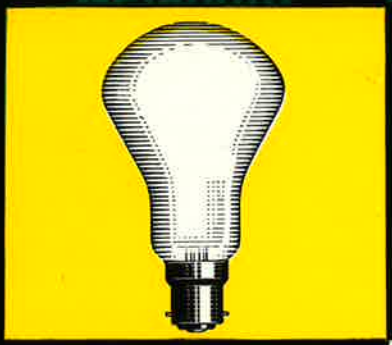


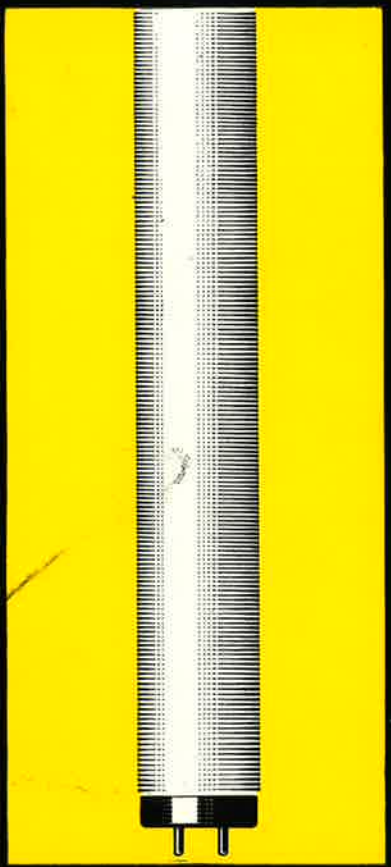
Mazda

CATALOGUE

AEI

A.E.I. LAMP & LIGHTING CO. LTD

G.L.S. FLUORESCENT & ELECTRIC DISCHARGE LAMPS



1963

AL 320
General lighting Service
Fluorescent and
Electric discharge lamps

This catalogue supersedes all publications covering this range of lamps issued prior to this date

Prices shown apply only in the United Kingdom and The Company reserve the right to change, without notice, the design or specification of lamps supplied by them. All lamps are offered subject to the Company's Standard Conditions of Sale

Resale Price Maintenance. All our lamps are sold on condition that they are resold only at our list prices, subject to the discount and terms specified by us from time to time. In addition the full amount of purchase tax must be charged

British Standards. Wherever British Standards exist, the lamps shown in this price list are made to comply with the provisions of such standards

Lamp Fuses. All Mazda GLS lamps within the range 200-250 volt, 40-1500 watts incorporate fuses for the protection of local fuses

Delivery Conditions. Packing and delivery of lamps is free of charge

This Company will credit or replace lamps broken in transit between their store and the customer's premises provided they are advised at once and the lamps returned, carriage paid, within seven days of date of dispatch, the Company's dispatch note number to be quoted. The Company will not accept responsibility for safe custody of such returned lamps. Claims for transportation and breakage allowance can be entertained by the Company only on their own consignments

Special Lamp Types. Should you have an enquiry for a lamp not listed please contact our nearest area office for advice as to availability and price

AEI

A.E.I. LAMP & LIGHTING CO. LTD

MELTON ROAD LEICESTER · ENGLAND

Telephone : Leicester 61531
Telegrams : Lamplite Leicester

CONTENTS

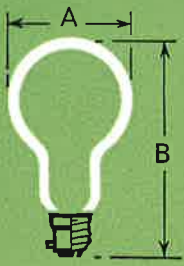
General Lighting Service
Tungsten Filament, Neon, etc.

Fluorescent

Electric Discharge

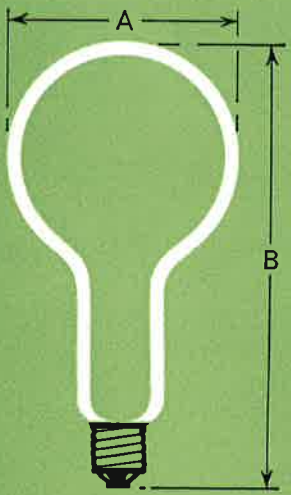
Appendix

GENERAL LIGHTING SERVICE



GENERAL LIGHTING SERVICE

	A	B
15—100W B.C.	60	105
150W B.C.	80	160
200W E.S.	80	170



GENERAL LIGHTING SERVICE

	A	B
300W E.S.	88	173
300W G.E.S.	110	233
500W G.E.S.	130	267
750W & 1000W G.E.S	150	300
1500W G.E.S.	170	335

All dimensions In mm

High and Low Voltage

WATTS	VOLTS	CAP	FINISH	PRICE* REF. NO.	Standard Packing Quantity
15	110, 120, 200, 210, 220, 230, 240, 250	B.C. or E.S.	Pearl	100	25
25				101	
40				102	
60				103	
75§				104	
100				105	
150			Pearl or Clear	106	
200				107	
300†		G.E.S.	Clear	108	12
500				109	9
750				110	6
1000				111	
1500				112	4

§ 75W *not* available in 110V and 120V
† 300W available in 88mm Bulb, ES Cap

‡Nominal average lumens throughout life

200–250V Rated at 240V				110–120V Rated at 110V			
Watts		Watts		Watts		Watts	
15	112	**150**	1960	**15**	133	**150**	2230
25	200	**200**	2720	**25**	228	**200**	3090
40	325	**300**	4300	**40**	449	**300**	4950
60	575	**500**	7700	**60**	759	**500**	8960
75	780	**750**	12400	**75**	1000	**750**	14270
100	1160	**1000**	17300	**100**	1400	**1000**	19640
		1500	27500				

‡These values are intended to provide practical guidance for design purposes

Extra Low Voltage

15	25 & 50	B.C. or E.S.	Pearl	113	50
25				114	
40				115	
60				116	
100				117	
150	50		Pearl or Clear	118	
200				119	
300		G.E.S.	Clear	120	12
500				121	9

*For details of List Price and Purchase Tax, see inside back cover

Lamps rated over 250W are not subject to purchase tax

GENERAL LIGHTING SERVICE

Power Coil — High Efficiency

WATTS	VOLTS	CAP	FINISH	PRICE* REF. NO.	Standard Packing Quantity
40	200, 210, 220, 230, 240, 250	B.C.	Pearl	122	25
60				123	
100				124	

Silverlight

60	200/210, 220/230, 240, 250	B.C.	Silverlight	125	25
100				126	
150				127	

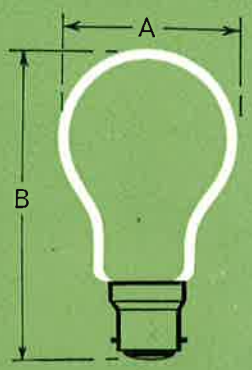
Netabulb

40	200/210, 220/230, 240, 250	B.C.	Silverlight	128	25
60				129	
100				130	
150				131	
150			Pearl	132	

Pearl Pink

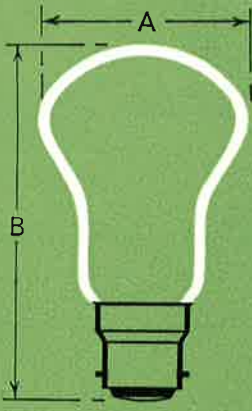
60	200/210 220/230 240, 250	B.C.	Pearl Pink	133	25
100				134	
150				135	

*For details of List Price and Purchase Tax, see inside back cover



PLUS LAMP

	A	B
40W, 60W & 100W	60	105

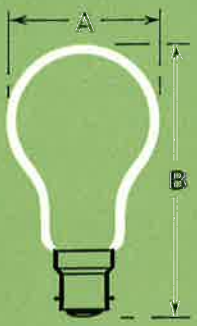


NETABULB

	A	B
40W	50	92
60W	55	93
100W	65	107
150W	75	120

All dimensions in mm

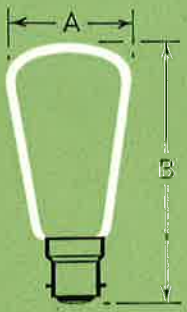
GENERAL LIGHTING SERVICE



DAYLIGHT BLUE

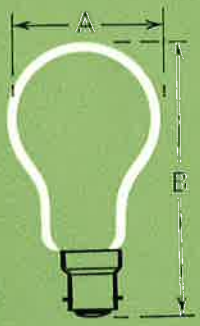
	A	B
40 & 60W	60	105
100W	68	125

All dimensions in mm.



