

**THORN
LIGHTING
LTD.**

COMPREHENSIVE
LIGHTING
CATALOGUE
1971/72



MR. L. HOOPER,

LAMP FACTORY TRAINING AREA,

MELTON ROAD,

LEICESTER.

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General Introduction

Thorn Lighting Limited manufactures and sells Atlas and Mazda brand lighting products.

CONTENTS

This catalogue lists and describes all fittings, equipment, accessories lamps and tubes normally manufactured by Thorn Lighting Limited. The catalogue is indexed by sections, and there is also an applications index. An alphabetical index of catalogue numbers will be found at the back. The locations and addresses of Thorn Lighting order offices and regional headquarters are shown overleaf.

PRICES

This catalogue is designed to be used with the Comprehensive Price List, which is revised and reissued every four months; consequently prices are not shown in it.

BRAND NAMES

Fittings and lamps designed for use in commercial and industrial locations are marketed under the brand name Atlas, those intended for domestic or special purposes are branded Mazda. The appropriate brand name is shown at the head of each page of the catalogue.

CONDITIONS OF SALE

Because the Company is constantly developing and improving its products, all descriptions, illustrations, drawings and specifications in this catalogue present only general particulars of the goods to which they refer and shall not form part of any contract. The right is reserved to change specifications without prior notification or public announcement. All goods supplied by the Company are supplied subject to the Company's general conditions of sale which are printed at the end of this catalogue.

Index to sections

Lighting fittings

Lamps

Control gear



1. Fluorescent, Commercial and Industrial
2. Exterior and Street Lighting
3. Industrial, Commercial Incandescent and Discharge
4. Domestic Range
5. Standard Incandescent Lamps
6. Fluorescent Lamps
7. Standard Discharge Lamps and Hytek Range
8. Auto and Miniature Lamps
9. Photographic Lamps
10. Control Gear and Accessories

Thorn Lighting Order Offices

LONDON REGION

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EASTERN REGION

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SOUTH EAST REGION

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Tel: 52 67 65

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atlas Fluorescent Lighting Fittings

Introduction

The lighting fittings illustrated in these pages cover an enormous range: there is a fitting for every purpose and to suit every pocket.

The leading position of Atlas fittings is due to exceptional standards of design and of production. Only the best materials are used, and all fittings are designed to please the eye. All fittings are initially subjected to rigorous photometric and physical tests, and periodic tests are also made and all are designed to please the eye.

The following ranges are shown in this section.

1. Popular Pack (pp 1:3 to 1:20) A range of inexpensive but well made and elegant fittings suitable for most commercial and industrial installations. A simple backspine forms the basis for a variety of diffusers and light controllers.

2. New Arrowslim Minipack & Nomad (pp 1:21 to 1:28) Slender backspines designed to take the smaller diameter and shorter fluorescent lamps. These fittings have a number of applications in the commercial field.

3. Invincible Range (pp 1:30 to 1:42) Special purpose fittings designed to give satisfactory performance under arduous conditions. Flameproof, dust-tight, weatherproof and similar types.

4. New Atlantic Range (p.1:41 to 1:63) A wide range of commercial and industrial fittings for situations where price is less important than elegant appearance, silent operation, rugged construction and fitness of purpose.

Format Range (pp 1:65 to 1:75) Modular fittings, both recessed and surface-mounted, designed to suit both metric and imperial modular ceilings. Diffusing and prismatic enclosures are securely held by simple yet effective methods.

Airlume (pp 1:76 to 1:79) A range of low brightness and diffusing air-handling modular fittings.

Metrilux Ceiling System (pp 1:80 to 1:81) An integrated ceiling grid and lighting system.

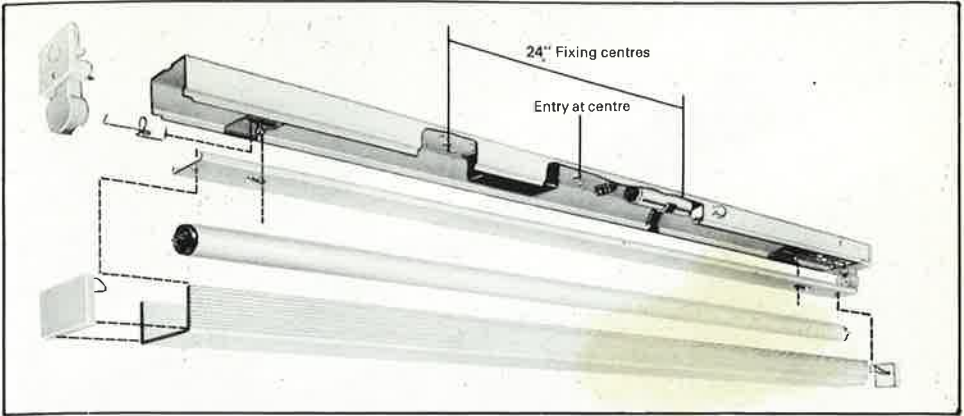
Trunking Systems (1:82 to 1:90) Trakline, the most versatile busbar trunking system sold at the most economical price and the well tried and proved lightweight trunking. Liteline and Atlantic trunking systems.

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- 1:3** Introduction – the top ten
- 1:4** Popular Pack (PP) single and wide twin batten fittings
- 1:5** Popular Pack (XPP) Slim Twin batten fitting
- 1:6** Popular Pack (PPA & PPTA) single and twin Angle reflector fittings
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New Arrowslim Minipack and Nomad Ranges

- 1:20** New Arrowslim batten fittings, AS30 & AS50.
- 1:21** New Arrowslim and attachments, ASG, ASO & ASC
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- 1:27** Nomad 12V and 24V Miniature lighting fittings
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TOP FEATURES

Extensive range of 8 ft., 6 ft., 5 ft., 4 ft. and 2 ft. single and twin tube fittings finished in stark white stoved enamel.

All fittings completely wired and fully tested to ensure reliable performance and quality.

Supplied complete with high efficiency white tube(s).

Diffusers and prismatic controllers in light stabilised polystyrene with spring-mounted end plates.

Spring-mounted lampholders with knock-outs for end entry.

Solid filled control gear for long life and reliable operation.

Three way mains terminal block.

Time and money is saved by the fast fixing features of Popular Packs.

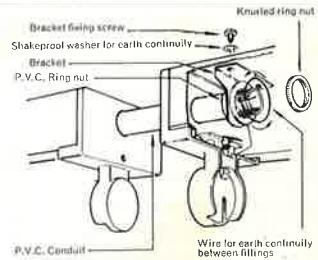
Slim-Twin types designed specifically for industrial use.

All fittings are power factor corrected except the 2 ft. single. The 8 ft. fittings operate at 0.66 leading.

Three year guarantee

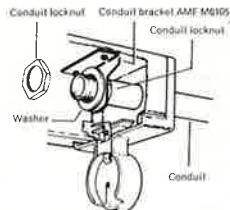
The Popular Pack is guaranteed for a period of three years from date of purchase.

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.



AMEM 6100

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



AMEM 6105

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

This component is not needed for slim twin fittings.



AMEM 6101

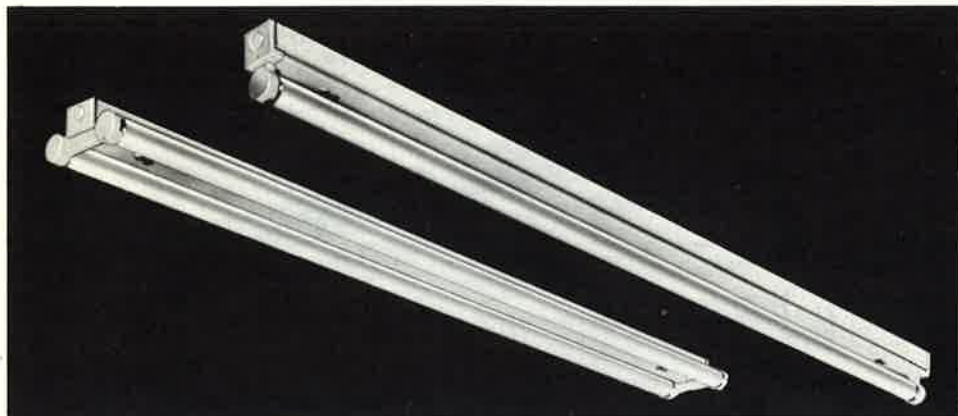
Pattern Block Cover can be used to shield a conduit box or alternatively to cover marks left on the ceiling by original fitting or ceiling plate.

atlas

Popular Pack batten fittings

PP265

PP65



The 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 embrace the lamp cap to prevent any strain on 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.

For continuous mounting a space of $\frac{1}{2}$ in between battens and trough reflectors and $1\frac{1}{4}$ in between diffusers is essential so that correct maintenance can be performed. Fittings are finished in stark white stove enamel for maximum reflection and efficiency.

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

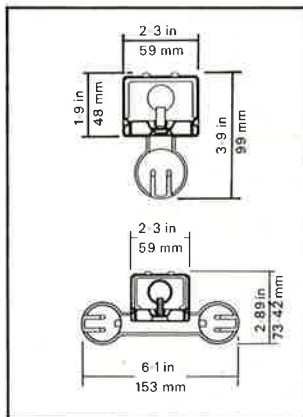
SUPPLY VOLTAGE

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

20W 2ft
40W 4ft
65W 5ft

200/210V, 220V and 250V

Details of fittings for other supplies on page 1:19.

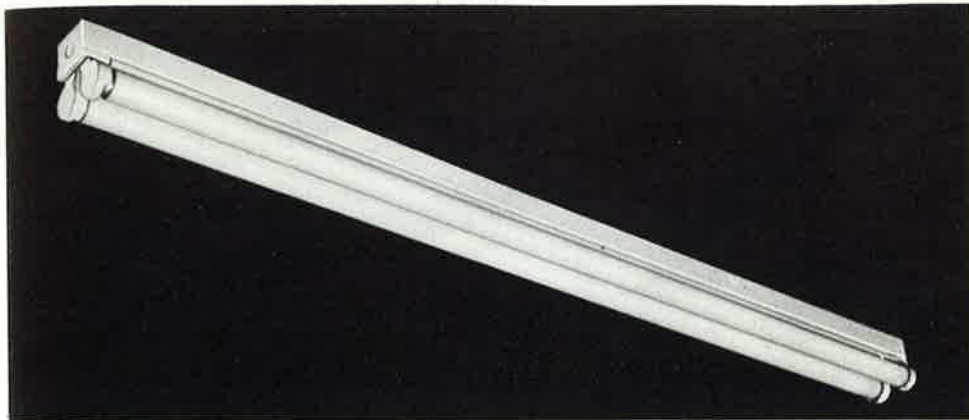


RANGE.

Nom. length	Rating	Circuit	Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
2ft	20W Single	Switchstart	PP.20	24.2	615	4.0	1.8	19.7	500
2ft	20W Twin	Switchstart	PP.220	24.2	615	4.75	2.16	19.7	500
4ft	40W Single	Switchstart	PP.40	48.2	1224	5.75	2.6	24.0	610
4ft	40W Twin	Switchstart	PP.240	48.2	1224	9.0	4.1	24.0	610
5ft	65W Single	Switchstart	PP.65	60.1	1525	7.5	3.4	24.0	610
5ft	65W Twin	Switchstart	PP.265	60.1	1525	12.0	5.45	24.0	610
6ft	85W Single	Resonant Start	PPQ.685	70.4	1788	9.5	4.32	24.0	610
6ft	85W Twin	Resonant Start	PPQ.2685	70.4	1788	14.75	6.7	24.0	610
8ft	125W Single	Switchstart	PP.125	94.4	2398	11.5	5.23	48.0	1220
8ft	125W Twin	Switchstart	PP.2125	94.4	2398	17.5	7.95	48.0	1220

atlas

Popular Pack slim twin batten fittings



This twin batten is designed with closely spaced lampholders and is the basis of a number of reflector fittings in the Popular Pack range.

Since it is intended for industrial use, the ends of the fitting are provided with knockouts permitting direct end to mounting.

Battens are made of sheet steel, bonderized and finished stark white.

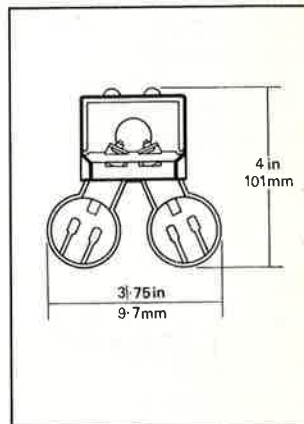
These fitting comply fully with BS 3820:1964 for Class 1 ordinary indoor, normal atmospheres.

SUPPLY VOLTAGE

Standard fittings 230/240 Hz. The fittings listed below can be supplied to order at the voltages shown at no extra charge.

4ft 40W 200/210, 220 & 250V
5ft 65W

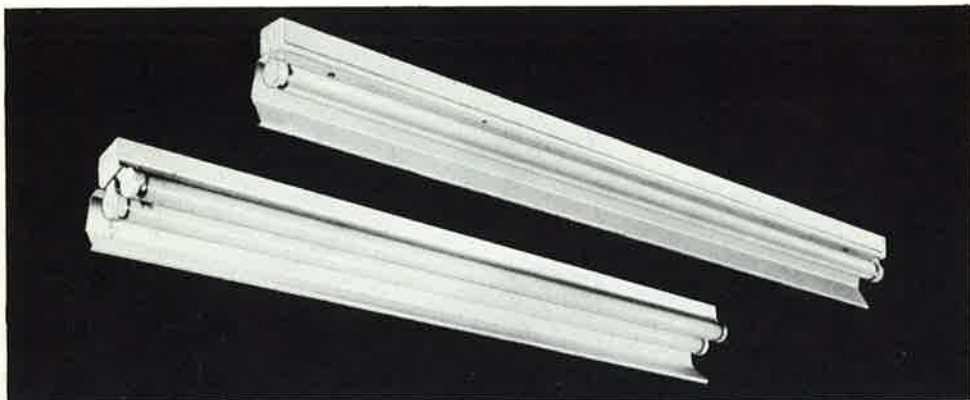
Details of fittings for other supplies on page 1:20.



RANGE: These fittings are packed complete with white tubes.

Nom. Length	Rating	Circuit	Cat. no.	Length		Weight (inc. tubes)		Fixing Centres	
				in	mm	lb	kg	in	mm
4ft	40W Twin	Switchstart	XPP/240	48.8	1241	9.0	4.1	24	610
5ft	65W Twin	Switchstart	XPP/265	60.8	1545	12.0	5.45	24	610
6ft	85W Twin	Resonant start	XPP/Q2685	71.1	1806	14.75	6.7	24	610
8ft	125W Twin	Switchstart	XPP/2125	95.1	2416	17.5	7.95	48	1220

PPA65



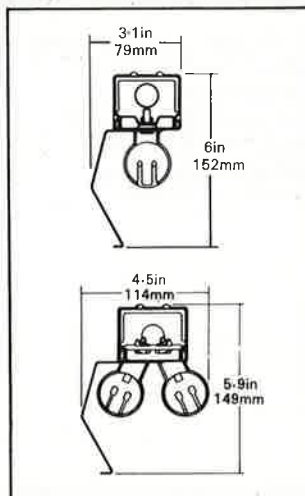
These are asymmetrical metal reflectors attached to the Popular Pack spine by means of screws fitted into slideable spring nuts retained in the spine. These screws engage into keyhole slots in the reflectors. Applications — blackboards, wall charts, shop window lighting, etc. Reflectors are finished in stark white stoved enamel for maximum reflection and fittings may be close ceiling or conduit mounted.

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

SUPPLY VOLTAGE

Standard fittings 230/240V 50Hz—
Fittings listed below can be supplied at the voltages shown to order at no extra charge.
40W 4ft } 200/210V, 220V and 250V
65W 5ft } 50Hz

Details of fittings for other supplies on page 119.



RANGE These fittings are packed complete with white tubes.

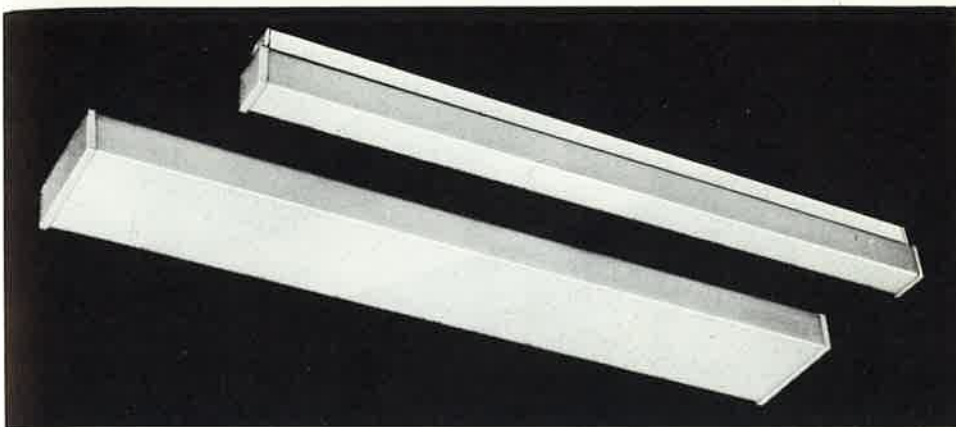
Nom. length	Rating	Circuit	Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm	Reflector Cat. no.
4ft	40W Single	Switchstart	PPA/40	48.2 1124	8.75 4.0	24 610	PPA.4
4ft	40W Twin	Switchstart	PPTA/240	48.8 1241	11.0 5.0	24 610	PPA.24
5ft	65W Single	Switchstart	PPA/65	60.1 1525	11.25 5.1	24 610	PPA.5
5ft	65W Twin	Switchstart	PPTA/265	60.8 1545	13.7 6.3	24 610	PPA.25
6ft	85W Single	Resonant Start	PPA/Q685	70.4 1788	13.25 6.0	24 610	PPA.6
6ft	85W Twin	Resonant Start	PPTA/Q2685	71.1 1806	16.5 7.5	24 610	PPA.26
8ft	125W Single	Switchstart	PPA/125	94.4 2398	17.25 7.85	48 1220	PPA.8
8ft	125W Twin	Switchstart	PPTA/2125	95.1 2416	22.0 9.7	48 1220	PPA.28

atlas

Popular Pack PPC prismatic controller fittings

PPC/265

PPC/65



These attachments are made of transparent extruded plastic with side prisms, the base is embossed with a fine prismatic pattern. They are quickly attached or detached from the batten by the 'clip on' action of the endcaps.

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

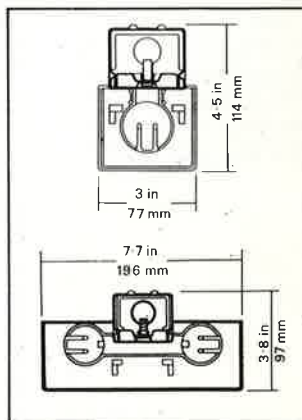
SUPPLY VOLTAGE

Standard fitting 230/240V 50Hz

Fittings listed below can be supplied to order at the voltages shown at no extra charge.

20W 2ft	}	200/210V, 220V and 250V 50Hz
40W 4ft		
65W 5ft		

Details of fittings for other supplies on page 1:19.



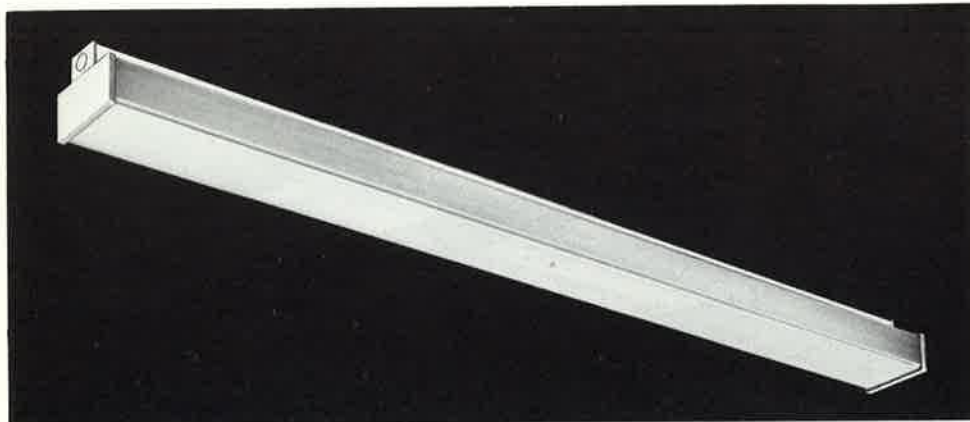
RANGE. These fittings are packed complete with White tube(s).

Norm. length	Rating	Circuit	Cat. no.	Length in mm		Weight lb kg		Fixing centres in mm		Diffuser Cat. no.
2ft	20W Single	Switchstart	PPC/20	25.1	638	4.64	2.1	19.7	500	PPC.2
2ft	20W Twin	Switchstart	PPC/220	25.1	638	6.25	2.84	19.7	500	PPC.22
4ft	40W Single	Switchstart	PPC/40	49.1	1248	7.0	3.2	24.0	610	PPC.4
4ft	40W Twin	Switchstart	PPC/240	49.1	1248	11.5	5.23	24.0	610	PPC.24
5ft	65W Single	Switchstart	PPC/65	61.0	1550	9.2	4.2	24.0	610	PPC.5
5ft	65W Twin	Switchstart	PPC/265	61.0	1550	13.5	6.2	24.0	610	PPC.25
6ft	85W Single	Resonant Start	PPC/Q685	71.4	1818	10.0	4.5	24.0	610	PPC.6
6ft	85W Twin	Resonant Start	PPC/Q2685	71.4	1818	14.3	6.5	24.0	610	PPC.26
8ft	125W Single	Switchstart	PPC/125	95.4	2428	14.4	6.5	48.0	1220	PPC.8
8ft	125W Twin	Switchstart	PPC/2125	95.4	2428	21.5	9.8	48.0	1220	PPC.28

atlas

Popular pack PPL prismatic controller fittings

PPL/Q685



This prismatic controller for single tube fitting is a larger version of the single PPC type.

The increased size makes a higher degree of light control possible and the attachment is designed to provide lower brightness lighting in situations where glare could present problems. These diffusers are quickly attachable or detachable from the batten by the 'clip on' action of the endcaps.

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

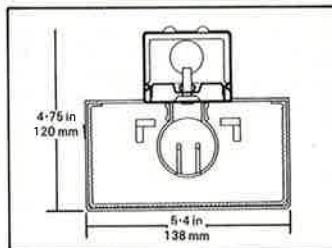
SUPPLY VOLTAGE

Standard fitting 230/240V 50Hz—

Fittings listed below can be supplied to order at the voltages shown, at no extra charge.

40W 4ft } 200/210V, 220V and 250V
65W 5ft } 50 Hz

Details of fittings for other supplies on page 1:19.



RANGE. These fittings are packed complete with White tube.

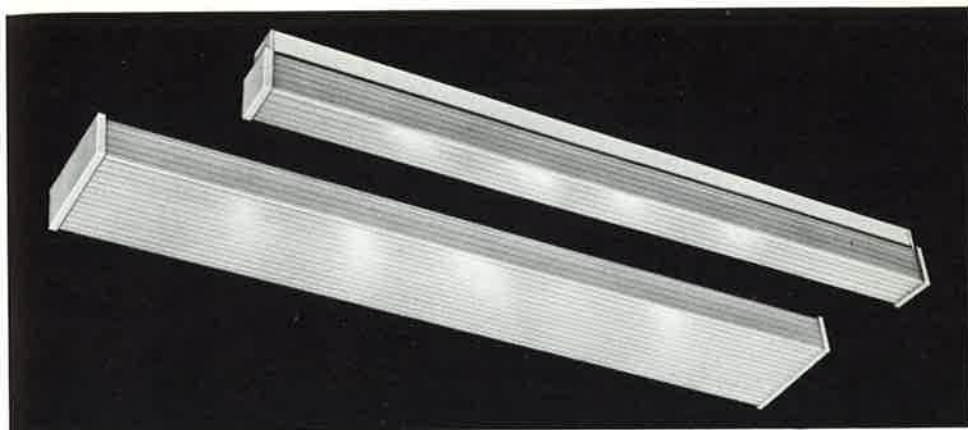
Nom. length	Rating	Circuit	Cat. no.	Length in	mm	Weight lb	kg	Fixing centres in	mm	Diffuser Cat. no.
4ft	40W Single	Switchstart	PPL/40	49.1	1248	8.0	3.6	24.0	610	PPL.4
5ft	65W Single	Switchstart	PPL/65	61.0	1550	10.25	4.7	24.0	610	PPL.5
6ft	85W Single	Resonant Start	PPL/Q685	71.4	1818	12.75	5.8	24.0	610	PPL.6
8ft	125W Single	Switchstart	PPL/125	95.4	2428	15.5	7.0	48.0	1220	PPL.8

atlas

Popular Pack PPD plastic diffuser fittings

PPD/265

PPD/65



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.

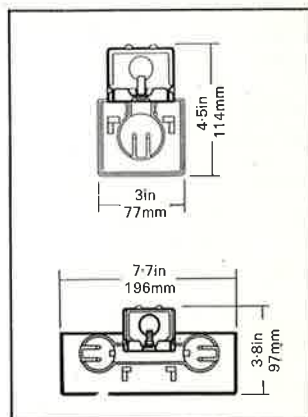
These fittings comply fully with BS 3820:1964 for Class 1, ordinary, indoor normal atmospheres.

SUPPLY VOLTAGE

Standard fitting 230/240V 50Hz—
Fittings listed below can be supplied to order at the voltages shown, at no extra charge.

20W 2ft	} 200/210V, 220V and 250V Hz
40W 4ft	
65W 5ft	

Details of fittings for other supplies on page 1:19.

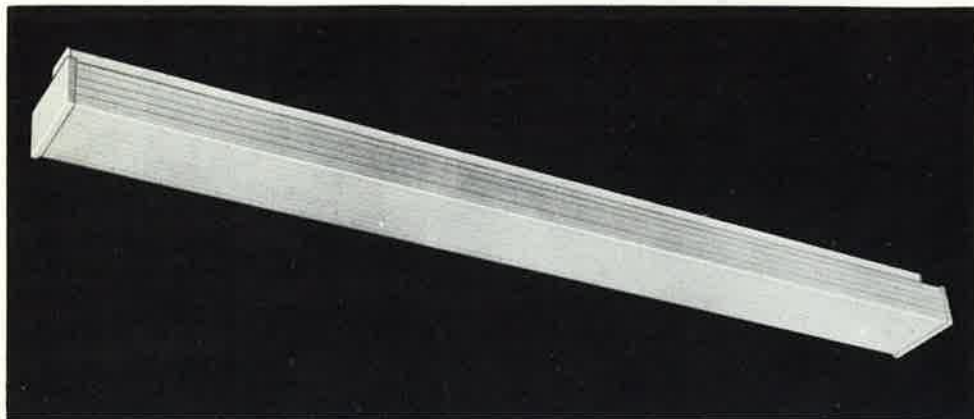


RANGE. These fittings are packed complete with White tube(s).

Nom. length	Rating	Circuit	Cat. no.	Length in	mm	Weight lb	kg	Fixing centres in	mm	Diffuser Cat. no.
2ft	20W Single	Switchstart	PPD/20	25.1	638	4.5	2.0	19.7	500	PPD.2
2ft	20W Twin	Switchstart	PPD/220	25.1	638	5.75	2.6	19.7	500	PPD.22
4ft	40W Single	Switchstart	PPD/40	49.1	1248	6.75	3.0	24.0	610	PPD.4
4ft	40W Twin	Switchstart	PPD/240	49.1	1248	11.0	5.0	24.0	610	PPD.24
5ft	65W Single	Switchstart	PPD/65	61.0	1550	8.75	4.0	24.0	610	PPD.5
5ft	65W Twin	Switchstart	PPD/265	61.0	1550	14.5	6.6	24.0	610	PPD.25
6ft	85W Single	Resonant Start	PPD/Q685	71.4	1818	10.75	4.9	24.0	610	PPD.6
6ft	85W Twin	Resonant Start	PPD/Q2685	71.4	1818	17.25	7.8	24.0	610	PPD.26
8ft	125W Single	Switchstart	PPD/125	95.4	2428	13.0	5.9	48.0	1220	PPD.8
8ft	125W Twin	Switchstart	PPD/2125	95.4	2428	21.25	9.6	48.0	1220	PPD.28

atlas Popular Pack PPM plastic diffuser fittings

PPM/Q685



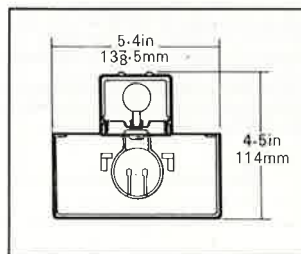
These attachments for single tube fittings are a larger version of the PPD type, but have a lower BZ rating, making them suitable in situations where such a fitting is specified. They are quickly attached and detached from the batten by the clip-on action of the endcaps.

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

SUPPLY VOLTAGE

Standard fittings 230/240V 50Hz, 20W 2ft, 40W 4ft and 65W 5ft fittings can be supplied to order at 200/210 and 220V 50Hz at no extra charge.

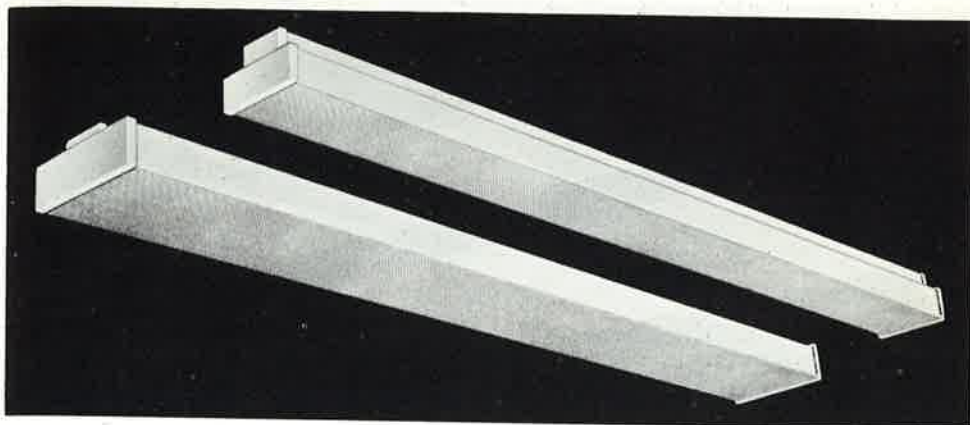
Details of fitting for other supplies on page 1:20



RANGE. These fittings are packed complete with White tube.

Nom. length	Rating	Circuit	Cat. no.	Length		Weight		Fixing centres		Diffuser Cat. no.
				in	mm	lb	kg	in	mm	
4ft	40W Single	Switchstart	PPM/40	49.1	1248	7.5	3.4	24.0	610	PPM.4
5ft	65W Single	Switchstart	PPM/65	61.0	1550	9.5	4.3	24.0	610	PPM.5
6ft	85W Single	Resonant Start	PPM/6885	71.4	1818	12.0	5.5	24.0	610	PPM.6
8ft	125W Single	Switchstart	PPM/125	95.4	2428	14.75	6.7	48.0	1220	PPM.8

Popular Pack Opal sided prismatic controller fittings **atlas**



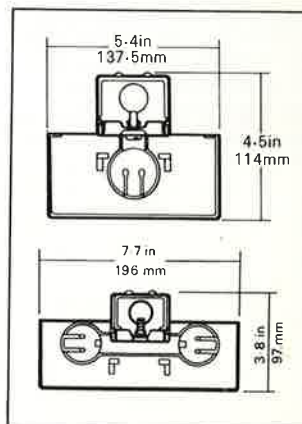
These attachments are for use in situations where visual comfort is of primary importance. The sides have an opal finish and the base is embossed with a fine prismatic pattern.

They are quickly and easily attached or detached from the batten by the "clip-on" action of the end-caps.

These fittings comply fully with BS 3820:1964 for class 1 ordinary, indoor normal atmospheres.

SUPPLY VOLTAGE

Standard fittings 220/240V 50Hz, 4ft 40W and 5ft 65W fittings can be supplied to special order at 200/210V, 220V and 250V 50Hz at no extra charge.



RANGE: These fittings are packed complete with white tubes.

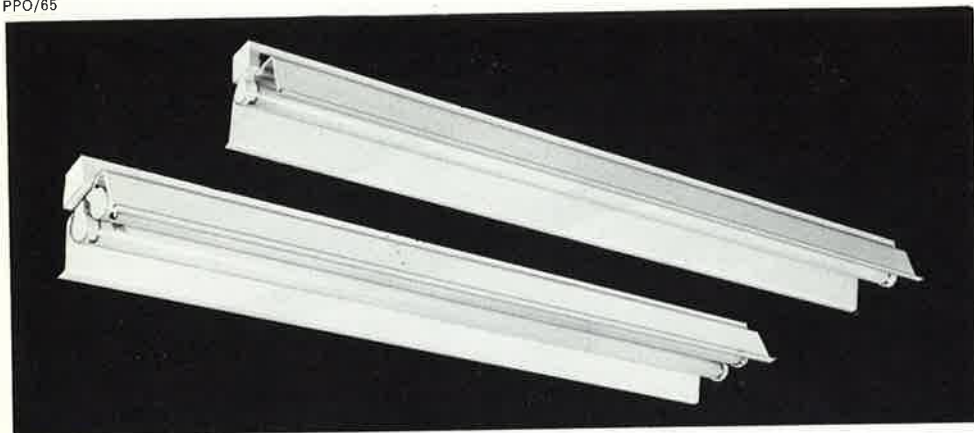
Nom. length	Rating	Circuit	Cat. no.	Length		Weight		Fixing centres		Diffuser
				in	mm	lb	kg	in	mm	Cat. no.
4ft	40W Single	Switchstart	PPE/40	49.1	1248	7.5	3.4	24.0	610	PPE.4
4ft	40W Twin	Switchstart	PPE/240	49.1	1248	11.5	5.23	24.0	610	PPE.24
5ft	65W Single	Switchstart	PPE/65	61.0	1550	9.75	4.52	24.0	610	PPE.5
5ft	65W Twin	Switchstart	PPE/265	61.0	1550	13.5	6.2	24.0	610	PPE.25
6ft	85W Single	Resonant start	PPE/685	71.4	1818	12.25	5.67	24.0	610	PPE.6
6ft	85W Twin	Resonant start	PPE/O2685	71.4	1818	14.3	6.5	24.0	610	PPE.26
8ft	125W Single	Switchstart	PPE/125	95.4	2428	15.0	6.8	48.0	1220	PPE.8
8ft	125W Twin	Switchstart	PPE/2125	95.4	2428	21.5	9.8	48.0	1220	PPE.28

Details of fittings for other supplies on page 1:20

atlas

Popular Pack PPO and PPTO plastic reflector fittings

PPO/65



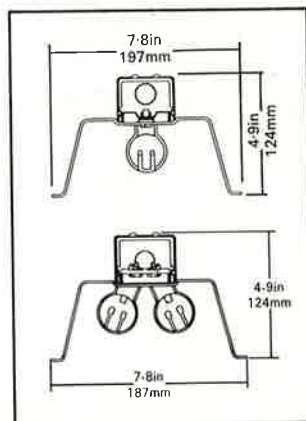
This opal plastic trough reflector provides generous upward light and an even spread of light in the downward plane. The plastic material is strong and sufficiently light-fast to maintain its efficiency with adequate maintenance throughout the life of the fitting. The reflector is easily attached to the spine by two screws retained by slideable spring nuts.

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

SUPPLY VOLTAGE

Standard fitting 230/240V 50Hz—the following 50Hz voltages are also available for 4ft 40W and 5ft 65W fittings at no extra charge.

200/210V, 220V and 250V
Details of fittings for other supplies on page 1:19.



RANGE

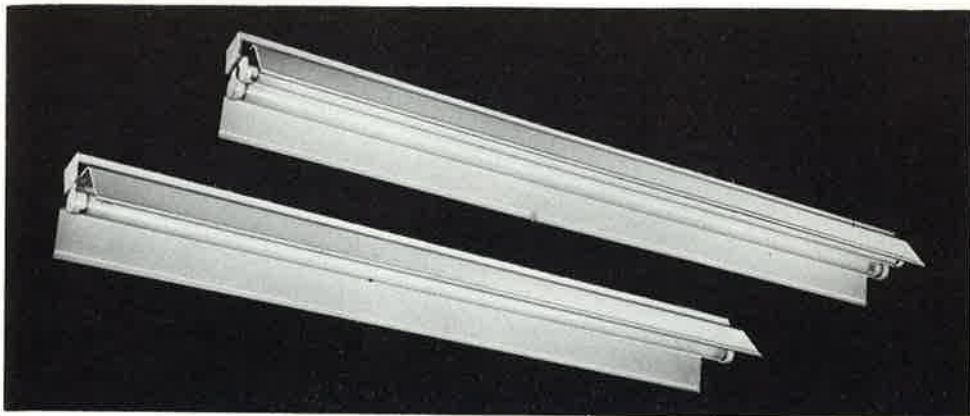
Nom. length	Rating	Circuit	Cat. no.	Length		Weight		Fixing centres		Reflector Cat. no.
				in	mm	lb	kg	in	mm	
4ft	40W Single	Switchstart	PPO/40	48.2	1224	7.7	3.5	24	610	PPQ.4
4ft	40W Twin	Switchstart	PPTO/240	48.8	1241	12.0	5.2	24	610	PPQ.4
5ft	65W Single	Switchstart	PPO/65	60.1	1525	10.1	4.6	24	610	PPO.5
5ft	65W Twin	Switchstart	PPTO/265	60.8	1545	15.0	7.0	24	610	PPO.5
6ft	85W Single	Resonant Start	PPO/Q685	70.4	1788	12.5	5.3	24	610	PPQ.6
6ft	85W Twin	Resonant Start	PPTO/Q2685	71.1	1806	18.0	8.5	24	610	PPO.6
8ft	125W Single	Switchstart	PPO/125	94.4	2398	15.5	7.1	48	1220	PPO.8
8ft	125W Twin	Switchstart	PPTO/2125	95.1	2416	24.0	10.8	48	1220	PPO.8

atlas

Popular Pack PPR metal reflector

PPR/65

PPR/265



These open-ended slotted metal trough reflectors give generous upward lighting. Finished in stark white stoved enamel, they are easily fitted by means of sliding captive screws providing extremely attractive and efficient attachments. These reflectors are suitable for many industrial applications where high efficiency and easy maintenance are important features.

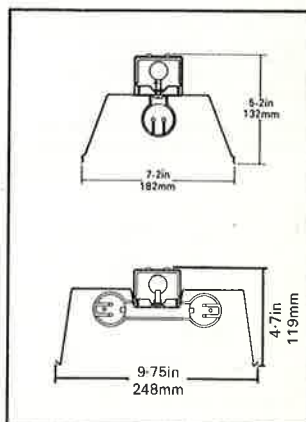
These fittings comply fully with BS.3820:1964 for Class 1, ordinary, indoor, normal atmospheres.

SUPPLY VOLTAGE

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

40W 4ft } 200/210V, 220V and 250V
65W 5ft }

Details of fittings for other supplies on page 1:19.



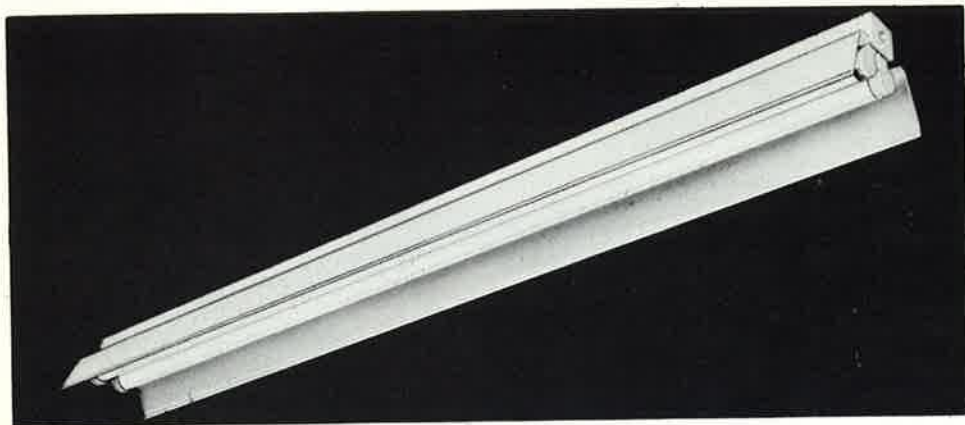
RANGE These fittings are packed complete with white tubes.

Nom. length	Rating	Circuit	Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm	Reflector Cat. no.
4ft	40W Single	Switchstart	PPR/40	48.2 1224	10.5 4.75	24 610	PPR,4
4ft	40W Twin	Switchstart	PPR/240	48.2 1224	15.0 6.8	24 610	PPR,24
5ft	65W Single	Switchstart	PPR/65	60.1 1525	13.75 6.3	24 610	PPR,5
5ft	65W Twin	Switchstart	PPR/265	60.1 1525	18.3 8.3	24 610	PPR,25
6ft	85W Single	Resonant Start	PPR/Q685	70.4 1788	16.5 7.5	24 610	PPR,6
6ft	85W Twin	Resonant Start	PPR/Q2685	70.4 1788	22.5 10.2	24 610	PPR,26
8ft	125W Single	Switchstart	PPR/125	94.4 2398	20.25 9.2	48 1220	PPR,8
8ft	125W Twin	Switchstart	PPR/2125	94.4 2398	30.8 14.0	48 1220	PPR,28

atlas

Popular Pack 'Twindustrial' twin reflector fittings

PPTO/2685



These twin, open-ended slotted metal reflector fittings incorporate 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 reflector to be employed.

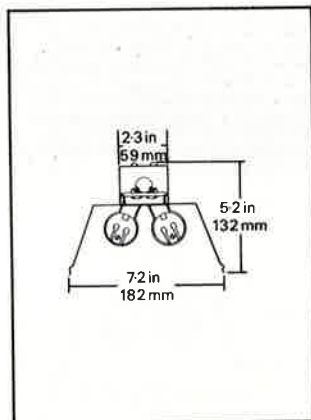
This fitting complies fully with BS 3820:1964 for Class 1, ordinary, indoor normal atmospheres.

SUPPLY VOLTAGE

Standard fitting 230/240V 50Hz.

Fittings listed below can be supplied to order at the voltages shown at no extra charge.

40W 4ft 200/210V, 220V,
65W 5ft and 250V 50Hz.
Details of fittings for other supplies on page 1:19.



RANGE These fittings are packed complete with White tube(s).

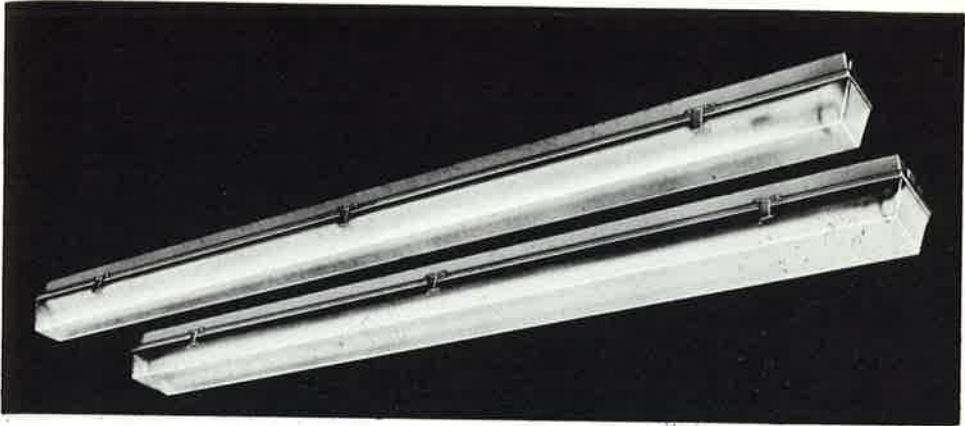
Nom. Length	Rating	Circuit	Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm	Reflector Cat. no.
4ft	40W Twin	Switchstart	PPT/240	48.8 1241	13.0 5.5	24 610	PPT.24
5ft	65W Twin	Switchstart	PPT/265	60.8 1545	16.2 7.2	24 610	PPT.25
6ft	85W Twin	Resonant Start	PPT/Q2685	71.1 1806	19.25 8.8	24 610	PPT.26
8ft	125W Twin	Switchstart	PPT/2125	95.1 2416	26.0 11.0	48 1220	PPT.28

atlas

Popular Pack PPU Sentinel fittings

PPQ 685 and PPU 6

PPUQ 2685



Sentinel enclosures combined with 6ft Popular Pack fittings fulfil 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 is employed.

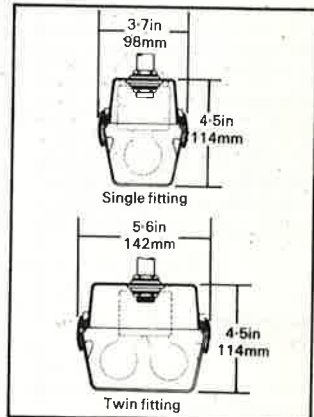
Although functional in design the grey glass fibre canopy and clear stippled lower enclosure form a combination which is attractive in appearance and tough in use.

These fittings comply fully with BS 3820:1964 for categories - Class 1, rainproof, dustproof, outdoors and chemically corrosive.

SUPPLY VOLTAGE

Standard fitting 230/240V 50Hz.

Details of fittings for other supplies on page 1:19.

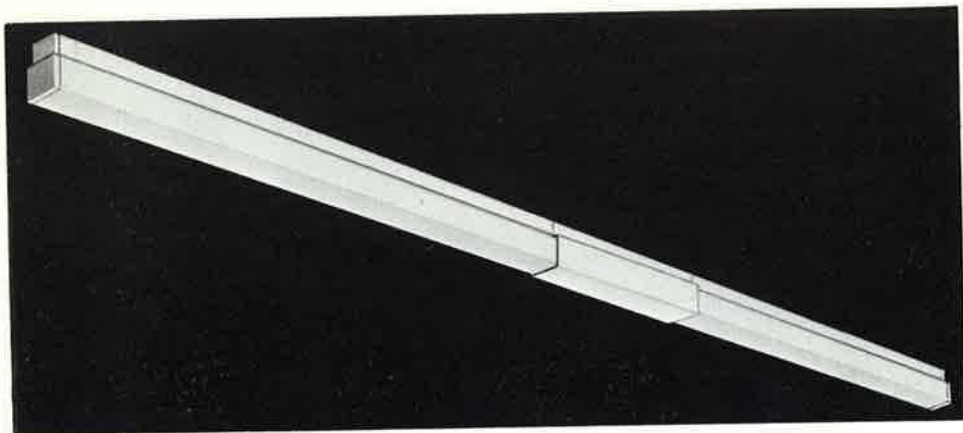


RANGE. These fittings are packed complete with White tube(s).

Nom. length	Rating	Circuit	Cat. no.	Description	Length		Fixing centres		Weight	
					in	mm	in	mm	lb	kg
6ft	85W Single	Resonant Start	PPQ685	Single 6ft 85W batten	72.8	1850	24	610	13	5.9
			PPU6	Single tube enclosure	72.8	1850	24	610	13	5.9
6ft	85W Twin	Resonant Start	PPUQ2685	Twin Sentinel fitting	72.8	1850	24	610	20	9.1

atlas

Popular Pack One-Plus-One attachment



The One-Plus-One 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 (PPD) or prismatic controller (PPC) Single tube attachments.

It should be noted that the One-Plus-One is suitable for ceiling mounting only.

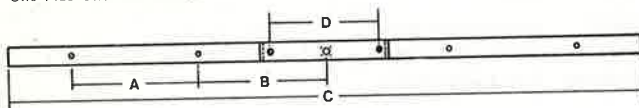
These fittings comply fully with BS.3820 :1964 for Class 1, ordinary, indoor, normal atmospheres when used in conjunction with Popular Pack fittings mentioned.

Cat. no.	Length in	mm	Weight lb	kg	Fixing centres in	mm
AMEM 6180 One-Plus-One	24	610	3.25	1.5	18	457 and centre BS box piercing

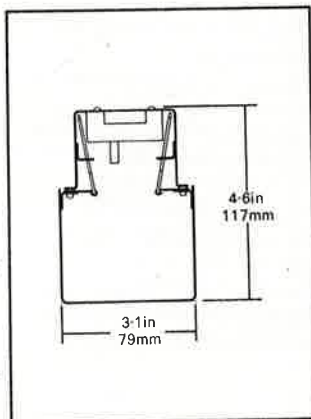
Details of single tube fittings for use with the One-Plus-One attachment are given on pages 1:7 and 1:9.

ARRANGEMENT DATA

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



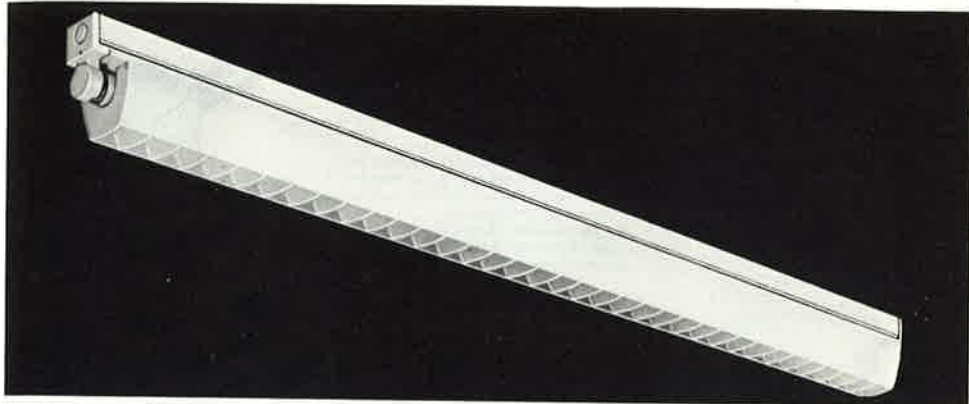
Nom. fitting size	A		B		C PPC or PPD		D	
	in	mm	in	mm	in	mm	in	mm
2ft	19.7	500	14.06	357	72.93	1852	18	457
4ft	24	610	23.91	607	120.93	3070	18	457
5ft	24	610	29.86	758	144.73	3655	18	457
6ft	24	610	35.01	889	165.33	4199	18	457
8ft	48	1220	35.01	889	213.33	5418	18	457



atlas

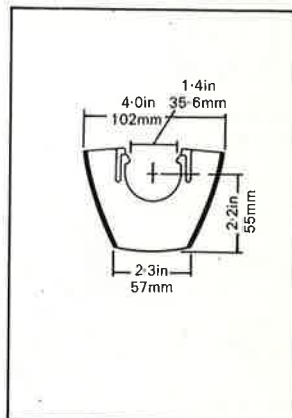
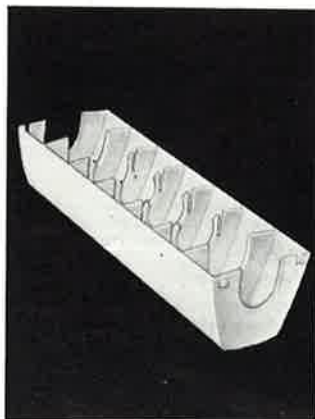
Popular Pack Clipluve sectional louvers

KU5.P 'Clipluve' on PP.65 Batten



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 11.5in (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'.

Cat. no.	Description
KU5.P	5 piece pack



atlas

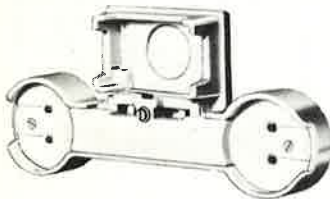
Popular Pack accessories



AME B1562
Single bi-pin white plastic grip-pin lampholder.



AMEB 1548/A3
Replacement lampholder for Twin industrial and twin Sentinel fittings.



AME B1563
Wide twin bi-pin white plastic grip-pin lampholder.



PP 4601
Used with PP 4602 screw to fix single and twin Popular Pack metal attachments.



PP4612
End cap for single tube PPC and PPD diffusers. Complete with fixing spring.



PP4616
Clip-in fused terminal block assembly with 3A fuse. Primary use for Popular Pack fitting when used on Trakline. Encroaches on centre entry on 2ft. 20W twin only. Not for use in 6ft. fittings. These contain a fuse as standard practice. Standard quantity 5 per pack.



AME M6064/12/Loop Starter Socket
White PVC moulding enclosing starter switch contacts crimped to 12 in loop 14/0076 white PVC cable which can be cut at a point to suit wiring layout. Current item for 2ft fittings and for earlier Popular Pack fittings in other sizes.



PP 4602
Reflector and Coverplate fixing screw.



AMET 1281/3
Three way terminal block. Will accept two 3/036 cables twisted together.



PP4613
End cap for twin tube PPC and PPD diffusers. Complete with fixing spring.



AME A5051
Current Starter Socket.



AME A5019/X Starter Socket
Used in earlier Popular Pack fittings. Fixed by clip **AMEY5285**



PP 4600
Lampholder Tension spring for single and twin fittings.



AMEY 5283
Fixing clip for 1 1/2 in dia capacitors **AMEY 5273** should be used for 1 1/2 in dia tubes.



PP 4609
Replacement plastic clip for Sentinel fittings.



FUSE
For use in 6ft 85W Popular Pack fittings. BS1362 dimensions.

AME T1342 1.25 amp single and twin tube



PP4617
End cap for single tube PPE, PPL & PPM diffusers complete with fixing spring.

ELECTRICAL DATA for 240V 50Hz Single tube circuits. Average performance tested at 25°C to BS 2818 specification.

Tube size	8ft	6ft	5ft	4ft	2ft
Diameter	1½ in	1½ in	1½ in	1½ in	1½ in
Nominal tube watts	125	85	65	40	20
Circuit diagram	2	7	1	1	1 (single) 10 (twin)
Actual lamp watts	121	84	63	39.6	19.5
Average tube volts	153	123	112	103	58
Average tube amps	0.92	0.77	0.67	0.44	0.37
Rated life (hours)	7,500	7,500	7,500	7,500	5,000
Circuit type	SS	SRS	SS	SS	SS
Total circuit watts	145*	103*	79*	51*	30*
Mains current amps	0.92	0.50	0.39	0.25	0.37
Total volt amps	220	120	93	60	90
Lagging power factor	0.66‡	0.86	0.85	0.85	0.34**
Min. starting temperature	0°C	-5°C	0°C	0°C	0°C
% Harmonics per phase	14%	25%	17%	17%	17%

**Uncorrected value, for single tube operation.

‡ Leading power factor. SRS – Semi Resonant Start. SS – Switchstart.

† The above circuit watts for control gear tested in accordance with BS 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.

REPLACEMENT CONTROL GEAR

These items are selected from the extensive range of control gear for UK Regional stocking to give ready availability. The reference numbers quoted will be different from those marked on the control gear in the fitting, but the units are equally applicable to Popular Pack fittings.

		Choke(s)	Capacitor(s)	Starter Switch(es)
125W 8ft	Single Tube	1 – CU/125	1 – AMEC 2173	1 – 155/800
	Twin Tube	2 – CU/125	2 – AMEC 2173	2 – 155/800
85W 6ft	Single Tube	1 – BU/685	1 – AMEC 2220	—
	Twin Tube	2 – BU/685	2 – AMEC 2220	—
65W 5ft	Single Tube	1 – CU/65	1 – AMEC 2241	1 – 155/500
	Twin Tube	2 – CU/65	1 – AMEC 2274	2 – 155/500
40W 4ft	Single Tube	1 – CU/40	1 – AMEC 2092	1 – 155/500
	Twin Tube	2 – CU/40	1 – AMEC 2221	2 – 155/500
20W 2ft	Single Tube	1 – CU/20	—	1 – 155/200
	Twin Tube	1 – CU/40	1 – AMEC 2092	2 – 155/200

A The standard electricity supply in UK is 230/240V 50 Hz and fittings suitable for this supply are standard stock lines.

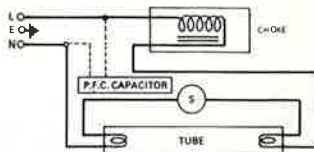
B Other voltage 50 Hz fittings are available as shown below at no extra charge in UK. Delivery and details on application.

20W 2ft	} 200/210V, 220V and 250V
40W 4ft	
65W 5ft	

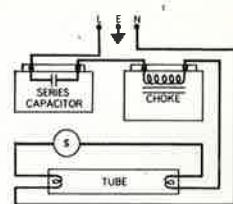
C Popular Pack fittings are also available outside UK for the following electricity supplies. Price and delivery details on application.

SS— Switchstart

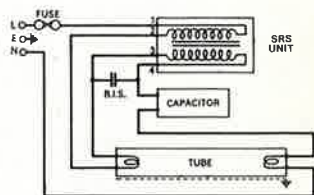
230/240V 50Hz CIRCUIT DIAGRAMS



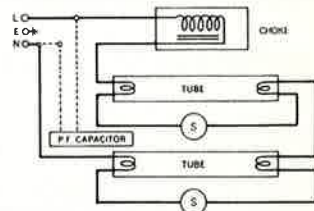
1 Standard starter switch circuit with optional PFC capacitor



2 Leading power factor starter switch circuit



7 6ft 85w Semi-resonant start circuit



10 Starter switch circuit for series pair tube operation

	CCT	50 Hz	60 Hz
125W 8ft	Leading SS only	220V	—
85W 6ft	HPF, SRS only	220V	—
65W 5ft	HPF or LPF, SS	110/120V (twin fittings LPF only) 200/210V, 220V, 230/240V, 250V	110/120V (twin fittings LPF only) 200/210V, 220V, 230/240V.
40W 4ft	HPF or LPF, SS	110/120V, 127V 200/210V, 220V, 230/240V, 250V	110/120V 200/210V, 220V, 230/240V.
20W 2ft	HPF or LPF, SS	110/120V 200/210V, 220V, 230/240V, 250V	110/120V 200/210V, 220V, 230/240V.

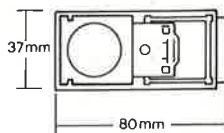
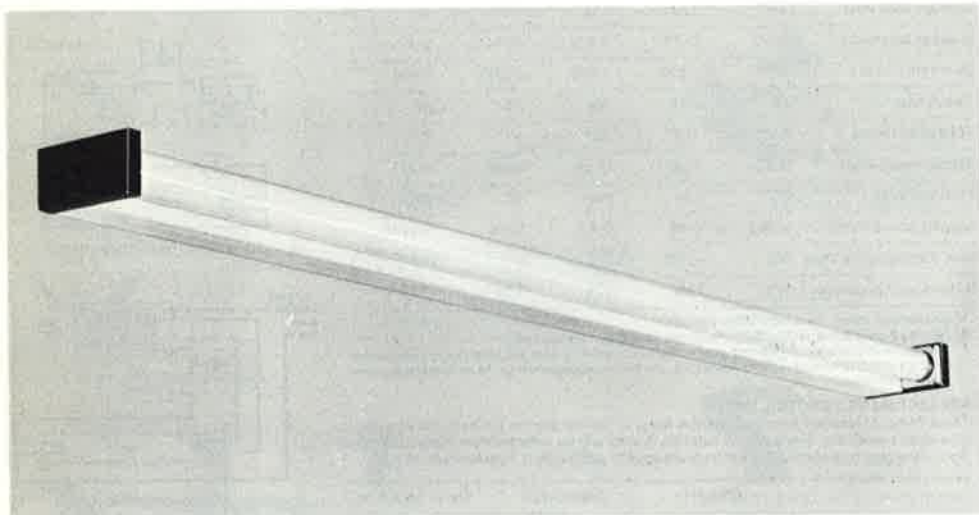
atlas mazda

New Arrow-slim AS batten fittings

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

In exceptionally quiet locations the small amount of noise emitted by these fittings should be considered. For this reason 5ft fittings are not suitable for domestic use. Noise can be limited by the use of rubber grommets to "soften" the mounting.

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



AS/30
AS/50

RANGE

Complete fitting

Rating	Circuit	Cat. no.	Length in	mm	Weight lb	kg	Fixing centres in	mm
30w Single	Switchstart	AS.30	36	914	4.0	1.82	23.6-24	600-610
50w Single	Switchstart	AS.50	59.8	1519	5.8	2.64	23.6-24	600-610

These are packed complete with Warm White tube.

Voltages: These fittings are suitable for 230/240v 50Hz. Details of fittings suitable for other supplies are available on application.

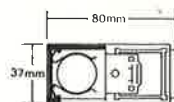
*The 5ft 50w New Arrow-slim range will be available as from November 1971. In the meantime the present 5ft LX range will continue to be available.

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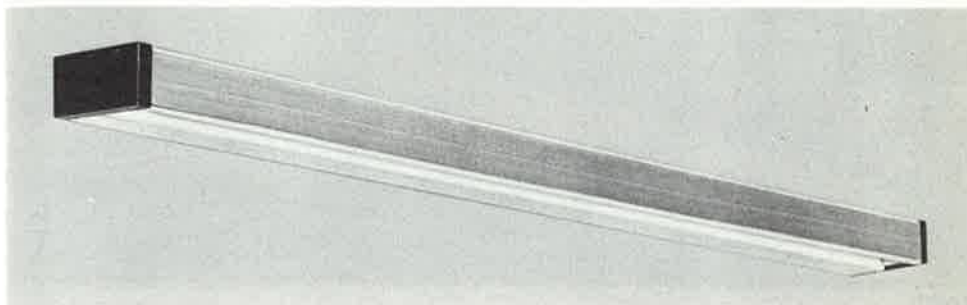
New Arrow-slim ASG, ASO & ASC attachments

ASG (GOLD) and ASO (ORANGE) ATTACHMENTS:

These attachments are slim acrylic extrusions to which is applied a plasticised fabric trim in gold or orange colour. The attachments are retained in position on the wall mounted fitting by engagement with the lampholders.



ASO/30 ASG 30

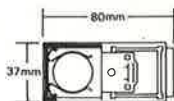


RANGE

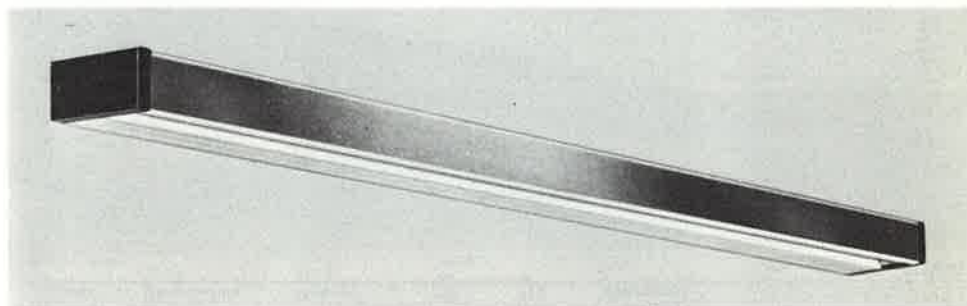
Rating	Circuit	Complete Fitting		Length		Weight		Fixing centres		Attach. Cat. no.
		Cat. no.		in	mm	lb	kg	in	mm	
30w Single	Switchstart	ASG/30		36	914	4.4	2.0	23-6-24	600-610	ASG.3
30w Single	Switchstart	ASO/30		36	914	4.4	2.0	23-6-24	600-610	ASO.3

ASC ATTACHMENTS:

This attachment is similar in construction to those above except that the front trim has the appearance of brushed copper.



ASC/30



RANGE

Rating	Circuit	Complete Fitting		Length		Weight		Fixing centres		Attach. Cat. no.
		Cat. no.		in	mm	lb	kg	in	mm	
30w Single	Switchstart	ASC30		36	914	4.4	2.0	23-6-24	600-610	ASC.3

These fittings are packed complete with a Warm White tube. Voltages: These fittings are suitable for 230/240V. 50Hz. Details of fittings suitable for other supplies are available on application.

In exceptionally quiet locations the small amount of noise emitted by these fittings should be considered.

Noise can be limited by the use of rubber grommets to "soften" the mounting. Fluorescent fittings (except special types) are unsuitable for situations where very frequent switching takes place.

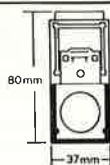
Push switch. A push switch AS 4601 is available for wall mounted fittings.

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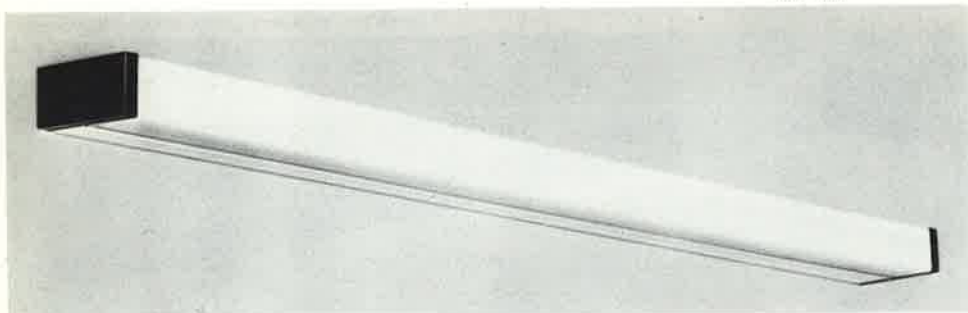
New Arrow-slim ASU and ASF attachments

ASU ATTACHMENT:

A closely fitting acrylic extrusion forming in conjunction with the 3ft batten an extremely slim diffuser fitting for many lighting purposes. The attachment is fixed to the basic fitting by engagement with the lampholders.



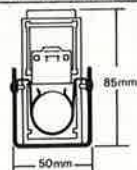
ASU/30



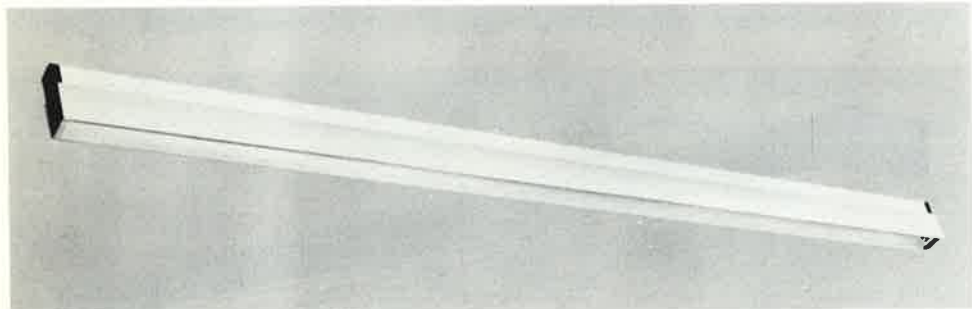
RANGE

Rating	Circuit	Complete Fitting		Length		Weight		Fixing centres		Attach. Cat. no.
		Cat. no.		in	mm	lb	kg	in	mm	
30w Single	Switchstart	ASU/30		36	914	4.46	2.03	23-6-24	600-610	ASU.3

ASF two-tone 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. Fixing is by means of spring clips fitted to the end of the diffuser.



ASF/50



RANGE

Rating	Circuit	Complete Fitting		Length		Weight		Fixing centres		Attach. Cat. no.
		Cat. no.		in	mm	lb	kg	in	mm	
*50W Single	Switchstart	ASF/50		59.8	1519	6.8	3.1	23-6-24	600-610	ASF.5

A set of two clips and plastic studs for ASF attachments, cat. no. AS4610, is available as a replacement item.

These fittings are packed complete with Warm White tube. Voltages: These fittings are suitable for 230/240V. 50Hz. Details of fittings suitable for other supplies are available on application.

In exceptionally quiet locations the small amount of noise emitted by these fittings should be considered.

For this reason 5ft fittings are not suitable for domestic use. Noise can be limited by the use of rubber grommets to "soften" the mounting.

Noise can be limited by the use of rubber grommets to "soften" the mounting.

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

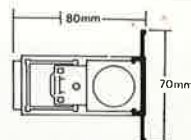
*The 5ft 50w New Arrow-slim range will be available as from November 1971. In the meantime the present 5ft LX range will continue to be available.

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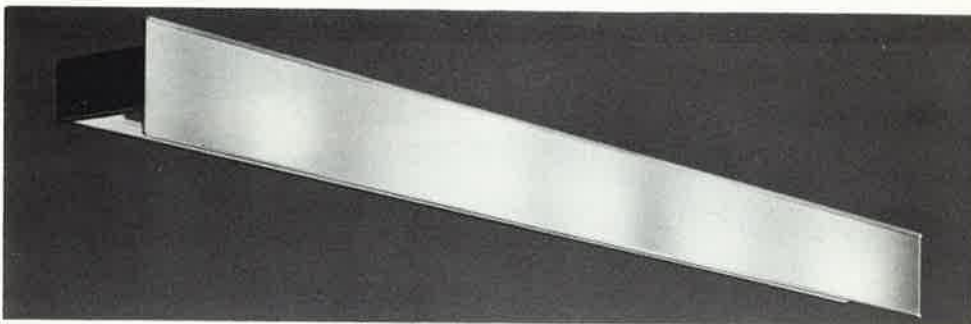
New Arrow-slim ASA, ASB & ASR attachments

ASA ATTACHMENTS:

Satin etched front baffles in extruded aluminium for upward and downward lighting and a sophisticated decorative appearance.



ASA/30 ASA/50



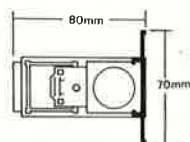
RANGE:

Complete Fitting Rating	Circuit	Cat. no.	Length ins	mm	Weight lb	kg	Fixing Centres ins	mm	Attach. Cat. no.
30W Single	Switchstart	ASA/30	36	915	4.86	2.21	23-6-24	600-610	ASA.3
*50W Single	Switchstart	ASA/50	59.8	1520	7.24	3.28	23-6-24	600-610	ASA.5

ASB (BEIGE) AND ASR (RED) ATTACHMENTS:

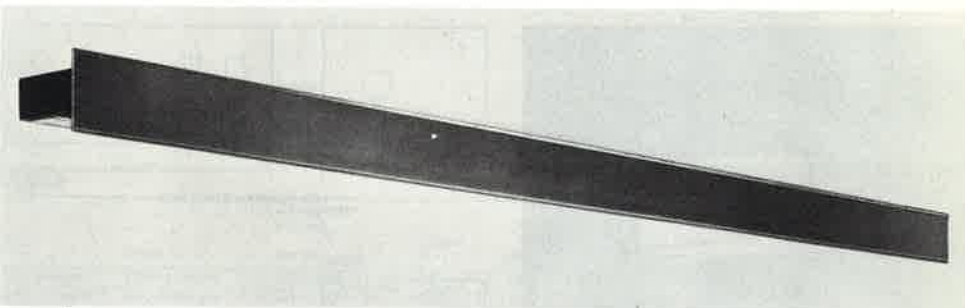
Aluminium front baffles to which trims having the appearance of beige or red leather are applied.

These attachments are retained in position on the wall mounted fittings by engagement with the lampholders.



ASB/30 ASB/50

ASR/30 ASR/50



RANGE:

Complete Fitting Rating	Circuit	Cat. no.	Length ins	mm	Weight lb	kg	Fixing Centres ins	mm	Attach. Cat. no.
30W Single	Switchstart	ASB/30	36	915	4.93	2.24	23-6-24	600-610	ASB.3
*50W Single	Switchstart	ASB/50	59.8	1520	7.37	3.35	23-6-24	600-610	ASB.5
30W Single	Switchstart	ASR/30	36	915	4.93	2.24	23-6-24	600-610	ASR.3
*50W Single	Switchstart	ASR/50	59.8	1520	7.37	3.35	23-6-24	600-610	ASR.5

These fittings are packed complete with a Warm White tube. Voltages: These fittings are suitable for 230/240V, 50Hz. Details of fittings suitable for other supplies are available on application.

In exceptionally quiet locations the small amount of noise emitted by these fittings should be considered. For this reason 5ft fittings are not suitable for domestic use.

Noise can be limited by the use of rubber grommets to "soften" the mounting.

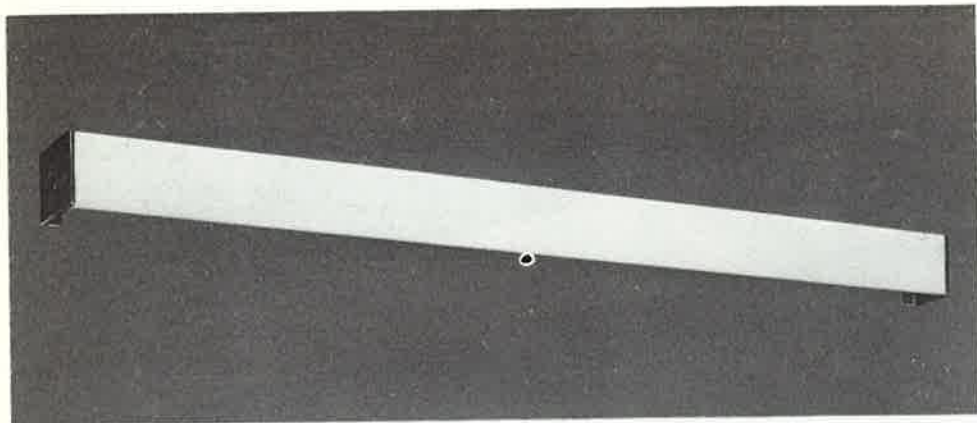
Fluorescent fittings (except special types) are unsuitable for situations where very frequent switching takes place.

Push switch. A push switch AS 4601 is available for wall mounted fittings.

*The 5ft 50W New Arrow-slim range will be available as from November 1971. In the meantime the present 5ft LX range will continue to be available.

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New Arrow-slim ASK attachment



ASK ATTACHMENT:

This is a baffle in white stoved enamelled steel designed for use under wall-mounted cabinets in kitchens to provide light over working surfaces. The ends of the baffle are closed by black plastic end-plates to give an attractive and streamlined appearance and to conceal the batten fitting within the baffle.

A separate box, incorporating switches and a 13 amp socket outlet, in brushed stainless steel can be used with the baffle providing a convenient kettle or mixer point.

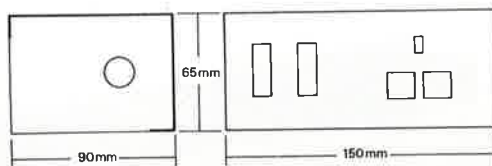
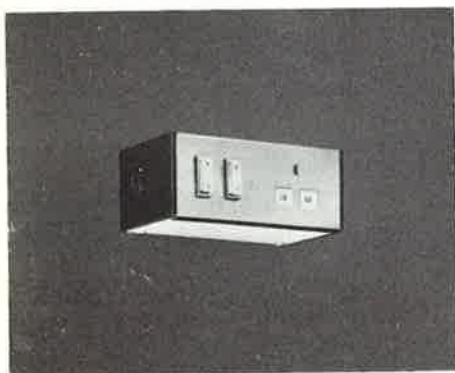
These fittings are packed complete with Warm White tube. Voltages: These fittings are suitable for 230/240V, 50Hz. Details of fittings suitable for other supplies are available on application.

In exceptionally quiet locations the small amount of noise emitted by these fittings should be considered.

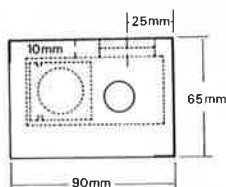
Noise can be limited by the use of rubber grommets to "soften" the mounting.

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

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



BS CONTROL BOX ASKH.



KITCHEN BAFFLE ASK/30

RANGE

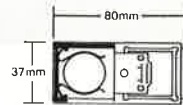
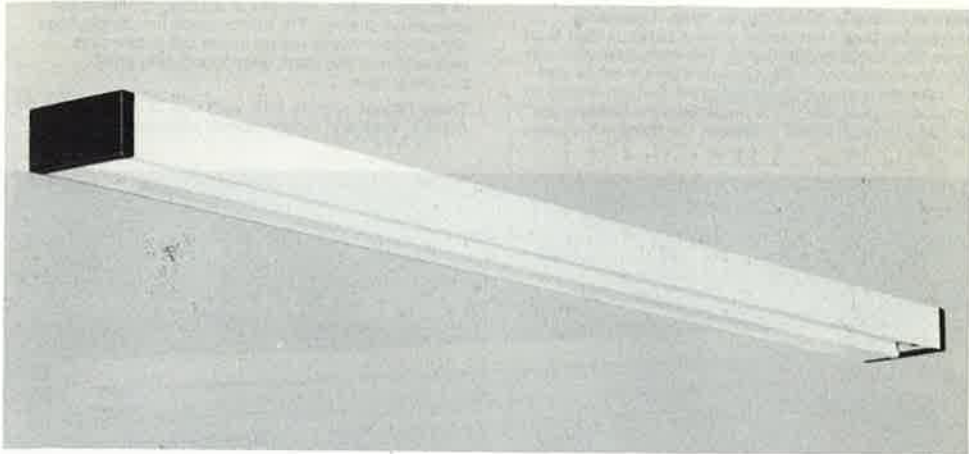
Complete Fitting Rating	Circuit	Cat. no.	Length ins	mm	Weight lb	kg	Fixing Centres ins	mm	Attach. Cat. no.
30W Single	Switchstart	ASK/30	39.4	1000	6.0	2.73	23.8	605	ASK.3
13 A Socket Box	—	ASKH	5.9	150	1.0	0.45	4.0	100	—

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New Arrow slim ASD diffuser

This diffuser is extruded from opal acrylic and is easily attached to the fitting. The diffuser may be used with a wall mounted batten fitting to give unobstructed downward light

and general diffused upward light. A pushswitch AS4601 is available for wall mounted fittings.



ASD/30 (Clips supplied
ASD/50 with 5ft only)

RANGE

Rating	Circuit	Complete Fitting Cat. no.	Length		Weight		Fixing centres		Diffuser Cat. no.
			in	mm	lb	kg	in	mm	
30w Single	Switchstart	ASD/30	36	914	4.4	2.0	23-6-24	600-610	ASD.3
50w Single	Switchstart	ASD/50	59.8	1519	6.4	2.92	23-6-24	600-610	ASD.5

These fittings are packed complete with Warm White tube.

Voltages: These fittings are suitable for 230/240V. 50Hz.
Details of fittings suitable for other supplies are available on application.

In exceptionally quiet locations the small amount of noise emitted by these fittings should be considered. For this reason 5ft fittings are not suitable for domestic use.
Noise can be limited by the use of rubber grommets to "soften" the mounting.

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

*The 5ft 50w New Arrow-slim range will be available as from November 1971. In the meantime the present 5ft LX range will continue to be available.

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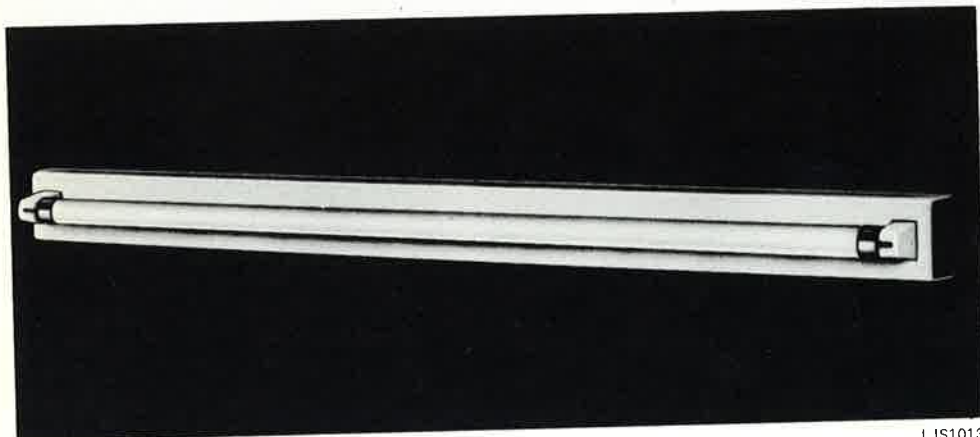
LJ Series Minipack fittings

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 $\frac{3}{4}$ in long version gives more light than a 40w tungsten lamp. Especially impressive, the 21 $\frac{3}{4}$ in model gives a better output than three 30w tungsten striplights. 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.

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.

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



LJS1013

RANGE

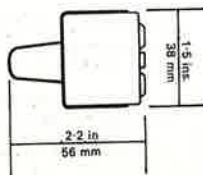
Rating	Circuit	Complete Fitting	Length		Weight		Fixing centres	
		Cat. no.	in	mm	lb	kg	in	mm
8w Single	Switchstart	LJ.S1008.H	12.75	324	2.0	0.85	11	279
13w Single	Switchstart	LJ.S1013.H	21.75	552	2.5	1.1	18	457

These fittings are packed complete with Warm White tubes.

Voltages: These fittings are suitable for 230/250V, 50Hz.

Details of fittings suitable for other supplies are available on application.

The range of low voltage D.C. transistorised Minipacks has been superseded by the 'Nomad' range of fittings. For details of this new range please see page 1:27.

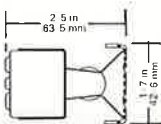


LJA, LJN Minipack attachments

Minipacks offer a choice of attractive attachments suitable for domestic and commercial situations.

LJA Raffia attachment

This woven natural raffia attachment is easily clipped on to the tube by a spring clip mounted at each end of the attachment.



RANGE

Attachments only

Type	Size (in)	Cat. no.
Raffia	12	LJA.112
Raffia	21	LJA.121



LJN Opal plastic diffuser

This attractive white opal diffuser is designed for more general use, and is attached easily and quickly by spring clips.



RANGE

Attachments only

Type	Size (in)	Cat. no.
Opal Plastic	12	LJN.112
Opal Plastic	21	LJN.121



atlas Nomad

This new range of transistorised fluorescent fittings is designed to provide efficient battery operated lighting, independent of a mains supply. The olive green body and clear reeded prismatic controller are made of high impact and light stabilised polystyrene. An integral push switch controls the fitting. The control gear operates the fluorescent tube at a high frequency so that the fitting is inaudible in use. Protection against accidental polarity reversal is incorporated within the fitting.

12 Volt versions may be used in conjunction with the AMER 2463 emergency lighting unit.
(see page 10-44 for details).

Registered design numbers :-

NOM.1008 - 943061

NOM.1013 - 943063

These fittings are class IIA items.

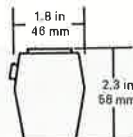
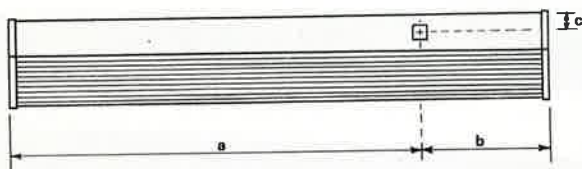
8W fitting installed in mobile shop



RANGE

Rating	Volts (D.C. only)	Cat. no.	Length in.	mm	Weight lbs.	kg.	Fixing Centres in.	mm.
8w Single	12v	NOM.1008.12	13.5	341	0.75	0.34	12.5	318
13w Single	12v	NOM.1013.12	22.4	569	1.1	0.48	21.7	547
8w Single	24v	NOM.1008.24	13.5	341	0.75	0.34	12.5	318
13w Single	24v	NOM.1013.24	22.4	569	1.1	0.48	21.7	54.7

The above fittings are packed complete with a Warm White tube.



Position of Push Switch

Rating	Dimensions					
	a		b		c	
	in.	mm.	in.	mm.	in.	mm.
8w	10.3	262	3.1	79	0.4	10
13w	19.3	490	3.1	79	0.4	10

Other voltages : Transistorised fluorescent fittings suitable for operation on 6 volt supplies are also available. Further details can be obtained from regional offices.
Prismatic Controller extrusions NOM 4600 (8 watt), NOM 4601 (13 Watt) and endplate NOM 4602 are available as replacement items.

Battery Information

		Supply Current amps	Battery Rating (amp/hours)		60
Rating			38	42	
			Number of hours of operation*		
8w	12 v	0.8	42	47	66
13w	12 v	1.1	31	34	49
8w	24v	0.3	114	126	180
13w	24v	0.5	68	75	108

*Assuming the efficiency of the battery to be 90%.

New Arrow-slim, Minipack & Nomad Accessories



AMEB 1586 New Arrow Slim bi-pin lampholder, Black/white plastic.



AS 4611 New Arrow Slim lampholder tension spring.



AS 4601 New Arrow Slim push switch for wall mounted fittings.



AS 4612 New Arrow Slim capacitor clip.



AMEM 6064/12/LOOP Starter socket for New Arrow Slim 3ft and Mini-pack fittings.



AMEM 6117 Pull switch for wall mounted Mini-pack fittings.



AMEB 1556/3 Lampholder for Mini-pack fittings

AMEB 1556/1 Lampholder for Nomad fittings

Tube size	Fitting	Choke	Starter Switch
8W 12in	Minipack	1—CD8	1—155/100
13W 21in	Minipack	1—CD13	1—155/100
30W 3ft	New Arrow Slim	1—CJ30	1—155/400

thorn

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 P1:31

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

LV Series P1:32

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

LW Series P1:33

This design has been fully tested to international specifications for corrosion resistant, rainproof and dustproof fittings. When used in conjunction with the plastic cylinders a stronger fitting results, 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°C (-22°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.

Dust-Tight P1:34

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 BS.3820 Clause 18 (iii).
- c Dust-tight to BS.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. 1009/9/60—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 P1:35

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. on an oil loading jetty.

Food Factory P1:36

Suitable 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 breaking.

For damp and sometimes humid places such as abattoirs and bottling plants, paper mills and laundries. 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 awkward, inaccessible, out-of-the-way places.

Directional Floodlight P1:37

This is a versatile fluorescent floodlight for interiors 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.

Under Canopy P1:38

Single or twin-tube fittings for use in sheltered outdoor positions such as multi-storey car parks or shopping precincts.

It will withstand normal humid atmospheres such as fog, but is not non-corrosive and will not withstand conditions such as heavily salt-laden atmospheres indefinitely.

Glendale P1:39

A range of totally enclosed Division 2 fittings designed for the Petrochemical Industry and suitable for many other similar applications. Made to OCMA spec No. 7 they are totally-enclosed, weatherproof, dusttight and corrosion resistant. All external parts are acrylic, neoprene or stainless steel and they take 2ft., and 5ft., fluorescent lamps, single or twin.

Ribble P1:40

A range of Division 2, weatherproof, dust-tight corrosion-resistant fittings made to OCMA spec No. 7. The bodies are made of P.V.C. coated sheet steel. Tubes are enclosed in plastic cylinders held by special centre-twist lampholders.

atlas

Invincible LU corrosion-resistant fittings

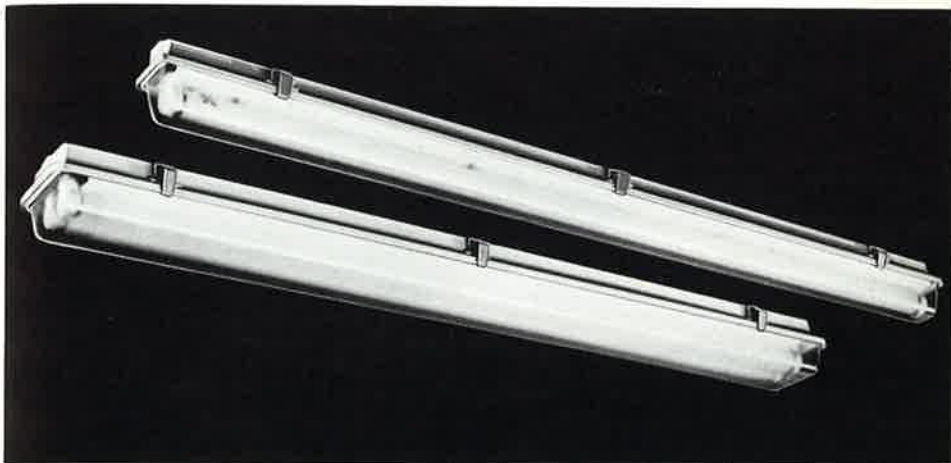
This corrosion-resistant G.R.P. fitting is suitable for any application where excessive humidity is present such as swimming baths, slaughter houses, breweries, or where corrosive elements are involved, such as some plating shops, dye works, chemical works, or where fittings are used outdoors.

The G.R.P. 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.

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 toggles (four on the 2ft) which engage under the lip of the plastic cover. These toggles are captive on the canopy.

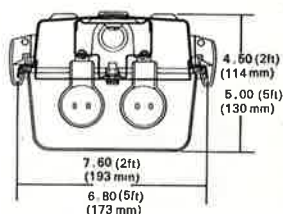
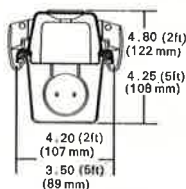
All fittings are suitable for 240V 50Hz supplies. Other voltages on application.

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.R2065

LUD.R1065



RANGE

Complete fitting					Components					Dimensions		Weight (inc. Tubes)		Fixing centres
Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Enclosure Cat. no.	Length in	mm	lb	kg	in	mm	lb	kg	
2ft	20W	One	Quickstart	LUD.Q1020	LUD.12	28.0	711	7.5	3.4	19.7	500			
2ft	20W	Two	Quickstart	LUD.Q2020	LUD.22	28.0	711	9.7	4.4	19.7	500			
5ft	65W	One	Resonant Start	LUD.R1065	LUD.15	62.8	1594	15.3	6.9	24	610			
5ft	65W	Two	Resonant Start	LUD.R2065	LUD.25	62.8	1594	21.7	9.8	24	610			

* Fixing holes: — 2ft fitting, 3/16 in dia clear

5ft fitting, 1/2 in dia clear fitted with grommet to take 3/16 in conduit.

atlas

Invincible LV corrosion-resistant fittings

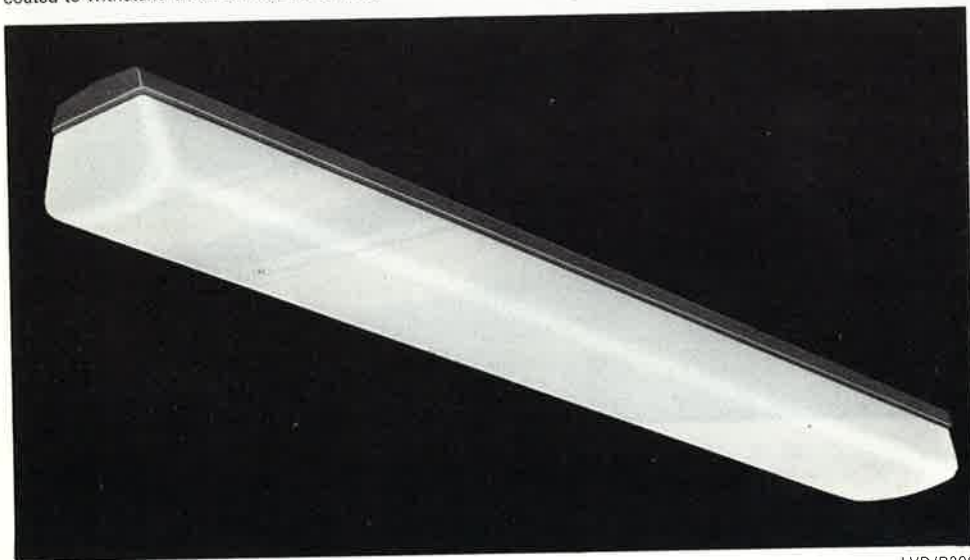
This fitting has been designed for use in the many adverse atmospheric conditions where corrosive fumes and water vapour prevent the use of conventional lighting fittings.

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.

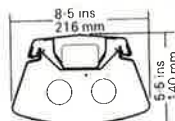
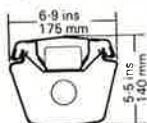
Eye bolts are provided on the back of the channel to receive a male hook attached to either a 3in rod or chain with consumer hooks. Chain or rod suspension only is recommended for use with this fitting. Mains entry is via a cable gland in back of fitting using three-core cable. Suspensions must be a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

Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Components		Dimensions		Weight (inc. Tubes)		Fixing centres	
				Enclosure Cat. no.	Spine Cat. no.	Length in	mm	lb	kg	in	mm
5ft	65w Single	Resonant Start	LVD/R1065	LVD.15	LV.R1065	62.5	1587	29.3	13.3	24	610
5ft	65w Twin	Resonant Start	LVD/R2065	LVD.25	LV.R2065	62.5	1587	37.6	16.6	24	610

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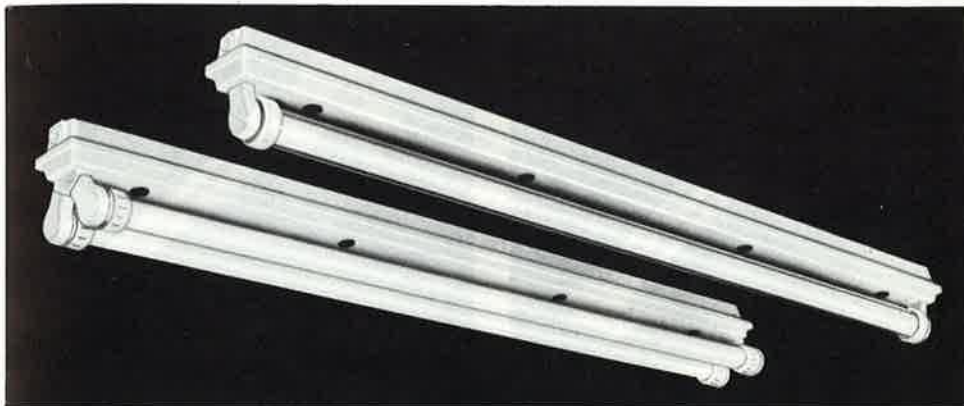
Invincible LW corrosion-resistant fittings

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°C (-22°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 1 in dia grommets holes in the top or a $\frac{3}{4}$ in dia grommets hole at 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.

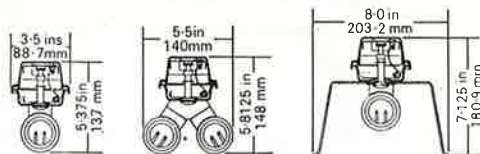
All fittings are suitable for use on 240V 50Hz supplies. Other voltages on application.

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



Suspension is by $\frac{3}{4}$ in dia conduit hook etc. into the top grommets holes. Suitable washers and nuts must be used on both sides of the grommet to achieve an adequate seal.

LWM/R2065 and LWC/R1065



RANGE

Complete fitting

Nom. length	Rating	Circuit	Cat. no.	Components		Dimensions					
				Plastic Cylinder or Lampholder Ring Assembly Cat. no.	Batten (less Lampholder ring) Cat. no.	Length in	mm	Weight (inc. Tubes) lb	kg	Fixing centres in	mm
5ft	65W Single	Resonant Start	LWM/R1065	AME.M6116	LW.R1065	62-5	1587	17-8	8-1	24	610
5ft	65W Twin	Resonant Start	LWM/R2065	AME.M6116 x 2	LW.R2065	62-5	1587	23-7	10-8	24	610
5ft	65W Single	Resonant Start	LWC/R1065	LWC.15	LW.R1065	62-5	1587	19-8	9-0	24	610
5ft	65W Twin	Resonant Start	LWC/R2065	LWC.15 x 2	LW.R2065	62-5	1587	27-7	12-5	24	610
5ft	80W Single	Switchstart	LWM/S1080	AME.M6116	LW.S1080	62-5	1587	17-8	8-1	24	610
5ft	80W Single	Switchstart	*LWC/S1080	LWC.15	LW.S1080	62-5	1587	19-8	9-0	24	610
5ft	80W Single	Switchstart	†LWD/S1080	LWD.15	LW.S1080	62-5	1587	22-3	10-1	24	610

‡ Suitable for temperatures ranging between 5°C (41°F) and -5°C (23°F) at 240V only. [15°C (59°F) for short periods].

* Suitable for temperatures ranging between 5°C (41°F) and -10°C (14°F) at 240V only. [15°C (59°F) for short periods].

† Suitable for temperatures ranging between 5°C (41°F) and -30°C (-22°F) at 240V only. [15°C (59°F) for short periods].

[Note: Standard 65W fittings may be used in an ambient temperature up to 40°C (104°F)].

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

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

A plastic trough reflector, Cat. no. LWU.25 is available for above fittings. Single tube and twin tube.

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Invincible FP Flameproof Range

MoP Certificate No. 6055, for groups II, III

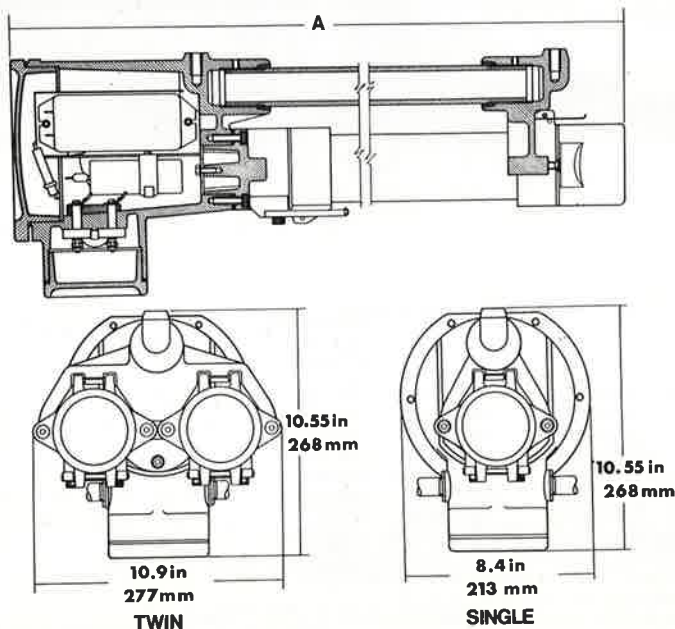
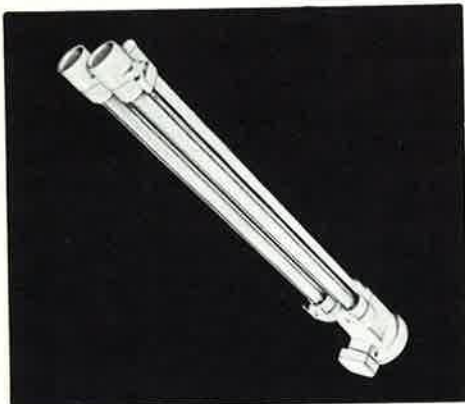
The design comprises cast aluminium end boxes rigidly supported by a steel connecting tube. The main casting incorporates switchless control gear, on a removable tray, for either single or twin tube operation and also an underslung mains cable entry to facilitate installation. The remote end casting 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 3" 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.



atlas

Invincible FP Flameproof Range

RANGE

Complete fitting

Nom. tube length	Rating	Circuit	Cat. no.
2ft	40w Single	Quickstart	FP1240
2ft	40w Twin	Quickstart	FP2240
4ft	40w Single	Resonant Start	FP1040
4ft	40w Twin	Resonant Start	FP2040
5ft	65w Single	Resonant Start	FP1065
5ft	65w Twin	Resonant Start	FP2065
6ft	85w Single	Resonant Start	FP1685
6ft	85w Twin	Resonant Start	FP2685

OPTIONAL EXTRAS AND SPARES

Cat. no.	Description
FP.12	2ft Glass tube assembly
FP.14	4ft Glass tube assembly
FP.15	5ft Glass tube assembly
FP.16	6ft Glass tube assembly
FPG.22	2ft wire guard
FPG.24	4ft wire guard
FPG.25	5ft wire guard
FPG.26	6ft wire guard
FPR.22	2ft reflector
FPR.24	4ft reflector
FPR.25	5ft reflector
FPR.26	6ft reflector
FP.4600	Adjustable suspension bracket
FP.4601	3/4" ET Flameproof plug
FP.4602	1/2" Whit. eye bolt
FP.4603	Gear cover gasket
FP.4604	Terminal cover gasket
FP.4605	Glass tube gasket
FP.4606	Adaptor gasket

DIMENSIONS

Cat. no.	Dim 'A' length		width		Approx. Wt. (incl. tube)		Fixing Centres	
	mm	in			kg	lbs	mm	in
FP.1240	971	38.2	212	8.4	17.0	37.5	690	27.2
FP.2240	971	38.2	278	10.9	22.7	50.0	690	27.2
FP.1040	1581	62.2	212	8.4	23.9	52.7	1300	51.2
FP.2040	1581	62.2	278	10.9	28.8	63.4	1300	51.2
FP.1065	1882	74.1	212	8.4	26.3	57.9	1601	63.0
FP.2065	1882	74.1	278	10.9	32.1	70.8	1601	63.0
FP.1685	2147	84.5	212	8.4	29.0	64.0	1866	73.5
FP.2685	2147	84.5	278	10.9	35.4	78.0	1860	73.5

With reflector width of all sizes becomes 303mm-11.9 ins.

With reflector and wire-guard width of all sizes becomes 328mm-12.9 ins.

	Additional Reflector Weight		Additional Wire-Guard Weight	
	kg	lbs	kg	lbs
2ft	2.04	4.5	0.45	1.0
4ft	4.08	9.0	1.17	2.6
5ft	4.78	11.0	1.5	3.3
6ft	5.79	13.0	1.82	4.0

atlas

Invincible DT 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

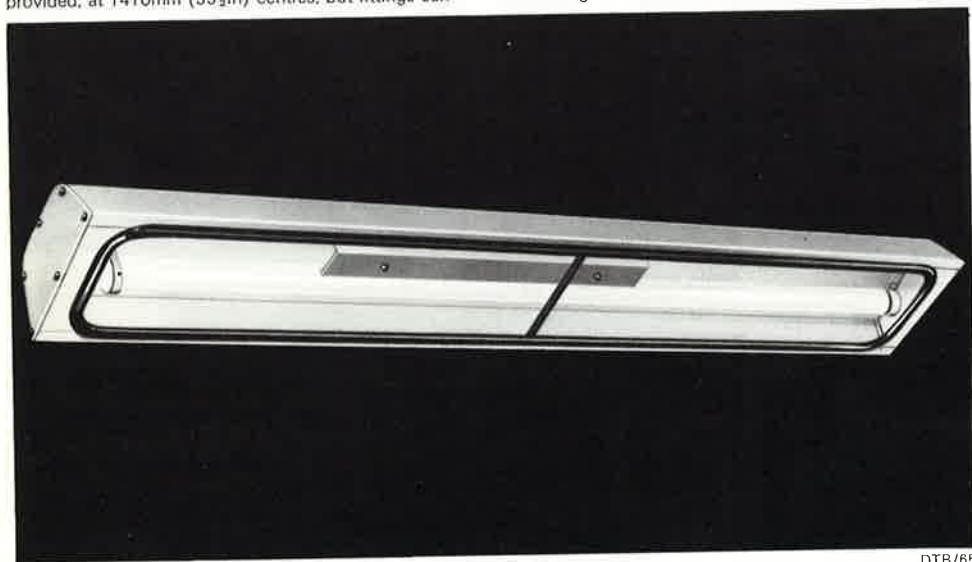
be mounted to purpose made brackets by means of ½in Whit. screws at the same centres.

Provision is made in the fitting for mains wiring to be looped in and out if required through 2 x ½" 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.

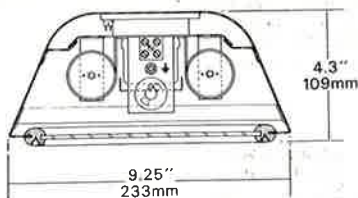
This fitting has been designed in accordance with the following requirements:

- (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).



DTB/65



RANGE

Complete fitting

Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Components	Gear	Length in	mm	Weight (inc. Tubes)		Fixing centres	
					Enclosure Cat. no.	Tray Cat. no.			lb	kg	in	mm
5ft	65W	One	Resonant Start	DTB/65	DTB.25	DT.65	61-5	1562	34.8	15.7	55-5	1410
5ft	65W	Two	Resonant Start	DTB/265	DTB.25	DT.265	61-5	1562	40.7	18.4	55-5	1410

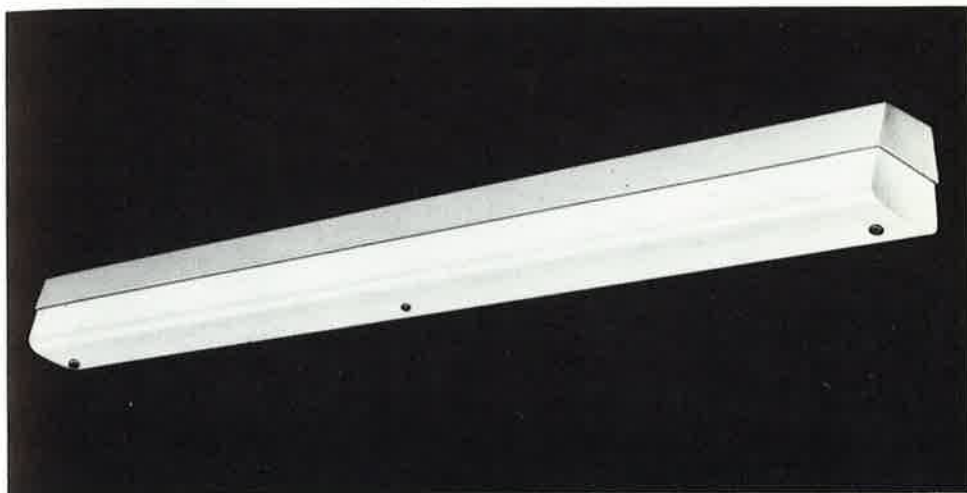
atlas Invincible FF food factory fitting

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

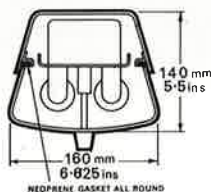
The housing, with closure in position, has a smooth exterior to minimise the collection of moisture or dirt. The plastic closure follows the shape of the housing metal work which is designed to overlap the diffuser and act as a water-shed. The closure is held in position by three captive nylon screws,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



FFD. 265



RANGE

Complete fitting

Components Dimensions

Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Enclosure Cat. no.	Length in mm	Weight (inc. Tubes) lb kg	Fixing centres in mm
5ft	65w	Two	Resonant Start	FFD. 265	FFD25	63.5 1613	33.7 15.3	24 610

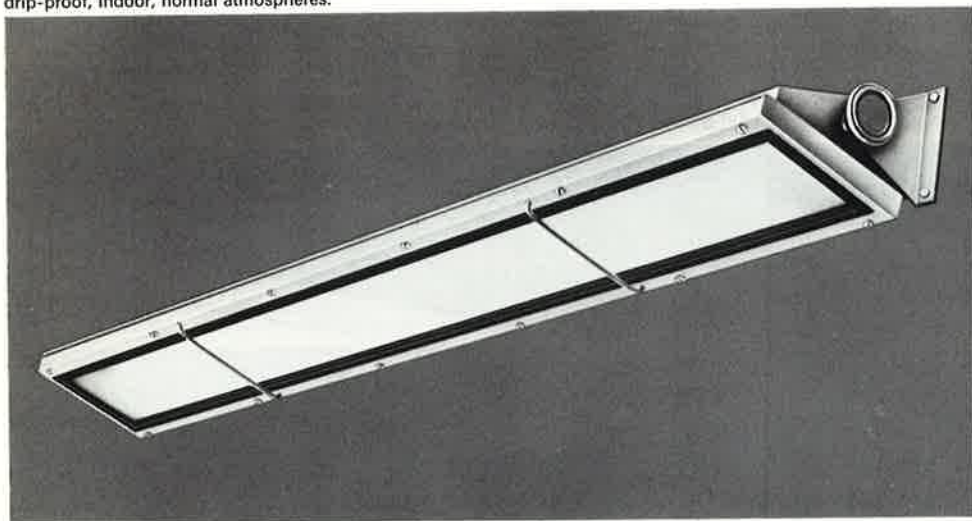
$\frac{3}{8}$ in dia conduit clearance holes are provided for suspension and mains supply entry.

atlas

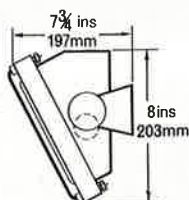
Invincible DF Directional floodlight fittings

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.



DFO.65



RANGE

Complete fitting					Components	Dimensions		Weight (inc. Tubes)		Fixing centres	
Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Enclosure Cat. no.	Length in mm		lb	kg	in	mm
5ft	65w	One	Resonant Start	DFG.65*	DFG.25*	69	1753	39.6	17.9	67.6	1718
5ft	65w	Two	Resonant Start	DFG.265*	DFG.25*	69	1753	44.7	20.2	67.6	1718
5ft	65w	One	Resonant Start	DFO.65†	DFO.25†	69	1753	39.6	17.9	67.6	1718
5ft	65w	Two	Resonant Start	DFO.265†	DFO.25†	69	1753	44.7	20.2	67.6	1718

*Clear laminated glass.

†Opal laminated glass.

12 holes at 4.25in (108mm) centres and 0.375in (9.5mm) diameter.

atlas

Invincible UC Canopy Fitting

This fitting is primarily designed for under canopy, semi-sheltered locations, such as multi-storey car parks and loading bays, it is also suitable for industrial kitchens and canteens.

The spine is Zinc coated steel, finished in a Stove enamelled grey paint which gives additional protection to the metal work.

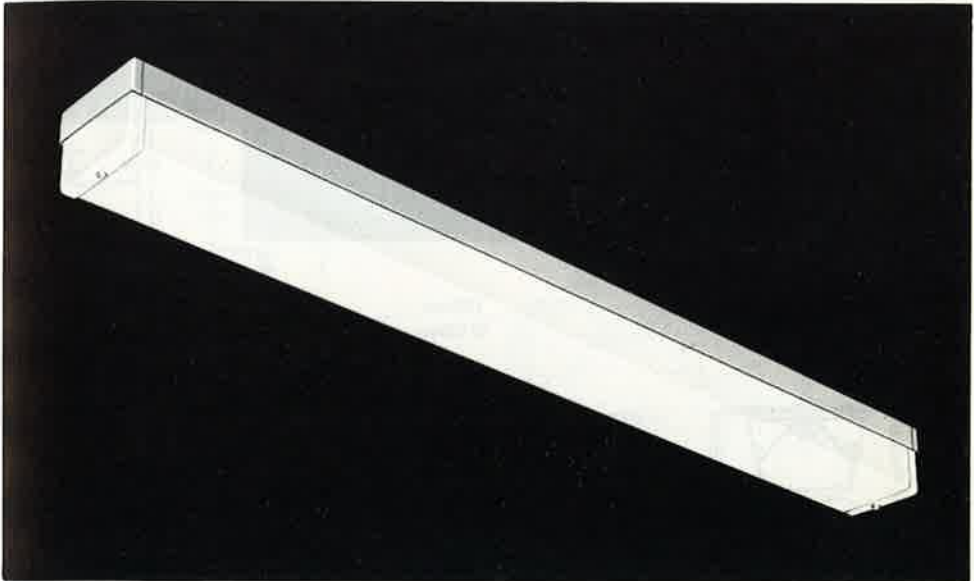
The closure and endcaps are manufactured from Opal

plastic which gives an overall pleasing visual aspect. The total enclosure is achieved by simply tightening a fixing screw situated in each end cap.

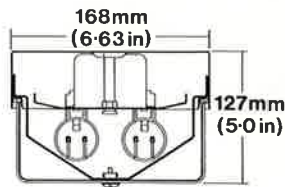
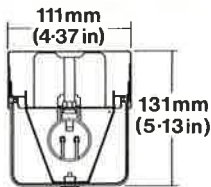
Maintenance is facilitated by mounting all gear on an easily removable gear tray.

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

(This fitting is not designed for use in corrosive atmospheres, e.g. salt laden)



UCD.265

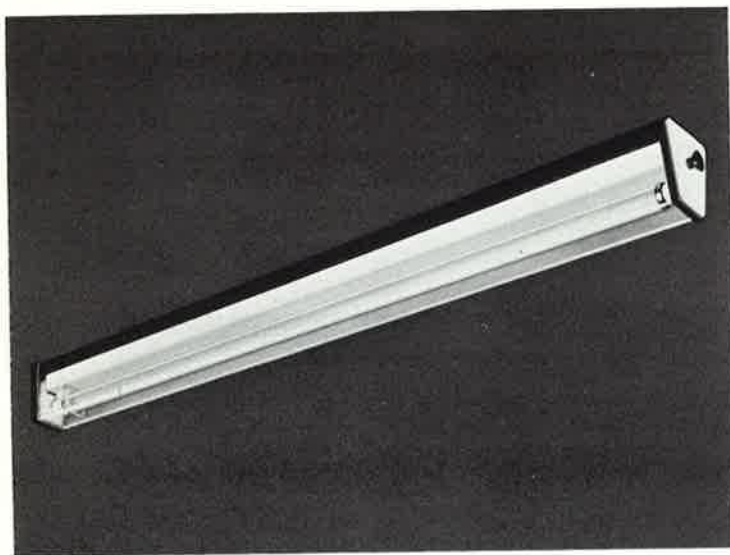


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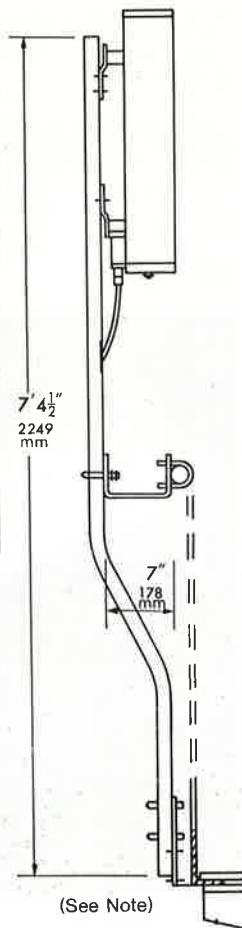
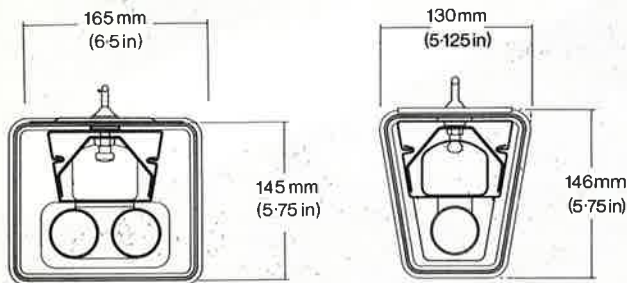
Complete fitting					Components	Dimensions		Weight		Fixing centres	
Nom. length	Rating	No. of tubes	Circuit	Cat. No.	Diffuser Cat. no.	Length in.	mm.	(inc. Tubes) lb.	kg.	in.	mm.
5ft	65W	One	Resonant Start	UCD.65	UCD.15	62-4	1583	19-4	8-8	24	610
5ft	65W	Two	Resonant Start	UCD.265	UCD.25	62-4	1583	28-8	13-1	24	610

atlas

Glendale Division 2 Dust-tight fittings



S3201.



A fitting suitable for most division 2 areas Rainproof, Dust-tight and suitable for use in chemically corrosive atmospheres. The thick clear acrylic enclosure has stainless-steel gasketed end plates, one of which can be removed to withdraw the gear channel for re-lamping. The channel slides on runners on a tray fixed inside the plastic enclosure and is provided with a nylon safety cord. It is locked in position by a thumb screw. All internal parts are rust-proofed and stove enamelled white.

Suspension and Mains Entry

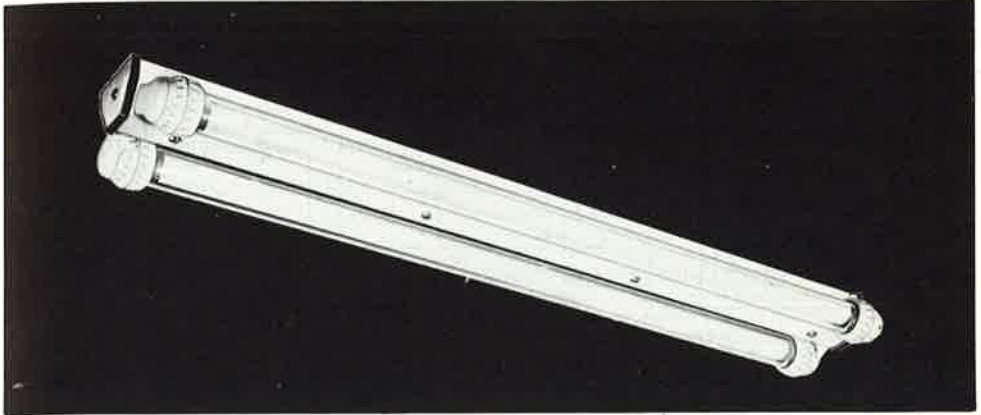
Standard fittings have two eyebolts for suspension and a nylon cable gland suitable for 0-200 – 0-275 O.D. Cables. Fittings with '1568' in their catalogue numbers have fixing studs and Division 2 conduit boxes, having two 3/4 in ET entries, each with a removable plug. The fittings can be mounted horizontally or vertically and comply with B.S. 3820 1964. For Categories – Class 1 rainproof, dust-tight, outdoors and chemically corrosive.

