200	800	850
Daylight	8500	6600	5900	5100	4600	3300	2700	1850	2100	1900	1150	750	800
Natural	6800	5400	4550	4100	3600	2700	2200	1500	1600	1400	850	580	600
De Luxe Warm White	6700	5300	—	4000	3500	—	2150	1450	1550	1350	850	560	—
*Kolor-rite	6200	4800	4300	3700	3300	2500	2000	—	1500	1350	850	—	—
Northlight/Colour Matching	5800	4500	4000	3400	3000	—	1900	1300	1450	1300	800	540	560
De Luxe Natural	5300	4150	3650	3100	2800	2200	1750	1100	1250	1100	650	450	470
Artificial Daylight	4500	3400	3200	2700	2450	—	1450	—	—	—	600	—	430

### Lighting design lumens

	8 ft 125w	8 ft Super 8 85w	6 ft Super 6 85w	5 ft Super 5 80w*	5 ft Super 5 65w*	5 ft 50w	4 ft 40w	3 ft 1 1/2 in. 30w	3 ft 1 in. 30w	2 ft 40w	2 ft 20w	18 in. 1 1/2 in. 15w	18 in. 1 in. 15w
White	8400	6600	6300	4900	4500	3100	2600	1750	1950	1750	1100	720	730
Warm White	8200	6400	5550	4800	4400	3100	2600	1700	1900	1700	1100	720	730
Daylight	7900	6000	5500	4600	4200	2900	2500	1650	1850	1650	1050	690	710
Natural	6200	4800	4000	3500	3100	2300	2000	1300	1400	1150	750	530	530
De Luxe Warm White	6100	4700	—	3400	3000	—	1950	1250	1350	1100	750	500	—
*Kolor-rite	5600	4400	3850	3300	2900	2200	1800	—	1300	1100	750	—	—
Northlight/Colour Matching	5300	4100	3600	3100	2700	—	1700	1100	1250	1100	700	470	480
De Luxe Natural	4600	3600	3150	2600	2400	1800	1500	950	1050	900	570	380	380
Artificial Daylight	3400	2600	2300	2000	1850	—	1100	—	—	—	450	—	310

\* The Super 5 tube is a dual purpose 65/80w tube suitable for use in all 65w or 80w bi-pin fittings.

5 ft 80w BC tubes are still available in standard colours.

### Miniature fluorescent tubes

Miniature fluorescent tubes give high lumen output with low power consumption. (Equivalent to a filament lamp five times the wattage.)

Their long life, low temperature and slim shape make them particularly suitable for signs, bollards, displays, bulkheads and appliances.

#### Initial Lumens

	21 in. 8 in. 13w	12 in. 6 in. 8w	9 in. 4 in. 6w	6 in. 3 in. 4w
White	750	425	290	160
Warm White	750	425	290	160
Daylight	700	400	275	150
Natural	—	325	230	120

#### Lighting Design Lumens

	21 in. 8 in. 13w	12 in. 6 in. 8w	9 in. 4 in. 6w	6 in. 3 in. 4w
White	650	360	240	135
Warm White	650	360	240	135
Daylight	600	340	230	125
Natural	—	280	190	100

### Coloured tubes

Six standard colours — Red, Blue, Green, Gold, Peach and Pink are available. These are primarily designed for decorative and effect lighting purposes.

#### Lighting design lumens

	6 ft 85w	5 ft at 80w	5 ft at 65w	4 ft 40w	3 ft 30w	2 ft 40	2 ft 20
Pink	1,600	1,400	1,250	750	550	500	290
Red	—	250	230	140	—	—	50
Gold	—	2,700	2,400	1,450	—	—	550
Green	—	5,200	4,600	2,800	—	—	1,100
Blue	—	1,300	1,150	700	—	—	270
Peach	—	3,200	2,900	1,750	—	—	700

# Fluorescent tubes

## Light output

### Reflector tubes

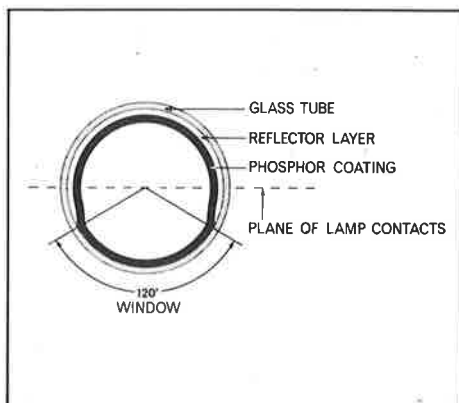
The reflector fluorescent tubes have an additional highly reflecting coating added between the fluorescent powder and the inside of the glass tube. In this way the majority of light is radiated through an aperture of 120° from the lamp in the preferred direction. This lamp is particularly useful in the following applications:

**Lighting in dusty atmospheres** Dust collection on an ordinary tube and fitting rapidly reduces light output. With a reflector tube, light re-direction is independent of dust, and light output is better maintained.

**Display lighting** This lamp is useful where space is restricted such as showcases where it is difficult to put an external reflector.

**High intensity lighting** Reflector lamps enable tubes to be mounted in banks where an external reflector may not be convenient or effective.

**Replacement** lamps can be used in old fittings which have deteriorated so as to give an increase in useful light output.



INITIAL LUMENS

	8 ft 125w	8 ft 85w	6 ft 85w	5 ft at 80w	5 ft at 65w	4 ft 40w	2 ft 40w	2 ft 20w
White	8100	6400	5600	4900	4400	2500	—	1100
Warm White	7900	6200	5450	4800	4300	2500	1800	—
Daylight	—	—	5350	4600	4200	2400	—	—
Natural	—	—	4100	3700	3200	—	—	—

LIGHTING DESIGN LUMENS

	8 ft 125w	8 ft 85w	6 ft 85w	5 ft at 80w	5 ft at 65w	4 ft 40w	2 ft 40w	2 ft 20w
White	7400	5800	5000	4300	3900	2300	—	1000
Warm White	7200	5600	4850	4200	3800	2300	1500	—
Daylight	—	—	4750	4000	3700	2200	—	—
Natural	—	—	3500	3100	2600	—	—	—

### Gro-Lux—lighting design lumens

5 ft at 80w	5 ft at 65w	4 ft 40w	*3 ft 30w	2 ft 20w	*1½ ft 15w	21 in. 13w	12 in. 8w
1450	1300	810	530	340	200	180	100

\*1 in. diameter

### Tropical Daylight—lighting design lumens

1½ ft 15w – 525

### Circular tubes (Warm White only)

Tube size (diameter)	16 in.	12 in.	8½ in.
Wattage	40w	32w	22w
Lighting design lumens	2150	1500	850

### Amalgam tubes

Many modern enclosed commercial fittings cause standard fluorescent tubes to operate above their optimum temperature thus giving significant reductions in light output.

Amalgam control of the mercury vapour pressure in a tube allows efficient operation at higher temperatures.

The quoted lumen output of a standard tube is measured at an ambient temperature of 25°C.

corresponding to surface temperature of 40-45°C, and as the temperature rises, lumen output falls.

The same rating of amalgam lamp gives a similar lumen output at an ambient temperature of 50°C.

corresponding to a surface temperature of 65°C. Gains in light output of up to 25% over standard tubes can be achieved in multi-lamp enclosed commercial fittings. Amalgam tubes are directly interchangeable with standard tubes.

**Note:** Amalgam tubes only give advantages at air temperatures above 40°C. Standard tubes give better performance below this temperature.

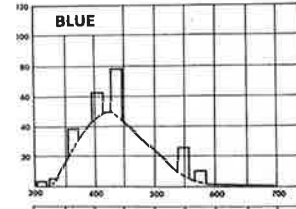
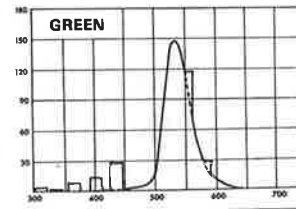
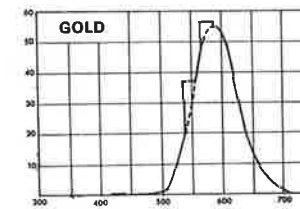
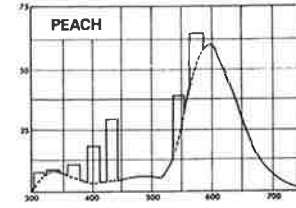
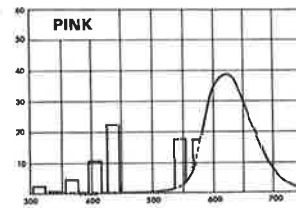
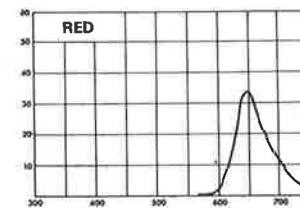
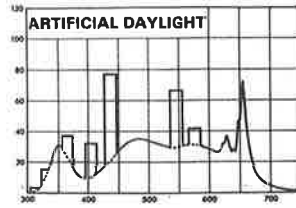
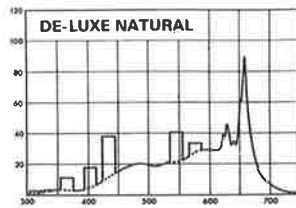
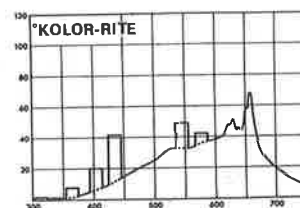
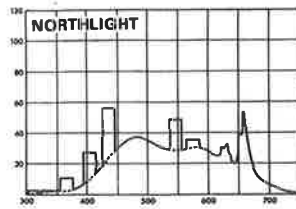
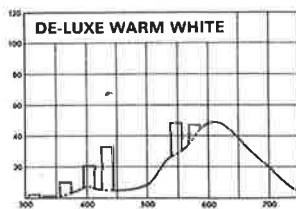
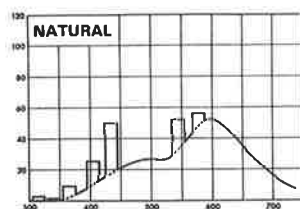
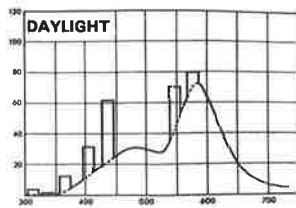
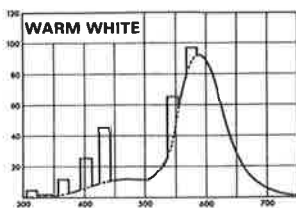
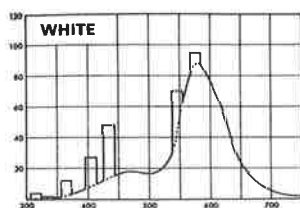
**Ratings available** 6 ft 85w, White, Warm White, Natural.

# Fluorescent tubes

## Spectral distribution

Horizontal scales are for wavelengths in nanometres ( $10^{-9}$  metres).

Vertical scales are power in milliwatts per nanometre band width for a 5 ft tube at 65 watts.



ULTRA VIOLET    GREEN    ORANGE  
VIOLET    BLUE    YELLOW    RED

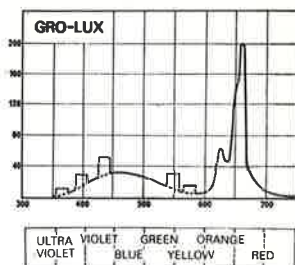
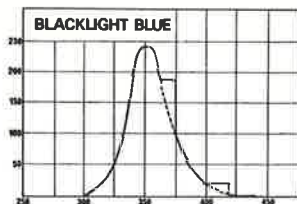
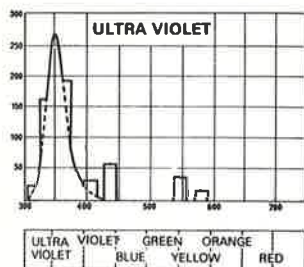
ULTRA VIOLET    GREEN    ORANGE  
VIOLET    BLUE    YELLOW    RED

ULTRA VIOLET    GREEN    ORANGE  
VIOLET    BLUE    YELLOW    RED

# Fluorescent tubes

## Spectral distribution

Horizontal scales are wavelengths in nanometres ( $10^{-9}$  metres). Vertical scales are power in milliwatts per nanometre band width for a 5 ft tube at 65w, except for Blacklight Blue which is for a 40w tube.



### Nominal percentage light output for 5 ft. tubes at 65w.

8 BANDS										
CIE BANDS	nm.	Artificial Daylight	Northlight/ Colour Matching	Daylight	Natural	De Luxe Natural	White	Warm White	De Luxe Warm White	*Kolor-rite
1 Far Violet	380-420		0-017	0-014	0-014	0-011	0-010	0-007	0-007	0-017
2 Violet	420-440	1-06	0-42	0-31	0-33	0-37	0-26	0-25	0-30	0-13
3 Blue	440-460		0-65	0-38	0-37	0-39	0-22	0-17	0-10	0-48
4 Blue-Green	460-510	9-6	9-7	5-3	5-6	6-1	3-1	2-5	2-4	7-9
5 Green	510-560	44-9	44-5	37-2	38-0	38-7	32-3	29-5	35-8	38-0
6 Yellow	560-610	33-8	34-1	48-9	44-1	37-5	54-9	57-3	45-8	39-5
7 Light Red	610-660	9-9	10-0	7-8	11-2	15-8	9-1	10-2	14-9	13-0
8 Dark Red	660-760	0-63	0-63	0-17	0-69	1-2	0-19	0-21	0-81	1-06

Ultra-violet (watts per 65w tube, between 300 and 400 nanometres)

	1-30	0-47	0-53	0-41	0-42	0-44	0-40	0-40	0-32
--	------	------	------	------	------	------	------	------	------

Colour appearance 'X' and 'Y' colour co-ordinates

X	0-313	0-317	0-373	0-378	0-390	0-414	0-435	0-437	0-3804
Y	0-329	0-324	0-380	0-365	0-356	0-397	0-401	0-400	0-3767

### Additional Colour Data

The above colour rendering and colour appearance data is on the same basis as the values specified in BS1853, but there is a trend towards other methods of colour specification, e.g. 6 band values for colour rendering and the CIE uniform chromaticity

scale for colour appearance in which the co-ordinates are expressed in u and v values. With this in mind we provide the following additional data:

6 BANDS										
CIE BANDS	nm.	Artificial Daylight	Northlight/ Colour Matching	Daylight	Natural	De Luxe Natural	White	Warm White	De Luxe Warm White	*Kolor-rite
1 Violet-Blue	400-455	0-79	0-83	0-57	0-58	0-62	0-41	0-34	0-36	0-435
2 Blue-Green	455-510	11-2	11-0	5-3	6-3	6-3	3-3	2-7	2-6	8-03
3 Green	510-540	23-1	19-9	12-6	15-0	14-8	9-3	8-3	13-5	19-8
4 Green-Yellow	540-590	43-7	48-0	59-9	52-7	50-0	61-3	60-7	53-2	44-7
5 Orange	590-620	14-4	13-1	17-5	18-1	16-5	20-7	22-4	20-6	17-7
6 Red	620-760	6-8	7-2	4-1	7-3	11-8	4-9	5-6	9-8	9-4

Colour appearance - Nominal u and v colour co-ordinates.\*

u	0-1978	0-203	0-219	0-228	0-240	0-239	0-251	0-252	0-2251
v	0-3122	0-311	0-335	0-331	0-329	0-343	0-347	0-347	0-3344

\* CIE uniform chromaticity scale

### Colour Temperatures for Fluorescent Tubes

The term 'colour temperature' should strictly only be applied to spectral distributions close to the black body distributions. Thus in fluorescent tube colours the 'colour temperature' is merely an indication of the location of the chromaticity co-ordinates on a colour chart.

The 'colour temperatures' should not be used as a guide for photographic purposes.

Artificial Daylight	6500°K
Northlight/Colour Matching	6500°K
Tropical Daylight	6500°K
Daylight	4300°K
*Kolor-rite	4000°K
Natural	4000°K
De Luxe Natural	3600°K
White	3400°K
Warm White	3000°K
De Luxe Warm White	3000°K



# DISCHARGE LAMPS



# Discharge lamps

## Introduction

---

Mazda has been one of the leading major brands since the inception of discharge lamps in the early 1930's and Mazda is now the Thorn Lighting Ltd brand of sodium and high pressure mercury discharge lamps. The outstanding development in mercury lamps is the recent introduction of \*Kolorlux versions in all the fluorescent coated lamps, giving an improved colour appearance at a higher luminous efficiency.

In the sodium lamp field Mazda has a unique high efficiency linear sodium lamp in 200w, 140w and 60w ratings.

Details of these and many other interesting discharge lamps are given in this section.

\*Prices' shown are those recommended as appropriate in U.K. for retail sale.

'Nett user prices' are those recommended as appropriate in U.K. for direct sale to users.

	Page
Index	CF3
MBI, MBIF Kolorarc, Mercury Iodide Lamps	CF4
MBF Kolorlux Lamps	CF5
MBFR Mercury Reflector Lamps	CF6
MBTF & MBTL	CF7
MB Mercury Lamps	CF8
Information (Mercury Lamps)	CF9
Information continued	CF10
Linear Sodium Lamp Development	CF11
SLI/H Linear Sodium Lamps	CF12
SOX Low Pressure Sodium Lamps	CF13
SOI/H Integral Sodium Lamps	CF14
Information (Sodium Lamps)	CF15
SON (High Pressure Sodium)	CF16

# Discharge lamps

## Mercury iodide lamps Types MBI and MBIF °Kolorarc

### Description

High pressure discharge in mercury with metallic additives operating in a quartz arc tube, °Kolorarc (MBIF) lamps have hard glass elliptical bulbs coated on the interior surface with fluorescent phosphor increasing the light output, improving the colour, and diffusing the arc.

MBI lamps have clear hard glass elliptical bulbs.

The special additives in the arc help to provide a more continuous spectral power distribution throughout the visible spectrum.

At the same time the mercury resonance lines are reduced in comparison with ordinary mercury lamps, giving a light source with excellent colour rendering properties comparable to a "Natural" fluorescent tube.

### Application

The excellent colour rendering of °Kolorarc makes it suitable for interior commercial applications such as shops, stores, offices, exhibitions etc. Also for industrial applications where colour plays an important part in the process.

It is ideal for high bay lighting, area floodlighting and streetlighting where an added attraction is its 25% increase in light output over MBF lamps.

MBI lamps with clear outer bulbs, are suitable where precise optical control is required such as floodlighting.

°Kolorarc and MBI lamps have proved suitable light sources for use with colour television cameras.

### Burning Position

With cap in upper hemisphere.

This lamp *must not* be operated with cap below horizontal.

### Control Gear

Resonant circuit comprising inductances and capacitor required. It will *not* operate on standard mercury control gear. See page CF10.

### Percentage Luminance in spectral bands (400w lamps)

Band	Waveband (nm)	Colour	% Luminance	
			Std. MBI	MBIF °Kolorarc
1	380-420	Far Violet	0.03	0.02
2	420-440	Violet	0.24	0.18
3	440-460	Blue	0.30	0.27
4	460-510	Blue Green	5.55	8.96
5	510-560	Green	41.1	34.8
6	560-610	Yellow	46.0	47.0
7	610-660	Light Red	6.66	8.24
8	660-760	Dark Red	0.15	0.56

Type	Net Trade Price £ s. d.	Std. Pack	Cap.	Lighting Design Lumens*
400w Kolorarc (MBIF)	7 9 0	1	G.E.S.	27,000
400w MBI	7 2 0	1	G.E.S.	24,000

\*Note: The lighting design lumens quoted apply to vertical cap up operation. There will be a slight reduction (approx. 5%) in output when operated horizontally.  
These lamps are not subject to Purchase Tax.

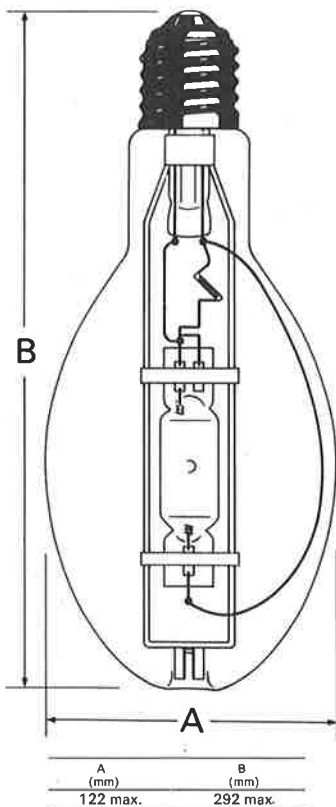
Supply voltage 200/250v.

Rated Life 7,500 hours.

Photograph showing appearance of MBIF °Kolorarc lamp.



Drawing showing construction of MBI lamp.



# Discharge lamps

## Mercury fluorescent lamps Type MBF °Kolorlux

### Description

High pressure mercury vapour discharge operating in a quartz arc tube. The interior surface of the elliptical bulb is coated with a fluorescent phosphor which converts ultra violet radiation from the discharge into visible light.

°Kolorlux lamps employ new phosphor giving up to 10% higher light output than standard MBF lamps together with improved colour at the red end of the spectrum.

### Applications

MBF lamps are widely used in industrial and streetlighting. The improved colour of °Kolorlux has extended the applications to commercial and display lighting, shopping centre and concourse lighting, and area floodlighting.

### Burning Position

Universal—lamps may be operated in any position.

### Control Gear

Choke and power factor correction capacitor required.  
See page CF10.

### Percentage luminance in spectral bands (400w °Kolorlux)

Band	Waveband (nm)	Colour	% Luminance
1	380-420	Far Violet	0.01
2	420-440	Violet	0.44
3	440-460	Blue	0.08
4	460-510	Blue Green	0.67
5	510-560	Green	37.7
6	560-610	Yellow	47.3
7	610-660	Light Red	13.7
8	660-760	Dark Red	0.12

Watts	Net Trade Price £ s. d.	Std Pack	Cap	Lighting Design Lumens
50	1 7 6	50	E.S.	1,800
80	1 17 6	24	E.S.*	3,350
125	2 3 9	24	E.S.*	5,550
250	3 10 6	9	G.E.S.	12,000
400	5 7 6	9	G.E.S.	21,500
700†	9 5 9	1	G.E.S.	34,500†
1,000	11 11 0	4	G.E.S.	54,000

These lamps are not subject to Purchase Tax.

\*3 pin B.C. cap also available.

†Standard MBF only available in this rating (not °Kolorlux phosphor).

**Supply voltage 200/250v.**

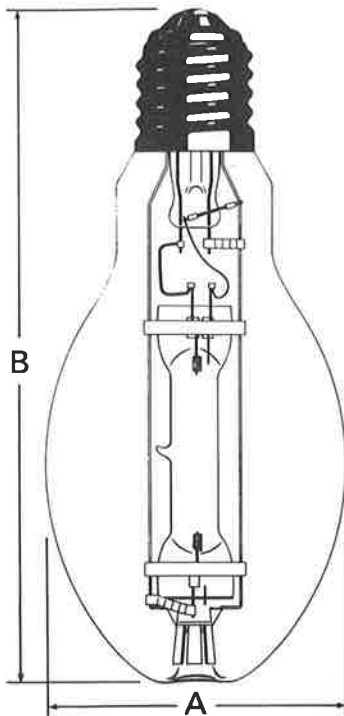
**Rated Life 7,500 hours.**

**Further information:** See pages CF9 and CF10

Photograph showing appearance of MBF 400w. lamp illustrated.



Drawing showing construction of MBF 400w. lamp illustrated.



	A (mm)	B (mm)
50w.	65±1	125±4
80w.	70±1	150±4
125w.	75±1	170±5
250w.	90±1	220±7
400w.	120±2	280±6
700w.	140±2	320±8
1000w.	165±2	400±10

# Discharge lamps

## Mercury reflector lamps Type MBFR °Kolorlux

### Description

High pressure mercury vapour discharge operating in a quartz arc tube. A shaped outer bulb forms an integral reflector. The upper portion of the bulb is coated with a reflecting layer which directs most of the light downward but allows some upward light. This internal reflector is unaffected by atmospheric corrosion and dirt collection so that the lamp requires the minimum maintenance. The introduction of °Kolorlux phosphor into the range of reflector lamps gives a greatly improved colour and up to 10% higher output than previously available, with standard MBFR lamps.

### Application

°Kolorlux reflector lamps are particularly suitable for medium and high bay lighting. The hard glass outer bulb allows the lamps to be used in exposed conditions for area lighting. The improved colour of °Kolorlux has widened the use of reflector lamps into commercial applications such as display lighting.

### Burning Position

Reflector lamps can be operated in any position.

### Control Gear

Choke and power factor correction capacitor required.  
See pages CF10.

Band	Waveband (nm)	Colour	% Luminance
1	380-420	Far Violet	0.01
2	420-440	Violet	0.48
3	440-460	Blue	0.10
4	460-510	Blue Green	0.71
5	510-560	Green	37.9
6	560-610	Yellow	49.3
7	610-660	Light Red	11.4
8	660-760	Dark Red	0.10

Watts	Net Trade Price £ s. d.	Std. Pack	Cap	Lighting Design Lumens
250	4 6 9	1	G.E.S.	10,000
400	5 15 6	1	G.E.S.	17,500
700*	9 18 0	1	G.E.S.	30,000
1000	12 7 6	1	G.E.S.	45,000

These lamps are not subject to Purchase Tax.

\*Standard MBF only available in this rating.

Supply voltage 200/250v.

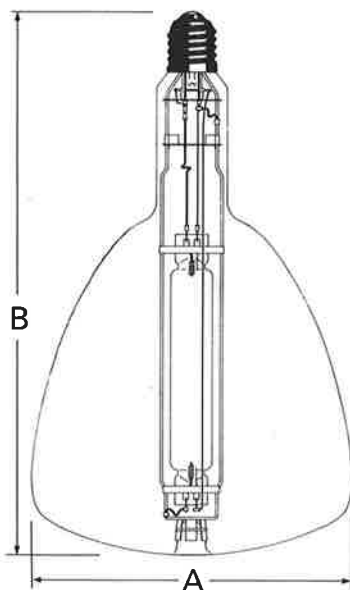
Rated life 7,500 hours.

Further information: See pages CF9 and CF10

Photograph showing appearance of MBFR—400w lamp illustrated.



Drawing showing construction of MBFR—1000w lamp illustrated.



	A (mm)	B (mm)
250w	130 ± 2	220 ± 7
400w	165 ± 2	280 ± 6
700w	200 ± 2	320 ± 8
1000w	236 ± 2	360 ± 10

# Discharge lamps

## Mercury tungsten lamps Types MBTL °Kolorlux, MBTF and MBTL

### Description

Mercury tungsten lamps consist of a high pressure mercury discharge in a quartz arc tube. Mounted coaxially with the arc tube and connected in series with it, is a coiled tungsten filament which provides light and colour correction to the output of the mercury discharge and acts as a ballast to the arc.

No control gear is needed.

All ratings have pear-shaped outer bulbs.

The 160w °Kolorlux MBTF has an outer bulb coated with a new phosphor giving higher light output and improved colour in comparison with the 160w MBTL which has an inert diffusing coating.

The 250w and 500w MBTF lamps have a fluorescent coating on the outer bulb adding to the red output and diffusing the source.

### Application

Mercury tungsten lamps can be used as direct replacements for tungsten filament lamps giving higher light output and six times the life. They are particularly suitable where labour costs are high and access is difficult. Applications include shop windows, garages, warehouses, streetlighting and in wellglass, bulk head and flameproof fittings.

### Burning Position

Mercury tungsten lamps are designed for operation in the cap up position. They will only operate in other positions providing there is negligible fluctuation in the supply voltage.

### Supply Voltage

Two voltage ratings of lamps are available 220/230v and 240/250v, and lamps must be operated on the correct supply. Sudden reductions in voltage will cause lamps to extinguish.

### Control Gear

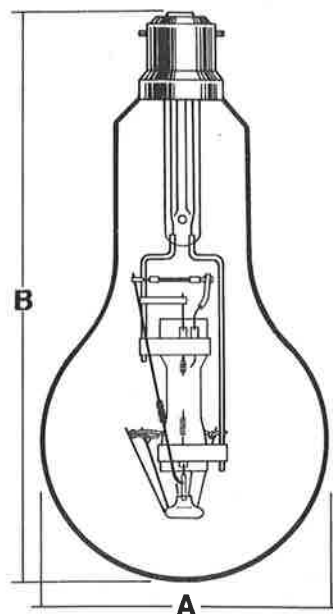
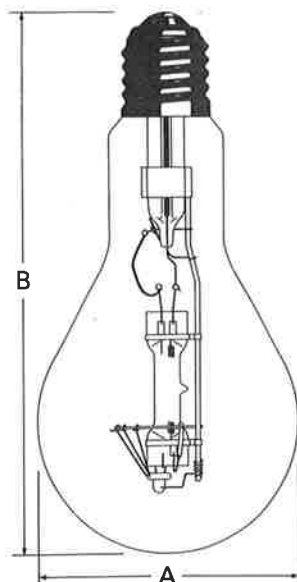
No control gear is required, mercury tungsten lamps operate direct from the supply.

Band	Waveband (nm)	Colour	% Luminance		
			160w MBTL	*Kolorlux 160w MBTF	250w 500w MBTF
1	380-420	Far Violet	0.01	0.01	0.01
2	420-440	Violet	0.46	0.44	0.38
3	440-460	Blue	0.19	0.14	0.12
4	460-510	Blue Green	2.37	1.23	1.38
5	510-560	Green	46.8	41.9	46.6
6	560-610	Yellow	42.6	41.7	40.5
7	610-660	Light Red	6.86	14.2	9.86
8	660-760	Dark Red	0.68	0.37	1.11

Type	MBTL	*Kolorlux MBTF	MBTF	MBTF
Watts	160	160	250	500
Net Trade Price	£2 1 6	£2 5 9	£2 7 6	£4 6 9
Std. Pack	12	12	12	6
Cap	B.C. or E.S.	B.C. or E.S.	G.E.S.	G.E.S.
Lamp Current (Amps)				
220/230v	0.70	0.70	1.10	2.20
240/250v	0.65	0.65	1.05	2.10
Lighting Design Lumens	2,560	2,700	4,840	11,000

These lamps are not subject to Purchase Tax.

**Rated life 6,000 hours**



	A (mm)	B (mm)
160w	89 ± 2	173 ± 5.5*
250w	110 ± 1.5	233 ± 7
500w	130 ± 1.5	267 ± 8

\*For E.S. Cap add 5mm.

# Discharge lamps

## Mercury lamps Type MB

### Description

High pressure mercury vapour discharge operating in a quartz arc tube. 80 and 125w sizes have elliptical pearl bulbs, 250 and 400w ratings have clear tubular hard glass bulbs.

### Application

MB lamps have been largely superseded for industrial and streetlighting by MBF \*Kolorlux because of the higher light output and improved colour. MB lamps are still used for general illumination where colour is not important but are also used where the typical characteristics of mercury spectral power distribution are advantageous, e.g. for graphic arts, laboratory and scientific purposes, plant growth, floodlighting.

### Control Gear

Choke and power factor correction capacitor required.  
See page CF10.

### Burning Position

Universal—lamps may be operated in any position.

### Percentage Luminance in spectral bands (400w MB)

Band	Waveband (nm)	Colour	% Luminance
1	380-420	Far Violet	0.02
2	420-440	Violet	0.61
3	440-460	Blue	0.18
4	460-510	Blue Green	0.83
5	510-560	Green	47.7
6	560-610	Yellow	49.7
7	610-660	Light Red	0.84
8	660-760	Dark Red	0.07

Watts	Net Trade Price £ s. d.			Std. Pack	Cap	Lighting Design Lumens
80	1	17	6	24	ES*	2,720
125	2	3	9	24	ES*	4,900
250	3	0	0	12	GES	11,000
400	4	0	0	12	GES	18,800

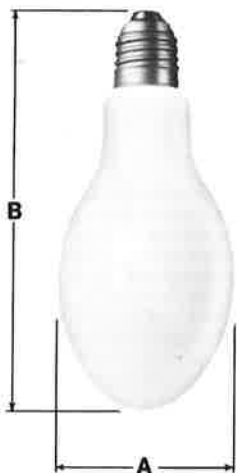
These lamps are not subject to Purchase Tax.

\*3 pin B.C. cap also available.

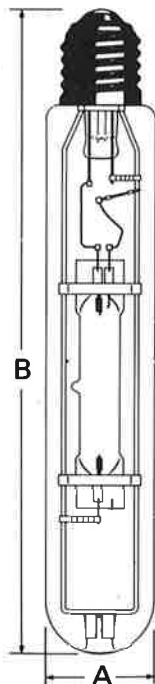
Supply voltage 200/250v.

Rated Life 7,500 hours.

Further information: See pages CF9 and CF10



	A (mm)	B (mm)
80w.	70±1	150±4
125w.	91 max.	183 max.



