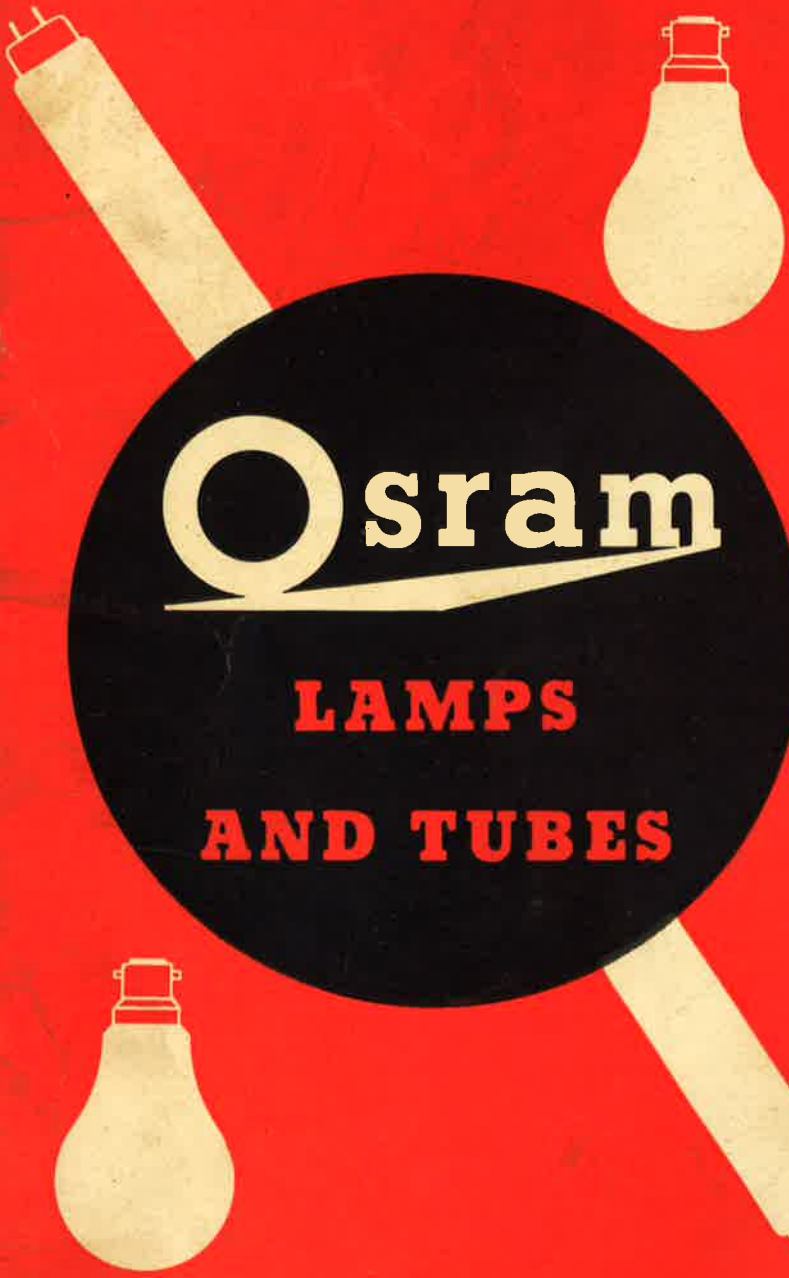


OSRAM

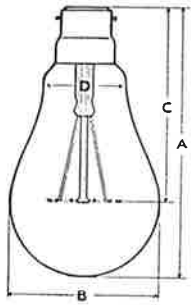
LAMPS AND TUBES

JANUARY, 1958

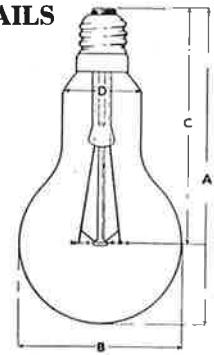

Osram
the
wonderful
lamp

GENERAL LIGHTING SERVICE LAMPS

TECHNICAL DETAILS



Dimensional diagram 15-150 watts



Dimensional diagram
200-1500 watts

DIMENSIONS AND LIGHT OUTPUT

Standard watts	Voltage range	Approx. lumens (Initial)	Length A Tolerance ±3½ mm.		Bulb diameter B Tolerance ±1 mm.		Cap contact to filament centre C Tolerance ±3 mm.		Neck diameter D Tolerance ±1 mm.	
			mm.	in.	mm.	in.	mm.	in.	mm.	in.
15	100/130	140†	92.5	3⅝	55	2 3/16	65	2½	30	1 1/16
	200/260	120†								
25	100/130	240	100	3 15/16	60	2⅜	70	2¾	33	1 5/16
	200/260	220†								
40	100/130	470	110	4 5/16	60	2⅜	80	3⅛	33	1 5/16
	200/260	355								
60	200/260	430*								
	100/130	790								
	200/260	620								
75	200/260	725*	110	4 5/16	60	2⅜	80	3⅛	33	1 5/16
	100/130	1060								
100	200/260	840	125	4⅞	68	2 11/16	90	3½	37	1½
	200/260	960*								
	100/130	1500								
	200/260	1240								
150	200/260	1380*	125	4⅞	68	2 11/16	90	3½	37	1½
	100/130	2360								
200	200/260	2150	160±4.5	6¼	80±1	3⅛	120±4	4¾	39±1	1½
	100/130	3280								
300	200/260	2960	178±5.5	7	90±1	3½	133±5	5¼	39±1	1½
	100/130	5250								
500	200/260	4690	233±7	9⅛	110±1.5	4 5/16	178±6	7	50±1	1 15/16
	100/130	9500								
750	200/260	8410	267±8	10½	130±1.5	5⅛	202±7	7 15/16	52±1	2
	100/130	15150								
1000	200/260	13500	300±9	11¾	150±1.5	5⅞	225±8	8⅞	55±1	2 3/16
	100/130	20900								
1500	200/260	18900	300±9	11¾	150±1.5	5⅞	225±8	8⅞	55±1	2 3/16
	100/130	32200								
	200/260	30100	335±9	13¼	170±1.5	6 11/16	250±8	9 13/16	60±1	2⅜

* These figures are for coiled-coil filament lamps. Remainder single coil.
† These lamps are vacuum. Remainder gasfilled.

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SINGLE COIL LAMPS

Volts	Watts	Cap	Clear	Pearl
110/250	15	BC or ES	2/3	2/3
110/260	25	BC or ES	2/3	2/3
210/260	40	BC or ES	2/1	2/1
210/260	60	BC or ES	2/2	2/2
210/260	75	BC or ES	2/8	2/8
200/260	100	BC or ES	3/1	3/1
210/260	150	BC or ES	4/–	4/–
210/260	200	BC or ES	5/4	5/4
210/260	*200	G.E.S.	5/11	5/11
210/260	*300	BC or ES	11/1	12/9
210/260	300	G.E.S.	10/1	11/7
210/260	500	G.E.S.	13/1	15/-
210/260	750	G.E.S.	21/8	24/11
210/260	1000	G.E.S.	24/2	27/9
210/260	1500	G.E.S.	37/11	—

OTHER VOLTAGES

24,32,50,65,75	15	BC or ES	2/7	2/7
24,32,50,65,75	25	BC or ES	2/7	2/7
24,32,48,50,60,65,75	40	BC or ES	2/5	2/5
24,25,32,48,50,65	60	BC or ES	2/9	2/9
24,32,48,50	75	BC or ES	3/11	3/11
24,32,50,65	100	BC or ES	4/2	4/2
110/130	40	BC or ES	2/4	2/1
110/130	60	BC or ES	2/2	2/2
110/130	75	BC or ES	2/8	2/8
110/130	100	BC or ES	3/1	3/1
32	150	BC or ES	5/–	5/–
110/120	150	BC or ES	4/–	4/–
32,65	*200	G.E.S.	6/11	6/11
110/130	*200	G.E.S.	5/11	5/11
32,65	200	BC or ES	6/5	6/5
110/130	200	BC or ES	5/4	5/4
32, 110/130	*300	BC or ES	11/1	12/9
32, 110/130	300	G.E.S.	10/1	11/7
110/130	500	G.E.S.	13/1	15/-
110/120	750	G.E.S.	21/8	24/11
110/120	1000	G.E.S.	24/2	27/9
110/120	1500	G.E.S.	37/11	—

* Non-standard.

Above lamps are gasfilled, except 15W 110/250V and 25W 110/260V, which are vacuum.

"COILED COIL" GASFILLED LAMPS

The OSRAM Coiled Coil lamp embodies a highly efficient tungsten filament, which is coiled and then recoiled. This materially reduces the amount of filament wire surface exposed to the cooling action of the inert gases within the lamp. Consequently, less current is needed to keep the filament at incandescence. The energy saved in this way is used to heat a larger filament which produces extra light.

Volts	Watts	Cap	Clear	Pearl
210/250	40	BC or ES	2/2	2/2
210/250	60	BC or ES	2/4	2/4
210/250	75	BC or ES	2/10	2/10
210/250	100	BC or ES	3/3	3/3

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SILVERLIGHT "COILED COIL" GASFILLED LAMPS

(Coated internally with silica)

By means of a special process, the inside of the lamp is sprayed with minute particles of silica, which greatly increase the diffusion, but have very little light absorption.
These lamps are ideal for all positions where the bulb is wholly or partially visible, or where extra diffusion is required.

Volts	Watts	Cap	Price
240/250	40	BC	**2/8**
240/250	60	BC	**2/9**
240/250	100	BC	**3/6**
240/250	150	BC	**4/9**
240/250	200	BC	**6/5**

PINK PEARL

The pink pearl lamps provide soft, restful lighting for homes, hotels, restaurants, etc. The tinting process leaves a smooth surface, readily cleaned.

Volts	Watts	Cap	Price
240/250	60	BC	**2/9**
240/250	100	BC	**3/6**
240/250	150	BC	**4/9**

INDEPENDENT HOUSE LIGHTING

For emergency power and independent house lighting plants.

Volts	Watts	Cap	Clear	Pearl
6 or 12	15	BC or ES	**3/–**	**3/–**
6 or 12	25	BC or ES	**3/–**	**3/–**
6 or 12	40	BC or ES	**3/3**	**3/3**
12	60	BC or ES	**3/6**	**3/6**

LONG NECK LAMPS

For use in fittings requiring a lamp with a longer neck than the standard gas-filled lamp.

Volts	Watts	Cap	Length	Dia.	Light Centre Length	Neck Dia.	Finish	Price
			mm.	mm.	mm.			
240/250	100	BC or ES	164	80	125	33	Clear or Pearl	**5/7**
240/250	150	BC or ES	164	80	125	33	Clear or Pearl	**5/11**
240/250	200	BC or ES	178	90	138	40	Clear or Pearl	**6/2**

BAKERS' OVEN LAMPS

Special hard glass and other components to withstand heat when used in ovens.

Volts	Watts	Cap	Clear	Pearl
240/250	40	BC or ES	**3/6**	**3/6**
240/250	60	BC or ES	**3/7**	**3/7**
*240/250	25	BC or ES	**4/9**	**5/–**

For dimensions, refer General Lighting Service, Page 4.

* Fancy Round Bulb.

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DAYLIGHT LAMPS

Osram Daylight lamps have special blue glass bulbs which produce a light corresponding closely to daylight, making them very useful for lighting purposes where colour discrimination is important. When substituting daylight lamps for standard lamps, it generally will be found necessary to use lamps of a higher wattage to compensate for the light absorbed by the blue glass.

Volts	Watts	Cap	Price
240/250	40	BC or ES	4/3
240/250	60	BC or ES	4/3
240/250	75	BC or ES	5/4
240/250	100	BC or ES	5/4
240/250	150	BC or ES	7/1
240/250	200	BC or ES	12/4
240/250	300	BC or ES	13/8
240/250	300	G.E.S.	12/5
240/250	500	G.E.S.	17/3

NATURAL COLOURED LAMPS

For theatre battens and concealed colour lighting in cinemas, etc., where reflected colour is required, also suitable for all outdoor installations.

Volts	Watts	Cap	Price
240/250	15	BC or ES	4/10
240/250	25	BC or ES	4/11
240/250	40	BC or ES	5/–
240/250	60	BC or ES	5/1
240/250	75	BC or ES	6/6
240/250	100	BC or ES	6/6

COLOURS: Red, Amber, Green and Blue.

EXTERNALLY COLOURED LAMPS

Are an ideal means of obtaining lighting effects in the home, theatre, ballroom, hotel, restaurant, etc. Because of its hard, durable finish, the enamel lamp can be readily cleaned and is recommended for all outside installations.

Volts	Watts	Cap	Sprayed Price	Enamel Price
240/250	15	BC or ES	3/6	3/6
240/250	25	BC or ES	3/6	3/6
240/250	40	BC or ES	3/6	3/6
240/250	60	BC or ES	3/7	
240/250	75	BC or ES	4/–	
240/250	100	BC or ES	4/1	
240/250	150	BC or ES	5/8	
240/250	200	BC or ES	8/7	

COLOURS: Red, Pink, Orange, Green, Flame, Yellow, Blue and White.

INTERNALLY COLOURED SPRAY LAMPS

The internal spraying of these lamps ensures that the colour remains permanent and therefore are recommended for outside installations.

Volts	Watts	Cap	Finish	Price
240/250	15	BC or ES	Internal Colour	3/6
240/250	25	BC or ES	Internal Colour	3/6
240/250	40	BC or ES	Internal Colour	3/6

COLOURS: Red, Blue, Green, Orange, Yellow, Ivory, Pink and Flame.

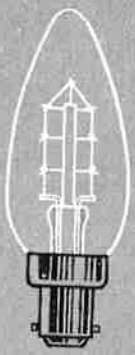
RECOMMENDED WATTAGE COMBINATIONS

Due to the different light absorption of various colours, some coloured lamps (for example, green and yellow), have a higher efficiency than other colours, particularly red and blue.

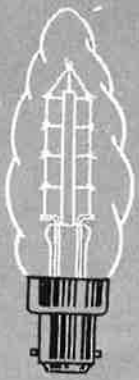
To obtain a balanced effect when using mixed colours, it is recommended that the red and blue coloured lamps be of the next highest wattage to the other colours in the scheme.

For dimensions, refer General Lighting Service, Page 4.

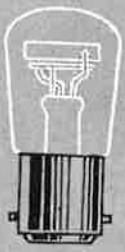
25 watt: CANDLE
extended type



25 watt: CANDLE plain



25 watt: CANDLE twisted



NEON pilot

250 watt: INFRA-RED

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INFRA-RED RADIANT HEAT LAMPS

The 250-watt infra-red industrial lamp, with internal reflector, has many applications in industry to process heating and drying.

The 250-volt reflector lamp is also used extensively for chicken brooders and pig farrowing.

The 60-watt Radiant Heat lamp is used extensively in hospitals for treatments requiring mild applications of heat.

Volts	Watts	Cap	Length mm.	Dia. mm.	Type	Price
250	60	BC	118	65	Clear	3/10
115/130 and 250	250	ES	178	126	Internal Reflector	25/–

NEON LAMPS

Neon discharge lamps are suitable for many applications where a distinctive visual indicator is required constantly with low current consumption and light output. Type "A" is ideal as a night light.

