

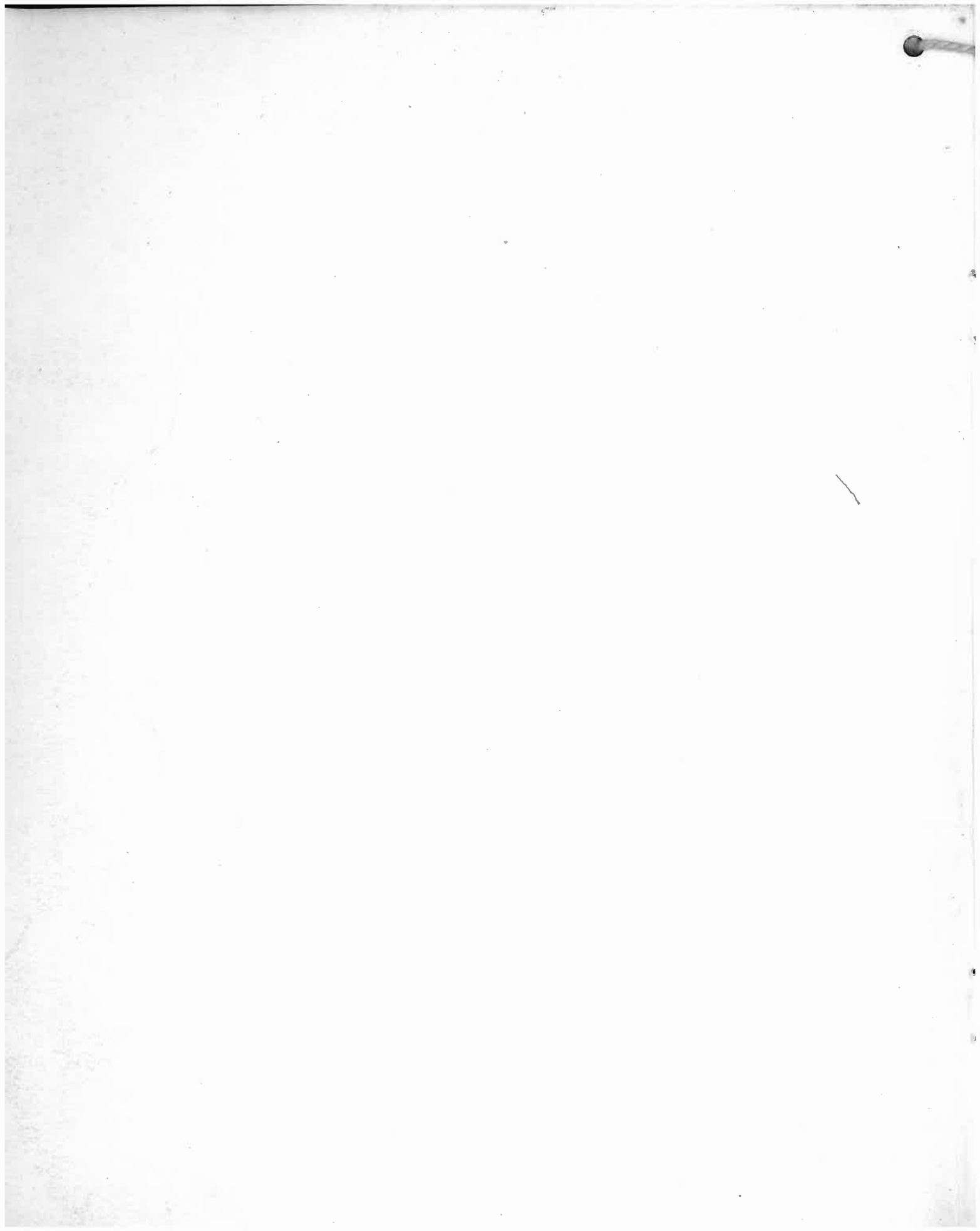


# Mazda lamps



THE LAMPS WITH

BEHIND THEM



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THE ATTACHED CARD INSERT GIVES PURCHASE TAX ADDITIONS AND LAMP CLASSIFICATIONS

Prices in this Catalogue apply only in Great Britain and Northern Ireland

*As efforts are made constantly to improve designs and methods of manufacture, subject to statutory restrictions and availability of materials, the goods supplied may differ in details from the description given in this publication.*

*Not every Mazda lamp can be included in this catalogue and should your own special requirements for certain non-standard lamps not be fully satisfied, please consult any BTH Office.*

## Foreword

**T**HREE-quarters of a century ago, two brilliant young scientists with sound business sense formed a partnership that was to exert a profound and far-reaching influence on the electrical age to come. The vigorous, driving enthusiasm of Elihu Thomson and Edwin Houston continues to grow through the years in the great British Thomson-Houston Company, and the twentieth century has consistently found the pioneering spirit of BTH in the forefront of electrical development throughout the world.

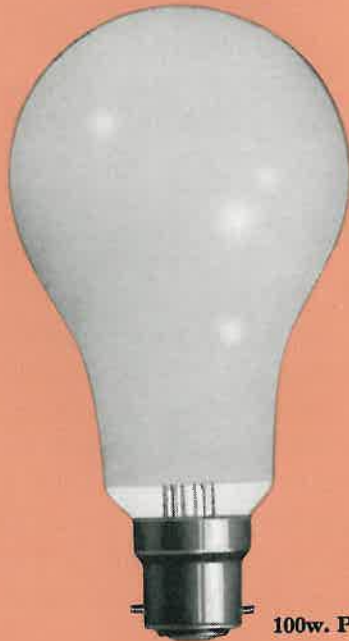
Mazda Lamps are designed with meticulous care by BTH Engineers and constructed to the most precise tolerances from the finest available materials. It is our tradition that every significant lighting development since the days of the carbon arc owes something to BTH, and 1954 in particular saw the introduction of many new and greatly improved fluorescent and electric discharge lamps. Today, as always from the days of the earliest filament bulbs, no lamp will give you a better, more economical or longer lasting light for your money than a Mazda.



150w. Silverlight



60w. Clear



100w. Pearl



**Clear.** These lamps are available in 15-watt to 1500-watt sizes and a large percentage have fuses in the lead-in-wires. Except where indicated, they are filled with the inert gas Argon to enable the filament to operate at much higher temperatures and with greater efficiency.

**Pearl.** All that has been said of Mazda clear lamps applies to the popular pearl range except that the latter are available from 15 watt to 200 watt only. The inside frosting of these lamps diffuses the light and reduces glare with very little light absorption.

**Coiled Coil.** As the name implies, the filament wire is first wound round a mandrel and the resultant coil wound once again; the effect is to provide a filament giving up to 20% more light for the same current consumption. All Mazda Coiled Coil lamps have internal fuses.

**Silverlight.** These inside-silica-coated lamps give a bright, evenly distributed and diffused light by virtue of the finely divided silica coating. As with ordinary G.L.S. lamps the coiled coil lamps give up to 20% more light than their single coil equivalent.

**Mazda G.L.S. Lamps** have moulded necks withstanding twisting-strains of over 25 lb.-in. and 'Vitalized' filaments which never sag. They are designed to operate in any position.

### Caps and Dimensions

Watts	Cap	Diameter		Length		Light Centre Length	
		mm.	in.	mm.	in.	mm.	in.
15	B.C.(B22/25 × 26)	55	2.17	92.5	3.63	65	2.56
25		60	2.36	100	3.94	70	2.76
40		60	2.36	110	4.33	80	3.15
60		60	2.36	110	4.33	80	3.15
75		68	2.68	125	4.92	90	3.54
100		68	2.68	125	4.92	90	3.54
150	E.S.(E27/25)	80	3.15	160	6.30	120	4.72
200		90	3.54	178	7.00	133	5.24
300	G.E.S.(E40/45)	110	4.33	233	9.17	178	7.00
500		130	5.12	267	10.51	202	7.95
750		150	5.91	300	11.81	225	8.86
1000		150	5.91	300	11.81	225	8.86
1500		170	6.69	335	13.19	250	9.85

# General Lighting Service

# GENERAL LIGHTING SERVICE

Watts	Voltages and List Prices *									
	200, 210, 220, 230, 240, 250, 260		100, 110, 120, 130		60, 65, 75		35, 50, 55		25	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
<b>Single Coil Clear and Pearl</b>										
15	1	6½†	1	6½†	1	11†	1	11	1	11
25	1	6½†	1	6½†	1	11	1	11	1	11
40	1	4½	1	6½	2	3	2	3	2	3
60	1	4½	1	6½	2	3	2	3	2	3
75	1	10	2	0	—	—	—	—	—	—
100	1	10	2	0	4	0	4	0	4	0
150	2	7	2	9	6	0	6	0	—	—
200 Clear	3	9	4	3	9	0	9	0	—	—
200 Pearl	4	3	4	9	—	—	—	—	—	—
<b>Single Coil Clear Only</b>										
300§	7	6	8	0	12	0	12	0	—	—
500§	10	0	10	6	16	0	16	0	—	—
750§	16	0	16	0	—	—	—	—	—	—
1000§	17	6	17	6	—	—	—	—	—	—
1500§	25	0	25	0	—	—	—	—	—	—
<b>Coiled Coil Clear and Pearl</b>										
40	1	9	—	—	—	—	—	—	—	—
60	1	9	—	—	—	—	—	—	—	—
75	2	1½	—	—	—	—	—	—	—	—
100	2	1½	—	—	—	—	—	—	—	—

FOR DIMENSIONS SEE OPPOSITE PAGE

## Silverlight (patents applied for)

Clear

Pearl

Silverlight

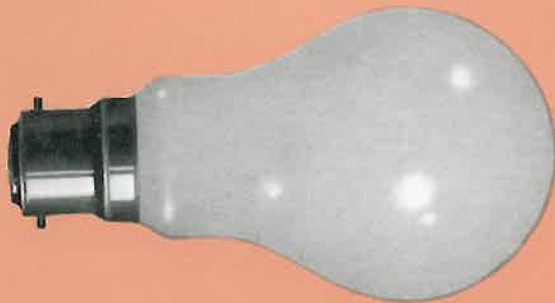
Watts	Voltages	Cap	List* Price	Dimensions				
				Diameter		Length		
				s.	d.	mm.	in.	mm.
<b>Single Coil</b>								
40	200, 210, 220, 230, 240, 250, 260	B.C. (B22/25 × 26)	1	7½	60	2-36	110	4-33
60			1	7½	60	2-36	110	4-33
100			2	1	68	2-68	125	4-92
150			3	1	80	3-15	160	6-30
200			4	9	90	3-54	178	7-00
<b>Coiled Coil</b>								
40	200, 210, 220, 230, 240, 250, 260	B.C. (B22/25 × 26)	2	0	60	2-36	110	4-33
60			2	0	60	2-36	110	4-33
100			2	4½	68	2-68	125	4-92

\* Purchase Tax must be added to the prices in these columns for lamps up to 250 watts. For the exact amount of purchase tax to be added, see TABLE A on the card insert.

§ Lamps exempt from purchase tax.

† These lamps are vacuum only, all other lamps listed on this page are gasfilled.





Colour Sprayed G.L.S.



Pygmy Sign



Internally Sprayed Sign



Disneylights



Fairy Lights



Fairy Candles



Snow Gem Fairylights



### Colour Sprayed G.L.S. and Sign Lamps

These lamps are ideal for festive illumination at the seaside, in parks and for the exterior or interior decoration of such buildings as halls, cinemas and theatres.

Colour Sprayed G.L.S. lamps have the same caps and dimensions as the standard household G.L.S. lamps.

Ordinary Sign lamps are available internally sprayed thus maintaining a smooth clean surface for a considerable time.

### Decoration Sets

Each set comprises twelve lights ready wired on a flexible cord for immediate use on 200/260 volt supplies, and one spare lamp. A sliding berry-bead device on each lampholder provides a simple and convenient method of fixing to twigs, projections etc. Spare Mazda 20-volt Decoration Lamps (Clear or Coloured with M.E.S. cap) fit any 12-light set; price 1/- each plus P.T. 2½d.

### Mazda Disneylights

Gaily coloured lamps with well-known Disney characters on the shades. List Price 25s. 0d. plus 4s. 8d. P.T.

### Mazda Fairy Lights

A string of brightly coloured lights, ideal for festooning public rooms and restaurants as well as private homes. List Price 16s. 11d. plus 3s. 1d. P.T.

### Mazda Fairy Candles

These lamps have the appearance of glowing candles, in a variety of gay colours. List Price 37s. 4d. plus 6s. 11d. P.T.

### Mazda Snow-Gem Fairy Lights

Each light glistens and sparkles like a flake of snow in the sun. List Price 35s. 0d. plus 6s. 6d. P.T.



## Colour Sprayed G.L.S. Single Coil

Watts	Colours Available	Voltages and List Prices*			
		100, 110, 120, 130 s. d.		200, 210, 220, 230, 240, 250, 260 s. d.	
15† } 25† }	Black, White, Red, Blue, Green, Yellow, Flame, Orange, Pink, Amber	1	8½	1	8½
		1	8½	1	8½
40 } 60 } 75 } 100 } 150 } 200 } 300§ } 500§ }	<b>Standard Colours</b> White, Red, Blue, Green, Yellow, Flame, Orange, Pink, Amber	1	9½	1	7½
		1	9½	1	7½
	<b>White Only</b> (wholly or partially sprayed)	2	4	2	2
		2	4	2	2
		3	6	3	4
		5	9	5	3
		9	9	9	3
		12	9	12	3

\* Purchase Tax must be added to the prices in these columns for lamps up to and including 200 watts. For the exact amount of purchase tax to be added see TABLE A on the card insert.

† 15w. and 25w. lamps can be supplied internally sprayed Red, Blue, Green, Yellow, Orange or White. 200-250 volts only. List Price 1s. 9½d. They are also available externally Colour Glazed (the colour becomes an integral part of the glass bulb) also List Price 1s. 9½d.

§ Lamps exempt from purchase tax.

## Pygmy Sign Lamps Clear or Colour Sprayed in Standard Colours

Watts	Voltages	Cap	Dimensions		List Price*	
			Length mm.	Diam. mm.	Clear s. d.	Wholly Sprayed s. d.
15	100, 110, 130, 200, 210, 220, 230, 240, 250, 260	B.C.(B22/22) E.S.(E27) S.B.C.(B15/24 × 17) S.E.S.(E14/27 × 18)	56	28	1	10
58			2			
62					2	5
64						
15	25, 50, 60, 65, 75					

\* Purchase Tax see note below.