	A (mm)	B (mm)
250w.	51±1	290±8
400w.	51±1	330±8



# Discharge lamps

## Mercury lamp information

### Lighting Design Lumens

The "Lighting Design Lumens" quoted are the lamp outputs at 2,000 hours and are recommended as a guide to lighting engineers planning scheme lay-outs. Lumen output beyond 2,000 hours decreases by 2-4% per 1,000 hours use according to type.

### Striking Voltage

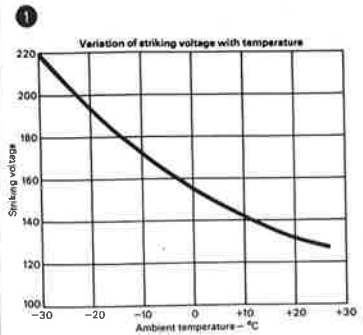
Mercury lamps are provided with an auxiliary electrode to initiate starting. Diagram 1 shows the lamp will start readily under all normal operating temperatures.

### Mains Voltage Variation

Diagram 2 shows the effect of mains voltage variation on lumens, lumens per watt and lamp watts.

### Run-up Characteristics

These are shown in diagram 3. The time taken will vary slightly depending upon the location and the type of fitting housing the lamp.

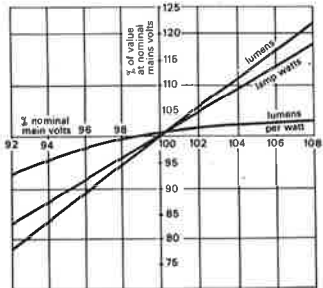


### Nominal Electrical Characteristics for MB, MBF and MBFR lamps.

Watts	Rating	Volts	Lamp Operating Volts	Lamp Operating Current (amps)
50		200/250	85/105	0.61
80		200/250	105/130	0.8
125		200/250	110/140	1.15
250		200/250	115/145	2.15
400		200/250	120/150	3.2
700		200/250	125/155	5.6
1000		200/250	130/160	7.5

②

Effect of variation of mains voltage on the lamp Characteristics of Mercury Discharge lamps



### Nominal Electrical Characteristics for Kolorarc and MBI lamps

Watts	Rating	Volts	Lamp Operating Volts	Lamp Operating Current (amps)
400		200/250	120/150	3.3

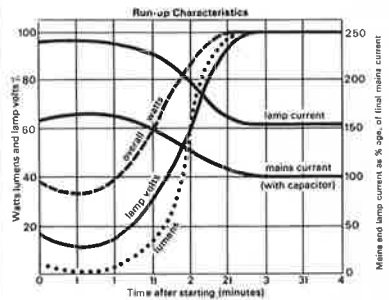
### British Standards

Lamps described in this catalogue conform to the following Standards where applicable.

BS 3677 :- 1963 Schedule for Electric Discharge Lamps for General Purposes.

BS 98 :- 1962 Screw Caps and Holders.

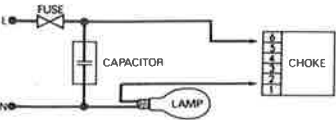
③



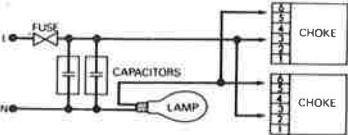
# Discharge lamps

## Mercury lamp information

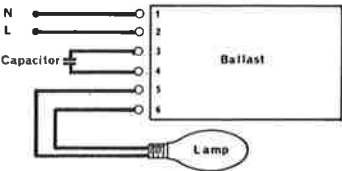
Circuit diagrams



(1) 50 TO 400W



(2) 700 AND 1000W



(3) 400 watt °KOLORARC

### Control Gear for MB, MBF and MBFR lamps

The control gear for a mercury lamp comprises a choke and a power factor correction capacitor. Gear suitable for 240v 50Hz is summarised in the table below.  
Details of 240v gear and gear suitable for other voltages are given in the Fittings Catalogue.

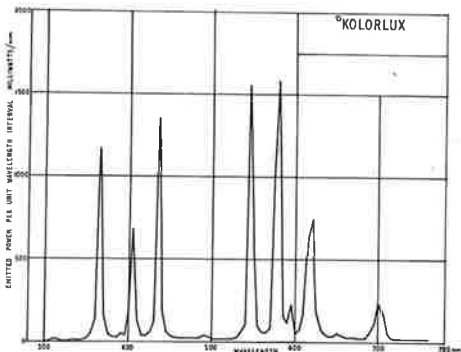
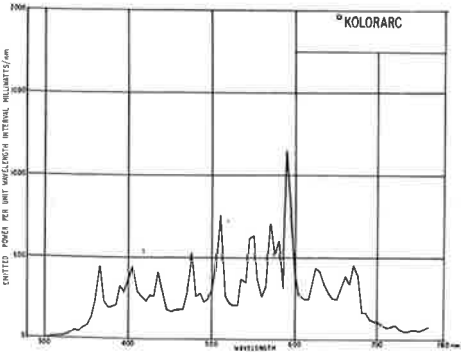
Lamp Rating	Choke Cat. No.	Choke Contract Price			Capacitor Cat. No.	Capacitor Contract Price		
		£	s	d		£	s	d
50w	AME53184.4	1	8	0	AMEC2203	11	0	
80w	AME53162.4	1	7	0	AMEC2234	14	0	
125w	AME53159.4	1	17	0	AMEC2234	14	0	
250w	AME53158.4	3	5	0	AMEC2214	18	0	
400w	AME53193.4	3	8	0	AMEC2218	1	7	0
700w	AME53158 T	3	13	0	AMEC2218	1	7	0
	+ AME53157 T	4	9	0	+ AMEC2214	18	0	
1000w	2 x AME53164.4	4	0	0 ea.	2 x AMEC2236	1	10	0 ea.

### Control Gear for 400w °Kolorarc and MBI lamps

Component	Contract Price		
	£	s	d
Ballast AME53195 T	7	1	0
Capacitor 2 x AMEC2278	1	12	0 each

### Spectral Power Distribution

The spectral power distribution shown are for typical lamps at 400 watts.



# Discharge lamps

## 140w. and 200w. SLI/H linear sodium lamps

### Quality and Reliability

Since the introduction of the 140w linear sodium lamp by B.L.I. in 1966, it has achieved an unrivalled record of reliability. Installations throughout the country (including the first motorway lighting on the M4) have given fewer failures before relamping than any other type of sodium lamps to date. Statistical records show lamp survival to be more than 95% at the end of the rated life of 6,000 hours.

### Research and Development

Intense study of the fundamental principals of sodium lamps has resulted in exceptionally high efficiency and reliability.

The shape of the inner tube, in particular, shows considerable ingenuity and contributes materially to the success of this lamp. In order to minimise energy losses due to atomic collisions, etc., and absorption of light by the sodium atoms themselves the cross-section must be kept as small as possible, but its surface must be large in order to achieve a high light output. By making the discharge-tube cross-shaped these apparently diametrically opposed conditions are satisfied and in addition there is a direct linear path between the electrodes of the lamp which helps to achieve a low starting voltage.

The tube is made with eighty sodium retention sinks, each of these is a few degrees lower in temperature than other parts of the discharge tube wall and small quantities of sodium condense in them to ensure an even distribution of sodium vapour throughout the life of the lamp. This helps to achieve 100% lumen maintenance throughout life, and to control lamp watts. The lamp requires a sodium reservoir temperature of approximately 250°C to give optimum vapour pressure for efficient light radiation and a considerable portion of the power in the tube is used to achieve this.

An important design feature is the use of an infra-red reflecting film on the inside of the outer bulb. This film, which is composed of the oxides of metals such as tin and indium, conserves the thermal energy of the arc, thus increasing the proportion of energy available to produce light. The thickness of this film is strictly controlled to give optimum transmission of the visible D-line sodium radiation ensuring maximum light output. Its electrical resistance is such that by connecting it on to one cathode, it acts as a secondary starting electrode. Initially the 140w lamp absorbs about 135 watts which through life may rise by a maximum of less than 4% in 6,000 hours.

### Special Advantages

Due to its electrical characteristics and low starting voltage, the 140w lamp is ideally matched to the standard control gear for the 140w and 90w "U" shaped lamps, giving completely reliable operation under normal and adverse conditions.

The small source size and uniform distribution conform to the design requirements of modern street lighting lanterns. 20,000 lumens are emitted uniformly from an arc 78 cm long and only 2.9 cm wide.

The compact and lightweight construction make it easy to handle during relamping. The lamp is 3' 0" long and 1½" diameter and weighs less than 1 lb. Transport and installation are further simplified by a 25-way pack which can easily be stored in service truck or tower wagon.



### General Description

A low pressure sodium lamp incorporating the following essential factors:

- 1 A discharge tube of unique cross section containing metallic sodium in an inert gas.
- 2 An electrode sealed into each end terminating in bi-pin caps.

- 3 An outer envelope containing the discharge tube, with the intervening space evacuated to maintain thermal insulation to maintain the sodium in a fully vaporised condition.
- 4 A heat reflecting coating on the inside surface of the outer envelope to provide further thermal insulation.

# Discharge lamps

## Sodium lamps Type SLI/H linear

### Description

Low pressure sodium discharge operating in an arc tube of unique cross section. The arc tube is enclosed in an outer envelope whose inside surface has a reflector coating which provides thermal insulation. A bi-pin cap is fitted at each end. For full description of linear sodium lamps see previous page.

### Application

The primary application for linear sodium lamps is streetlighting where the construction of the lamp materially assists the design of lanterns and the light outputs are eminently suitable to meet M.O.T. requirements for major road lighting schemes.

### Burning Position

The lamps must operate in a horizontal position  $\pm 20^\circ$ .

### Control Gear

High reactance transformer and power factor correction capacitor required. See page CF15.

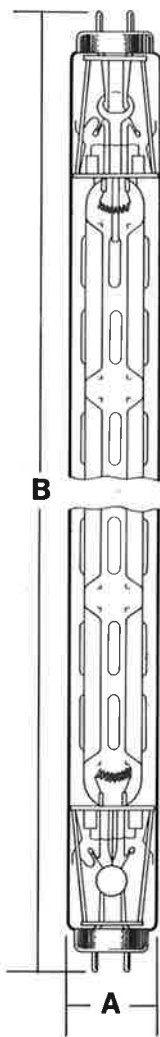
Watts	Net Trade Price £ s d	Std. Pack	Nominal Volts	Lamp Current (amps)	Lighting Design Lumens
140	5 3 0	25	175	0.9	20,000
200	6 1 0	25	135	1.6	25,000

**Supply voltage 200/250v.**

**Rated Life 6,000 hours.**

**Guaranteed Life 4,000 hours.**

*Further information: See page CF15.*



	A max (mm)	B max (mm)
140w	39.5	908.8
200w	39.5	908.8

# Discharge lamps

## Sodium lamps Type SOX

### Description

Low pressure sodium discharge operating in a U-shaped arc tube. The U-tube is enclosed in a tubular outer bulb whose inside surface has a reflector coating to provide thermal insulation. This construction provides a lamp of considerably higher efficiency than the integral type. A BC cap is fitted.

### Application

The primary application for SOX lamps is for streetlighting where their higher efficiency has superseded earlier types as follows :-

### Sodium Lamp Equivalent

- 1 The 90w SOX lamp replaces the 140w SOI/H integral lamp and the 140w SO/H lamp and jacket. All three lamps have the same dimensions and can be operated from the same control gear.
- 2 The 55w SOX lamp replaces the 85w SOI/H integral lamp and 85w SO/H lamp and jacket. All three lamps have the same dimensions and can be operated from the same control gear.
- 3 The 35w SOX lamp replaces the 60w SOI/H integral lamp and the 60w SO/H lamp and jacket. All three lamps have the same dimensions and can be operated from the same control gear.

### Burning Position

Horizontal  $\pm 20^\circ$

35w and 55w ratings may also be operated in the vertical cap up position.

### Control Gear

High reactance transformer and power factor correction capacitor required. See page CF15.

Watts	Net Trade Price £ s d	Std. Pack	Nominal Volts	Lamp Current (amps)	Lighting Design Lumens
35	2 19 0	9	70	0.6	4,300
55	3 10 9	9	104	0.6	7,150
90	4 5 6	9	112	0.95	12,250
135	5 4 0	9	164	0.95	21,200

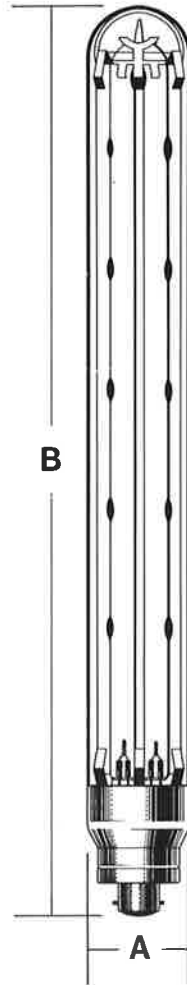
These lamps are not subject to Purchase Tax.

**Supply voltage 200/250v.**

**Rated Life 6,000 hours.**

**Guaranteed Life 4,000 hours.**

**Further information:** See page CF15.



	A max (mm)	B max (mm)
35w	52	310
55w	52	425
90w	67	528
135w	67	775

# Discharge lamps

## Sodium lamps Type SOI/H integral

### Description

Low pressure discharge operating in a U-shaped arc tube. The U-tube is enclosed in a tubular outer bulb having a BC cap. Integral lamps have been superseded by SOX lamps with higher efficiencies, but are still available for replacement purposes.

### Application

The primary application of Integral sodium lamps is for streetlighting. Full details of interchangeability with SOX lamps are given on Page CF13.

### Burning Position

Horizontal  $\pm 20^\circ$ .

45w and 60w ratings may also be operated in the vertical cap up position.

### Control Gear

High reactance transformer and power factor correction capacitor required. See page CF15.

Watts	Net Trade Price £ s. d.			Std. Pack	Nominal Volts	Lamp Current (amps)	Lighting Design Lumens
45	3	0	0	12	77	0.6	3,100
60	3	8	0	12	110	0.6	4,700
85	4	1	0	12	165	0.6	7,000
140	4	13	0	6	172	0.9	12,200

These lamps are not subject to Purchase Tax.

Supply voltage 200/250v.

Rated Life 6,000 hours.

Guaranteed Life 4,000 hours.

Further information: See page CF15.



Max. dimensions for SO/H and SOI/H

	A mm	B mm
45w	52	257
60w	52	310
85w	52	425
140w	67	528

# Discharge lamps

## Sodium lamp information

### Lighting Design Lumens

The "Lighting Design Lumens" quoted are the lamp outputs at 3,000 hours, and represent an average over the first 6,000 hours life.

### Mains Voltage Variation

Diagram 1 shows the effect of the variation of mains voltage on lumens, lumens per watt, total watts and mains current.

### Circuit Diagrams

Circuits for sodium lamps are shown in diagrams 2, 3 and 4.

### Spectral Distribution

The discharge has a characteristic yellow colour, almost all of the visible energy being concentrated at 589/589.6 n.m.

### Run-up Time

This varies between 10 and 20 minutes according to type but there is no delay in starting if the lamp is switched on while hot.

### Control Gear

The control gear for a sodium lamp comprises a high reactance transformer and power factor correction capacitor. Gear for 240v 50Hz is summarized below.

Details of 240v gear and gear for other voltages are given in the Fittings catalogue.

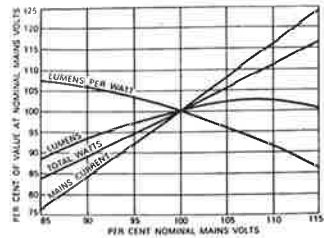
Type	Transformer Cat. No.	Contract Price £ s. d.	Capacitor Cat. No.	Contract Price £ s. d.
35w SOX	AME53182.4	3 4 0	AMEC2280	1 3 0
45w SOI/H			AMEC2216	1 3 0
55w SOX	AME53182.4	3 4 0	AMEC2280	1 3 0
60w SOI/H			AMEC2216	1 3 0
85w SOI/H	AME53182.4	3 4 0	AMEC2214	18 0
90w SOX			AMEC2236	1 10 0
140w SOI/H	AME53232.4	3 14 0	AMEC2218	1 7 0
140w SLI/H				
135w <sup>a</sup> SOX	AME53166T	6 13 0	AMEC2281	1 11 0
200w SLI/H	AME53172H	7 2 0	AMEC2235	1 12 0

### British Standards

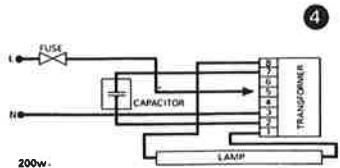
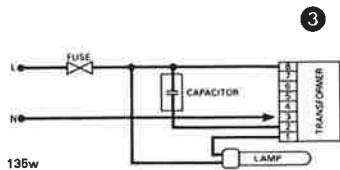
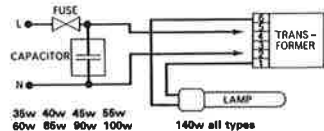
Lamps described in this catalogue conform to the following Standard where applicable.

BS 3767 : 1964 Schedule of Sodium Discharge Lamps.

Effect of variation of mains voltage on sodium lamp characteristics.



Circuit Diagrams



# Discharge lamps

## High pressure sodium lamps type SON

**Construction** In appearance this lamp closely resembles an MBF mercury lamp: The hard glass outer bulb with its diffusing coating is the same size and shape and it has a GES cap which is locked onto the moulded neck eliminating any possibility of the lamp becoming detached from the cap.

The arc tube is made of sintered aluminium oxide, a translucent material capable of withstanding the intense chemical activity of sodium vapour at high temperature and pressure. Metal caps are sealed to its ends and support the electrodes and the tube is mounted in a robust frame which locates on a depression in the crown of the bulb to give great strength and optical control.

**Starting and Operation** The arc is struck by a high-voltage pulse supplied by the ignitor which ceases to function once the arc has struck. (See circuit diagram.) External starting simplifies lamp construction and is very reliable. The lamp takes 3-4 minutes to run up to full brightness when the arc operates at about 0.3 atmospheres. The arc tube contains a little mercury to facilitate starting, but this is not excited in the final discharge and no light is emitted by it.

The lamp takes 3-4 minutes to run up to full brightness and will normally restrike within a minute of extinction.

The lamp can be operated in any position. **Control gear** A conventional series choke is required to limit the current, together with the ignitor described above. To ensure reliable starting, the ignitor must be mounted within 1 metre of the lamp. A power-factor capacitor is also required.

**Colour** The colour appearance of the lamp resembles that of a black-body at 2300°K - a pleasant golden white. When the arc is run up, the monochromatic yellow characteristic of low-pressure sodium lamps disappears and is replaced by a broader distribution across the visible spectrum. This gives acceptable colour rendering, with a warm appearance and although blues and greens are somewhat subdued, reds and yellows are enhanced and all colours are easily distinguishable.

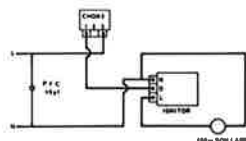
### Applications

Public lighting - traffic routes, city centres, shopping areas.

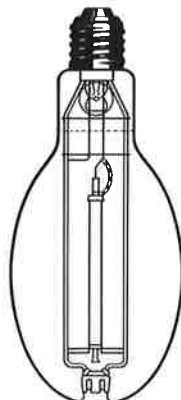
Area lighting - airports, dockyards, car parks, forecourts.

Floodlighting - Stadiums, buildings, marshall yards, sports grounds.

Interior lighting - High-bay lighting for factories, warehouses, hangars, halls.



For 240v 50HZ supplies use choke tapplings 1 and 3.  
For 220v 50HZ supplies use choke tapplings 1 and 2.  
Power Factor Capacitor should be inserted between line and neutral.



### Percentage Luminance in Spectral Bands (400w lamp)

Band	Waveband (nm.)	Colour	% Luminance
1	380-420	Far Violet	0.002
2	420-440	Violet	0.021
3	440-460	Blue	0.083
4	460-510	Blue-green	1.95
5	510-560	Green	7.56
6	560-610	Yellow	77.1
7	610-660	Light Red	12.9
8	660-760	Dark Red	0.372

### Physical Characteristics

Lamp Rating	400w	250w
Overall length (mm.)	280 ± 6	220 ± 7
Diameter (mm.)	120 ± 2	90 ± 1
Cap	GES	GES
Burning position	Universal	Universal
Rated life	5000 hrs.	5000 hrs.
Lighting Design Lumens	36,000	19,500

### Electrical Characteristics

Lamp rating	400w	250w
Lamp volts	105 ± 15	100 ± 15
Lamp operating current (amps)	4.4	3.0
Circuit watts	455	285
Circuit operating current (amps)	2.2	1.4
Circuit starting current (amps)	3.0	2.5
Power factor (lagging)	0.86	0.86

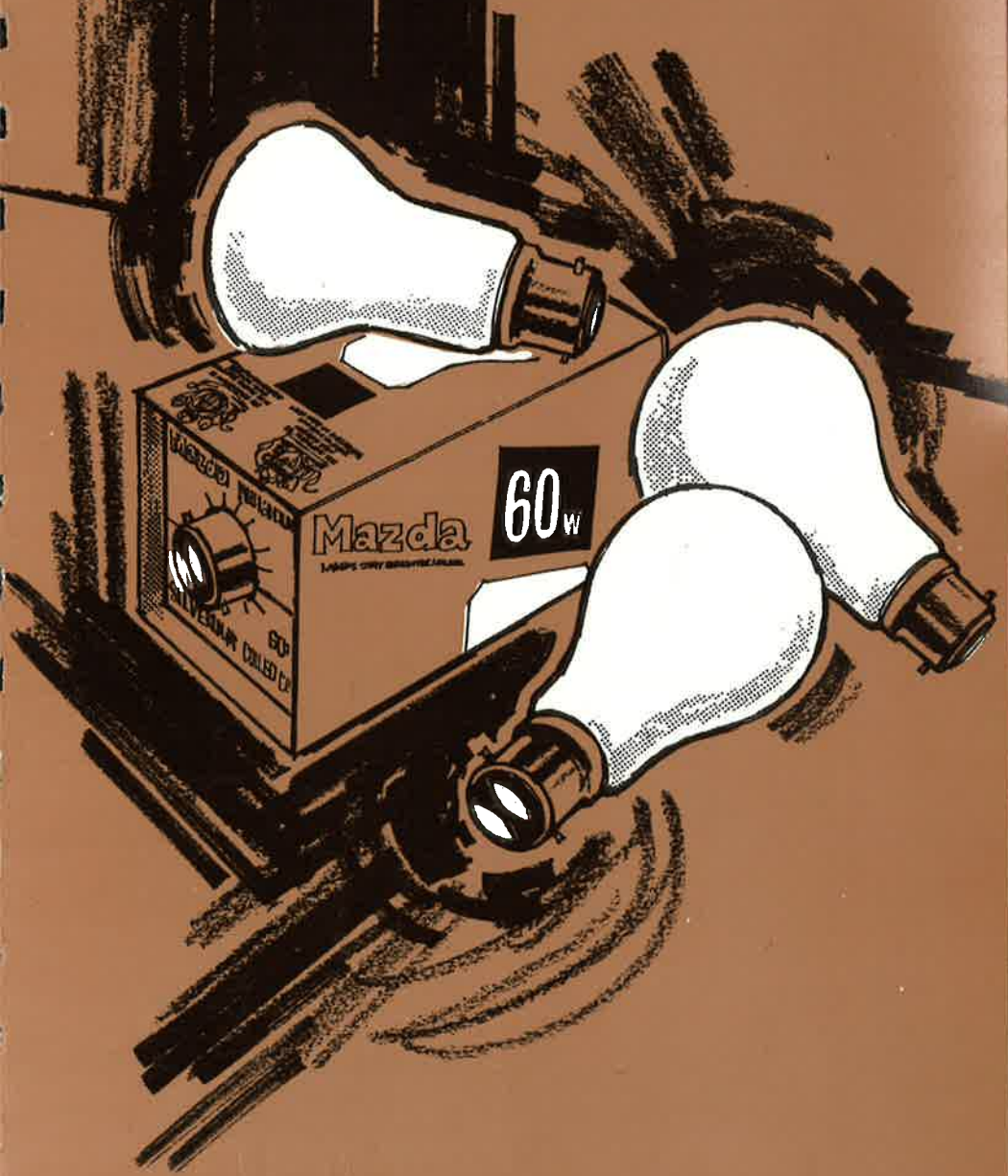
### Control Gear for 400w and 250w High Pressure Sodium Lamps

Lamp Rating	Component	Cat. No.	Can length mm. ins.	Total length mm. ins.	Dimensions mm. ins.	Height mm. ins.	Fixing Centre mm. ins.	Weight kg. lbs.
400 watts	Choke	AME53230T	139 5-5	175 6-7/8	105 4-1/2	102 4	160 6-25	5-7 12-55
	Ignitor*	AME53250	120 4-6/9	160 6-25	50 1-9/7	—	—	0-535 1-18
	Capacitor	2 x 20µF 250v	—	—	109 4-3	79 3-1/25	54 2-1/25	—
	Choke	AME53251T	127 5-0	158 6-25	98 3-8/75	89 3-5	146 5-75	3-8 8-51
250 watts	Ignitor*	AME53250	120 4-6/9	160 6-25	50 1-9/7	—	—	0-535 1-18
	Capacitor	AMEC2235	133 5-25	151 5-3/75	92 3-6/25	64 2-5	—	—
	Choke	AME53251T	127 5-0	158 6-25	98 3-8/75	89 3-5	146 5-75	3-8 8-51

\*NOTE: The ignitor must be mounted within one metre of the lamp.



# STANDARD LAMPS



# Standard lamps

## Introduction

---

Three major lighting companies have amalgamated to form Thorn Lighting Ltd which now manufactures Atlas and Mazda brands of tungsten filament lamps. Mazda has always had a complete range of all types of lamps and will continue so to do, but Atlas brand are also available for general service and similar lamps.

'Prices' shown are those recommended as appropriate in U.K. for retail sale.

'Nett user prices' are those recommended as appropriate in U.K. for direct sale to users.

# Standard lamps

## Numerical and alphabetical indexes

### Numerical Index

	Page
Introduction	CG2
Index	CG3
General Service Lamps	CG4
Home Lighting Lamps	CG5
Decorative and Coloured Lamps	CG6
Tubular Lamps	CG7
Reflector Lamps	CG8
Low Voltage Display Lamps	CG9
Heating Lamps	CG10
Arduous Duty Lamps	CG11
Floodlighting Lamps	CG12
Tungsten Halogen Lamps	CG13
Decoration Sets and Spares	CG14
Reflector Lamp Information	CG15
Low Voltage Display Lamp Information	CG16

### Alphabetical Index

	Page
Arduous Duty Lamps	CG11
Decoration Sets and Spares	CG14
Decorative and Coloured Lamps	CG6
Floodlighting Lamps	CG12
General Service Lamps	CG4
Heating Lamps	CG10
Home Lighting Lamps	CG5
Index	CG3
Introduction	CG2
Low Voltage Display Lamp Information	CG15
Low Voltage Display Lamps	CG9
Reflector Lamp Information	CG14
Reflector Lamps	CG8
Tubular Lamps	CG7
Tungsten Halogen Lamps	CG13

### Lamp cap code

**B.C.** Bayonet

**S.B.C.** Small Bayonet

**S.C.C.** Small Centre Contact

**E.S.** Edison Screw

**S.E.S.** Small Edison Screw

**M.E.S.** Miniature Edison Screw

**G.E.S.** Goliath Edison Screw

The dimension code indicates, first, by letter, the type of cap. The first two figures indicate the nominal outer diameter of the cap barrel or screw thread in millimetres. The next two figures indicate the overall length and the last two, the diameter of the flange.

### Extras

**Special capping.** Where standard types of lamps are suitable for recapping, the following extras to the recommended retail prices will apply, when any of the caps below are fitted in place of the standard caps listed:

B.C., 3 Pin B.C., S.B.C., E.S., S.E.S.: 2s. each, G.E.S.: 3s. each (Nett Trade Price)

**Colour spraying, frosting or bowl frosting.** On any lamp suitable for colour spraying, frosting or bowl-frosting, for which prices are not shown in the catalogue, the following extras to recommended retail prices will apply, for carton quantities only.

Up to and including 200w: 1s. 6d., 300w and 500w: 3s., 750w and 1000w: 5s.

**Special marking.** Where general service or similar lamps are required to be etched with the user's name, initials or symbol, the following extras to recommended retail prices will be made.

Up to 2,000 identical lamps for delivery in one consignment: 3d. each  
Over 2,000 identical lamps for delivery in one consignment: no extra charge.

# Standard lamps

## General lighting service lamps

### Plus lamps – High efficiency coiled coil.

Watts	Net Trade Price £ s d			Pur. Tax s d		Std. Pack	Cap	Finish
40	1	9	9	per case	10	8	25	B.C., E.S. Pearl
60	1	9	9	per case	10	8	25	B.C., E.S. Pearl
100	1	9	9	per case	10	8	25	B.C., E.S. Pearl
150	1	17	10	per case	13	6	25	B.C., E.S. Pearl
300	5	7		each	—	24	E.S.	Clear

Voltages: 200/210, 220/230, 240, 250

300w – 240 and 250 only

Note: Prices given are for 240v lamps

### Single coil – High and low voltage.

Watts	Net Trade Price £ s d			Pur. Tax s d		Std. Pack	Cap	Finish
25	1	11	10	per case	11	5	25	B.C., E.S. Pearl
40	1	9	9	per case	10	8	25	B.C., E.S. Pearl
60	1	9	9	per case	10	8	25	B.C., E.S. Pearl
75	1	19	6	per case	14	1	25	B.C., E.S. Pearl
100	1	9	9	per case	10	8	25	B.C., E.S. Pearl
150	1	17	10	per case	13	6	25	B.C., E.S. Pearl or
200	2	12	6	per case	18	9	25	E.S., B.C. } Clear
300	3	6	10	per case (12 way)	—	24 & 12	G.E.S.	Clear
500	4	12	5	per case (12 way)	—	24 & 12	G.E.S.	Clear
750	14	0		each	—	12	G.E.S.	Clear
1000	14	0		each	—	12	G.E.S.	Clear
1500	19	10		each	—	6	G.E.S.	Clear

Voltages: 110, 120, 200/210, 220/230, 240, 250

75w and 1500w – 200/210, 220/230, 240, 250 only

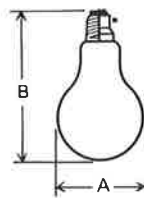
Note: Prices are given for 240v lamps

### Single coil – Extra low voltage.

Watts	Net Trade Price £ s d			Pur. Tax £ s d		Std. Pack	Cap	Finish
25	3	12	3	per case	1	5	10	25 B.C., E.S. Pearl
40	3	12	3	per case	1	5	10	25 B.C., E.S. Pearl
60	3	12	3	per case	1	5	10	25 B.C., E.S. Pearl
100	4	12	10	per case	1	13	2	25 B.C., E.S. Pearl

Voltages: 25/100w – 25, 50

150/500w – 50 only



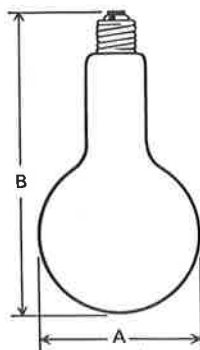
### GENERAL LIGHTING SERVICE SINGLE COIL

	A	B
25–100w BC	60	105
150–200w BC	80	160

For E.S. caps add 1.5 mm to length

### COILED COIL

	A	B
40–100w	60	105
150w	68	125
300w	88	173



### GENERAL LIGHTING SERVICE

	A	B
300w & 500w GES	110	233
750w & 1000w GES	150	300
1500w GES	170	335

All dimensions in mm.

# Standard lamps

## Home lighting lamps

### Netabulb – Coiled coil in mushroom shaped bulbs.

Watts	Net Trade Price Per case of 25 £ s d	Pur. Tax s d	Std. Pack	Cap.	Finish
40	1 16 7	13 1	25	B.C.	Silverlight
60	1 16 7	13 1	25	B.C.	Silverlight
100	2 0 10	14 7	25	B.C.	Silverlight
150	2 6 5	16 7	25	B.C.	Silverlight
150	1 17 10	13 6	25	B.C.	Pearl

Voltages: 200/230, 240/250

Note: Prices apply to 240-250v lamps only.

### Pink Pearl Netabulb – Coiled coil in mushroom shaped pearl bulbs.

Watts	Net Trade Price Per case of 25 £ s d	Pur. Tax s d	Std. Pack	Cap.	Finish
60	2 9 10	17 10	25	B.C.	An internal light pink diffuse coating with a Pearl window on the crown.
100	2 9 10	17 10	25	B.C.	