Volts	Current	Cap	Length mm.	Dia. mm.	Type	Price
200/260	0.5W	BC,SBC,ES	56	28	Pilot	7/2
200/260	5W	BC,ES	110	60	Night Light A	8/–
200/260	0.5W	SBC	54	18	Switch Indicator D	7/2
*200/260	0.5MA	SES	28	12	Switch Indicator F	7/2
*200/260	0.15MA	MCC	29	10	Switch Indicator G	7/2
*105/125	0.25MA	MCC	29	10	Switch Indicator LN1 Button Tune-on for	7/2
*200/260	0.5MA	SES	28	12	D.C. only	7/2

Types A, D, and pilot having a resistance in the cap, are suitable for direct operation on mains voltage. However, the types marked * when used on mains voltage, it is essential to use a specified value of series resistance in order to limit the operating current.

CANDLE LAMPS

Candle lamps are used extensively in contemporary and period wall brackets, pendants, etc., and are available in several shapes and finishes.

PLAIN

Volts	Watts	Cap	Length mm.	Dia. mm.	Finish	Price
32	25	BC	97	38	Pearl	4/6
32	25	SBC	97	38	Clear	4/3
32	25	SBC	97	38	Pearl	4/6
240/250	25	BC,SBC,SES	97	38	Clear	4/3
240/250	25	BC,SBC,SES	97	38	Pearl	4/6
240/250	25	SBC,SES	97	38	Colour sprayed flame	4/9
240/250	40	SBC,SES	124	45	Clear	5/3
240/250	40	SBC,SES	124	45	Obscured	5/11
240/250	60	BC	146	55	Obscured	6/8

TWISTED

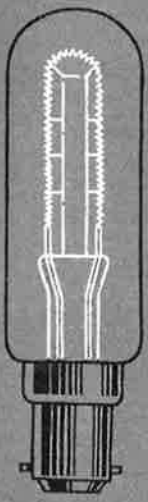
240/250	25	SBC,SES	97	38	Clear	4/10
240/250	25	SBC,SES	97	38	Pearl	5/1
240/250	25	SBC,SES	97	38	Colour sprayed flame	5/4
240/250	40	SBC,SES	126	45	Clear	6/2
240/250	40	SBC,SES	126	45	Obscured	6/11
240/250	60	BC	146	55	Obscured	8/5

TORCH

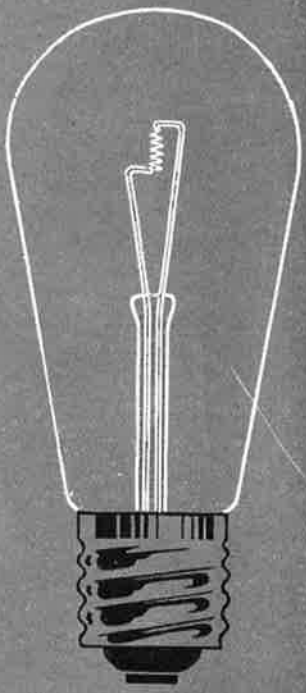
240/250	25	BC,ES	107	48	Clear	4/10
240/250	25	BC,ES	107	48	Pearl	5/1
240/250	25	BC,ES	107	48	Colour sprayed flame	5/4
240/250	40	BC,ES	107	48	Clear	5/3
240/250	40	BC,ES	107	48	Pearl	5/5
240/250	40	BC,ES	107	48	Colour sprayed flame	5/8

EXTENDED

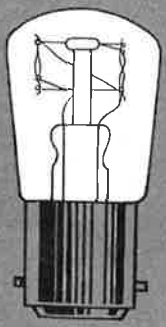
240/250	25	BC,SBC	208	35	Clear bulb opalised stem	9/4
240/250	40	BC,SBC	238	45	clear bulb opalised stem	11/8



25 watt: TUBULAR



STREET SERIES



15 watt: PILOT clear B.C.

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TUBULAR LAMPS

For use in restricted spaces such as small show-cases, edge lighting signs, etc.

Volts	Watts	Cap	Bulb	Length mm.	Dia. mm.	Clear	Pearl
110/160	15	SBC,CES	T18	63	18	**4/3**	—
220,250	25	SBC	T22	67	22	**4/6**	**4/9**
(Sewing machine type)							
240/250	15	BC	T28	72	28	**4/3**	—
24	20	BC	T28	72	28	**4/6**	—
24,32	25	BC	T28	72	28	**4/6**	—
65,110/130	25	BC,ES	T28	72	28	**4/6**	**4/9**
220/260		BC,ES					
240/250	25	SBC,SES BC,ES	T26	150	26	**4/6**	**4/9**
240/250	40	SBC,SES	T26	150	26	**5/–**	**5/3**

PILOT LAMPS

This exceptionally small lamp is specially designed for signs, illuminated score boards, totalisators, indicators, berth lights, etc.

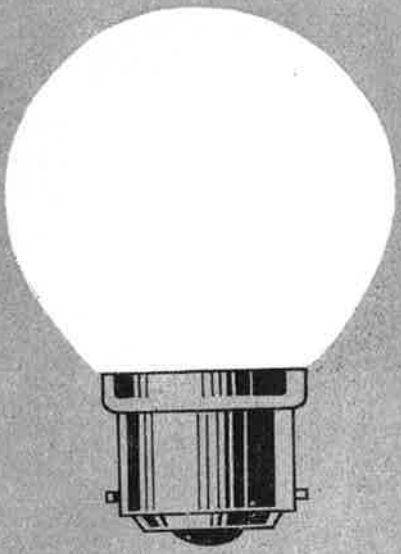
Volts	Watts	Cap	Length mm.	Dia. mm.	Finish	Shape	Price
200/260	0.5	BC,ES,SBC	BC 55	29	Neon	Normal	**7/2**
24,32,50,60	15	BC,ES,SBC	ES 58	29	Clear	Normal	**3/6**
24,32,50,60	15	BC,ES,SBC	SBC 61	29	Spd. Red	Normal	**3/10**
*24,32,50,60	15	BC,ES,SBC			Coloured	Normal	**3/10**
110/250,210/250	15	BC,ES,SBC			Clear	Normal	**2/6**
110/150,210/250	15	BC,ES,SBC			Spd. Red	Normal	**3/2**
*210/250	15	BC			Coloured	Normal	**3/2**
110/150,210/250	15	BC,ES			Pearl	Normal	**2/10**
24,32,50,60	15	BC,SBC,SES,CES	BC 49	26	Clear	Flush	**3/9**
24,32,50,60	15	BC,SBC,SES,CES	SBC 48	26	Spd. Red	Flush	**4/6**
*24,32,50,60	15	BC,SBC,SES,CES	SES 56	26	Coloured	Flush	**4/6**
*110/160,210/250	15	BC,SBC,SES,CES	CES 50	26	Clear	Flush	**3/9**
110/160,210/250	15	BC,SBC,SES,CES			Spd. Red	Flush	**4/6**
110/160,210/250	15	BC,SBC,SES,CES			Pearl	Flush	**4/1**
*110/160,210/250	15	BC,SBC,SES,CES			Coloured	Flush	**4/6**
240/250	25	BC,ES,	55	29	Clear	Normal	**3/–**
240/250	25	SBC,SES	61	29	Clear	Normal	**3/6**
250	25	SBC	55	29	Vacuum Cleaner	Normal	**4/9**

* This lamp is available colour sprayed in the following additional colours: Orange, Yellow, Green, Blue, Flame and Pink.

STREET SERIES LAMPS

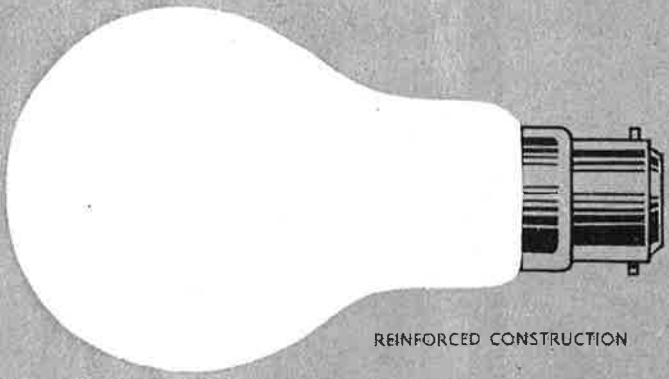
For constant current series burning street lighting installations.

Amps.	C.P.	Lumens	Length mm.	Dia. mm.	Light Centre Length mm.	Cap	Clear
6.6	50	500	176	77	137	GES	**6/–**
6.6	60	600	176	77	137	GES	**6/–**
6.6	80	800	176	77	137	GES	**6/–**
6.6	100	1000	176	77	137	GES	**6/–**
6.6	150	1500	233	110	178	GES	**10/6**
6.6	250	2500	233	110	178	GES	**10/6**
6.6	400	4000	233	110	178	GES	**14/3**
6.6	600	6000	233	110	178	GES	**17/6**
6.6	1000	10000	243	130	178	GES	**27/3**
20	1000	10000	243	130	178	GES	**24/6**

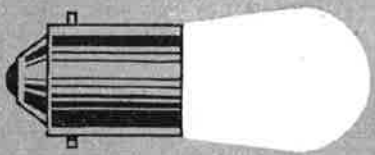


40 watt: ROUND BULB

15 watt: SIGN



REINFORCED CONSTRUCTION



KRYPTON MINERS

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SIGN LAMPS

A lamp of small dimensions used extensively in advertising signs.

Volts	Watts	Cap	Length mm.	Dia. mm.	Clear	Daylight	Natural Colour	Int. Spd.
60	5	ES	90	45	**3/10**			
60	10	ES	90	45	**3/10**			
120	10	ES	90	45	**3/9**	On application		
160	15	ES	90	45	**3/9**			
220/250	15	BC or ES	90	45	**3/9**			**5/3**

INTERNALLY COLOURED. The internal spraying of these lamps ensures that the colour remains permanent, and will not crack or deteriorate when exposed to the weather. Standard Colours: Red, Blue, Orange, Green, Yellow and White.

FANCY ROUND BULB LAMPS

For use in contemporary wall brackets, bed lamps, etc., where a decorative lamp smaller than the standard gas-filled lamp is required.

Volts	Watts	Cap	Length	Dia.	Clear	Pearl
110/160 210/250	15	BC,ES	62	40	4/–	**4/3**
32	25	BC	67	45	—	**4/3**
110/130	25	BC,ES				
220/260		SBC,SES	67	45	**4/–**	**4/3**
210/260	40	BC,ES SBC,SES	73	50	**4/3**	**4/6**

REINFORCED CONSTRUCTION LAMPS

In position where there is considerable vibrations, or where the lamp is subject to mechanical shock (such as in workshops' inspection lamp), the OSRAM reinforced construction lamp, which has a very robust filament should be employed.

Volts	Watts	Cap	Length mm.	Dia. mm.	Finish	Price
32	40	BC,ES	110	65	Clear or Pearl	**3/–**
32	60	BC,ES	110	65	Clear or Pearl	**3/6**
110/120,240/260	25	BC,ES	100	60	Clear or Pearl	**3/–**
110/120,210/260	40	BC,ES	110	65	Clear or Pearl	**2/8**
110/120,210/260	60	BC,ES	110	65	Clear or Pearl	**2/9**
240/250	100	BC,ES	125	68	Clear or Pearl	**4/–**
260	100	BC,ES	125	68	Clear or Pearl	**4/8**

MINERS' LAMPS KRYPTON FILLED

By using Krypton gas the energy loss through convection is reduced, allowing the filament to run at a higher temperature without loss of life, resulting in 20% more light being produced for the same expenditure of energy.

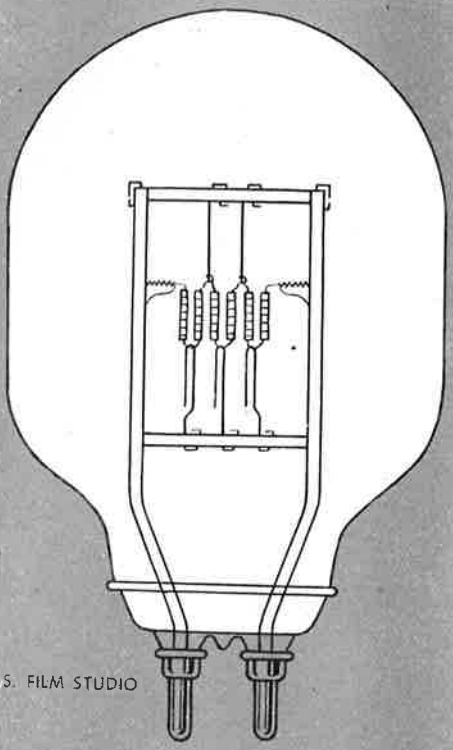
Fully tested, approved and certified by the Ministry of Fuel and Power, each lamp bears the official M.F.P. stamp.

Volts	Amps	Cap	Length mm.	Dia. mm.	Finish	Price
3.6	1.0 .	MES	30.5	18	Clear	**3/11**
3.75	1.0 & 1.0	SBC	40	18	Clear	**4/6**

MINERS' LAMPS

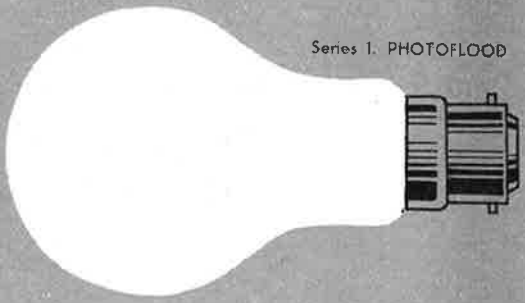
For miners' hand lamps and cap lamps.

Volts	Amps	Cap	Length mm.	Dia. mm.	Finish	Price
2.5	1 & .75 (twin filament)	ASBC	49	25	Clear	**3/7**



Class S. FILM STUDIO

Series 1. PHOTOFLOOD



OPAL TUBULAR

Osram

Osram

PHOTO FLOOD LAMPS

The filaments of these lamps run at an extremely high temperature, which results in the production of a light, especially suitable for indoor photography.

The life of these lamps can be materially extended if two or more are connected in series while the lighting is being set up, and are only switched in parallel when the photograph is being taken.

Volts	Watts	Cap	Nominal Efficiency L/W	Length mm.	Dia. mm.	Finish	Life Hours	Price
Series 1.								
240/250	275	BC,ES	29	110	60	Pearl	2	**4/11**
Series 2.								
240/250	500	BC,ES	30	160	80	Pearl	10	**12/1**

PHOTOGRAPHIC LAMPS

Designed primarily for the professional photographer, for whom their long life is a considerable advantage.

The colour temperature (3150°K) of these lamps makes them suitable for nearly all colour films balanced for artificial light.

Series B.

Volts	Watts	Cap	Nominal Efficiency L/W	Length mm.	Dia. mm.	Finish	Life Hours	Price
240/250	500	ES,GES	21	178	90	Pearl	100	**24/5**

PHOTO-ENLARGER HIGH INTENSITY

150W filament enclosed in a 60W bulb and coated internally with silica to ensure even light distribution over the whole bulb surface.