NAVIGATION

	A	B
40W	60	103
60W	68	140



ROUGH SERVICE

	A	B
40 & 60W BC	60	105
100W BC	68	125

WATTS	VOLTS	CAP	FINISH	PRICE* REF. NO.	Standard Packing Quantity
Rough Service					
40	200/210, 220/230, 240, 250	B.C. or E.S.	Pearl	136	25
60				137	
100				138	
Daylight Blue					
40	200/210, 220/230, 240/250	B.C.	Daylight Blue	139	50
60				140	
100				141	
Navigation					
40	110, 120, 220, 230	B.C.	Clear	142	50
60				143	
Traffic Signal					
65	250	B.C.	Clear	144	25
	210, 230 240, 250	E.S.	Clear		

*For details of List Price and Purchase Tax, see inside back cover

Straight Architectural

WATTS	VOLTS	CAP	FINISH	PRICE* REF. NO.	Standard Packing Quantity
35	200/210, 220/230, 240/250	Peg	White Opal	145	25
60				146	1
75				147	
110				148	
150				149	

⅛, ¼ and ½ Circle Curved Architectural

60	220/230† 240/250	Peg	White Opal	150	1

†220/230V available for ⅛" circle only

Maxtrip

40	200/210, 220/230, 240/250	Peg	Clear	151	1
60			Opalized	152	

Tubular

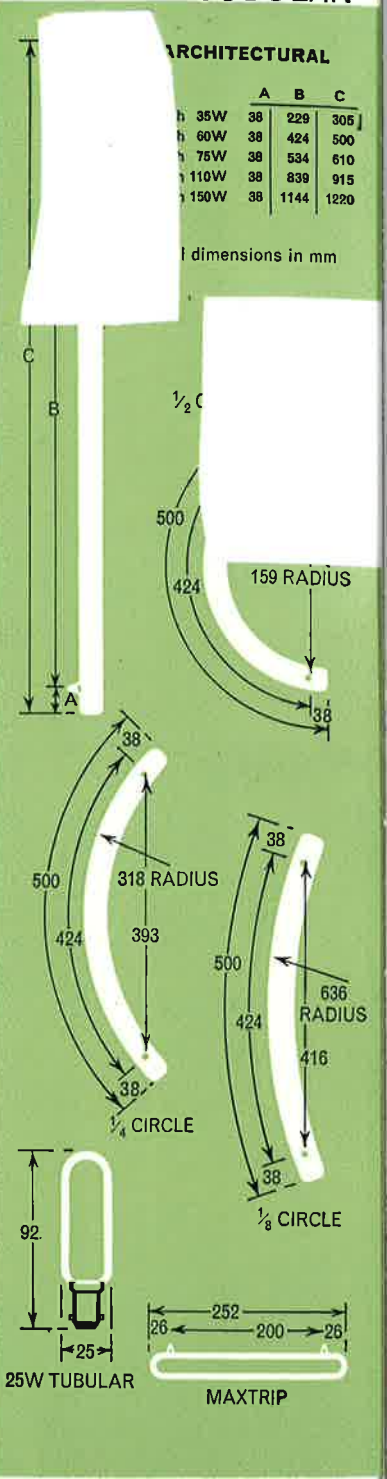
Single Cap

15	220/230, 240/250	B.C. or S.B.C.	Clear	153	100
25				154	

Double Cap—221 or 284 mm

30	200/210, 220/230, 240/250	Centre Cont't	Clear	155	25
60				156	

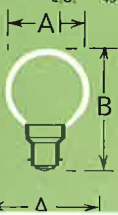
*For details of List Price and Purchase Tax, see inside back cover

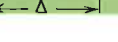


DECORATIVE

45 mm ROUND BULB

	A	B
25W—40W S.B.C.	45	73
B.C.	45	70
E.S.	45	71



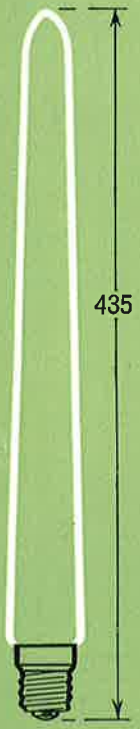


	A	B
25W—40W B.C.	35	91
S.B.C.	35	95
60W B.C.	45	126
S.B.C.	45	128

	A	B
40W—60W	60	105
100W	68	125

All dimensions in mm

CAND-LITE 60W



TWISTED CANDLE

	A	B
25W B.C.	35	99
S.B.C.	35	102
40W—60W B.C.	46	122
S.B.C.	46	127

LONG-LITE 40W—60W

Plain Candle

WATTS	VOLTS	CAP	FINISH	PRICE* REF. No.	Standard Packing Quantity
25	200/210, 220/230, 240, 250	S.B.C. or B.C.	Clear	157	24
			Frosted	158	
40		S.B.C. or B.C.	Clear	159	24
			Frosted	160	
			Silverlight	161	
60		S.B.C. or B.C.	Clear	162	24
			Frosted	163	

Twisted Candle

25	200/210, 220/230, 240, 250	S.B.C. or B.C.	Clear	164	24
			Frosted	165	
40			Clear	166	24
			Frosted	167	
60			Clear	168	24
			Frosted	169	

45 mm Round Bulb

25	200/210, 220/230, 240, 250	B.C. or S.B.C.	Clear or Pearl	173	100
40			Silverlight		

45mm Round Bulb Festive

15	200/210, 220/230, 240/250	B.C. or E.S.	Amber, Blue, Green, Red, White, Yellow	174	100
25					

Coloured G.L.S.

40	200/210, 220/230, 240/250	B.C.	Amber, Blue, Green, Pink, Red, White, Yellow	175	25
60					
100†				176	

†100 watt is in 68 mm diameter bulb only.

*For details of List Price and Purchase Tax, see inside back cover

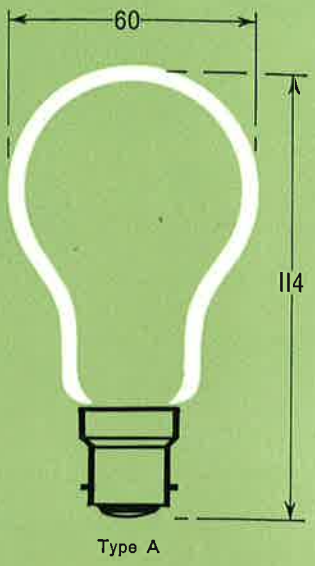
SIGN & NEON

WATTS	VOLTS	CAP	FINISH	PRICE* REF. No.	Longlite Standard Packing Quantity
Longlite					
40	200/210, 220/230, 240/250	B.C.	Opal	170	25
60				171	
Cand-Lite—Lamp Only					
60	200/210, 220/230, 240, 250	E.S.	Opal	172	25
Sign Lamps—28 mm diameter					
15	200/210, 220/230, 240/250	B.C. E.S. S.B.C. S.E.S.	Clear	177	50
			Frosted	178	
		B.C.	Amber Blue Green Red White Yellow		
Switchboard Indicator					
—	100/130, 200/260	B.C.	Clear	179	50
Pilot					
6	100/130	S.B.C., CAND.	Clear	180	25
10		S.B.C. S.E.S. CAND.		181	
10	200/250	S.B.C. S.E.S. CAND.		182	
Neon Type A—Nightlight					
5	200/220, 230/250	B.C.	Clear	183	50
Type B					
0·5	200/220, 230/250	B.C.	Clear	184	50
Type C					
0·5	230/250	S.B.C. S.E.S.	Clear	185	300

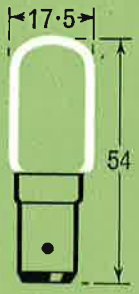
*For details of List Price and Purchase Tax, see inside back cover