Voltage: 240/250

### Pink Pearl – Single coil pearl bulbs with an external light pink ceramic coating.

Watts	Net Trade Price Per case of 25 £ s d	Pur. Tax s d	Std. Pack	Cap.	Finish
40	2 8 2	17 3	25	B.C.	Pink
60	2 8 2	17 3	25	B.C.	Pink
100	2 8 2	17 3	25	B.C.	Pink
150	3 0 2	21 6	25	B.C.	Pink

Voltages: 240/250

### Clear – Single coil or coiled coil for decorative fittings.

Watts	Net Trade Price Per case of 25 £ s d	Pur. Tax s d	Std. Pack	Cap.	Finish
40	1 9 9	10 8	25	B.C.	Clear
60	1 9 9	10 8	25	B.C.	Clear
100	1 9 9	10 8	25	B.C.	Clear
150	1 17 10	13 6	25	B.C.	Clear

Voltages: 200/210, 230/230, 240, 250

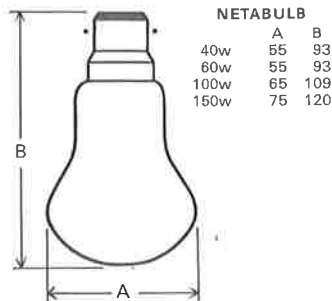
Note: Prices apply to 240v lamps only.

### Economy Nightlight – Long life, low consumption. For children's or invalids' bedrooms and similar.

Watts	Net Trade Price Per case of 10 £ s d	Pur. Tax s d	Std. Pack	Cap.	Finish
5-8	16 8	6 0	10	B.C.	Pearl

Voltage: 200/250

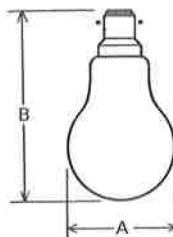
5-10 way boxes per container



NETABULB

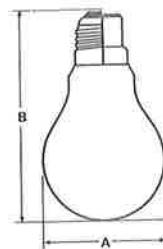
	A	B
40w	55	93
60w	55	93
100w	65	109
150w	75	120

The above dimensions are also applicable to Pearl Pink Netabulbs.



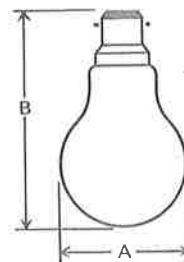
PINK PEARL (GLS)

	A	B
40 & 60w	60	105
100w	68	125
150w	80	160



CLEAR

	A	B
40-100w	60	105
150w (Single Coil)	80	160
150w (Coiled Coil)	68	125



ECONOMY NIGHTLIGHT

	A	B
5-8w	60	105

All dimensions in mm

# Standard lamps

## Decorative and coloured lamps

### Candle — Olive plain.

Watts	Net Trade Price Per case of 10			Pur. Tax	Std. Pack	Finish
	£	s	d	s	d	
25	1	4	10	8	11	10 Clear or Silverlight
25	1	11	1	11	1	10 Frosted, Coloured
40	1	4	10	8	11	10 Clear or Silverlight
40	1	11	1	11	1	10 Frosted, Coloured
60	1	11	1	11	1	10 Clear or Silverlight
60	1	15	3	12	7	10 Frosted, Coloured

Voltages: 200/230, 240/250

Caps: 25w and 40w B.C., S.B.C., S.E.S. — 60w B.C. and S.B.C.

5-10 way packs per container

### Candle — Olive twisted.

Watts	£	s	d	s	d	Finish
25	1	11	1	11	1	10 Clear
25	1	15	3	12	7	10 Frosted, Coloured
40	1	11	1	11	1	10 Clear
40	1	15	3	12	7	10 Frosted, Coloured
60	1	11	1	11	1	10 Clear
60	1	15	3	12	7	10 Frosted, Coloured

Voltages: 200/230, 240/250

Caps: 25w and 40w B.C., S.B.C., S.E.S. — 60w B.C. and S.B.C.

5-10 way packs per container

### Candle — Pink Pearl.

Watts	£	s	d	s	d	Finish
40	1	11	1	11	1	10 Pearl bulbs with an internal light pink diffuse coating
60	1	15	3	12	7	10 Pearl bulbs with an internal light pink diffuse coating

Voltage: 240/250

Caps: B.C., S.B.C.

5-10 way packs per container

### Round bulb

Watts	s	d	s	d	Finish	each
25	2	2	9	10	Silverlight	each
40	2	2	9	10	Silverlight	each

Voltage: 240/250

Caps: B.C., S.B.C., S.E.S.

5-10 way packs per container

### Round bulb festive

Watts	s	d	s	d	Finish
15	2	4 each	10	50	Amber, blue, green, red,
25	2	4 each	10	50	white, yellow

Voltage: 200/250

Caps: B.C., E.S.

### Internally coloured G.L.S.

Watts	s	d	s	d	Finish
15	1	9 each	8	25	Amber, blue, green, pink,
25	1	9 each	8	25	red, white, yellow
40	2	0 each	9	25	
60*	2	0 each	9	25	

Voltage: 200/250

Caps: 15/25 B.C., E.S. — 40/60 B.C.

\* Not suitable for use outdoors unless enclosed for protection against rain.

### Gala internally coloured

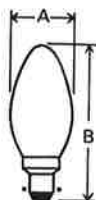
	£	s	d		s	d	
25	1	9	each	8	25	}	Pink, yellow, amber
40	2	0	each	9	25		Red, green, blue
25/40	1	2	6 per pack	8	1		12

Voltage: 200/250

### Gala lighting set

A string of 12 waterproof lampholders for gala lamps.

Cat. No. AME1809 Lamp Ref. No. 30-9995. Price £3.6.0. No Pur. Tax



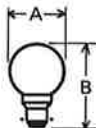
### PLAIN CANDLE

	A	B
25w-40w BC	35	92
SBC	35	96
40w-60w BC	45	123
SBC	45	123



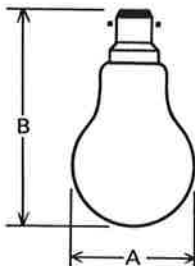
### TWISTED CANDLE

	A	B
25w BC	35	95
SBC	35	99
40w-60w BC	46	123
SBC	46	128



### 45mm ROUND BULB

	A	B
BC	45	65
SBC	45	70
SES	45	74



### INTERNALLY COLOURED & GALA

	A	B
15w, 25w, 40w & 60w	60	105

All dimensions in mm

# Standard lamps

## Tubular lamps

### Architectural curved — $\frac{1}{8}$ , $\frac{1}{4}$ , $\frac{1}{2}$ circle.

Watts	Length	Net Trade Price		Pur. Tax		Std. Pack	Finish
		s	d	s	d		
60	—	32	0	11	5	1	Opal
Voltage: 240/250		Tube diameter 30mm.					
Caps: Peg							

### Architectural straight

		Net Trade Price		Pur. Tax		Std. Pack	Finish	
Watts	Length	s	d	s	d			
35	12"	13	0	4	8	25	Opal	
53	18"	18	9	6	8	1	Opal	
*60	20"	1	1	0	7	6	1	Opal
75	24"	1	4	0	8	7	1	Opal
110	36"	1	12	0	11	5	1	Opal
150	48"	1	17	0	13	3	1	Opal
Voltage: 200/230, 240/250		Tube diameter 30 mm.						
Caps: Peg		240/250v only						

\*Price for peg-contact lamp

### Double cap — Striplites

		Net Trade					
Watts	Length	Price	s	d	Pur. Tax	Std. Pack.	Finish
30 or 60	221mm	5	2	1	10	25	Clear
30 or 60	284mm	5	2	1	10	25	Clear
30 or 60	221mm	5	7	2	0	25	Opalised
30 or 60	284mm	5	7	2	0	25	Opalised
30 or 60	221mm	6	0	2	2	25	Frosted Pink Amber
30 or 60	284mm	6	0	2	2	25	

### Single cap

Watts	Length	Net Trade Price		Pur. Tax		Std. Pack	Finish
		s	d	s	d		
25 or 40	82mm	3	6	1	3	50	Clear
25 or 40	82mm	4	4	1	7	50	Frosted
40 or 60	302mm	10	0	3	7	25	Opal (Long-Lite)
Voltage: 25/40w — 110, 200/230, 240/250							
Caps: B.C., S.B.C., E.S., S.E.S.							
Voltage: 60w		200/230, 240/250					
Cap: B.C.							

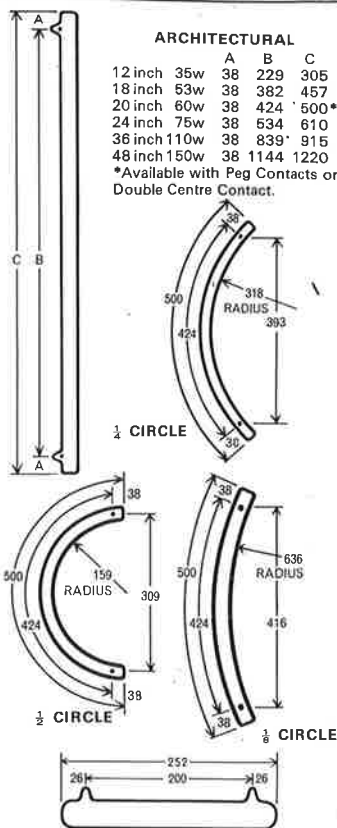
### Maxtrip

Watts	Length	Net Trade Price		Pur. Tax		Std. Pack	Finish
		s	d	s	d		
40 or 60	252mm	5	7	2	0	1	Opalised
Voltage: 240/250							
Cap: Peg							

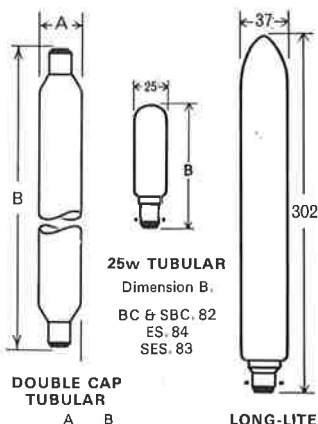
### ARCHITECTURAL

	A	B	C
12 inch	35w	38	229
18 inch	53w	38	382
20 inch	60w	38	424
24 inch	75w	38	534
36 inch	110w	38	839
48 inch	150w	38	1144

\*Available with Peg Contacts or Double Centre Contact.



### MAXTRIP



### 25w TUBULAR

Dimension B.

BC & SBC, 82  
ES, 84  
SES, 83

### DOUBLE CAP TUBULAR

	A	B
30w	25	221
60w	25	284

### LONG-LITE

All dimensions in mm

# Standard lamps

## Reflector lamps

### Interior display spotlights and floodlight

For display areas and interior floodlighting.

Type	Watts	Net Trade Price		Pur. Tax		Std. Pack
		£	s d	£	s d	
Spotlight	100	8	9	3	2	12
Spotlight	150	14	0	5	0	12
Floodlight	150	14	0	5	0	12
Spotlight	250	1	2 9	8	2	12
For Chelsea glass*	60	2	9	1	0	12

\*Volts: 110, 200/230, 240/250

110v Chelsea not available, 200/230 240/250 B.C. only

Cap: E.S., B.C. Except 250W which is E.S. only

Life: > 1,000 hours

### 150w. PAR 38 sealed beam

For outdoor and indoor application.

Type	Watts	Net Trade Price		Pur. Tax		Std. Pack
		£	s d	£	s d	
Clear Spotlight	150	16	9	6	0	10
Clear Floodlight	150	16	9	6	0	10
Clear Floodlight - 24v.	1	5	0	8	11	10
Color-Ray Spot-Red	1	10	9	11	0	10
Color-Ray Spot-Yellow	1	10	9	11	0	10
Color-Ray Spot-Blue	1	10	9	11	0	10
Color-Ray Spot-Green	1	10	9	11	0	10
Cool-Ray Spotlight	1	14	9	12	5	10

Volts: Color-Ray and Cool-Ray 240/250 only.

Others 110/120, 200/210, 220/230, 240/250 (except 24v flood)

Cap: E.S.

Life: > 2,000 hours

### High bay reflector

Watts	Net Trade Price		Pur. Tax	Std. Pack	Cap
	£	s d			
500	2	10 0	—	6	G.E.S.

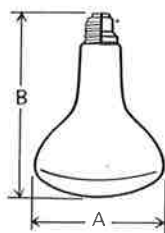
Volts: 240, 250. Life: > 1,000 hours

### Mains voltage display lamp

For use in Atlas fittings VM100 and DM100.

Type	Watts	Net Trade Price		Pur. Tax	Cap	Std. Pack
		£	s d			
Crown silvered	100	5	5	1 11	3 pin B.C.	25

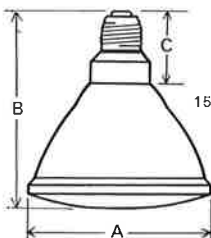
Volts: 240/250. Life: > 1,000 hours.



REFLECTOR  
FLOODLIGHT  
AND SPOTLIGHT

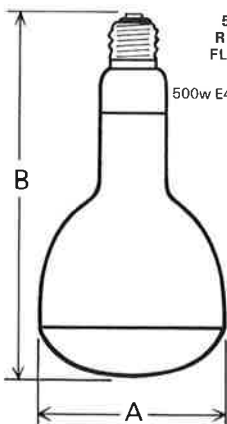
	A	B
100w	95	135
150w	126	178
250w	126	178

CHELSEA FITTINGS  
60w 55 93



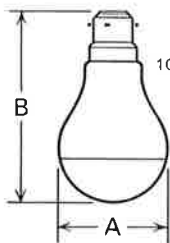
SEALED BEAM  
REFLECTOR  
FLOODLIGHT  
& SPOTLIGHT

	A	B	C
150w	121.5	135	51



500 WATT  
REFLECTOR  
FLOODLIGHT

	A	B
500w E40/45	165	312



DISPLAY LAMP

	A	B
100w 3-Pin BC	60	105

All dimensions in mm



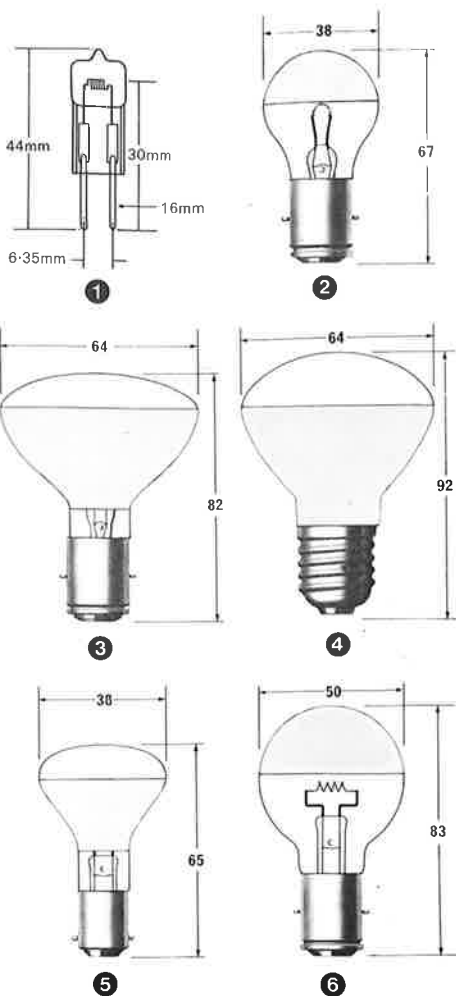
# Standard lamps

## Low voltage display lamps

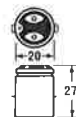
1. The compact tungsten halogen lamp THD/50/12 has been developed for use in the low voltage display lighting fitting. This lamp has all the advantages of tungsten halogen lamps with a long life of 2,000 hours, high efficiency and nearly 100% lumen maintenance. The fitting (Cat. No. ES.1050) has an integral transformer and, therefore, offers a compact combination for shop window display accent lighting.
2. The 38mm lamp is spherical in shape and is used in the DB.1050 and DS.1050 fittings. It is internally crown silvered and gives a non-spill narrow beam of light.
3. The mushroom-shaped 64mm sealed beam lamp with Bosch cap is used as a lamp replacement in the DA.1050, DC.1050 and DAM.1050 fittings. It is internally silvered with a diffusing front face and gives a soft edge beam of high intensity.
4. The 12v, 50w, lamp has a clear front, and an internal reflector aluminised to the parabolic bulb. This gives a narrow beam of light and is used in the DAS.1050 and DCS.1050 fittings. The lamp has an E.S. cap.
5. The 12v, 24w, sealed beam lamp is used as a replacement in the DC.0024 fitting and gives a high intensity soft edged beam.
6. The 24v, 150w, lamp is used in the DEW.1150 (weatherproof) long range narrow beam projector.

The 12v, lamps have a nominal life of 1,000 hours (except THD/50/12 which has a rated life of 2,000 hours), whilst the 24v, 150w, lamp has been designed to give a life of 500 hours.

For photometric information see page CG14.



E27 30  
(E.S.)



B20d/27  
(D.C. Bosch)



B15d/21  
(S.B.C.)

illus.	Volts	Watts	Lamp Ref. No.	Net Trade Price s d	Pur. Tax	Std. Pack	Type	Cap
1	12	50	11-8015	18 0	6 5	1	Tungsten Halogen	Bi-pin
2	12	50	11-7015	5 0	1 9	25	Crown Silvered Clear Back	Bosch
3	12	50	11-8012	7 5	2 8	25	Internal Reflector Diffusing Front	Bosch
4	12	50	11-7014	9 10	3 6	25	Internal Reflector Clear Front	E.S.
5	12	24	11-7005	6 10	2 5	25	Internal Reflector Diffusing Front	S.B.C.
6	24	150	11-7040	8 9	3 2	12	Crown Silvered Clear Back	Bosch

A transformer is normally required for the operation of these lamps.

# Standard lamps

## Heating lamps

### Infra-red reflector (Std. bulb)

Watts	Net Trade Price £ s d	Pur. Tax s d	Std. Pack	Cap	Finish
150	10 9	3 10	12	ES	Clear Front
275	17 6	—	12	ES., B.C.	Clear Front
275	17 6	—	12	E.S., B.C.	Satin Front
275	1 1 0	—	12	E.S., B.C.	Red Front

Voltages: 100/130, 200/250

### Infra-red reflector (Hard glass bulb)

Watts	Price on application	Std. Pack	Cap	Finish
275	Price on application	12	E.S., B.C.	Clear Front
275	Price on application	12	E.S., B.C.	Satin Front
275	Price on application	12	E.S., B.C.	Red Front

Voltages: 200/250 only

### Infra-red round bulb

Watts	Net Trade Price £ s d	Pur. Tax s d	Std. Pack	Cap	Finish
250	9 0	3 3	25	E.S.	Pearl

Voltages: 100/130, 200/250

### Infra-red tubular quartz

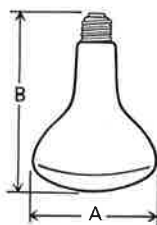
Watts	Net Trade Price £ s d	Pur. Tax s d	Std. Pack	Cap	Finish
1000	3 10 0	—	1	Special	Clear

Voltages: 230/240

### Carbon

Watts	Net Trade Price £ s d	Pur. Tax s d	Std. Pack	Cap	Finish
65	6 0	2 2	25	B.C.	Clear
130	6 0	2 2	25	B.C.	Clear

Voltages: 220/230, 240/250

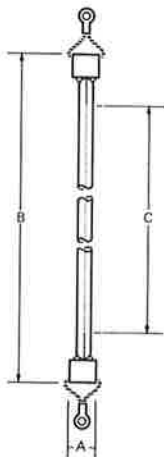


INFRA-RED REFLECTOR

	A	B
150w	126	178
275w	126	178

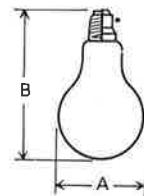
INFRA-RED ROUND BULB

	A	B
250w ES	88	180



INFRA-RED TUBULAR

	A	B	C
1000w	10	350	290



CARBON HEATERS

	A	B
65w BC	60	110
130w BC	65	117

All dimensions in mm

# Standard lamps

## Arduous duty lamps

**Rough service** – These lamps have additional filament supports and are for use in portable handlamps and similar locations.

Watts	Net Trade Price Per Pack of 25			Pur. Tax	Std. Pack	Cap.	Finish
	£	s	d	£	s	d	
25	2	1	3	14	9	25	B.C. Pearl
40	2	1	3	14	9	25	B.C., E.S. Pearl
60	2	1	3	14	9	25	B.C., E.S. Pearl
100	2	16	9	20	3	25	B.C., E.S. Pearl

Volts: 40/100w – 110, 120, 200/230, 240/250: 25w – 200/230, 240/250

**Fireglow** – For use in heaters to provide “firelight flicker effects”.

Watts	Net Trade Price Per Pack of 25			Pur. Tax	Std. Pack	Cap.	Finish
	£	s	d	£	s	d	
60	3	1	11	1	2	2	25 ½ 10 B.C. Lacquered
60	3	1	11	1	2	2	25 ½ 10 3-pin B.C. Lacquered
60	5	10	0	1	19	4	25 ½ 10 2-pin Lacquered
60	6	14	2	2	8	0	25 ½ 10 B.C. Natural glass
60	6	14	2	2	8	0	25 ½ 10 3-pin B.C. Natural glass
60	11	0	0	3	18	8	25 ½ 10 2-pin Natural glass

Volts: 200/250

5-10 way packs per container

**Traffic signal** – For use in traffic signals.

Watts	Net Trade Price Per Pack of 25			Pur. Tax	Std. Pack	Cap.	Finish
	£	s	d	£	s	d	
65	2	6	5	16	7	25	E.S., B.C. Clear
60	18	0	*	6	5	1	BiPin Clear 12v Tungsten Halogen THS/50/12

Volts: 65w in 240, 250v E.S. 250v only B.C. THS/50/12 in 12v only

\* Per Single lamp.

**Pygmy sign**

Watts	Net Trade Price Per Pack of 25			Pur. Tax	Std. Pack	Cap.	Finish
	£	s	d	£	s	d	
*15 or 25	1	7	7		50		
*15 or 25	1	10	8		50		
*15 or 25	1	10	8		50		
*15 or 25	2	2	9		50		
15†	2	4	10		50		

All lamps E.S. B.C. S.E.S. S.B.C. Clear Frosted Colours Clear Rough Service Clear (L.V. types)

\*Prices for 200/250v lamps †100/130v.

**Switchboard indicator**

Watts	Net Trade Price Per Pack of 25			Pur. Tax	Std. Pack	Cap.	Finish
	£	s	d	£	s	d	
15	2	2	9		50	B.C.	Clear

Volts: 100/130, 200/260

**Pilot indicator**

Watts	Net Trade Price Per Pack of 25			Pur. Tax	Std. Pack	Cap.	Finish
	£	s	d	£	s	d	
6	3	4		1	2	25	
10	3	4		1	2	25	

All lamps S.B.C., S.E.S., CAND. Clear Clear

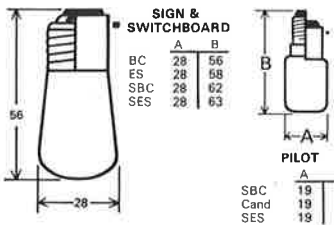
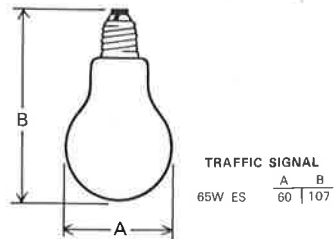
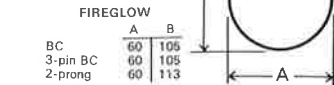
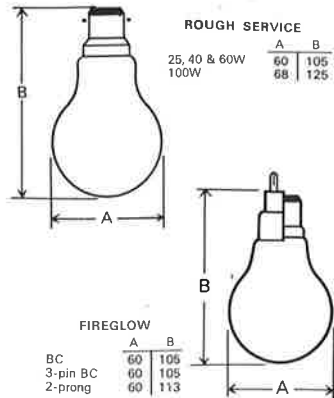
Volts: 6w – 100/130

10w – 100/130, 200/260

**Cooker lamp** – For operation in ovens and similar up to 500°F. Special cement and high temperature solder on cap.

Watts	Net Trade Price Per Pack of 25			Pur. Tax	Std. Pack	Cap.	Finish
	£	s	d	£	s	d	
25	2	2		9		50	E.S. Pearl

Volts: 200/250



All dimensions in mm.

# Standard lamps

## Floodlighting lamps

### Class B1 (Spherical bulbs)

For floodlighting of buildings and for studio and theatre sports and floodlights.

The objective average life in ventilated fittings is 800 hours. The burning position is within 135° from cap down.

Ref. No.	Watts	Net Trade Price £ s d			Pur. Tax s d		Std. Pack	Finish
B1/1	100	13	3		4	9	12	Clear
B1/2	250	1	1	0	7	6	12	Clear
B1/3	500	1	9	0	—		12	Clear
B1/4	1000	2	4	0	—		12	Clear

Ref. No.	Cap	Lumens at 100/110/115v		Lumens at 200/250v*	
B1/1	E.S.	1,100		900	
B1/2	E.S.	3,600		3,100	
B1/3	G.E.S.	8,000		7,250	
B1/4	G.E.S.	18,000		16,500	

\*Lamps available in 10v steps

### Class B2 (G.L.S. bulbs)

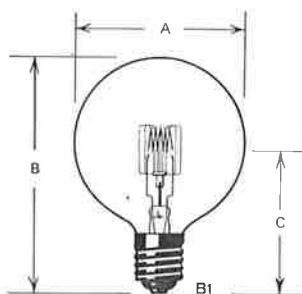
Applications are similar to Class B1 especially floodlighting from high towers for football grounds, stadiums, tattoos and similar.

The average objective life for lamps B2/1-3 is 800 hours in well-ventilated fittings. For B2/4 it is 200 hours which is very adequate for a full season of evening matches.

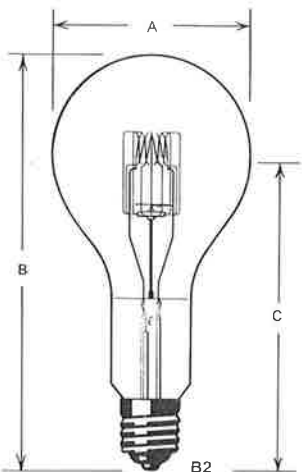
Ref. No.	Watts	Net Trade Price £ s d			Pur. Tax s d		Std. Pack	Finish
B2/1	500	1	9	0	—		9	Clear
B2/2	1000	1	15	0	—		6	Clear
B2/3	1500	2	7	0	—		6	Clear
B2/4	2000	2	10	0	—		6	Clear

Ref. No.	Cap	Lumens at 100/110/115v		Lumens at 200/250v*	
B2/1	G.E.S.	8,000		7,250	
B2/2	G.E.S.	18,000		16,500	
B2/3	G.E.S.	—		26,000	
B2/4	L.P.F. — P40/41	—		42,000	

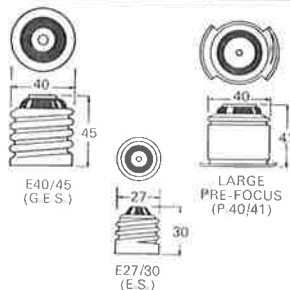
\*Lamps available in 10v steps



TYPE	A (max)	B (max)	C (nom)
B1/1	82	125	75
B1/2			
B1/3	132	190	115
B1/4			



TYPE	A (max)	B (max)	C (nom)
B2/1	132	275	202
B2/2	152	309	225
B2/3	172	344	250
B2/4	172	344	207



All dimensions in mm.

# Standard lamps

## Tungsten halogen lamps

A new and powerful light source in the range of tungsten filament lamps.

Application – General illumination floodlighting and display lighting.

Range: four linear lamps – 500w, 750w, 1,000w, 1,500w.

Compact spot lamp – 50w.

Traffic signal lamp – 50w.

Rated life – 2,000 hours.

Control Gear – None required.

Operating positions – Linears horizontal  $\pm 4^\circ$ . Single ended lamps – Universal.

Principle – The tungsten filament is enclosed in a gasfilled quartz tube, together with a carefully controlled quantity of iodine. When the tungsten filament is heated by the electric current the iodine vaporises and controls the evaporation of the filament; the tungsten vapour being carried to the contrastingly comparative cool wall of the bulb where it combines with the iodine to form tungsten iodide. This compound then returns to the filament where it is chemically converted back to tungsten and iodine and the action continues to repeat itself while the lamp is in operation. The regenerative cycle performs a 'self-cleaning' action on the inner surface of the bulb resulting in nearly 100% lumen maintenance.

### Advantages

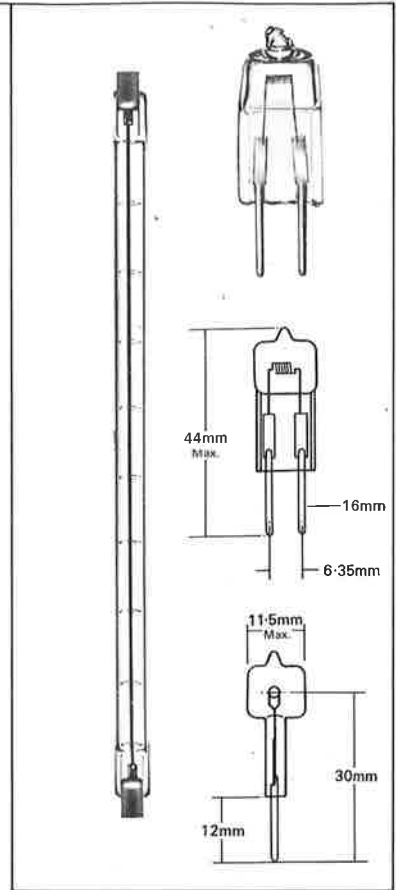
1. Up to 20% more light output compared to corresponding G.L.S. lamp.
2. Double life – 2,000 hours.
3. Constant light output through life.
4. Compact, easily controllable light source.

Watts	Net Trade Price £ s d	Pur. Tax s d	Std. Pack	Voltage	Nominal Lumens
50	18 0	6 5	1	12	900
500	2 17 9	—	1†	110 & 120	10,500
500	2 17 9	—	1†	200/230	9,500
750*	3 5 0	—	1†	and 240/250	15,000
1,000†	3 12 0	—	1†		21,000
1,500	3 18 0	—	1†		33,000

†Also available 110v.

\*750w lamps standard 189mm O.A.L. – also available 178mm O.A.L.

\*\*Spotlight or Traffic Signal Lamp.



Nom. watts	Voltage	Nom. lumens At rated voltage	Rated life hours	Nom. colour temp. °K	Overall lamp length Dimensions in millimetres	Bulb diam.	Nom. lighted length	Type of contacts	Burning position	Catalogue no.
50	12	900	2,000	3,000	44 max.	11-5 max.	3-5 x 2-5	Single ended bi-pin	Universal	THD/50/12
50	12	900	2,000	3,000	44 max.	11-5 max.	3-5 x 2-5	Single ended bi-pin	Universal	THS/50/12
500	110	10,500	2,000	3,000	117 ± 2-5	10 ± 0-25	60	} R7s†	To within 4° of horizontal	THD/500/110
500	120	10,500	2,000	3,000	117 ± 2-5	10 ± 0-25	60			THD/500/120
500		9,500	2,000	2,850	117 ± 2-5	10 ± 0-25	75			THD/500/voltage rating
750*	200/230	15,000	2,000	2,900	189 ± 2-5	10 ± 0-25	130			THD/750/voltage rating*
1,000†	240/250	21,000	2,000	3,000	189 ± 2-5	10 ± 0-25	140			THD/1000/voltage rating
1,500		33,000	2,000	3,000	254 ± 2-5	10 ± 0-25	200			THD/1500/voltage rating

### NOTES

All lamps with the exception of the THD/50/12 and THS/50/12 are fitted with an internal fuse. It is an advantage to have an additional fuse in the fitting or external circuit. During operation, the temperature of the lamp pinch seal should not exceed 350°C, whilst the bulb wall temperature must not drop below 250°C in order to maintain the tungsten halogen cycle.

\*The Standard length of the 750w lamp is 189mm.

Lamps with an overall length of 178mm are also available.

†Please specify length when ordering.

‡The 1000w lamp is also available in 110v rating.

§Double ended lamp with ceramic end-caps and recessed contacts (R7s).

For distance between contacts deduct 4mm from overall length.

# Standard lamps

## Decoration sets and spare lamps

Decoration sets for 200/250v operation



### Fairy-Lites

The ever-popular family favourite. Twelve gaily coloured Mazda lamps and a spare, with flex, holders and B.C. connector.

Net trade 17/6 each + 6/3 PT.



### Festive-Lites

A brand new set with the sparkle of cut crystal. Twelve new coloured crystal coated lamps and a spare with flex, holders and B.C. connector.

Net trade 18/9 each + 6/8 PT.



### Satin-Lite

The soft, silky sheen of satin. Twelve coloured Mazda lamps plus a spare with flex, holders and B.C. connector.

Net trade 18/6 each + 6/7 PT.



### Firefly

Glowing 'pin-points' of colour add touches of brilliance and the atmosphere of a continental Fiesta. L.E.S. capped lamps.

Twentylite sets:  
20 12v 1-2w lamps + a spare.  
Net trade 18/6 each + 6/7 PT.

Fortylite sets:  
40 6v 0-75w lamps + 2 spares.  
Net trade £11/12/9 each + 1 1/9 PT



### Jack Frost

An icy, brilliant sparkle with twelve frost coated coloured lamps and a spare plus flex and B.C. connector.