Volts	Watts	Cap	Length mm.	Dia. mm.	Life Hours	Price
240/250	150	BC,ES	117	65	100	**8/-**

FILM STUDIO CLASS S

For studio lighting, large spots and floods. Any burning position within 90° of vertical cap down (see Page 21).

Cat. No.	Volts	Watts	Cap Medium	Length mm.	Dia. mm.	LCL mm.	*Fil.	Life Hours	Price
S/6	230	750	**Bipost**	165	63	64	—	100	**90/-**
S/4	115,210/250	1000	**Bipost**	232	153	129	A8	100	**122/2**
S/1	210/250	2000	**Bipost**	232	153	127	B8	100	**172/6**
S/5	230/250	2000	**GES**	220	150	134	A5	100	**172/6**
S/2	230/250	5000	Bipost	335	203	165	A5	100	**434/-**

* (See Page 20 for standard filaments).

STUDIO LAMPS CONTROLLED COLOUR TEMPERATURE

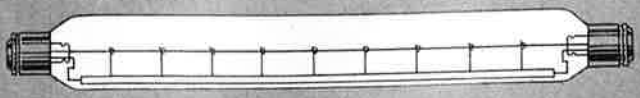
These lamps are designed to have an initial colour temperature of 3250°K and are for use with colour film balanced at 3200°K

Information available on request.

OPAL TUBULAR LAMPS

Because of the opal glass, this lamp gives a very soft, pleasant light and is suited to modern bedlamps and decorative brackets.

Volts	Watts	Cap	Length mm.	Dia. mm.	Price
240/250	40	BC,ES	300	38	**12/4**



30 watt: STRIPLITE

75 watt: SPOTLIGHT REFLECTOR

35 watt: ARCHITECTURAL

DECORATION OUTFIT

Osram

Osram

ARCHITECTURAL LAMPS

A white opal glass lamp giving a soft, pleasant light, very suitable for bedheads, dressing table and bathroom mirrors, cocktail cabinets, etc.

Volts	Watts	Cap	Length mm.	Dia. mm.	Dist. Between Peg Caps mm.	Price
240/250	35	Round Peg	305	30	229	**20/10**
240/250	60	Round Peg	500	30	424	**34/–**
240/250	75	Round Peg	610	30	534	**37/5**
240/250	110	Round Peg	915	30	839	**52/8**
240/250	150	Round Peg	1220	30	1144	**61/6**

Holders: Special Bakelite Holders for above, Black **4/6**, Cream **5/3.**

SPOTLIGHT AND FLOODLIGHT REFLECTOR LAMPS

The reflector spotlight, with its concentrated beam, is ideal for highlighting individual items of display, etc.

The reflector floodlight provides a broad beam of light to illuminate relatively large areas.

Volts	Watts	Cap	Length mm.	Dia. mm.	Type	Price
240/250	75	BC, ES	129	95	Spotlight	**14/5**
240/250	100	BC, ES	129	95	Spotlight	**16/9**
240/250	150	BC, ES	178	126	Spotlight	**22/2**
240/250	150	BC, ES	178	126	Floodlight	**22/2**

NAVIGATION LAMPS

Specially designed lamp with a drawn wire squirrel cage filament for ships' navigation lights and optical instruments. The indicator is used in series with the navigation lights.

Volts	Watts	Cap	Length mm.	Dia. mm.	Finish	Type	Price
110,250	60	BC	137	63	Clear	Navigation	**5/11**
110,250	40	BC	122	57	Clear	Navigation	**5/11**
12	2.2	SBC	30	15	Clear	Indicator	**1/5**

STRIPLITE LAMPS

Double ended lamps lighted uniformly throughout their length and suitable for concealed installations such as show cases, cornices, etc.

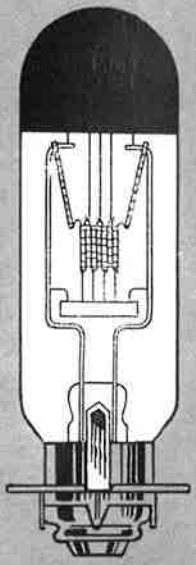
Volts	Watts	Cap	Length mm.	Dia. mm.	Finish	Price
110/120,240/250	30	SCC	221	25	Clear	**8/6**
110/120,240/250	30	SCC	284	25	Clear	**8/6**
110/120,240/250	60	SCC	284	25	Clear	**9/1**
240/250	60	Solid	308	38	Clear	**9/1**

Holders: Single centre contact, Bakelite **2/1**; Solid cap, Porcelain, **5/6.**

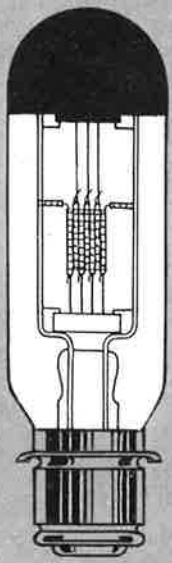
DECORATION OUTFITS

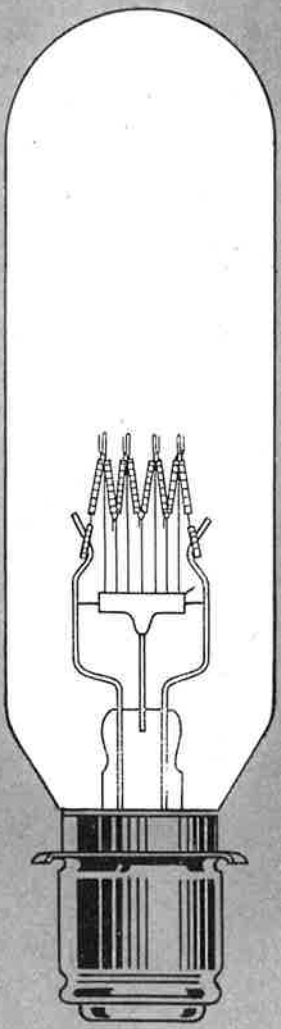
Fully approved by Electricity Authorities, these outfits are specially attractive for all indoor decorations, parties and celebrations. Each outfit comprising 12 lamps in series complete with flex, holders, spare lamp and adaptor.

Cat./Approval No.	Volts	Watts	Cap	Length mm.	Dia. mm.	Type	Price
N/82011	200/250	36	MES	12 feet		Standard	**49/6**
N/82102	200/250	36	MES	12 feet		Party lights with illustrated bell shades	**55/–**
Spare Lamps							
OS 2018	20	3	MES	27	15	Clear, round	**1/6**
OS 2010	20	3	MES	50	18	Olive shaped, assorted colours	**1/6**



Class A1 **PROJECTOR**





Osram

PROJECTOR LAMPS

Osram projector lamps are manufactured to the highly exacting specification necessary to ensure that they are consistent and reliable light sources for projecting films and slides, lighting studios and theatre stages and providing ground approach aids for aircraft.

Class A1, Tubular Recommended Burning Position (See Page 21).

Cat. No.	Volts	Watts	Cap	Length mm.	Dia. mm.	Light Centre Length mm.	‡Filament	Life Hours	Price
	200/250	250	Prefocus	133	64	55.5	B8	50	**28/–**
	200/250	250	ES	133	64	75	B8	50	**27/–**
A1/8	100/115, 200/250	500	Prefocus	133	64	55.5	F3 C4	50	**34/–**
A1/42	100/115, 200/250	500	ES	133	64	75	F3 C4	50	**34/–**
A1/43	200/250	500	GES	133	64	90	C4	50	**36/3**
A1/111	30	900	GES	230	64	120	E4	50	**74/6**
A1/10	30	900	Giant Prefocus	230	64	84	E4	50	**74/6**
A1/57	100/115, 200/250	1000	GES	230	64	120	A6 D4 A6	50	**56/9**
A1/11	100/115, 200/250	1000	Giant Prefocus	230	64	84	D4 E8	50	**56/9**
*A1/58	100/115 200/250	1000	Prefocus	133	64	55.5	E12	25	**65/–**
A1/72	20	10	Pathe	57	15		HS/C	100	**6/4**
A1/1	50	25	ASCC	57	16	29	Hc/c	50	**7/9**
A1/2	100/115	50	ASCC	76	25	34.5	F2	50	**12/6**
A1/21	12	100	SCC	76	25	34.5	A2	50	**19/6**
A1/156	12	100	Pathe	85	25	30	A2	25	**20/–**
A1/23	12	100	ES	128	25	75	A2	50	**19/6**
A1/4	12	100	Prefocus	133	25	55.5	A2	50	**19/6**
A1/3	30	100	Prefocus	133	25	55.5	A4	50	**19/6**
	30	100	ES	128	25	75	A4	50	**21/5**
A1/79	80	100	Pathe	95	25	33	F2	50	**21/6**
A1/21	100/115, 200/250	100	ASCC	76	25	34.5	F3 F4	50	**18/–**
A1/23	100/115, 200/250	100	ES	128	25	75	F3 B8	50	**19/6**
A1/4	100/115, 200/250	100	Prefocus	133	25	55.5	F3 B8	50	**19/6**
A1/167	100/115, 200/250	150	ASCC	76	25	34.5	F3 F4	50	**18/6**
A1/175	240/250	150	Prefocus	133	25	55.5	F4	50	**22/9**
A1/81	110	200	Pathe	133	32	55.5	F2	25	**28/9**
A1/13	50	200	Prefocus	133	32	55.5	A3	50	**27/–**
**A1/26	100/115	200	SCC	87	25	34.5	F2	25	**25/–**
A1/14	50	250	ES	128	32	75	A4	50	**30/3**
A1/5	50	250	Prefocus	133	32	55.5	A4	50	**30/3**
A1/14	100/130, 200/250	250	ES	128	32	75	F2 B8	50	**27/–**
A1/5	100/130, 200/250	250	Prefocus	133	32	55.5	F2 B8	50	**28/–**
*A1/37	100/115	300	SCC	100	25	34.5	F2	25	**30/6**
A1/34	210/250	300	SCC	100	27	34.5	B4	25	**30/6**
*A1/6	100/115	300	Prefocus	133	32	55.5	F2	25	**31/6**
A1/154	200/250	300	Prefocus	133	32	55.5	F4	50	**31/6**
*A1/87	100/115	400	Bell & Howell (BH38)	128	32	59	E8	25	**40/6**
*A1/159	100/115	400	Bell & Howell (BH46)	128	32	59	E8	25	**40/6**
*A1/39	100/115	400	Prefocus	133	32	55.5	E8	25	**37/–**
*A1/47	100/115	500	Bell & Howell (BH38)	128	32	59	E8	25	**44/–**
*A1/47	200/250	500	Bell & Howell (BH38)	128	32	59	E12	25	**49/6**
*A1/160	100/115	500	Bell & Howell (BH46)	128	32	59	E8	25	**44/–**
*A1/160	200/250	500	Bell & Howell (BH46)	128	32	59	E12	25	**49/6**

‡ See Page 20 for standard filaments.

PROJECTOR LAMPS (Continued)

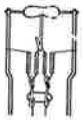
*A1/7	100/115	500	Prefocus	133	32	55.5	E8	25	**39/6**
*A1/7	200/250	500	Prefocus	133	32	55.5	E12	25	**45/–**
*A1/53	100/115	750	Bell & Howell (BH46)	128	38	59	E8	25	**51/6**
*A1/53	200/250	750	Bell & Howell (BH46)	128	38	59	E12	25	**58/6**
*A1/9	100/115	750	Prefocus	133	38	55.5	E8	25	**47/3**
*A1/9	200/250	750	Prefocus	133	38	55.5	E12	25	**53/9**
*A1/59	100/115	1000	Prefocus	133	38	55.5	E8	25	**52/6**
*A1/91	100/115	1000	Bell & Howell (BH46)	128	38	59	E8	25	**59/–**

Holders: Porcelain prefocus. **12/–**

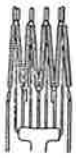
* Forced cooling necessary so that bulb walls do not exceed 500°C.

** Forced cooling necessary so that bulb walls do not exceed 400°C.

All lamps with the exception of A1/1, A1/8, A1/9, A1/42, A1/43, A1/53, A1/59, A1/91, are fitted with aluminium crown caps, eliminating the necessity to spray the crown black.

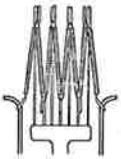


A.—Single coil flat Grid parallel

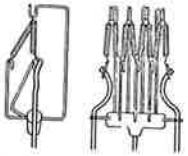


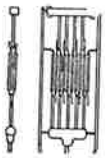
B.—Single coil flat Grid Vee

C.—Single coil. 4 Vee 3 staggered



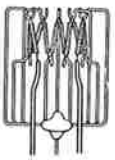
D.—Single coil. Vee. 2 staggered



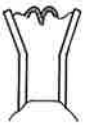


E.—Single coil Biplane

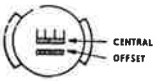
F.—Coiled coil flat Grid



G.—Bunch



H.—Coiled coil. H.—Single coil



Relation of filament and supports to large flange of P28/25 cap

Relation of filament to cap pins

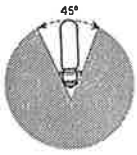
Relation of filament to pre-focus slots on cap disc

STANDARD FILAMENTS

The above drawings illustrate the standard filaments used in Osram projector lamps. On the appropriate pages of this catalogue the type of filament is indicated by an initial letter followed by a figure which represents the number of filament sections, e.g. filament shape A4 is a type A filament having 4 sections.

RECOMMENDED BURNING POSITION OF OSRAM PROJECTOR LAMPS

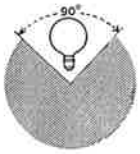
The shaded portions of these diagrams show the positions in which the lamps **must not** be mounted.



Class A1

Class B1

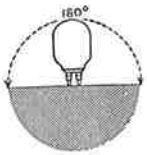
Class B2
Designed for burning in any position



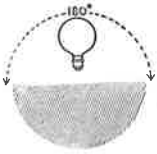
Class E

Class F

Class G



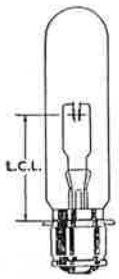
Class S



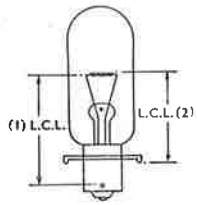
Class T

ACCURACY OF PREFOCUSING

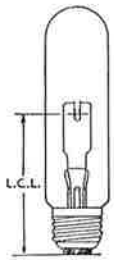
It is the practice to fit medium prefocus caps to Class A1 projector lamps of the standard types from 100W to 750W size. This ensures that no re-alignment of the optical system is necessary when a new lamp is fitted into a projector. All Osram projector lamps that are fitted with P15, P28, P40, 3 Fin, 3 Pin and BH caps are prefocused by hand in a special jig to ensure that the centre of the filament lies within 0.5 mm. of the axis of the cap and also within plus or minus 0.5 mm. of the objective light centre length (see diagrams below for points between which the light centre length is measured).