## Sign Lamps Internally Coloured—Red, Green, Yellow, Blue, White or Orange

Watts	Cap	Dimensions		Voltages and List Prices*					
		Length mm.	Diameter mm.	100, 110, 130, 200, 210, 220, 230, 240, 250, 260 s. d.		200, 210, 220, 230, 240, 250, 260 s. d.		110 s. d.	
15	B.C.(B22/22) E.S.(E27) S.B.C.(B15/24 × 17) S.E.S.(E14/27 × 18)	56	28	2	1	—	—	—	—
		58							
		62							
		64							
15	B.C.(B22/22) E.S.(E27)	90	44	—	—	1	10	2	1
		92							

\* Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added, see TABLE A on the card insert.

**LIGHTING FOR  
FESTIVE  
OCCASIONS**

**Colour Sprayed-  
G.L.S.**

**Pygmy Sign**

**Sign**

**Decoration Sets**

**SECTION 2**



**Longlite**



**Extended Candle**



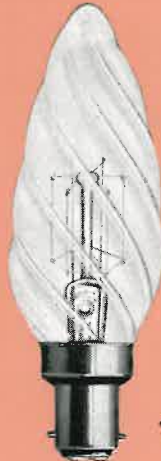
**Gothic**



**Double Cap Tubular**



**Plain Candle**



**Twisted Candle**



**Candle Lamps**

There are many instances in the home, hotels or similar places where the use of small decorative lamps adds charm and 'atmosphere' to the surroundings. These small lamps are frequently used as a pair in alcoves or with various candelabra.

The extended candles have similar applications.

**Gothic**

These lamps are only supplied sprayed in standard colours, they are suitable for similar uses as the Candle Lamps above.

**Tubular**

Normally these lamps are used clear for such applications as the lighting of show cases to add sparkle to jewellery or similar goods or with a small reflector to light aquaria. They are also available frosted or colour sprayed for decorating bars, foyers or similar places.

# Candle and Tubular

Watts	Voltages and List Prices*								Cap	Dimensions		
	200, 210, 220, 230, 240, 250, 260		100, 110, 120, 130		60, 65, 75		25, 50			Diam. mm.	Length mm.	
	s.	d.	s.	d.	s.	d.	s.	d.				
<b>Plain Candle</b>												
25a	3	9	3	9	4	9	4	9	} B.C.(B22/25 × 26) S.B.C.(B15/26 × 22) S.E.S.(E14/27 × 18) E.S.(E27/25)	39 max.	119 max.	
40b	4	3	4	3	5	3	5	3		B.C.(B22/25 × 26) S.B.C.(B15/26 × 22) S.E.S.(E14/27 × 18) E.S.(E27/25)	39 max.	122 max.
60b	4	3	4	3	5	9	5	9		47 max.	125 max.	
<b>Twisted Candle</b>												
25a	4	3	4	3	5	3	5	3	} B.C.(B22/25 × 26) S.B.C.(B15/26 × 22) S.E.S.(E14/27 × 18) E.S.(E27/25)	39 max.	119 max.	
40b	5	0	5	0	6	0	6	0		B.C.(B22/25 × 26) S.B.C.(B15/26 × 22) S.E.S.(E14/27 × 18) E.S.(E27/25)	39 max.	122 max.
60b	5	0	5	0	6	6	6	6		39 max.	125 max.	
<b>Extended Candle (Clear—Stem opalized)</b>												
25	6	6	6	6	—	—	—	—	} B.C.(B22/21 × 26) S.B.C.(BA.15d/17)	35±2	210±5	
40	7	0	7	0	—	—	—	—		B.C.(B22/21 × 26) S.B.C.(BA.15d/17)	35±2	208±5
60	7	6	7	6	—	—	—	—		45±2	240±5	
<b>Gothic (Sprayed in Standard Colours)</b>												
25	4	5	4	5	—	—	—	—	} B.C.(B22/25 × 26) S.B.C.(B15/26 × 22) S.E.S.(E14/27 × 18) E.S.(E27/25)	54±1	108±3	
40	5	3	5	3	—	—	—	—		54±1	111±3	
60	5	3	5	3	—	—	—	—		54±1	115±3	
<b>Tubular—Single Cap (Vacuum)</b>												
10†	—	3	9	4	9	4	9	4	} B.C.(B22/22) S.B.C.(BA.15d/17)	25±1	63±3	
25‡	3	9	3	9	4	9	4	9		B.C.(B22/22) S.B.C.(B15/24 × 17) S.E.S.(E14/27 × 18)	25±1	63±3
										25±1	86±3	
<b>Tubular—Double Cap (Vacuum)</b>												
30¶	5	9	5	9	—	—	—	—	} C.C.(S15s) {	25±1	221 or 284	
60¶	6	0	6	0	—	—	—	—		25±1	284	
<b>Longlite</b>												
40¶	8	6	8	6	—	—	—	—	} B.C.(B22/25 × 26) or E.S.(E27/25)	38±1	302±3	
60¶	8	6	8	6	—	—	—	—				

Candle Lamps sprayed in standard colours (Section 2) (a) 2d. each extra (b) 3d. each extra.

30w. and 60w. Tubular Lamps are available Frosted, Varnished or Sprayed in Standard Colours. 4d. each extra.

\* Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added see

TABLE A on the card insert.

† In the following voltages only: 50, 60, 65, 75, 110 and 120.

‡ Not 25 volts.

¶ Not in 100 or 130 volts.

DECORATIVE

Candle

Extended  
Candle

Gothic

Tubular

Longlite

SECTION 3



75w. Reflector Spotlight

**Light Tubes**



$\frac{1}{8}$  Circle

$\frac{1}{4}$  Circle

$\frac{1}{2}$  Circle

12" Straight



Light Tube Fitting



**Reflector Lamps**

These lamps with the 'built-in reflector' have become a necessity in modern shop and shop window lighting, not only because of their usefulness for emphasizing items for display but also because they blend so well with fluorescent or other forms of general lighting. They are also widely used in workshops and display boards and the 75-watt lamp with B.C. cap has many applications in the home.

The Spotlight lamps are light-diffused frosted. Floodlight lamps have extra frosting and give still greater diffusion of light.

**Light Tubes**

These lamps provide a bright yet warm light and they are used extensively for decorative purposes in shops and stores—to add charm to bars, aquaria etc., or to provide that necessary extra light for wall mirrors or show cases.

**Lampholders for Light Tubes**

Special lampholders are required for Light Tubes; they are of excellent workmanship and form an integral part of the lamp. (See illustration below.)

List Price . . . . 6s. 8d. per pair

**Light Tube Fitting**

The illustration on the left shows the popular Light Tube Fitting complete with a 12" Light Tube.

	Price		P.T.	Total
	s.	d.	s. d.	s. d.
Fitting	7	6	1 3	8 9
Lamp	12	4	2 3	14 7
Lamp and Fitting				<u>23 4</u>



Lampholder for Light Tubes

## Reflector Spotlights Light-Diffused Frosted

Watts	Voltages	Cap	Dimensions		List* Price s. d.
			Length mm.	Diam. mm.	
75	110, 200, 210, 220, 230, 240, 250	{ E.S.(E27/25) or B.C.(B22/25 × 26) }	129 ± 3	95 ± 1	7 0
150	110, 200, 210, 220, 230, 240, 250	E.S.(E27/25)	178 ± 4	126 ± 1.5	15 6 <sup>¶</sup>

\* Purchase Tax see note below.

<sup>¶</sup> Price for Ring Filament. Grid Filament 18s. 6d. plus purchase tax.

## Reflector Floodlight Pearl

Watts	Voltages	Cap	Dimensions		List* Price s. d.
			Length mm.	Diam. mm.	
75	110, 200, 210, 220, 230, 240, 250	{ E.S.(E27/25) or B.C.(B22/25 × 26) }	129 ± 3	95 ± 1	7 0
150	110, 200, 210, 220, 230, 240, 250	E.S.(E27/25)	178 ± 4	126 ± 1.5	15 6 <sup>¶</sup>

\* Purchase Tax see note below.

<sup>¶</sup> Price for Ring Filament. Grid Filament 18s. 6d. plus purchase tax.

## Light Tubes

Watts	Nominal Length in.	Distance between Round-peg Side Caps mm.	Dimensions		List Prices*			
			Length mm.	Diam. mm.	200, 210, 220, 230, 240, 250, 260 volts		100, 110, 120 and 130 volts	
					s.	d.	s.	d.
<b>Straight Lengths<sup>†</sup> (White Opal)</b>								
35	12	229	305	30	12	4	12	4
75	24	534	610	30	22	6	22	6
110	36	839	915	30	30	0	—	—
150	48	1144	1220	30	35	0	—	—
<b>Curves <math>\frac{1}{8}</math>, <math>\frac{1}{4}</math> or <math>\frac{1}{2}</math> Circle<sup>‡</sup> (White Opal)</b>								
60	20	{ $\frac{1}{8}$ Circle 416 $\frac{1}{4}$ Circle 393 $\frac{1}{2}$ Circle 309 }	500 <sup>‡</sup>	30	30	0	30	0

\* Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added, see TABLE A on the card insert.

<sup>†</sup> Colour Spraying Red, Blue, Green, Yellow, Orange, Pink or Amber, 10% List extra.

<sup>‡</sup> Centre line of curve.

# REFLECTOR & LIGHT TUBES

## Reflector Spotlights

## Reflector Floodlights

## Light Tubes





250w. with Internal Reflector



250w. Radiator



250w. for use with External Reflector



**Mazda**

*lamps  
stay brighter  
longer*

#### **Infra Red**

For many years this form of heating has held its own for industrial stove enamelling or baking of all kinds. A large proportion of manufacturers believe that only by the thorough internal heating that these lamps give, can a first class enamel 'skin' of very good quality be obtained.

The farmer too, has found that Infra Red lamps provide light and adequate warmth to protect the health of his livestock. They are safe to use and require no attention or maintenance.

#### **Radiant heat**

This 60-watt lamp is specially designed for use in clinical apparatus employed for heat therapy in hospitals and clinics. *(Not Illustrated)*

#### **Radiator**

These lamps are tubular in shape and they are sprayed a warm flame colour. They are suitable for airing cupboards or similar places where both light and heat are required.

## Infra Red with Internal Reflector Parabolic Bulb

Watts	Voltages	Cap	Dimensions		List* Price	
			Length mm.	Diameter mm.	s.	d.
150	{ 100/130 200/250	E.S.(E27/58 × 38) Cementless	154.5 ± 4.5	111 ± 1.5	12	6
250			178 ± 5.5	126 ± 1.5	15	6

\* Purchase Tax see note below.

## Infra Red for use with External Reflector Round Bulb

Watts	Voltages	Cap	Dimensions		List Price*	
			Length mm.	Diameter mm.	Clear s. d.	Pearl s. d.
250	100/130	E.S.(E27/25)	178 ± 5	90 ± 1	7 9	8 3

\* Purchase Tax see note below.

## Radiant Heat Round Bulb

Watts	Voltages	Cap	Dimensions		List* Price	
			Length mm.	Diameter mm.	s.	d.
60	110, 120, 210, 230, 250	B.C.(B22/25 × 26) or E.S.(E27/25)	117.5 ± 3.5	65 ± 1	2	3

\* Purchase Tax see note below.

## Radiator Tubular Bulb†

Watts	Voltages	Cap	Dimensions		List* Price	
			Length mm.	Diameter mm.	s.	d.
250	100/110, 115/125 200/220, 230/250	B.C.(B22/31 × 30) or E.S.(E27/35 × 30)	285 ± 5	64 or 57 ± 1	13	6

\* Purchase Tax must be added to the prices in these columns unless exemption has been obtained. For the exact amount of purchase tax to be added see TABLE A on the card insert.

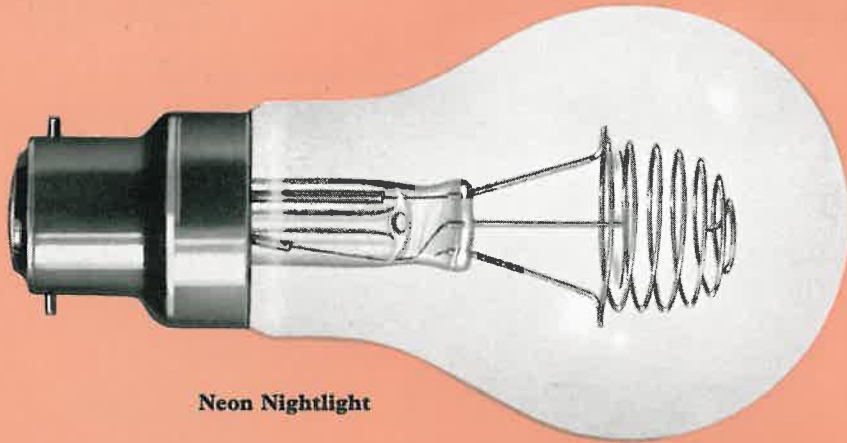
† Sprayed Flame.

# INFRA RED AND RADIATOR

## Infra Red

## Radiant Heat

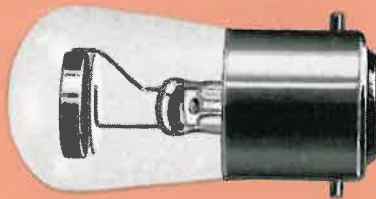
## Radiator



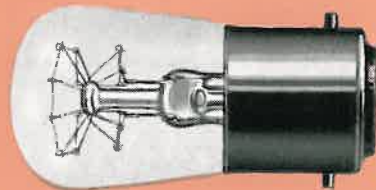
**Neon Nightlight**



**Neon Cruciform**



**Neon Indicator  
Type 'I'**



**Switchboard Indicator**



**Radio Panel  
Tubular Bulb**



**Radio Panel  
Round Bulb**



**Neon**

These lamps are used where light output is of secondary importance but where a steady bright glow and low power consumption are required.

The night light type is most suitable for sick rooms and children's nurseries; it is quite safe and gives just the required amount of light without being distracting.

The indicator type of neon lamp is for use on domestic appliances such as cookers or refrigerators. It clearly indicates whether a circuit is open or closed.

**Switchboard Indicator**

These lamps are used on electric control panels and similar installations where visible light output has to be greater than that given by a neon indicator.

**Radio Panel**

The extensive range of Mazda Radio Panel Lamps has been developed to provide the radio mechanic with the correct replacement lamp for almost any type of receiver.