Neon lamps are not subject to purchase tax

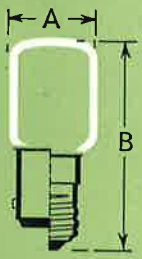
NEON NIGHTLIGHT



Type A



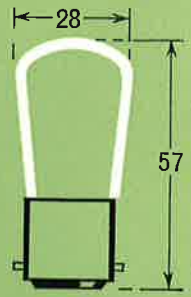
Type C



PILOT

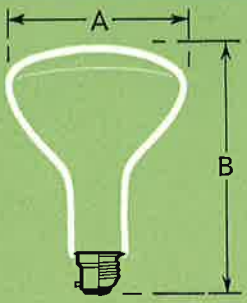
	A	B
S.B.C.	18	41
Cand	18	46
S.E.S.	18	48

All dimensions in mm



Type B

INFRA-RED & REFLECTOR



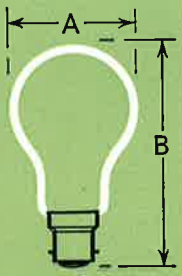
REFLECTOR FLOODLIGHT

	A	B
75W	95	129
100W	95	129
150W	126	178

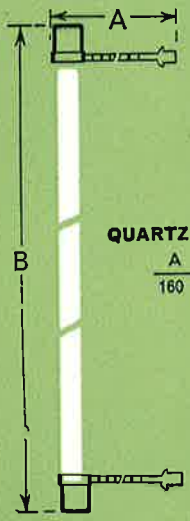
REFLECTOR SPOTLIGHT

	A	B
75W	95	129
100W	95	129
150W	126	178
250W	126	178

CARBON HEATERS



	A	B
65W	60	110
130W	65	117
200W	80	156



QUARTZ INFRA-RED

A	B
160	353

All measurements in mm

Infra-red—Reflector

WATTS	VOLTS	CAP	FINISH	PRICE* REF. NO.	Standard Packing Quantity
150	100/130, 200/250	E.S.		186	6
250				187	

Infra-red—Round Bulb

250	100/130, 200/250	E.S.	Clear	188	50
			Pearl	189	

Carbon Heaters

65	220/230, 240/250	B.C.	Clear	190	50
130				191	
200				192	

Infra-red—Tubular Quartz

1000	230, 240	Special	Clear	193	1

Reflector Lamps

Spotlights (Concentrated Beam)

75	210, 230, 240, 250	B.C., E.S.		194	24
100				195	
150				196	6
250	230, 240, 250	E.S.		197	

Floodlights (Dispersed Beam)

75	210, 230, 240, 250	B.C., E.S.		198	24
100				199	
150				200	6

High Bay Reflector

500	230, 240, 250	G.E.S.		201	6

*For details of List Price and Purchase Tax, see inside back cover

Lamps rated over 250W are not subject to purchase tax

FLUORESCENT TUBES

The tubular fluorescent lamp consists of a cylindrical glass tube coated on the inside with fluorescent materials (phosphors). An electrode is sealed into each end of the tube and the connections to each electrode are brought out to the lamp cap. The electrode is made of a coil of tungsten wire, coated with a mixture of alkaline earth oxides which freely emits electrons when heated; this coil acts as the cathode. Two small fins are placed on each side of the cathode to act as the anode during the appropriate half cycle. After the tube has been evacuated a drop of mercury is introduced into the tube, also a small quantity of argon gas to help to initiate the arc between the electrodes

Two methods of starting are in common use, switch start and instant start, both involve the heating of the cathodes

The operation of starting consists in forcing electrons to pass along the tube from end to end, thereby forming the conducting passage or 'arc' between the cathode and anode

In the case of switch start circuits, it is necessary to pass a current through the electrodes to heat them and to apply a voltage sufficiently high to cause the arc to strike

When using the instant start method, however, a special instant start transformer is employed both to heat the electrodes and ensure the correct starting and running conditions for the lamp. It is important that for instant start, conditions for the movement of electrons along the tube are just right. An electrical charge on the lamp may be sufficient to repel electrons and thus prevent starting and it is for this reason that the lamp is either externally 'siliconed' or a metallic stripe is affixed to lamps intended for instant start circuits

To cater for the various requirements of specific installations there are at present six standard white colours of fluorescent lamps, viz., Daylight, Natural, Warm White, De Luxe Warm White, Colour Matching, and 3500°K 'White'. Confusion often arises between colour appearance of light sources and the colour rendering of objects seen under them, and it must be remembered when looking at a lamp that the eye can easily be deceived and apparently similar light sources may give different colour rendering. We recommend obtaining the advice of our illuminating engineers as to best colour of lamp to suit individual lighting problems

°Kolor-rite. Where colour is of importance both in design and appearance the °Kolor-rite lamp gives the perfect colour rendering. This lamp really is the nearest thing to daylight because it has the effect of bringing outdoors indoors and enables colours to look fresh and natural

Hot and Cold Cathode lamps are essentially the same except that cold cathode lamps are provided with a large unheated cathode, not coated with any emissive material, and starting is effected by the application of a high voltage across the lamp. There is a considerable voltage drop at the cathodes which results in a reduced overall efficiency, compared with the equivalent hot cathode lamp

FLUORESCENT TUBES — TECHNICAL DATA

Watts and Nom'l Length	Caps	Dimensions		Electrical Characteristics			Lumen Output of Lamps						
		Max. Overall Length	Diam.	Av. Lamp Volts at 100 hr.	Lamp Operating Current	Lamp Starting Current	Colour Matching	Daylight	Natural	White	Warm White	Deluxe W/White	°Kolor-rite
		in.	In.		(amps)		Av. thro' 5000 hr.	Av. thro' 5000 hr.	Av. thro' 5000 hr.	Av. thro' 5000 hr.	Av. thro' 5000 hr.	Av. thro' 5000 hr.	Av. thro' 5000 hr.
4 6″	Min. Bi-pin	5·91	0·5	38V±4	0·145 nom.	0·18 nom.	52	72	68	—	76	—	—
6 9″	,,	8·91	0·5	48V±4			133	198	162	—	204	—	—
8 12″	,,	11·91	0·5	58V±4			192	304	224	—	320	—	—
15 18″	Med. Bi-pin	17·78	1·0	57V±4	0·3 nom.	0·4-0·65	400	645	525	645	645	365	—
20 2′	,,	23·78	1·5	60V±4	0·35 nom.	0·4-0·7	620	920	750	940	940	540	530
30 3′	,,	35·78	1·0	104V±5	0·34 nom.	0·4-0·65	1080	1650	1280	1720	1720	1040	1040
40 2′	,,	23·78	1·5	48V±4	0·88 nom.	1·0-1·6	1000	1430	1070	1510	1510	890	—
40 4′	,,	47·78	1·5	108V±5	0·41 nom.	0·5-0·75	1580	2450	1790	2500	2500	1420	1420
80 5′	B.C. or Med. Bi-pin	60·25 59·62	1·5	106V±5	0·85 nom.	1·0-1·6	2940	4400	3530	4500	4500	2680	2680
125 8′	B.C. or Med. Bi-pin	96·25 94·06	1·5	*160V±10	0·91 inductive	1·0-1·6	4750	7125	5000	7750	7625	4100	—

* Signifies for applied voltage of 320V
125 watt—8 ft. Starting voltage—350V nom
The above lumen output figures are measured at 20°C (68°F) and at rated watts

FLUORESCENT TUBES GUARANTEE Any fluorescent tube failing within 12 months from the date of purchase by the user (or prior to 3000 hours burning, whichever is the shorter) except through misuse will be replaced free of charge

ESSENTIAL CONTROL GEAR All Electric Discharge Lamps are designed to operate on standard supply voltages using appropriate lamp auxiliary gear

'Universal' — Standard Colours

WATTS & NOM LTH	CAP	COLOURS AVAILABLE	PRICE* REF. No.	Standard Packing Quantity
125 8′	B.C. or Bi-pin	Daylight, White, Warm White	202	12
80 5′			203	25
40 2′ & 4′	Bi-pin		204	
30 3′			205	
20 2′			206	
15 18″			207	

'Universal' — Deluxe Colours

125 8′	B.C.	Colour Matching, Natural, Deluxe Warm White	208	12
80 5′	B.C., Bi-pin		209	25
40 4′	Bi-pin		210	
40 2′			211	
30 3′			212	
20 2′			213	
15 18′			214	

'Universal' — °Kolor-rite

80 5′	B.C. or Bi-pin	°Kolor-rite	215	25
40 4′	Bi-pin		216	
30 3′			217	
20 2′			218	