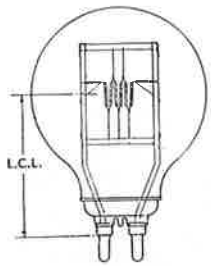
Prefocus cap
(P25/25 and P40/41)



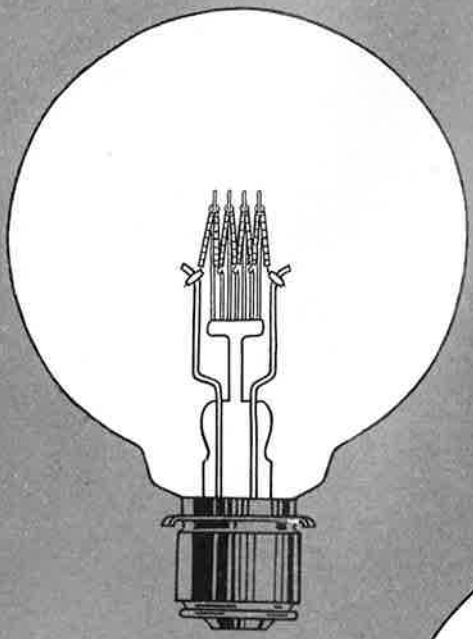
(1) Small bayonet (B15) cap
(2) Prefocus ring (P15) cap



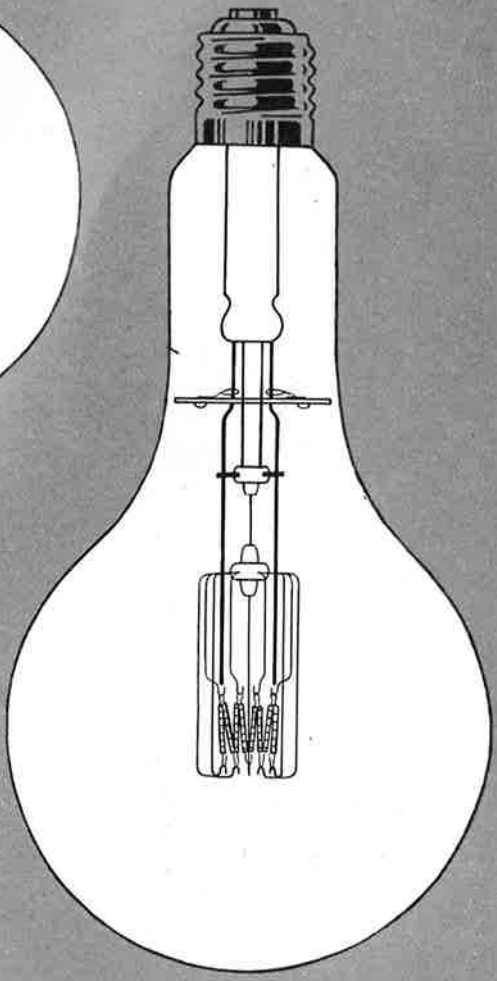
G.E.S., E.S. and S.E.S. cap
(E40/45, E27/25 and E14/23)



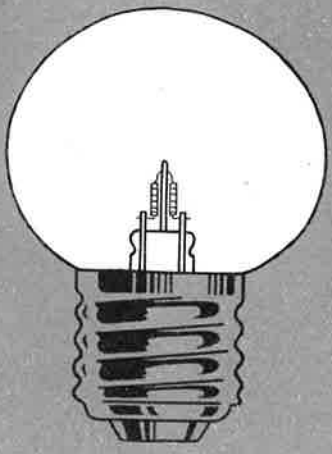
Bipost base



Class E. EPIDIASCOPE



Class B2. FLOODLIGHT



Class F. PROJECTOR

Osram

Osram

FLOODLIGHT LAMPS CLASS B1

These are suitable for floodlighting and projecting a wide beam of light, and also for types of theatre spotlights in which ability to withstand rough usage is more important than high optical efficiency.*

Volts	Watts	Cap	Length	Dia.	Light Centre Length	‡Filament	Type	Life Hours	Price
			mm.	mm.	mm.				
110/120, 230/260	250	ES	121	90	76	G8 G10	Round	800	26/-
110/120, 220/260	500	GES	168	120	108	G10 G10	Round	800	38/3
110/120, 220/260	500	ES	168	120	108	G10 G10	Round	800	42/-
110 220/250	1000	GES	176	130	108	G10 G10	Round	800	60/-

FLOODLIGHT LAMPS CLASS B2*

Volts	Watts	Cap	Length	Dia.	Light Centre Length	Filament	Type	Life Hours	Price
			mm.	mm.	mm.				
200/250	1000	GES	300	150	225	G10	Round	800	60/-
200/250	1500	GES	335	170	250	G10	w/neck	800	93/-

EPIDIASCOPE LAMPS CLASS E

This class is specially designed for Epidiascope apparatus. It is also suitable for spotlight and shop window projectors which have to be rotated through wide angles.*

Cat. No.	Volts	Watts	Cap	Length	Dia.	Light Centre Length	Filament	Life Hours	Price
				mm.	mm.	mm.			
E/3	240/250	500	ES	135	100	85	C8	100	42/9
E/1	240/250	500	Prefocus	135	100	60	C8	100	42/9

PROJECTOR LAMPS CLASS F

Small dimensions and intense concentrated light combined to produce a lamp very suitable for micro projectors and micro illumination.*

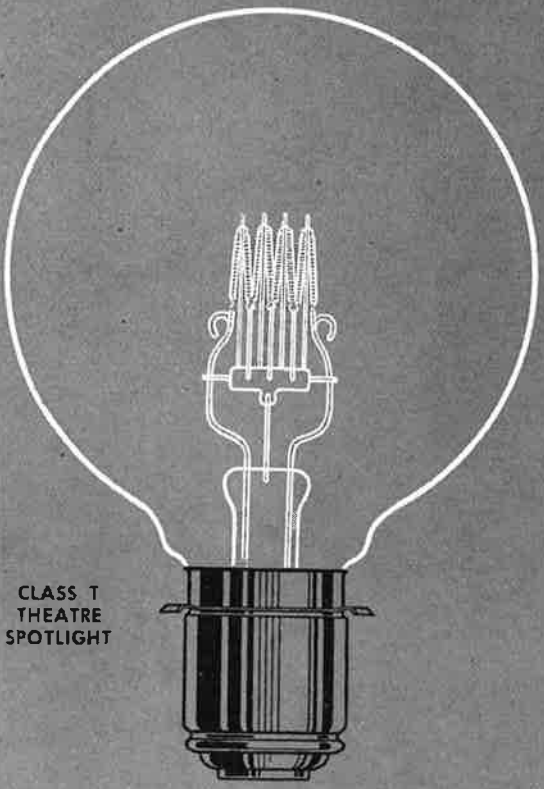
Cat. No.	Volts	Watts	Cap	Length	Dia.	Light Centre Length	‡Filament	Life Hours	Price
				mm.	mm.	mm.			
	6	24	SBC	60	38	44	Hs/c	100	7/2
F/10	6	24	SES	60	38	50	Hs/c	100	8/3
F/1	6	30	SES	57	35	47	Hs/c	25	8/3
F/23	6	30	ES	63	35	53	Hs/c	200	7/2
	6	30	SBC	57	35	40	Hs/c	100	11/9
F/2	6	48	SBC	60	35	40	Hs/c	100	11/9
F/7	8	48	SES	60	40	41	Hs/c	100	11/9
F/8	12	12	SBC	57	35	40	Hs/c	100	7/2
F/10	12	24	SES	60	38	50	Hs/c	100	8/3
F/3	12	24	SBC	60	38	44	Hs/c	100	7/2
F/4	12	48	SES	70	50	40	A2	100	11/9
F/13	12	48	ES	68	50	38	A2	100	9/7
F/14	12	100	ES	85	60	55	Hc/c	100	18/3
F/5	18	9	MES	36	18	25	Axial	100	6/2

THEATRE AND AERODROME FLOODLIGHTS CLASS FL—Horizontal Burning

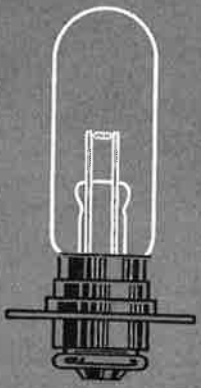
These lamps have filaments of line construction for use in special fittings. The resulting beam is of very narrow vertical divergence and a large horizontal spread and has many uses in theatre and floodlight schemes.

Cat. No.	Volts	Watts	Cap	Length mm.	Dia. mm.	Filament	Life Hours	Price
FL/1	240/250	500	GES	355	90	Axial	1000	61/9
FL/2	240/250	1000	GES	390	90	Axial	1000	73/9
	240/250	1000	and centralising Giant Prefocus	390	90	Axial	1000	80/3

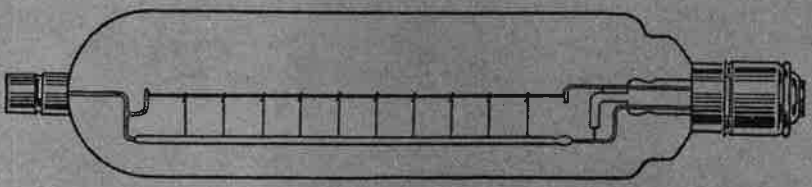
* For recommended burning positions, see Page 21.
‡ See Page 20 for standard filaments.



CLASS T
THEATRE
SPOTLIGHT



CLASS G EXCITER



CLASS FL FLOODLIGHT

Osram

Osram

EXCITER LAMPS CLASS G

These lamps are intended for use in conjunction with photo electric cells for sound reproduction and similar purposes.*

Cat. No.	Volts	Amps	Cap	Length	dia.	Light Centre Length	‡Filament	Life Hours	Price
				mm.	mm.	mm.			
G/2	4	.75	SCC	48	25	32	Hs/c	50	**9/4**
G/19	4	.75	SCC	48	15.5	32	Hs/c	50	**9/4**
G/22	4	6	SCC	48	25	32	Hs/c	100	**9/4**
G/4	6	1	SCC	40	18	21.5	A1 axial	100	**9/4**
G/30	6	5	SCC	53	18	28	Hs/c	100	**9/4**
G/8	8	4	SCC	75	25	44	Hs/c	100	**9/4**
G/9	8.5	4	SCC	75	25	44	Hs/c	100	**9/4**
G/11	10	5	SCC	75	25	41	Hs/c	100	**9/4**
G/12	10	5	SCC	75	25	44	Hs/c	100	**9/4**
G/14	10	7.5	SCC	75	25	41	Hs/c	100	**9/4**
G/16	27	1	SCC	75	25	41	Hs/c	100	**9/4**
G/1	4	.75	Prefocus	48	25	28.5	Hs/c	50	**10/5**
G/29	4	.75	Prefocus	57	16	28.5	Hs/c	50	**10/5**
G/23	5	6.5	Prefocus	75	25	41	A1 axial	50	**10/5**
G/5	6	1	Prefocus	57	16	28.5	A1 axial	100	**10/5**
G/7	8	4	Prefocus	75	25	37.3	Hs/c	100	**10/5**
G/10	10	5	Prefocus	75	25	37.3	Hs/c	100	**10/5**
G/13	10	7.5	Prefocus	75	25	37.3	Hs/c	100	**10/5**

FILM VIEWER INDICATORS

Volts	Watts	Cap	Finish	Length mm.	Dia. mm.	Price
120	6	CES	Clear	44	17	**5/10**
120	10	CES	Clear	44	17	**5/10**

UNDERWATER FLOODLIGHT

A specially designed lamp to provide light for underwater television etc., at depths of approximately 1,500 ft., which can be exposed to water while alight with only a simple reflector for mechanical protection.

Volts	Watts	Cap	Length	Dia.	Light Centre Length	Filament	Life Hours	Price
			mm.	mm.	mm.			
110,230	1000	ES	179	100	129	Grid	50	**60/–**

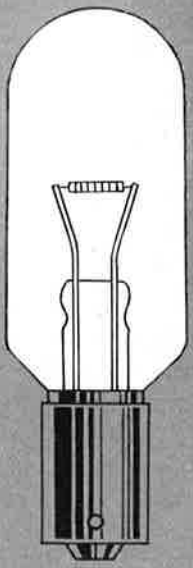
THEATRE SPOTLIGHTS CLASS T

Round bulb lamps, ideally suited to stage lighting for use in conjunction with "strand" theatre spotlight lanterns.*

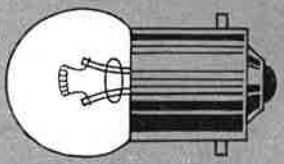
Cat. No.	Volts	Watts	Cap	Length	Dia.	Light Centre Length	‡Filament	Life Hours	Price
				mm.	mm.	mm.			
T/1	240/250	500	Prefocus	130	95	55.5	C8	200	**42/9**
T/2	240/250	1000	Giant Prefocus	190	130	84	D8	200	**71/–**
T/3	240/250	250	Prefocus	119	76	55.5	C8	200	**27/6**

* For recommended burning positions, see Page 21.
‡ See Page 20 for standard filaments.

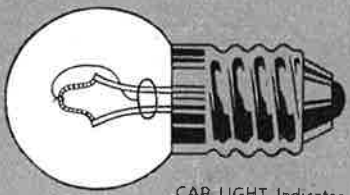
RADIATOR (carbon filament)



Class G EXCITER



TROLLEY BUS Indicator



CAB LIGHT Indicator

Osram

Osram

TRAIN LIGHTING

These lamps are of small dimensions with or without neck in a variety of ratings to suit the specialised requirements of railway authorities. Full information regarding voltages and wattages available on request.

CABLIGHTS

Reinforced construction lamps designed to withstand vibration when used on locomotives. Details of ratings available on request.

CABLIGHT INDICATORS

Volts	Watts	Cap	Length mm.	Dia. mm.	Filament	Finish	Price
32	6	MES	27.5	15	Centre Support	Clear	**3/11**

TRACTION

Traction lamps are specially designed to withstand the voltage fluctuations, rough usage, vibrations and other severe conditions met with in traction service. Information regarding the comprehensive range of lamps of this type is available on request.

LOCO HEADLIGHTS

A round bulb lamp without neck, designed for headlights on locomotives. Because of its concentrated filament, this lamp can also be used for low voltage floodlighting.

Volts	Watts	Cap	Length mm.	Dia. mm.	Light Centre Length mm.	Filament	Life Hours	Price
16,24,32,110	100	ES	116	80	76	Bunch	500	**10/6**
24,32,115	150	ES	116	80	76	Bunch	500	**15/3**
24,32	250	ES	116	80	76	Bunch	500	**18/6**
115	250	ES	116	80	76	Bunch	500	**25/–**

TROLLEY BUS LAMPS

INDICATOR

Volts	Watts	Cap	Length mm.	Dia. mm.	Finish	Price
35	6	SBC,SCC	37	22	Clear	**4/3**

ROBERTSON CARBON FILAMENT HEATER LAMPS

These lamps are particularly suitable as resistors or for mild applications of heat. May also be recommended for lead lights where light output is not important.