Net trade 18/9 each + 6/8 PT.



Spare lamps



### Fairy-Lites

Three 20 volt 3 watt Mazda lamps of different colours for use in twelve lamp sets.

Net trade £2/2/9 + 15/3 PT per 15 bubbles.



### Festive-Lites

Three 20 volt 3 watt Mazda lamps in a bubble pack in various colours with a crystal finish. Suitable for replacement in Fairy-Lites sets.

Net trade £2/5/6 + 16/3 PT per 15 bubbles.



### Satin-Lite

Three 20 volt 3 watt Mazda lamps in various attractive satin finished colours.

Net trade £2/5/6 + 16/3 PT per 15 bubbles.



### Fireflies

Bubble packs containing five different coloured new Mazda capless lamps. 6 volt lamps for Fortylikes sets and 12 volt lamps for Twentylikes sets.

Net trade £3/0/6 + 21/8 PT per 20 bubbles.



### Firefly (L.E.S. Capped)

Bubble packs containing five different coloured Mazda lamps. 6 volt lamps for Fortylikes sets and 12 volt lamps for Twentylikes sets.

Net trade £3/0/6 + 2 1/8 PT per 20 bubbles.



### Jack Frost

Three 20 volt 3 watt Mazda lamps with frosted finish in different gay colours.

Net trade £2/5/3 + 16/3 PT per 15 bubbles.



### Pom Pom

Individually packed 12 volt 7 watt S.E.S. spares in gay cartons.

Net trade £1/1/8 + 7/9 PT per 10 lamps.

# Standard lamps

## Reflector lamp information

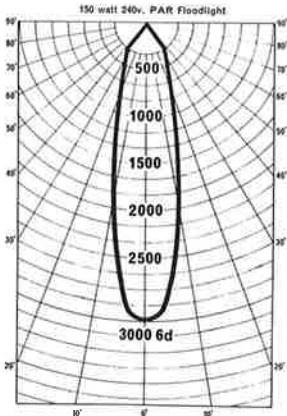
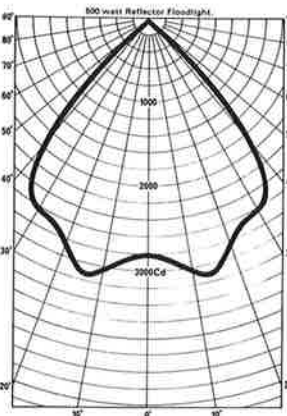
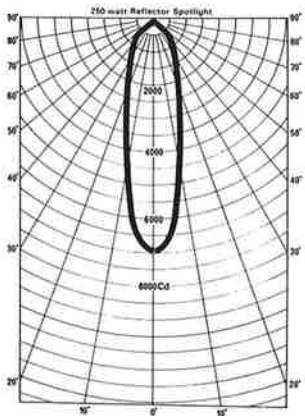
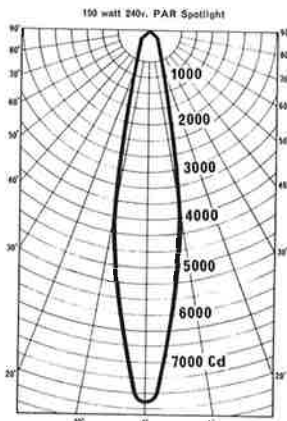
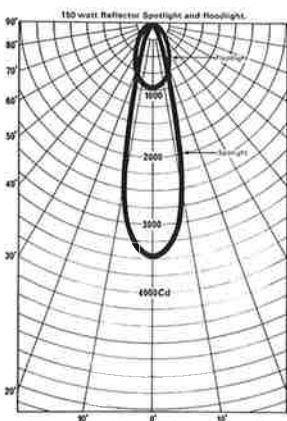
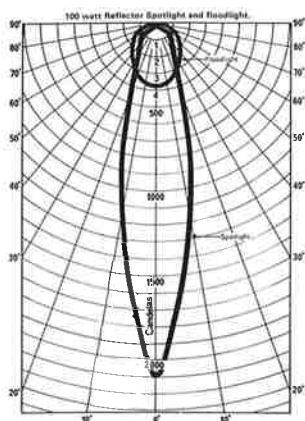
### 150w PAR 38 sealed beam spotlight and floodlights

These lamps, with the exception of the Cool-Ray lamp, are for indoor and outdoor applications.

The Color-Ray spotlights have internal thin film dichroic lenses which have a high transmission factor and maintain constant colour through life.

The Cool-Ray lamp has a dichroic reflector, allowing much of the heat to pass through the back of the lamp without loss of light. This lamp is for use in special fittings only, indoors. Its primary use is for the illumination of food displays, including meat and fish.

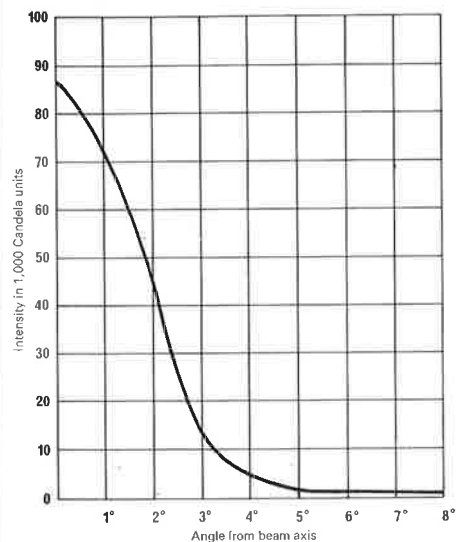
### Polar Curves



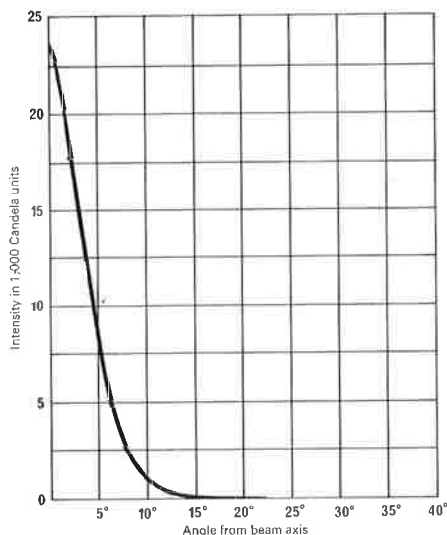
# Standard lamps

## Low voltage display lamp information

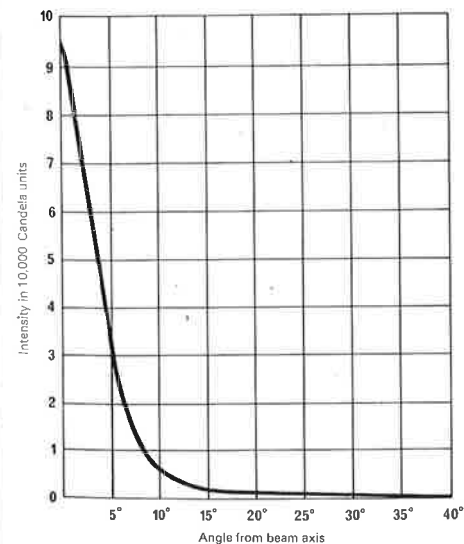
The figures in brackets refer to the illustrations overleaf on page CG15.  
Performance data for lamps nos. (3) and (5) is not given as these lamps are for replacement only.



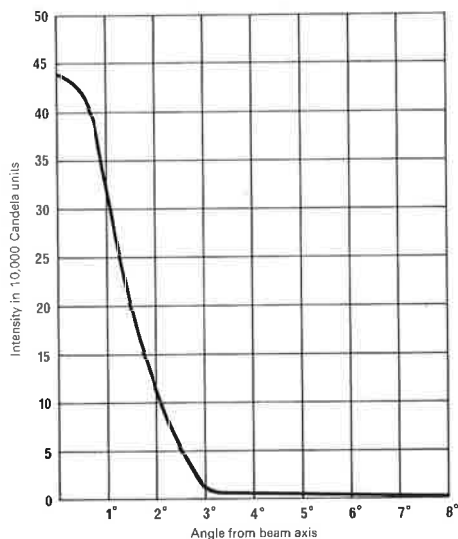
(1) Light intensity distribution 12v 50w (THD/50/12) tungsten halogen display lamp when used in Atlas ES.1050 fitting.



(2) Light intensity distribution curve for 12v 50w crown silvered round lamp when used with Atlas DB.1050 fitting.



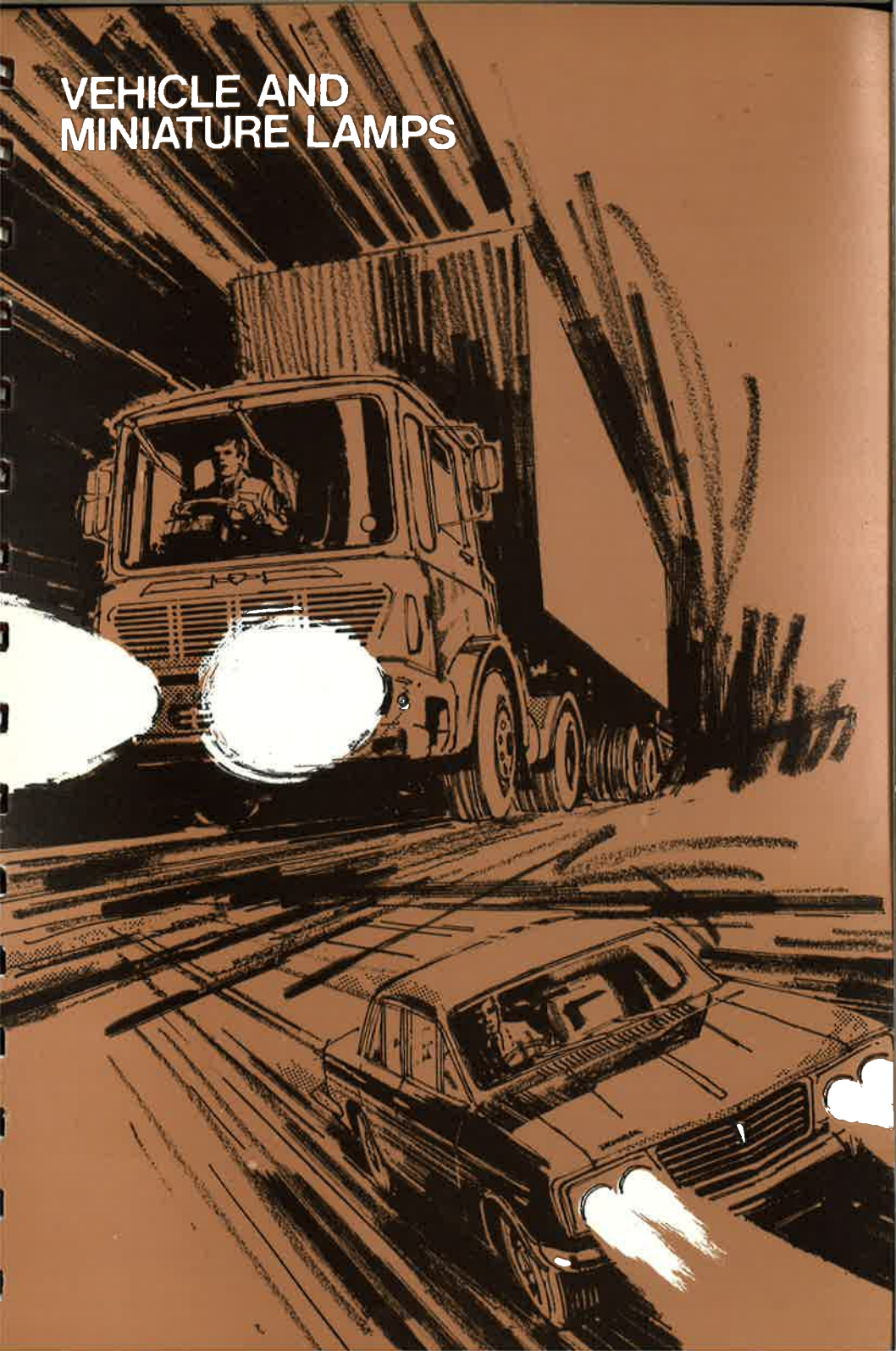
(4) Light intensity distribution curve of 12v 50w lamp with parabolic bulb.



(6) Light intensity distribution curve for 24v 150w lamp when used with Atlas DEW.1150 fitting.



# VEHICLE AND MINIATURE LAMPS



# Vehicle and miniature lamps

## Introduction

---

The range of lamps shown in this catalogue covers the requirements for private and commercial vehicles in Great Britain and Western Europe.

Mazda has made many outstanding and exclusive contributions to vehicle lamp progress. The Automobile Association has awarded Mazda a Silver Medal for its double filament tungsten halogen lamp. The Mazda wedge base and capless lamps have given the vehicle industry a more simple, more compact and overall less costly lamp. The wedge base lamp is without doubt the vehicle ancillary lamp of the future.

Mazda are also the prominent manufacturers of sealed beam tungsten filament headlamps and auxiliary lamps which provide a completely sealed weatherproof lamp assembly with unattainable reflector and filaments accurately focused in the factory for precise optical control.

Mazda vehicle lamps are leaders in outstanding developments and high quality precision manufacture. All Mazda lamps are Lotus authorised spares.

'Prices' shown are those recommended as appropriate in U.K. for retail sale.

'Nett user prices' are those recommended as appropriate in U.K. for direct sale to users.

# Vehicle and miniature lamps

## Numerical and alphabetical indexes

### Numerical Index—Section five

	Page
Introduction	CH2
Index	CH3
Sealed Beam Lamps	CH4
British and American Prefocus Headlamps— Single Filament Type	CH5
British Prefocus Headlamps— Double Filament Type	CH6
Tungsten Halogen Lamps	CH7
Ordinary Headlamps	CH8
Ancillary Lamps— Flasher and Stop/Tail/Reversing	CH9
Ancillary Lamps—Side and Tail	CH10
Ancillary Lamps— Indicator, Panel and Instrument Warning	CH11
Ancillary Lamps— Festoon and Wedge Base (Capless)	CH12
Cycle Dynamo Lamps	CH13
Flashlamps	CH13
Bus, Coach and Yacht Lamps	CH14
Telephone Visual Lamps	CH15
Telewriter Lamps	CH15
Radio Panel Lamps	CH16
Miners Lamps	CH16
Lamp Cap Dimensions	CH17
Obsolete Lamps and Extras	CH18
Lamp Number Index	CH19
Lamp Number Index	CH20

### Alphabetical Index—Section five

	Page
American Prefocus Headlamps	CH5
Ancillary Lamps	CH9/CH12
British Prefocus Headlamps	CH5/CH6
Bus Lamps	CH14
Capless Lamps	CH12
Coach Lamps	CH14
Cycle Dynamo Lamps	CH13
Extras	CH18
Festoon Lamps	CH12
Flashlamps	CH13
Flasher Lamps	CH9
Headlamps	CH4/CH8
Index	CH3
Introduction	CH2
Lamp Cap Dimensions	CH17
Lamp Number Index	CH19/CH20
Miners Lamps	CH16
Obsolete Lamps	CH18
Ordinary Headlamps	CH8
Panel Lamps	CH11
Prefocus Headlamps	CH5/CH6
Radio Panel Lamps	CH16
Reversing Lamps	CH9
Sealed Beam Lamps	CH4
Side Lamps	CH10
Stop Lamps	CH9
Tail Lamps	CH10
Telephone Visual Lamps	CH15
Telewriter Lamps	CH15
Tungsten Halogen Lamps	CH7
Wedge Base Capless Lamps	CH12
Yacht Lamps	CH14

# Vehicle and miniature lamps

## Sealed beam lamps

**Sealed Beam Lamps** are available in various forms: single and double filament headlamps and auxiliary fog and spot lamps. The main advantages of Sealed Beam Lamps are:—

- 1 The completely sealed reflector remains in perfect condition throughout the life of the lamp, it is dustproof, waterproof and untarnishable.
- 2 Filaments are accurately focused in the factory to give permanent precisely controlled beams.
- 3 There is no "blind spot" behind the filament since all the reflector surface is used.
- 4 Large gas volume reduces lamp blackening giving 95% lumen maintenance throughout life.
- 5 Hard glass lenses are moulded integrally with the reflectors to give fine light control and add robustness.
- 6 Fitted with aiming studs to ensure final, permanent beam adjustment.
- 7 Headlamp main beams are high wattage to ensure more penetration for night driving. Dipped beams have a sharp, crisp cut-off ensuring no dazzle to oncoming traffic whilst clearly lighting kerbs, road signs and pedestrians.
- 8 They have a long life and are interchangeable with metal glass reflector units fitted with separate bulbs.

### Headlamps — with 5½ in. dia. lens.

Volts	Watts	Std. Pack	Drive	Dip	Lamp Ref. No.
12	37.5	10	R.H.	—	60-5700
12	50/37.5	10	R.H.	Left	60-5702
12	50	10	R.H.	—	60-5712
12	100	10	R.H.	—	60-5717
12	50/37.5	10	R.H.	Left	60-5718*

\*With pilot aperture for 1968 Vauxhall Victor.

### Headlamps — with 7 in. dia. lens.

Volts	Watts	Std. Pack	Drive	Dip	Lamp Ref. No.
12	60/45	10	R.H.	Left	60-7002
12	50/40	10	L.H.	Right	60-7005†
12	75/50	10	R.H.	Left	60-7010
12	75	10	R.H.	—	60-7012
12	60/45	10	R.H.	Left	60-7014*

\*With pilot aperture for B.M.C. Mini Cars. †Supplied only to special order.

### Headlamps, rectangular

Volts	Watts	Std. Pack	Drive	Dip	Lamp Ref. No.
12	60/60	10	R.H.	Left	60-7502††

††With pilot aperture for Ford Capri

### Auxiliary lamps — with 5½ in. dia. lens.

Volts	Watts	Std. Pack	Application	Lamp Ref. No.
6	40	10	Spot	60-5713
6	40	10	Fog	60-5714
12	50	10	Spot	60-5704
12	50	10	Fog	60-5706
12	50	10	Spot	60-5705*
12	50	10	Fog	60-5709*

\*Yellow front lens.

### Tungsten halogen auxiliary lamps — with 5½ in. dia. lens.

Volts	Watts	Std. Pack	Application	Lamp Ref. No.
12	55	10	Fog	60-5720
12	55	10	Spot	60-5721

These lamps are suitable for replacements in Lucas FT9 Units — Lucas Silver Sabre and Lucas Silver Lance.

Lens carefully moulded to exacting tolerances to ensure accurate light control.

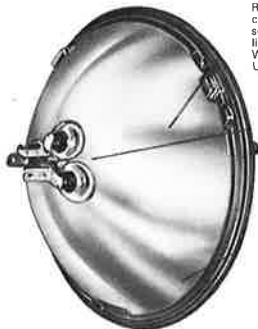
Larger gas volume reduces lamp blackening maintains light output through life.

Aiming studs for final, permanent adjustment of beam.

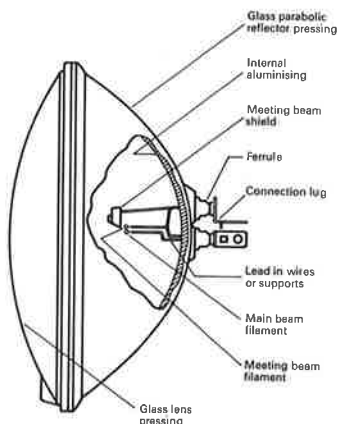


Reflector starts clean and stays so throughout life. Dustproof, Waterproof, Untarnishable.

Filaments focused in the factory and remain focused throughout life.



There is no 'blind spot' behind the filament so all the reflector surface is used.



# Vehicle and miniature lamps

## British and American prefocus headlamps

For use in headlamps and fog and spot auxiliaries.

**Single filament type—**  
with B.P.F. cap P22s/21 and P22d/21 as illustrated.

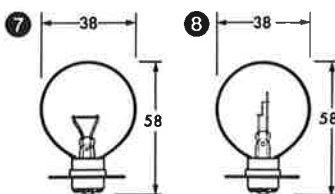
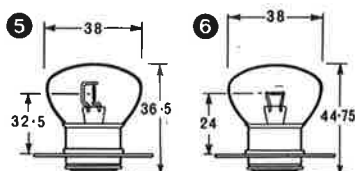
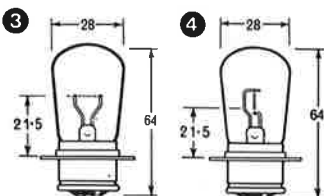
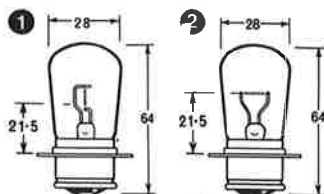
Volts	Watts	Std. Pack	Filament	Contact	Illus.	Lamp Ref. No.
12	48	10	Axial	Single	1	26-0185
12	48	10	Transverse	Single	2	26-0323
24	44	10	Axial	Double	4	26-0331
24	44	10	Transverse	Double	3	26-0330

**Single filament type—**with special prefocus cap P48d/21.

Volts	Watts	Std. Pack	Filament	Contact	Illus.	Lamp Ref. No.
12	48	10	Axial	Double	5	26-0434
12	48	10	Transverse	Double	6	26-0432

**Single filament type—**  
with American prefocus type cap P15s/19.

Volts	Watts	Std. Pack	Filament	Contact	Illus.	Lamp Ref. No.
6	36	10	Transverse	Single	7	26-0667
6	36	10	Axial	Single	8	26-0669
12	36	10	Axial	Single	8	26-0670



All dimensions in mm.

# Vehicle and miniature lamps

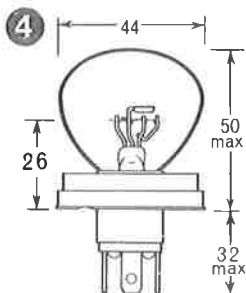
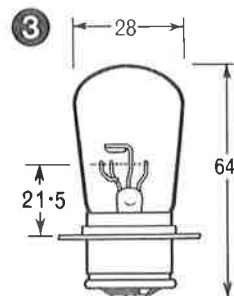
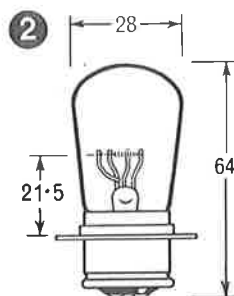
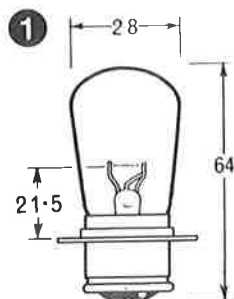
## British prefocus headlamps

**Double filament type**—with double contact caps as illustrated and transverse filaments.

Volts	Watts	Std. Pack	Dip	Drive	Illus.	Lamp Ref. No.
6	30/24	10	Vert.	Either	1	26-0312
12	50/40	10	Left	R.H.	3	26-0414*
12	50/40	10	Right	L.H.	3	26-0415*
12	60/40	10	Left	R.H.	4	26-0416*†
12	60/40	10	Right	L.H.	4	26-0417*†
24	44/38	10	Left	R.H.	2	26-0359

\*These lamps have transverse shielded filaments (see illustrations)

†UEC — Unified European Cap



All dimensions in mm.

# Vehicle and miniature lamps

## Tungsten halogen lamps

The widest range in Europe for dipping headlights and all types of fog and spot units.

These lamps of very advanced design have many advantages:—

- 1 These lamps have a higher source brightness and produce more light than conventional lamps of the same wattage.
- 2 The tungsten halogen cycle gives virtually total elimination of bulb blackening ensuring that the lamp maintains full performance throughout life.
- 3 The light is 'whiter'
- 4 Compact filaments give extremely precise optical control putting light in the right place without producing unwanted, wasteful glare.
- 5 Overall robustness, high resistance to mechanical and thermal shock.
- 6 Long life, Typical value : 350 Hrs. at 12v.
- 7 The double filament headlamp and lamps (26-0450, 26-0454, 26-0458 and 26-0459) are directly interchangeable with conventional lamps fitted with B.P.F. caps.

Volts	Watts	Std. Pack	Application & Illus. No.	Cap	Lamp Ref. No.
6	50	10		B.P.F. Single	26-0454
12	55	10	Fog & Spot (1)	Contact P22s/21	26-0450
6	50	10	Fog & Spot (5)	PL22s	26-0455
12	55	10			26-0453*
6	50	10		M.P.F. Double	26-2949
12	55	10	Fog & Spot (2)	Contact PK22.5	26-2951
12	55	10	Fog & Spot (3)	P145s	26-0448†
24	70	10	Fog & Spot (1)	P22s/21	26-0459
24	70	10	Fog & Spot (4)	P22d/21	26-0458
12	55/43	10	Dipping Headlamps (6)	B.P.F. Double P22d/21	26-0457
6	10	10	M29 miniature halogen (7)	Bi-pin 94	85-7015
6	20	10	‡ M30 (7)	Bi-pin G4	85-7016

\*Internationally standardised and known as H3.

†Internationally standardised and known as H1.

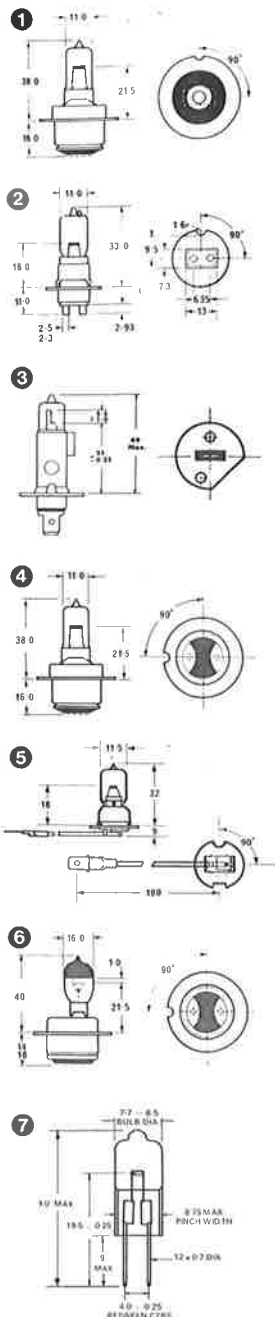
‡These new lamps have a number of interesting possibilities. They are likely to prove useful in:—

- (1) Industrial heavy duty and rechargeable torches.
- (2) Aircraft safety devices.
- (3) Film editor lamps.
- (4) Copying machines.
- (5) High intensity hand lanterns, railway signal lamps.
- (6) Flashing beacons, road works, warning signs.
- (7) Scientific equipment (e.g. densitometers, industrial endoscopes).
- (8) Medical equipment.
- (9) Fibre optic systems.
- (10) High intensity desk-lights, compact reading lamps.
- (11) Low-voltage shop-window or display applications.
- (12) Domestic spots or flood units.
- (13) Lighting pictures, etc.
- (14) Photocell energising.

### AA National Motoring Award for 1967

Mazda has been awarded a Silver Medal by the AA for the introduction of the world's first practical double filament halogen headlamp, Mazda no. 26-0457.

The citation reads 'Silver Medal, for the year's most significant improvement to motor vehicle safety, comfort or economy . . . primarily in relation to technical progress'.



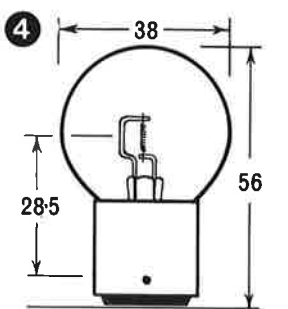
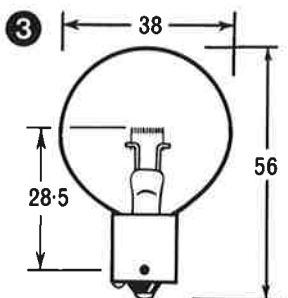
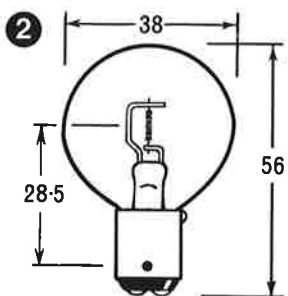
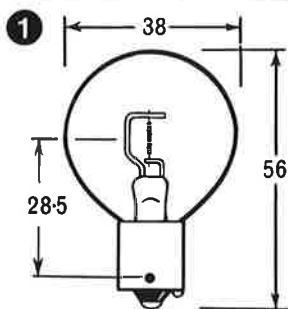
All dimensions in mm.

# Vehicle and miniature lamps

## Ordinary headlamps

### Single filament type

Volts	Watts	Std. Pack	Cap.	Filament	Illus.	Lamp Ref. No.
6	24	10	S.C.C.	Axial	1	25-0106
12	24	10	S.C.C.	Axial	1	25-0001
12	24	10	S.B.C.	Axial	2	25-0004
12	36	10	S.C.C.	Axial	1	25-0002
12	36	10	S.B.C.	Axial	2	25-0005
12	36	10	S.C.C.	Transverse	3	25-0057
24	24	10	S.B.C.	Axial	2	25-0122
24	36	10	S.B.C.	Axial	2	25-0123
24	36	10	B.C.	Axial	4	25-0622



All dimensions in mm.



# Vehicle and miniature lamps

## Ancillary lamps

### Flasher and Stop/Tail – with transverse filaments.

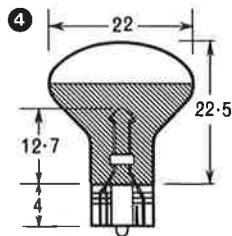
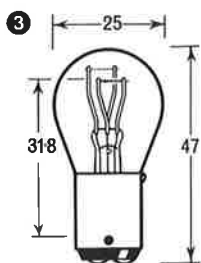
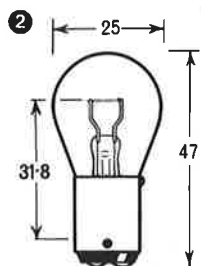
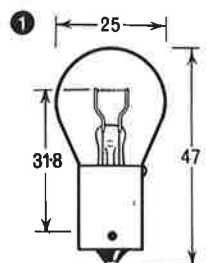
Volts	Watts	Std. Pack	Cap	Illus.	Lamp Ref. No.
6	21	10	S.C.C.	1	25-0317
6	21	10	S.B.C.	2	25-0319
6	6/18	10	S.B.C. index	3	25-0384
12	21	10	S.C.C.	1	25-0382
12	21	10	S.B.C.	2	25-0335
12	21	10	S.C.C.	1	25-0343*
12	6/21	10	S.B.C.	3	25-0381
12	5/21	10	S.B.C. index	3	25-0380
24	24	10	S.C.C.	1	25-0339
24	24	10	S.B.C.	2	25-0333
24	6/24	10	S.B.C. index	3	25-0334

\*Amber bulb.

### Reversing

Volts	Watts	Std. Pack	Cap	Illus.	Lamp Ref. No.
12	5	10	wedge base	4	20-0503*
12	21	10	S.C.C.	1	25-0382

\*Externally silvered.



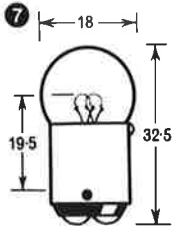
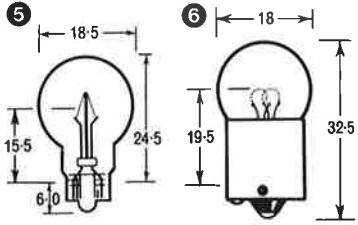
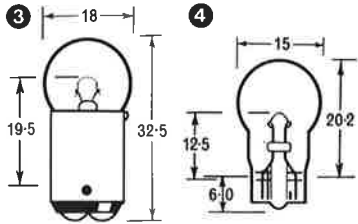
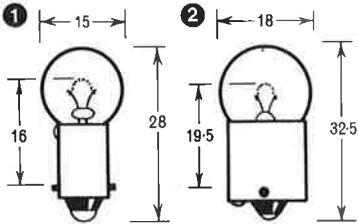
All dimensions in mm.

# Vehicle and miniature lamps

## Ancillary lamps

Side and Tail – with bow filaments.

Volts	Watts	Std. Pack	Cap	Illus.	Lamp Ref. No.
6	3	10	M.C.C.	1	20-0988
6	6	10	M.C.C.	1	20-0951
6	5	10	S.C.C.	2	20-0205
6	6	10	S.B.C.	3	20-0206
12	5	10	wedge base	4	20-0501
12	5	10	M.C.C.	1	20-0989
12	5	10	S.C.C.	2	20-0207
12	5	10	S.B.C.	3	20-0209
24	5	10	wedge base	5	20-0502
24	5	10	S.C.C.	6	20-0149
24	5	10	S.B.C.	7	20-0150
28	6	10	S.B.C.	3	20-0228



All dimensions in mm.