Nominal Length	Rating	Cat. No.	Length mm	ins.	Fixing Centre mm	ins	Weight kg	lbs
5ft	2 x 65W	S3200	1595	62.75	610	24	17.25	38
	2 x 65W	S3419.1568	1595	62.75	610	24	17.25	38
	1 x 65W	S3201	1595	62.75	610	24	12.7	28
	1 x 65W	S3420.1568	1595	62.75	610	24	12.7	28
2ft	2 x 20W	S3260	686	27	457	18	7.25	16
	2 x 20W	S3423.1568	686	27	457	18	7.25	16
	1 x 20W	S3424.1568	686	27	457	18	6.35	14

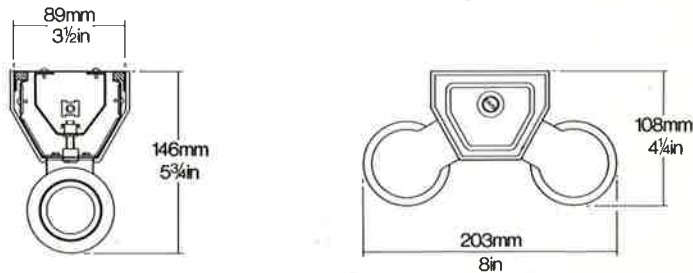
Note: Special Mounting Systems are available—Details on application.

atlas

Ribble Division 2 Dust-tight fittings



S3221.



Fittings suitable for most division 2 areas, rainproof, dust-tight and for chemically corrosive atmospheres.

A sheet-steel gear tray and ceiling plate are fixed together by four stainless steel captive screws and the joints sealed by urethane gaskets. Neoprene end-caps with PVC-coated pressure plates seal the ends. Tubes are enclosed in 2in diameter clear acrylic cylinders sealed to the 2 pin lampholders by threaded rings and washers to allow relamping without disturbing the seals on the main channel.

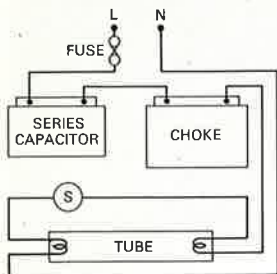
All visible surfaces of the metal work are PVC coated or of stainless steel.

Mains entry is by two 3/4in dia clearance holes provided for suspension. These holes are sealed by removable plastic inserts which, if once removed, cannot be used again in Division 2 areas.

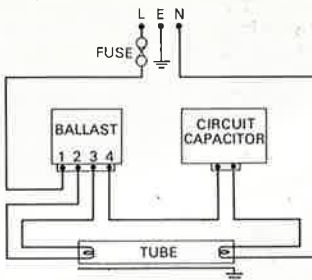
We recommend the use of earth striped lamps with these fittings.

Nominal Length	Rating	Cat. No.	Length		Fixing Centres		Weight	
			mm	ins	mm	ins	kg	lb
5ft	2 x 65W	S3221	1576	62	610	24	11.6	25 1/2
	1 x 65W	S3206	1576	62	610	24	8.15	18
4ft	2 x 40W	S3222	1271	50	610	24	8.26	18 1/2
	1 x 40W	S3207	1271	50	610	24	6.0	13 1/2
2ft	2 x 20W	S3223	661	26	457	18	6.35	14
	1 x 20W	S3224	661	26	457	18	4.3	9 1/2

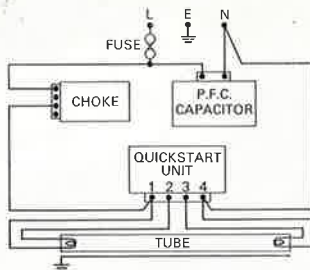
Leading power factor starter switch circuit with cold Temperature use series capacitor for 5ft 80W



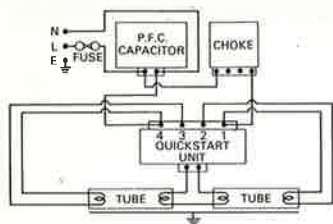
Semi-resonant start circuit for 6ft 85W, 5ft 65W, 4ft 50W with series circuit capacitor



Quickstart circuit with PFC capacitor for 2ft 20W and 2ft 40W single tube



Twin tube Quickstart circuit with PFC capacitor for 2ft 20W and 2ft 40W twin tube



	Lamp Holder	Fuse holder	FUSE	Fused Terminal Block	Terminal Block	Quick start Ballast Choke	Capacitor
LUD.Q1020	AMEB1548/B	AMET1310/X	AMET1299	—	AMET1281/3	QS/40 CU/20	AMEC2204
LUD.Q2020	AMEB1548/B	AMET1310/X	AMET1299	—	AMET1281/4 AMET1281/2	QS/220 CU/40	AMEC2204
LUD.R1065	AMEB1548/B	AMET1310	AMET1342	—	AMET1281/3	BU/65	AMEC2220
LUD.R2065	AMEB1548/A	—	AMET1342	AMET1265	—	BI/65	AMEC2220
LV.R1065	AMEB1573	—	AMET1342	AMET1265	—	BI/65	AMEC2220
LV.R2065	AMEB1573	—	AMET1342	AMET1265	—	BI/65	AMEC2220
LW.R1065	AMEB1550	AMET1310/X	AMET1342	—	AMET1316/3 AMET1317/3	BU/65	AMEC2220
LW.R2065	AMEB1550	AMET1310/X	AMET1342	—	AMET1316/3 AMET1317/3	BU/65	AMEC2220
•LW.S1080	AMEB1551	—	AMET1299	AMET1265	AMET1281/2	AME69229.5	AMEC2167
FP.1240	AMEB1573	AMET1310/X	AMET1299	—	—	CI/240, QS/80	AMEC2222
FP.2240	AMEB1573	AMET1310/X	AMET1299	—	AMET1281/1	CI/2240, QS/2240	AMEC2222
FP.1040	AMEB1573	AMET1310/X	AMET1332	—	AMET1281/1	BU/40	AMEC2273
FP.2040	AMEB1573	AMET1310/X	AMET1332	—	AMET1281/1	BU/40	AMEC2273
FP.1065	AMEB1573	AMET1310/X	AMET1342	—	AMET1281/1	BI/65	AMEC2220
FP.2065	AMEB1573	AMET1310/X	AMET1342	—	AMET1281/1	BI/65	AMEC2220
FP.1685	AMEB1573	AMET1310/X	AMET1342	—	AMET1281/1	BI/685	AMEC2220
FP.2685	AMEB1573	AMET1310/X	AMET1342	—	AMET1281/1	BI/685	AMEC2220
DTB/65	AMEB1573	AMET1304	AMET1342	—	AMET1316/2	BU/65	AMEC2220
DTB/265	AMEB1573	AMET1304	AMET1342	—	AMET1316/2	BU/65	AMEC2220
FFD/265	AMEB1548/B	—	AMET1342	AMEA5079	—	BI/65	AMEC2220
DFG.65	AMEB1512	—	AMET1342	AMET1265	—	BI/65	AMEC2220
DFO.65	AMEB1512	—	AMET1342	AMET1265	—	BI/65	AMEC2220
DFG.265	AMEB1512	—	AMET1342	AMET1265	—	BI/65	AMEC2220
DFO.265	AMEB1512	—	AMET1342	AMET1265	—	BI/65	AMEC2220
UCD.65	AMEB1548/B	—	AMET1342	AMEA5079	—	BI/65	AMEC2220
UCD.265	AMEB1548/B	—	AMET1342	AMEA5079	—	BI/65	AMEC2220

*N.B. LW.S1080 has starter switch, 155/500, and socket, AMEA5019/X included in accessories.

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*Atlas Amalgam tubes offer substantial advantages in the New Atlantic range of fluorescent fittings recently introduced by increasing the Light Output Ratio by between 11% and 22%. Suitable fittings are shown below.

Cat. No.	Description
A4C/A/2685	Prismatic Controller
A4D/A/2685	Opal Diffuser
A4FMD/A/B2685	Millionaire Opal Dish
A4FML/A/B2685	Millionaire Louvre
A4FMC/A/B2685	Millionaire Prismatic
A4GC/A/685	Unicap Controller
A4GC/2685	Unicap Controller
A4GD/A/685	Unicap Diffuser
A4GD/2685	Unicap Diffuser
A4L/B2685	Low Brightness
A4O/B2685	Wide Opal Diffuser
A4P/B2685	Wide Prismatic Controller

Catalogue Numbers

The catalogue number shows how the fitting is made up and how many packs are used for each complete fitting. Oblique lines indicate separate packs.

Examples:

A4X/2685 is a twin 6ft 85W closed-end reflector fitting, made up from:

- A4.2685: Twin 6ft 85W spine *one pack*
- A4 X26: Metal 6ft closed-end slotted reflector *one pack*

A4FAC/B2685 is a twin 6ft 85W plain aluminium frame fitting with a prismatic controller insert. It is made up from:

- A4B2685: Twin 6ft 85W spine (with broadly spaced lampholder) *one pack*
- A4FAC.26: A4FA—Plain aluminium frame
- A4FC—Prismatic controller *all one pack*
- A4.4691—Broad channel cover

First and Second attachment numbers are shown only to indicate catalogue numbers of cartons to expect per fitting, and catalogue numbers for replacement purposes.

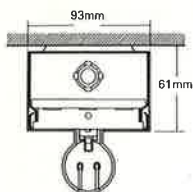
FEATURES

1. Spines—the cross section gives an exceptionally strong spine with very clean lines. The 5mm ceiling stand-off reduces the effect of ceiling unevenness against the straight spine edge. The impact resistant dark blue plastic end plates are attached at the factory to give a smart modern appearance to the fitting.
2. Circuits—the latest polyester resin filled ballast units are employed in switch-less start circuits (no starter switch—reduces maintenance). Capacitors are of standard high quality. Wiring is of the latest metric solid conductor, single core, type, insulated with high temperature PVC connected to the components by either push-in connector or pin connectors. The side entry fuse is accessible without touching any part of the fitting or most attachments.
3. Lampholders—spring loaded lampholders enable either-end relamping of the fitting. They are mounted on bridge pieces which can be secured to the spine without the use of tools.
4. Installation—fittings are suitable for conduit, rod, chain or conduit box mounting (unless detailed otherwise) at normal suspension centres. Alternative mains entry is provided in the centre back of the spines or by a knock out in each end plate. A heavy duty, large capacity, terminal block is capable of accepting loop 2.5mm² cables. (2 x 7/-029")
5. Finish—High quality acrylic enamel "stark white" finish is applied to all spines and reflectors. All diffusers and prismatic controllers are of top quality light stabilised polystyrene.
6. Attachments—Two screws operating in sliding cage nuts secure the channel covers and reflectors to the spine through key hole slots. Most commercial attachments then simply hook or spring on to channel covers or special brackets.
7. Standards—all fittings in this range comply with BS3820: 1964—class 1, ordinary, indoor, normal atmospheres.

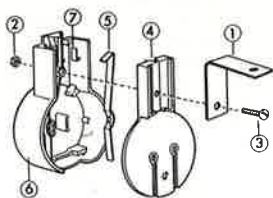
atlas

New Atlantic range

New Atlantic Features and accessories

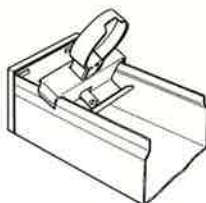


Cross section

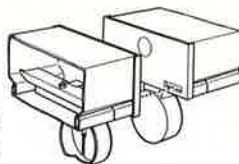


Lampholders

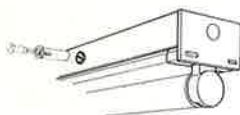
1. Spring bracket
2. Full nut
3. Panhead fixing screw
4. Cover moulding
5. Terminal contact
6. Body moulding
7. Contact backing plate



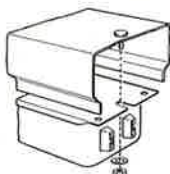
Lampholder assembly



Interlocking plastic end caps

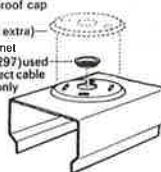


Side entry fuse

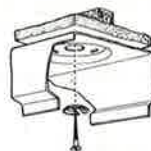


Welded-in screw studs

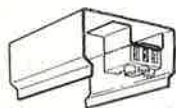
Conduit box cluster
Weatherproof cap
A4.4674
(optional extra)
Grommet
(AC 5297) used
for direct cable
entry only



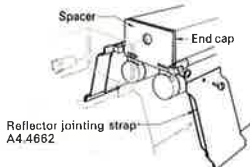
Conduit suspension



Slotted washers



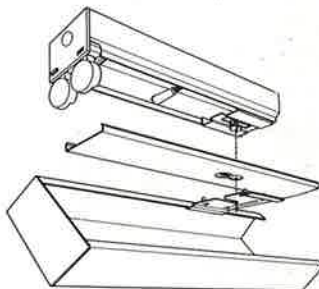
Mains terminal block



Reflector jointing strap
A4.4662

Jointing strap assembly

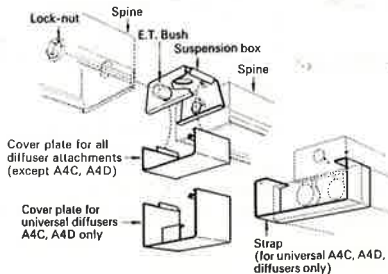
A4.4662—Reflector jointing strap—this attachment is for use when open ended metal reflectors are being continuously mounted and closes the gap between adjacent reflectors and ensures perfect alignment when spines are rigidly mounted.



Fast positive attachment fixing

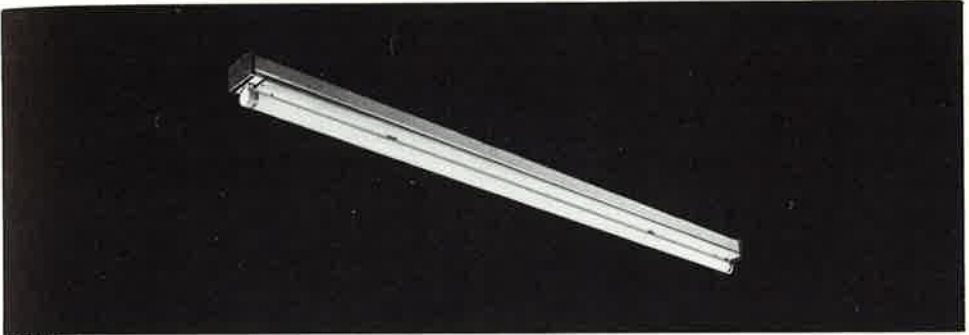
A4.4660—Spacer (fixed end diffusers)—this spacer assembly is available when fixed end diffuser A4C/A4D fittings are required to be mounted continuously. (space between spines: 62mm)

A4.4661—Spacer (for detachable end diffusers and closed end reflectors) this spacer is available when continuous mounting of diffusers having removable ends or closed end reflectors is required but has no facility for the alignment of adjacent attachment which should be carried out by a manual operation on installation. (space between spines: 52mm)

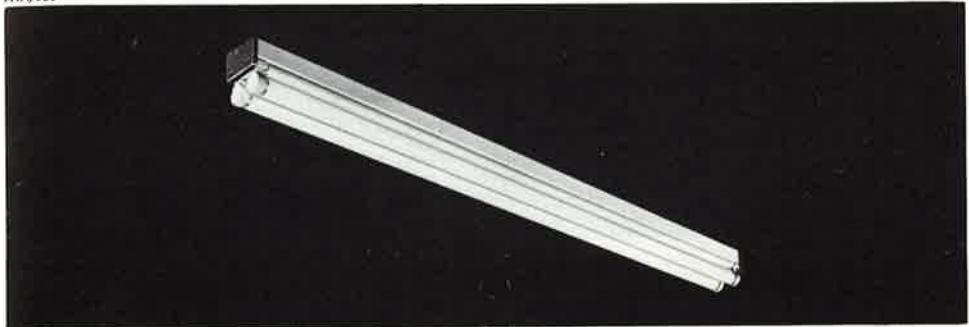


Continuous mounting. jointing piece

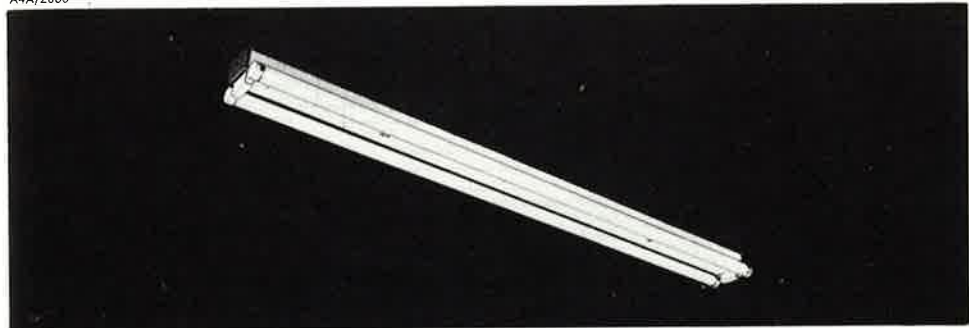
atlas
New Atlantic basic spine



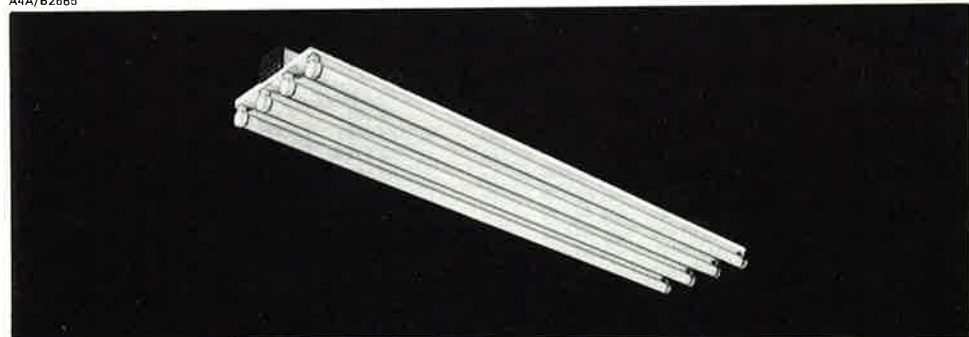
A4A/685



A4A/2685



A4A/B2685



A4B/4685

atlas

New Atlantic basic spine

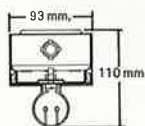
The basic spine plus the series "A" channel cover produces a range of single and twin tube batten fittings in 8ft, 6ft, 5ft, and 4ft lengths.

The 4-tube spines plus the series "B" channel cover produces a range of 4-tube batten fittings which are eminently suitable for use with suspended luminous ceilings.

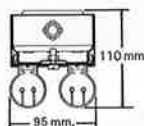
These general-purpose fittings can be used anywhere where an unshielded fluorescent tube is acceptable. All fittings are suitable for use on 240V 50Hz supplies. Other voltages on application.

These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.

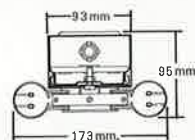
The 'A' channel cover may also be used with the twin 'B' spine



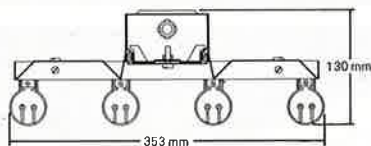
A4A (Single)



A4A (Narrow Twin)



A4A (Broad Twin)

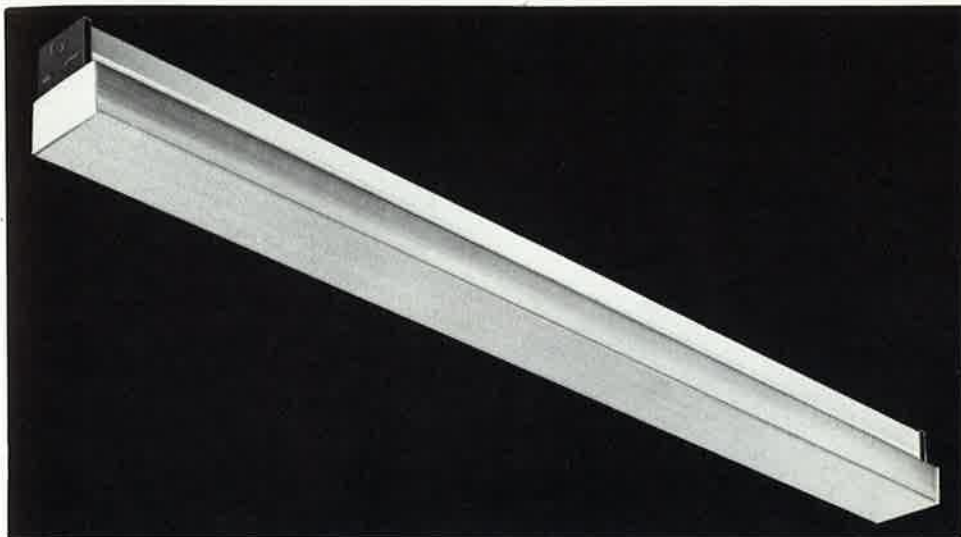


A4B (4-tube side cover reflectors)

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.		Spine Cat. No.	o/s Length		Length & Weight		Weight
				1st Attachment Cat. No.	2nd Attachment Cat. No.		mm	in	kg	lb	
4ft	40W	SRS	A4A/40	A4A.24	—	A4.40	1241	48-8	4-4	9-7	
4ft	2 x 40W	SRS	A4A/240	A4A.24	—	A4.240	1241	48-8	6-2	13-7	
5ft	65W	SRS	A4A/65	A4A.25	—	A4.65	1542	60-7	5-4	11-8	
5ft	2 x 65W	SRS	A4A/265	A4A.25	—	A4.265	1542	60-7	7-5	16-5	
5ft	2 x 65W	SRS	A4A/B265	A4A.25	—	A4.B265	1541	60-7	7-7	17-1	
6ft	85W	SRS	A4A/685	A4A.26	—	A4.685	1805	71-1	5-6	12-4	
6ft	2 x 85W	SRS	A4A/2685	A4A.26	—	A4.2685	1805	71-1	8-1	17-3	
6ft	2 x 85W	SRS	A4A/B2685	A4A.26	—	A4.B2685	1805	71-1	8-2	18-0	
6ft	4 x 85W	SRS	A4B/4685	A4B.46	—	A4.4685	1805	71-1	20-4	45	
8ft	85W	QS	A4A/885	A4A.28	—	A4.885	2416	95-1	8-5	18-1	
8ft	2 x 85W	QS	A4A/Q2885	A4A.28	—	A4.Q2885	2416	95-1	13-7	29	
8ft	2 x 85W	QS	A4A/B2885	A4A.28	—	A4.B2885	2416	95-1	13-7	29-5	
8ft	2 x 85W	TS	A4A/T2885	A4A.28	—	A4.T2885	2416	95-1	15-5	34-1	
8ft	4 x 85W	QS	A4B/Q4885	A4B.48	—	A4.Q4885	2416	95-1	1-47	58-0	
8ft	4 x 85W	TS	A4B/T4885	A4B.48	—	A4.T4885	2416	95-1	24-9	55-0	
8ft	1 x 125W	QS	A4A/125	A4A.28	—	A4.125	2416	95-1	9-7	21-4	
8ft	2 x 125W	QS	A4A/2125	A4A.28	—	A4.2125	2416	95-1	14-2	31-1	

atlas

New Atlantic A4C & A4D prismatic controller & opal diffuser

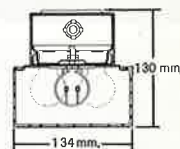


A4C/A/2685

A general purpose prismatic controller and opal diffuser are extruded from clear and opal plastic respectively. The controller has clear glare controlling linear prisms on each side and a fine prismatic pattern embossed in the base. The diffuser has smooth opal sides. Injection moulded white end plates are permanently attached and both the controller and diffuser are suitable for use with either single or twin (close space) tubes.

Brackets are supplied with the attachment to secure it to the batten, these are fixed by the channel cover fixing screws on the batten.

All fittings are suitable for use on 240V 50Hz supplies. Other voltages on application. These fittings comply fully with BS3820:1964 for class 1, ordinary, indoor, normal atmospheres.



A4C/A4D
(Universal prismatic controller)
Universal opal diffuser

Prismatic Controller Fitting

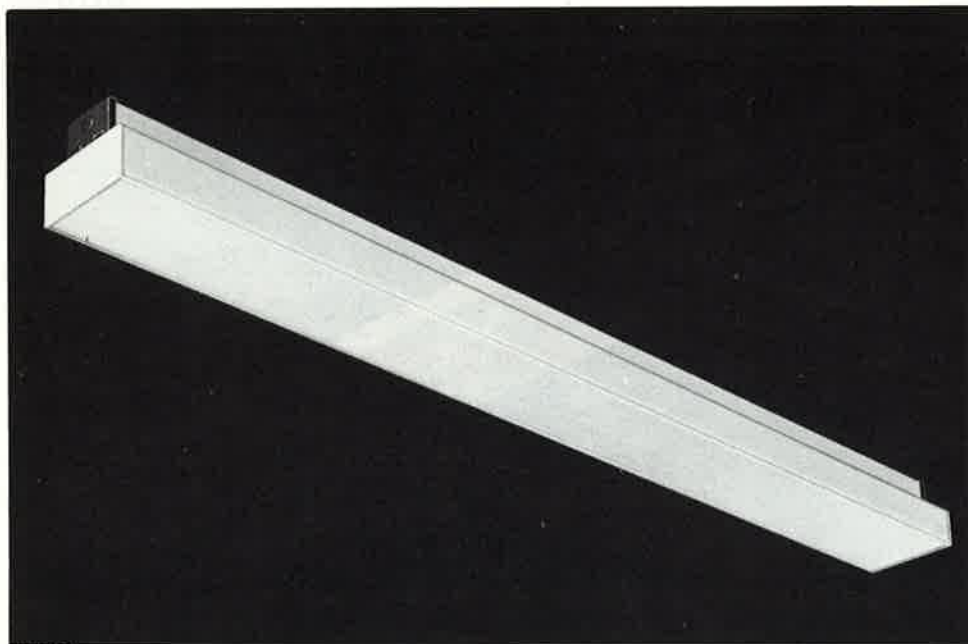
Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			o/a Length		Length & Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.	mm	in	Approx. Weight (incl. Tubes)	
4ft	40W	SRS	A4C/A/40	A4C.24	A4A.24	A4.40	1254	49-4	5-3	11-6
4ft	2 x 40W	SRS	A4C/A/240	A4C.24	A4A.24	A4.240	1254	49-4	7-1	15-6
5ft	65W	SRS	A4C/A/65	A4C.25	A4A.25	A4.65	1554	61-2	6-4	14-1
5ft	2 x 65W	SRS	A4C/A/265	A4C.25	A4A.25	A4.265	1554	61-2	8-5	18-8
6ft	85W	SRS	A4C/A/685	A4C.26	A4A.26	A4.685	1817	71-5	6-9	15-1
6ft	2 x 85W	SRS	A4C/A/2685	A4C.26	A4A.26	A4.2685	1817	71-5	9-1	20-0
8ft	85W	QS	A4C/A/885	A4C.28	A4A.28	A4.885	2429	95-6	10-1	22-3
8ft	2 x 85W	QS	A4C/A/Q288	A4C.28	A4A.28	A4.Q2885	2429	95-6	15-2	33-7
8ft	2 x 85W	TS	A4C/A/T288	A4C.28	A4A.28	A4.T2885	2429	95-6	17-1	37-7
8ft	125W	QS	A4C/A/1255	A4C.28	A4A.28	A4.125	2429	95-6	11-4	25-0
8ft	2 x 125W	QS	A4C/A/2125	A4C.28	A4A.28	A4.2125	2429	95-6	15-7	34-7

Opal Diffuser Fitting

4ft	40W	SRS	A4D/A/40	A4D.24	A4A.24	A4.40	1254	49-4	5-3	11-6
4ft	2 x 40W	SRS	A4D/A/240	A4D.24	A4A.24	A4.240	1254	49-4	7-1	15-6
5ft	65W	SRS	A4D/A/65	A4D.25	A4A.25	A4.65	1554	61-2	6-4	14-1
5ft	2 x 65W	SRS	A4D/A/265	A4D.25	A4A.25	A4.265	1554	61-2	8-5	18-8
6ft	85W	SRS	A4D/A/685	A4D.26	A4A.26	A4.685	1817	71-5	6-9	15-1
6ft	2 x 85W	SRS	A4D/A/2685	A4D.26	A4A.26	A4.2685	1817	71-5	9-1	20-0
8ft	85W	QS	A4D/A/885	A4D.28	A4A.28	A4.885	2429	95-6	10-1	22-3
8ft	2 x 85W	QS	A4D/A/Q.2885	A4D.28	A4A.28	A4.Q.2885	2429	95-6	15-2	33-7
8ft	2 x 85W	TS	A4D/A/T2885	A4D.28	A4A.28	A4.T2885	2429	95-6	17-1	37-7
8ft	125W	QS	A4D/A/125	A4D.28	A4A.28	A4.125	2429	95-6	11-4	25-0
8ft	2 x 125W	QS	A4D/A/2125	A4D.28	A4A.28	A4.2125	2429	95-6	15-7	34-7

atlas

New Atlantic A4E two-tone diffuser



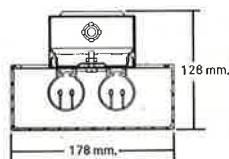
A4E/A/2685

This compact two-tone extruded plastic controller gives good light control. The sides are in opal to give adequate shielding and freedom from glare, whilst the base is embossed with a clear prismatic pattern for high efficiency.

The controller has permanently attached injection moulded ends and is supported by brackets, supplied with it, which are secured to the channel cover fixing screws on to the batten. For use with twin (close spaced) tubes (or single tube if required).

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

These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.

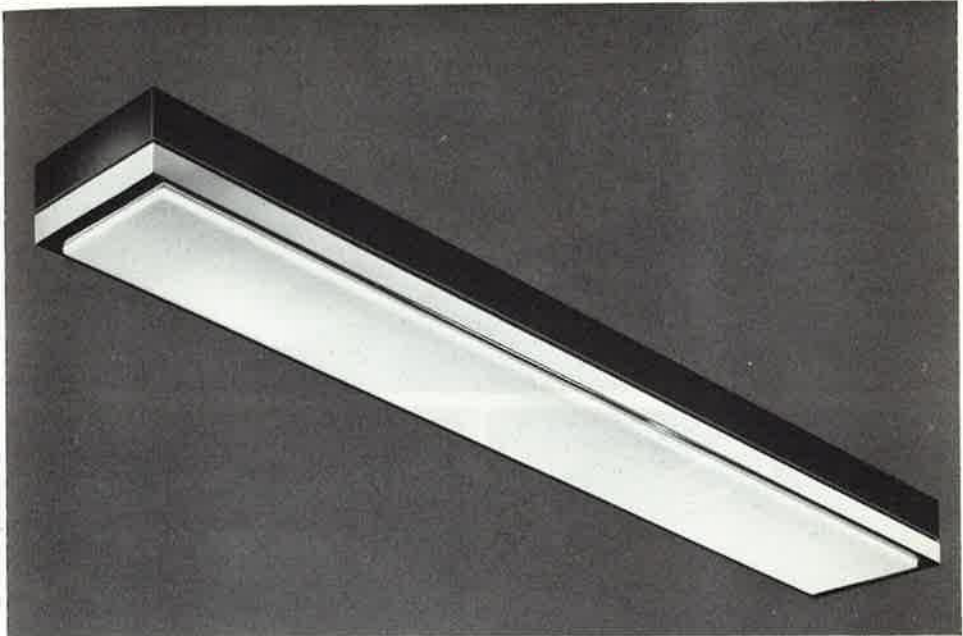


A4E (Two-tone diffuser)

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			Length & Weight		Approx. Weight (incl. Tubes)	
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.	o/a Length			
							mm	in	kg	lb
4ft	2 x 40W	SRS	A4E/A/240	A4E.24	A4A.24	A4.240	1265	49-8	7-7	16-2
5ft	2 x 65W	SRS	A4E/A/265	A4E.25	A4A.25	A4.265	1565	61-6	8-9	19-6
6ft	2 x 85W	SRS	A4E/A/2685	A4E.26	A4A.26	A4.2685	1829	72-0	9-4	20-7
8ft	2 x 85W	QS	A4E/A/Q2885	A4E.28	A4A.28	A4.Q2885	2440	96-0	15-6	34-4
8ft	2 x 85W	TS	A4E/A/T2885	A4E.28	A4A.28	A4.T2885	2440	96-0	17-4	38-4
8ft	2 x 125W	QS	A4E/A/2125	A4E.28	A4A.28	A4.2125	2440	96-0	16-0	35-4

atlas

New Atlantic A4FM 'Millionaire' fitting



A4FMD/A/B2685

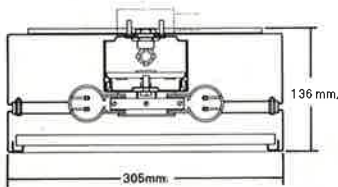
A luxury attachment which can be used with a standard range of spines.

The attachment consists of a surface mounted black box supported by a bright finish trim with an inset of translucent blue panelling between the contrasting top and bottom sections.

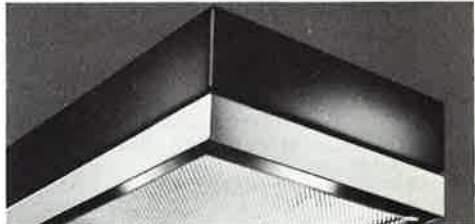
A metalised louver, a prismatic panel or a diffusing dish can be used to provide high intensity with low glare light control, a bit of sparkle or softly diffused light with good appearance, respectively.

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

These fittings comply fully with BS3820: 1964, for class 1, ordinary, indoor, normal atmospheres.



A4FML (Millionaire fitting)



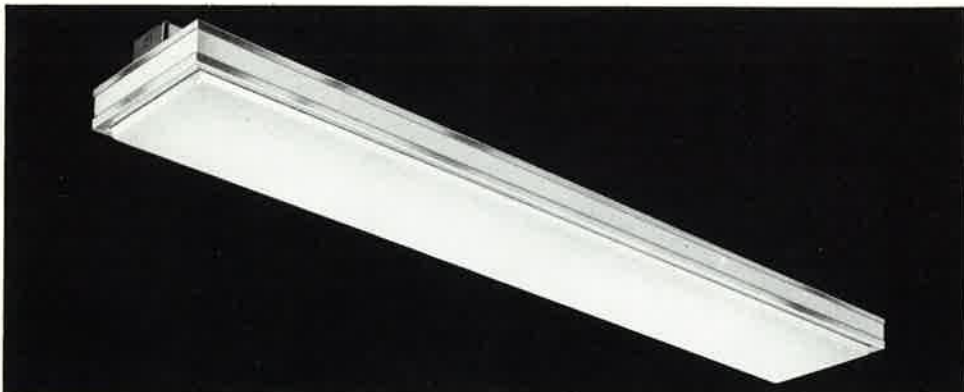
A4FMC/A/B2685



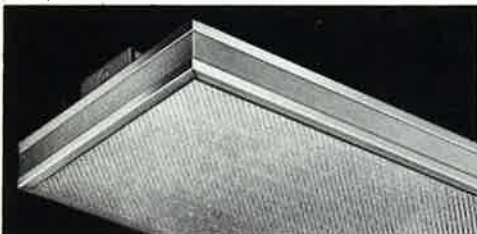
A4FML/A/B2685

o/a depth of FMC is 136mm and of FMD, 149mm.

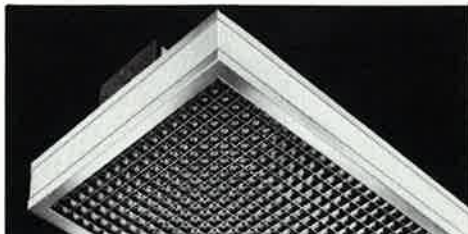
Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.		Spine Cat. No.	o/a Length		Length & Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.		mm	in	Approx. Weight (incl. Tubes)	
6ft	2 x 85W	SRS	A4FMC/A/B2685	A4FMC.26	A4A.26	A4.B2685	1850	72.8	16.8	37.0
6ft	2 x 85W	SRS	A4FMD/A/B2685	A4FMD.26	A4A.26	A4.B2685	1850	72.8	16.6	36.5
6ft	2 x 85W	SRS	A4FML/A/B2685	A4FML.26	A4A.26	A4.B2685	1850	72.8	17.4	38.3



A4FAD/B2685



A4FAC/B2685



A4FAL/B2685

The satin anodised extruded aluminium frame surrounding the fitting provides precise detailing and a crisp appearance to the fitting.

Into the base of this aluminium frame can be fitted either a metalised louver, (L) opal dish (D) or prismatic controller (C) to provide the required appearance or light control required.

The attachment hooks onto a standard broad channel cover, using special clips provided and allows a small percentage of upward light.

A larger version of this aluminium frame attachment is available for use with four tube battens with a dropped prismatic panel framed in opal Z section extruded polystyrene.

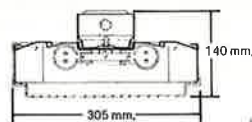
All fittings are suitable for use on 240V 50Hz supplies. Other voltages on application.

These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.

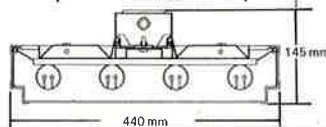


A4FAC/B/4685

A4 FAD (Twin)



A4 FAC (4-tube)



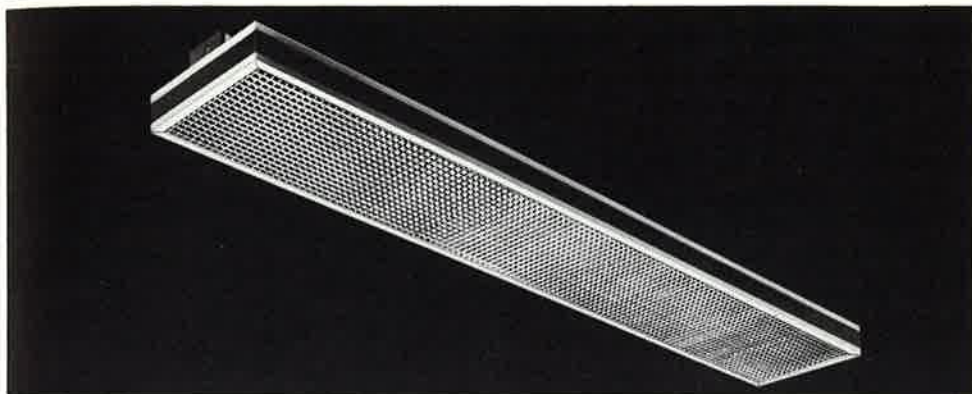
overall depth of Twin FAC and FAC is 122mm.

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			o/a Length	Length & Weight		
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.		mm	in	Approx. Weight (incl. Tubes) kg
6ft	2 x 85W	SRS	A4FAC/B2685	A4FAC.26	*	A4.B2685	1829	72-0	12-6	27-9
6ft	4 x 85W	SRS	A4FAC/B/4685	A4FAC.46	A4B.46	A4.4685	1845	72-6	26-3	58-0
8ft	2 x 85W	QS	A4FAC/B2685	A4FAC.28	*	A4.B2685	2439	96-0	19-3	42-5
8ft	4 x 85W	QS	A4FAC/B/Q4885	A4FAC.48	A4B.48/T	A4.Q4885	2457	96-7	32-1	73-0
8ft	4 x 85W	TS	A4FAC/B/T4885	A4FAC.48	A4B.48/T	A4.B.T.4885	2457	96-7	31-7	70-0
6ft	2 x 85W	SRS	A4FAD/B2685	A4FAD.26	*	A4.B2685	1829	72-0	12-8	28-1
8ft	2 x 85W	QS	A4FAD/B2685	A4FAD.28	*	A4.B2685	2439	96-0	19-4	42-8
6ft	2 x 85W	SRS	A4FAL/B2685	A4FAL.26	*	A4.B2685	1829	72-0	13-2	29-2
8ft	2 x 85W	QS	A4FAL/B2685	A4FAL.28	*	A4.B2685	2439	96-0	20-0	44-2

*Channel cover included with 1st attachment.

atlas

New Atlantic A4FH aluminium frame, hide effect insert



A4FHL/B2685



A4FHC/B2685



A4FHD/B2685



A4FHC/B/4685

The satin anodised extruded aluminium frame surrounding the fitting has a simulated black hide insert and provides precise detailing and a crisp appearance to the fitting.

Into the base of the aluminium frame can be fitted either a metallised louver (L) opal dish (D) or prismatic (C) controller as required.

The attachment hooks onto a standard broad channel cover, using special clips provided and allows a small percentage of upward light.

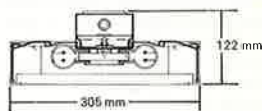
A larger version of this aluminium frame attachment is available for use with 4 tube battens with a dropped prismatic panel framed in opal Z section extruded polystyrene.

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

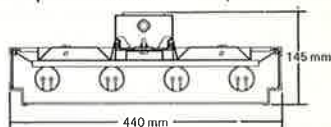
These fittings comply fully with BS3820: 1964 for class 1, ordinary indoor, normal atmosphere.

overall depth of Twin FHC is 122mm and of FHD is 140mm.

A4FHL (twin)

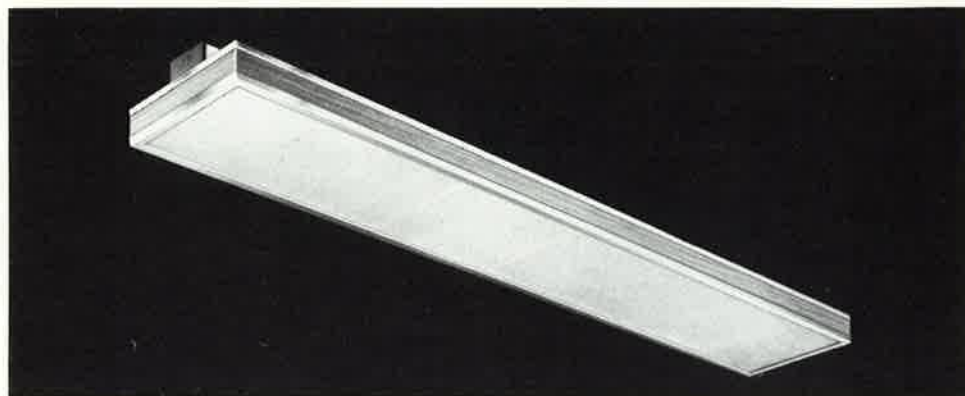


A4FHC (4 tube)

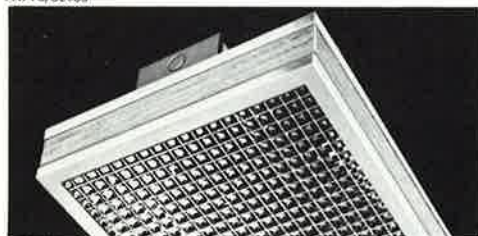


Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.	1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.	o/a Length mm	Length & Weight	
									in	Approx. Weight (Incl. Tubes) kg
6ft	2 x 85W	SRS	A4FHC/B2685	A4FHC.26	*	A4B.46	A4.B2685	1829	72.0	12.6
6ft	4 x 85W	SRS	A4FHC/B/4685	A4FHC.46	*	A4B.46	A4.4685	1845	72.6	26.3
8ft	2 x 85W	QS	A4FHC/B2885	A4FHC.28	*	A4B.48	A4.B2885	2439	96.0	19.4
8ft	2 x 85W	QS	A4FHC/B/Q4885	A4FHC.48	*	A4B.48	A4.BQ4885	2457	96.7	32.1
8ft	4 x 85W	TS	A4FHC/B/T4885	A4FHC.48	*	A4B.48	A4.T4885	2457	96.7	31.7
6ft	2 x 85W	SRS	A4FHD/B2685	A4FHD.26	*	A4B.46	A4.B2685	1829	72.0	12.8
8ft	2 x 85W	QS	A4FHD/B2885	A4FHD.28	*	A4B.48	A4.B2885	2439	96.0	19.4
6ft	2 x 85W	SRS	A4FHL/B2685	A4FHL.26	*	A4B.46	A4.B2685	1829	72.0	13.2
8ft	2 x 85W	QS	A4FHL/B2885	A4FHL.28	*	A4B.48	A4.B2885	2439	96.0	20.0

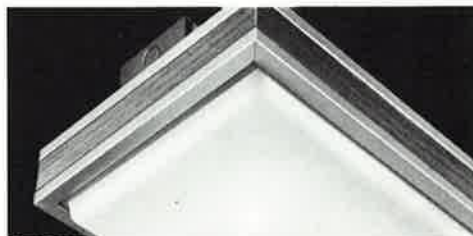
*Channel cover included with 1st attachment.



A4FTC/B2685



A4FTL/B2685



A4FTD/B2685

The anodised extruded aluminium frame surrounding the fitting has a simulated timber insert. A metalised louver, (L) opal dish (D) or prismatic (C) controller can be fitted to provide the final appearance or light control required.

The attachment hooks onto a standard broad channel cover, using special clips provided and allows a small percentage of upward light.

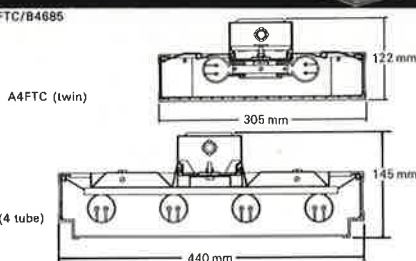
A larger version of this aluminium frame attachment is available for use with four tube battens with a dropped prismatic panel framed in opal Z section extruded polystyrene.

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

These fittings comply fully with BS3820: 1964 for class 1, ordinary indoor, normal atmospheres.



A4FTC/B4685



A4FTC (twin)

A4FTC (4 tube)

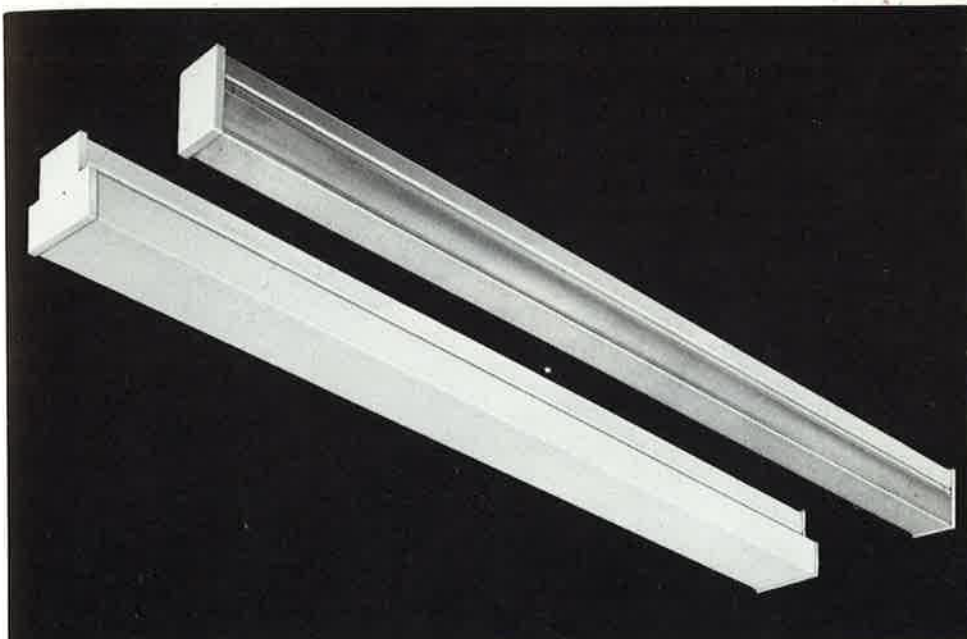
o/a Depths of Twin FTD is 140mm and of FTL is 122mm.

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			o/a Length		Length & Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.			Approx. Weight (incl. Tubes)	
6ft	2 x 85W	SRS	A4FTC/B2685	A4FTC.26	*	A4.B2685	1829	72.0	12.6	27.9
6ft	4 x 85W	SRS	A4FTC/B/4685	A4FTC.46	A4B.46	A4.B4685	1845	72.6	26.3	58.0
8ft	2 x 85W	QS	A4FTC/B2885	A4FTC.28	*	A4.B2885	2439	96.0	19.4	42.5
8ft	4 x 85W	QS	A4FTC/B/Q4885	A4FTC.48	A4B.48	A4.Q4885	2457	96.7	32.1	73.0
8ft	4 x 85W	TS	A4FTC/B/T4885	A4FTC.48	A4B.48	A4.T4885	2457	96.7	31.7	70.0
6ft	2 x 85W	SRS	A4FTD/B2685	A4FTD.26	*	A4.B2685	1829	72.0	12.8	28.1
8ft	2 x 85W	QS	A4FTD/B2885	A4FTD.28	*	A4.B2885	2439	96.0	19.4	42.5
6ft	2 x 85W	SRS	A4FTL/B2685	A4FTL.26	*	A4.B2685	1829	72.0	13.2	29.2
8ft	2 x 85W	QS	A4FTL/B2885	A4FTL.28	*	A4.B2885	2439	96.0	20.0	44.2

*Channel Cover included with 1st attachment

atlas

New Atantic A4GC & A4GD 'Unicap' fittings



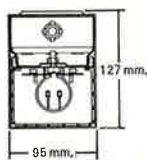
A4GD/2685 A4GC/A/685

Controllers or diffusers, in either single, or twin (closed spaced) tube sizes, are extruded in clear and opal plastic respectively. The sides of the prismatic diffuser have linear prisms to re-direct the light away from the glare zone and a fine prismatic pattern embossed into the base. Diffusers are in plain opal. They are attached to the basic batten by injection moulded end pieces which provide a unified appearance to the complete batten and attachment.

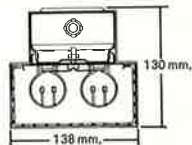
The single tube size has virtually the same cross section as the basic batten. The twin tube size is supplied complete with a special channel cover which is wider than standard to close the mouth of the thereby reducing possible dust entry points to a minimum.

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

These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.



A4GC (Single) Prismatic controller



A4GC (Twin) Prismatic controller

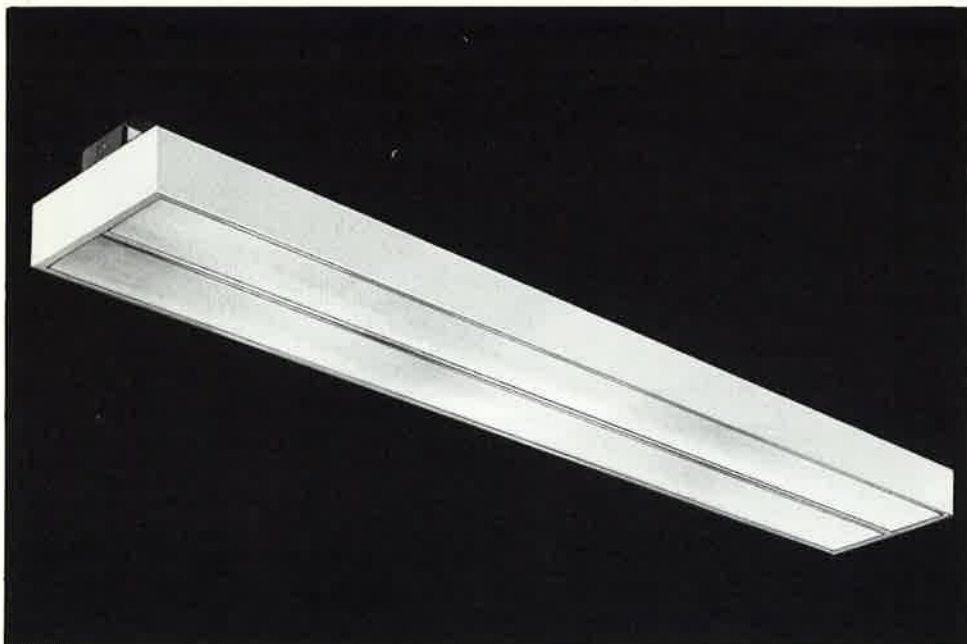
A4GD has similar dimensions

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			Length & Weight		Approx. Weight (incl. Tubes) kg	lb ^a
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.	o/a Length			
							mm	in		
6ft	85W	SRS	A4GC/A/685	A4GC 16	A4A.26	A4.685	1808	71.2	6.9	15.1
6ft	85W	SRS	A4GD/A/685	A4GD16	A4A.26	A4.685	1808	71.2	6.9	15.1
6ft	2 x 85W	SRS	A4GC/2685	A4GC 26	—	A4.2685	1808	71.2	9.1	20.0
6ft	2 x 85W	SRS	A4GD/2685	A4GD 26	—*	A4.2685	1808	71.2	9.1	20.0

* Channel Cover included with 1st attachment.

atlas

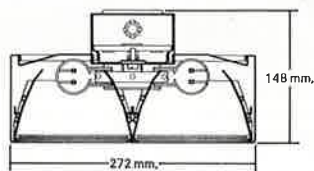
New Atlantic A4L low brightness



A4L/B2685

This attachment is a completely new approach developed to meet the demand for lighting fittings that can provide high values of illumination with a low degree of discomfort glare, while providing a clean attractive appearance. This is achieved using a clear plastic panel in the base, with moulded transverse prisms, to control the light from the tubes when viewed length ways and to provide a sufficient degree of brightness to the fitting when switched on to avoid the dull effect that can occasionally be produced. The high light output ratio of the fitting is produced essentially by optically designed extruded aluminium reflectors.

All fittings are suitable for use on 240V 50Hz supplies. Other voltages on application. These fittings comply fully with BS3820: 1964 Class 1, ordinary, indoor, normal atmospheres.

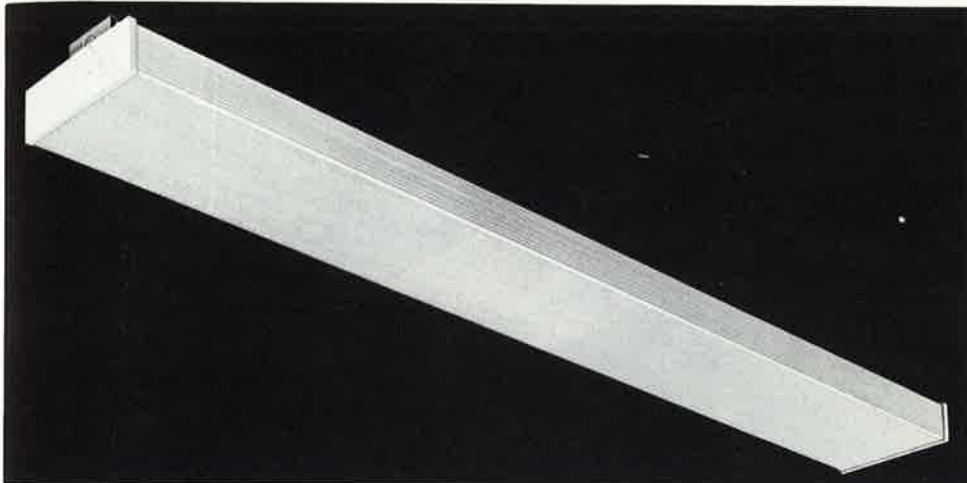


A4L (Low brightness)

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			o/a Length		Approx. Weight (incl. Tubes)	
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.	mm	in	kg	lb
6ft	2 x 85W	SRS	A4L/B2685	A4L26	— *	A4.B2685	1829	72.0	13.8	30.4

* Channel cover included with 1st attachment.

New Atlantic A4P & A4O broad prismatic controller and Opal diffuser

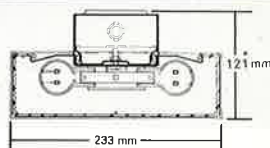


This broad prismatic controller and opal diffuser have been specifically designed for use with twin (broad spaced) tubes and the configuration of batten, lamp position and prismatic controller or diffuser allows a crisp, modern rectangular shape to be used. The controller is extruded in clear plastic with linear side prisms and pyramidal base prisms. The diffuser from reeded opal plastic. The function of the prisms is to re-direct light from the tubes either above the horizontal or up to 30° below it, thus ensuring the least amount of light being emitted in the zone most likely to give rise to discomfort glare. A wider version of the prismatic controller only has been designed for use on 4 tube battens.

Injection moulded white end caps are supplied with the attachments and are simply attached by locating 2 pins at the top and one at the bottom of each end-cap with corresponding holes in the ends of the attachment.

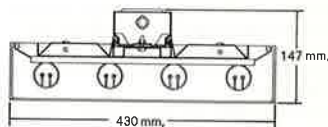
All fittings are suitable for use on 240V 50Hz supplies. Other voltages on application.

The fittings comply fully with BS3820:1964 for class 1, ordinary, indoor, normal atmosphere.



A4P/B2685

A4P/A4O Broad Prismatic controller or opal diffuser



A4P (4-tube Wide prismatic controller only)

PRISMATIC CONTROLLER FITTING

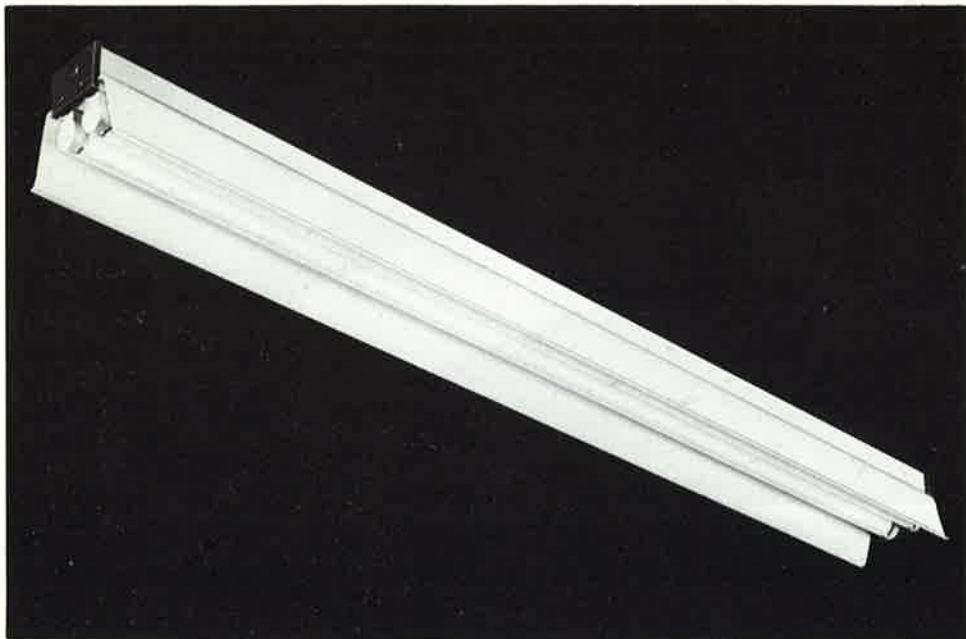
Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat.		Spine Cat. No.	Length & Weight		Approx. Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.		o/a Length		(incl. Tubes)	
5ft	2 x 65W	SRS	A4P/B265	A4P.25	*	A4.B265	1576	62-0	9-9	21.8
6ft	2 x 85W	SRS	A4P/B2685	A4P.26	*	A4.B2685	1839	72-4	10-1	23.3
6ft	4 x 85W	SRS	A4P/B/4685	A4P.46	A4B.46	A4.4685	1839	72-4	22-6	50-0
8ft	2 x 85W	QS	A4P/B2885	A4P.28	*	A4.B2885	2452	96-6	15-8	35-0
8ft	4 x 85W	QS	A4P/B/Q4885	A4P.48	A4B.48	A4.Q4885	2452	96-6	29-5	65-0
8ft	4 x 85W	TS	A4P/B/T4885	A4P.48	A4B.48	A4.T4885	2452	96-6	28-1	62-0

* Channel Cover included with 1st attachment.

OPAL PLASTIC DIFFUSER FITTING

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			Length & Weight			
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.	o/s Length		Approx. Weight (incl. Tubes)	
							mm	in	kg	lb
5ft	2 x 65W	SRS	A4O/B265	A4O.25	*	A4.B265	1576	62-0	9-9	21-8
6ft	2 x 85W	SRS	A4O/B2685	A4O.26	*	A4.B2685	1839	72-4	10-1	23-3
8ft	2 x 85W	QS	A4O/B2885	A4O.28	*	A4.B2885	2451	96-5	15-8	35-0

* Channel Cover included with 1st attachment.

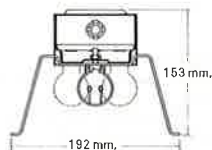


A4U/2685

This reflector is extruded from translucent medium opal density plastic and is an ideal choice for those industrial processes carried out in any buildings with flat solid ceilings, where the diffusion of the upward light helps to give a reasonably uniform ceiling brightness. The same reflector is suitable for both single and twin lamps and is readily attached to the standard spines.

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

These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.

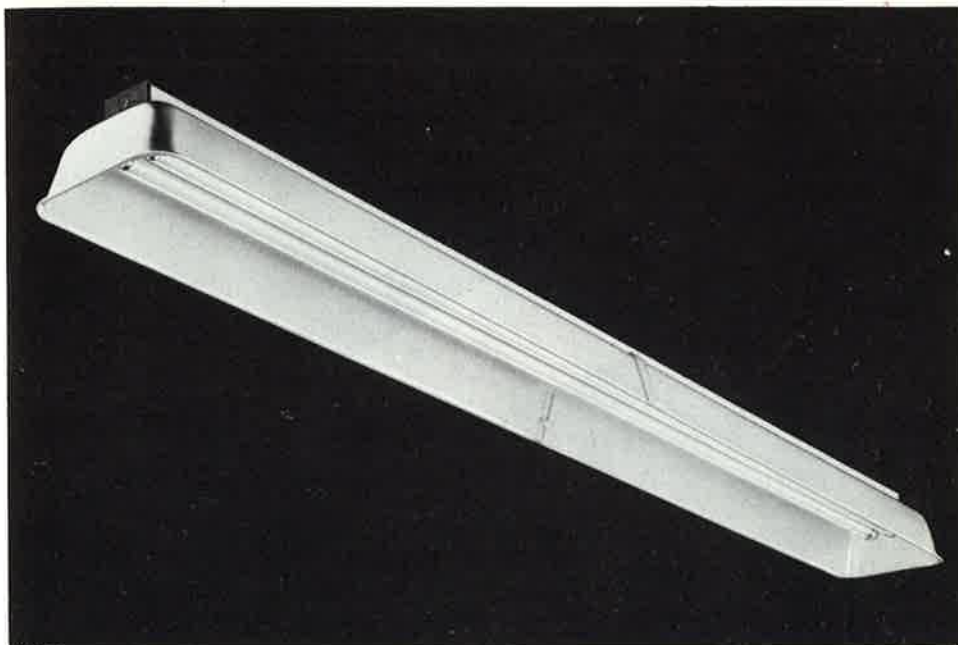


A4U (plastic reflector)

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.		Spine Cat. No.	o/a Length		Length & Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.		mm	in	Approx. Weight† (incl. Tubes)	
5ft	65W	SRS	A4U/65	A4U.25	—	A4.65	1541	60.7	6.3	13.9
5ft	2 x 65W	SRS	A4U/265	A4U.25	—	A4.265	1541	60.7	8.4	18.7
6ft	85W	SRS	A4U/685	A4U.26	—	A4.685	1805	71.1	6.8	15.0
6ft	2 x 85W	SRS	A4U/2685	A4U.26	—	A4.2685	1805	71.1	9.2	20.4
8ft	85W	QS	A4U/885	A4U.28	—	A4.885	2416	95.1	10.6	21.3
8ft	2 x 85W	QS	A4U/Q2885	A4U.28	—	A4.Q2885	2416	95.1	14.9	32.9
8ft	2 x 85W	TS	A4U/T2885	A4U.28	—	A4.T2885	2416	95.1	16.7	36.9
8ft	125W	QS	A4U/125	A4U.28	—	A4.125	2416	95.1	11.1	24.5
8ft	2 x 125W	QS	A4U/2125	A4U.28	—	A4.2125	2416	95.1	15.3	33.9

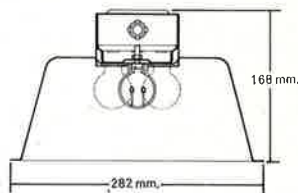
atlas

New Atlantic A4V vitreous enamel reflector



A4V/2885

A vitreous enamel finished 8ft reflector with closed ends and slots in the upper surface of the reflector. These provide a generous proportion of upward lighting and reduce brightness contrasts. Convection currents through the slots assist in reducing dirt accumulation on the reflector surfaces. For ease of assembly the reflector is supplied in 2 halves with a central jointing assembly. The vitreous finish will withstand the vigorous cleaning necessary in certain dirty atmospheres. All fittings are suitable for use on 240V 50Hz supplies. Other voltages on application. These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.

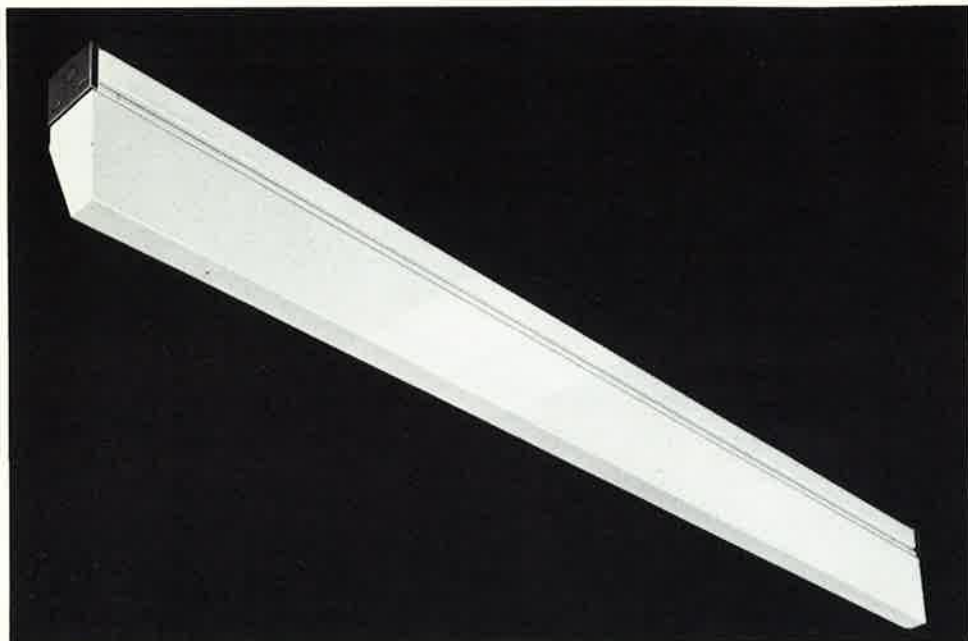


A4V (Vitreous reflector)

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			o/a Length		Length & Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.	mm	in	Approx. Weight (incl. Tubes)	
8ft	85W	QS	A4V/885	A4V.28	—	A4.885	2565	101.0	19.9	44.0
8ft	2 x 85W	QS	A4V/Q2885	A4V.28	—	A4.Q2885	2565	101.0	25.2	55.6
8ft	2 x 85W	TS	A4V/T2885	A4V.28	—	A4.T2885	2565	101.0	26.7	59.0
8ft	125W	QS	A4V/125	A4V.28	—	A4.125	2565	101.0	21.3	47.2
8ft	2 x 125W	QS	A4V/2125	A4V.28	—	A4.2125	2565	101.0	25.6	56.6

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New Atlantic A4W wall washer

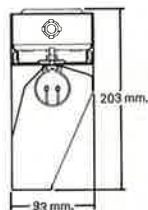


A4W/685

A specular reflector is designed to give an asymmetric distribution of light from this fitting. It is enclosed within a smart white enamelled framework. The combination of single tube plus wall washer attachment gives a very smart appearance and makes the fitting particularly suitable for the lighting of offices, noticeboards, entrance murals, wall sculptures, shop displays and other vertical surfaces. The designed mounting position for this fitting is on the ceiling, 2ft from the wall to be lit – this will then give an approximate 10:1 illumination ratio over a 10ft wall.

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

These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.

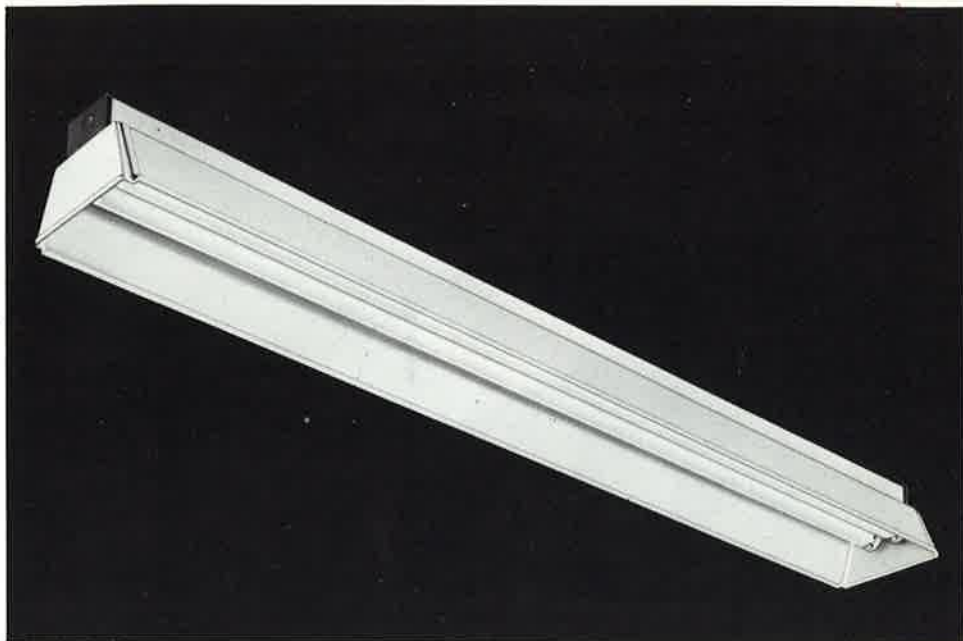


A4W (Wall-washer)

Nominal		Circuit	Fitting Cat. No.	Component Cat. No.			o/s Length	Length & Weight			
Tube Length	Rating			1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.		Approx. Weight (incl. Tubes)			
6ft	85W	SRS	A4W/685	A4W.16	—	A4.685	mm	in	kg	lb	
							1805	71.1	7.7	17.0	

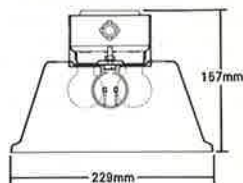
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New Atlantic A4X closed-end reflector



A4X/2685

A closed-end metal reflector with large slots in its upper surface to give a generous proportion of upward lighting and reducing brightness contrast. Convection currents through the slots assist in reducing dirt accumulation on the reflector surfaces, and help to maintain the efficiency of the installation. All fittings are suitable for use on 240V 50Hz supplies. Other voltages on application. These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.

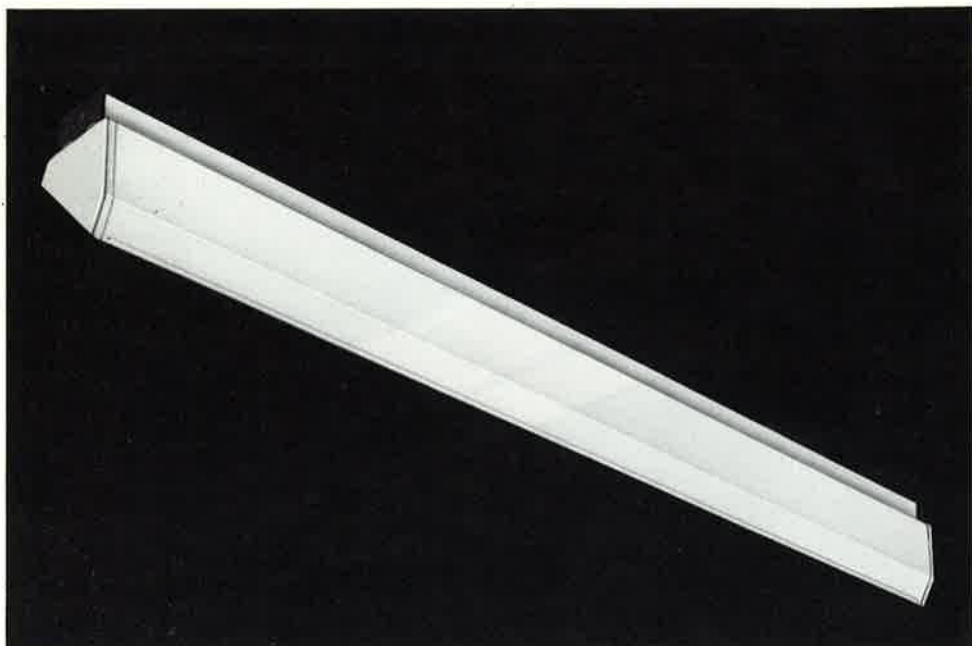


A4X (Metal reflector-closed end)

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.		Spine Cat. No.	o/a Length		Length & Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.		mm	in	Approx. Weight (incl. Tubes)	
6ft	85W	SRS	A4X/685	A4X.26	—	A4.685	1834	72.2	9.9	21.8
6ft	2 x 85W	SRS	A4X/2685	A4X.26	—	A4.2685	1834	72.2	11.9	26.4
8ft	85W	QS	A4X/885	A4X.28	—	A4.885	2445	96.3	13.8	30.5
8ft	2 x 85W	QS	A4X/2885	A4X.28	—	A4.2885	2445	96.3	19.2	42.3
8ft	2 x 85W	TS	A4X/T2885	A4X.28	—	A4.T2885	2445	96.3	21.0	46.1
8ft	125W	QS	A4X/125	A4X.28	—	A4.125	2445	96.3	15.3	33.7
8ft	2 x 125W	QS	A4X/2125	A4X.28	—	A4.2125	2445	96.3	19.7	43.1

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New Atlantic A4Y angle reflector



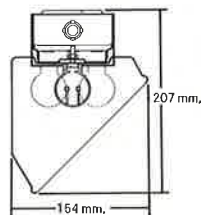
A4Y/2685

This angled reflector can be attached to either single or twin tube spines to provide a general "flow" of light in a required direction. It is particularly suitable for the lighting of chalk boards, work benches situated against vertical services, factory planning charts and for the general illumination of shop windows.

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

Other voltages on application.

These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.

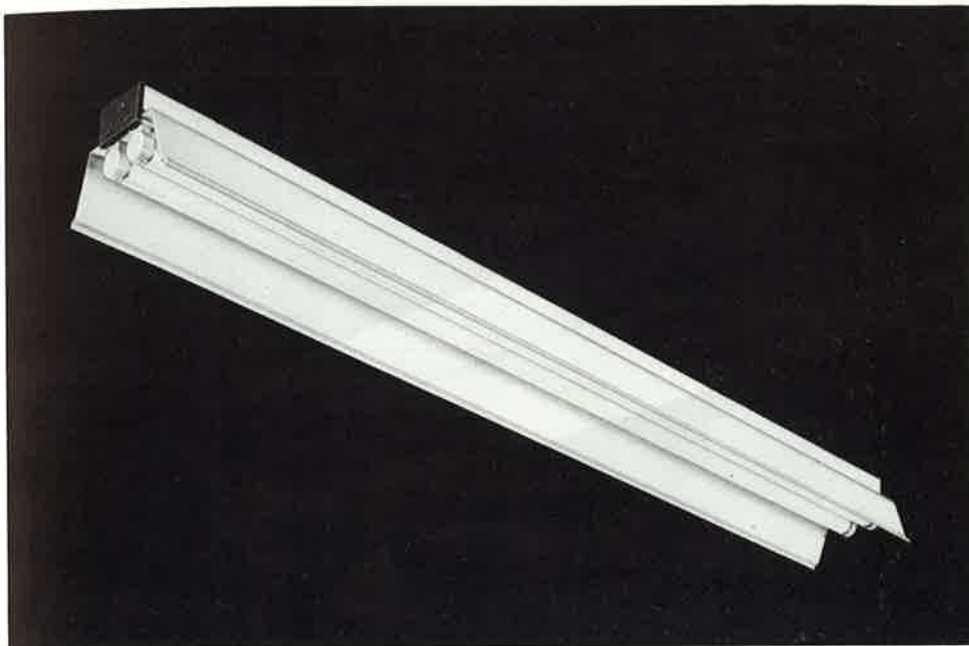


A4Y (Angle reflector)

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			o/a Length		Length & Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.	mm	in	Approx. Weight (incl. Tubes)	
5ft	65W	SRS	A4Y/65	A4Y.25	—	A4.65	1548	61.1	7.8	17.2
5ft	2 x 65W	SRS	A4Y/265	A4Y.25	—	A4.265	1548	61.1	10.0	22.0
6ft	85W	SRS	A4Y/685	A4Y.26	—	A4.685	1812	71.3	8.6	19.0
6ft	2 x 85W	SRS	A4Y/2685	A4Y.26	—	A4.2685	1812	71.3	10.7	23.6
8ft	85W	QS	A4Y/885	A4Y.28	—	A4.885	2423	95.4	12.0	26.5
8ft	2 x 85W	QS	A4Y/O2885	A4Y.28	—	A4.Q2885	2423	95.4	17.3	38.1
8ft	2 x 85W	TS	A4Y/T2885	A4Y.28	—	A4.T2885	2423	95.4	19.2	42.3
8ft	125W	OS	A4Y/125	A4Y.28	—	A4.125	2423	95.4	13.4	29.7
8ft	2 x 125W	QS	A4Y/2125	A4Y.28	—	A4.2125	2423	95.4	17.7	39.1

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New Atlantic A4Z open ended reflector



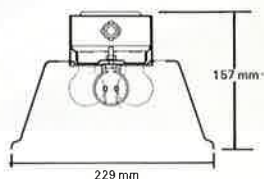
A4Z/2685

An open ended metal reflector with large slots in its upper surface 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, and help to maintain the efficiency of the installation.

An A4ZB version of this reflector is available for use on A4B type spines. A four-lamp version is also available and is shown with this type on page 1-62.

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

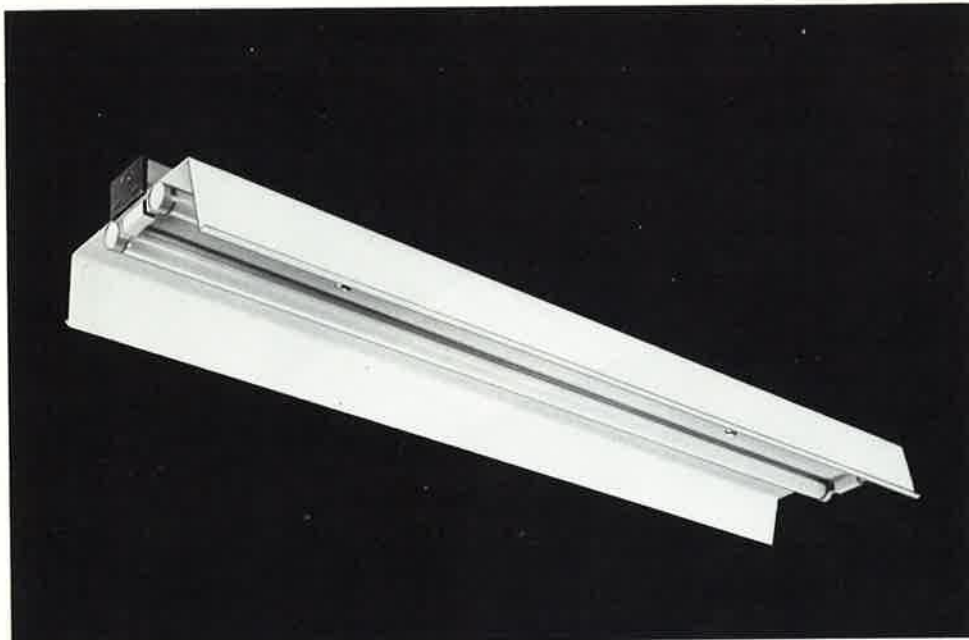
These fittings comply fully with BS3820: 1964 for class 1, ordinary, indoor, normal atmospheres.



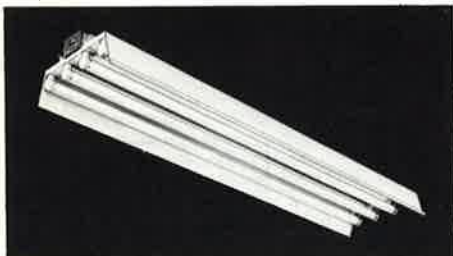
A4Z (Metal reflector—open ended)

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.		Spine Cat. No.	o/a Length		Length & Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.		mm	in	Approx. Weight (incl. Tubes)	
4ft	40W	SRS	A4Z/40	A4Z.24	—	A4.40	1241	48-8	7-1	15-6
4ft	2 x 40W	SRS	A4Z/240	A4Z.24	—	A4.240	1241	48-8	8-3	18-4
5ft	65W	SRS	A4Z/65	A4Z.25	—	A4.65	1542	60-7	8-7	19-1
5ft	2 x 65W	SRS	A4Z/265	A4Z.25	—	A4.265	1542	60-7	10-8	23-9
6ft	85W	SRS	A4Z/685	A4Z.26	—	A4.685	1805	71-1	9-7	21-3
6ft	2 x 85W	SRS	A4Z/2685	A4Z.26	—	A4.2685	1805	71-1	11-8	25-9
8ft	85W	QS	A4Z/885	A4Z.28	—	A4.885	2416	95-1	13-5	29-9
8ft	2 x 85W	QS	A4Z/Q2885	A4Z.28	—	A4.Q2885	2416	95-1	18-8	41-5
8ft	2 x 85W	TS	A4Z/T2885	A4Z.28	—	A4.T2885	2416	95-1	20-6	45-5
8ft	125W	QS	A4Z/125	A4Z.28	—	A4.125	2416	95-1	15-0	33-1
8ft	2 x 125W	QS	A4Z/2125	A4Z.28	—	A4.2125	2416	95-1	19-2	42-3

New Atlantic A4ZB broad open reflector & A4Z 4-tube reflector



A4ZB/B2685

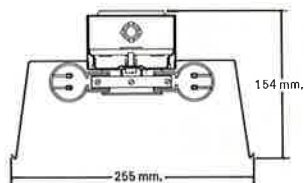


A4Z/4685

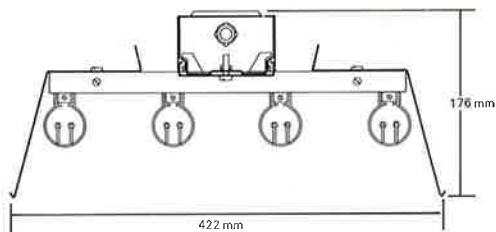
A wide version of the fitting shown on page 1:61. The A4ZB reflector fits on an A4B spine to give a broader light distribution.

A four-lamp version of the A4Z fitting is also available as shown.

All fittings are suitable for use on 240V 50Hz supplies. These fittings comply fully with BS3820:1964 for class 1, ordinary, indoor, normal atmospheres.



A4ZB Broad twin reflector



A4Z (4-tube reflector)

Nominal Tube Length	Rating	Circuit	Fitting Cat. No.	Component Cat. No.			o/a Length		Length & Weight	
				1st Attachment Cat. No.	2nd Attachment Cat. No.	Spine Cat. No.	mm	in	Approx. Weight (incl. Tubes)	
5ft	2 x 65W	SRS	A4ZB/B265	A4ZB.25	—	A4.B265	1542	60.7	12.7	28.0
6ft	2 x 85W	SRS	A4ZB/B2685	A4ZB.26	—	A4.B2685	1805	71.1	13.6	30.2
8ft	2 x 85W	QS	A4ZB/B2885	A4ZB.28	—	A4.B2885	2416	95.1	20.4	45.6
6ft	4 x 85W	SRS	A4Z/4685	A4Z.46	—	A4.4685	1805	71.1	25.4	54.0
8ft	4 x 85W	QS	A4Z/Q4885	A4Z.48	—	A4.Q4885	2416	95.1	30.8	68.0
8ft	4 x 85W	TS	A4Z/T4885	A4Z.48	—	A4.T4885	2416	95.1	29.5	65.0

New Atlantic Replacement Control Gear and Accessories

BATTEN ACCESSORIES

Description	Cat. No.
Lampholder	AMEB.1580/A4
Lampholder (broad twin)	ABEB.1580/A4T
Lampholder plate	
single	A4.4663
twin	A4.4664
broad twin	A4.4679
4-tube	A4.4665
Terminal block	AMET.1338
Fuse-holder	AMET.1344
Capacitor clip	AMEY.5288
End-cap	A4.4668
Cage screw	AC.5768
Cage nut	AC.5856
Slotted suspension washer	AC.4861
Besa cluster cap	A4.4674

JOINTING PIECES ACCESSORIES

Description	Cat. No.
Spacer for A4C, A4D diffusers	A4.4660
Spacer for closed-end reflectors and most attachments except A4C, A4D	A4.4661
Reflector jointing strap for A4Z (single/narrow twin)	A4.4662

ALUMINIUM FRAMES ACCESSORIES

Description	Cat. No.
Frame support clips (2-tube)	A4.4671
Attachment suspension bracket (4-tube)	A4.4672

ATTACHMENT ACCESSORIES

Diffuser suspension bracket	
A4C, A4D attachments	A4.4667
Cover-plate (Unicap twin)	A4.4668
End-cap for A4GC, A4GD attachments	
single	A4.4669
twin	A4.4670
4-tube attachment suspension bracket	A4.4672
Diffuser suspension bracket	
A4E attachment	A4.4673
Cover-plate (A4L)	A4.4675
Linear Prism Panel (A4L)	A4.4676
5ft Broad cover-plate	A4.4690
6ft Broad cover-plate	A4.4691
8ft Broad cover-plate	A4.4692

REPLACEMENT CONTROL GEAR

These items are chosen from the extensive range of control gear stocked in, and readily available from regional stores in the U.K. The reference numbers quoted differ from those marked on the control gear in the fitting, but the units are equally applicable to A4 fittings.

		Choke(s) or ballast(s)	Quickstart Units	Capacitor(s)	Fuse
40W 4ft	single	1 x BU/40	—	1 x AMEC2273	1 x AMET1332
	twin	2 x BU/40	—	1 x AMEC2273	1 x AMET1332
65W 5ft	single	1 x BI/65	—	1 x AMEC2220	1 x AMET1342
	twin } broad twin }	2 x BI/65	—	2 x AMEC2220	1 x AMET1342
85W 6ft	single	1 x BI/685	—	1 x AMEC2220	1 x AMET1342
	twin }	2 x BI/685	—	2 x AMEC2220	1 x AMET1342
	broad twin }	4 x BI/685	—	4 x AMEC2220	2 x AMET1342
	4-tube	1 x BI/85	—	1 x AMEC2226	1 x AMET1299
85W 8ft	single	1 x BQI/85	—	2 x AMEC2226	1 x AMET1299
	twin }	2 x BQI/85	—	4 x AMEC2226	2 x AMET1299
	broad twin }	1 x BV/285	—	—	1 x AMET1299
	4-tube	2 x BV/285	—	—	2 x AMET1299
	twinstart	1 x CQI/125	1 x QS/125	1 x AMEC2228	1 x AMET1299
125W 8ft	single	2 x CQI/125	2 x QS/125	2 x AMEC2228	1 x AMET1299
	twin				

Note: Electrical Data and lamp Data for the above are shown on pages 6:9 and 10:4—10:17 of this catalogue.

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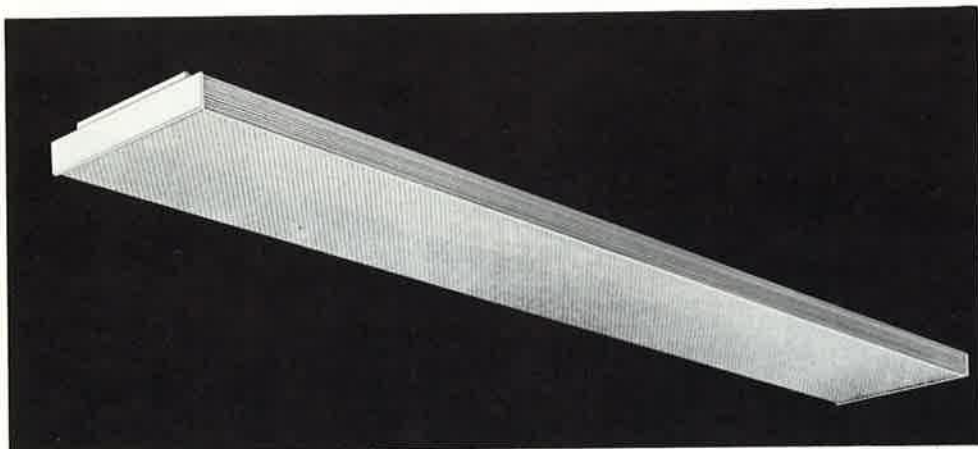
KSP London line fitting

This 'Wafer Slim' fitting has a unique lightness and elegance of appearance. The complete ceiling mounted fitting only projects $3\frac{1}{2}$ in from the ceiling which makes it ideal for modern low ceilings. These fittings provide a high technical efficiency with a low glare index and also give rise to the impression of a panel of

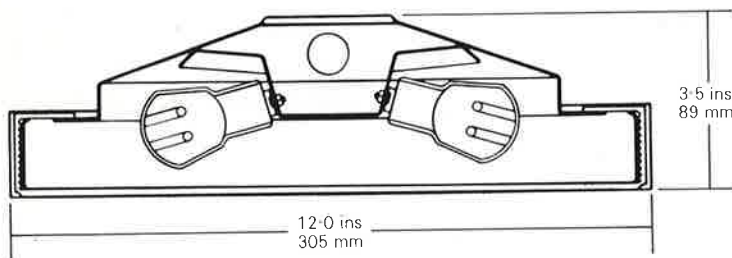
light due to the fact that from almost all normal angles of vision the spine is invisible.

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

Complete fitting					Components		o/a length & weight					
Nom. length	Rating	No. of Tubes	Circuit	Cat. no.	Diffuser Cat. no.	Batten Cat. no.	Length mm	in	Weight kg	lb	Fixing centres mm	in
6ft	85w	2	SRS	KSP/R2685	KSP.26	KS.R2685	1829	72	12.7	28.0	610	24
8ft	85W	2	QS	KSP/Q2085	KSP.28	KS.Q2085	2438	96	15.3	33.9	1220	48

This fitting is not suitable for chain suspension.

a comprehensive range of
modular fittings
for fluorescent lighting

The 'Format' range blends functional efficiency with distinction of styling. The design is based on information obtained from a survey of architects and it takes note of the various requirements of strength, elegance, adaptability, ease of installation and servicing and, not least, continuously reliable performance.

'Format' is 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. 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.

Atlas Amalgam Tubes offer substantial advantages in improved Light Output Ratios when used with 6ft Format fittings, particularly those of the SM Type.

All fittings in this range comply with BS. 3820:1964 for class I ordinary, indoor normal atmospheres.

atlas

Format 1SM & 2SM fittings

1.SMD/1685



2.SMP/2685



1.SMO/1685



D = OPAL DIFFUSER O = OPAL SIDES, PRISMATIC BASE

RANGE AND DIMENSIONS

Complete fitting

Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Diffuser Cat. no.	Spine Cat. no.	Fitting size length mm	length in	Approx. weight (inc. tubes) kg	lb
4ft	40W	One	QS	1.SMD/1040	1.SMD.4	1.SMB.1040	1300	51-2	5-1	11-2
4ft	40W	One	QS	1.SMO/1040	1.SMO.4	1.SMB.1040	1300	51-2	5-1	11-2
4ft	40W	One	QS	1.SMP/1040	1.SMP.4	1.SMB.1040	1300	51-2	5-1	11-2
6ft	85W	One	SRS	1.SMD/1685	1.SMD.6	1.SMB.1685	1850	72-8	6-6	14-7
6ft	85W	One	SRS	1.SMO/1685	1.SMO.6	1.SMB.1685	1850	72-8	6-6	14-7
6ft	85W	One	SRS	1.SMP/1685	1.SMP.6	1.SMB.1685	1850	72-8	6-6	14-7
4ft	40W	Two	QS	2.SMD/2040	2.SMD.4	2.SMB.2040	1300	51-2	8-4	18-5
4ft	40W	Two	QS	2.SMO/2040	2.SMO.4	2.SMB.2040	1300	51-2	8-4	18-5
4ft	40W	Two	QS	2.SMP/2040	2.SMP.4	2.SMB.2040	1300	51-2	8-4	18-5
6ft	85W	Two	SRS	2.SMD/2685	2.SMD.6	2.SMB.2685	1850	72-8	10-9	24-0
6ft	85W	Two	SRS	2.SMO/2685	2.SMO.6	2.SMB.2685	1850	72-8	10-9	24-0
6ft	85W	Two	SRS	2.SMP/2685	2.SMP.6	2.SMB.2685	1850	72-8	10-9	24-0

A surface-mounted fitting with black metal body and a choice of two plastic attachments.

The sheet steel body is bonderized and stove enamelled semi-matt black outside and white inside, in a hard alkyd paint.

Attachments seat against foam gaskets.

Control gear and wiring are connected to a 3-way fused terminal block; cable entry is at the centre, or at fixing centres, or by knock-outs at the end of the fitting.

Fittings should be ceiling mounted but can be suspended on $\frac{3}{4}$ in conduits. If they are connected end-to-end for continuous mounting by means of a $\frac{3}{4}$ in conduit coupler, a $\frac{3}{4}$ in full conduit nut should be used as a spacer to leave room for the expansion of attachments. (see diagram.)

Ambient temperatures at fitting level should not exceed 25°C.

1.SMB.1040/1.SMB.1685

Dimension A mm	ins.	Dimension B mm	ins.
610	24	—	—
900	35-4	—	—

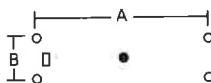
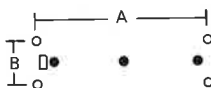
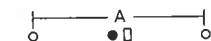
2.SMB.2685

Dimension A mm	ins.	Dimension B mm	ins.
900	35-4	100	3-9

2.SMB.2040

Dimension A mm	ins.	Dimension B mm	ins.
610	24	100	3-9

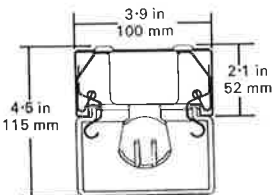
CABLE AND SUSPENSION HOLE ARRANGEMENT



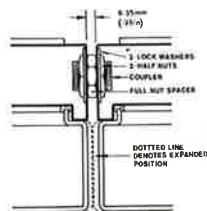
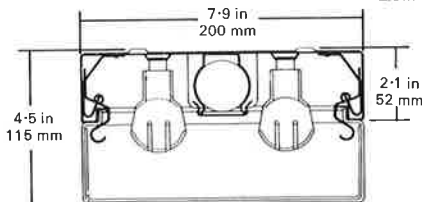
- — Suspension and wiring entry.
- — Wiring entry only
- — Terminal block

N.B. Diagrams are not to scale.

1.SM

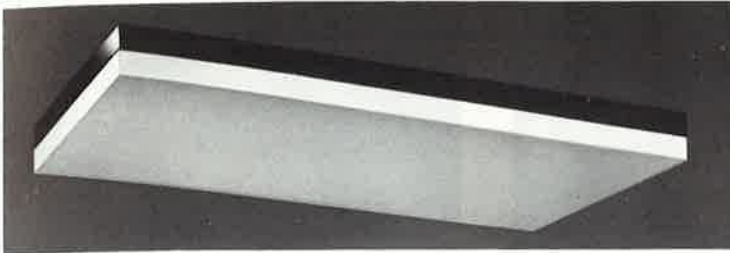


2.SM

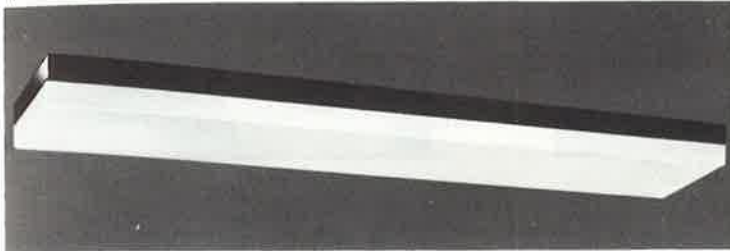


atlas

Format 3SM & 4SM fittings



4.SMO/3685



3.SMD/2685



RANGE AND DIMENSIONS

Complete fitting

Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Diffuser Cat. no.	Spine Cat. no.	Fitting size length mm	length in	Approx. weight (inc. tubes) kg	lb
6ft	85W	Two	SRS	3.SMD/2685	3.SMD.6	3.SMB.2685	1850	72.8	13.4	29.5
6ft	85W	Two	SRS	3.SMO/2685	3.SMO.6	3.SMB.2685	1850	72.8	13.4	29.5
4ft	40W	Three	QS	4.SMD/3040	4.SMD.4	4.SMB.3040	1300	51.2	13.7	30.2
6ft	85W	Three	SRS	4.SMD/3685	4.SMD.6	4.SMB.3685	1850	72.8	17.9	39.5
6ft	85W	Three	SRS	4.SMO/3685	4.SMO.6	4.SMB.3685	1850	72.8	17.9	39.5

A wider, two or three lamp version of the 1SM & 2SM fittings.
The sheet-steel body is bonderized and stove enamelled semi-matt black outside and white inside.
Cable entry is by 20mm (25/32in) dia hole (for which a plastic grommet is provided) as shown in the table below.

Fittings should be ceiling mounted but can be suspended on conduits for diagram of end to end connection, see page 1.66.
Ambient temperatures at fitting level should not exceed 25°C.

3.SMB.2685

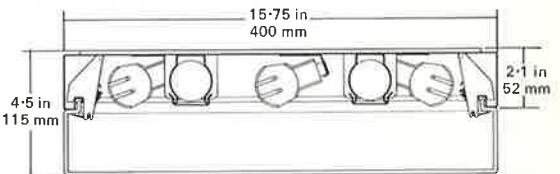
Dimension A mm	ins.	Dimension B mm	ins.
900	35.4	100	3.9

4.SMB.3685

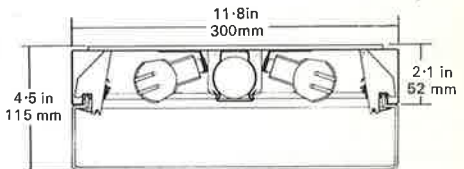
Dimension A mm	ins.	Dimension B mm	ins.
900	35.4	200	7.9

4.SMB.3040

Dimension A mm	ins.	Dimension B mm	ins.
610	24	200	7.9



4.SM



3.SM

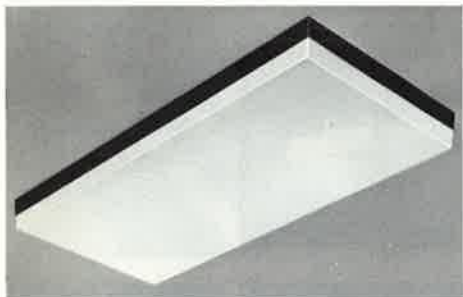
CABLE AND SUSPENSION HOLE ARRANGEMENT

- — Suspension and wiring entry.
- — Wiring entry only
- — Terminal block

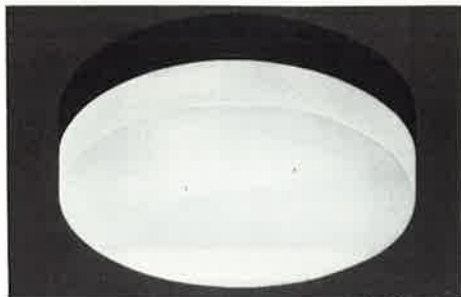
N.B. Diagrams are not to scale.

atlas

Format 5SM, QSM & OSM fittings



5.SMO/4685



O.SMD/3240

Wider versions of the two previous fittings for use on modular ceilings, and a circular fitting of matching design.

Details of the rectangular fittings are as shown on pp. 1:66 and 67, the circular fitting is supplied in switch start only and the cable entry and conduit suspension slots are centrally placed.

For details of continuous mounting see P. 1:66.

The cable entry of the square fitting is offset on the centre-line by 203mm (8in).

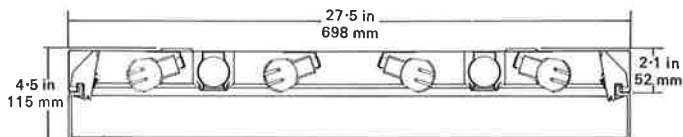
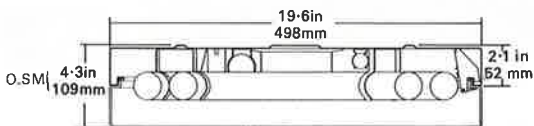
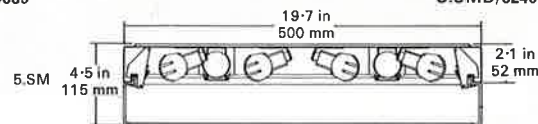
The circular fitting is designed for ceiling mounting only.

The circular fitting only is supplied complete with 32W and 40W warm white tubes.

Ambient temperatures at fitting level should not exceed 25°C.

- —Suspension and wiring entry
- —Wiring entry only
- —Terminal block
- ⊙ —19.8mm conduit box entry 2in P.C.D.

N.B. Diagrams are not to scale

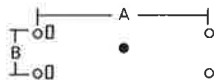


CABLE AND SUSPENSION HOLE ARRANGEMENT

Q.SM

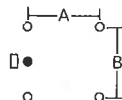
5.SMB.4040

Dimension A	ins.	Dimension B	ins.
610	24	200	7.9



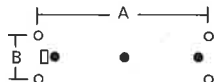
O.SMB.4020

Dimension A	ins.	Dimension B	ins.
406	16	406	16

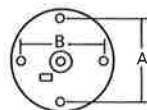


5.SMB.4685

Dimension A	ins.	Dimension B	ins.
900	35.4	200	7.9



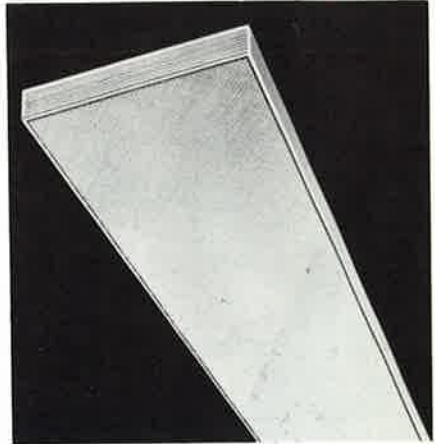
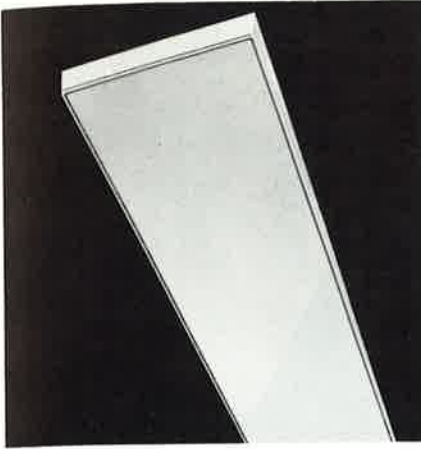
O.SMB.3240
4.8mm (3/16in) diam. on
305mm (12in) PCD



RANGE AND DIMENSIONS

Complete fitting

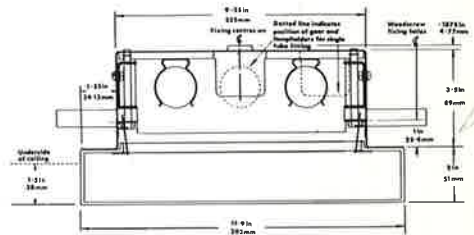
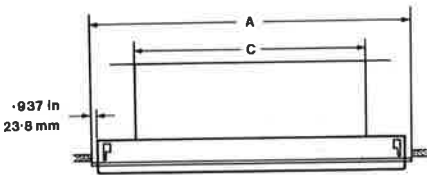
Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Diffuser Cat. no.	Spine Cat. no.	Fitting size length mm	length in	Approx. weight (inc. tubes) kg	lb
4ft	40W	Four	QS	5.SMD/4040	5.SMD.4	5.SMB.4040	1300	51.2	17.9	39.5
4ft	40W	Four	QS	5.SMD/4040	5.SMD.4	5.SMB.4040	1300	51.2	17.9	39.5
6ft	85W	Four	SRS	5.SMD/4685	5.SMD.6	5.SMB.4685	1850	72.8	23.3	51.4
6ft	85W	Four	SRS	5.SMD/4685	5.SMD.6	5.SMB.4685	1850	72.8	23.3	51.4
2ft	20W	Four	QS	Q.SMD/4020	Q.SMD.2	Q.SMB.4020	698	27.5	13.3	29.3
2ft	20W	Four	QS	Q.SMD/4020	Q.SMD.2	Q.SMB.4020	698	27.5	13.3	29.3
Circ.	32W	Two	SRS	*O.SMD/3240	O.SMD.	O.SMB.3240	498	19.6	7.2	15.8
										+40W



A recessed modular fitting, in which the metal-work is completely concealed by the diffuser. An opal diffusing dish or clear prismatic controller is held to the metal frame by wishbone springs. The control-gear is prewired and fixed to the inside of the fitting, tubes are supported by spring clips and have push-on lampholders. A 3in clear void must be left at one end of the fitting to allow for the protrusion of the tubes. An end-box assembly is available.

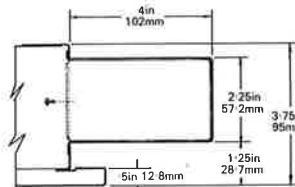
Three standard methods of suspension are available, by $\frac{1}{2}$ conduit at the fixing centres shown, by side-suspension arms or by wood screws through the sides of the fitting.

The FM range is based on British Modular dimensions, fittings to metric modular dimensions of 300mm x 1200mm and 1800mm can be supplied on application. Ambient temperature at fitting level should not exceed 25°C.

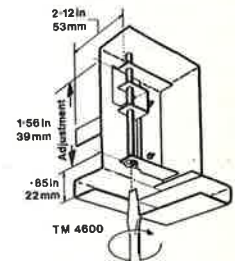


ACCESSORIES

Cat. no.	Description
TM 4600	Side suspension arm set (4 per set)
1.TM 4601	End box set



1.TM 4601
Optional End Box



RANGE AND DIMENSIONS

Complete fitting

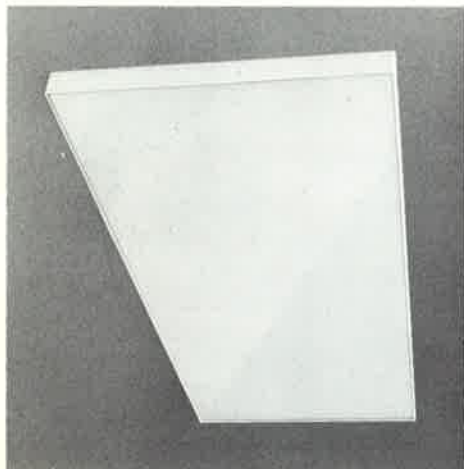
Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Diffuser Cat. no.	Housing Cat. no.	Fitting size length mm	Fitting size length in	Approx. weight (inc. tubes) kg	Approx. weight (inc. tubes) lb	Fixing centres* length mm	Fixing centres* length in
4ft	40W	One	QS	1.FMD/1040	1.FMD.4	1.FMB.1040	1217	47-9	9.4	20.7	914	36
4ft	40W	Two	QS	1.FMD/2040	1.FMD.4	1.FMB.2040	1217	47-9	11.7	25.4	914	36
6ft	85W	One	SRS	1.FMD/1685	1.FMD.6	1.FMB.1685	1827	71-9	15.8	34.8	1372	54
6ft	85W	Two	SRS	1.FMD/2685	1.FMD.6	1.FMB.2685	1827	71-9	18.7	41.9	1372	54

* Fixing centres are on centre-line of fitting.

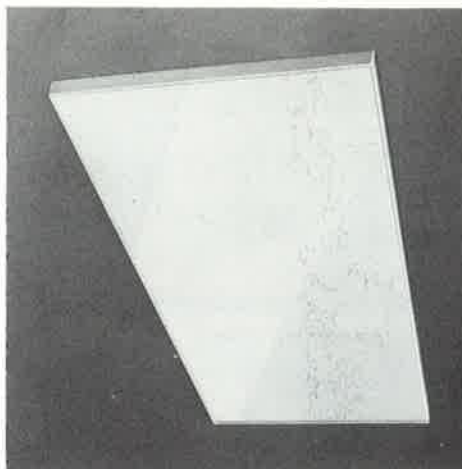
atlas

Format 2FM fittings

D = OPAL DIFFUSER P = PRISMATIC CONTROLLER



2.FM/P/4040



2.FM/D/4040

A 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. Sizes to meet panel layouts of 2ft x 2ft, 4ft, 6ft and 8ft are available.

Control gear is prewired and fixed to gear trays which are simply hooked into the housing and hinged into position – to facilitate servicing from below. Trays may be completely removed, for workshop servicing away from the fitting.

The diffuser or controller attachments are offered straight up to the housing and are securely held by wishbone springs.

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

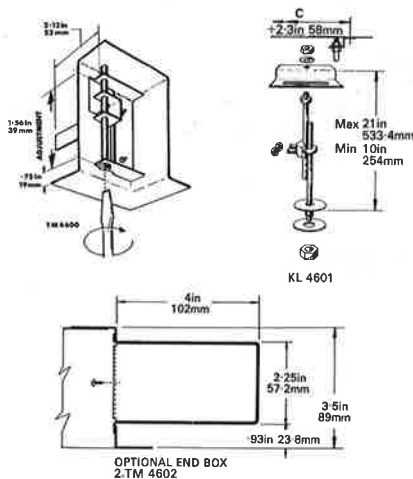
- Normal $\frac{3}{4}$ in diameter conduit through $\frac{3}{4}$ in diameter holes, or
- Side suspension arms (TM4600) onto the suspended ceiling structure (this method allows the suspended ceiling to be fully installed before the lighting and is fully adjustable for levelling of the fitting relative 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 steel 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.

Ambient temperature of fitting level should not exceed 25°C. It is suggested that advice be sought from your nearest Thorn office on the use of these fittings.



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 date is obtained by substituting 'P' for 'D' in the catalogue numbers.

RANGE

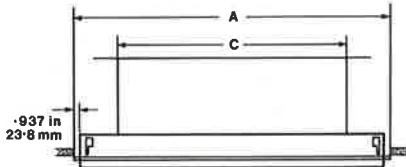
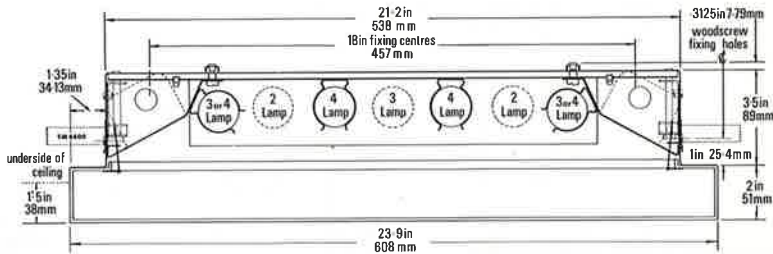
Complete fitting

Nom. length	Rating	No. of tubes	Circuit	Cat. no.	Diffuser Cat. no.	Gear Tray Cat. no.	Housing Cat. no.
2ft	20w	Two	QS	2.FM/D/2020	2.FMD.2	2.TM.2020	2.FMB.2
2ft	20w	Four	QS	2.FM/D/4020	2.FMD.2	2.TM.4020†	2.FMB.2
4ft	40w	Two	QS	2.FM/D/2040	2.FMD.4	2.TM.2040	2.FMB.4
4ft	40w	Three	QS	2.FM/D/3040	2.FMD.4	2.TM.3040*	2.FMB.4
4ft	40w	Four	QS	2.FM/D/4040	2.FMD.4	2.TM.4040††	2.FMB.4
6ft	85w	Two	SRS	2.FM/D/2685	2.FMD.6	2.TM.2685	2.FMB.6
6ft	85w	Three	SRS	2.FM/D/3685	2.FMD.6	2.TM.3685**	2.FMB.6
6ft	85w	Four	SRS	2.FM/D/4685	2.FMD.6	2.TM.4685†††	2.FMB.6
8ft	85w	Two	QS	2.FM/D/2085	2.FMD.8‡	2.TM.2085	2.FMB.8
8ft	85w	Three	QS	2.FM/D/3085	2.FMD.8‡	2.TM.3085***	2.FMB.8
8ft	85w	Four	QS	2.FM/D/4085	2.FMD.8‡	2.TM.4085††††	2.FMB.8

† 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.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.FMD.8 = 2 x 2.FMD.4

DIMENSIONS

Cat. no.	Fitting size length mm Dim 'A'	length in Dim 'A'	Approx. weight (inc. tubes) kg	lb	Fixing centres length mm Dim 'C'	length in Dim 'C'
2.FM/D/2020	608	23.9	9.5	20.9	457	18
2.FM/D/4020	608	23.9	12.5	27.6	457	18
2.FM/D/2040	1217	47.9	16.9	37.3	914	36
2.FM/D/3040	1217	47.9	19.0	41.9	914	36
2.FM/D/4040	1217	47.9	21.2	46.8	914	36
2.FM/D/2685	1827	71.9	27.1	59.8	1372	54
2.FM/D/3685	1827	71.9	30.3	66.8	1372	54
2.FM/D/4685	1827	71.9	34.5	76.1	1372	54
2.FM/D/2085	2436	95.9	41.2	90.8	1372	54
2.FM/D/3085	2436	95.9	45.4	100.0	1372	54
2.FM/D/4085	2436	95.9	50.7	111.8	1372	54



ACCESSORIES

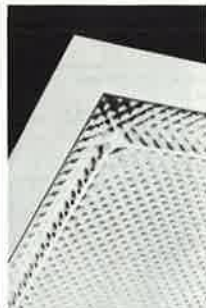
Cat. no.	Description
KL 4601	Adjustable suspension set (4 per set)
TM 4600	Side suspension arm set (4 per set)
2.TM 4602	End box set

atlas

Format 1TM fittings

D = OPAL DIFFUSER P = PRISMATIC CONTROLLER

1.TMP/1685



A recessed modular fitting, the white opal or prismatic lay-in controller-panel are retained by concealed springs and stops.

The body and trim are constructed of sheet steel, bonderized and stove enamelled with a hard white alkyd paint.

Fittings may be suspended

- 1) by 3/4 in conduit from the structural ceiling.
- 2) by side suspensions arms

- 3) by wood screws through the sides of the housing.
- Since tubes project through the end of the fitting 3in clear spare should be left at one end of the fitting. Box assemblies are available to close the opening. The TM range is based on British Modular dimensions, but can be supplied on application to Metric Modular dimensions of 300mm x 1200mm, 1800mm or 2400mm. Ambient temperatures at fitting level should not exceed 25°C.