## Neon

Watts	Cap	Dimensions		List Price	
		Length mm.	Diameter mm.	s.	d.
<b>Type 'N' Nightlight</b> (Voltages 200/220, 230/240, 250/260)					
5	{ B.C.(B22/31 × 30) E.S.(E27) }	125 (max.)	61 (max.)	4	6
<b>Type 'Cruciform'</b> (Voltages 200/220, 230/240, 250/260. Containing Cruciform, Letters or Numbers)					
5	{ B.C.(B22/31 × 30) E.S.(E27) }	104	34 (max.)	7	6
<b>Type 'P' Indicator</b> (Voltages 100, 110, 120, 130, 200/260)					
0.2	S.E.S.(E14/16.5)	30 (max.)	12	4	9
0.5 †	{ B.C.(B22/22) E.S.(E27) S.B.C.(B15/24 × 17) S.E.S.(E14/27 × 18) }	56	28	4	0
		58			
		54	18		
56					
<b>Current Polarity Indicator</b> (Voltages 110/750)					
0.5	Special	79	20	8	9
<b>Double Ended Tubular containing letters</b> (Voltages 200/260)					
5—15	B.C.	390	42	12	6

† This lamp can be supplied with internal fluorescent coating in Red, Blue, Green or Amber. List Price 6s. 0d.  
‡ Purchase Tax not chargeable.

## Switchboard Indicator

Volts †	Cap	Dimensions		List Price*			
		Length mm.	Diameter mm.	Clear		Colour Sprayed	
				s.	d.	s.	d.
100/130 or, 200/260	B.C.(B22/22)	56	28	2	6	2	8

\* Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added see TABLE A on the card insert.

† One lamp only is available in each of these voltage ranges, and will be marked 100/130 or 200/260 volts respectively. Lamps are marked 'Switchboard Indicator' and no wattage specified.

## Radio Panel

Volts	Amps.	Cap	Dimensions		List † Price	
			Length (max.) mm.	Diameter (max.) mm.	s.	d.
<b>Round Bulb</b>						
6	0.04	} M.E.S. (E10/13)	24	11	1	0
6	0.06		24	11	1	0
6.2 †	0.30		29	15		7
6.3	0.11		24	11		7
6.5	0.30		24 or 29	11 or 15		7
<b>Tubular Bulb</b>						
6.2 †	0.30	} M.E.S. (E10/13)	30	10		7
6.3 †	0.15		30	10		7
6.5	0.30		30	10		7

Extras for varnishing radio panel lamps. 2d. each extra list or 8/- nett per 100.

† Objective Life 10 hours.

‡ Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added see TABLE B on the card insert.

# LAMPS FOR INDICATION

## Neon

## Switchboard Indicator

## Radio Panel

# SECTION 6





The outstanding popularity of Mazda Fluorescent lamps is attributable firstly to the reliability and quality of workmanship associated with all BTH products, and secondly, the improvements in efficiency and performance which are constantly being introduced by the highly skilled team of technicians in BTH laboratories and workshops.

One of the more recent improvements is the change in design of the electrode, resulting in better integration of electrode and its coating so ensuring a consistent long life.

**Deluxe Warm White**

With this new attractive colour, Mazda have achieved a range of lamps which blend beautifully with tungsten lighting while retaining the fluorescent lamp's high efficiency.

**New Warm White**

These lamps are an improvement on the popular Warm White lamps, having a much increased output yet retaining the qualities of colour and life of the old design.

**Tungsten Ballast Lamps**

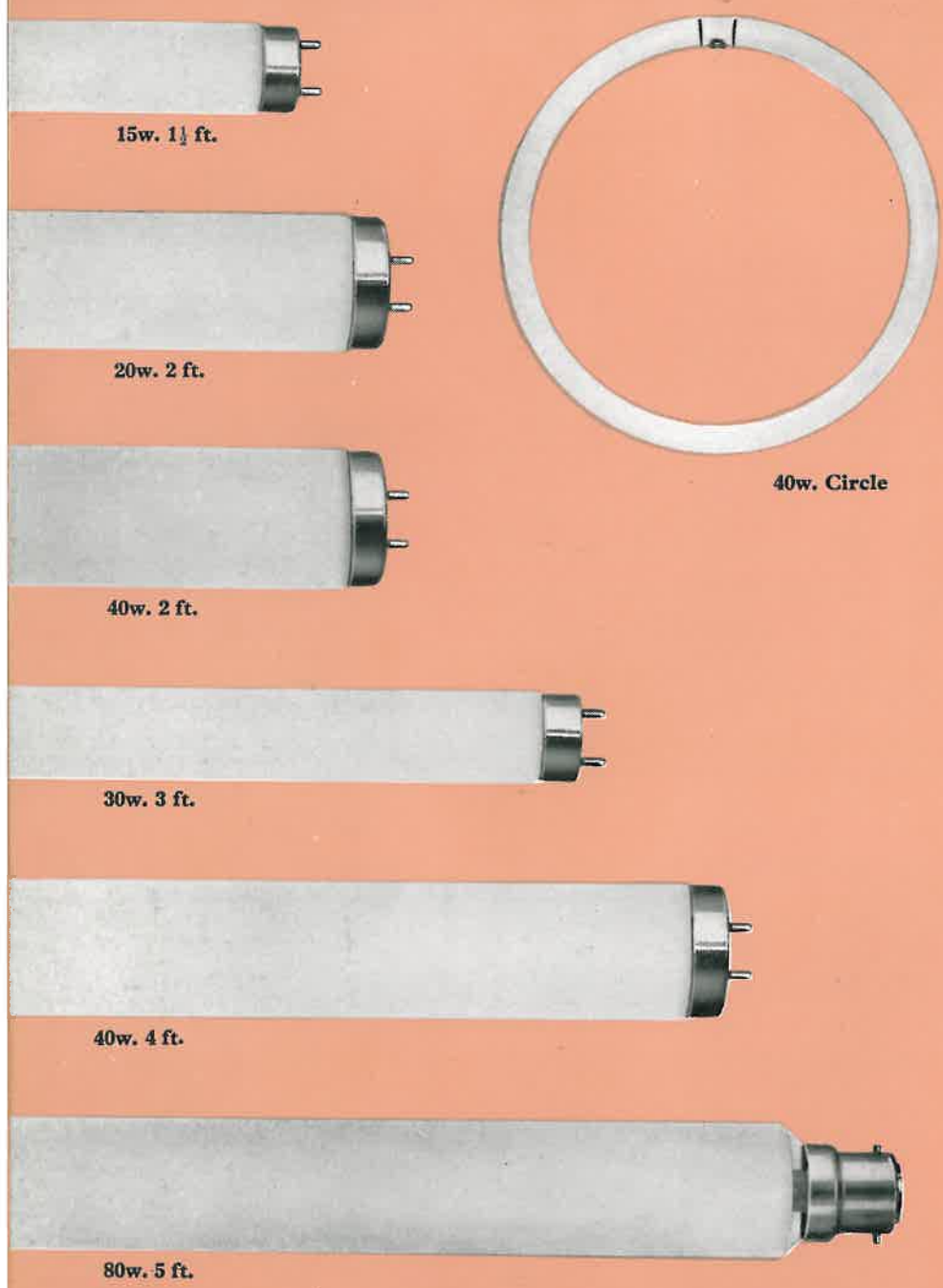
For use with 40w. 4-ft. Fluorescent Lamps Type MCFA/U

Experience has revealed a need, in certain instances, for mixed fluorescent and tungsten lighting. One way of meeting this demand is to utilize a fluorescent lamp circuit in which the conventional choke is replaced by a special tungsten ballast lamp which not only serves to regulate the current but also emits useful light.

**Tungsten Ballast**

Mains Volts	Lamp Rating		Overall Dim.		List* Price s. d.
	Volts	Watts	Diam. mm.	Length mm.	
200/210 220/230 240 250	115	50	65	117.5	2 6
	140	60			
	151	65			
	162	70			
Cap:—3-pin B.C.					

\* Purchase Tax must be added to the price of this lamp. For the exact amount of purchase tax to be added see TABLE A on the card insert.



15w. 1½ ft.

20w. 2 ft.

40w. Circle

40w. 2 ft.

30w. 3 ft.

40w. 4 ft.

80w. 5 ft.

**Fluorescent Lamps, Caps and Dimensions**

Watts	Nominal Length	Cap	Dimensions			
			Overall Length		Diameter	
			in.	mm.	in.	mm.
15	1½ ft.	Med. Bi-pin 23(G2.4×13/23×10)	17 3/8	451	1	26
20	2 ft.	Med. Bi-pin 35(G2.4×13/35×10)	23 1/8	604	1 3/8	38
30	3 ft.	Med. Bi-pin 23(G2.4×13/23×10)	35 1/8	909	1	26
40	2 ft.	} Med. Bi-pin 35(G2.4×13/35×10) {	23 1/8	604	1 1/8	38
40	4 ft.		47 1/8	1214	1 1/8	38
80	5 ft.		60	1524	1 1/2	38
50 or 70 125	8 ft.	Raised Contact (S24s/17) B.C.(B22/25×26)	93 3/8	2384	1	26
	8 ft.		96	2438	1 1/2	38



## Straight Tubes

Watts	Nominal Length	Colours Available	List Price*			
			Ordinary MCF/U		Instant Start MCEA/U	
			s.	d.	s.	d.
<b>Standard Range</b>						
15	1½ ft.	Natural, New Warm White ..	9	9	10	9
		Deluxe Warm White ..	9	9	10	9
		Daylight, Colour Matching ..	9	9	10	9
20	2 ft.	Natural, New Warm White ..	10	6	11	6
		Deluxe Warm White ..	10	6	11	6
		Daylight, Colour Matching ..	10	6	11	6
30	3 ft.	Natural, New Warm White ..	11	0	12	0
		Deluxe Warm White ..	11	0	12	0
		Daylight, Colour Matching ..	11	0	12	0
40	2 ft.	Natural, New Warm White ..	11	0	12	0
		Deluxe Warm White ..	11	0	12	0
		Daylight, Colour Matching ..	11	0	12	0
40	4 ft.	Natural, New Warm White ..	11	9	12	9
		Deluxe Warm White ..	11	9	12	9
		Daylight, Colour Matching ..	11	9	12	9
80	5 ft.	Natural, New Warm White ..	13	0	14	0
		Deluxe Warm White ..	13	0	14	0
		Daylight, Colour Matching ..	13	0	14	0
		Red, Blue, Green, Yellow ..	17	6	18	6
<b>8 ft. Range</b>						
50 or 70 125	8 ft. 8 ft.	Natural .. .. .	—	—	30	0
		Natural or New Warm White ..	—	—	32	6 <sup>¶</sup>

## Mazda Fluorescent Circle

Lamp Watts	Colour	Dimensions in mm.		List Price*	
		Outside Diameter of Circle	Outside Diameter of Tube	s.	d.
40	Mellow	403±8	32±2	35	0

\* Purchase Tax must be added to all lamps listed above except the 125w. 8 ft. lamp marked thus ¶. For the exact amount of purchase tax to be added see TABLE A on the card insert.

## Cold Cathode Tubes

Space does not permit the complete listing of the extensive range of Mazda Cold Cathode Tubes but you may be sure that no matter what particular application you have in mind, your nearest BTH office or agent will quickly help you.

These highly efficient and economical lamps are available in standard straight lengths up to 8' 6" and in standard curves, but our lighting engineers should be consulted if there is any doubt as to the practicability of certain sizes or colours to suit any proposed scheme.

Listed below are a few of the large range of colours from which to choose.

Mellow	Gold	Light Green
Natural	Flame	Light Blue
Daylight	Ivory	Dark Green
New Warm White	Ruby Red	Dark Blue
Colour Matching	Cerise	Sky Blue

# FLUORESCENT

Standard

8 ft. Range

Circular

Tungsten  
Ballast

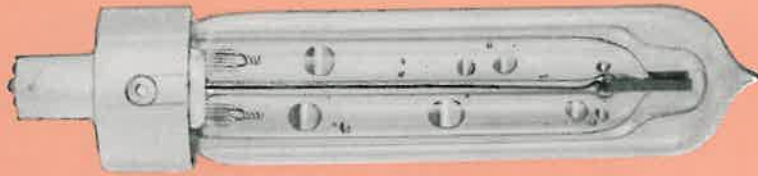
**SECTION 7**



400w. MA/V or MA/U



1000w. MA/H



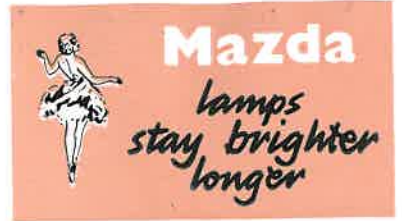
45w. SO/H



125w. MBW/U



80w. MB/U



### Sodium Vapour

These lamps have been highly praised for streetlighting and certain industrial applications both for their high output and economy. Sodium lighting is not new but the advances made by BTH technicians in recent years have greatly improved the efficiency and performance of the lamps.

'Hard' glass of new formula renders the tubes highly resistant to thermal shock.

'Fernico' alloy seals are invulnerable to the very active chemical attack of sodium vapour.

Double distillation of the metallic sodium together with the special washing technique of the glass parts, greatly improves light output through life.

### Mercury Vapour

For streetlighting and many kinds of industrial lighting, the high lumen/watt ratio of these lamps has made them a necessity rather than an advantage.

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.

**Sodium Vapour SO/H** These lamps should normally be used in a horizontal position but the 45w. and 60w. lamps will operate in any position between vertical (cap up) and horizontal.

Watts	A.C. Voltages	Cap B.C. Ceramic	Dimensions			List Price†			
			Length mm.	Diam. mm.	L.C.L. mm.	Without Jacket		With Clear Detachable Jacket	
						s.	d.	s.	d.
45	100/250	B22 (Small)	238	50	140	42	6	64	3
60			300	50	170	52	6	77	0
85		B22 (Medium)	415	50	230	63	0	92	3
140			518	65	280	74	6	107	6

† Purchase Tax not chargeable.

## Mercury Vapour

Watts	A.C. Voltages	Cap	Dimensions			List Price	
			Length mm.	Diam. mm.	L.C.L. mm.	s.	d.
<b>MA/V (Tubular Bulb, Burning position Vertical unless arc controlled)</b>							
250	100, 110, 120, 130, 200/220, 230/240, 250	G.E.S. (E40/45)	290	51 max.	170	54	0(a)
400			330	51 max.	190	59	0(a)
<b>MA/U (Tubular Bulb, Burning position, Any)</b>							
250	200/220, 230/240, 250	G.E.S. (E40/45)	290	51 max.	170	57	6(a)
400			330	51 max.	190	62	6(a)
<b>MA/H (Tubular, Burning position Horizontal)</b>							
250	200/250	G.E.S. (E40/45)	290	51 max.	170	64	6
400			330	51 max.	190	71	0
1000		200/220, 230/240, 250	S22/19 at one end S22s/21 with locating ring at the other	476±3	40 max.	292	110
<b>MB/U</b>							
80	200/220, 230/240, 250 350/450	3-pin B.C. (B22/31 × 30) G.E.S. (E40/45)	160	80	113	39	6
125			178	90	128	45	0
1000			335	165 max.	200	160	0
<b>MBW/U (Black Round Bulb, Ultra Violet, Burning position, Any)</b>							
125	200/220, 230/240, 250	3-pin B.C. (B22/31 × 30)	178	90	128	63	0

† Purchase tax not chargeable.