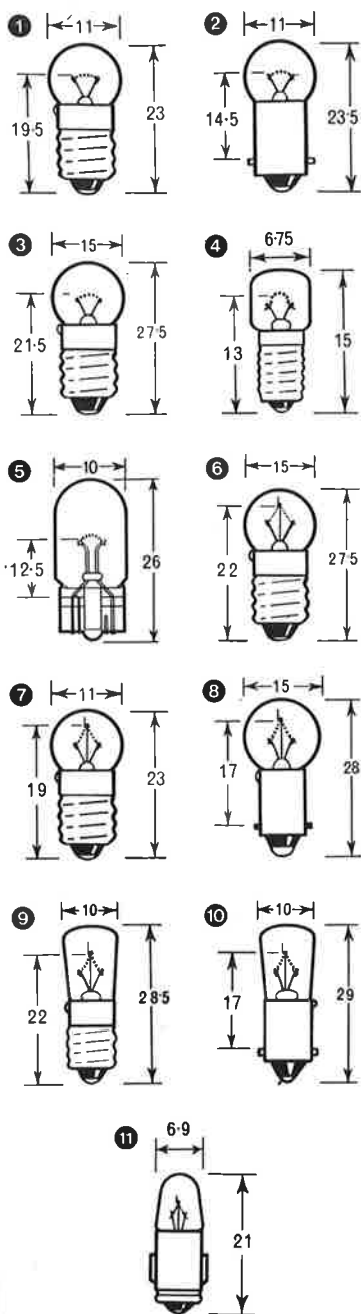
# Vehicle and miniature lamps

## Ancillary lamps

Indicator, Panel and Instrument Warning

Volts	Watts	Std. Pack	Cap	Illus.	Lamp Ref. No.
6	3	10	M.E.S.	1	21-0990
6	3	10	M.C.C.	2	21-0641
6	6	10	M.E.S.	3	21-0950
12	1.5	10	L.E.S.	4	21-0280
12	1.5	10	wedge base	5	21-2131
12	1CP	10	wedge base	5	21-2104
12	2	10	BA7s/11	11	21-0281
12	2.2	10	M.E.S.	1	21-0987
12	2.2	10	M.C.C.	2	21-0643
12	3	10	wedge base	5	21-0504*
16	3	10	M.E.S.	6	21-0985
24	2.8	10	M.E.S.	7	21-0650
24	2.8	10	M.C.C.	8	21-0651
24	2.8	10	M.E.S.	9	21-0695
24	2.8	10	M.E.S.	6	21-0993
24	2.8	10	M.C.C.	10	21-2020
24	3	10	wedge base	5	21-0505

\*Formerly rated 2.2w.



All dimensions in mm.

# Vehicle and miniature lamps

## Ancillary lamps

### Festoon for Trafficators and Roof-lights

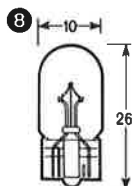
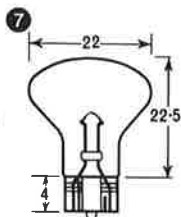
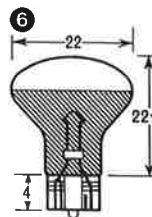
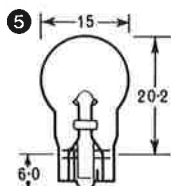
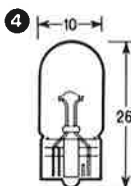
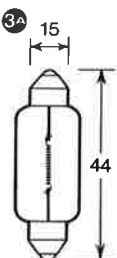
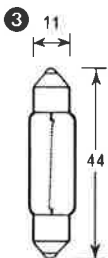
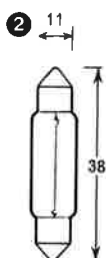
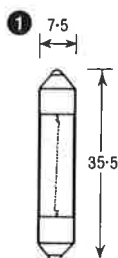
Volts	Watts	Std. Pack	Cap	Illus.	Lamp Ref. No.
6	3	10	S7/8	1	23-0255
6	6	10	S8-5/8	2	23-0253
12	3	10	S7/8	1	23-0256
12	6	10	S8-5/8	2	23-0254
12	10	10	S8-5/8	2	23-0272
12	18	10	S8-5/8	3A	23-0270
12	21	10	S8-5/8	3A	23-0273
24	6	10	S8-5/8	2	23-0653
24	6	10	S8-5/8	3	23-0260
24	6	10	S8-5/8	2	23-0654*
24	10	10	S8-5/8	2	23-0274

\*Supported filament.

### Wedge Base (Capless)

Volts	Watts	Std. Pack	Application	Illus.	Lamp Ref. No.
12	1CP	10	Panels	4	21-2104
12	1.5	10	and	4	21-2131
12	3	10	Instruments	4	21-0504
12	5	10	Side and No. Plate	5	20-0501
12	5	10	Reversing	6	20-0503*
24	3	10	Indicator	8	21-0505
24	5	10	Marker	7	20-0502
28	2.8	10	Aircraft Panel	8	28-6624 (A400)
28	11	10	Reading Lamp	7	28-6680 (A401)

\*Externally silvered.



All dimensions in mm.

# Vehicle and miniature lamps

## Cycle dynamo lamps and flashlamps

### Cycle dynamo lamps

#### Headlamps

Volts	Amps	Std. Pack	Cap	Finish	Illus.	Lamp Ref. No.
6	0.2	10	M.E.S.	Granulated	1	24-2162
6	0.25	10	M.E.S.	Granulated	1	24-2012
6	0.25	10	wedge base	Clear	7	24-2049
6	0.3	10	M.E.S.	Granulated	1	24-2013
6	0.4	10	wedge base	Clear	7	24-2053
6	0.5	10	M.E.S.	Granulated	1	24-0997
6	0.65	10	wedge base	Clear	7	24-2060

#### Tail and battery operated

Volts	Amps	Std. Pack	Cap	Finish	Illus.	Lamp Ref. No.
6	0.04	10	M.E.S.	Clear	2	24-0991
6	0.1	10	M.E.S.	Clear	2	24-0998
6	0.1	10	wedge base	Clear	7	24-2048

### Flashlamps—with clear bulbs

#### Ordinary type

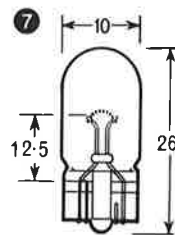
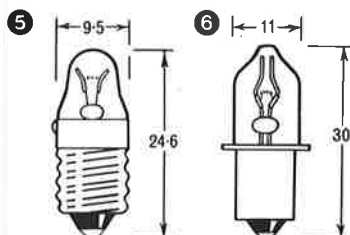
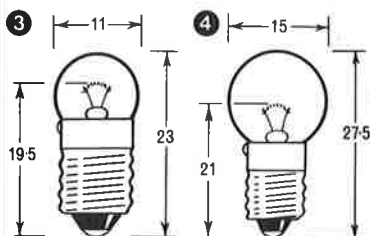
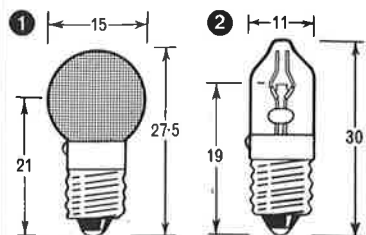
Volts	Amps	Std. Pack	Cap	Illus.	Lamp Ref. No.
1.5	0.2	10	M.E.S.	3	22-0390
2.5	0.2	10	M.E.S.	3	22-0970
2.5	0.3	10	M.E.S.	3	22-0972
3.5	0.15	10	M.E.S.	3	22-0974
3.5	0.3	10	M.E.S.	3	22-0977
4	0.3	10	M.E.S.	3	22-2008
4.5	0.3	10	M.E.S.	4	22-2004
5	0.15	10	M.E.S.	4	22-2076

#### Lens end type

Volts	Amps	Std. Pack	Cap	Illus.	Lamp Ref. No.
1.5	0.25	10	M.E.S.	5	22-2031

### Prefocus flashlights

Volts	Amps	Std. Pack	Cap	Illus.	Lamp Ref. No.
2.5	0.3	10	Prefocus P13.5s	6	22-2046
3.5	0.3	10		6	22-2061
5.5	0.3	10		6	22-2077



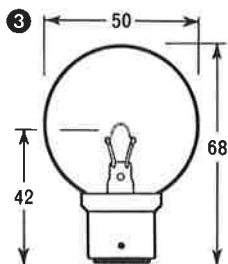
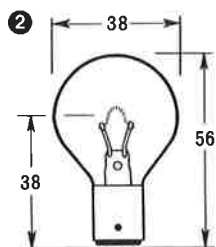
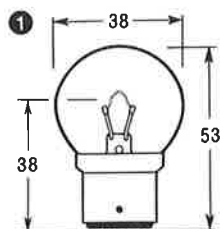
All dimensions in mm.

# Vehicle and miniature lamps

## Bus, coach and yacht lamps

### For interior lighting

Volts	Watts	Std. Pack	Cap.	Finish	Illus.	Lamp Ref. No.
12	12	10	B.C.	Clear	1	27-3120
12	12	10	S.B.C.	Clear	2	27-3121
12	12	10	B.C.	Pearl	1	27-2123
12	12	10	S.B.C.	Pearl	2	27-3124
12	24	10	B.C.	Pearl	1	27-3204
12	24	10	S.B.C.	Pearl	2	27-3205
24	12	10	B.C.	Clear	1	27-3128
24	12	10	S.B.C.	Clear	2	27-3129
24	12	10	B.C.	Pearl	1	27-3131
24	12	10	S.B.C.	Pearl	2	27-3132
24	12	10	B.C.	Pearl	3	27-3230
24	15	10	B.C.	Pearl	3	27-3250
24	20	10	B.C.	Pearl	1	27-3184
24	20	10	S.B.C.	Pearl	2	27-3182
24	20	10	B.C.	Pearl	3	27-3264
40	36	10	B.C.	Clear	1	27-3217



All dimensions in mm.

# Vehicle and miniature lamps

## Telephone visual lamps and telewriter lamps

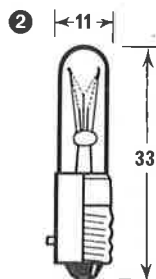
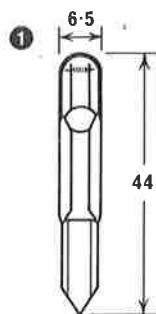
### Telephone visual lamps

Side contact plates and coloured endpieces.

Volts	Amps	Std. Pack	Fila-ment	Endpiece colour	Illus.	Lamp Ref. No.
6	0.041	50	No. 2	Grey	1	24-3125
17	0.045	50		Orange	1	24-3165
24	0.10	50	M E T A L	Yellow	1	24-3171
24	0.055	50		Yellow/ Black	1	24-3172
60	0.06	50		White/ Grey	1	24-3461
12	0.117	50	No. 2	Red	1	24-3001
36	0.075	50	CAR- BON	Black	1	24-3015
50	0.107	50		White	1	24-3035

### Telewriter lamps Illus. 2

Volts	Amps	Std. Pack	Cap	Lamp Ref. No.
24	0.1	50	M.C.C.	24-3551
24	0.1	50	M.E.S.	24-3552
50	0.05	50	M.C.C.	24-3626
50	0.05	50	M.E.S.	24-3627



All dimensions in mm.

# Vehicle and miniature lamps

## Radio panel lamps and miners lamps

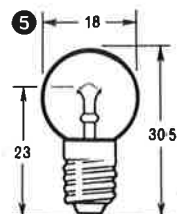
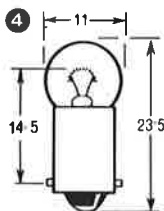
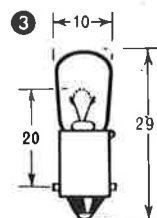
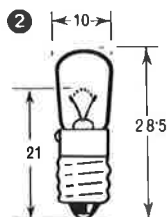
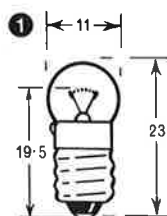
### Radio panel lamps

Volts	Amps	Std. Pack	Cap.	Illus.	Lamp Ref. No.
6.2	0.3	10	M.E.S.	2	21-3025
6.3	0.11	10	M.E.S.	1	21-3094
6.3	0.15	10	M.C.C.	3	21-3074
6.3	0.15	10	M.C.C.	3	21-3033*
6.3	0.15	10	M.E.S.	2	21-3051
6.3	0.25	10	M.C.C.	3	21-3043
6.5	0.35	10	M.E.S.	1	21-3029
6.5	0.3	10	M.C.C.	4	21-3030
6.5	0.3	10	M.E.S.	2	21-3028

\*Long life lamp.

### Miners lamps

Volts	Amps	Std. Pack	Cap.	Illus.	Type	Lamp Ref. No.
4	0.46	25	M.E.S.	1	Vacuum	24-5106
3.6	1	25	M.E.S.	5	Krypton	24-5657
4	0.8	25	M.E.S.	5	Krypton	24-5721
4	0.9	25	M.E.S.	5	Krypton	24-5726
4	1	25	M.E.S.	5	Krypton	24-5730



All dimensions in mm.

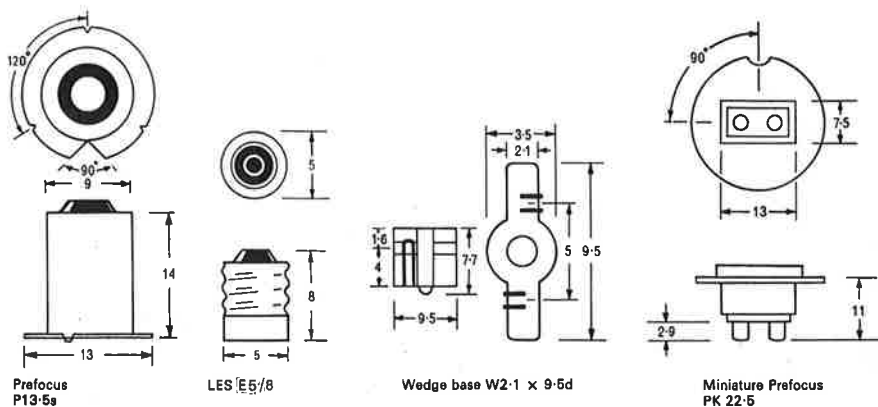
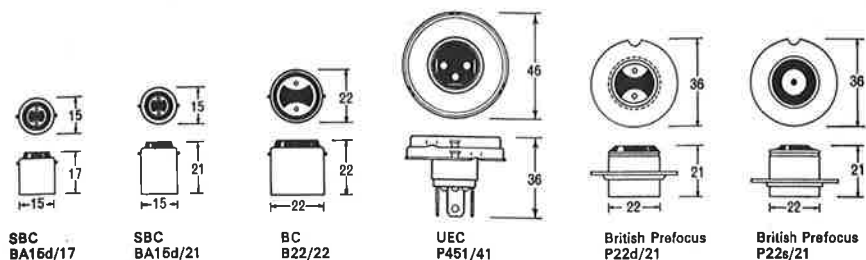
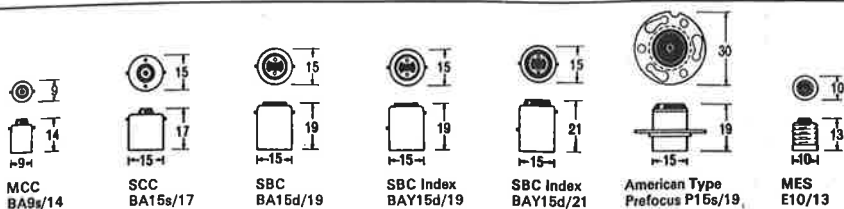


# Vehicle and miniature lamps

## Lamp cap dimensions

The dimensions and details of the caps used on the range of vehicle and miniature lamps are given below.

All dimensions in mm.



# Vehicle and miniature lamps

## Obsolete lamps and extras

### Obsolete lamps

Current Lamp Number		
27	386	981
108	451	2180
109	452	2185
111	600	2190
140	606	2225
171	620	3019
172	624	3058
173	637	3083
306	638	5101
337	668	5705
356	671	5707
358	685	5708
383	692	

These items may be made available against large volume enquiries to special order.

### Extras

Certain lamps in this catalogue are available with non-standard finish and/or non-standard caps. Where such alternatives are available, the following extra charge to list prices will be made.

#### Colour spraying and external frosting

	Price each list extra s d
10mm, 11mm and 15mm bulbs	6
18mm bulbs and above	1 0

#### Caps—quantities of less than 1000 identical lamps

M.E.S., M.C.C.	6
B.C., E.S., S.B.C., S.B.C. Index, A.S.B.C., A.S.C.C., 3-pin B.C., Bosch, S.E.S., A.P.F.	1 0

Extra for 1000 and over identical lamps on application.

# Vehicle and miniature lamps

## Lamp number index

The full vehicle or miniature lamp reference number consists of six figures – the first two denoting the group and the last four the serial number in the group. Colloquially, these numbers are known by their last significant digits only and in many cases these last digits are also the Lucas reference numbers.

In the table the lamp serial numbers and the full lamp reference numbers are both given.

Lamp Serial No.	Lamp Ref. No.	Volts	Watts	Description	Standard Pack	Net Trade Price/Ten £ s d	P.T. Per Ten £ s d
1	25-0001	12	24	Ordinary Headlight S.C.C.	10	2 2 9	15 3
2	25-0002	12	36	Ordinary Headlight S.C.C.	10	2 2 9	15 3
4	25-0004	12	24	Ordinary Headlight S.B.C.	10	2 2 9	15 3
5	25-0005	12	36	Ordinary Headlight S.B.C.	10	2 2 9	15 3
57	25-0057	12	36	Ordinary Headlight S.C.C.	10	2 2 9	15 3
106	25-0106	6	24	Ordinary Headlight S.C.C.	10	2 2 9	15 3
122	25-0122	24	24	Ordinary Headlight S.B.C.	10	2 2 9	11 8
123	25-0123	24	36	Ordinary Headlight S.B.C.	10	2 2 9	11 8
149	20-0149	24	5	Side S.C.C.	10	15 0	5 4
150	20-0150	24	5	Side S.B.C.	10	15 0	5 4
185	26-0185	12	48	Prefocus Headlight	10	1 17 9	13 6
205	20-0205	6	5	Side S.C.C.	10	13 0	4 8
206	20-0206	6	6	Side S.B.C.	10	13 0	4 8
207	20-0207	12	5	Side S.C.C.	10	8 0	2 10
209	20-0209	12	5	Side S.B.C.	10	8 0	2 10
228	20-0228	28	6	Side S.B.C.	10	18 9	6 8
253	25-0253	6	6	Festoon	10	1 0 0	7 2
254	23-0254	12	6	Festoon	10	1 0 0	7 2
255	23-0255	6	3	Festoon	10	1 0 0	7 2
256	23-0256	12	3	Festoon	10	1 0 0	7 2
260	23-0260	24	6	Festoon	10	1 0 0	7 2
270	23-0270	12	18	Festoon	10	1 10 0	10 9
272	23-0272	12	10	Festoon	10	1 0 0	7 2
273	23-0273	12	21	Festoon	10	1 10 0	10 9
274	23-0274	24	10	Festoon	10	1 0 0	7 2
280	21-0280	12	1.5	Indicator E5/8	10	13 0	4 8
281	21-0281	12	2	Indicator, Panel, Instrument	10	13 0	4 8
312	26-0312	6	30 & 24	Prefocus Headlight	10	2 5 0	16 1
317	25-0317	6	21	Stop S.C.C.	10	19 5	6 11
319	25-0319	6	21	Stop S.B.C.	10	19 5	6 11
323	26-0323	12	48	Prefocus Headlight	10	1 17 9	13 6
330	26-0330	24	44	Prefocus Headlight	10	1 17 9	13 6
331	26-0331	24	44	Prefocus Headlight	10	1 17 9	13 6
333	25-0333	24	24	Stop S.B.C.	10	1 2 0	7 10
334	25-0334	24	6 & 24	Stop S.B.C. Index	10	1 5 0	8 11
335	25-0335	12	21	Stop S.B.C.	10	15 9	5 8
339	25-0339	24	24	Stop S.C.C.	10	1 2 0	7 10
343	25-0343	12	21	Flasher, Stop, Tail, S.C.C.	10	1 7 9	9 11
359	26-0359	24	44 & 38	Prefocus Headlight	10	2 5 0	16 11
380	25-0380	12	5 & 21	Stop S.B.C. Index	10	18 0	6 5
381	25-0381	12	6 & 21	Stop S.B.C.	10	1 2 0	7 10
382	25-0382	12	21	Stop S.C.C.	10	15 9	5 8
384	25-0384	6	6 & 18	Stop S.B.C. Index	10	1 2 0	7 10
390	22-0390	1.5	0.2a	Flashlight M.E.S.	10	4 0	1 5
414	26-0414	12	50 & 40	Prefocus Headlamp	10	2 5 0	16 1
415	26-0415	12	50 & 40	Prefocus Headlamp	10	2 5 0	16 1
416	26-0416	12	60 & 40	Prefocus Headlamp	10	3 15 0	1 6 10
417	26-0417	12	60 & 40	Prefocus Headlamp	10	3 15 0	1 6 10
432	26-0432	12	48	Prefocus Fog Lamp	10	3 3 9	1 2 9
434	26-0434	12	48	Prefocus Spot Lamp	10	3 3 9	1 2 9
448	26-0448	12	55	Tungsten Halogen Fog	10	10 0 0	3 11 6
450	26-0450	12	55	Prefocus Halogen Fog/Spot	10	10 0 0	3 11 6
453	26-0453	12	55	Tungsten Halogen Fog & Spot	10	10 0 0	3 11 6
454	26-0454	6	50	Tungsten Halogen Fog & Spot	10	10 0 0	3 11 6
455	26-0455	6	50	Tungsten Halogen Fog & Spot	10	10 0 0	3 11 6
457	26-0457	12	55/43	Tungsten Halogen Dipping Headlamp	10	15 0 0	5 7 3
458	26-0458	24	70	Tungsten Halogen Fog & Spot	10	12 5 0	4 9 5
459	26-0459	24	70	Tungsten Halogen Fog & Spot	10	12 5 0	4 9 5
501	20-0501	12	5	Capless Side and Tail	10	15 0	5 4
502	20-0502	24	5	Capless Side and Tail	10	18 9	6 8

# Vehicle and miniature lamps

## Lamp number index (contd.)

Lamp Serial No.	Lamp Ref. No.	Volts	Watts	Description	Standard Pack	Net Trade Price/Ten £ s d	P.T. Per Ten £ s d
503	20-0503	12	5	Reversing Lamp Capless	10	1 17 9	13 6
504	21-0504	12	3	Capless Indicator	10	13 0	4 8
505	21-0505	24	3	Indicator, Panel, Instrument	10	16 9	6 0
622	25-0622	24	36	Ordinary Headlight B.C.	10	2 2 9	15 3
641	21-0641	6	3	Indicator M.C.C.	10	11 5	4 1
643	21-0643	12	2.2	Indicator M.C.C.	10	9 5	3 4
650	21-0650	24	2.8	Indicator M.E.S.	10	13 0	4 8
651	21-0651	24	2.8	Indicator M.C.C.	10	13 0	4 8
653	23-0653	24	6	Festoon	10	1 0 0	7 2
654	23-0654	24	6	Festoon (supported)	10	2 0 0	14 4
667	25-0667	6	36	American Prefocus Head	10	2 2 9	15 3
669	26-0669	6	36	American Prefocus Head	10	2 2 9	15 3
670	26-0670	12	36	American Prefocus Head	10	2 2 9	15 3
695	21-0695	24	2.8	Indicator M.E.S.	10	13 0	4 8
950	21-0950	6	6	Indicator M.E.S.	10	11 5	4 1
951	20-0951	6	6	Side M.C.C.	10	13 0	4 8
970	22-0970	2.5	0.2a	Flashlight M.E.S.	10	4 0	1 5
972	22-0972	2.5	0.3a	Flashlight M.E.S.	10	4 0	1 5
974	22-0974	3.5	0.15a	Flashlight M.E.S.	10	4 0	1 5
977	22-0977	3.5	0.3a	Flashlight M.E.S.	10	4 0	1 5
985	21-0985	16	3	Indicator M.E.S.	10	18 9	6 8
987	21-0987	12	2.2	Indicator M.E.S.	10	5 9	2 1
988	20-0988	6	3	Side M.C.C.	10	13 0	4 8
989	20-0989	12	5	Side M.C.C.	10	8 0	2 10
990	21-0990	6	3	Indicator M.E.S.	10	11 5	4 1
991	24-0991	6	0.04a	Cycle Dynamo Tail	50	9 0	3 3
993	21-0993	24	2.8	Indicator M.E.S.	10	13 0	4 8
997	24-0997	6	0.5a	Cycle Dynamo Head	50	9 0	3 3
998	24-0998	6	0.10a	Cycle Dynamo Tail	50	9 0	3 3
2003	22-2003	5.0	0.15a	Flashlight M.E.S.	50	7 6	2 8
2004	22-2004	4.5	0.3a	Flashlight M.E.S.	50	4 0	1 5
2008	22-2008	4	0.3a	Flashlight M.E.S.	50	4 0	1 5
2012	24-2012	6	0.25a	Cycle Dynamo Head	50	9 0	3 3
2013	24-2013	6	0.3a	Cycle Dynamo Head	50	9 0	3 3
2020	21-2020	24	2.8	Indicator, Panel, Instrument	10	13 0	4 8
2031	22-2031	2.2	0.25a	Lens-End-Flashlight	10	7 6	2 8
2046	22-2046	2.5	0.3a	Prefocus Flashlight	10	7 6	2 8
2048	24-2048	6	0.1a	Cycle tail	10	9 9	3 6
2049	24-2049	6	0.25a	Cycle tail	10	9 9	3 6
2053	24-2053	6	0.4a	Cycle Headlamp	10	9 9	3 6
2060	24-2060	6	0.65a	Cycle Headlamp	10	9 9	3 6
2061	22-2061	3.5	0.3a	Prefocus Flashlight	10	7 6	2 8
2076	22-2076	5.5	0.3a	Flashlight M.E.S.	10	7 6	2 8
2077	22-2077	5.5	0.3a	Prefocus Flashlight	10	7 6	2 8
2104	21-2104	12	1CP	Indicator Capless	10	13 0	4 8
2131	21-2131	12	1.5	Indicator Capless	10	13 0	4 8
2162	24-2162	6	0.2a	Cycle Head M.E.S.	10	9 0	3 3
2949	26-2949	6	50	Tungsten Halogen Fog & Spot	10	10 0 0	3 11 6
2951	26-2951	12	55	Prefocus Halogen Fog & Spot	10	10 0 0	3 11 6
3025	21-3025	6.2	0.3	Radio panel	10	4 5	1 7
3028	21-3028	6.5	0.3	Radio panel	10	4 5	1 7
3029	21-3029	6.5	0.35	Radio panel	10	4 5	1 7
3030	21-3030	6.5	0.3	Radio panel	10	4 5	1 7
3033	21-3033	6.3	0.15	Radio panel	10	7 9	2 9
3043	21-3043	6.3	0.25	Radio panel	10	7 9	2 9
3051	21-3051	6.3	0.15	Radio panel	10	4 5	1 7
3074	21-3074	6.3	0.15	Radio panel	10	4 5	1 7
3094	21-3094	6.3	0.11	Radio panel	10	4 5	1 7
3001	24-3001	12	0.117	Telephone visual	50	1 0 9	7 5
3015	24-3015	36	0.045	Telephone visual	50	1 0 9	7 5
3035	24-3035	50	0.107	Telephone visual	50	1 0 9	7 5
3120	27-3120	12	12	Bus Interior B.C.	10	1 0 0	7 2
3121	27-3121	12	12	Bus Interior S.B.C.	10	1 0 0	7 2
3123	27-3123	12	12	Bus Interior B.C.	10	1 0 0	7 2
3124	27-3124	12	12	Bus Interior S.B.C.	10	1 0 0	7 2
3125	27-3125	6	0.04a	Telephone Visual	50	16 9	6 0
3128	27-3128	24	12	Bus Interior B.C.	10	1 0 0	7 2

# Vehicle and miniature lamps

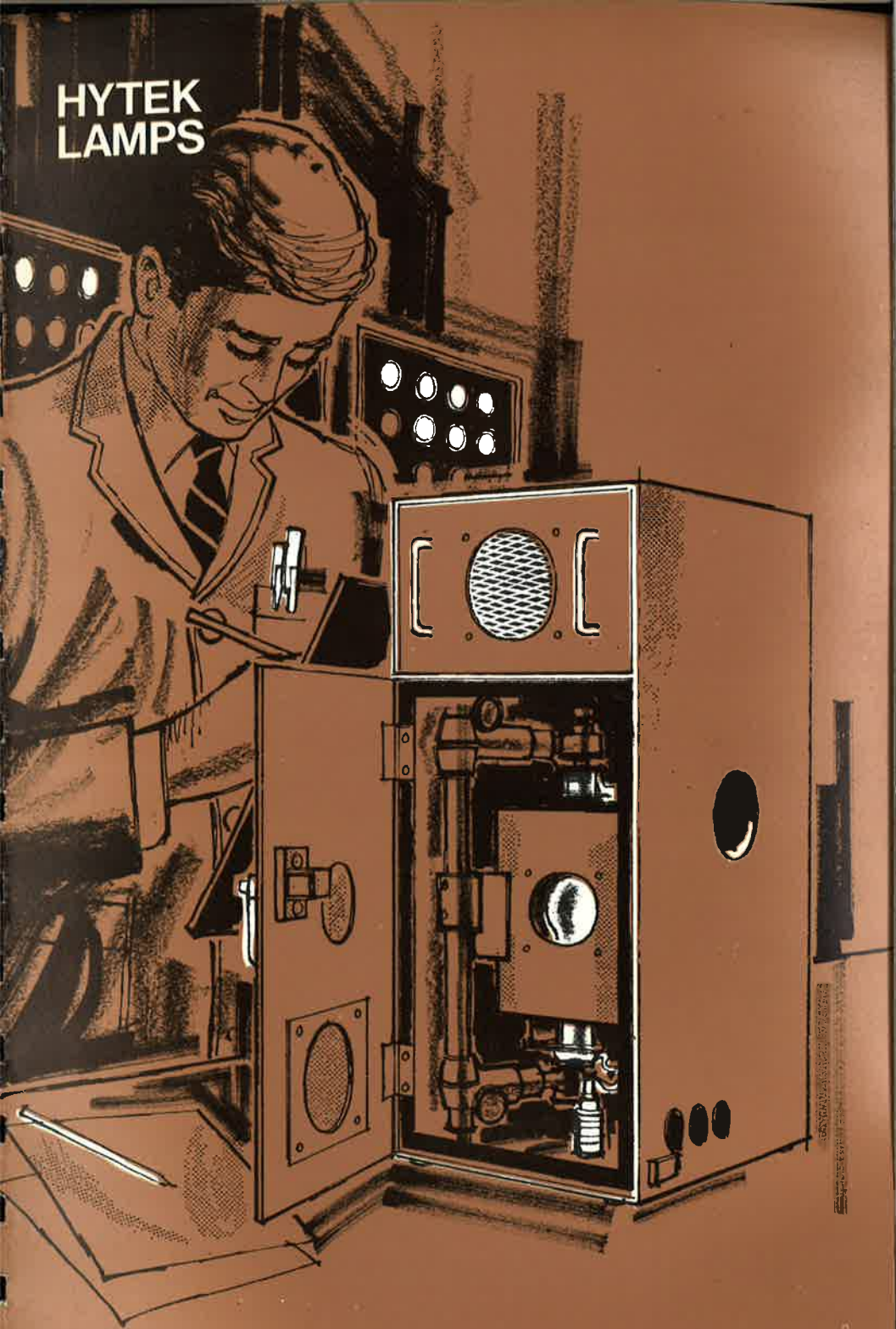
## Lamp number index (contd.)