D = OPAL DIFFUSER P = PRISMATIC CONTROLLER

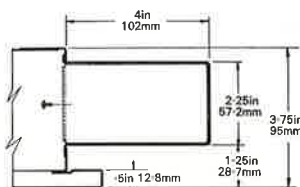
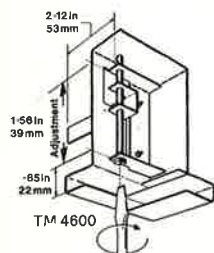
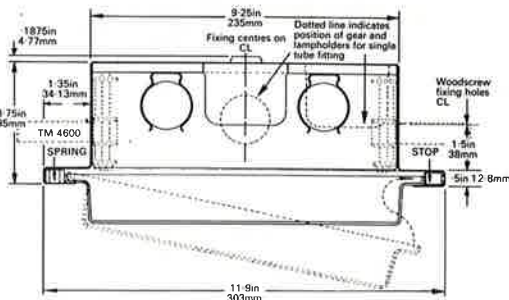
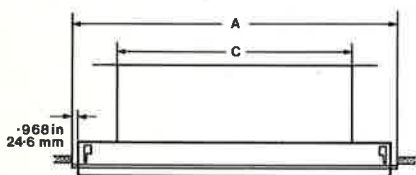
Information given in this table is for 'D' (Diffuser) version.

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

Nom. Length	Rating	Tubes	Circuit	Cat. No.*	Diffuser Cat. No.*	Housing Cat. No.	Fitting Size Length mm	in	Approx. weight inc. Tubes lb	kg	Fixing ctrs.† Length mm	in
4ft.	40W	One	QS	1.TMD/1040	1.TMD.4	1.TMB.104	1217	47-9	9-4	20-7	914	36
4ft.	40W	Two	QS	1.TMD/2040	1.TMD.4	1.TMB.204	1217	47-9	11-5	25-4	914	36
6ft.	85W	One	SRS	1.TMD/1685	1.TMD.6	1.TMB.168	1827	71-9	15-8	34-8	1372	54
6ft.	85W	Two	SRS	1.TMD/2685	1.TMD.6	1.TMB.268	1827	71-9	19-0	41-9	1372	54
8ft.	85W	One	QS	1.TMD/1085	1.TMD.8	1.TMB.108	2436	95-9	24-2	53-4	1372	54
8ft.	85W	Two	QS	1.TMD/2085	1.TMD.8	1.TMB.208	2436	95-9	28-4	62-6	1372	54

* D denotes Diffuser version, substitute P in catalogue number for Prismatic Controller

† Fixing centres on centre-line of fitting.

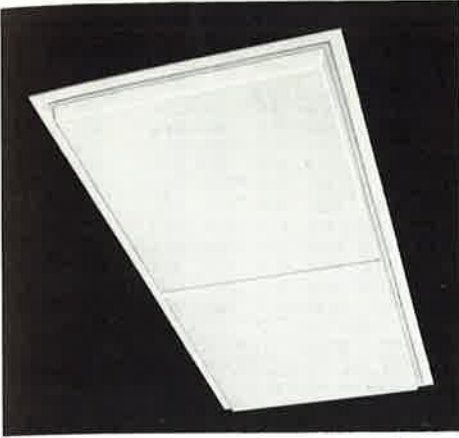


ACCESSORIES

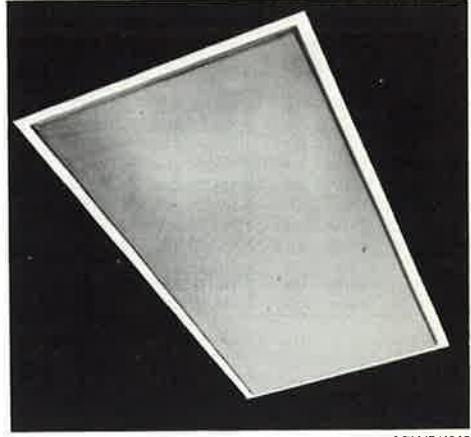
Cat. no.	Description
TM.4600	Side suspension arm set (4 per set)
1.TM.4601	End box set

atlas Format 2TM fittings

D = OPAL DIFFUSER P = PRISMATIC CONTROLLER



2.TM/D/4040



2.TM/P/4040

A recessed modular fitting, having a slender, visible metal trim surrounding either an opal diffusing dish or a clear prismatic controller. Sizes to meet panel layouts of 2ft x 2ft, 4ft, 6ft and 8ft are available.

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

The diffuser or controller attachments are inserted into the trim, centralized, and retained by concealed springs and buffers. Four standard methods of suspension are 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.

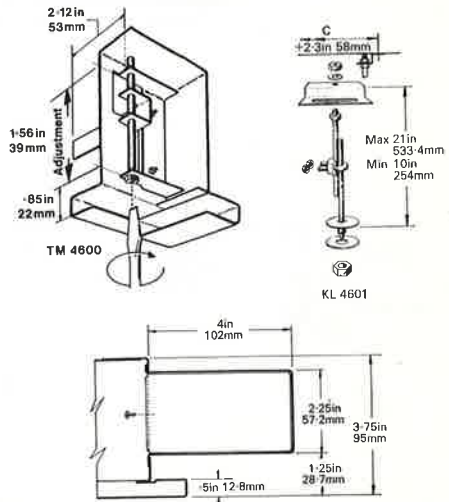
Housings are constructed in sheet steel which is bonderized and stove enamelled white with a hard alkyd paint. Diffusers are moulded from opal sheet and controllers from clear sheet. 2ft x 8ft diffusers and controllers are each supplied in two half panels.

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 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.

The TM Range is based on British Modular dimensions but can be supplied, on application, to Metric Modular dimensions of 600mm x 600mm, 1200mm, 1800mm or 2400mm.

Ambient temperature at fitting level should not exceed 25°C. It is suggested that advice be sought from your nearest Thorn office on the use of these fittings.



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 is obtained by substituting 'P' for 'D' in the catalogue numbers.

RANGE

Complete fitting

Nom. Length	Rating	No. of tubes	Circuit	Cat. no.	Diffuser Cat. no.	Gear Tray Cat. no.	Housing Cat. no.	Fitting size length mm	Fitting size length in	Approx. weight (inc. tubes) kg	Approx. weight (inc. tubes) lb	Fixing centres length mm	Fixing centres length in
								Dim 'A'	Dim 'A'			Dim 'C'	Dim 'C'
2ft	20W	Two	QS	2.TM/D/2020	2.TMD.2	2.TM.2020	2.TMB.2	608	23.9	9.5	20.9	457	18
2ft	20W	Four	QS	2.TM/D/4020	2.TMD.2	2.TM.4020†	2.TMB.2	608	23.9	12.5	27.6	457	18
4ft	40W	Two	QS	2.TM/D/2040	2.TMD.4	2.TM.2040	2.TMB.4	1217	47.9	16.9	37.3	914	36
4ft	40W	Three	QS	2.TM/D/3040	2.TMD.4	2.TM.3040*	2.TMB.4	1217	47.9	19.0	41.9	914	36
4ft	40W	Four	QS	2.TM/D/4040	2.TMD.4	2.TM.4040††	2.TMB.4	1217	47.9	21.2	46.8	914	36
6ft	85W	Two	SRS	2.TM/D/2685	2.TMD.6	2.TM.2685	2.TMB.6	1827	71.9	27.1	59.8	1372	54
6ft	85W	Three	SRS	2.TM/D/3685	2.TMD.6	2.TM.3685**	2.TMB.6	1827	71.9	30.3	66.8	1372	54
6ft	85W	Four	SRS	2.TM/D/4685	2.TMD.6	2.TM.4685†††	2.TMB.6	1827	71.9	34.5	76.1	1372	54
8ft	85W	Two	QS	2.TM/D/2085	2.TMD.8	2.TM.2085	2.TMB.8	2436	95.9	41.2	90.8	1372	54
8ft	85W	Three	QS	2.TM/D/3085	2.TMD.8	2.TM.3085***	2.TMB.8	2436	95.9	45.4	100.0	1372	54
8ft	85W	Four	QS	2.TM/D/4085	2.TMD.8	2.TM.4085††††	2.TMB.8	2436	95.9	50.7	111.8	1372	54

*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

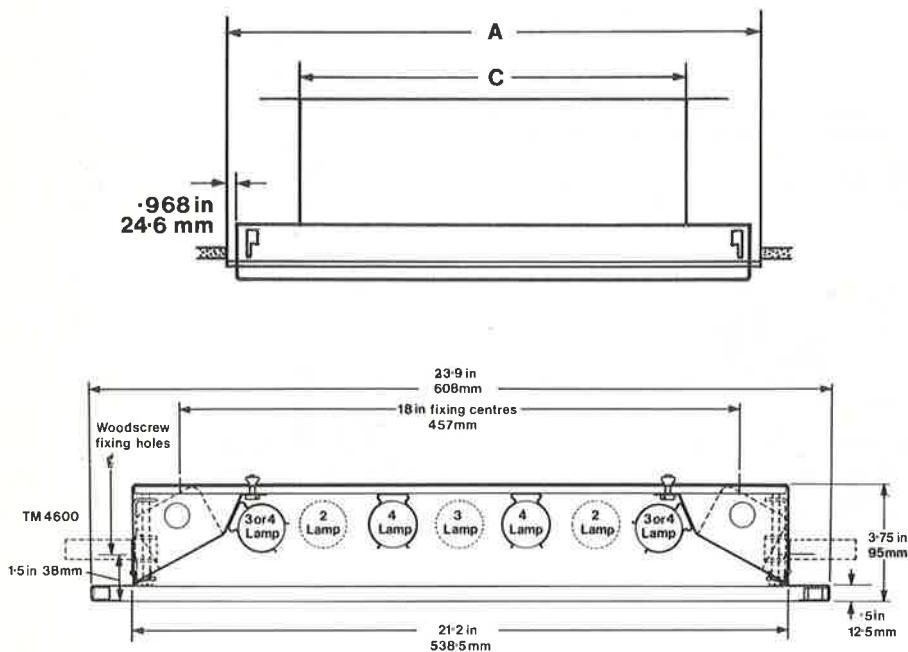
****For width see cross-section below

†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



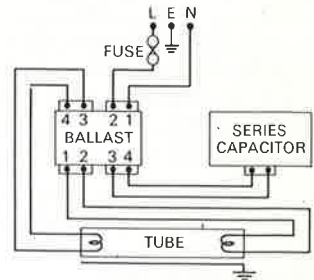
ACCESSORIES

Cat. no.	Description
KL.4601	Adjustable suspension set (4 per set)
TM.4600	Side suspension arm set (4 per set)
2.TM.4602	End box set

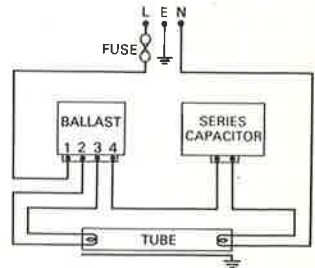
ACCESSORIES

230/240V 50 Hz Circuit Diagrams

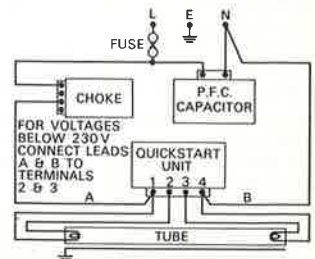
Accessory	SM Accessory Cat. No. (excluding O.SMD.3240)	O.SMD.3240 Accessory Cat. No.	FM Accessory Cat. No.	TM Accessory Cat. No.
Lampholder	AMEB1548/K	AMEB1535	AMEB1573	AMEB1573
Fused terminal block	AMET1265	AMET1265	AMET1265	AMET1265
Terminal block	—	—	AMET1281/1	AMET1281/1
Fuse	2ft 20W — AMET1299 4ft 40W — AMET1299 6ft 85W — AMET1342	4ft 40W — AMET1299	2ft 20W — AMET1299 4ft 40W — AMET1299 6ft 85W — AMET1342 8ft 85W — AMET1299	2ft 20W — AMET1299 4ft 40W — AMET1299 6ft 85W — AMET1342 8ft 85W — AMET1299
Capacitor clip	AMEY5244	AMEY5244	AMEY5244	AMEY5244
Capacitor safety clip	AMEY5245	AMEY5245	AMEY5245	AMEY5245
Starterswitch clip	—	AMEY5274	—	—
Loop starter socket	—	AMEM6064/12	—	—
Cable cleat	AC5363	AC5363	AC5363	AC5363
Lamp clip	—	AMEY5294	AMEY5213	AMEY5213
Wiring grommet	AC5297	AC5297	AC5297	AC5297
Blind grommet	AC5402	—	—	—
Gasket for sides/ mm length	SM.4600/—	—	—	—
Gasket for end/ mm length	SM.4601/—	—	—	—
Cage nut	—	—	AC4377	AC4377
Cage nut screw	—	—	AC4445	AC4445
Gear tray blanking grommet	—	—	AC5576	AC5576
TM diffuser stop and spring	—	—	—	TM4603
Side suspension arm set	—	—	TM4600	TM4600
End box assembly 1ft wide	—	—	1.TM4601	1.TM4601
End box assembly 2ft wide	—	—	2.TM4602	2.TM4602
Adjustable suspension set	Not for use with 1FM or 1TM	—	KL4601	KL4601



Single 8ft 85W Quickstart (OS) circuit
Combined choke and transformer
with essential series capacitor



Semi-resonant start (SRS) circuit for
6ft 85W with essential circuit
capacitor

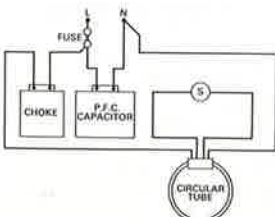


Tapped quickstart (QS) transformer
circuit with PFC capacitor for 4ft 40W

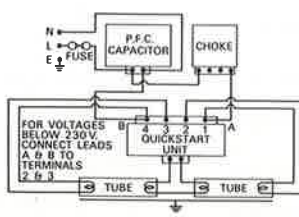
REPLACEMENT CONTROL GEAR

These items are selected from the extensive range of control gear for U.K. Regional stocking to give ready availability. The reference numbers quoted will be different from those marked on the control gear in the fitting, but the units are equally applicable to Format fittings.

	OS Unit	Choke(s) or Ballast	Capacitor(s)	Starter Switch
85W 8ft	Single Tube Circuit	—	1-B1/85	1-AMEC2226
	Twin Tube Circuit	—	2-B1/85	2-AMEC2226
85W 6ft	Single Tube Circuit	—	1-BU/685	1-AMEC2220
	Twin Tube Circuit	—	2-BU/685	2-AMEC2220
40W 4ft	Single Tube Circuit	1-QS/40	1-CU/40	1-AMEC2224
	Twin Tube Circuit	2-QS/40	2-CU/40	1-AMEC2222
20W 2ft	Twin Tube Circuit	1-QS/220	1-CU/40	1-AMEC2224
O.SMD.3240	Single Tube Circuit	—	1-CU/40	155/400
40W Circular	Single Tube Circuit	—	1-CU/30	155/400
32W Circular	Single Tube Circuit	—	1-CU/30	155/400



Starter switch (SS) circuit for 40W
or 32W with PFC capacitor



Twin tube Quickstart (QS) circuit
with PFC capacitor for 2ft 20W

atlas

Advantages of Airlume Fittings

When airlume fittings are used to extract room air a large proportion of the heat produced by the lighting equipment is removed before it can enter the occupied space. This results in a reduction of the air conditioning load on the room which means less air volume is required for temperature control and the air can be passed through the system with a higher temperature rise than normal, resulting in increased efficiency of the airhandling system. As less air volume is required the ductwork sizes and plenum depths can be reduced, giving economies in construction.

Because an airlume fitting can be used for both supply and return two types of services can use one distribution point in the ceiling thus helping to create a neat and tidy appearance of the ceiling.

In most recessed fittings the fluorescent tube is normally operating at a temperature above that of its optimum light output. If air is drawn through the fitting and around the lamps the tube wall is cooled to this optimum or very close to it resulting in a greatly increased light output depending on the design and type of fitting used.

The use of airlume fittings can require special knowledge for their construction and application. The Thorn-Benham Environmental Unit has been set up to assist clients in this work and also to provide help and information in other aspects of the planned environment, including ventilation and air conditioning.

ATLAS Low Brightness & Airlume Fittings

These fittings have been designed to meet the demand for lighting units that can provide high levels of illumination without glare discomfort and to meet the growing demand for integrated air handling and heat from light units.

It is possible that these fittings will not have the characteristics necessary to meet the needs of every design of installation and in this event the Atlas design team in conjunction with the Thorn-Benham Environmental Group can undertake the design and development of fittings to suit specific requirements.

All fittings can be supplied manufactured to metric modular dimension on application.

LBL.F. Fittings

P1 :79

Flush mounting recessed fittings with a highly efficient reflector louvre assembly, all sizes of fitting can be supplied with air extract slots in the back panel, the four tube 608mm wide versions can also be supplied with slotted trim face and mounting for air supply attachments. Construction of the optical system which is of one piece unit assembly per lampway is from figured aluminium sheet and extruded aluminium baffles, the form and profile of these assemblies which have a specular anodised finish have been designed to provide the efficiency necessary for the levels of illumination required for modern interiors with the comfort of a well designed optical system.

Housings are constructed in sheet metal which is bonderised and stove enamelled with a hard alkyd paint. Blue grey 9-098 to B.S. 2660, other finishes can be provided upon request.

Suspension of these fittings is by means of holes provided, from the true ceiling or by means of side suspension arms Cat. No. LB4601 supported from a suspended ceiling grid. These are available at extra cost on application.

These fittings have been designed for concealed 'T' ceiling systems but before the ceiling design is complete consultation with our engineers would be advisable to ensure suitability of the fitting to the ceiling. They are particularly suitable for continuous mounting and capping strip Cat. No. LB4600 is available on request to ensure neatness of runs. Ceiling mounted fittings which utilize the same highly efficient optical assembly as the recessed versions previously described, are also available to special order.

LBL.C. Fittings

Housings are constructed from sheet metal which is bonderised and stove enamelled with a hard alkyd paint in glossy white.

AHP. Fittings

P1 :78

Recessed mounting fittings with a dished prismatic controller designed and developed for Heat from Light installations.

This type of fitting is in service in installations where the sole source of heating for the premises is derived from the recirculated heat extracted from the lighting fittings.

They are equally suitable for use in installations as a purely extract fitting for the disposal of air from the room and to assist in dispersing heat from the fittings.

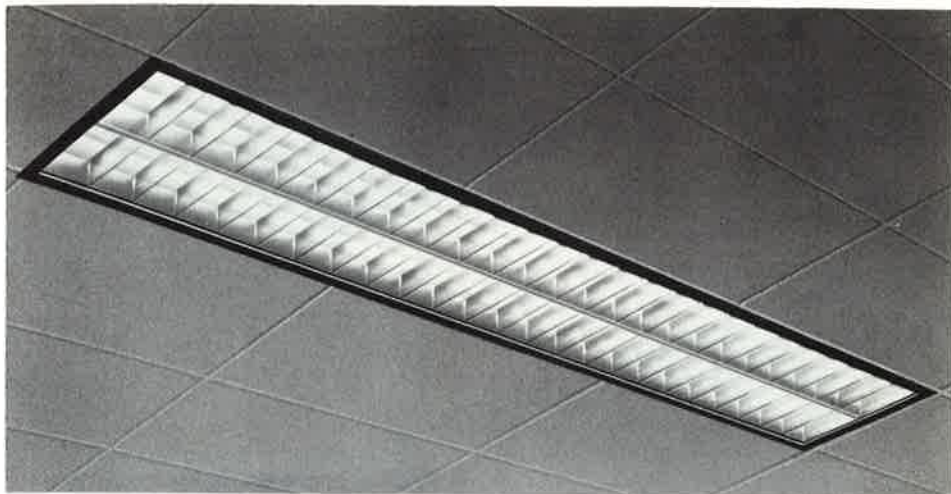
Housings are constructed from sheet metal which is bonderised and stove enamelled with a hard alkyd paint glossy white. Suspension is effected from holes provided in the back panel of the fittings.

OF Hospital Ward Fittings

Low brightness louvred fittings specially designed to conform to the recommendations of the M.O.H. for the lighting of Hospital Wards.

Prices on APPLICATION

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

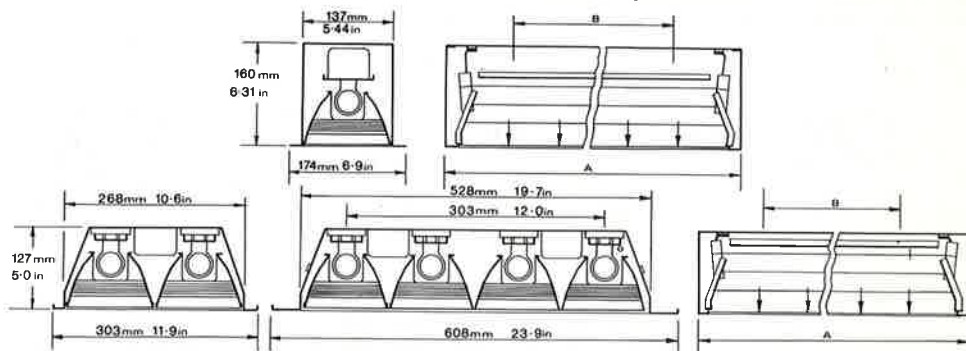


LBL.F. Fittings. Flush mounting recessed fittings designed to provide high levels of illumination with effective glare control, all sizes can be supplied with slots pierced in the back plate for air extraction through the fitting. The four tube 608mm wide version can also

be provided with slots in the trim face and fixing for air boots for the supply of air.

The metal work of these fittings is finished blue grey 9-098 to B.S. 2660. Other finishes can be provided upon request.

Surface mounted fittings type LBL.C are available to special order.



All single twin and four tube LBL.F. Fittings are suitable for the extraction of air. The four tube versions LBL.F/Q4040, LBL.F/R4685 and LBL.F/Q4085 are also available for the supply of air. Add the following suffixes to the end of catalogue numbers when air handling facilities are required: E at end of Cat. ref. denotes Extract fitting only. S at end of Cat. ref. denotes Supply fitting only. SE at end of Cat. ref. denotes Supply and Extract.

RANGE AND DIMENSIONS

Cat. no.	Rating	No. of Tubes	Circuit	Fitting size		Minimum ceiling opening				Fixing centres		B	
				A Length mm	Width mm	A Length in	Width in	Length mm	Width mm	Length in	Width in	B Length mm	Width mm
LBL.F/Q1040	40w	one	Quickstart	1217	174	47.9	6.9	1219	140	48	5.5	914	*CL 36
LBL.F/Q2040	40w	two	Quickstart	1217	303	47.9	11.9	1219	305	48	12	914	*CL 36
LBL.F/Q4040	40w	four	Quickstart	1217	608	47.9	23.9	1219	610	48	24	914	303 36
LBL.F/R1685	85w	one	Resonant Start	1827	174	71.9	6.9	1829	140	72	5.5	1372	*CL 54
LBL.F/R2685	85w	two	Resonant Start	1827	303	71.9	11.9	1829	305	72	12	1372	*CL 54
LBL.F/R4685	85w	four	Resonant Start	1827	608	71.9	23.9	1829	610	72	24	1372	303 54
LBL.F/Q1085	85w	one	Quickstart	2436	174	95.9	6.9	2438	140	96	5.5	1372	*CL 54
LBL.F/Q2085	85w	two	Quickstart	2436	303	95.9	11.9	2438	305	96	12	1372	*CL 54
LBL.F/Q4085	85w	four	Quickstart	2436	608	95.9	23.9	2438	610	96	24	1372	303 54

*CL - Centre Line

All the above fittings are available to special order, full price details available on request.

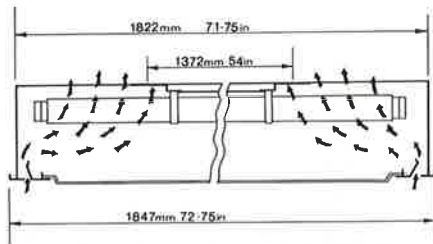
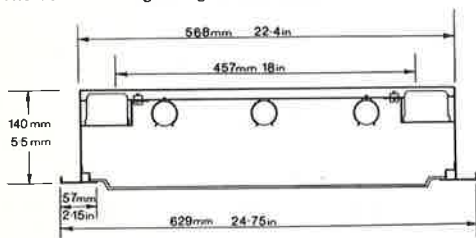
atlas

AH Recessed Air Handling fittings



AHP. Fittings. Recessed fittings with a prismatic controller, designed for the extraction of air through slots at the ends of the fitting incorporating dust traps. The 1829mm long fitting shown can be manufactured

to handle various volumes of air—other sizes of fittings can be manufactured to meet specific requirements. The metal work of these fittings is finished stove enamelled white.

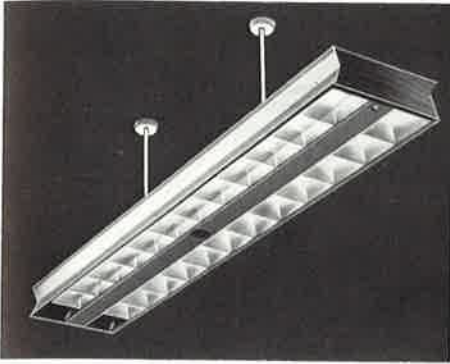


RANGE AND DIMENSIONS

Cat. No.	Rating	No. of Tubes	Circuit	Fitting size				ceiling opening				Fixing centres			
				Length mm	Width mm	Length in	Width in	Length mm	Width mm	Length in	Width in	Length mm	Width mm	Length in	Width in
AHP/R2685	85w	two	Resonant Start	1847	629	72 3/4	24 3/4	1829	610	72	24	1372	457	54	18
AHP/R3685	85w	three	Resonant Start	1847	629	72 3/4	24 3/4	1829	610	72	24	1372	457	54	18
AHP/R4685	85w	four	Resonant Start	1847	629	72 3/4	24 3/4	1829	610	72	24	1372	457	54	18

All the above fittings are available to special order, full price details available on request.

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.

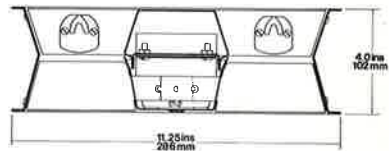


OFL/Q2065

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.

RANGE AND DIMENSIONS

Nominal Length	Rating	Circuit	Cat. No.	Length mm.	ins	Fixing centres mm	ins
5ft	65W Twin	Resonant Start	OFLQ2065	1567	61.75	610	24



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metrilux lighting/ceiling system

General Description

The Thorn/Isora METRILUX system is designed entirely in metric terms. Metrilux offers a wide choice of lighting systems and components and results in low labour charges compared with other ceiling systems.

Features

The particular features of the METRILUX system are as follows:

- a) An aluminium trunking system for lighting fittings which can either be wired conventionally or be used in conjunction with Trakline as a bus-bar system carrying up to 30 amps.
- b) In addition, the trunking system itself provides for the attachment of integrated lighting reflectors and ceiling components.
- c) One of the ceiling components is a decorative louvre blade which can be installed at 200, 400 or 600 mm centres.
- d) The other ceiling component is a metal tray ceiling panel, 400 mm wide, which can enclose the whole, or part, of the void as required.
- e) The ceiling panels may be set either flush with, or above, the lighting runs.

Application

METRILUX is designed particularly for supermarkets, shops and stores where its features of lighting and ceiling flexibility are most appreciated.

Co-ordination

The whole concept of Metrilux is based upon integrated services. It is essential therefore, that the design, pre-planning and execution of contracts used in the system should be undertaken with full co-operation between Clients, Architects, Consulting Engineers and Contractors.

Sound absorption

At present the ceiling panels are being manufactured unperforated but acoustic finishes will be made available shortly.

Access

An important feature of the system is that the louvre blades and the ceiling panels can be very easily and quickly removed as required for cleaning and maintenance purposes.

Fire category

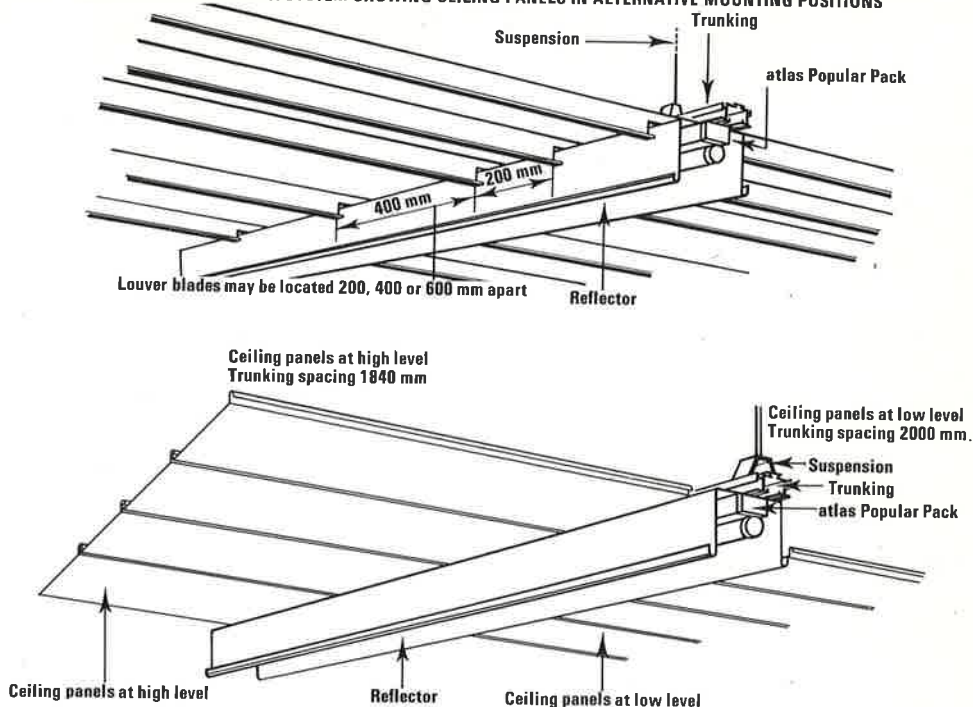
All structural and ceiling components used in the METRILUX ceiling are non-combustible. Flame spread classification: Building Regulations 1965: Class 'O'.

Lighting fittings

The Trunking and reflector system is suitable for Atlas Popular Pack fittings either single tube or twin tube types. The Atlas Trakline system can be used for feeding fluorescent fittings, display spotlights, or other electrical services. The arrangement of lighting fittings may consist of continuous or spaced fluorescent fittings, and may include spotlight fittings from the Atlas Display Range.

metrilux lighting/ceiling system

ASSEMBLY OF METRILUX SYSTEM SHOWING CEILING PANELS IN ALTERNATIVE MOUNTING POSITIONS



PARTS LIST

MET 1 Ceiling panel.

Made from hot-dip galvanised mild steel, pre-painted white on the facing side. They are designed to fit the 2,000mm spacing of the trunking runs, and are 400mm wide.

MET 2 Louvre spacing rail

This component is required for spacing the louvre blades on multiples of 200mm centres. The rail is made from hot-dip galvanised mild steel channel, and is 1600mm in length.

MET 3 louvre blades

These are made from hot-dip galvanised mild steel, pre-painted white on both sides, and can be fitted at either 200, 400 or 600mm centres.

Two types of blades are available MET 3A is 80mm deep, and MET 3B is 110mm deep

MET 4 Suspension bracket assembly

This clamps onto the top of the trunking section, and is suitable for a $\frac{1}{2}$ in. rod suspension. The adjustable rod is not supplied as part of this component. If an adjustable rod is required, part No LTN 4509 should be quoted and this will provide the Suspension bracket together with the Rod and a Bulldog clamp for the upper fixings. These upper fixings to the building structure are not normally supplied.

MET 5 Perimeter Fixing channel

This component is required when ceiling panels are used in order to secure the ends where they butt against the wall. The channel is white pre-painted mild steel and is supplied in 3000mm lengths.

MET 6 Aluminium Trunking

This is supplied in natural finish in 4,500mm lengths, and supports the reflector/ceiling system together with the lighting fittings, and also closes the TRAKLINE Busbar system.

MET 7 Reflector cheeks (2 required per fitting)

These are 2000mm long made from mild steel and white stove enamelled.

MET 8 Reflector jointing straps (2 required per fitting)

These are made from mild steel and are white stove enamelled.

MET 9 Reflector End plates

These are to close the ends of the run of reflectors, and are made from mild steel white stove enamelled.

MET 10 Spacing Bar

This mild steel channel component is required when ceiling panels and louvres are employed together.

LTN 4501 Fittings Hanger assembly
To fix lighting fittings to trunking, two required per fluorescent fitting.

LTN 4503 Trunking jointing piece
This is required for continuous runs of MET 6 aluminium trunking.

LTN 4508 Cable cleat

Ten of these are required per 4500mm length of trunking.

AL 1001 Trunking cover

This extruded PVC section is supplied in 1800mm lengths and clips into MET 6 alone or MET 6 in conjunction with Trakline. Only required if lighting fittings are not placed continuously end to end.

Suspension

Suspension hangers are required as follows:

- (a) Trunking and lighting fittings and louvres, every 2,000mm along the trunking run.
- (b) Trunking, lighting fittings and ceiling panels, every 1,000mm along the trunking run.

Weights

This information is approximate and is given for guidance only.

- (a) Trunking, batten fittings and reflectors - 7.45 kg per metre run.
- (b) All above, plus louvre blades at 200mm centres - 9.7 kg per square metre.
- (c) (a) As above, plus complete metal tray ceiling - 14.2kg per square metre.

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Trunking & Suspension sets

Index and Introduction

The versatile range of Atlas slim-sectioned trunking lengths and neat accessories are designed to meet the exact requirements, in both length and strength, of all types of lighting installation. Their time saving features and small number of components enable Atlas trunking systems to offer valuable savings in time and money.

Trakline 1:83, 1:84

Newest of these four systems is Atlas 'Trakline', which is a P.V.C. extrusion in which are embedded metal conductor strips. The electrical connections to the supply and earth can be at a single point anywhere in the installation and the load may be connected at points anywhere along the trunking length by means of the fused adaptor boxes.

'Trakline' is ideal for the varying demands of display lighting. It is designed for use on its own or within 'New Lightweight' and 'Liteline' trunking, where greater strength, or for use with fluorescent fitting are required.

New Lightweight Trunking 1:85, 1:86

'New Lightweight' trunking lengths are extruded from aluminium alloy and are designed for commercial applications where both strength and appearance are of importance. Two types of trunking length are available one for surface mounting or conduit suspension, the other specially designed for use with suspended ceilings.

Liteline Trunking 1:87, 1:88

'Liteline' trunking system has been developed where a neat, yet low cost system is required for use in commercial or industrial installations. Liteline trunking is small and compact in design and suitable for surface mounting or recessing into a false ceiling, using a 'Top Hat' section.

Atlantic Trunking 1:89, 1:90

The 'Atlantic' trunking system is designed for use in industrial applications and is a mild steel rolled section of larger dimensions manufactured from 18 S.W.G. galvanised sheet steel. This trunking may be surface mounted or suspended on conduit.

Technical Information

Details of maximum suspension centres and loading are shown on the appropriate pages in this section. Further information can be obtained from Regional Offices.

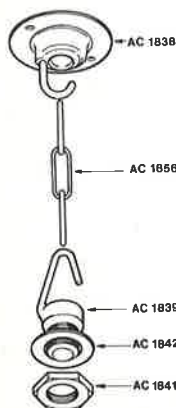
Suspension sets

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.

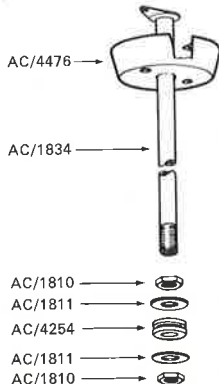
Catalogue number for individual parts of suspension sets are shown on the diagrams.

Max. loading table

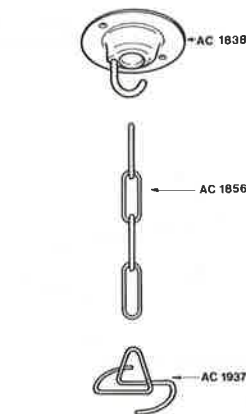
Maximum loading per set		
Cat. no.	lb	kg
A.30	40	18.2
B.30	68	30.9
H.30	270	123.0
K.30	60	27.3



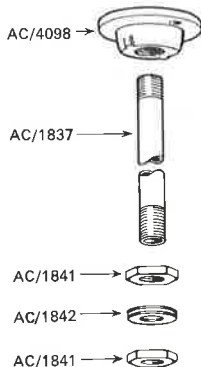
Suspension Set K.30 (Heavy Duty)
Two dome hook plates, two 30in lengths of chain, two 1 E.T. suspension hooks, back nuts and washers.



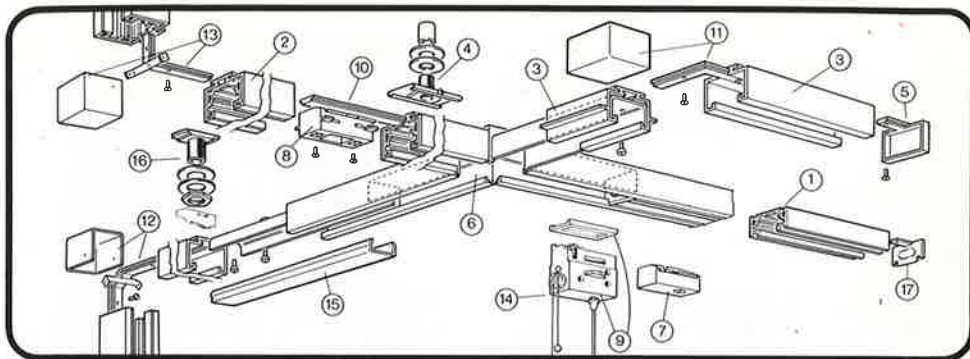
Suspension Set B.30
Two pressed ceiling plates, two 3in by 30in rods screwed 26 T.P.L., grommets, locknuts, washers. White finish.



Suspension Set A.30 (Light Duty)
Two malleable iron hooked ceiling plates two 30in lengths of chain, two spring loops.



Suspension Set H.30
Heavy duty conduit suspension including two 2in by 30in rods with ball joint ceiling plates and back-nuts. White finish.



Track and Trunking

1. **TK1200** 1.2m **TK2400** 2.4m **TK4200** 4.2m **TK 4500** 4 lengths of self-contained PVC track supplied with end caps.
2. **TKN 1200** 1.2m **TKN 2400** 2.4m Track in lightweight Aluminium Trunking, supplied with end caps
3. **LTN 4500** Economic 4.5m length of Lightweight Aluminium Trunking.
- LTR 4500** 4.5 length of Lightweight Aluminium Trunking for recessing into ceilings.
4. **LTN 4502** Trunking Suspension Assembly (for conduit)
5. **LTN 4507** End-caps for LTN or LTR trunking, supplied separately.
6. **LTN 4504** 2-way junction **LTN 4505** 3-way junction **LTN 4506** 4-way junction.

Suspension Centres

- A. TK track used on its own should be fixed every 2ft. The earth-strip within the track is already drilled for these centres.
- B. TK track used in either LTN or LTR trunking can be suspended at fixing centres up to 8ft. max. Further details on p. 1:85.

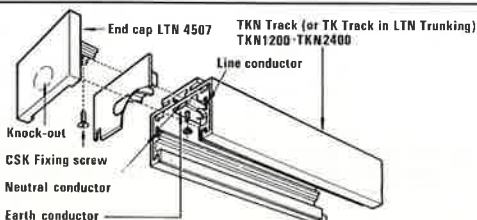
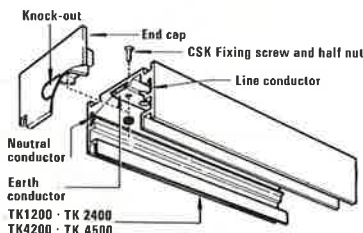
Trakline Components

7. **TK1021** Mains connector-box
- TK1011** Adaptor used with TK1021 for TK PVC track (alone)
8. **TK103** Track coupler
9. **TK1051** Adaptor Box (for TKN)
- TK 1191** Conversion ring used with TK1051 for TK PVC track (alone)
10. **TK106** Alignment coupler (straight)
11. **TK107** 90° Horizontal elbow assy.
12. **TK108** 90° Vertical Internal Elbow assembly
13. **TK109** 90° Vertical External Elbow assembly
14. **TK110** Pull cords
15. **TK111** Clip-in cover
16. **TK1121** Part of Fluorescent fitting suspension assembly. (set consists of two T bolt assemblies and a mains connector box)
17. **TK120** Spare end caps for TK PVC track (complete with fixing screw and nut).

Items not illustrated above

- TK114** Top entry wiring-box for **TK track**
TK115 Top entry wiring-box for **TKN track** (end mounting)
TK116 Top entry wiring-box for **TKN track** (centre mounting)
TK1171 Top entry wiring-box for **TK track** in **LTN 4509** Adjustable Suspension Assembly for trunking
LTR trunking (end mounting)
TK 1181 Top entry wiring-box for **TK track** in **LTR trunking** (centre-mounting)

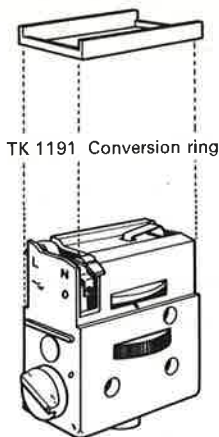
- TK 1200 a 1.2 metre length of Trakline.
 TK 2400 a 2.4 metre length of Trakline.
 TK 4200 a 4.2 metre length of Trakline.
 TK 4500 a 4.5 metre length of Trakline.



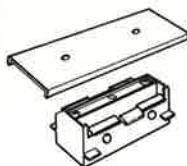
- TKN 1200 a 1.2 metre length of Aluminium Trunking packed complete with TK 1200 inside it.
 TKN 2400 a 2.4 metre length of Aluminium Trunking packed complete with TK 2400 inside it.

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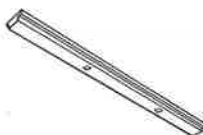
Trakline Components



TK 1191 Conversion ring



TK 103 Track Coupler.

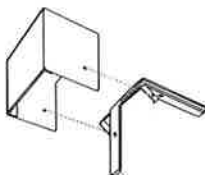


TK 106 Alignment Straight Coupler for TKN Track.

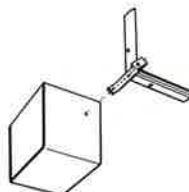
TK 1051 Adaptor-Box for TKN



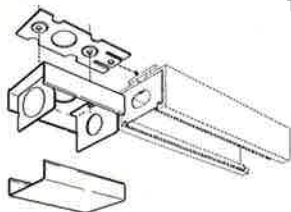
TK 107 Horizontal Elbow Assembly for TKN Track.



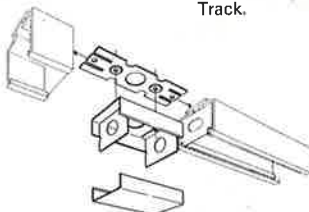
TK 108 Vertical Internal Elbow Assembly for TKN Track.



TK 109 Vertical External Elbow Assembly for TKN Track.



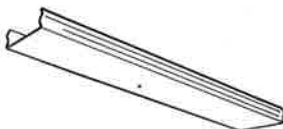
TK 115 Wiring Box Assy (End Entry)



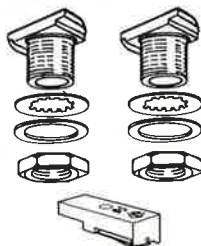
TK 116 Wiring Box Assy (For Continuous Runs)



TK 110 Adaptor Box Pull Cords.



TK 111 Clip on Cover.
(390 mm long).

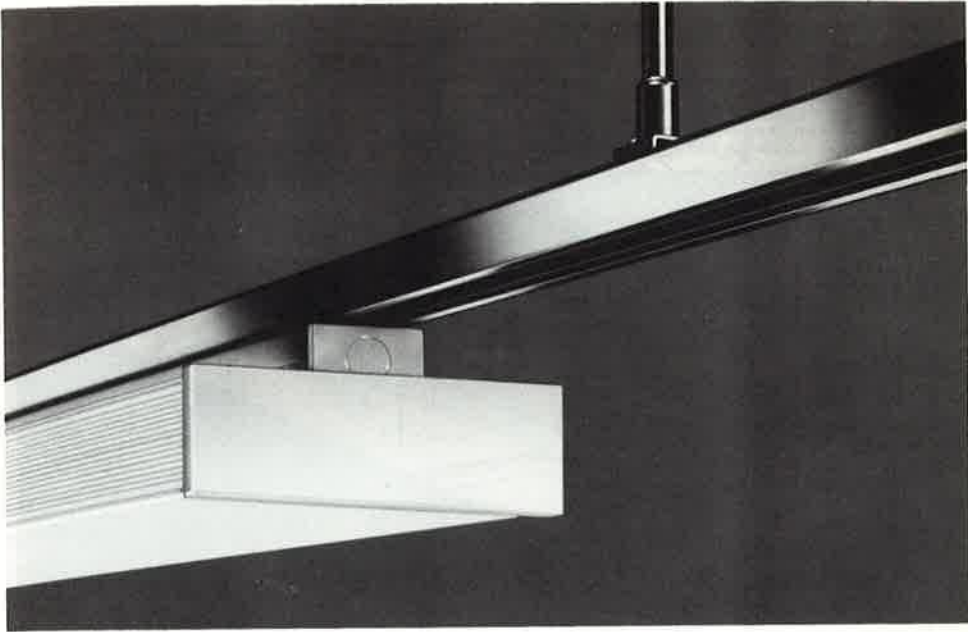


TK 1121 Part of Fluorescent Fittings Suspension Assy.

Note: For details of LTN & LTR trunking see P1 :85, 1 :86.

atlas

New lightweight trunking

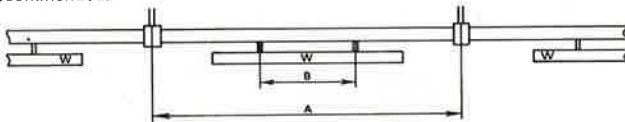


This ultra-slim section anodised aluminium trunking is particularly suitable for office, store and display lighting applications where more industrial forms are too bulky and may present an unsatisfactory appearance.

Two types of trunking section are available – one for surface mounting or conduit suspension and another type for recessing into suspended ceilings. (See illustration on following page).

The trunking suspension assembly is used to connect the trunking section to the $\frac{3}{4}$ in conduit down-drip.

Suspension of trunking by means of chains is **not** normally recommended.



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

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, or clear obstacles, etc. between the trunking runs.

Through-wiring cables are retained in the trunking by fibre support-pieces.

Maximum recommended trunking suspension centres 2.44 m (8ft).

NOTE: A gap of at least $\frac{1}{4}$ in must be left between trunking lengths during installation to allow for expansion.

Deflections for Atlas New Lightweight Trunking

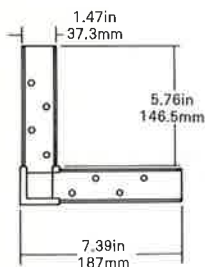
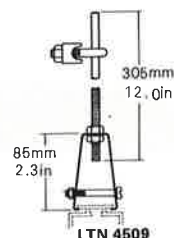
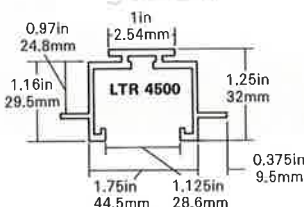
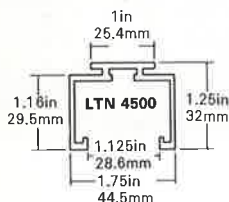
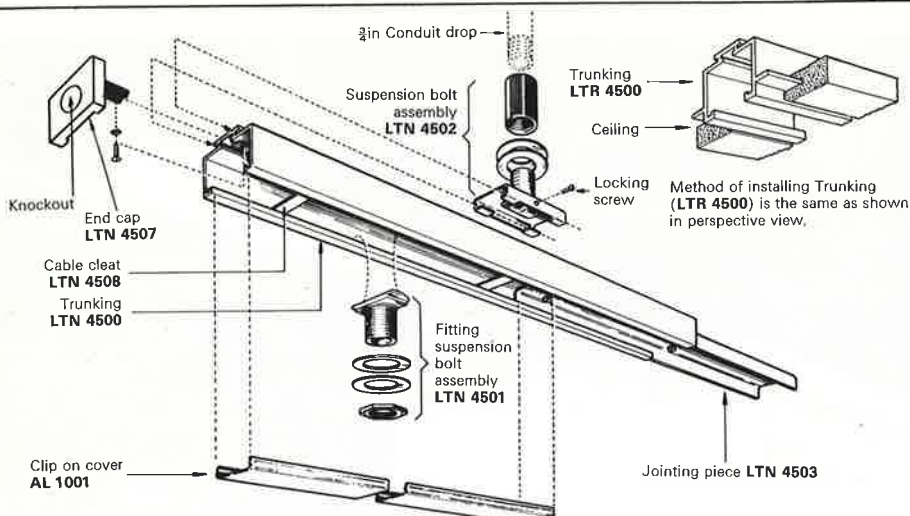
Dim A.	Dim B.	Weight W.	Deflection
8ft	24in	20lb	0.225in
2.44m	0.61m	9.0kg	5.7mm
8ft	48in	30lb	0.225in
2.44m	1.22m	13.6kg	5.7mm

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.

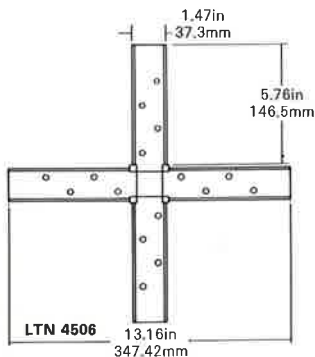
For example, an installation requires trunking to be suspended at 2.44m (8ft) spans. Therefore maximum deflection = $\frac{2440}{300} = 8.1 \text{ mm (0.32in)}$

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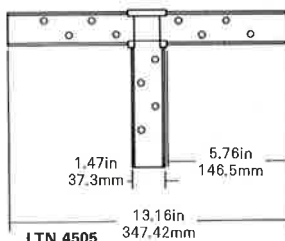
New lightweight trunking



LTN 4504



LTN 4506



LTN 4505

Components Table

Catalogue no.	Description
LTN 4500	4.5 Metre Length Trunking
LTR 4500	4.5 Metre Length Trunking for Recessing
LTN 4501	Fittings Hanger Assembly
LTN 4502	Trunking Hanger Assembly
LTN 4503	Jointing Piece
LTN 4504	2-way Coupling
LTN 4505	3-way Coupling
LTN 4506	4-way Coupling
LTN 4507	End Cap
LTN 4508	Cable Cleats
LTN 4509	New adjustable suspension
AL 1001	1.8 Metre P.V.C. Cover (Also used with Liteline Trunking)

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 4.5m (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 3.35m (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 3.35m (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.

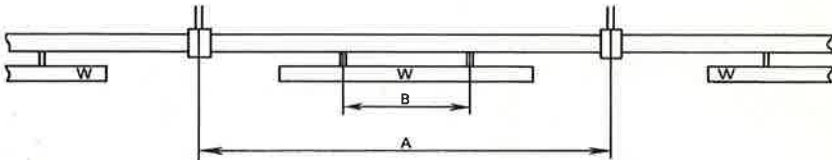
SIMPLE INSTALLATION

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
3.35m (11ft)	0.61m (24in)	18kgms (40lb)	6.35mm (0.25in)

Dim. A	Dim. C	Weight W	Deflection
3.35m (11ft)	1.22m (48in)	25kgms (55lb)	5.1mm (0.20in)

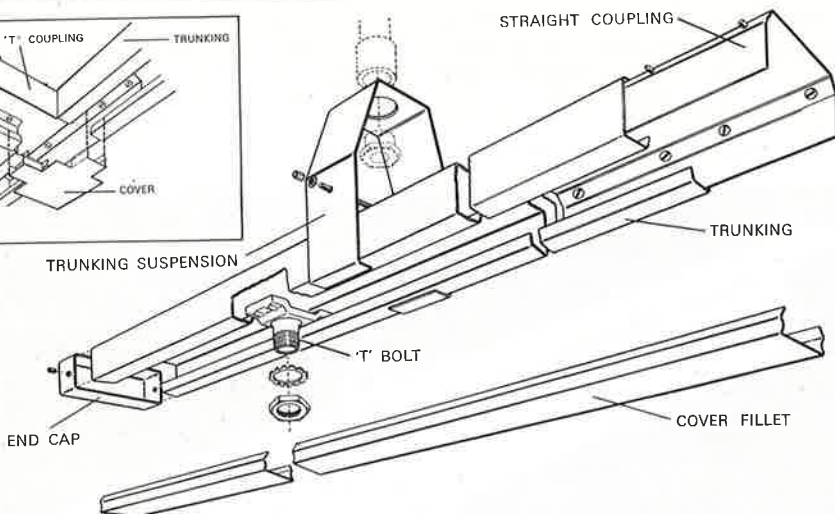
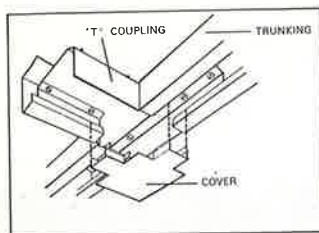
NOTES: The above deflections were measured using Atlantic 4 fittings (cat. no. A4B/4685) at 24in suspension centres and A4Z/T4885 at 48in centres and suspended as detailed above. These figures assume that all loads are counterbalanced and the final trunking span will be adequately supported at the termination point.

It is important when designing trunking installations to ensure that the deflection between spans does not exceed 1/300th of the total span, e.g. an installation requires trunking to be suspended at 3.35m (11ft) spans.

$$\text{maximum deflection} = \frac{3350}{300} = (11.2\text{mm}) 0.44\text{in}$$

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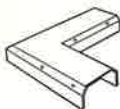
Liteline trunking



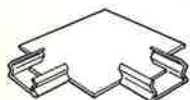
Cat. no. AL4500
Trunking Sections
4.5m (14' 9") length
Weight 6.3kg (13.9lb)
6.67cm (2.6in) wide
x 3.2cm (1.3in) deep



Cat. no. AL1003
End Cap
Weight 0.01kg (1/2oz)



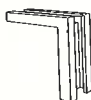
Cat. no. AL1006
Horizontal Coupling
Weight 0.5kg
(1lb 3oz)



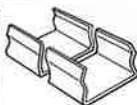
Cat. no. AL1009
Cover Assembly
Weight 0.06kg (2oz)



Cat. no. AL4512
Top Hat Section
4.5m (14' 9") length
Weight 3.5kg
(7lb 10oz)
10.6cm (4 1/8in) wide
x 4.3cm (1 1/2in) deep



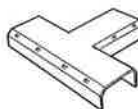
Cat. no. AL1015
Vertical-Horizontal Coupling (External)
Weight 0.7kg
(1lb 10oz)



Cat. no. AL1001
PVC Cover Fillet
1.8m (5' 11") length
Weight 0.17kg (6oz)



Cat. no. AL1004
Trunking Suspension
Weight 0.11kg (4oz)
3.8cm (1 1/2in) wide x
8.6cm (3 3/8in) deep



Cat. no. AL1007
'T' Coupling
Weight 0.7kg
(1lb 10oz)



Cat. no. AL1010
Girder Clamp Assembly
Weight 0.14kg (5oz)



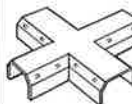
Cat. no. AL1013
Parablock Connector
Weight 0.03kg (1 oz)
takes cable up to 7/036



Cat. no. AL1002
Straight Coupling
Weight 0.5kg
(1lb 3oz)



Cat. no. AL1005
'T' Bolt (Fitting Suspension)
Weight 0.09kg (3oz)



Cat. no. AL1008
4-way Coupling
Weight 0.9kg
(2lb 1oz)



Cat. no. AL1011
Suspension Bracket
Weight 0.03kg (1oz)



Cat. no. AL1014
Vertical-Horizontal Coupling (Internal)
Weight 0.7kg
(1lb 10oz)



Cat. no. AL1016
Stop-End Junction
Weight 0.5kg
(1lb 3oz)

This trunking system is adapted to receive lighting fittings on its underside, and provides structural support for the fittings with adequate through-wiring capacity. The system reduces installation time to the minimum.

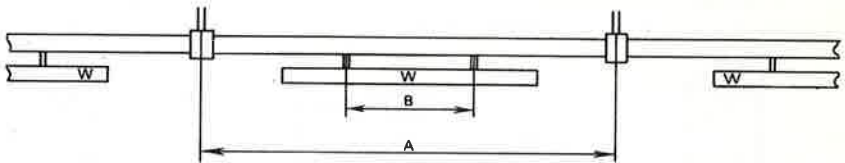
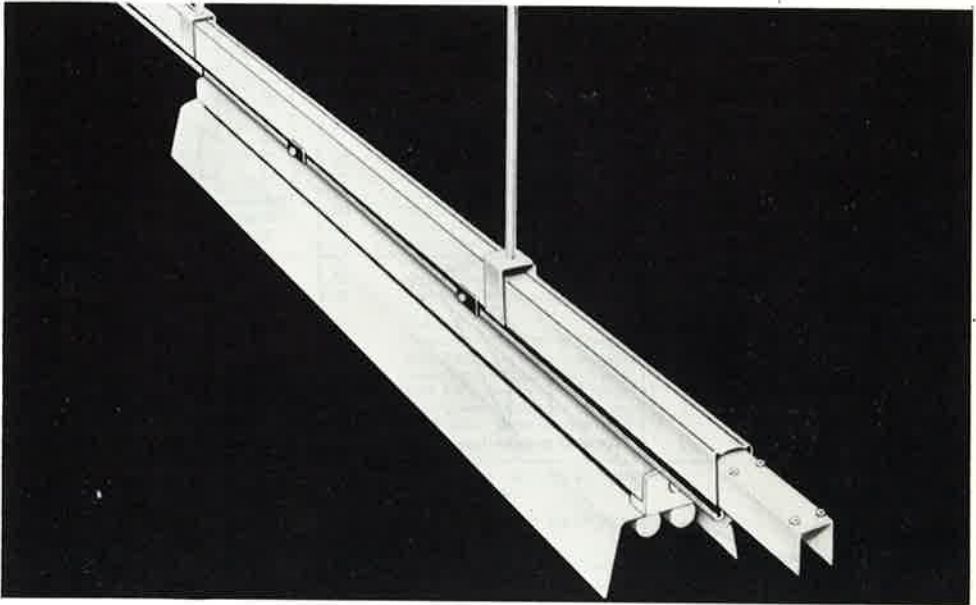
The close-top trunking is suspended by saddle brackets attached to down-drops from the ceiling or roof structure, and joint pieces hold the sections rigidly in line and provide earth continuity. The suspension of trunking by means of chains is **not** normally recommended. Close ceiling mounting is also possible. Brackets are attached to the fittings by means of the 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 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 18 s.w.g. galvanized sheet steel.

Maximum recommended trunking suspension centres 4.5 metres (14ft 9in).



Deflections for Atlantic Trunking

Dim. A	Dim. B	Weight W	Deflection
14ft 9in	24in	40lb	0.1in
4.5 metres	0.61 metres	18 kgs	2.54mm

Dim. A	Dim. B	Weight W	Deflection
14ft 9in	48in	55lb	0.17in
4.5 metres	1.22 metres	25 kgs	4.32 mm

For spans less than 4.5m the deflection on this trunking was not measurable.

NOTES. The above deflections were measured using Atlantic 4 fittings, i.e. A4B/4685 at 24in suspension centres and A4Z/T4885 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.

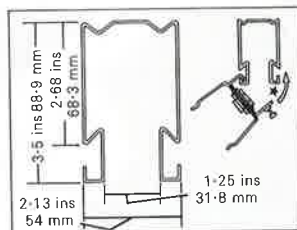
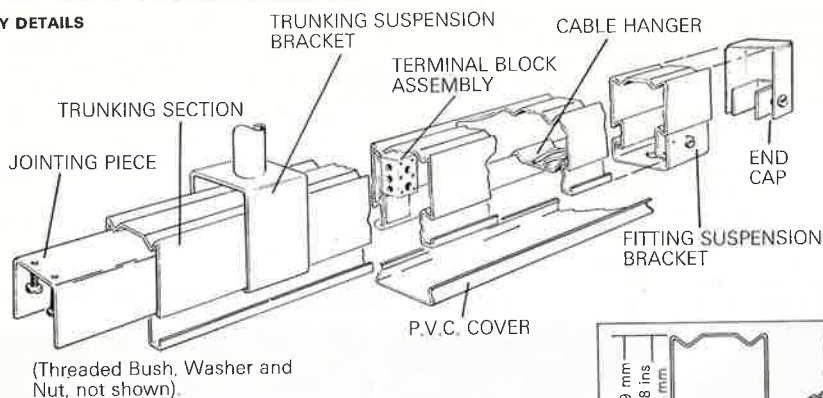
It is important when designing trunking installations to ensure that the deflection between spans does not exceed 1/300th of the total span, e.g. an installation requires trunking to be suspended at 4.5mm (14ft 9in) spans.

$$\text{maximum deflection} = \frac{4500}{300} = 15\text{mm (0.6in)}$$

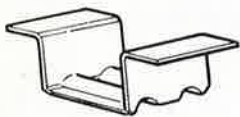
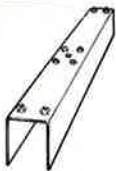
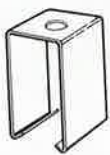
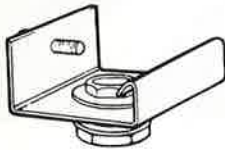

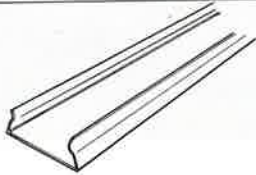
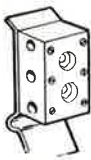

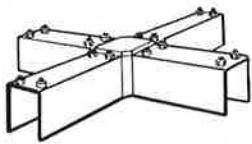
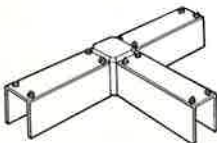
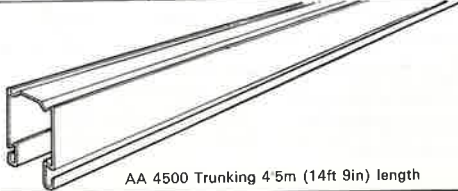
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Atlantic trunking

ASSEMBLY DETAILS



Complete Parts List

 <p>AA 4702 Cable Support</p>	 <p>AA 4703 Straight Coupling</p>	 <p>AA 4704 Trunking Suspension</p>
 <p>AA 4705 Fitting Suspension</p>	 <p>AA 4706 End Cap</p>	 <p>AA 4707 P.V.C. Cover 2-4m (7ft 10 1/2 in)</p>
 <p>AA 4708 Terminal Block Assembly</p>	 <p>AA 4709 Horizontal Coupling</p>	 <p>AA 4712 4-Way Coupling</p>
 <p>AA 4713 T' Coupling</p>	 <p>AA 4500 Trunking 4.5m (14ft 9in) length</p>	

atlas Incandescent and Discharge Exterior and Street Lighting

Introduction

This section contains a wide range of fittings for exterior lighting and floodlighting, and the full range of street lighting fittings manufactured by this Company.

Bulkhead and wellglass fittings include the well known 'Renown' and 'Dreadnought' types, suitable for use in Division 2, areas, and the OB, vandal proof fluorescent bulkhead which has proved its worth in many situations.

The Escort and Patio ranges of wellglass fittings are suitable for situations demanding a more decorative treatment. Floodlighting equipment covers almost all requirements, from the miniature 150W 'Minifloods' and the Sun 500 and 1000 fittings for general lighting, through the Haline and 400W area floodlights to the linear Halide and CSI sealed beam floodlights used in unusual and rigorous situations. Atlas street lighting fittings and columns are used all over the world, and there is a type suitable for every type of road from motorways to country lanes.

The Escort and Patio ranges of wellglass fittings are suitable for situations demanding a more decorative treatment. Floodlighting equipment covers almost all requirements, from the miniature 150W 'Minifloods' and the Sun 500 and 1000 fittings for general lighting, through the Haline and 400W area floodlights to the linear Halide and CSI sealed beam floodlights used in unusual and rigorous situations.

IMPORTANT

Fittings shown in the Outdoor Lighting section of this catalogue are designed to be weatherproof and suitable for operation in ambient temperatures not exceeding 15°C in accordance with current British Standard Specifications.

When used indoors on in situations involving higher ambient temperatures, performance may be impaired and we do not recommend such applications without our prior agreement.

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2:8

Escort

Index

"Renown" Division 2 wellglass
"Dreadnought" Division 2 prismatic Bulkhead
MBF Division 2 Prismatic Bulkhead
"Escort" LG1 prismatic Bulkhead
OB Fluorescent Bulkhead
EKF, EMF Tungsten/mercury wellglass
WPC, WPW Patio fittings

Floodlighting

2:9 ER, M36 Miniflood
2:10, 2:11 SUN 500/1000 Tungsten halogen Sunflood (300-15001W)
2:12, 2:13 Haline HAS 500/750/1000/1500W Floods
2:14 M25 Junior Floodlight projector
2:15 M25F Floodlight projector
2:16 'Grenville' Div 2, Floodlight
2:17 M28 Light duty floodlight projector
2:18 400W Area floodlight
2:19 M30 Linear sodium flood
2:20 750W Linear Halide OD750
2:21 1600W Linear Halide ON1600
2:22 1000W CSI sealed beam OM1000

Street Lighting

2:23, 2:24 Standard Vocabulary
Group A
Alpha One - SOX sodium
2:25 Alpha Two - 5ft fluorescent
2:26 Alpha Three - SCO and mercury fluorescent
2:27 Alpha Three - mercury fluorescent and SCO with gear
2:28 Alpha Five - linear sodium
2:29 Alpha Six - linear sodium
2:30 Alpha Seven - mercury fluorescent
2:31 Alpha Nine - SCO sodium
2:32 Alpha Ten - SOX sodium
2:33

Group B

2:34 Beta One - top entry GLS/mercury
2:35 Beta Four - top entry GLS/mercury
2:36 Beta Five - side entry 35W SOX
2:37 Beta Six - side entry 2ft fluorescent
2:38 Beta Seven - side entry mercury
2:39 Beta Eight - side entry 55W SOX
2:40 Beta Nine - side entry mercury

Group A

2:41 Gamma One - post top 5ft fluorescent

Group B

2:42 Gamma Two - post top 2ft fluorescent

Group A

2:43 Gamma Three - post top mercury fluorescent
2:44 Gamma Four - post top three-lamp mercury

Group B

2:45 Gamma Five - post top GLS/mercury
2:46 Gamma Six - post top GLS/sodium/mercury
2:47 Gamma Six - post top GLS/sodium/mercury
2:48 Gamma Seven - post top GLS/mercury/fluorescent
2:49 Gamma Eight - post top GLS/sodium/mercury/fluorescent
2:50 Gamma Nine - post top GLS/sodium/mercury/fluorescent

Miscellaneous

2:51 High Tower - high mast lantern
2:52 Footway fluorescent fittings
2:53, 2:54, Leader and Lucerna columns
2:55 Control-gear boxes
2:56 Brackets

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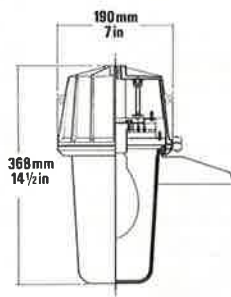
Renown Division 2 Wellglass fitting



W2258/W2271



W2250/W2271



Wellglass fitting for division 2 areas, dust-tight, rainproof and proof against corrosive atmospheres, fitted with internal choke to take 80 or 125W MBF/U lamps. The finned body and bezel are constructed of die-cast aluminium alloy, LM6M. Heat resisting glass, with diffusing flutes is cemented to the bezel, which is retained by stainless steel Allen screws and sealed by a neoprene gasket. A smaller version of the fitting, using the same glass, is available for tungsten or mercury-blended lamps (i.e. 150/200W GLS or 160W MBTL). Secondary suspension holes are provided in two of the cooling fins.

Standard stock fittings Top Entry tapped $\frac{3}{8}$ in E.T. conduit or twin $\frac{3}{8}$ in E.T. side (adjacent) entry with removable plug. Safety cord fitted between main body and bezel.

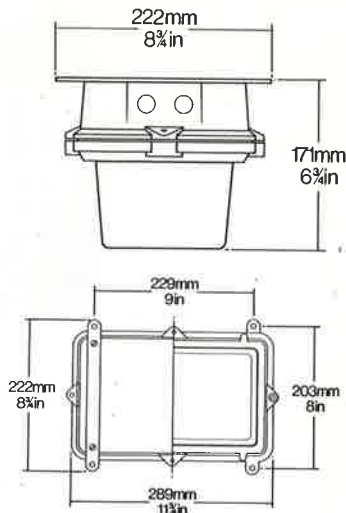
WELLGLASS ASSY. WITH INTEGRAL CHOKE

Cat. No.	Lamp	Cable entry (tapped $\frac{3}{8}$ in E.T. conduit)	Weight	
			kg	lbs
W2250/W2271	125W MBF/U	Top	7.5	16
W2252/W2271/W2268	125W MBF/U	Twin (adjacent) side	7.5	16
W2254/W2271	80W MBF/U	Top	7.5	16
W2256/W2271/W2268	80W MBF/U	Twin (adjacent) side	7.5	16
WELLGLASS ASSY ONLY				
W2258/W2271	150/200W GLS	Top	3.75	8
W2271/W2268	or 160W MBTL	Twin (adjacent) side	3.75	8
W2268 – Ceiling Fixing Strap		W2270 – Wire guard		
W2269 – Vitreous Enamelled external reflector		W2271 – spare glass		

NOTE: In the catalogue number, the first part indicates the type of top unit required, the second, the essential glass assembly and the third the ceiling fixing strap required with side entry fittings.

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Dreadnought Division 2 Bulkhead fitting



A fitting for division 2 areas, Rainproof, Dust-tight and suitable for use in chemically corrosive atmospheres.

Bulkhead fitting in die-cast aluminium alloy LM6M treated and stove enamelled grey. Bezel frame with neoprene gasket carrying glass is screwed to body by four allen screws. Internal choke and capacitor and reflector provided for MBF lamps, inside of fitting is sprayed white for MBTL and tungsten lamps.

With 3-way terminal block, ES lampholder and fixing straps with $\frac{1}{4}$ in dia clear fixing holes.

Recommended burning position for MBTL and GLS lamps:

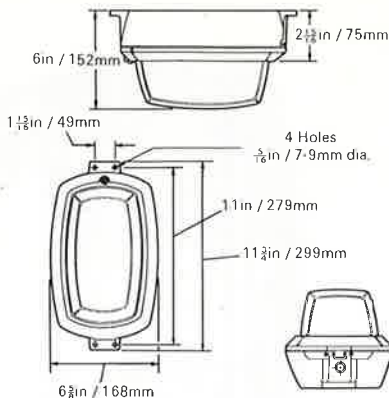
Cap up Cable/mains entry via 2 x $\frac{3}{4}$ in ET adjacent entries, one with removable plug.

BULKHEAD WITH CHOKE AND CAPACITOR BULKHEAD ONLY

Cat. No.	Lamp	Cable Entry Tapped $\frac{3}{4}$ in E.T.	Cat. No.	Lamps	Cable Entry Tapped $\frac{3}{4}$ in E.T.
W2231	80W MBF	Twin adjacent	W2237	160W MBTL or 150/200 GLS	Twin adjacent
W2234	50W MBF	Twin adjacent	W2239 W2240		Wire guard Spare glass

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°Kolorlux Bulkhead fitting



50W MBF/U BULKHEAD

This 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.)

with a separate earth terminal provided on the casting. Insulating sleeves are provided to protect the incoming cable.

DIVISION 2 TYPE

Generally as above but fitted with enclosed break ES lampholder. Mains connector has clamp type terminals. Maximum 100 watts.

DESCRIPTION

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

RANGE

Catalogue No.	Description	Type	Lamp
TG3049	MBF/U prismatic bulkhead complete with 240V gear	Standard	50W MBF/U ES cap
TG3050	GLS prismatic bulkhead less gear	Standard	100/150W GLS ES cap
TG3355	MBF/U prismatic bulkhead complete with 240V gear	Div. 2	50W MBF/U ES cap
TG3356	GLS prismatic bulkhead less gear	Div. 2	100W ES cap
TG3053	Wire guard		

Weights — with gear 10 1/2 lb (4.76kg) less gear 5 1/2 lbs (2.50kg).

Entry — 3/4 in ET conduit top and bottom.

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Escort tungsten bulkhead fittings

Description Completely weatherproof and protected against corrosion and theft, these fittings have lattice glass diffusers and are much shallower than most. They incorporate an anti-theft locking device.

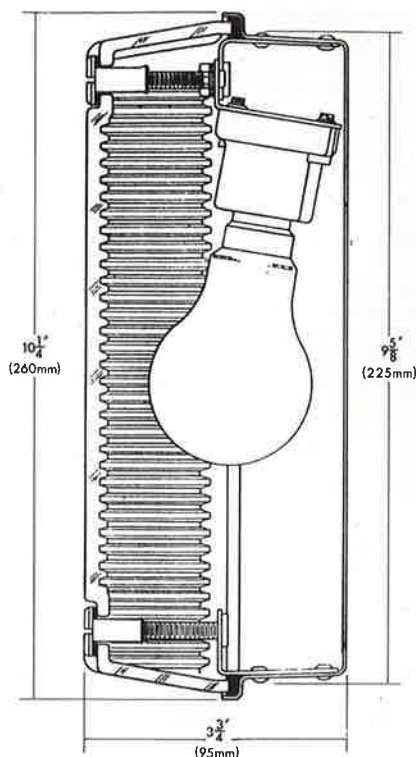
Lamps 40–100w GLS BC (ES to order).

Glass diffuser The 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.

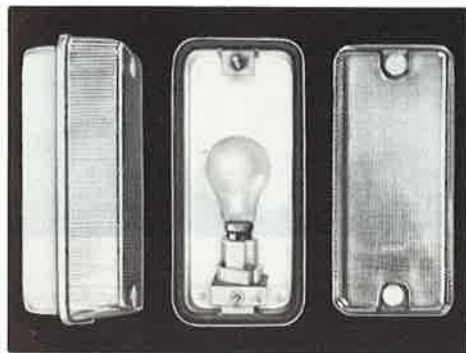
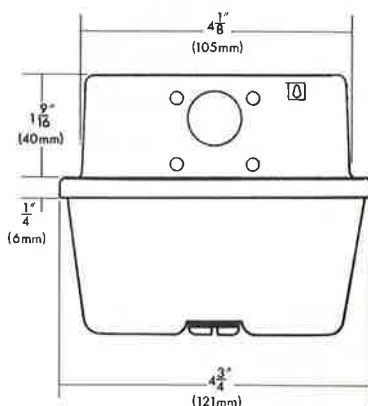
Body pressing This is in aluminum alloy, anodised finish which is highly corrosion resistant. Conduit 'knockouts' are provided at each end. There is also provision for Besa box and conduit in the back. The units can either be semi-recessed or surface mounted.

Cat. no. LGL1100

CROSS SECTION AND DIMENSIONS



NOTE: MAXIMUM RECOMMENDED LAMP WATTAGE 100W



Escort bulkhead

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Escort fluorescent bulkhead

Application

A tough, stormproof fitting for surface or recess mounting anywhere outdoors.

Description

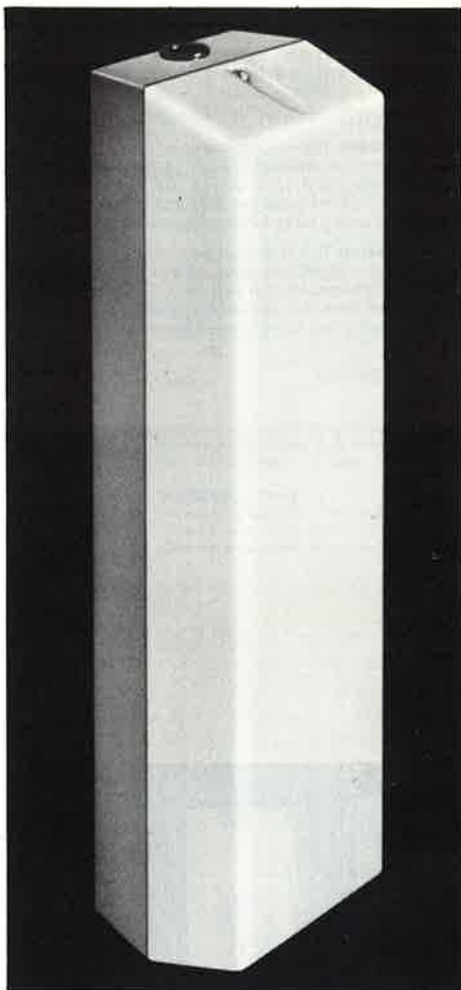
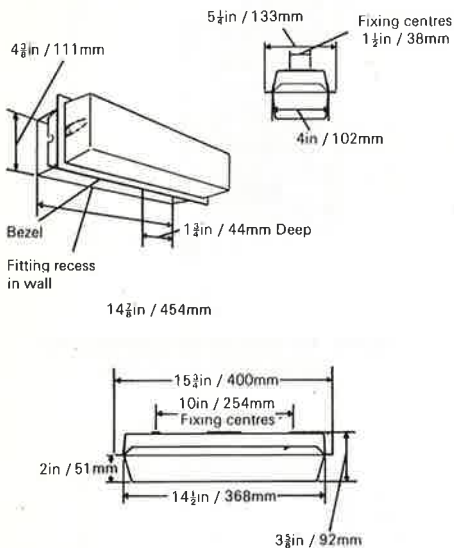
A tough fitting comprising pressure die cast aluminium body with high impact acrylic cover (wire guards are not a necessary accessory with this unit).

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 $\frac{3}{4}$ in E.T. entries at ends and $\frac{1}{2}$ in 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

Cat. no.	Description
OB.2008	2 lamp parallel wired SS circuit L.P.F. 2 x 8w 12in fluorescent tubes
OB.3008	3 lamp series and single SS circuit L.P.F. 3 x 8w 12in fluorescent tubes
OBB	Bezel trim
OBD	Spare opal cover
OBK	Key

atlas Escort wellglass fittings

These Wellglass fittings are 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. (LM6-M) The latter is also suitable for direct Besa box 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.1100 side entry using AMEM6114 corner bracket



EMF.1200 top entry with AMEM6121 reflector and AMEM6122 bracket



EKF.1200 side entry using AMEM6122 wall bracket

RANGE

Wellglass fittings

Cat. no.	Type	GLS Lamp	MBF/U Lamp	Lampholder
EKF.1100	Side entry	60/100W	—	BC
EMF.1100	Top entry	60/100W	—	BC
EKF.1200	Side entry	150/200W	80/125W	ES
EMF.1200	Top entry	150/200W	80/125W	ES

* For use with external control gear.

Attachments

Cat. no.	Type	Lamp watts	Dimensions in mm	Weight oz g
AMEM6120	Reflector	60/100	7.25 184 dia.	3 85
AMEM6121	Reflector	150/200	8.62 219 dia.	2 56
AMEM6122	Wall bracket	—	4.75 120 length	4 113
AMEM6114	Corner bracket	—	6.0 152 square 4.75 120 projection	12 340

Fitting dimensions

Cat. no.	Diameter in mm	Height in mm	Weight 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 1.02

All fittings comply with B.S.3820.

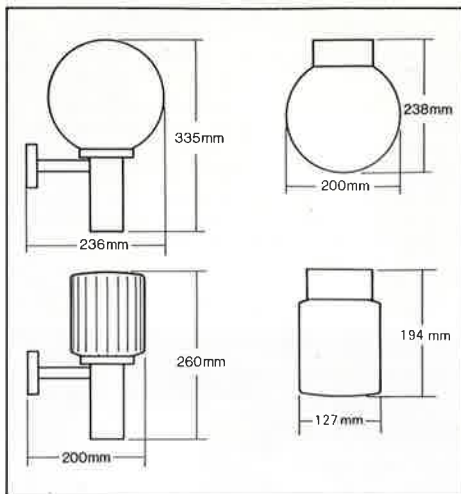
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escort patio fittings

WPC/R1060 BC



WPW/A1060BC



The Escort Patio range comprises two fittings and three alternative glasses.

FITTINGS

The fittings have a matt-black, weather-resistant and non-corrosive finish. Each fitting has a 2BC lampholder as standard (ES lampholder is available to special order). The fittings take a 60W lamp, standard GLS or decorative shape.

Glassware

The glasses are interchangeable and available in two shapes, cylindrical and spherical. The cylindrical glass is ribbed with a clear finish. The spherical glasses are either aerated amber or white opal.

COMPLETE FITTING

Cat. No.	Description	Cat. No. Metalwork	Cat. No. Glass
WPC/A1060BC	Under-canopy fitting with amber aerated spherical glass	WPC1060BC	WPA
WPC/R1060BC	Under-canopy fitting with Ribbed cylindrical glass	WPC1060BC	WPR
WPC/S1060BC	Under-canopy fitting with Opal spherical glass	WPC1060BC	WPS
WPW/A1060BC	Wall bracket with amber aerated spherical glass	WPW1060BC	WPA
WPW/R1060BC	Wall bracket with Ribbed cylindrical glass	WPW1060BC	WPR
WPW/S1060BC	Under-canopy fitting with opal spherical glass	WPW1060BC	WPC

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

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

Cat. no.	Description
ER.1150	Miniflood (less brackets, less lamp)
M36.1150	Miniflood (with brackets, less lamp)
AMEM6122	Wall mounting bracket
AMEM6114	Corner mounting bracket

DIMENSIONS

Cat. no.	Length in mm	Height in mm	Diameter 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
Sealed beam reflector lamps (Par 38)	Spot	150	220/230, 240, 250	ES
Sealed beam reflector lamps (Par 38)	Flood	150	220/230, 240, 250	ES
Colour-Ray sealed beam reflector lamps (Par 38)	Spot	150	220/230, 240, 250	ES
Standard colours: blue, green, red and yellow.				

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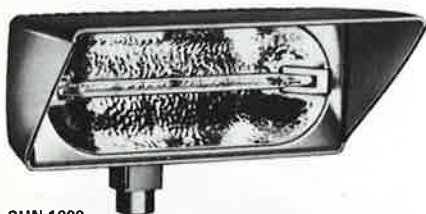
Sunflood 300/1000w Tungsten Halogen Floodlight



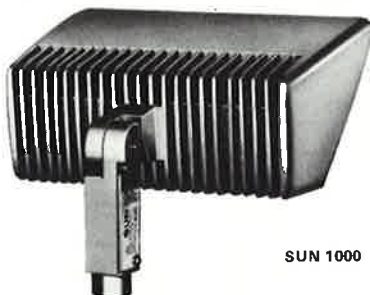
SUN 500



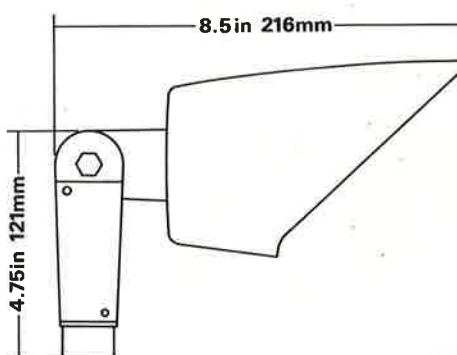
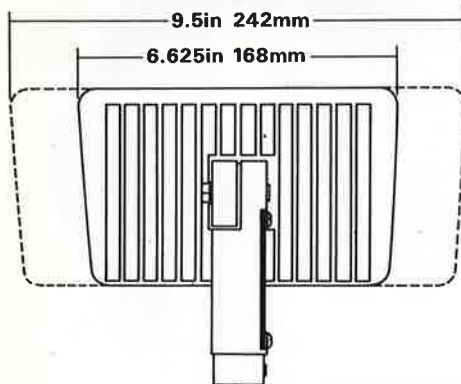
SUN 500



SUN 1000



SUN 1000



DESCRIPTION

The main body, with specially designed cooling fins, and the terminal block housing are pressure die-cast in LM6-M aluminium alloy. The reflector is of magnesium alloy, hammer finished, chemically brightened, and anodised.

The lampholders consist of single fine silver "button" contacts, mounted on nickel-silicon-copper alloy leaf springs, tempered, plated, and

housed in porcelain shrouds.

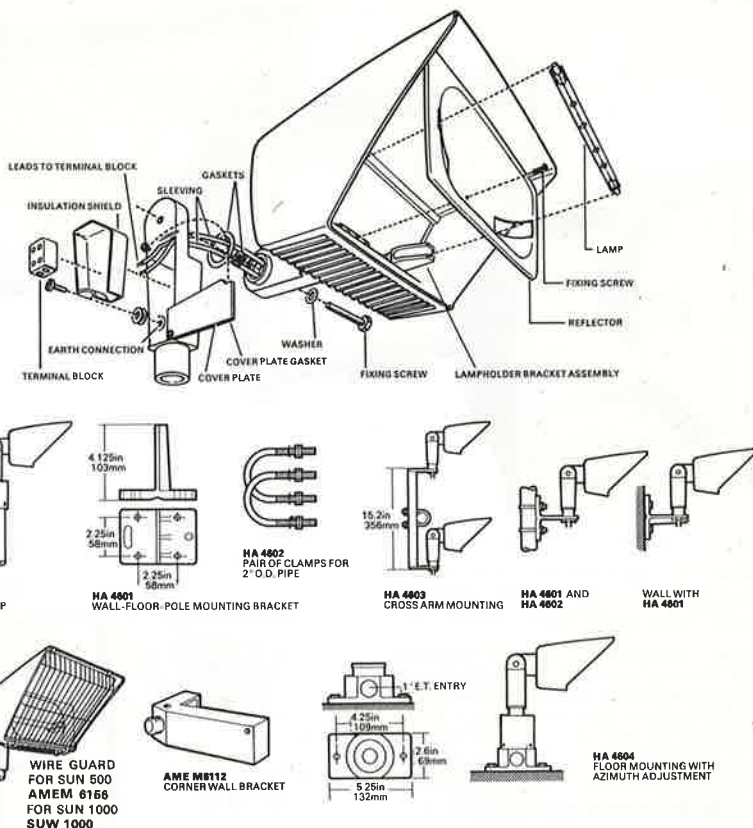
Wiring is carried out with special heat-resisting cable.

All fixing screws are of stainless steel.

The two-way porcelain terminal block is completely insulated by a moulded polypropylene shield. An earth terminal is provided.

Cat. No.	Lamps	Weight
SUN 500	300 or 500W THD Linear	1.02kg 2.25lb
SUN 1000	750 or 1000W THD Linear	1.36kg 3lb

Sunflood 300/1000w Tungsten Halogen Floodlight



ACCESSORIES

A comprehensive range of mounting accessories is available, catering for most mounting requirements. Designed for simple fixing, and inter-changeable throughout the range.

Mounting accessories are attached to the $\frac{3}{4}$ " E.T. tapped entry boss. Accessories are supplied in a plastic bag containing all the necessary components.

Cat. No.

HA 4600	Spigot cap for 2" OD pole
HA 4601	Mounting bracket for pole, wall or floor
HA 4602	Pair of "U" clamps for use with HA 4601
HA 4603	Cross-arm bracket for 2" OD pole
HA 4604	Floor bracket
AMEM 6112	Wall corner bracket

SPARES

Lamp protection can be afforded by the provision of a Sunflood wire guard. It is available for both sizes of Sunflood. The wire guard is made of stainless steel and is clip hinge fixed, for easy maintenance.

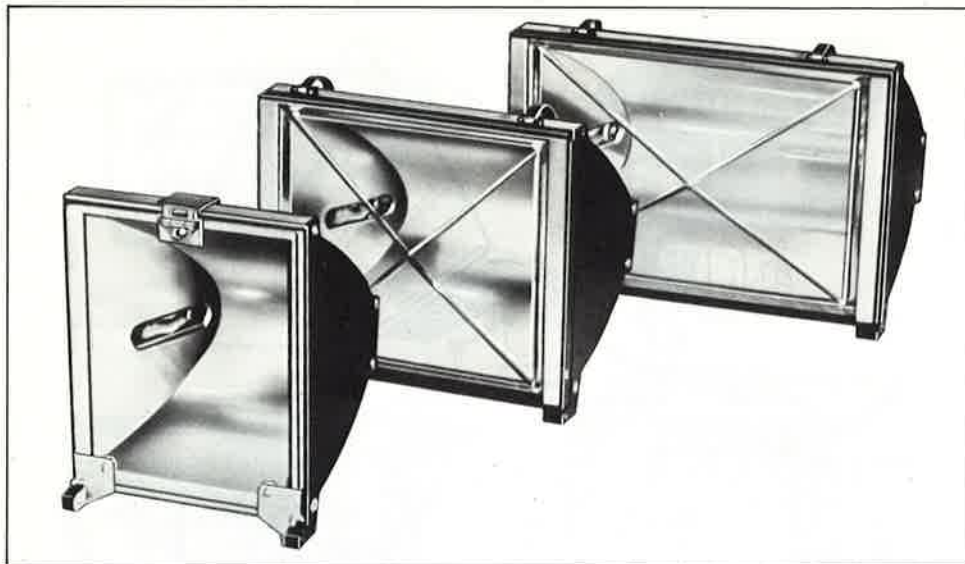
Spare reflectors and lamp-holder assemblies are also available.

Cat. No.

SU.L 500	Lampholder assembly for Sun 300/500 (comprises - one bracket, two lampholders and leads)
SU.L 1000	Lampholder assembly for Sun 750/1000 (comprises - one bracket, two lampholders and leads)
SU.R 500	Reflector for Sun 300/500
SU.R 1000	Reflector for Sun 750/1000
AMEM 6166	Wireguard for Sun 300/500
SU.W 1000	Wireguard for Sun 750/1000

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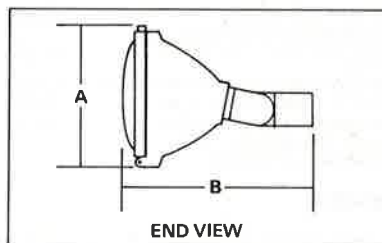
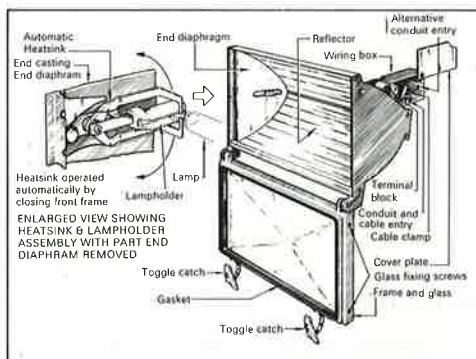
'Haline' 500/750/1000/1500 Tungsten-Halogen Flood Lights



Application Suitable for area lighting, buildings, precincts, stadia, car parks, forecourts or any purpose where a wide horizontal beam spread and accurate vertical beam control are required.

Description One-piece reflector/body of extruded aluminium featuring asymmetrical, faceted reflector profile. This construction gives rigidity and accuracy for best and most consistent optical performance. Reflectors are finished polished (specular) or matt (diffuse) and provided with polished aluminium end diaphragms for improved light distribution. Die-cast LM6 aluminium alloy end plates enclose the fitting and carry lamp holders and heat sinks. Back support, knuckle joint and cool wiring box are also die-cast in LM6. The wiring box is fitted with easy access terminal block, cable clamp and neoprene gasketed lid, and the knuckle joint is calibrated in 5° steps for easy aiming in elevation. Heatsinks are lever operated and arranged so that they must be engaged before the fitting is closed. Access for relamping is obtained via hinged silicone rubber gasketed front frame, with toggle catches on 750-1500W sizes (500W gasketed frameless with thumbscrew fixing). Full weatherproofing is provided by dished borosilicate glasses on 750-1500W sizes

Finish Reflector/body matt aluminium, castings matt black, glazing trim anodised aluminium, screws stainless steel. Cool wiring box provided with tapped $\frac{3}{4}$ " in EGT entry and knock-out boss for one additional $\frac{3}{4}$ " in ET thread if required. Suitable for 110-240V supply in 500/1000W-240V only in 1500W.



RANGE

Catalogue No.	Watts	Weight lb	kg	Height A in	mm	Length in	mm	Depth B in	mm
HAS/D500	500	4½	2.15	8.5	215.9	6.843	193.81	11.5	292
HAS/D1000	750/1000	6½	3.06	8.5	215.9	9.687	246.05	12.0	305
HAS/D1500	1500	7½	8.52	8.5	215.9	12.25	311.15	12.0	305

HAS = Specular Reflector

HAD = Diffuse Reflector

'Haline' 500/750/1000/1500 Tungsten-Halogen Flood Lights

FITTINGS

Catalogue No	Lamp Description
HAS500	500W Specular Reflector
HAD500	500W Diffuse Reflector
HAS1000	750/1000W Specular Reflector
HAD1000	750/1000W Diffuse Reflector
HAS1500	1500W Specular Reflector
HAD1500	1500W Diffuse Reflector

ACCESSORY PACKS COMPLETE

HA4600	2" x 2" Spigot Cap
HA4601	Multi-use Mounting Bracket
HA4602	Pair of 2" Pole Clamps
HA4603	Cross-Arm Mounting
HA4604	Floor Mounting
HA4606	Hood 750/1000W. For HAS/HAD1000
HA4607	Hood 1500W. For HAS/HAD1500
HA4609	Wing Universal, All Sizes except HAD/S500

Accessories

Accessories are supplied packed in plastic bags containing all necessary components as follows :-

HA4600 POLE TOP MOUNTING

Pack contains 2" x 2" spigot cap and $\frac{3}{4}$ " E.T. Hex. Head Steel Bush. Cap is attached to cool wiring box with bush and wiring fed through it.

HA4601 MULTI-USE MOUNTING

Pack contains Bracket and Bush used for wall or floor mounting. Add HA4602 pair of U-clamps for 2" o/d pole mounting.

HA4602 U-CLAMPS FOR 2" O/D POLE

Pack contains one pair of Clamps with Nuts and Washers, Galvanised finish.

HA4603 CROSS-ARM MOUNTING

Pack contains Bracket, two Bushes and one pair HA4602 Clamps used for mounting two fittings, one above the other, on a single horizontal 2" o/d bracket arm.

HA4604 FLOOR MOUNTING

Pack contains Footplate plus HA4600 Spigot Cap and Bush. Cap fits over Footplate permitting rotation on the vertical axis. Used where aiming or swivelling in azimuth is required.

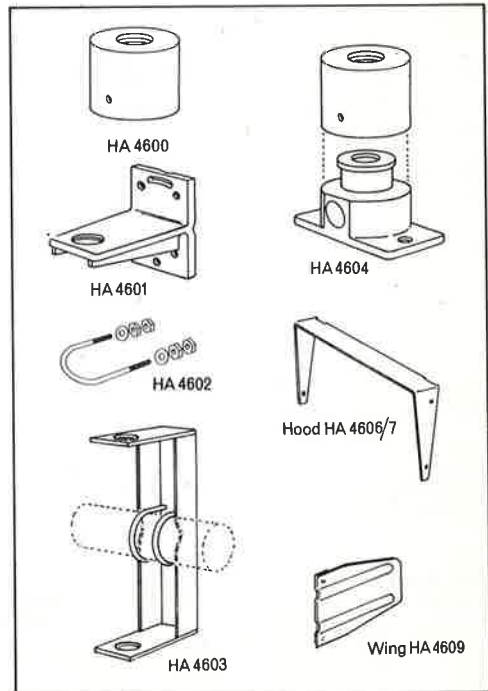
HA4606/7 HOOD

Pack contains Hood and Four Stainless Steel Screws. Used to control upward light. Attached to glazing-frame with longer screws provided.

HA4609, WING

Pack contains One Wing and Two Screws. Used to control side light. Attached to glazing-frame with longer screws provided.

NOTE: NOT AVAILABLE FOR HAD/S500



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M25 junior floodlight projector

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 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, 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.



M25 junior floodlight

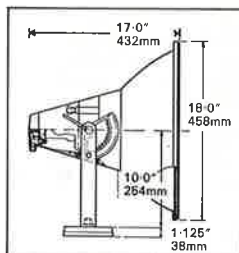
SPECIAL FEATURES AND MAINTENANCE

The floodlight once aimed need not be moved for re-lamping, which is affected 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 pages.



RANGE

Cat. no.	Mounting	Reflector	Weight	
			lb	kg
M25.S 500	2 x $\frac{3}{8}$ " diameter clear holes at 6" centre	specular	20	9.08
M25.D 500	2 x $\frac{3}{8}$ " diameter clear holes at 6" centre	diffuse	20	9.08

*Complete with Baseplate.

LAMP RANGE

Lamp Type	GLS	B2/I	MBF/U	MBI
Wattage	300/500	500	250/400	400

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M25F floodlight projector

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 $2\frac{1}{2}^{\circ}$ intervals. A cast baseplate, marked with azimuth bearing angles, 0° – 180° , is available as an optional extra. All castings are aluminium alloy, LM6-M.

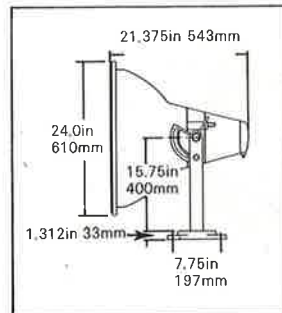
Special features and maintenance Provision is made for accurate lamp focusing by adjustment of three thumbscrews with screwdriver slot. The floodlight once aimed need not be moved for re-lamping, which is effected by removing lampholder housing complete with lamp, from body casting. A re-setting stop 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



Details of discharge-lamp control-gear and weatherproof boxes will be found on page 00:00.

RANGE

Cat. no.	Reflector	Weight lb	kg	Mounting
M25.D 1500*	Diffuse	28	12.7	1 x $\frac{3}{8}$ in hole
M25.S 1500*	Specular	28	12.7	1 x $\frac{3}{8}$ in hole
M25.BP	Baseplate (optional extra)			2 x $\frac{1}{2}$ in diameter, $7\frac{1}{2}$ in centre

*Excluding Baseplate.

LAMPS

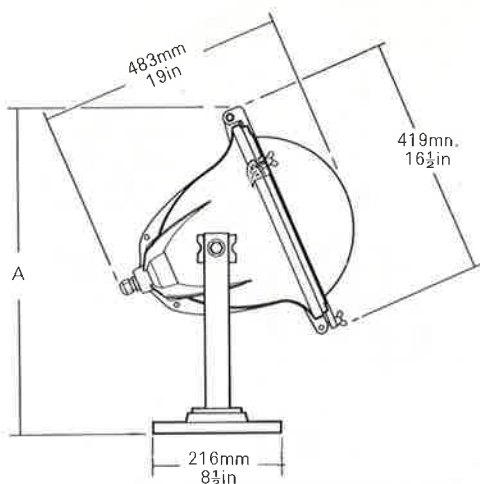
Lamp Type	GLS	B2/2	B2/3	MB/U	MBF/U	MBI
Watts	750/1500	1000	1500	1000	1000	1000

atlas

Grenville Division 2 Floodlight



W2215/W2147



'Floodlight, suitable for most Division 2 areas rainproof, dust-tight and suitable for use in chemically corrosive atmospheres. The fitting is made of die-cast aluminium alloy stove enamelled grey, with plain heat-resisting glass bowl seated on a neoprene gasket in bezel secured by a floating hinge and three swing bolts with captive wing nuts. The fitting can be mounted on a cradle and 10in dia circular base plate or cradle and 4in dia. vertical pole clamp. A concentrating anodised brytal finish internal reflector is used with the MBF lamp, which is supplied complete with integral choke but no capacitor.

Cat. No.	Lamp	Holder	Dimensions A (max)		A (min)		Weight	
			in	mm	in	mm	lb	kg
W2215	MBF/U 250W	GES	25	635	19	483	36	16.5
W2216	MBF/U 400W	GES	25	635	19	483	36	16.5

Mountings for adjustable floodlight fitting with side bosses

W2147 Cradle and circular baseplate (10 in dia)

W2149 Cradle and clamp for 4in dia column

Baseplate fixing: Four holes for 9mm ($\frac{3}{8}$ in) dia bolts equally spaced on 216mm ($8\frac{1}{2}$ in) dia circle.

NOTE: When ordering a top entry 'Grenville' complete with bosses together with the required mounting both catalogue numbers should be quoted (e.g. W2216/W2147 denotes a 400 watt MBF/U 'Grenville' with bosses, complete with internal choke and for mounting on a cradle with circular baseplate).

atlas

M28 light duty floodlight

The M28 is designed for general purpose light duty floodlighting for 150/500 watt tungsten GLS lamps.

Description The M28.150 and M28.200 floodlights in this range are identical in construction, varying only in overall dimensions. Mains wiring is fed via a fixed nylon gland direct into the back of the lampholder. The M28.500 has a removable back cover with cable gland, single screw fixing, giving access to a terminal block for mains connection.

Re-lamping on all sizes is carried out by removal of front glass and glazing ring. Removal of the $\frac{3}{4}$ " packed gland on 150W and 200W sizes allows easy withdrawal of lampholder and yoke assembly for wiring.

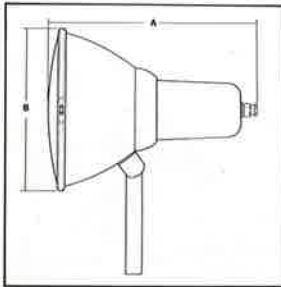
All three types have fixed focus. Floodlight bodies are manufactured from sheet steel, the whole assembly being given anti-corrosion treatment and finished stoved aluminium lacquer.

The complete assembly is supplied mounted in an adjustable steel stirrup.

Mounting All mounting stirrups have a centre fixing hole $\frac{11}{16}$ " (10.3mm) diameter plus two holes $\frac{1}{4}$ " (5.5mm) diameter on 2in (50.8mm) centres.



M28 light duty floodlight M28.200



M28 light duty floodlight M28.500

RANGE

Cat. no.	Lamp	Cap	Weight		Dimensions			
			kg	lb	A		B	
M28.150	150 GLS	BC	1.59	3 $\frac{1}{2}$	10.75in	273mm	8.0in	204mm
M28.200	200W GLS	ES	2.50	5 $\frac{1}{2}$	15.75in	400mm	10.0in	254mm
M28.500	300W/500W GLS	GES	4.57	10 $\frac{1}{2}$	21.75in	552mm	12.0in	305mm

atlas

400w area floodlight

The Atlas Area Flood is a totally enclosed floodlight for post top, wall or stirrup mounting. Integral precision wound gear for "Kolorlux, "Kolorarc and SON lamps is supplied wired to the lampholder. High light output with good optical control and asymmetric light distribution fits it for area floodlighting.

CONSTRUCTION

Support casting

The casting which includes the control spigot cap is made of LM6-M silicone. Control gear is mounted on the casting.

Body

The GRP body, moulded in one piece, incorporates a channel section carrying a silicone rubber gasket which provides a seal between body and casting.

Bowl ring assembly

Bowl ring is a GRP moulding with corrosion-resistant hinges at the top for easy access. A toughened flat glass is secured into the bowl-ring. Both bowl and ring seat against silicone rubber gaskets for full weatherproofing. The assembly is secured by two Dzus coin-slot clips.

Reflector assembly

Two part, of chemically polished aluminium, giving an asymmetric light distribution. The lower portion hinges down giving easy access to the control gear and fixing screws.

Wiring and installation

Mains wiring is fed via a cable to a 3 way 10 amp terminal block taking up to twin 7/0.36 in (7.85mm) cable and earth.

Post top and bracket mounting

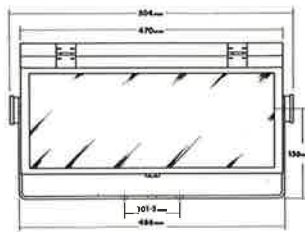
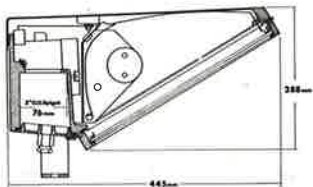
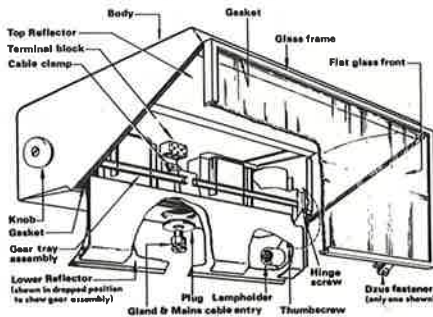
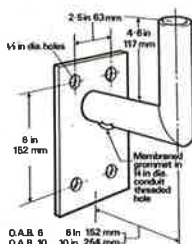
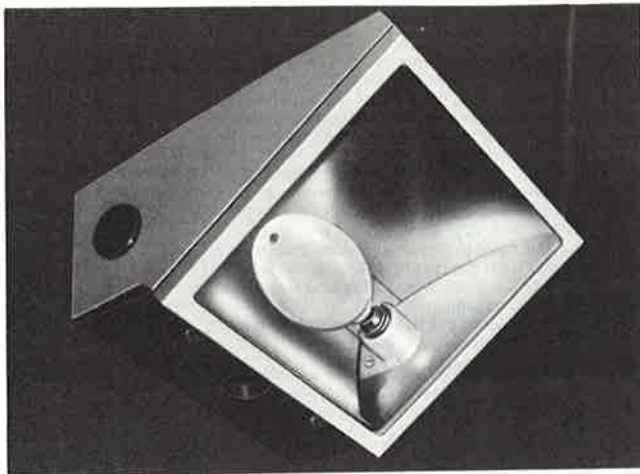
The Area Floodlight is secured to post or bracket through the two Allen type screws in the spigot cap (3in-76.2mm dia x 4.5in-114.3mm)

When a 2 in O/D pole or bracket is used, a 2 in spigot adaptor (OAA.2) must be used.

Wall brackets are available in 6 inch 152mm for close to wall fixing with limited adjustment is azimuth. The 10 in bracket permits full 180° adjustment in azimuth, if required.

Stirrup mounting

Stirrup arms are secured to the floodlighting by the black securing knobs. A blanking plate is provided for gland entry of the mains cable. With this mounting, the fitting may be aimed as required in elevation.



Range Fitting	Lamp	Watts	Cap	Type	Accessories	Description
OAC 400	"Kolorarc	400W	GES	MBIF	OAA.2	3in. Spigot Adaptor
OAK 250	"Kolorlux	250W	GES	MBF/U	OAB.6	2in. O/D 6in. Bracket
OAK 400	"Kolorlux	400W	GES	MBF/U	OAB.10	2in. O/D 10in. Bracket
OAS 250	SON	250W	GES	SON	OAG	Spare Front Glass
OAS 400	SON	400W	GES	SON	OAV	Anti-Vandal Bowl

atlas

M30 linear sodium floodlight

The M30 Floodlight is designed for general area lighting

The projector body is of 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.

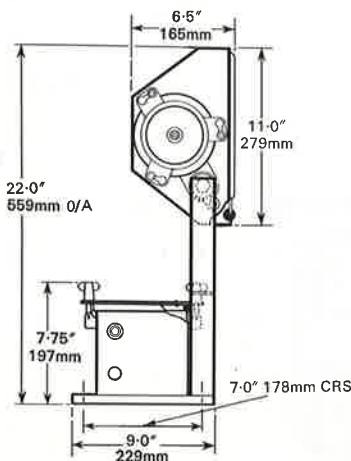


M30 linear sodium floodlight

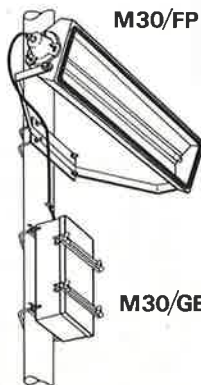
RANGE

Cat. no.	Description	Weight	
		lb.	kg.
M30	Floodlight body, gear box, (side strap – less gear)	62	28.15*
M30F	Floodlight body, wall brackets only	26.5	12.03
M30/FP	Floodlight body, cradle, pole-clamps only	34	14.44
M30/GB	Gear-box – less gear	33	14.98*
M30/GBP	Gear-box – Pole clamp – less gear	37	16.80*
—	Set of 140W SLI Gear 190/220V	—	—
—	Set of 140W SLI Gear 220/250V	—	—
—	Set of 200W SLI Gear 220/250V	—	—

*Weight includes gear.

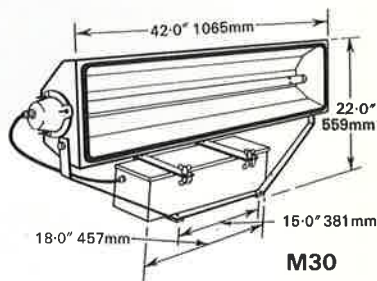


M30

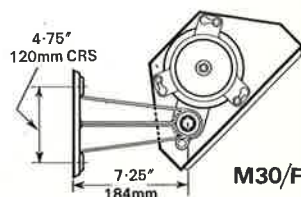


M30/FP

M30/GB/P



M30



M30/F

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The complete OD 0750 unit is in two interconnected parts:

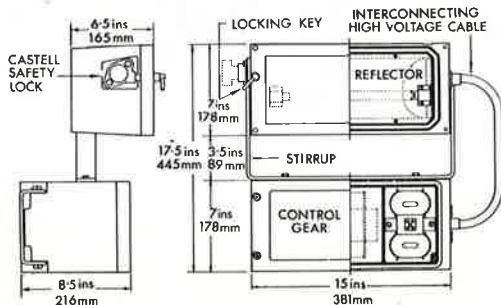
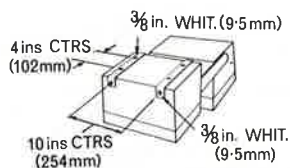
Aluminium reflector designed to obtain an asymmetric light distribution.

Control Box: This is similar in design to the Floodlight, cast in aluminium and finned for maximum heat dissipation.

The control gear is integral with the box and is power factor corrected.

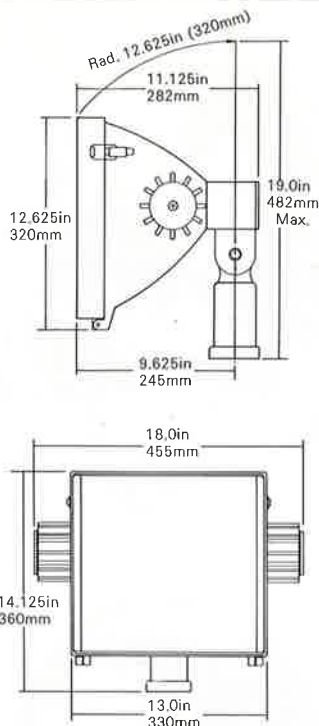
RANGE

OD.0750	Floodlight complete with Control gear	90	40.86
750w	MBIL/H Lamp – ordered separately		



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1600W MBIL Floodlight



DESCRIPTION

The contoured asymmetric reflector, polished and anodised, is located between end plates cast in LM6 – M aluminium alloy. Cool chambers in the castings provide accommodation for special lampholders. At the rear of the reflector a cast chamber with a gasketed lid provides the wiring facilities in addition to a knuckle joint for the mounting spigot cap. Mains entry is by a cable gland.

LAMP

1600W MBIL Linear Metal Halide unjacketed tubular double-ended lamp with standard R7s' cap. (See Lamp Data Sheet). The fitting is weatherproof. Additional light control is obtained from an internal extruded and polished aluminium baffle, which can be removed for wider beam spread above peak, if required. Control gear is mounted remote.

MOUNTING

The fitting mounts on any 2" O/D spigot, using the spigot cap provided. For wall or floor mounting standard tungsten-halogen accessories can be used; AMEM 6123 wall bracket and AMEM 6124 footplate.

AIMING

Adjustment in elevation is achieved at the knuckle joint and in azimuth by rotation of the spigot cap, locking of both settings is achieved by tightening knuckle joint, and Allen screws in spigot cap.

RE-LAMPING

Access to the lamp for replacement purposes is made through hinging down glass front.

RANGE

ON.1600 1.6 KW Floodlight.
N.B. : LAMPS ORDERED SEPARATELY
AMEM 6123 Wall Bracket
AMEM 6124 Footplate.

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Streetlighting catalogue numbering system

PURPOSE

The purpose of the new system is to provide an immediate and positive identification of a catalogue number in relation to range and description of the lantern.

BASIC PRINCIPLE of the new Streetlighting Catalogue numbering system.

1. All items of streetlighting equipment to be catalogued with prefix "Q". This automatically locates the whole range in the same section of the C.P.L. for easier location. It also gives an immediate statement of equipment type.

2. Second and third digit to be initial letter and number of the lantern in the range description.

e.g. A3 = Alpha 3
B4 = Beta 4
G3 = Gamma 3 etc.

3. A standard vocabulary of suffix letters, indicative of type detail, with or without gear, accessories or attachments etc., to be included as appropriate in the catalogue number.

e.g. S = Semi-cut-off
V = Vandal bowl
B = With gear, etc.

4. Existing system of four-digit number indicating no. of lamps and maximum wattage to continue.

5. Where components making up a lantern are supplied as separate packages, each package to have a catalogue number.

e.g. Alpha 3 Canopy S,C,O. with gear—
QA3,B,1400
Alpha 3 Gear tray 400W Kolorlux
240V 50Hz—QA3,B,1400,4
Alpha 3 Lampholder bracket for
250/400W.S.C.O.—QA3,S,L
Alpha 3 bowl assembly 250/400W
S,C,O.—QA3,D

6. When producing a "complete fitting" catalogue number, separate packages are indicated by an oblique stroke /.

The "complete lantern" Alpha 3 S,C,O. with 400W Kolorlux becomes:—
QA3/SL/D/B,1400,4—indicating four packages.

A further example would be:—

QB4, U,1200 = Open Beta 4 canopy with
lugs

B,22 = 2 Pin BC lampholder
QB4,Y = Beta 4 refractor dome

The "complete lantern" Beta 4 open lantern for GLS; lamp then becomes:—
QB4,U/Y/1200,B22—indicating three packages.

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Streetlighting: standard vocabulary

SECONDARY REFERENCES:

- A. Auxiliary reflector
- B. With gear
- C. Cut off
- D. Acrylic bowl/diffuser/cylinder – clear or semi-obscured with or without refractor plates.
- E. Support assy.
- F. Small canopy
- G. Glass flat or bowl – clear or refractor
- H. Bowl ring
- I. Kolorarc (MBI/F)
- J. Canopy with lugs – enclosed type
- K. Triangular spigot (QLC columns)
- L. Lampholder/bracket assy. – AMEL, lampholder only
- M. Acrylic bowl – stippled or pinspot
- N. High pressure sodium (SON)
- O. Acrylic bowl or cylinder – opal
- P. P.E. cell socket
- S. Semi cut-off
- T. Top entry
- V. Anti vandal bowl – clear, opal or prismatic
- W. Large Canopy
- X. Refractor ring symmetric
- Y. Refractor ring, asymmetric – glass or plastic
- Z. Refractor ring, asymmetric – inner portion only (QBI)

Suffix Numbers – Lamps and Wattages

1035	– 1 x 35W
1055	– 1 x 55W
1080	– 1 x 80W
1090	– 1 x 90W
1100	– 1 x 100W
1125	– 1 x 125W
1135	– 1 x 135W
1140	– 1 x 140W
1150	– 1 x 150W
1200	– 1 x 200W
1250	– 1 x 250W
1400	– 1 x 400W
2240	– 2 x 2ft – 40W Tubes
2400	– 2 x 400W
2500	– 2 x 500W
3080	– 3 x 5ft – 80W Tubes
3400	– 3 x 400W
4080	– 4 x 5ft – 80W Tubes
4240	– 4 x 2ft – 40W Tubes

NB: Where more than one lamp is available for a fitting, the largest wattage is used for the reference number.

Suffix Numbers – Control Gear

.4	– 240V 50 Hz
.H	– 230/250V Tapped
.T	– 200/250V Tapped

Suffix Numbers – Lampholders

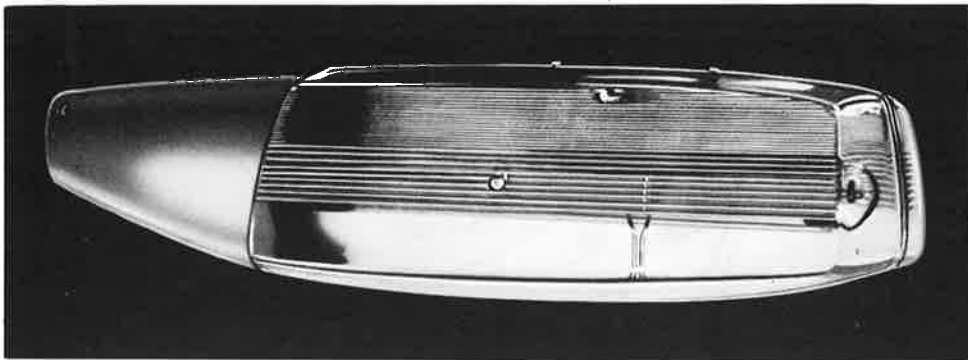
B22	– 2BC
B22-3	– 3BC
E27	– ES

NB: Mainly for reference information only.