°Kolor-rite fluorescent lamps bring outdoors indoors and ensure a continuity of consistent and acceptable artificial illumination from the manufacture of goods, through the sales process to the ultimate enjoyment by the customer

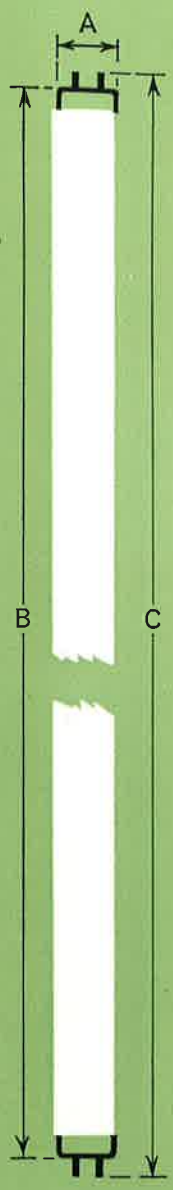
'Universal' — Reflector Lamps

			Standard Colours	
125 8′	B.C.	Daylight, White, Warm White	219	12
80 5′	B.C. or Bi-pin		220	25
40 4′	Bi-pin		221	
			Deluxe Colours	
80 5′	B.C. or Bi-pin	Natural, Colour Matching, Deluxe Warm White	222	25
40 4′	Bi-pin		223	

MCFA—Lamps for instant start operation of the MCFA type with external metal stripe are available also

125W 8 ft. lamps are not subject to purchase tax

*For details of List Price and Purchase Tax, see inside back cover

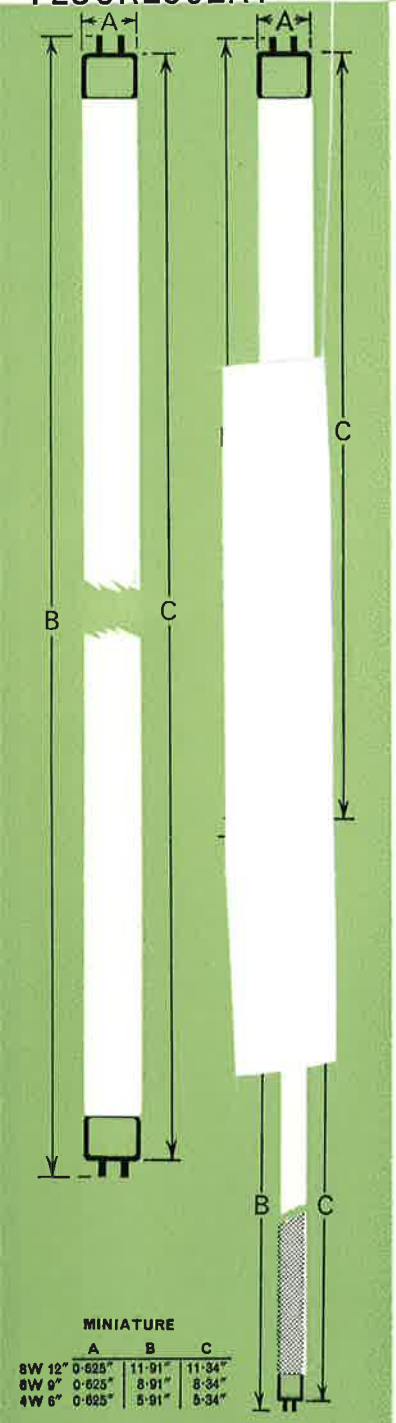


FLUORESCENT

	A	B	C
15W 18" Nominal length	1	17·22	17·78
20W & 40W 2 ft. Nominal length	1·5	23·22	23·78
30W 3 ft. Nominal length	1	35·22	35·78
40W 4 ft. Nominal length	1·5	47·22	47·78
80W 5 ft. Nominal length Bi-pin	1·5	59·06	59·62
B.C.	1·5	—	60·25
125W 8 ft. Nominal length Bi-pin	1·5	93·5	94·06
B.C.	1·5	—	96·25

All dimensions in inches

FLUORESCENT



MINIATURE

	A	B	C
8W 12"	0·625"	11·91"	11·34"
6W 9"	0·625"	8·91"	8·34"
4W 6"	0·625"	5·91"	5·34"

All dimensions in inches

MCF/U — Miniature Lamps

Standard Colours

WATTS & NOM LTH	CAP	COLOURS AVAILABLE	PRICE* REF. No.	Standard Packing Quantity
8 12′	Min. Bi-pin	Daylight, Warm White	224	1
6 9″			225	
4 6″			226	

Deluxe Colours

6 9″	Min. Bi-pin	Natural Colour-Matching	227	1
4 6″			228	

Ultra Violet Lamps

80 5′	B.C.	MCF non filter envelope	229	25
40 2′	Bi-pin		230	
40 4′			231	
15 18″			232	
6 9″	Min. Bi-pin	MCFW Black envelope	233	1
4 6″			234	

'Universal' — Coloured Lamps

80 5′	B.C.	Blue, Green, Red, Yellow	235	25
40 4′	Bi-pin		236	
20 2′			237	

Ultra Violet Tubes

These tubes emit a large proportion of energy as invisible u.v. radiation in the 3650Å band. They can be used for the excitation of fluorescent materials and paints thus having various applications such as the examination of documents, laundry marks, stains and many laboratory uses. They can be used for advertising purposes and for instrument panel excitation as is used in some aircraft today

The MCFW lamps are black in appearance because they have a 'Wood's Glass' envelope which absorbs most of the visible light

In the case of the MCF Ultra-Violet tubes, they are white in appearance because no filter is incorporated in the glass envelope; an *external* 'Wood's Glass' filter must be used if visible light is not required

Standard straight fluorescent tubes

Our extensive range of fluorescent tubes includes sizes to suit the majority of fluorescent fittings in use today. 'Universal' tubes can be used on Switch Start or Instant Start circuits

The reflector type tubes have an internal coating to give a high percentage of downward illumination

*For details of List Price and Purchase Tax, see inside back cover

Cold Cathode Tubes

Colours	
Standard Colours	
White Warm White Deluxe Warm White Daylight Natural Intermediate Gold	Prices on application for standard and non-standard size tubes and non-standard colours

NOTE: Where tubes are required for outdoor use there will be an extra charge.

Tube Types

Class A Straight tubes 20 mm dia. Overall length 9′ 6″. Illuminated length 8′ 6″. Straight on electrode. Standard lengths with standard colours

Class B Straight tubes 20 mm dia. Shorter than standard length; straight on electrode. Also standard lengths with non-standard colours

Class C Straight tubes up to 8′ 6″ illuminated length but with off-set electrodes i.e. parallel to tube or at right angles to it

Class D Any curved or bent tube up to 8′ 6″ illuminated length (one bend only) with electrodes in any position

Class H Standard Hairpin tube. Overall length from electrode end to outside of bend 4′ 9″. Illuminated length 8′ 6″ from electrode to electrode. Tube centres between limbs limited to the following dimensions:
$2\frac{5}{8}$″, $2\frac{3}{4}$″, 3″, $3\frac{1}{2}$″ or 4″

These tubes are not subject to purchase tax

Cold Cathode tubes have a number of advantages which makes them suitable for specific applications. These are:

A wide colour range
Long Life
Low surface brightness
High efficiency

TECHNICAL DATA

Tube* Watts	Tube Current	Colour	Lumens per watt at 100 hours	Average lumens per watt (i.e.) through 15,000 hours	Luminance Cd/sq. in. at 100 hours
67·5	120 mA	White	46	39	4·4
		Warm White	48	41	4·8
		Deluxe Warm White	35	26	3·2
		Daylight	45	38	4·2
		Natural	38	33	3·6
		Intermediate	45	38	4·2
		Colour Matching	35	26	3·2
50	60 mA	Gold	13·5	12·5	0·9

***NOTE:** These are tube watt figures only

Total circuits watts are dependent on the lamp combination and type of gear used

Mercury Vapour Lamps

The four main types of Mercury Vapour lamps are MA, MB, ME, and MCF. The latter type covers Fluorescent Tubular lamps which are described in the previous sections