(a) These prices are for Soft Glass Envelope; Hard Glass Envelopes are also available.

NOTE: The lamp coding letters indicate the following:

- M = Mains Voltage Mercury Discharge.
- A = Glass Envelope loaded above 10 watts/cm. of arc length.
- B = Quartz Envelope loaded below 100 watts/cm. of arc length.
- W = Wood's Glass—Visible Light absorbing, and blocks short wave U/V radiation.
- /F = Fluorescent.
- /H = Horizontal Burning.
- /U = Any Position.
- /V = Vertical Cap up.

Mazda Electric Discharge Lamps are designed to operate on standard supply voltages using appropriate lamp auxiliary gear.

# SODIUM and MERCURY VAPOUR

SO/H

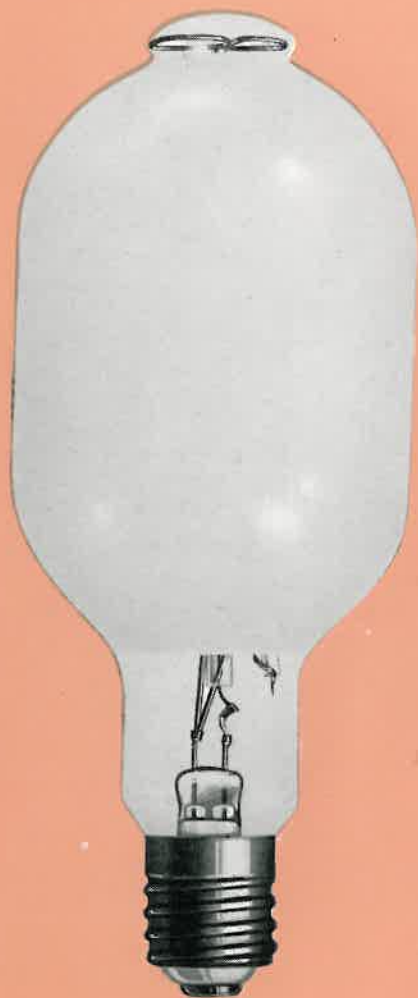
MA/V

MA/U

MA/H

MB/U

MBW/U



400w. MBF/U



250w. ME/D  
(P28/25 cap)



200w. MBT/U



**Mazda**

*lamps  
stay brighter  
longer*

#### **Mercury Vapour/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 various 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 BTH has brought about even better colour rendering.

#### **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.

#### **Mercury Vapour (Compact Source)**

These lamps are used extensively in projection microscopes, film printers, gear profile projectors and similar instruments. They have a very bright, steady and concentrated source of light and they are superior to any other form of lighting for many kinds of projection work.

## Mercury Vapour/Fluorescent

Watts	A.C. Voltages	Cap	Dimensions			List† Price	
			Length mm.	Diam. mm.	Neck Diam. mm.	s.	d.
<b>MBF/U (Round Bulb, Fluorescent Coated, Burning position, Any)</b>							
80	200/220, 230/240, 250	3-pin B.C.(E22/31 × 30) G.E.S.(E40/45) or 3-pin B.C.(E22/31 × 30) G.E.S.(E40/45)	160	80	39	48	6
125			183	90	39	59	0
400 ‡			286 max.	117 max.	51 max.	180	0

† Purchase Tax not chargeable.

‡ Tubular Bulb see illustration.

## Mercury Vapour/Tungsten

Watts	A.C. Voltages	Cap	Dimensions			List† Price	
			Length mm.	Diam. mm.	L.C.L. mm.	s.	d.
<b>MBT/U† (Round Bulb, Combined Tungsten and Mercury Vapour)</b>							
160	200/210, 220/230, 240/250	E.S.(E27/25) or B.C.(E22/25 × 26)	178	90	D128 F133	48	0
200	200, 210, 220, 230, 240, 250	E.S.(E27/25) or B.C.(E22/25 × 26)	178	90	D125 F133	50	0
250	200/210, 220/230, 240/250	E.S.(E27/54 × 38)	243	110	D183 F188	56	0
250	200/210, 220/230, 240/250	G.E.S.(E40/45)	233	110	D173 F178	56	0

† Purchase Tax not chargeable.

‡ Inside Silica-coated Lamps are also available in this range.

D—Discharge Portion, F—Filament Portion.

## Mercury Vapour Compact Source

Watts	A.C. or D.C. Voltages	Description	Cap	Dimensions			List† Price	
				Length mm.	Diameter mm.	L.C.L. mm.	s.	d.
<b>ME/D (Concentrated Light Source, Mercury Vapour)</b>								
250	200/250	Glass Envelope Box Type Box Type	3-pin	135 ± 3a	50 ± 2	85 ± 1	310	0
250			P28/25	103 max.c	43 × 34b	55.5 ± 0.5	430	0
250			3-pin	130 ± 3a	64 × 55	80 ± 1	430	0

† Purchase Tax not chargeable.

(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'.

NOTE: The lamp coding letters indicate the following:

M = Mains Voltage Mercury Discharge.

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

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

W = Wood's Glass—Visible Light absorbing, and blocks short wave U/V radiation.

/F = Fluorescent.

/H = Horizontal Burning.

/U = Any Position.

/V = Vertical cap up.

Mazda Electric Discharge Lamps are designed to operate on standard supply voltages using appropriate lamp auxiliary gear. This does not apply to MBT/U lamps.

# MERCURY VAPOUR

## Mercury Vapour/ Fluorescent

## Blended Light

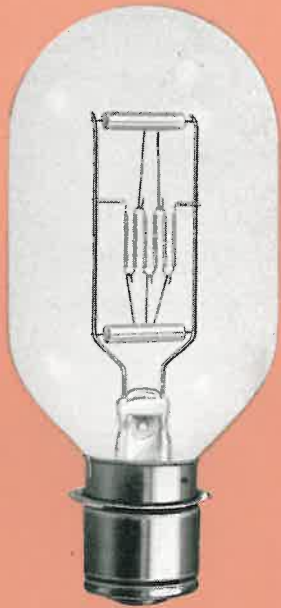
## Compact Source

## MBF/U

## MBT/U

## ME/D

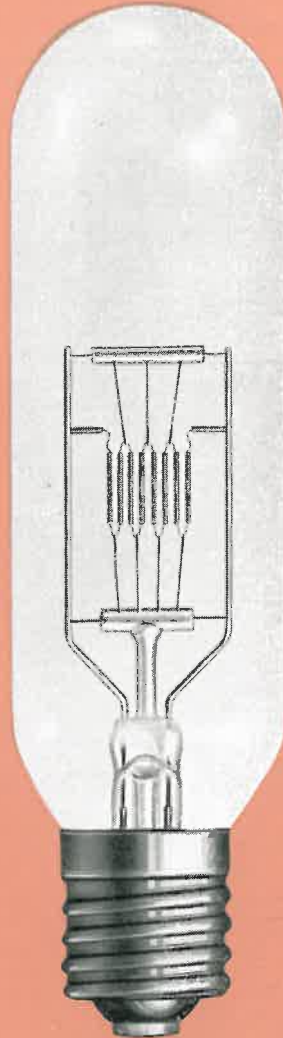




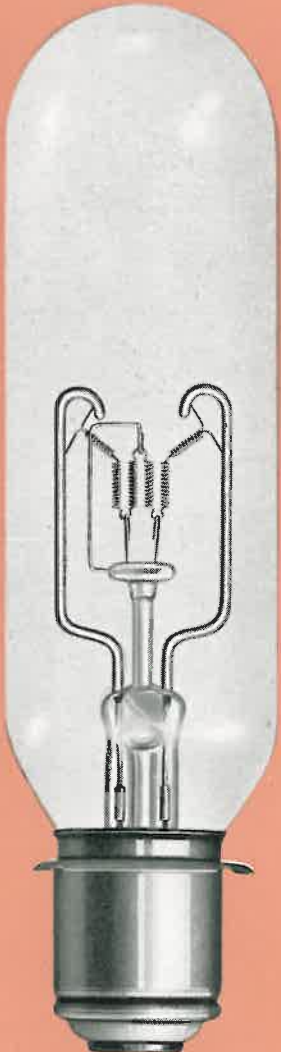
A1/8 500w. 110v.



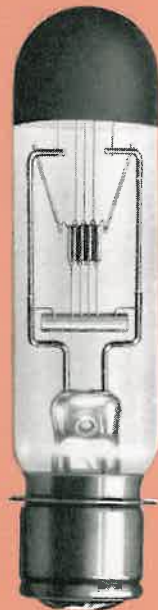
A1/127  
200w. 115v.



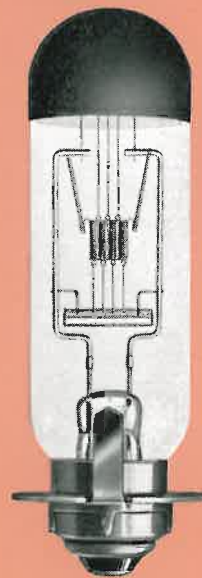
A1/57  
1000w. 230v.



A1/10 900w. 30v.



A1/7 500w. 115v.



A1/53 750w. 110v.



#### **Class A1 Projector**

Any lamp used in conjunction with optical apparatus must have, as a first essential, a concentrated light source of extreme brilliance. Such a lamp must also have extreme accuracy of filament construction and mounting, and must be precisely manufactured so that, in effect, it becomes an integral part of the apparatus for which it is designed. Other essential qualities must be constant light output, robustness and complete reliability.

Mazda Projector and other special lamps possess all these qualities. Their production and technical performance are the result of a long experience in the manufacture of lamps for optical equipment of all kinds.

All Mazda Projector Lamps are precision built for accurate focusing and the following are a few details of production which prove this point.

#### **Jig-formed Filament Supports**

These improve screen lumen maintenance and preserve precise alignment of filament segments.

#### **Multi-section Leads**

These are of specially chosen material to match expansion characteristics of filament and mount. This helps to prevent filament distortion.

#### **Mechanically Formed Filaments**

This process ensures a uniform and concentrated light source, it improves screen illumination initially and improves screen lumen maintenance.

#### **Mechanically Assembled Bridges**

These make for accuracy and uniformity in manufacture.