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Alpha one/semi-cut-off sodium lantern

QA1.E/D1090



Lamps

One 55W or 90W SOX Sodium Discharge Lamp.

Distribution

Semi-cut-off (71% DLOR)

Specification

To BS.1788, Kite marked, D.O.E., and C.O.I.D., approved. The end support is LM6-M die-cast aluminium alloy. The opticell is injection moulded clear Acrylic and hermetically sealed. Other components are of stainless steel or aluminium. Control Gear is mounted remote.

Mounting

Side Entry for 42mm x 100mm Spigot. Recommended mounting height: 6-8m. Recommended spacing/height ratio: 4:1.

Catalogue Numbers

Complete lanterns

Lanterns comprise End Support and opticell.
QA1.E/D1055—for 55W SOX.
QA1.E/D1900—for 90W SOX.

Packages:

QA1.E —End Support assembly
QA1.D1055—55W SOX Opticell
QA1.D1090—90W SOX Opticell

Control gear

Gear sets required for Lanterns.

Lamp

55W SOX

90W SOX

Control gear

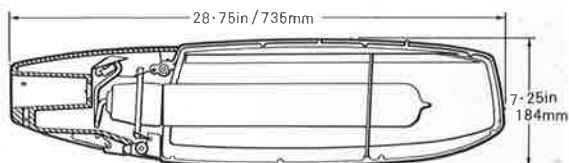
AME 53182.4

AMEC 2280

AME 53232.4

AME 2236

QA1.E/D1090 on an QLC.M0851 steel column

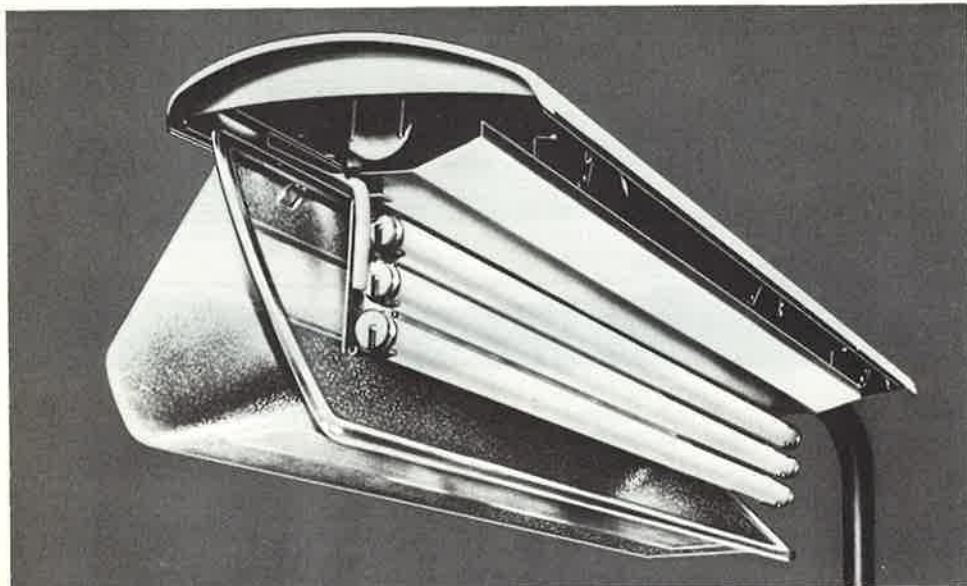


Overall width 9.5in / 241mm
Weight 9lb / 4.1kg
Windage area 1.3 sq ft / 121m²

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Alpha two/fluorescent lantern

QA2.D/B3080.4



Lamps

3 or 4-5' 80W MCFA/U Tubes
240V 50Hz.
3 or 4-5' 80W MCFE/U Tubes
240V 50Hz.

Distribution

Semi-cut-off Asymmetric 2-way axial.
(79% DLOR)

Specification

The canopy is aluminium alloy sheet with LM6-M aluminium alloy end castings. The Acrylic bowl has sealed-in refractor plates. Quick start control gear is mounted on a concealed tray, and wired for either half-night or full-night operation.

Mounting

Side Entry for 42mm x 100mm spigot (mounting angle 10°).
Recommended mounting height: 8-10m.
Average spacing/height ratio: 4:1.

Catalogue Numbers

Complete lanterns

Lanterns comprise canopy assembly (with gear) and a bowl assembly.
QA2.D/B3080.4—for 3-5' 80W MCFA/U or MCFE/U tubes.
QA2.D/B4080.4—for 4-5' 80W MCFA/U or MCFE/U tubes.

Packages

QA2.B.3080.4—Canopy assembly with gear for 3 lamps.
QA2.B.4080.4—Canopy assembly with gear for 4 lamps.
QA2.D —Bowl assembly.

Control gear

Gear sets supplied with lantern.

Lamp

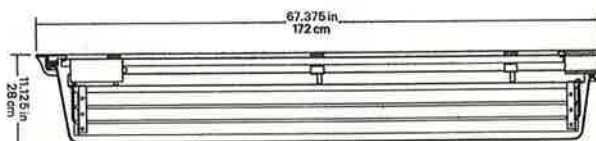
80W MCFA/U or MCFE/U

Control gear

AME 68022.5 (per Lamp)
AMEC 2222 (per Lamp)



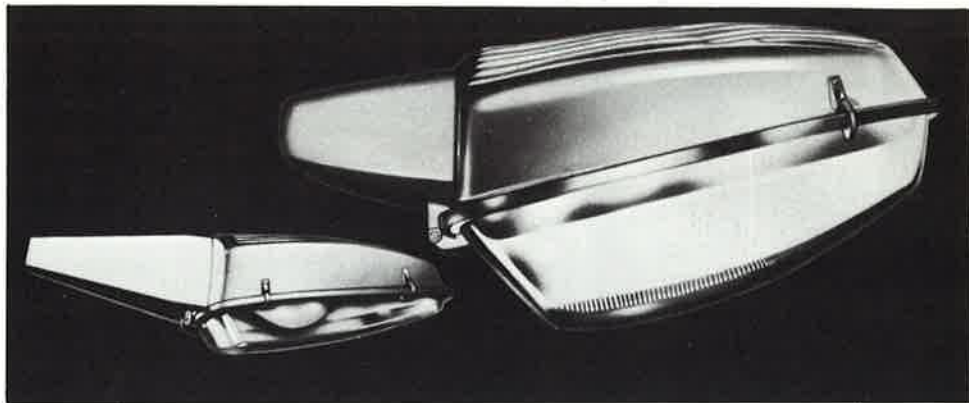
QA2.D/B3080.4 on a QLC.M0882 Steel column.



Overall width 14.875 in (37 cm)
Weight 56 lb (24.9 kg)
Windage area 5.1 sq. ft. (.474 sq m)

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Alpha three - mercury/metal halide/son lantern.



QA3.C/L/B/D 1250.4

QA3.S.1400

Lamps

- (a) One 250W or 400W MBF/U Lamp.
- (b) One 400W MBI/F Lamp.
- (c) One 250W or 400W SON Lamp.
(Less gear only)

Distribution

- (a) Cut-Off (56% DLOR)
- (b) Semi-cut-off. (72% DLOR)

Specification

To BS.1788, Kite marked D.O.E. and C.O.I.D. approved. The canopy is pressed aluminium and painted white internally. End support/gear slipper with porcelain lampholder is in LM6-M die-cast aluminium alloy. Bowls are moulded in clear U.V. stabilised Acrylic plastic. Control Gear for "Less Gear" lanterns is mounted remote.

Mounting

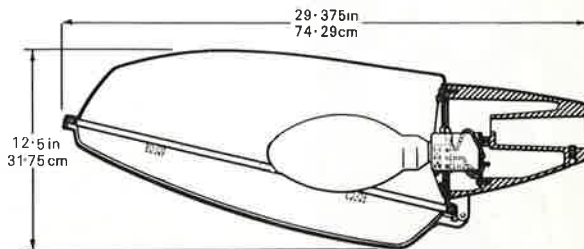
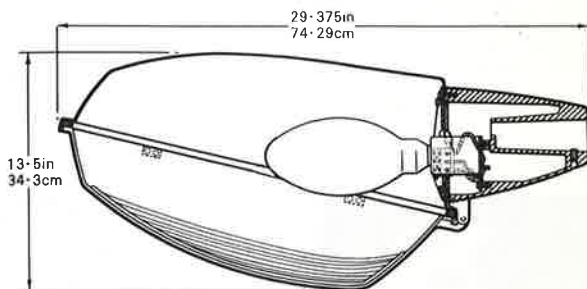
Side entry: for 42mm x 100mm horizontal spigot
Recommended mounting height: 8-12m
Average spacing/height ratio:
4.5:1 (S.C.O.)
3:1 (C.O.)

Catalogue Numbers

Complete lanterns less gear

Lanterns comprise canopy, bowl, end support and lampholder.

- QA3.S.1400—Semi-cut-off lantern for 250/400W MBF/U, 250/400W SON and 400W MBI/F.
- QA3.C.1250—Cut-off lantern for 250W MBF/U and SON.
- QA3.C.1400—Cut-off lantern for 400W MBF/U MBI/F and SON.



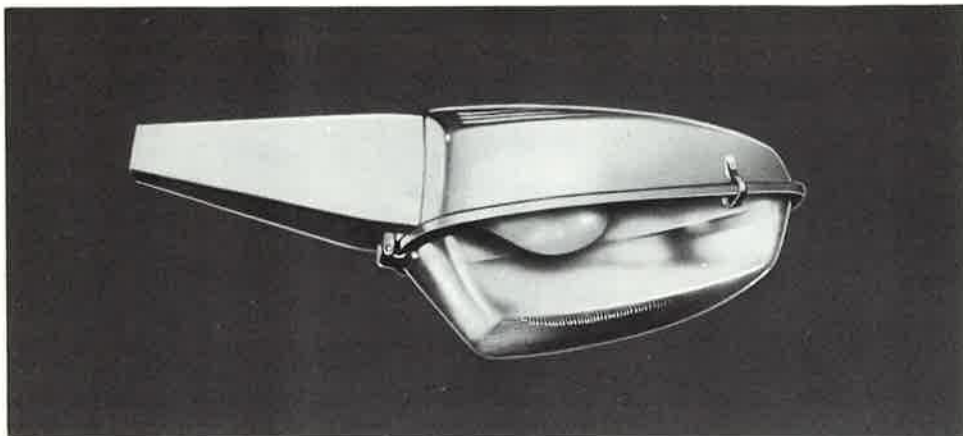
Overall width
18.25in / 46.4cm

Weight
10 3/4 lb / 4.875 kg

Windage area
1.75 sq ft / 1640 sq cm

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Alpha three - mercury/metal - halide lantern



QA3.S/L/B/D 1250.4

Complete lanterns with gear

Lanterns comprise canopy/gear slipper assembly, 240V gear and gear tray, lampholder assembly and bowl assembly.

QA3.S/L/B/D 1250.4—Semi-cut-off lantern for 250W MBF/U.

QA3.S/L/B/D 1400.4—Semi-cut-off lantern for 400W MBF/U.

QA3.C/L/B/D 1250.4—Cut-off lantern for 250W MBF/U.

QA3.S/L/B.I/D1400.4—Semi-cut-off lantern for 400W MBI/F.

QA3.C/L/B.I/D1400.4—Cut-off lantern for 400W MBI/F.

NB: Lanterns for other than 240V are available on special order.

Packages

QA3.B.1400—Canopy/Gear slipper assembly.

QA3.B.1250.4—Gear Tray with 250W/240V MBF/U gear.

QA3.B.1400.4—Gear Tray with 400W/240V MBF/U gear.

QA3.B.I.1400.4—Gear Tray with 400W/240V MBI/F gear.

QA3.S.L.1400—Lampholder assembly S.C.O. 250/400W.

QA3.C.L.1250—Lampholder assembly C.O. 250W

QA3.D.S.—Bowl assembly S.C.O. (also for replacement)

QA3.D.C.—Bowl assembly C.O. (also for replacement)

QA3.G—Glass bowl (C.O.) for replacement purpose only (Mk 12)

Control gear

Gear sets required for "less gear" lanterns, and supplied for "with gear lanterns".

Lamp

250W MBF/U

400W MBF/U

400W MBI/F

400W MBI/F (less gear only)

250W SON (less gear only)

400W SON (less gear only)

Control gear

AME 53198.4

AMEC 2214

AME 53193.4

AMEC 2218

AME 53195.T

AMEC 2278 (2 per)

AME 53193.T

AME 53262

AMEC 2218

AME 53251.T

AME 53262

AMEC 2235

AME 53230.T

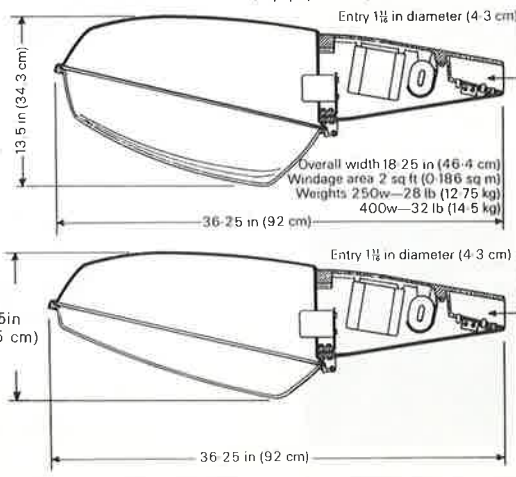
AME 53262

AMEC 2218 (2 per)

QA3.S/L/B/D 1250.4

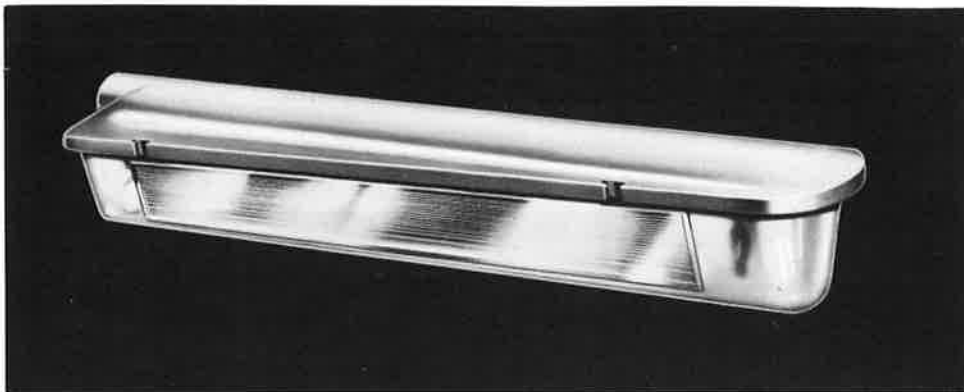


QA3. S/L/B/D 1250.4



atlas

Alpha five/semi-cut-off sodium lantern



QA5, 1200

Lamps

One 140W or 200W SLI/H Sodium Discharge Lamp
One 135W SOX Sodium Discharge Lamp.

Distribution

Semi-cut-off, (74% DLOR)

Specification

To BS,1788, kite marked and D.O.E. approved, The canopy off LM6-M die-cast aluminium alloy incorporates an aluminium reflector, The Acrylic bowl has sealed-in refractor plates, Control gear is mounted remote.

Mounting

Side Entry for 42mm x 100mm Spigot
Recommended mounting height: 10-12m
Average spacing/high ratio 4:1

Catalogue Numbers

Complete lanterns

Lanterns comprise canopy assembly, and bowl,
QA5,1135—for 135W SOX Lamp,
QA5,1200—for 140W or 200W SLI/H Lamp.

Replacement bowls

QA5,D1135—Bowl assembly for 135W SOX Lamp,
QA5,D1200—Bowl assembly for 140W or 200W SLI/H Lamp.

Control gear

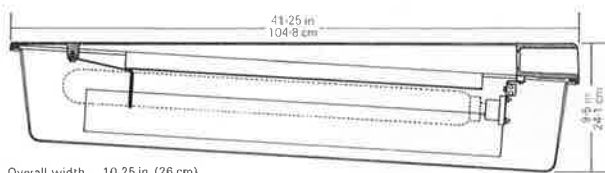
Gear sets required for lanterns.

Lamp	Control gear
135W SOX	AMEC 53166,T AMEC 2281
140 SLI/H	AMEC 53232,4 AMEC 2218
200 SLI/H	AMEC 53172,T AMEC 2235

QA5,1200 on QLC,M0887 steel column

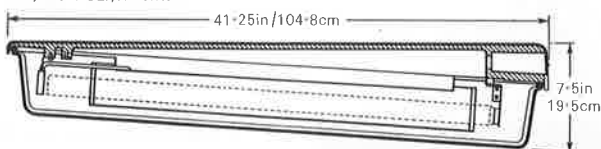


135W SOX Lantern



Overall width 41.25 in (26 cm)
Weight 15½ lb (7 kg)
Windage area 2.3 sq ft (213 sq m)

140/200W SLI/H Lantern



Overall width: 10.25in / 26cm
Weight: 10½lb / 4.52kg

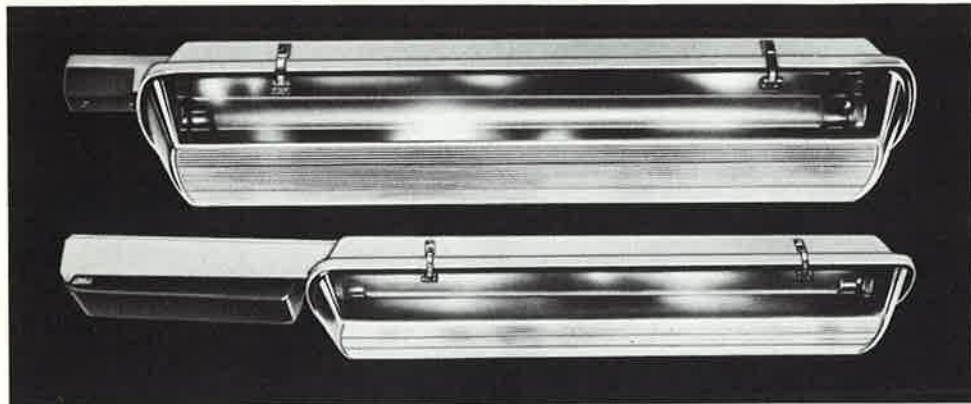
Windage area: 1.8 sq ft
.167m²

atlas

Alpha six/cut-off sodium lanterns

QA6.D/1200

QA6.D.B1140.4



Lamps

One 140W or 200W SLI/H Lamp.

Distribution

Cut-off (DLOR 140W- 65%
[200W- 75%])

To BS.1788, Kite marked, D.O.E. and C.O.I.D. approved. The canopy is G.R.P. and the bowl is U.V. stabilised Acrylic. End supports are LM6-M aluminium alloy, the cover for the geared version being Polypropylene. The control gear for "Less Gear" lanterns, is mounted remote.

Mounting

Side Entry for 42mm x 110mm Spigot. Recommended mounting height: 10-12m. Average spacing/height ratio: 3:1.

Catalogue Numbers

Complete lanterns less gear

Lanterns comprise canopy assembly and bowl.

QA6.D/1140—for 140W SLI/H Lamp.

QA6.D/1200—for 200W SLI/H Lamp.

Complete lanterns with gear

Lanterns comprise canopy assembly (with Gear) and bowl.

QA6.D/B1140.4—for 140W SLI/H Lamp.

QA6.D/B1200.4—for 200W SLI/H Lamp.

Packages

QA6.1140—Canopy/End Support assembly for 140W SLI/H. (Less Gear version).

QA6.1200—Canopy/End Support assembly for 200W SLI/H (Less Gear version).

QA6.1140.4—Canopy/End Support assembly (with Gear for 140W SLI/H.)

QA6.1200.4—Canopy/End Support assembly (with Gear for 200W SLI/H.) QA6.D—Bowl assembly.

Control gear

Gear sets required for "Less Gear" Lanterns, and supplied for "With Gear" Lanterns.

Lamp

140W SLI/H

200W SLI/H

Control gear

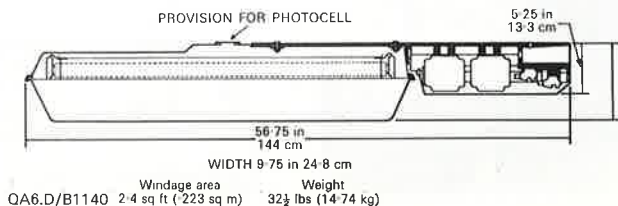
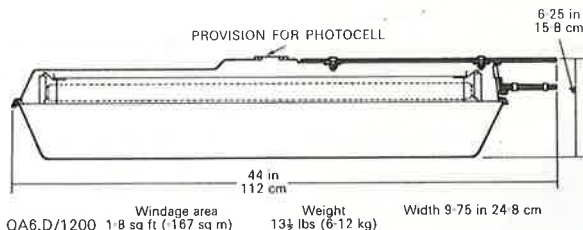
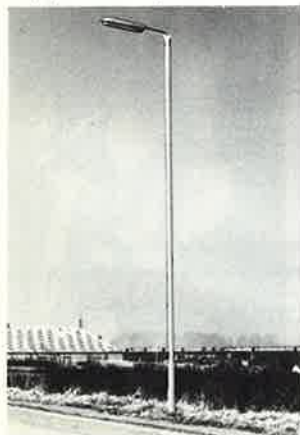
AME 53232.4

AMEC 2218

AME 53172.T

AMEC 2235

QA6.D.B1200 on QLC.M0887 column

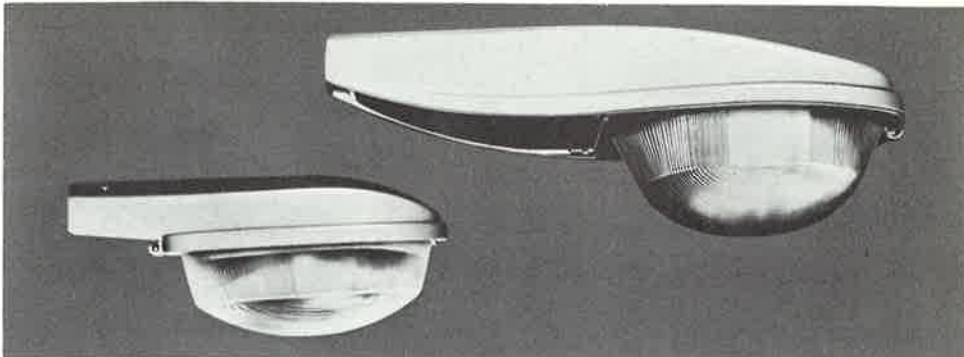


atlas

Alpha seven/mercury-fluorescent lantern

QA7.G/1400

QA7.G/B1250.4



Lamps

- a) One 250W or 400W MBF/U Lamp.
- b) One 400W MBI/F Lamp, (Less Gear only).
- c) One 250W or 400W SON Lamp, (Less Gear only).

Distribution

Main beam at 76° from downward vertical.

Specification

The canopy (and gear housing in geared version) is a one piece LM6-M aluminium alloy casting, enamelled white internally. Refractor bowl is of heat resisting glass. The gear housing cover is of BA 213 aluminium alloy. Control gear for "Less Gear" lanterns is mounted remote.

Mounting

Side Entry for 42mm x 110mm Spigot. Recommended mounting height: 8-12m. Average spacing/height ratio: 4:1.

Catalogue Numbers

Complete lantern less gear

Lantern comprises canopy and bowl.
QA7.G/1400—for 250/400W MBF/U,
250/400W SON and
400W MBI/F

Complete lanterns with gear

Lanterns comprise canopy, Gear and Bowl.
QA7.G/B1250.4—for 250W MBF/U
QA7.G/B1400.4—for 400W MBF/U

Packages

- QA7.1400 —Canopy assembly (Less Gear lantern)
- QA7.B.1250.4—Canopy assembly with Gear
- QA7.B.1400 —Canopy assembly with Gear
- QA7.G —Glass Bowl

Control gear

Gear sets required for "Less Gear" Lanterns, and supplied for "With Gear" Lanterns.

Lamp

250W MBF/U

400W MBF/U

400W MBI/F (less gear only)

400W MBI/F (less gear only, alternative set)

250W SON (less Gear only)

400W SON (less Gear only)

Control gear

AMEC 53198.4

AMEC 2214

AMEC 53193.4

AMEC 2218

AMEC 53195.T

AMEC 2278 (2.PER)

AMEC 53193.T

AMEC 53262

AMEC 2218

AMEC 53251.T

AMEC 53262

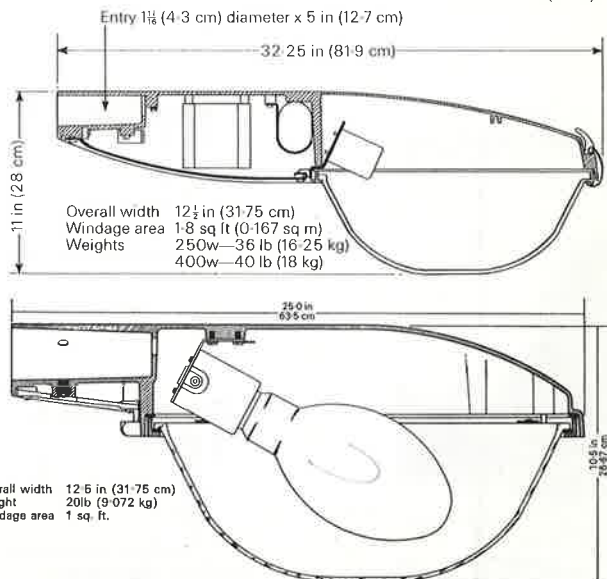
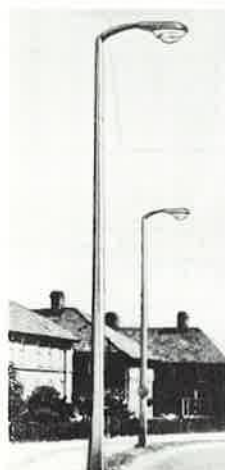
AMEC 2235

AMEC 53230.T

AMEC 53262

AMEC 2218 (2 Per)

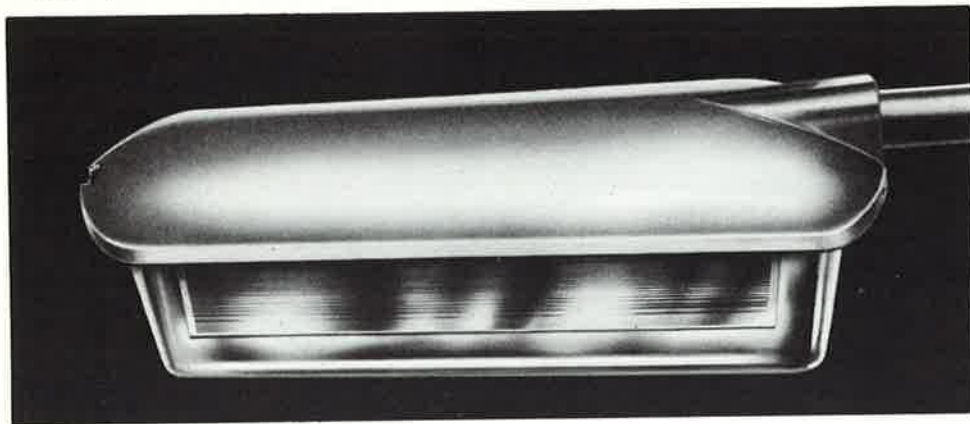
QA7.G/1400 on a Q8F concrete column



atlas

Alpha nine/semi-cut-off sodium lantern

QA9,D,B,1090,H



Lamp

One 90W SOX Sodium Discharge Lamp.

Distribution

Semi-cut-off, (60% DLOR)

Specification

To BS.1788 D.O.E. approved and kite marked.

The canopy is of LM6-M aluminium alloy with a porcelain BC Lampholder. The bowl is U.V. stabilised Acrylic with bonded internal refractor plates. The Control Gear is mounted on the canopy of the "With Gear" Lantern. Control Gear for "Less Gear" Lantern is mounted remote.

Mounting

Side Entry for 42mm x 100mm Spigot. Recommended mounting height 8-10m. Recommended spacing/height ratio: 4:1.

Catalogue Numbers

Complete lantern less gear

Lantern comprises canopy assembly and bowl assembly.
QA9.D.1090—for 90W SOX

Complete lantern with gear

Lantern comprises canopy assembly with Gear and Bowl Assembly.
QA9.D.B.1090,H—for 90W SOX

Spare bowls

QA9.D —Bowl assembly for "Less Gear" lantern.
QA9.D.B.—Bowl assembly for "With Gear" lantern.

Control gear

Gear sets required for "With Gear" lantern, and supplied for "With Gear" lanterns.

Lamp

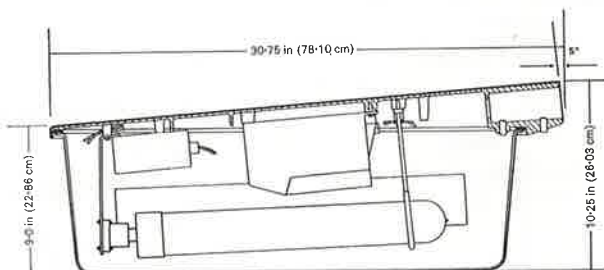
90W SOX

90W SOX (Less Gear only)

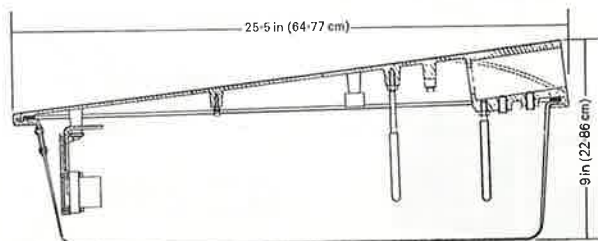
Control gear

AME 53178,H
AMEC 2236
AME 53232,4
AMEC 2236

QA9.D.1090 on a QLC.M0887 column



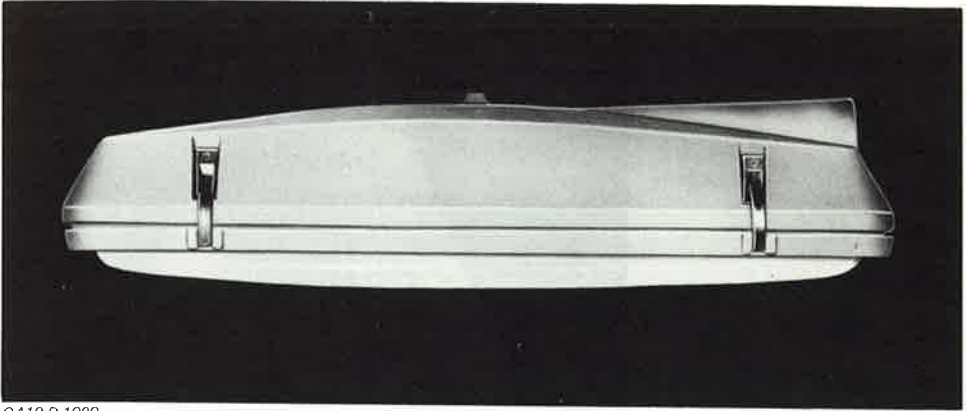
Weight 27 lb (12.2 kg)



Overall width 11.875 in (65.5 cm)
Weight 10 lb (4.5 kg)

atlas

Alpha ten/cut-off sodium lantern



QA10.D.1090

Lamps

One 55W or 90W SOX Sodium Discharge Lamp.

Distribution

Cut-off (61% DLOR)

Specification

To BS.1788, the canopy and bowl-ring are LM6-M aluminium alloy, reflector is formed from aluminium and the bowl is vacuum formed clear Acrylic. The control Gear is mounted remote.

Mounting

Side Entry for 42mm x 100mm Spigot.
Recommended mounting height: 6-8m.
Average spacing/height ratio: 4:1.

Catalogue Numbers

Complete lanterns

Lanterns comprise canopy assembly and bowl

QA10.D.1055—for 55W SOX

QA10.D.1090—for 90W SOX

Replacement bowl

QA10.D—Bowl.

Control gear

Gear sets required for Lanterns.

Lamps

55W SOX

90W SOX

Control gear

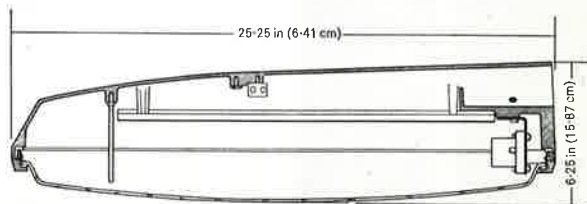
AME 53182.4

AMEC 2280

AME 53232.4

AMEC 2236

QA10.D.1090 on 8 metre steel column

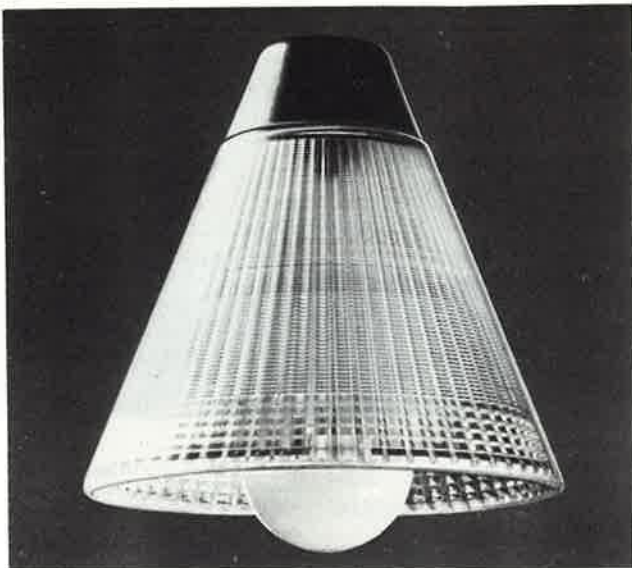


Overall width 19.75 in (50.1 cm)
Weight 14½ lb (6.477 kg)
Windage area 107.31 sq in (692.32 sq cm)

atlas

Beta one/open lantern

QB1.Y/1150.B22 on a 1506 steel column.



QB1-Y/1150/B22

Lamps

- a) One 100W or 150W GLS Tungsten Filament lamp.
- b) One 80W or 125W MBF/U lamp.

Distribution

Axially Asymmetric.

Specification

To BS.1788 and C.O.I.D. approved. The refractors are clear injection moulded acrylic, and the gallery cap black plastic. Gallery is of LM6-M Aluminium alloy and the lampholder is porcelain. Control gear for MBF/U lamps is mounted remote.

Mounting

Top Entry for $\frac{3}{8}$ in BSP threaded nipple. Recommended mounting height: 5m. Average spacing/height ratio: 6:1

Catalogue Numbers

Complete lanterns

Lanterns comprise Gallery, Refractor and lampholder assembly.

- QB1.Y/1150/B22 —For 100/150W GLS
- QB1.Y/1150/E27 —For 150W GLS or 80/125W MBF/U
- QB1.Y/1150/B22-3—For 80/125W MBF/U

Packages

- QB1.1150 —Gallery Assembly
- QB1.Y —Asymmetric Refractor
- QB1.LB22 —Lampholder Assembly (2BC)
- QB1.L.E27 —Lampholder Assembly (ES)
- QB1.L.B22-3—Lampholder Assembly (3 BC)

Control gear

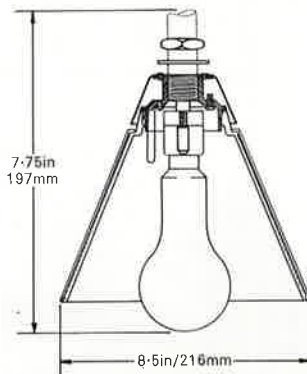
Gear sets required for Discharge lamps in lanterns.

Lamp

- 80W MBF/U
- 125W MBF/U

Control gear

- AME 53162.4
- AMEC 2234
- AME 53159.4
- AMEC 2234



Weight: 1 $\frac{1}{2}$ lb/0.79kg

atlas

Beta four/top entry lantern



QB4.V/1200/B22-3

Lamps

- a) One 60W, 100W or 150W GLS Tungsten filament lamp
- b) One 80W or 125W MBF/U Lamp.

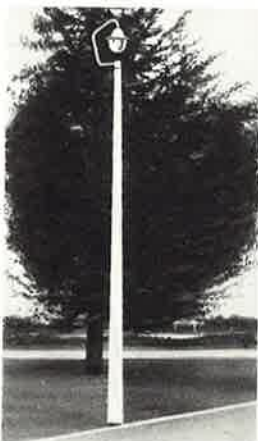
Specification

To BS.1788

The canopy is LM6-M aluminium alloy and the refractor bowl is either U.V. stabilised Acrylic or "Polycarbonate". The Refractor for open lanterns is glass. Control Gear for MBF/U lamps is mounted remote.

Mounting

Top entry for 3/4 in B.S.P. threaded nipple
Recommended mounting height: 5m
Average spacing/height ratio: 6:1



QB4.D/1200/E27 on LC1/LC9
Leader column

Catalogue Numbers

Complete lanterns (open)

- QB4.U/Y/1200/B22 —for 60/150W GLS
- QB4.U/Y/1200/E27 —for 150W GLS or 80/125W MBF/U
- QB4.U/Y/1200/B22-3 —for 80/125 MBF/U

Complete lanterns (enclosed)

- QB4.D/1200/B22—Lantern with Acrylic bowl for 60/150 GLS
- QB4.D/1200/E27—Lantern with Acrylic bowl for 80/125W MBF/U
- QB4.D/1200/B22-3—Lantern with Acrylic bowl for 80/125W MBF/U
- QB4.V/1200/B22—Lantern with Vandal bowl for 60/150W GLS
- QB4.V/1200/E27—Lantern with Vandal bowl for 150W GLS or 80/125W MBF/U
- QB4.V/1200/B22-3—Lantern with Vandal bowl for 80/125W MBF/U

Packages

- QB4.1200 —Canopy assembly (for bowl)—enclosed
- QB4.V.1200—Canopy assembly (for refractor)—open
- QB4.D —Acrylic refractor bowl
- QB4.V —Polycarbonate refractor bowl
- QB4.Y —Glass refractor dome
- AMEL 1085—Lampholder (2BC-B22)
- AMEL 1086—Lampholder (3BC-B22-3)
- AMEL 1087—Lampholder (ES-E27)

Control gear

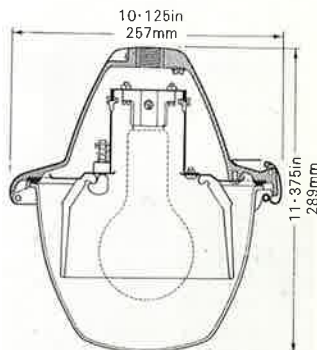
Gear sets required for discharge lamps in lanterns.

Lamp

- 80W MBF/U
- 125W MBF/U

Control gear

- AME 53162.4
- AMEC 2234
- AME 53159.4
- AMEC 2234

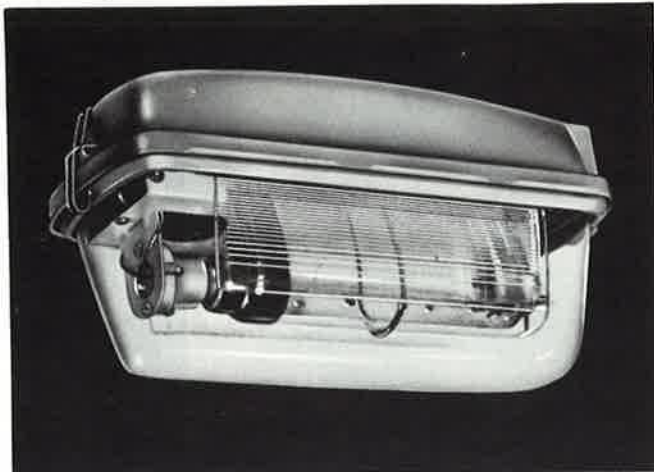


Weight 6 1/2 lb 2.8 kg

atlas

Beta five/sodium lantern

QB5.D/B1035.4



Lamp

One 35W SOX Sodium Discharge Lamp.

Specification

To BS 1788.

The canopy/gear housing and bowl ring are LM6-M aluminium alloy. Bowls are either Acrylic or vandal-resistant plastic with bonded internal refractor plates. Gear can be mounted remote with "Less Gear" Lanterns.

Mounting

Side Entry for 34mm x 80mm Spigot. Top Entry for 3/4in BSP threaded nipple. **Recommended mounting height: 5m.** **Average spacing/height ratio: 6:1** 3/4in BSP Plain Side Entry and 1in BSP threaded top entry to special order only.

QB5D/B.1035.4 on a QLC.1 column



Catalogue Numbers

Complete lanterns less gear

Lanterns comprise canopy assembly and bowl assembly.

QB5.D/1035—Side Entry with Acrylic bowl for 35W SOX

QB5.V/1035—Side Entry with vandal bowl for 35W SOX

QB5.T.D/1035—Top Entry with Acrylic bowl for 35W SOX

QB5.T.V/1035—Top Entry with vandal bowl for 35W SOX

Complete lanterns with gear

Lanterns comprise canopy/gear tray assembly and bowl assembly.

QB5.D/B1035.4—Side Entry with

Acrylic bowl for 35W SOX

QB5.V/B1035.4—Side Entry with vandal bowl for 35 W SOX

QB5.T.D/B1035.4—Top Entry with Acrylic bowl for 35W SOX

QB5.T.V/B1035.4—Top Entry with Vandal Bowl for 35W SOX

Packages

QB5.1035—Side Entry canopy assembly (Less Gear)

QB5.T.1035—Top Entry canopy assembly (Less Gear)

QB5.B1035.4—Side Entry canopy assembly (With Gear)

QB5.T.B1035.4—Top Entry canopy assembly (With Gear)

QB5.D—Bowl Assembly (Acrylic)

QB5.V—Bowl assembly (Vandal)

Control gear

Gear sets required for "Less Gear" Lanterns and supplied for "With Gear" Lanterns.

Lamp

35W SOX (Less Gear)

35W SOX (With Gear)

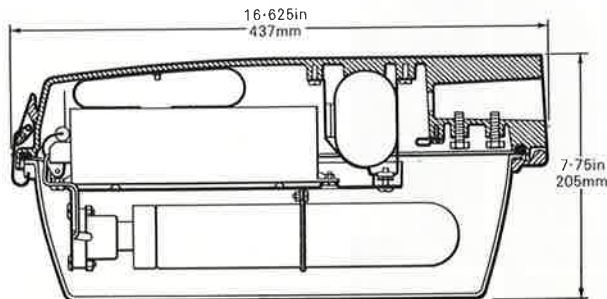
Control gear

AME 53131.H

AMEC 2280

AME 53181.4

AMEC 2280

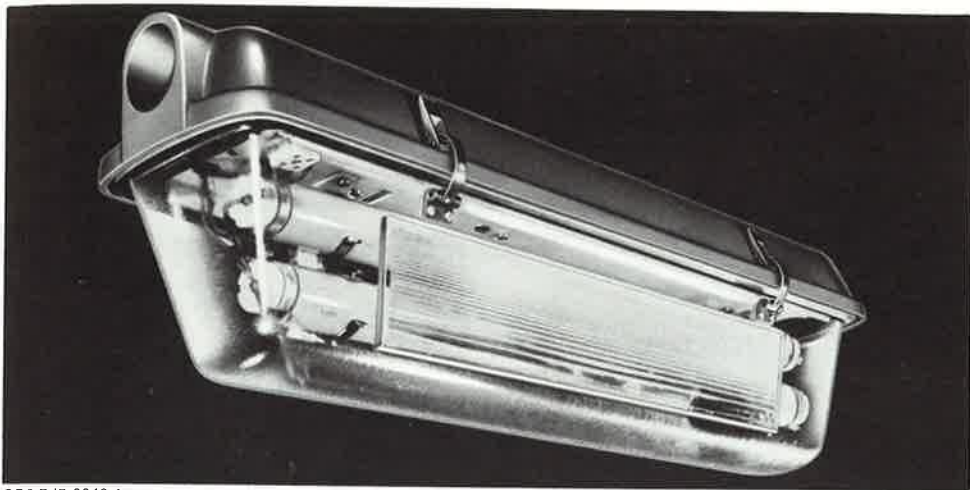


Overall width: 6'25in / 160mm

Weight: 16lb / 7-25kg

Windage area: 0-875 sq ft / .081m²

atlas Beta six/fluorescent lantern



QB6.D/B 2240.4

Lamps

- a) Two 40W 24in MCFA/U tubes
240V 50Hz.
- b) Two 40W 24in MCF/U tubes
240V 50Hz.

Specification

To BS.1788.

The canopy of LM6-M aluminium alloy, houses the control gear on a sheet steel tray (enamelled white). The bowl is "Darvic" or Acrylic with internal bonded refractor plates.

Mounting

Side Entry for 42mm x 100mm.
Recommended mounting height—5m.
Average spacing/height ratio: 6:1.

Catalogue Numbers

Complete lanterns with gear

Lanterns comprise canopy assembly and bowl assembly.

QB6.D/B2240.4—Lantern with Acrylic bowl for 2-24in 40W MCFE/U or MCFA/U.

QB6.V/B2240.4—Lantern with vandal bowl for 2-24in 40W MCFE/U or MCFA/U.

Packages

QB6.B2240.4—Canopy with Gear and Gear Tray

QB6.D —Bowl assembly (Acrylic)
QB6.V —Bowl assembly (Darvic-vandal)

Control gear

Gear set supplies with lantern.

Lamp

40W MCFA/U or
MCFE/U

Control gear

AME 69082.4
AMEC 2222

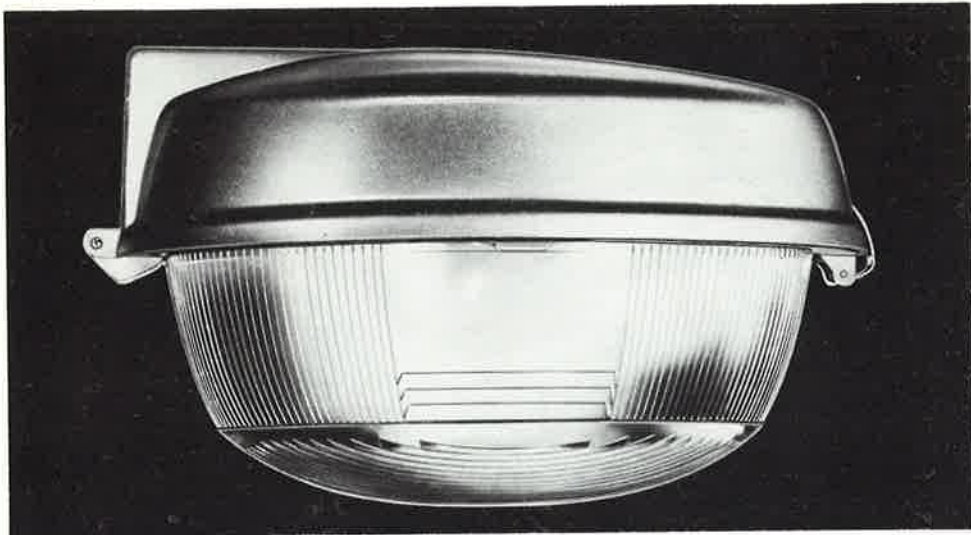


QB6.V/B2240.4 on a Steel Column

atlas

Beta seven/side-entry mercury fluorescent lantern

QB7.G/1125.E27



Lamps

ONE 80W or 125W MBF/U Lamp

Specification

To BS 1788

The canopy/body is LM6-M aluminium alloy and this can be either glass or C.A.B. Plastic. Control Gear for MBF/U lamps is mounted remote.

Mounting

Side Entry for 34mm x 80mm Spigot.
Recommended mounting height: 5m
Average spacing/height ratio: 6:1.

QB7.V/1125.E27 QLCG
Leader aluminium column.



Catalogue Numbers

Complete lanterns

Lanterns comprise a body assembly and a bowl assembly.

QB7.G/1125.B22-3—Lantern with Glass Bowl for 80/125W MBF/U.

QB7.G/1125.E27—Lantern with Glass Bowl for 80/125W MBF/U.

QB7.V/1125.B22-3—Lantern with Vandal Bowl for 80/125W MBF/U.

QB7.V/1125.E27—Lantern with Vandal Bowl for 80/125W MBF/U.

Packages

QB7.1125.B22-3—Body assembly (3BC Lampholder)

QB7.1125.E27 —Body assembly (ES Lampholder)

QB7.G —Bowl assembly (Glass)
QB7.V —Bowl assembly (C.A.B. anti-vandal)

Control gear

Gear sets required for discharge lamps in lanterns.

Lamp

80W MBF/U

125W MBF/U

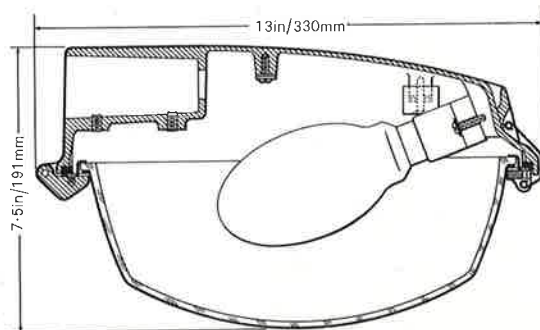
Control

AME 53162.4

AMEC 2234

AME 53194.4

AMEC 2234



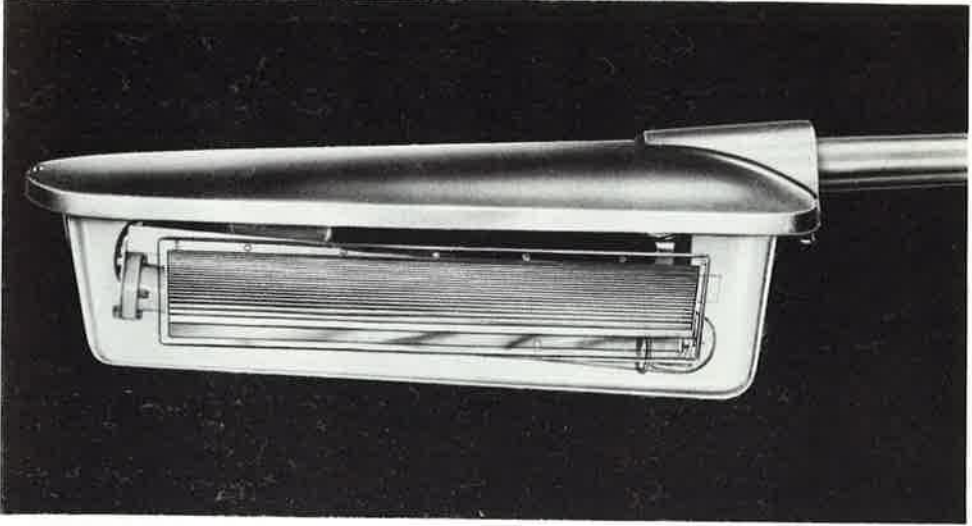
Overall width: 10-625in / 270mm

Weight: 8½lb / 3.73kg

atlas

Beta eight/sodium lantern

QB8.V/B1055-4



Lamp

ONE 55W SOX Sodium Discharge Lamp.

Specification

To BS 1788

The canopy is of LM6-M aluminium alloy with a porcelain lampholder. The bowl can be either U.V. stabilised Acrylic or C.A.B. plastic. Both bowls have bonded internal refractor plates. The control gear for "With Gear" lanterns is mounted on a Gear Tray in the Canopy. Control Gear for "Less Gear" lanterns is mounted remote.

Mounting

Side entry for 34mm x 80mm Spigot. Recommended mounting height: 5m. Average spacing/height ratio: 6:1

QB8.D/1055 with LCM.



Catalogue Numbers

Complete lanterns less gear

Lanterns comprise a canopy assembly and as bowl assembly.

QB8.D/1055—Lantern with Acrylic bowl for 55W SOX

QB8.V/1055—Lantern with Vandal bowl for 55W SOX

Complete lanterns with gear

Lanterns comprise a canopy assembly (with control gear) and a bowl assembly.

QB8.D/1055, 4—Lantern with Acrylic bowl for 55W SOX

QB8.V/B1055, 4—Lantern with vandal bowl for 55W SOX

Packages

QB8.1055 —Canopy assembly (Less Gear)

QB8.B1055.4—Canopy assembly (with Gear)

QB8.D —Bowl assembly (Acrylic)

QB8.V —Bowl assembly (C.A.B. Anti-vandal)

Control gear

Gear sets required for "Less Gear" Lantern and supplied for "With Gear" Lantern.

Lamp

55W SOX (Less Gear)

55W SOX (With Gear)

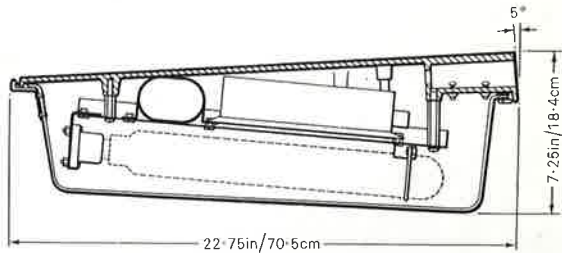
Control gear

AME 53131.H

AMEC 2280

AME 53181.4

AMEC 2280



Width: 9.5in / 24.2cm

Weight: 19½lb / 8.7kg

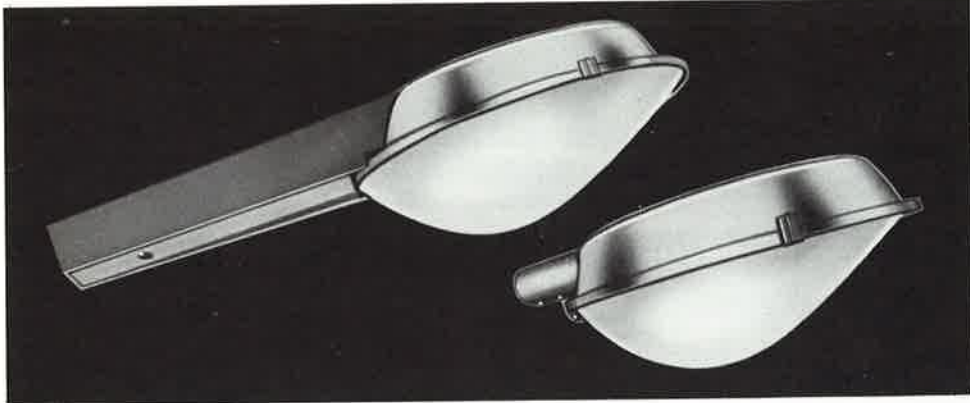
Windage area: 1.15 sq ft / .107m²

atlas

Beta nine/side-entry mercury fluorescent lantern

QB9.V/B1125.4

QB9.M/1200/E27



Lamps

- a) One 100W, 150W or 200W GLS Tungsten Filament Lamp.
- b) One 80W or 125W MBF/U lamp.

Specification

To BS 1788

The canopy is an aluminium pressing and both gear slipper and support castings are LM6-M aluminium alloy. The bowls are either "Pinpoint" Acrylic or C.A.B. (anti-vandal plastic). Control gear for "less Gear" lantern is mounted remote.

Mounting

Side Entry for 34mm x 80mm Spigot
Recommended mounting height: 5m
Recommended spacing/height ratio: 6:1.
QB9.V/1200.E27 on LC1/LCG
Leader Aluminium Column.



Catalogue Numbers

Complete lantern less gear

Lanterns comprise a canopy assembly, bowl assembly and a lampholder.
QB9.M/1200/B22-3—Lantern with Acrylic bowl for 80/125W MBF/U.
QB9.M/1200/E27—Lantern with Acrylic bowl for 80/125W MBF/U or 150/200W GLS.
QB9.M/1200/B22—Lantern with Acrylic bowl for 100/150W GLS
QB9.V/1200/B22-3—Lantern with vandal bowl for 80/125W MBF/U
QB9.V/1200/E27—Lantern with vandal bowl for 80/125W MBF/U or 150/200W GLS.
QB9.V/1200/B22-3—Lantern with vandal bowl for 100/150W GLS.

Complete lanterns with gear

Lanterns comprise a canopy assembly and a bowl assembly. (3BC lampholder is standard).
QB9.M/B1080.4—Lantern with Acrylic bowl for 80W MBF/U
QB9.M/B1125.4—Lantern with Acrylic bowl for 125W MBF/U.
QB9.V/B1080.4—Lantern with vandal bowl for 80W MBF/U
QB9.V/B1125.4—Lantern with vandal bowl for 125W MBF/U

Overall width:

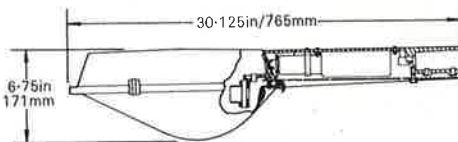
11.375/289mm

Weight:

12½lb/5.8kg

Windage area:

105 sq.ins/0.068m²



Overall width

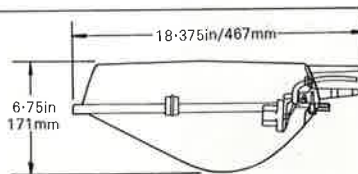
11.375/289mm

Weight:

4½lb/2kg

Windage area:

75 sq.ins/0.048m²



Packages

QB9.1200—Canopy assembly (Less Gear)
QB9.B.1080.4—Canopy assembly (with 80W Gear)
QB9.B1125.4—Canopy assembly (with 125W Gear)
QB9.M—Bowl Assembly (Acrylic)
QB9.V—Bowl assembly (C.A.B. anti-vandal)
AMEL 1085—2 BC lampholder (B22)
AMEL 1086—3 BC lampholder (B22-3)
AMEL 1087—ES lampholder (E27)

Control gear

Gear sets required for "Less Gear" lanterns and supplied for "With Gear" lanterns.

Lamp

80W MBF/U (Less Gear only)
80W MBF/U (With Gear)
125W MBF/U (Less gear only)
125W MBF/U (With Gear)

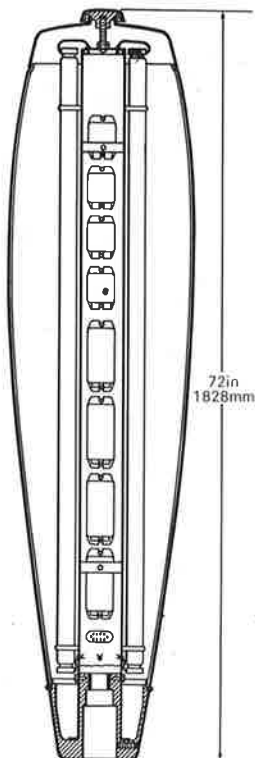
Control gear

AME 53162.4
AMEC 2234
AMEC 63830.4
AMEC 2223
AME 53194.4
AMEC 2234
AME 53271.4
AMEC 2222

atlas

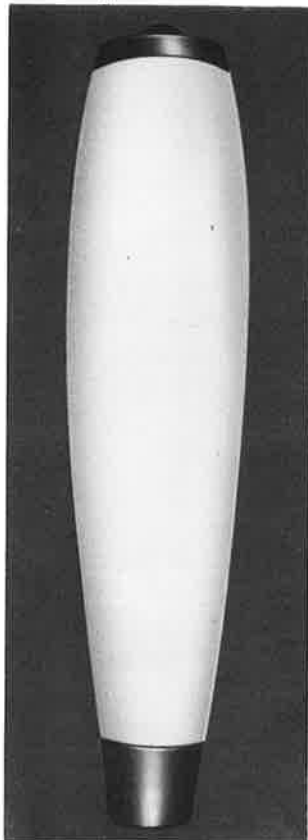
Gamma one/vertical fluorescent lantern

QG1,0/B40801,T on a steel column



Overall diameter: 16.75in / 425.4mm
Weight: 671lb / 30.39kg

QG1,0/B408,T



Lamps

4-5ft 80W white MCFA/U
Tubes 200/250V 50 Hz.

Specification

The base casting in LM6-M aluminium alloy. The bowl and top-cap are acrylic. Chokes and quick-start units are supplied mounted to the spine. Capacitors are required for remote mounting.

Mounting

Post-top mounting for 76mm x 130mm spigot.
Recommended mounting height: 8m
Average spacing/height ratio: 3:1.

Catalogue Numbers

Complete lantern

Lantern comprises base assembly with chokes and quick start units, and bowl. QG1,0/B4080,T—for MCFA/U & tubes.

Packages

QG1,0/B4080,T—Base casting and top cap and spine with 200/250V Gear less capacitors.
QG1,0—Opal Bowl.

Control gear

Lamp
80W MCFA/U

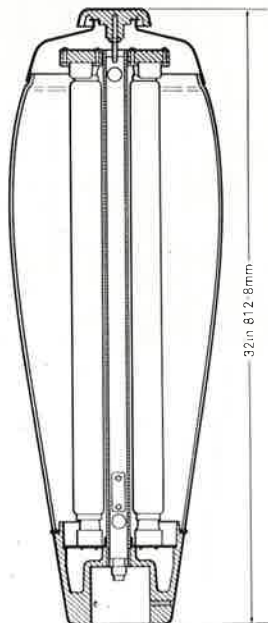
Control Gear

4 x AME 62831 (supplied)
4 x AME 41299 (supplied)
2 x AMEC 2216 (required)

atlas

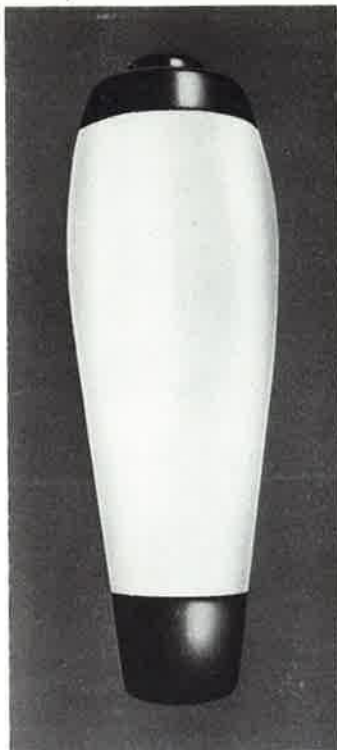
Gamma two/vertical fluorescent lantern

QG2.0/4240.T on a steel column



Overall diameter: 11 in / 279.4 mm
Weight: 13 lb / 5.84 kg

QG2.0/4240.T



Lamps

- a. 2—2ft 80W MCFA/U tubes 200/250V 50 Hz
- b. 4—2ft 80W MCFA/U tubes 200/250V 50 Hz

Specification

The base casting is LM6-M aluminium alloy. The bowl and top-cap are acrylic. Chokes are supplied on a gear tray for remote mounting. Capacitors are ordered separately.

Mounting

Post Top mounting for 76mm x 76mm spigot
Recommended mounting height: 13ft or 5m
Average spacing height ratio: 3:1 max

Catalogue Numbers

Complete lanterns

Lanterns comprise base assembly, bowl and gear tray assembly.
QG2.0/2240.T—For 2—MCFA/U tubes
QG2.0/4240.T—For 4—MCFA/U tubes

Packages

QG2.2240—Base assembly (Two lamps)
QG2.4240—Base assembly (Four lamps)
QG2.B2240.T—Gear Tray (Less capacitors)
QG2.B.4240.T—Gear Tray (Less capacitors)
QG2.0—Bowl

Control gear

Lamp	Control gear
2 x 40W MCFA/U	AMEC 69035.T (Supplied) AMEC 2234 (Required)
4 x 40W MCFA/U	2 x AMEC 69035.T (Supplied) AMEC 2234 (Required)

atlas

Gamma three/post top lantern

QG3.1400



Lamps

- a. One 250W or 400W MBF/U Lamp.
- b. One 250W or 400W/SON/Lamp.
- c. One 400 MBI/F lamp.

Specification

C.O.I.D. Approved.
Base is LM6-M aluminium alloy and the canopy is an acrylic enamelled aluminium spinning. The bowl is acrylic plastic and the toggle catches are stainless steel. All control gear is mounted remote.

Mounting

Post Top mounting for 76mm x 76mm spigot
Recommended mounting height: 6-8m
Average spacing/height ratio: 3:1.

Catalogue Numbers

Complete lanterns

Lantern comprises base assembly, bowl and canopy.
QG3.1400 for 250/400 MBF/U, 250/400W SON and 400W MBI/F.

Replacement packages

QG3.0—Opal Bowl
QG3.F—Canopy Assembly
QG3.E—Support Assembly.

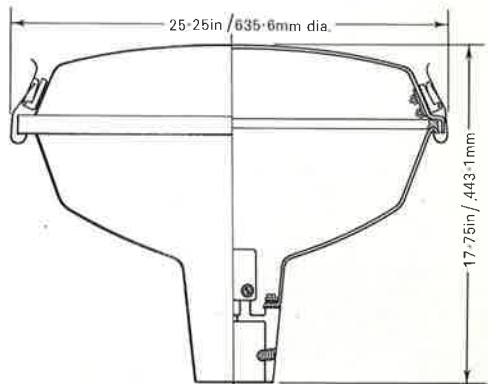
Control gear

Gear sets required for lantern.

Lamp	Control Gear
250W MBF/U	AME 53198.4
	AMEC 2214
400W MBF/U	AME 53193.4
	AMEC 2218
400W MBI/F	AME 53195.T
	AMEC 2278 (2 per lamp)
400W MBI/F (Alternative)	AME 53193.T
	AME 53262
	AMEC 2218
250W SON	AME 53251.T
	AMEC 53262
	AMEC 2235
400W SON	AME 53230.T
	AME 53262
	AMEC 2218 (2 per lamp)



QG3.1400 on a QLCM.0660 steel column.



Weight: 15 1/2 lb / 7-031 kg
Windage area: 1-6 sq.ft / 149m²

atlas

Gamma four/post top multi-lamp lantern

QG4.0/W3400.

Lamps

- a. Two or Three 500W GLS Tungsten Filament lamps.
- b. Two or Three 250W or 400W MBF/U lamps.
- c. Two or Three 250W or 400W SON Lamps.
- d. Two or Three 400W MBI/F Lamps.
- e. Three 140W or 200W SLI/H Lamps.
- f. Three 135W SOX Lamps.

Distribution

- a. Two-way axial (3ft lantern only)
- b. Symmetrical.

Specification

C.O.I.D. Approved.
The canopy of sheet aluminium is attached to the base casting assembly of LM6-M aluminium alloy by a metal steel stem. The bowl is of acrylic plastic. Auxiliary reflectors are of aluminium alloy. Control Gear is mounted remote.

Mounting

Post Top mounting for 76mm x 130mm spigot.
Column diameter 413mm with three radial pegs.
Recommended mounting height: 8m for 3ft lantern, 10m for 4ft Lantern.
Average spacing/height ratio: 3:1

Catalogue Numbers

Complete 3ft Fittings

Lanterns comprise a stem assembly
QG4.0/F2500—for 2-500W GLS,
250/400W MBF/U, 250/400W SON
and 400W MBI/F.
QG4.0/F3500—for 3-500W GLS,
250/400W MBF/U, 250/400W SON
and 400W MBI/F.
QG4.A/M/F/3400—for 3-500W GLS,
250/400W MBF/U, 250/400W SON
and 400W MBI/F.

Packages for 3ft Fittings

QG4.2500—Stem assembly (2 lamps)
QG4.3500—Stem assembly (3 lamps)
QG4.F—Canopy assembly (3ft)
QG4.O.36—Opal bowl (3ft)
QG4.M.36—Pinpoint Bowl (3ft)
QG4.A—Auxiliary reflector.

Complete 4ft Fittings

QG4.0/W/3135—for 3x 135W SOX
QG4.0/W/3200—for 3x 200W SLI/H.
QG4.0/W/3400—for 3x 250/400W
MBF/U, 250/400W SON and
400W MBI/F.

Packages for 4ft Fittings

QG4.W.3135—Stem assembly for
3-135W SOX
QG4.W.3200—Stem assembly for
3-200 SLI/H
QG4.W.3400—Stem assembly for
3-250/400W MBF/U, 250/400W
SON and 400W MBI/F.
QG4.O—Opal bowl (4ft)
QG4.W—Canopy assembly (4ft)

Control gear

Gear sets required for discharge lamps in lanterns.

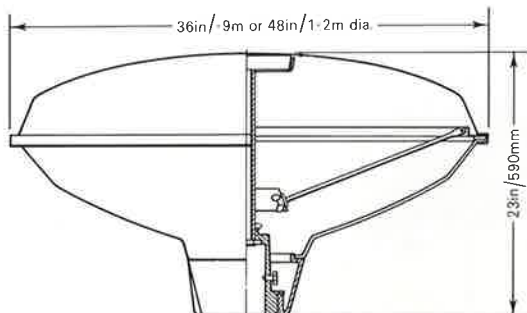
Lamp

135W SOX
140W SLI/H
200W SLI/H
250W MBF/U
400W MBF/U
400W MBI/F
400W MBI/F
(Alternative)
250W SON
400W SON

Control gear

AMEC 53166.T
AMEC 2281
AMEC 53232.4
AMEC 2218
AMEC 53172.T
AMEC 2235
AMEC 53198.4
AMEC 2214
AMEC 53193.4
AMEC 2218
AMEC 53193.T
AMEC 53262
AMEC 2218
AMEC 53195.T
AMEC 2278 (2 per)
AMEC 53251.T
AMEC 53262
AMEC 2235
AMEC 53230.T
AMEC 53262
AMEC 2218

Bowl and Canopy assembly.



Weight: 35lb / 15.87kg



QG4.0/W3400 on a QLCH.0860/G4/DB Steel Column.

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Gamma five/post top lantern



QG5.0/1220.B22.3 with QG5.E3X3

Lamps

- a) One 100W or 200W GLS Tungsten Filament lamp.
- b) One 80W or 125W MBF/U Lamp.

Distribution

- a) Asymmetrical
- b) Symmetrical

Specification

C.O.I.D. approved.

The canopy is an acrylic enamelled aluminium spinning, with stainless steel toggle catches. The bowl is either acrylic or C.A.B. and the refractor is glass.

Mounting

- a) Direct to QLC 1500/G5 steel column.
 - b) Post Top mounting for 76 x 76 mm Spigot with a QG5.E. 3 x 3 adaptor.
 - c) Post Top mounting for a triangular spigot with a QG5.E.K. adaptor for the leader column.
- Recommended mounting height : 13ft or 15ft
Average spacing/height ratio : 3:1

Catalogue Numbers

Complete lanterns

Lanterns comprise bowl, body, lampholder and support and refractor (except opal bowl version)

QG5.J.D/Y1200/B22—with asymmetric refractor for 100/150W GLS.

QG5.J.D/Y1200/E27—with asymmetric refractor for 150/200W GLS.

QG5.J.D/Y1200/B22-3—with asymmetric refractor for 80/125W MBF/U.

QG5.J.D/X/1200/B22—with asymmetric refractor for 100/150 GLS.

QG5.J.D/X/1200/E27—with asymmetric refractor for 80/125W MBF/U

N.B. FOR CLEAR VANDAL BOWL

INSERT V FOR D IN COMPLETE

CATALOGUE NUMBER

QG5.0/1200.B22—for 100/150 GLS

QG5.0/1200.E27—for 150/200 GLS

QG5.0/1200.B22-3—for 80/125W MBF/U

Packages

QG5.J.D.1200—Body, lampholder support, and clear acrylic bowl.

QG5.J.V.1200—Body, lampholder support, and clear vandal bowl.

QG5.0.1200—Body, lampholder support, and opal acrylic bowl.

QG5.J1200—Canopy with lugs for refractor.

QG5.1200—Canopy less lugs.

QG5.D—Clear Acrylic bowl.

QG5.O—Opal acrylic bowl.

QG5.V—Clear Vandal Bowl.

QX—Symmetrical refractors

QY—Asymmetrical refractor

QG5.E.3 x 3—Support casting for 3 x 3 spigot

QG5.E.K—Support casting for leader column

AMEL 1046—Lampholder 3BC (B22-3)

AMEL 1047—Lampholder 2BC (B22)

AMEL 1048—Lampholder ES (E27)

Control gear

Gear sets required for MBF/U lamps.

Lamp

80W MBF/U

125W MBF/U

Control gear

AME 53162.4

AMEC 2234

AME 53159.4

AMEC 2234.

QG5.V/D/X1200.B22 1200 lantern on a QLC3/G5 steel column.



atlas Gamma six/post top lantern for sodium, mercury or GLS lamps

Lamps

- a) One 100W, 150W or 200W GLS Tungsten filament lamp,
- b) One 160W MBTF Lamp,
- c) One 80W or 125W MBF/U Lamp
- d) One 35W SOX Lamp.

Specification

Base castings are LM6-M aluminium alloy, and the canopies spun aluminium alloy. Bowls are either injection moulded opal acrylic or opal polycarbonate. In the "With Gear" Lanterns, the control gear is mounted in the base casting on a removable gear-tray. Control gear for "less gear" lanterns is mounted remote.

Mounting

Post top mounting for 76mm x 76mm spigot
Recommended mounting height: 13ft or 5m
Average spacing/height ratio: 3:1.

Catalogue Numbers

Space will not allow the listing of the many alternative assemblies possible. Complete catalogue numbers are made up by a combination of letters and numbers of the components listed. For ease of recognition the components are shown pictorially and examples given for complete lanterns.

Packages and spares

- QG6.1200—Base casting assembly (Less Gear)
- QG6.B1035.4—Base casting assembly with 240V 30W SOX Gear
- QG6.B1080.4—Base casting assembly with 240V 80W MBF/U Gear,
- QG6.B1125.4—Base casting assembly with 240V 125W MBF/U Gear,
- QG6.O—Opal Bowl (Acrylic)
- QG6.V—Opal bowl (Polycarbonate);
- QG6.W—Large Canopy
- QG6.F—Small Canopy
- QP1—Photo Cell Socket
- AMEL 1085—Lampholder (2BC-B22)
- AMEL 1086—Lampholder (3BC-B22-3)
- AMEL 1087—Lampholder (ES-E27)
- NB: Each Lantern requires:—
- 1) A base casting assembly
- 2) A bowl
- 3) A canopy
- 4) A lampholder
- 5) A Photo-cell socket when a photocell is required.

Examples of complete lantern

- 1) QG6.O/W/1200.E27—Less gear base casting, acrylic bowl, large canopy, and ES Lampholder.
- 2) QG6.V/F/1080.4.B22-3—240V gear base casting, polycarbonate bowl, small canopy, and 3 BC Lampholder.
- 3) QG6.V/W/1125.4.E27.P—240V gear base casting, polycarbonate bowl, large canopy, ES Lampholder, and photocell socket.



QG6.W/V/1080.4 B22-3



QG6.W/O/1200.E27



QG6.F/V/1125.4 E27.



QG6.F/O/1035.4.

Control gear

Gear sets required for "Less Gear" Lanterns

Lamp	Control gear
80W MBF/U	AME 53162.4
	AMEC 2234
125W MBF/U	AME 53159.T
	AMEC 2234
35W SOX	AME 53131.H
	AMEC 2280
Gear sets supplied for "With Gear" Lanterns	
80W MBF/U	AME 62830.4
	AMEC 2223
125W MBF/U	AME 53271.4
	AMEC 2222
35W SOX	AME 53131.4
	AMEC 2232

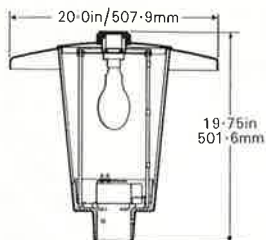
QG6.W/O/1200.E27 on QLC3 aluminium column.



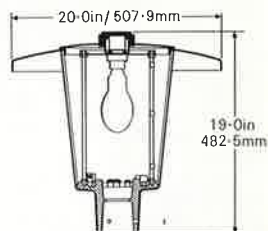
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Gamma Six/Post top lantern for Sodium Mercury or GLS lamps

Dimensions of selected lanterns illustrated on facing page.



Weight: 14.75lb / 6.75kg



Weight: 9.75lb / 4.5kg











Weight: 13.75lb / 6kg



Weight: 25lb / 12kg

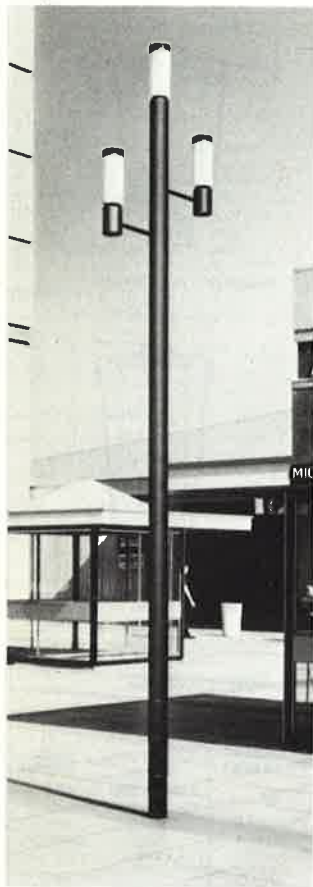
Catalogue number combinations for complete lanterns

BASE CASTING ASSEMBLY	CANOPIES, BOWLS & DOME REFRACTORS	INSERT LETTER	ACCESSORIES	ADD SUFFIX
BASIC CATALOGUE NUMBERS QG6. 1200 Post-top base casting assy. <i>Less Gear</i>	 QG6.W 20 in. Dia Canopy	W	 AMEL 1085 2BC Lampholder	822
QG6. 1080-4 Post-top base casting assy. <i>80w Geared</i>	 QG6.F 10 1/2 in. Dia Canopy	F	 AMEL 1086 3BC Lampholder	B22-3
QG6. 1125-4 Post-top base casting assy. <i>125w Geared</i>	 QG6.O Acrylic Bowl	O	 AMEL 1087 ES Lampholder	E27
QG6. 1035-4 Post-top base casting assy. <i>35w Geared</i>	 QG6.V Anti-Vandal Bowl	V	 QP1 Twist & Lock Type Socket	P

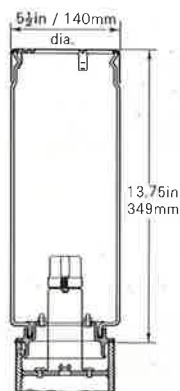
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Gamma seven/amenity lantern

QG7.0/F1080.E27 lantern on
QLC.1340/97 column



QG7.0/F1080.E27 lantern on QLC,
1540/97 column and PRK/100 wall bracket



Weight:
2.75lbs / 1.2kg

Lamps

- a) One 100W GLS Tungsten Filament Lamp
- b) One 80W MBF/U Lamp.

Specification

C.O.I.D. Approved.
The base casting is LM6-M aluminium alloy. Lampholder assembly is mounted direct to support strap in the column. The bowl is acrylic plastic with a spun aluminium top cap. Control Gear for discharge lamp is mounted remote.

Mounting

- a) Pole top on QLC 1340/G7 or QLC 1540/G7 columns.
 - b) Wall bracket—PRK 1100.
- Recommended mounting height: 13ft or 5m
Average spacing/height ratio: 3:1 max.

Catalogue Numbers

Complete lanterns

Lanterns comprise a base casting assembly, bowl and top cap.
QG7.0/F 1100.B22—For GLS Lamp
QG7.0/F 1080.E27—For GLS or MBF/U Lamp.
QG7.0/F 1080.B22-3—For MBF/U Lamp.

Packages

QG7.F1100.B22—Base casting assembly and Top Cap
QG7.F1080.E27—Base casting assembly and Top Cap
QG7.F1080.B22-3—Base casting assembly and Top Cap
QG7.O—Spare Bowl
QG7.F—Spare Top Cap.

Control gear

Gear set required for discharge lamp.

Lamp

80W MBF/U

Control gear

AME 53162.4
AMEC 2234

atlas

Gamma eight/post top lantern



QG8.K O/L 1200-E27

Lamps

- a) One 100W, 150W or 200W tungsten filament lamp
- b) One 80W or 125W MBF/U lamp.
- c) One 35W SOX Lamp.

Specification

The canopy is spun aluminium alloy and internally sprayed white. The bowl can be either acrylic or polycarbonate plastic, and the spigot caps are LM6-M aluminium alloy. Control gear for discharge lamps is mounted remote.

Mounting

- a) Post Top on a 76mm x 76mm spigot.
- b) Post Top on a triangular spigot of an L.C.1 "Leader" column.

Recommended mounting height: 13ft —5m

Average spacing/height ratio: 3:1.

Catalogue Numbers

Complete lanterns

Lanterns comprise spigot cap, bowl and lampholder assembly.

QG8, 3 x 3 O/L 1200.B22—for GLS

QG8, 3 x 3 O/L 1200.B22-3—for GLS and MBF/U lamp.

QG8, 3 x 3 O/L 1200.B22-3—for MBF/U Lamp

QG8, 3 x 3 /L 1035.B22—for SOX lamp

QG8, K/O/L.1200-B22—for GLS and MBF/U.Lamp

QG8.K O/L.1200-E27—for GLS and MBF/V lamp

QG8, K.O/L.1200 B22/3—for MBF/U lamp

QG8.K O/L.1035 B22—for SOX Lamp

For Vandal Bowl replace "O" with "V"

Packages

QG8.K—Spigot Cap (triangular)

QG8, 3 x 3—Spigot Cap (76 mm x 76mm).

QG8.O—Opal Acrylic Bowl

QG8.V—Vandal polycarbonate bowl

QG8.L.B22—Lampholder assembly (2BC)

QG8.L.E27—Lampholder assembly (ES)

QG8.L.B22-3—Lampholder assembly (3BC)

QG8.L.1035—Lampholder assembly

Control gear

Gear sets required for discharge lamp.

Lamp

80W MBF/U

125W MBF/U

35W SOX

Control gear

AMEC 53162.4

AMEC 2234

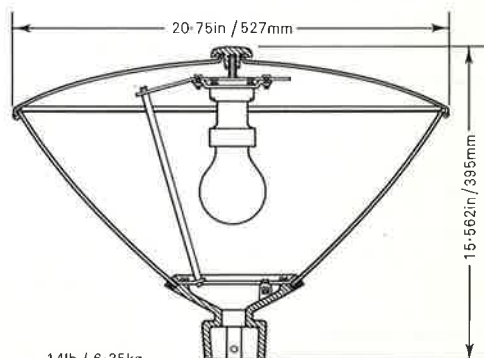
AMEC 53159.4

AMEC 2234

AMEC 53181.4

AMEC 2280

QG8.K.O/L1035.4.

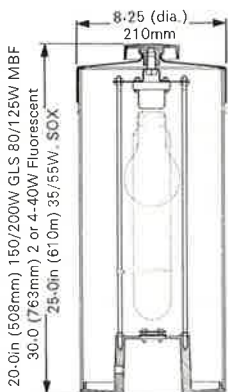


Weight: 14lb / 6.35kg
Windage area: 1.13 sq ft / ~105m²

atlas

Gamma nine/post-top lantern

QG9 1055 on QLC 1590/G9 Column



QG9 1200/E27

Lamps

- a) One 100W or 200W GLS Lamp
- b) One 35W or 55W SOX Lamp
- c) One 80W or 125W MBF/U lamp
- d) Two or Four 2ft—40W MCFA/U tubes

Specification

The base casting is LM6-M aluminium alloy. Bowl is acrylic and the top cap is an aluminium alloy spinning. The top cap is secured with an aluminium alloy nut. All metal parts are finished matt black. Except for the MCFA/U Lantern, the control gear is mounted remote.

Mounting

Post top for a 76mm x 76mm spigot.
Recommended mounting height:
13ft or 5m
Average spacing/height: 3:1.

Catalogue Numbers

Lanterns comprise base casting and top cap, bowl and lampholder.

Complete lanterns less gear

Lanterns comprise base casting and top cap, bowl, and lampholder.
QG9.1200/B22—For GLS Lamps
QG9.1200/E27—For GLS, MBF/U Lamps
QG9.1200/B22-3—For MBF/U lamp
QG9.1055—For SOX lamp.

Complete lanterns with gear

Lanterns, comprise base casting with gear, top cap, and bowl.
QG9.2240.T—For 2 MCFA/U lamps.
QG9.4240.T—For 4 MCFA/U lamps.

Packages

QG9.1200—Body for GLS or MBF/U Lanterns
QG9.0—Bowl for GLS or MBF/U Lantern
QG9.01—Bowl for SOX Lantern
QG9.02—Bowl for MCFA/U Lantern
AMEL 1085—Lampholder (2BC-B22)
AMEL 1086—Lampholder (3BC-B22-3)
AMEL 1087—Lampholder (ES-E27)

Control gear

Gear sets required for "Less Gear" Lanterns and supplied for "With Gear" Lanterns.

Lamp

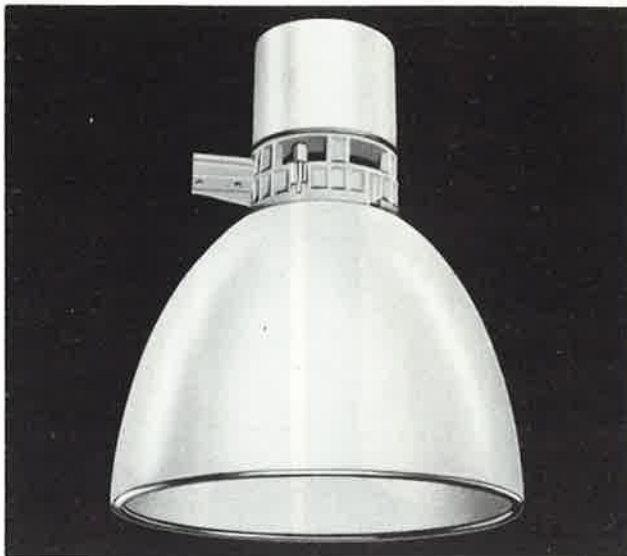
80W MBF/U (Less Gear only)
125W MBF/U (Less Gear only)
35W SOX (Less Gear only)
55W SOX (Less Gear only)
40W MCFA/U (With Gear)

Control gear

AME 53162.4
AMEC 2234
AME 53159.4
AMEC 2234
AME 53131.H
AMEC 2280
AME 53181.4
AMEC 2280
AME 6903.5 T (per 2 Lamps)
AMEC 2216 (per 2 Lamps)

atlas

High tower lantern



Lamp

One 1000W MBF/U Lamp.

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

Distribution

Cut off with peak at 45° L.O.R. 66%

Specification

The lamp housing reflector is of spun aluminium, with a heat resisting glass, and secured to main body by three quick release swing-down bolts. The main body is of LM6-M aluminium alloy, and provides the side-entry spigot location and gear housing. An aluminium can, secured by a small finial, encloses the gear. The lampholder incorporates a lamp-steady to prevent lamp unscrewing itself due to vibration. Lanterns supplied complete with control gear.

Mounting

Side Entry for a 43mm x 152mm spigot. Recommended mounting height: 24m and over.

Catalogue Numbers

HT.1000.4—For a 1000W MBF/U Lamp.

Control gear

Control gear supplied with fittings.

Lamp

Control gear

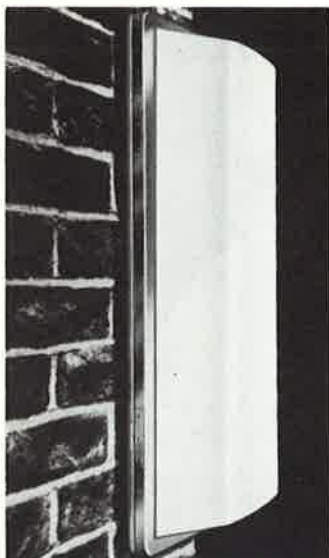
1000W MBF/U AME 53243.4 (2 per lamp)
AMEC 2236 (2 per lamp)



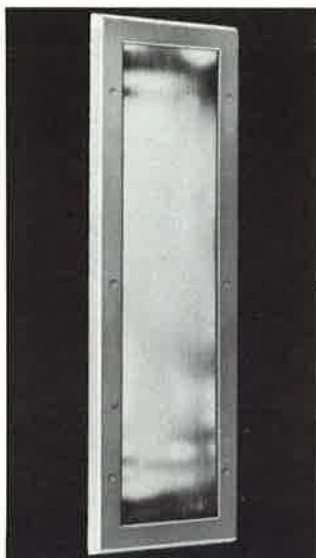
HT1000 on 100' (30.48m) high mast column.

atlas

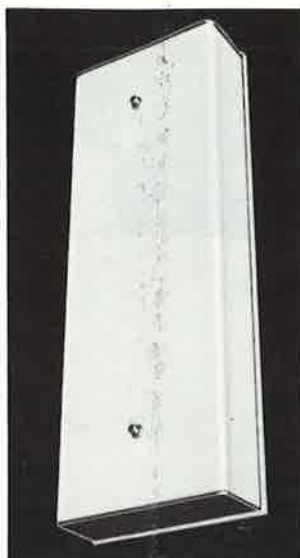
Footway fluorescent fittings



SF 12119/Q2240



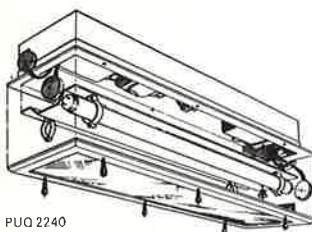
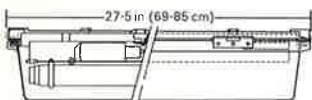
PUQ/2240.T



SF1212Q/Q2240

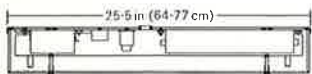
SF12119

Overall Width 8.5 in (21.6 cm)
Weight 14 lb (6.36 kg)



PUQ 2240

Overall Length 28 in (71.1 cm)
Overall Width 9 in (22.8 cm)
Weight 20 lb (9.072 kg)



SF1212Q

Overall Width 9.125 in (23.2 cm)

SF 12119/Q2240

LAMP Two 2ft 40W MCFA/U, Tubes

Description: To BS.1788

The lantern body is die-cast LM6 M aluminium alloy and has screwed and plugged $\frac{1}{4}$ in conduit entries at each end and centre-back. The diffuser is formed opal acrylic supported in a cast aluminium alloy frame, which is side-hinged by means of stainless steel hinges. A neoprene gasket between bowl and body provides a rainproof seal.

240V 50 Hz instant-start control gear is mounted on a white stove-enamelled steel tray/reflector.

Light control: General distribution from reflector/diffuser.

Installation: Wall-fixing by 4 x $\frac{1}{2}$ in dia. bolts through body.

PUQ/2240.T

Lamp: Two 2ft 40W MCFA/U Tubes

Description:

Completely weatherproofed and protected against corrosion. The mild steel body houses instant-start control gear and is finished inside and out stove enamelled white.

The fitting is enclosed by an opal acrylic diffuser, cemented into a cast aluminium frame.

Light control: General distribution from reflector/diffuser.

Installation: Surface or recessed fixing by 4 x $\frac{1}{4}$ in dia holes in backplate

Recess.— $6\frac{1}{2}$ in x $25\frac{1}{2}$ in x $3\frac{1}{2}$ in

SF1212Q/Q2240

Lamp: Two 2ft 40in MCFA/U Tubes

Description:

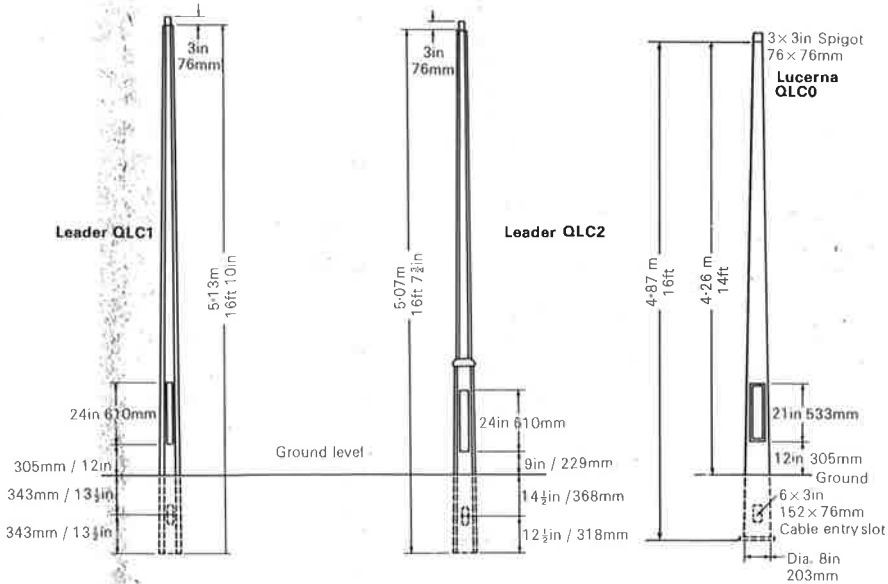
A stiffened aluminium backplate carries a gear tray and reflector cover, both of which are sheet steel, stove enamelled white. Lamps are positioned on the reflector by plastic-coated clips and bi-pin, push-on lampholders are provided. The enclosure is made by a formed acrylic diffuser, secured against 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 x $\frac{1}{4}$ in dia bolts through backplate.

atlas

Leader and Lucerna columns



LEADER QLC1

Material
HE9-P aluminium alloy.

Spigot castings
LM6-M aluminium alloy

Baseboard Hardwood

Lock Stainless steel
Dzus type

Base compartment
24x 3 3/4 in / 610x 86mm

Weight 30lb / 13.6kg

Catalogue No. QLC1

LEADER QLC2

Material
HE9-P aluminium alloy

Spigot and shoulder castings
LM6-M aluminium alloy

Baseboard Hardwood

Lock Stainless steel
Dzus type

Base compartment
24 1/2 x 3 3/4 in / 623x 92mm

Weight 32lb / 14.5kg

Catalogue No. QLC2

LUCERNA QLC0

Material
Aluminium alloy NS4

Spigot Casting
either 3in dia, casting for post-top mounting or tapped casting for QLCB1-9 bracket arms

Baseboard
Hardwood 24 1/2 x 4 1/2 in 624x 114mm

Lock Yale type

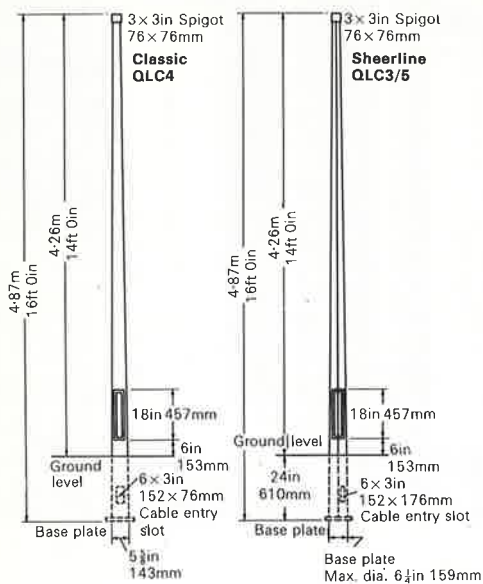
Base compartment
24x 4 3/4 x 3 1/2 in deep 610x 103x 89mm deep

Weight 33lb / 14.5kg

Catalogue No. QLC0,

atlas

Classic and Sheerline columns



SHEERLINE QLC3

Material
Aluminium alloy NS4

Spigot casting
either 3in dia. casting for post-top mounting or tapped casting for QLCB1-9 bracket arms

Baseboard
Hardwood 24 1/2 x 3 1/2 in
623 x 89mm

Lock Yale type

Base compartment
18 x 3 1/2 x 2 1/2 in deep
457 x 99 x 73mm

Weight 29lb / 13.2kg

Catalogue No. QLC3

CLASSIC QLC4

Material
Aluminium alloy NS4

Spigot casting
either 3in dia. casting for post-top mounting or tapped casting for QLCB1-9 bracket arms

Baseboard
Hardwood 24 1/2 x 3 1/2 in
623 x 89mm

Lock Yale type

Base compartment
18 x 3 1/2 x 4 in deep
457 x 95 x 102mm deep

Weight 32lb / 14.5kg

Catalogue No. QLC4

SHEERLINE QLC5

Material
Galvanised (Hot-dip) steel

Spigot casting
either 3in dia. casting for post-top mounting or tapped casting for QLCB1-9 bracket arms

Baseboard
Hardwood 24 1/2 x 3 x in
623 x 89mm

Lock Yale type

Base compartment
18 x 3 1/2 x 2 1/2 in deep
457 x 99 x 73mm

Weight 75lb / 34kg

Catalogue No. QLC5

atlas

Control gear boxes

AME M6172 Weatherproof box
(80-400W HPMV or
35-200W SOX or SLI/H)

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

11×7×0.312in dia.
279×178×7.92mm

AME M6174 Weatherproof box
(100W HPMV or 400W MBF)

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

11×11×0.31in dia.
279×279×7.92mm dia.

AME M6169

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 35W SOX, 55W SOX
type control gear with time switch
and fuses
- 3 250W or 400W MBF type
control gear with time switch
and fuses only
- 4 140/200W SLI control gear only.
No time switch

Internal dimensions (Baseboard)

Length: 15-25in / 387mm
Width: 5-0in / 127mm
Height: 4-75in / 121mm

Fixing centres

11×7in / 279×178mm

OUTSIDE LIGHTING BOX

Material Aluminium alloy NS4

Bracket casting

LM6-M aluminium alloy
12in outreach (304mm)

Brackets HE9-P extruded tube

Backboard Hardwood
24×3½in / 610×89mm

Lock Dzus type

Base compartment

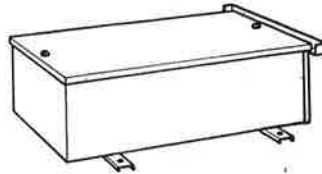
21×4×37in deep
533×102×99mm deep

Weight 11lb / 5kg

Catalogue No.

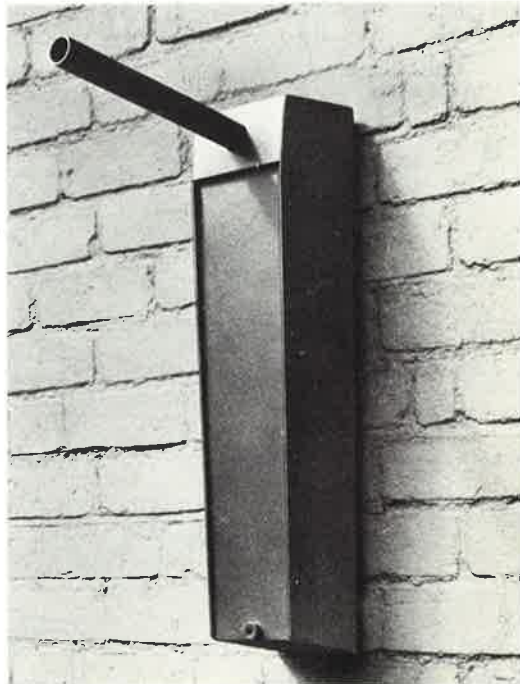
OLB 26	OLB 33	OLB 44
¾in BSP	1in BSP	1½in BSP
27mm Ø	33mm Ø	43mm Ø
T/entry	S/entry	S/entry

AME M6172/4

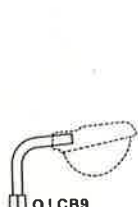
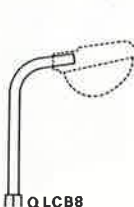
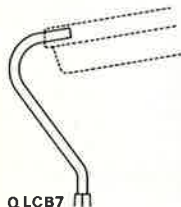
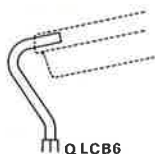
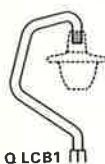
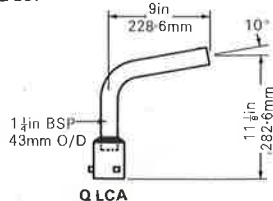
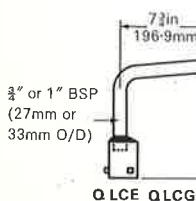
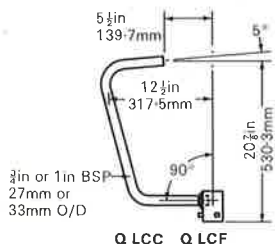
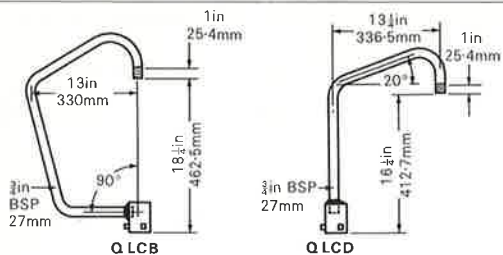


AME M6169

OUTSIDE LIGHTING BOX



atlas Brackets



Materials – Galvanised steel pipe
and LM6-M spigot castings

Catalogue No.

QLCA	1 1/2in BSP S/E	43mm Ø
QLCB	3/4in BSP T/E	27mm Ø
QLCC	3/4in BSP S/E	27mm Ø
QLCD	3/4in BSP T/E	27mm Ø
QLCE	3/4in BSP S/E	27mm Ø
QLCF	1 in BSP S/E	33mm Ø
QLCG	1 in BSP S/E	33mm Ø
QLCK	Dzus key	
QLCS	3 x 3in dia, Spigot adaptor	76 x 76mm dia.

Catalogue No.

QLCB1	3/4in T/entry	27mm Ø
QLCB2	3/4in T/entry	27mm Ø
QLCB3	3/4in T/entry	27mm Ø
QLCB4	3/4in T/entry	27mm Ø
QLCB5	3/4in T/entry	27mm Ø
QLCB6	1 in S/entry	33mm Ø
QLCB7	1 in S/entry	33mm Ø
QLCB8	1 in S/entry	33mm Ø
QLCB9	1 in S/entry	33mm Ø

atlas Incandescent and Discharge Fittings

Introduction

The fittings illustrated in this section fall into four main categories.

Part One

INDUSTRIAL FITTINGS PP.3:2—3:12

A range of heavy-duty fittings to take incandescent or discharge lamps most of which are designed for high-bay mounting.

Part Two

COMMERCIAL LIGHTING FITTINGS

a. Display Lighting Fittings. PP 3:13—3:36

This section covers a new range of swivel-mounted fittings designed to make full use of the new light-sources now available and the established range of recessed and surface-mounted fixed display-type fittings.

b. Hospital & School Lighting PP. 3:37, 3:38

c. Decorative, Commercial Fittings PP. 3:39—56

Glass and plastic ceiling-mounted and pendant fittings and wall brackets to suit almost any commercial interior, including the well-known Atlas Modern, Linklite and Chelsea ranges and the Viewpoint shaver unit.

A detailed Index of Part One is to be found on P. 3:2 and Part Two on page 3:13.

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Industrial lighting fittings

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 HBG assemblies for 250W, 400W, 700W or 1000W lamps. There is also a Lampholder HBT assembly for use when control gear is mounted remotely, to service the same lamp range.

FLA. This is a lower wattage fitting for factory lighting where mounting heights of 10ft-15ft are available. It uses a 125W MBF *Kolorlux lamp in a rectangular metal reflector.

3:3

High Pressure Sodium The range has recently been extended to incorporate HBSG 250 (250W SON) and HBSG 400 (400W SON) gear units for use with HBX 400 reflectors and SON lamps. The same lamps and reflectors can be used with the HBT unit with remotely control gear.

3:10

HBR 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 of gear and lampholder assemblies for 250W, 400W, 700W and 1000W Kolorlux lamps (MBFR) with internal reflectors.

In addition a reflector shield (HBR) further increases the useful downwards illumination and provides a mechanical protection to the lamp, a wire guard is fitted as standard. There is also a lampholder assembly (HBT) for use when control gear is remotely mounted, to service the same lamp range and employing the same reflector shield assemblies.

3:4, 3:5

HBX Range This is a range of fittings designed specifically to give a high illumination level in installations with a mounting height of 20ft, and over.

The fitting consists of a spun anodised aluminium reflector (HBX) with similar gear and lampholder assemblies (HBG), as used in the HBR range of reflector shield fittings, two reflector sizes 400W and 1000W with optional wire guards, are available.

3:7, 3:8

HBX 400 Kolorlux lamps (MBF) in 250W and 400W ratings can be employed in this reflector. In addition the 400W Kolorarc (MBIF) lamps, with 25% better light output and colour rendering than MBF, is suitable. There is also a lampholder assembly (HBT) for use when control gear is remotely mounted, to service the same lamp range and employing the same reflector.

3:7

HBX 1000 700W and 1000W Kolorlux lamps, can be employed with the reflector.

There is also a lampholder assembly (HBT) for use when control gear is remotely mounted to service the same lamp range and also the 1000W Kolorarc (MBI) lamp.

3:8

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. A 1kW lamp version is also available.

3:9

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. A larger reflector for 1kW lamps is also available.

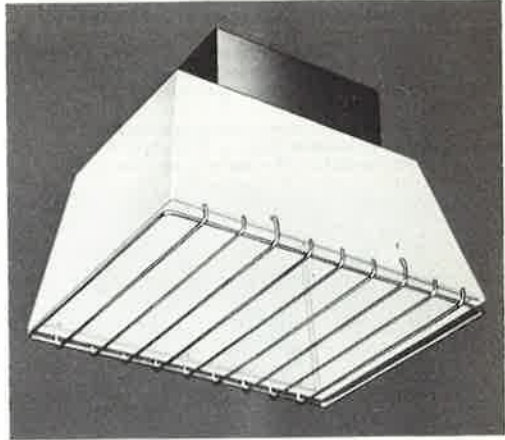
This reflector may also be used with the HB range, in place of the reflector shield, to extend this range for use with MBF, MBF *Kolorlux and SON lamps in the 250W, 400W, 700W and 1000W ratings.

3:11

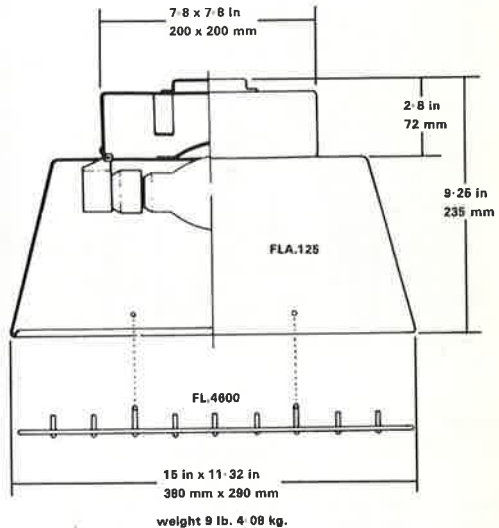
Factory Light Units for industrial areas with normal or low ceilings — such as machine shops, garages, warehouses, storerooms and enclosed loading bays.

The fitting comprises a square black box containing control gear, for 1-125W MBF Kolorlux lamp, (not included in pack), and a closed end trough reflector, finished white, and attached to the underside. The lamp is mounted horizontally to reduce overall depth of the fitting.

Reflector and gear box are in one pack and an optional wire guard is available.



Fixing: The fitting is secured to a B.S. conduit box by means of piercings clustered around a central $\frac{3}{4}$ in dia. clearance hole located in the top boss at the centre of the fitting.



CAT. NO.	DESCRIPTION :
FLA.125	Metal Reflector Fitting for 125W MBF lamp
FL.4600	Wire Guard

atlas

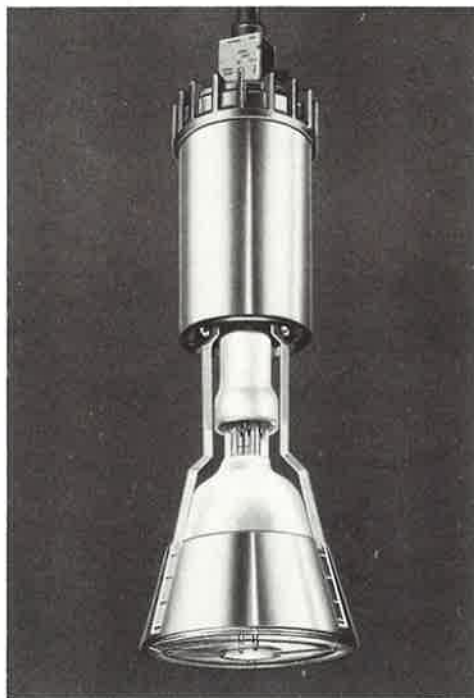
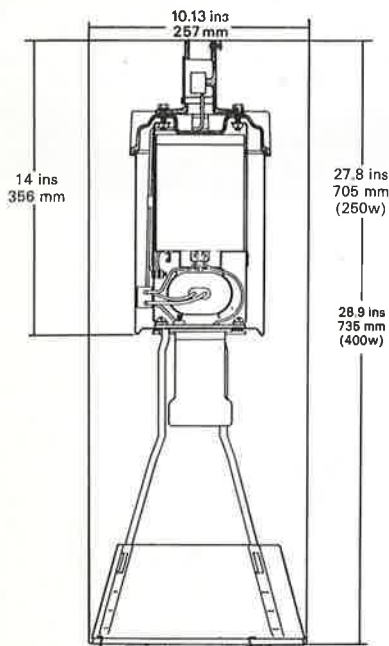
HBR/G250 and G400 fittings

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.

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 switchless 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 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. 3:6.)



HBR/G400

RANGE

Complete fitting

Components

Rating	Cat. no.	Control gear housing including gear Cat. no.	Reflector Cat. no.	Wire Guard Cat. no.	Weight inc. lamp lb kg
250W	HBR/G250	HBG.250	HBR.400	Included	15.5 7.02
400W	HBR/G400	HBG.400	HBR.400	Included	20.25 9.17

Note: The HBR400 reflector shield can be replaced by an HBX400 reflector (see p. 3:7) for use with 250W & 400W MBF lamps.

atlas

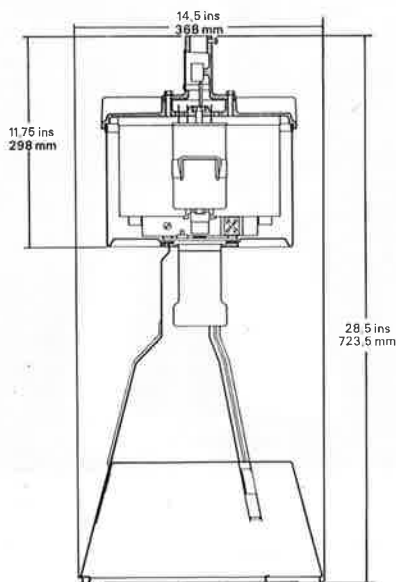
HBR/G700 and G1000 fittings

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.

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 switchless 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 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.3:6.)



HBR/G1000

Note: The **HBR1000** reflector shield can be replaced by an **HBX1000** reflector (see page 3:8) for use with 700W and 1000W MBF lamps.

RANGE

Complete fitting

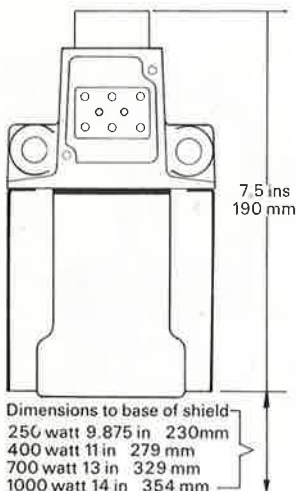
Components Control gear housing including gear

Rating	Cat. no.	Cat. no.	Reflector 700/1000w Cat. no.	Weight inc. lamp lb	kg
700w	HBR/G700	HBG.700	HBR.1000	37.75	17.1
1000w	HBR/G1000	HBG.1000	HBR.1000	40.25	18.2

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.



HBT/R1000

RANGE

Complete fitting

Rating	Lamp type	Cat. no.	Components		Dimensions		Weight (less lamp)	
			Top Cat. no.	Reflector including Guard Cat. no.	Max. diameter in	mm	lb	kg
250W, 400W	MBFR	HBT/R400	HBT	HBR.400	4.2	106.4	1.75	0.79
400W, 700W	MBFR	HBT/R700	HBT	HBR.700	10.13	257	1.5	0.68
700W, 1000W	MBFR	HBT/R1000	HBT	HBR.1000	14.5	368	1.75	0.79

Note: The HBR reflector shields can be replaced by HBX reflectors (See p. 3:11.)

atlas

HBX/G250 and G400 fittings

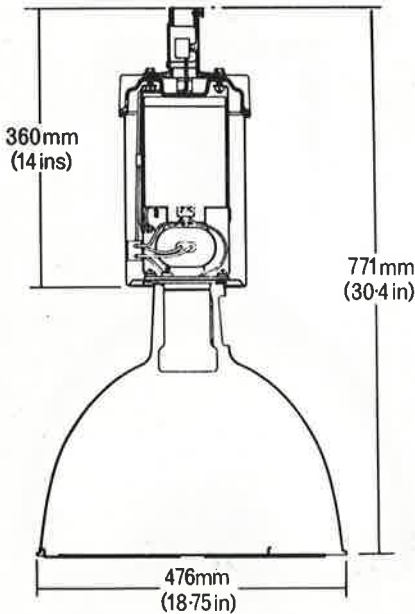
These fittings have been designed for use in installations where mounting heights of between 15ft and 30ft are available and are suitable for use in practically all types of industry.

These fittings are particularly recommended for new installations or for replacing existing tungsten fittings where higher illumination values with reduced maintenance are required.

The fittings incorporate relevant switchless start control gear for operating either a 250W or 400W MBF 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 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 available for fitting into the base of the reflector. A version for use with remotely mounted control gear is also available.

(See HBT p.3:11).



HBX/G250

RANGE

Complete fitting

Rating	Lamp type	Cat. no.	Components			Weight inc. lamp	
			Control gear housing incl. gear Cat. no.	Reflector Cat. no.	Optional Wire Guard Cat. no.	lb.	kg
250W	MBF	HBX/G250	HBG250	HBX400	HB4601	19.0	8.6
400W	MBF	HBX/G400	HBG400	HBX400	HB4601	23.75	10.77

Note: The HBX 400 reflector can be replaced by an HBR 400 reflector-Shield (See P. 3:4) for MBF/R with 250W and 400W MBF/R lamps.

atlas

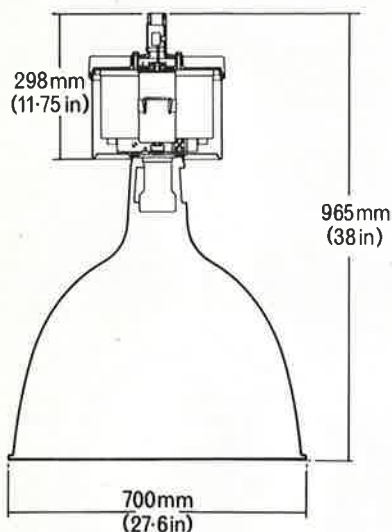
HBX/G700 and G1000 fittings

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.

These fittings are particularly recommended for new installations or for replacing existing tungsten fittings where higher illumination values with reduced maintenance are required.

The fittings incorporate relevant switchless start control gear for operating either a 700W or 1000W MBF 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 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 available for fitting into the base of the reflector. A version for use with remotely mounted control gear is also available. (See HBT p.3:11).



HBX/G1000

RANGE

Complete fitting			Components			
Rating	Lamp type	Cat. no.	Control gear housing incl. gear Cat. no.	Reflector Cat. no.	Optional Wire Guard Cat. no.	Weight inc. lamp lb kg
700W	MBF	HBX/G700	HBG700	HBX1000	HB4602	42.4 19.2
1000W	MBF	HBX/G1000	HBG1000	HBX1000	HB4602	46 20.9

Note: The HBX 1000 reflector can be replaced by an HBR 1000 reflector shield (see p. 3:5) for use with 700W and 1000W MBFR lamps.