Type MA

These lamps consist of a tubular bulb containing an electrode at either end, a measured quantity of mercury and some argon gas. A third or auxiliary electrode is connected through a very high resistance to the electrode at the far end of the lamp. The complete bulb assembly is then sealed into a larger bulb which is capped

On connection of the mains voltage across the main electrodes, the close proximity of the auxiliary electrode to a main electrode enables preliminary ionization to be established to initiate the main arc discharge. The main electrodes containing a thermionic emissive pellet support the arc discharge which in turn starts vapourization of the mercury until the lamp is running in a super heat condition

To prevent excessive building up of the main discharge it is essential to incorporate a choke or similar limiting device in the circuit

The group of MA type lamps include:—

MA/V with soft glass outer. This lamp can only be burned in the vertical position unless magnetic arc control is used to prevent the arc bowing upwards

MA/U with soft glass outer. This lamp can be burned in positions other than vertical without magnetic arc control as it has a special glass inner to withstand the increased temperature caused by the bowing arc

MA/V and **MA/U** with hard glass outer. Identical to the lamps above with the exception of a glass envelope which allows the lamp to be used in applications where there are rapid changes in temperature

Type MB

These lamps are similar in operation to the **MA** lamps but the light source is more compact and the inner tube is made of quartz

MB/U. These lamps can be burned in any position; they have pearl bulbs similar to tungsten G.L.S. lamps.

MBW/U. The passage of ultra violet radiation through quartz enables this further type of lamp to be constructed. The outer bulb is made of Woods glass which blocks dangerous radiation and visible light but allows the passage of long wavelength ultra violet

Type MBF

Elliptical bulb coated internally to give good colour rendering and appearance. Where a high intensity light source is required but colour is important the MBF/U lamp offers both

Type ME

These lamps incorporate the main features of the previous types, but have an exceedingly short arc length and the very high brightness necessary for certain projection work. They are available either with complete glass envelope or with a metal box outer, the box is fitted with a window

MERCURY VAPOUR — TECHNICAL DATA

Rating		Electrical Characteristics			Lumen Output Average Through Life	Average Life (Hours)
Wattage Type	Voltage	Lamp Operating Voltage	Operating Current (Nominal)	Starting Current		
80W MB/U	200/220 220/250	100/120 110/130	0·8A	1·5-1·0A	2720	5000
125W MB/U	200/220 220/250	100/120 115/135	1·15A	2·0-1·5A	4900	5000
250W MA/V	110	60/70	4·2A	7·0-6·0A	7250	1500
250W MA/V & MA/U	200/220 220/250	105/125 115/145	2·15A	5·0-4·0A	8,750 (MA/V) *7,500 (MA/U)	5000
250W MA/H	200/220 230/240 250	95/115	2·5A	5·0-4·0A	7500	5000
400W MA/V	110	65/75	6·2A	12·0-9·0A	13,200	1500
400W MA/V & MA/U	200/220 220/250	110/130 120/150	3·25A	7·0-5·0A	15,600 (MA/V) *13,200 (MA/U)	5000
400W MA/H	200/220 230/240 250	95/115	4·2A	7·0-5·0A	13,200	5000
1000W MA/H	200/220 220/250	110/130 130/160	8·0A	13·0-11·0A	43,000	5000

* These figures are for horizontal operation: vertical operation will give approximately 10% greater efficiency with no shortening of life. The time required for these lamps to reach full brilliance is approximately 8 to 9 minutes

The starting current values given represent the short-circuit current at nominal supply voltages of the standard chokes used to operate the lamps. The incorporation of power factor correction capacitors in the lamp circuits would result in these values being lowered

Coding of Electric Discharge Lamps

M = Mercury Discharge

A = Glass Envelope loaded above 10 watts/cm of arc length

B = Quartz Envelope loaded below 100 watts/cm of arc length

D = Quartz envelope with forced liquid cooling

E = Quartz Envelope loaded above 100 watts/cm of arc length

F = Internal Fluorescent Coating

T = Tungsten Filament

W = Black Glass Visible Light absorbing and cutting off short wave u.v. radiation

The suffix to the code letters has the following meaning:

/D = Vertical Cap-down burning

/H = Horizontal burning

/U = Any position burning

/V = Vertical Cap-up burning

MERCURY VAPOUR

WATTS	VOLTS	CAP	PRICE* REF. NO.	Standard Packing Quantity
			MA/V — Soft Glass	
250	110, 200/220, 220/250	G.E.S.	238	12
400			239	
			MA/V — Hard Glass	
250	110, 200/220, 220/250	G.E.S.	240	12
400			241	
			MA/U — Soft Glass	
250	200/220, 220/250	G.E.S.	242	12
400			243	
			MA/U — Hard Glass	
250	200/220, 220/250	G.E.S.	244	12
400			245	
			MA/H — Hard Glass	
250	200/220, 230/240, 250	G.E.S.	246	12
400			247	
1000	200/220, 220/250	Special	248	9
			MB/U — Pearl Finish	
80	200/220, 220/250	3-pin B.C.	249	18
125			250	

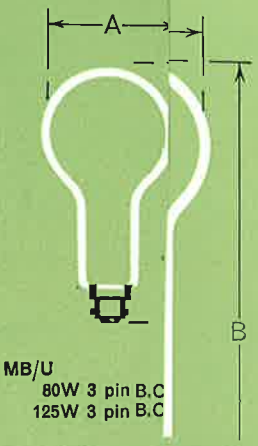
Mercury Vapour

For streetlighting and many kinds of industrial lighting, the high lumen/watt ratio of these lamps has made them a necessity where economical operation and high light output are the most important considerations.

The MA type have refinements of construction which put them in a class alone. They have Double Helix Electrodes where each electrode is designed to protect its emissive pellet; the mercury filling is micrometer controlled to ensure life and light output and the recent introduction of a new arc tube mount obviates point suspension and gives greatly increased resistance to external vibration

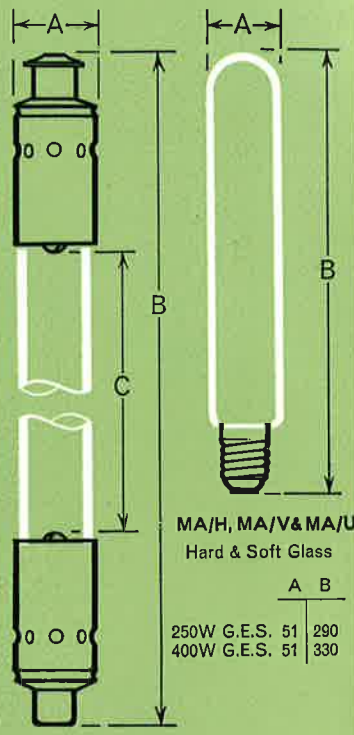
*For details of List Price, see inside back cover

These lamps are not subject to Purchase Tax.



MB/U
80W 3 pin B.C
125W 3 pin B.C

MERCURY VAPOUR



MA/H, MA/V& MA/U
Hard & Soft Glass

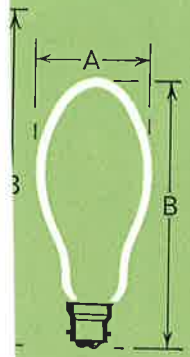
	A	B
250W G.E.S.	51	290
400W G.E.S.	51	330

	A	B	C
MA/H—Hard Glass 1000W	40	486	295

All dimensions in mm

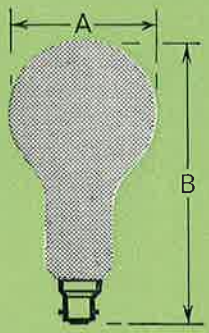
Y VAPOUR

All dimensions in mm



MBF/U—FLUORESCENT

	A	B
80W 3 Pin B.C.	70	149
125W 3 Pin B.C.	75	169
250W G.E.S.	90	220
400W G.E.S.	120	280



ULTRA VIOLET

	A	B
MBW/U 125W 3 Pin B.C.	90	17[illegible]

MBF/U — Fluorescent

WATTS	VOLTS	CAP	PRICE* REF. No.	Standard Packing Quantity
80	200/220, 220/250	3-pin B.C.	251	18
125			252	9
250		G.E.S.	253	4
400			254	