Volts	Watts	Cap	Length mm.	Dia. mm.	Finish	Price
100/250	65 (16 C.P.)	BC,ES	110	60	Clear	**7/11**
100/250	130 (32 C.P.)	BC,ES	118	65	Clear	**8/2**
100/250	200 (50 C.P.)	BC,ES	125	70	Clear	**9/8**

RADIATOR LAMPS

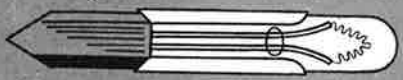
For use in certain types of radiators.

Volts	Watts	Cap	Length mm.	Dia. mm.	Finish	Price
110/250	250	BC	285	57	Flame sprayed	**39/11**

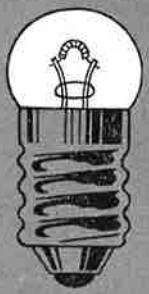
RESISTOR LAMPS

A carbon filament lamp specially designed as a resistance.

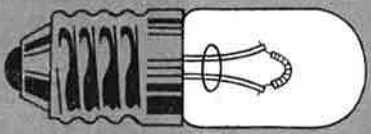
Cat. No.	Volts	Watts	Cap	Resistance	Price
5/L/18	240	250	Double ended	300 ohm	31/6



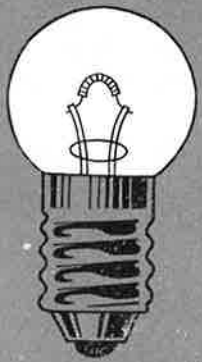
No. 2 TELEPHONE



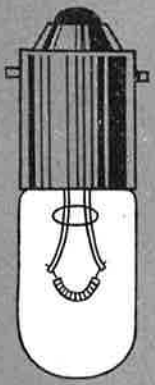
11 m.m. ROUND BULB
M.E.S. cap



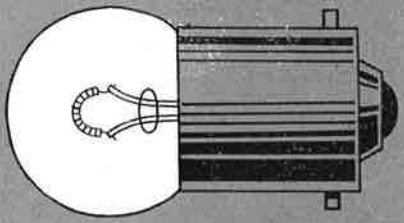
TUBULAR M.E.S. cap



15 m.m. ROUND BULB
M.E.S. cap



TUBULAR M.C.C. cap



cycle dynamo HEADLIGHT

Osram

Osram

FLASHLIGHT LAMPS

For focussing model torches, cycle and hand lamps. (Packed in boxes of 10).

Cat. No.	Volts	Amps	Cap	Length mm.	Dia. mm.	Bulb Shape	Price per Lamp	Nett Price Quantities of 100 ‡
**OS71	1.5	.2	MES	23	11	Round	7d.	31/2
OS99	2.2	.25	MES	24	10	Lens end	1/3	60/3
*OS43	2.5	.2	MES	23	11	Round	7d.	31/2
OS67	2.5	.3	Prefocus	31	12	Round	1/–	54/3
OS45	2.5	.3	MES	23	11	Round	7d.	31/2
*OS50	3.5	.15	MES	23	11	Round	7d.	31/2
OS52	3.8	.3	MES	23	11	Round	7d.	31/2
OS65	4.5	.3	MES	27.5	15	Round	7d.	31/2
OS69	5.0	.15	MES	27.5	15	Round	9d.	35/9
OS70	6.2	.3	MES	27.5	15	Round	9d.	35/9
OS75	6.5	.3	MES	23	11	Round	9d.	35/9

* For car ignition warning lights in series with a resistance. ** Used as a cycle rear lamp.

CYCLE DYNAMO LAMPS

The granulated finish smoothes out the striations in the beam, giving a more uniform light.

Cat. No.	Volts	Amps	Cap	Length mm.	Dia. mm.	Finish	Price per lamp	Nett price quantities of 100
HEADLIGHTS								
979	6	0.3	SCC	32.5	18	Clear	1/6	82/7
980	6	0.5	SCC	32.5	18	Clear	1/6	82/7
0S200	6	0.3	MES	28.5	15	Clear or granulated	1/–	46/10
	6	0.45	MES	28.5	15	Clear or granulated	1/–	46/10
997	6	0.5	MES	28.5	15	Clear or granulated	1/–	46/10
TAIL LIGHTS								
991	6	0.04	MES	23	11	Clear	1/–	46/10

TELEPHONE SWITCHBOARD LAMPS

For telephone switchboards and lift indicators.

Volts	Amps Min.	Amps Max.	Length mm.	Dia. mm.	Filament	Type	Nett price quantities of 100
4	.230	.270	45	6.5	Metal	No. 2	166/8
6	.037	.043	45	6.5	Metal	No. 2	210/5
12	.093	.108	45	6.5	Metal	No. 2	210/5
17	.041	.055	45	6.5	Metal	No. 2	210/5
24	.093	.108	45	6.5	Metal	No. 2	210/5
40	.06	.076	45	6.5	Carbon	No. 2	210/5
50	.093	.12	45	6.5	Carbon	No. 2	210/5
60	.057	.063	45	6.5	Metal	No. 2	210/5

TUBULAR RADIO PANEL LAMPS

Used for illuminating radio dials, panels, indicators, etc. (Packed in boxes of 10).

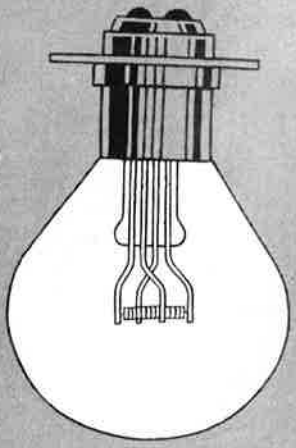
Cat. No.	Volts	Amps	Cap	Length mm.	Dia. mm.	Nett Prices — 1 Order, Quantities under 100	Quantities 100-999	1 Delivery Quantities 1000-4999 ‡
	4	0.3	MES,MCC	28.5	10	59/9 100	57/4 100	51/4 100
OS85	6.2	0.3	MES,MCC	28.5	10	59/9 100	57/4 100	51/4 100
	6.3	0.15	MES,MCC	28.5	10	59/9 100	57/4 100	51/4 100
OS90	6.5	0.3	MES,MCC	28.5	10	59/9 100	57/4 100	51/4 100

ROUND BULB RADIO PANEL LAMPS

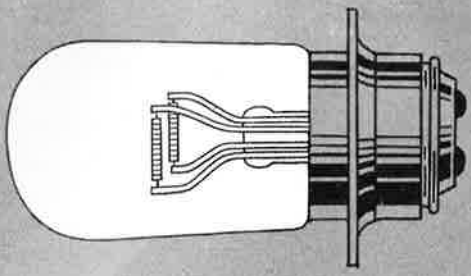
(Packed in boxes of 10).

Cat. No.	Volts	Amps	Cap	Length mm.	Dia mm.	Nett Prices — 1 Order, Quantities under 100	Quantieis 100-999	1 Delivery Quantities 1000-4999 ‡
OS64	6	0.04	MES,MCC	23	11	81/11 100	73/9 100	64/4 100
OS66	6	0.06	MES,MCC	23	11	81/11 100	73/9 100	64/4 100
OS76	6.3	0.11	MES,MCC	23	11	59/9 100	57/4 100	51/4 100
	6.3	0.15	MES,MCC	23	11	59/9 100	57/4 100	51/4 100
OS75	6.5	0.3	MES,MCC	23	11	59/9 100	57/4 100	51/4 100

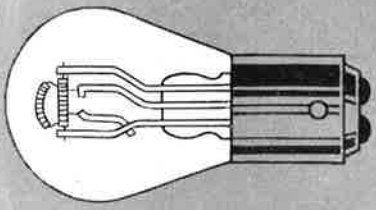
‡ Prices for larger quantities on application.



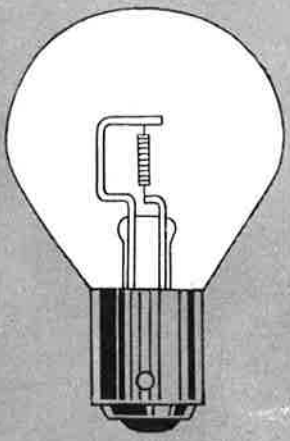
American PREFOCUS



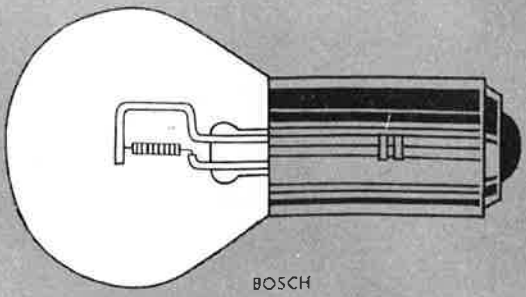
British PREFOCUS



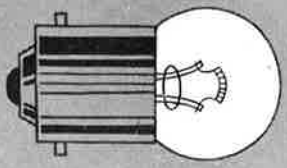
STOP and TAIL



Single FILAMENT



BOSCH



SIDE or TAIL

Osram

Osram

AUTOMOBILE LAMPS—NUMERICAL INDEX

Cat. No.	Description of Lamp
1	12 V 24 W S.C.C. Head
2	12 V 36 W S.C.C. Head
4	12 V 24 W S.B.C. Head
5	12 V 36 W S.B.C. Head
23	12 V 43 W S.C.C. Head
26	12 V 60 W S.B.C. Head
27	12 V 48 W S.B.C. Head
57	12 V 36 W S.C.C. Head
87	12 V 60 W Bosch S.C. Head
90	12 V 60 W S.C.C. Head
96	12 V 48 W Bosch S.C. Head
106	6 V 24 W S.C.C. Head
108	6 V 36 W S.C.C. Head
109	6 V 24 W S.B.C. Head
111	6 V 36 W S.B.C. Head
123	24 V 36 W S.B.C. Head
124	24 V 60 W S.C.C. Head
127	24 V 60 W B.C. Head
128	24 V 60 W S.B.C. Head
130	6 V 36 W Bosch S.C. Head
131	24 V 60 W Bosch D.C. Head
140	24 V 48 W S.B.C. Head
149	24 V 6 W S.C.C. Side
150	24 V 6 W S.B.C. Side
162	12 V 36 W B.P.F. (S.C.) Head
166	6 V 24/24 W B.P.F. (D.C.) Head
168	6 V 24/24 W S.B.C. Head
169	6 V 30/30 W S.B.C. Head
170	6 V 36/36 W S.B.C. Head
171	12 V 36/36 W S.B.C. Head
172	6 V 36 W B.P.F. (S.C.) Head
173	6 V 36 W B.P.F. (S.C.) Spot
180	6 V 18/18 W S.B.C. Head
182	12 V 36/36 W Bosch D.C. Head
183	6 V 24/24 W Bosch D.C. Head
185	12 V 48 W B.P.F. (S.C.) Head
194	24 V 36/36 W S.B.C. Head
200	6 V 3 W S.C.C. Side
204	6 V 3 W S.B.C. Side
205	6 V 6 W S.C.C. Side
206	6 V 6 W S.B.C. Side
207	12 V 6 W S.C.C. Side
209	12 V 6 W S.B.C. Side
222	12 V 4 W M.C.C. Side
253	6 V 6 W 38 mm. Festoon
254	12 V 6 W 38 mm. Festoon
255	6 V 3 W 35.5 mm. Festoon
256	12 V 3 W 35.5 mm. Festoon
260	24 V 6 W 44 mm. Festoon
302	12 V 48/48 W B.P.F. Head
311	6 V 18/18 W B.P.F. (D.C.) Head
312	6 V 30/24 W B.P.F. Head
317	6 V 18 W A.S.C.C. Stop
323	12 V 48 W B.P.F. S.C. Spot
325	12 V 38 W B.P.F. (S.C.) Head
326	12 V 38 W B.P.F. (D.C.) Head
330	24 V 44 W B.P.F. (D.C.) Head
331	24 V 44 W B.P.F. (D.C.) Head
333	24 V 24 W A.S.B.C. Stop
334	24 V 6/24 W S.B.C. offset pins, Stop and Tail
335	12 V 21 W A.S.B.C. Stop
354	12 V 42/36 W B.P.F. Head
355	12 V 42/36 W B.P.F. Head
356	6.4 V 45/35 W B.P.F. Head
358	12 V 44/38 W B.P.F. Head
359	24 V 44/38 W B.P.F. Head
373	6 V 30/24 W B.P.F. Head
374	6 V 36 W S.C.C. Cad. Yellow Head
375	12 V 36 W S.C.C. Cad. Yellow Head
376	12 V 36/36 W S.B.C. Cad.Yellow Head
380	12 V 6/21 W S.B.C. offset pins, Stop and Tail
381	12 V 6/21 W S.B.C. Stop and Tail
382	12 V 21 W A.S.C.C. Stop
383	6 V 6/18 W S.B.C. Stop and Tail

Cat. No.	Description of Lamp
384	6 V 6/18 W S.B.C. offset pins, Stop and Tail
404	12 V 60/36 W B.P.F. Head
600	12 V 48 W B.P.F. (S.C.) Cad. Yel. Spot
601	24 V 44 W B.P.F. (D.C.) Cad. Yel. Head
602	6 V 30/24 W B.P.F. Cad. Yellow Head
603	12 V 42/36 W B.P.F. Cad. Yel. Head
604	12 V 42/36 W B.P.F. Cad. Yel. Head
607	6 V 36 W 3-pin C.C. Head
608	6 V 36 W S.C.C. Spot
612	12 V 36 W 3-pin C.C. Head
615	12 V 36 W S.C.C. Spot
616	12 V 48 W 3-pin C.C. Head
618	12 V 60 W 3-pin C.C. Head
621	24 V 36 W S.C.C. Head
622	24 V 36 W B.C. Head
623	24 V 48 W S.C.C. Head
624	24 V 48 W B.C. Head
628	6 V 30/30 W 3-pin B.C. Head
629	6 V 30/30 W American Prefocus Head
630	12 V 36/36 W 3-pin B.C. Head
632	12 V 36/36 W American Prefocus Head
633	12 V 36/36 W A.S.B.C. Head
638	24 V 6 W B.C. Side
641	6 V 3 W M.C.C. Indicator
643	12 V 2.2 W M.C.C. Indicator
645	12 V 2.2 W M.C.C. Indicator
647	16 V 3 W M.C.C. Indicator
651	24 V 2.8 W M.C.C. Indicator
653	24 V 6 W 38 mm. Festoon
654	24 V 6 W 38 mm. Festoon
671	24 V 44/38 W S.B.C. Head
675	6 V 48 W 3-pin C.C. Head
676	6 V 48 W 3-pin C.C. Cad. Yel. Head
683	12 V 48 W 3-pin C.C. Cad. Yel. Head
685	12 V 48 W B.P.F.(S.C.) Cad. Yel. Head
692	24 V 6/24 W S.B.C. Stop and Tail
951	6 V 6 W M.C.C. Side
970	2.5 V 0.2 amp M.E.S. Flash
972	2.5 V 0.3 amp M.E.S. Flash
974	3.5 V 0.15 amp. M.E.S. Flash
977	3.5 V 0.3 amp M.E.S. Flash
979	6 V 0.3 amp S.C.C. Cycle Dynamo
980	6 V 0.5 amp S.C.C. Cycle Dynamo
985	16 V 3 W M.E.S. Indicator
986	12 V 2.2 W M.E.S. Indicator
987	12 V 2.2 W M.E.S. Indicator
988	6 V 3 W M.C.C. Side
989	12 V 6 W M.C.C. Side
990	6 V 3 W M.E.S. Indicator
991	6 V 0.04 amp M.E.S. Cycle Dynamo
993	24 V 2.8 W M.E.S. Indicator
997	6 V 0.5 amp M.E.S. Cycle Dynamo
998	6 V 0.1 amp M.E.S. Cycle Dynamo
OS 43	See No. 970
OS 45	See No. 972
OS 50	See No. 974
OS 55	See No. 977
OS 60	4 V 0.3 amp M.E.S. Flash
OS 64	6 V 0.04 amp M.E.S. Radio Panel
OS 65	4.5 V 0.3 amp M.E.S. Flash
OS 66	6 V 0.06 amp M.E.S. Radio Panel
OS 67	2.5 V 0.3 amp Prefocus Flash
OS 69	5 V 0.15 amp M.E.S. Flash
OS 70	6.2 V 0.3 amp M.E.S. Radio Panel
OS 71	1.5 V 0.2 amp M.E.S. Flash
OS 75	6.5 V 0.3 amp M.E.S. Radio Panel
OS 75M	6.5 V 0.3 amp M.C.C. Speedometer
OS 76	6.3 V 0.11 amp M.E.S. Radio Panel
OS 85	6.2 V 0.3 amp M.E.S. Radio Panel Tube
OS 90	6.5 V 0.3 amp M.E.S. Radio Panel Tube
OS 99	2.2 V 0.25 amp M.E.S. Lens End Flash
OS 200	6 V 0.3 amp M.E.S. Cycle Dynamo

AUTOMOBILE LAMPS

Vehicle lighting equipment plays an important role to-day in the campaign for safety on the roads. Osram bulbs, developed during forty years of close liaison with the motor industry, embody all those detail points of design and construction which make for the highest standards of reliability and efficiency.