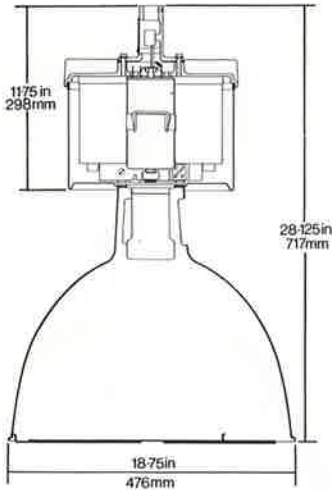
atlas HBIX/G400 °Kolorarc fitting

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 switchless start control gear to operate a 400w MBIF °Kolorarc lamp on 240v 50Hz (220v 50Hz 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 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

Complete fitting

Components

Rating	Lamp type	Cat. no.	Control gear housing incl. gear Cat. no.	Reflector Cat. no.	Optional Wire Guard Cat. no.	Weight inc. lamp lb	kg
400w	MBIF	HBIX/G400	HBIG.400	HBX.400	HB.4601	40.5	18.3

atlas

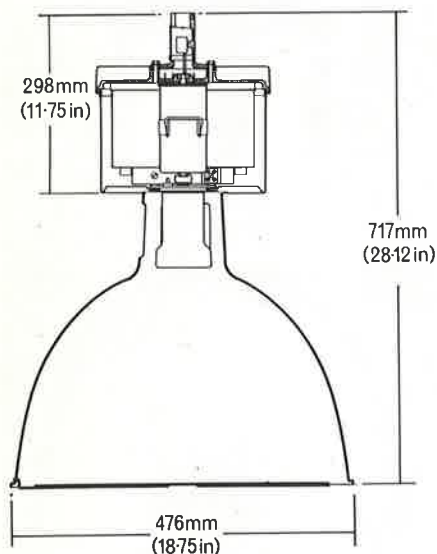
HBX SG250 and SG400 fitting

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. It is particularly recommended for new installations or for replacing existing tungsten fittings where higher illumination values with reduced maintenance are required.

The fitting incorporates switchless start control gear to operate 250W or 400W SON lamps on 240V 50Hz. 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 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.)



HBX/SG400

RANGE

Complete fitting

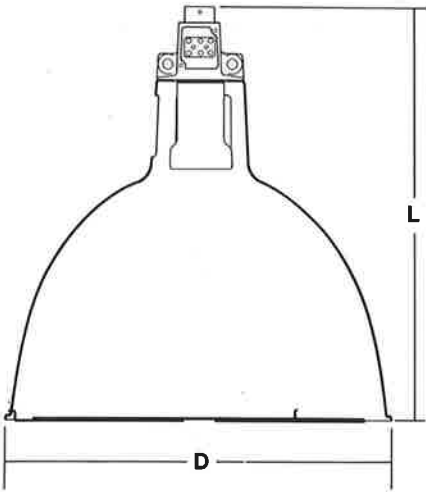
Components

Rating	Lamp type	Cat. no.	Control gear housing incl. gear Cat. no.	Reflector Cat. no.	Optional Wire Guard Cat. no.	approx. Weighting lamp lb	kg
250W	SON	HBX/SG250	HBSG250	HBX400	HB4601	30	13.6
400W	SON	HBX/SG400	HBSG400	HBX400	HB4601	34	15.4

atlas
HBT/X250-1000 fittings

These fittings have been designed for use in installations where mounting heights of 15ft and over are required. They are suitable for use in practically all types of industry and are particularly recommended for new installations or for replacing existing tungsten fittings where higher illumination values with reduced maintenance is required. The fitting is easily installed by means of a 1 in. diameter conduit entry on top. 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 allow a flow of air over the lamp and reflecting surfaces which helps to reduce maintenance. A protecting wire guard is available for both versions of reflector (Cat. No. HB4601 for HBX400 reflector, Cat. No. HB4602 for HBX1000 reflector). Remotely mounted gear is required for this fitting.



HBT/X400

RANGE AND DIMENSIONS

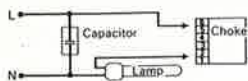
Complete fitting

Rating	Lamp type	Cat. No.	D		L		Weight inc. lamp	
			in.	mm.	in.	mm.	lb.	kg.
250W	MBF	HBT/X250*	18.75	476	19.88	505	5.04	2.27
400W	MBF or MBIF	HBT/X400*	18.75	476	19.88	505	5.25	2.38
700W	MBF	HBT/X700†	27.6	700	29.75	756	8.15	3.70
1000W	MBF or MBIF	HBT/X1000†	27.6	700	29.75	756	9.25	4.2

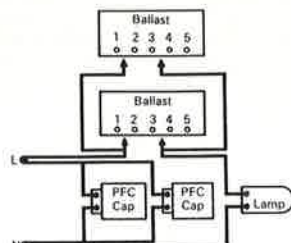
*This fitting may also be used with 300, 500, 750, 1000W G.L.S. lamps

†This fitting may also be used with 500, 750, 1500W G.L.S. lamps.

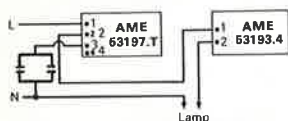
Replacements for High-Bay fittings



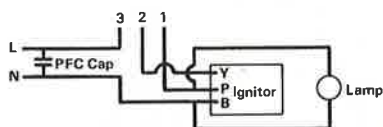
125, 250, 400W
MBF/MBFR



700, 1000W
MBF/MBFR



400W MBIF



250, 400W SON

Y = Yellow

P = Pink

B = Black

The items shown in the table below are replacements for the industrial Discharge-lamp fittings with integral gear shown on pages 3:3, 3:4, 3:5, 3:7, 3:8, 3:9 and 3:10. Full details of each item are shown on the control gear section (section 10) of this catalogue.

REPLACEMENT ITEMS FOR INDUSTRIAL DISCHARGE FITTINGS WITH INTEGRAL GEAR

Description	125 watt MBF	250 watt MBF/MBFR	400 watt MBF/MBFR	700 watt MBF/MBFR	1000 watt MBF/MBFR	400 watt MBIF	250 watt SON	400 watt SON
Skirted lampholder	AMEL1113	AMEL1094	AMEL1094	AMEL1094	AMEL1094	AMEL1094	AMEL1094	AMEL1094
3-way terminal block	AMET1281/3	AMET1306	AMET1306	AMET1306	AMET1306	AMET1306	AMET1306	AMET1306
2-way terminal block	—	—	—	AMET1297	AMET1297	AMET1297	AMET1297	AMET1297
Ballasts	AME53186.4	AME53198.4	AME53193.4	AME53157.T AME53158.T	2xAME53164.4	AME53193.4 AME53917.T *AME53193.T	AME53251.T	AME53230.T
Capacitors	AMEC2222	AMEC2216	AMEC2218	AMEC2214 AMEC2218	2xAMEC2236	2xAMEC2278	2xAMEC2216	2xAMEC2218
Ignitor	—	—	—	—	—	*2xAMEC2218 *AME53262	AME53262	AME53262

* This circuit was recently introduced and care should be taken to order correct components

atlas

Commercial, Display and Decorative fittings

Introduction

The fittings shown in this section can be divided into three main categories. The first contains the new Hispot range of swivel-mounted and adjustable spotlights and floodlights designed for use in shopwindows or for lighting interior displays. These fittings make use of the complete range of specialised lamps such as pressed and blown-glass reflector-lamps and low voltage reflector and tungsten-halogen lamps. Most of them are designed so that they can be mounted on Trakline. The second part contains surface mounted and recessed ceiling fittings using standard lamps or reflected lamps, and a variety of decorative diffusers and louvres, and in the third is the wide range of glass, plastic and metal decorative fittings both for ceiling-mounting and for use as pendants and wall brackets for which the company is justly famous.

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- 3:13 Hispot Introduction to Display Range**
Mains Voltage fittings
3:14 DTR 100BC spotlight holder for 100W I.S. lamp
3:15 DTG 100BC spotlight holder for 100W GLS lamp
3:16 DTU 150 swivel housing for 150W I.S. lamp
3:17 DTU 150 swivel housing for 150W I.S. lamp
3:18 DTC 100 reflector fitting for 100W crown silvered lamp
3:19 DTP 150 swivel housing for 150W PAR lamp
3:20 DTP 300 swivel housing for 300W PAR lamp
3:21 DTL/300/N 500 swivel reflector for 300W or 500W linear T.H. lamp
- Low Voltage fittings** (all with built-in transformers)
3:22 DTLV20 Swivel housing for 6V 20W T.H. lamps
3:23 DTLV50 Swivel housing for 12V 50W T.H. lamp
3:24 DTLV100 Swivel housing for 12V 100W T.H. lamp
3:25 DTPRO50 Profile spot for 12V 50W T.H. lamp
- Mains Voltage Spotlights**
3:26 VE 150 adjustable Eyeball fitting
 VG 100 VG 150 Swivel mounting for PAR lamps
 VA 100, VA150 Auxiliary reflectors for GLS lamps
- Low Voltage Spotlights**
3:27 DAS 150 Swivel housing for 12V 50W reflector lamps
 DCS 150 Swivel housing for 12V 50W reflector lamps
 TRF 2338F Transformer for use with above.
- Display Lighting** surface-mounted and recessed ceiling fittings
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3:30 VSL, VSZ, 200W surface mounted fittings and attachments
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3:34 VR200, 200W Recessed fitting and attachments (VL, VO, VX, VY, VZ)
3:35 DNM Surface mounted fitting
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 JCA recessed ceiling fitting
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3:38 MN series, Opalite pendant fittings
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3:41 *Kolorlux Package deal PKC 80 & 125 PKA 80 & 125 PKM 80 & 125.
3:42 *Kolorlux PKO 80 & PKO 125, PKB80 & 125
3:43 SS 300 Minidimmer
- Atlas Modern Range**
3:44 XAT, XBC, XDC, XDO, XFL Atlas Modern glasses & suspensions
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3:46 XJ2040 XK2040 Atlas Modern surface mounted fittings and XYC Pendant.
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3:51 WEP, WEC, Link-lite 2 fittings
3:52 WM Cube light
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3:54 JZ, JY, JF Chelsea Glasses
3:55 JCP, JCB, JCG, Chelsea suspension systems

Hi-Spot 100W reflector spotlight fitting

This fitting accepts a number of 75W and 100W interior display reflector lamps ES and BC. Cowl, louvre and coloured filters are available.

Fittings

Cat. No.	Lamp Cap	Watts	Fixing	Finish
DTR100BC	BC	100	Trakline	Matt black, chrome trim
DSR100BC	BC	100	Ceiling	Matt black, chrome trim
DTR100	ES	100	Trakline	Matt black, chrome trim
DSR100	ES	100	Ceiling	Matt black, chrome trim

Complete with TK 119 Adaptor

Optional attachments

Cat. No.	Description	Finish
DVH100	Cowl	Brushed and lacquered aluminium
DVL100	Louvre	Matt black
DVF100R	Red glass filters*	
DVF100A	Amber glass filters*	
DVF100G	Green glass filters*	
DVF100B	Blue glass filters*	

*Complete with clips. Packed 2 per carton

Lamps

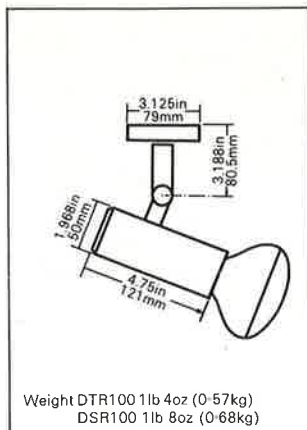
Watts	Description	Voltages
75 and 100	Interior display reflector lamp ES and BC	220/230 240, 250
75 only	As above in lacquered colours red, yellow, green and blue	240/250



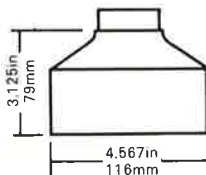
Photometric Data

(Average illumination value in lux)

LUX values for coloured lamps vary according to colour but approximate values are as follows:
Yellow less 10%; Blue less 60%
Red less 55%; Green less 50%

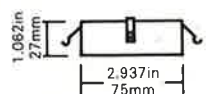


CowI DVH100



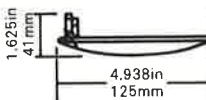
Weight 2oz (0.06kg)

Louvre DVL100

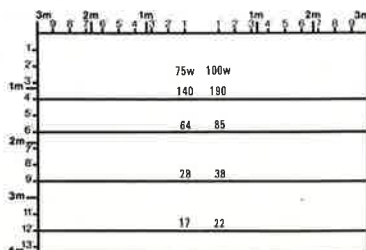


Weight 2oz (0.06kg)

Filter DVF100



Weight 4oz (0.11kg)



DTR100 using 75w and 100w
Interior Display Reflector Lamps

atlas

Hi-Spot 100W GLS spotlight fitting

This fitting uses standard 100W GLS lamps in either ES or BC form to produce a well defined beam. To do this it uses a reflector enclosed in a brushed and lacquered aluminium cowl. A louvre and coloured filters are available as optional extras.

Fittings

Cat. No.	Lamp Cap	Watts	Fixing	Finish
DTG100BC	BC	100	Trakline	Matt black, chrome trim
DSG100BC	BC	100	Ceiling	Matt black, chrome trim
DTG100	ES	100	Trakline	Matt black, chrome trim
DSG100	ES	100	Ceiling	Matt black, chrome trim

Complete with TK 119 Adaptor

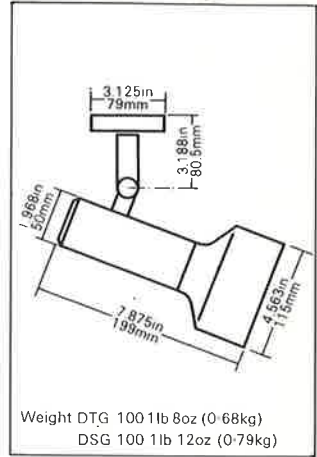
Optional attachments

Cat. No.	Description	Finish
DVL100	Louvre	Matt black
DVF100R	Red glass filters*	
DVF100A	Amber glass filters*	
DVF100G	Green glass filters*	
DVF100B	Blue glass filters*	

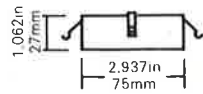
*Complete with clips, Packed 2 per carton

Lamps

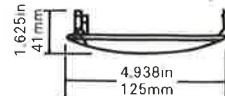
Watts	Description	Voltages
100	GLS, ES or BC	110, 240 and 250



Louvre DVL100

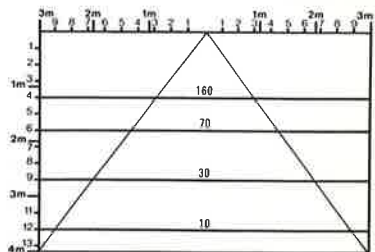


Filter DVF100



Photometric Data

(Average illumination value in lux)



DTG100 using 100w
GLS Pearl lamp

atlas

Hi-Spot 150W universal spotlight fitting

This range of spotlights uses as its basis a standard 150W fitting with an adjustable lampholder. This together with a range of reflectors enables an immense variation of functions to be performed.

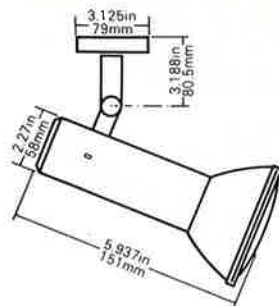
Fittings

Cat. No.	Lamp Cap	Watts	Fixing	Finish
DTU150	ES	150	Trakline	Matt black, chrome trim
DSU150	ES	150	Ceiling	Matt black, chrome trim

Complete with TK 119 Adaptor Optional attachments

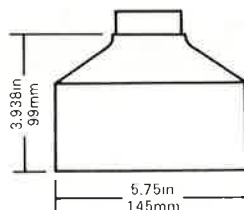
Cat. No.	Description	Finish
DVH150	Cowl. See lamp information for uses	Brushed and lacquered aluminium
DVHR150	Cowl and reflector for 150W GLS lamp	Brushed and lacquered aluminium
DVAL200	Reflector and louvre for 200W GLS lamp	Natural aluminium
DVL150	Louvre for use on DVH150 and DVHR150	Matt black
DVF150R	Red glass filter*	
DVF150A	Amber glass filter*	
DVF150G	Green glass filter*	
DVF150B	Blue glass filter*	

*Complete with clips. Packed 2 per carton



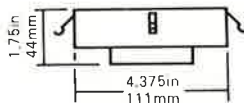
Weight DTU 150 1lb 8oz (0.68kg)
DSU 150 1lb 12oz (0.79kg)

Cowl DVH 150 and Cowl/Reflector DVHR 150



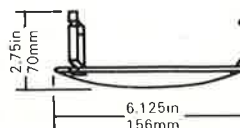
Weight 2oz (0.06kg)

Louvre DVL150



Weight 4oz (0.11kg)

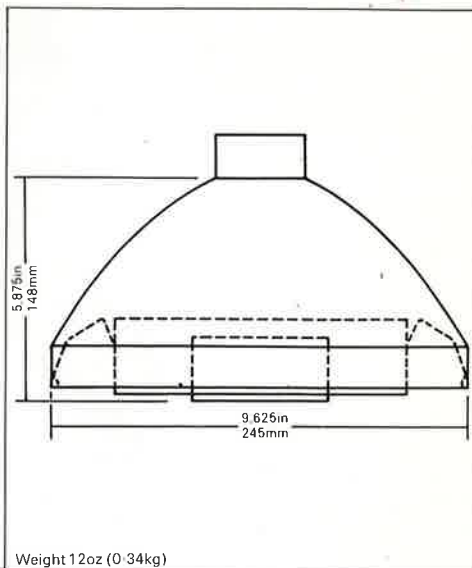
Filter DVF150



Weight 6oz (0.17kg)

atlas

Hi-Spot 150W universal spotlight fitting



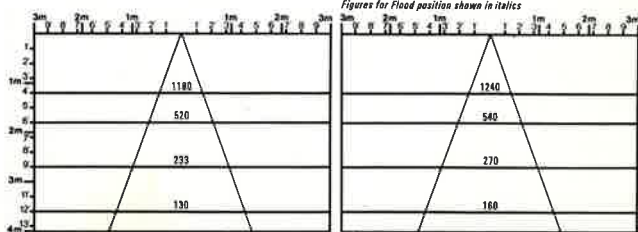
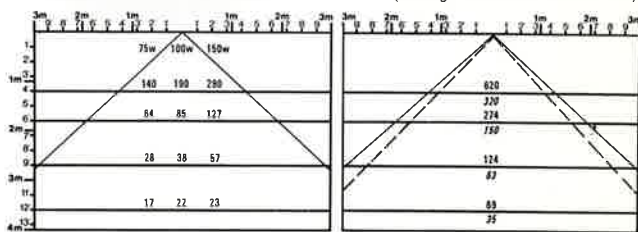
Lamps

Watts	Description	Voltages
75, 100, 150	Interior display reflector lamps ES only *DVH150 can be used	200/230 240, 250
75 only	As above in lacquered colours red, yellow, green and blue *DVH150 can be used	240/250
100, 150	GLS lamp (Pearl) ES only *DVHR150 must be used	100, 220/230 240, 250
200	GLS lamp (Pearl) ES only *DVAL200 must be used	220/230 240, 250
100, 150	PAR38 spot and flood *DVH150 can be used	200/230 240/250
100	As above in lacquered colours red, yellow, green and blue *DVH150 can be used	240/250
150	PAR38 'Cool-ray' and Color-ray in red, yellow, green and blue *DVH150 can be used	240/250

*See details in 'Optional attachments' table

Photometric Data

(Average illumination value in lux)



The photometry shown refers to clear lamps. LUX values for coloured lamps vary according to colour but approximate values are as follows:
Yellow less 10%: Blue less 60%
Red less 55%: Green less 50%

atlas

Hi-Spot 100W crown silvered spotlight fitting

This fitting, for use with the Atlas 100W crown silvered lamp, has the distinction of alternative coloured reflectors to increase its versatility. Fitted with natural anodised aluminium reflector. Available in ES only.

Fittings

Cat. No.	Lamp Cap	Watts	Fixing	Finish
DTC100	ES	100	Trakline	Matt black, chrome trim
DSC100	ES	100	Ceiling	Matt black, chrome trim

Complete with TK 119 Adaptor

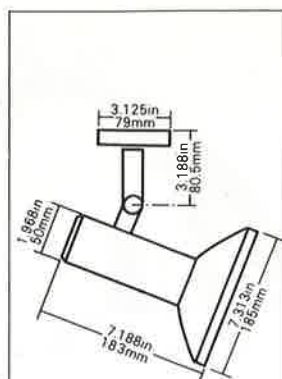
Optional attachments

Cat. No.	Description
DVA100R	Red Reflector
DVA100A	Amber Reflector
DVA100G	Green Reflector
DVA100B	Blue Reflector

Packed with lamp.

Lamps

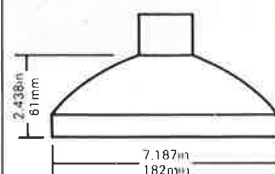
Watts	Description	Voltages
100	Crown Silvered	240/250
	Display lamp ES cap	



Weight DTC 100 1lb 8oz (0.68kg)

DSC 100 1lb 12oz (0.79kg)

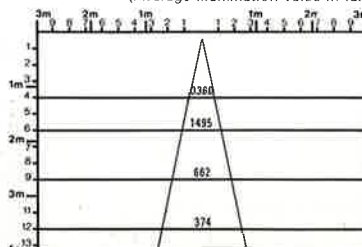
Reflector DVA100



Weight 4oz (0.11kg)

Photometric Data

(Average illumination value in lux)



DTC100 using 100W GLS Crown Silvered lamp with natural anodised aluminium reflector

Hi-Spot 150W die-cast PAR.38 spotlight fitting

This group of fittings accepts a range of PAR38 lamps up to 150w. It features die-cast bodies finished in black or white with brushed and lacquered aluminium cowl and contrasting chrome trim.

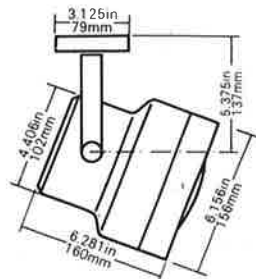
Fittings

Cat. No.	Lamp Cap	Watts	Fixing	Finish
DTP150W	ES	150	Trakline*	White
DTP150B	ES	150	Trakline*	Black
DSP150W	ES	150	Ceiling	White
DSP150B	ES	150	Ceiling	Black

*These fittings can only be installed on aluminium Trakline (TKN)

Lamps

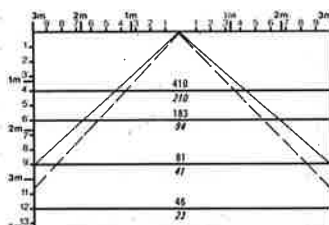
Watts	Description	Voltages
100 & 150	PAR38 Spot & Flood	200/230 240/250
150	PAR38 Cool-Ray	240/250
150	PAR38 Colour-Ray in red, yellow, green and blue	240/250
100	PAR38 Flood only in red, yellow, green and blue	240/250



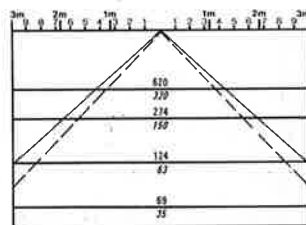
Weight DTP 150 3lb 12oz (1.70kg)
DSP 150 4lb (1.81kg)

Photometric Data

(Average illumination value in lux)



DTP150 using PAR38 150w
Spot (dotted line) and Flood
Figures for Flood position shown in italics



DTP150 using PAR38 100w
Spot (dotted line) and Flood
Figures for Flood position shown in italics

The photometry shown refers to clear lamps. LUX values for coloured lamps vary according to colour but approximate values are as follows:
Yellow less 10% : Blue less 60%
Red less 55% : Green less 50%

atlas

Hi-Spot 300W die-cast PAR 56 spotlight fitting

This fitting is designed to accept the PAR56, 300 watt lamp. It uses a die-cast body, finished in gloss white or matt black with chrome trim.

Fittings

Cat. No.	Lamp Cap	Watts	Fixing	Finish
DTP300W	GX16d	300	Trakline*	White
DTP300B	GX16d	300	Trakline*	Black
DSP300W	GX16d	300	Ceiling	White
DSP300B	GX16d	300	Ceiling	Black

*These fittings can only be installed on aluminium Trakline (TKN)

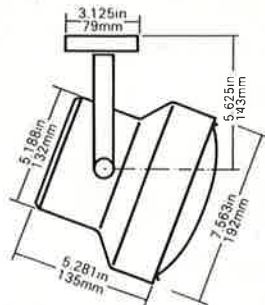
Optional attachments

Cat. No.	Description
DVF300R	Red glass filter*
DVF300A	Amber glass filter*
DVF300G	Green glass filter*
DVF300B	Blue glass filter*

*Complete with clips. Packed 2 per carton

Lamps

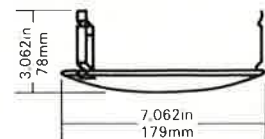
Watts	Description	Voltages
300	PAR56. Sealed beam, wide, medium and narrow beam angles	200/230, 240/250



Weight DTP 300 4lb (1.81kg)
DSP 300 4lb 4oz (1.92kg)



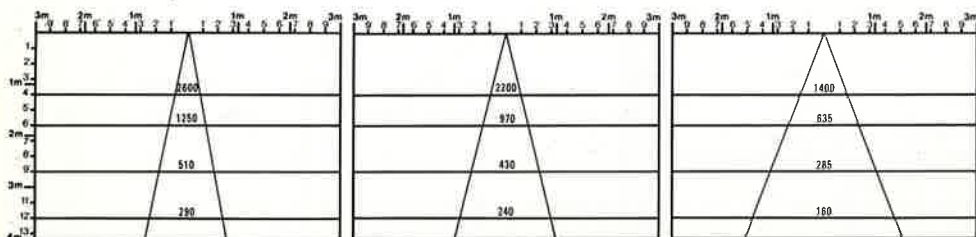
Filter DVF300



Weight 8oz (0.23kg)

Photometric Data

Photometric Data (Average illumination value in lux) N.B. PAR 56 lamps produce an elliptical beam form. Beams shown below are for the minor axis.



DTP 300 using PAR56
Narrow beam

DTP300 using PAR56
Medium beam

DTP300 using PAR56
Wide beam

Hi-Spot 'wallwasher' using 300/500W TH linear lamp

This unique fitting uses a 300W or 500W Tungsten Halogen linear lamp of the 'frosted' type to illuminate large vertical areas. When used in this way the area gives the appearance of uniformly high brightness. There is very little spill of light onto ceiling or floor. Two versions are available; 300 watts maximum for Trakline use, the 500 watt version for ceiling plate mounting.

Fittings

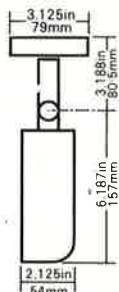
Cat. No.	Lamp Cap	Watts (max)	Fixing	Finish
DTLIN300	R7's	300	Trakline	Black, chrome and matt finish aluminium
DSLIN500	R7's	500	Ceiling	Black, chrome and matt finish aluminium

Optional attachments

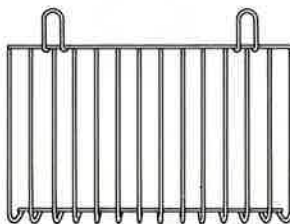
Cat. No.	Description	Finish
DVWVG	Wire guard, complete with fixing screws	Stainless steel

Lamps (these lamps should be 'frosted' finish)

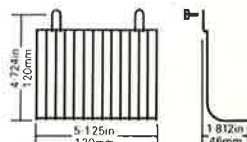
Watts	Description	Voltages
300	Tungsten Halogen linear lamp frosted	220/230, 240/250
500	Tungsten Halogen linear lamp frosted	200/230, 240/250



Weight DTLIN 2lb 4oz (1.02kg)
DSLIN 2lb 8oz (1.13kg)



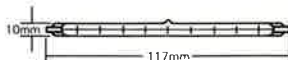
Wire Guard DVWVG



Weight 2oz (0.06kg)

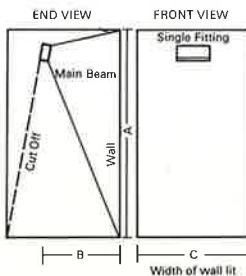
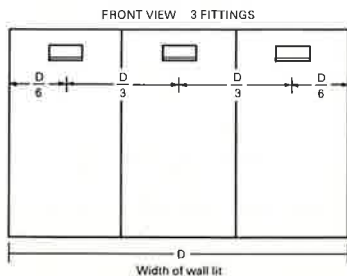


300W



500W

Photometric Data



Single Fitting				3 Fittings	
A	B	C	LV.*	D	LV.*
7ft 2.13m	2ft 0.61m	7ft 2.13m	280 530	21ft 6.40m	360 680
8ft 2.44m	2.25ft 0.69m	8ft 2.44m	200 380	24ft 7.32m	260 490
9ft 2.74m	2.5ft 0.76m	9ft 2.74m	150 280	27ft 8.23m	190 360

* Lux Values shown are average but achieve a visually even intensity. 500w values in *italics*

atlas

Hi-Spot spotlight fitting using 6V 20W TH lamp

This fitting uses a 6V 20W Tungsten Halogen lamp which is mains operated by an integral transformer. It is finished in matt black with chrome trim. Fitted with natural anodised aluminium reflector.

Fittings

Cat. No.	Lamp Cap	Watts	Voltages	Fixing	Finish
DTLV20 2	Single ended Bi-Pin	20	220/230	Trakline	Black
DTLV20T	Single ended Bi-Pin	20	240/250	Trakline	Black
DSLV20 2	Single ended Bi-Pin	20	220/230	Ceiling	Black
DSLV20T	Single ended Bi-Pin	20	240/250	Ceiling	Black

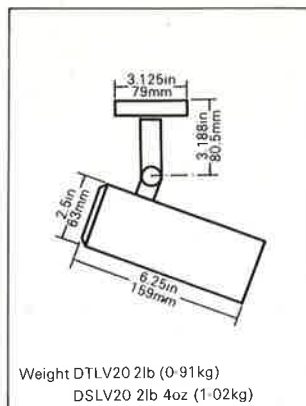
† Lamp packed with fitting.
220v versions to special order only.
Complete with TK 119 Adaptor

Optional attachments

Cat. No.	Description
DVA20R	Red Reflector
DVA20A	Amber Reflector
DVA20G	Green Reflector
DVA20B	Blue Reflector

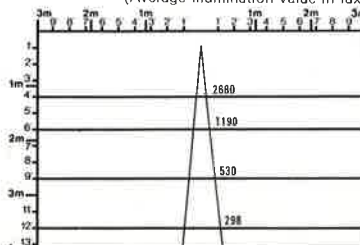
Lamps

Watts	Description	Voltage
20	Tungsten Halogen Display Lamp	6
	Catalogue number M34	



Photometric Data

(Average illumination value in lux)



DTLV20 using 6v 20w Tungsten Halogen lamp with natural anodised aluminium reflector

Hi-Spot spotlight fitting using 12V 50W TH lamp

This fitting uses a 12V 50W Tungsten Halogen lamp which is mains operated by an integral transformer.

Fittings

Cat. No.	Lamp Cap	Watts	Volts	Fixing	Finish
DTLV 50W.2	Single ended Bi-Pin	50	220/230	Trakline*	White
DTLV 50W†	Single ended Bi-Pin	50	240/250	Trakline*	White
DTLV 50B.2	Single ended Bi-Pin	50	220/230	Trakline*	Black
DTLV 50B†	Single ended Bi-Pin	50	240/250	Trakline*	Black
DSL.V 50W.2	Single ended Bi-Pin	50	220/230	Ceiling	White
DSL.V 50W†	Single ended Bi-Pin	50	240/250	Ceiling	White
DSL.V 50B.2	Single ended Bi-Pin	50	220/230	Ceiling	Black
DSL.V 50B†	Single ended Bi-Pin	50	240/250	Ceiling	Black

*These fittings can only be installed on aluminium Trakline (TKN).
†Lamp packed with fitting.
220v versions to special order only.

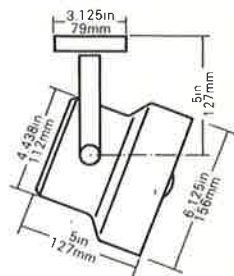
Optional attachments

Cat. No.	Description
DVF150R	Red glass filters*
DVF150A	Amber glass filters*
DVF150G	Green glass filters*
DVF150B	Blue glass filters*

*Complete with clips. Packed 2 per carton

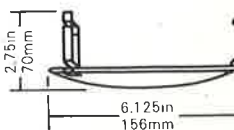
Lamp

Watts	Description	Voltage
50	Tungsten Halogen Display Lamp	12
	Catalogue number M32.	



Weight DTLV 50 5lb 8oz (2.50kg)
DSL.V 50 5lb 12oz (2.61kg)

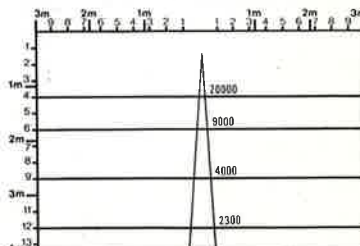
Filter DVF150



Weight 6oz (0.17kg)

Photometric Data

(Average illumination value in lux)



DTLV50 using 12v 50w
Tungsten Halogen lamp

Hi-Spot spotlight fitting using 12V 100W TH lamp

This fitting uses a 12V 100W Tungsten Halogen lamp which is mains operated by an integral transformer. Finished in gloss white or matt black with chrome trim.

Fittings

Cat. No.	Lamp Cap	Watts	Volts	Fixing	Finish
DTLV 100W.2	Single ended Bi-Pin	100	220/230	Trakline*	White
DTLV 100W.1	Single ended Bi-Pin	100	240/250	Trakline*	White
DTLV 100B.2	Single ended Bi-Pin	100	220/230	Trakline*	Black
DTLV 100B.1	Single ended Bi-Pin	100	240/250	Trakline*	Black
DSLV 100W.2	Single ended Bi-Pin	100	220/230	Ceiling	White
DSLV 100W.1	Single ended Bi-Pin	100	240/250	Ceiling	White
DSLV 100B.2	Single ended Bi-Pin	100	220/230	Ceiling	Black
DSLV 100B.1	Single ended Bi-Pin	100	240/250	Ceiling	Black

*These fittings can only be installed on aluminium Trakline (TKN).
Flamp packed with fitting.
220v versions to special order only.

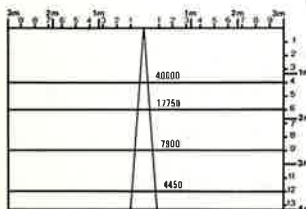
Optional attachments

Cat. No.	Description
DVF300R	Red glass filters *
DVF300A	Amber glass filters *
DVF300G	Green glass filters *
DVF300B	Blue glass filters *
DVCW	Controller lens, wide angle *

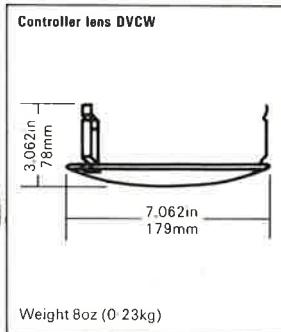
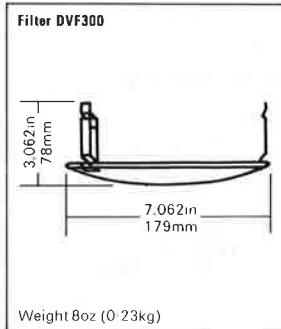
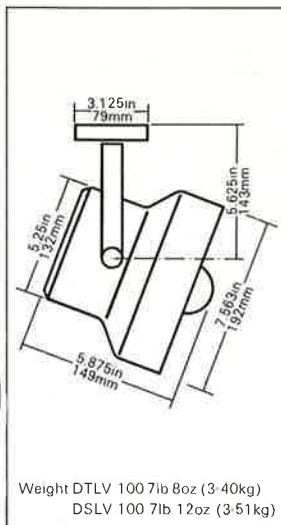
*Complete with clips. Packed 2 per carton

Lamp

Watts	Description	Voltage
100	Tungsten Halogen Display lamp Catalogue number M28	12



Photometric Data
(Average illumination value in lux)
DTLV100 using 12v 100w
Tungsten Halogen lamp



Hi-Spot profile spotlight fitting using 12V 50W TH lamp

Permits the shaping of a spot to frame a rectangular area with little or no spill outside the required illuminated area. To achieve this, four small knobs on the front of the fitting adjust the shape of the gate. A 12V 50W Tungsten Halogen lamp is incorporated together with an integral transformer. Finished black with a chrome trim.

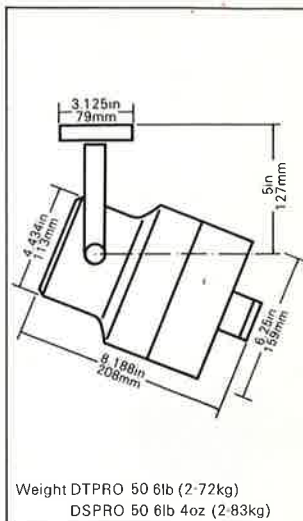
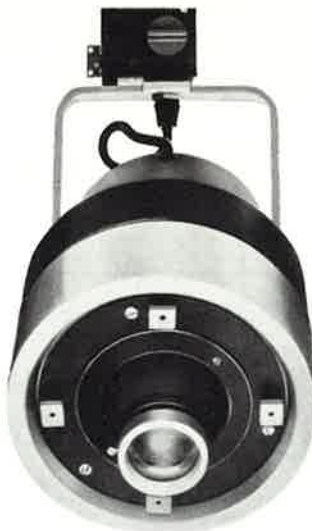
Fittings

Cat. No.	Lamp Cap	Watts	Voltagess	Fixing	Finish
DTHO 50.2	Single ended Bi-Pin	50	220/230	Trakline*	Black
DTPRO 50†	Single ended Bi-Pin	50	240/250	Trakline*	Black
DSPRO 50.2	Single ended Bi-Pin	50	220/230	Ceiling	Black
DSPRO 50†	Single ended Bi-Pin	50	240/250	Ceiling	Black

* These fittings can only be installed on aluminium Trakline (TKN)
† Lamp packed with fitting.
220v versions to special order only.

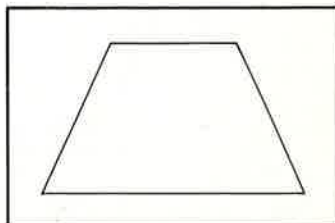
Lamp

Watts	Description	Voltage
20	Tungsten Halogen Display Lamp Catalogue number M32	12



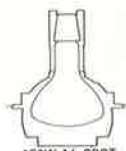
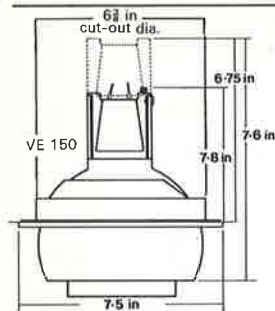
Photometric Data

The light intensity of this fitting varies according to the distance of the object from the fitting and on the spot profile size. However, approximate readings at 2 metres (6ft 6in) are:—
0.5 metre (2ft) sq spot – 1100 Lux
1 metre (3ft 3in) sq spot – 780 Lux
1.5 metre (5ft) sq spot – 680 Lux
It is emphasized that these readings are average readings of the surface illumination of the spot.



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Mains Voltage Spotlights



150W, 1/2 SPOT
or VEL 150



160W, 1/2 SPOT
or FLOOD



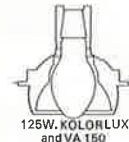
100W, 1/2 SPOT



150W, G.L.S.
and VA 150



80W, KOLORLUX
and VA 150



125W, KOLORLUX
and VA 150



150W, PAR 38 SPOT



100W, G.L.S.
and VA 100

VE.150 adjustable eyeball spotlight

Semi recessed eyeball spotlight fitting fully adjustable in all directions providing emphasis lighting from an inconspicuous source. An adjustable lampholder support permits the use of a wide range of lamps whilst still maintaining the correct light centre. Supplied complete with Porcelain E.S. lampholder wired with glass braided flying leads. For use with lamps as shown in line drawings above. If *Kolorlux lamps are used, control gear must be remotely mounted.

Three hole fixing is provided to the ceiling ring which is concealed by polished anodised aluminium trim when in position. Body is stove enamelled black. Black painted clip on louvre Cat. no. VEL. 150



British Patent
applied for

VE.150

	Cat. no.	Weight	
		lbs oz	kg
Eye ball fitting	VE.150	1.0	.45
Louvre attachment	VEL.150	2	.05

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.

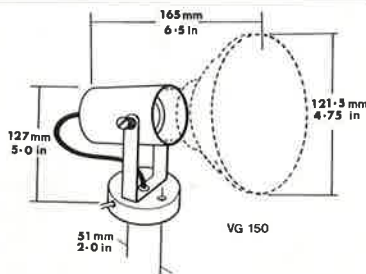


VG.150



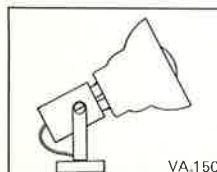
Cat. no.	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp)
VG.100	BC	100	3.25	82	2.25	57	8 oz 0.22
VG.150	ES	150	3.25	82	2.25	57	8 oz 0.22
VG.T.100*	BC	100	3.25	82	2.25	57	8 oz 0.22
VG.T.150	ES	150	3.25	82	2.25	57	8 oz 0.22

*For mounting on Trakline



Accessories

Auxiliary reflectors



VA.150

Cat. no.	Cap	Lamp watts	Length in	mm	Diameter in	mm	Weight (ex. lamp)
VA.100	ES	100	2.5	63	4.25	108	1 oz 0.028
VA.150	ES	150	3.75	95	5.0	127	2 oz 0.056



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.)		Overall length (inc. lamp)		Pillar height		Weight (ex. lamp)	
	in	mm	in	mm	in	mm	oz	kg
DAS.1050	2.5	64	4.5	114	4	102	6	0.17



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 mm		Overall length in mm		Pillar height in mm		Weight (ex. lamp) oz kg	
	in	mm	in	mm	in	mm	oz	kg
DCS.1050	3.0	76	5.75	146	4	102	8	0.22



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		Width		Height		Weight		For use with
			in	mm	in	mm	in	mm	lb	kg	
TRF. 2338F	240v	12v	4.25	108	3	76	3.63	92	4 1/4	1.9	1-DAS.1050 1-DB.1050 1-DCS.1050 1-DS.1050L

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.

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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

In these fittings a series of seven attachments can be applied to a range of surface-mounted or recessed fittings and, in some instances, a cylindrical fitting. Many of these fittings will accept "Kolorlux" as well as tungsten filament lamps. The gear may be mounted remote from the fittings. A gear box is available, see page 10:47.

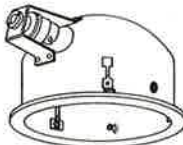
Basic surface-mounted recessed and semi-recessed fittings.



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

A range of recessed and semi-recessed fittings, to take internal reflector spotlight, general service lamp with auxiliary reflector, or "Kolorlux" lamps. The recessed version (VU.150) can also be fitted with a wall washer attachment. The Junior recessed fitting gives maximum reflector illumination from a clear lamp. Adjustable lampholder mounting permits the use of 100, 150 and 200W lamp from the one fitting.



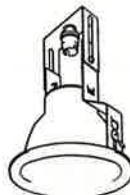
Recessed Fitting
VU.150,
150W



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"

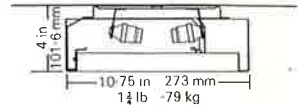
atlas

Surface mounted fittings

Basic Units VS.2060

Surface mounting spun aluminium ceiling fitting, 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 B.C. lampholders.

Cat. no.	Wattage	Finish
VS.2060A	2 x 60w	natural anodized
VS.2060B	2 x 60w	black painted



Attachments are fitted by three bayonet slots to the basic unit.



Plastic louvre



Small satin etched opal glass bowl



Clear crystal glass dish

Dimensions of complete fitting

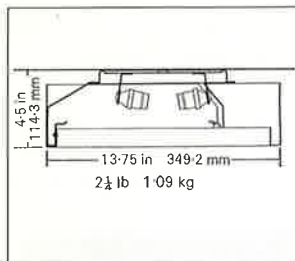
	Complete Cat. no.	Height in	mm	Diameter in	mm	Weight (ex lamps) lb	kg
Plastic louvre	VSL.2060A	4.75	120	10.75	273	2	0.90
	VSL.2060B	4.75	120	10.75	273	2	0.90
Clear crystal dish	VSL.2060A	5.5	139	10.75	273	5 1/2	2.48
	VSL.2060B	5.5	139	10.75	273	5 1/2	2.48
Small satin etched glass bowl	VSZ.2060A	4.75	120	10.75	273	3 1/2	1.47
	VSZ.2060B	4.75	120	10.75	273	3 1/2	1.47

Attachments

	Attachment Cat. no.	Wattage
Plastic louvre	VL.200	2 x 60w
Clear crystal glass dish	VX.200	2 x 60w
Small satin etched opal glass bowl	VZ.200	2 x 60w

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Surface mounted fittings



Basic Units VS.2100 and VS.2100ES

2 x 100w and 2 x 80w °Kolorlux surface mounting spun aluminium ceiling fitting, in natural anodized and black painted finishes. Cable entry and fixing holes suitable for 2in B.E.S.A. box centres. All fittings are supplied complete with lampholder.

Basic Unit

Cat. no.	Wattage	Finish
VS.2100A	2 x 100w	natural anodized
VS.2100B	2 x 100w	black painted
VS.2100A.ES	2 x 80w °Kolorlux	natural anodized
VS.2100B.ES	2 x 80w °Kolorlux	black painted

Attachments 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.



Plastic louvre



Small satin etched opal glass bowl

Dimensions of complete fitting

	Complete Cat. no.	Lamp Cap	Height in mm	Diameter in mm	Weight (ex lamp) lb kg
Plastic louvre	VSL.2100A	BC	5.25 133	13.75 349	2 1/4 1.13
	VSL.2100B	BC	5.25 133	13.75 349	2 1/4 1.13
Small satin etched opal glass bowl	VSZ.2100A	BC	5.5 139	13.75 349	3 1/4 1.7
	VSZ.2100B	BC	5.5 139	13.75 349	3 1/4 1.7
	VSZ.2100A.ES	ES	5.5 139	13.75 349	3 1/4 1.7
	VSZ.2100B.ES	ES	5.5 139	13.75 349	3 1/4 1.7

Attachments

	Attachment Cat. no.	Wattage
Plastic louvre†	VL.2100	2 x 100w
Small satin etched opal glass bowl	VZ.2100	2 x 100w/2 x 80w °Kolorlux

†Not available for use with °Kolorlux lamps.

atlas

Cylinder range

VCB.100 and VCB.150

A cylindrical unit with low brightness baffles **brushed silver finish**. For use with 100w internally silvered lamp or 100w general service lamp with clip-on auxiliary reflector Cat. no. VA.100. The VCB.150 is 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 80w and 125w **"Kolorlux"** lamp with auxiliary reflector VA.150.

Three mountings are available.

Semi-recessed

Basic unit Cat. no. VCR100 and VCR150 enables projection from $1\frac{1}{2}$ in to $5\frac{1}{2}$ in below ceiling level. Adjustable support brackets are provided for quick fixing and are attached from inside the fitting, out of sight. 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 page 3:32.

Basic unit and suspension rod ordered separately.

VU.150 recessed baffle fitting

For use with 150w internally silvered lamp or 150w general service lamp with clip-on auxiliary reflector Cat. no. VA.150 and for 80 or 125w **"Kolorlux"** lamps. Suitable also for use with the COOL RAY PAR 38 lamp. Black painted finish with low brightness baffles. Adjustable brackets enabling quick fixing to all types of suspended ceiling. They are out of sight and eliminate the need for any other fixings. Fitted E.S. lampholder.

VW.150 wall washer

A special specular reflector directs spilled light from the lamp to the upper part of the wall. The complete assembly fits into the base of the fitting by spring clips and can be rotated.



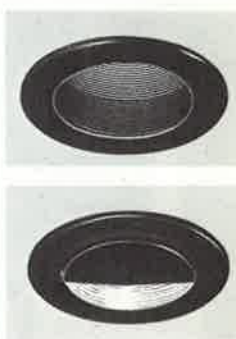
VCB.100 and VCB.150



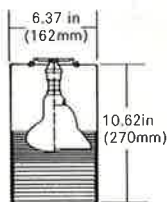
Semi-recessed



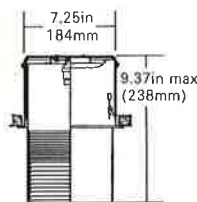
Suspended using AME
M6113/18 suspension



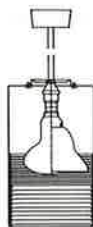
Top VU.150
Bottom VU.150 with VW.150



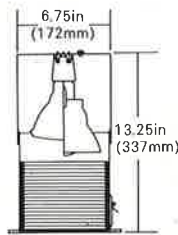
VCB.100 and VCB.150
Ceiling mounted



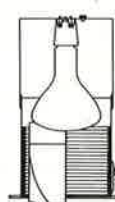
VCR.100 and VCR.150
Semi-recessed



VCB.100 and VCB.150
Suspended



VU.150



VW.150

Dimensions

Cat. no.	Cap	Height in	mm	Diameter in	mm	Weight (ex. lamp) lb	kg	Ceiling hole size in	mm
VCB.100	BC	10-62	270	6-37	162	1½	0-67	—	—
VCB.150	ES	10-62	270	6-37	162	1½	0-67	—	—
VCR.100	BC	9-37 (max.)	238 (max.)	—	—	—	—	—	—
VCR.150	ES	5-37 (min.)	136 (min.)	8-0	203	2½	1-2	7-25	184
VU.150	ES	13-25	337	8-25	210	4	1-8	6-75	172

†Basic unit and ceiling ring assembly ordered separately.

atlas

Cylinder range attachments

VC.100

A range of units in spun aluminium is available natural anodized or painted black 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.

- (a) Suspended, by using AME.M.6113/18in suspension rod.
- (b) Semi-recessed, when used in conjunction with ceiling ring assembly Cat. no. VCM.100 detailed on previous page.

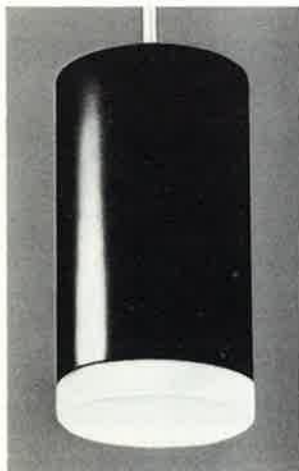
*See note on p.147

(c) 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
VC.100A	100	Natural anodized
VC.100B	100	Black painted
VC.100A.ES	80°K	Natural anodized *
VC.100B.ES	80°K	Black painted *



Suspended



Satin etched opal bowl



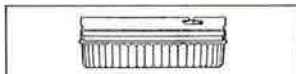
Semi-recessed



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.

Basic unit and suspension rod ordered separately.

Dimensions of complete fitting

	Cat. no.	Lamp cap	Finish	Height in	mm	Diameter in	mm	Weight (ax lamp) lb	kg
Satin etched opal bowl	VCZ.100A	BC	Anodized	11-87	301	6-37	162	2½	1-1
	VCZ.100B	BC	Black	11-87	301	6-37	162	2½	1-1
	VCZ.100A.ES*	ES	Anodized	11-87	301	6-37	162	2½	1-1
	VCZ.100B.ES*	ES	Black	11-87	301	6-37	162	2½	1-1
Plastic louvre†	VCL.100A	BC	Anodized	11-37	289	6-37	162	1½	0-8
	VCL.100B	BC	Black	11-37	289	6-37	162	1½	0-8
Clear crystal glass dish	VCX.100A	BC	Anodized	12-25	311	6-37	162	4¾	2-1
	VCX.100B	BC	Black	12-25	311	6-37	162	4¾	2-1
	VCX.100A.ES*	ES	Anodized	12-25	311	6-37	162	4¾	2-1
	VCX.100B.ES*	ES	Black	12-25	311	6-37	162	4¾	2-1

†Not available for use with *Kolorlux lamp. *Available to customers orders only

atlas

Recessed fittings

Basic units VR.100 and VR.100ES

1 x 100W and 1 x 80W °Kolorlux recessed units in spun anodized aluminium with a polished rim. Adjustable support brackets are provided enabling quick fixing. These are attached from within the fitting, out of sight.

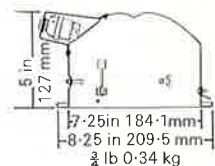
Basic unit

Cat. no.	Wattage
VR.100	100
VR.100ES	80W °Kolorlux

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.10: 47

ceiling hole size : 7.25in 184.1mm



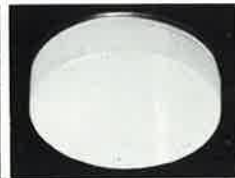
plastic louvre



clear crystal glass dish



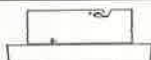
large satin etched opal glass bowl



small satin etched opal glass bowl

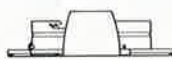
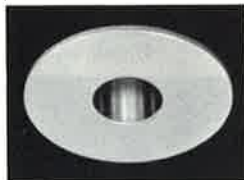


scatterlight disc



New discs of polyester resin in amber, clear and red with internal crazing and polished edges

pin-hole attachment



Combination of two reflectors concentrates light from upper reflector through lower reflector past a very small aperture (only 2 3/8 in) to produce a wide angle beam.
Spun aluminium construction, finished eggshell white to match ceiling.

Dimensions of complete fitting

	Cat. no.	Lamp	Height in	mm	Diameter in	mm	Weight (ex lamp) lb	kg
Plastic louvre	VRL.100	100W	5.75	146	8.25	209	1	0.45
Pin-hole attachment	VRP.100	100W	5.0	127	8.25	209	1 1/2	0.8
Scatterlight disc - amber	VRSA.100	60W	6.5	165	8.25	209	3 1/2	1.45
- clear	VRSC.100	60W	6.5	165	8.25	209	3 1/2	1.45
- red	VRSR.100	60W	6.5	165	8.25	209	3 1/2	1.45
Clear crystal glass dish	VRX.100	100W	6.25	159	8.25	209	3 1/2	1.7
	VRX.100ES	80W °Kolorlux*	6.25	159	8.25	209	3 1/2	1.7
Large satin etched opal glass bowl	VRV.100	100W	6.87	175	8.25	209	2 1/2	1.0
	VRV.100ES	80W °Kolorlux*	6.87	175	8.25	209	2 1/2	1.0
Small satin etched opal glass bowl	VRZ.100	100W	5.87	149	8.25	209	1 1/2	0.68
	VRZ.100ES	80W °Kolorlux*	5.87	149	8.25	209	1 1/2	0.68

Attachments

	Cat. no.	
Plastic louvre	VL.100	
Pin-hole attachment	VP.100	
Scatterlight disc	VSA.100	Amber disc
	VSC.100	Clear disc
	VSR.100	Red disc
Clear crystal glass dish	VX.100	
Large satin etched opal glass bowl	VY.100	
Small satin etched opal glass bowl	VZ.100	

* Available to customers orders only

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.

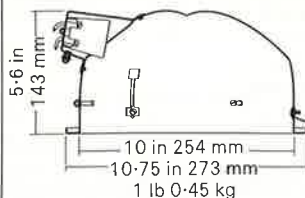
Basic unit

Cat. no.	Cap	Wattage
VR.200	ES	200/125W "Kolorlux"

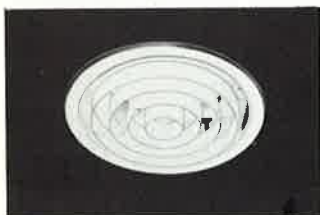
Five attachments are available each fitted with its own support ring and are fitted via three bayonet slots to the basic unit.

Note: For details of ballasts for "Kolorlux" lamps see page

ceiling hole size 10 in 254 mm



Plastic louvre



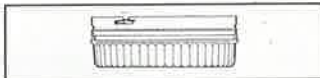
Clear crystal glass dish



Large satin etched opal glass bowl



Small satin etched opal glass bowl

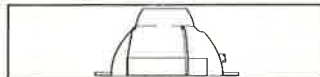


'O' lighter attachment



'O' lighter attachment

An annular slot with a centre disc results in a glare free light of narrow distribution. Spun aluminium construction, finished eggshell white to match ceiling. An auxiliary attachment for use with VR.200.



Dimensions of complete fitting

	Cat. no.	Lamp	Height in	mm	Diameter in	mm	Weight (ex. lamp) lb	kg
Plastic louvre†	VRL.200	200W	6.37	162	10.75	273	1½	0.56
'O' lighter attachment†	VRO.200	200W	5.6	143	10.75	273	2¼	1.0
Clear crystal glass dish	VRX.200	200/125W "Kolorlux"	7.0	178	10.75	273	4½	2.15
Large satin etched opal glass bowl	VRV.200	200/125W "Kolorlux"	7.5	190	10.75	273	3½	1.47
Small satin etched opal glass bowl	VRZ.200	200/125W "Kolorlux"	6.4	165	10.75	273	2½	1.13

Attachments

	Cat. no.
Plastic louvre†	VL.200
'O' lighter attachment†	VO.200
Clear crystal glass dish	VX.200
Large satin etched opal glass bowl	VY.200
Small satin etched opal glass bowl	VZ.200

†Not available for use with "Kolorlux" lamp.

atlas

Recessed fittings

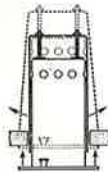
DNM.1040

For mounting on the ceiling surface. It provides sparkle wherever needed or as a police light. Finished in white enamel the fitting is fixed by a brass BC batten lampholder to a block which should be recessed into the ceiling. For B.E.S.A. box fitting use adaptor plate Cat. no. DNM.4600.



JCA.1060 small recessed unit

Attachments 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

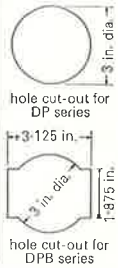
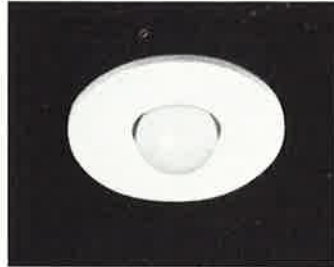
Showing method of fixing to ceiling board



JCA. 1060

DP.1040 and DPB.1040

Recessed into the ceiling surface, these provide police lights or provide sparkle. The range 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).

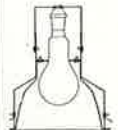


VJ.200 junior recessed vertical lamp fitting for 100/200w lamp

Spun anodized aluminium unit for G.L.S. lamp 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 for quick fixing.

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 271.



Cat. no.	Lamp Watts	Cap	Mounting	Diameter in	mm	Height in	mm	Hole size in	mm	Weight (ex. lamp) oz	kg
DNM.1040	40 mushroom	BC	—	2.5	63	4.0	102	—	—	8	0.22
DP.1040	40 round bulb	BC	Above ceiling	4.62	117	3.0†	76	—	—	8	0.22
DPB.1040	40 round bulb	BC	Ceiling surface	4.62	117	3.0	76	—	—	12	0.33
JCA.1060	60	BC	—	4.25	108	6.5	165	3.25	82	8	0.22
JCA.1060	60	BC	—	4.25	108	11.5	292	3.25	82	10	0.28
VJ.200	100-200	BC	—	8.0	203	12.0	304	7.37	187	16	0.45
VJ.200ES*	80/125W Kolorlux ES	—	—	8.0	203	12.0	304	7.37	187	16	0.45

†2.75in (70mm) projection behind ceiling surface. *Available to customers orders only

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Tungsten halogen interior floodlight

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. 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.

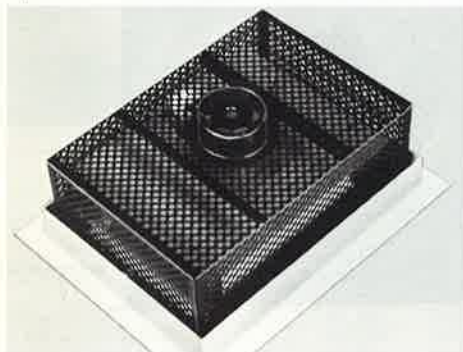
The EU,750 can also be recessed by means of a frame trim assembly – Cat. no. EUT – with provisions for a 15° adjustment. When recessing the fitting care should be taken to ensure that a void of 7.5in high, 24in long and 18in wide is left round the fitting.



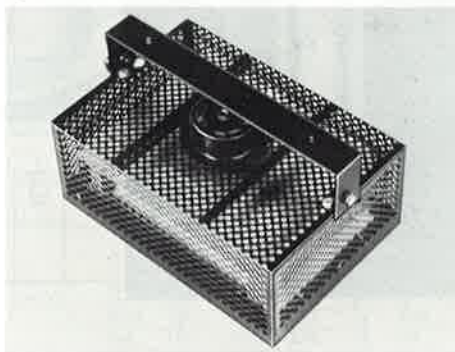
EU,750 fitted with EUT trim assembly, front view



EU,750 floodlight fitting



EU,750 fitted with EUT trim assembly, rear view



EU,750 fitted with EUB swivel bracket assembly

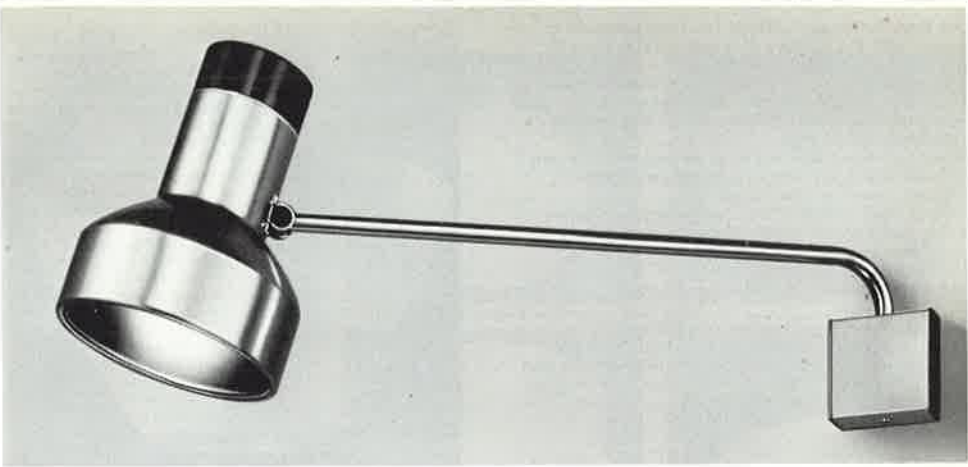
Prices and dimensions

Cat. no.	Lamp watts	Length		Height		Width		Weight (ex. lamp)	
		in	mm	in	mm	in	mm	lb	kg
EU,750	750	12.25	311	7.125	181	8.5	216	8	3.6
EUT trim assembly†		14.75	375	2.00	51	11.25	286		
EUB swivel bracket		12.5	318						
TDH/750/240 lamp 750				2.5 above fitting 62mm					

†Hole size: length 13.25in, width 9.5in.

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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		Height		Weight (ex. lamp)		Projection to centre of reflector	
	in	mm	in	mm	lb	kg	in	mm
OE.0.1060 OE.1.0075	6.3*	161*	8.5†	216†	1½	0.8	19.5	470
OG.1150 OG.1165	9.5	241	13.87	352	3½	1.4	—	—

*Reflector diameter. †Reflector height.

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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.

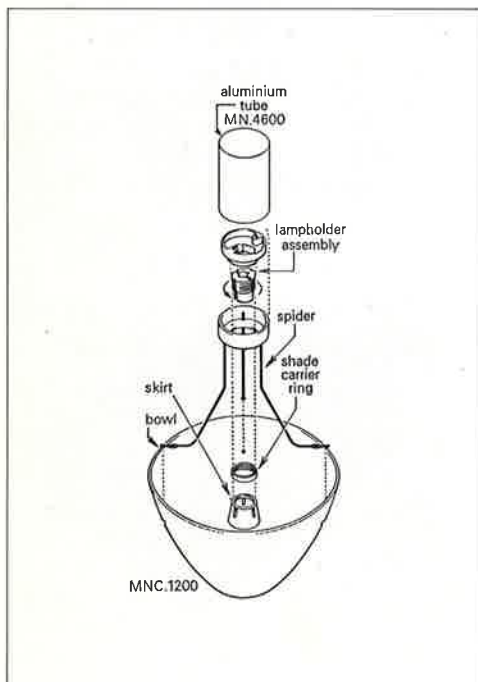
Fittings are supplied complete with BC lampholder and are available for close ceiling mounting as well as cable suspension.

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		Bowl depth		Height overall		Weight (ex. lamp)	
		in	mm	in	mm	in	mm	lb	kg
MNC.1200	Close ceiling	12.0	305	7.0	178	11.0	280	1	0.45
MNS.1200	Cable suspension	12.0	305	7.0	178	30.0	762	1½	0.56
MN.4600	Cylinder	2.87	73	Diameter		3.75	95	2 oz	56 g

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 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 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 it

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 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.

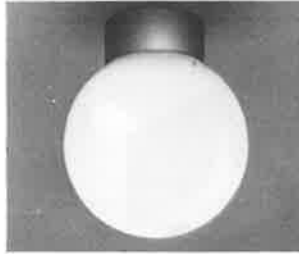
Decorative trims

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.

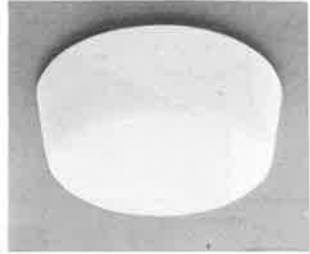
A further white opal glass is available in two sizes, 100W and 200W using again the lever release gallery, Cat. no. MR 1100 and MR 2100. Suitable for ceiling or wall mounting.

N.B. "Kolorlux" lamps require to be operated through control gear. Details of the control gear boxes available are on page 10-46 of this Catalogue.

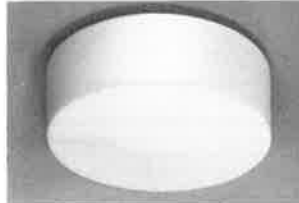
*Made to customer's special order.



MTC1100 Screw-necked globe on white plastic gallery



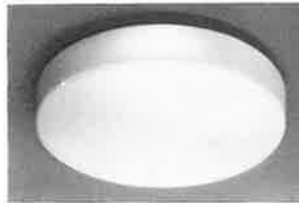
MR2100 Unit with concealed metal work



MTC200



NCA200



NL200



NLT200



ND200



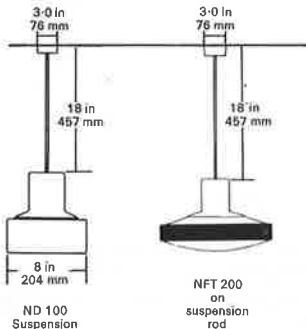
NDA200



NFT200



NFT200



atlas

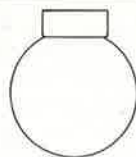
Nova Range



MR series



MTC series



NC 100



NCA 200



ND 100



NDA 200



NF 100



NFT 200



NL 100



NLT 200

COMPLETE FITTING

Cat. no.	Lamp watts	Lamp cap	Overall diameter		Overall depth		Weight (ex. lamp)		COMPONENTS	
			in	mm	in	mm	lb	kg	Glassware	Gallery
NC100	100	BC	8.0	204	4.0	102	1 1/4	0.8	NCG100	NCB100
NC200	2 x 100	BC	14.0	356	5.0	127	2 1/4	1.0	NCG200	NCB200
ND100	100	BC	8.0	204	8.25	210	2	0.9	NCG100	NFB100
ND100ES	80 °K	ES	8.0	204	8.25	210	2	0.9	NCG100	NFB100ES
ND200ES	200/125 °K	ES	14.0	356	10.12	257	3 1/2	1.6	NCG200	NFB200ES
NF100	100	BC	11.0	279	8.5	216	2 1/2	1.1	NFG100	NFB100
NF100ES	80 °K	ES	11.0	279	8.5	216	2 1/2	1.1	NFG100	NFB100ES
NF200ES	200/125 °K	ES	15.39	390	10.0	254	4	1.8	NFG200	NFB200ES
NL100	100	BC	11.0	279	3.87	98	2 1/2	1.1	NFG100	NCB100
NL200	2 x 100	BC	15.25	387	4.87	124	4	1.8	NFG200	NLB200
MR1100	100	BC	9.62	244	4.75	120	2 1/4	1.0	MRG1100	NCB100
MR2100	2 x 100	BC	13.5	343	5.5	140	4	1.8	MRG2100	NCB200
MTC1060	60	BC	6.0	152	7.6	190	1 1/2	0.6	MTG1060	MTCB1060
MTC1100	100	BC	8.0	203	9.5	241	1 3/4	0.8	MTG1100	MTCB1100
MTC1100ES	80 °K	ES	8.0	203	9.5	241	1 3/4	0.8	MTG1100	MTCB1100ES
MTC1150	150	BC	10.0	254	11.5	292	2	0.9	MTG1150	MTCB1100
MTC1150ES	125 °K	ES	10.0	254	11.5	292	2	0.9	MTG1150	MTCB1100ES

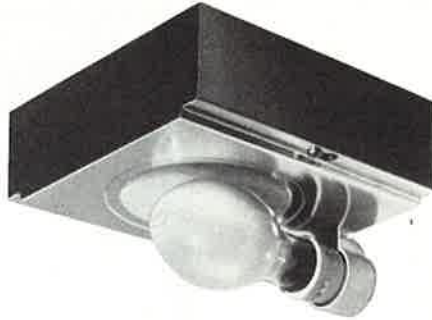
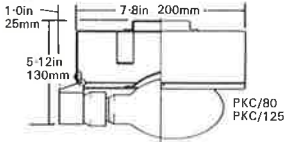
SUSPENSION — ordered separately AME M.6113/18. Rod suspension 18in. For other suspension lengths alter suffix accordingly, i.e. 18 = 18".

TRIMS — to be ordered separately.

Cat. no.	For use on	Overall diameter		Overall depth		Weight (ex. lamp)	
		in	mm	in	mm	lb	kg
NA100	NC100, ND100, ND100ES	8.87	225	3.37	85	1/4	.11
NA200	NC200, ND200ES	15.0	381	4.12	105	1	.45
NT100	NF100, NF100ES, NL100	11.12	282	1.87	48	1/4	.11
NT200	NF200ES, NL200	15.37	390	2.12	54	6 ozs	.17

The basic Pack consists of a sheet metal box, finished black, containing control gear for a SON or 125W °Kolorlux lamp. When E.S. holder is mounted vertically as shown an anodised aluminium reflector is fixed to the box by keyhole slots. No reflector is used if the lamp is mounted vertically.

Fixing is by slots on 2in centres grouped round a centrally placed $\frac{3}{4}$ in dia hole.

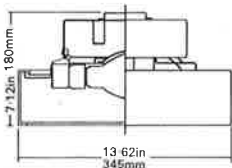
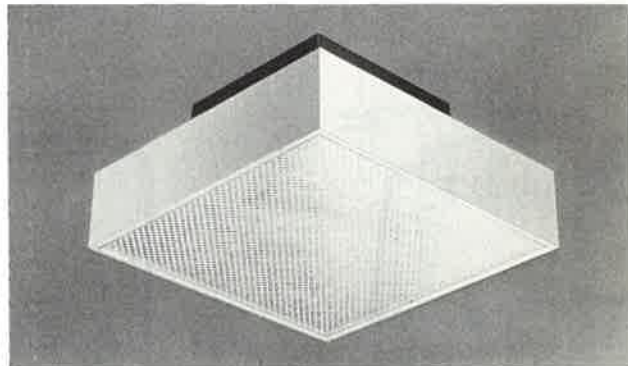


COMPLETE FITTING

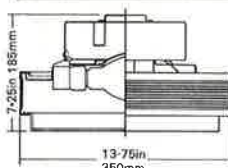
Rating	Cat. no.	Cover	Spine Pack (ex. lamp) Cat. no.		Width/Length		Height		Weight	
					in	mm	in	mm	lb	kg
80W	PKC80	PKC18	PK80		7.87	200	5.12	130	7	3.17
125W	PKC125	PKC18	PK125		7.87	200	5.12	130	7	3.17

Fixing, Besa box grouping $\frac{3}{4}$ " conduit hole centred.

Diffusers with opal plastic or extruded metal sides and prismatic bases can be hooked on to a special reflector, with the lamp in the horizontal position.



PKA/80
PKA/125



PKM/80
PKM/125



COMPLETE FITTING		COMPONENTS		Spine Pack		Width/Length		Height		Weight	
Rating	Cat. no.	Diffuser Description	Cat. no.	Cat. no.		in	mm	in	mm	lb	kg
80W	PKA80	Opal Acrylic sided Prismatic base	PKA18	PK80		13.62	345	7.12	180	8	3.62
125W	PKA125	Opal Acrylic sided Prismatic base	PKA18	PK125		13.62	345	7.12	180	8	3.62
80W	PKM80	Metal sided Prismatic base	PKM18	PK80		13.75	350	7.25	185	10	4.53
125W	PKM125	Metal sided Prismatic base	PKM18	PK125		13.75	350	7.25	185	10	4.53

Fixing, Besa box grouping $\frac{3}{4}$ " conduit hole centred.

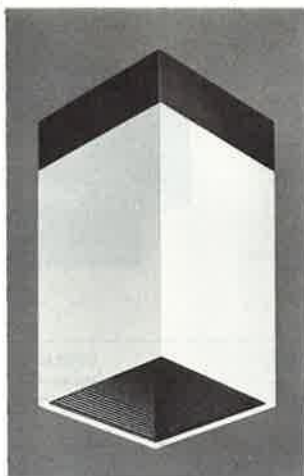
LAMPS 80W °Kolorlux MBF (Packed with Spine Pack) 125W °Kolorlux MBF (Packed with Spine Pack)

atlas

Kolorlux package deal

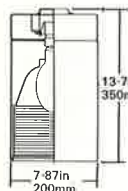
Kolorlux packs for display purposes

A white rectangular unit with black painted internal baffles and a polished anodised aluminium reflector and a similar unit with opal acrylic sides and prismatic base, can be attached to the basic spine when the lamp is mounted vertically.



PKB/80
PKB/125

PKO/80
PKO/125



ORDERING GUIDE

COMPLETE		COMPONENTS			DIMENSIONS					
FITTING							Height		Weight	
Rating	Cat. no.	Diffuser	Description	Cat. no.	Spine Pack	Width/Length	in	mm	lb	kg
80W	PKO80	Opal Acrylic sided	Prismatic base	PKO18	PK80	9.87	250	12.25	325	9 4.08
125W	PKO125	Opal Acrylic sided	Prismatic base	PKO18	PK125	9.87	250	12.25	325	9 4.08
80W	PKB80	Baffle Unit with	Reflector	PKB18	PK80	7.87	200	13.75	350	11 4.98
125W	PKB125	Baffle Unit with	Reflector	PKB18	PK125	7.87	200	13.75	350	11 4.98

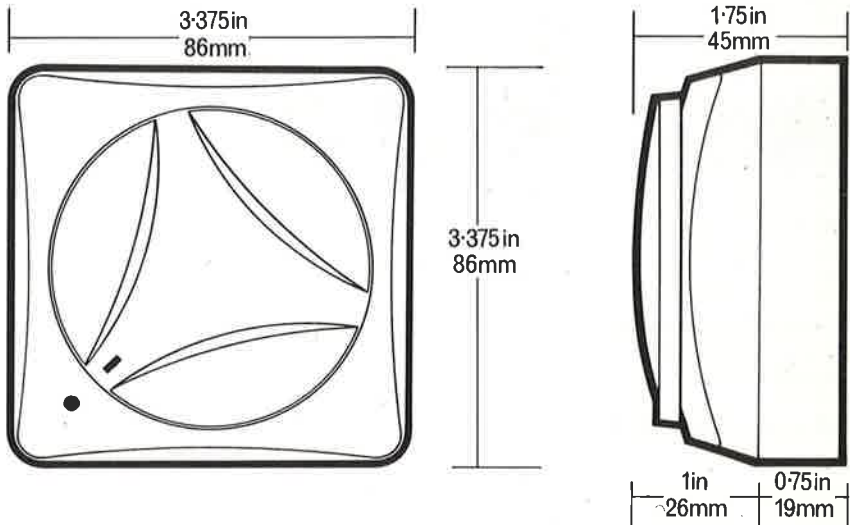
atlas

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 200/250V 50 Hz supplies.

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
SS300	300W

atlas

Modern glasses



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.

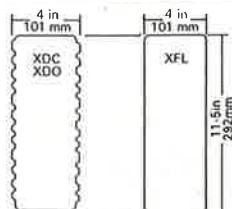
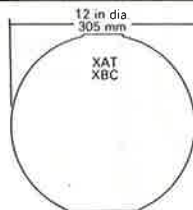
The link through this great variety is the suspension design with its distinctive black cap. Pendants — one, three and five-way are arranged for straight drops, radiating arms or spreader assemblies. Close ceiling mounting and wall brackets cover all applications.

Nine glasses provide a wide scope of choice for the interior designer. Two superb spherical glasses may be used in combination with certain cylindrical inners to create a richness of texture and colour. Sparkle from the bubbled sphere shows crystal at its best: whilst the twilight blue adds that subtle touch of colour. Elegant conical metal reflectors, in polished and lacquered copper splendid and cool in turn. A concentric louvre in white plastic is available.

Two ceiling fittings of crystal glass supported in black finished metal framing complements the Modern range. A range capable of varied and extensive use.



XBC with XDC using XR1

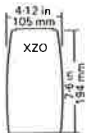
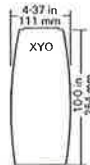
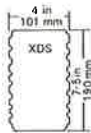
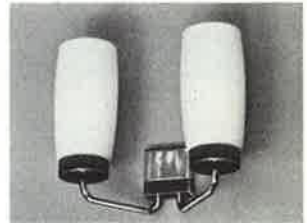


ORDERING DETAILS OF GLASSES: (GLASSES AND SUSPENSIONS TO BE ORDERED SEPARATELY)

		Cat. no.	Maximum wattage	Weight of fitting (ex. lamps)	
				lb	kg
GLASSES OUTER	Bubbled sphere	XBC	150	3½	1.58
	Twilight sphere	XAT	150	3½	1.58
GLASSES INNER (OR SINGLE)	Long crystal	XDC	150	1½	0.68
	Dimpled opal	XDO	150	1½	0.68
	Plain cylinder	XFL	150	¾	0.34

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Modern suspensions



ORDERING DETAILS OF GLASSES : (GLASSES AND SUSPENSIONS TO BE ORDERED SEPARATELY)

GLASSES SINGLE	Description	Cat. No.	Watts	lbs	kg
	Short crystal	XDS	100	1 $\frac{1}{2}$	0.57
	Short barrel	XZO	100	$\frac{1}{2}$	0.23
	Long barrel	XYO	150	$\frac{3}{4}$	0.34
	Long U shaped	XUO	150	1	0.45

XYC with XYL Louvre



XJ2040



XK2040

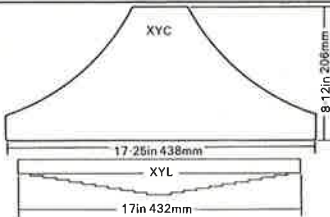


3-8 7/16 in
98mm



3-8 7/16 in
98mm

3-25 in
82mm



ORDERING DETAILS OF GLASSES: (GLASSES AND SUSPENSIONS TO BE ORDERED SEPARATELY)

METAL REFLECTORS	Copper	XYC	100	4 1/2	2.0
ATTACHMENTS	Louvre	XYL	100	1/2	0.22

Weight is less suspension

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 3lb. 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/B 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.

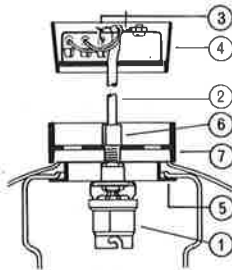
This suspension has, in common with the XC series, a matching plate (10) and cover (11), but incorporates a three or five-way black anodized spreader (14). The cable suspensions pass through polished brass collars (15) and the black anodized rods (16) meet centrally at the polished cast brass ring (16). 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.

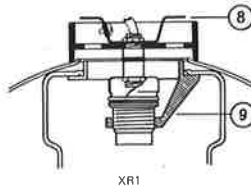
A wall mounting unit is available for use with any of the glasses up to 4in maximum diameter. The wall fixing plate casting (18) also carries a glass support cap from a slender connecting arm. The glass is retained by a clamping piece (19) secured by the shade ring (20). The black cable connection (21) 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.

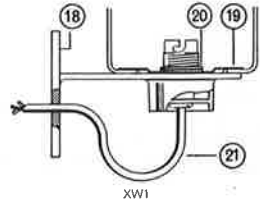
Single and twin wall brackets have been designed with a polished brass back plate cover (22) and slender tubular brass arms (23). Any of the glasses in the range can be used. The retaining ring (24) clamps the glass against the black cast cap (25). Removal of the brass cover (22) from the black finished 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.



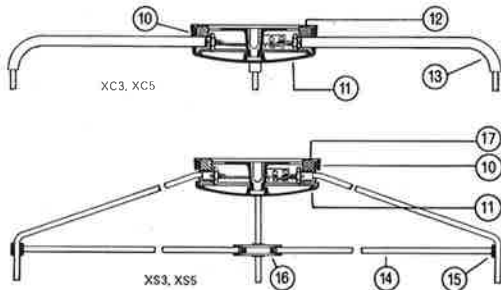
XP1, XP3.



XR1

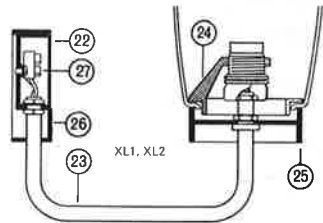


XW1



XC3, XC5

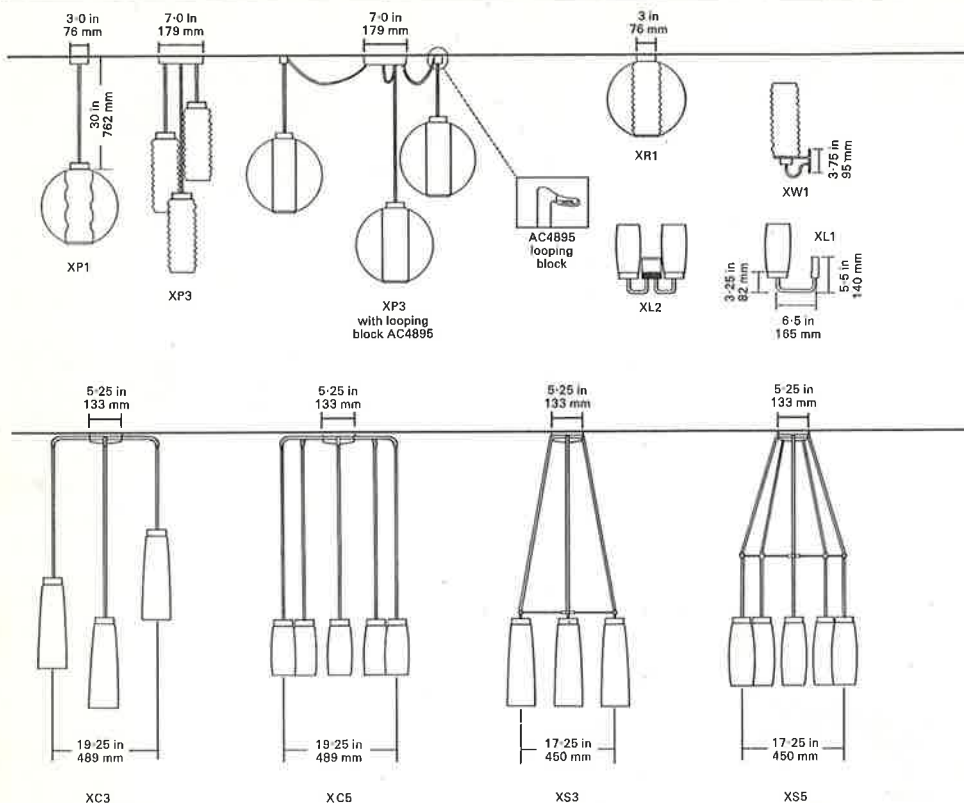
XS3, XS5



XL1, XL2

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Modern suspensions



ORDERING DETAILS OF SUSPENSIONS:

(GLASSES INDICATED ARE TYPICAL EXAMPLES ONLY. GLASSES AND SUSPENSIONS TO BE ORDERED SEPARATELY)

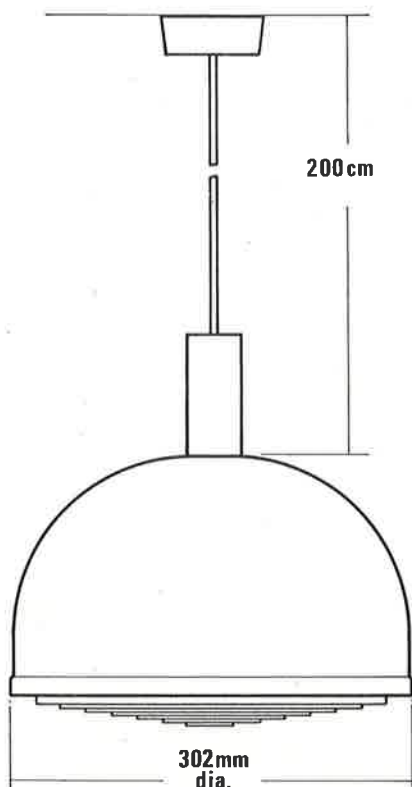
		Cat. no.	Weight (ex. lamps)	
			lb	kg
STRAIGHT DROP	Single	XP1	$\frac{3}{4}$	0.3
	Single	XP1/8 KIT	$\frac{3}{4}$	0.3
	3-way	XP3	3	1.36
LOOPING BLOCK		AC.4895		
CLOSE CEILING	unit	XR1		
ARM PENDANT	3-way	XC3	$3\frac{1}{2}$	1.6
	5-way	XC5	$5\frac{1}{2}$	2.49
SPREADER PENDANT	3-way	XS3	3	1.37
	5-way	XS5	4	1.8
WALL BRACKET	Single	XW1	$\frac{3}{4}$	0.34
	Single	XL1	$1\frac{1}{2}$	0.56
	Twin	XL2	2	0.90

Weights are less glasses.

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Swedish Pendant Fitting

A large dome-shaped aluminium spinning finished orange or white outside and white inside, has a white plastic concentric louvre. The lamp-cap housing and edge trim are finished chrome, and the fitting is suspended by white flex from a white plastic ceiling-plate.



Cat. no.	Description	Lamp
XT1100R	Orange spinning	100W
XT1100W	White spinning	100W

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Link-Lite

WLP 1100S single suspension

WLC 1100S close ceiling version

By the careful use of a variety of finned crystal styrene diffusers, this fitting achieves an effect that combines sparkling attractiveness with functional efficiency. As the light shines through the diffuser, the edges of the fins are strongly highlighted, 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.

Req. Design no's. 925530 and 925531.



CATALOGUE NUMBERS AND TYPES

SINGLE SUSPENSION	fin arrangement	Cat. no.	Lamp watts	Weight (ex. lamp)		
				lb	oz	kg
	Asymmetrical	WLP1100A	100	3	10	1.6
	Symmetrical	WLP1100S	100	3	10	1.6
CLOSE CEILING	fin arrangement	Cat. no.	Lamp watts	Weight (ex. lamp)		
				lb	oz	kg
	Asymmetrical	WLC1100A	60	3	10	1.6
	Symmetrical	WLC1100S	60	3	10	1.6

Packed complete with clear lamp in decorative box.

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Link-Lite 2

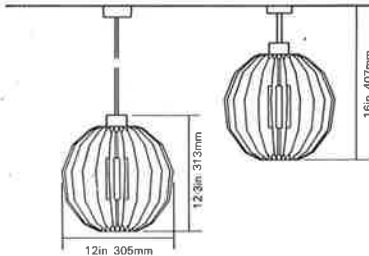
WEP1150

WEC1150

Linklite 2 uses a 150w clear lamp to provide higher illumination without loss of form or sparkle. 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.

REGISTERED DESIGN NO. 939,946

Winner of ELFA award for good design.



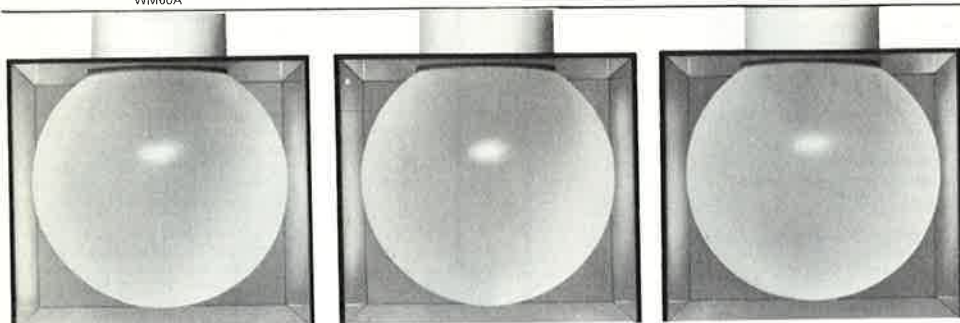
CATALOGUE NUMBERS AND TYPES

	Cat. no.	Lamp Watts	Weight	
			lb	kg
Single suspension	WEP1150	100/150	4	1.8
Close Ceiling including 150w Clear single coiled lamp	WEC1150	100/150	4	1.8

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Cube Light

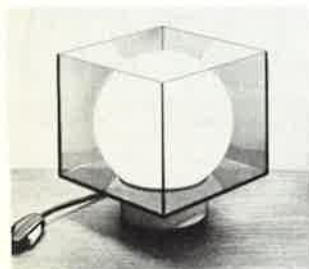
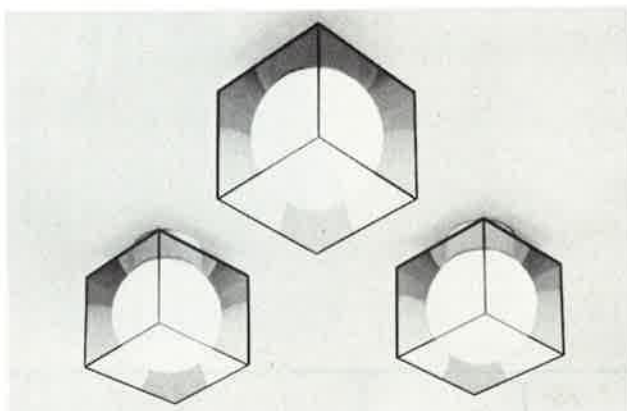
WM60A



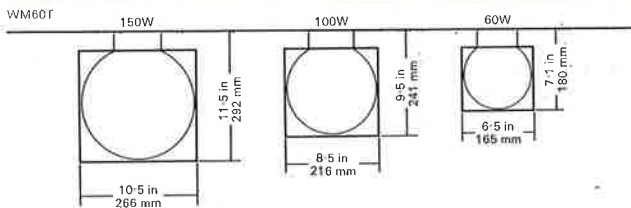
An attractive range of decorative lighting fittings of classic simplicity. The Cubelight range is built round a satin etched white opal screw neck sphere to which is added a perspex cube outer in Twilight or Amber colour. Direct mounting to wall or ceiling is achieved by means of a white plastic heat 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.



WMT



CATALOGUE NUMBERS AND TYPES

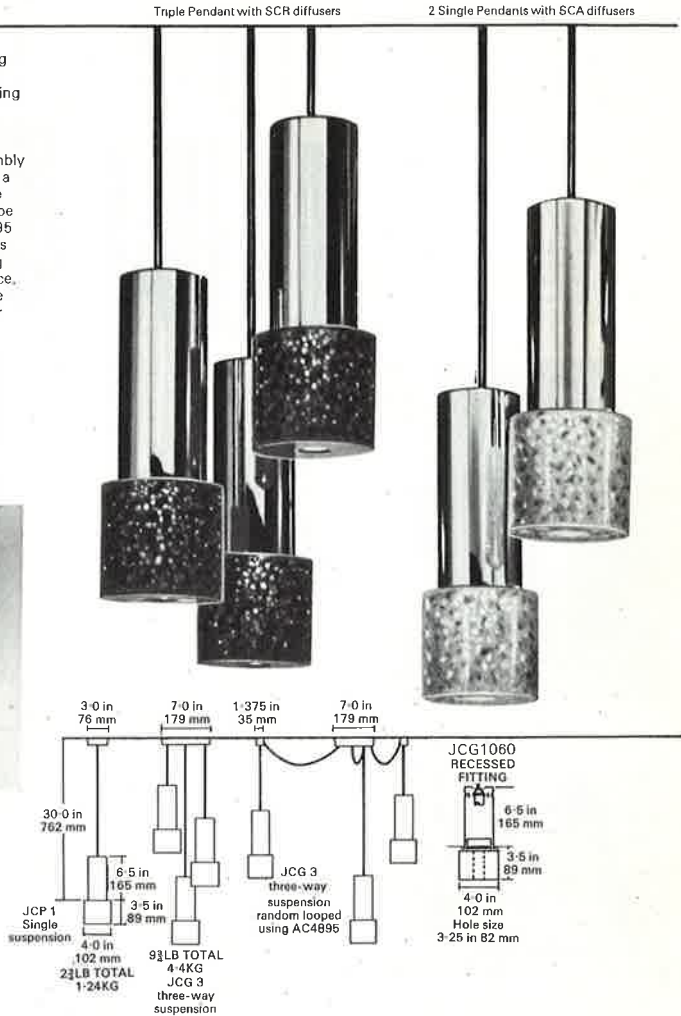
Cat. no.	Lamp Watts	Colour	Weight (ex. lamp)	
			lb oz	kg
WM60A	60	Amber	2 0	0.9
WM60T	60	Twilight	2 0	0.9
WM100A	100	Amber	3 8	1.6
WM100T	100	Twilight	3 8	1.6
WM150A	150	Amber	5 8	2.5
WM150T	150	Twilight	5 8	2.5
WMT	Table stand adaptor		8	0.2

atlas mazda Scatter Light

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 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 VR 100 fitting. For details see the Comprehensive Lighting Catalogue. It should be noted that our special "Chelsea" 40W reflector lamp MUST be used in these fittings.



JCG1060 with SCA diffuser



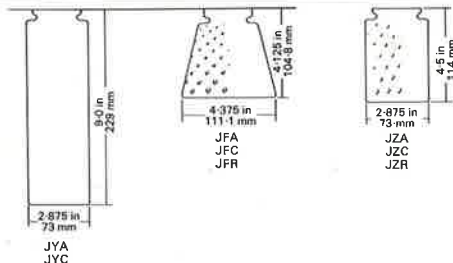
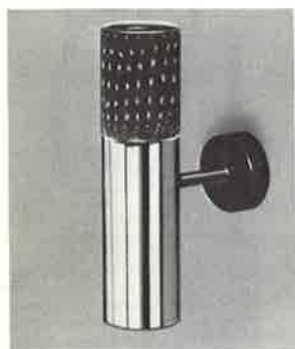
ORDERING DETAILS : (DIFFUSER AND SUSPENSIONS TO BE ORDERED SEPARATELY)

		Cat. no.
CYLINDER DIFFUSER	Clear	SCC
	Amber	SCA
	Red	SCR
SUSPENSIONS	Single pendant	JCP1
	Three pendant group	JCG3
	Recessed fitting	JCG1060
	Cable suspension holder	AC4895
LAMPS	Wattage	Caps
	40	B.C.
	Name	Volts
	Chelsea lamp	240/250

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Chelsea handwrought glass

The sparkling handwrought glass is available in clear, ruby and amber in shapes that permit complete changes of lighting effect. Light is directed through the thick glass section from within a chromium plated sleeve. Available for single, or three-way suspension and a matching wall bracket.



ORDERING DETAILS: (GLASSES AND SUSPENSIONS TO BE ORDERED SEPARATELY)

GLASSES	Cat. no.	Colour	Weight (ex. lamp)	lb	kg
	JZC	Clear		1 $\frac{1}{2}$	0.68
	JZA	Amber		1 $\frac{1}{2}$	0.68
	JZR	Ruby		1 $\frac{1}{2}$	0.68
	JYC	Clear		1 $\frac{3}{4}$	0.80
	JYA	Amber		1 $\frac{3}{4}$	0.80
	JFC	Clear		1 $\frac{1}{4}$	0.55
	JFA	Amber		1 $\frac{1}{4}$	0.55
	JFR	Ruby		1 $\frac{1}{4}$	0.55

GLASSES

Range of glasses. Ordering details: glasses and suspensions should be ordered separately.

JZ glass. Available in clear, amber and in cased ruby. In the latter glass the bubbles are in a clear glass overlay.

JY glass. 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. 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.

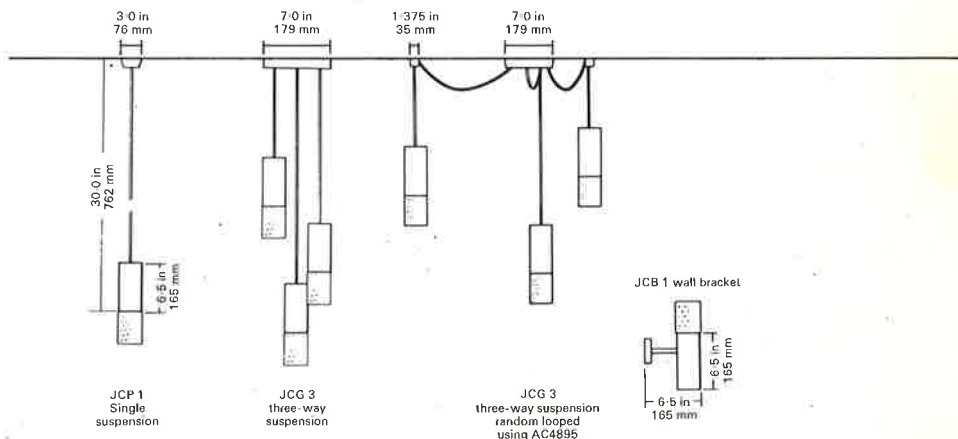
Three-way suspensions JCG3. Using a finely proportioned 7in diameter ceiling plate this multiple pendant can be hung directly in a closely grouped arrangement or with the addition of the AC4895 cable suspension holder can be converted into the looped free hanging type of suspension. Supplied with 6ft 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

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. It should be noted that our special "Chelsea" 40W reflector lamp **MUST** be used in these fittings.

Lamps. 240/250V only.
All fittings comply with B.S.3820.



ORDERING DETAIL (Order glasses and suspensions separately)

SUSPENSIONS	Cat. no.	Suspension	Weight	lb	kg
	JCP1	Single pendant		0.22	
	JCB1	Wall bracket		0.22	
	JCG3	Three pendant group	3	1.36	
	JCG1060	Recessed fitting		0.33	
	AC4895	Cable suspension holder		—	

Weights are less glass and lamp



mazda

Domestic Lighting Fittings

Introduction

A range of decorative fittings primarily intended for use in the home, but equally suitable for many commercial interiors. Glass, plastic and metal are used to produce a versatile collection to provide sparkle and gaiety in the home, and a range of conventional and circular fluorescent fittings is also included.

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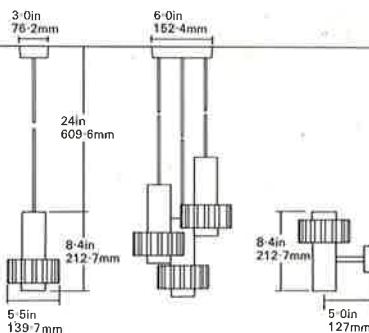
Junior Star

This range has been designed to create a 'sparkle' in home lighting – at little cost to the customer. Mazda 'Junior Star' produces its unique 'sparkle' effect through a diffuser in the form of an externally ribbed tube made in clear acrylic. The light from a 40W candle lamp is transmitted by the diffuser over its fifteen ribs. Result: an edge-lit or 'sparkle' effect that makes lighting a part of home decoration.

There are 3 different fittings in the 'Junior Star' range, all inexpensively priced. You can choose between single or triple way suspensions (WJP) and a wall bracket (WJB). The suspension fittings include black ceiling plates, flex and 'sateened' and lacquered tubes. The wall bracket fittings are finished in matching shades. All three fittings come complete with a 40W candle lamp.



WJB 1040



ORDERING GUIDE

	Cat. no.	Weight	
		lbs ozs	kgs
Single suspension	WJP 1040	1 4	.58
Triple suspension	WJP 3040	3 8	1.58
Wall Bracket	WJB 1040	1 4	.58
Spare Diffuse	WJD 1040	8	.22

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Modern Junior

The Mazda Junior Modern range offers a low priced means of enjoying the charm of crystal glass and giving your decor that extra touch of luxury.

Colours available include amber and clear in the crystal style and opal, orange and green flashed opal in the simple alternative style. It is also planned to have two more glass shapes early in 1971 to make this popular range even more versatile.

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.



WXB1 with WXG



WXC1 with WXGA



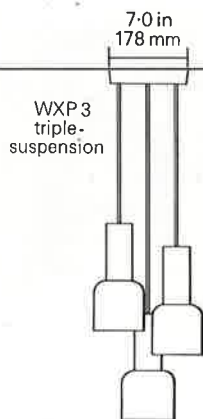
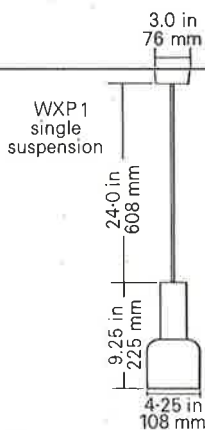
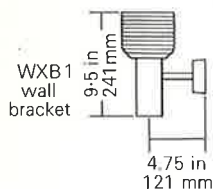
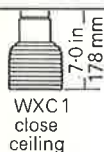
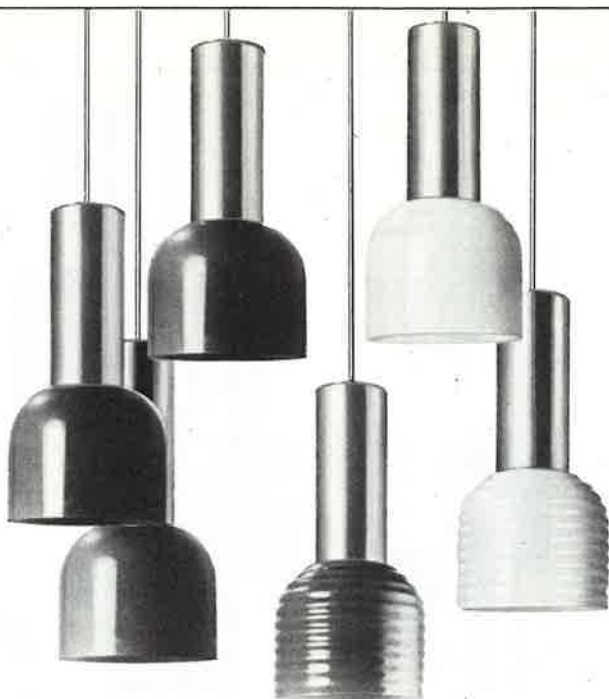
ORDERING DETAILS: (GLASSES AND SUSPENSIONS TO BE ORDERED SEPARATELY)

ORDERING DETAILS: (GLASS AND SUSPENSIONS) - ORDERED SEPARATELY							
Cat. no.	Colour	Weight (ex. lamp)		Cat. no.	Suspension	Weight	
		oz	kg			lb	kg
GLASS				SUSPENSIONS			
WXG.A	Amber	14.0	0.4	WXP1	Single	1.0	0.45
WXG.C	Clear	14.0	0.4	WXP3	Triple	2.5	1.2
WXG.G	Green flashed opal	14.0	0.4	WXB1	Wall bracket	1.0	0.45
WXG.O	White opal satin etched	14.0	0.4	WXC1	Close ceiling	0.5	0.22
WXG.R	Orange flashed opal	14.0	0.4				

atlas

Modern Junior: New Glasses

Four new glasses have been added to the range shown on page 4:3. They are dome-shaped, ribbed or plain, and made of white opal satin-etched and orange flashed opal glass. They are designed to be used on the suspensions shown below.



Cat. No.	Description	Weight oz.	Kg.	Cat. No.	Description	Weight oz.	Kg.
Glass				Suspensions			
WXYO	Ribbed white satin opal	15	0.44	WXP1	Single	1.0	0.45
WXYR	Ribbed orange opal	15	0.44	WXP3	Triple	2.5	1.2
WYZO	Plain white satin opal	15	0.44	WXB1	Wall bracket	1.0	0.45
WYZR	Plain orange opal	15	0.44	WXC1	Close ceiling	0.5	0.22

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Modern adjustable pendants

WAM1100S

WAM1100P WAM1100LB

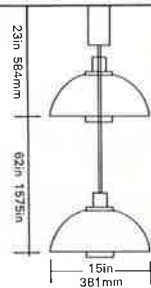
WAM 1100A

A multi-purpose pendant fitting instantly 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 including brushed and lacquered amber, blue, silver and brass colours. A stove enameled white reflector is also available. All fittings are suspended on contrasting black cable carried from a white ceiling cover. An opal cylindrical inner ensures well diffused light. The lampholder has a contrasting chrome plated surround.

The purpose of a rise and fall suspension is to enable one to have high level lighting for general use whilst with no effort at all one can gently pull down the reflector to create for instance an intimate lighting effect over a dining room table. Then with equally little effort push it back to its original high level — so easy.



WAM1100W



ORDERING GUIDE

Cat. no.	Colour	Lamp Watts	Weight (ex. lamp)	
			lbs ozs	kg
WAM1100S	Brushed silver reflector	100	3 10	1.6
WAM1100A	Amber reflector	100	3 10	1.6
WAM1100P	Purple reflector	100	3 10	1.6
WAM1100LB	Brushed and lacquered Brass coloured	100	3 10	1.6
WAM1100W	White reflector	100	3 10	1.6

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New 'Show-Off' Range

Here, in handsome modern styling, is a range of fittings designed to give special light emphasis whenever and wherever it's wanted. On pictures, for example, or on treasured antiques, on precious pieces of porcelain or any corner where attention wants to be focussed. The range has been created with maximum versatility in mind. In fact, the 'Show-Offs' are available in three different styles, the first is a simple pendant spotlight (WN 1060/R) which produces a controlled pool of light when used at low level, and is ideal for putting a fresh accent of light on coffee tables and bars, for example. The second is an adjustable pendant (WV) which can easily be moved vertically and horizontally by using the two side knobs and the cable clamp, and the third is another adjustable spot-light (vertical or horizontal) for wall or surface mounting. This type (WW) includes a push-button switch on the wall plate. All three types come complete with a 60 watt B.C. lamp and auxiliary reflector, and are available in an attractive colour choice of White, Orange, or Golden Brown Gloss Stove Enamel.

WV 1060/R

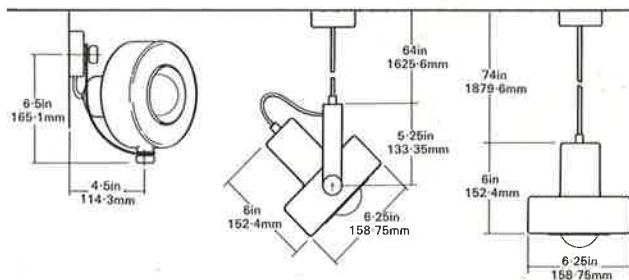
WN 1060/BN

WV 1060/BN

WN 1060/R



WW 1060/W



ORDERING GUIDE

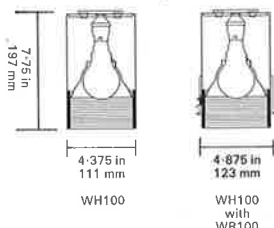
Cat. no.	Colour	Type	Weight (incl. lamp)	
			lbs	ozs
WN 1060/W	White	Pendant	1	45
WN 1060/R	Orange	Pendant	1	45
WN 1060/BN	Brown	Pendant	1	45
WV 1060/W	White	Pendant (adj)	1	12
WV 1060/R	Orange	Pendant (adj)	1	12
WV 1060/BN	Brown	Pendant (adj)	1	12
WW 1060/W	White	Wallmounted	1	6
WW 1060/R	Orange	Wallmounted	1	6
WW 1060/BN	Brown	Wallmounted	1	6

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Modern domestic cylinders and spotlights

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. If the fitting is required to be recessed into the ceiling a newly redesigned bezel WR 100 can be used. This bezel is fitted with special spring clips which hold the cylinder firmly yet permit projection to be adjusted with no effort. The WR 100 can be fitted from below using simple "quick fix" clips

	Cat. no.	lbs	kg
Ceiling cylinder	WH100	1 1/2	0.57
Adjustable bezel ring	WR100	3/4	.11

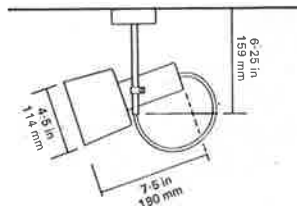


Domestic spotlight

This adjustable spotlight is designed for wall or ceiling mounting. It is available in 3 finishes and comes complete with 100W internally silvered spot lamp. An easily fitted push switch is available as an optional extra.

Cat. no.	Reflector	Back Spinning	Back Plate	Weight ozs kgs
WS 1100	Brushed and lacquered Silver	Black	Black	8 0.22
WS 1100 SW	Brushed and lacquered Silver	White	White	8 0.22
WS 1100 CW	Brushed and lacquered Copper	White	White	8 0.22

WS 4600 Push button switch kit.



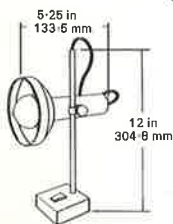
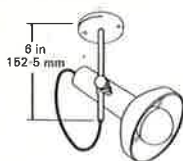
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Topspot & Pinup

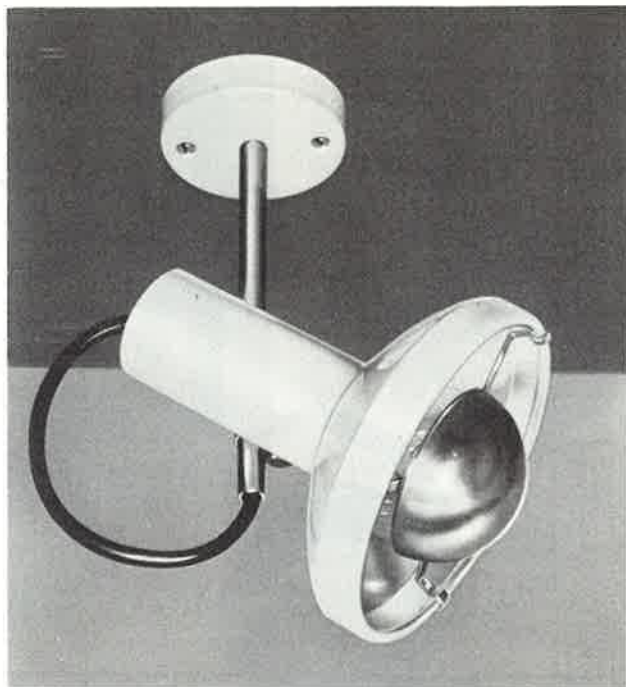
Two versions of Topspot are readily available, VTC a wall or ceiling mounted spot and VTD a desk lamp. Both types are available in matt black or gloss white and fitted with chrome attachments and red adjustment knob and Toggle Switch (Desk light only). A stainless steel lamp cover completes a very pleasing appearance and cuts out glare from the lamp filament.

	Colour	Cat. no.
Desk lamp	White	VTD60W
Desk lamp	Black	VTD60B
Ceiling fitting	White	VTC60W
Ceiling fitting	Black	VTC60B

VTC 60W



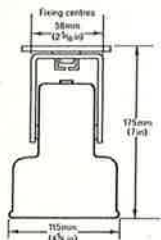
VTD 60W



VTC 60W

Pinup

A light-weight moulded plastic housing encloses a polished metal reflector and a black plastic spill-ring. It is mounted on a black plastic gimball swivelling on a plastic base plate coloured white, brown or orange to match the housing. The Baseplate has two fixing holes and is fed by means of 3 metres of white twin plastic cable with a white torpedo switch. The lamp is included with the fitting, in a neat display pack.



Cat. no.	Description	Lamp	Lamp holder
VK 40W	White Plastic Housing	40W 45mm round	S.E.S.
VK40R	Orange Plastic Housing	40W 45mm round	S.E.S.
VK40BN	Brown Plastic Housing	40W 45mm round	S.E.S.

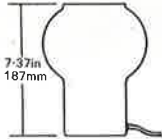
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Occasional & Ceramic Based lamps

Occasional lamp

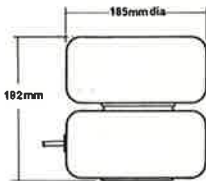
The orange or white flashed opal glasses completely enclose a BC lampholder. This fitting is packed complete with a white flexible with a white torpedo switch and a 60W lamp.

Colour	Cat. no.
Orange opal	WO1060R
White opal	WO1060W
Packed with 60W lamp.	



Ceramic Based lamp

The orange or white flashed opal glass completely encloses the lamp and is mounted on a white ceramic base. This fitting is packed complete with a white flexible with a white torpedo switch and a 60W lamp.



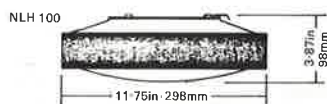
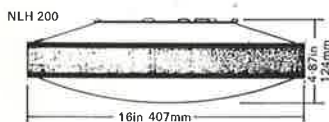
Cat. no.	Colour of Glass	Lamp Holder
WG1060W	White opal	BC
WG1060R	Orange	BC

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Novelle fitting

The Novelle fitting consists of a very shallow satin opal glass and gallery to which has been added a decorative gold fabric trim. They are designed to take one or two 100W lamps.

Cat. no.	Colour	Lamp Watts
NLH100G	Gold	100
NLH200G	Gold	2 x 100

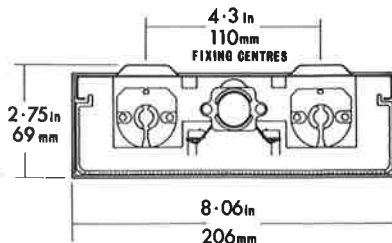
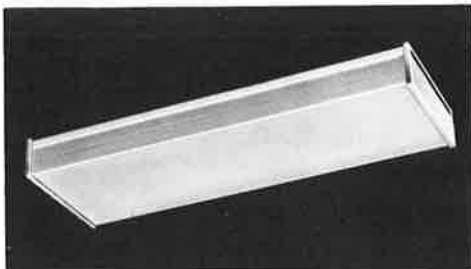


The Novelle fitting consists of a standard NL 100 or NL 200 fitting (see p. 3:40) to which has been added a gold fabric trim. The glass shade and gallery are designed for direct ceiling-mounting by means of screws on standard 2in centres.

Cat. no.	Colour	Lamp Watts	Glassware	Gallery	Trim
NLH100G	Gold	100	NFG100	NCB100	NLHT100G
NLH200G	Gold	2 x 100	NFG200	NLB200	NLHT200G

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Au Pair & One Up fittings



The shallow construction of the Mazda Au Pair Homelight is designed to meet the requirements of kitchens and similar locations but it has many other uses in the home. The enclosed structure excludes dust and flies and the prismatic controller reduces glare.

The body of the fitting is made of sheet steel, stove enamelled white, the holes for fixing screws are rebated. These fittings are suitable for class 1, ordinary, indoor, normal atmospheres, design No. 943062.

RANGE

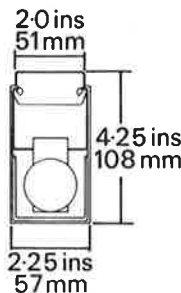
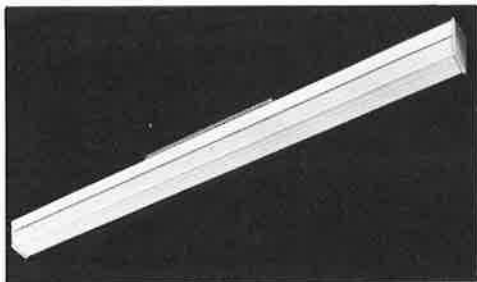
Complete fitting

Norm. length	Rating	Circuit	Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
2ft	20W Twin	Switchstart	SK.220	24.8 630	6.25 2.76	15.75 400

The above fitting is packed complete with Warm White tubes.

Voltagess: These fittings are suitable for 230/240V 50Hz. Details of fittings suitable for other supplies are available on application.