TECHNICAL DATA

Rating		Electrical Characteristics			Lumen Output Average through Life	Average Life (Hours)
Wattage & Type	A.C. Voltage	Lamp Operating Volts	Operating Current	Starting Current		
80 MBF/U	200/220 220/250	110±10 120±10	0·8A nom.	1·5A to 1·0A	2720	5000
125 MBF/U	200/220 220/250	110±10 125±10	1·15A nom.	2·0A to 1·5A	4900	5000
250 MBF/U	200/220 220/250	115±10 130±10	2·15A nom.	4·0A to 3·0A	11,000	5000
400 MBF/U	200/220 220/250	120±10 135±10	3·25A nom.	7·0A to 5·0A	19,200	5000

Note: The starting current values given in the table represent the short circuit current at nominal supply voltage of the standard chokes used to operate the lamps. The incorporation of power factor correction capacitors in the lamp circuits would result in these values being lowered. Run up time 3-5 minutes approx

Mercury/Fluorescent

The light from the ordinary mercury discharge lamp, because of the small emission of red light, has a distorting effect upon certain colours. It is impossible for instance, to distinguish between reds and shades of brown. The mercury vapour lamp with fluorescent bulb has been developed to meet requirements where a good degree of colour rendering is important, and further lamp development by our engineers has brought about even better colour rendering

MBW/U — Ultra Violet

WATTS	VOLTS	CAP	PRICE* REF. No.	Standard Packing Quantity
125	200/220, 220/250	3-pin B.C.	255	18

Black Glass—Type MBW/U

The special glass of this Ultra Violet Filter lamp absorbs practically all visible light but allows free passage to u.v. radiation at the 3650Å wavelength. The lamp can be used for excitation of fluorescent materials and has many applications in various scientific and industrial processes

Mercury Vapour/Tungsten

MAT/V — Clear

WATTS	VOLTS	CAP	PRICE* REF. No.	Standard Packing Quantity
300	210, 230, 240, 250	G.E.S.	256	12
500			257	

MBT/U — Pearl

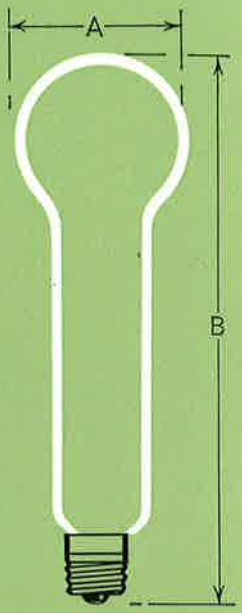
200	210, 230, 240, 250	B.C or E.S.	258	12
250		G.E.S. or E.S.	259	

Mercury Vapour/Tungsten

By using the tungsten filament to limit the current as well as to emit light, a lamp has been developed to provide high output and good colour rendering properties without need for additional lamp auxiliary gear

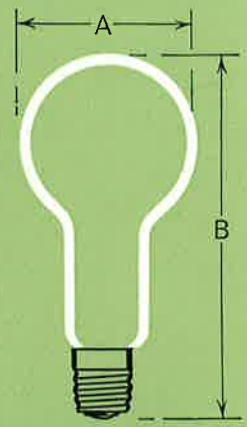
*For details of List Price, see inside back cover

These lamps are not subject to Purchase Tax



MERCURY VAPOUR/TUNGSTEN

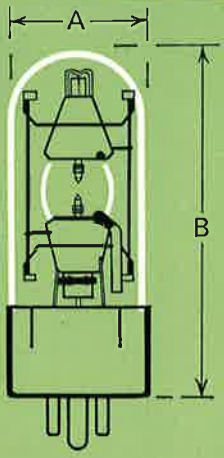
		A	B
MAT/V	300W G.E.S.	85	285
	500W G.E.S.	100	355



MBT/U

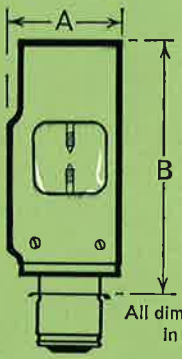
	A	B
200W B.C. or E.S.	90	178
250W G.E.S. or E.S.	110	233

All dimensions in mm



GLASS ENVELOPE

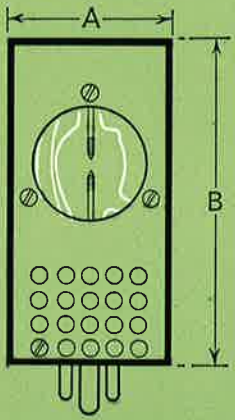
A	B
50	141



All dimensions in mm

BOX TYPE P 28/25 Cap

A	B
48	100·5



BOX TYPE 3 Pin Cap

A	B
64	130

ME/D COMPACT SOURCE

There are many applications for these lamps. They may be summarized as follows:
In optical instruments such as projection microscopes for visual examination, gear profile projectors, and similar instruments
In projection microscopes for microphotography
In film printers
In lantern slide or film projectors for monochrome film

As a light source for examining polished metal or glass surfaces. Small flaws or defects in the surface may be observed by reflection of the light from this lamp from the surface to be tested, or in the case of transparent materials, by observing their shadows cast upon a screen

On 200-260V alternating current supplies, the ME/D Lamp should be operated in conjunction with a Choke (Type MR 583, Product No. 61/50583) and a power-factor correction Capacitor (Type C 82604) 60 mfd

TAPPINGS

Before placing the MR 583 Choke in service the tappings should be adjusted to the supply voltage shown below

A.C. 50-cycle Supply Volts	200	210	220	230	240	250	260
Tappings ..	1—4	3—5	2—5	1—5	3—6	2—6	1—6

The Type ME/D high pressure mercury vapour compact source lamp consists of a quartz bulb containing two tungsten electrodes between which an arc of high brightness burns steadily. The lamp is available in three forms:

1 The Prefocus lamp in which the quartz bulb is mounted in an oval metal 'case' having two apertures through which the light emerges. The lamp has a light centre length of 55·5 mm and is fitted with a medium prefocus cap making it interchangeable with Class A1 Tungsten Projector lamps

2 A lamp in a tubular glass envelope fitted with a 5-amp 3-pin base

3 A lamp in a robust metal box fitted with a toughened glass window and having a 5-amp 3-pin Base. The light centre length is 80 mm

The chief characteristics of the ME/D compact source lamps are as follows:—

a A small concentrated source of high brightness which burns steadily

b Operation over a long life with only slight deterioration in light output

c Radiation of a high actinic value and low heat content

Lampholders

Prefocus Lampholder **72/10001**
3-pin Lampholder **72/09002**

MERCURY VAPOUR

ME/D Compact Source

Watts	Voltage	Description	Cap	Length mm	Dimensions Diameter mm	L.C.L. mm	Price* Ref. No.
250	200/250	Glass Envelope	3-pin	141 ± 3a	50 ± 2	85 ± 1	260
250		Box Type	P28/25	103 max.c	43 × 34b	55·5 ± 0·5	261
250		Box Type	3-pin	130 ± 3a	64 × 55	80 ± 1	262

(a) Excluding Pins. (b) With a 5·5 mm projection on the major axis opposite the L.C.L.
(c) From cap flange to end of 'case'

BRIGHTNESS DATA OF VARIOUS LIGHT SOURCES FOR PROJECTION

Type of Lamp	Approximate Brightness Candelas per sq. cm
General Service Tungsten Filament Lamp (Clear) ..	500—1000
Tungsten Filament Projector Lamp	1000—3000
Low Intensity Carbon Arc	10,000—25,000
High Intensity Carbon Arc	30,000—100,000

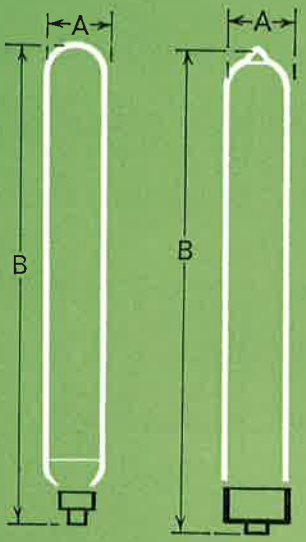
ELECTRIC DISCHARGE LAMPS

	Size of Source		
Type MA 400 watts	160 mm ± 5 mm	..	150
,, MB 125 ,,	33 mm ± 2 mm	..	800
,, ME/D 250 ,,	3·75 mm ± 0·35 mm	..	20,000
,, ME/D 1000 ,,	6·5 mm ± 0·5 mm	..	40,000

*For details of List Price, see inside back cover

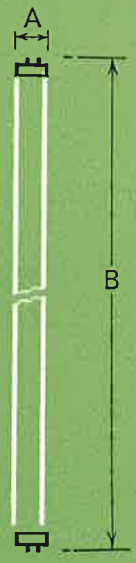
The lamps are not subject to Purchase Tax.