Strict and careful controls over every feature of every manufacturing process ensure that Osram bulbs are unsurpassed in performance.

Tungsten filaments, manufactured in the Osram works by precision equipment, are designed to withstand the severest conditions of vibration encountered today.

In prefocus headlight bulbs, correct focusing is automatically ensured by precision manufacturing techniques, which enable the filament to be located within ten thousandths of an inch.

The prefocus collar, accurately positioned by using optical alignment methods, is securely anchored by a special solder, chosen to withstand the high operating temperatures encountered.

Authorised Spares.

Osram bulbs are authorised spares for Lucas lighting equipment.

BRITISH PREFOCUS — HEADLIGHTS SINGLE FILAMENT

Cat. No.	Volts	Watts	Contact	Length mm.	Dia. mm.	Filament	Price
172	6	36	Single	60	28	Axial	5/10
162	12	36	Single	60	28	Axial	5/10
177	12	36	Double	60	28	Axial	5/10
185	12	48	Single	60	28	Axial	6/5

BRITISH PREFOCUS — FOG, SPOT AND PASS SINGLE FILAMENT

173	6	36	Single	60	28	Transverse	5/10
325	12	38	Single	60	28	Transverse	5/10
326	12	38	Double	60	28	Transverse	5/10
323	12	48	Single	60	28	Transverse	6/5

BRITISH PREFOCUS — HEADLIGHTS DOUBLE FILAMENT

373	6	30/24	Double	60	28	Transverse	7/2
306	6	36/36	Double	60	28	Transverse	7/2
356	6.4	45/35	Double	60	28	Transverse	7/2
354	12	42/36	Double	60	28	Transverse	7/2
358	12	44/38	Double	60	28	Transverse	7/2
302	12	48/48	Double	60	28	Transverse	9/–
404	12	60/36	Double	60	38	Transverse	10/10

BRITISH PREFOCUS — MOTOR CYCLE HEADLIGHTS (Vertical dip)

311	6	18/18	Double	60	28	Transverse	7/2
166	6	24/24	Double	60	28	Transverse	7/2
312	6	30/24	Double	60	28	Transverse	7/2

HEADLIGHTS DOUBLE FILAMENT

Cat No.	Volts	Watts	Cap	Length mm.	Dia. mm.	Filament	Price
180	6	18/18	SBC	56	38	Inverted 'V'	4/2
168	6	24/24	SBC	56	38	Inverted 'V'	4/2
631	6	24/24	ASBC	56	38	Inverted 'V'	4/2
169	6	30/30	SBC	56	38	Inverted 'V'	4/2
	^	36/24	SBC	56	38	Inverted 'V'	4/2
170	6	36/36	SBC	56	38	Inverted 'V'	4/2
626	6	36/36	ASBC	56	38	Inverted 'V'	4/2
	12	24/24	SBC	56	38	Transverse	4/2
	12	36/24	SBC	56	38	Transverse	4/2
171	12	36/36	SBC	56	38	Transverse	4/2
633	12	36/36	ASBC	56	38	Transverse	4/2
*	6	24/24	American Prefocus	56	38	Inverted 'V'	4/9
*629	6	30/30	American Prefocus	56	38	Inverted 'V'	4/9
*	6	36/24	American Prefocus	56	38	Inverted 'V'	4/9
*	6	36/36	American Prefocus	56	38	Inverted 'V'	4/9
*632	12	36/36	American Prefocus	56	38	Transverse	4/9
	6	36/36	3 pin BC	56	38	Inverted 'V'	4/9
630	12	36/36	3 pin BC	56	38	Transverse	4/9

LUCAS GRAVES HEADLIGHTS DOUBLE FILAMENT (without metal cup)

Cat. No.	Volts	Watts	Cap	Length mm.	Dia. mm.	Filament	Price
183	6	24/24	Bosch BC	56	38	Inverted 'V'	4/9
—	6	36/24	Bosch BC	56	38	Inverted 'V'	4/9
—	6	36/36	Bosch BC	56	38	Inverted 'V'	4/9
182	12	36/36	Bosch BC	56	38	Transverse	4/9

For all 24V ratings, refer Bus Section.

HEADLIGHTS SINGLE FILAMENT

Volts	Watts	SCC Cat. No.	SBC Cat. No.	Bosch BC Cat. No.	Length mm.	Dia. mm.	Filament	Price
6	18	11	14		56	38	Axial	3/5
6	24	106	109		56	38	Axial	3/5
6	30	—	—		56	38	Axial	3/5
6	36	108	111		56	38	Axial	3/5
6	36	75	—		56	38	'Vee'	3/5
6	48	—	—		56	38	Axial	3/9
12	18	—	—		56	38	Axial	3/5
12	24	1	4		56	38	Axial	3/5
12	36	2	5		56	38	Axial	3/5
12	36	57	—		56	38	'Vee'	3/5
12	48	23	27		56	38	Axial	3/9
12	60	90	26		63	50	Axial	4/2
6	36	—	—	130	56	38	Axial	4/–
12	48	—	—	96	56	38	Axial	4/4
12	60	—	—	87	63	50	Axial	4/4

* Available in normal or location A cap.

SPOTLIGHTS OR FOG, SINGLE FILAMENT (for Notek equipment)

Cat. No.	Volts	Watts	Cap	Length mm.	Dia. mm.	Type	Filament	Price
608	6	36	SCC	56	38		Transverse	3/5
615	12	36	SCC	56	38		Transverse	3/5
669	6	36	Amer. Pref. S/C	56	38	Farlite	Axial	4/–
670	12	36	Amer. Pref. S/C	56	38	Farlite	Axial	4/–
667	6	36	Amer. Pref. S/C	56	38	Nearlite	Transverse	4/–
668	12	36	Amer. Pref. S/C	56	38	Nearlite	Transverse	4/–

SIDE AND TAIL

Volts	Watts	Cat. No. SCC	Cat No. SBC	Cat No. MCC	mm. Length	mm. Dia.	Filament	Price
4	3				32.5	18	Bow	1/5
6	3	200	204		32.5	18	Bow	1/5
6	6	205	206		32.5	18	Bow	1/5
12	4	—	—		32.5	18	Bow	1/5
12	6	207	209		32.5	18	Bow	1/5
6	3			988	28.5	15	Bow	1/5
6	6			951	28.5	15	Bow	1/5
12	4			222	28.5	15	Bow	1/5
12	6			989	28.5	15	Bow	1/5
12	6	SBC available sprayed red or green for hospital call indicating systems.						1/7

FLASHING INDICATORS, STOP AND COMBINED STOP AND TAIL

SINGLE FILAMENT

Volts	Watts	ASCC Cat. No.	ASBC Cat. No.	Length mm.	Dia. mm.	Price
6	18	317	—	46	25	3/5
12	21	382	335	46	25	3/5

DOUBLE FILAMENT

Volts	Watts	SBC Cat No. Straight Pin	SBC Cat. No. Staggered Pin	Length mm.	Dia. mm.	Price
6	18/6	383	384	46	25	4/–
12	21/6	381	380	46	25	4/–

FESTOON OR TRAFFICATOR

Cat. No.	Volts	Watts	Length mm.	Dia. mm.	Price
255	6	3	35.5	7.5	2/4
253	6	6	38	11	2/4
—	6	6	44	11	2/4
256	12	3	35.5	7.5	2/4
254	12	6	38	11	2/4
—	12	6	44	11	2/4

INDICATOR LAMPS (Panel and warning)

Volts	Watts	MES Cat. No.	MCC Cat. No.	Length mm.	Dia. mm.	Price
2	1.5	—	—	23	11	1/4
6	1.8	982	—	23	11	1/4
6	3	990	641	23	11	1/4
8	1.6	983		27.5	15	1/4
10/12	1	—		23	11	1/4
12	2.2	987	643	23	11	1/4
12	2.2	986	645	27.5	15	1/4
16	3	985	647	27.5	15	1/4
16	3	Frosted with centre filament support for lift indicators		27.5	15	1/6

For all 24V ratings, refer Bus Section.

BUS LAMPS

For lighting of omnibuses, heavy vehicles, yachts, caravans, etc.

BRITISH PREFOCUS HEADLIGHTS, SINGLE FILAMENT

Cat. No.	Volts	Watts	Contact	Length mm.	Dia. mm.	Filament	Price
—	24	36	Double	60	28	Transverse	7/9
606	24	44	Single	60	28	Transverse	7/9
330	24	44	Double	60	28	Transverse	7/9
331	24	44	Double	60	28	Axial	7/9

BRITISH PREFOCUS HEADLIGHTS, DOUBLE FILAMENT

359	24	44/38	Double	60	28	Transverse	9/7

HEADLIGHTS, DOUBLE FILAMENT

Cat. No.	Volts	Watts	Cap.	Length mm.	Dia. mm.	Filament	Price
194	24	36/36	SBC	56	38	Transverse	6/5
671	24	44/38	SBC	56	38	Transverse	7/2

HEADLIGHTS, SINGLE FILAMENT

Volts	Watts	SBC Cat. No.	SCC Cat. No.	BC Cat. No.	Length mm.	Dia. mm.	Filament	Price
12	25	—	—	—	60	40	V centre	4/–
12	36	—	—	—	56	38	Axial	4/–
24	24	—	—	—	56	38	Axial	4/–
24	25	—	—	—	60	40	V centre	4/–
24	36	—	—	—	56	38	V centre	4/–
24	36	123	621	622	56	38	Axial	4/–
24	48	140	623	624	56	38	Axial	5/10
24	60	128	124	127	63	50	Axial	7/9

SPOT OR FOG, SINGLE FILAMENT (For Notek Equipment)

24	36	—	—	—	56	38	Transverse	4/–

SIDE AND TAIL

Improved construction with two filaments operated in series enabling shorter, more robust filaments to be used, giving corresponding improved performance under conditions of heavy vibration and rough treatment.

Volts	Watts	SBC Cat. No.	SCC Cat. No.	BC Cat. No.	Length mm.	Dia. mm.	Filament	Price
24	6	150	149	—	32.5	18	Two in series	2/1

INTERIOR LIGHTING

Volts	Watts	Cap	Length mm.	Dia. mm.	Finish	Price
6	18	BC	56	38	Clear or Pearl	3/4
12	12	BC,SBC	56	38	Clear or Pearl	3/–
24	12	BC,SBC	60	40	Clear or Pearl	4/2
24	15	BC,SBC	60	40	Clear or Pearl	4/2
24	20	BC,SBC	60	40	Clear or Pearl	4/2
24	25	BC,SBC	60	40	Clear or Pearl	4/2

STOPLIGHTS AND COMBINED STOP AND TAIL

Cat. No.	Volts	Watts	Cap.	Length mm.	Dia. mm.	Filament	Price
333	24	24	ASBC	46	25	Single	4/–
692	24	24/6	ASBC	46	25	Double	5/–
334	24	24/6	ASBC w/stg. pin	46	25	Double	5/–

FESTOON OR TRAFFICATOR

Cat. No	Volts	Watts	Length mm.	Dia. mm.	Filament	Price
653	24	6	38	11	Axial	3/3
260	24	6	44	11	Axial	3/3
654	24	6	38	11	4 Filament support	3/3
—	24	6	44	11	4 Filament support	3/3

INDICATOR LAMPS (Panel or warning)

Volts	Watts	MES Cat. No.	MCC Cat. No.	Length mm.	Dia. mm.	Price
24	2.8	993	651	27.5	15	1/11

Osram

FLUORESCENT TUBES

We feel confident the recent introduction of new colours to our standard range of near white colours will adequately meet every lightning requirement.

We now have three colours of high light output and three of correspondingly good colour rendition whose appearances are closely similar, a pair of warm, a pair of cool and a pair of cold, each pair consisting of one high light output and one good colour rendition tube.

Although personal taste dictates the final choice in colour, it is hoped that the following notes will assist in selecting the most suitable colour for any particular installation.
Finally a word of warning about the choice of decoration and furnishings. It is most important that no scheme of decoration or furnishing should be chosen except in conjunction with the colour of fluorescent tube selected. Some materials and colours tend to look unattractive with some colours of fluorescent lighting and experience is the best guide.

WARM COLOURS

Warm White.

This new colour supersedes warm tint and is the most efficient tube in the whole range. It is invaluable for use in installations where warm colour allied with high efficiency is required.

The new colour blends well with tungsten filament lamps and both types can be used in the same installation. The colour rendering properties are adequate for many lighting purposes, including office and large store installations.

Warm White De Luxe.

A completely new colour similar in appearance to warm white, but of slightly lower efficiency to obtain better colour rendering properties, this tube harmonises perfectly with tungsten lighting.

Ideal for restaurant, hotels, theatre foyers, shops, showrooms or any other situation where people gather and where a pleasant social atmosphere is required. It improves the appearance of food and other commodities and is particularly kind to complexions.

COOL COLOURS

White.

A new high efficiency tube with good colour rendering, this tube is intended as a replacement of natural and is probably the best general purpose colour of the range and suitable for most commercial installations.

White De Luxe.

Also intended as a replacement of natural, this tube is similar to white, but with slightly lower efficiency, which has been sacrificed to give improved colour rendering properties.