End plate (Cat. No. SK.4600) and prismatic controller (Cat. No. SK.4610) are available as replacement items.



The One-Up Diffuser fitting is constructed of sheet steel, stove enamelled white, with a white opal plastic diffuser. The white plastic end-plates have a trim of metallic appearance. The fitting is extremely easily installed by means of a

bracket which is first fixed to the ceiling and on to which the complete fitting is latched. It gives some 7% more light than a more conventional fitting. Suitable for Class 1, ordinary, indoor, normal atmospheres.

RANGE

Complete fitting

Size	Circuit	Cat. no.	Length in mm	Weight lb kg	Fixing centres in mm
4ft Single	Switchstart	1.UP	48.4 1193	5.6 2.55	11 280

The fitting is packed complete with 40w Warm White tube.

Voltagess: These fittings are suitable for 230/240v 50Hz. Details of fittings suitable for other supplies are available on application.

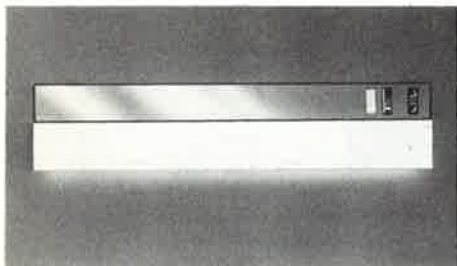
End plates (Cat. No. UP.4600) and diffuser extrusions (Cat. No. UP.4601) are available as replacement items.

'Viewpoint' combined light and shaver point

These fluorescent fittings are designed 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.

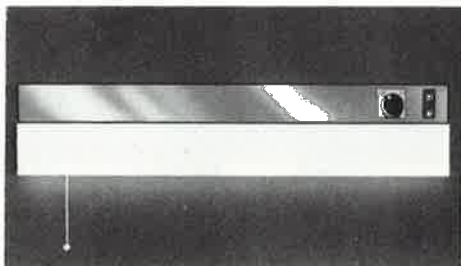
The fittings employ the 15w 18in (1in diam.) Warm White tube, the most efficient tube in the shorter sizes. Both models have a body of slate grey plastic fixed to a substantial steel backplate. The front panel has a brushed silver trim.

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*.

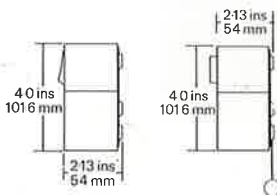


LS.15

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 Cat. no. AME 47071 to B.S.3052 and a pull-switch. This fitting complies with the requirements of the I.E.E. Regulations for bathroom equipment.



LST.15



RANGE

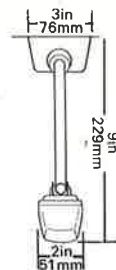
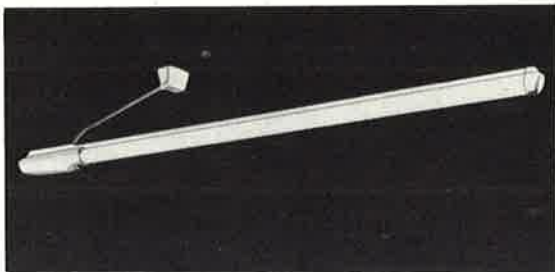
Complete fitting

Fitting	Circuit	Cat. no.	Length		Weight		Fixing centres	
			in	mm	lb	kg	in	mm
General purpose (bedroom) type	Switchstart	LS.15	18.5	470	4.5	2.0	11	279
Bathroom type	Quickstart	LST.15	18.5	470	7.13	3.33	11	279

Fittings are packed complete with a 15w Warm White tube.

Voltages: These fittings are suitable for 230/240v 50Hz. Details of fittings suitable for other supplies are available on application.

Diffusers (Cat. No. LS.4600) are available as replacement items.

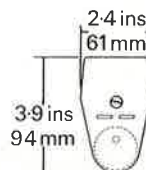


The Netaline fitting is designed for easy installation on an existing ceiling point. It is of sheet steel finished in white gloss enamel except for the plated support arm, and is packed complete with tube and instruction leaflet. It is suitable for Class 1, ordinary indoor, normal atmospheres.

RANGE

Size	Circuit	Cat. no.	Length in	mm	Weight lb	kg
4ft Single	Switchstart	4.NL.B	56.75	144	2.5	1.13

Packed complete with Warm White tube.
Standard voltage 230/240V 50Hz.



The 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 stoved 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.

These fittings are suitable for Class 1, ordinary, indoor, normal atmospheres.

RANGE

Complete fitting

Rating	Circuit	Cat. no.	Length in	mm	Weight lb	kg	Fixing Centres in	mm
40W Single	Switchstart	4.MLB.1	49	1224	5.5	2.5	24	612

The above fitting is packed complete with 4ft Warm White tube.

Voltages: These fittings are suitable for 230/240V, 50Hz. Details of fittings suitable for other supplies are available on application.

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'Circline' fluorescent fittings

The range of 'Circline' fittings has been designed for use in both domestic and commercial applications. A triangular shaped gear tray containing 40W switch-start control gear is completely hidden from view by

the wide range of attractive diffusers. These fittings blend with all decors and colour schemes.

The fittings shown on this page are for ordinary, indoor normal atmospheres.

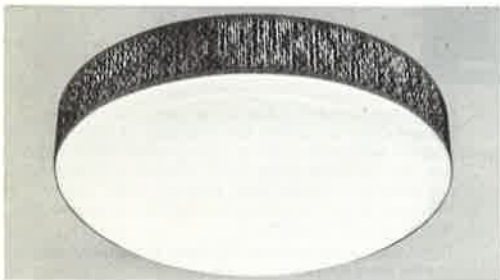
CFA fitting. The anodized aluminium attachment is simply assembled by locating over the centre screw on the gear tray and securing with the black plastic knob. A white opal dish is then inserted

This fitting is packed in one carton complete with gear tray, aluminium attachment and tube.



CFG fitting. This fitting is basically the same as the CFA above except that the aluminium attachment is replaced by a raffia type attachment.

This fitting is packed in one carton complete with gear tray, raffia type attachment and tube.



RANGE

Rating	Circuit	Cat. no.	Description
40W Single	Switchstart	CFA 40	Aluminium frame fitting
40W Single	Switchstart	CFG 40	Raffia frame fitting

These fittings are packed complete with 40W Warm White tube.

Voltagess: These fittings are suitable for 230/240V. 50Hz.

Details of fittings suitable for other supplies are available on application.

Aluminium frame (Cat. No. CF 4601) the associated mounting spider (Cat. No. CF 4604) raffia baffle (Cat. No. CF 4602) opal diffuser dish (Cat. No. CF 4603) and attachment fixing knob (Cat. No. CF 4605) are available as replacement items.

mazda 'Circline' fluorescent fittings

The fittings shown on this page are for ordinary, indoor normal atmospheres.

CF/SPG 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 radial pattern is silk

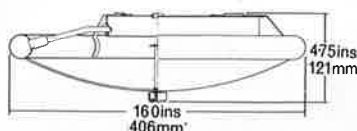
screened in white on the upper surface of the glass which is attached to the fitting by a white plastic knob with an aluminium insert. The glass completely obscures the fluorescent tube from view.



CF/LSG Sparkle Glass diffuser fitting.

The diffuser is moulded in clear glass with a smooth upper surface for easy cleaning.

A pattern is silk screened in white on the upper surface of the glass which is held to the fitting by a white plastic knob with aluminium insert which holds the glass flush to the tube.



RANGE

Rating	Circuit	Cat. no.	Description
40W Single	Switchstart	CF/LSG	Large Sparkle Glass fitting
40W Single	Switchstart	CF/SPG	Small Sparkle Glass fitting

These fittings are packed complete with Warm White tubes.

Voltages: These fittings are suitable for 230/240V, 50Hz. Details of fittings suitable for other supplies are available on application.

Large sparkle glass (Cat. No. LSG) retaining knob (Cat. No. CF 4607) Sparkle glass (Cat. No. SPG) and retaining knob (Cat. No. CF 4606) are available as replacement items.

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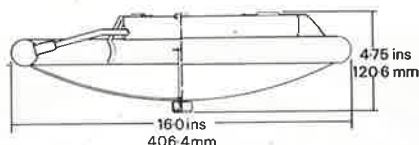
'Circline' fluorescent fittings

The fittings shown on this page are for ordinary, indoor normal atmospheres.

CF/WHG White Glass diffuser fitting. This diffuser fitting moulded in smooth glass for ease of cleaning is suitable where a relatively plain diffuser bowl is required.



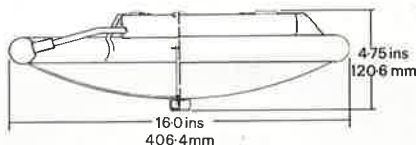
The diffuser bowl is held flush to the fluorescent tube by a white knob with an aluminium insert.



CF/ITG Ivory Glass and CF/WBG Wedgwood Blue Glass Fittings.

Both these fittings are suitable for almost any situation. The smooth glass bowl with its 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.



RANGE

Rating	Circuit	Cat. no.	Description
40W Single	Switchstart	CF/ITG	Ivory Glass fitting
40W Single	Switchstart	CF/WBG	Wedgewood Blue Glass fitting
40W Single	Switchstart	CF/WHG	White Glass Diffuser fitting

These fittings are packed complete with a 40W Warm White tube.

Voltages: These fittings are suitable for 230/240V, 50Hz.
Details of fittings suitable for other supplies are available on application.

Ivory glass (Cat. No. ITG) Blue glass (Cat. No. WBG) and White glass (Cat. No. WHG) diffusers and securing knobs (Cat. No. CF 4606) are available as replacement items.

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'Circline' fluorescent fittings

Enclosed 'Circline' fittings.

These 'Circline' fittings have a triangular-shaped gear tray which is completely enclosed by a patterned white plastic diffuser and a copper coloured trim. The fixing knob has a matching copper coloured base which is countersunk. The twin version (CF/ODC.2) is available where a higher degree of illumination is required.

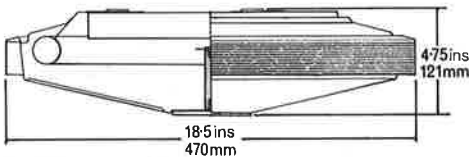
Both fittings are packed complete with Warm White tubes in robust packs.

These fittings are available in 230/240V 50Hz ratings only.

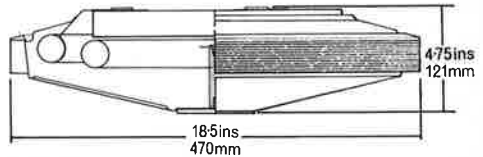
RANGE

Rating	Circuit	Cat. no.
40W Single	Switchstart	CF/ODC1
40W + 32W Twin	Switchstart	CF/ODC2

Lower diffuser (Cat. No. CF.4610) upper diffuser (Cat. No. CF.4611) and retaining knob (Cat. No. CF.4609) are available as replacement items.

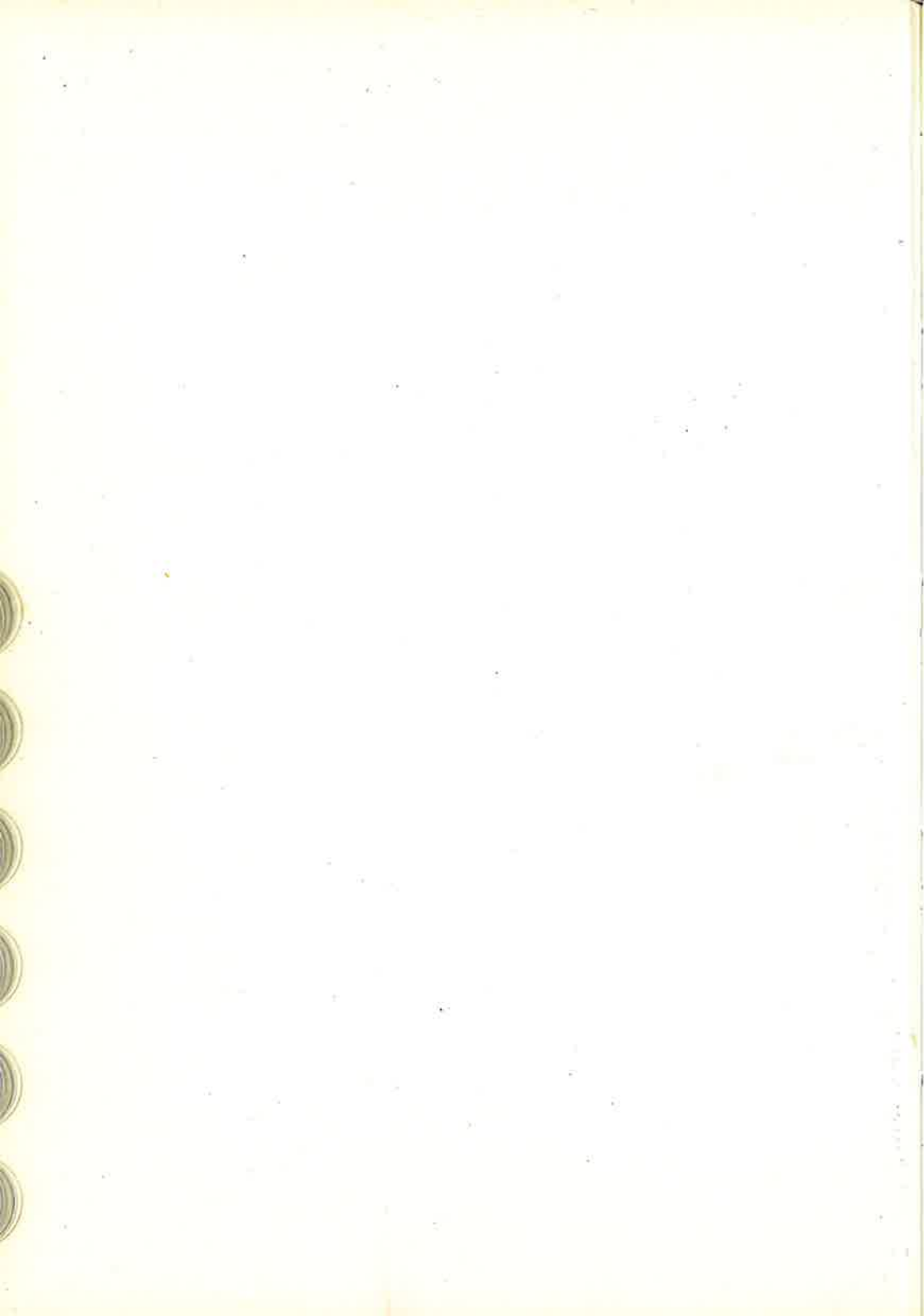


CF/ODC.1



CF/ODC.2

The fittings shown on this page are for ordinary, indoor normal atmospheres.



atlas & mazda

Standard Incandescent lamps

Introduction

The the brand-name Atlas is normally used for lamps used for commercial and industrial purposes and that of Mazda for those intended for domestic use. In this catalogue the appropriate brand-name is shown in the page heading in every case.

Index

- 5:2 Atlas General Lighting Service Lamps**
(15-1500W and Extra low voltage)
- 5:3 Mazda Home lighting lamps**
(Plus lamps, Netabulb, Pink Pearl, Nightlight.)
- 5:4 Mazda Decorative and Coloured Lamps**
(Plain, Pink Pearl, Twisted, Coloured; Tipped, Twisted and Twilite Candle lamps; 45mm Round Bulb and Festive Round Bulb lamps)
- 5:5 Mazda Decorative and Coloured Lamps**
(Decor and Decor Cone; 100mm Round Bulb; Decor fitting; Gala lighting set)
- 5:6 Mazda Tubular Lamps**
(Architectural curved and straight, Double-cap striplites and single-cap tubular lamps)
- 5:7 Atlas Special Service Lamps**
(Rough Service, Shatter-proof, Traffic Signal, Infra-red reflector, hard glass reflector and round bulb.)
- 5:8 Atlas Reflector Lamps**
(Interior Display, Chelsea, High Bay and 100W crown silvered)
- 5:9 Atlas Sealed Beam Reflector Lamps**
(PAR 38 100W & 150W. Plain, coloured, color-ray and cool-ray and PAR 56 300W.)
- 5:10 Atlas Low-voltage Display Lamps**
(M Tungsten-halogen, 50W crown silvered, 50W mushroom, 50W clear 24W Miniature 150W crown silvered)
- 5:11 Atlas Tungsten Halogen floodlighting lamps**
(M miniature; 300, 500, 750, 1000, 1500, 2000W Tubular)
- 5:12 Atlas Floodlighting lamps**
(Class B1 100-1000W, Class B2, 500—2000W)
- 5:13 Mazda Decoration sets**
(Fairy-lites, Festive-lites, Satin-lite, Fireflies, Jack Frost)
- 5:14 Lamp Cap Code**

Special Notice

Where lamps are catalogued with a dual voltage rating, the electrical characteristics shown are those applicable at the filament design point, details of which are available on application.

atlas

General lighting service lamps

SINGLE COIL – High and low voltage

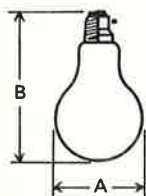
Watts	Standard Pack	Cap	Finish
15	25	BC, ES	Pearl
25	25	BC, ES	Pearl
40	25	BC, ES	Pearl or Clear
60	25	BC, ES	Pearl or Clear
75	25	BC, ES	Pearl or Clear
100	25	BC, ES	Pearl or Clear
150	25	BC, ES	Pearl or Clear
200	25	ES, BC	Pearl or Clear
300	24 & 12	GES	Clear
500	24 & 12	GES	Clear
750	12	GES	Clear
1000	12	GES	Clear
1500	6	GES	Clear

Voltages: 110, 120, 200/210, 220/230, 240, 250
75W – 240/250 only; 1500W – 200/210, 220/230, 240, 250 only

SINGLE COIL – Extra low voltage

Watts	Standard Pack	Cap	Finish
15	25	BC, ES	Pearl
25	25	BC, ES	Pearl
40	25	BC, ES	Pearl
60	25	BC, ES	Pearl
100	25	BC, ES	Pearl

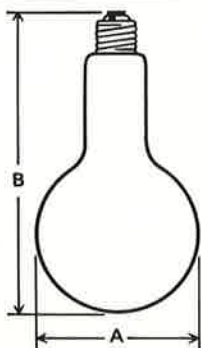
Voltages: 25/100W – 25, 50
150/500W – 50 only



SINGLE COIL

	A	B
25–100W BC	60	105
150–200W BC	80	160

For ES caps add 1.5mm to length



	A	B
300W & 500W GES	110	233
750W & 1000W GES	150	300
1500W GES	170	335

All dimensions in mm.

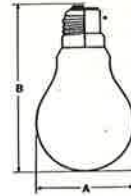
mazda

Home lighting lamps

Plus lamps -- High efficiency coiled coil.

Watts	Cap	Finish	Std. Pack
40	BC, ES	Pearl	25
60	BC, ES	Pearl	25
100	BC, ES	Pearl	25
150	BC, ES	Pearl	25

Voltages: 220/210, 220/230, 240, 250



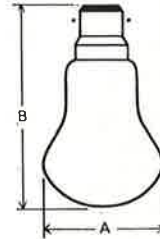
COILED COIL

	A	B
40-100W	60	105
150W (Coiled Coil)	68	125

Netabulb -- Coiled coil in mushroom shaped bulbs.

Watts	Cap	Finish	Std. Pack
40	BC	Silverlight	25
60	BC	Silverlight	25
100	BC	Silverlight	25
150	BC	Silverlight	25
150	BC	Pearl	25

Voltages: 200/230, 240/250



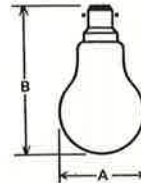
NETABULB

	A	B
40W	60	100
60W	60	100
100W	60	100
150W	75	120

Pink Pearl -- Single coil pearl bulbs with an external light pink ceramic coating.

Watts	Cap	Finish	Std. Pack
40	BC	Pink	25
60	BC	Pink	25
100	BC	Pink	25
150	BC	Pink	25

Voltages: 240/250



PINK PEARL (GLS)

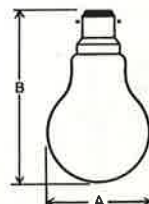
	A	B
40 & 60W	60	105
100W	68	125
150W	80	160

Nightlight -- Long life, low consumption.
For children's or invalids' bedrooms and similar.

Watts	Cap	Finish	Std. Pack
5-8	BC	Pearl	50

Voltage: 200/250

5-10 way display packs per container



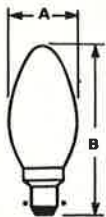
NIGHTLIGHT

	A	B
5-8W	60	105

All dimensions in mm

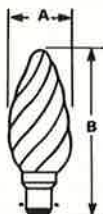
mazda

Decorative and coloured lamps



PLAIN CANDLE

	A	B
25W-40W BC	35	92
SBC	35	98
SES	35	99
60W BC	45	123
SBC	45	128



COLOURED PLAIN CANDLE

Watts	Volts	Diameter	Cap	Finish	Standard pack
25	240/250	35	BC, SBC, SES*	Clear, Frosted, Silverlight	50
40	240/250	35	BC, SBC, SES	Clear, Frosted, Silverlight	50
60	240/250	45	BC, SBC	Clear, Frosted, Silverlight	50

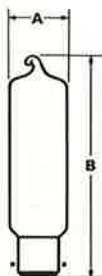
*SES Cap in Silverlight only

PINK PEARL CANDLE

40	240/250	35	BC, SBC	} Pearl bulbs with an internal light pink diffuse coating	50
60	240/250	45	BC, SBC		50

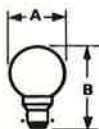
TWISTED CANDLE

	A	B
25W BC	35	95
SBC	35	99
40W-60W BC	46	123
SBC	46	128



TWILITE CANDLE

	A	B
BC	30	125
SBC	30	131



ROUND BULB

	A	B
BC	45	65
SBC	45	70
SES	45	74

All dimensions in mm.

TWISTED CANDLE

Watts	Volts	Diameter	Cap	Finish	Standard pack
25	240/250	35	BC, SBC	Clear, Frosted	50
40	240/250	46	BC, SBC	Clear, Frosted	50
60	240/250	46	BC, SBC	Clear, Frosted	50

COLOURED AND TIPPED TWISTED CANDLE

40	240/250	46	BC only	Amber, Amber tip Pink, Pink tip	50
60	240/250	46	BC only	Amber, Amber tip Pink, Pink tip	50

5 x 10-way packs per container

TWILITE CANDLE

40	240/250	30	BC, SBC	Frosted	50
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ROUND BULB

25	240/250	45	BC, SBC, SES	Silverlight	50
40	240/250	45	BC, SBC, SES	Silverlight	50

5 x 10-way packs per container

ROUND BULB FESTIVE

15	200/250	45	BC, ES	Amber, blue, green, red, white, yellow	50
25	200/250	45	BC, ES	Amber, blue, green, red, white, yellow	50

5 x 10-way packs per container

mazda

Decorative and coloured lamps

40W DECOR LAMP

Watts	Volts	Standard pack	Cap	Finish
40	240/250	25	BC	Silverlight

60W DECOR LAMP

60	240/250	10	BC	Silverlight
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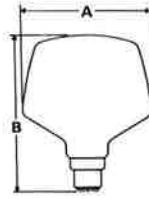
100W DECOR LAMP

100	240/250	10	BC	Silverlight
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60W DECOR CONE LAMP

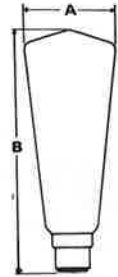
60	240/250	25	BC	Silverlight
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40, 60 & 100W DECOR



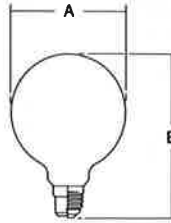
	A	B
40W Decor	77	100
60W Decor	97	120
100W Decor	97	120
60W Decor Cone	60	158

60W DECOR CONE



40W ROUND BULB

40 DECOR	240/250	10	BC, ES	Silverlight
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ROUND BULB

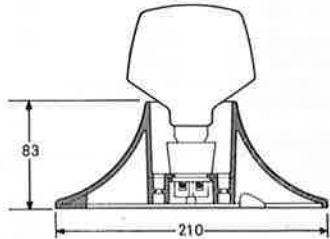
	A	B
BC	100	139
ES	100	140

INTERNALLY COLOURED GLS

15	200/250	25	BC, ES	Amber, blue, green, pink, red, white, yellow
25	200/250	25	BC, ES	Amber, blue, green, pink, red, white, yellow
40	200/250	25	BC	Amber, blue, green, pink, red, yellow
60†	200/250	25	BC	Amber, blue, green, pink, red, yellow

†Not suitable for use outdoors unless enclosed for protection against rain.

DECOR FITTING AND LAMP



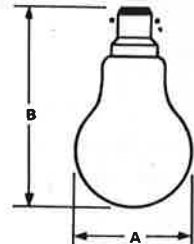
GALA LIGHTING SET

A string of 12 waterproof lampholders for gala lamps.
Catalogue No. AME 1809 Lamp Reference No. 30-9995

GALA LIGHTING SET LAMPS comprising the following

25	200/250	2 of each	BC	Pink, yellow, amber red, green, blue
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INTERNALLY COLOURED AND GALA



	A	B
15W, 25W 40W & 60W	60	105

All dimensions in mm

mazda

Tubular lamps

Architectural curved — $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ circle.

Watts	Length	Std. Pack	Finish
60	—	1	Opal
Voltage: 240/260		Tube diameter	
Caps: Peg		30mm.	

Architectural straight

Watts	Length mm	Std. Pack	Finish
35	305	25	Opal
53	457	1	Opal
60	500	1	Opal
60	500	10	Opal Double Centre contact
75	610	1	Opal
110	915	1	Opal
150†	1220	1	Opal
Voltage: 200/230, 240/250		Tube diameter	25 mm.
Caps: Peg			‡240/250v only

Double cap — Tubular Striplites

Watts	Length	Std. Pack	Finish
30 or 60	221mm	25	Clear
30 or 60	284mm	25	Clear
30 or 60	221mm	25	Opalised
30 or 60	284mm	25	Opalised
30 or 60	221mm	25	Frosted Amber
30 or 60	284mm	25	Frosted Amber
Voltage: 200/230, 240/250		Tube Diameter	25mm
Caps: Centre contact			

Single Tubular

Watts	Diameter	Std. Pack	Finish
25 or 40	25mm	50	Clear
25	25mm	50	Frosted
40 or 60	37mm	25	Opal (Long-Lite)

Voltages: 25w — 110, 200/230, 240/250 40w — 240/250v only

Caps: B.C., S.B.C., E.S., S.E.S.

Voltages: 60w — 200/230, 240/250

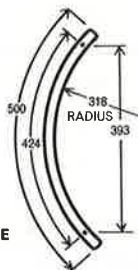
Cap: B.C.

Voltages: 25w Clear — 110, 120, 200/230, 240/250
Remainder 240/250v only

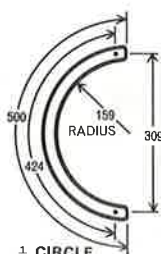
ARCHITECTURAL

	A	B	C
12 inch 35w	30	229	305
18 inch 53w	30	382	457
20 inch 60w	30	424	500*
24 inch 75w	30	534	610
36 inch 110w	30	839	915
48 inch 150w	30	1144	1220

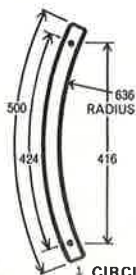
*Available with Peg Contacts or Double Centre Contact.



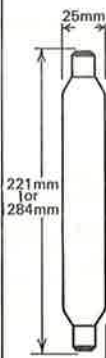
$\frac{1}{2}$ CIRCLE



$\frac{1}{2}$ CIRCLE



CIRCLE

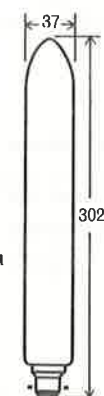


25w TUBULAR

Dimension B.

BC & SBC. 82
ES. 84
SES. 83

DOUBLE CAP
TUBULAR



LONG-LITE

All dimensions in mm

atlas

Special Service Lamps

ROUGH SERVICE – These lamps have additional filament supports and are for use in portable handlamps and similar locations

Watts	Standard Pack	Cap	Finish
25	25	BC	Pearl
40	25	BC, ES	Pearl
60	25	BC, ES	Pearl
100	25	BC, ES	Pearl

Voltages: 40/100W – 110, 120, 200/250; 25W – 200/250

SHATTERPROOF – ROUGH SERVICE. This lamp has a special coating to contain the glass fragments in the event of breakage.

Watts	Standard Pack	Cap	Finish
100	25	BC, ES	Pearl – Lacquered

Voltage: 200/250

TRAFFIC SIGNAL – For use in traffic signals

Watts	Standard Pack	Cap	Finish
65	25	ES, BC	Clear
50	1	BiPin	Clear 12V Tungsten Halogen M32

Voltages: 65W in 240, 250V ES 250V only BC M32 in 12V only



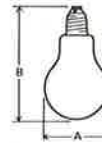
ROUGH SERVICE

	A	B
25, 40 & 60W	60	105
100W	68	125

SHATTERPROOF

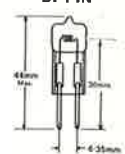
	A	B
100W	68	125

65W ES



A	B
60	107

50W BI-PIN



HEATING LAMPS

INFRA-RED REFLECTOR (Standard bulb)

Watts	Standard Pack	Cap	Finish
150	12	ES	Clear Front
275	12	ES, BC	Clear Front
275	12	ES, BC	Satin Front
275	12	ES, BC	Red Front

Voltages: 100/130, 200/250

INFRA-RED REFLECTOR (Hard glass bulb)

Watts	Standard Pack	Cap	Finish
275	12	ES, BC	Clear Front
275	12	ES, BC	Red Front

Voltages: 200/250 only

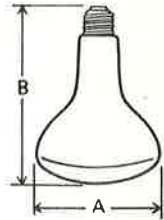
INFRA-RED ROUND BULB

Watts	Standard Pack	Cap	Finish
250	25	ES	Pearl

Voltages: 100/130, 200/250

INFRA-RED REFLECTOR

	A	B
150W	126	178
275W	126	178



INFRA-RED ROUND BULB

	A	B
250W ES	88	180

Note: A Range of Linear Quartz Infra Red Lamps is available. Details on request.

atlas

Reflector lamps

INTERIOR DISPLAY REFLECTOR LAMPS

Type	Watts	Standard Pack
Reflector Display	75	10
Reflector Display – Lacquered – Red	75	10
Reflector Display – Lacquered – Blue	75	10
Reflector Display – Lacquered – Green	75	10
Reflector Display – Lacquered – Yellow	75	10
Reflector Display	100	10
Reflector Display	150	10

INTERIOR DISPLAY SPOTLIGHTS AND FLOODLIGHT

For display areas and interior floodlighting

Type	Watts	Standard pack
Spotlight	250	10
For Chelsea Glass*	40	25

Voltages: 110, 200/230, 240/250

*110V Chelsea not available 200/230, 240/250V BC. only

Caps: ES, BC, Except 250W which is ES only.

Life:- 1000 hours

HIGH BAY REFLECTOR

Watts	Cap	Standard Pack
500	GES	6
Voltages: 240, 250		Life:- 1000 hours

MAINS VOLTAGE DISPLAY LAMP

For use in Atlas fitting VM100

Voltage: 240/250

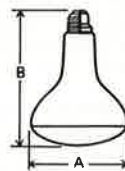
Life:-1000 hours

Type	Watts	Cap	Std. Pack
Crown silvered	100	ES 3 pin BC	25

All dimensions in mm

REFLECTOR DISPLAY

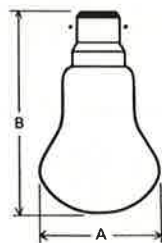
	A	B
75W	95	135
100W	95	135
150W	126	178



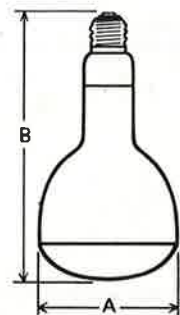
REFLECTOR SPOTLIGHT AND FLOODLIGHT

	A	B
250W	126	178

For Chelsea Fittings

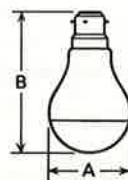


40W 60 100



500 WATT REFLECTOR FLOODLIGHT

	A	B
500W E40/45	165	312



100W DISPLAY LAMP

	A	B
100W 3-pin BC: ES	68	125

atlas

Sealed Beam reflector lamps

PAR 38 SEALED BEAM

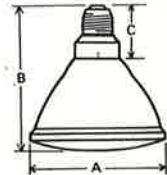
For outdoor and indoor application

Type 100W	Standard Pack
Clear Spotlight	10
Clear Floodlight	10
Lacquered – Red	10
Lacquered – Yellow	10
Lacquered – Blue	10
Lacquered – Green	10

Voltages: Lacquered 240/250 only
Others 200/230, 240/250

Cap: ES,

Life:— 1500 hours



SEALED BEAM REFLECTOR FLOODLIGHT AND SPOTLIGHT

	A	B	C
100W & 150W	121.5	135	51

Type 150W	Standard Pack
Clear Spotlight	10
Clear Floodlight	10
Clear Floodlight – 24V	10
Color-Ray Spot – Red	10
Color-Ray Spot – Yellow	10
Color-Ray Spot – Blue	10
Color-Ray Spot – Green	10
Cool-Ray Spotlight	10

Voltages: Color-Ray and Cool-Ray 240/250 only
Others 110/120, 200/230, 240/250 (except 24V flood)

Cap: ES,

Life:— 2000 hours

PAR 56 SEALED BEAM

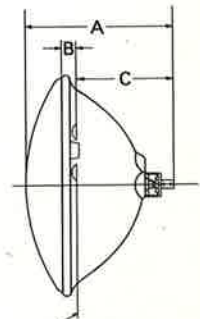
For outdoor and indoor application

Type 300W	Standard pack
Clear – Narrow Spot	10
Clear – Medium	10
Clear – Wide	10

Voltages: 200/230 : 240/250

Cap. GX16d

Life:— 2000 hours



A	B	C
133.4	11.7-13.7	85

PAR 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.

All dimensions in mm

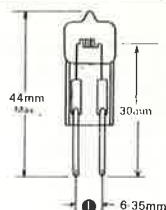
atlas

Low Voltage Display Lamps

Illus.	Volts	Watts	Lamp Ref. No.	Std. Pack	Type
1	12	50	11-8015	1	M32

The compact tungsten halogen lamp M32 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.

Cap
Bi-pin



2	12	50	11-7015	25	The 38mm lamp is spherical in shape. It is internally crown silvered and gives a non-spill narrow beam of light.
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Bosch



3	12	50	11-8012	25	The mushroom-shaped 64mm sealed beam lamp with Bosch cap is internally silvered with a diffusing front face and gives a soft edge beam of high intensity.
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Bosch



4	12	50	11-7014	25	The 12V 50W lamp has a clear front, and an internal reflector aluminised to the parabolic bulb. This gives a narrow beam of light.
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E.S.



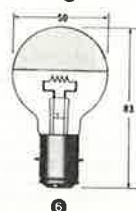
5	12	24	11-7005	25	The 12V 24W lamp gives a high intensity soft edged beam. Internal Reflector Diffusing Front.
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S.B.C.

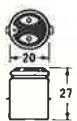


6	24	150	11-7040	12	Crown Silvered Clear Back
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Bosch



E27/30 (ES)



B20d/27
(DC. Bosch)



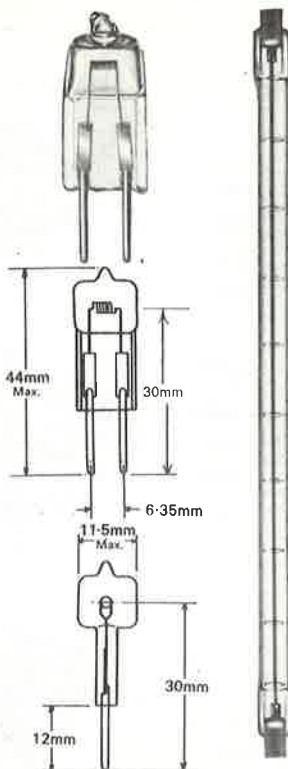
B15d/21
(S.B.C.)

A transformer is normally required for the operation of these lamps.

All dimensions in mm

The 12V lamps have a nominal life of 1,000 hours (except M32 which has a rated life of 2,000 hours), whilst the 24V 150W lamp has been designed to give a life of 500 hours.

atlas Tungsten Halogen lamps



A new and powerful light source in the range of tungsten filament lamps.

APPLICATION – General illumination floodlighting and display lighting.

RANGE: six linear lamps – 300W, 500W, 750W, 1000W, 1500W, 2000W.

COMPACT SPOTLAMP – 12V, 50W
For display lighting and new-type traffic signals.

RATED LIFE – 2000 hours.

CONTROL GEAR – None required.

OPERATING POSITIONS – Linears horizontal $\pm 4^\circ$. Single ended lamp – Universal.

PRINCIPLE – The tungsten filament is enclosed in a gas filled quartz tube, together with a carefully controlled quantity of a halogen. When the tungsten filament is heated by the electric current the halogen 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 halogen to form a tungsten halide. This compound then returns to the filament where it is chemically converted back to tungsten and the halogen 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 GLS lamp.
- 2 Double life – 2000 hours.
- 3 Constant light output through life.
- 4 Compact, easily controllable light source.

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	2000	3000	44 max	11.5 max.	3.5 x 2.5	Single ended bi-pin	Universal	M32
300	200/230 240/250	5000	2000	2850	117 \pm 0.25	8.0 \pm 0.5 -0.25	65	R7s	To within 4° of horizontal	THD/300/voltage rating
500	110	10500	2000	3000	117 \pm 2.5	10 \pm 0.25	60	R7st	to within 4° of horizontal	THD/500/110
500	120	10500	2000	3000	117 \pm 2.5	10 \pm 0.25	60			THD/500/120
500		9500	2000	2850	117 \pm 2.5	10 \pm 0.25	70			THD/500/voltage rating
750*	200/230	15000	2000	2900	189 \pm 2.5	10 \pm 0.25	130			THD/750/voltage rating*
1000†	240/250	21000	2000	3000	189 \pm 2.5	10 \pm 0.25	140	R7s	To within 4° of horizontal	THD/1000/voltage rating
1500		33000	2000	3000	254 \pm 2.5	10 \pm 0.25	200			THD/1500/voltage rating
2000	240/250	44000	2000	3000	333 max.	11 max.	250	R7s	To within 4° of horizontal	THD/2000/voltage rating

NOTES

All lamps with the exception of the M32 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.

**Spotlight or Traffic Signal Lamp.

atlas

Floodlighting lamps

CLASS B1 (Spherical bulbs)

For floodlighting of buildings and for studio and theatre spots and floodlights.

The objective average life in well-ventilated fittings is 800 hours.

The burning position is within 135° from cap down.

Reference No.	Watts	Standard Pack	Finish
B1/1	100	12	Clear
B1/2	250	12	Clear
B1/3	500	12	Clear
B1/4	1000	12	Clear

Reference No.	Cap	Lumens at 100/110/115V	Lumens at 200/250V*
B1/1	ES	1100	900
B1/2	ES	3600	3100
B1/3	GES	8000	7250
B1/4	GES	18000	16500

*Lamps available in 10V steps

CLASS B2 (GLS bulbs)

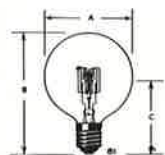
Applications are similar to Class B1 especially floodlighting from high towers for football grounds, stadiums, tattoos and similar. The average objective life for lamps B2/1-3 is 800 hours in well-ventilated fittings.

For B2/4 it is 200 hours which is very adequate for a full season of evening matches.

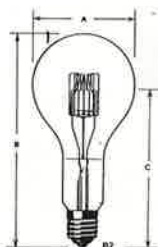
Reference No.	Watts	Standard pack	Finish
B2/1	500	9	Clear
B2/2	1000	6	Clear
B2/3	1500	6	Clear
B2/4	2000	6	Clear

Reference No.	Cap	Lumens at 100/110/115V	Lumens at 200-250V*
B2/1	GES	8000	7250
B2/2	GES	18000	16500
B2/3	GES	—	26000
B2/4	LPF - P40/412	—	42000

*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



E27/30
(ES)



E40/45
(GES)



LARGE PRE-FOCUS
(P.40/41)

All dimensions in mm

mazda

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.



Festive-Lites

A colourful set with the sparkle of cut crystal. Twelve new coloured crystal coated lamps and a spare with flex, holders and B.C. connector.



Satin-Lite

The soft, silky sheen of satin. Twelve coloured Mazda lamps plus a spare with flex, holders and B.C. connector.



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.

Fortylite sets:

40 6v 0.75w lamps + 2 spares.



Jack Frost

An icy, brilliant sparkle with twelve frost coated coloured lamps and a spare plus flex and B.C. connector.



Regency

Tiny Regency lanterns to make your home glow like Brighton Pavilion.

L.E.S. capped lamps plus a spare with flex, holders and BC connectors.

Twentylite set:

20 12v 1.2w lamps + a spare.

Spare lamps



Fairy-Lites

Three 20 volt 3 watt Mazda lamps of different colours for use in twelve lamp sets.



Festive-Lites

Three 20 volts 3 watt Mazda lamps in a bubble pack in various colours with a crystal finish. Suitable for replacement in Fairy-Lites sets.



Satin-Lite

Three 20 volt 3 watt Mazda lamps in various attractive satin finished colours.



Firefly

Bubble packs containing five different coloured Mazda lamps. 6 volt lamps for Fortylites sets and 12 volt lamps for Twentylites sets.



Jack Frost

Three 20 volt 3 watt Mazda lamps with frosted finish in different gay colours.

Lamp cap code

All dimensions in mm

LAMP CAP CODE

B.C. Bayonet

S.B.C. Small Bayonet

S.C.C. Small Centre Contact

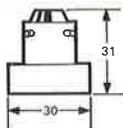
E.S. Edison Screw

S.E.S. Small Edison Screw

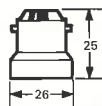
M.E.S. Miniature Edison Screw

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.



3-pin B.C.
B22d-3/31 x 30



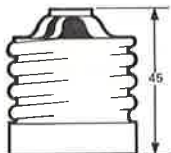
B.C.
B22d/25 x 26



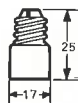
S.C.C.
S.A. 15s/21



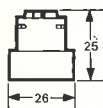
S.C.C.
S15s/15



G.E.S.
E40/45



S.E.S.
E14/25 x 17



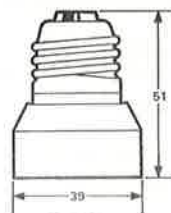
3-pin B.C.
B22d-3/25 x 26



B.C.
B22/22



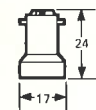
E.S. E27/27



E.S.
E27/51 x 39



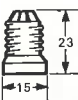
Candelabra
E12/21 x 13



S.B.C.
B15/24 x 17



S.B.C.
B15/27 x 22



S.E.S.
E14/23 x 15



Fluorescent Tubes Introduction & Index

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.

Thorn Lighting Ltd manufactures Atlas and Mazda brands of fluorescent tubes. Atlas tubes cater especially for industrial commercial and business use : Mazda is the brand for domestic purposes.

Page no.

6:1	Index
6:2	General Information
6:3	Information continued
6:4	Spectral Distribution
6:5	Spectral Distribution continued Colours & application
6:6	Light Output
6:7	Light Output continued
6:8	Dimensions
6:9	Electrical Data
6:10	Electrical Data continued

atlas and mazda

Fluorescent tubes general information

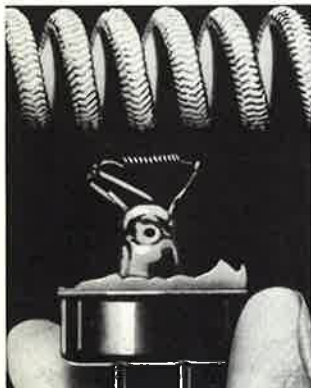
BRAIDED CATHODE

The braided cathode filament – British Patent 131059 – is now being used in 1500mm (5ft) 65/80W and 80W BC, 1800mm (6ft) 85W, 2400mm (8ft) 85W and 125W tubes.

The exclusive braided cathodes used in TLL fluorescent tubes give more efficient operation, fewer early failures and longer life than the 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.



RATED LIFE AND GROUP REPLACEMENT

The rated life of all Thorn 1200mm (4ft), 1500mm (5ft), 1800mm (6ft), and 2400mm (8ft) 38mm (1½in) 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 of work
- A saving in running costs

Further information on Group Replacement is available from our Regional Offices.

COLOURS FOR GENERAL USE

In order to encourage rationalisation of the range of fluorescent tube colours available, two colours have been chosen by Thorn as being suitable for the majority of installations.

White—The highest efficacy tube available for general lighting purposes.

Natural—Good colour rendering tube for commercial and display purposes. These colours have been identified in bold type in this catalogue and it is recommended that they be used for general lighting purposes.

AMALGAM TUBES

Many modern enclosed commercial fittings cause standard fluorescent tubes to operate above their optimum temperature thus giving significant reductions in light output.

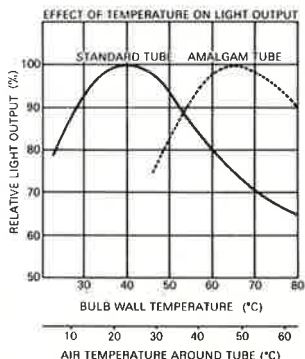
Amalgam control of the mercury vapour pressure in a tube allows efficient operation at higher temperatures. The quoted lumen output of a standard tube is measured at an ambient temperature of 25°C corresponding to surface temperature of 40–45°C and as the temperature rises, lumen output falls. The same 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 20% 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

1800 mm 6ft 85W **White**, Warm **White**, **Natural**.

For further information please contact our Regional Offices.



REFLECTOR TUBES

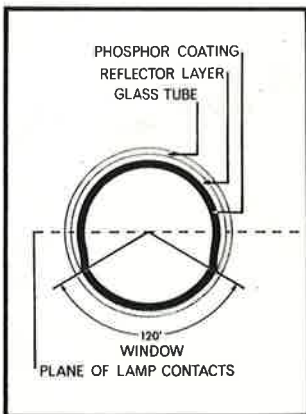
The reflector fluorescent tubes have an additional highly reflecting coating added between the fluorescent powder and the inside of the glass tube. In this way the majority of light is radiated through an aperture of 120° from the lamp centre in the preferred direction. This lamp is particularly useful 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 as in 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.



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.

Fluorescent Tube Packing Quantities

8ft and Circles: 12
Blacklight Blue: 24
All others: 25

Fluorescent tubes general information

There are different grades of tube to suit various types of control gear

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 20mm 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.

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.

**MS (Metal Strip) grade tubes
(MCFA/U)**

This tube is only necessary for special conditions, e.g. where earthed metalwork is not adjacent to 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 600mm–1500mm (2ft–5ft) lengths can be supplied with metal strip.

Fluorescent tubes described in this catalogue conform to British Standard 1853:1967 where applicable.

Thorn Lighting Ltd. are holders of Licence No. 5247 for the manufacture of fluorescent tubes to the above standard.

Fluorescent lamps are now designated in nominal lengths in millimetres. The table below shows how these relate to their former designations.

8ft	0in lamps are now designated	2400mm
6ft	0in lamps are now designated	1800mm
5ft	0in lamps are now designated	1500mm
4ft	0in lamps are now designated	1200mm
3ft	0in lamps are now designated	900mm
2ft	0in lamps are now designated	600mm
21in	lamps are now designated	525mm
18in	lamps are now designated	450mm
12in	lamps are now designated	300mm
9in	lamps are now designated	225mm
6in	lamps are now designated	150mm

AME B1515 Adaptor converting bi-pin lamp cap to BC. The overall length of a 1500mm (5ft) bi-pin tube with these adaptors does not exceed the length of a BC tube.



TUBE RANGE

					125 W 13 in 2400 mm (8 ft)	95 W 13 in 2400 mm (8 ft)	85 W 13 in 1900 mm (6 ft)	80 W 13 in B.C. 1500 mm (5 ft)	65/60 W 13 in 1500 mm (5 ft)	50 W 13 in 1500 mm (5 ft)	40 W 13 in 1200 mm (4 ft)	30 W 900 mm (3 ft) 1 in 8 1/2 in	40 W 600 mm (2 ft) 13 in	30 W 600 mm (2 ft) 13 in	15 W 450 mm (18 in) 1 in 6 1/2 in	13 W 525 mm (21 in) 1 in 8 1/2 in	8 W 300 mm (12 in) 1 in 4 in	6 W 250 mm (9 in) 1 in 4 in	4 W 150 mm (6 in) 6 in
White	..	..	..	..	AM	AM	AM	AM	AM	AM	AM	AM↑	AM	AM	AM	AM	AM	AM	AM
Warm White	..	..	..	..	AM	AM	AM	AM	AM	AM	AM	AM↑	AM	AM	AM	AM	AM	AM	AM
Daylight	..	..	..	..	AM	AM	AM	AM	AM	A	AM	A	AM	AM	A	AM	AM	AM	—
Natural	..	..	..	..	AM	AM	AM	AM	AM	A	AM	A	AM	AM	A	—	A	A	—
Northlight/Col. Match					A	A	A	A	A	—	A	—	A	A	A	—	—	—	—
De Luxe Warm White					A	A	—	A	A	A	A	A	A	A	A	—	—	—	—
*Kolor-rite					A	A	A	A	A	A	A	A	A	A	—	—	—	—	—
De Luxe Natural	..	..	..	..	A	A	A	A	A	A	A	A	A	A	A	—	—	—	—
Artificial Daylight	..	..	..	..	A	A	A	—	A	—	A	—	—	A	A	—	—	—	—
Reflector Tubes																			
White	..	..	..	..	A	A	A	A	A	—	A	—	—	A	—	—	—	—	—
Warm White	..	..	..	..	A	A	A	A	A	—	A	—	—	—	—	—	—	—	—
Daylight	..	..	..	..	—	—	A	A	A	—	A	—	—	—	—	—	—	—	—
Natural	..	..	..	..	—	—	—	—	A	—	—	—	—	—	—	—	—	—	—
Amalgam Tubes																			
White	..	..	..	..	—	—	A	—	—	—	—	—	—	—	—	—	—	—	—
Warm White	..	..	..	..	—	—	A	—	—	—	—	—	—	—	—	—	—	—	—
Natural	..	..	..	..	—	—	A	—	—	—	—	—	—	—	—	—	—	—	—
Colours																			
Pink, Green, Blue, Red, Gold, Peach					—	—	A*	—	A	—	A	A*	A*	A	—	—	—	—	—
Radar Red	..	..	..	..	—	—	—	—	—	—	A	—	—	—	—	—	—	—	—
Ultra Violet (Non Filter)					—	—	—	—	A	—	A	—	*	A	A ₁	—	A	A	A
Blacklight Blue U.V.	..	..	..	..	—	—	—	—	—	—	A	—	—	—	A	—	A	—	—
Gro-lux					—	—	—	—	A	—	—	A†	—	A	A†	A	A	—	—

Circular tubes.

400mm (16in) dia	40W ACM
300mm (12in) dia	32W ACM
200mm (8½in) dia	22W ACM

*Pink only †Mazda in 1" only ‡in 1" dia. only

Note: Letter A denotes lamps branded **atlas**, letter M those branded **mazda**

atlas and mazda

Fluorescent tubes spectral distribution

COLOUR DATA

The colour rendering and colour appearance data below is on the same basis as the values specified in BS1853, but there is a trend towards other methods of colour specification, e.g. 8 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 additional data in table 2.

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

Nominal percentage light output for 1500mm (5ft) tubes at 65W

Table 1 - 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
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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

Table 2 - 6 Bands

1 Violet-Blue	400-455	0.79	0.83	0.67	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 CIE uniform chromaticity scale

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

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Fluorescent tubes Colour & applications

Colours for General Use

In order to encourage rationalisation of the range of fluorescent tube colours available, two colours have been chosen by Thorn as being suitable for the majority of installations.

White—The highest efficacy tube available for general lighting purposes.

Natural—Good colour rendering tube for commercial and display purposes.

These colours have been identified in bold type in this catalogue and it is recommended that they be used for general lighting purposes.

Tube colour	Percentage of White Tube lumens	Colour rendering quality	Colour appearance	Application and remarks
Industrial lighting				
White and Warm White Daylight	100/98 94	Fair Fair	Intermediate Cool	General illumination at maximum efficacy. Buildings requiring artificial illumination to blend with natural daylight. Minimum of 300 lux must be provided to avoid an excessively cold appearance.
Artificial Daylight	41	Very Good	Cool	Areas where accurate colour matching is carried out. A minimum of 900 lux must be provided. Conforms to BS950:Part One
Commercial lighting				
White and Warm White	100/98	Fair	Intermediate	General and drawing offices requiring maximum lighting efficiency
Natural	70	Good	Intermediate	General office lighting particularly where required to blend with natural daylight. Minimum of 300 lux necessary.
*Kolor-rite	65	Very Good	Intermediate	Offices, showrooms, studios, colleges, hospitals.
De Luxe Warm White	66	Good	Warm	Office buildings requiring a warm effect, flattering to the complexion
Display lighting				
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	Jewellery, glassware, china, hardware, tailors (main shop areas), summer frocks and department stores. Minimum of 300 lux necessary.
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.
Domestic lighting				
White or Warm White	100/98	Fair	Warm	Rooms requiring maximum light output.
De Luxe 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			
Special applications				
Green	95	Poor	Poor	Saturated colours for display, floodlighting, stage lighting. <i>Note:</i> Red and Gold tubes should only be used in switchstart circuits.
Peach	60			
Gold	55			
Pink	25			
Blue	20			
Red	5	—	—	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. For further information see 'Gro-lux Fluorescent Tubes' Leaflet No. TLL009.
Gro-lux	30			
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. Available 65/80W, 40W, 20W, 15W and 8W.
Blacklight Blue	—	—	—	Ultra-violet tubes as above (but with black glass bulb) which transmit ultra-violet only filtering out the visible light. Available 40W (1200mm), 15W, 8W, 6W and 4W.
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. Available 65/80W and 40W.

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Fluorescent tubes light output

Lumen outputs

The lumen outputs quoted in this catalogue are measured at 25°C in accordance with British Standard 1863.

Initial lumens

Initial lumens quoted below are measured after 100 hours operation.

Lighting design lumens

The 'Lighting Design Lumens' quoted below 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.

Recent improvements

The lumen outputs quoted here show substantial increases over earlier figures.

Higher efficiency "Super" phosphors, previously only used in the 6ft. 85w. White rating, are now in general use throughout the range and improvements in manufacturing techniques also contribute to these important increases.

MINIATURE FLUORESCENT TUBES

	Initial Lumens				Lighting Design Lumens			
	525mm (21in) 13W	300mm (12in) 8W	225mm (9in) 6W	150mm (6in) 4W	525mm (21in) 13W	300mm (12in) 8W	225mm (9in) 6W	150mm (6in) 4W
White	830	425	290	160	730	360	240	135
Warm White	830	425	290	160	730	360	240	135
Daylight	780	400	275	150	680	340	230	125
Natural	—	325	230	120	—	280	190	100

All these tubes are 16mm ($\frac{5}{8}$ in) diameter.

Colours for General use.

The colours identified in bold type are recommended for general lighting purposes.

Initial lumens (100 hours)	2400 mm 125W	2400 mm Super 8 85W	1800 mm Super 6 85W	1500 mm Super 5 80W*	1500 mm Super 5 65W*	1500† mm 65W	1200 mm 40W	900 mm 30W	900† mm 30W	600 mm 40W	600 mm 20W	450 mm 15W	450† mm 15W
White	9400	7300	6600	5700	5050	3700	3000	2100	2400	2000	1200	900	950
Warm White	9300	7200	6500	5600	4950	3650	2950	2100	2400	2000	1200	900	950
Daylight	9000	7000	6250	5450	4800	3600	2900	2000	2300	1900	1150	850	900
Natural	7150	5500	4800	4300	3700	2800	2300	1600	1800	1500	900	650	700
De Luxe Warm White	6800	5300	—	4100	3600	—	2150	1500	1700	1400	850	600	—
° Kolor-rite	6300	4800	4300	3800	3350	2550	2000	—	1550	1300	850	—	—
Northlight	5800	4500	4000	3400	3000	—	1900	1300	1500	1250	800	550	600
DeLuxe Natural	5500	4300	3700	3200	2900	2250	1750	1200	1400	1150	700	500	550
Artificial Daylight	4800	3600	3300	2900	2600	—	1500	—	—	—	650	—	500

†These tubes are 26mm (1in) diameter. All others are 38mm (1½in) diameter.

Lighting design lumens (2000 hours)

White	8700	6800	6300	5200	4700	3300	2750	1850	2150	1700	1100	750	800
Warm White	8600	6700	6100	5100	4600	3250	2700	1850	2150	1700	1100	750	800
Daylight	8400	6500	5750	4950	4450	3200	2650	1750	2050	1600	1050	700	750
Natural	6500	5000	4350	3900	3400	2400	2100	1400	1600	1300	800	550	600
DeLuxe Warm White	6200	4700	—	3500	3100	—	1950	1250	1450	1200	750	500	—
° Kolor-rite	5700	4400	3850	3400	3000	2200	1800	—	1300	1100	750	—	—
Northlight	5300	4100	3600	3100	2700	—	1700	1050	1250	1050	700	450	500
De Luxe Natural	4800	3800	3200	2700	2500	1850	1500	900	1100	900	600	400	450
Artificial Daylight	3800	3000	2600	2300	2100	—	1200	—	—	—	500	—	400

*The Super 5 tube is a dual purpose 65/80W tube suitable for use in all 65W or 80W bi-pin fittings.

5ft 80W BC tubes are still available in a limited range of standard colours.

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Fluorescent tubes light output

REFLECTOR TUBES

Initial lumens (100 hours)

	2400mm (8ft)	2400mm (8ft)	1800mm (6ft)	1500mm (5ft) at 80W	1500mm (5ft) at 65W	1200mm (4ft)	600mm (2ft)
	125W	85W	85W			40W	20W
White	8400	6500	5800	5100	4500	2700	1100
Warm White	8300	6400	5600	4900	4400	2650	—
Daylight	—	—	5500	4700	4200	2600	—
Natural	—	—	4200	3800	3300	—	—

Lighting design lumens (2000 hours)

White	7700	6000	5200	4600	4200	2450	1000
Warm White	7600	5900	5000	4400	4000	2400	—
Daylight	—	—	4900	4200	3800	2350	—
Natural	—	—	3700	3300	2900	—	—

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

	1800mm (6ft)	1500mm (5ft) at 80W	1500mm (5ft) at 65W	1200mm (4ft)	900mm (3ft)	600mm (2ft)	600mm (2ft)
	85W			40W	30W	40W	20W
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

*Red and Gold tubes should only be used in switch-start circuits

GRO-LUX

Lighting design lumens

1500mm (5ft) at 80W	1500mm (5ft) at 65W	1200mm (4ft) 40W	900mm (*3ft) 30W	600mm (2ft) 20W	450mm (*1½ft) 15W	525mm (21in) 13W	300mm (12in) 8W
1450	1300	810	530	340	200	180	100

*1in diameter

TROPICAL DAYLIGHT

Lighting design lumens 450mm (1½ft) 15W – 550

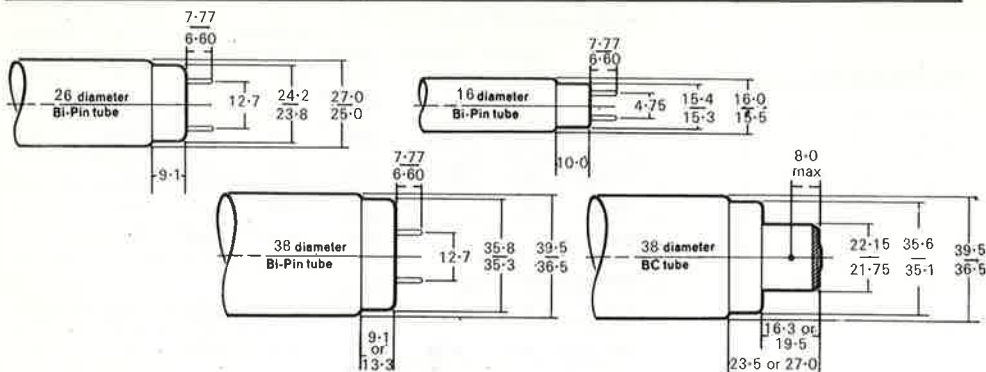
CIRCULAR TUBES

Warm White only

Tube size (diameter) Wattage	400mm (16in) 40W	300mm (12in) 32W	200mm (8¼in) 22W
Lighting design lumens	2300	1600	850

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Fluorescent tubes dimensions



STRAIGHT TUBES *Note the new metric designation of tubes

Rated wattage	Nominal dimensions		cap	Length, base face to base face (max.) mm	Length, base face to end of opposite cap pins mm		Length overall mm	
	mm*	in			max.	min.	max.	min.
125	2400×38	96×1½	Bi-Pin	2374.9	2382.0	2378.4	2389.1	—
85	2400×38	96×1½	Bi-Pin	2374.9	2382.0	2378.4	2389.1	—
85	1800×38	72×1½	Bi-Pin	1763.8	1770.9	1768.4	1778.0	—
65/80	1500×38	60×1½	Bi-Pin	1500.0	1507.1	1504.8	1514.3	—
80	1500×38	60×1½	BC	—	—	—	1530.4	1517.6
50	1500×26	60×1	Bi-Pin	1500.0	1507.1	1504.8	1514.3	—
40	1200×38	48×1½	Bi-Pin	1199.4	1206.5	1204.1	1213.6	—
40	600×38	24×1½	Bi-Pin	589.8	596.9	594.5	604.0	—
30	900×38	36×1½	Bi-Pin	894.6	901.7	899.3	908.8	—
30	900×26	36×1	Bi-Pin	894.6	901.7	899.3	908.8	—
20	600×38	24×1½	Bi-Pin	589.8	596.9	594.5	604.0	—
15	450×38	18×1½	Bi-Pin	437.4	444.5	442.1	451.6	—
15	450×26	18×1	Bi-Pin	437.4	444.5	442.1	451.6	—
13	525×16	21×⅝	Bi-Pin min.	516.8	523.9	521.5	531.0	—
8	300×16	12×⅝	Bi-Pin min.	288.2	295.3	292.9	302.4	—
6	225×16	9×⅝	Bi-Pin min.	212.0	219.1	216.7	226.2	—
4	150×16	6×⅝	Bi-Pin min.	135.8	142.9	140.5	150.0	—

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	200	8¼	160.4	151.1	155.6	150.8	215.9	203.2	30.9	26.2
32	300	12	245.6	237.3	246.1	239.7	311.2	298.5	34.1	29.4
40	400	16	346.9	338.9	347.7	341.3	412.8	400.0	34.1	29.4

*Base and glass dimensions the same.

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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, Format, Invincible and similar fittings.

Tube size	2400mm (8ft)	2400mm (8ft)	1800mm (6ft)	1500mm (5ft)	1500mm (5ft)	1500mm (5ft)	1200mm (4ft)	900mm (3ft)	900mm (3ft)
Diameter	38mm (1½in)	38mm (1½in)	38mm (1½in)	38mm (1½in)	38mm (1½in)	38mm (1½in)	38mm (1½in)	38mm (1½in)	25mm (1in)
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	80	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	91	90	60	46	46
Mains current at 240V	0.94	—	0.45	0.46	0.38	0.39	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%	—	17%	17%	17%	17%	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%	—	—	—	—	—	—	—

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.

‡2400mm (8ft) 125W and 1500mm (5ft) 50W starter switch circuits operate with a series type capacitor at a leading power factor.

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Fluorescent tubes electrical data

Tube size	600mm (2ft)	600mm (2ft)	450mm (18in)	450mm (18in)	525mm (21in)	300mm (12in)	225mm (9in)	150mm (6in)
Diameter	38mm (1½in)	38mm (1½in)	38mm (1½in)	26mm (1in)	16mm (⅝in)	16mm (⅝in)	16mm (⅝in)	16mm (⅝in)
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	6	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
Rated 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.

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.

Introduction

Thorn Lighting Limited has the widest range of discharge lamp sources available in this country. Exclusive use of the "Kolorlux phosphor and a wider range of "Kolorarc and High Pressure Sodium lamps have made this a high quality, high efficiency range.

Highlights include the linear sodium lamps now renowned for reliability, metal halide "Kolorarc lamps giving excellent colour rendering and the increasingly important High Pressure Sodium SON lamp with its extremely high luminous efficacy. Additionally mercury tungsten and mercury reflector lamps have benefitted from an extension of the "Kolorlux phosphor to improve colour and give high light output. All Atlas discharge lamps are illustrated in the following pages, in the Hytek section that follows will also be found the Atlas CSI sealed beam and MBIL/H floodlighting lamps which have recently been used effectively for lighting football stadiums for colour television.

Index

7:2	Mercury iodide lamps, Types MBI & MBIF "Kolorarc
7:3	Mercury fluorescent lamps Type MBF "Kolorlux
7:4	Mercury reflector lamps Type MBFR "Kolorlux
7:5	Mercury Tungsten lamps Type MBTF "Kolorlux
7:6	Mercury lamps Type MB
7:7	Mercury lamp information
7:8	High Pressure Sodium lamps Type SON
7:9	Linear Sodium lamps type SLI/H
7:10	Sodium Lamps Type SOX
7:11	Sodium Lamps Type SOI/H integral
7:12	Sodium Lamp information

atlas Discharge lamps

Metal Halide 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. It is also suitable 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.

Supply Voltage 200/250V

Rated Life 7,500 hrs

Burning Position

BU: Base up lamps must not be operated with cap more than 15° below horizontal

BD: Base down lamps must not be operated with cap more than 15° above horizontal.

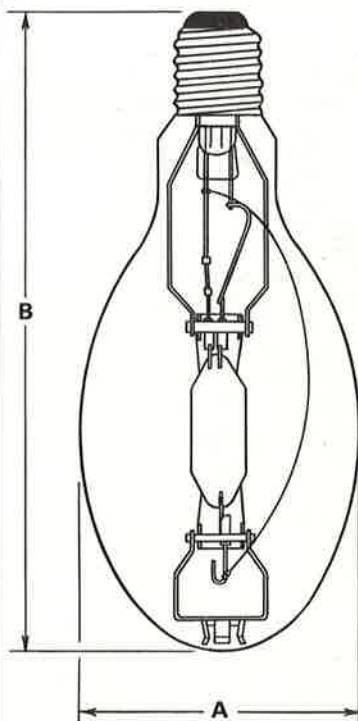
Type	Burning Position	Std. Pack	Cap	Lighting Design Lumens*
400w °Kolorarc MBIF	BU	9	G.E.S.	27,000
400w MBI	BU or BD	9	G.E.S.	24,000
1000w °Kolorarc MBIF	BU or BD	1	G.E.S.	85,000
1000w MBI	BU	1	G.E.S.	78,000

*Note: The lighting design lumens quoted apply to vertical operation. There will be a slight reduction in output when operated horizontally.

For further information see page 7:7.

DIMENSIONS

	A (mm)	B (mm)
400w	122 max.	292 max.
1000w	178 max.	410 max.



atlas 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.

Supply Voltage 200/250V

Rated Life 7,500 hrs

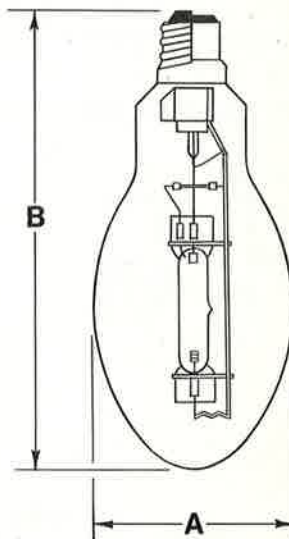
Watts	Std. Pack	Cap	Lighting Design Lumens
50	50	E.S.	1,800
80	24	E.S.*	3,350
125	24	E.S.*	5,550
250	9	G.E.S.	12,000
400	9	G.E.S.	21,500
700	1	G.E.S.	38,000
1,000	4	G.E.S.	54,000

*3 pin B.C. cap also available.

For further information see page 7:7.

DIMENSIONS

	A (mm)	B (mm)
50w.	55±1	125±4
80w.	70±1	150±4
125w.	75±1	170±5
250w.	90±1	220±7
400w.	120±2	280±6
700w.	141±2	320±8
1000w.	165±2	400±10



atlas 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.

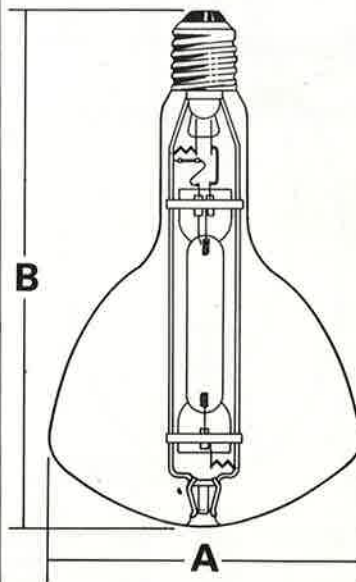
Supply Voltage 200/250V

Rated Life 7,500 hrs

Watts	Std. Pack	Cap	Lighting Design Lumens
250	1	G.E.S.	10,500
400	1	G.E.S.	18,000
700	1	G.E.S.	32,500
1,000	1	G.E.S.	48,000

For further information see page 7:7.

DIMENSIONS		
	A (mm)	B (mm)
250w	165±1	263±7
400w	180±1	293±7
700w	200±2	320±8
1000w	220±2	370±10



atlas Discharge lamps

Mercury tungsten lamps Types MBTF °Kolorlux,

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. Mercury tungsten lamps operate direct from the supply. All ratings have elliptical outer bulbs.

°Kolorlux MBTF lamps have an outer bulb coated with a new phosphor giving higher light output and improved colour in comparison with the previous MBTL and MBTF types.

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. 250 and 500w ratings will only operate in other positions providing there is negligible fluctuation in the supply voltage.

Rated life 6,000 hrs

Supply Voltage

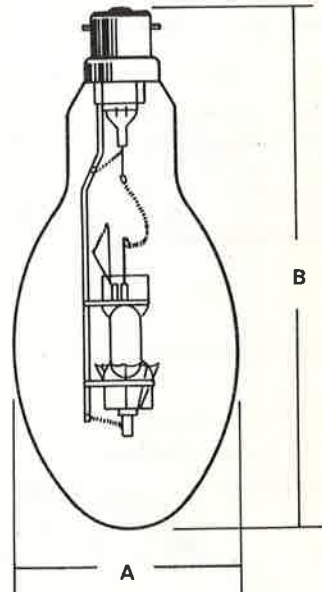
Two voltage ratings of lamps are available 220/230v and 240/250v and lamps must be operated on the correct supply. Sudden reductions in voltage will cause lamps to extinguish.

Watts	Std. Pack	Cap	Lamps Current 220/230v	(amps) 240/250v	Lighting Design Lumens
160	12	BC or ES	0.70	0.65	2,700
250	12	GES	1.10	1.05	4,840
500	6	GES	2.20	2.10	11,500

DIMENSIONS

	A (mm) max	B (mm) max
160w	76	175
250w	91	227
500w	122	286

*For E.S. Cap add 5mm.



B

A

atlas 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.

Supply Voltage 200/250V

Burning Position

Universal – lamps may be operated in any position.

Rated Life 7,500 hrs

Watts	Std. Pack	Cap	Lighting Design Lumens
80	24	E.S.*	3,200
125	24	E.S.*	5,200
250	12	G.E.S.	11,500
400	12	G.E.S.	19,600

*3 pin B.C. cap also available.

For further information see page 7:7.

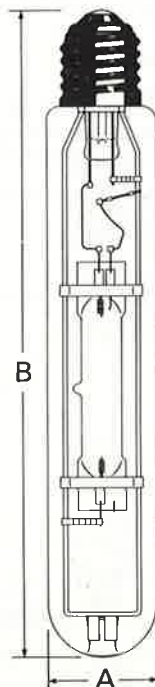
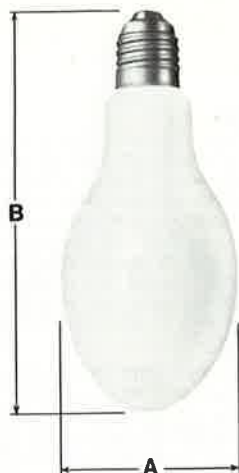
DIMENSIONS

Elliptical

	A (mm)	B (mm)
80w.	70 ± 1	150 ± 4
125w.	75 ± 1	170 ± 5

Tubular

	A (mm)	B (mm)
250w.	51 ± 1	290 ± 8
400w.	51 ± 1	330 ± 8



atlas 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. The striking voltage of MBI and MBIF lamps is not affected by ambient temperature.

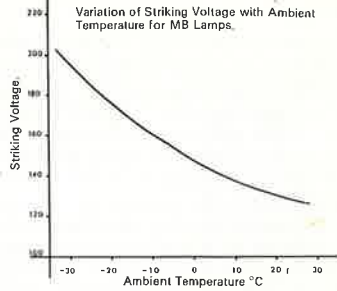
Mains Voltage Variation

Diagram 2 shows the effect of mains voltage variation on lumens, lumens per watt and lamp watts.

Run-up Characteristics

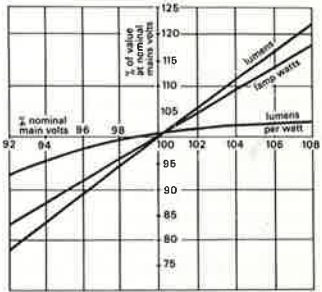
These are shown in diagram 3. The time taken will vary slightly depending upon the location and the type of fitting housing the lamp. Curves for metal halide lamps are shown in diagram 4.

1



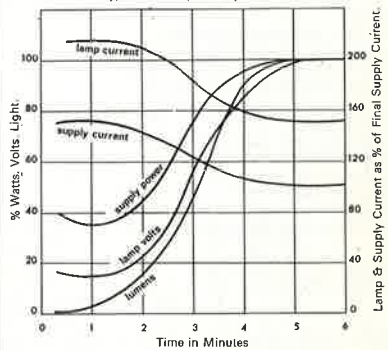
2

Effect of variation of mains voltage on the lamp Characteristics of Mercury Discharge lamps



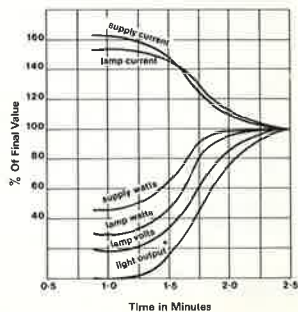
3

Typical Mercury Run-up Curves.



4

Typical Metal Halide Run-up Curves.



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

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
1000		200/250	235/265	4.2

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.

atlas Discharge lamps

High pressure sodium lamps type SON

Construction

The high-pressure sodium lamp differs from other discharge lamps in that it employs an arc tube made of sintered aluminium oxide. This material is necessary to withstand 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.

The elliptical hard glass outer tube has a diffusing coating and the GES cap is locked on to the moulded neck to eliminate any possibility of the lamp becoming detached from the cap during life. The lamp has the same dimensions and luminance ratio as an MBF mercury lamp so that it can be used in the same fittings (different control gear is required).

A tubular 400w version is also available with a clear bulb for floodlighting purposes.

Starting and Operation

The lamp is started by a high-voltage pulse applied by an ignitor which ceases to function once the arc has struck. The ignitor may be mounted up to 44 ft. from the lamp.

External starting simplifies lamp construction, ensures immediate striking and is very reliable. The lamp takes four or five minutes to run up to full brightness. Atlas SON lamps will normally restrike within one minute of extinction and rapidly regain full light output. This is a most important feature for interior use and a considerable improvement on the restriking times of mercury lamps.

BURNING POSITION

Universal Lamps may be operated in any position

Colour

The colour appearance of the lamp resembles that of a black-body at 2,300°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.

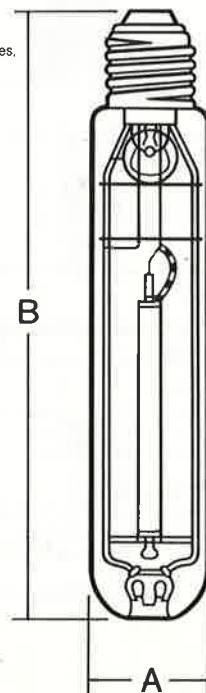
Applications

Public lighting – traffic routes, city centres, shopping areas.

Area lighting – airports, dockyards, car parks, forecourts.

Floodlighting – Stadiums, buildings, marshalling yards, sports grounds.

Interior lighting – High-bay lighting for factories, warehouses, hangars, halls.



DIMENSIONS

Watts	Type	Std. Pack	Nominal Lamp Volts	Lamp Current (amps)	Lighting Design Lumens
250	Clear	12	100	3.0	21000
250	Coated	9	100	3.0	19500
400	Clear	12	105	4.4	38000
400	Coated	9	105	4.4	36000

Watts	Type	A	B
250	Elliptical Coated	90 ± 1	220 ± 7
250	Tubular Clear	51 ± 2	250 ± 6
400	Elliptical Coated	120 ± 2	280 ± 6
400	Tubular Clear	51 ± 2	280 ± 6

Supply Volts – 200/250

Rated Life – 6000 hours

Guaranteed life – 4000 hours

For further information see page 7:13 and TLL leaflet 0053

atlas Discharge lamps

Sodium lamps Type SLI/H linear

QUALITY AND RELIABILITY

Since the introduction of the 140W linear sodium lamp by Thorn 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.

Thorn now offer an improved 200W linear sodium lamp with higher lumen output and characteristics suitable for instant start circuits. The new 200W lamp is dimensionally and electrically interchangeable with the previous lamp. The light output is increased by 10% to 27,500 lumens. This is achieved by the incorporation of a redesigned arc tube and a new improved reflective coating based on indium.

Braided cathodes, as used in the 140W linear sodium lamp, are embodied to give reliable life and freedom from early failures.

RESEARCH AND DEVELOPMENT

Intense study of the fundamental principles of sodium lamps has resulted in exceptionally high efficacy 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 careful design of the discharge tube cross section 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 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.

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. Light is 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 3ft 0in long and 1½ in 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, thus keeping 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.

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 $\pm 20^\circ$.

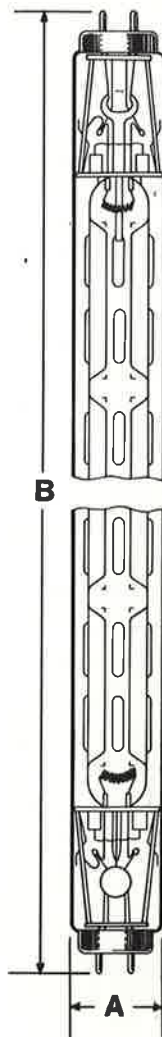
Stand- ard Watts	pack	Nominal volts	Lamp current (amps)	Lighting design lumens
140	25	175	0.9	20,000
200	25	135	1.6	25,000
200	25	145	1.55	27,500 (H.O.)

Supply voltage 200/250v.

Rated life 6,000 hours.

Guaranteed life 4,000 hours.

Further information see page 7:13.



B (mm)	A (mm)
max	max
39.5	908.8

atlas 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 efficacy than the integral type. A BC cap is fitted.

Application

The primary application for SOX lamps is for streetlighting where their higher efficacy has superseded earlier types as follows :-

Sodium Lamp Equivalents

- 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.

Supply Voltage 200/250

Rated Life 6,000 hrs

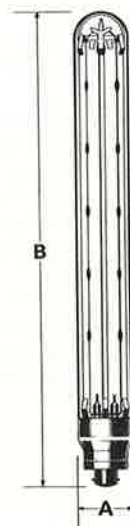
Guaranteed Life 4,000 hrs

Watts	Std. Pack	Nominal Lamp Volts	Lamp Current (amps)	Lighting Design Lumens
35	9	70	0.6	4,300
55	9	104	0.69	7,150
90	9	112	0.94	12,250
135	9	164	0.95	21,200

Further information: See page 7:13.

DIMENSIONS

	A max (mm)	B max (mm)
35w	53	311
55w	53	425
90w	67	528
135w	67	775



atlas 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 efficacies, 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 7:10

Burning Position

Horizontal $\pm 20^\circ$.

45w and 60w ratings may also be operated in the vertical cap up position.

Supply Voltage 200/250V

Rated Life 6,000 hrs

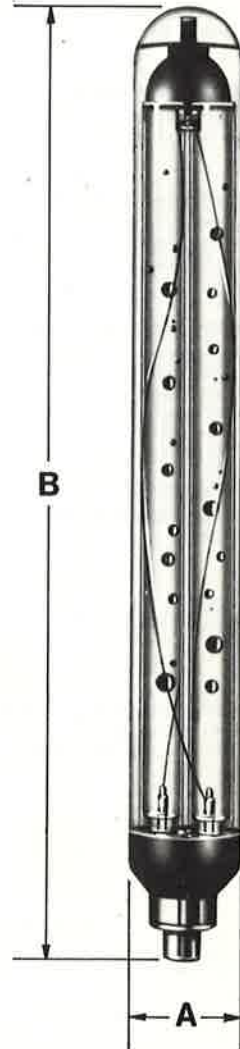
Guaranteed Life 4,000 hrs

Watts	Std. Pack	Nominal Volts	Lamp Current (amps)	Lighting Design Lumens
45	12	80	0.6	2,800
60	12	105	0.6	3,900
85	12	144	0.68	6,400
140	6	160	0.9	10,600

For further information see page 7:7.

DIMENSIONS

	A mm	B mm
45w	52	257
60w	52	310
85w	52	425
140w	67	528



atlas 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.

* SON lamps are quoted at 2000 hours representing an average over the first 5000 hours.

Mains Voltage Variation

Diagrams 1 and 2 show the effect of the variation of mains voltage on lumens, lumens per watt, total watts and mains current.

Spectral Distribution of Low Pressure Lamps

The discharge has a characteristic yellow colour, almost all of the visible energy being concentrated at 589/589.6 n.m.

Run-up time for Low Pressure Lamps

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. Typical run-up curves for linear lamps are shown in diagram 4.

Colour Appearance & Rendering of SON

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.

Run-up Characteristics of SON are shown in diagram 3.

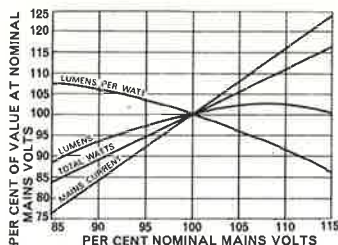
CONTROL GEAR Control gear for Discharge Lamps is described on pages 10:40 and 10:41.

British Standards

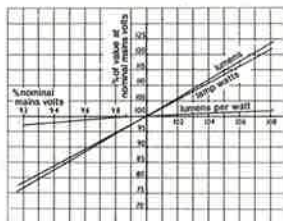
Lamps described in this catalogue conform to the following Standard where applicable.

BS 3767: 1964 Schedule of Sodium Discharge Lamps.

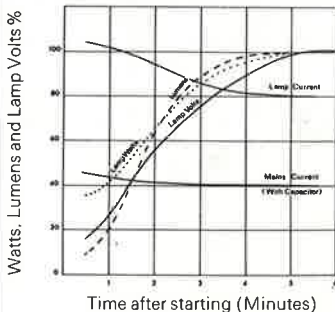
Effect of variation of mains voltage on sodium lamp characteristics.



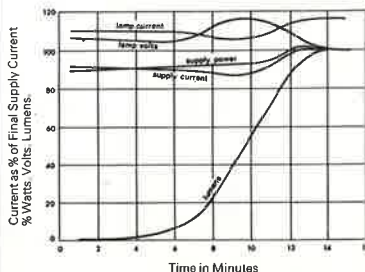
High Pressure.



Run-up characteristics of SON Lamps.



Typical Run-up Curves for SLI/H Lamp



Hytek Introduction & Index

The Mazda Hytek lamps are specialised Discharge 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 discharge 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.

7:13	Contents
	Introduction
7:14	Mercury Lamps for Projector purposes – Type MB/D
7:15, 7:16	Mercury Lamps for Projector purposes – Type ME/D
7:17	Mercury Lamps for Long Wave U.V – Type MBW (Black light)
7:18	Mercury Lamps for Long Wave U.V – Type M1 and M2
7:19	Mercury Lamps for Short Wave U.V – Type MBL/D
7:20	Compact source Mercury Iodide Lamp for Projector purposes – 400W CSI
7:21	Compact source Mercury Iodide Lamp for Projector purposes – 1,000W CSI
7:22	Compact source Sealed Beam Mercury Iodide lamp 1000W
7:23	Mercury Iodide Lamp – Type MBIL/H 750W
7:24	Mercury Iodide Lamp Type MBIL/H 1600W
7:25	Mercury Iodide lamp Type MBIL/H 1200W
7:26, 7:27	Compact source Xenon Lamps – Type XE/D
7:28	Compact source and Linear source Xenon Lamp – Type XB
7:29	Standard Xenon Lamp '4 in 1' Housings
7:30 7:31	Pulsed Xenon Arc Lamps Tubular & Helical
7:32	Short and Long Wave U.V and Germicidal Lamps – Fluorescent Tube types
7:33	Neon High Intensity Obstruction Light

Mazda

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.

The lamps require control gear consisting of a choke and power factor correction capacitor.

TYPICAL APPLICATION

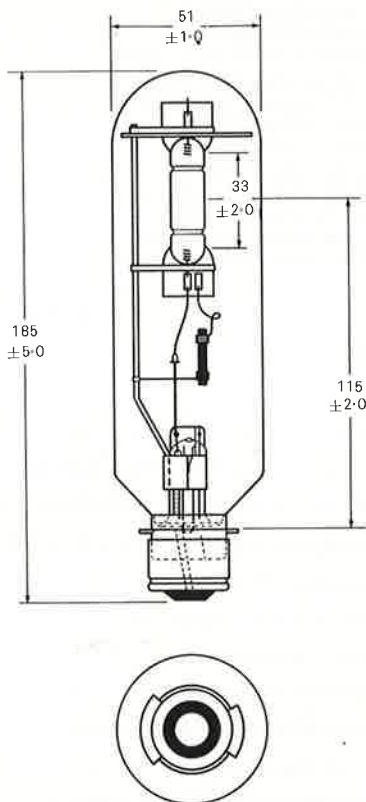
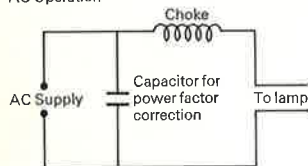
Optical instruments requiring accurate optical control eg spectroscopes, comparators, and other 'slit' instruments.

CONTROL GEAR 240V 50Hz.

Rating	Choke Catalogue No.	Capacitor Catalogue No.	Mfd rating
125W	AME 53159-4	AME C2234	8

CIRCUIT DIAGRAM

AC Operation



All dimensions in mm

LAMPS

Reference No.	Watts	Arc Length	Cap	Lamp Operating Volts	Amps	Starting Current	Design Average Lumens	Life Hours
91-1159	125	33 ± 2	P28/25	110/140	1.15	2.0-1.5	4,000	1,500

Mazda

DESCRIPTION

TYPICAL APPLICATIONS

TYPICAL APPLICATIONS
Monochrome slide and film projectors. Film printing. Projection microscopes. Profile projectors.

LAMPS

Reference No.	Watts	Arc Length mm	Cap	Outer Casing	Illus.	Lamp Operating Volts	Operating Amps	Starting Current Amps.	Max. Brightness Stilbs	Mean HCP	Life Hours
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
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
94-0051	250	3-75	3-pin	Tubular Glass Bulb	2	60/75	3-7/4-6	4/5	20,000	1,300	500
94-0101	250	3-75	P28/25	Oval Metal Case	3	60/75	3-7/4-6	4/5	20,000	1,300	500
94-0151	1,000	6-5	Cylindrical with Disc	—	4	60/75	16/18	20/22	40,000	7,000	500

1

Figure 1: Dimensions of the BSS 546 connector. The diagram shows a side view and a top view of the connector. The side view shows a total height of 141 ± 3 mm, with a distance of 85 ± 1 mm from the base to the top of the connector body. The top view shows a circular base with a diameter of 19 mm. The distance between the two DC pins is 50 ± 2 mm. The distance from the center of the DC pins to the center of the Earth pin is 22.2 mm. The distance from the center of the DC pins to the center of the Negative for DC operation pin is 3.75 ± 0.35 mm. The distance from the center of the DC pins to the center of the Positive for DC operation pin is 3.75 ± 0.35 mm.

2

of prefocus cap

3-75 \pm 0.35

Positive for DC operation

5

43

Note position of small flange relative to raised portion

34

26.5

max.

1CL 55-5 \pm 0.5

0 10 20 30 40 50 60 70 80 90 100

3

[illegible]

4

Mazda

Mercury lamps for projector purposes – Type ME/D

CONTROL GEAR AC Operation

Rating	Supply AC	Choke	Capacitor	Starting Capacitor	
		Catalogue No.	Catalogue No.	Rating mfd.	
250W	200/250V	AME 53235	AME C2275	60	—
1,000W	200/250V	4 x AME 53235	3 x AME C2276	3 x 80	0.5 mfd*

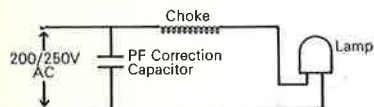
*TCC type CP142W – 1,000V working – 70°C max. working temperature or equivalent.

CONTROL GEAR DC Operation

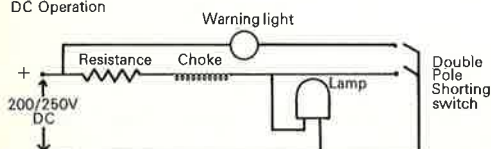
Supply Volts DC	250W		1,000W	
	Series Resistance Ohms	Choke	Series Resistance Ohms	Current Rating Amps
200	35.2	AME C53235	8.9	22.5
210	37.0		9.5	22.0
220	40.6		10.2	21.6
230	43.3		10.9	21.0
240	46.0		11.5	20.8
250	48.7		12.2	20.4

CIRCUIT DIAGRAMS – 250W LAMPS

AC Operation

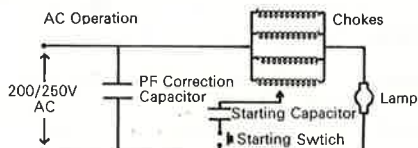


DC Operation

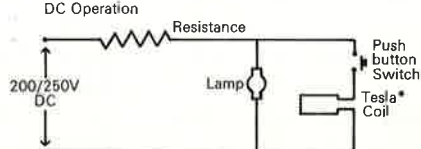


CIRCUIT DIAGRAMS – 1,000W LAMPS

AC Operation



DC Operation



Mazda

Type MBW (Blacklight)

Mercury lamp for long wave u.v.

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 Nanometres 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.

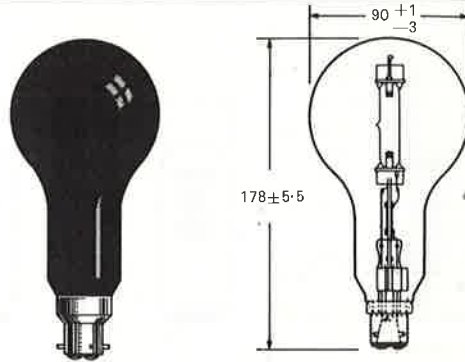
The lamp is designed for operation on 200/250W AC supplies with suitable control gear in the form of a series choke and power factor correction capacitor. It will operate in any position.

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.

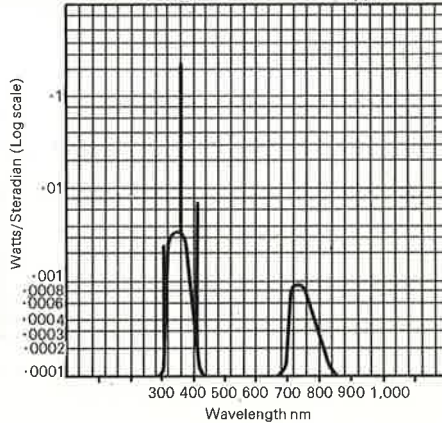
CONTROL GEAR

Rating	Choke Catalogue No.	Capacitor Catalogue No.	Mfd rating
125W	AME 53159-4	AME C2234	8

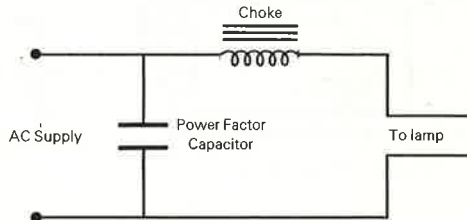


All dimensions in mm

SPECTRAL DISTRIBUTION lines assumed to occupy a bandwidth of 5 nm



CIRCUIT DIAGRAM



LAMPS

Reference No.	Watts	Cap	Lamp Operating Volts	Amps	Starting Current	Life Hours
91-6217	125	B22/31 x 30 3-pin	110/140	1.15	2.0/1.6	1,500

Mazda 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.

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.

CONTROL GEAR M1 lamps DC Operation

Rating	Supply Volts	Series Resistance†	Heater Resistance†
4-5W	24 DC	24 Ohms	30 Ohms

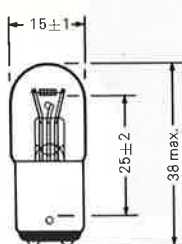
†Supplied by installer.

M2 LAMPS AC OPERATION

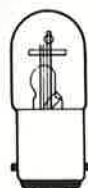
Supply Voltages	200/250V
Operating Current	0.9amps
Chokes in series	AME 62830-4 AME 62825

Alternatively series resistors of values between 480 and 160 ohms may be used in place of the series chokes to give operating currents ranging from 0.5 to 1.5 amps

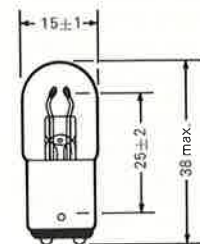
MERCURY DISCHARGE TUBE M.1



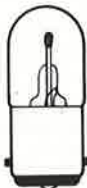
Side view



MERCURY DISCHARGE TUBE M.2

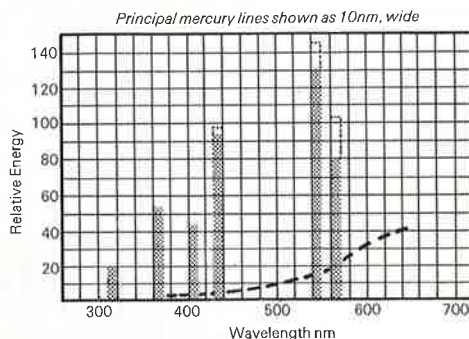


Side view

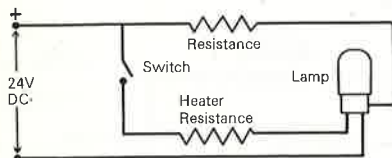


All dimensions in mm

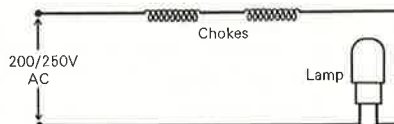
APPROXIMATE SPECTRAL ENERGY DISTRIBUTION for M 1 and M 2 Mercury discharge tubes



CIRCUIT DIAGRAMS



M1 Lamps - 24V DC Operation



M2 Lamps - 200/250V AC Operation

LAMPS

Type	Reference No.	Rating *	Supply Volts	Cap	Filament Current	Max. Arc Current	Life Hours
M1	98-9001	4-5W	22 DC Min	S.B.C.	0.8 Amp	0.75 Amp	200
M2	98-9002	4-5W	200/250 AC	S.B.C.	—	0.5/1.5 Amp	200

*At 0.75 Amp

Mazda

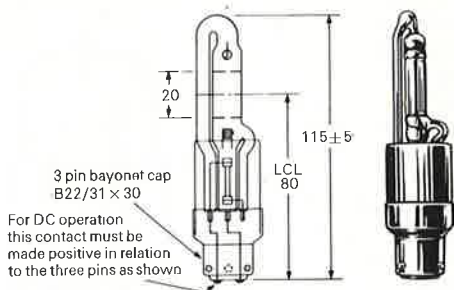
Mercury lamp for short wave u.v. - Type MBL/D

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.



TYPICAL APPLICATION

As a source of short wave U.V. in measuring instruments eg spectral photometers.

CONTROL GEAR AC Operation

Rating	Choke Catalogue No.	Capacitor Catalogue No.	Mfd rating
125W	AME 53159-4	AME C2234	8

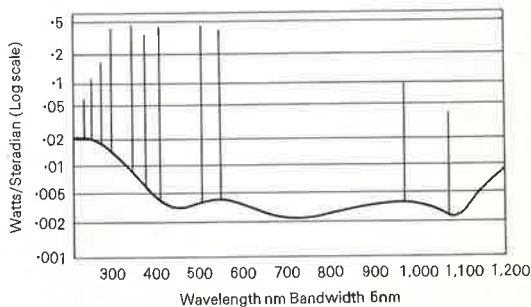
CONTROL GEAR DC Operation

Rating	Supply Volts DC	Resistance* Ohms	Current Rating Amps	Choke Reference No.
	200	79		
	210	87		
125W	220	95	2.3	AME 53159-4
	230	105		
	240	112		
	250	123		

*Supplied by installer

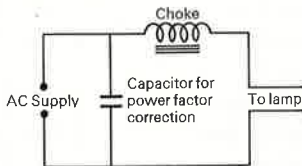
All dimensions in mm

SPECTRAL DISTRIBUTION

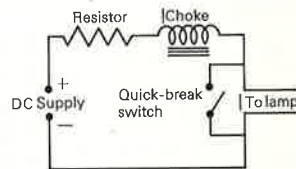


CIRCUIT DIAGRAMS

AC Operation



DC Operation



LAMPS

Reference No.	Watts	Arc Length mm	Cap	Lamp Operating Volts	Amps	Starting Current Amps	Max. Brightness Stilbs	Life Hours
91-9006	125	20	B22/31 x 30 3-pin	110	1.25	3.0	800	1,000

Mazda Compact source mercury iodide lamp for projector purposes 400W CSI

LAMP REFERENCE NUMBER 99-0201

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 pre-focusing 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.

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.

Control gear in box catalogue no. AME 53196.4

LAMPHOLDER

A lampholder, catalogue number L1101 is available for use with this lamp

PHYSICAL DIMENSIONS

(in millimetres)

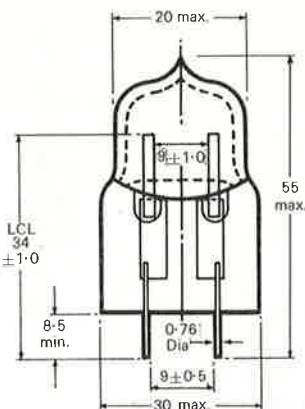
Arc Length	9 ± 1.0
Arc Size	9 x 5
Overall Length (max.)	55
LCL	34 ± 1
Diameter (max.)	30
Pin Length (min.)	8.5
Pin Spacing	9.0 ± 0.5
Pin Diameter	~76

LIFE

(Normal objective) - 100 hours

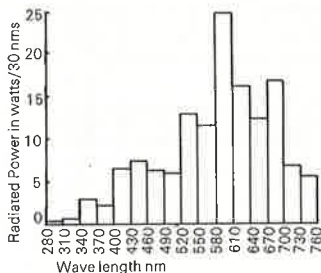
OPERATING POSITION

Universal



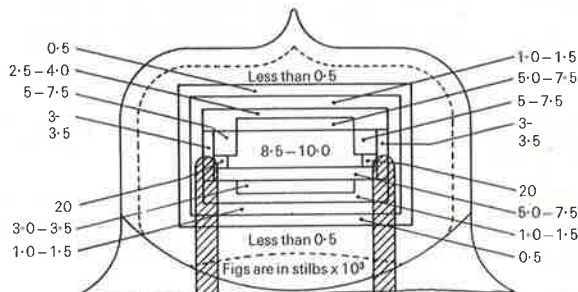
TYPICAL SPECTRAL POWER HISTOGRAM

for the 400W compact source iodide lamp



All dimensions in mm

TYPICAL BRIGHTNESS DISTRIBUTION DIAGRAM



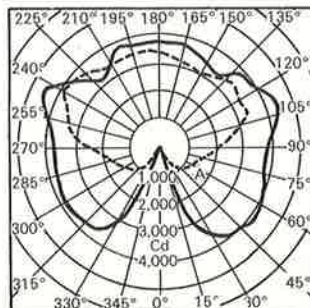
ELECTRICAL CHARACTERISTICS

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

LUMINOUS CHARACTERISTICS

Initial Lum. Eff. (min.)	80 lumens/watt
Lumen Maintenance	90%
Colour Rendering	Good
Chromaticity Co-ordinates	x = .433 y = .382

TYPICAL CANDLEPOWER DISTRIBUTION IN VERTICAL PLANES



A - through electrodes
B - normal to electrodes



Plan view of lamp

LAMP REFERENCE NUMBER 99-0221

DESCRIPTION

The 1000W Compact Source Iodide Lamp gives white light of good colour rendering at an efficiency of 93L/W for 200 hours life

APPLICATIONS

The high efficiency, robustness and small size of this lamp, makes it eminently suitable for projector purposes such as for follow spotlights.

ELECTRICAL CHARACTERISTICS

Supply volts	240
Arc watts	1000
Arc volts	70—85
Arc current	15 amps
Run-up time	30 secs
Re-start time	2—5 mins

DIMENSIONS

Arc length	14 ± 1 mm
Overall length	115 mm max.
Light centre length	63.5 ± 2 mm
Diameter	32 mm max.
Cap	Medium Bipost—G22

LUMINOUS CHARACTERISTICS

Initial efficiency L/W	93
Lumen maintenance	80%
Colour rendering	Good
Chromaticity coordinates X	0.424
Y	0.402

LIFE

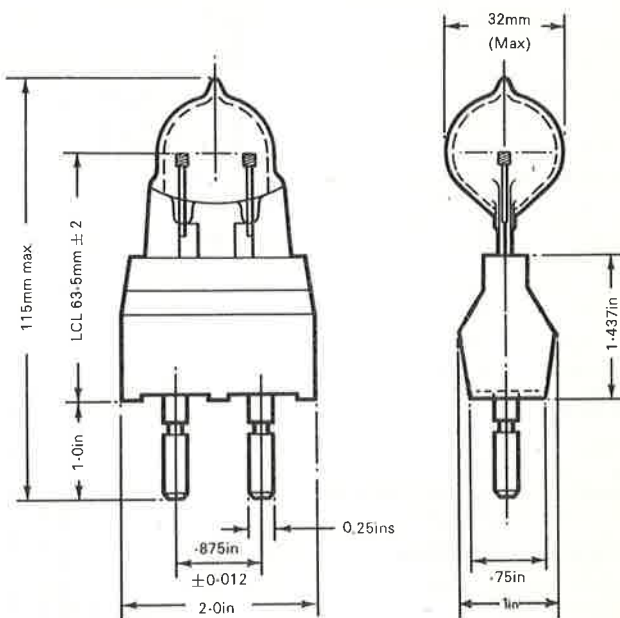
(Nominal objective) — 200 hours.

OPERATING POSITION

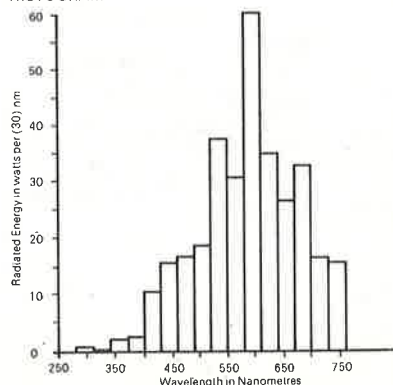
Universal

CONTROL GEAR

Control gear and box AME 53255



TYPICAL SPECTRAL POWER HISTOGRAM



atlas

1000W Sealed Beam CSI

DESCRIPTION

The 1kW sealed beam compact source iodide lamp consists of the standard 1kW CSI lamp 99-0221 (see opposite) enclosed in an 8in diameter sealed-beam reflector envelope. This results in a beam intensity of 1.5 million candelas with a beam spread of 18° (to 0.1 peak intensity).

APPLICATIONS

Floodlighting, especially for filming TV outside broadcasts. Also as a general replacement for carbon arcs.

ELECTRICAL CHARACTERISTICS

Supply voltage	220, 240, AC
Arc watts	1000
Arc volts	70/85
Arc current	15 amps approx.
Run-up time	30 secs
Restart time	5 minutes

DIMENSIONS

Diameter	205mm
Overall length	175mm maximum
Cap	Bi-post G38

LUMINOUS CHARACTERISTICS

Initial beam candlepower (peak)	1.5 million candelas
Beam spread	$\frac{1}{2}$ Peak $\frac{1}{4}$ Peak $\frac{1}{2}$ Peak $\frac{1}{4}$ Peak
	$\pm 3^\circ$ $\pm 4^\circ$ $\pm 6^\circ$ $\pm 9^\circ$

COLOUR RENDERING

Good
Chromaticity co-ordinates: X=0.424
Y=0.402

LIFE

(Nominal objective) 500 hours

OPERATING POSITION

Universal

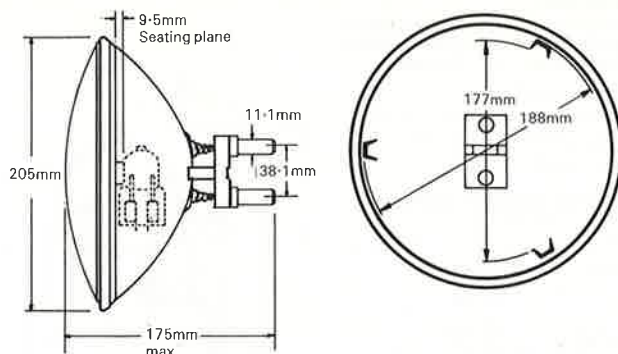
CONTROL GEAR

Control gear and box, AME 53255, consisting of series Ballast circuit and high voltage pulse starter unit. The starter unit is mounted on a detachable chassis and may be removed and fixed separately. This enables the starter unit to be mounted on the lamp housing ensuring a short, totally enclosed HT lead.

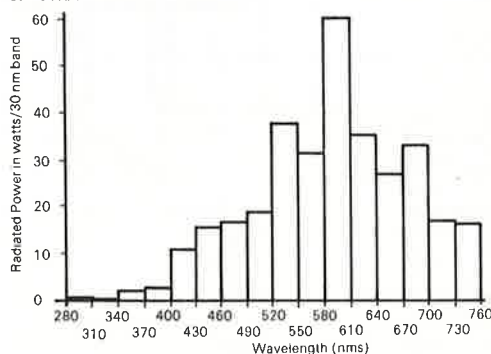
LAMP FITTINGS

Suitable fittings, COM 1000 series, are available for use with this lamp, giving a variety of light distributions and incorporating the starter unit in the fitting housing.

LAMP REFERENCE NUMBER 99-1222



SPECTRAL ENERGY HISTOGRAM



WARNING

The unit generates high voltage pulses for lamp starting. Suitable safety precautions should be taken during installation and operation of the unit. The control unit and associated lamp house must be earthed. The H.V. cable should be protected from accidental damage. The supply must be disconnected before servicing. For outdoor use the lamp must be protected from rain.

atlas

Mercury iodide lamp Type MBIL/H 750W

OD:0750 FITTING with 750W lamp and gear

Supply voltage – 200/250 A.C.

DESCRIPTION

A mercury iodide lamp with a quartz tube loaded below 100W/cm, arc length at a pressure of 8/10 atmospheres.

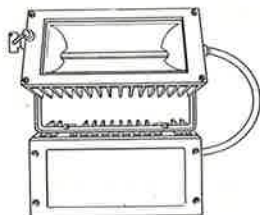
The lamp is for use in OD.0750 floodlight fitting only and the data for the lamp is this fitting is as below :-

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

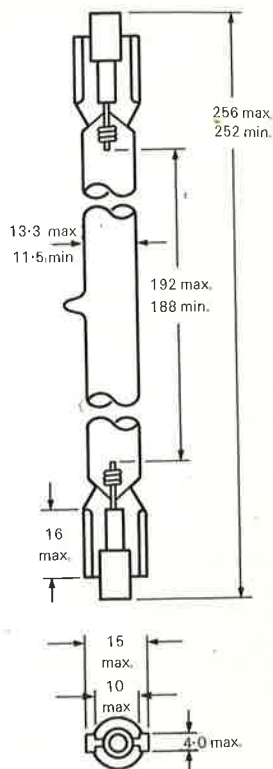
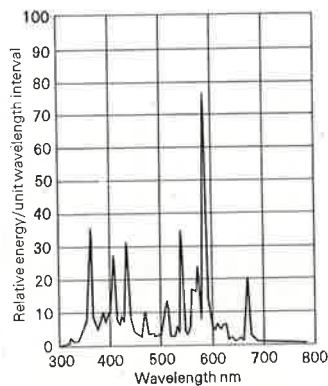
APPLICATION

The lamp is an integral part of the OD.0750 floodlight which is primarily used for high tower floodlighting applications outdoors.

Watts	Lamp Reference No.	Std. Pack
750	91-7461	1
Life 3,000 hours		



SPECTRAL DISTRIBUTION of 750W mercury iodide lamp



All dimensions in mm

Mercury iodide lamp Type MBIL/H 1600W

LAMP REFERENCE NUMBER 91-7475

DESCRIPTION

A mercury iodide lamp with quartz arc tube loaded below 100W/cm at a pressure of 8/10 atmospheres. The lamp is for use in ON 1600 floodlighting fitting.

CONTROL GEAR

(See circuit diagram)

Supply volts	220, 240, 50Hz
Rating	1 600W
Chokes	2 x AME 53254-4
Capacitors	6 x AME 2236

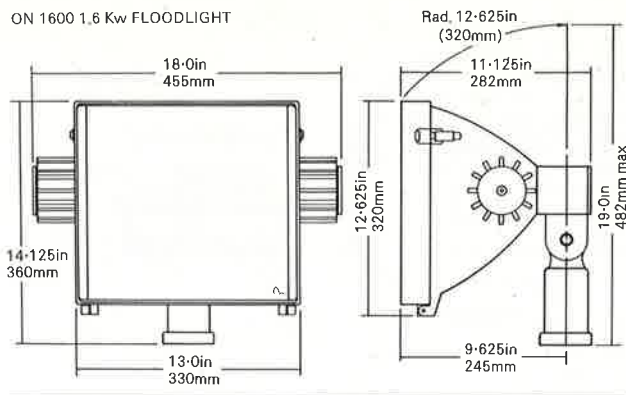
LAMP CHARACTERISTICS

Rating	1 600W
Caps	Ceramic
Operating volts	450
Operating amps	3.75
Nominal lumens (initial)	135 000
Nominal lumens (throughout life)	115 000
Life (hrs)	2000 hours life

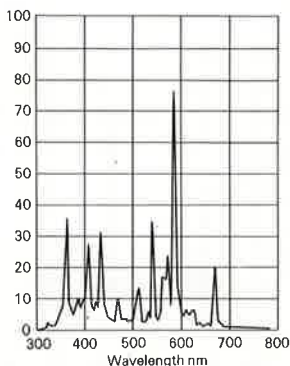
SAFETY PRECAUTIONS

The light emitted by the lamp should not be observed with the naked eye for it has a U.V. content normally filtered out by the projector. The lamp (arc tube) should not be touched with the bare hand but if this is unavoidable, it should be cleaned with a methylated spirit damped cloth before operation.

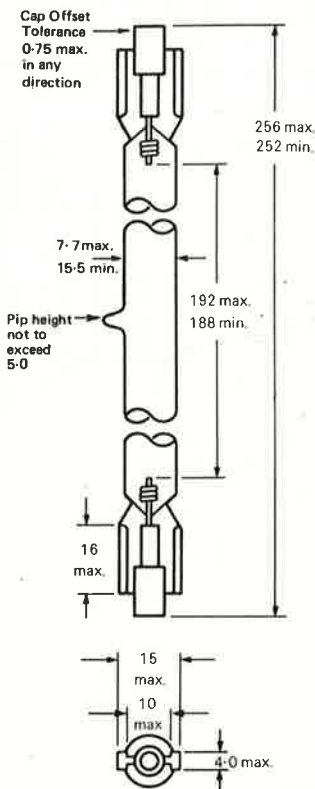
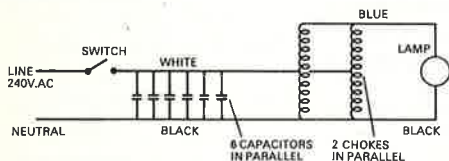
ON 1600 1,6 Kw FLOODLIGHT



TYPICAL SPECTRAL DISTRIBUTION CURVE



CIRCUIT DIAGRAM



All dimensions in mm

mazda

Mercury iodide lamp Type MBLI/H 1200W for Photoprinting

LAMP REFERENCE NUMBER 91-7470

DESCRIPTION

A mercury iodide lamp with a quartz arc tube loaded below 100W/cm arc length at a pressure of 8/10 atmospheres.

The Halide additives to the arc tube are chosen to give maximum radiation in the 360 to 450 nanometre region. The lamp is designed to operate in an enclosure in still air. It will only remain stable in operation provided the quartz wall temperature operates between 600 and 750°C.

GENERAL APPLICATION

For photoprinting purposes in the graphic arts industry, this encompasses diazo printing, photo-resists etc. The UV output enables faster printing speeds than those obtained from conventional carbon-arc lamps.

CONTROL GEAR

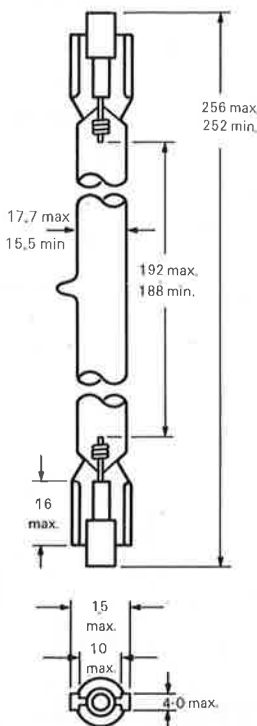
(See circuit diagram)

Supply volts	240V 50Hz
Rating	1 200W
Chokes	2 × AME 53254-4
Capacitors	6 × AME C2236
Life rating	25

LAMP CHARACTERISTICS

Rating	1 200W
Caps	Ceramic
Operating volts	350±30
Operating amps	4.0
Life	500 hours

Operating position – Horizontal

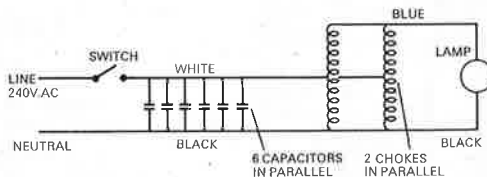
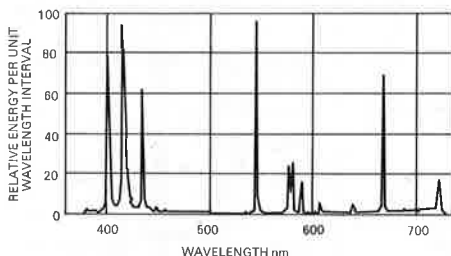


All dimensions in mm

TYPICAL SPECTRAL DISTRIBUTION CURVE

CIRCUIT DIAGRAM

SPECTRAL ENERGY DISTRIBUTION 1200w. MBLI/H LAMP



Mazda

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 atmosphere 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.

APPLICATION

High speed photography and cinematography
Colour matching
Fadeometer testing
Graphic arts
Optical instruments
Laboratory and general scientific purposes.

POSITION OF BURNING

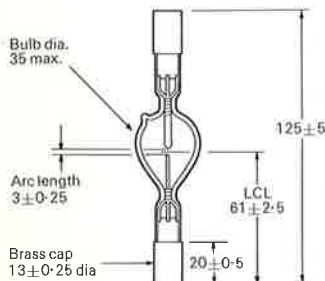
Vertical $\pm 15^\circ$ except for 2KW 3 electrode lamp which burns vertically or horizontally $\pm 15^\circ$.