# Class A1 Burning position, cap down except where indicated.

# PROJECTOR

## Class A1

Lamp Ref. No.	Watts	Voltages	Efficiency L.P.W.	Objective Life Hours	Cap	Dimensions			Filament	List Price † s. d.
						Length mm.	Diam. mm.	L.C.L. mm.		
A1/ 72	10	20	14.5	100	S10/20 x 13, Pathe T Piece	57 ± 3	15 ± 1	25 ± 0.5	Transverse ..	4 9
A1/ 73	15	40	15.0	50S	S.C.C. (BA.15s/21)	57 ± 3	16 ± 1	29 ± 2	Transverse ..	4 0
A1/ 1	25	50	18.0	50S	S.C.C. (BA.15s/21)	57 ± 3	16 ± 1	29 ± 2	Transverse ..	4 9
A1/ 2	50	100, 110, 115	17.0	50S	S.C.C. (BA.15s/21)	76 ± 3	25 ± 1	34.5 ± 2	Twin coiled coil..	7 3
A1/ 19	50	100, 110, 115	17.0	50	S.B.C. (BA.15d/21)	76 ± 3	25 ± 1	34.5 ± 2	Twin coiled coil..	7 3
A1/ 21	100	12	23.5	50S	S.C.C. (BA.15s/21)	76 ± 5	25 ± 1	34.5 ± 2	—	13 9
A1/ 21	100	100, 110, 115	18.5	50S	S.C.C. (BA.15s/21)	76 ± 5	25 ± 1	34.5 ± 2	Twin coiled coil..	12 9
A1/ 23	100	12	24.0	50S	E.S. (E27/25)	128 ± 7	25 ± 1	75 ± 5	Twin Pillar ..	11 9
A1/ 4	100	12	24.0	50S	Prefocus (P28/25)	133 ± 7	25 ± 1	55.5 ± 0.5	Twin Pillar ..	12 9
A1/135	100	24	22.0	100	S.B.C. (BA.15d/21)	75 ± 3	25 ± 1	55 ± 2	Transverse coiled coil ..	13 9
A1/ 3	100	30	23.0	50S	Prefocus (P28/25)	133 ± 7	25 ± 1	55.5 ± 0.5	Offset Fil. ..	12 9
A1/121	100	100, 110, 115	18.5	50S	S.C.C. (BA.15d/21)	76 ± 3	25 ± 1	34.5 ± 2	Twin coiled coil..	12 9
A1/ 4	100	100, 110, 115	18.5	50S	Prefocus (P28/25)	133 ± 7	25 ± 1	55.5 ± 0.5	Twin coiled coil..	12 9
A1/ 4	100	200-10-20-30-40-250	15.0	50S	Prefocus (P28/25)	133 ± 7	25 ± 1	55.5 ± 0.5	Grid 8-sect. ..	12 9
A1/ 23	100	200-10-20-30-40-250	15.0	50S	E.S. (E27/25)	128 ± 7	25 ± 1	75 ± 5	Grid 8-sect. ..	11 9
A1/ 23	100	100, 110, 115	18.5	50S	E.S. (E27/25)	128 ± 7	25 ± 1	75 ± 5	Twin coiled coil..	11 9
A1/166	100	210-30-40-250	17.5	50S	S.C.C. (BA.15s/21)	76 ± 5	25 ± 1	34.5 ± 2	Four Section coiled coil ..	13 9
A1/169	100	210-30-40-250	17.5	50S	S.B.C. (BA.15d/21)	76 ± 5	25 ± 1	34.5 ± 2	Four Section coiled coil ..	13 9
A1/136	108	6	23.0	50S	E.S. (E27/25)	128 ± 7	32 ± 1	75 ± 5	Axial single coil ..	33 0
A1/167	150	115	19.5	50S	S.C.C. (BA.15s/21)	76 ± 5	25 ± 1	34.5 ± 0.5	Four Section coiled coil ..	18 0
A1/168	150	210-30-40-250	19.0	50S	S.B.C. (BA.15d/21)	76 ± 5	25 ± 1	34.5 ± 0.5	Four Section coiled coil ..	18 0
A1/151	200	50	23.0	50S	S.C.C. (BA.15s/21)	87 ± 5	25 ± 1	34.5 ± 2	Grid 4-sect. ..	23 0
A1/ 12	200	50	23.0	50S	E.S. (E27/25)	128 ± 7	32 ± 2	75 ± 5	Grid 4-sect. ..	23 0
A1/ 13	200	50	23.0	50S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Grid 4-sect. ..	24 0
A1/113	200	50	23.0	50S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Offset Grid 4-sect. ..	24 0
A1/ 80	200§	100	23.5	25	3-pin B.C.	82 ± 3	32 ± 2	51 ± 0.5	Offset Fil. Cap-up Burning	26 0
A1/ 25	200§	100, 115	23.5	25S	S.B.C. (BA.15d/21)	87 ± 5	25 ± 1	34.5 ± 2	Twin coiled coil..	18 6
A1/ 26	200§	100, 115	23.5	25S	S.C.C. (BA.15s/21)	87 ± 5	25 ± 1	34.5 ± 2	Twin coiled coil..	18 6
A1/ 27	200§	100, 110, 115	23.5	25S	Prefocus S.C.C. (P15s)	87 ± 5	25 ± 1	31.5 ± 0.5	Twin coiled coil..	19 6
A1/127	200§	100, 110, 115	23.5	25S	Prefocus S.B.C. (P15d)	87 ± 5	25 ± 1	31.5 ± 0.5	Twin coiled coil..	19 6
A1/ 83	200	100, 115	21.5	50S	S.B.C. (BA.15d/21)	87 ± 5	32 ± 1	34.5 ± 0.5	Twin coiled coil..	18 6
A1/ 13	200	110	21.5	50S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Twin coiled coil..	19 6
A1/ 85	250	50	23.5	50S	B & H (S26s/25 BH38)	128 ± 7	32 ± 2	59 ± 0.5	Grid 4-sect. ..	24 0
A1/ 14	250	50	23.5	50S	E.S. (E27/25)	128 ± 7	32 ± 2	75 ± 5	Grid 4-sect. ..	23 0
A1/ 15	250	50	23.5	50S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Offset Grid 4-sect. ..	24 0
A1/ 5	250	50	23.5	50S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Grid 4-sect. ..	24 0
A1/ 5	250	55	23.5	50S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Grid 4-sect. ..	24 0
A1/ 5	250	100, 110, 115	23.5	50S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Twin coiled coil..	23 0
A1/ 5	250	200-10-20-30-40-250	20.0	50S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Grid 'M' Form ..	23 0
A1/ 14	250	100, 110, 115	22.0	50S	E.S. (E27/25)	128 ± 7	32 ± 2	75 ± 5	Twin coiled coil..	22 0
A1/ 14	250	200-10-20-30-40-250	20.0	50S	E.S. (E27/25)	128 ± 7	32 ± 2	75 ± 5	Grid 'M' Form ..	22 0
A1/ 38	300§	100, 115	24.0	25S	Prefocus S.C.C. (P15s)	100 ± 5	25 ± 1	31.5 ± 0.5	Twin coiled coil..	28 6
A1/ 36	300§	100, 115	24.0	25S	Prefocus S.B.C. (P15d)	100 ± 5	25 ± 1	31.5 ± 0.5	Twin coiled coil..	28 6
A1/ 37	300§	100, 115	24.0	25S	S.C.C. (BA.15s/21)	100 ± 5	25 ± 1	34.5 ± 2	Twin coiled coil..	27 6
A1/ 33	300§	100, 115	24.0	25S	S.B.C. (BA.15d/21)	100 ± 5	25 ± 1	34.5 ± 2	Twin coiled coil..	27 6
A1/ 6	300§	100, 110, 115	24.0	25S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Twin coiled coil..	28 6
A1/154	300	210, 230, 240, 250	21.0	50S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	5-sect. coiled coil	28 6
A1/ 86	300§	100, 110, 115	24.0	25S	B & H (S26s/25 BH46)	128 ± 7	32 ± 2	59 ± 0.5	Bi-plane ..	35 0
A1/ 39	400§	100, 110, 115	24.0	25S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Bi-plane ..	35 0
A1/ 87	400§	110, 115	24.0	25S	B & H (S26s/25 BH38)	128 ± 7	32 ± 2	59 ± 0.5	Bi-plane ..	35 0
A1/159	400§	110, 115	24.0	25S	B & H (S26s/25 BH46)	128 ± 7	32 ± 2	59 ± 0.5	Bi-plane ..	35 0
A1/ 88	450	15	26.0	100	Special 2-prong ..	195	{ 79 30 }	136	Special Shape Bulb, Cap-up Burning	44 0
A1/ 42	500	100, 110, 115	24.0	50	E.S. (E27/25)	128 ± 7	64 ± 2	75 ± 5	Grid 6-sect. ..	26 6
A1/ 8	500	200-10-20-30-40-250	24.0	50	Prefocus (P28/25)	133 ± 7	64 ± 2	55.5 ± 0.5	Grid 6-sect. ..	27 6
A1/ 46	500§	110	25.0	25	3-pin B.C. (B22/25 x 26)	142 max.	38 max.	95	Bi-plane Fil. Offset, Cap-up Burning	37 0
A1/ 47	500§	110, 115	25.0	25S	B & H (S26s/25 BH38)	128 ± 7	32 ± 2	59 ± 0.5	Bi-plane ..	37 0
A1/160	500§	110, 115	25.0	25S	B & H (S26s/25 BH46)	128 ± 7	32 ± 2	59 ± 0.5	Bi-plane ..	37 0
A1/170	500	200-10-20-30-40-250	24.0	25S	B & H (S26s/25 BH38)	128 ± 7	32 ± 2	59 ± 0.5	Bi-plane ..	37 0
A1/171	500	200-10-20-30-40-250	24.0	25S	B & H (S26s/25 BH46)	128 ± 7	32 ± 2	59 ± 0.5	Bi-plane ..	37 0
A1/ 7	500§	110, 115	25.0	25S	Prefocus (P28/25)	133 ± 7	32 ± 2	55.5 ± 0.5	Bi-plane ..	37 0
A1/162	500	200-10-20-30-40-250	24.0	25S	Prefocus (P28/25)	133 ± 7	32 ± 1	55.5 ± 0.5	Bi-plane ..	37 0
A1/ 52	750§	110	27.5	25	3-fin Ring	145 ± 8	38 max.	81	Bi-plane Fil. Offset, Cap-up Burning	43 6
A1/ 53	750	100, 110, 115	27.5	25S	B & H (S26s/25 BH46)	128 ± 7	38 ± 2	59 ± 0.5	Bi-plane ..	42 6
A1/ 9	750§	200-10-20-30-40-250	27.5	25S	Prefocus (P28/25)	133 ± 7	38 ± 2	55.5 ± 0.5	Bi-plane ..	42 6
A1/163	750	110, 115	24.0	25S	Prefocus (P28/25)	133 ± 7	38 ± 2	84 ± 0.5	Bi-plane ..	42 6
A1/111	900	24	29.0	50	G.E.S. (E40/45)	230 ± 10	64 ± 2	120 ± 5	Grid 4-sect. ..	38 6
A1/111	900	30	28.0	50	G.E.S. (E40/45)	230 ± 10	64 ± 2	120 ± 5	Grid 4-sect. ..	38 6
A1/ 10	900	30	28.0	50	Mogul Prefocus (P40/41)	235 ± 10	64 ± 2	84 ± 0.5	Grid 4-sect. ..	41 0
A1/ 92	1000§	100	27.5	25S	B & H (S26s/25 BH46)	175	38 ± 2	78	Bi-plane ..	49 6
A1/ 57	1000	100, 110, 115	27.5	50	G.E.S. (E40/45)	230 ± 10	64 ± 2	120 ± 5	Grid 6-sect. ..	33 0
A1/ 57	1000	200-10-20-30-40-250	25.0	50	G.E.S. (E40/45)	230 ± 10	64 ± 2	120 ± 5	Grid 8-sect. ..	33 0
A1/ 11	1000	100, 110, 115	27.5	50	Mogul Prefocus (P40/41)	235 ± 10	64 ± 2	84 ± 0.5	Grid 6-sect. ..	35 6
A1/ 11	1000	200-10-20-30-40-250	25.0	50	Mogul Prefocus (P40/41)	235 ± 10	64 ± 2	84 ± 0.5	Grid 8-sect. ..	35 6
A1/ 59	1000	110, 115	27.5	25S	Prefocus (P28/25)	133 ± 7	38 ± 2	55.5 ± 0.5	Bi-plane ..	49 6
A1/ 91	1000§	110, 115	27.5	25S	B & H (S26s/25 BH46)	128 ± 7	38 ± 2	59 ± 0.5	Bi-plane Fil. ..	49 6
A1/ 58	1000§	110, 115	27.5	25S	Prefocus (P28/25)	133 ± 7	64 ± 2	55.5 ± 0.5	Bi-plane Fil. ..	49 6
A1/164	1000	200-10-20-30-40-250	24.0	25	Prefocus (P28/25)	133 ± 7	64 ± 2	55.5 ± 0.5	Bi-plane ..	49 6

† Purchase Tax not chargeable.

NOTE: If ordering by Lamp Reference Number please be sure to state voltage required.

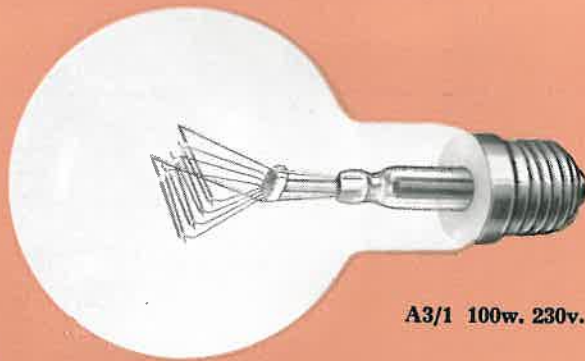
§ Forced cooling is necessary for these lamps so that no part of the wall of the bulb exceeds a temperature of 500°C.

S. These lamps are black sprayed. Where bulbs are tip black sprayed, the 25 mm. diameter bulb is sprayed to 22.5 ± 2.5 mm. from the centre of the filament to the edge of the black spray; in the case of the 32 and 38 mm. dia. bulbs to 27.5 ± 2.5 mm.

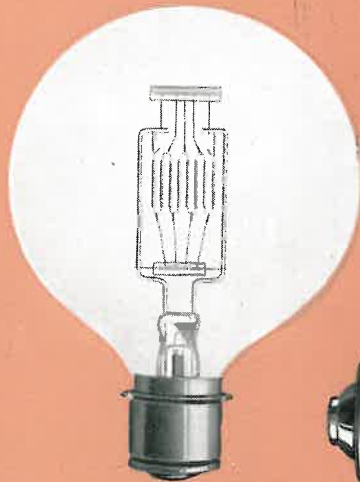
## SECTION 10



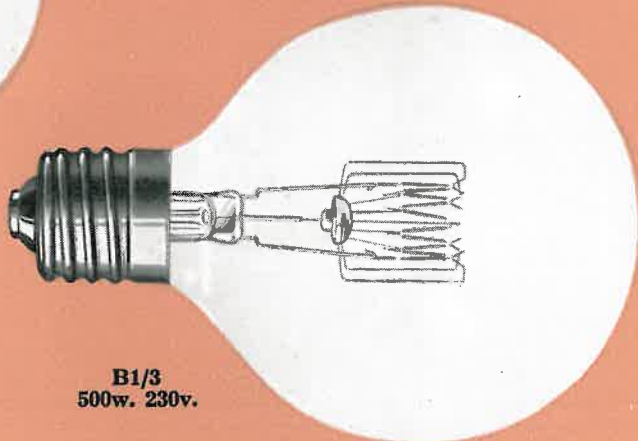
## Projector— Class A3, B1 & E



A3/1 100w. 230v.



E/1 500w. 230v.

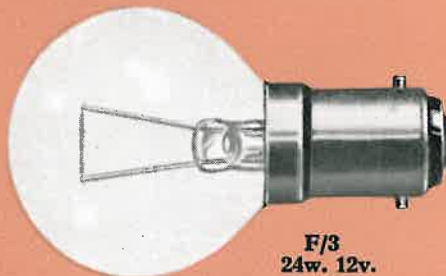


B1/3  
500w. 230v.

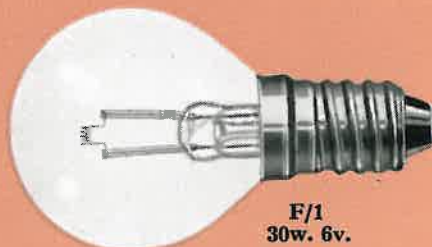
## Projector—Class F



F/14  
100w. 12v.



F/3  
24w. 12v.



F/1  
30w. 6v.



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### Class A 3

These lamps are used extensively for various stage lighting purposes in theatres and cinemas, and have also a wide application in photographic and film studios. They have many uses where a medium lamp life and light output is required. They are intended for burning in a horizontal position, but slight variations of burning angle will not affect the life.

### Class B 1

These lamps are particularly suitable for use with parabolic mirrors and they are employed generally for stage and theatre lighting and the floodlighting of tall buildings or hoardings, etc. They have concentrated bunch filaments of small area and a comparatively long life.

### Class E, Epidiascope

Episcope and epidiascope apparatus for the projection and magnification of small objects, lantern slides etc., all use this type of lamp. They are also suitable for spotlight and shop window projectors which have to be rotated through wide angles.

### Class F, Micro-projection

Class F lamps have been specially designed to the requirements of micro-projection. Being of low voltage, they can be conveniently operated from batteries or from the mains through a suitable resistance or transformer. Microscope illumination, small home cine projectors, sound recording are but a few of the many purposes for which these lamps may be used.

## Class A3, B1 and E

Lamp Ref. No.	Watts	Voltages	Cap	Dimensions			Objective Life Hours	List Price s. d.
				Length mm.	Diam. mm.	L.C.L. mm.		
<b>A3 (Burning position, Horizontal)</b>								
A3/1	100	110, 200, 210, 220, 230, 240, 250	E.S.(E27/25)	115 ± 10	70 ± 2	95 ± 5	300	11 9*
A3/2	250		E.S.(E27/35 × 30)	160 ± 10	90 ± 2	120 ± 5	300	22 0*
<b>B1 (Burning position any, except within 45° of cap up)</b>								
B1/1	100	115, 200, 210, 220, 230, 240, 250	E.S.(E27/25)	115 ± 10	80 ± 2	75 ± 5	800	10 0*
B1/2	250		E.S.(E27/25)	125 ± 10	95 ± 2	75 ± 5	800	19 3*
B1/3	500		G.E.S.(E40/45)	180 ± 10	130 ± 5	115 ± 5	800	25 3
B1/4	1000		G.E.S.(E40/45)	180 ± 10	130 ± 5	115 ± 5	800	33 0
<b>E (Burning position any, within 45° of cap down)</b>								
E/1	500	115, 200-10-20-30-40-250	Prefocus (P28/25)	135 ± 10	100 ± 5	60 ± 5	100	31 3
E/3	500	110, 200-10-20-30-40-250	E.S.(E27/30)	135 ± 10	100 ± 5	85 ± 5	100	30 3

\* Purchase Tax see note below.