SODIUM VAPOUR



SOI/H and SO/H

	A	B
45W	50± 2	238± 10
60W	50± 2	300± 10
85W	50± 2	415± 10
140W	65± 2	518± 10



SLI/H Linear

	A	B
60W	38± 1·5	427
200W	38± 1·5	909

All measurements in mm

SODIUM VAPOUR

WATTS	VOLTS	CAP	PRICE* REF NO.	Standard Packing Quantity
			SLI/H — Linear Sodium	
200	200/250	Bi-pin	263	1
60			264	
			SOI/H — Integral	
45	200/250	B.C.	265	6
60			266	
85			267	
140			268	
			SO/H — Detachable Jacket	
			Inner only / With jacket	
45	200/250	Ceramic B.C.	269 / 273	12
60			270 / 274	
85			271 / 275	9
140			272 / 276	

TECHNICAL DATA

	Electrical Characteristics			Lumen Output Average through Life	
Watts	Operating Volts	Op'ating Current	Starting Current	SOI/H	SO/H
60 linear	80	0·83A	0·83A	5700	
200 linear	136	1·6A	1·6A	20,000	
45	65/90	0·6A	0·54A	2295	2250
60	95/125	0·6A	0·54A	3540	3420
85	150/180	0·6A	0·54A	5950	5525
140	155/190	0·9A	0·81A	9800	9100

The time required for the lamps to reach full brilliance is of the order of 20 minutes

Sodium Lamp Lives

SO/H—Detachable Jacket—Average life 6000 hours—**Individual lamp guarantee 4000 hours**

SOI/H—Integral Jacket—Average life 6000 hours—**Individual lamp guarantee 4000 hours**

SLI/H—Linear—Average life 4000 hours.

Operating Position

45 and 60 watt lamps—from 5° above horizontal with cap down, to vertical with cap up

85 and 140 watt lamps—from 5° above horizontal with cap down, to 20° below horizontal with cap up

60 and 200 watt Linear Horizontal ± 20°

Linear Sodium

These lamps comprise a discharge tube of special glass and of special formation with regard to both shape and cross section

The very high lumen output of these lamps gives higher intensities and affords far greater economy

*For details of List Price, see inside back cover

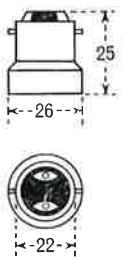
These lamps are not subject to Purchase Tax.

LAMP CAPS

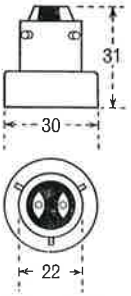
Lamp Cap Code

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

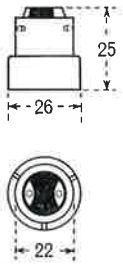
The dimension code indicates, firstly by letter, the type of cap. The first two figures indicate the nominal outer diameter of the cap barrel or screw thread in millimetres. The next two figures indicate the overall length and the last two, the diameter of the flange



B.C.
B22/25 × 26



3-pin B.C.
B22/31 × 30



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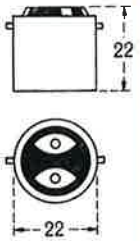
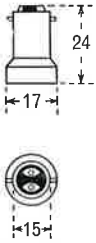


B.C.
B22/22



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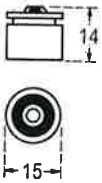
B15/24 × 17



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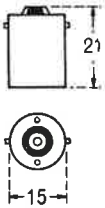
S15s/14



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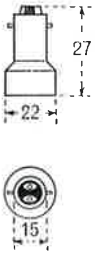
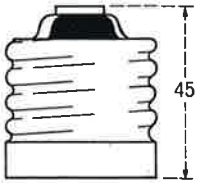
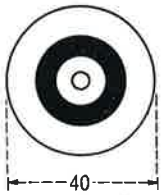
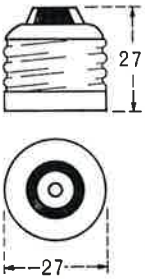


S.B.C.
B15/27 × 22

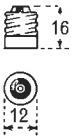




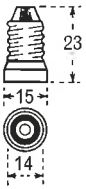
G.E.S.
E40/45



E.S.
E27/27



Candelabra
E12/16



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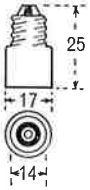
E14/23 × 15



S.E.S.
E14/25 × 17

A.E.I. Lamp and Lighting Company Limited

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Tel. Address: Lamplite Leicester Telex: 34553

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Telephone: Leicester 61531
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Lamplite Leicester Telex: 34553

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Telephone: Fulham 3377

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Telephone: Cambridge 54370 and 57366

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Telephone: Colchester 72843

GUILDFORD—Bedford House, Bedford Road
Telephone: Guildford 67742

HASTINGS—17 Dorset Place
Telephone: Hastings 2734

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Telephone: Reading 53257

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Telephone: Southampton 27401

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Telephone: Stevenage 2800

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111/113 Stafford Road
Telephone: Franklin 1141

SOUTH WEST REGION

CARDIFF—
National Provincial Bank Buildings, West Bute Street
Telephone: Cardiff 27495
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Telephone: Cardiff 27495
Tel. Address: Lamplite Cardiff

BRISTOL—1/5 Trinity Street
Telephone: Bristol 51494

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Tel. Address: Lamplite Glasgow

BELFAST—18 Adelaide Street
Telephone: Belfast 29368

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Telephone: Dundee 24472

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Telephone: Caledonian 3888

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Telephone: Central 4371

MANCHESTER—Ashburton Road, Trafford Park
Telephone: Trafford Park 3281

MIDDLESBROUGH—Short Street
Telephone: Middlesbrough 45287

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Telephone: Newcastle 26060

PRESTON—Strand Road
Telephone: Preston 86701

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Telephone: Sheffield 23086

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Tel. Address: Lamplite Birmingham

GLOUCESTER—Merchants Road
Telephone: Gloucester 27663

NOTTINGHAM—Ashforth Street
Telephone: Nottingham 51115

STOKE-ON-TRENT—Stoke Road
Telephone: Stoke-on-Trent 47537
Tel. Address: Spedilamp Stoke-on-Trent

As from the 31st May, 1963

PURCHASE TAX

The Table below indicates the lamps on which Purchase Tax is chargeable and specifies the percentage of the list price value which must be added when selling at a discount.

PERCENTAGE OF LIST PRICE VALUE WHEN SELLING AT A DISCOUNT

Lamp Group	Description	Tax %
Group 1	STANDARD CONSIGNMENT QUANTITY LAMPS i.e. GLS 15-150W (inc.), 200-260V, Clear, Pearl, Silverlight or Pearl Pink BC cap	
	25 or more identical lamps per item	17·1
	less than 25 identical lamps per item	18·3
	PROJECTOR LAMPS IN CLASSES AI AND G	NIL
	NEON LAMPS	NIL
	OTHER LAMPS UP TO AND INCLUDING 250W	17·1
Group 9	FLUORESCENT TUBES UP TO AND INCLUDING 80W	17·1
	Other discharge lamps	NIL

STANDARD CONSIGNMENT QUANTITIES

In these tables are given the Standard Consignment Quantities for General Lighting Service lamps from 15 watt to 150 watt in the voltage range 200-260.

The Ready Reckoner given for such quantities shows list price totals and the applicable purchase tax must be added.

Watts	Netabulb		
	Each s. d.	25 £ s. d.	50 £ s. d.
40	1 11	2 7 11	4 15 10
60	1 11	2 7 11	4 15 10
100	2 1½	2 13 1½	5 6 3
150	2 5	3 0 5	6 0 10
150†	2 0	2 10 0	5 0 0

†Pearl only.
Other Netabulbs have Silverlight Finish.