CAPS

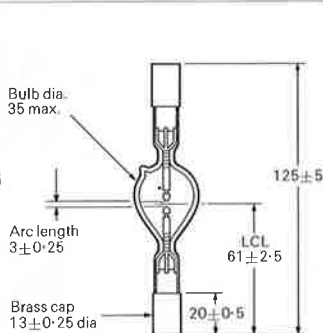
All lamps are fitted with special cylindrical caps. Lamps of 500W and 2KW have a cone centre for mounting, and a flexible lead.

250W/DC

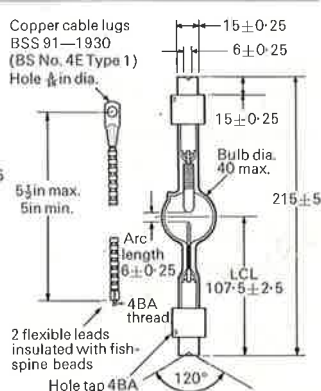
All dimensions in mm unless otherwise stated.



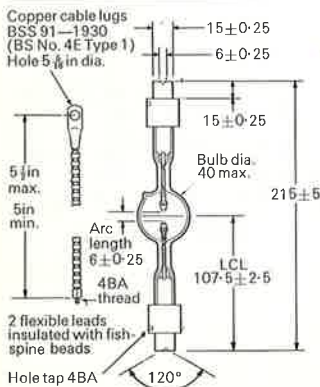
250W/AC



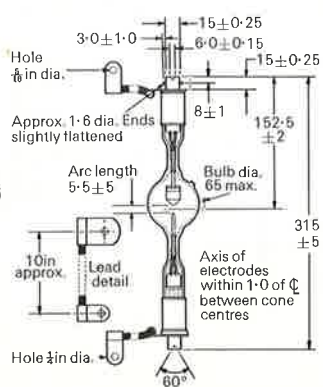
500W/DC



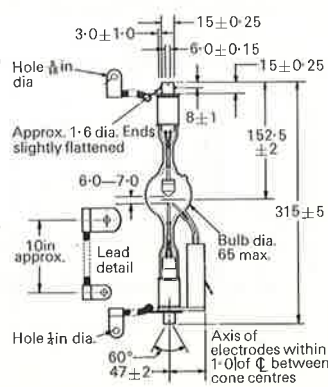
500W/AC



2 KW 2 Electrode



2KW DC 3 electrodes



Mazda

Compact source xenon lamps Type XE/D

LAMPS

Rating Watts	Reference No.	Supply Volts	Arc size mm	Lamp Operating Volts	Amps	Lumens	Luminance*	Life Hours
250	98 - 0352	65 min DC	3×2	16.5	15	5,000	11,000	1,500
250	98 - 0351	200/520 AC	3×2	16	17	5,000	10,000	500
500	98 - 1002	65 min DC	5×3	22	23	12,000	20,000	1,000
500	98 - 1001	200/250 AC	5.5×3	20	27	11,000	11,000	500
2KW 2 Electrodes	98 - 1506	65 min DC	4.5×4	25	80	70,000	120,000	1,000
2KW 3 Electrodes	98 - 1503	35 min DC	6.0×4	23	87	64,000	80,000	1,000

*Luminance= Average luminance of brightest circle of 2mm diam, in candelas/sq.cm.

CONTROL GEAR for AC lamps on 200/250V/50Hz supplies

Starter		Chokes		Capacitors		Mains Current Amps
Rating	Catalogue No.	Catalogue No.	Watts Loss	Mfd	Catalogue No.	
250W	AME 53239	4 x AME 53235	100	160 or 200	2 x AME C2276 2 x AME C2275 + AME C2276	5 2
500W	AME 53239	6 x AME 53235	150	240 or 300	3 x AME C2276 3 x AME C2275 + AME C2275	8½ 4½

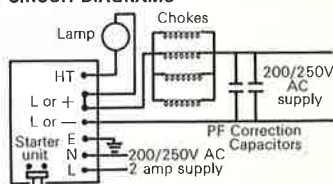
CONTROL GEAR for DC lamps on 35/65V DC supplies

Rating	DC Supply Volts	Starter		Series Resistance	
		Catalogue No.		Ohms	Current Amps
250W	65V min.	AME 53239		$\frac{V-16.5}{15}$	15
500W	65V min	AME 53239		$\frac{V-25}{23}$	23
2KW 2 Electrodes	65V min	AME 53233		$\frac{V-25}{80}$	80
2KW 3 Electrodes	35V min	AME 53234		$\frac{V-23}{87}$	87

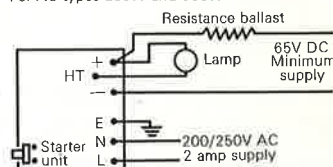
CONTROL GEAR for DC lamps on 200/250V 50Hz supplies

Rating	Starter Catalogue No.	Rectifier Ballast Catalogue No.
250W	AME 53239	AME 53236
500W	AME 53239	AME 53236
2KW 2 Electrodes	AME 53233	AME 53237
2KW 3 Electrodes	AME 53234	AME 53238

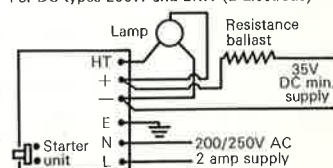
CIRCUIT DIAGRAMS



For AC types 250W and 500W



For DC types 250W and 2KW (2 Electrode)



For 2KW (3 electrode)

Mazda

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°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 Control Gear and Accessories Catalogue.

APPLICATION

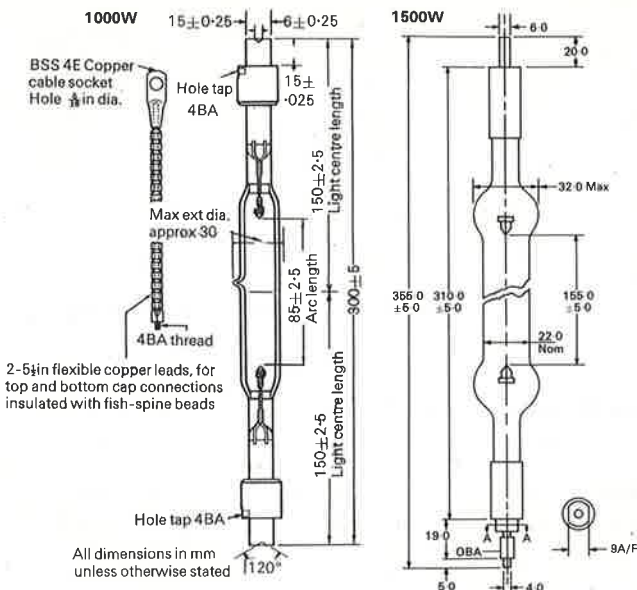
High speed photography and cinematography
Colour matching
Fadeometer testing
Graphic arts
Optical instruments
Laboratory and general scientific purposes.

POSITION OF BURNING

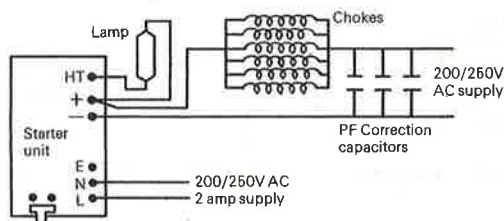
Vertical $\pm 15^\circ$

CAPS

Special cylindrical.



CIRCUIT DIAGRAM



LAMPS

Rating	Reference No.	Supply Volts	Arc Length (mm)	Lamp Operating Volts	Amps	Lumens	Life
1000W	98-0125	200/250V 50HZ	85 \pm 2.5	42	25	22,000	500
1500W	98.0160	200/250V 50HZ	155	65/80	20/25	33000	1500

CONTROL GEAR

Rating	Starter Reference No.	Chokes Reference No.	Capacitors MFD	Reference No.	Mains Current Amps
1000W	AME 53239	6 x AME 53235	240 or 300	3 x AME C2276 3 x AME C2276 + AME C2275	7 1/2 5
1500W.	DETAILS	ON	APPLICATION		

Mazda

Standard xenon lamp '4 in 1' housings

GENERAL SPECIFICATION

The '4 in 1' system Four optical systems each 90° apart, can be illuminated by a single xenon lamp. The '4 in 1' range of two standard lamp housings has been designed to accommodate 250W or 500W-2KW xenon lamps.

Construction and finish Both lamp-houses are in 16 SWG mild steel welded construction and finished in grey synthetic stoving enamel.

Lamp mounts and shields The mount is a unit assembly, is fully adjustable and retains the xenon lamp between spring loaded retention cups. The lamp is surrounded by a metal box type heat shield which also provides mechanical protection. The lamp housings are supplied with four plastic feet for free standing operation.

Mechanical adjustments All mechanical adjustments are carried out by varying the position of the lamp mount assembly.

Electrical connections Provision for three cable inlets has been made, in addition to an earth connection.

250W HOUSING CATALOGUE No. AME 6078

Dimensions

Base	6in x 6in
Overall height	10½in
Optical centre line height from table surface	5in
Weight	10lbs

Optical features Provision is made for mounting a standard 2in x 2in heat filter to the lamp shield.

Cooling Under normal operating conditions, convection cooling only is necessary. For continuous operation or for operation in confined spaces, forced air cooling may be necessary.

Safety The front panel is retained by four screws and cannot be accidentally opened. The housing must be effectively earthed before switching on. Unauthorised persons should not have access to the housing interior once electrical connection has been made.

500W/2KW HOUSING CATALOGUE No. AME 6077

Dimensions

Base	12in x 12in
Overall height	26in
Optical centre line height from table surface	9½in
Weight	50lbs

Optical features Provisions is made for the attachment of a rear aluminised spherical mirror by means of an adjustable mount



AME 6078



AME 6077

attached to the lamp shield. On the opposite face provision is made for mounting a standard 2in x 2in heater filter. The aluminised reflector is supplied as part of the standard unit, but heat filters are not included.

SAFETY REQUIREMENTS

Ventilation Xenon lamps when in operation, generate ozone. Adequate room ventilation or the use of a ducted system where necessary, must be provided.

U.V radiation The radiation from a xenon lamp is rich in ultra-violet, and when the eyes and skin are exposed directly to the radiation, harmful effects such as conjunctivitis and skin irritation may be experienced. A completely sealed lamphouse system will ensure maximum safety.

ADDITIONAL FACILITIES

The standard housings are designed for free standing use. However, to ensure precise registration of the housing in one or more

optical systems, provision has been made for Kinematic mounting. A special Kinematic base plate suitable for either housing, providing location for PTI standard optical benches is available.

Other available accessories include—
Heat filters.

Special lens mounts to accept a range of standard lenses, condensers and other proprietary optical systems.

Fan cooling units for 250W housing ducts.

Enquiries for these additional features should be made to—
Goulding & Partners (Consultant Engineers) Ltd, 1a Essex Road, Acton, London W.3.

Mazda

Pulsed xenon arc lamps (linear types)

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.

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
Until recently the standard light source for copy board illumination has been the open carbon arc. Over the last two or three years special discharge lamps have been used, particularly pulsed Xenon lamps.

CONTROL GEAR

Light output is controlled by the gear which pulses the lamp for a specific period. The lamps are designed to operate at a 100 cycle per second pulse rate for pulse width of 1 millisecond at half peak.

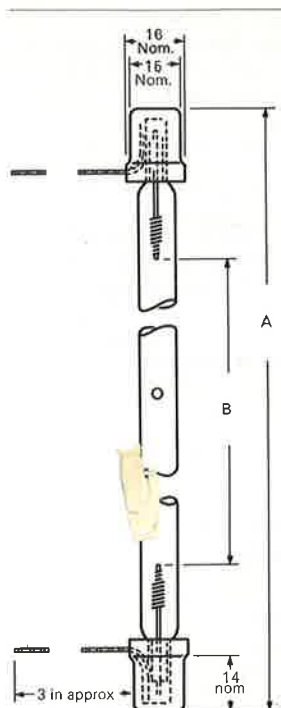
Suitable gear for operating the lamp is manufactured by Thymer, Ascomvx, Et Littlejohn. Other companies have gear under development.

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
Efficacy	25 lumens per watt
Life	500 hours.

LAMPS

Rating	Lamp Reference No.
1,500W	98-2015
3,000W	98-2030



Rating	A	B
1,500W	392±3	310 approx.
3,000W	695±3	615 approx.

All dimensions in mm
unless otherwise stated

atlas

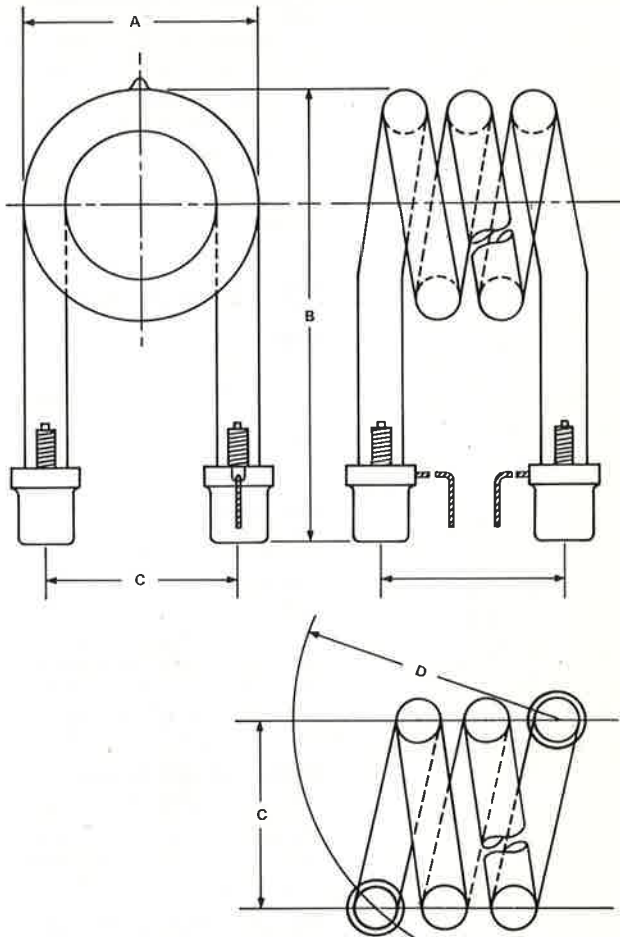
Helical pulsed Xenon lamp

LAMP SPECIFICATION

Caps	Ceramic with flexible leads	
Supply volts	200/250V 50Hz	
Pulse frequency	100Hz	
Design wattage	4kW	8kW
Efficacy	30L/W	
Life	200 hours	
Lamp references	98-2050	98-2070

DESCRIPTION

These pulsed xenon lamps are higher wattage versions of the linear type (shown opposite), designed to operate on control-gear providing 100 c.p.s. pulses. In order to provide a more concentrated source the quartz tube is formed into a helix.



	4 kw	8 kw
A	60 max	60 max
B	118 max	118 max
C	48	48
D	64.5	102

Mazda

Short and long wave u.v. fluorescent tube types

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 Nanometres 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 No.	Lamp Reference	Nominal Dimensions	Std. Pack
		mm.	
15W	92-2013	18"×1"	457×25 25
30W	92-4540	3'×1"	914×25 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

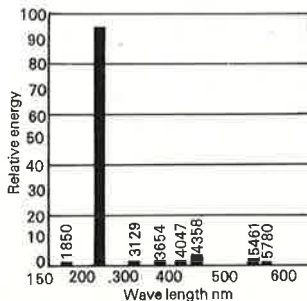
Type	Ratings
Ultra-Violet (Non filter)	5ft 65/80W, 4ft 40W, 2ft 20W, 1½ft 15W, 12in 8W
Blacklight blue U.V.	4ft 40W, 1½ft 15W, 12in 8W, 9in 6W, 6in 4W

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



Mazda

Linear neon high intensity obstruction lights

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.

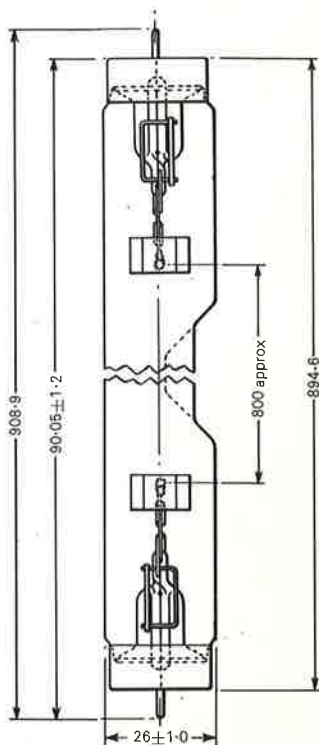
LAMP DATA

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 1,850 lumens
Rated life continuous burning 4,000 hours
Rated life flashing 30 million flashes

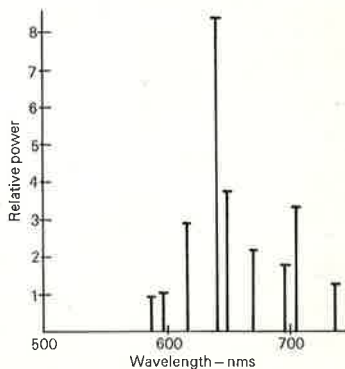
DIMENSIONS

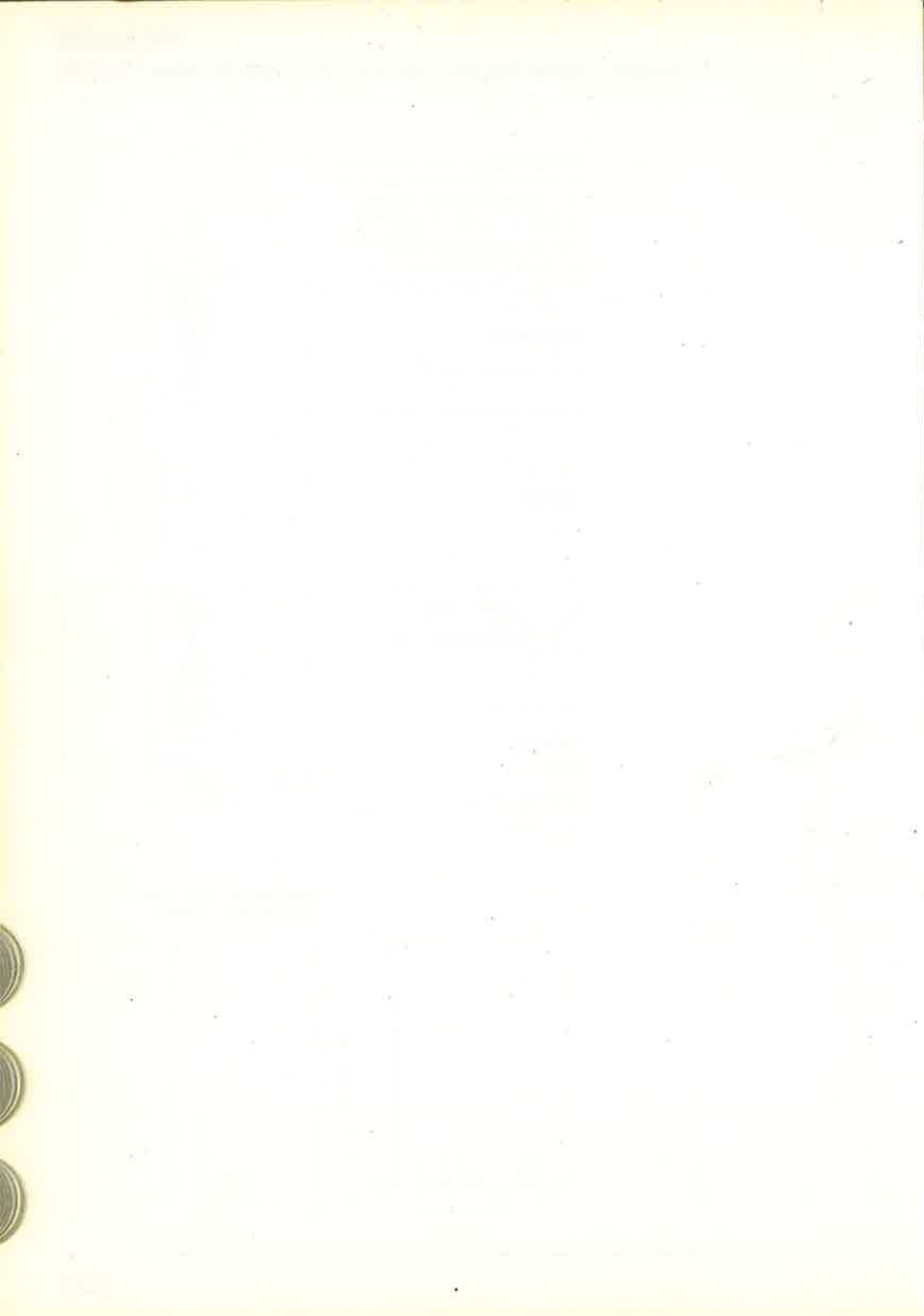
Diameter 26mm ± 1 mm
Overall length 35.78in maximum
Caps G 13/10 \times 24 - bi-pin

LAMP REFERENCE NUMBER 98-4501



160W LINEAR NEON LAMP
Spectral energy diagram





8:1	Index
8:2	Lamp number index
8:3	Lamp number index
8:4	Sealed-beam headlamps
8:5	Tungsten halogen lamps
8:6	British pre-focus & ordinary headlamps
8:7	Mazda flash and stop tail
8:8	Mazda flash and stop tail
8:9	Indicator panel lamps
8:10	Festoon and wedge base lamps
8:11	Cycle dynamo & Flashlights
8:12	Bus, coach, yacht and telephone visual and telewriter lamps
8:13	Radio Panel and Minors Lamps
8:14	Lamp Cap Dimensions
8:15	Lamp-Car Applications guide
8:16	Lamp-Car Applications guide
8:17	Lamp-Car Applications guide
8:18	Lamp-Car Applications guide

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 Ref. No.	Lamp No.	Volts	Watts	Description	Std. Pack	Page No.	Lamp Ref. No.	Lamp No.	Volts	Watts	Description	Std. Pack	Page No.
25-0001	12	24		Headlight	10	8:6	25-0317	6	21		Stop Flasher	10	8:7
25-0002	12	36		Headlight	10	8:6	25-0346	P25-1	24	21	Stop Flasher	10	8:7
25-0004	12	24		Headlight	10	8:6	22-0390		1.5	0.2	Flashlight	10	8:11
25-0005	12	36		Headlight	10	8:6	22-0414		12	50 & 40	Prefocus Headlight	10	8:6
25-0122	24	24		Headlight	10	8:6	26-0415		12	50 & 40	Prefocus Headlight	10	8:6
25-0123	24	36		Headlight	10	8:6	26-0416		12	60 & 40	Prefocus Headlight	10	8:6
20-0149	24	5		Side/Tail	10	8:8	26-0417		12	60 & 40	Prefocus Headlight	10	8:6
29-0150	24	5		Side/Tail	10	8:8	20-0501	W15	12	5	Wedge base indicator	5	8:10
26-0185	12	48		Prefocus Headlight	10	8:6	20-0502		24	5	Wedge base indicator	10	8:10
20-0205	6	5		Side/Tail	10	8:8	21-0504		12	3	Wedge base indicator	10	8:9
20-0206	6	6		Side/Tail	10	8:8	21-0505		24	3	Wedge base indicator	10	8:9
20-0207	12	5		Side/Tail	10	8:8	21-0506		12	1.5	Wedge base indicator	10	8:9
20-0209	12	5		Side/Tail	10	8:8	21-0641		6	3	Indicator	10	8:9
20-0228	28	6		Side SBC	10	8:8	21-0643		12	2.2	Indicator	10	8:9
20-0233	P25-2	24	21	Stop/Tail	10	8:7	21-0650		12	1.5	Indicator	10	8:9
26-0240	12	15		Stop/Tail	10	8:8	21-0651		24	2.8	Indicator	10	8:9
25-0253	6	6		Festoon	10	8:10	21-0695		24	2.8	Indicator Panel	10	8:9
23-0254	12	6		Festoon	10	8:10	21-0950		6	6	Indicator Panel	10	8:9
23-0255	6	3		Festoon	10	8:10	20-0951		6	6	Side/Tail	10	8:8
23-0256	12	3		Festoon	10	8:10	22-0970		2.5	0.2a	Flashlight	10	8:11
23-0260	24	6		Festoon	10	8:10	22-0972		2.5	0.3a	Flashlight	10	8:11
23-0270	12	18		Festoon	10	8:10	22-0974		3.5	0.15a	Flashlight	10	8:11
23-0272	12	10		Festoon	10	8:10	22-0977		3.5	0.3a	Flashlight	10	8:11
23-0273	12	21		Festoon	10	8:10	21-0985		16	3	Indicator	10	8:9
23-0274	24	10		Festoon	10	8:10	21-0987		12	2.2	Indicator	10	8:9
21-0280	12	1.5		Indicator	10	8:9	20-0989		12	5	Side/Tail	10	8:8
21-0281	12	2		Indicator, Panel	10	8:9	21-0990		6	3	Indicator Panel	10	8:9
26-0300							24-0991		6	0.04a	Cycle Dynamo Tail	50	8:11
26-0312	6	30					21-0993		24	2.8	Indicator	10	8:9
	8	24		Prefocus Headlight	10	8:6	24-0997		6	0.5a	Cycle Dynamo Head	50	8:11

Lamp number index

Lamp Ref. No.	Lamp No.	Volts	Watts	Description	Std. Pack	Page No.	Lamp Ref. No.	Lamp No.	Volts	Watts	Description	Std. Pack	Page No.
24-0998		6	0-10a	Cycle Dynamo Tail	50	8:11	27-3205	810	12	24	Bus Interior SBC	10	8:12
22-2003		5-0	0-15a	Flashlight	50	8:11	27-3217		40	36	Bus Interior BC	10	8:12
22-2004	835	4-5	0-3a	Flashlight	50	8:11	24-3361		60	0-06	Telephone visual	50	8:12
24-2012	844	6	0-25a	Cycle Dynamo Head	50	8:11	24-3551		24	0-1	Telewriter	50	8:12
24-2013	845	6	0-3a	Cycle Dynamo Head	50	8:11	24-3552		24	0-1	Telewriter	50	8:12
21-2020	867	24	2-8	Indicator, Instrument			24-3626		50	0-05	Telewriter	50	8:12
				Panel	10	8:9	24-3627		50	0-05	Telewriter	50	8:12
22-2031		2-2	0-25a	Lens-End-Flashlight	10	8:11	24-5106		4	0-46	Miners	25	8:13
22-2046	831	2-5	0-3a	Prefocus Flashlight	10	8:11	24-5657		3-6	1	Miners	25	8:13
24-2048		6	0-1a	Cycle tail	10	8:11	60-5700		12	37-5	Sealed Beam Head	10	8:4
24-2049		6	0-25a	Cycle tail	10	8:11	60-5702		12	50/37-5	Sealed Beam Head	10	8:4
22-2061	832	3-5	0-3a	Prefocus Flashlight	10	8:11	60-5712		12	50	Sealed Beam Head	10	8:4
22-2076	836	5-5	0-3a	Flashlight	10	8:11	60-5718		12	50/37-5	Sealed Beam Head	10	8:4
22-2077	838	5-5	0-3a	Prefocus Flashlight	10	8:11	60-5720		12	55	Tungsten Halogen		
21-2104		12	1CP	Panel Indicator							Fog	10	8:4
				Capless	10	8:9	60-5721		12	55	Tungsten Halogen		
24-2162	843	6	0-2a	Cycle Head	10	8:11					Spot	10	8:4
21-3025	850	6-2	0-3	Radio panel	10	8:13	24-5721		4	0-8	Miners	25	8:13
21-3028	857	6-5	0-3	Radio panel	10	8:13	60-5724		12	75	Sealed Beam		
21-3029		6-5	0-35	Radio panel	10	8:13					Headlamp	10	8:4
21-3030	855	6-5	0-3	Radio panel	10	8:13	24-5726		4	0-9	Miners	25	8:13
21-3033		6-3	0-15	Radio panel	10	8:13	24-5730		4	1	Miners	25	8:13
21-3043		6-3	0-25	Radio panel	10	8:13	28-6624		28	2-8	Aircraft Panel	10	8:10
21-3051	853	6-3	0-15	Radio panel	10	8:13	28-6680		28	11	Reading Lamp	10	8:10
21-3074	852	6-3	0-15	Radio panel	10	8:13	60-7002		12	60/45	Sealed Beam Head	10	8:4
21-3094		6-3	0-11	Radio panel	10	8:13	60-7010		12	75/50	Sealed Beam Head	10	8:4
24-3001		12	0-117	Telephone visual	50	8:12	60-7011		12	60/45	Sealed Beam Head	10	8:4
24-3015		36	0-045	Telephone visual	50	8:12	60-7012		12	75	Sealed Beam Head	10	8:4
24-3035		50	0-107	Telephone visual	50	8:12	60-7014		12	60/45	Sealed Beam Head	10	8:4
27-3125		6	0-04a	Telephone visual	50	8:12	85-7015		6	10	Min. T/H	10	8:5
27-3128	811	24	12	Bus Interior BC	10	8:12	85-7016		6	20	Min. T/H	10	8:5
27-3129	812	24	12	Bus Interior SBC	10	8:12	60-7017		12	60/45	Sealed Beam Head	10	8:4
27-3131	816	24	12	Bus Interior BC	10	8:12	60-7020		12	75/50	Sealed Beam Head	10	8:4
27-3132	817	24	12	Bus Interior SBC	10	8:12	60-7021		12	75/50	Sealed Beam Head	10	8:4
24-3165		17	0-045	Telephone visual	50	8:12	60-7023		12	60/45	Sealed Beam Head	2	8:4
24-3171		24	0-10	Telephone visual	50	8:12	60-7502						
24-3172		24	0-055	Telephone visual	50	8:12	60-7505		12	75/60	Sealed Beam		
27-3184	821	24	20	Bus Interior BC	10	8:12					Rectangular	10	8:4
27-3204	809	12	24	Bus Interior BC	10	8:12							

mazda

Sealed beam lamps



Exploded view TH unit 60-7023

60-7023

Headlamps – with 7in diameter lens

*with pilot aperture †Branded EDISWAN on lens

Lamp Ref. No.	Volts	Watts	Standard Pack	Drive	Dip
60-7002	12	60/45	10	R.H.	Left Average Intensity
60-7010	12	75/50	10	R.H.	Left Average Intensity
60-7011	12	60/45	10	L.H.	Right
60-7012	12	75	10	R.H.	—
60-7014*	12	60/45	10	R.H.	Left
60-7017†	12	60/45	10	L.H.	Right
60-7020	12	75/50	10	L.H.	Left Super Intensity
60-7021	12	75/50	10	R.H.	Left Super Intensity

Headlamps – with 5½in diameter lens

*with pilot aperture

60-5700	12	37.5	10	R.H.	—
60-5702	12	50/37.5	10	R.H.	Left
60-5712	12	50	10	R.H.	—
60-5718*	12	50/37.5	10	R.H.	Left
60-5724	12	75	10	R.H.	—

Headlamps – rectangular

*with pilot aperture

60-7505*	12	75/60	10	R.H.	Left
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Tungsten halogen auxiliary lamps – with 5½in diameter lens

These lamps are suitable for replacement in Lucas Silver Sabre and Lucas Silver Lance units

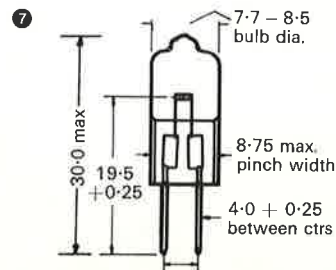
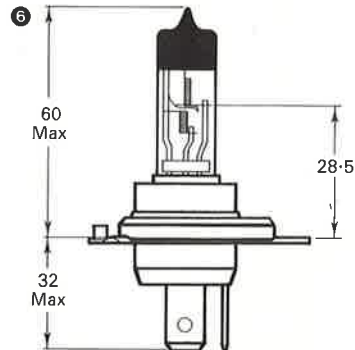
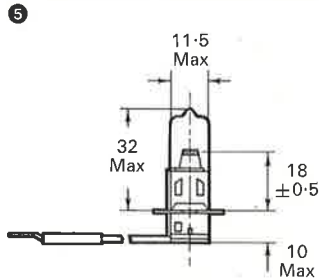
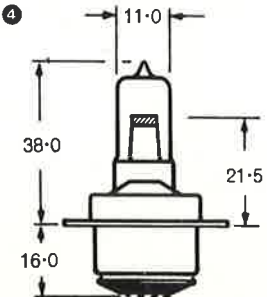
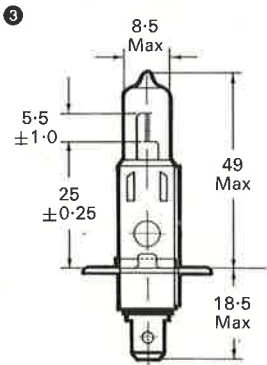
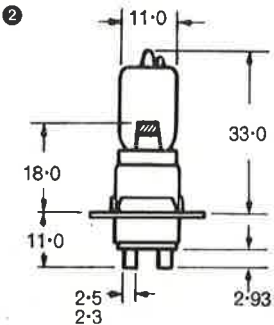
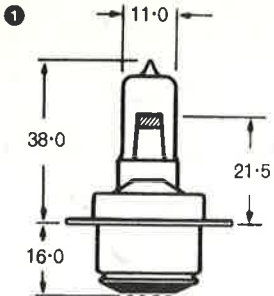
60-7023	12	60/55	10	R.H.	
60-5720	12	55	10	Fog	
60-5721	12	55	10	Spot	
60-5723	12	55	10	Long Range	

Tungsten Halogen Headlamps

60-7023	12	60/55	2	†Left Halogen Performance
‡asymmetric beam				

mazda Tungsten Halogen lamps

All dimensions in mm



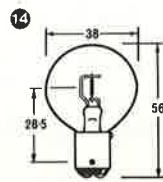
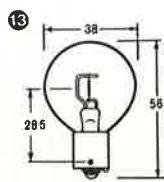
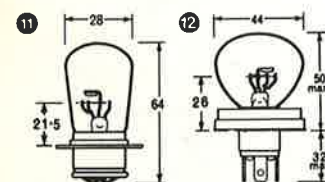
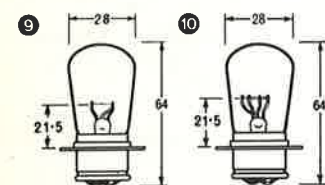
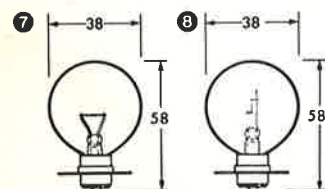
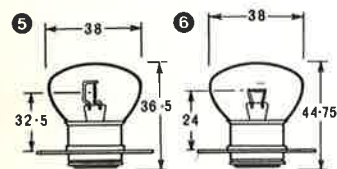
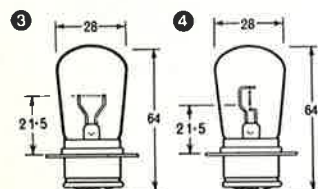
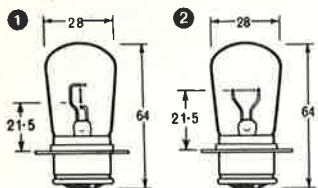
Lamp Reference No.	Volts	Watts	Standard Pack	Application and Illustration No.	Cap
26-0454	6	50	10	Fog and Spot (1)	BPF Single
26-0450	12	55	10		Contact P22s/21
26-0455	6	50	10	Fog and Spot (5)	PK22s
26-0453 * H3	12	55	10		PK22s
26-0448 † H1	12	55	10	Fog and Spot (3)	P145s
26-0459	24	70	10	Fog and Spot (1)	P22s/21
26-0458	24	70	10	Fog and Spot (4)	P22d/21
26-0463	12	60/55	10	Headlamp	Gd 6T/23422
26-0472 H4	12	60/55		Fog and Spot (3)	P43±38
85-7015	6	10	10	M29 miniature halogen (7)	Bi-pin 94
85-7016	6	20	10	‡M30 (7)	Bi-pin G4

* Internationally standardised and known as H3

† Internationally standardised and known as H1

mazda British and American prefocus headlamps and Ordinary headlamps

All dimensions in mm.



Single filament type – with BPF cap P22s/21 and P22d/21 as illustrated

Lamp Reference No.	Volts	Watts	Standard Pack	Filament	Contact	Illustration
26-0185	12	48	10	Axial	Single	1
26-0323	12	48	10	Transverse	Single	2
26-0331	24	44	10	Axial	Double	4
26-0330	24	44	10	Transverse	Double	3

SINGLE FILAMENT TYPE – with special prefocus cap P48d/21

26-0434	12	48	10	Axial	Double	5
26-0432	12	48	10	Transverse	Double	6

DOUBLE FILAMENT TYPE – with double contact caps as illustrated and transverse filaments

Lamp Reference No.	Volts	Watts	Standard Pack	Dip	Drive	Illustration
26-0312	6	30/24	10	Vertical	Either	9
26-0414 *	12	50/40	10	Left	R.H.	11
26-0415 *	12	50/40	10	Right	L.H.	11
26-0416 * †	12	60/40	10	Left	R.H.	12
26-0417 * †	12	60/40	10	Right	L.H.	12
26-0359	24	44/38	10	Left	R.H.	10

* These lamps have transverse shielded filaments (see illustrations)

† UEC – Unified European Cap

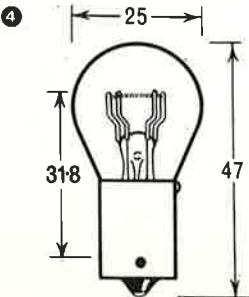
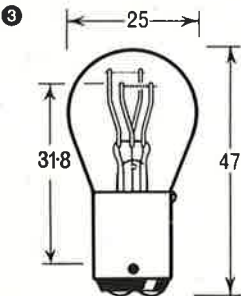
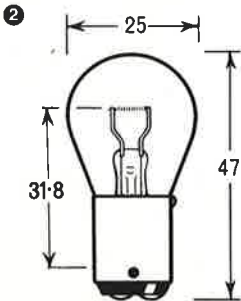
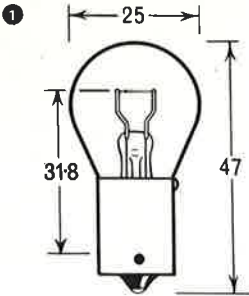
SINGLE FILAMENT TYPE

Lamp Reference No.	Volts	Watts	Standard Pack	Cap	Filament	Illustration
25-0001	12	24	10	SCC	Axial	13
25-0004	12	24	10	SBC	Axial	14
25-0002	12	36	10	SCC	Axial	13
25-0005	12	36	10	SBC	Axial	14
25-0122	24	24	10	SBC	Axial	14
25-0123	24	36	10	SBC	Axial	14

mazda

flasher & stop/tail lamps

All dimensions in mm.



FLASHER AND STOP/TAIL – with transverse filaments

Lamp Reference No.	ECE Regulation No.	Volts	Watts	Standard Pack	Cap	Illustration
25-0317		6	21	10	BA15s	1
25-0319		6	21	10	BA15d	2
25-0384		6	5/21	10	BA15d	3
25-0382	P25-1	12	21	10	BA15s	1
25-0335		12	21	10	BA15d	2
25-0343 *		12	21	10	BA15s	1
25-0381	P25-2	12	6/21	10	BA15d	3
25-0380	P25-2	12	5/21	10	BAY15d	3
25-0339		24	24	10	BA15s	1
25-0333		24	24	10	BAY15d	2
25-0334		24	5/21	10	BA15d	3
25-0241	P25-2	24	21	10	BA15d	4
25-0346	P25-1	24	21	10	BA15d	2
25-0382		12	21	10	SCC	1

* Amber bulb

† Externally silvered

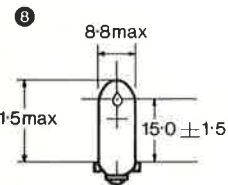
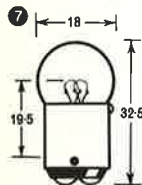
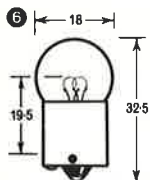
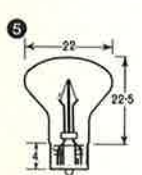
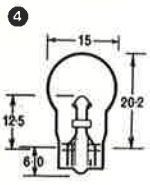
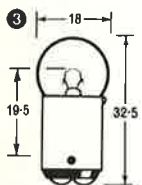
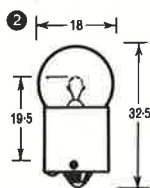
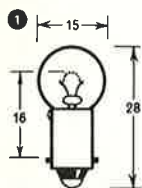
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Side & Tail Lamps

All dimensions in mm.

SIDE AND TAIL – with bow filaments

Lamp Reference No.	ECE Regulation No.	Volts	Watts	Standard Pack	Cap	Illustration
20-0988		6	3	10	BA9s	1
20-0951		6	6	10	BA9s	1
20-0205		6	5	10	BA15s	2
20-0206		6	6	10	BA15D	3
20-0501	W15	12	5	10	W2-1 × 9-5D	4
20-0989		12	5	10	BA9s	1
20-0207		12	5	10	BA15s	2
20-0209		12	5	10	BA15D	3
20-0502		24	5	10	W2-1 × 9-5D	5
20-0149		24	5	10	BA15s	6
20-0150		24	5	10	BA15D	7
20-0228		28	6	10	BA15D	3
20-0233	T8/4	12	4	10	BA9s	8



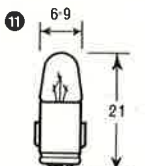
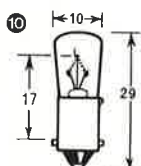
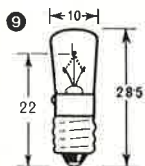
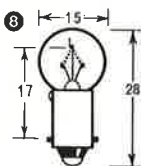
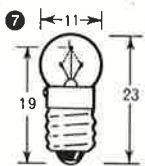
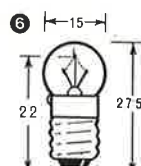
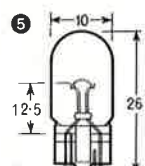
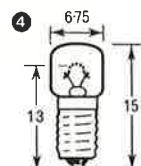
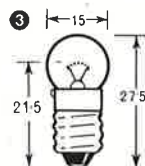
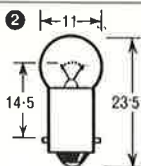
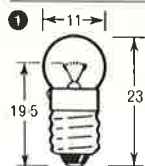
mazda indicator lamps

All dimensions in mm.

INDICATOR, PANEL AND INSTRUMENT WARNING

Lamp Reference No.	Lamp No.	Volts	Watts	Standard Pack	Cap	Illustration
21-0990		6	3	10	E10/13	1
21-0641		6	3	10	BA9s	2
21-0950		6	6	10	E10/13	3
21-0280		12	1.5	10	E5/8	4
21-0506		12	1.5	10	W2.1 × 9.5D	5
21-2104		12	1CP	10	W2.1 × 9.5D	5
21-0281		12	2	10	BA7s/11	11
21-0987		12	2.2	10	E10/13	1
21-0643		12	2.2	10	BA9s	2
21-0504 *		12	3	10	W2.1 × 9.5D	5
21-0985		16	3	10	E10/13	6
21-0650		24	2.8	10	E10/13	7
21-0651		24	2.8	10	BA9s	8
21-0695		24	2.8	10	E10/13	9
21-0993		24	2.8	10	E10/13	6
21-2020	867	24	2.8	10	BA9s	10
21-0505		24	3	10	W2.1 × 9.5D	5

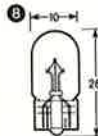
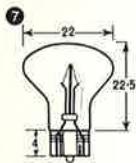
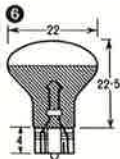
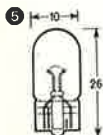
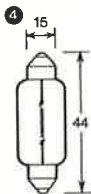
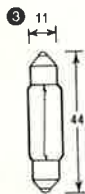
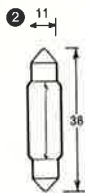
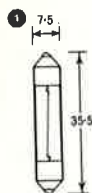
* Formerly rated 2.2W



mazda

festoon & wedge base lamps

All dimensions in mm.



FESTOON FOR TRAFFICATORS AND ROOF-LIGHTS

Lamp Reference No.	E.C.E. Regulation No.	Volts	Watts	Standard Pack	Cap	Illustration
23-0255		6	3	10	S7/8	1
23-0253		6	6	10	S8-5/8	2
23-0256		12	3	10	S7/8	1
23-0254		12	6	10	S8-5/8	2
23-0272		12	10	10	S8-5/8	2
23-0270		12	18	10	S8-5/8	4
23-0273		12	21	10	S8-5/8	4
23-0653		24	6	10	S8-5/8	2
23-0260		24	6	10	S8-5/8	3
23-0654 *		24	6	10	S8-5/8	2
23-0274		24	10	10	S8-5/8	2

WEDGE BASE (Capless)

21-2104		12	1CP	10	Panels	5
21-0506		12	1.5	10	and	5
21-0504		12	3	10	Instruments	5
20-0501	W15	12	5	10	Side and No. Plate	5
20-0503 †		12	5	10	Reversing	6
21-0505		24	3	10	Indicator	8
20-0502		24	5	10	Marker	7
28-6624 (A400)		28	2.8	10	Aircraft Panel	8
28-6680 (A401)		28	11	10	Reading Lamp	7

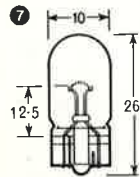
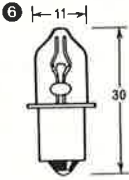
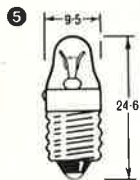
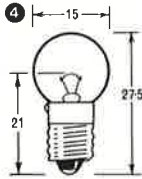
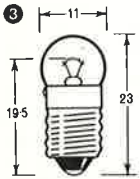
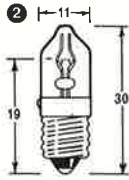
* Supported filament

† Externally silvered

mazda

Cycle dynamo and flashlamps

All dimensions in mm.



FLASHLAMPS – with clear bulbs Ordinary type

Lamp Reference No.	Lamp No.	Volts	Amps	Standard Pack	Cap	Illustration
22-0390		1.6	0.2	10	MES	3
22-0970		2.5	0.2	10	MES	3
22-0972		2.5	0.3	10	MES	3
22-0974		3.5	0.15	10	MES	3
22-0977		3.5	0.3	10	MES	3
22-2003		5	0.15	50	MES	Clear
22-2004	835	4.5	0.3	10	MES	4
22-2076	836	5	0.15	10	MES	4

Lens end type

22-2031		1.5	0.25	10	MES	5
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Prefocus flashlights

22-2046	831	2.5	0.3	10	Prefocus	6
22-2061	832	3.5	0.3	10	P13-5s	6
22-2077	838	5.5	0.3	10		6

CYCLE DYNAMO LAMPS Headlamps

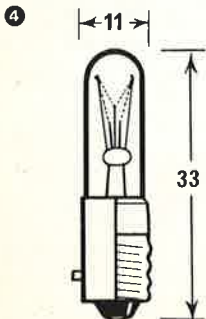
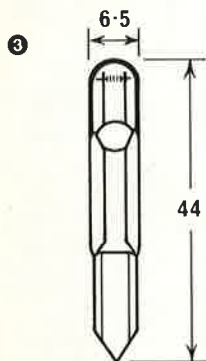
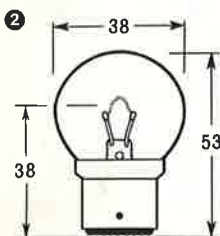
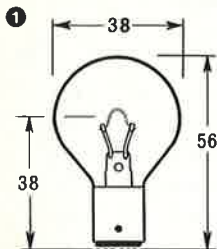
Lamp Reference No.	Lamp No.	Volts	Amps	Standard Pack	Cap	Finish	Illustration
24-2162	843	6	0.2	10	MES	Granulated	1
24-2012	844	6	0.25	10	MES	Granulated	1
24-2049		6	0.25	10	wedge base	Clear	7
24-2051		6	0.3	50	wedge base	Clear	
24-2013	845	6	0.3	10	MES	Granulated	1
24-0997		6	0.5	10	MES	Granulated	1
24-2060		6	0.65	10	wedge base	Clear	7

Tail and battery operated

24-0991		6	0.04	10	MES	Clear	2
24-0998		6	0.1	10	MES	Clear	2
24-2048		6	0.1	10	wedge base	Clear	7

mazda Bus, Coach and Yacht telephone visual & telewriter lamps

All dimensions in mm.



FOR INTERIOR LIGHTING

Lamp Reference No.	Lamp No.	Volts	Watts	Standard Pack	Cap	Finish	Illustration
27-3204	809	12	24	10	BC	Pearl	1
27-3205	810	12	24	10	SBC	Pearl	2
27-3128	811	24	12	10	BC	Clear	1
27-3129	812	24	12	10	SBC	Clear	2
27-3131	816	24	12	10	BC	Pearl	1
27-3132	817	24	12	10	SBC	Pearl	2
27-3184	821	24	20	10	BC	Pearl	1
27-3182	822	24	20	10	SBC	Pearl	2
27-3217		40	36	10	BC	Clear	1

TELEPHONE VISUAL LAMPS

Side contact plates and coloured endpieces

Lamp Reference No.	Volts	Amps	Standard Pack	Filament	Endpiece colour	Illustration
24-3125	6	0.041	50	No. 2 Metal	Grey	3
24-3165	17	0.045	50	No. 2 Metal	Orange	3
24-3171	24	0.10	50	No. 2 Metal	Yellow	3
24-3172	24	0.055	50	No. 2 Metal	Yellow/Black	3
24-3461	60	0.06	50	No. 2 Metal	White/Grey	3
24-3001	12	0.117	50	No. 2 Carbon	Red	3
24-3015	36	0.075	50	No. 2 Carbon	Black	3
24-3035	50	0.107	50	No. 2 Carbon	White	3

TELEWRITER LAMPS

Lamp Reference No.	Volts	Amps	Standard Pack	Cap	Illustration
24-3551	24	0.1	50	MCC	4
24-3552	24	0.1	50	MES	4
24-3626	50	0.05	50	MCC	4
24-3627	50	0.05	50	MES	4

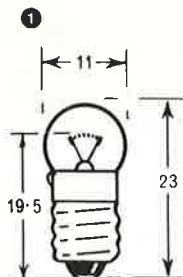
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Radio Panel & Miners Lamps

All dimensions in mm.

RADIO PANEL LAMPS

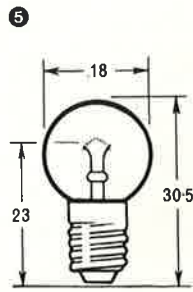
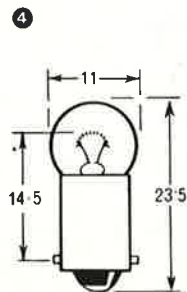
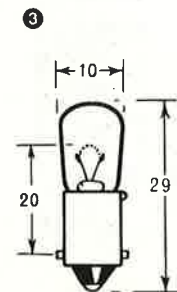
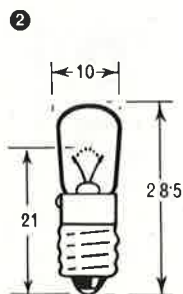
Lamp Reference No.	Lamp No.	Volts	Amps	Standard Pack	Cap	Illustration
21-3025	850	6.2	0.3	10	MES	2
21-3094		6.3	0.11	10	MES	1
21-3074	852	6.3	0.15	10	MCC	3
21-3033 *		6.3	0.15	10	MCC	3
21-3051	853	6.3	0.15	10	MES	2
21-3043		6.3	0.25	10	MCC	3
21-3029		6.5	0.35	10	MES	1
21-3030	855	6.5	0.3	10	MCC	4
21-3028	857	6.5	0.3	10	MES	2



*Long life lamp

MINERS LAMPS

Lamp Reference No.	Volts	Amps	Standard Pack	Cap	Illustration	Type
24-5106	4	0.46	25	MES	1	Vacuum
24-5657	3.6	1	25	MES	5	Krypton
24-5721	4	0.8	25	MES	5	Krypton
24-5726	4	0.9	25	MES	5	Krypton
24-5730	4	1	25	MES	5	Krypton



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Lamp cap dimensions

All dimensions in mm.

The dimensions and details of the caps used on the range of vehicle and miniature lamps are given below.

MCC
BA9s/14



SCC
BA15s/17



SBC
BA15d/19



SBC Index
BAY15d/19



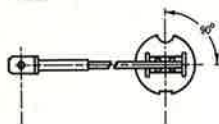
SBC Index
BAY15d/21



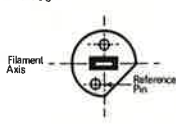
MES
E10/13



PK22s



P145s



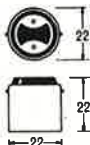
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BA15d/17



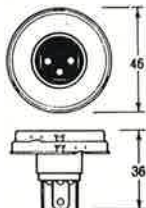
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BC
B22/22



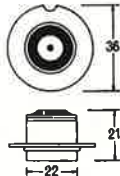
UEC
P451/41



British Prefocus
P22d/21



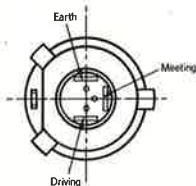
British Prefocus
P22s/21



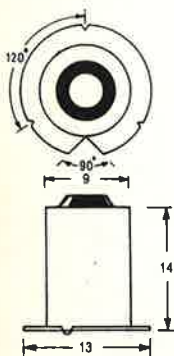
IP36t



P431-38



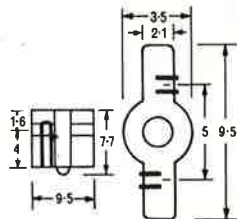
Prefocus
P13-5s



LES E5/8



Wedge base W2·1 x 9·5d



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Lamps/car application guide

	Headlamps	Side Lamp	Tail Lamp	Stop Lamp	Flasher Front	Flasher Rear	Number Plate Lamp	Reverse Lamp	Ignition Warning Lamp	Fog/Pass Lamp	Fog/Pass Lamp T.H. Equivalent
ALVIS											
All models – 1967 on	7002	380	380	380	380	382	989	382	987	—	—
ASTON MARTIN											
All models 1964 on	7010	222	380	380	382	382	222	382	987	—	—
BRITISH LEYLAND											
Mini	7014	501	380	380	382	382	989	382	987	323	450
A35 Countryman	414	989	380	380	256*1	256*1	989	—	987	—	—
All A40 series	7002	989	380	380	382	382	989	—	987	—	—
All A60 series	7002	989	380	380	382	382	989	382	987	323	450
A110 Westminster	7002	989	380	380	382	382	989	382	987	323	450
Marina	7002	501	380	380	380	380	501	—	2132	—	—
A1100/1300	7002	989	380	380	382	382	989	—	281	—	—
A1800/3 Litre	7002	501	380	380	382	382	501	—	2132	—	—
Mini Moke	7002	989	380	380	382	382	989	—	987	—	—
All Mini series – 1966 on	7014	501	380	380	382	382	989	—	987	—	—
AUSTIN HEALEY											
All Sprite series	414	989	380	380	382	382	989	—	987	323	450
All 3000 series	414	380	380	380	380	380	989	—	987	323	450
AUTO BIANCHI											
All models	—	380	380	380	380	382	207	—	643	—	—
AUTO UNION											
1000 Saloon	—	—	205	383	266	383	253	—	282	—	—
All other models	—	641	205	383	266	383	253	—	282	—	—
BEDFORD											
6 & 8 cwt. Vans	414	380	—	—	382	382	—	—	—	—	—
Beagle Estate Car	414	380	—	—	382	382	—	—	—	—	—
B.M.W.											
All models	—	643	380	380	382	382	207	—	281	—	—
BORGWARD											
All models	—	641	205	317	317	317	205	—	—	—	—
BRISTOL											
All models – 1962 on	7002	380	380	380	380	382	989	382	281	323	450
BOND											
All Equipe series	7002	380	380	380	380	382	989	—	987	—	—
CADILLAC											
All models	7002	380	380	380	380	382	207	—	643	—	—
CHEVROLET											
All models	7002	380	380	380	380	382	207	—	643	—	—
CITROEN											
Bijou Saloon	356	384	384	384	384	317	951	—	—	—	—
All other models	423	989	207	382	382	382	989	382	987	—	—
DAF											
All models	7002	641	264	266	266	266	266	—	282	—	—
DAIMLER											
21-litre V-8 Sports	414*2	989	380	380	382	382	989	—	987	323	450
All others	414	989	380	380	382	382	989	—	987	323	450
Majestic	7002	989	380	380	382	382	989	—	987	—	—
Sovereign	5712 & 7002	989	380	380	382	382	989	382	—	—	—

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Lamps/car application guide

	Headlamps	Side Lamp	Tail Lamp	Stop Lamp	Flasher Front	Flasher Rear	Number Plate Lamp	Reverse Lamp	Ignition Warning Lamp	Fog/Pass Lamp	Fog/Pass Lamp T.H. Equivalent
FIAT											
500 600 & 128	410	380	380	380	380	382	207	—	504	—	—
124	410	380	380	380	380	382	207	382	504	—	—
124 Sport	410	380	380	380	380	382	207	382	504	—	—
125	410	382	380	380	382	382	207	—	504	—	—
850	410	382	380	380	382	382	207	—	504	—	—
FORD (GERMAN)											
All models	410	641	253	266	317	266	256	—	282	—	—
FORD											
Popular Saloon and de Luxe	414	380	380	380	380	382	209	—	987	—	—
Anglia Saloon/Estate	7002	380	380	380	380	382	209	—	987	—	—
Consul Classic	5702 & 5700	380	380	380	380	382	209	—	987	—	—
Capri 1961-64	5702 & 5700	380	380	380	380	382	209	—	987	—	—
Consul 375	7002	380	380	380	380	382	209	—	987	—	—
Zephyr	7002	380	380	380	380	382	209	—	987	—	—
Zephyr Estate Car	7002	380	380	380	380	382	209	—	504	—	—
Zodiac	7013 & 7012	380	380	380	380	382	209	—	504	—	—
Consul Cortina 1500cc.	7002	380	380	380	380	382	209	—	987	—	—
Cortina	7002	501	380	380	382	382	501	—	504	—	—
Corsair	7002	501	380	380	382	382	209	—	987	—	—
Escort series	7014	501	380	380	382	382	209	—	987	—	—
Capri 1969	7505	501	380	380	343	343	501	—	504	—	—
GOGGOMOBIL											
Regent/Mayfair series	—	643	380	380	382	382	254	—	281	—	—
Royal/Esquire series	—	643	380	380	382	267	265	—	281	—	—
HILLMAN											
Husky Utility Mk. II	414	380	380	380	380	382	989	—	281	—	—
Husky Mk. III	7002	989	380	380	382	382	989	—	281	—	—
Minx & Super Minx series	414 *	380	380	380	380	382	989	—	281	—	—
Minx 1600 de Luxe	7002	989	380	380	382	382	989-501	—	281	—	—
Imp	7002	989	380	380	382	382	207	—	281	—	—
Hunter	—	989	380	380	382	382	501	382	—	—	—
Californian	7002	989	380	380	382	382	207	—	281	—	—
Minx (later model)	—	989	380	380	382	382	501	382	—	—	—
HUMBER											
Hawk series	414 *	380	380	380	380	382	989	382	280	—	—
Super Snipe series	—	989	380	380	382	382	989	382	280	—	—
Sceptre	—	989	380	380	985	382	989	382	281	323	450
JAGUAR											
XJ6	414 *	380	380	380	382	382	989	382	281	323	450
Mk. IX Saloon	414 *	207	380	380	382	382	989	382	281	323	450
Mk. X Saloon 1962 on	5700 & 7002	989	380	380	380	382	989	382	281	323	450
E-Type Open 2-seater 1965 on	7010	989	380	380	382	382	989	382	281	323	450
E-Type 2-seater F/H Coupé 65on	7010	989	380	380	382	382	989	382	281	323	450
XK-150 Sports 2-seater	414	207	380	380	382	382	989	382	281	323	450
4-2 E-Type and Saloon	—	989	380	380	382	382	989	382	281	323	450
420 & 420 G	—	989	380	380	382	382	989	382	—	—	—
JENSEN											
All models 1968 on	5702 & 448	207	380	380	382	382	989	—	987	323	450
LAGONDA											
Rapide series	414	989	380	380	382	382	989	—	280	—	—

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Lamps/car application guide

	Headlamps	Side Lamp	Tail Lamp	Stop Lamp	Flasher Front	Flasher Rear	Number Plate Lamp	Reverse Lamp	Ignition Warning Lamp	Fog/Pass Lamp	Fog/Pass Lamp T.H. Equivalent
LANCIA											
All models	410	380	380	380	382	382	254	—	—	—	—
MORGAN											
4/4 series	7020	380	380	380	382	382	989	—	987	—	—
Plus Four Plus (TR4 engine)	7020	380	380	380	380	382	989	—	291	185	450
MERCEDES-BENZ											
180 Saloon	410	205	253	266	317	266	264	—	640	—	—
180D/190C/190D & 190 SL series	410	989	254	267	382	382	265	—	643	—	—
220 Saloon	410	205	253	266	317	266	264	—	640	—	—
220 S series	410	989	254	267	382	382	265	—	643	—	—
300 & 300SL series	416	989	254	382	382	382	265	—	643	—	—
M.G.											
Midget/M.G.A./Magneette series	7020	989	380	380	382	382	989	—	987	323	450
M.G.B. and G.T.	7020	989	380	380	382	382	207	—	987	323	450
NECKAR (NSU-FIAT)											
All models	410	380	380	380	382	382	207	—	643	—	—
PEUGEOT											
403B series	410	254	380	380	382	380	254	—	643	—	—
404 series	410	12876	380	380	382	380	207	—	643	—	—
PLYMOUTH											
All models	—	380	380	380	380	380	207	382	643	—	—
PONTIAC											
All models	—	380	207	380	380	380	207	382	643	—	—
PORSCHE											
356A series	—	641	205	383	383	383	253	317	282	—	—
356B series	—	641	205	384	384	384	205	317	282	—	—
RELIANT											
All models	7002	380	380	380	380	382	989	—	987	—	—
RENAULT											
R4/Dau & B Series	410	253	384	384	317	—	205	—	641	—	—
G/I Series	410	380	380	350	382	382	501	—	504	—	—
All other models	410	380	380	350	382	382	501	382	504	323	450
ROVER											
3-Litre	7020	989	380	380	382	382	989	382	987	323	450
Land-Rovers & Station Wagon series	414 **	989	380	380	382	382	989	—	207	—	—
3-5 & 3500	5702 & 5724	501	380	380	382	382	501	—	3132	—	—
2000	5702 & 5724	989	380	380	382	382	989	382	987	—	—
SAAB											
3 & 4 Cyl	410	989	380	380	343	382	256	—	—	—	—
SIMCA											
Aronde series	410	643	643	382	382	382	382	—	643	—	—

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Lamps/car application guide

	Headlamps	Side Lamp	Tail Lamp	Stop Lamp	Flasher Front	Flasher Rear	Number Plate Lamp	Reverse Lamp	Ignition Warning Lamp	Fog/Pass Lamp	Fog/Pass Lamp T.H. Equivalent
SIMCA VEDETTE											
All models	410	643	643	382	382	382	382	—	643	—	—
SINGER											
Gazelle series	414**	380	380	380	380	382	989	—	987	—	—
Vogue series	414	380	380	380	380	382	989	—	987	—	—
Gazelle Mk. 5	7002	380	380	380	380	382	989-501	—	987	—	—
Chamois and Sport	7002	380	380	380	382	382	207	—	987	—	—
Gazelle (later model)	—	989	380	380	382	382	501	382	—	—	—
SKODA											
All models	410	381-643	381	381	381	382	207	—	643	—	—
STANDARD											
All models	414**9	380	380	380	380	382	989	—	987	—	—
STANDARD - TRIUMPH - LEYLAND											
New models 1360 and 1300 twin carb. - lighting as per Standard model.											
STUDEBAKER											
Lark Regal series	—	380	380	380	380	382	207	—	—	—	—
SUNBEAM											
Rapier Sports Convertible	414	380	380	380	380	382	989	382	281	323	450
Alpine	414	380	380	380	380	382	989	382	987	323	450
Alpine Mk. III and IV	7002	501	380	380	382	382	501-989	382	987	323	450
Rapier IV	7002	989	380	380	382	382	501-989	382	281	—	450
Tiger/Imp series	7002	989	380	380	382	382	501	382	987	—	450
TRIUMPH											
Herald 'S' & 1200 series	7002	989	380	380	382	382	989	382	987	323	450
TR3 Sports	7020	989	380	380	382	382	989	382	987	323	450
TR4 series	7020	989	380	380	382	382	989	—	987	323	450
Vitesse - Vitesse 2000	5702 & 5724	989	380	380	382	382	989	382	987	323	450
Herald 12/50	7020	989	380	380	380	382	989	382	987	323	450
2000 Saloon	7020	989	380	380	382	382	989	382	—	—	450
Spitfire & GT6	7020	989	380	380	382	382	989	—	3132	—	450
VANDEN PLAS PRINCESS											
3 & 4 Litre series	—	989	380	380	382	382	989	—	987	323	450
Princess 1100	7002	989	380	380	382	382	989	—	987	323	450
VAUXHALL											
Victor & VX4/90 series	57024 & 5724	501	380	380	380	382	989	382	2131	—	450
Velox & Cresta series	7020	501	380	380	382	382	989	382	2131	—	450
Viva 1963-66	7002	380	380	380	380	382	989	382	987	—	450
Victor/Velox & Cresta Firenza	5702 & 5724	501	380	380	382	382	501	—	504	—	450
Viva range - 1966 on	410	989	380	380	382	382	989	—	2131	—	450
VOLKSWAGEN											
Standard/de Luxe & 6V models	423	988	384	384	317	317	205	—	282	—	450
12V models	410	253	380	384	382	—	233	—	504	—	450
VOLVO											
122S/122SB & P1800 series	—	989	380	380	382	382	989	—	987	—	450
All other models	410	384	380	380	382	382	989	—	987	—	—
WOLSELEY											
Hornet/1500/16/60 & 6/110 series	414**10	989	380	380	382	382	989	382	987	323	450
6/110 Saloon Mk. II	7002	989	380	380	382	382	989	382	987-281	323	450
1100	7002	989	380	380	382	382	2-989	382	—	—	450
*1 1962-5 Models Bulb No. 382					*4 1963-6 Models fitted with sealed beam headlight units type 7002			*7 Pre 1962 Minor Models-Bulb No. 256			
*2 1964-5 Models fitted with sealed beam headlight units type 7002					*5 1963 onward fitted with sealed beam headlight units type 7002			*8 1964 and later models fitted with sealed beam headlight units type 7002			
*3 1963-5 Models fitted with sealed beam headlight units type 7002					*6 Minor series 1963 onward fitted with sealed beam headlight units type 7002.			*9 1963-5 Ten Companion Models fitted with sealed beam headlight units type 7002			
*10 Later models fitted with sealed beam headlight units type 7002											

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 of light output, or change of colour temperature throughout life. You may be certain that there is a lamp in our range for every photographic purpose.

Index

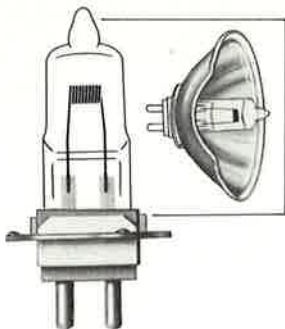
9:2	A1 class 50–100w (illustrations of A1/17, A1/45, A1/229)
9:3	A1 class 150w (illustrations of A1/24, A1/216, L1042)
9:4	A1 class 200–300w (illustrations of A1/201, A1/223)
9:5	A1 class 420 & 500w (illustrations of A1/204, A1/227)
9:6	A1 class 600–750w (illustrations of A1/233, A1/228, A1/53)
9:7	A1 class 1000–1200w (illustrations of A1/207, A1/208)
9:8	F class Micro-projector lamps (illustrations) Filament & Cap types & lamp burning positions
9:9	G class Exciter lamps (illustration of 640)
9:10	Classes EM & T lamps (illustrations of E3M29 & T3)
9:11	Photographic lamps classes P1 (illustrations of P1/1, P1/6, P1/11, P1/12)
9:12	Photographic lamps (illustrations of P2/4, P3/3, P4/1)
9:13	Class T theatre spotlights (illustrations of CP40, CP41, CP32)
9:14	Flash bulbs
9:15	Flashcubes
9:16	Magicube X

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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.



A1/231 12V 100W Tungsten Halogen Projector Lamp

The A1/231 has been designed particularly for Super 8 cine projectors. It is a complete optical system comprising a tungsten halogen lamp integral with an dichroic 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
			Maximum Diameter	Maximum Overall Length	Light Centre Length					
A1/17	8	50	33 x 44	96	47 ± 0.5	—	Small Pre-Focus P30s	M	25	A.B.H.I.
A1/202	8	50	31	96	47 ± 0.1	—	Small Pre-Focus P30s	M	25	A.B.F.I.
A1/220	12	50	11.5	44	30 ± 0.25	1400	2 Pin G6.35	M	50	E.J.
A1/225	240, 25C	50	26	67	35 ± 1	675	S.C.C. BA15s	J4	100	A.K.
A1/229	8	50	50	42	—	—	2 Pin G6.35	N	50	E.I.J.L.N.
A1/230	12	75	50	42	—	—	2 Pin G6.35	N	50	E.I.J.M.N.
A1/4	12	100	26	135	55 ± 0.5	2700	Med Pre-Focus P28s	L2	25	A
A1/4	115	100	26	135	55 ± 0.5	1850	Med Pre-Focus P28s	J3	25	A
A1/4	240, 250	100	26	135	55 ± 0.5	1650	Med Pre-Focus P28s	J4	25	A.C.
A1/21	115	100	26	78	35 ± 1	1850	S.C.C. BA15s	J3	25	A
A1/21	240, 250	100	26	78	35 ± 1	1650	S.C.C. BA15s	J4	25	A.C.
A1/45	12	100	11.5	45	18 ± 0.2	3000	2 Pin Pre-Focus PG22	M	50	E.J.
A1/121	115	100	26	78	35 ± 1	1850	S.B.C. BA15d	J3	25	A
A1/121	240, 250	100	26	78	35 ± 1	1650	S.B.C. BA15d	J4	25	A.C.
A1/186	12	100	26	78	35 ± 1	2800	S.C.C. BA15s	M	25	A
A1/193	12	100	26	78	29.5 ± 0.5	2800	BA21s 4 Pin	M	25	—
A1/209	12	100	11	45	24 ⁺⁰ _{-0.5}	3000	2 Pin Ceramic G6.35	M	50	E.J.
A1/215	12	100	11	44	30 ± 0.25	3000	2 Pin G6.35	M	50	E.J.
A1/231	12	100	50	42	—	—	2 Pin G6.35	N	50	E.I.J.M.N.

- 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 5 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
- A1/209 – base down to horizontal
- A1/230 – horizontal
- A1/215 – base down to horizontal
- A1/17 } Focal Distance 33.5 mm.
- A1/202 }

atlas Projector lamps

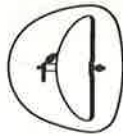


Diagram of A1/24 showing flattened front face of bulb.



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.



**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 500W Lamp.

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.

CLASS A1 150 WATT

Lamp Ref.	Volts	Watts	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features
			Maximum Diameter	Maximum Overall Length	Light Centre Length					
A1/18	21.5	150	39	81	39.7 ± 0.1	—	Tru-Focus G17q	K	25	B.F.I.
A1/24	125	150	39 × 42.5	81	39.7 ± 0.1	—	Tru-Focus G17q	K	25	B.D.F.I.
A1/187	240, 250	150	26	90	35 ± 1	2700	S.C.C. BA15s	J4	25	A.C.
A1/175	240, 250	150	26	135	55.5 ± 0.5	2700	Med. Pre-Focus P28s	J4	25	A.C.
A1/182	240, 250	150	30	76	35.5 ± 1	2700	Tru-Focus G17q	J4	25	A.C.
A1/184	21.5	150	39	91	39.7 ± 0.1	—	Tru-Focus G17q	K	25	A.B.F.I.
A1/194	21.5	150	48	86	39.7 ± 0.1	—	Tru-Focus G17q	K	25	B.F.I.
A1/210	21.5	150	39	91	39.7 ± 0.1	—	Tru-Focus G17q	K	25	B.D.F.I.
A1/211	21.5	150	39	91	39.7 ± 0.1	—	Tru-Focus G17q	K	25	A.B.G.I.
A1/212	24	150	33	103	39.7 ⁺⁰ _{-1.5}	4100	Tru-Focus G17q	M	25	A.B.D.
A1/216	24	150	13.5	47	32 ⁺⁰ _{-0.25}	5000	2 Pin G6.35	M	50	E.J.
A1/232	15	150	50	42	—	—	2 Pin G6.35	N	50	E.I.J.M.N.
A1/234	15	150	11.5	45	30 ± 0.25	5000	2 Pin G6.35	M	50	E.J.
A1/243	240, 250	150	18.5 31.5*	81.5	33.5 ± 1.0	2850	Tru-Focus G17t	J4	50	A.C.E.J.R.

*Max. width at lamp cap.

- 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

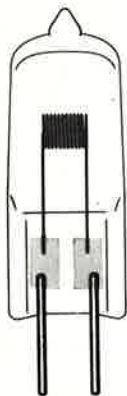
- R 3 or 4 amp H.B.C. fuse necessary
- S 5 or 8 amp H.B.C. fuse necessary
- T 6 or 7 amp H.B.C. fuse necessary

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
- A1/18 } Focal Distance 43.5 mm.
- A1/184 }
- A1/194 }
- A1/211 }
- A1/24 – Focal Distance 57.2 mm.
- A1/210 – Focal Distance 56.0 mm.

atlas

Projector lamps



A1/223 Tungsten Halogen Lamp

The A1/223 is intended for use in 35mm slide and 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 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 AT 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
			Maximum Diameter	Maximum Overall Length	Light Centre Length					
A1/26	115	200	26	90	35±1	4400	S.B.C. BA15s	J3	25	A.B.
A1/26	240, 250	200	26	90	35±1	4000	S.C.C. BA15s	J5	25	A.C.
A1/5	50	250	33	135	55.5±0.5	6000	Med Pre-Focus P28s	A4	50	A
A1/5	115	250	33	135	55.5±0.5	5500	Med Pre-Focus P28s	J3	50	A
A1/5	240, 250	250	33	135	55.5±0.5	5200	Med Pre-Focus P28s	J5	50	A.C.
A1/223	24	250	13.5	55	33±0.25	8250	2 Pin G6.35	M	50	E.J.
A1/235	24	250	13.5	56	23±0.2	8250	2 Pin Pre-Focus PG22	N	50	E.J.
A1/6	115	300	33	135	55.5±0.5	7400	Med Pre-Focus P28s	J3	25	A.B.
A1/6	240, 250	300	33	135	55.5±0.5	6900	Med Pre-Focus P28s	J5	25	A.B.C.
A1/37	115	300	28	105	35±1	7400	S.C.C. BA15s	J3	25	A.B.
A1/37	240, 250	300	28	105	35±1	6900	S.C.C. BA15s	J5	25	A.B.C.
A1/178	240, 250	300	33	103	39.7±1	6900	Tru-Focus G17q	J5	25	A.B.C.
A1/183	240, 250	300	31	81	35±1	6900	S.C.C. BA15s	J5	25	A.B.C.
A1/201	240, 250	300	33	103	39.7±1	—	Tru-Focus G17q	J5	25	A.B.C.O.P.
A1/240	240, 250	300	23.0 31.5*	78	39.7±0.1	7050	Tru-Focus 617t	J5	50	A.C.E.J.R.

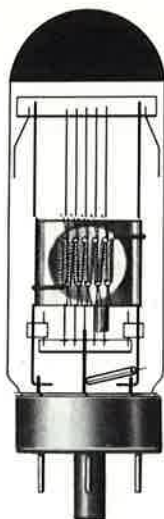
*maximum width at lamp cap.

- A Obscured top
- B Forced cooling necessary. Maximum bulb wall temperature 600°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

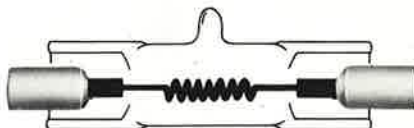
- J Minimum bulb wall temperature 350°C
- K Dual Voltage
- L External integral aluminised mirror
- M External integral dichroic mirror
- N Light centre length not specified
- O Mirror rim to film gate 32 mm
- P Due to internal reflector nominal lumens not shown
- Q Linear overhead projector lamp

- 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
			Maximum Diameter	Maximum Overall Length	Light Centre Length					
A1/227	120	420	33	65.5	—	11000	Double Ended R7s	K	75	E.J.Q.
A1/7	115	500	33	135	55.5±0.5	12500	Med Pre-Focus P28s	E8	25	A.B.
A1/7	240, 250	500	33	135	55.5±0.5	11400	Med Pre-Focus P28s	E11	25	A.B.C.
A1/8	115	500	66	135	55.5±0.5	11500	Med Pre-Focus P28s	A6	50	—
A1/8	240, 250	500	66	135	55.5±0.5	11000	Med Pre-Focus P28s	A8	50	C
A1/47	240, 250	500	33	130	59±0.5	11400	B.H. P38s	E11	25	A.B.C.
A1/180	240, 250	500	33	103	39.7±1	11400	Tru-Focus G17q	E11	25	A.B.C.
A1/205	240, 250	500	33	103	39.7±1	—	Tru-Focus G17q	E11	25	A.B.C.O.P.
A1/237	240	500	13.6	76.0	—	12500	Special 2 Pin	H2	50	B.E.J.R.
A1/241	240, 250	500	30.0 31.5*	94.0	39.7±0.1	—	Tru-Focus G17l	E11	50	A.C.E. J.O.S.

*maximum width at lamp cap.

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:
A1/227 - Horizontal

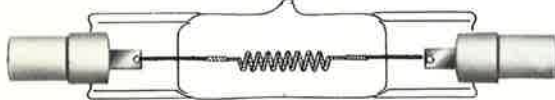
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Projector lamps



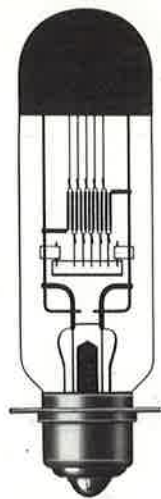
A1/233 240V 650W Tungsten Halogen Overhead Projector Lamp

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 D.Y.R.



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
			Maximum Diameter	Maximum Overall Length	Light Centre Length					
A1/228	120	600	13.5	93.5	—	16500	Double Ended R7s	K	75	E.J.Q.
A1/228	240/250	600	13.5	93.5	—	15000	Double Ended R7s	K	75	E.J.K.Q.R.
A1/233	240/250	650	22.5	63	36.5 ± 1	16500	Polarised 2 Pin GX9.53	J2	50	E.J.K.R.
A1/9	115	750	39	140	55.5 ± 0.5	19500	Med Pre-Focus P28s	E8	25	A.B.
A1/9	240, 250	750	39	140	55.5 ± 0.5	18000	Med Pre-Focus P28s	E10	25	A.B.C.
A1/52	115	750	37	153	81 ± 0.5	19500	3 Pin Ring P39s	E8	25	B.D.
A1/53	115	750	39	135	59 ± 0.5	19500	Large B.H. P46s	E8	25	A.B.
A1/53	240, 250	750	39	135	59 ± 0.5	18000	Large B.H. P46s	E8	25	A.B.C.
A1/206	115	750	39	118	39.7 ± 1	—	Tru-Focus G17q	E10	25	A.B.O.P.
A1/206	240, 250	750	39	118	39.7 ± 1	—	Tru-Focus G17q	E10	25	A.B.C.O.P.

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

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



Class G Exciter Lamps
A range of high efficiency lamps for the sound heads of cinema projectors.

CLASS G EXCITER LAMPS

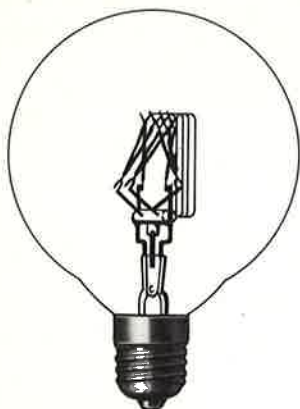
Lamp Ref.	Volts	Amps	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features
			Maximum Diameter	Maximum Overall Length	Light Centre Length					
G/19	4	0.75	16.5	50	31.8±0.8	30	S.C.C. BA15s	G	50	A
G/27	4	0.75	16.5	50	28.5±0.5	30	Small Pre-Focus P30s	L	50	A
G/29	4	0.75	16.5	50	28.5±0.5	30	Small Pre-Focus P30s	G	50	A
G/31	4	0.75	25.5	51	28.5±0.5	30	Small Pre-Focus P30d	G	50	F
G/4	6	1.0	16.5	42	21.5±0.5	80	S.C.C. BA15s	L	100	A
G/5	6	1.0	16.5	50	28.5±0.5	80	Small Pre-Focus P30s	L	100	C
G/40	6	1.0	16.5	57	28.5±0.5	80	Small Pre-Focus P30s	G	100	B
G/8	8	4.0	26	78	44.5±0.5	650	S.C.C. BA15s	G	100	D
G/30	6	5.0	18.5	54	28±1	525	S.C.C. BA15s	G	100	B
G/45	6	5.0	19	54	23±0.5	450	Small Pre-Focus P30s	G	100	B
G/22	4	6.0	26	52	31.5±1	400	S.C.C. BA15s	L	100	E
G/23	5	6.5	26	78	41±0.5	700	Small Pre-Focus P30s	L	50	D

Operating positions

- A Universal
- B Vertical base down ±30°
- C Vertical base down ±45°
- D Vertical base down ±135°
- E Horizontal
- F Horizontal ±120°

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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.

CLASS E EPIDIASCOPE LAMPS

Lamp Ref.	Volts	Watts	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features
			Maximum Diameter	Maximum Overall Length	Light Centre Length					
E/1	240, 250	500	102	145	60 ± 0.5	10300	Med Pre-Focus P28s	C8	100	C
E/3	240, 250	500	102	145	85 ± 5	10300	E.S. E27s	C8	100	C

CLASS M CINE FILM EDITOR LAMPS

Lamp Ref.	Volts	Watts	Dimensions mm			Nominal Lumens	Base	Filament Formation	Average Life (Hours)	Special Features
			Maximum Diameter	Maximum Overall Length	Light Centre Length					
M29	6	10	8.5	30	19.5 ± 0.25	200	Special 2 Pin	G	50	A.C.
M30	6	20	8.5	30	19.5 ± 0.25	400	Special 2 Pin	G	100	A.C.

A Operates on Tungsten Halogen Principle

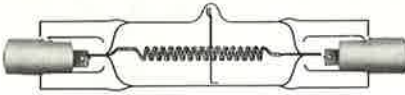
B Operating position universal

C Operating position vertical base down to horizontal

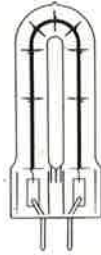
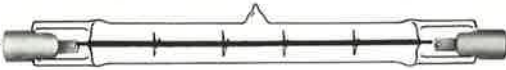
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Photographic lamps

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 feet 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

P1/15 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 12 hours.

P1/6 Reflector Photoflood
Incorporates its own reflector, thus giving a much greater beam candle power.

CLASS P1 PHOTOGRAPHIC LAMPS FOR USE WITH MONOCHROME AND COLOUR FILM BALANCED FOR 3400°K

Class P1, Operating Position:- Universal With the following exceptions: P1/13 P1/15 P1/16 P1/17 Base down to horizontal

Lamp Ref.	Volts	Watts	Max. Dia.	Dimensions mm		Max. Clear- ance Length	Max- imum Overall Length	Nominal Lumens	Base	Average Life (Hours)	Special Features
				Max. plp protrusion from bulb axis	Nominal Contact Length						
P1/8	30	250	12	10.2	74.9 ± 1.6	78.3	80	8000	Double ended R7s	12	A
P1/1	240/250	275	61	—	—	—	108.5	8300	B.C. B22d	3	B.C.
P1/1	240/250	275	61	—	—	—	110	8300	E.S. E27s	3	B.C.
P1/6	240/250	375	97	—	—	—	133.5	13000	B.C. B22d	4	B.E.F.H.
P1/6	240/250	375	97	—	—	—	135	13000	E.S. E27s	4	B.E.F.H.
P1/2	240/250	500	82	—	—	—	164.5	15000	B.C. B22d	6	B.C.
P1/2	240/250	500	82	—	—	—	166	15000	E.S. E27s	6	B.C.
P1/9	120	650	15	11.4	74.9 ± 1.6	78.3	80	21000	Double ended R7s	12	A
P1/13	240/250	650	23	—	—	—	65	20000	2 Pin Ceramic G6.35	15	A.B.I.
P1/11	240/250	800	15	11.4	74.9 ± 1.6	78.3	80	24500	Double ended R7s	12	A.B.K.
P1/12	240/250	1000	12	10.2	121.7 ± 1.6	125.1	127	33000	Double ended R7s	15	A.B.K.
P1/15	240/250	1000	23	—	—	—	65	32000	2 Pin Ceramic G6.35	12	A.B.K.
P1/16	115	850	23	—	—	—	65	28000	2 Pin Ceramic G6.35	15	A
P1/17	240/250	1250	23	—	—	—	85	40000	GX 9-63	15	A.B.L.

- 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.

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Photographic lamps



P3/3 High Intensity Enlarging Lamps (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.



P2/4 Reflector Photoflood

Specially designed to meet the exacting requirements of Film and TV Studio application. The silvered bulb permits the use of the lamp in fittings without separate external reflectors.

CLASS P2 PHOTOGRAPHIC LAMPS FOR USE WITH MONOCHROME AND COLOUR FILM

BALANCED FOR 3200°K

Operating Position Universal, except P2/7, P2/10, P2/12, P2/13, P2/14, P2/15, P2/18: Horizontal $\pm 4^\circ$

Lamp Ref.	Dimensions mm										Average Life (Hours)	Special Features
	Volts	Watt	Max. Dia.	Max. pip protrusion from bulb axis	Nominal Contact Length	Max. Clearance Length	Maximum Overall Length	Nominal Lumens	Base			
P2/1	115	500	89	—	—	—	183.5	12500	E.S. E27s	100	D	
P2/1	240, 250	500	89	—	—	—	183.5	11000	E.S. E27s	100	C.D.	
P2/4	115	500	127.5	—	—	—	182	7200	E.S. E27s	20	E.F.H.	
P2/4	240, 250	500	127.5	—	—	—	182	7200	E.S. E27s	12	C.E.F.H.	
P2/5	115	500	127.5	—	—	—	182	12000	E.S. E27s	20	E.G.H.	
P2/5	240, 250	500	127.5	—	—	—	182	12000	E.S. E27s	12	C.E.G.H.	
P2/10	240, 250	625	12	10.2	185.7±1.6	189.1	190	15500	Double ended R7s	200	A.C.I.	
P2/6	120	650	15	11.4	74.9±1.6	78.3	80	17000	Double ended R7s	100	A	
P2/7	240, 250	1000	12	10.2	185.7±1.6	189.1	190	26000	Double ended R7s	200	A.C.K.	
P2/12	240, 250	1250	12	10.2	185.7±1.6	189.1	190	33500	Double ended R7s	200	A.C.L.	
P2/13	240, 250	800	15	11.4	74.9±1.6	78.3	80	20000	Double ended R7s	50	A.K.	
P2/14	240, 250	800	15	11.4	88.4	91.8	93.5	20000	Double ended R7s	50	A.C.I.	
P2/15	240, 250	625	12	10.2	114.2	117.6	119	16250	Double ended R7s	75	A.C.K. *	
P2/16	240, 250	650	23	—	—	—	65	17500	G6-35	50	A.C.K. *	
P2/17	240, 250	1000	23	—	—	—	65	28000	G6-35	50	A.C.K. *	
P2/18	240, 250	800	12	10.2	114.2	117.6	119	20600	Double ended R7s	1150	A.K.B.	

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.

* And with Satin etched bulbs

CLASS P3 PHOTOGRAPHIC ENLARGER LAMPS HIGH INTENSITY

Operating Position Universal

Lamp Ref.	Volts	Watts	Dimensions mm		Base	Average Life (Hours)	Special Features
			Maximum Overall Length	Maximum Diameter			
P3/3	240, 250	75	108.5	61	B.C. B22d	100	A.B.
P3/3	240, 250	75	110	61	E.S. E27s	100	A.B.
P3/4	240, 250	150	108.5	61	B.C. B22d	100	A.B.
P3/4	240, 250	150	110	61	E.S. E27s	100	A.B.

A Internally opalised bulb

B Voltage range in 10 volt steps

CLASS P4 PHOTOGRAPHIC FLOOD LAMP

Operating Position Horizontal $\pm 4^\circ$

P4/1	120	500	15.0	11.4	114.2 \pm 1.6	117.0	117.6	8900 33000	R7s	2000 12	A.B.L.N.
	185	1000									

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.

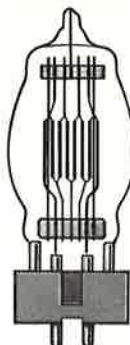
CP41 2kW Studio Tungsten-halogen Lamp

For use in conventional Fresnel spot-flood fittings. With mono-plane filament.



T10 Tungsten Halogen Theatre Spotlight Lamps

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 CP CONVENTIONAL AND TUNGSTEN HALOGEN LAMPS FOR FRESNEL SPOT/FLOOD FITTINGS

	Volts	Watts	Max. Dia.	Overall length	Light Centre length	Nominal Lumens	Colour Temp.	AV Life	Finish	Cap.	Operating Position
CP1	115 230, 240	275 275	61 61	110 110	—	7500	for 3200°K Film	8 5	Pearl	BC or ES	Any
CP2	115 230, 240	500 500	82 82	166 166	—	14000 13750	for 3200°K Film	20 15	Pearl	BC or ES	Any
CP3	115 230, 240	1000 1000	153 153	309 309	—	30000 28000	for 3200°K Film	30 25	Pearl	GES.E40	Any
CP4	115 230, 240	500	171.5	344	—	44250 42000	for 3200°K Film	50 25	Pearl	GES.E40	Any
CP8	240	1500	66	140	55.5±0.5	11000	for 3200°K Film	50	Clear	Med P/Focus P28	VBD±45°
CP9	240	500	78	166	63.5±2	11000	for 3200°K Film	50	Clear	Med Bipost G22	VBD±45°
CP10	115 240	750	78	166	63.5±2	19000 18000	for 3200°K Film	50 35	Clear	Med Bipost G22	VBD±45°
CP11	115 230,240,250	750	66	140	55.5±0.5	19000 18000	for 3200°K Film	50 35	Clear	Med P/Focus G22	VBD±45°
CP12	115 230,240	2000	155	246	127±2	55000 50000	for 3200°K Film	100	Clear	Bi-post G38	VBD±45°
CP13	115 230,240	5000	205	341	165±2	145000 135000	for 3200°K Film	150	Clear	Bi-post G38	VBD±45°
CP14	115 230,240	10000	272	440	254±2	300000 280000	for 3200°K Film	200	Clear	Bi-post G38	VBD±45°
CP19	240	1000	78	166	63.5±2	23000	for 3200°K Film	100	Clear	Med Bipost G22	VBD±45°
CP29	115 220,240	5000	75	280	165±2	145000 135000	for 3200°K Film	300	Clear	Bi-post G38	VBD±45°
CP30	220,240	1250/1250	60	220	143±2	25000*	for 3200°K Film	250	Clear	4pin GX38q	VBD±45°
CP32	115 220,240	2500/2500	70	220	143±2	55000**	for 3200°K Film	250	Clear	4pin GX38q	VBD±45°
CP40	220,240	1000	27/40	140	63.5±0.5	26000	for 3200°K Film	150	Clear	Med Bi-post G22	VBD±45°
CP41	220,240	2000	27/40	210	127±2	52000	for 3200°K Film	200	Clear	Bi-post G38	VBD±45°

*One filament only; with two filaments operating, 53000 **One filament only; with two filaments operating, 117,000

CLASS T THEATRE SPOTLIGHT LAMPS

Lamp Ref.	Volts	Watts	Dimensions mm			Base	Average Life (Hours)	Special Features
			Maximum Diameter	Maximum Overall Length	Light Centre Length			
T/3	240, 250	250	78	124	55.5±0.5	Med Pre-Focus P28s	200	C.E.
T/1	240, 250	500	100	140	55.5±0.5	Med Pre-Focus P28s	200	C.E.
T/2	240, 250	1000	132	200	87±0.5	Large Pre-Focus P40s	200	C.E.
T/4	240, 250	1000	39	155	89±0.5	Med Pre-Focus P28s	200	D.E.
T/6	240, 250	1000	102	140	55.5±0.5	Med Pre-Focus P28s	200	B.E.
T/9	220, 240	1000	26/40	125	55±2	2 pin GX9-5	400	C.E.
T/10	220, 240	650	26/40	125	55±2	2 pin GX9-5	400	C.E.

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

Photo-Flashbulbs

Full exposure data is printed on every flash carton.

Some features of Atlas Photo-Flashbulbs.

Blue Dot. The famous blue dot is a sensitive chemical on the inside of each Atlas flashbulb to tell you it's in perfect condition. Any defect turns the dot pink.

Zirconium Filling. The use of zirconium foil enables Atlas to pack more light into less space thus giving greater economy, greater efficiency and flexibility.

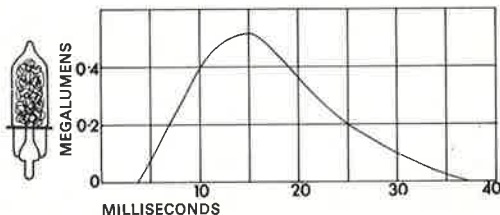
Precision Manufacture. Dependability is of prime importance in flash photography. With Atlas you can be sure of consistent high quality, thanks to precision manufacture and rigorous test standards.

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

Specification

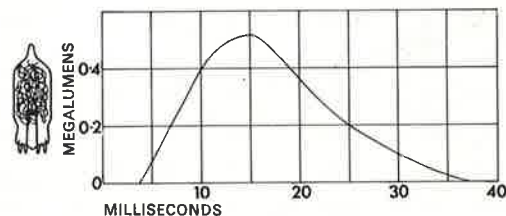
Class	MF
Colour of bulb	Blue
Total light output (lumen secs)	7500
Peak light output (megalumens)	0.45
Time to peak (m. secs)	13
Duration above $\frac{1}{2}$ peak (m. secs)	15
Voltage range	3-45
Max. bulb diameter (mm)	11.9
Max. overall length (mm)	40.5
Bulbs per pack	5
Bulbs per outer container	200
Colour code	Blue



Atlas Mini-Flash Super AG1B

Specification

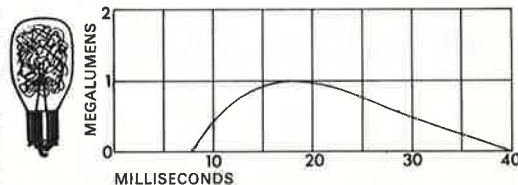
Class	MF
Colour of bulb	Blue
Total light output (lumen secs)	7500
Peak light output (megalumens)	0.45
Time to peak (m. secs)	13
Duration above $\frac{1}{2}$ peak (m. secs)	15
Voltage range	3-45
Max. bulb diameter (mm)	11.9
Max. overall length (mm)	33.3
Bulbs per pack	5
Bulbs per outer container	200
Colour code	Blue



Atlas Photo-Flash 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
Colour code	Red

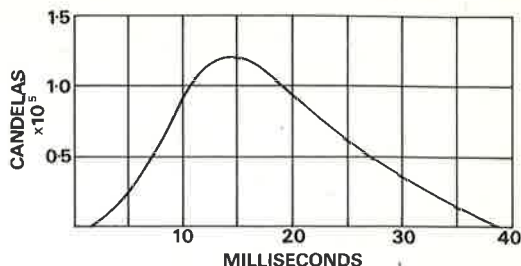


Simple to fit on the camera – simple to remove, either manually or by automatic ejection, and only just warm to the touch after four bulbs have been fired. The plastic cube itself acts as a protective shield for each bulb.

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. 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 1/60 second and at all shutter speeds with M synchronization.



Exposure Data

Film Speed	ASA	10	25	40	100	160	320
	to	to	to	to	to	to	to
		12	32	64	125	200	500
	DIN	12	15	17	21	23	26
	to	to	to	to	to	to	to
		13	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	60

atlas Magicube X



Atlas Magicube X is a major advance towards 100% photoflash reliability. It is mechanically activated, thus eliminating the need for batteries, and failures due to poor electrical contact or corrosion. Magicube X can only be used with cameras designed with the special Magicube firing system.

Exposure Data

Guide Nos/X Synchronisation

Film	ASA	25-32	40-50	64-80	100-125	160-200
Speed	DIN	15-16	17-18	19-20	21-22	23-24
Index						
1/30 sec.		45	56	72	90	125
1/60 sec.		40	50	64	80	100

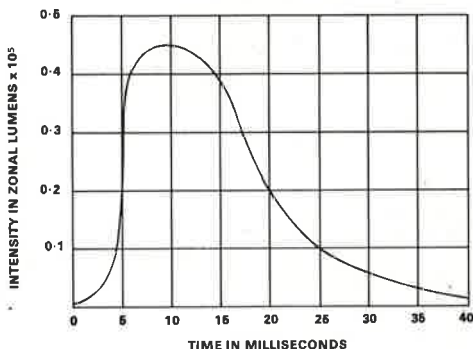
Flash to subject distance for single speed cameras.

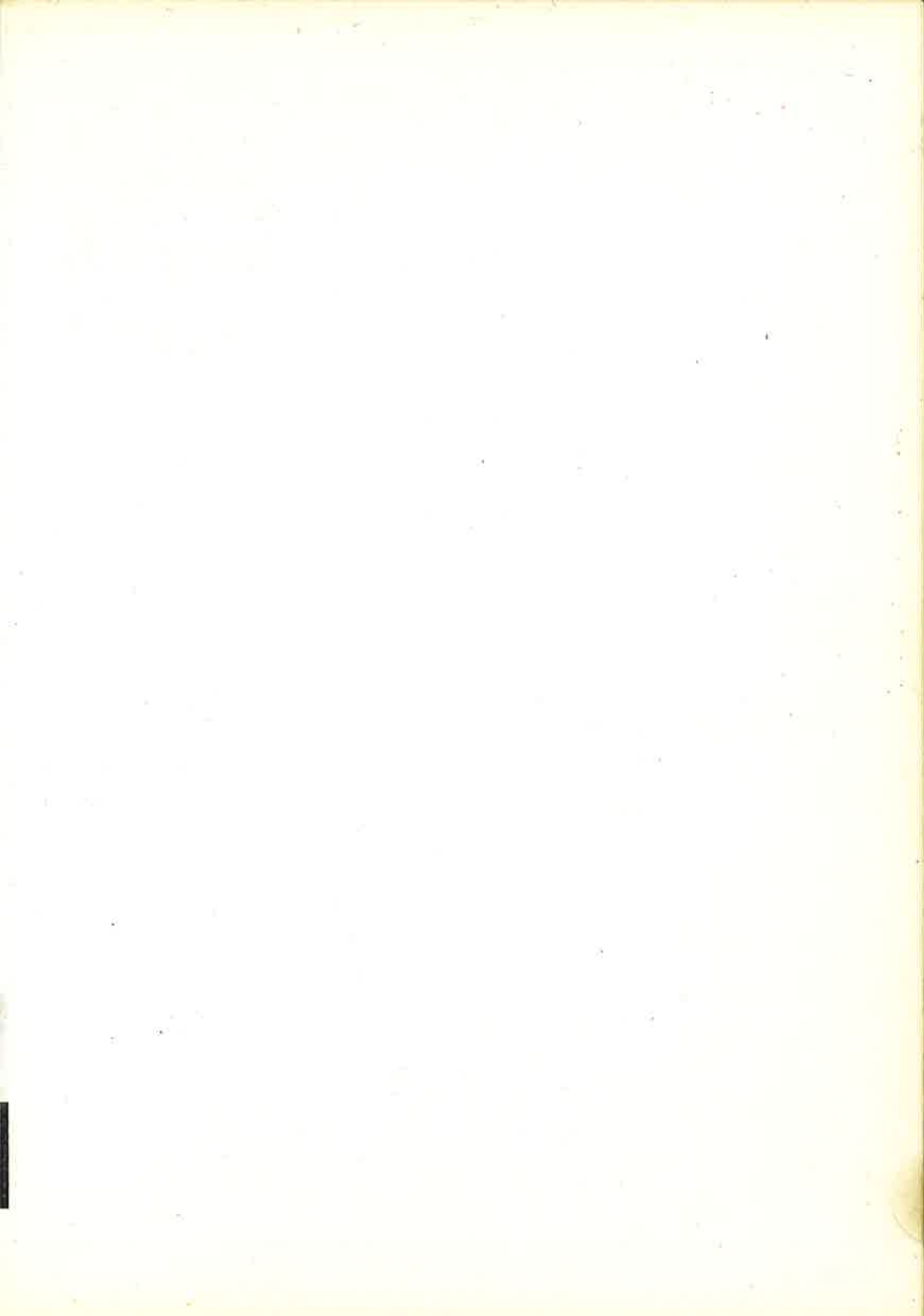
Monochrome film stock — 4 ft. — 15 ft.

Colour film stock — 4 ft. — 9 ft.

Specifications:—

Colour of bulb	blue
Total light output	460 Zonal lumens
Peak intensity	44,000 Zonal lumens
Time to peak	7 m-seconds
Duration half peak	13 m-seconds
Maximum width	30.5 mm
Max. overall height	41.0 mm
Cubes per pack	2
Cubes per outer	200







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.

Control gear and Accessories

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- 10:4, 10:5** 8ft. 125W Fluorescent tube control gear
- 10:6, 10:7** 8ft. 85W Fluorescent tube control gear
- 10:8, 10:9** 6ft. 85W Fluorescent tube control gear
- 10:10, 10:11** 5ft. 80W Fluorescent tube control gear
- 10:12, 10:13** 5ft. 65W Fluorescent tube control gear
- 10:14, 10:15** 5ft. 50W Fluorescent tube control gear
- 10:16, 10:17** 4ft. 40W Fluorescent tube control gear
- 10:18, 10:19** 32W Circular and 3ft. 30W Fluorescent tube control gear.
- 10:20, 10:21** Single 2ft. 40W Fluorescent tube control gear
- 10:22, 10:23** Twin 2ft. 40W Fluorescent tube control gear
- 10:24, 10:25** Twin 18in. 15W Fluorescent tube control gear
- 10:26, 10:27** Single 2ft. 20W and 18in. 15W Fluorescent tubes control gear
- 10:28, 10:29** 21in. 13W, 12in. 8W, 9in. 6W and 6in. 4W Fluorescent tubes control gear
- 10:30** 50W, 80W, 125W, 250W MBF & MBFR control gear
- 10:31** 400W, 700W & 1000W MBF & MBFR control gear
- 10:32** Circuit components for 400W & 1000W MBI lamps
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- 10:44** Voltage Transformers and Emergency Lighting
- 10:45** Combined ballast units (fluorescent)
- 10:46, 10:47** Control-gear boxes
- 10:48** Starter switches for fluorescent lamps
- 10:49** Terminal blocks and starter-switch sockets
- 10:50, 10:51** Fluorescent tube lampholders
- 10:52** Fluorescent tube lampholders and support clips

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.

- 1 *Cable ratings* – a factor of $1\frac{1}{2}$ is normally applied to the rating of distribution cables, ie 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, ie a 5 amp HRC fuse may be limited to a maximum of $2\frac{1}{2}$ 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, eg 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 sets 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 in accordance with the IEE 'Regulations for the Electrical Equipment of Buildings'.

For more detailed information on installation and maintenance of fluorescent lighting equipment, see the Thorn Technical Pocket-book.