## Class F, Micro-projection Burning position, according to type

Lamp Ref. No.	Watts	Voltages	Special Features	Cap	Dimensions			Objective Life Hours	List* Price s. d.
					Length mm.	Diam. mm.	L.C.L. mm.		
F/30	8	4	Transverse Filament	S.E.S. (E14/23 × 15)	62 ± 5	35 ± 2	52 ± 5	100	5 0
F/ 8	12	12	—	S.B.C. (B15d/24 × 17)	57 ± 5	37 max.	40 ± 3	100	4 6
F/24	24	6	—	E.S. (E27/25)	57 ± 5	38 ± 2	47 ± 5	100	4 0
F/10	24	6	—	S.E.S. (E14/23 × 15)	60 ± 5	38 ± 2	50 ± 5	100	4 0
F/ 3	24	12	Transverse Filament	S.B.C. (B15d/24 × 17)	60 ± 5	38 ± 2	44 ± 5	100	4 0
F/10	24	12	—	S.E.S. (E14/23 × 15)	60 ± 5	38 ± 2	50 ± 5	100	4 0
F/25	30	6	—	E.S. (E27/35 × 30)	63 ± 5	35 ± 2	53 ± 5	25	6 6
F/ 1	30	6	Transverse Filament	S.E.S. (E14/23 × 15)	57 ± 5	35 ± 2	47 ± 5	25	6 6
F/41	30	6	—	S.B.C.(B15d/24 × 17)	58 ± 5	35 ± 2	40 ± 5	25	6 6
F/ 2	48	6	Transverse Filament	S.B.C. (B15d/24 × 17)	60 ± 5	35 ± 2	40 ± 3	100	8 3
F/52	48	6	Transverse Filament	S.E.S. (E14/27 × 18)	62 ± 3	35 ± 2	49 ± 2	100	8 3
F/ 7	48	8	—	S.E.S. (E14/23 × 15)	60 ± 5	40 ± 3	41 ± 3	100	8 3
F/ 4	48	12	Twin Pillar	S.E.S. (E14/23 × 15)	70 ± 5	50 ± 2	40 ± 3	100	6 0
F/13	48	12	—	E.S. (E27/25)	70 ± 5	50 ± 2	38 ± 5	100	6 0
F/42	48	12	—	Prefocus (P28/25)	75 ± 5	50 ± 2	18.5 ± 0.5	100	6 0
F/38	48	12	—	S.B.C. (B15d/24 × 17)	60 ± 5	38 ± 2	40 ± 3	100	6 0
F/27	72	6	Tubular Bulb	E.S. (E27/25)	128 ± 7	32 ± 1	75 ± 3	100	11 9
F/14	100	12	—	E.S. (E27/25)	85 ± 5	60 ± 2	55 ± 5	100	13 3
F/15	108 (18 amp.)	6	Axial Ribbon Filaments	Prefocus (P28/25)	139 ± 7	32 ± 2	65 ± 0.5	50	34 0
F/16	108 (18 amp.)	6		E.S. (E27/25)	135 ± 4	32 ± 2	86 ± 3	50	33 0
F/46	108 (18 amp.)	6	Horizontal Ribbon Filaments	Prefocus (P28/25)	139 ± 7	32 ± 2	65 ± 0.5	50	34 0
F/47	108 (18 amp.)	6		E.S. (E27/25)	135 ± 4	32 ± 2	86 ± 3	50	33 0

\* Purchase Tax must be added to the price of these lamps. For the exact amount of purchase tax to be added, see TABLE A on the card insert.

NOTE: If ordering by Lamp Reference Number please be sure to state voltage required.

# PROJECTOR

## Class A3

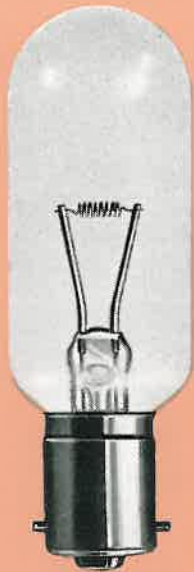
## Class B1

## Class E

## Class F

# SECTION 11

## Projector Class G



G/14

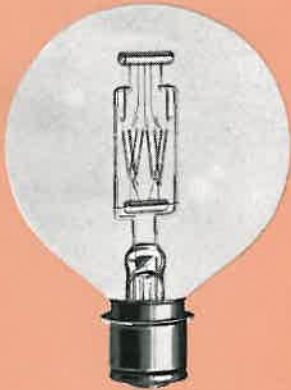


G/29



G/23

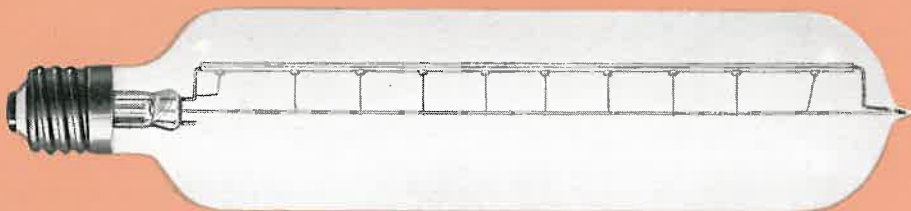
## High Wattage



Theatre Spotlight



Hospital Operating Theatre



Tubular Floodlight



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### Class G, Exciter

For reproduction in sound film apparatus a low voltage lamp of high efficiency and robust construction is necessary. The Class G lamps listed here are ideal for this class of work and are manufactured with extreme accuracy and careful attention to such details as the centring of the filament and its luminous intensity so as to comply with the rigid requirements of sound film projection.

### Theatre Spotlight

These lamps have a Grid filament of staggered construction. They are used particularly for spotlights in theatres or cinemas but they can be used for similar applications where a suitable reflector and housing will make full use of the compact, bright light source.

### Tubular Floodlight

There are many instances where a wide-angle flood beam is required, such as in film studios where the Tubular Floodlight is used in conjunction with a trough reflector to give a fan shaped beam.

### 'Broadside'

These high wattage lamps are also frequently combined with suitable reflectors; they are used quite extensively in certain forms of photo-duplicators.

### Hospital Operating Theatre

This double filament lamp has been designed for use in the operating theatre where mains supply faults must not interfere with the surgeon's work; the auxiliary filament gives 100-watt output on a 12-volt emergency supply.



## Class G, Exciter Must not be burned cap-up

Lamp Reference Number	Amps.	Voltages	Cap	Dimensions			Objective Life Hours	List Price † s. d.
				Length mm.	Diam. mm.	L.C.L. mm.		
G/18	0.2	7 .. ..	Prefocus (P15s/19)	57±3	16±1	28.5 ±0.5	100	6 0
G/19	0.75	4 .. ..	S.C.C. (BA.15s/21)	48±3	15±1	31.75±0.75	50	6 0
G/29	0.75	4 .. ..	Prefocus (P15s/19)	57±3	16±1	28.5 ±0.5	50	7 0
G/ 4	1.0	6 .. ..	S.C.C. (BA.15s/17)	40±2	18±1	21.5 ±0.5	100	6 0
G/ 5	1.0	6 .. ..	Prefocus (P15s/19)	57±3	16±1	28.5 ±0.5	100	6 0
G/16	1.0	27 .. ..	S.C.C. (BA.15s/21)	75±3	25±1	41 ±1	100	9 0
G/ 6	2.0	8 (EL No. 4)..	S.C.C. (BA.15s/21)	75±3	25±1	44 ±1	100	6 0
G/37	2.0	8 .. ..	Prefocus (P15s/19)	75±3	25±1	37.3 ±0.5	100	7 0
G/ 8	4.0	8 (EL No. 2)..	S.C.C. (BA.15s/21)	75±3	25±1	44 ±1	100	6 0
G/ 7	4.0	8 .. ..	Prefocus (P15s/19)	75±3	25±1	37.3 ±0.5	100	7 0
G/36	5.0	6 .. ..	S.C.C. Pathe Collar	52±2	18±1	27 ±0.5	100	8 6
G/11	5.0	10 (EL No. 5)..	S.C.C. (BA.15s/21)	75±3	25±1	41 ±1	100	8 0
G/10	5.0	10 .. ..	Prefocus (P15s/19)	75±3	25±1	37.3 ±0.5	100	9 0
G/12	5.0	10 (EL No. 6)..	S.C.C. (BA.15s/21)	75±3	25±1	44 ±1	100	8 0
G/22	6.0	4 .. ..	S.C.C. (BA.15s/21)	49±3	25±1	31.5 ±1	100	6 6
G/23	6.5	5 .. ..	Prefocus (P15s/19)	75±3	25±1	41 ±0.5	50	8 0
G/14	7.5	10 (EL No. 7)..	S.C.C. (BA.15s/21)	75±3	25±1	41 ±1	100	8 0
G/13	7.5	10 .. ..	Prefocus (P15s/19)	75±3	25±1	37.3 ±0.5	100	9 0
G/15	7.5	10 (EL No. 8)..	S.C.C. (BA.15s/21)	75±3	25±1	44 ±1	100	8 0

† Purchase tax not chargeable.

## Theatre Spotlight

Watts	Voltages	Cap	Dimensions			Objective Life Hours	List Price † s. d.
			Length mm.	Diameter mm.	L.C.L. mm.		
500 1000	230 240, 250 210, 230, 240, 250	Prefocus (P28/25) Prefocus (P40/41)	130±10 190±10	95±5 130±5	55.5±0.5 84 ±0.5	200 200	28 0 35 6

† Purchase Tax not chargeable.

## Tubular Floodlight

Watts	Voltages	Cap	Dimensions		Objective Life Hours	List Price † s. d.
			Length mm.	Diameter mm.		
500 1000	115, 200-10-20-30-40-250	G.E.S.(E40/45)	355±10 390±10	90±2 90±2	1000 1000	38 6 49 6

† Purchase Tax not chargeable.

## 'Broadside'

Watts	Voltages	Cap	Dimensions			Objective Life Hours	List Price † s. d.
			Length mm.	Diameter mm.	L.C.L. mm.		
1000 1500	100, 115, 200 210, 220, 230 240, 250, 260	G.E.S.(E40/45)	300 335	150 170	225 250	1000 1000	17 6 25 0

† Purchase Tax not chargeable.

## Hospital Operating Theatre Double Filament

Filament	Watts	Voltages	Cap	Dimensions			Objective Life Hours	List Price † s. d.
				Length mm.	Diameter mm.	L.C.L. mm.		
Emergency Mains	100 150	12 210-30-40-250	Special Screw Contact	215	121	135 160	100 1000	28 6

† Purchase Tax not chargeable.

**PROJECTOR  
and  
HIGH  
WATTAGE**

**Class G**

**Theatre  
Spotlight**

**Tubular  
Floodlight**

**'Broadside'**

**Hospital  
Theatre**

**SECTION 12**



**Mazda**

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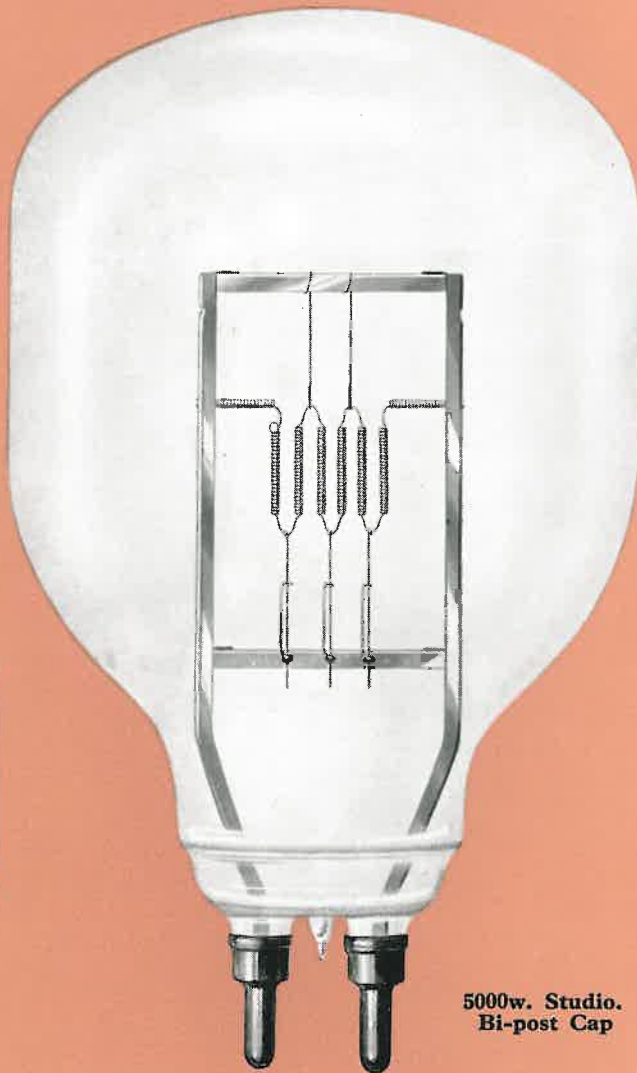
Every amateur and professional appreciates the importance of using photographic lamps of only the highest possible efficiency, and discerning photographers find that Mazda lamps live up to their unequalled reputation for reliability.

**Flood and Enlarger.** Photoflood and Photographic Pearl lamps illuminate the subject with evenly distributed brilliance; the 275w. B.C. lamp is fitted with fuses for use in ordinary household sockets. The 500w. Photographic Pearl lamp is available with a pear-shaped bulb or the ever popular round bulb.

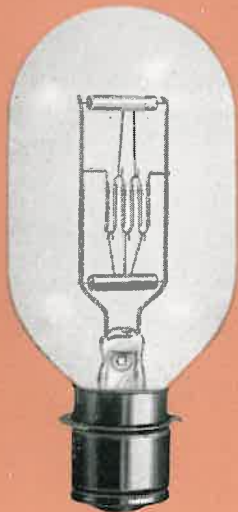
The range of enlarger lamps include the Inside Silica Coated lamp and Opal Glass lamp, each of which gives a bright well-diffused light. The high wattage, spot-frosted has a clear bulb with the filament obscured by a small circle of frosting.