The better colour rendering properties make this tube suitable for many installations, such as shop and office lighting.

Natural.

This tube has been superseded by white or white de luxe, with the exception of certain sizes of imported tubes, where it will be found the efficiency is reasonably high and the colour rendering pleasing and acceptable for most purposes.

COLD COLOURS

Daylight.

Is an efficient tube, suitable for factories, workshops and other industrial applications where colour rendering is not important.

Colour Matching.

Of slightly lower efficiency, this tube is designed to give the equivalent "standard illuminant C."
It is suitable for many purposes where accurate colour discrimination is important, such as printing, textile, paint, chemical, paper, food and photographic industries.
It is also of great value to the retail clothing trade and florists, where its excellent colour rendering properties are most acceptable, particularly when used in conjunction with filament spotlight lamps.

COLOURED TUBES

Red, Blue, Green, Yellow.

These colours are intended mainly for decorative and display lighting in dance halls, theatres and stage lighting. Their great benefit as compared with other forms of light source is that the tubes are actual producers of coloured light and unless great saturation of coloured light is necessary, do not require external colour filters.

The efficiencies vary in accordance with the colour, green being the most efficient, followed by yellow, blue and red in that order, but even the red tube is much higher in efficiency than the combination of a tungsten lamp and a colour filter, or a sprayed lamp.

B.G.E. ILLUMINATION SERVICE

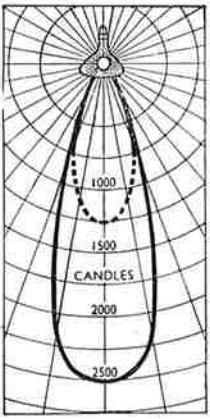
It is realised that in the wide application of modern light sources, problems may arise demanding the services of a specialist for their solution.

In these cases, the services of our trained Illuminating Engineers and Design Staff are freely available without obligation, to offer advice on any type of installation and light source.

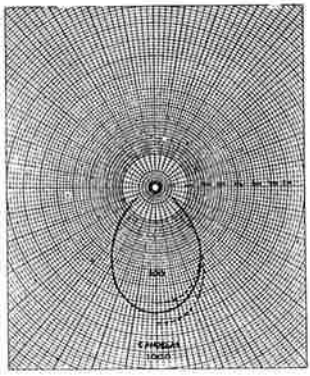
In addition, the wide experience of our parent company, the General Electric Co. Ltd. of England, and the valuable results of its scientific research organisation, are continually available to us, not only in the interests of advancing knowledge of illumination generally, but more particularly in achieving the most satisfactory results in the field of applied illuminating engineering.

DISTRIBUTION CURVES

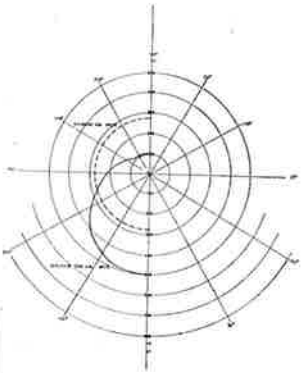
The following distribution curves for fluorescent tubes, spotlight, and floodlight lamps will assist in the planning of lighting installations.



Spotlight reflector
Average light distribution
75W— — — — — — — —
150W———————



Floodlight reflector
Average light distribution 150W



Light distribution of a reflector fluorescent lamp in comparison with a standard fluorescent lamp.

TUBES FOR PRINTING MACHINES

Special fluorescent tubes are available for use in dual purpose printing machines used for photostat copying as follows.

The Black Light (350) is most suitable for photogravure, lithography, blue print, "true to scale" and dye-line process. This tube is also used extensively to excite fluorescence in a variety of substances, and for some applications when used in conjunction with a separate black glass filter it may be preferred to the MBW/U black glass lamps shown on Page 43.

The Blue (410) is preferred by some dye-line users. The Light Blue (475) is the correct source for photographic (silver) black and white printing and copy board illumination.

Watts	Length	Dia.	Cap.	Type	Price
40	48"	1½"	Bipin	Black Light (350) (clear glass)	**24/–**
40	48"	1½"	Bipin	Blue (410)	**19/3**
40	48"	1½"	Bipin	Light Blue (475)	**19/3**

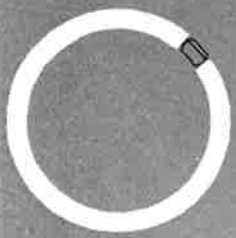
TUBULAR FLUORESCENT LAMPS, TYPE MCF/U TECHNICAL DETAILS

Tube	Type of Circuit	Mains	Current (amp) Tube Operating	Start	Colour	*** Aver. L/W at 100 hrs.	*** Aver. L/W Throughout life	*** Aver. Light output at 100 hrs.	*** Aver. Light output Throughout life	Approximate brightness candelas per sq. in. after 100 hrs.
15W 18"	Two in series Single tube	0.18 / 0.12	0.30	0.4/0.65	Natural	35	28	525	420	3.6
					Warm White	44	36	660	540	4.5
					DeLuxe Warm White	30	22	450	330	3.1
					Daylight	44	37	660	555	4.5
20W 24"	Two in series Single tube	0.25 / 0.15	0.35	0.4/0.7	White	46.25	39	925	780	2.8
					White DeLuxe	35	30	700	600	2.4
					Warm White	49	42	980	840	3.0
					Warm White DeLuxe	34.5	29	690	580	2.1
					Daylight	38.75	35	775	700	2.4
30W 36"	Single tube Twin tube	0.18 / 0.33	0.34	0.4/0.65	Natural	46	39	1380	1170	4.2
					Warm White	59	51	1770	1530	5.4
					DeLuxe Warm White	40	32	1200	960	3.7
					Daylight	57	49	1710	1470	5.2
40W 24"	Two in series	0.50	0.88	1.0/1.6	Natural	33	27	1320	1080	4.4
					White	60	51	2400	2040	3.4
40W 48"	Single tube Twin tube	0.25 / 0.40	0.41	0.5/0.75	White DeLuxe	50	42	2000	1680	2.8
					Warm White	63.75	54	2550	2160	3.6
					Warm White DeLuxe	45	38	1800	1520	2.5
					Daylight	50	42	2000	1680	2.8
80W 60"	Single tube Twin tube	0.50 / 0.80	0.85	1.0/1.6	Colour matching	46	40	1840	1600	2.8
					Natural	46	40	3680	3200	4.6
					Warm White	59	53	4720	4240	5.9
					DeLuxe Warm White	40	33	3200	2640	4.0
					Daylight	57	51	4560	4080	5.7
					Red	4	—	320	—	0.2
					Blue	13	—	1040	—	1.4
					Green	50	—	4000	—	5.0
					Yellow	30	—	2400	—	2.4
100W 60"					White	48	40	4800	4000	
					Warm White	42	33.6	4200	3360	
					Daylight	38	30.4	3800	3040	
125W 96"	Single tube Twin tube	0.80 / 1.40	0.91	1.0/1.6	Natural	51	43	6375	5375	4.8
					Warm White	63	56	7875	7000	5.9
40W 16"	Single tube	0.25	0.41	0.5/0.75	DeLuxe Warm White	40	32	1600	**1280	2.6

** This figure is based on the first 2,500 hours of life.

*** These values are intended to provide practical guidance for design purposes.

TUBULAR fluorescent



CIRCLE fluorescent

Osram

Osram

TUBULAR FLUORESCENT LAMPS TYPE MCF/U

Besides their economy in current consumption, Osram fluorescent tubes bring such important benefits as glare-free illumination and freedom from harsh shadows; they work at a low temperature and are available in a wide range of colours to suit every lighting need.

A special range of Osram fluorescent tubes, emitting radiation in the long wave U.V. region, is available for photoprinting processes. Details on Page 36.

Watts	Length ins.	Dia. ins.	Cap	Colours	Price
15	18	1	Bipin	Natural, Warm White, De Luxe Warm White, Daylight	10/4
20	24	1½	Bipin	White, White De Luxe, Warm White, Warm White De Luxe, Daylight	9/0
20	24	1½	Bipin	Red, Blue, Green, Yellow	16/1
30	36	1	Bipin	Natural, Warm White, De Luxe Warm White, Daylight	12/7
40	24	1½	Bipin	Natural	16/3
40	48	1½	Bipin	White, White De Luxe, Warm White, Warm White De Luxe, Daylight, Colour Matching	11/7
40	48	1½	Bipin	Red, Blue, Green, Yellow	19/3
80	60	1½	BC	Natural, Daylight, Warm White, De Luxe Warm White	19/3
80	60	1½	Bipin	Natural, Warm White, De Luxe Warm White, Daylight	19/3
80	60	1½	BC	Red, Blue, Green, Yellow	28/11
100	60	2⅛	Large Bipin	Natural, Warm White, Daylight	41/10
125	96	1½	BC	Natural, Warm White	46/9

Life Guarantee for 20W 24", 40W 48" and 80W 60". The rated average life of Osram tubular fluorescent lamps is 7,500 hours. However, we guarantee each individual lamp for a period of 12 months, or 3,500 hours, whichever is the shorter, and should a lamp fail before the expiry of this guarantee, it will be replaced free of charge.

REFLECTOR FLUORESCENT

A recent introduction, the reflector surface being bonded to approximately two thirds of the internal surface of the tube giving approximately twice the light on the working plane with simpler maintenance and reduced back glare. Invaluable for cornice and other types of indirect lighting.

Watts	Length ins.	Dia. ins	Cap	Colours	Price
40	48	1⅓	Bipin	White, Warm White	13/9
20	24	1½	Bipin	White, Warm White	11/6

CIRCLE FLUORESCENT

A compact fluorescent lamp of attractive and interesting appearance, having many advantages for decorative and domestic lighting.

Watts	Dia. ins.	Cap	Colour	Price
40	16	Special 4 pin	White	46/1
40	16	Special 4 pin	De Luxe Warm White	48/5
	Special white plastic connector F 1581 for the 4 pin cap			4/9

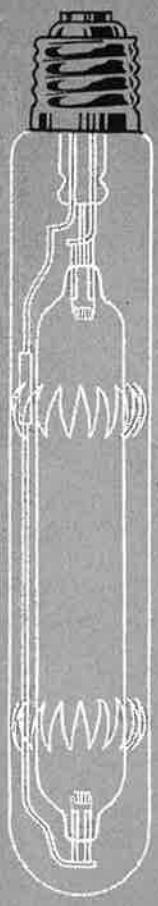
TUBULAR FLUORESCENT LAMPS, INSTANT START TYPE MCFA/U

The B.G.E. instant start circuit is suitable for 240V 50 cycle A.C. mains. This circuit requires the normal auxiliary equipment with the exception of a special cathode pre-heating transformer which eliminates starters. Alternatively the normal ballast and starters can be dispensed with by employing a special Osram type 3- ballast lamp in series with each 40W 48" Osram instant start fluorescent lamp and a small transformer for electrode heating.

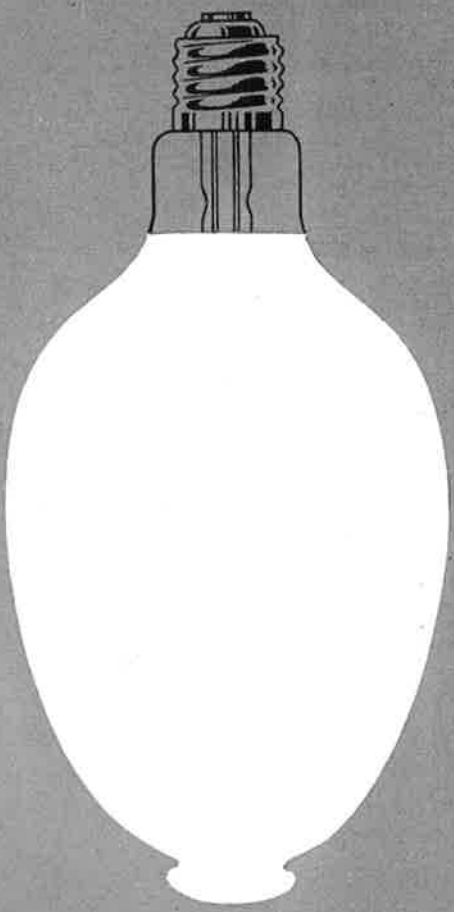
Watts	Length ins.	Dia. ins.	Cap	Colour	Price
30	36	1	Bipin	Natural, White, Warm White, De Luxe Warm White, Daylight	13/4
40	48	1½	Bipin		14/4
80	60	1½	BC		24/10

Information regarding the availability of instant start in wattages other than those listed is available on application.

Tungsten Ballast lamps for use in series with 40W instant start fluorescent lamps type 3 with 3 pin BC cap. 01/£



400 watt: MERCURY



400 watt: MERCURY fluorescent

125 watt: BLACK GLASS

Osram

MERCURY DISCHARGE LAMPS TYPES MB/U AND MA/V

Osram mercury lamps are used in industry for workshop and yard lighting, also for street lighting, car parks, railway stations, etc.

Suitable for use on 200-260V A.C. supply only, and must be used in conjunction with a specially designed choke.

BURNING POSITION

Universal

MB/U lamps are designed for vertical burning, but may be operated in other positions without material effect upon performance.

Vertical

MA/V lamps are intended for operating in the cap up position. Special types are available for cap down burning.

Horizontal

For horizontal operation with a magnetic deflector, the use of the hard glass type MA/V is recommended.

MA/H lamps are available for horizontal burning without a magnetic deflector.

Type	Volts	Watts	Cap	Length mm.	Dia. mm.	Light Centre Length mm.	Price
MB/U	230/240,250	80	3 pin BC	160	80	113	**64/–**
MB/U	230/240,250	125	3 pin BC,ES	178	90	128	**76/–**
MA/V	230/240,250	250	GES	290	48	170	**84/6**
MA/V	230/240,250	400	GES	330	48	190	**92/–**

Light Output and Running Characteristics.

Watts	Type	Nominal average output throughout life (lumens)	P.F. capacitor m.f.d.	Approximate starting current at 230 volts		Average current at full brightness at 230 volts	
				Without capacitor amp.	With GEC capacitor amp.	Without capacitor amp.	With GEC capacitor amp.
MB/U	80	2320	8	1.35	0.8	0.75	0.45
MB/U	125	3875	10	1.7	1.15	1.10	0.70
MA/V	250	8750	13	3.5	2.5	2.0	1.4
MA/V	400	15600	20	5.5	4.5	3.0	2.3

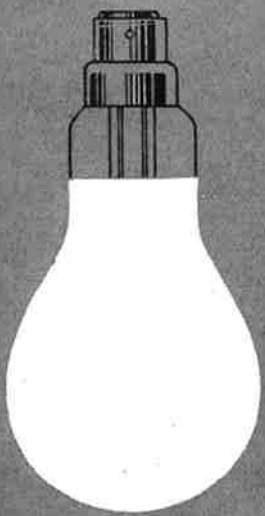
1KW MERCURY HIGH BAY TYPE MB

This lamp has been designed for use in steel works, foundries, aircraft hangars and other installations where the mounting height has to be 40 ft. or more. Designed to operate across two phases of a three phase supply, this lamp has a high average efficiency, enabling substantial economies to be made with fewer, but more efficient installations.