8ft 125W fluorescent tube control gear

SWITCHSTART CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube	1 x 8ft 125W	1 x 8ft 125W	1 x 8ft 125W
Circuit	Switchstart	Switchstart	Switchstart
Type of control gear	LPF choke	LPF choke	HPF ballast
Circuit diagram (see opp.)	2	2	13

CHOKE OR BALLAST

Catalogue No.	CU/125	CI/125	AME 63219-4
Weight	4lb 1-8kg	4-6lb 1-9kg	5-75lb 2-6kg
Filling	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type B1	Type A3	Type M1
Can colour	White	White	White
Terminals	Screw	Screw	Screw

CROSS SECTION



CAPACITOR

Catalogue No.	AME C2173	AME C2173	Included in ballast
Capacitance μ F	7-2 \pm 5%	7-2 \pm 5%	—
Volts rating	440V	440V	—
Length (inc. terminals)	9in 229mm	9in 229mm	—
Diameter	1 1/2 in 38mm	1 1/2 in 38mm	—
Terminals*	Pin	Pin	—
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—

STARTER SWITCH

Catalogue No.	155/800	155/800	155/800†
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FUSE

1 tube - rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299
2 tube - rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299
3 tube - rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299
4 tube - rating	5A	5A	5A
Catalogue No.	AME T1268	AME T1268	AME T1268

Other choke or ballast voltage ratings available

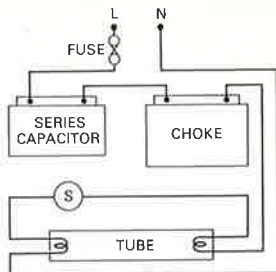
200/210V 50Hz	Not available	Not available	Not available
220V 50Hz	AME 42343 step-up transformer with CU/125	AME 42350 step-up transformer with CI/125	Not available
250V 50Hz	Not available	Not available	Not available

† Order starter switch separately

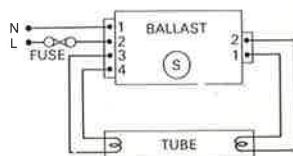
* See page 10:42 for other types

See page 10:42 for full capacitor details
 See page 10:48 for full starter switch details
 See page 10:49 for full starter socket details
 See page 10:44 for full transformer details
 See page 10:45 for full extent of ballast range

CIRCUIT DIAGRAMS

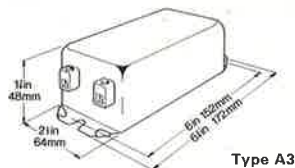


2 Leading power factor starter switch circuit with essential series capacitor

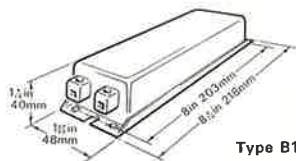


13 Starter switch circuit for HPF ballast

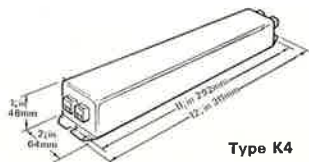
CONTROL GEAR TYPES



Type A3

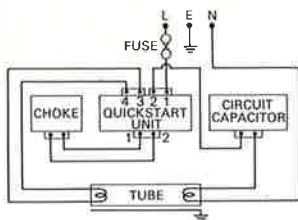


Type B1

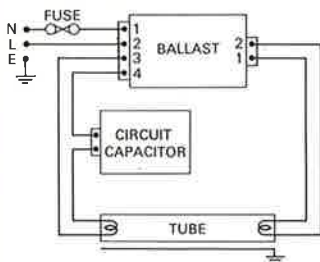


Type K4

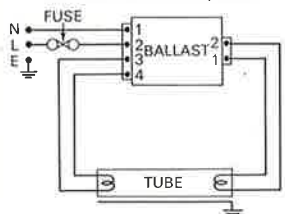
8ft 125W fluorescent tube control gear



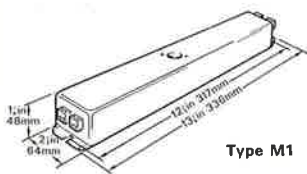
5 Quickstart circuit with separate choke and essential circuit capacitor



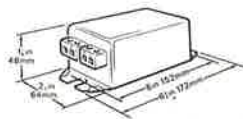
174 Quickstart circuit for LPF ballast with essential circuit capacitor



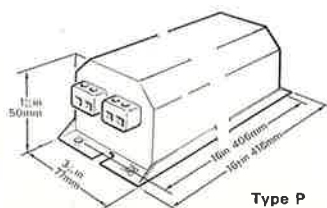
16 Quickstart Circuit for HPF ballast



Type M1



Type A2



Type P

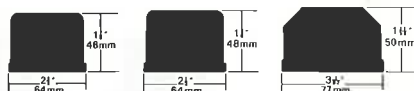
SWITCHLESS START CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube	1 × 8ft 125W	1 × 8ft 125W	1 × 8ft 125W
Circuit	Quickstart	Quickstart	Quickstart
Type of control gear	LPF choke	LPF ballast	HPF ballast
Circuit diagram (see opp.)	5	174	16

CHOKES OR BALLAST

Catalogue No.	COI/125	BQI/125	AME 69194-4
Weight	4-5lb 1-9kg	8-75lb 3-4kg	10-25lb 4-5kg
Filling	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type A3	Type K4	Type P
Can colour	White	White	White
Terminals	Screw	Screw	Screw

CROSS SECTION



CAPACITOR

Catalogue No.	AME C2228	AME C2228	Included in ballast
Capacitance μ F	7-8 \pm 5%	7-8 \pm 5%	—
Volts rating	440V	440V	—
Length (inc. terminals)	9 in 229mm	9 in 229mm	—
Diameter	1 1/2 in 38mm	1 1/2 in 38mm	—
Terminals*	Pin	Pin	—
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—

QUICKSTART UNIT

Catalogue No.	OS/125	Included in ballast	Included in ballast
Weight	4-5lb 1-9kg	—	—
Filling	Polyester resin	—	—
Illustrated type (see opp.)	Type A2	—	—
Can colour	White	—	—
Terminals	Screw	—	—

CROSS SECTION



FUSE

1 tube - rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299
2 tube - rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299
3 tube - rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299
4 tube - rating	5A	5A	5A
Catalogue No.	AME T1268	AME T1268	AME T1268

Other choke or ballast voltage ratings available

200/210V 50Hz	AME 42355 step-up transformer with COI/125	AME 42355 step-up transformer with BQI/125	Not available
220V 50Hz	AME 42350 step-up transformer with COI/125	AME 42350 step-up transformer with BQI/125	Not available
250V 50Hz	Not available	Not available	Not available

*See page 10:42 for other types

See page 10:42 for full capacitor details

See page 10:44 for full transformer details

See page 10:45 for full extent of ballast range

8ft 85W fluorescent tube control gear

CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube(s)	1 × 8ft 85W	2 × 8ft 85W
Circuit	Quickstart	Twinstart
Type of control gear	LPF ballast	HPF ballast †
Circuit diagram (see opp.)	183	6

CHOKE OR BALLAST

Catalogue No.	BQI/85	BV/285
Weight	6.5lb 2.2kg	11.5lb 5.2kg
Filling	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type A5	Type P
Can colour	White	White
Terminals	Screw	Screw

CROSS SECTION



CAPACITOR

Catalogue No.	AME C2226	Included in ballast
Capacitance μ F	5 \pm 5%	—
Volts rating	440V	—
Length (inc. terminals)	7 1/2 in 184mm	—
Diameter	1 1/2 in 38mm	—
Terminals*	Pin	—
Fused or unfused	Unfused	—
Fixing clips	AME Y5244 and AME Y5245	—

FUSE

1 tube — rating	3A	—
Catalogue No.	AME T1299	—
2 tube — rating	3A	3A
Catalogue No.	AME T1299	AME T1299
3 tube — rating	3A	—
Catalogue No.	AME T1299	—
4 tube — rating	3A	3A
Catalogue No.	AME T1299	AME T1299

Other choke or ballast voltage ratings available

200/210V 50Hz	AME 42355 step-up transformer with BQI/85	Not available
220V 50Hz	AME 42350 step-up transformer with BQI/85	AME 69222.2 †
250V 50Hz	Not available	AME 63213. H †

† No R.I.S. fitted internally — AME.C2139 to be ordered separately

* See page 10:42 for other types

See page 10:42 for full capacitor details

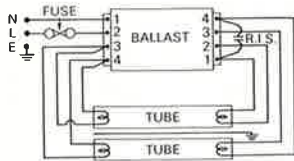
See page 10:44 for full transformer details

See page 10:45 for full extent of ballast range

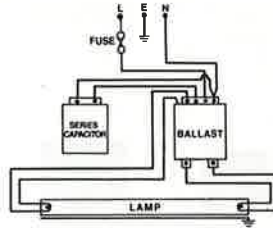
8ft 85W fluorescent tube control gear

CIRCUIT DIAGRAMS

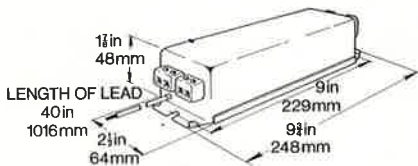
6 8ft 85W Twinstart circuit



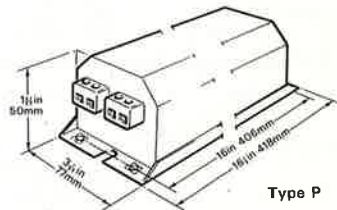
183 Quickstart circuit for Combined choke and transformer with essential series capacitor



CONTROL GEAR TYPES



Type A5



Type P

6ft 85W fluorescent tube control gear

CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube	1 × 6ft 85W	1 × 6ft 85W	1 × 6ft 85W	1 × 6ft 85W
Circuit	Switchstart	Switchstart	Semi-resonant start	Semi-resonant start
Type of control gear	LPF choke	HPF ballast	LPF ballast	LPF ballast
Circuit diagram (see opp.)	1	13	7	7

CHOKO OR BALLAST

Catalogue No.	CU/685	AME 68028-4	BI/685	BU/685
Weight	4lb 1.8kg	5.25lb 2.4kg	4lb 1.8kg	4lb 1.8kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type B1	Type M2	Type A2	Type B8
Can colour	White	White	White	White
Terminals	Screw	Screw	Screw	Screw

CROSS SECTION



CAPACITOR

Catalogue No.	AME C2223	Included in ballast	AME C2220	AME C2220
Capacitance μ F	6 \pm 10%	—	8.4 \pm 5%	8.4 \pm 5%
Volts rating	250V	—	250V	250V
Length (inc. terminals)	4 1/2 in 108mm	—	5 1/2 in 130mm	5 1/2 in 130mm
Diameter	1 1/2 in 38mm	—	1 1/2 in 38mm	1 1/2 in 38mm
Terminals*	Pin	—	Pin	Pin
Fused or unfused*	Fused	—	Unfused	Unfused
Fixing clips	AME Y5244 and AME Y5245	—	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245

STARTER SWITCH

Catalogue No.	—	155/800†	155/800	—
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FUSE

1 tube – rating	3A	3A	1.25A	1.25A
Catalogue No.	AME T1299	AME T1299	AME T1342	AME T1342
2 tube – rating	3A	3A	1.25A	1.25A
Catalogue No.	AME T1299	AME T1299	AME T1342	AME T1342
3 tube – rating	3A	3A	2 × 1.25A	2 × 1.25A
Catalogue No.	AME T1299	AME T1299	2 × AME T1342	2 × AME T1342
4 tube – rating	5A	5A	2 × 1.25A	2 × 1.25A
Catalogue No.	AME T1268	AME T1268	2 × AME T1342	2 × AME T1342

Other choke or ballast voltage ratings available

200/210V 50Hz	Not available	Not available	Not available	Not available
220V 50Hz	AME 42350	Not available	AME 69271-2	AME 69294-2†
	step-up transformer with CU/685			
250V 50Hz	AME 69229-5 §	Not available	Not available	Not available

†Order starter switch separately

*See page 10:42 for other types

†This unit has pin terminals and must be used with capacitor AME C2289 (10 μ F \pm 5%)

§This unit has pin terminals

See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

See page 10:49 for full starter socket details

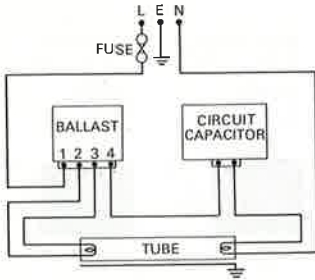
See page 10:44 for full transformer details

See page 10:45 for full extent of ballast range

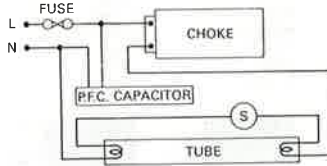
6ft 85W fluorescent tube control gear

CIRCUIT DIAGRAMS

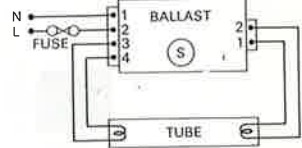
7 Semi-resonant start circuit with essential circuit capacitor



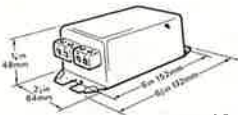
1 Standard starter switch circuit with optional PFC capacitor



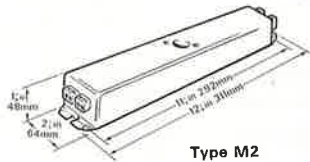
13 Starter switch circuit for HPF ballast



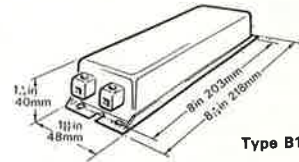
CONTROL GEAR TYPES



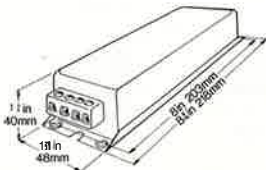
Type A2



Type M2



Type B1



Type B8

5ft 80W fluorescent tube control gear

CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube	1 × 5ft 80W	1 × 5ft 80W	1 × 5ft 80W	1 × 5ft 80W	1 × 5ft 80W
Circuit	Switchstart	Switchstart	Quickstart	Switchstart	Semi-resonant start
Type of control gear	LPF choke	LPF choke	LPF choke	HPF ballast	HPF ballast
Circuit diagram (see opp.)	1	1	8	13	16

CHOKES OR BALLAST

Catalogue No.	CU/685	CI/80	CI/80	AME 68028-4	AME 68041-4
Weight	4lb 1-8kg	4-25lb 1-9kg	4-25lb 1-9kg	5-25lb 2-4kg	6-75lb 3kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type B1	Type A2	Type A2	Type M2	Type K1
Can colour	White	White	White	White	White
Terminals	Screw	Screw	Screw	Screw	Screw
Cross Section					



CAPACITOR

Catalogue No.	AME C2222	AME C2222	AME C2222	Included in ballast	Included in ballast
Capacitance μ F	8 \pm 10%	8 \pm 10%	8 \pm 10%	—	—
Volts rating	250V	250V	250V	—	—
Length (inc. terminals)	5in 127mm	5in 127mm	5in 127mm	—	—
Diameter	1 1/2in 38mm	1 1/2in 38mm	1 1/2in 38mm	—	—
Terminals*	Pin	Pin	Pin	—	—
Fused or unfused*	Unfused	Unfused	Unfused	—	—
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—	—

STARTER SWITCH

Catalogue No.	155/500	155/500	—	155/500†	—
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QUICKSTART UNIT

Catalogue No.	—	—	QS/80	—	—
Weight	—	—	2-25lb 1kg	—	—
Filling	—	—	Polyester resin	—	—
Illustrated type (see opp.)	—	—	Type O1	—	—
Can colour	—	—	White	—	—
Terminals	—	—	Screw	—	—
Cross Section	—	—	—	—	—



FUSE

1 tube—rating	3A	3A	3A	3A	1-25A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299	AME T1342
2 tube—rating	3A	3A	3A	3A	1-25A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299	AME T1342
3 tube—rating	3A	3A	3A	3A	2 × 1-25A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299	2 × AME T1342
4 tube—rating	5A	5A	5A	5A	2 × 1-25A
Catalogue No.	AME T1268	AME T1268	AME T1268	AME T1268	2 × AME T1342

Other choke or ballast voltage ratings available

200/210V 50Hz	AME 69249-1	CI/80	CI/80	Not available	Not available
220/230V 50Hz	AME 69249-2 (220V)	CI/80	CI/80	Not available	Not available
240/250V 50Hz	† AME 69229-5 (250V)	CI/80	CI/80	Not available	Not available

† Starter switch to be ordered separately † This unit has pin terminals

* See page 10:42 for other types

See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

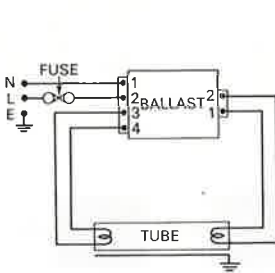
See page 10:49 for full starter socket details

See page 10:45 for full extent of ballast range

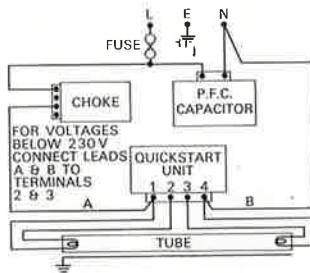
5ft 80W fluorescent tube control gear

CIRCUIT DIAGRAMS

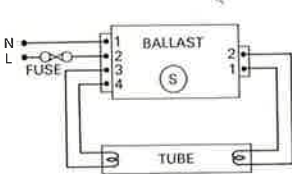
16 HPF ballast (SRS circuit)



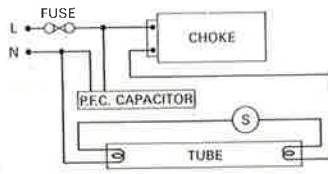
8 Tapped quickstart transformer circuit with optional PFC capacitor



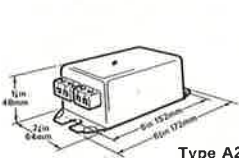
13 Starter switch circuit for HPF ballast



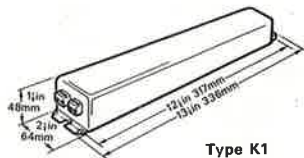
1 Standard starter switch circuit with optional PFC capacitor



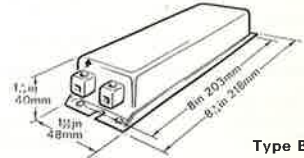
CONTROL GEAR TYPES



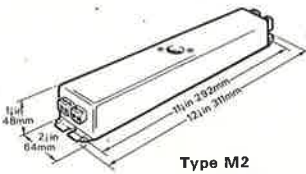
Type A2



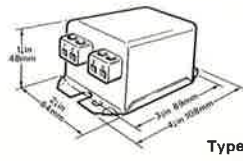
Type K1



Type B1



Type M2



Type O1

5ft 65W fluorescent tube control gear

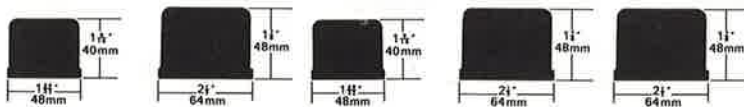
CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube	1 × 5ft 65W	1 × 5ft 65W	1 × 5ft 65W	1 × 5ft 65W	1 × 5ft 65W
Circuit	Switchstart	Semi-resonant start	Semi-resonant start	Switchstart	Semi-resonant start
Type of control gear	LPF choke	LPF ballast	LPF ballast	HPF ballast	HPF ballast
Circuit diagram (see opp.)	1	7	7	13	16

CHOKE OR BALLAST

Catalogue No.	CU/65	BI/65	BU/65	AME 68061-4	AME 69161-4
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 opp.)	Type B3	Type A2	Type B6	Type M3	Type K2
Can colour	White	White	White	White	White
Terminals	Screw	Screw	Screw	Screw	Screw

CROSS SECTION



CAPACITOR

Catalogue No.	AME C2245	AME C2220	AME C2220	Included in ballast	Included in ballast
Capacitance μ F	5 \pm 10%	8.4 \pm 5%	8.4 \pm 5%	—	—
Volts rating	250V	250V	250V	—	—
Length (inc. terminals)	4 1/2 in 108mm	5 1/2 in 130mm	5 1/2 in 130mm	—	—
Diameter	1 1/2 in 38mm	1 1/2 in 38mm	1 1/2 in 38mm	—	—
Terminals*	Pin	Pin	Pin	—	—
Fused or unfused*	Fused	Unfused	Unfused	—	—
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—	—

STARTER SWITCH

Catalogue No.	155/500	—	—	155/500†	—
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FUSE

1 tube — rating	3A	1.25A	1.25A	3A	1.25A
Catalogue No.	AME T1299	AME T1342	AME T1342	AME T1299	AME T1342
2 tube — rating	3A	1.25A	1.25A	3A	1.25A
Catalogue No.	AME T1299	AME T1342	AME T1342	AME T1299	AME T1342
3 tube — rating	3A	2 × 1.25A	2 × 1.25A	3A	2 × 1.25A
Catalogue No.	AME T1299	2 × AME T1342	2 × AME T1342	AME T1299	2 × AME T1342
4 tube — rating	3A	2 × 1.25A	2 × 1.25A	3A	2 × 1.25A
Catalogue No.	AME T1299	2 × AME T1342	2 × AME T1342	AME T1299	2 × AME T1342

Other choke or ballast voltage ratings available

200/210V 50Hz	AME 69046-1†	AME 69163-1 †	AME 69250-1†	Not available	Not available
220V 50Hz	AME 69046-2†	BI/685	AME 69291-2	AME 68061-2	AME 69161-2
250V 50Hz	AME 69046-5†	AME 69163-5 †	AME 69250-5†	Not available	Not available

†Starter switch to be ordered separately

*See page 10:42 for other types

†This unit has pin terminals

See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

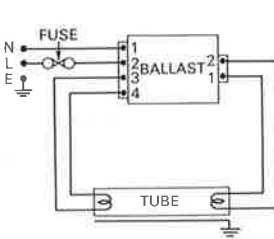
See page 10:49 for full starter socket details

See page 10:45 for full extent of ballast range

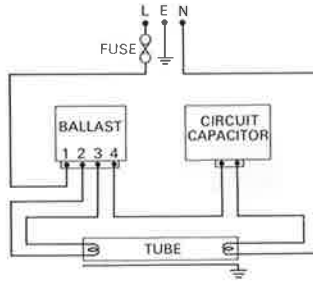
5ft 65W fluorescent tube control gear

CIRCUIT DIAGRAMS

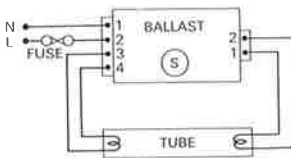
16 HPF ballast (SRS circuit)



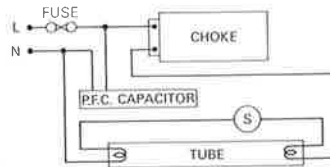
7 Semi-resonant start circuit with essential circuit capacitor



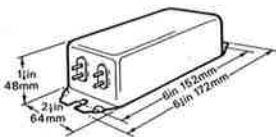
13 Starter switch circuit for HPF ballast



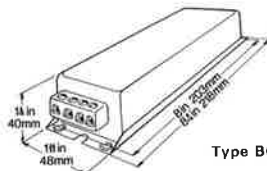
1 Standard starter switch circuit with optional PFC capacitor



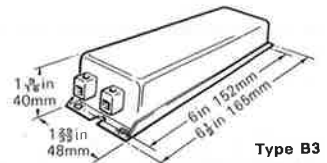
CONTROL GEAR TYPES



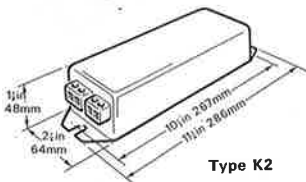
Type A2



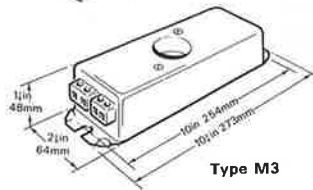
Type B6



Type B3



Type K2



Type M3

5ft 50W fluorescent tube control gear

CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube	1 × 5ft 50W	1 × 5ft 50W
Circuit	Switchstart	Semi-resonant start
Type of control gear	LPF choke	HPF ballast
Circuit diagram (see opp.)	2	16

CHOKE OR BALLAST

Catalogue No.	CJ/50	AME 69090-4
Weight	1.875lb 0.8kg	3.5lb 1.6kg
Filling	Varnish	Polyester resin
Illustrated type (see opp.)	Type E1	Type H4
Can colour	Natural varnish	White
Terminals	Screw	Screw

CROSS SECTION



CAPACITOR

Catalogue No.	AME C2229	Included in ballast
Capacitance μ F	2.85 \pm 5%	—
Volts rating	440V	—
Length (inc. terminals)	7 $\frac{1}{2}$ in 184mm	—
Diameter	1 $\frac{1}{2}$ in 32mm	—
Terminals*	Pin	—
Fixing clip	AME Y5259§	—

STARTER SWITCH

Catalogue No.	155/501
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FUSE

1 tube — rating	3A	1.25A
Catalogue No.	AME T1299	AME T1342
2 tube — rating	3A	1.25A
Catalogue No.	AME T1299	AME T1342
3 tube — rating	3A	2 × 1.25A
Catalogue No.	AME T1299	2 × AME T1342
4 tube — rating	3A	2 × 1.25A
Catalogue No.	AME T1299	2 × AME T1342

Other choke or ballast voltage ratings available

200/210V 50Hz	Not available	Not available
220V 50Hz	Not available	Not available
250V 50Hz	Not available	Not available

*See page 10:42 for other types

§For use in Arrowslim fittings only

See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

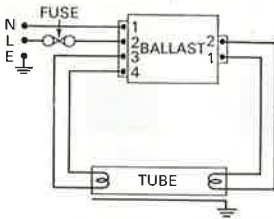
See page 10:49 for full starter socket details

See page 10:45 for full extent of ballast range

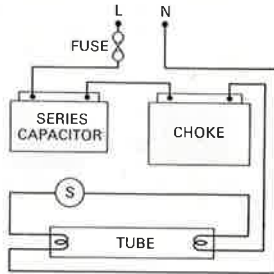
5ft 50W fluorescent tube control gear

CIRCUIT DIAGRAMS

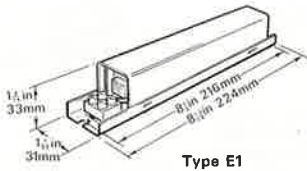
16 HPF ballast (SRS circuit)



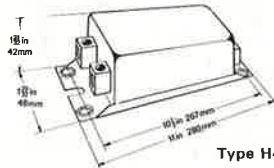
2 Leading power factor starter switch circuit with essential series capacitor



CONTROL GEAR TYPES



Type E1



Type H4

4ft 40W fluorescent tube control gear

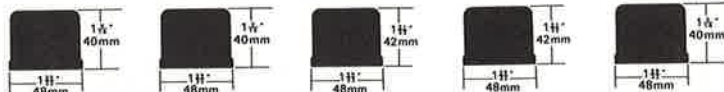
CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube	1 × 40W circular or 1 × 4ft 40W	1 × 4ft 40W	1 × 4ft 40W	1 × 4ft 40W	1 × 4ft 40W
Circuit	Switchstart	Quickstart	Switchstart	Quickstart	Semi-resonant start
Type of control gear	LPF choke	LPF choke	HPF ballast	HPF ballast	LPF ballast
Circuit diagram (see opp.)	1 (4ft) 216 (circular)	8	13	16	7

CHOKE OR BALLAST

Catalogue No.	CU/40	CU/40	AME 69054-4	AME 69064-4	BU/40
Weight	2lb 0.9kg	2lb 0.9kg	2.5lb 1.1kg	3.5lb 1.6kg	2.85lb 1.3kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type B5	Type B5	Type D1	Type H1	Type B7
Can colour	White	White	White	White	White
Terminals	Screw	Screw	Screw	Screw	Screw

CROSS SECTION



CAPACITOR

Catalogue No.	AME C2224	AME C2224	Included in ballast	Included in ballast	AME C2273
Capacitance μ F	3.5 \pm 10%	3.5 \pm 10%	—	—	5.5 \pm 10%
Volts rating	250V	250V	—	—	250V
Length (inc. terminals)	3 3/8 in 86mm	3 3/8 in 86mm	—	—	2 3/8 in 66mm
Diameter	1 1/2 in 38mm	1 1/2 in 38mm	—	—	1 1/2 in 38mm
Terminals*	Pin	Pin	—	—	Pin
Fused or unfused	Unfused	Unfused	—	—	Unfused
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—	—	AME Y5244 and AME Y5245

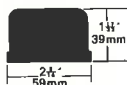
STARTER SWITCH

Catalogue No.	155/400	—	155/400†	—	—
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QUICKSTART UNIT

Catalogue No.	—	QS/40	—	Included in ballast	—
Weight	—	2lb 0.9kg	—	—	—
Filling	—	Polyester resin	—	—	—
Illustrated type (see opp.)	—	Type O3	—	—	—
Can colour	—	White	—	—	—
Terminals	—	Screw	—	—	—

CROSS SECTION



FUSE

1 tube – rating	3A	3A	3A	3A	0.65A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299	AME T1332
2 tube – rating	3A	3A	3A	3A	0.65A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299	AME T1332
3 tube – rating	3A	3A	3A	3A	2 × 0.65A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299	2 × AME T1332
4 tube – rating	3A	3A	3A	3A	2 × 0.65A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299	2 × AME T1332

Other choke or ballast voltage ratings available

200/210V 50Hz	AME 69057-1 †	AME 69057-1 †	Not available	Not available	Not available
220V 50Hz	AME 62999-2	AME 62999-2	AME 69054-2	Not available	AME 69004-2 §
250V 50Hz	AME 69286-5 †	AME 69286-5 †	Not available	Not available	Not available

† Starter switch to be ordered separately

* See page 10:42 for other types

† This unit has pin terminals

§ This unit must be used with capacitor AME C2298 (4 μ F \pm 5% 380V)

§ For use in Arrowslim fittings only

See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

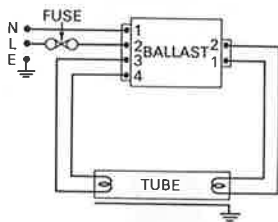
See page 10:49 for full starter socket details

See page 10:45 for full extent of ballast range

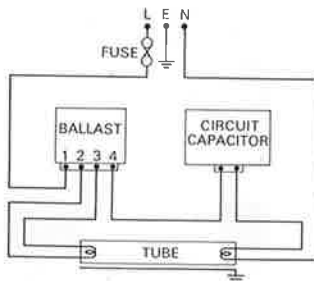
4ft 40W fluorescent tube control gear

CIRCUIT DIAGRAMS

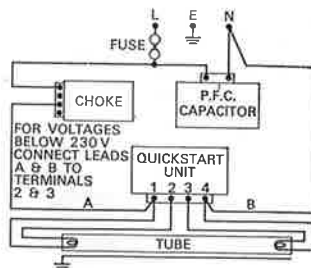
16 Quickstart circuit for HPF ballast



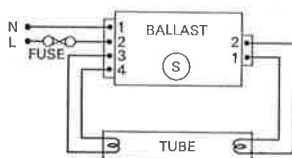
7 Semi-resonant start circuit with essential circuit capacitor



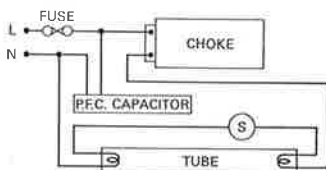
8 Tapped quickstart transformer circuit with optional PFC capacitor



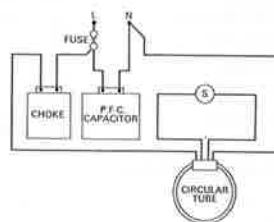
13 Starter switch circuit for HPF ballast



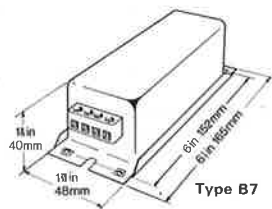
1 Standard starter switch circuit with optional PFC capacitor



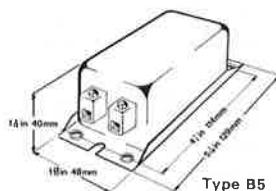
216 Starter switch circuit for circular tube with optional PFC capacitor



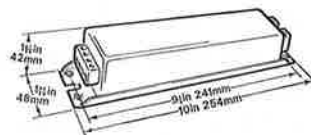
CONTROL GEAR TYPES



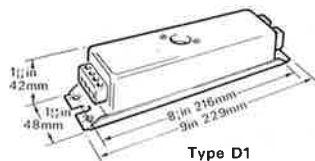
Type B7



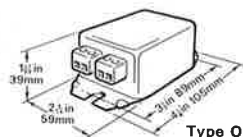
Type B5



Type H1



Type D1



Type O3

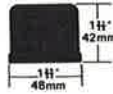
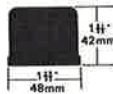
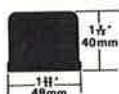
32W Circular and 3ft 30W fluorescent tube control gear

CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube	1 x 32W circular or 1 x 3ft 30W 1in and 1½in dia. Switchstart LPF choke	1 x 3ft 30W 1in and 1½in dia. Switchstart LPF choke	1 x 3ft 30W 1in and 1½in dia. Quickstart HPF ballast 16	1 x 3ft 30W 1in and 1½in dia. Switchstart HPF ballast 13
Circuit				
Type of control gear				
Circuit diagram (see opp.)	1 (3ft) 216 (circular)	1		

CHOKES OR BALLAST

Catalogue No.	CU/30	CJ/30	AME 69063-4	AME 69053-4
Weight	2lb 0.9kg	1-875lb 0.8kg	3-5lb 1.6kg	2-5lb 1.1kg
Filling	Polyester resin	Varnish	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type B5	Type E2	Type H1	Type D1
Can colour	White	Natural varnish	White	White
Terminals	Screw	Screw	Screw	Screw
Cross Section				



CAPACITOR

Catalogue No.	AME C2224	AME C2227	Included in ballast	Included in ballast
Capacitance µF	3.5 ±10%	3 ±10%	—	—
Volts rating	250V	250V	—	—
Length (inc. terminals)	3 3/8in 86mm	4 7/8in 107mm	—	—
Diameter	1 1/2in 38mm	1 1/2in 32mm	—	—
Terminals*	Pin	Pin	—	—
Fused or unfused*	Unfused	Fused	—	—
Fixing clips	AME Y5244 and AME Y5254	AME Y5259§	—	—

STARTER SWITCH

Catalogue No.	155/400	155/400	—	155/400‡
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FUSE

1 tube—rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299
2 tube—rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299
3 tube—rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299
4 tube—rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299

Other choke or ballast voltage ratings available

200/210V 50Hz	Not available	Not available	Not available	Not available
220V 50Hz	AME 62990-2	AME 66051-2	Not available	Not available
250V 50Hz	Not available	Not available	Not available	Not available

*See page 10:42 for other types

§For use in Arrowslim fitting only

See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

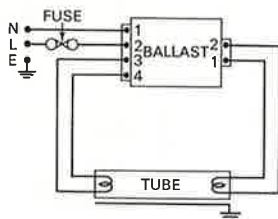
See page 10:49 for full starter socket details

See page 10:45 for full extent of ballast range

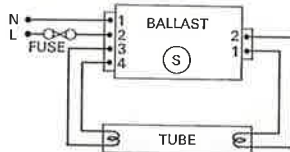
3ft 32W Circular and 30W fluorescent tube control gear

CIRCUIT DIAGRAMS

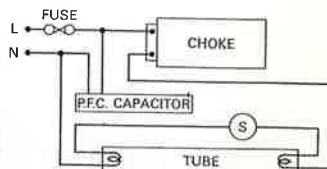
16 Quickstart circuit for HPF ballast



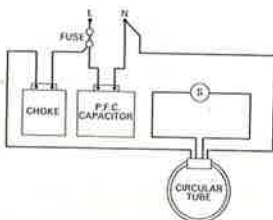
13 Starter switch circuit for HPF ballast



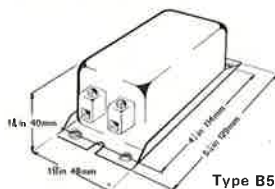
1 Standard starter switch circuit with optional PFC capacitor



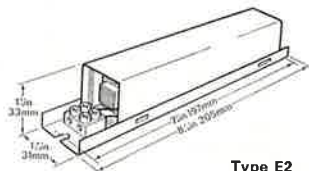
216 Starter switch circuit for circular tube with optional PFC capacitor



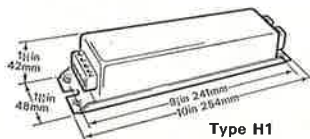
CONTROL GEAR TYPES



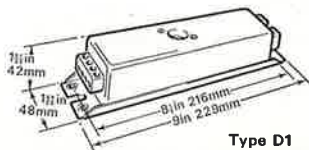
Type B5



Type E2



Type H1



Type D1

2ft 40W fluorescent tube control gear

SWITCHSTART CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube(s)	1 × 2ft 40W	2 × 2ft 40W	2 × 2ft 40W
Circuit	Switchstart	Switchstart	Switchstart
Type of control gear	LPF choke	LPF choke	HPF ballast
Circuit diagram (see opp.)	1	10	15

CHOKES OR BALLAST

Catalogue No.	CI/240	CI/2240	AME 68028/4
Weight	4.25lb	4.25lb	4.75lb
Filling	1.9kg	1.9kg	2.1kg
Illustrated type (see opp.)	Polyester resin	Polyester resin	Polyester resin
Can colour	Type A2	Type A2	Type M2
Terminals	White	White	White
	Screw	Screw	Screw

CROSS SECTION



CAPACITOR

Catalogue No.	AME C2222	AME C2222	—
Capacitance µF	8.0 ± 10%	8.0 ± 10%	—
Working volts	250V	250V	—
Length (inc. terminals)	5in 127mm	5in 127mm	—
Diameter	1 1/2in 38mm	1 1/2in 38mm	—
Terminals*	Pin	Pin	—
Fused or unfused*	Unfused	Unfused	—
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—

STARTER SWITCH

Catalogue No.	2 × 155/200	—	2 × 155/200‡
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FUSE

1 tube – rating	3A	—	—
Catalogue No.	AME T1299	—	—
2 tube – rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299
3 tube – rating	3A	—	—
Catalogue No.	AME T1299	—	—
4 tube – rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299

Other choke or ballast voltage ratings available

200/210V 50Hz	CI/240	CI/2240	Not available
220/230V 50Hz	CI/240	CI/2240	Not available
240/250V 50Hz	CI/240	CI/2240	Not available

‡ Starter switches to be ordered separately. One starter switch socket will also be required.

*See page 10:42 for other types

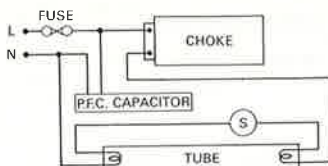
See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

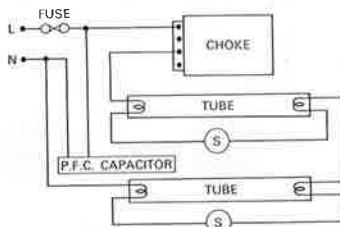
See page 10:49 for full starter socket details

See page 10:45 for full extent of ballast range

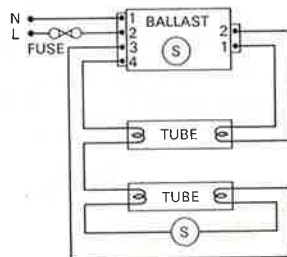
CIRCUIT DIAGRAMS



1 Standard starter switch circuit with optional PFC capacitor

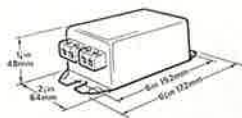


10 Starter switch circuit for series pair tube operation with optional PFC capacitor

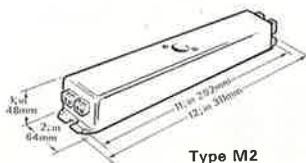


15 Twin tube starter switch circuit for HPF ballast

CONTROL GEAR TYPES

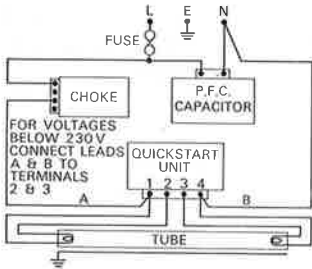


Type A2

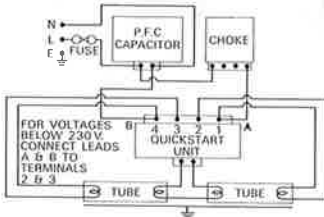


Type M2

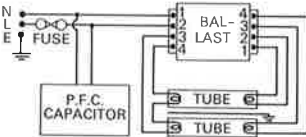
2ft 40W fluorescent tube control gear



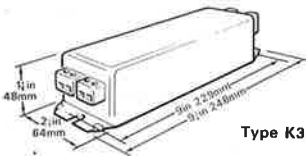
8 Tapped Quickstart transformer circuit with optional PFC capacitor



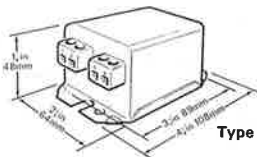
11 Twin tube Quickstart circuit with optional PFC capacitor



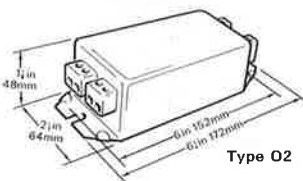
12 Twin tube Quickstart circuit for LPF ballast with optional PFC capacitor



Type K3



Type O1



Type O2

QUICKSTART CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube(s)	1 x 2ft 40W	2 x 2ft 40W	2 x 2ft 40W
Circuit	Quickstart	Quickstart	Quickstart
Type of control gear	LPF choke	LPF choke	LPF ballast
Circuit diagram (see opp.)	8	11	12

CHOKO OR BALLAST

Catalogue No.	CI/240	CI/2240	AME 69082/4
Weight	4-25lb 1-9kg	4-25lb 1-9kg	6lb 2-7kg
Filling	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type A2	Type A2	Type K3
Can colour	White	White	White
Terminals	Screw	Screw	Screw
Cross Section			



CAPACITOR

Catalogue No.	AME C2222	AME C2222	AME C2222
Capacitance μ F	8 \pm 10%	8 \pm 10%	8 \pm 10%
Working volts	250V	250V	250V
Length (inc. terminals)	5in 127mm	5in 127mm	5in 127mm
Diameter	1 1/2in 38mm	1 1/2in 38mm	1 1/2in 38mm
Terminals*	Pin	Pin	Pin
Fused or unfused*	Unfused	Unfused	Unfused
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245

QUICKSTART UNIT

Catalogue No.	OS/80	OS 2240	Included in ballast
Weight	2-25lb 1kg	3-11lb 1-4kg	—
Filling	Polyester resin	Polyester resin	—
Illustrated type (see opp.)	Type O1	Type O2	—
Can colour	White	White	—
Terminals	Screw	Screw	—
Cross Section			—



FUSE

1 tube - rating	3A		
Catalogue No.	AME T1299		
2 tube - rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299
3 tube - rating	3A		
Catalogue No.	AME T1299		
4 tube - rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299

Other choke or ballast voltage ratings available

200/210V 50Hz	CI/240	CI/2240	Not available
220/230V 50Hz	CI/240	CI/2240	Not available
240/250V 50Hz	CI/240	CI/2240	Not available

*See page 10:42 for other types

See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

See page 10:49 for full starter socket details

See page 10:45 for full extent of ballast range

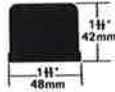
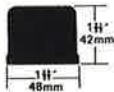
Twin 2ft 20W fluorescent tube control gear

CONTROL GEAR FOR 240V 50Hz SUPPLY

Tubes	2 x 2ft 20W	2 x 2ft 20W	2 x 2ft 20W	2 x 2ft 20W
Circuit	Switchstart	Quickstart	Switchstart	Quickstart
Type of control gear	LPF choke	LPF choke	HPF ballast	LPF ballast
Circuit diagram (see opp.)	10	11	15	12

CHOKE OR BALLAST

Catalogue No.	CU/40	CU/40	AME 69054-4	AME 69032-4
Weight	2lb 0.9kg	2lb 0.9kg	2.5lb 1.1kg	2.75lb 1.2kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type B5	Type B5	Type D1	Type H2
Can colour	White	White	White	White
Terminals	Screw	Screw	Screw	Screw
Cross Section				



CAPACITOR

Catalogue No.	AME C2224	AME C2224	Included in ballast	AME C2224
Capacitance μ F	3.5 \pm 10%	3.5 \pm 10%	—	3.5 \pm 10%
Volts rating	250V	250V	—	250V
Length (inc. terminals)	3 3/4 in 86mm	3 3/4 in 86mm	—	3 3/4 in 86mm
Diameter	1 1/2 in 38mm	1 1/2 in 38mm	—	1 1/2 in 38mm
Terminals *	Pin	Pin	—	Pin
Fused or unfused *	Unfused	Unfused	—	Unfused
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—	AME Y5244 and AME Y5245

STARTER SWITCH

Catalogue No.	2 x 155/200	—	2 x 155/200†	—
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QUICKSTART UNIT

Catalogue No.	—	QS/220	—	Included in ballast
Weight	—	2lb 0.9kg	—	—
Filling	—	Polyester resin	—	—
Illustrated type (see opp.)	—	Type O4	—	—
Can colour	—	White	—	—
Terminals	—	Screw	—	—
Cross Section	—	—	—	—



FUSE

2 tube - rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299
4 tube - rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299

Other choke or ballast voltage ratings available

200/210V 50Hz	AME 69057-1 †	AME 69057-1 †	Not available	Not available
220V 50Hz	AME 62999-2	AME 62999-2	AME 69054-2	Not available
250V 50Hz	AME 69286-5	AME 69286-5	Not available	Not available

† Order starter switches separately. One starter switch socket will also be required

* See page 10:42 for other types

† This unit has pin terminals

See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

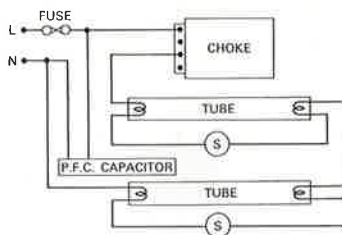
See page 10:49 for full starter socket details

See page 10:45 for full extent of ballast range

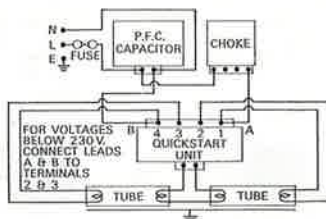
Twin 2ft 20W fluorescent tube control gear

CIRCUIT DIAGRAMS

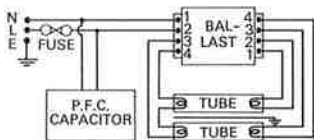
10 Starter switch circuit for series pair tube operation with optional PFC capacitor



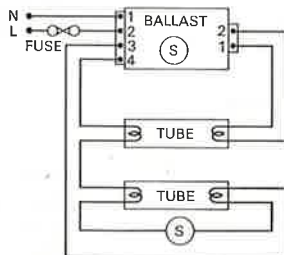
11 Twin tube Quickstart circuit with optional PFC capacitor



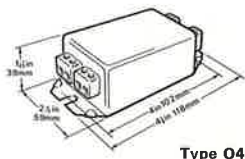
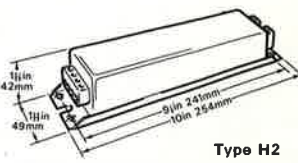
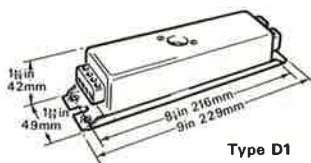
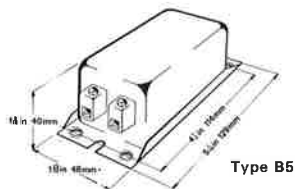
12 Twin tube Quickstart circuit for LPF ballast with optional PFC capacitor



15 Twin tube starter switch circuit for HPF ballast



CONTROL GEAR TYPES



Twin 18in 15W fluorescent tube control gear

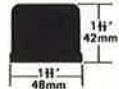
CONTROL GEAR FOR 240V 50Hz SUPPLY

Tubes	2 × 18in 15W 1in and 1½in dia.	2 × 18in 15W 1in and 1½in dia.	2 × 18in 15W 1in and 1½in dia.
Circuit	Switchstart	Quickstart	Switchstart
Type of control gear	LPF choke	LPF choke	HPF ballast
Circuit diagram (see opp.)	10	11	15

CHOKE OR BALLAST

Catalogue No.	CU/30	CU/30	AME 69053-4
Weight	2lb 0.9kg	2lb 0.9kg	2.5lb 1.1kg
Filling	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type B5	Type B5	Type D1
Can colour	White	White	White
Terminals	Screw	Screw	Screw

Cross Section



CAPACITOR

Catalogue No.	AME C2224	AME C2224	—
Capacitance µF	3.5 ± 10%	3.5 ± 10%	—
Volts rating	250V	250V	—
Length (inc. terminals)	3½in 86mm	3½in 86mm	—
Diameter	1½in 38mm	1½in 38mm	—
Terminals*	Pin	Pin	—
Fused or unfused*	Unfused	Unfused	—
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	—

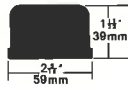
STARTER SWITCH

Catalogue No.	2 × 155/200	—	2 × 155/200‡
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QUICKSTART UNIT

Catalogue No.	—	QS/220	—
Weight	—	2lb 0.9kg	—
Filling	—	Polyester resin	—
Illustrated type (see opp.)	—	Type O4	—
Can colour	—	White	—
Terminals	—	Screw	—

Cross Section



FUSE

2 tube — rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299
4 tube — rating	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299

Other choke or ballast voltage ratings available

200/210V 50Hz	Not available	Not available	Not available
220V 50Hz	AME 62990-2	AME 62990-2	Not available
250V 50Hz	Not available	Not available	Not available

‡Order starter switches separately, one starter switch socket will also be required

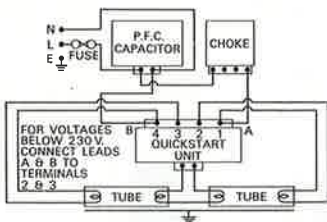
*See page 10:42 for other types

See page 10:42 for full capacitor details
See page 10:48 for full starter switch details
See page 10:49 for full starter socket details
See page 10:45 for full extent of ballast range

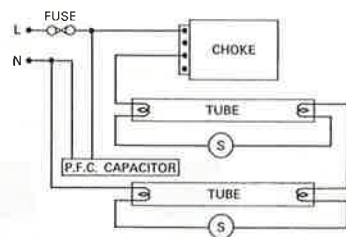
Twin 18in 15W fluorescent tube control gear

CIRCUIT DIAGRAMS

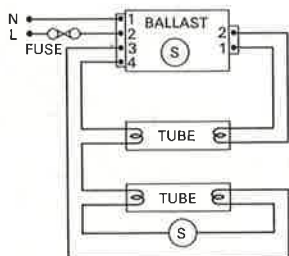
11 Twin tube Quickstart circuit with optional PFC capacitor



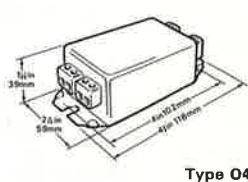
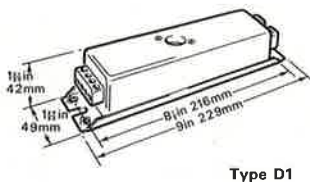
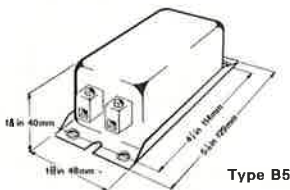
10 Starter switch circuit for series pair tube operation with optional PFC capacitor



15 Twin tube starter switch circuit for HPF ballast



CONTROL GEAR TYPES




Single 22W circular, 2ft 20W and 18in 15W fluorescent tube control gear

CONTROL GEAR FOR 240V 50Hz SUPPLY

Tube	1 × 2ft 20W or 1 × 18in 15W	1 × 22W Circular or 1 × 2ft 20W or 1 × 18in 15W	1 × 2ft 20W or 1 × 18in 15W	1 × 22W Circular or 1 × 2ft 20W or 1 × 18in 15W
Circuit	(1in or 1½in dia.) Quickstart	(1in or 1½in dia.) Switchstart	(1in or 1½in dia.) Quickstart	(1in or 1½in dia.) Switchstart
Type of control gear	LPF choke	LPF choke	LPF ballast	LPF ballast
Circuit diagram (see opp.)	8	1 (15/20W) 216 (22W)	219	17

CHOKE OR BALLAST

Catalogue No.	CU/20	CU/20	AME 69072-4	AME 69195-4
Weight	2lb 0.9kg	2lb 0.9kg	2.5lb 1.13kg	2.25lb 1.02kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see opp.)	Type B5	Type B5	Type H3	Type D1
Cross Section				
Can colour	White	White	White	White
Terminals	Screw	Screw	Screw	Screw
				

CAPACITOR

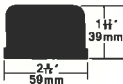
Catalogue No.	AME C2224	AME C2224	AME C2224	AME C2224
Capacitance µF	3.5 ± 10%	3.5 ± 10%	3.5 ± 10%	3.5 ± 10%
Working volts	250V	250V	250V	250V
Length (inc. terminals)	3½in 86mm	3½in 86mm	3½in 86mm	3½in 86mm
Diameter	1½in 38mm	1½in 38mm	1½in 38mm	1½in 38mm
Terminals*	Pin	Pin	Pin	Pin
Fused or unfused*	Unfused	Unfused	Unfused	Unfused
Fixing clips	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245	AME Y5244 and AME Y5245

STARTER SWITCH

Catalogue No.	—	155/200	—	155/200‡
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QUICKSTART UNIT

Catalogue No.	OS/40	—	Included in ballast	—
Weight	2lb 0.9kg	—	—	—
Filling	Polyester resin	—	—	—
Illustrated type (see opp.)	Type O3	—	—	—
Cross Section		—	—	—
Can colour	White	—	—	—
Terminals	Screw	—	—	—



FUSE

1 tube – rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299
2 tube – rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299
3 tube – rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299
4 tube – rating	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299

Other choke or ballast voltage ratings available

200/210V 50Hz	AME 69058-1 †	AME 69058-1 †	Not available	Not available
220V 50Hz	AME 62993-2	AME 62993-2	Not available	Not available
250V 50Hz	AME 69058-5 †	AME 69058-5 †	Not available	Not available

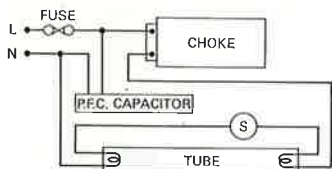
† This unit has pin terminals ‡ Order starter switches separately * See page 10:42 for other types

See page 10:42 for full capacitor details
See page 10:48 for full starter switch details
See page 10:49 for full starter socket details
See page 10:45 for full extent of ballast range

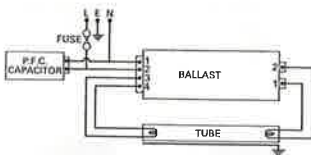
Single 22W circular, 2ft 20W and 18in 15W fluorescent tube control gear

CIRCUIT DIAGRAMS

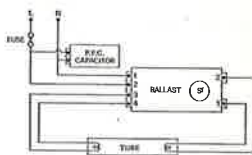
1 Standard starter switch circuit
with optional PFC capacitor



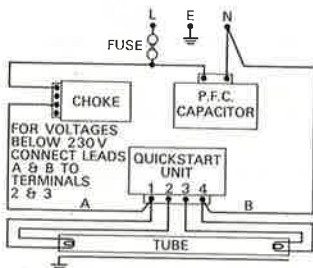
219 Quickstart circuit for LPF ballast with
optional PFC capacitor



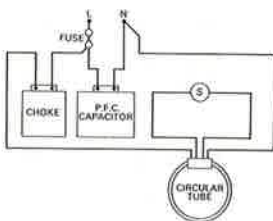
17 Starter switch circuit for LPF ballast
with optional PFC capacitor



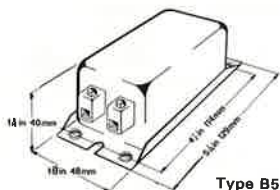
8 Tapped quickstart transformer circuit
with optional PFC capacitor



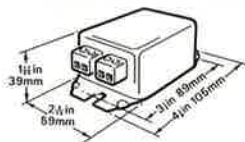
216 Starter switch circuit for circular tube
with optional PFC capacitor



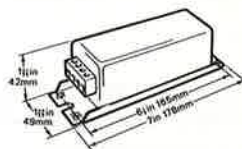
CONTROL GEAR TYPES



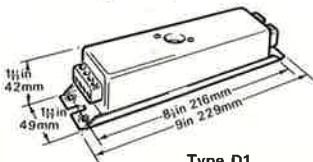
Type B5



Type O3



Type H3



Type D1

21in 13W, 12in 8W, 9in 6W and 6in 4W control gear

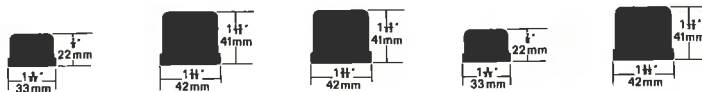
CONTROL GEAR FOR 230/250V 50Hz SUPPLY

Tube(s)	1 × 21in 13W	2 × 12in 8W	2 × 6/4W	1 × 12in 8W	1 × 4/6/8/13W
Circuit	Switchstart	Switchstart	Switchstart	Switchstart	Switchstart
Type of control gear	LPF choke	LPF choke	LPF choke	LPF choke	LPF choke
Circuit diagram (see opp.)	1	10	10	1	1

CHOKE OR BALLAST

Catalogue No.	CD/13	CPX/28	CPX/8	CD/8	CPX/8
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 opp.)	Type F	Type G	Type G	Type F	Type G
Can colour	White	White	White	White	White
Terminals	Leads	Leads	Leads	Leads	Leads

CROSS SECTION



CAPACITOR

Catalogue No.	AME C2286	AME C2286	AME C2286	AME C2286	AME C2286
Capacitance μ F	2 \pm 10%	2 \pm 10%	2 \pm 10%	2 \pm 10%	2 \pm 10%
Working volts	250V	250V	250V	250V	250V
Length (inc. terminals)	3 1/2 in 97mm	3 1/2 in 97mm	3 1/2 in 97mm	3 1/2 in 97mm	3 1/2 in 97mm
Diameter	1 in 26mm	1 in 26mm	1 in 26mm	1 in 26mm	1 in 26mm
Terminals	Solder tags	Solder tags	Solder tags	Solder tags	Solder tags
Fused or unfused	Fused	Fused	Fused	Fused	Fused
Fixing clip	AME Y5200	AME Y5200	AME Y5200	AME Y5200	AME Y5200

STARTER SWITCH

Catalogue No.	155/500	2 × 155/100†	2 × 155/100†	155/500	155/500
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FUSE

1 tube – rating	3A	—	—	3A	3A
Catalogue No.	AME T1299	—	—	AME T1299	AME T1299
2 tube – rating	3A	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299	AME T1299
3 tube – rating	3A	—	—	3A	3A
Catalogue No.	AME T1299	—	—	AME T1299	AME T1299
4 tube – rating	3A	3A	3A	3A	3A
Catalogue No.	AME T1299	AME T1299	AME T1299	AME T1299	AME T1299

Other choke or ballast voltage ratings available

200/220V 50Hz	AME 69160.L	Not available	Not available	AME 69159.L	4/6/8W CPX/28
220V 50Hz	—	—	—	—	13W Use CPX/8 above

See page 10:42 for full capacitor details

See page 10:48 for full starter switch details

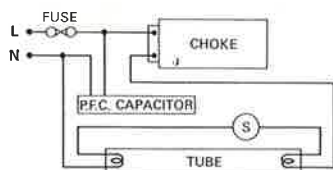
See page 10:49 for full starter socket details

†Due to the asymmetrical construction of these switches, they must be placed in the starter switch sockets correctly orientated (i.e. if the switches refuse to operate, one must be removed and rotated through 180°)

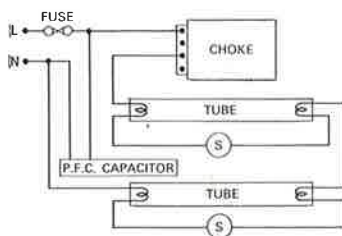
21in 13W, 12in 8W, 9in 6W and 6in 4W control gear

CIRCUIT DIAGRAMS

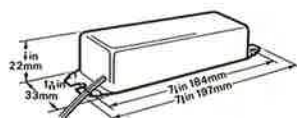
1 Standard starter switch circuit with optional PFC capacitor



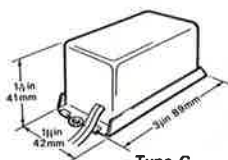
10 Starter switch circuit for series pair tube operation with optional PFC capacitor



CONTROL GEAR TYPES



Type F



Type G

Circuit components for 50W, 80W, 125W and 250W MBF, MBFR and MBF °Kolorlux mercury discharge lamps

CONTROL GEAR FOR 240V 50Hz SUPPLY

Lamp wattage	50W	80W	125W	250W
Circuit diagram (see below)	301	301	301	301

Ballast

Catalogue No.	AME 53184.4 †	AME 53162.4	AME 53159.4	AME 53198.4 ‡
Weight	2.75lb 1.2kg	4.0lb 1.8kg	6.0lb 2.72kg	5.6lb 2.54kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see below)	Type K	Type DV	Type DT	Type DT
Can colour	White	White	White	White
Terminals	Screw	Screw	Screw	Screw

Capacitor

Catalogue No.	AME C2203 †	AME C2234	AME C2234	AME C2214
Capacitance µF	6.0 ± 10%	8.0 ± 10%	8.0 ± 10%	13.0 ± 10%
Working volts	250V	250V	250V	250V
Terminals	Solder tags	Flying leads	Flying leads	Flying leads
Fused or unfused	Fused	Unfused	Unfused	Unfused

Other ballast voltage ratings available

220V 50Hz Cat No.	AME 53188.2 †	AME 53176.2 †	AME 53134.2 †	AME 53198.2 ‡
Illustrated type	Type K	Type R1	Type R2	Type DT
Can colour	White	White	White	Black
Weight	2.75lb 1.2kg	3.0lb 1.36kg	4.2lb 1.87kg	5.6lb 2.54kg
200/250V 50Hz Cat No.	Not available	AME 53162.T	AME 53159.T	AME 53158.T
Illustrated type	—	Type DV	Type DT	Type DS
Can colour	—	White	White	White
Weight	—	4.0lb 1.8kg	6.0lb 2.72kg	8.5lb 3.86kg
Voltage tappings	—	200/210; 220/230; 240/250V	200/210; 220/230; 240/250V	200; 210; 220; 230; 240; 250V

‡ 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.

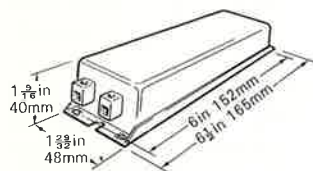
† For use in fittings only.

See page 10:43 for full capacitor details

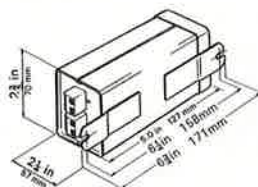
301 Circuit for MBF and MBFR mercury discharge lamps.



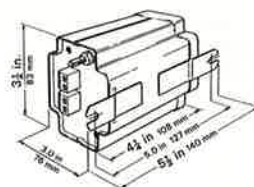
Type K



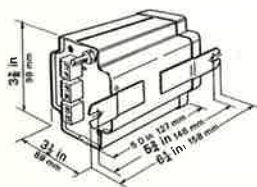
Type DV



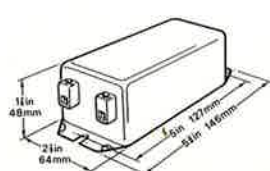
Type DT



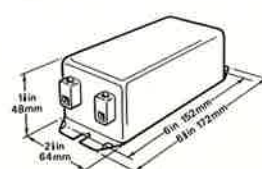
Type DS



Type R1



Type R2



Circuit components for 400W, 700W and 1000W MBF, MBFR and MBF °Kolorlux mercury discharge lamps

CONTROL GEAR FOR 240V 50Hz SUPPLY

Lamp wattage	400W	700W	1000W
Circuit diagram (see below)	301	306	306

Ballast

Catalogue No.(s)	AME 53193.4†	AME 53157.T +	AME 53198.4*†	2 × AME 53243.4*†
Weight	8-5lb 3-86kg	12lb 5-5kg	5-6lb 2-54kg	8-5lb 3-86kg (each)
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see below)	Type DS	Type DU	Type DT	Type DS
Can colour	White	White	White	White
Terminals	Screw	Screw	Screw	Screw

Capacitor

Catalogue No.(s)	AME C2218	AME C2218 +	AME C2214*	2 × AME C2236
Capacitance µF	20-0 ± 10%	20-0 ± 10%	13 ± 10%	25-0 ± 10% (each)
Working volts	250V	250V	250V	250V
Terminals	Flying leads	Flying leads	Flying leads	Flying leads
Fused or unfused	Unfused	Unfused	Unfused	Unfused

Other ballast voltage ratings available

220V 50Hz Catalogue No.	AME 53193.2†	Not available	Not available
Illustrated type	Type DS	—	—
Can colour	White	—	—
Weight	8-5lb 3-86kg	—	—
200/250V 50Hz Catalogue No.	AME 53157.T	AME 53157.T +	AME 53158.T*
Illustrated type	Type DU	Type DU	Type DS
Can colour	White	White	White
Weight	12lb 5-5kg	12lb 5-5kg	8-5lb 3-86kg
Voltage tappings	200; 210; 220; 230; 240; 250V	210; 220; 230; 240; 250V	190; 200; 210; 220; 230; 240V

*2 connected in parallel are used for one lamp.

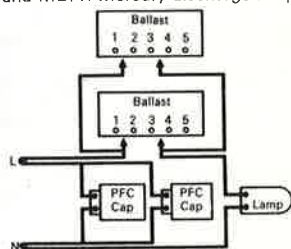
†The heat dissipation from these ballasts is extremely efficient and it is therefore necessary to ensure that cables in close proximity to the ballast surface are high temperature grade or suitably protected by high temperature sleeving.

See page 10:43 for full capacitor details.

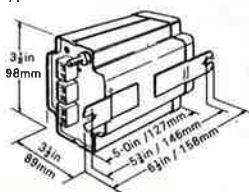
301 Circuit for MBF and MBFR Mercury discharge lamps.



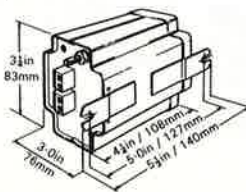
306 Circuit for 700W and 1000W MBF and MBFR Mercury discharge lamps.



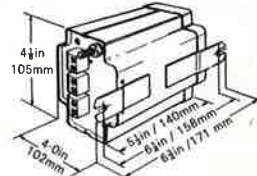
Type DS



Type DT



Type DU



Circuit components for 400W and 1000W mercury iodide discharge lamps

CONTROL GEAR FOR 240V 50Hz SUPPLY

Lamp wattage	400W	1000W
Circuit diagram (see below)	315	311

Ballast

Catalogue No.(s)	AME 53193.T	AME 53247.4
Weight	8.5lb 3.86kg	52.5lb 24kg
Filling	Polyester resin	Polyester resin
Illustrated type (see below)	Type DS	Type DP
Can colour	White	Black
Terminals	Screw	Flying leads

Ballast Fixing Bracket

Catalogue No.	AME M6181
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Capacitor

Catalogue No.(s)	AME C2218	4 × AME C2236*
Capacitance μ F	20.0 \pm 10%	25 \pm 10% (each)
Working volts	250V	250V
Terminals	Flying leads	Flying leads
Fused or unfused	Unfused	Unfused

Ignitor

Catalogue No.	AME 53262	—
Weight	1.12lb 0.51kg	—
Illustrated type (see below)	Type DB	—
Can finish	White	—
Terminals	Leads	—

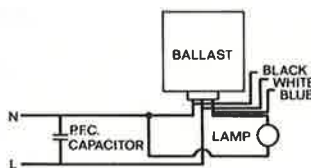
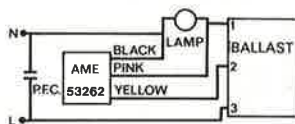
Other ballast voltage ratings available

220V 50Hz	Not available	AME 53247.2
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*Connected in parallel

315 Circuit for 400W mercury iodide discharge lamp

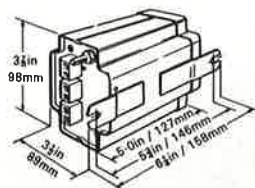
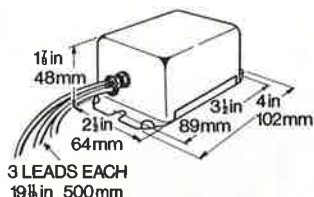
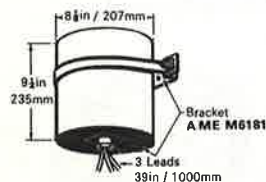
311 Circuit for 1000W mercury iodide discharge lamp



Type DP

Type DB

Type DS



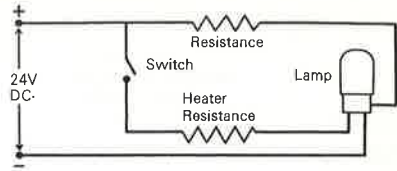
Circuit components for M1 and M2 miniature mercury discharge lamps

LAMP TYPE M1

CONTROL GEAR FOR 24V D.C. OPERATION

Rating	4.5W
Supply Volts	24 d.c.
Series resistance†	24 ohms
Heater resistance†	30 ohms

†Supplied by installer



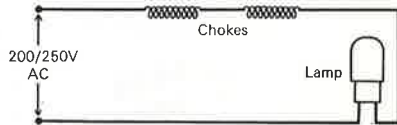
LAMP TYPE M2

CONTROL GEAR FOR 200/250V 50Hz A.C. OPERATION

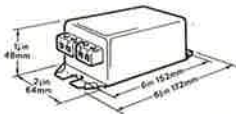
CHOKES (two required)

Catalogue No.	CI/80	+AME 62825
Weight	4.25lb 1.9kg	1.25lb 0.57kg
Filling	Polyester resin	Polyester resin
Illustrated type (see below)	Type A2	Type G
Can colour	White	White
Terminals	Screw	Leads

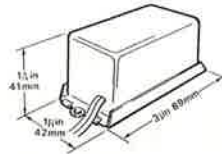
Alternatively series resistors of values between 480 and 160 ohms may be used in place of the two series chokes to give operating currents in the range 0.5 to 1.5 amps.



Type A2



Type G



Circuit Components for MB/D, MBL/D, MBW/U and ME/D Mercury discharge lamps

CONTROL GEAR FOR 200/250V 50Hz SUPPLY

Lamp	125W MB/D or 125W MBL/D or 125W MBW/U	250W ME/D	1000W ME/D
Circuit diagram (see opp.)	301	301	316

CHOKES

Catalogue No.	AME 53159.T	AME 53235	4 × AME 53235
Weight	6.0lb 2.72kg	23lb 10.43kg (each)	23lb 10.43kg (each)
Filling	Polyester resin	—	—
Illustrated type (see opp.)	Type DT	Type DC	Type DC
Can colour	White	—	—
Terminals	Screw	Screw	Screw

CAPACITORS

Catalogue No.	AME C2234	AME C2275	3 × AME C2276
Capacitance μF	8.0 $\pm 10\%$	60 $\pm 10\%$	80 $\pm 10\%$ (each)
Working volts	250V	250V	250V
Terminals	Flying leads	Screw	Screw
Illustrated type (see opp.)	†	Type CA	Type CB

STARTING CAPACITOR

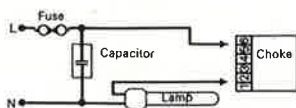
Capacitance μF	—	—	0.5
Working Volts	—	—	1000V
Manufacturer and ref. no.	—	—	TCC type CP142W or equivalent

†See page 10:43 for full capacitor details.

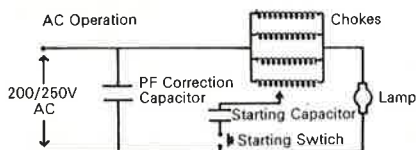
Circuit components for MB/D, MBL/D, MBW/U and ME/D mercury discharge lamps

CROSS SECTION

301 Circuit for MBF and MBFR Mercury discharge lamps

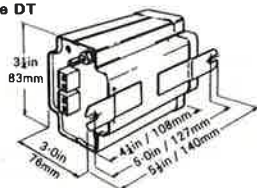


316 Circuit for 1000W ME/D lamp

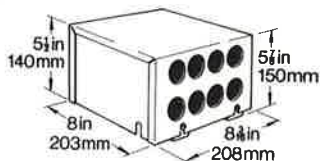


CONTROL GEAR TYPES

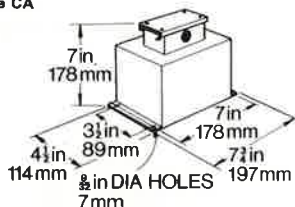
Type DT



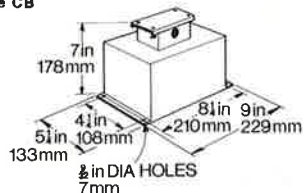
Type DC



Type CA



Type CB



Circuit Components for CSI Compact Source and MBI/L linear metal halide discharge lamps

CONTROL GEAR FOR 240V 50Hz SUPPLY

Lamp	750W MBI/L	1200W or 1600W MBI/L	400W CSI	1000W CSI
Circuit diagram	311	312	318	317

Ballast

Catalogue No.(s)	AME 53254.4	2 × AME 53254.4	AME 53196.4	AME 53255
Weight	51lb 8 oz 23.2kg	51lb 8oz 23.2kg (each)	26lb 11.8kg	60lb 27.2kg
Filling	Polyester resin	Polyester resin	—	—
Illustrated type	Type DP	Type DP	Type DD	Type DE
Can colour	Black	Black	Light grey	Black/White
Terminals	Leads	Leads	Screw	Screw

Ballast Fixing Bracket

Catalogue No.	AME M6181	2 × AME M6181	—	—
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Capacitor

Catalogue No.(s)	4 × AME C2236	8 × AME C2236	—	8 × AME C2236
Capacitance μ F	25 \pm 10% (each)	25 \pm 10% (each)	—	25 \pm 10% (each)
Working volts	250V	250V	—	250V
Terminals	Flying leads	Flying leads	—	Flying leads
Fused or unfused	Unfused	Unfused	—	Unfused

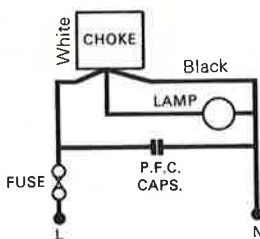
Other ballast voltage ratings available

220V 50Hz	Not available	Not available	AME 53196.2	AME 53255
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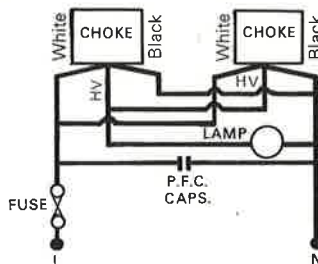
Circuit components for CSI compact source and MBI/L linear metal halide discharge lamps

CIRCUIT DIAGRAMS

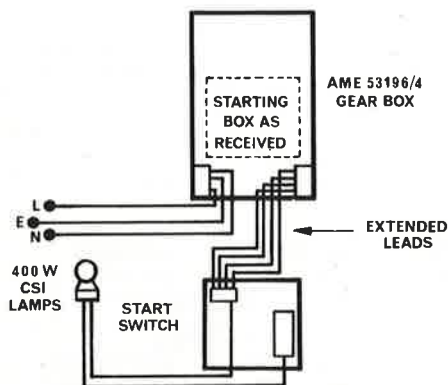
311 Circuit for 750W MBIL lamp



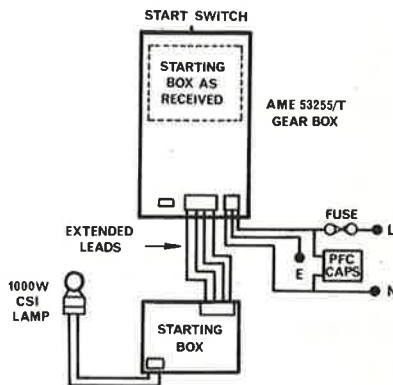
312 Circuit for 1200W/1600W MBIL lamp



318 Circuit for 400W CSI lamp



317 Circuit for 1000W CSI lamp

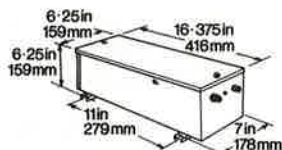


CONTROL GEAR TYPES

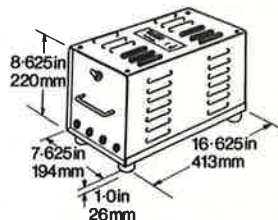
Type DP



Type DD



Type DE



Circuit components for XB and XE/D compact source Xenon discharge lamps

A.C. LAMPS 200/250V 50Hz

Lamp	250W XE/D	500W XE/D	1000W XB
Circuit diagram (see opp.)	320	320	320

Ballasts

Catalogue Nos.	4 × AME 53235	6 × AME 53235	6 × AME 53235
Weight	23lb 10.4kg (each)	23lb 10.4kg (each)	23lb 10.4kg (each)
Illustrated type (see opp.)	Type DC	Type DC	Type DC
Terminals	Screw	Screw	Screw

Starter

Catalogue No.	AME 53239	AME 53239	AME 53239
Weight	13lb 5.9kg	13lb 5.9kg	13lb 5.9kg
Illustrated type (see opp.)	Type DF	Type DF	Type DF

Capacitors

Catalogue Nos.	2 × AME C2276 (160 µF) or 2 × AME C2275 + AME C2276 (200 µF)	3 × AME C2276 (240 µF) or 3 × AME C2276 + AME C2275 (300 µF)	3 × AME C2276 (240 µF) or 3 × AME C2276 + AME C2275 (300 µF)
Mains current	5A (160 µF) 2A (200 µF)	8½A (240 µF) 4½A (300 µF)	7½A (240 µF) 5A (300 µF)
Working volts	250V	250V	250V
Terminals	Screw	Screw	Screw
Illustrated type (see page 10:35)	Type CA (AME C2275) Type CB (AME C2276)	Type CA (AME C2275) Type CB (AME C2276)	Type CA (AME C2275) Type CB (AME C2276)

D.C. LAMPS ON 200/250V 50Hz SUPPLY

Lamp	250W XE/D	500W XE/D	2000W XE/D 2 electrode	2000W XE/D 3 electrode
Circuit diagram	323	323	323	324

Starter

Catalogue No.	AME 53239	AME 53239	AME 53233	AME 53234
Weight	13lb 5.9kg	13lb 5.9kg	28lb 12.7kg	9lb 4.1kg
Illustrated type (see opp.)	Type DF	Type DF	Type DG	Type DH

Rectifier ballast

Catalogue No.	AME 53236	AME 53236	AME 53237	AME 53238
Weight	85lb 37kg	85lb 37kg	400lb 180kg	400lb 180kg
Illustrated type (see opp.)	Type DI	Type DI	Type DK	Type DL

D.C. LAMPS ON 35/65V D.C. SUPPLY

Lamp	250W XE/D	500W XE/D	2000W XE/D 2 electrode	2000W XE/D 3 electrode
Circuit diagram	321	321	321	322

Starter

Catalogue No.	AME 53239	AME 53239	AME 53233	AME 53234
Weight	13lb 5.9kg	13lb 5.9kg	28lb 12.7kg	9lb 4.1kg
Illustrated type (see opp.)	Type DF	Type DF	Type DG	Type DH

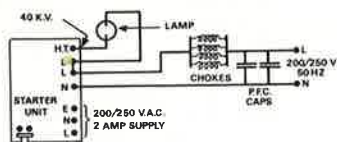
Series resistance

Resistance value (ohms)	<u>V—16.5</u> 15	<u>V—25</u> 23	<u>V—25</u> 80	<u>V—27</u> 74
Current (amps)	15A	23A	80A	74A

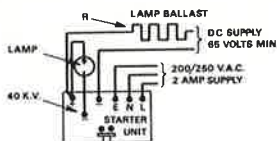
Circuit components for XB and XE/D compact source xenon discharge lamps

CIRCUIT DIAGRAMS

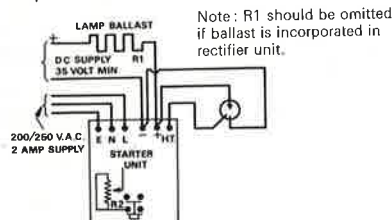
320 Circuit for a.c. lamps on 200/250V 50Hz supply



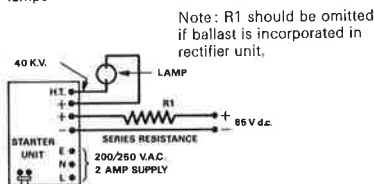
321 Circuit for 2000W 2-electrode lamp



322 Circuit for 2000W 3-electrode lamp

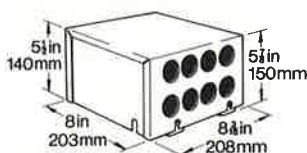


323 Circuit for 250/500W d.c. lamps

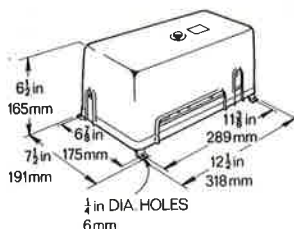


CONTROL GEAR TYPES

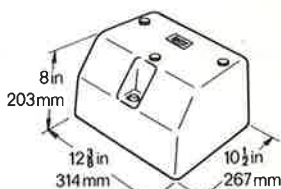
Type DC



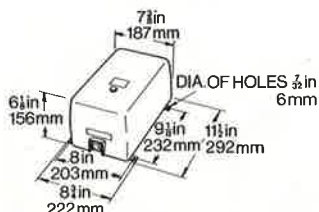
Type DF



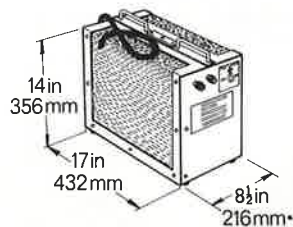
Type DG



Type DH



Type DI



Type DK



Circuit components for SO, SOI, SOX and SLI sodium discharge lamps

CONTROL GEAR FOR 240V 50Hz SUPPLY

Lamp	45, 60, 85W SO/H or SOI/H or 35, 55W SOX	140W SO/H, SOI/H or SLI/H or 90W SOX	135W SOX or 180W SOX	200W SLI/H
Type of control gear	Instant start	Instant start	Instant start	Instant start
Circuit diagram (see below)	305	307	304	302

Ballast

Catalogue No.	AME 53131.H	AME 53232.4	AME 53166.T	AME 53172.T
Weight	9.0lb 4.1kg	12.6lb 5.82kg	15.5lb 7.09kg	15.5lb 7.09kg
Filling	Polyester resin	Polyester resin	Polyester resin	Polyester resin
Illustrated type (see below)	Type DJ	Type DU	Type DY	Type DY
Can colour	White	White	White	White
Terminals	Screw	Screw	Screw	Screw

Capacitor

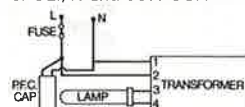
Catalogue No.	AME C2216 (for 45/60W) AME C2214 (for 65W) AME C2280 (for 35/55W)	AME C2218 (for 140W) AME C2236 (for 90W)	AME C2281	2 × AME C2235
Capacitance μ F	15 \pm 10% (for 45/60W) 13 \pm 10% (for 85W) 16 \pm 10% (for 35/55W)	20 \pm 10% (for 140W) 25 \pm 10% (for 90W)	13 \pm 5%	30.0 \pm 10% (each)
Working volts	250V	250V	440V	300V
Terminals	Flying leads	Flying leads	Flying leads	Flying leads
Fused or unfused	Unfused	Unfused	Unfused	Unfused

Other ballast voltage ratings available

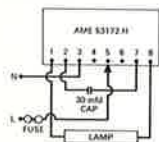
220V 50Hz	Not available	AME 53232.2	Not available	Not available
220/250V 50Hz	AME 53131.H	AME 53178.H	AME 53166.T	AME 53172.T
Tappings	220; 230; 240; 250V	220; 230; 240; 250V	190; 200; 210; 220; 230; 240; 250; 260V	190; 200; 210; 220; 230; 240; 250; 260V

See page 10:43 for full capacitor details

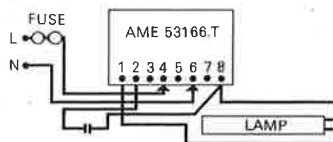
307 Circuit for 140W SO/H, SOI/H, or SLI/H and 90W SOX



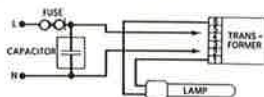
302 Circuit for 200W SLI/H sodium discharge lamp



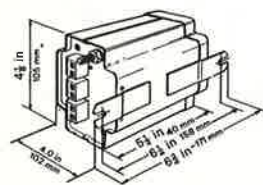
304 Circuit for 135W SOX sodium discharge lamp.



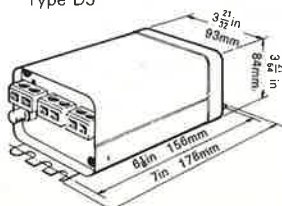
305 45W/60W/85W/SO/H and SOI/H 35W/55W/SOX



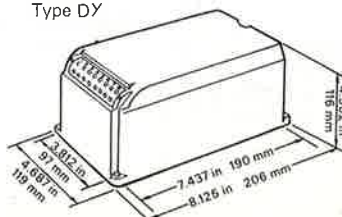
Type DU



Type DJ



Type DY



Circuit components for 250W and 400W SON high-pressure sodium discharge lamps

CONTROL GEAR FOR 240V 50Hz SUPPLY

Lamp wattage	250W	400W
Circuit diagram (see below)	315	315

Ballast

Catalogue No.	AME 53251.T	AME 53230.T
Weight	8.5lb 3.8kg	12.55lb 5.7kg
Filling	Polyester resin	Polyester resin
Illustrated type (see below)	Type DS	Type DU
Can colour	White	White
Terminals	Screw	Screw

Capacitor

Catalogue No.	AME C2235	2 × AME C2218
Capacitance μF	30.0 $\pm 10\%$	20.0 $\pm 10\%$ (each)
Working volts	300V	250V
Terminals	Flying leads	Flying leads
Fused or unfused	Unfused	Unfused

Ignitor

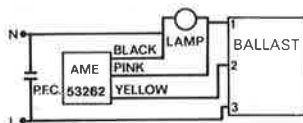
Catalogue No.	AME 53262	AME 53262
Weight	1.12lb 0.51kg	1.12lb 0.51kg
Illustrated type (see below)	Type DB	Type DB
Can finish	White	White
Terminals	Flying leads	Flying leads

Other ballast voltage ratings available

220V 50Hz	AME 53251.T	AME 53230.T
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See page 10:43 for full capacitor details.

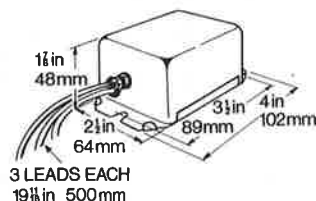
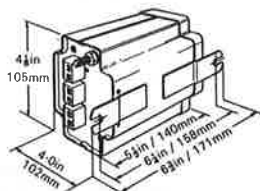
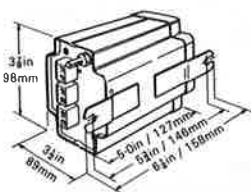
315 Circuit for 250W or 400W SON
high-pressure Sodium lamp



Type DS

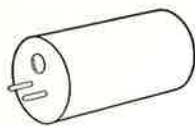
Type DU

Type DB

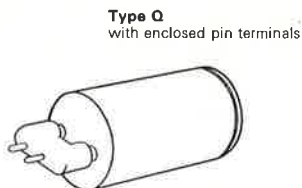


Capacitors for fluorescent tube circuits

STANDARD PFC AND SERIES CAPACITORS To BS4017



Type R
with pin terminals

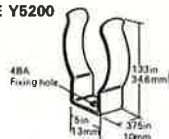


Type Q
with enclosed pin terminals

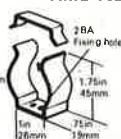
CAPACITOR SUPPORT CLIPS

AME Y5244 - For 1½ in dia. capacitors
AME Y5245 - Clip for AME Y5244
AME Y5200 - For 1 in dia. capacitors

AME Y5200



AME Y5245



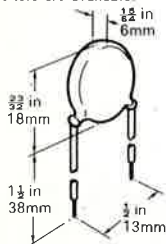
AME Y5244

Catalogue No. Pin Terminals	Tag Terminals	Capacitance (µF)	Fused or Unfused	Rated Voltage	Type	Dia. in mm	Length* in mm	Weight oz g	Use
AME C2220	AME C2200	8.4 ± 5%	Unfused	250V	R or Q	1½ 38	4 102	5 142	6ft 85W/5ft 65W SRS
AME C2222	AME C2202	8.0 ± 10%	Unfused	250V	R or Q	1½ 38	3½ 99	7 199	5ft 80W/2ft 40W SS/QS
AME C2221	AME C2201	8.0 ± 10%	Fused	250V	R or Q	1½ 38	3½ 99	7 199	5ft 80W/2ft 40W SS/QS
AME C2228	AME C2185	7.8 ± 5%	Unfused	440V	R or Q	1½ 38	7½ 200	12½ 353	8ft 125W QS
AME C2173	AME C2181	7.2 ± 5%	Unfused	440V	R or Q	1½ 38	7½ 200	12 340	8ft 125W SS
AME C2223	AME C2203	6.0 ± 10%	Fused	250V	R or Q	1½ 38	3½ 99	5 142	6ft 85W SS
AME C2273	AME C2168	5.5 ± 10%	Unfused	250V	R or Q	1½ 38	3½ 99	6½ 180	40W SRS
AME C2226	AME C2206	5.0 ± 5%	Unfused	440V	R or Q	1½ 38	6½ 156	8 227	8ft 85W QS
AME C2245	—	5.0 ± 10%	Fused	250V	R or Q	1½ 38	3½ 99	6 170	5ft 65W SS
AME C2224	AME C2204	3.5 ± 10%	Unfused	250V	R or Q	1½ 38	2½ 57	4 113	20/30/40W SS/QS
AME C2225	AME C2205	3.5 ± 10%	Fused	250V	R or Q	1½ 38	2½ 57	4 113	20/30/40W SS/QS
AME C2227	AME C2156	3.0 ± 10%	Fused	250V	R	1¼ 32	3¾ 78	3½ 99	3ft 30W Arrowslim fitting
AME C2229	AME C2163	2.85 ± 5%	Unfused	440V	R	1¼ 32	6½ 156	7 199	5ft 50W Arrowslim fitting
—	AME C2286	2.0 ± 10%	Fused	250V	R	1 26	2½ 69	2 56	13/B/6/4W SS

*Length, above, is can length only. Pin terminals project 9mm (¾ in) on Type R capacitors and 28mm (1½ in) on Type Q capacitors.
Tag terminals project 13mm (½ in) on Type R capacitors and 29mm (1½ in) on Type Q capacitors.

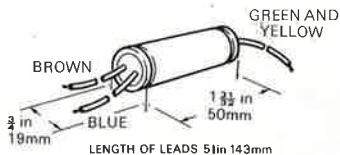
RADIO INTERFERENCE SUPPRESSION CAPACITORS

All starter switches and starting transformers shown in this catalogue incorporate a 0.005µF radio interference suppressor. For additional suppression the following capacitors are available.



AME C2139

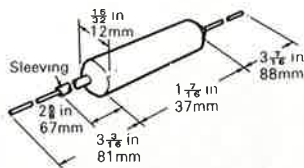
A ceramic base 0.005µF 800V a.c. capacitor to BS 4017 with high temperature PVC sleeved 1½ in leads.



AME C2051

A radio interference suppression filter network comprising two 0.005µF and one 0.1µF delta connected for additional suppression where the AME C2139, fails to suppress the interference.

ARTIFICIAL EARTH



AME C2050

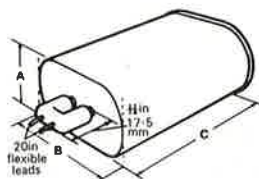
An artificial earth unit for connection between the tube earth strip, or a metal chassis in close proximity to the tube, and neutral when no earth is available.

Capacitors for mercury and sodium discharge lamp circuits

Catalogue No.	Capacitance μF	Working voltage	Dimensions Depth A		Width B		Height C	
			in	mm	in	mm	in	mm
AME C2203†	$6 \pm 10\%$	250	$1\frac{1}{2}$	38	$1\frac{1}{2}$	38	$3\frac{1}{8}$	80
AME C2234	$8 \pm 10\%$	250	$1\frac{3}{8}$	35	$2\frac{1}{8}$	54	$2\frac{3}{4}$	70
AME C2214	$13 \pm 10\%$	250	2	51	3	77	$2\frac{3}{8}$	67
AME C2281	$13 \pm 5\%$	440	2	51	3	77	$4\frac{1}{8}$	105
AME C2216	$15 \pm 10\%$	250	2	51	3	77	3	76
AME C2288	$17.5 \pm 5\%$	350	2	51	3	77	$5\frac{3}{8}$	137
AME C2232	$18 \pm 10\%$	250	2	51	3	77	$3\frac{1}{2}$	89
AME C2278	$15 \pm 5\%$	350	2	51	3	77	$4\frac{3}{4}$	121
AME C2280	$16 \pm 10\%$	250	2	51	3	77	3	76
AME C2218	$20 \pm 10\%$	250	2	51	3	77	$3\frac{3}{8}$	92
AME C2236	$25 \pm 10\%$	250	2	51	3	77	$4\frac{1}{2}$	115
AME C2235	$30 \pm 10\%$	300	$2\frac{1}{2}$	64	$3\frac{1}{2}$	89	$5\frac{1}{4}$	133

† For use in fittings only. This unit has solder tag terminals

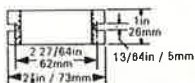
This range of capacitors is unfused and suitable for continuous operation in the temperature range -40°C to $+70^{\circ}\text{C}$. Fixing is achieved by means of a removable saddle which clips over the capacitor, and vertically. The capacitor is packed complete with saddle.



CAPACITOR CLIPS

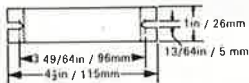
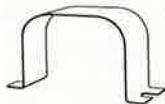
AME Y5292

For $2\frac{1}{8}$ in (54mm) x $1\frac{3}{8}$ in (35mm) capacitors



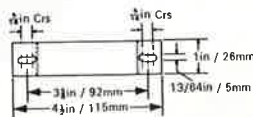
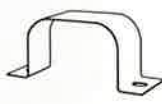
AME Y5293

For $3\frac{1}{8}$ in (89mm) x $2\frac{1}{8}$ in (64mm) capacitors



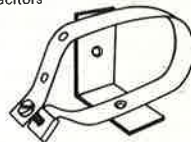
AME Y5279

For 3 in (77mm) x 2 in (51mm) capacitors



AME Y5242

Universal fixing bracket for $3\frac{1}{8}$ in (89mm) x $2\frac{1}{8}$ in (64mm) and 3 in (77mm) x 2 in (51mm) capacitors



2BA fixing holes allow horizontal or vertical mounting

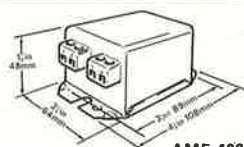
thorn

Voltage transformers and emergency lighting

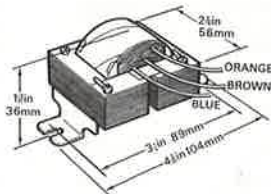
SUPPLY VOLTAGE STEP-UP TRANSFORMERS

(used in conjunction with 240V circuits)

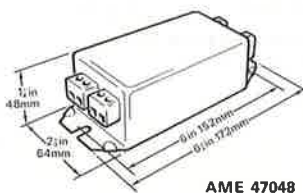
Catalogue No.	AME 42343	AME 42350	AME 42355	AME 47048
Voltage input	220V	220V	200/210V	110V
Max. tube length, wattage and circuit	8ft 125W SS — —	8ft 125W SS 8ft 125W QS 8ft 85W QS 6ft 85W SRS	8ft 125W QS 8ft 85W QS 6ft 85W SRS —	5ft 80W SS 5ft 65W SS/SRS 4ft 40W SS/QS —
Weight	1lb 0.45kg	2lb 0.9kg	2lb 0.9kg	4.125lb 1.86kg
Insulation	Varnish	Polyester resin	Polyester resin	Polyester resin
Can colour	Natural	White	White	White
Terminals	Leads	Screw	Screw	Screw



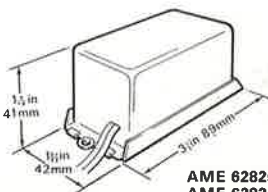
**AME 42350
AME 42355**



LENGTH OF LEADS 12in 305mm
AME 42343



AME 47048



**AME 62825
AME 62824**

CONVERSION CHOKES (50Hz supply)

Used in series with 200/210V choke on 240/250V supply

Catalogue No.	Tube	Weight lb kg	Insulation	Can colour	Terminals
AME 62825	5ft 80W	1 1/4 0.57	Polyester resin	White	Leads
AME 62824	4ft 40W	1 1/4 0.57	Polyester resin	White	Leads

EMERGENCY LIGHTING SYSTEM FOR USE WITH TRANSISTORISED FLUORESCENT FITTINGS

Automatic emergency lighting prevents hazards and panic should the mains supply fail. Atlas Transistorised Miniature fittings with an efficiency three to four times greater than the corresponding tungsten lamps make the maximum use of standby batteries.

Catalogue No. AME R2463

A fully automatic 12V battery charger complete with mains hold-off relay.

Suitable for use with

6 - 13W 21in Transistorised Miniature fittings or

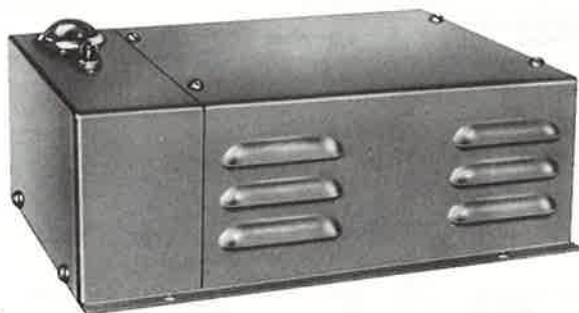
8 - 8W 12in Transistorised Miniature fittings

Dimensions - Length 12 3/4 in (289mm)

Height 7 3/4 in (197mm)

Depth 4 3/4 in (124mm)

See catalogue Page 1:28 for details of miniature fluorescent fittings.



Combined ballast units for fluorescent tubes

A range of 240V 50Hz HPF and LPF ballasts incorporating all necessary circuit components in one can.

These ballasts provide completely self-contained units ideal for mounting at some distance away from the tube or, alternatively, for use adjacent to the tube when shortage of space prevents the use of a complete fluorescent fitting.

These units are ideal for mounting within interior signs, or within suitably designed exterior signs, and are also used for some showcase lighting and in certain architectural features such as alcoves, pelmets, etc.

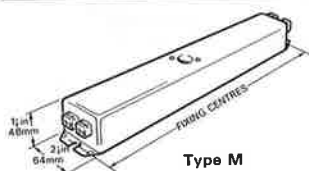
All ballasts have screw terminal connections.

When required, starter switches must be ordered separately.

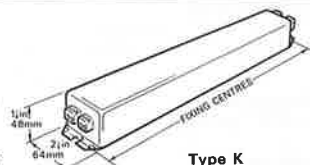
Catalogue No.	Use	Can Colour	Illustrated Type	Fixing Centres in	mm	Weight lb	kg
AME 63219-4	8ft 125W HPF SS	White	M	12½	317	5.75	2.6
AME 69194-4	8ft 125W HPF QS	White	P	16	406	10.25	4.5
AME 68028-4	6ft 85W/5ft 80W/2 × 2ft 40W* HPF SS	White	M	11½	292	5.25	2.4
AME 68041-4	5ft 80W HPF SRS	White	K	12½	317	6.75	3.00
AME 68061-4	5ft 65W HPF SS	White	M	10	254	4.0	1.8
AME 69161-4	5ft 65W HPF SRS	White	K	10½	267	4.75	2.2
AME 69090-4	5ft 50W HPF SRS	White	H	10½	267	3.5	1.6
AME 69054-4	4ft 40W/2 × 2ft 20* HPF SS	White	D	8½	216	2.5	1.1
AME 69064-4	4ft 40W HPF QS	White	H	9½	241	3.5	1.6
AME 69053-4	3ft 30W/2 × 18in 15* HPF SS	White	D	8½	216	2.5	1.1
AME 69063-4	3ft 30W HPF QS	White	H	9½	241	3.25	1.6
AME 69082-4	2 × 2ft 40W LPF QS	White	K	9	229	6.0	2.7
AME 69032-4	2 × 2ft 20W LPF QS	White	H	7½	190	3.0	1.4
AME 69195-4	2ft 20W/18in 15W LPF SS	White	D	8½	216	2.2	1.0
AME 69072-4	2ft 20W/18in 15W LPF QS	White	H	6½	165	2.75	1.3

SS = Switchstart QS = Quickstart SRS = Semi-resonant start

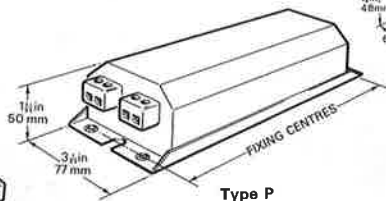
*An additional starter switch socket (page 10:49) will be required when these units are used for series pair operation.



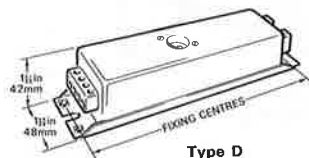
Type M



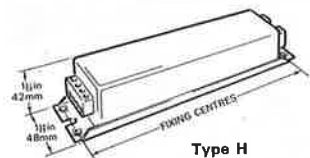
Type K



Type P



Type D



Type H

Control gear boxes

WEATHERPROOF BOXES FOR EXTERIOR USE

These boxes are made of sheet steel finished stove enamel acrylic grey to BS2660 9-094. A weatherproof seal is effected between lid and box by means of a closed cell neoprene sponge gasket. Two $\frac{3}{8}$ in diameter holes are provided in one end of each box for supply and lamp connections. A wooden baseboard is fitted for control gear mounting and an earth terminal is available on one end.

These boxes are not supplied complete with control gear or terminal blocks.

AME M6174

Internal dimensions

Length 16.75in (425mm)
Width 9.625in (244mm)
Height 5.125in (130mm)

External dimensions

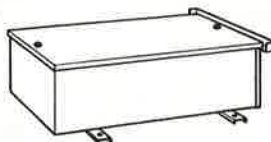
Length 17.25in (437mm)
Width 9.75in (247mm)
Height 6.125in (155mm)

Fixing centres

11in \times 11in \times 0.31in diameter
(279mm) (279mm) (7.92mm)

Weight

12lb 14oz (5.84kg)



AME M6172

Internal dimensions

Length 16.0in (406mm)
Width 5.68in (144mm)
Height 5.125in (130mm)

External dimensions

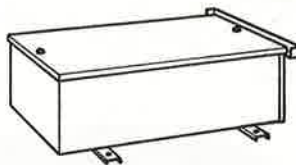
Length 16.563in (420mm)
Width 6.625in (168mm)
Height 6.438in (163mm)

Fixing centres

11in \times 7in \times 0.31in diameter
(279mm) (178mm) (7.92mm)

Weight

8lb 4oz (3.74kg)



AME M6169

This control gear box is made of high quality aluminium designed for exterior use to accommodate a large range of control gear.

Internal Dimensions

Length 15.25in (387mm)
Width 5.0in (127mm)
Height 4.75in (121mm)

External dimensions

Length 16.75 in (425mm)
Width 8.0in (203mm)
Height 6.0in (152mm)

Weight

8lb 0oz (3.63kg)



REMOTE BOXES FOR INTERIOR USE

These boxes are made of sheet steel finished stove enamel acrylic grey to BS2660 9-094. Two $\frac{3}{8}$ in diameter holes are provided in one end of each box for supply and lamp connections to two-way 10A porcelain terminal blocks. A separate earth terminal is close to these blocks. Boxes are wired complete with 240V 50Hz HPF control gear.

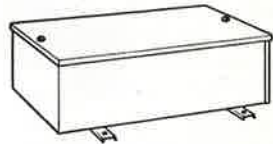
RBG1000 Gear box complete with 1000W MBF control gear

RBG700 Gear box complete with 700W MBF control gear

External dimensions

Weights

Length	17.06in (425mm)	RBG 1000	32lb 8oz (17.92kg)
Width	9.75in (247mm)	RBG 700	30lb 12oz (13.95kg)
Height	5.875in (149mm)		



Fixing centres

11in x 11in x 0.31in diameter
(279mm) (279mm) (7.92mm)

RBG400 Gear box complete with 400W MBF control gear

RBI G400 Gear box complete with 400W MBI control gear

RBSG400 Gear box complete with 400W SON control gear

RBSG250 Gear box complete with 250W SON control gear

RBG250 Gear box complete with 250W MBF control gear

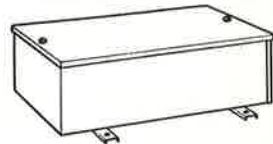
External dimensions

Weights

Length	16.375in (416mm)	RBG400	17lb 11oz (8.05kg)
Width	6.18in (157mm)	RBI G400	18lb 15oz (8.59kg)
Height	5.875in (149mm)	RBSG400	18lb 0oz (8.17kg)
		RBG250	14lb 1oz (6.35kg)
		RBSG250	15lb 0oz (6.80kg)

Fixing centres

11in x 7in x 0.31in diameter
(279mm) (178mm) (7.92mm)



CONTROL GEAR BOXES FOR INTERIOR USE WITH 80/125W MBF KOLORLUX LAMPS

Enclosed gear trays fitted with 240V 50Hz HPF control gear wired to a fused terminal block for incoming mains supply and a two-way terminal block for lamp connection. Boxes finished gloss white externally.

RBG125 Gear box complete with 125W MBF control gear.

RBG80 Gear box complete with 80W MBF control gear.

External dimensions

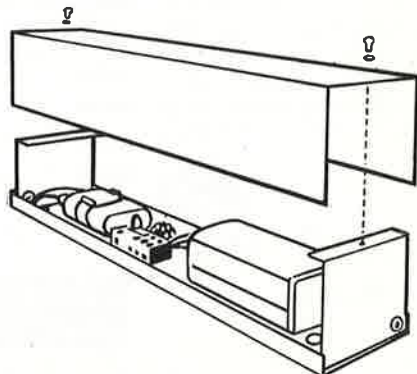
Length	13.25in (337mm)
Width	3.625in (92mm)
Height	3.25in (83mm)

Fixing centres

11.5in (292mm) x 2in (51mm)

Weights

RBG125	8lb 0oz (3.63kg)
RBG80	7lb 0oz (3.18kg)



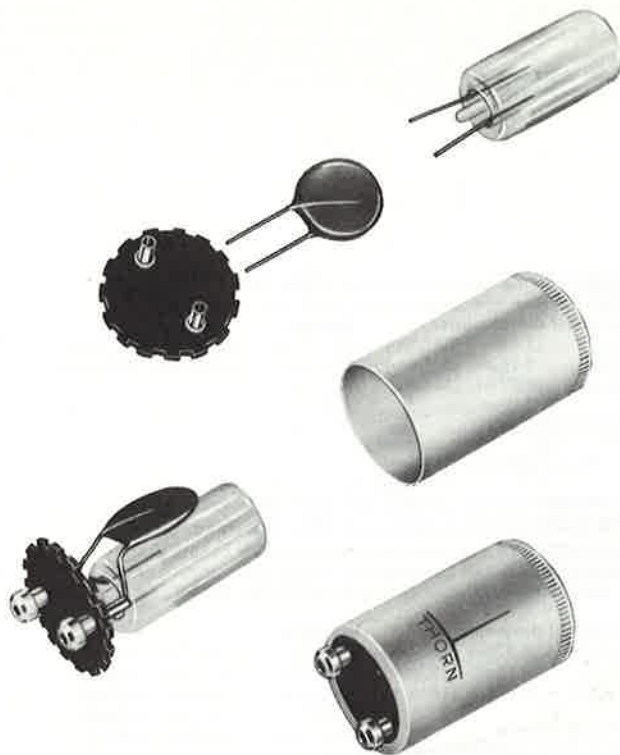
Starter switches

This range of starter switches in plastic canisters incorporates constructional features resulting in switches of high quality, reliability and appearance.

CONSTRUCTIONAL FEATURES

- A** A high temperature grade of matt white polypropylene is used for the canister with brand detail in distinctive black ink. The canister is inherently electrically safe and non-corrodible. The plastic moulding is tremendously tough, difficult to squash, virtually unbreakable and cannot be dented. Plastic can switches are electrically and mechanically interchangeable with metal can types of equivalent rating.
- B** Solid pins are secured to the insulated base disc and solderless junctions connect these pins to the interior wiring.
- C** 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 are welded together to form the bimetal contact assembly. After the completed glow-bottle is sealed off the lead wires of the bottle and ceramic disc suppressor are clamped inside the terminals. The plastic canister is then shrunk on to the insulated base disc. The serrated edge of the base disc combines with the plastic canister to give a strongly bonded seal.



RANGE

2 pin; small can; a.c. glow switch

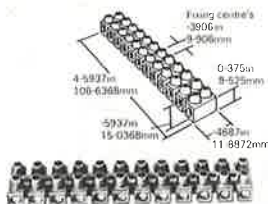
Catalogue No.	Application	Operating Voltage
155/800	8ft 125W leading circuit or 6ft 85W	230/250V
155/501	5ft 50W leading circuit	240V
155/500	4W, 6W, 8W, 13W, 30W, 32W, 4ft 40W, 65W or 80W	200/250V
155/400	4W, 6W, 8W, 30W 32W or 4ft 40W	200/250V
155/200	Single 15W, 20W 22W or 2ft 40W Series pair 15W, 20W or 2ft 40W (two 155/200)	105/250V 200/250V
155/100	Single 4W, 6W or 8W Series pair 4W, 6W or 8W (two 155/100)†	110/130V 230/250V

†Due to the asymmetrical construction of these switches, they must be placed in the starter switch sockets correctly orientated (i.e. if the switches refuse to operate, one must be removed and rotated 180 degrees)

Terminal blocks, fuse holders and starter switch sockets

AME T1281

A 5A 250V terminal block of brown PVC available in 12-way strips. Terminals can be cut off as required or supplied in cut form (suffix after Catalogue No. indicates number of through connections, eg. AME T1281/2 is a 2-way terminal block AME T1281/3 is a 3-way terminal block.)



AME T1306

A 10A 250V 3-way white porcelain terminal block. Inserts are of extruded brass with 0.125in x 0.118in obround bore barrels and pinch screw terminals. These inserts give facility for loop-in cables. Line, earth and neutral terminals clearly marked on terminal block.



AME T1265

A mains circuit terminal block incorporating a fuse in the line circuit. Black phenolic moulded body with clear alkathene fuse carrier and pinch screw terminals. Earth and neutral connections are of the through barrel type and two line connections are provided for mains input and circuit feed. Back fixing is achieved by means of screw and shakeproof washer provided. For front fixing a 1/2in 6BA screw must be used which is not provided. Either method of fixing provides earth connection to chassis. Fuses to be ordered separately.



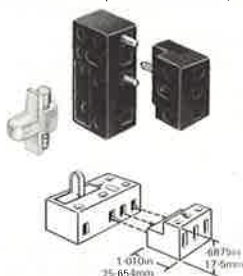
AME T1334

White nylon end entry fuse holder which enables control units to be disconnected before maintenance. Fuse loading cap has bayonet-catch fixing and is finger or coin operated. Push wire terminals for single incoming and double outgoing. Fuses to be ordered separately.



AME A5079

Combined fused terminal block with mains plug. Comprises fused block similar to AME T1265, above, but with pins in line and neutral barrels, and a black phenolic moulded plug with a pin in the earth barrel. Fuses to be ordered separately, AME A5037—replacement mains plug.



FUSES

AME T1268, T1299, T1332, T1342

All fuses comply with BS1362 dimensions and must be used with T1265, A5079 and T1304 fuseholders.

Catalogue No.	Rating	Colour
AME T1342	1.25A	Orange
AME T1332	0.65A	Red
AME T1299	3A	Blue
AME T1268	5A	Black



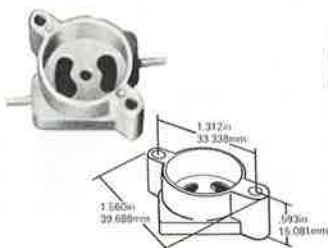
AME M6064/12/Loop

White PVC moulding enclosing starter switch contacts crimped to 12in loop 16/0.2mm 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.



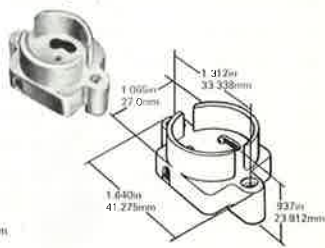
AME A5016

White urea moulding with paxolin backplate. Brass switch contacts crimped to 12in loop 16/0.2mm white PVC cable which can be cut at a point to suit wiring layout. No earth contact available.



AME A5019/X

White urea moulding with paxolin backplate. Side pressure switch contacts. Draw nut terminals giving side and rear cable entries. Optional extra earth clips (Catalogue No. Y5267) are held by the holder fixing screws and pass through gaps in the holder skirt. When mounted on 1/2in distance pieces behind fitting chassis the starter switch projects enough for easy removal.

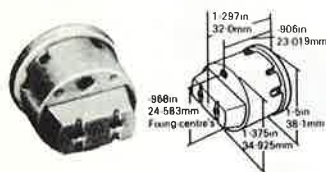


Lampholders for fluorescent tubes

For T12 (1½in, 38mm diameter) bi-pin fluorescent tubes

AME B1502

White urea moulding with double-sided independently sprung tube pin contacts and pinch screw terminals for incoming cables. 6BA tubular tapped nuts are provided for fixing. Earth contact (Catalogue No. Y5240) is available as an optional extra. This holder is not suitable for use with 8ft tubes which have large tolerances in length.



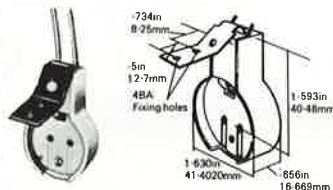
AME B1548/A3

White urea mouldings with shroud to give tube cap support. Side pressure lamp pin contacts with incoming cable crimped to contacts. Cable is high temperature 16/0.2mm white PVC flexible in 12in loop which can be cut at any point to suit wiring layout. Other loop lengths available on request. This holder has no current carrying springs or moving parts. The 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.



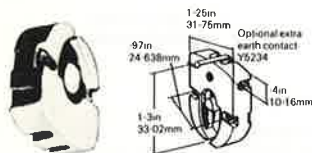
AME B1548/B

Lampholder as AME B1548/A3, but with bracket requiring 2-hole fixing. This holder is for mounting direct on to fitting chassis when the wall of a 1½in diameter (T12) tube will be ¾in from the chassis. Lampholder is vertical with a nominal length tube.



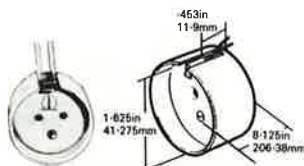
AME B1524

White urea moulding with paxolin backplate. Single-sided tube contacts with pinch screw terminal 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 B1673

A white urea two-piece moulding with an earth spring and deep skirt which covers the tube cap giving additional support. Double-sided side-pressure contacts are crimped to 12in loop of high-temperature 16/0.2mm white PVC flexible cable. Earth lead connection is to lamp pin terminal.



FIXING DETAILS

Dimensions below are distances between backs of lampholders. The dimensions given for AME B1512 and AME B1573 are for lampholders when fitted to the fluorescent tube. The dimensions for AME B1524 are recommended distances between backs of lampholders when mounted on support brackets.

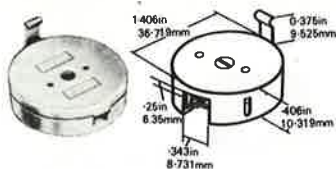
Dimensions given below for AME B1548/A3 are recommended distances between fixing centres. Dimensions for AME B1548/B are recommended distances between furthest fixing holes. Dimensions for AME B1502 are recommended distances between backs of lampholders when mounted on support brackets.

Tube size	AME B1512 in mm	AME B1573 in mm	AME B1524 in mm	AME B1548/A3 in mm	AME B1548/B in mm	AME B1502 in mm
8ft 2,400mm	94-312 2,395-5	94-406 2,397-9	— —	91-609 2,326-9	91-546 2,325-3	— —
6ft 1,800mm	70-234 1,783-9	70-328 1,786-3	70-222 1,783-6	67-531 1,716-3	67-468 1,713-7	71-920 1,826-7
5ft 1,500mm	59-867 1,520-6	59-961 1,523-0	59-866 1,520-3	57-172 1,452-2	57-109 1,450-6	61-553 1,563-4
4ft 1,200mm	48-030 1,219-9	48-125 1,222-3	48-019 1,219-6	45-344 1,151-7	45-281 1,150-1	49-718 1,262-8
3ft 900mm	36-030 915-1	36-125 915-7	36-019 914-8	33-344 846-9	33-281 845-3	37-718 958-0
2ft 600mm	24-030 610-3	24-125 612-7	24-019 610-0	21-344 542-1	21-281 540-5	25-718 653-2
18in 450mm	18-030 457-9	18-125 460-3	18-019 457-6	15-344 389-7	15-281 388-1	19-718 500-8

Lampholders for fluorescent tubes

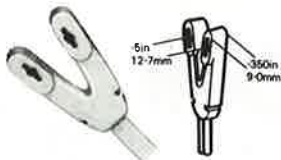
AME B1512

A white urea two-piece moulding with earth clip and double-sided lamp pin contacts. Pinch screw cable terminals. A recess allows a neat termination of 2-core or 3-core flexible cable.



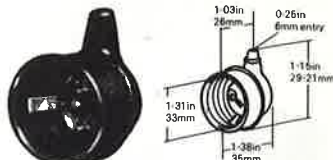
AME B1529

A high-temperature white PVC moulding with double-sided brass contacts crimped to 48in flat twin 23/0076in 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.



AME B1577

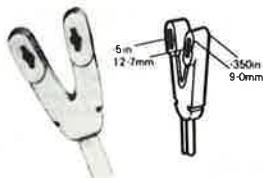
Push-on bi-pin lampholder has a neoprene sleeve which securely grips the end of the lamp and is fitted with a plastic insert containing lamp pin contacts and earthing arrangement for Quickstart lamps. This lampholder is useful for corrosive atmospheres and is drip-proof.



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

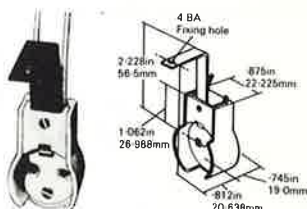
White urea mouldings with shroud to give tube cap support. Side pressure lamp pin contacts with incoming cable crimped to contacts. Cable is high temperature 16/0.2mm white PVC flexible in 12in loop which can be cut at any point to suit the wiring layout. Other loop lengths available on request. This holder has no current carrying springs or moving parts. The 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.

Fixing details

Dimensions below are recommended distances between fixing centres.

Tube size	in	mm
5ft	1,500mm	56-859
3ft	900mm	33-031
18in	450mm	15-031



For T5 (5/8in, 15mm diameter) miniature bi-pin fluorescent tubes

AME B1529

(Details for lampholder when used with 5/8in diameter - T5 - tubes only.) A high-temperature PVC moulding with double-sided brass contacts crimped to 48in flat twin 28/0.15mm white high-temperature PVC flexible cable. No earth contact available.

AME B1561

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.

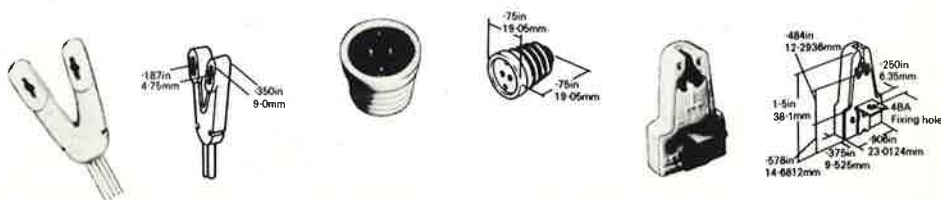
AME B1556/2

White urea mouldings with bright steel bracket. Single-sided lamp pin contacts with pinch screw cable entry terminals.

Fixing details

Dimensions below are recommended distances between fixing centres.

Tube size	in	mm
21in	525mm	19-844
12in	300mm	10-844
9in	225mm	7-844
6in	150mm	4-844



Fluorescent tube lampholders and support clips

Lampholder for circular fluorescent tubes AME B1535

A single moulding high-temperature white PVC body with 12in PVC 16/0.2mm leads (one pair, yellow for starter holder connection, one lead, white, for choke connection and one lead, blue, for connection to neutral supply terminal). Split cylinder grip pin brass contacts crimped to leads.



Bi-pin to BC adaptor AME B1515

Bi-pin/BC adaptor with earth contact. A pair of these adaptors enables modern bi-pin tubes to be used where BC lampholders are fitted in a fitting.

Two adaptors required per tube.



Weatherproof sleeve (for T12 1 1/2in, 38mm diameter) bi-pin fluorescent tubes AME M6028

White neoprene moulding suitable for use with AME B1512 lampholder. It is recommended that AC 1981 circular flex be used for connection to lampholder and the cable entry into the cap be made waterproof with silicone grease.



AME Y5204, Y5200, Y5201

A range of bright zinc 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.



AME Y5257

A nickel plated spring steel support clip for circular fluorescent tubes. Three clips are required per tube, mounted inside the tube circumference.

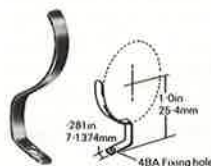
Note: The fixing details are approximate and must be adjusted to suit lamp used because of variation in lamp size from different manufacturers.

Fixing details

22W tube: 5 7/8in radius

32W tube: 9 3/4in radius

40W tube: 13 1/8in radius



Catalogue No.	Tube dia. in mm	A in mm	B in mm	C in mm
AME Y5204	5/8	16	0.2968 7.54	0.4062 10.3124
AME Y5200	1	26	0.5 12.7	0.7031 17.856
AME Y5201	1 1/2	38	0.6562 16.6624	1.0312 26.1874

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THORN LIGHTING LIMITED.
(hereinafter referred to as the Company)

GENERAL CONDITIONS OF SALE

- 1 GENERAL. All orders are accepted and executed on the understanding that the Purchaser is bound by the following General Conditions of Sale. Where there is any inconsistency between these General Conditions of Sale and any Conditions which the Purchaser seeks to impose these General Conditions of Sale shall prevail.
- 2 VALIDITY OF QUOTATIONS. The Company reserves the right to refuse the Purchaser's acceptance of a quotation unless such quotation is stated to be open for a specific period and is not withdrawn in such period.
- 3 PRICES AND DISCOUNTS. The published prices of and the discount applicable to the Company's products are those ruling on the date of publication and are subject to alteration without notice.
- 4 PAYMENT. Unless otherwise agreed in writing, payment in full is due in respect of any goods delivered. 2½ per cent settlement discount will be allowed off accounts (excluding Purchase Tax) paid by the end of the month following that in which the invoice is dated. No other settlement terms will be granted.
- 5 NEW ACCOUNTS. Where a credit account is desired, a Bank and two trade references are required.
- 6 CARRIAGE. Unless otherwise specified by the Company, goods are delivered carriage free to any part of Great Britain and Northern Ireland. Special fittings and dimming equipment are offered ex-works carriage extra. When special delivery arrangements are requested, the difference between standard delivery and special rates will be charged.
- 7 PACKING. A charge is made when it is necessary to despatch goods in crates or cases but this amount will be credited in full on the return, within one month, of the crates or cases in good condition carriage paid. No charge is made for any other form of packing and no credit will be allowed for its return.
- 8 LOSS OR DAMAGE IN TRANSIT. Clear receipts should be given only if goods have been examined, as an unqualified signature may react to the disadvantage of the Purchaser if the consignment should become the subject of a claim. In the event of short delivery or damage in transit, it is essential that the Company's despatching depot and the Carriers be advised within three days of receipt of goods. Irrespective of condition of packing, goods and packing should be held for inspection by Carriers before return. After inspection, Carriers should accept goods or return to sending depot, carriage free.
The following details should be sent to the Company:—

Advice note number.	Condition of package.	Date Carrier advised.
Carrier's name.	Date consignment received.	Extent of damage or shortage.

In the event of non-delivery, Carriers and the Company's despatching depot should be advised within ten days of date of advice packing note. The Company will not be responsible for goods lost or damaged in transit unless the above conditions are observed.
- 9 LIABILITY FOR DELAY. Any times quoted for despatch, repair or replacement are to be treated as estimates only and the Company shall not be liable for failure to despatch, repair or replace within such time unless the Purchaser has suffered loss thereby and the amount payable in respect thereof shall have been agreed in writing as liquidated damages, in which case the Company's liability shall be limited to the amount so agreed to be paid. In all cases, whether a time for despatch, repair or replacement be quoted or not, the time for despatch, repair or replacement shall be extended by a reasonable period if delay in despatch, repair or replacement is caused by instructions or lack of instructions from the Purchaser or by industrial dispute or by any cause whatsoever beyond the Company's reasonable control.
- 10 DEFAULT. The Company shall have the right to discontinue delivery and also at its discretion to determine the contract in respect of any undelivered goods if the Purchaser defaults in payment.
- 11 DEFECTS AFTER DELIVERY. The Company will make good, by repair or at the Company's option, by the supply of replacement, defects which, under proper use, appear in the goods within a period of 12 calendar months after the goods have been delivered and arise solely from faulty design, materials or workmanship. Provided further that in respect of parts or components not of the Company's manufacture, the Company will give the Purchaser a guarantee equivalent to the guarantee (if any) which the Company may have received from the supplier of such parts or components a liability greater than that imposed on it by the aforesaid period of this clause. Save as aforesaid and as provided in Clauses 8 and 9, the Company shall not be under any liability in respect of defects in goods delivered or for any injury, damage or loss resulting from such defects or from any work done in connection therewith and its liability under this clause shall be in lieu of any warranty or condition implied by law as to the quality or fitness for any particular purpose of such goods.
- 12 SPECIAL ORDERS. All orders for lamps of non-standard voltages or for types not included in catalogues are considered to be "Special Types"—the production of which is undertaken on the understanding that the Purchaser will accept under or over delivery to the extent of 10 per cent at the price quoted per unit.
- 13 RETURN OF GOODS. In no circumstances may goods supplied against a firm order be returned without the customer having first applied for and obtained the written consent of the Company. A handling charge amounting to not more than 10 per cent of the invoice value of the returned goods may be deducted from any credit allowed where it is established that the reason for their return is not subject to the provision of Clause 8 or 11 hereof or through any error on the part of the Company.
- 14 DESCRIPTIVE MATTER AND ILLUSTRATIONS. All descriptive and forwarding specifications, drawings and particulars of weights and dimensions issued by the Company are approximate only, and are intended only to present a general idea of the goods to which they refer and shall not form part of a contract.
- 15 EXPORT. Goods purchased on the Home Market must not, without previous consent, be offered or sold for export and any enquiries or orders for export must be placed directly with the Export Department of the Company with indication of country of destination.
- 16 PATENTS. In the event of any claim being made or action being brought against the Purchaser in respect of infringement of British patents by the use or sale of goods supplied hereunder, the Purchaser is to notify the Company immediately and the Company shall be at liberty with Purchaser's assistance if required, but at the Company's expense, to conduct through the Company's own Lawyers and Experts all negotiations for the settlement of the same or any litigation that may arise therefrom; subject to such notifications and provided that no such goods, or any part thereof, shall be used for any purpose other than that for which the Company supply them, the Company will indemnify the Purchaser in respect of any such claims.
- 17 LEGAL CONSTRUCTION. These General Conditions of Sale shall be construed in accordance with the law of England and if any question, dispute or difference shall arise between the parties in respect of their interpretation or their rights or duties heretofore, the same shall be referred to a single arbitrator in London in case the parties can agree upon one. Otherwise it shall be referred to arbitration in London under the provision of the Arbitration Acts 1889 to 1950 or any statutory modification or re-enactment thereof which provisions shall also apply to the case of a reference to a single arbitrator.

LAMP FACTORY TRAINING

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