**Studio Lamps.** A comprehensive range of various power lamps from 275w. to 10 kW and all are calibrated for 3250°K. for colour photography although they are also suitable for 'black and white' reproduction.

The 1000-watt, 2000-watt and 5000-watt studio lamps are also available in the higher voltage range of 230, 240 and 250 for ordinary photographic studio work.



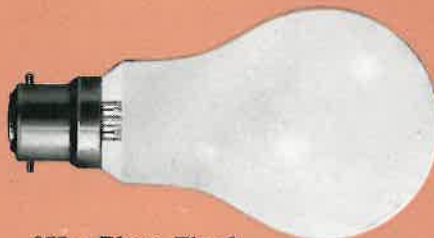
5000w. Studio.  
Bi-post Cap



500w. Studio.  
Prefocus Cap



150w. Inside  
Silica Coated



275w. Photo-Flood



500w. Photographic  
Pearl

## Flood and Enlarger

Watts	Voltages	Cap	Dimensions		Objective Life Hours	List Price	
			Overall Length mm.	Diam. mm.		s.	d.
<b>Photo-flood (Pearl)</b>							
275	{ 100/110, 200/210 220/230, 240/250 }	{ B.C. (B22/25 × 26) E.S. (E27/25) }	110	60	2	2	6
500	{ 100/110, 200/210 220/230, 240/250 }	{ E.S. (E27/25) E.S. (E27/35 × 30) B.C. (B22/25 × 26) † }	160	80	10	6	6
<b>Photographic Pearl</b>							
500	110, 210, 230, 250	E.S. (E27/25)	175	100	100	22	0
<b>Photographic Enlarger (Inside Silica-coated)</b>							
150	110, 210, 230, 240, 250	{ B.C. (B22/25 × 26) E.S. (E27/25) }	117.5	65	100	3	9*
<b>Photographic Enlarger (Opal Glass)</b>							
150	110, 210, 230, 240, 250	{ B.C. (B22/25 × 26) E.S. (E27/25) }	117.5	65	100	4	6*
<b>Photographic Enlarger (2 in. Spot Frosted)</b>							
400	110, 210, 230, 250	E.S. (E27/45 × 38)	253	110	100	27	6

\* Purchase Tax must be added to the prices of these lamps. For the exact amount of purchase tax to be added see TABLE A on the card insert.

† Not available for 100/110 volts.

## Studio Lamps

Watts	Cap	Dimensions		Objective Life Hours	List Price		
		Overall Length mm.	Diameter mm.		f	s.	d.
<b>115 volt—Colour Temp. 3250°K. Designed for colour photography but also suitable for 'black and white' reproduction</b>							
275 †	{ B.C. (B22/25 × 26) .. E.S. (E27/25) .. }	110	60	5 to 8	2	6	
500 †		160	80	15	6	6	
500	G.E.S. (E40/45) ..	267	130	25	10	6	
500	Prefocus (P28/25) ..	133	64	25	1	7	6
500	} Med. Bi-post .. ..	165 max.	64	25	3	6	0
750					3	17	0
1000	} G.E.S. (E40/45) {	300	150	50	17	6	
1500		335	170	50	1	5	0
2000	Bi-post .. ..	232	152.5	100	4	13	6
5000	Bi-post .. ..	335	203	100	15	0	0
10,000	Bi-post .. ..	472	300	100	33	0	0
<b>230 volt, 240 volt and 250 volt. For general, photographic studio use</b>							
1000	Bi-post .. ..	232	152.5	100	3	11	6
2000	Bi-post .. ..	232	152.5	100	4	13	6
5000	Bi-post .. ..	335	203	100	15	0	0
10,000	Bi-post .. ..	472	300	100	33	0	0

† Pearl.

**PHOTOGRAPHIC**

**Photographic Flood**

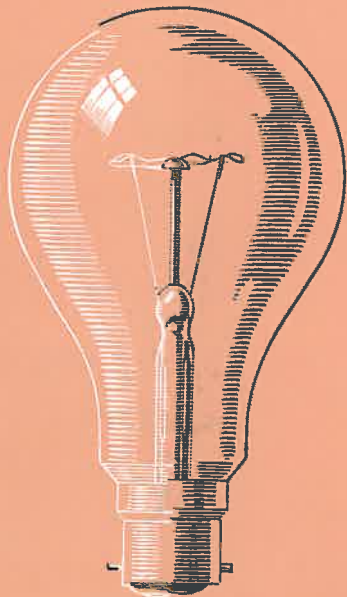
**Photographic Enlarger**

**Studio Lamps**

**SECTION 13**



# A few reasons why **Mazda**



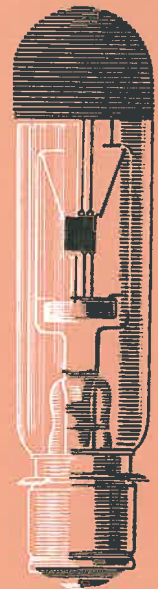
## G.L.S. LAMPS

**Moulded Necks:** Fully insulated caps withstand a twist of well over 25 lb.-in., because the moulded glass necks key into a special heat and damp resisting resin cement.

**Fuses:** All coiled-coil lamps are fitted with internal cartridge fuses, and they are also built into single coil lamps wherever necessary for safety, or desirable to permit greater efficiency.

**'Vitalized' Filaments:** Tungsten filaments, vitalized with silica and alumina at more than twice the temperature of molten steel, will never sag.

**Triply Purified Gas:** Argon purified three times over means that in the finished lamp the gas filling is less than one part in a million impure.



## FLUORESCENT LAMPS

**New Fluorescent Coatings:** 1954 marked the introduction of still better halophosphate tube coatings, achieving two delightful new colours and many greatly improved efficiencies.

**New BTH Cathodes:** Enlarged primary coils enable much more emissive oxide to be packed solidly into each thoriated tungsten coiled-coil cathode, resulting in even greater reliability, strength and uniformity.

**Precision Built:** Production is closely regulated at each stage. The weight of fluorescent coating, for instance, is exact to 1/140th oz. per foot of tube, ensuring maximum light output.

**BTH Auxiliaries:** A fluorescent lamp and its control gear form a carefully balanced circuit; the performance of each affects the others. Mazda Fluorescent Lamps are backed by BTH Lamp Auxiliary Gear—the best in the world.

THE LAMPS WITH



BEHIND THEM

# Lamps stay brighter longer

## PROJECTOR LAMPS

**Threaded Contact Plug:** Electrical contact between filament and lead is by a special threaded plug, giving greater durability both at the filament juncture and at the lead-in wire weld.

**Mechanically Formed Filaments:** A more concentrated light source and a more uniform life performance results from machine-forming the filaments. At the same time, jig-formed filament supports ensure precise alignment of the filament segments.

**Temperature Resistant Alloys:** Special alloys with a low coefficient of expansion increase the strength of welds. Expansion characteristics of the filament and its mount are carefully matched to prevent distortion.

**Precision-built:** Mazda Projector Lamps provide a concentrated and constant source of brilliant light. They are robustly made to give the longest and most reliable service possible, and are precision-built to the finest tolerances for accurate focusing.



## MERCURY VAPOUR

(Type MA)

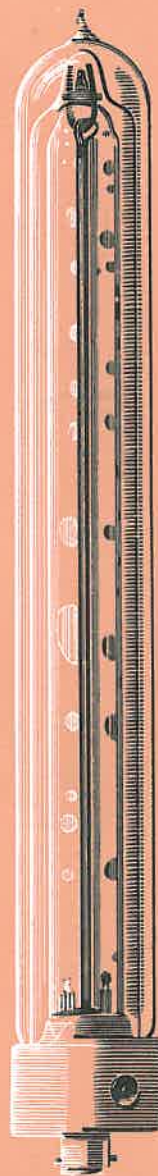
**New Arc-tube Mounts:** Type MA Lamps up to 400w. rating incorporate a new BTH arc-tube mount which eliminates 'point suspension'. This gives greatly increased resistance to external vibrations and so further extends the life of the lamp.

**Double-helix Electrodes:** Double-helix electrodes, each enclosing a thoriated emissive pellet, ensure rapid starting and deter the lamp from darkening through life.

**Accurate Filling:** Exactly the right amount of pure mercury must be introduced into the arc-tube to obtain maximum light output in each voltage range. BTH control this with micrometer precision.

**New Glasses:** Glasses used for making the tubes and seals of Mazda Mercury Lamps are now 'harder' than ever before. For example, a new one kilowatt mercury lamp is available for horizontal operation with no need for a magnetic arc deflector to protect the arc-tube.

## SODIUM VAPOUR



**New 'Hard' Glass:** BTH have developed a new glass highly resistant to the corrosive action of hot sodium vapour. Because of this, Mazda Sodium Lamps remain virtually unstained throughout life.

**'Fernico' Seals:** 'Fernico' alloy seals are invulnerable to sodium corrosion; concomitant annealing and glassworking techniques ensure a complete metal-to-glass union.

**Pure Metallic Sodium:** BTH distil their own metallic sodium. After two consecutive distillations, the pure sodium metal is ready for the lamp production line.

**Blended Gas Filling:** After a long exhaust in which every impurity is pumped away, the lamps are filled with a spectroscopically pure blending of neon and argon. Sodium metal is then measured in and the lamp sealed-off.





FA 1



FA 4



FA 5



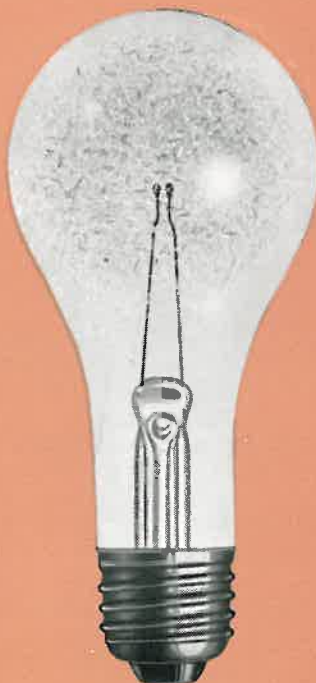
FA 6



FA 8



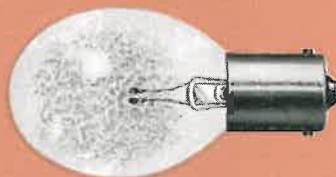
FA 10 & FA 12



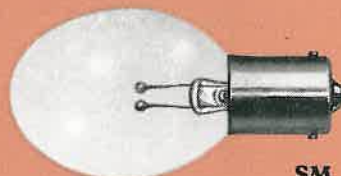
No. 22



No. 3



No. 5



SM



**Xenon Flash Tubes.** Electronic Flash has been for a long time, the most suitable and efficient form of flashlight photography for the professional and scientific photographer. Now, with easily portable and comparatively inexpensive equipment, not only has its use become more widespread, but the amateur finds it within his capabilities.

**Type FA 1.** A high-power flash tube for studio use. Provision is made to incorporate a modelling lamp within the arc tube jacket.

**Type FA 2.** A flash tube of high output, used and specially suitable for studio and professional units.

**Type FA 2S.** Designed specially for stroboscopic applications giving very stable operation with a high efficiency over a wide range of frequency.

**Type FA 4.** A circular type flash tube suitable for mounting round the camera lens or objective. For specialized photography such as in photographing deep cavities, etc.

**Type FA 5.** A compact source flash tube which may also be operated to give a steady source of light to enable an optical system to be adjusted. The tube will operate from a condenser discharge or alternatively it may be pulsed direct from the supply mains. It has many scientific applications.

**Type FA 6.** One of the most popular flash tubes; it is widely used in many of the portable flash units today, and is suitable for the amateur.

**Type FA 7.** This tube gives efficient light output over the range of 100-200 watt seconds.

**Type FA 7S.** A lamp for stroboscopic applications.

**Type FA 8.** A miniature flash tube designed for low-voltage operation. It weighs less than 0.7 oz.

**Type FA 9.** A tube suitable for the larger portable flash units. It has a high efficiency when operated at 100-200 watt-seconds.

**Types FA 10 and FA 12.** Designed especially for the amateur, these tubes have low operating voltage.

**Photoflash Lamps.** Popular with amateur and professional alike, this range of lamps meet the requirements of every photoflash user, and with the introduction of the No. 3 lamp, the 'Box Camera' enthusiast has been included.

# Xenon Electronic Flash Tubes

**PHOTOGRAPHIC**

No.	Dimens. mm.		Max. Rating watts × secs.	Approx. Minimum Trigger Voltage kV	Operating Voltage		*Rate of Flash at Maximum Dissipation	Flash Duration (micro-sec.)		Capacitance in μf at normal operating volts	Base	List Price (No P.T.) £ s. d.
	Length Excl'ng Pins	Diam. of Glass			Max.	Min.		Above ½ peak	Above ¼ peak			
FA 1	150 ± 7	64 ± 4	1000	8	2700	2000	1 in 10 sec.	1250	600	320	3-pin Special	6 0 0
FA 2	90 ± 5	46 ± 2	500	8	2700	2000	1 in 10 sec.	870	300	160	3-pin 5-amp.	5 0 0
FA 2s	90 ± 5	46 ± 2	—	8	2500	1500	300 per sec.	—	—	—	3-pin 5-amp.	5 0 0
FA 4	70 mm. inside dia. of circle		300	3	2700	2000	1 in 10 sec.	440	180	96	Flexible Leads	3 18 6
FA 5	148 ± 4 (overall)	32 max.	150	10	2000	1000	1 in 10 sec.	250	65	—	0-3954 Ferrules	10 10 0
FA 6	70 ± 2	31 ± 2	100	3	1100	500	1 in 10 sec.	410†	180†	200	UX 4-pin	4 10 0
FA 7	80 ± 2	31 ± 2	100-200	3	2700	2000	1 in 10 sec.	800	290	64	UX 4-pin	5 0 0
FA 7s	80 ± 2	31 ± 2	—	3	2500	1500	300 per sec.	—	—	—	UX 4-pin	5 0 0
FA 8	55 ± 2	25 ± 1	75	4.5	500	250	1 in 10 sec.	800†	270†	60	Internat. Octal	4 0 0
FA 9	80 ± 2	31 ± 2	200	3.5	1100	500	1 in 10 sec.	2000†	770†	400	UX 4-pin	5 0 0
FA10	50 ± 2 (overall)	—	50	3.5	270	200	1 in 10 sec.	2450†	930†	1375	2-pin 2-amp.	2 10 0
FA12	50 ± 2 (overall)	—	50	3.5	200	145	1 in 10 sec.	3200†	1200†	3100	2-pin 2-amp.	2 10 0

\* Tested to 5000 flashes for single flash operation; stroboscopic tubes have been tested to 100 hours.