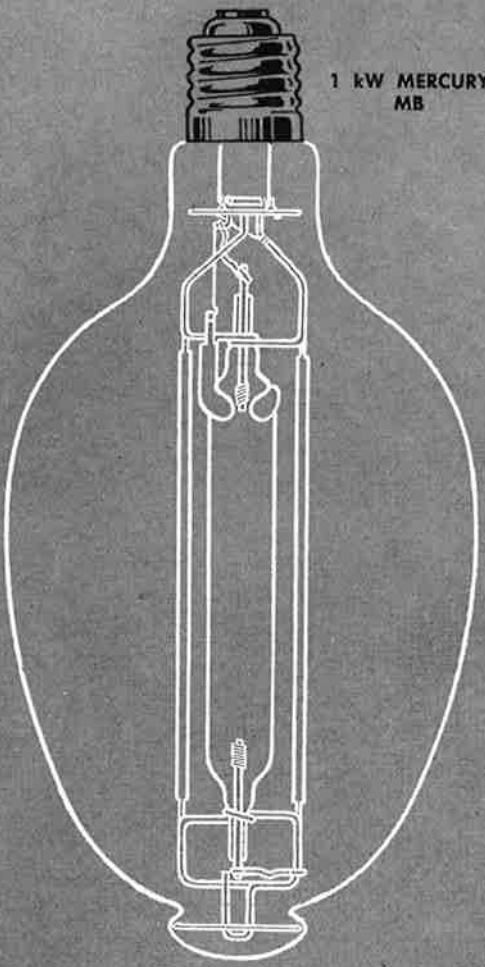
The 1KW lamp has a quartz discharge inner and a clear isothermal outer jacket similar in shape to that of the 400 Watt MAF/V lamp.

Type	Volts	Watts	Cap	Length mm.	Dia. mm.	Light Centre Length mm.	Nominal average Arc Length mm.	lumen output throughout life	Price
MB	415/450	1000	GES	335	165	200	120	50,000	**254/9**

250 watt: MBF/U



80 watt: MB/U



1 kW MERCURY
MB

Osram

MERCURY DISCHARGE FLUORESCENT TYPES MBF/U AND MAF/V

Whilst employing the same principles as the popular Osram mercury discharge lamps, these fluorescent lamps have been designed with special consideration for the actual colour of the light given.

The germanate based phospor coating recently adopted for the MBF series raises the red content of the emitted light to about 7%, considerably improving the colour rendering properties and making these lamps very suitable for street lighting and interior lighting in factories or similar installations. The 250W and 400W MBF/U are interchangeable with and will provide direct replacements of standard MA types.

BURNING POSITION

The MBF series is designed for vertical burning, but may be operated in other positions without material effect on performance.

The MAF/V lamps are intended for vertical cap up burning.

Type	Volts	Watts	Cap	Length mm.	Dia. mm.	Light centre Length mm.	Price
MBF/U	230/240,250	80	3 pin BC	160	80	120	**84/6**
MBF/U	230/240,250	125	GES	178	90	133	**103/–**
MBF/U	230/240,250	250	GES	220	89	—	**129/9**
MBF/U	230/240,250	400	GES	280	121	—	**195/–**
MAF/V	230/240,250	*400	GES	335	165	—	**123/–**

* Cone shaped bulb.

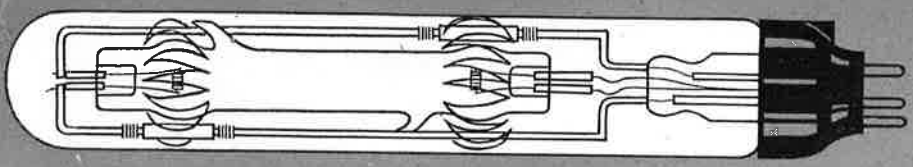
LIGHT OUTPUT AND RUNNING CHARACTERISTICS

Type	Watts	Nominal average output throughout life (lumens)	P.F. capacitor m.f.d.	Approximate starting current at 230 volts Without capacitor	Approximate starting current at 230 volts With GEC capacitor	Average current at full brightness at 230 volts Without capacitor	Average current at full brightness at 230 volts With GEC capacitor
				amp.	amp.	amp.	amp.
MBF/U	80	2320	8	1.35	0.8	0.75	0.45
MBF/U	125	3875	10	1.7	1.15	1.10	0.70
MBF/U	250	9250	13	3.5	2.5	2.0	1.4
MBF/U	400	16800	20	5.5	4.5	3.0	2.3
MAF/V	400	12800	20	5.5	4.5	3.0	2.3

ULTRA VIOLET (BLACK) TYPE MBW/U

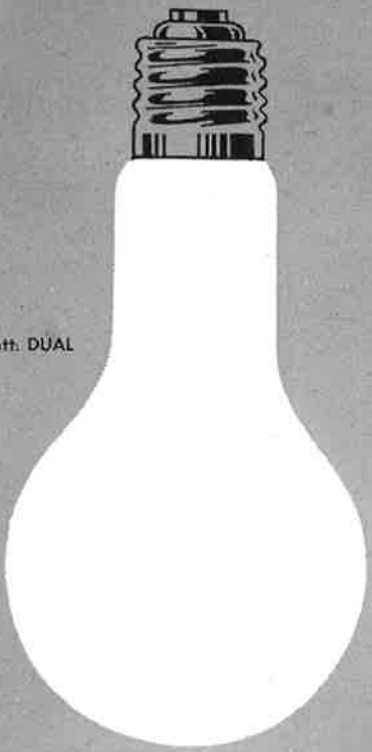
A Mercury lamp with a black glass bulb which absorbs practically all visible radiation. Marked articles invisible under normal light become visible under this lamp. Wide variety of applications such as display and entertainment purposes, preparation of optically flat surfaces, detecting forgeries and to excite fluorescent powders and paints. Must be used in conjunction with a suitable choke.

Type	Volts	Watts	Cap	Length mm.	Dia. mm.	Light Centre Length mm.	Price
MBW/U	230/240,250	80	3 pin BC	160	80	113	**96/–**
MBW/U	230/240,250	125	3 pin BC	178	90	128	**114/6**



A.C. mercury·LABORATORY

140 watt: SODIUM



250 watt: DUAL

Osram

DUAL LAMPS TYPE MBT/U

Osram dual lamps are designed for commercial and industrial lighting, and combine in one pearl bulb a mercury discharge and a tungsten incandescent filament which, besides emitting light, acts as a ballast in series with the discharge and dispenses with the necessity of an external choke. The lamps may be operated in any position.

Type	Volts	Watts	Cap	Finish	*Nominal average output throughout life (lumens)	Length mm.	Dia. mm.	Light Centre Length mm.	Price
MBT/U	240/250	160	ES,BC	Pearl	2080	178	90	D=128 F=133	**61/-**
MBT/U	240/250	250	GES	Pearl	3500	233	110	D=173 F=178	**69/-**

D = Discharge. F = Filament.

* This value is associated with an extended life.

SODIUM LAMP TYPE SO/H

Osram sodium lamps are used for floodlighting and street lighting. The inner tube, where the sodium discharge takes place, and the detachable jacket which maintains the inner tube at an even temperature, can be replaced independently. Must be used on A.C. supply only in conjunction with special auto transformer.

Burning Position.

45 and 60W from 5° cap down to vertical cap up.

85 and 140W from 5° cap down to 20° cap up.

Type	Volts	Watts	Cap	*Nominal average output throughout life (lumens)	Length mm.	Dia. mm.	Light Centre Length mm.	Without Jackets	With Detachable Jackets	Jacket only
SO/H	230/240,250	45	Ceramic BC	2250	238	50	140	**63/9**	**84/-**	**20/3**
SO/H	230/240,250	60	Ceramic BC	3420	300	50	170	**78/9**	**104/6**	**25/9**
SO/H	230/240,250	85	Ceramic BC	5525	415	50	230	**102/6**	**134/6**	**32/-**
SO/H	230/240,250	140	Ceramic BC	9100	518	65	280	**120/3**	**163/9**	**43/6**

* This value is associated with an extended life.

NEW 140W INTEGRAL SODIUM LAMP SO/H

Recent research has produced a new type sodium lamp with an integral jacket offering considerable advantages over the conventional outer vacuum jacket type.

This new design gives approximately 10% more light and greater reliability during life. The arc tube is fully protected from atmospheric conditions, giving easier starting. It is completely interchangeable with the old type and is a convenient unit for handling and stocking.

Volts	Watts	Cap	*Nominal average output throughout life (lumens)	Length mm.	Dia. mm.	Light Centre Length mm.	Price
230/240,250	140	Mycalex BC	9800	518	65	280	**133/-**

Information regarding other wattages on application.

LABORATORY LAMPS

These lamps are suitable for a number of applications in the laboratory, including spectroscopy, polarimetry, refractometry and interfererometry.

Cat. No.	Volts	Electrode Heating current (amps)	Cap	Type	Price
SL/D1.3	240 A.C.	1.3	4 pin	Sodium	On Application
SL/D1.3	240 D.C.	1.3	4 pin	Sodium	
ML/D2.0	240 A.C.	2.0	4 pin	Mercury,	
CL/D2.0	240 A.C.	2.0	4 pin	Cadmium,	
CML/D2.0	240 A.C.	2.0	4 pin	Cadmium/ Mercury	

V2371 Stand and resistance for operating Mercury, Cadmium and Cadmium plus Mercury Laboratory lamps at 2 amps.

V3270 Stand and Resistance for operating Sodium Laboratory lamps at 1.3 amps.

Prices and full details regarding Spectrum Characteristics and method of operation available on application.

MERCURY COMPACT SOURCE TYPE ME

This type of lamp provides a small source of high brightness. The 250W size has a number of applications in scientific laboratories and industry, being used mainly for projection microscopy, microphotography, fluorescent microscopy and in conjunction with suitable filters, as a high brightness source of monochromatic radiation. The 2½ kW size is colour corrected by the addition of cadmium to the mercury filling and is used primarily for film studio lighting.

The discharge takes place in a spherical bulb of fused silica. The 250W size is available in two forms, one having a glass outer bulb and the other an enclosing metal box fitted with a circular glass window. No separate lamp housing is needed with the box type of lamp, but as these lamps operate at a high pressure, the glass type should only be operated in a protective housing. The 2½ kW size has no outer glass envelope and must only be operated in a housing which will not only afford mechanical protection, but which in addition will prevent the emission of the harmful shortwave ultra-violet radiation which is transmitted by the fused silica.

Type	250W ME/D Glass type	Box Type	2½ kW MEC/V
Supply voltage	200/250 AC,DC	200/250 AC,DC	100/250V DC
Arc operating voltage	60/75	60/75	65/80V
Starting current	4/5 amp	4/5 amp	75 amp (max.)
Operating current	3.7/4.6 amp	3.7/4.6 amp	33 amp approx.
Initial light output	—	—	112500 lumens approx.
Initial arc brightness (max.)	20,000 stilb. approx.	20,000 stilb. approx.	—
Arc length	3.75 mm.	3.75mm.	15mm.
Overall length	156 3mm.	130 3mm. (excluding pins)	315 5mm.
Diameter	50 2mm.	64 5mm.	65mm (max.)
Light Centre Length	65mm.	80mm. (excluding pins)	152.5mm.
Cap	Large prefocus	3 pin	between centres with flexible leads
Red ratio	—	—	10 per cent.
Burning position	Vertical, base or cap down	Vertical, base or cap down	Vertical anode down

Details and price of control gear and further technical information of other light sources on application.

NEON FLOODLIGHTING LAMPS

A brilliant and vivid colour is generated by the lamp itself without the necessity of external coloured media. Must be used in conjunction with suitable auxiliary equipment.

Volts	Watts	Colour	Length mm.	Diameter of Luminous col. mm.	Length of Luminous col. mm.	Price
200/250	400	Red	1180	37	865	On application

GERMICIDAL TUBES

Germicidal tubes are similar physically and electrically as standard fluorescent tubes except that they have no fluorescent powder coating and are made of a special glass which transmits the 2537A radiation produced by the low pressure mercury vapour discharge. This radiation can kill or at least inhibit the reproduction of micro organisms and has certain applications in connection with the sterilisation of air and other substances and commodities.
Must be used in conjunction with suitable control gear.

TECHNICAL DETAILS

Lamp wattage	30W	15W	Caps	30W Bipin	15W Bipin
Lamp running volts	104	56	Nom. length inches	36	18
Lamp running current(amps)	0.34	0.30	Diameter inches	1	1
Lamp starting current (amps)	0.4/0.65	0.4/0.65	Type of cathodes	Hot	Hot
Nominal life hrs.	2500	2500	Output of shortwave U.V. 2537A @ 100 hrs.	7.0 W (approx.)	3.0W (approx.)
Oper. position	any	any	Irradiation 3 ft. from tube in a direction perpendicular to its length	70 micro-watts/cm2 (approx.)	30 micro-watts/cm2 (approx.)
Form	Straight Tubular	Straight Tubular			

Price on application.

LAMP STAIN

A quick air drying stain for colouring lamps up to 40W.
Available in 1 pint bottles in Red, Green, Blue and Amber. Price on application.

STANDARD CAPS

Goliath Edison Screw (G.E.S.) E/40

Edison Screw (E.S.) E/27

Small Edison Screw (S.E.S.) E14

Candelabra Edison Screw (C.E.S.) E/12

Miniature Edison Screw (M.E.S.) E/10

Bayonet Cap (B.C.) B/22

Small Bayonet Cap (S.B.C.) BA/15D

Small Centre Contact (S.C.C.) BA/15S

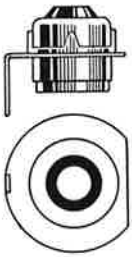
Miniature Centre Contact (M.C.C.) B.9.5

Medium Prefocus P.28

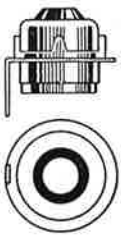
British Prefocus P.22D

Prefocus (American) P.15d

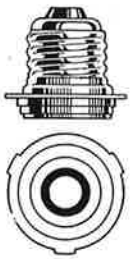
Bayonet (3-pin B.C.) B22/25 x 26 (3-pin)



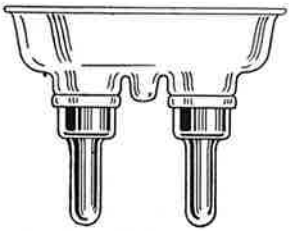
Large Bell & Howell (BH 46)



Small Bell & Howell (BH 38)



3-Fin E.S. E27/35 x 30. 3-fin

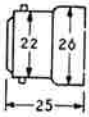


Bi 38 Bipost

STANDARD CAPS

The illustrations above show the types of cap to which reference is made in this catalogue. The letters in brackets are the recognised abbreviations by which these caps may be described and the figures indicate dimensions.

e.g. Cap B22/25 x 26 has a diameter of 22 mm., an overall length of 25 mm. and a skirt 26 mm. in diameter.



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and printed in Australia
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Kingsgrove, N.S.W.

Osram

the wonderful lamp

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