Watts	Pearl Single Coil		
	Each s. d.	25 £ s. d.	50 £ s. d.
15	1 11	2 7 11	4 15 10
25	1 6½	1 18 6½	3 17 1
40	1 6½	1 18 6½	3 17 1
60	1 6½	1 18 6½	3 17 1
75	1 11	2 7 11	4 15 10
100	1 6½	1 18 6½	3 17 1
150	2 0	2 10 0	5 0 0
200	2 9	3 8 9	6 17 6

Watts	Plus Lamp		
	Each s. d.	25 £ s. d.	50 £ s. d.
40	1 6½	1 18 6½	3 17 1
60	1 6½	1 18 6½	3 17 1
100	1 6½	1 18 6½	3 17 1

Watts	Silverlight		
	Each s. d.	25 £ s. d.	50 £ s d.
60	1 11	2 7 11	4 15 10
100	1 11	2 7 11	4 15 10
150	2 5	3 0 5	6 0 10

LAMP REF.	PAGE	LIST PRICE s.	d.	P.T. s.	d.	TOTAL s.	d.
GENERAL LIGHTING SERVICE							
100	2	1	11	4		2	3
101	2	1	6½	3½		1	10
102	2	1	6½	3½		1	10
103	2	1	6½	3½		1	10
104	2	1	11	4		2	3
105	2	1	6½	3½		1	10
106	2	2	0	4		2	4
107	2	2	9	6		3	3
108	2	7	3	—		7	3
109	2	10	0	—		10	0
110	2	17	0	—		17	0
111	2	17	0	—		17	0
112	2	24	0	—		24	0
113	2	3	6	7½		4	1½
114	2	3	6	7½		4	1½
115	2	3	6	7½		4	1½
116	2	3	6	7½		4	1½
117	2	4	6	9½		5	3½
118	2	7	0	1	3	8	3
119	2	10	0	1	9	11	9
120	2	13	0	—		13	0
121	2	17	3	—		17	3
122	3	1	6½	3½		1	10
123	3	1	6½	3½		1	10
124	3	1	6½	3½		1	10
125	3	1	11	4		2	3
126	3	2	1½	4½		2	6
127	3	2	5	5		2	10
128	3	1	11	4		2	3
129	3	1	11	4		2	3
130	3	2	1½	4½		2	6
131	3	2	5	5		2	10
132	3	2	0	4		2	4
133	3	2	4	5		2	9
134	3	2	4	5		2	9
135	3	2	11	6		3	5
136	4	2	0	4		2	4
137	4	2	0	4		2	4
138	4	2	9	6		3	3
139	4	5	6	11½		6	5½
140	4	5	6	11½		6	5½
141	4	7	6	1	4	8	10
142	4	5	6	11½		6	5½
143	4	5	6	11½		6	5½
144	4	2	3	5		2	8

LAMP REF.	PAGE	LIST PRICE s.	d.	P.T. s.	d.	TOTAL s.	d.
TUBULAR							
145	5	12	4	2	2	14	6
146	5	19	0	3	3	22	3
147	5	22	6	3	10	26	4
148	5	30	0	5	1	35	1
149	5	35	0	6	0	41	0
150	5	30	0	5	1	35	1
151	5	6	3	1	1	7	4
152	5	6	9	1	2	7	11
153	5	4	3		9	5	0
154	5	4	3		9	5	0
155	5	6	3	1	1	7	4
156	5	6	3	1	1	7	4
DECORATION							
157	6	3	0		6½	3	6½
158	6	3	9		8	4	5
159	6	3	0		6½	3	6½
160	6	3	9		8	4	5
161	6	3	0		6½	3	6½
162	6	3	3		7	3	10
163	6	3	9		8	4	5
164	6	3	9		8	4	5
165	6	4	3		9	5	0
166	6	3	9		8	4	5
167	6	4	3		9	5	0
168	6	3	9		8	4	5
169	6	4	3		9	5	0
170	6	8	6	1	6	10	0
171	6	8	6	1	6	10	0
172	6	16	4	2	10	19	2
173	6	2	6		5	2	11
174	6	2	1½		4½	2	6
175	6	2	5		5	2	10
176	6	2	11½		6½	3	6
SIGN AND NEON							
177	7	1	10		4	2	2
178	7	2	2½		5	2	7½
179	7	2	6		5	2	11
180	7	4	0		8½	4	8½
181	7	4	0		8½	4	8½
182	7	4	0		8½	4	8½
183	7	6	0		—	6	0
184	7	4	0		—	4	0
185	7	4	0		—	4	0
INFRA RED AND REFLECTOR							
186	8	13	0	2	3	15	3
187	8	18	6	3	2	21	8

LAMP REF.	PAGE	LIST PRICE s.	d.	P.T. s.	d.	TOTAL s.	d.
188	8	10	0	1	9	11	9
189	8	10	6	1	10	12	4
190	8	6	0	1	1	7	1
191	8	6	6	1	1	7	7
192	8	7	6	1	4	8	10
193	8	84	0		—	84	0
194	8	8	6	1	6	10	0
195	8	8	6	1	6	10	0
196	8	12	9	2	2	14	11
197	8	23	6	4	0	27	6
198	8	8	6	1	6	10	0
199	8	8	6	1	6	10	0
200	8	12	9	2	2	14	11
201	8	60	0		—	60	0
FLUORESCENT							
202	11	16	0		—	16	0
203	11	10	6	1	10	12	4
204	11	9	9	1	8	11	5
205	11	9	9	1	8	11	5
206	11	9	3	1	7	10	10
207	11	8	9	1	6	10	3
208	11	18	0		—	18	0
209	11	12	6	2	2	14	8
210	11	11	0	1	11	12	11
211	11	11	0	1	11	12	11
212	11	11	0	1	11	12	11
213	11	10	6	1	10	12	4
214	11	9	9	1	8	11	5
215	11	12	6	2	2	14	8
216	11	11	0	1	11	12	11
217	11	11	0	1	11	12	11
218	11	10	6	1	10	12	4
219	11	19	0		—	19	0
220	11	12	6	2	2	14	8
221	11	11	9	2	0	13	9
222	11	14	6	2	6	17	0
223	11	13	0	2	3	15	3
224	12	7	6	1	4	8	10
225	12	7	6	1	4	8	10
226	12	11	6	2	0	13	6
227	12	8	0	1	5	9	5
228	12	11	6	2	0	13	6
229	12	19	0	3	3	22	3
230	12	17	0	2	11	19	11
231	12	17	9	3	1	20	10
232	12	15	9	2	9	18	6

LAMP REF.	PAGE	LIST PRICE s.	d.	P.T. s.	d.	TOTAL s.	d.
233	12	50	0	8	6	58	6
234	12	38	0	6	6	44	6
235	12	17	6	3	0	20	6
236	12	16	3	2	10	19	1
237	12	15	0	2	7	17	7
MERCURY VAPOUR							
238	17	52	6		—	52	6
239	17	57	6		—	57	6
240	17	63	6		—	63	6
241	17	70	0		—	70	0
242	17	56	0		—	56	0
243	17	61	0		—	61	0
244	17	68	0		—	68	0
245	17	74	0		—	74	0
246	17	63	6		—	63	6
247	17	70	0		—	70	0
248	17	130	0		—	130	0
249	17	41	0		—	41	0
250	17	48	3		—	48	3
251	18	41	0		—	41	0
252	18	48	3		—	48	3
253	18	78	0		—	78	0
254	18	118	0		—	118	0
255	18	67	6		—	67	6
256	19	80	0		—	80	0
257	19	90	0		—	90	0
258	19	50	0		—	50	0
259	19	56	3		—	56	3
260	21	370	0		—	370	0
261	21	500	0		—	500	0
262	21	500	0		—	500	0
SODIUM VAPOUR							
263	22	110	0		—	110	0
264	22	75	0		—	75	0
265	22	57	0		—	57	0
266	22	62	6		—	62	6
267	22	76	0		—	76	0
268	22	79	0		—	79	0
269	22	40	0		—	40	0
270	22	45	0		—	45	0
271	22	60	0		—	60	0
272	22	65	0		—	65	0
273	22	61	9		—	61	9
274	22	69	6		—	69	6
275	22	89	3		—	89	3
276	22	98	0		—	98	0

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