Lamp Serial No.	Lamp Ref. No.	Volts	Watts	Description	Standard Pack	Net Trade Price/Ten				P.T. Per Ten			
						£	s	d		£	s	d	
3129	27-3129	24	12	Bus Interior S.B.C.	10	1	0	0		7	2		
3131	27-3131	24	12	Bus Interior B.C.	10	1	0	0		7	2		
3132	27-3132	24	12	Bus Interior S.B.C.	10	1	0	0		7	2		
3165	24-3165	17	0-045	Telephone visual	50		16	9		6	0		
3171	24-3171	24	0-10	Telephone visual	50		16	9		6	0		
3172	24-3172	24	0-055	Telephone visual	50		16	9		6	0		
3182	27-3182	24	20	Bus Interior S.B.C.	10	1	5	0		8	11		
3184	27-3184	24	20	Bus Interior B.C.	10	1	5	0		8	11		
3204	27-3204	12	24	Bus Interior B.C.	10	1	5	0		8	11		
3205	27-3205	12	24	Bus Interior S.B.C.	10	1	5	0		8	11		
3217	27-3217	40	36	Bus Interior B.C.	10	1	15	0		12	6		
3230	27-3230	24	12	Bus Interior B.C.	10	1	0	0		7	2		
3250	27-3250	24	15	Bus Interior B.C.	10	1	5	0		8	11		
3264	27-3264	24	20	Bus Interior B.C.	10	1	5	0		8	11		
3461	24-3461	60	0-06	Telephone visual	50	1	0	9		7	5		
3551	24-3551	24	0-1	Telewriter	50	1	3	9		8	6		
3552	24-3552	24	0-1	Telewriter	50	1	3	9		8	6		
3626	24-3626	50	0-05	Telewriter	50	1	3	9		8	6		
3627	24-3627	50	0-05	Telewriter	50	1	3	9		8	6		
5106	24-5106	4	0-46	Miners	25	On Application							
5657	24-5657	3-6	1	Miners	25	On Application							
5700	60-5700	12	37-5	Sealed Beam Head	10	9	10	0		—			
5702	60-5702	12	50/37-5	Sealed Beam Head	10	10	0	0		—			
5704	60-5704	12	50	Sealed Beam Spot	10	10	0	0		—			
5705	60-5705	12	50	Sealed Beam Spot	10	13	0	0		—			
5706	60-5706	12	50	Sealed Beam Fog	10	10	0	0		—			
5709	60-5709	12	50	Sealed Beam Fog	10	13	0	0		—			
5712	60-5712	12	50	Sealed Beam Head	10	10	0	0		—			
5713	60-5713	6	40	Sealed Beam Spot	10	11	0	0		—			
5714	60-5714	6	40	Sealed Beam Fog	10	11	0	0		—			
5717	60-5717	12	100	Sealed Beam Headlamp	10	11	0	0		—			
5718	60-5718	12	50/37-5	Sealed Beam Headlamp	10	10	0	0		—			
5720	60-5720	12	55	Tungsten Halogen Fog	10	20	0	0		—			
5721	60-5721	12	55	Tungsten Halogen Spot	10	20	0	0		—			
5721	24-5721	4	0-8	Miners	25	On Application							
5726	24-5726	4	0-9	Miners	25	On Application							
5730	24-5730	4	1	Miners	25	On Application							
6624	28-6624	28	2-8	Aircraft Panel	10	2	2	0		15	0		
6680	28-6680	28	11	Reading Lamp	10	2	2	0		15	0		
7002	60-7002	12	60/45	Sealed Beam Head	10	10	0	0		—			
7005	60-7005	12	50/40	Sealed Beam Head	10	10	0	0		—			
7010	60-7010	12	75/50	Sealed Beam Head	10	11	0	0		—			
7012	60-7012	12	75	Sealed Beam Head	10	10	0	0		—			
7013	60-7013	12	50/60	Sealed Beam Head	10	11	0	0		—			
7014	60-7014	12	60/45	Sealed Beam Head	10	10	0	0		—			
7015	85-7015	6	10	Min. Th.	10	10	17	5		3	17	10	
7016	85-7016	6	20	Min. Th.	10	10	17	5		3	17	10	
7502	60-7502	12	60/60	Sealed Beam Head	10	15	0	0		—			





HYTEK  
LAMPS



# **HYTEK lamps**

## **Introduction**

---

The Mazda Hytek lamps are specialised mercury and xenon lamps manufactured to meet the needs of research and industry for advanced compact and high brightness light sources. There is also a variety of ultra-violet sources. These proven ranges of lamps are used for inspection and development projects in many locations and they undoubtedly have done much to maintain the superior quality and advanced design of much British industrial and engineering equipment. The lamps are manufactured to exacting specification with advanced or high techniques – hence the name Hytek.

'Prices' shown are those recommended as appropriate in U.K. for retail sale.

'Nett user prices' are those recommended as appropriate in U.K. for direct sale to users.



# Comprehensive catalogue 1969/70 – Hytek section

Numerical Index	CJ3
Mercury Lamps for Projector Purposes – Type MB/D	CJ4
Mercury Lamps for Projector Purposes – Type ME/D	CJ5
Mercury Lamps for Long Wave U.V. – Type MBW (Blacklight)	CJ6
Miniature Mercury Lamps for Long Wave U.V. – Types M1 and M2	CJ7
Mercury Lamps for Short Wave U.V. – Type MBL/D	CJ8
Mercury Iodide Lamp – Type MBIL/H	CJ9
Compact Source Mercury Iodide Lamp for Projector Purposes	CJ10/11

Compact Source Xenon Lamp – Type XE/D	CJ12
Compact Source Xenon Lamp – Type XE/D	CJ13
Compact Source and Linear Source Xenon Lamp – Type XB	CJ13
Pulsed Xenon Arc Lamps	CJ14
Germicidal Tubes	CJ15
Neon High Intensity Obstruction Light	CJ16
Xenon Flash Tubes	CJ17
Xenon Flash Tubes	CJ18

# Hytek lamps

## Mercury lamps for projector purposes —Type MB/D

Supply voltage 200/250 AC.

### Description

Mercury vapour discharge lamps with quartz arc tubes loaded below 100w/cm. of arc length and operating at pressures of 8/10 atmospheres.

The arc tubes are mounted in tubular outer bulbs, and the lamps are designed for vertical burning cap down.

Restrictions in the arc tube ensure a stabilised and accurately focussed linear light source for projection purposes.

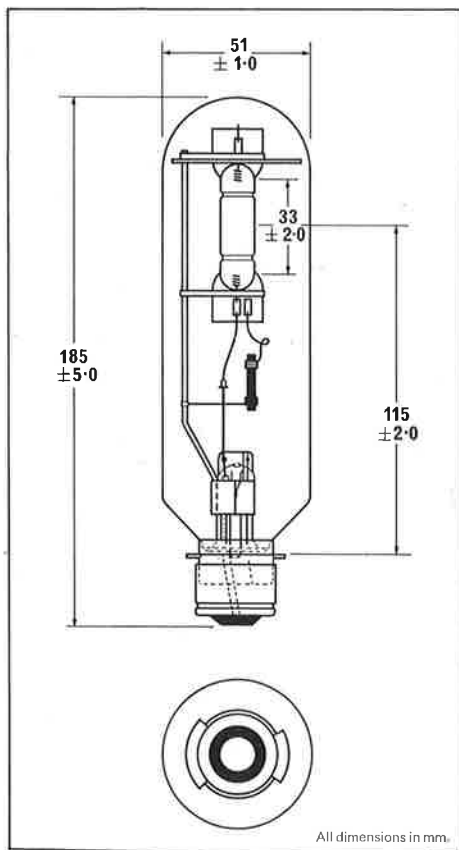
### Lamps

The lamps require control gear consisting of a choke and power factor correction capacitor. For details of control gear see catalogue page CD33.

### Typical application

Optical instruments requiring accurate optical control e.g. spectrosopes, comparators, and other 'slit' instruments.

Ref. No.	Watts	Arc Length	Cap	Lamp Operating		Starting Current	Design Average Lumens	Life Hrs.	Price
				Volts	Amps				
91-1159	125	33 ± 2	P28/25	110/140	1.15	2.0-1.5	4,000	1,500	£3 16 0



### Mercury lamps for projector purposes—Type ME/D

Supply voltage 200/250.

### Description

**Description**  
Mercury vapour discharge lamps with quartz arc tubes loaded above 100w/cm of arc length and operating at a pressure of about 30 atmospheres.

The arc operates between solid tungsten electrodes providing a compact light source of high brightness. In the 250W ratings the quartz arc tube is enclosed in a metal case with clear apertures or with a quartz window to enable short wave U.V. to be utilised from the lamp, or with a glass window where short wave U.V. is not required. Alternatively the quartz arc tube is enclosed in a tubular glass outer bulb.

The 1,000w rating is a bare quartz arc tube.

Lamps may be operated on DC or AC supplies in

conjunction with appropriate control gear, For AC supplies this consists of a choke and power factor correction capacitor. In addition the 1,000w lamp utilises a starting capacitor in series with a push button switch, For DC operation of 250w lamps a choke and series resistance are required, the choke being retained for starting purposes. The 1,000w lamp on DC operation requires a series resistance, the lamp being started by means of a Tesla coil. For details of control gear see catalogue page CD33, The lamps are designed for burning in the vertical position.

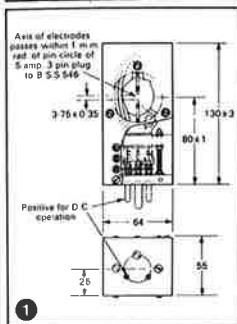
## Typical applications

Monochrome slide and film projectors. Film printing.

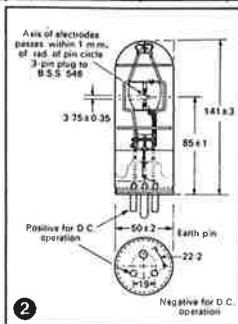
Projection microscopes, Profile projectors.

## Lamps

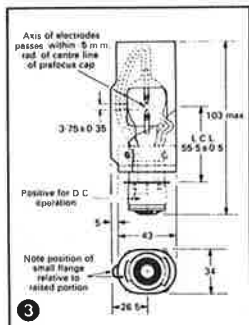
Ref. No.	Watts	Arc Length mm	Cap	Outer Casing	Illus.	Lamp Operating		Starting Current Amps.	Max. Brightness Subs	Mean HCP	Life Hrs.	Price		
						Volts	Amps.					£	s	d
94-0001	250	3-75	3-pin	Metal Box Glass Window	1	60/75	3-7/4-6	4/5	20,000	1,300	500	£22	11	0
94-0006	250	3-75	3-pin	Metal Box Quartz Window	1	60/75	3-7/4-6	4/5	20,000	1,300	500	£30	3	0
94-0061	250	3-75	3-pin	Tubular Glass Bulb	2	60/75	3-7/4-6	4/5	20,000	1,300	500	£16	15	0
94-0101	250	3-75	P28/25	Oval Metal Case	3	60/75	3-7/4-6	4/5	20,000	1,300	500	£23	17	0
94-0151	1,000	6-5	Cylindrical with Disc	—	4	60/75	16/18	20/22	40,000	7,000	500	£72	5	0



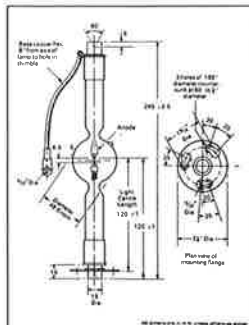
3-PIN BOX TYPE LAMP 250w



LAMP WITH TUBULAR GLASS ENVELOPE 250w



PREFOCUS LAMP 250w



LAMP WITH TAG/LEAD CONNECTION 1000w

All dimensions in mm.

# Hytek lamps

## Mercury lamp for long wave U.V. — Type MBW (Blacklight)

Supply voltage 200/250 AC.

### Description

Mercury vapour discharge lamps with quartz arc tubes loaded below 100w/cm of arc length and operating at pressures of 8/10 atmospheres. The quartz arc tube is enclosed in a pear shaped outer bulb of Woods glass which absorbs virtually all radiation from the arc tube other than that in the long wave U.V. of predominantly 365 Nanometers, little visible light is emitted. The lamp is thus eminently suitable as a source of long wave U.V. radiation to excite fluorescence in

susceptible substances.

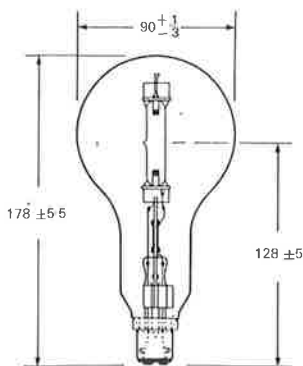
The lamp is designed for operation on 200/250v AC supplies with suitable control gear in the form of a series choke and power factor correction capacitor. It will operate in any position. For details of control gear see catalogue page CD33.

### Typical applications

As a source of long wave U.V. for bacteriological, mineralogical and forensic investigations. In connection with fluorescent pigments for various detection methods and for special effects in entertainments and shop window lighting.

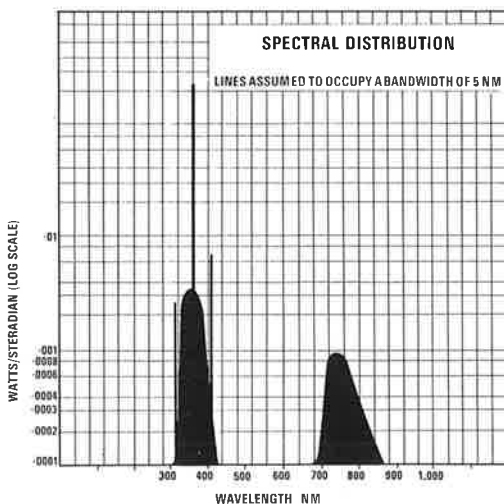
### Lamps

Ref. No.	Watts	Cap	Lamp Operating		Starting Current	Life Hrs.	Price
			Volts	Amps.			
91-6217	125	B22/31 x 30 3-pin	110/140	1.15	2.0/1.5	1,500	£3 2 0



The L.C.L. is taken from the geometric centre of the bulb, not of the arc tube

All dimensions in mm.



## Miniature mercury lamps for long wave U.V. — Types M1 and M2

### Description

Low pressure discharge in mercury vapour between electrodes in a tubular glass envelope, these lamps provide both U.V. and visible radiation especially useful in providing excitation of fluorescent materials at low illumination levels. The M1 lamp is designed for operation on 24v DC supplies with suitable series resistances, and the M2 type is designed for

200/250v AC supplies with suitable control gear either in the form of a choke or series resistance. For details of control gear see catalogue page CD32.  
The lamps operate in any position.

### Typical application

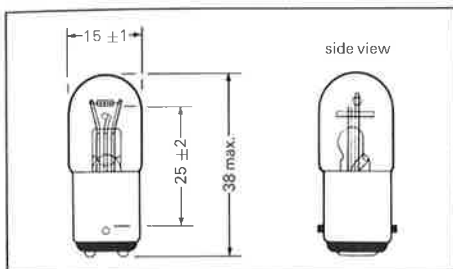
As a source of long wave U.V. for the excitation of low lumen levels of fluorescent pigments in display work.

### Lamps

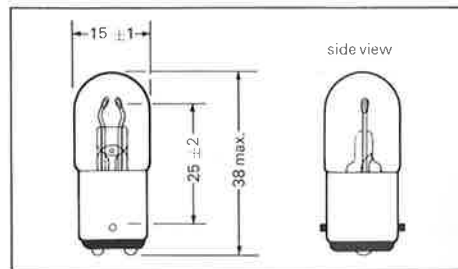
Type	Ref. No.	Rating*	Supply Volts	Cap	Filament Current	Max. Arc Current	Life Hrs.	Price
M1	98-9001	4-5w	22 DC Min	S.B.C.	0.8 Amp	0.75 Amp	200	£3 18 0
M2	98-9002	4-5w	200/250 AC	S.B.C.	—	0.5/1.5 Amp	200	£3 18 0

\*At 0.75 Amp.

Mercury discharge tube M<sub>1</sub>



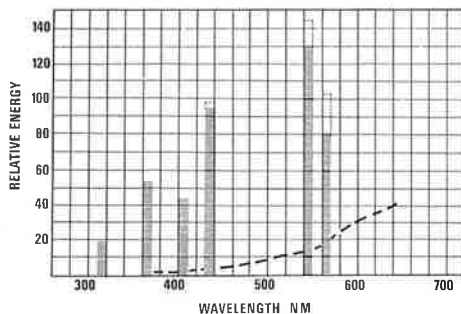
Mercury discharge tube M<sub>2</sub>



All dimensions in mm.

APPROXIMATE SPECTRAL ENERGY DISTRIBUTION FOR M1 AND M2 MERCURY DISCHARGE TUBES

(Principal mercury lines shown as 10NM, wide.)



# Hytek lamps

## Mercury lamp for short wave U.V. — Type MBL/D

Supply voltage 200/250.

### Description

Mercury discharge lamps with bare quartz arc tubes loaded below 100w/cm of arc length and operating at a pressure of 8/10 atmospheres. The lamp transmits both long wave and short wave U.V., as well as visible light. Perforated diaphragms mounted above the electrodes ensure a stabilised and accurately focussed linear light source for optical purposes. The lamp is designed to operate in the vertical cap

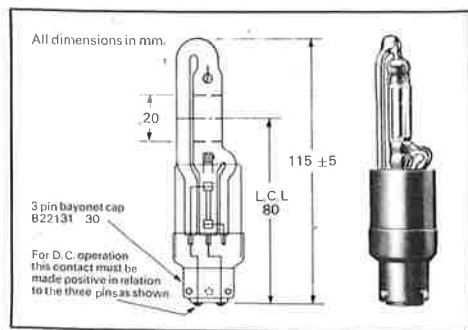
down position on 200/250v AC and DC supplies with suitable control gear. For AC operation this consists of a series choke and power factor correction capacitor. For DC operation, a series choke and a series resistor are required together with a quick break switch for starting purposes. For details of control gear see catalogue page CD32.

### Typical application

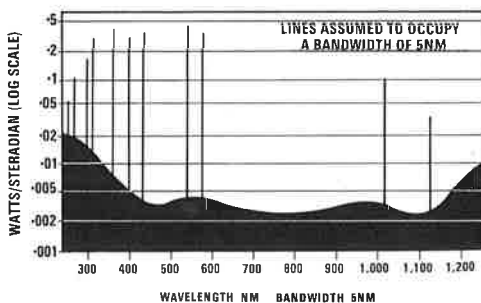
As a source of short wave U.V. in measuring instruments e.g. spectral photometers.

### Lamps

Ref. No.	Watts	Arc Length mm	Cap	Lamp Operating Volts	Amps	Starting Current Amps	Max. Brightness Stilbs	Life Hrs	Price
91-9006	125	20	B22/31 x 30 3-pin	110	1.25	3.0	800	1,000	£15 6 0



SPECTRAL DISTRIBUTION



# Hytek lamps

## Mercury iodide lamp—Type MBIL/H\*

Supply voltage 240—Life 3,000 hours.

### Description

A mercury iodide lamp with a quartz tube loaded below 100w/cm. arc length at a pressure of 8/10 atmospheres.

The lamp is for use in OD.0750 floodlight fitting only and the data for the lamp in this fitting is as below:—

Lighting design lamp lumens	60,000
Lamp operating position—horizontal	$\pm 20^\circ$
Total circuit watts per fitting	900
Circuit power factor (lagging)	0.80
Mains current at 240v	4.7 Amps

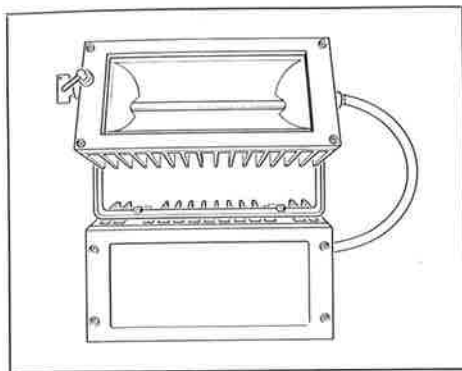
### Application

The lamp is an integral part of the OD.0750 floodlight which is primarily used for high tower floodlighting applications outdoors. For further details see catalogue page CC18.

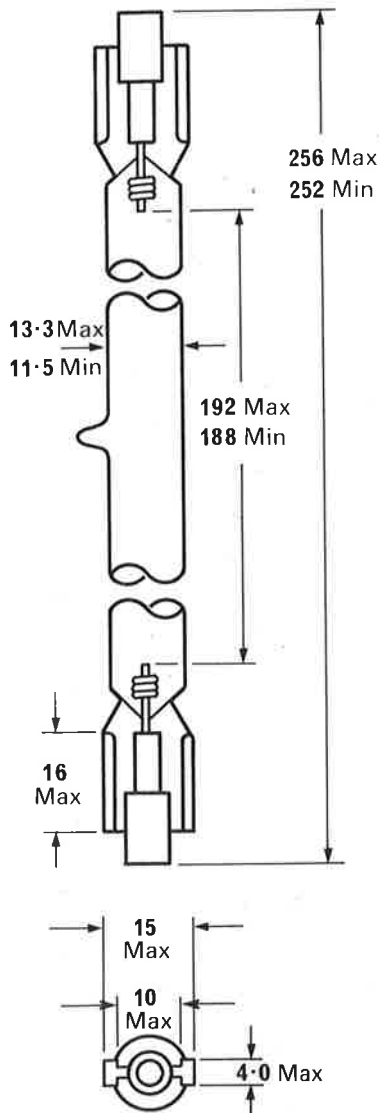
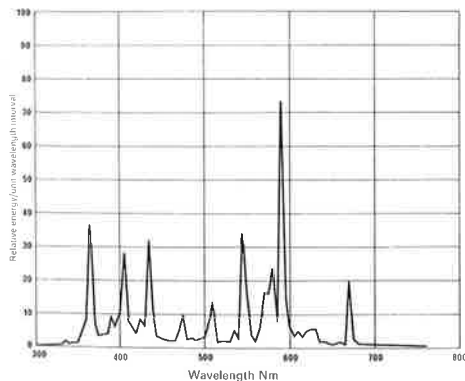
Watts	Lamp Ref. No.	Price	Std. Pack
750	91-7461	£9 10 0	1

The lamp is not subject to purchase tax.

OD.0750 fitting with 750w lamp and gear



Spectral distribution diagram for 750w mercury iodide lamp



All dimensions in mm.

# Hytek lamps

## Compact source mercury iodide lamp for projector purposes

### Description

The 400 watt compact source iodide lamp is a new design of projector lamp giving white light of good colour rendering properties at an efficiency of 80 l/w for 100 hours. The source size is approximately 9mm x 5mm and the brightness is about 8,000 candelas per square cm.

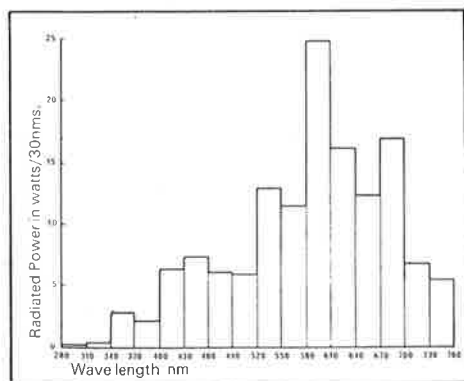
The high efficiency is obtained by the use of an arc discharge. The iodide technique has been used to introduce additional elements into the arc and to keep the bulb wall clean throughout life. The lamp is somewhat unconventional in appearance. It is extremely rugged. The small total physical size and the ability to operate it in any position ensures that the lamp can be readily fitted into existing equipment and simplifies the design of new equipment. The single ended construction and the degree of prefocusing provided means that lamp replacement is straightforward.

### Applications

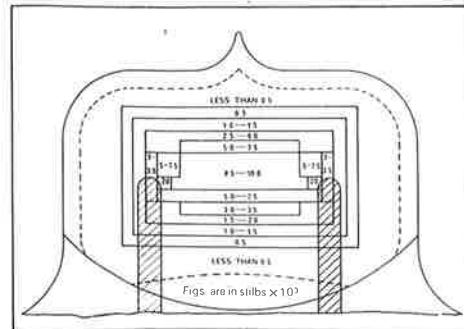
The major advantage of this lamp is its high efficiency, combined with its robustness, simplicity, small size and relatively low power consumption.

In general, considerations of source size, lamp size, lamp rating and efficiency indicates that it can be used in applications which at present use 100v-240v hard glass filament projector lamps of 250w-1,000w rating to give a substantial advantage in terms of either increased light output or a reduction in input power and heat.

Typical spectral power histogram for the 400w compact source iodide lamp



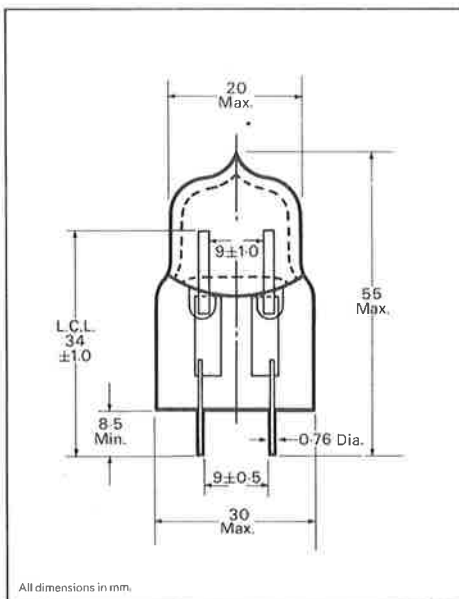
Typical brightness distribution diagram



### Control gear

The lamp is designed for operation with control gear consisting of a choke, capacitor and starter switch which gives a high-voltage, high frequency pulse. For further details see catalogue page CD35, Lampholder L1101 designed for use with the lamp is shown on page CD41, Lamp Ref. No. 99-0201—Price £5 16 0.

FOR ADDITIONAL INFORMATION ON THIS LAMP—SEE OVERLEAF.





# Hytek lamps

Compact source mercury iodide lamp for projector purposes

## Electrical characteristics

Supply Volts AC	240
Arc Watts	400
Arc Volts	100
Arc Current (amps)	5
Run up Time (secs.)	30
Re-starting Time (mins.)	3/5

## Physical dimensions (in millimetres)

Arc Length	$9 \pm 1.0$
Arc Size	$9 \times 5$
Overall Length (max.)	55
L.C.L.	$34 \pm 1$
Diameter (max.)	30
Pin Length (min.)	8.5
Pin Spacing	$9.0 \pm 0.5$
Pin Diameter	.76

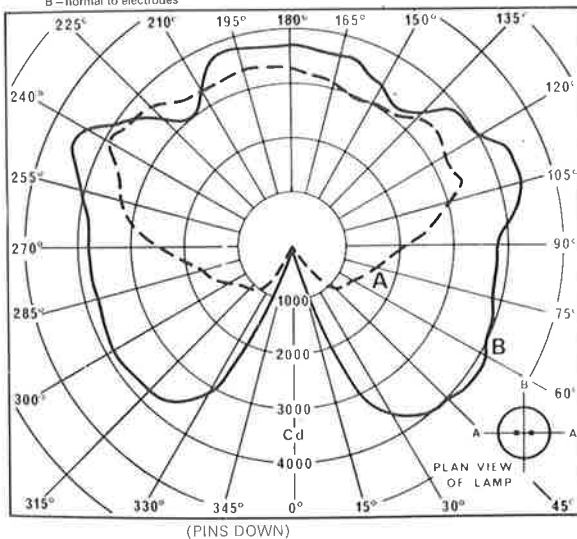
## Luminous characteristics

Initial Lum. Eff. (min.)	80 lumens/watt
Lumen Maintenance	90%
Colour Rendering	Good
Chromaticity Co-ordinates	$x=.433, y=.382$

Life (normal objective)—100 hours

Operating position—universal

Typical Candlepower Distribution in vertical planes  
A—through electrodes  
B—normal to electrodes



# Hytek lamps

## Compact source xenon lamps—Type XE/D

### Description

Xenon compact source discharge lamps consist of an arc burning between electrodes of tungsten in a high pressure of pure xenon contained in a quartz bulb.

The high brightness light source emits virtually continuous radiation, extending from the ultra-violet through the visible into the infra-red. The approximate colour temperature is 5,600°K., similar to noon sunlight.

All lamps require a starter unit to strike the arc. In addition AC lamps require control gear in the form of a series inductance and a power factor correction capacitor, while DC lamps require series resistances.

Alternatively the DC lamps may be run off AC supplies using a rectifier ballast unit.

All starters require a 200/250v 50c/s 2 amp supply.

For further details of control gear and lamphousings see catalogue pages CD34 & 35.

### Application

High speed photography and cinematography

Colour matching

Fadeometer testing

Graphic arts

Optical instruments

Laboratory and general scientific purposes.

### Lamps

Rating Watts	Ref. No.	Supply Volts	Arc size mm	Lamp Operating Volts	Amps	Lumens	Luminance*	Life Hrs.	Nett Price†
250	98-0352	65 Min. DC	3 x 2	16.5	15	5,000	11,000	1,500	£27 10 0
250	98-0351	200/250 AC	3 x 2	16	17	5,000	10,000	500	£22 0 0
500	98-1002	65 Min. DC	5 x 3	22	23	12,000	20,000	1,000	£72 1 0
500	98-1001	200/250 AC	5.5 x 3	20	27	11,000	11,000	500	£51 14 0
2Kw	98-1506	65 Min. DC	4.5 x 4	25	80	70,000	120,000	1,000	£123 4 0
2Kw 2 Electrode									
2Kw	98-1503	35 Min. DC	7.5 x 4	27	74	64,000	67,000	1,000	£123 4 0
2Kw 3 Electrode									

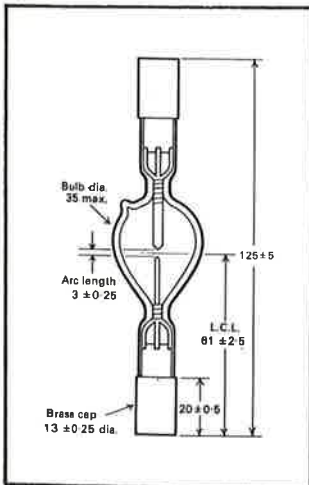
\*Luminance = Average luminance of brightest circle of 2mm diam. in candelas/sq. cm.  
†Not subject to discounts.

Position of burning: Vertical  $\pm 15^\circ$  except for 2Kw 3 electrode lamp which burns vertically or horizontally  $\pm 15^\circ$ .

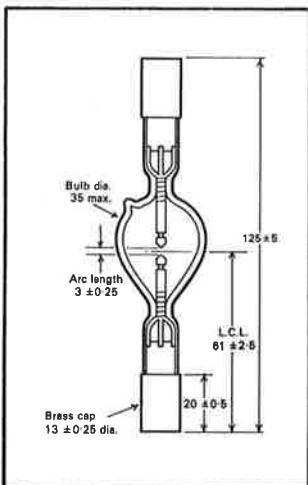
Caps: All lamps are fitted with special cylindrical caps. Lamps of 500w and 2Kw have a cone centre for mounting, and a flexible lead.

FOR ADDITIONAL INFORMATION ON THESE LAMPS—SEE OVERLEAF.

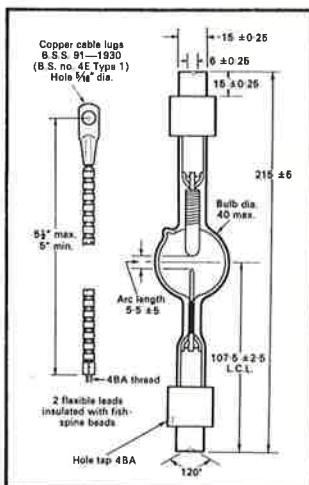
250w/DC



250w/AC



500w DC



All dimensions in mm. unless otherwise stated.

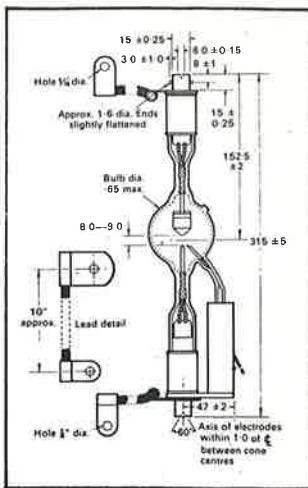
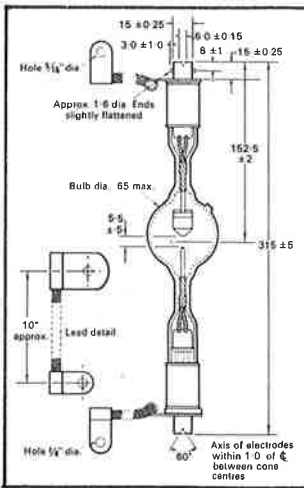
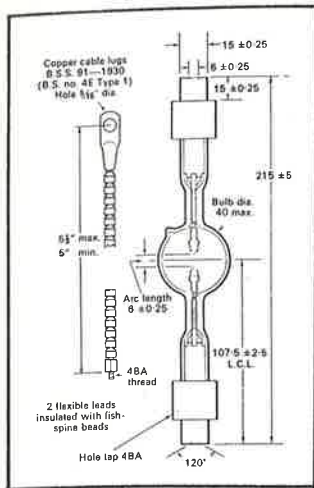
## Hytek lamps

Compact source xenon lamps—Type XE/D

500w/AC

2Kw2 Electrode

2Kw DC 3 electrodes



All dimensions in mm, unless otherwise stated

### Linear source xenon lamps—Type XB

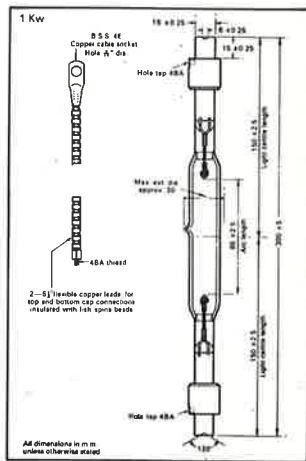
### Description

Linear source xenon lamps consist of an arc burning between tungsten electrodes operating in an atmosphere of pure xenon contained in a tubular quartz bulb. The spectrum of the radiation is virtually continuous extending from the ultra-violet through the visible into the infra-red. The colour of the visible radiation is very similar to noon sunlight with a colour temperature of approximately  $5,600^{\circ}\text{K}$ . Light output may be modified over a wide range without appreciably altering the colour of the light by adjusting the power input.

The lamps require a starter unit to initiate the arc, and a series inductance and power factor correction capacitor are also required. For further details see catalogue page CD34.

## Application

- High speed photography and cinematography
- Colour matching
- Fadeometer testing
- Graphic arts
- Optical instruments
- Laboratory and general scientific purposes.



## Lamps

Rating	Ref. No.	Supply Volts	Arc Length (mm)	Lamp Operating				Net Price
				Volts	Amps	Lumens	Life	
1 Kw	98-0125	200/250v 60c/s	85 ± 2.5	42	25	22,000	500	£81 12 0†

<sup>†</sup>Not subject to discount.

Position of burning: vertical  $\pm 15^\circ$ .

**Capa:** Special cylindrical caps with a cone centre for mounting, and a flexible lead.

# Hytek lamps

## Pulsed xenon arc

### Description

These pulsed xenon arc lamps consist of an arc between tungsten electrodes operating in an atmosphere of pure xenon contained in a tubular quartz bulb. Until recently, the standard light source for copyboard illumination in photo reproduction has been the open carbon arc. Over the last two or three years special discharge lamps have been utilised, particularly pulsed xenon arc lamps.

The spectrum of the radiation is virtually continuous extending from the ultra-violet through the visible into the infra-red. The colour of the visible radiation is very similar to noon sunlight having a colour temperature of 5,600°K. Light output is controlled by the gear which pulses the lamp for a specific period. Application : Photo-reproduction.

### Control gear

The lamp is designed to operate with control gear which provides a 100 c.p.s. pulse rate for a pulse width of one millisecond at half peak. Suitable gear for operating the lamp is manufactured by Thymer, Ascorlux & Littlejohn. Other companies have gear under development.

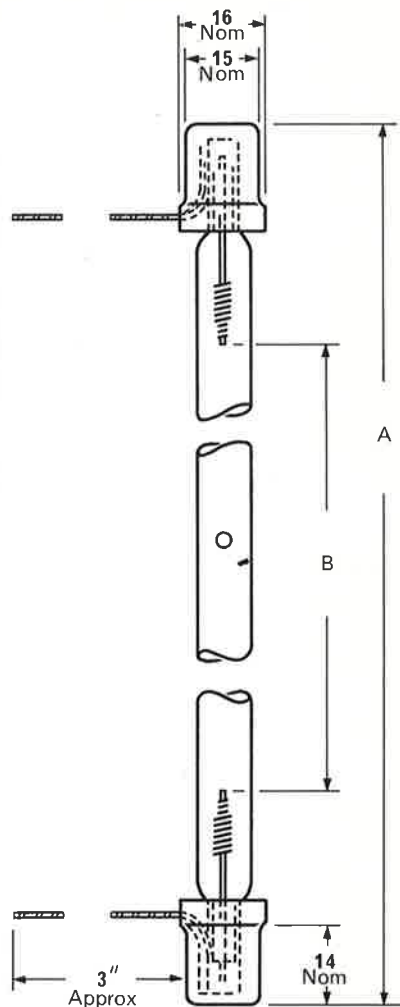
### Lamp specification

Type :	Pulsed Xenon Arc.
Cap :	Ceramic with flexible leads.
Operating Position :	Universal.
	Forced cooling essential.
Arc Voltage :	110 ± 5.
Supply Voltage :	200/250v 50Hz.
Pulsed Frequency :	100Hz.
Design Wattage :	1,500 and 3,000.
Efficiency :	25 lumens per watt.
Life :	500 hours.
Arc Length :	310mm nominal.

### Lamp prices

Rating	Lamp Ref. No.	Price
1,500w	98-2015	£9 18 0
3,000w	98-2030	£12 2 0

Pulsed Xenon Discharge lamp.



Rating	A	B
1500W	392 ± 3	310 Approx
3000W	695 ± 3	615 Approx

All dimensions in m.m. unless otherwise stated.

# Hytek lamps

## Germicidal tubes

### Fluorescent type germicidal tubes

These lamps are in standard fluorescent lamp sizes. The lamps are made without phosphors, and the tube is a special glass which transmits short wave U.V. Approximately 95% of the radiated energy is in the 253.7 Nanometers band which is near the maximum for germicidal effectiveness. The lamps are useful for the irradiation of airborne bacteria or moulds, and also for the irradiation of surfaces on which bacteria and/or mould spores have collected. A publication 'Germicidal Radiation and its Application' is available on request.

### Typical application

For hospitals etc.: for sterilising purposes.

### Tubes

Rating	Lamp Ref. No.	Nominal Dimensions		Price	Std. Pack
		ins.	mm.		
15w	92-2013	18" x 1"	457 x 25	£2 18 0	25
30w	92-4540	3' x 1"	914 x 25	£4 10 0	25

### Long wave ultra-violet fluorescent type tubes

The germicidal tubes shown are short wave ultra-violet sources. Long wave ultra-violet fluorescent type tubes as below are also available and details are given on pages CE6 & CE12.

Type	Rating
Ultra-Violet (Non filter)	5 ft. 65/80w, 4 ft. 40w, 2 ft. 20w, 1½ ft. 15w, 12 in. 8w.
Blacklight blue U-V	4 ft. 40w, 1½ ft. 15w, 12 in. 8w, 9 in. 6w, 6 in. 4w.

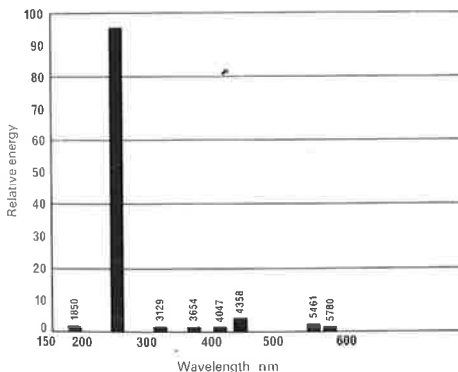
### Fittings and control gear

All tubes on this page go into standard fittings and operate on standard fluorescent control gear.

The 30w tube operates on 200/250v AC and the 15w on 100/250v AC. Alternatively two 15w tubes may be run as a series pair on 200/250v AC.



Spectral energy distribution germicidal tube



# Hytek lamps

## Linear neon high intensity obstruction lights

Lamp reference number 98-4501

### Description

The 160w linear neon high intensity obstruction light is designed to give red light at high efficiency, with long life and low power consumption. The main spectral energy line is at 640 nanometres, and the lamp is designed to operate either as a static burning source or, by means of an electronic switching unit, to operate as an occulting beacon which flashes up to 180 per minute.

### Applications

For use on masts, chimneys or buildings which constitute a hazard or obstruction to military and civil aviation.

### Fittings and control gear

Details of a specially designed fitting unit including control gear, are available on request. Details of a separate flashing control unit are also available.

### Lamp data

Watts 160

Nominal arc current 1.33 amps

Nominal arc voltage 157

Initial light output 2,000 lumens

Minimum light output at 4,000 hours 1850 lumens

Rated life continuous burning 4,000 hours

Rated life flashing 30 million flashes

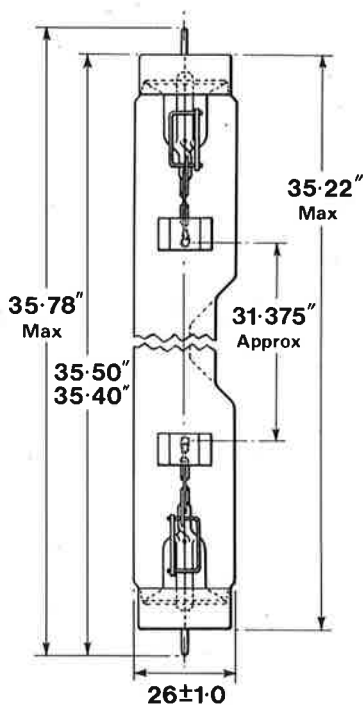
### Dimensions

Diameter 26 mm  $\pm$  1 mm

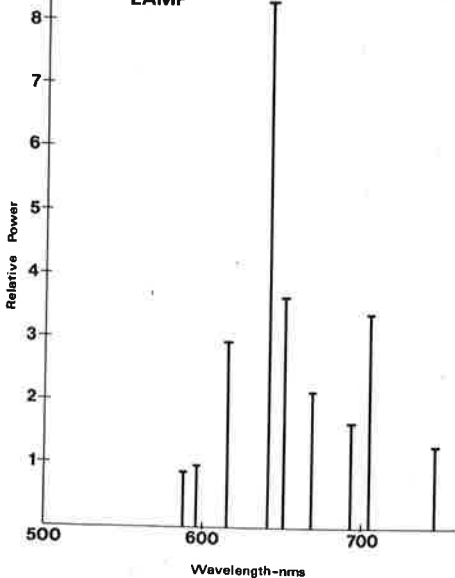
Overall length 35.78 in maximum

Caps G 13/10 x 24 - bi-pin

Price CJ16 Price on application



160W LINEAR NEON  
LAMP



# Hytek lamps

## Xenon flash tubes

### General Description

A Xenon flash tube is a light source giving a pulse of high intensity and extremely short duration. The flash times are in the range millionths and thousandths of a second depending on the type. There are generally two categories, namely 'Single Flash' types in which maximum intensity flashes can be repeated at fairly long intervals, e.g. one every ten seconds, and 'Stroboscopic' types where somewhat lower power flashes can be repeated at intervals up to, for example 300 per second.

### Applications

High Speed Photography  
Optical Instruments  
Stroboscopes  
Laboratory and general scientific purposes.

### Circuits and Control Gear

The performance characteristics can be varied over a relatively wide range by the design of the circuit, usually of the electronic type.

This control gear is not supplied by Thorn Lighting Limited but details of suitable circuits are obtainable on request.

### PHYSICAL CHARACTERISTICS

#### Single Flash Types

Type	Lamp Ref. No.	Overall Length mm	LCL mm	Arc Length mm	Bulb Dia. mm	Anode	CAPS Cathode	Trigger	Nett Price
SF7	97-2507	122 ± 5	65 ± 5	30	26 ± 2	ES	9mm ferrule	9mm ferrule	£14 9 0
FA32	97-2032	65 max.	—	50	7	fly leads	fly leads	fly leads	£1 18 0
FA10	97-2010	50 ± 2	—	—	8	2 pin 2 amp	2 pin 2 amp	nickel strip	£2 6 0
FA5	97-2005	148 ± 4	74 ± 2	5	32 ± 2	9mm ferrule	9mm ferrule	9mm ferrule	£18 12 6
FA7	97-2007	80 ± 2*	45*	—	31	UX 4 pin —35mm	UX 4 pin —35mm	UX 4 pin —35mm	£7 9 0

#### Stroboscopic Types

Type	Lamp Ref. No.	Overall Length mm	LCL mm	Bulb Dia. mm	Cap.	Nett Price
FA7S-1	97-2108	90 ± 2*	45*	31 ± 2	UX 4 pin 35mm	£7 17 6
FA2S	97-2102	90 ± 5*	45*	46 ± 2	3 pin 5 amp	£6 40 6

\*Excluding cap pins.

Note: Single flash types FA7 and FA32 can also be used as stroboscopic tubes.

### ELECTRICAL CHARACTERISTICS

#### Single Flash Types

Type	Operating Voltage	Max. Loading Watt/Secs.	Max. Repetition Rate at max. Loading	Trigger Volts	Approx. Peak Lumens	Flash Duration microseconds 1/5 peak	1/2 peak
SF7	7500	56	1 in 10 secs.	12Kv	100 million	3	1
FA32	500	65	1 in 10 secs.	8Kv	5.5 million	800	360
FA10	250	100	1 in 10 secs.	4Kv	3.5 million	2620	865
FA5	1000/2000	150	1 in 10 secs.	12Kv	2 million	↑	↑
FA7	2500	200	1 in 10 secs.	4Kv	24.5 million	800	290

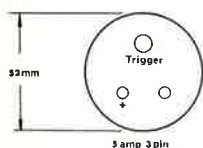
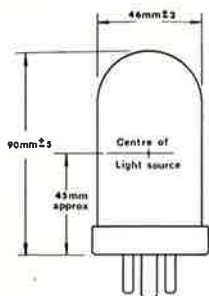
†1 millsec to 1/2 peak.

#### Stroboscopic Types

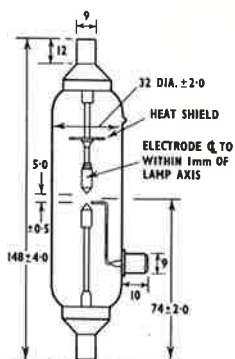
Type	Operating Volts	Max. Power Watts	Max. Repetition Rate	Trigger Volts
FA32	500	4	50/sec.	8Kv
FA7S-1	2000	12	300/sec.	4Kv
FA7	2500	14	50/sec.	4Kv
FA2S	2000	36	300/sec.	8Kv

# Hytek lamps

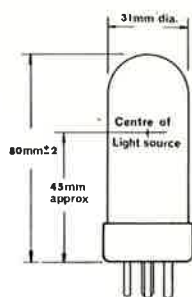
## Xenon flash tubes



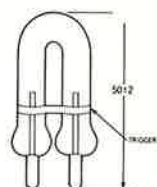
FA 25



FA 5

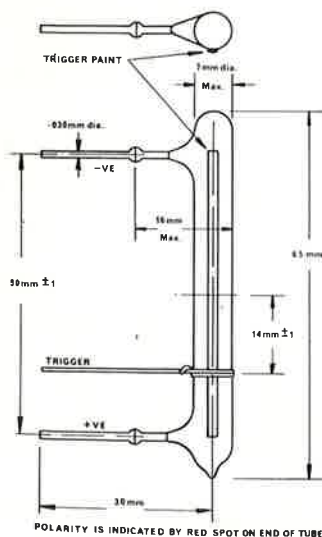


FA 7

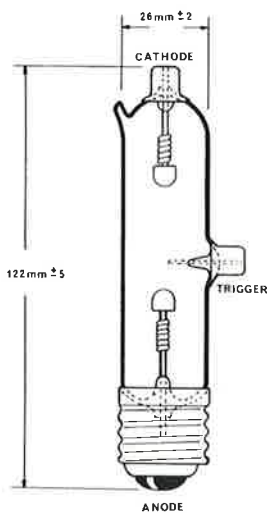


Pins fit 2 pin 2 amp socket

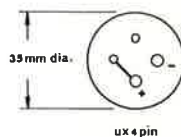
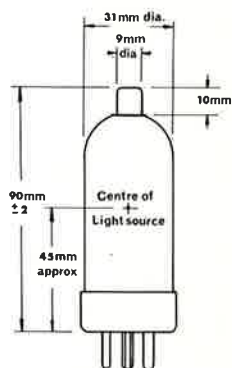
FA 10



FA 32



SF 7



FA 7S-1



# PHOTOGRAPHIC AND PROJECTOR LAMPS



# Photographic lamps

## Introduction

---

Photographic lamps made by Thorn Lighting Ltd, are second to none. Constant research in the Thorn laboratories has resulted in a number of spectacular advances, especially in the tungsten halogen field. This remarkable technique has resulted in incredibly compact lamps which give more light for twice the life of comparable conventional sources, and this without any diminution or change of colour of the light throughout life. You may be certain that there is a lamp in our range for every photographic purpose.

'Prices' shown are those recommended as appropriate in UK for retail sale.

'Nett user prices' are those recommended as appropriate in UK for direct sale to users.

---

# Photographic lamp section

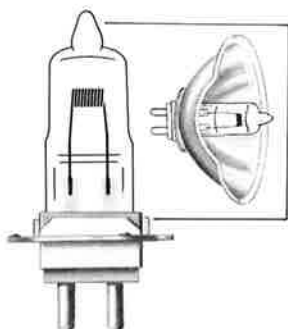
	Page
A1 class 50-100w (illustrations of A1/17, A1/45, A1/215)	CK4
A1 class 150w (illustrations of A1/184, A1/232)	CK5
A1 class 200-500w (illustrations of A1/201, A1/205, A1/223, A1/227)	CK6
A1 class 600-1200w (illustrations of A1/228, A1/223, A1/207, A1/53)	CK7
F class Micro-projector lamps (illustrations)	CK8
G class Exciter lamps (illustrations of G40, G29 and G27)	CK9
Classes E & T lamps (illustrations of E3 and T3)	CK10
Photographic lamps classes P1, P2, P3 and P4 (illustrations of P1/11, P1/12, P1/13, P1/1, P1/6, and P3/3)	CK11, 12, 13, 14
Flash bulbs and flash cubes (illustrations of AG1B type 1B and flash cube)	CK15, 16

# atlas

## Projector lamps



**A1/17-8v 50w Projector Lamp**  
This 8v 50w lamp has been designed for use with both Super 8 and Standard 8 cine projectors. It is a direct replacement for the 8v 50w A1/185.



**A1/45 Tungsten Halogen Lamp**  
The first halogen lamp to utilise a special pre-focus base, The A1/45 can be burned in either the horizontal or vertical position, used in conjunction with dichroic coated mirrors without condensers or with conventional condenser systems and is suitable for Super 8 cine and slide projectors.



**A1/229 8v 50w Tungsten Halogen Projector Lamp**  
The A1/229 has been designed particularly for Super 8 cine projectors. It is a complete optical system comprising a tungsten halogen lamp integral with an aluminised ellipsoidal mirror reflector. Equipment utilising this light source is able to dispense with the conventional condenser optical system, and this results in an appreciable gain in the level of screen illumination. The design permits extremely accurate alignment of the lamp within the projector.

### CLASS A1 50, 75 & 100 WATT

Lamp Ref.	Volts	Watts	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features	Trade Price £ s d	P.T. £ s d
			Maximum Diameter	Maximum Overall Length	Light Centre Length							
A1/17	8	50	33x34	96	47±0.5	—	Small Pre-Focus P30s	M	25	A.B.H.I.	1 0 6	11 0
A1/19	115	50	26	78	35±1	800	S.B.C. BA15d	H2	50	A	17 6	9 5
A1/202	8	50	31	96	47±0.1	—	Small Pre-Focus P30s	M	25	A.B.F.I.	1 0 6	11 0
A1/220	12	50	11.5	44	30±0.25	1400	2Pin G6.35	M	50	E.J.	18 9	10 1
A1/225	240/250	50	26	67	35±1	675	S.C.C. BA15s	J3	50	A.K.	18 9	10 1
A1/229	8	50	50	42	—	—	2 Pin G6.35	M	50	E.I.J.L.N.	2 3 9	1 3 6
A1/230	12	75	50	42	—	—	2 Pin G6.35	M	50	E.I.J.M.N.	2 13 9	1 8 10
A1/4	12	100	26	135	55±0.5	2700	Med Pre-Focus P28s	L2	25	A	1 4 9	13 3
A1/4	115	100	26	135	55±0.5	1850	Med Pre-Focus P28s	J3	25	A	1 4 9	13 3
A1/4	240, 250	100	26	135	55±0.5	1650	Med Pre-Focus P28s	J4	25	A.C.	1 4 9	13 3
A1/21	115	100	26	78	35±1	1850	S.C.C. BA15s	J3	25	A	11 0	5 11
A1/21	240, 250	100	26	78	35±1	1650	S.C.C. BA15s	J4	25	A.C.	11 0	5 11
A1/45	12	100	11.5	45	18±0.2	3000	2 Pin Pre-Focus PG22	M	50	E.J.	1 4 9	13 3
A1/121	115	100	26	78	35±1	1850	S.B.C. BA15d	J3	25	A	16 6	8 10
A1/121	240, 250	100	26	78	35±1	1650	S.B.C. BA15d	J4	25	A.C.	16 6	8 10
A1/186	12	100	26	78	35±1	2800	S.C.C. BA15s	M	25	A	10 9	5 9
A1/193	12	100	26	78	29.5±0.5	2800	BA21s 4 Pin	M	25	—	15 3	8 2
A1/203	12	100	41x50	95	44±0.5	—	Small Pre-Focus P35s	M	25	A.B.H.I.	1 11 6	16 11
A1/209	12	100	11	45	24 <sup>+0</sup> <sub>-0.5</sub>	2900	2 Pin Ceramic G6.35	M	50	E.J.	1 4 0	13 3
A1/215	12	100	11	44	30±0.25	2900	2 Pin G6.35	M	50	E.J.	1 1 6	11 6
A1/231	12	100	50	42	—	—	2 Pin G6.35	M	50	E.I.J.M.N.	2 13 9	1 8 10

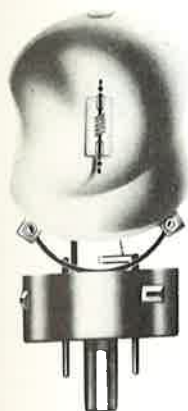
- A Obscured top  
B Forced cooling necessary. Maximum bulb wall temperature 500°C  
C Voltage ranges in 10 volt steps  
D Offset filament  
E Operates on Tungsten Halogen principle  
F Internal integral aluminised mirror  
G Internal integral dichroic mirror  
H Silvered bulb  
I Due to internal mirror nominal lumens not shown

- J Minimum bulb wall temperature 350°C  
K Dual Voltage  
L External integral aluminised mirror  
M External integral dichroic mirror  
N Light centre length not specified, Mirror rim to film gate 32 mm  
O Internal proximity reflector  
P Due to internal reflector nominal lumens not shown  
Q Linear overhead projector lamp

- R 3 or 4 amp H.B.C. fuse necessary  
S 5 or 6 amp H.B.C. fuse necessary  
T 6 or 7 amp H.B.C. fuse necessary

Operating position base down with the following exceptions:  
A1/220 — base down to horizontal A1/231 — horizontal  
A1/45 — base down to horizontal A1/229 — horizontal  
A1/209 — base down to horizontal A1/230 — horizontal  
A1/215 — base down to horizontal

# atlas Projector lamps



**A1/24 125v 150w Tru-Flector Lamp**

The A1/24 Tru-Flector Lamp is primarily designed for horizontal burning in Super 8 cine projectors. When used in this type of equipment an extremely high level of screen illumination is achieved. This lamp may be used as a direct replacement for the A1/222, the DFN and DFC.



**A1/216 Tungsten Halogen Lamp**

The A1/216 which operates on the Tungsten Halogen principle, has been designed primarily as a light source for 35 mm slide projectors. Although of only 150w rating, machines utilizing this lamp may achieve a screen illumination equal to that given by many projectors using a conventional mains voltage

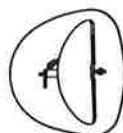


Diagram of A1 24 showing flattened front face of bulb.



**L1042 Lampholder**

**Ordering reference for Lampholder.** For voltages up to and including 21.5v specify L1042 LV—for voltages above 21.5v specify L1042 HT.

## CLASS A1 150 WATT

Lamp Ref.	Volts	Watts	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features	Trade Price			P.T.		
			Maximum Diameter	Maximum Overall Length	Light Centre Length						£	s	d	£	s	d
A1/18	21.5	150	39	81	39.7±0.1	—	Tru-Focus G17q	K	25	B.F.I.	1 16	0		19	9	
A1/24	125	150	39×42.5	81	39.7±0.1	—	Tru-Focus G17q	K	25	B.D.F.I.	1 17	3	1	0	0	
A1/167	240, 250	150	26	90	35±1	2700	S.C.C. BA15s	J4	25	A.C.	11	9		6	4	
A1/175	240, 250	150	26	135	55.5±0.5	2700	Med. Pre-Focus P28s	J4	25	A.C.	1 0	9		11	2	
A1/182	240, 250	150	30	76	35.5±1	2700	Tru-Focus G17q	J4	25	A.C.	16	6		8	10	
A1/184	21.5	150	39	91	39.7±0.1	—	Tru-Focus G17q	K	25	A.B.F.I.	1 12	9		17	7	
A1/194	21.5	150	48	86	39.7±0.1	—	Tru-Focus G17q	K	25	B.F.I.	1 16	0		19	9	
A1/210	21.5	150	39	91	39.7±0.1	—	Tru-Focus G17q	K	25	B.D.F.I.	1 12	9		17	7	
A1/211	21.5	150	39	91	39.7±0.1	—	Tru-Focus G17q	K	25	A.B.G.I.	2 1	3	1	2	1	
A1/212	24	150	33	103	39.7 <sup>+0</sup> <sub>-1.5</sub>	4100	Tru-Focus G17q	M	25	A.B.D.	18	3		9	9	
A1/216	24	150	13.5	47	32 <sup>+0</sup> <sub>-0.25</sub>	4700	2 Pin G6.35	M	50	E.J.	1 4	9		13	3	
A1/232	15	150	50	42	—	—	2 Pin G6.35	M	50	E.I.J.M.N.	3 4	6	1	14	7	
A1/234	15	150	11.5	45	30±0.25	4650	2 Pin G6.35	M	50	E.J.	1 4	9		13	3	

A Obscured top  
B Forced cooling necessary. Maximum bulb wall temperature 500°C  
C Voltage range in 10 volt steps  
D Offset filament  
E Operates on Tungsten Halogen principle  
F Internal integral aluminised mirror  
G Internal integral dichroic mirror  
H Silvered bulb  
I Due to integral mirror nominal lumens not shown

J Minimum bulb wall temperature 350°C  
K Dual Voltage  
L External integral aluminised mirror  
M External integral dichroic mirror  
N Light centre length not specified, Mirror rim to film gate 32 mm  
O Internal proximity reflector  
P Due to internal reflector nominal lumens not shown  
Q Linear overhead projector lamp

R 3 or 4 amp H.B.C. fuse necessary  
S 5 or 6 amp H.B.C. fuse necessary  
T 6 or 7 amp H.B.C. fuse necessary

Operating position base down with the following exceptions:  
A1/211 – base down to horizontal A1/18 – horizontal  
A1/216 – base down to horizontal A1/24 – horizontal  
A1/234 – base down to horizontal A1/194 – horizontal  
A1/232 – horizontal



# atlas

## Projector lamps

### A1/223 Tungsten Halogen Lamp

The A1/223 is intended for use in 35mm slide and 16mm cine projectors. Like all Tungsten Halogen projector lamps it is more robust and compact than the normal tungsten filament equivalent. Screen illumination, when used with a suitable optical system, can be greater than that attained with a conventional 1000w projector lamp.

### A1/201 The Proximity Reflector Tru-Focus Projector Lamp

This is a modification of the basic Tru-Focus lamp and features a highly efficient reflector situated immediately behind the filament; its purpose being to gather light directly from the filament and redirect it through the optical system of the projector.

The advantages are: Gain in screen brightness. The reflector stays bright because it is hermetically sealed against dust and oxidation. Each replacement lamp means a new reflector for the projector A1 NO EXTRA COST, as the price is the same for the equivalent Tru-Focus lamp

## CLASS A1 200, 250 & 300 WATTS

Lamp Ref.	Volts	Watts	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features	Trade Price			P.T.		
			Maximum Diameter	Maximum Overall Length	Light Centre Length						£	s	d	£	s	d
A1/25	115	200	26	90	35 ± 1	4400	S.B.C. BA15d	J2	25	A.B.	1	4	9	13	3	
A1/26	115	200	26	90	35 ± 1	4400	S.C.C. BA15s	J3	25	A	1	2	9	12	2	
A1/26	240, 250	200	26	90	35 ± 1	4000	S.C.C. BA15s	J5	25	A.C.	1	2	9	12	2	
A1/5	50	250	33	135	55.5 ± 0.5	6000	Med Pre-Focus P28s	A4	50	A	1	9	0	15	7	
A1/5	115	250	33	135	55.5 ± 0.5	5500	Med Pre-Focus P28s	J3	50	A	1	9	0	15	7	
A1/5	240, 250	250	33	135	55.5 ± 0.5	5200	Med Pre-Focus P28s	J5	50	A.C.	1	9	0	15	7	
A1/223	24	250	13.5	55	33 ± 0.25	8250	2 Pin G6.35	M	50	E.J.	1	11	9	17	0	
A1/235	24	250	13.5	56	23 ± 0.2	8700	2 Pin Pre-Focus PG22	M	50	E.J.	1	17	9	—		
A1/6	115	300	33	135	55.5 ± 0.5	7400	Med Pre-Focus P28s	J3	25	A.B.	1	9	0	15	7	
A1/6	240, 250	300	33	135	55.5 ± 0.5	6900	Med Pre-Focus P28s	J5	25	A.B.C.	1	9	0	14	1	
A1/37	115	300	28	105	35 ± 1	7400	S.C.C. BA15s	J3	25	A.B.	18	3	9	9	9	
A1/37	240, 250	300	28	105	35 ± 1	6900	S.C.C. BA15s	J5	25	A.B.C.	18	3	9	9	9	
A1/178	240, 250	300	33	103	39.7 ± 1	6900	Tru-Focus G17q	J5	25	A.B.C.	1	1	6	11	6	
A1/183	240, 250	300	31	81	35 ± 1	6900	S.C.C. BA15s	J5	25	A.B.C.	18	3	9	9	9	
A1/201	240, 250	300	33	103	39.7 ± 1	—	Tru-Focus G17q	J5	25	A.B.C.O.P.	1	1	6	11	6	

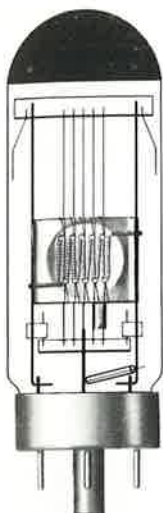
- A Obscured top  
B Forced cooling necessary. Maximum bulb wall temperature 500°C  
C Voltage range in 10 volt steps  
D Offset filament  
E Operates on Tungsten Halogen principle  
F Internal integral aluminised mirror  
G Internal integral dichroic mirror  
H Silvered bulb  
I Due to integral mirror nominal lumens not shown

- J Minimum bulb wall temperature 350°C  
K Dual Voltage  
L External integral aluminised mirror  
M External integral dichroic mirror  
N Light centre length not specified  
Mirror rim to film gate 32 mm  
O Internal proximity reflector  
P Due to internal reflector nominal lumens not shown  
Q Linear overhead projector lamp

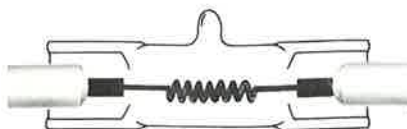
- R 3 or 4 amp H.B.C. fuse necessary  
S 5 or 6 amp H.B.C. fuse necessary  
T 6 or 7 amp H.B.C. fuse necessary

Operating position base down with the following exceptions:

- A1/233 - Base down to horizontal  
A1/235 - Base down to horizontal



**A1/205 500w Proximity Reflector Tru-Focus Lamp**  
This is a further development in the proximity reflector Tru-Focus range in 500w rating.



**A1/227 120v 420w Tungsten Halogen Overhead Projector Lamp**  
This lamp employs the Tungsten Halogen principle. It has an extended life compared with normal tungsten filament lamps and possesses the additional advantages of higher light output and almost 100 per cent lumen maintenance.

### CLASS A1 420 & 500 WATTS

Lamp Ref.	Volts	Watts	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features	Trade Price			P.T.		
			Maximum Diameter	Maximum Overall Length	Light Centre Length						£	s	d	£	s	d
A1/227	120	420	13.5	65.5	—	11000	Double Ended R7s	K	75	E.J.Q.	2	8	9	—	—	—
A1/7	115	500	33	135	55.5 ± 0.5	12500	Med Pre-Focus P28s	E8	25	A.B.	1	18	0	1	0	5
A1/7	240, 250	500	33	135	55.5 ± 0.5	11400	Med Pre-Focus P28s	E11	25	A.B.C.	1	18	0	1	0	5
A1/8	115	500	66	135	55.5 ± 0.5	11500	Med Pre-Focus P28s	A6	50	—	1	13	0	—	—	—
A1/8	240, 250	500	66	135	55.5 ± 0.5	11000	Med Pre-Focus P28s	A8	50	C	1	13	0	—	—	—
A1/42	240, 250	500	66	130	75 ± 5	11000	E.S. E27s	A8	50	C	1	13	0	—	—	—
A1/46	115	500	38	142	95 ± 0.5	12500	3 Pin B22d-3	E8	25	B.D.	2	3	6	—	—	—
A1/47	240, 250	500	33	130	59 ± 0.5	11400	B.H. P38s	E11	25	A.B.C.	2	1	3	1	2	1
A1/180	240, 250	500	33	103	39.7 ± 1	11400	Tru-Focus G17q	E11	25	A.B.C.	1	10	3	—	16	3
A1/205	240, 250	500	33	103	39.7 ± 1	—	Tru-Focus G17q	E11	25	A.B.C.O.P.	1	10	3	—	16	3
A1/237	240	500	13.6	76.0	—	12500	Special 2 Pin Polarised	H2	50	B.E.J.R.	—	—	—	—	—	—

- A Obscured top
- B Forced cooling necessary. Maximum bulb wall temperature 500 °C
- C Voltage range in 10 volt steps
- D Offset filament
- E Operates on Tungsten Halogen principle
- F Internal integral aluminised mirror
- G Internal integral dichroic mirror
- H Silvered bulb
- I Due to integral mirror nominal lumens not shown

- J Minimum bulb wall temperature 350 °C
- K Dual Voltage
- L External integral aluminised mirror
- M External integral dichroic mirror
- N Light centre length not specified
- O Mirror rim to film gate 32 mm
- O Internal proximity reflector
- P Due to internal reflector nominal lumens not shown
- Q Linear overhead projector lamp

- R 3 or 4 amp H.B.C. fuse necessary
- S 5 or 6 amp H.B.C. fuse necessary
- T 6 or 7 amp H.B.C. fuse necessary

Operating position base down with the following exceptions:  
A1/227 - Horizontal  
A1/46 - Base up

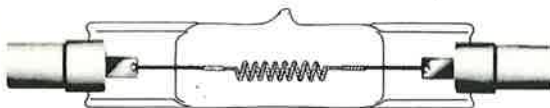
# atlas

## Projector lamps



**A1/233 240v 650w Tungsten Halogen Overhead Projector Lamp**

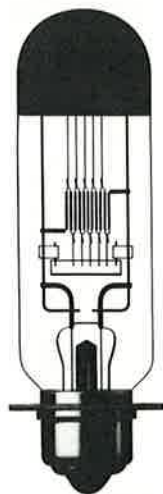
The A1/233 is the latest development in the field of overhead projector lamps. Operating on the Tungsten Halogen principle it offers all the advantages of a compact source for overhead projectors. The A1/233 is a direct replacement for the DYR.



**A1/228 240v 600w Tungsten Halogen Overhead Projector Lamp**

A mains version of the low voltage lamp which has been a popular light source for overhead projectors.

Operating on the Tungsten Halogen principle it offers all the well-known advantages of this type of lamp. Also available in low voltage 120v rating.



**A1/53**

### CLASS A1 600, 650 & 750 WATTS

Lamp Ref.	Volts	Watts	Dimensions mm		Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features	Trade Price		P.T.	
			Maximum Diameter	Maximum Overall Length						£	s	£	s
A1/228	120	600	13.5	93.5	—	16500	Double Ended R7s	K	75	E.J.Q.	3 10	9	—
A1/228	240/250	600	13.5	93.5	—	15000	Double Ended R7s	K	75	E.J.K.Q.R.	3 10	9	—
A1/233	240/250	650	22.5	63	36.5 ± 1	16500	Polarised 2 Pin GX9.53	J2	50	E.J.K.R.	3 10	9	—
A1/9	115	750	39	140	55.5 ± 0.5	19500	Med Pre-Focus P28s	E8	25	A.B.	2 3	9 1	3 6
A1/9	240, 250	750	39	140	55.5 ± 0.5	18000	Med Pre-Focus P28s	E10	25	A.B.C.	2 3	9 1	3 6
A1/52	115	750	37	135	81 ± 0.5	19500	3 Pin Ring P39s	E8	25	B.D.	2 9	6	—
A1/53	115	750	39	135	59 ± 0.5	19500	Large B.H. P46s	E8	25	A.B.	1 11	3	—
A1/53	240, 250	750	39	135	59 ± 0.5	18000	Large B.H. P46s	E10	25	A.B.C.	1 11	3	—
A1/206	115	750	39	118	39.7 ± 1	—	Tru-Focus G17q	E10	25	A.B.O.P.	2 9	6 1	6 3
A1/206	240, 250	750	39	118	39.7 ± 1	—	Tru-Focus G17q	E10	25	A.B.C.O.P.	2 9	6 1	6 3

- A Obscured top  
 B Forced cooling necessary. Maximum bulb wall temperature 500°C  
 C Voltage range in 10 volt steps  
 D Offset filament  
 E Operates on Tungsten Halogen principle  
 F Internal integral aluminised mirror  
 G Internal integral dichroic mirror  
 H Silvered bulb  
 I Due to integral mirror nominal lumens not shown

- J Minimum bulb wall temperature 350°C  
 K Dual Voltage  
 L External integral aluminised mirror  
 M External integral dichroic mirror  
 N Light centre length not specified. Mirror rim to film gate 32 mm  
 O Internal proximity reflector  
 P Due to internal reflector nominal lumens not shown  
 Q Linear overhead projector lamp

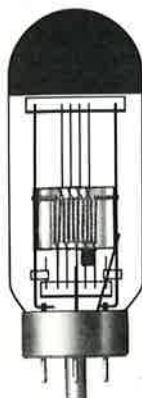
- R 3 or 4 amp H.B.C. fuse necessary  
 S 5 or 6 amp H.B.C. fuse necessary  
 T 6 or 7 amp H.B.C. fuse necessary

Operating position base down with the following exceptions:  
 A1/228 – Horizontal  
 A1/52 – Base up  
 A1/233 – Base down to horizontal

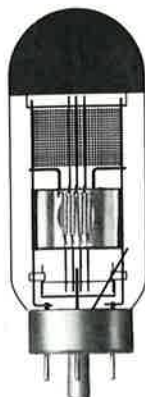


# atlas

## Projector lamps



A1/207



A1/208

### CLASS A1 1000 & 1200 WATTS

Lamp Ref.	Volts	Watts	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features	Trade Price			P.T.		
			Maximum Diameter	Maximum Overall Length	Light Centre Length						£	s	d	£	s	d
A1/11	115	1000	66	245	84 ± 0.5	25000	Large Pre-Focus P40s	E6	100	—	2	9	6	—	—	—
A1/11	240, 250	1000	66	245	84 ± 0.5	23000	Large Pre-Focus P40s	E8	100	C.	2	9	6	—	—	—
A1/57	115	1000	66	240	120 ± 5	25000	G.E.S. E40s	E6	100	—	2	5	6	—	—	—
A1/57	240, 250	1000	66	240	120 ± 5	23000	G.E.S. E40s	E8	100	—	2	5	6	—	—	—
A1/58	240, 250	1000	66	140	55.5 ± 0.5	25500	Med Pre-Focus P28s	E10	25	A.C.	2	13	9	—	—	—
A1/59	115	1000	39	140	55.5 ± 0.5	27500	Med Pre-Focus P28s	E8	25	A.B.	2	11	3	1	7	6
A1/59	240, 250	1000	39	140	55.5 ± 0.5	25500	Med Pre-Focus P28s	E10	25	A.B.C.	2	11	3	1	7	6
A1/91	115	1000	39	135	59 ± 0.5	27500	Large B.H. P46s	E8	25	A.B.	2	11	3	—	—	—
A1/91	240, 250	1000	39	135	59 ± 0.5	25500	Large B.H. P46s	E10	25	A.B.C.	2	11	3	—	—	—
A1/188	240, 250	1000	66	245	87 ± 0.5	23000	Large Pre-Focus P40s	E10	50	C.	2	5	6	—	—	—
A1/207	115	1000	39	118	39.7 ± 1	—	Tru-Focus G17q	E8	25	A.B.O.P.	1	16	3	—	—	—
A1/207	240, 250	1000	39	118	39.7 ± 1	—	Tru-Focus G17q	E10	25	A.B.C.O.P.	1	16	3	—	—	—
A1/191	110	1200	39	140	55.5 ± 0.5	36000	Med Pre-Focus P28s	E8	10	A.B.	2	11	3	—	—	—
A1/197	115	1200	39	135	59 ± 0.5	36000	Large B.H. P46s	E8	10	A.B.	2	11	3	—	—	—
A1/208	115	1200	39	118	39.7 ± 1	—	Tru-Focus G17q	E8	10	A.B.O.P.	2	14	6	—	—	—

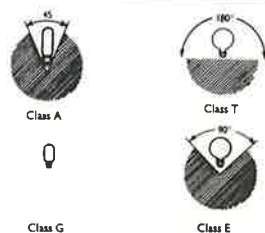
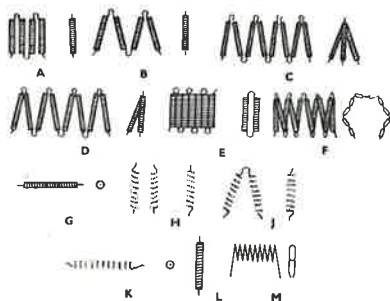
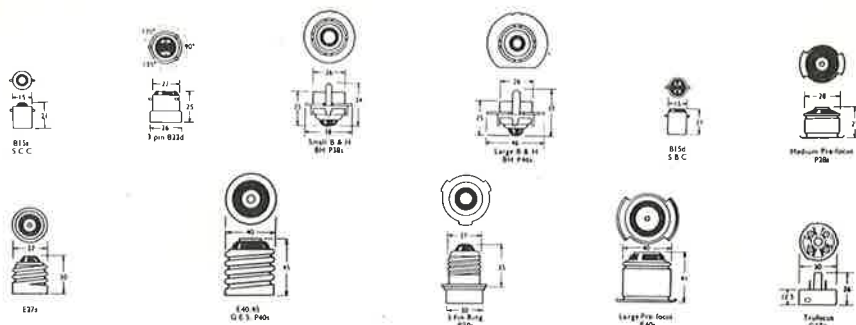
- A Obscured top  
 B Forced cooling necessary. Maximum bulb wall temperature 500°C  
 C Voltage range in 10 volt steps  
 D Offset filament  
 E Operates on Tungsten Halogen principle  
 F Internal integral aluminised mirror  
 G Internal integral dichroic mirror  
 H Silvered bulb  
 I Due to integral mirror nominal lumens not shown

- J Minimum bulb wall temperature 350°C  
 K Dual Voltage  
 L External integral aluminised mirror  
 M External integral dichroic mirror  
 N Light centre length not specified.  
 O Mirror rim to film gate 32 mm  
 P Internal proximity reflector  
 Q Due to internal reflector nominal lumens not shown  
 R Linear overhead projector lamp

- R 3 or 4 amp H.B.C. fuse necessary  
 S 5 or 6 amp H.B.C. fuse necessary  
 T 6 or 7 amp H.B.C. fuse necessary  
 Operating position base down

# atlas

## Projector lamps



### EXCEPTIONS

A1/18, A1/194, A1/24, A1/229, A1/230, A1/231, A1/232, A1/227, A1/228  
Should be operated in a horizontal position  
A1/46, A1/52  
Should be operated in a base up position  
A1/209, A1/211, A1/215, A1/216, A1/220, A1/221, A1/223, A1/45, A1/234, A1/235, A1/233  
May be operated in any position from base down to horizontal.

### CLASS F MICRO-PROJECTOR LAMPS

Lamp Ref.	Volts	Watts	Maximum Diameter	Dimensions mm		Nominal Lumens	Base	Crown of bulb to Filament	Average Life (Hours)	Special Features	Trade Price		P.T.
				Overall Length	Light Centre Length						s	d	
F/30	4	8	37	67	—	100	S.E.S. E14s	10±2	100	A	8	3	2 11
F/79	4	8	16.3	40	24±0.5	100	Small Pre-Focus P30d	—	100	A	10	6	3 9
F/8	12	12	37	62	40±3	190	S.B.C. BA15d	—	100	A	8	3	2 11
F/29	6	18	26	45.5	28.5±1.5	275	S.B.C. BA15d	—	100	B	8	3	2 11
F/10	6	24	39	65	—	410	S.E.S. E14s	10±2	100	A	8	3	2 11
F/10	12	24	39	65	—	440	S.E.S. E14s	10±2	100	A	8	3	2 11
F/3	12	24	39	65	—	440	S.B.C. BA15d	10±2	100	A	8	3	2 11
F/23	6	30	39	69	—	450	E.S. E27s	10±2	200	A	11	9	4 2
F/25	6	30	39	69	—	600	E.S. E27s	10±2	25	A	11	9	4 2
F/1	6	30	39	65	—	600	S.E.S. E14s	10±2	25	A	11	9	4 2
F/56	6	30	40	70	—	524	E.S. E27s	7±2	200	A.C.	11	9	4 2
F/80	6	30	39	58	—	420	B.C. B22d	7±2	200	B.C.	11	9	4 2
F/58	6	48	40	65	—	675	S.E.S. E14s	7±2	200	A.C.	12	6	4 6
F/59	6	48	40	70	—	675	E.S. E27s	7±2	200	A.C.	12	6	4 6
F/81	6	48	39	63	41±0.5	675	Small Pre-Focus P30s	—	200	A.C.	15	6	5 7
F/9	8	48	40	68	47±2	960	S.E.S. E14s	—	100	B	12	6	4 6
F/4	12	48	52	81	40±3	950	S.E.S. E14s	—	100	B	12	6	4 6
F/38	12	48	40	65	40±3	850	S.B.C. BA15d	—	100	B	12	6	4 6
F/76	12	50	40	72	33±0.5	950	Bosch BA20s	—	50	B	14	6	5 2
F/77	12	50	40	70	48±3	950	S.E.S. E14s	—	50	B	14	6	5 2
F/14	12	100	62	91	55±5	2250	E.S. E27s	—	100	B	16	6	5 11
F/63	12	100	62	98	37±0.5	2250	Med Pre-Focus P28s	—	100	B	20	9	7 5

- A Operating position — horizontal ±30°  
B Operating position — vertical base down ±135°  
C Solid source filament



**Class G Exciter Lamps**  
A range of high efficiency lamps for the sound heads of cinema projectors.

### CLASS G EXCITER LAMPS

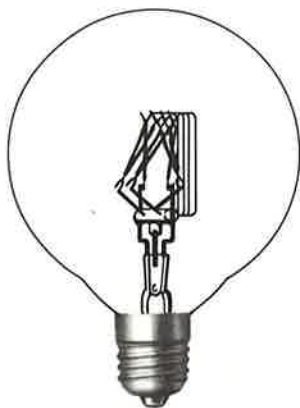
Lamp Ref.	Volts	Amps	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features	Trade Price s d	P.T. s d
			Maximum Diameter	Maximum Overall Length	Light Centre Length							
G/19	4	0.75	16.5	50	31.8±0.8	30	S.C.C. BA15s	G	50	A	9 9	
G/27	4	0.75	16.5	50	28.5±0.5	30	Small Pre-Focus P30s	L	50	A	9 9	
G/29	4	0.75	16.5	50	28.5±0.5	30	Small Pre-Focus P30s	G	50	A	9 9	
G/31	4	0.75	25.5	51	28.5±0.5	30	Small Pre-Focus P30d	G	50	F	11 6	
G/4	6	1.0	16.5	42	21.5±0.5	80	S.C.C. BA15s	L	100	A	10 9	
G/5	6	1.0	16.5	50	28.5±0.5	80	Small Pre-Focus P30s	L	100	C	10 9	
G/40	6	1.0	16.5	57	28.5±0.5	80	Small Pre-Focus P30s	G	100	B	9 0	
G/8	8	4.0	26	78	44.5±0.5	650	S.C.C. BA15s	G	100	D	10 9	
G/30	6	5.0	18.5	54	28±1	525	S.C.C. BA15s	G	100	B	12 6	
G/45	6	5.0	19	54	23±0.5	450	Small Pre-Focus P30s	G	100	B	13 0	
G/11	10	5.0	26	78	40.5±0.5	1050	S.C.C. BA15s	G	100	B	12 3	
G/10	10	5.0	26	78	37.3±0.5	1050	Small Pre-Focus P30s	G	100	B	13 0	
G/22	4	6.0	26	52	31.5±1	400	S.C.C. BA15s	L	100	E	9 9	
G/23	5	6.5	26	78	41±0.5	700	Small Pre-Focus P30s	L	50	D	12 3	

#### Operating positions

- A Universal
- B Vertical base down ±30°
- C Vertical base down ±45°
- D Vertical base down ±135°
- E Horizontal
- F Horizontal ±120°

# atlas

## Projector lamps



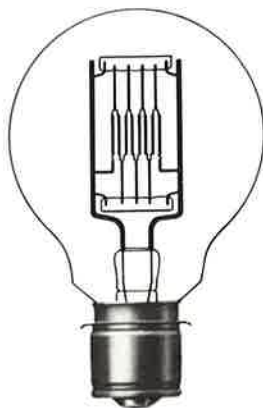
**E/3 Class E Epidiascope Lamps**

These have been specially designed for use in epidiascopes. The objective average life in well ventilated lantern housings is 100 hours.



**M29 Cine Film Editor Lamp**

Tungsten halogen lamps give greater light output than conventional incandescent lamps of similar ratings. They operate at a high colour temperature so the light is whiter. The small dimensions allow the production of equipment of compact design. The quartz bulb gives a high degree of resistance to thermal and mechanical shock.



**T/3 Class T Theatre Spotlights**

For use in cinemas, theatres and other applications where a suitable housing and reflector can make good use of the compact intense light source.

### CLASS E EPIDIASCOPE LAMPS

Lamp Ref.	Volts	Watts	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features	Trade Price			P.T. £ s d
			Maximum Diameter	Maximum Overall Length	Light Centre Length						£	s	d	
E/1	240, 250	600	102	145	60 ± 0.5	10300	Med Pre-Focus P28s	C8	100	A.E.	1	11	0	—
E/3	240, 250	500	102	145	85 ± 5	10300	E.S. E27s	C8	100	A.E.	1	10	3	—

### CLASS T THEATRE SPOTLIGHT LAMPS

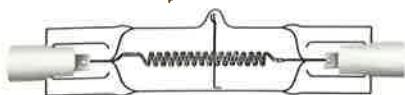
Lamp Ref.	Volts	Watts	Dimensions mm			Base	Average Life (Hours)	Special Features	Trade Price			P.T. £ s d
			Maximum Diameter	Maximum Overall Length	Light Centre Length				£	s	d	
T/3	240, 250	250	78	124	55.5 ± 0.5	Med Pre-Focus P28s	200	C.E.	1	0	9	7 5
T/1	240, 250	500	100	140	55.5 ± 0.5	Med Pre-Focus P28s	200	C.E.	1	9	0	—
T/2	240, 250	1000	132	200	87 ± 0.5	Large Pre-Focus P40s	200	C.E.	1	17	3	—
T/4	240, 250	1000	39	155	89 ± 0.5	Med Pre-Focus P28s	200	D.E.	2	17	9	—
T/6	240, 250	1000	102	140	55.5 ± 0.5	Med Pre-Focus P28s	200	B.E.	3	6	0	—

#### Operating positions

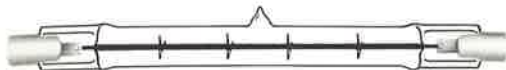
- A Vertical base down ± 45°
- B Vertical base down ± 75°
- C Vertical base down ± 90°
- D Vertical base up ± 15°
- E Voltage range in 10 volt steps

# atlas

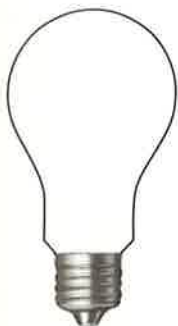
## Photographic lamps



**P1/11 240v 800w Tungsten Halogen Photographic Lamp**



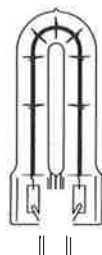
**P1/12 240v 1000w Tungsten Halogen Photographic Lamp**



**P1/1**  
Especially suitable for indoor photography. The P1/1 will enable approximately 200 test of cine film or about 300 still photographs to be taken: representing about three hours' total life. Safety fuses are incorporated in the cap. Suitable for use with monochrome film and colour stock balanced for 3,400°K



**P1/6 Reflector Photoflood**  
Incorporates its own reflector, thus giving a much greater beam candle power.



**P1/15 240v 1000w Single Ended Sun Gun Lamp**  
A new concept in tungsten halogen lighting, compact and robust, particularly suitable for use with lighting units designed for the "Super 8" format. Operates directly from the mains with an average life of 15 hours.

### CLASS P1 PHOTOGRAPHIC LAMPS FOR USE WITH MONOCHROME AND COLOUR FILM BALANCED FOR 3400°K

Lamp Ref.	Volts	Watts	Max. Dia.	Dimensions mm				Nominal Lumens	Base	Average Life (Hours)	Special Features	Trade Price		P.T.	
				Max. pip protuberance from bulb axis	Nominal Contact Length	Max. Clearance Length	Max. Overall Length					£	s	£	s
P1/8	30	250	12	10.2	74.9±1.6	78.3	80	8000	Double ended R7s	12	A	2	7	9	17
*P1/1 (PP.1)	240/250	275	61	—	—	—	108.5	8300	B.C. B22d	3	B.C.	2	6	—	—
*P1/1 (PP.1)	240/250	275	61	—	—	—	110	8300	E.S. E27s	3	B.C.	2	6	—	—
*P1/6 (PP.3R)	240/250	375	97	—	—	—	133.5	13000	B.C. B22d	4	B.E.F.H.	11	9	—	—
*P1/6 (PP.3R)	240/250	375	97	—	—	—	135	13000	E.S. E27s	4	B.E.F.H.	11	9	—	—
*P1/2 (PP.2)	240/250	500	82	—	—	—	164.5	15000	B.C. B22d	6	B.C.	6	3	—	—
*P1/2 (PP.3)	240/250	500	82	—	—	—	166	15000	E.S. E27s	6	B.C.	6	3	—	—
P1/9	120	650	15	11.4	74.9±1.6	78.3	80	21000	Double ended R7s	12	A	2	8	6	—
P1/13	240/250	650	23	—	—	—	65	20000	2 Pin Ceramic G6.35	15	A.B.I.	2	1	9	—
P1/11	240/250	800	15	11.4	74.9±1.6	78.3	80	24500	Double ended R7s	12	A.B.K.	3	14	9	—
P1/12	240/250	1000	12	10.2	121.7±1.6	125.1	127	33000	Double ended R7s	15	A.B.K.	2	18	0	—
P1/15	240/250	1000	23	—	—	—	65	32000	2 Pin Ceramic G6.35	12	A.B.K.	3	6	0	—
P1/16	115	850	23	—	—	—	65	28000	2 Pin Ceramic G6.35	15	A.K.	—	—	—	—

A Operates on Tungsten Halogen principle

B Dual Voltage

C Voltage range in 10 volt steps

D Pearl bulb

E Satin etched bulb

F Reflector Photoflood

G Reflector Photo Spot

H Light output measured in Centre Beam Candles

I 3 or 4 amp H.B.C. fuse necessary

K 5 or 6 amp H.B.C. fuse necessary

L 6 or 7 amp H.B.C. fuse necessary

In the interest of safety Tungsten Halogen lamps above 130v rating should have a separate high breaking capacity fuse in the circuit. See special features column for individual lamp requirements.

\*These new catalogue numbers should now be used, since they replace the previous series numbers as shown in brackets.

# atlas

## Photographic lamps



P3/3 High Intensity Enlarging Lamp (Opalised)  
These lamps have opalised bulbs and give a brilliant white light evenly diffused



**P4/1 Photographic Lamp**  
The P4/1 tungsten halogen photographic lamp is produced with the exacting requirements of the professional photographer in mind.  
The design allows the lamp to be operated at various applied voltages, so permitting a selection of colour temperatures.  
The P4/1 may be used with all types of sensitized materials, monochrome or colour film stock, and is particularly suitable for graphic arts, studio and industrial photographic applications.

### CLASS P2 PHOTOGRAPHIC LAMPS FOR USE WITH MONOCHROME AND COLOUR FILM BALANCED FOR 3400°K

Dimensions mm															
Lamp Ref.	Volts	Watts	Max. Dia.	Max. pip protuberance from bulb axis	Nominal Contact Length	Max. Clear-ance Length	Max. Overall Length	Nominal Lumens	Base	Average Life (Hours)	Special Features	Trade Price	P.T.		
*P2/1 (PPB.1)	115	500	89	—	—	—	183.5	12500	E.S. E27s	100	D	18 3	—		
*P2/1 (PPB.1)	240, 250	500	89	—	—	—	183.5	11000	E.S. E27s	100	C.D.	18 3	—		
*P2/4 (RF.2)	115	500	127.5	—	—	—	182	7200	E.S. E27s	20	E.F.H.	14 6	—		
*P2/4 (RF.2)	240, 250	500	127.5	—	—	—	182	7200	E.S. E27s	12	C.E.F.H.	14 6	—		
*P2/5 (RS.2)	115	500	127.5	—	—	—	182	12000	E.S. E27s	20	E.G.H.	14 6	—		
*P2/5 (RS.2)	240, 250	500	127.5	—	—	—	182	12000	E.S. E27s	12	C.E.G.H.	14 6	—		
P2/10	240, 250	625	12	10.2	185.7 ± 1.6	189.1	190	15500	Double ended R7s	200	A.B.I.	4 1 6	—		
P2/6	120	650	15	11.4	74.9 ± 1.6	78.3	80	17000	Double ended R7s	100	A	2 9 6	—		
P2/7	240, 250	1000	12	10.2	185.7 ± 1.6	189.1	190	26000	Double ended R7s	200	A.B.K.	4 2 6	—		
P2/8	120	1000	16.5	12.25	—	—	112.5	29000	Special double ended	100	A	3 14 9	—		
P2/12	240, 250	1250	12	10.2	185.7 ± 1.6	189.1	190	33500	Double ended R7s	200	A.B.L.	4 2 6	—		
P2/13	240, 250	800	15.0	11.4	74.9 ± 1.6	78.3	80.0	24000	Double ended R7s	50	A.B.K.	—	—		

- A Operates on Tungsten Halogen principle  
B Dual Voltage  
C Voltage range in 10 volt steps  
D Pearl bulb  
E Satin etched bulb  
F Reflector Photoflood  
G Reflector Photo Spot  
H Light output measured in Centre Beam Candles

- I 3 or 4 amp H.B.C. fuse necessary  
K 5 or 6 amp H.B.C. fuse necessary  
L 6 or 7 amp H.B.C. fuse necessary

In the interest of safety Tungsten Halogen lamps above 130v rating should have a separate high breaking capacity fuse in the circuit. See special features column for individual lamp requirements.  
\*These new catalogue numbers should now be used, since they replace the previous series numbers as shown in brackets.

### CLASS P3 PHOTOGRAPHIC ENLARGER LAMPS HIGH INTENSITY

Dimensions mm											
Lamp Ref.	Volts	Watts	Maximum Overall Length	Maximum Diameter	Base	Average Life (Hours)	Special Features	Trade Price		P.T.	
P3/3	240, 250	75	108.5	61	B.C. B22d	100	A.B.	2	9	—	1 6
P3/3	240, 250	75	110	61	E.S. E27s	100	A.B.	2	9	—	1 6
P3/4	240, 250	150	108.5	61	B.C. B22d	100	A.B.	3	9	—	2 0
P3/4	240, 250	150	110	61	E.S. E27s	100	A.B.	3	9	—	2 0

- A Internally opalised bulb  
B Voltage range in 10 volt steps

### CLASS P4 PHOTOGRAPHIC FLOOD LAMP

P4/1	120	500	15.0	11.4	114.2 ± 1.6	117.0	117.6	8900	R7s	2000	A.B.N.	4	10	9	—
P4/1	185	1000	—	—	—	—	—	33000	—	12	A.B.L.N.	4	10	9	—

- A Operates on Tungsten Halogen principle  
B Dual Voltage  
C Voltage range in 10 volt steps  
D Pearl bulb  
E Satin etched bulb  
F Reflector Photoflood  
G Reflector Photo Spot  
H Light output measured in Centre Beam Candles
- I 3 or 4 amp H.B.C. fuse necessary  
K 5 or 6 amp H.B.C. fuse necessary  
L 6 or 7 amp H.B.C. fuse necessary  
N Normal operation is at 120v to give 2850°K when required lamp may be operated at 185v to give 3400°K.

In the interest of safety Tungsten Halogen lamps above 130v rating should have a separate high breaking capacity fuse in the circuit. See special features column for individual lamp requirements.  
\*These new catalogue numbers should now be used, since they replace the previous series numbers as shown in brackets.



# atlas mazda

## Photo-Flashbulbs

Full exposure data is printed on every flash carton.

### Some features of Photo-Flashbulbs.

**Blue Dot.** The famous blue dot is a sensitive chemical on the inside of each Thorn flashbulb to tell you it's in perfect condition. Any defect turns the dot pink.

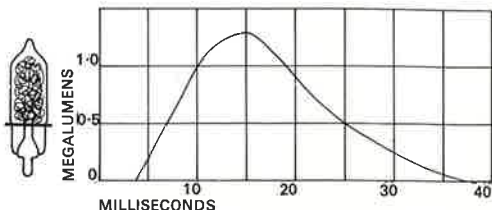
**Zirconium Filling.** The use of zirconium foil enables Thorn to pack more light into less space thus giving greater economy, greater efficiency and flexibility.

**Precision Manufacture.** Dependability is of prime importance in flash photography. With Thorn you can be sure of consistent high quality, thanks to precision manufacture and rigorous test standards.

**Super AG1B Flashbulbs** will work to perfection with a reflector only 2 inches in diameter. A must for the 'miniature' enthusiast. Many cartons can easily be carried in the pocket - so much more convenient.

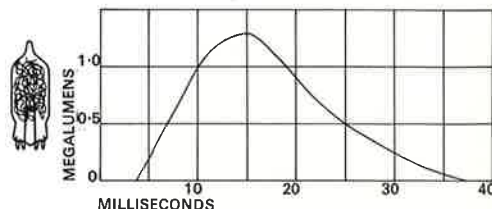
### Atlas Tru-Flash Type 1B/Mazdaflash MF1B Specification

Class	MF
Colour of bulb	Blue
Total light output (lumen secs)	7500
Peak light output (megalumens)	0.45
Time to peak (m. secs)	13
Duration above $\frac{1}{2}$ peak (m. secs)	15
Voltage range	3-45
Max. bulb diameter (mm)	11.9
Max. overall length (mm)	40.5
Bulbs per pack	5
Bulbs per outer container	200
Price each	9d.
Colour code	Blue



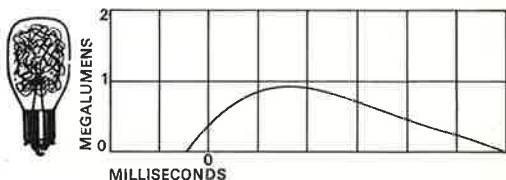
### Atlas Mini-Flash Super AG1B/Mazdaflash Super AG1B Specification

Class	MF
Colour of bulb	Blue
Total light output (lumen secs)	7500
Peak light output (megalumens)	0.45
Time to peak (m. secs)	13
Duration above $\frac{1}{2}$ peak (m. secs)	15
Voltage range	3-45
Max. bulb diameter (mm)	11.9
Max. overall length (mm)	33.3
Bulbs per pack	5
Bulbs per outer container	200
Price each	9d.
Colour code	Blue



### Atlas Photo-Flash M3 and Mazdaflash M3 Specification

Class	M
Colour of bulb	Clear
Total light output (lumen secs)	16000
Peak light output (megalumens)	1.0
Time to peak (m. secs)	17
Duration above $\frac{1}{2}$ peak (m. secs)	15
Voltage range	3-45
Max. bulb diameter (mm)	22
Max. overall length (mm)	45
Bulbs per pack	6
Bulbs per outer container	180
Price each	1s. 8d.
Colour code	Red



# atlas mazda

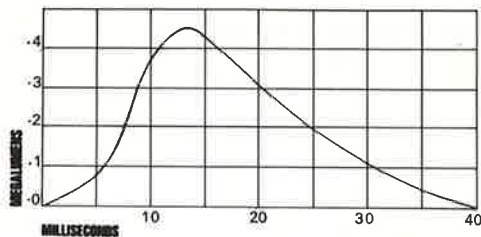
## Flashcubes

Simple to fit on the camera – simple to remove, either manually or by automatic ejection, and only just warm to the touch after four bulbs have been fired. The plastic cube itself acts as a protective shield for each bulb.

The blue safety dot is visible through the side of the Flashcube and provides a check against the accidental use of a bulb which may be faulty.

The precision-made base ensures correct location on the camera; enabling positive contact and automatic rotation of the Flashcube on the new Kodak Instamatic cameras. Four miniature blue bulbs, smaller in size than an AG1B, are enclosed in a plastic cube complete with a precision reflector for each individual bulb.

Flashcubes may be used with suitably designed cameras and adaptors, with X synchronization at shutter speeds up to 1/30 second and at all shutter speeds with M synchronization.



### Exposure Data

ASA	12	25	40	100	160	320
Film Speed	to	to	to	to	to	to
	13	32	64	125	200	500

DIN	10	15	17	21	23	26
	to	to	to	to	to	to
	12	16	19	22	24	28

Shutter Sync	Shutter Speed	GUIDE NOS.					
X	1/25-1/30	32	55	75	100	130	200
X or M	1/50-1/60	22	36	50	70	90	130
M	1/100-1/125	18	30	42	60	75	110
M	1/200-1/300	15	24	34	48	60	90

### Specification

Class	MF
Colour of bulb	Blue
Total light output (Beam candle power sec.)	2000
Peak light output (Beam candle power)	130000
Time to peak (m. secs)	13
Duration above half peak (m. secs)	15
Voltage range	3-45
Width (mm)	28.5
Overall length (mm)	35.5
Cubes per pack	3
Cubes per outer pack	36
Price per cube	3s. 9d.





# THORN LIGHTING LTD

A MEMBER OF THE THORN GROUP



## COMPREHENSIVE LIGHTING CATALOGUE



atlas mazda elco  
1969/70