† With electrolytic capacitors.

**ERRATUM**

**SECTION 14: FA 8 — Capacitance should read 600 and not 60 as shown.**

**Electronic Flash  
(Xenon)**

## Photoflash Lamps §

**Photoflash**

Type	Speed Class	Total Lumen Sec.	Colour Temp. °K	Peak Lumens	Time to Peak millisec.	Duration at ½ Peak millisec.	Cap	Dimensions		List Price (No P.T.) s. d.
								Length mm.	Diam. mm.	
No. 3	F	5,500	3,800	1,500,000	12	4	S.C.C. (BA.15s/12)	64	25	10
No. 5	M	18,000	3,800	1,500,000	21	12		S.C.C. (BA.15s/21) E.S. E.S.	64	34
No. 5B	M	8,000	6,000	600,000	21	12	64		34	1 3
S.M.	F	4,500	3,300	850,000	8	4-5	64		34	1 3
No. 22	M	75,000	3,800	5,000,000	25	14	116		60	1 8
No. 22B	M	30,000	6,000	2,000,000	25	14	116	60	1 10	

§ These lamps are designed to operate from 3 to 30 volts dry battery. Two fresh, dry cells in series will flash many lamps (B) Blue-lacquered for colour photography.

The Mazda No. 3 is made in Germany.

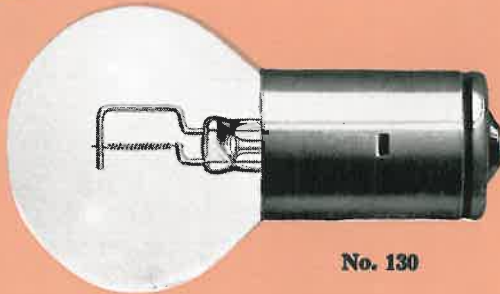
**SECTION 14**



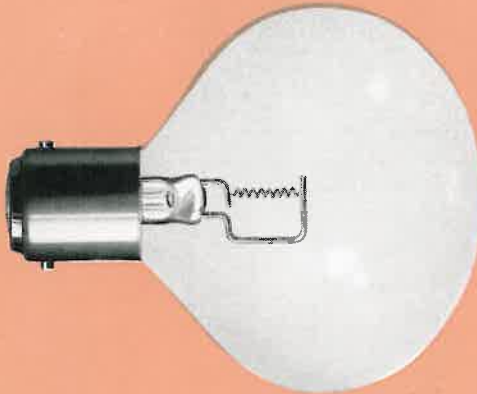
No. 168



No. 2



No. 130



No. 128



No. 57



No. 23



**Mazda**

*lamps  
stay brighter  
longer*

The filaments for Mazda car headlamp bulbs are made from carefully annealed tungsten and in many cases they are pressed to the filament leads—heat cannot weaken the joint—and they are accurately positioned to within  $\pm 0.04''$ .

A special coating to the filament or filament leads helps to keep the bulb clear and bright. These and many more technical and scientific processes too numerous to mention here, ensure that the complete, cartoned Mazda car bulb is precision built and reliable.

## Ordinary Single Filament Headlamp Bulbs

Lamp No.	Volts	Watts	Filament	Cap	Dimensions		List* Price s. d.
					Length mm.	Diam. mm.	
605	6	24	Axial	3-pin B.C.(BA.21s 3-pin)	61	38	2 9
106	6	24	Axial	S.C.C.(BA.15s/17)	56	38	2 6
109	6	24	Axial	S.B.C.(BA.15d/17)	56	38	2 7
108	6	36	Axial	S.C.C.(BA.15s/17)	56	38	2 9
374†	6	36	Axial	S.C.C.(BA.15s/17)	56	38	4 0
607	6	36	Axial	3-pin B.C.(BA.21s 3-pin)	61	38	3 0
130	6	36	Axial	Bosch Single Contact (BA.20s)	67	38	3 0
75	6	36	Transverse	S.C.C.(BA.15s/17)	56	38	2 9
111	6	36	Axial	S.B.C.(BA.15d/17)	56	38	2 10
608§	6	36	Transverse	S.C.C.(BA.15s/17)	56	38	3 0
675	6	48	Axial	3-pin B.C.(BA.21s 3-pin)	56	38	4 3
676†	6	48	Axial	3-pin B.C.(BA.21s 3-pin)	56	38	5 6
1	12	24	Axial	S.C.C.(BA.15s/17)	56	38	2 6
4	12	24	Axial	S.B.C.(BA.15d/17)	56	38	2 7
2	12	36	Axial	S.C.C.(BA.15s/17)	56	38	2 6
612	12	36	Axial	3-pin B.C.(BA.21s 3-pin)	61	38	2 9
57	12	36	Transverse	S.C.C.(BA.15s/17)	56	38	2 6
375†	12	36	Axial	S.C.C.(BA.15s/17)	56	38	3 9
5	12	36	Axial	S.B.C.(BA.15d/17)	56	38	2 7
615§	12	36	Transverse	S.C.C.(BA.15s/17)	56	38	3 0
616	12	48	Axial	3-pin B.C.(BA.21s 3-pin)	61	38	4 3
683†	12	48	Axial	3-pin B.C.(BA.21s 3-pin)	61	38	5 6
23	12	48	Axial	S.C.C.(BA.15s/17)	56	38	4 0
27	12	48	Axial	S.B.C.(BA.15d/17)	56	38	4 1
96	12	48	Axial	Bosch Single Contact (BA.20s)	67	38	4 3
618	12	60	Axial	3-pin B.C.(BA.21s 3-pin)	68	50	5 9
90	12	60	Axial	S.C.C.(BA.15s/17)	63	50	5 6
26	12	60	Axial	S.B.C.(BA.15d/17)	63	50	5 7
87	12	60	Axial	Bosch Single Contact (BA.20s)	74	50	5 9
621	24	36	Axial(a)	S.C.C.(BA.15s/17)	56	38	2 8
123	24	36	Axial(a)	S.B.C.(BA.15d/17)	56	38	2 8
622	24	36	Axial(a)	B.C.(B22/22)	56	38	2 8
623	24	48	Axial(a)	S.C.C.(BA.15s/17)	56	38	4 3
140	24	48	Axial(a)	S.B.C.(BA.15d/17)	56	38	4 3
624	24	48	Axial(a)	B.C.(B22/22)	56	38	4 3
124	24	60	Axial(a)	S.C.C.(BA.15s/17)	63	50	5 9
128	24	60	Axial(a)	S.B.C.(BA.15d/17)	63	50	5 9
127	24	60	Axial(a)	B.C.(B22/22)	63	50	5 9
131	24	60	Axial(a)	Bosch Double Contact (BA.20d)	74	50	6 0

\* Purchase Tax see note below. § Special Light Centre Length.

† Cadmium Yellow Bulb. (a) Coiled Coil.

## HEADLAMP BULBS

for  
Motor Cars,  
Motor Cycles and  
Commercial Vehicles

Ordinary  
Single Filament

Ordinary  
Double Filament

## Ordinary Double Filament Headlamp Bulbs

Lamp No.	Volts	Watts	Filament	Cap	Dimensions		List* Price s. d.
					Length mm.	Diam. mm.	
180	6	18 & 18	Transverse	S.B.C.(BA.15d/17)	56	38	4 6
168	6	24 & 24	Inverted Vee	S.B.C.(BA.15d/17)	56	38	3 6
183	6	24 & 24	Inverted Vee	Bosch Double Contact (BA.20d)	67	38	3 9
169	6	30 & 30	Inverted Vee	S.B.C.(BA.15d/17)	56	38	3 6
628	6	30 & 30	Inverted Vee	3-pin B.C.(BA.21d 3-pin)	61	38	3 9
170	6	36 & 36	Transverse	S.B.C.(BA.15d/17)	56	38	3 6
171	12	36 & 36	Transverse	S.B.C.(BA.15d/17)	56	38	3 6
630	12	36 & 36	Transverse	3-pin B.C.(BA.21d 3-pin)	61	38	3 9
376†	12	36 & 36	Transverse	S.B.C.(BA.15d/17)	56	38	4 9
633	12	36 & 36	Transverse	A.S.B.C.(BA.15d/21)	59	38	3 6
182	12	36 & 36	Transverse	Bosch Double Contact (BA.20d)	67	38	3 9
194	24	36 & 36	Transverse(a)	S.B.C.(BA.15d/17)	56	38	5 0
671	24	44 & 38	Transverse	S.B.C.(BA.15d/17)	56	38	6 3

\* Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added see TABLE B on the card insert.

† Cadmium Yellow Bulb. (a) Coiled Coil.

SECTION 15





**Mazda**

*lamps  
stay brighter  
longer*

The points of technical interest given in the previous section on Ordinary Headlamps apply equally to the Prefocus Headlamps listed opposite.

Among the more popular lamps the 12-volt 42/36-watt double filament lamp No. 354 is generally used for private cars and has the advantage that it is equally suitable for nearside or offside mounting. The single filament lamp No. 162 which is a 12-volt 36-watt lamp, is used for offside lamps in conjunction with double filament lamps on the nearside. Other lamps listed are for certain specific models of cars, motor cycles or commercial vehicles and it is advisable to consult agents or garages before purchasing a different type of lamp.



**No. 354**



**No. 162**



**No. 359**



**No. 632**



**No. 172**



**No. 323**



## British Prefocus Single Filament Headlamp Bulbs

(Caps:—Single Contact P22s/21, Double Contact P22d/21)

Lamp No.	Volts	Watts	Filament	Contact	Dimensions		List* Price	
					Length mm.	Diam. mm.	s.	d.
172	6	36	Axial Single Coil	Single	62 max.	28 ± 1	3	9
173	6	36	Trans. Single Coil	Single			3	9
162	12	36	Axial Single or Coiled Coil	Single			3	9
325†	12	38	Trans. Single Coil	Single			3	9
326†	12	38	Trans. Single Coil	Double			3	9
323	12	48	Trans. Single or Coiled Coil	Single			4	9
600‡	12	48	Trans. Single or Coiled Coil	Single			6	0
185	12	48	Axial Single or Coiled Coil	Single			4	9
685‡	12	48	Axial Single or Coiled Coil	Single			6	0
331†	24	44	Axial Coiled Coil	Double			5	0
330†	24	44	Trans. Coiled Coil	Double			5	0
601†‡	24	44	Trans. Coiled Coil	Double			6	3

\* Purchase Tax see note below.

† For Commercial Vehicles only. ‡ Cadmium Yellow Bulb.

## British Prefocus Double Filament Headlamp Bulbs

(Caps:—Double Contact P22d/21)

(Dimensions—Length 62 mm. max. Diam. 28 ± 1 mm.)

Lamp No.	Volts	Watts	Filament (Main on the axis)	Contact	Dipping Arrangements		List* Price	
					Dip	Drive	s.	d.
311	6	18 & 18	Single Coil	Double	Vertical	Either	5	3
166	6	24 & 24	Single Coil	Double	Vertical	Either	4	9
312	6	30 & 24	Single Coil	Double	Vertical	Either	5	6
373	6	30 & 24	Single Coil	Double	Left	R/Hand	5	6
602‡	6	30 & 24	Single Coil	Double	Vertical	Either	6	9
356	6.4	45 & 35	Single Coil	Double	Left	R/Hand	5	9
408(f)	12	21 & 38	Single Coil	Double	—	—	6	3
354	12	42 & 36	Single Coil	Double	Left	R/Hand	5	0
355	12	42 & 36	Single Coil	Double	Right	L/Hand	5	0
603‡	12	42 & 36	Single Coil	Double	Left	R/Hand	6	3
604‡	12	42 & 36	Single Coil	Double	Right	L/Hand	6	3
358‡	12	44 & 38	Single Coil	Double	Left	R/Hand	6	3
302¶	12	48 & 48	Single or Coiled Coil	Double	Left	R/Hand	6	9
404§	12	60 & 36	Single Coil	Double	Left	R/Hand	7	6
359‡	24	44 & 38	Coiled Coil	Double	Left	R/Hand	7	0

\* Purchase Tax see note below.

† For Commercial Vehicles only. ‡ Cadmium Yellow Bulb. ¶ Both filaments are offset.

§ 38 mm. dia. bulb (f) Fog Lamp and Turn Signal Indicator.

## American Type Prefocus Headlamp Bulbs

Lamp No.	Volts	Watts	Filament	Cap	Dimensions		List* Price	
					Length mm.	Diameter mm.	s.	d.
619	12	60	Transverse	P15s/19	65	50	6	0
629	6	30 & 30	Inverted Vee	P15d/19	58	38	4	0
632	12	36 & 36	Transverse	P15d/19	58	38	4	0

\* Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added see TABLE B on the card insert.

## HEADLAMP BULBS

for

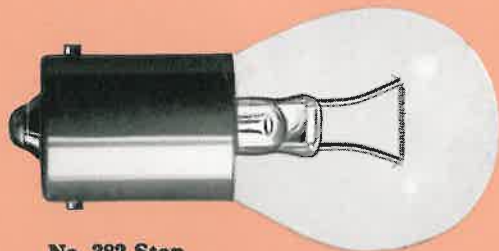
Motor Cars,  
Motor Cycles and  
Commercial Vehicles

British  
Prefocus  
Single Filament

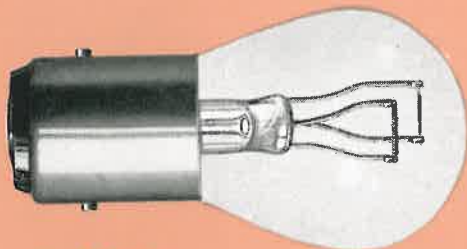
British  
Prefocus  
Double Filament

American Type  
Prefocus

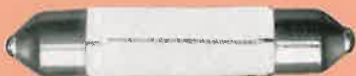
SECTION 16



**No. 382 Stop**



**No. 381 Stop**



**No. 256 Festoon**



**No. 204 Side & Tail**



**No. 993 Indicator**



**No. 642 Indicator**



**No. 987 Indicator**



**Mazda**

*lamps  
stay brighter  
longer*

FEW doubt that the modern style of direction indication by flashing lamps is the most sure and the most efficient, but the reliability of the system is dependent largely on the quality of the lamps. Mazda Stop and Tail lamps are world-famous for their efficiency and reliability and the same high standard of workmanship has gone into the construction of certain Stop Lamps for Flashing Indication applications.

The lamps recommended are all for 12-volt systems; they are lamps Nos. 380 and 381 which have two independent filaments, one rated for 21 watts and the other for 6 watts, also the single filament lamp with a rating of 21 watts.

The double filament lamps may be used for both flashing indicator and 'stop' indication by special circuit arrangement, the filament can be used for flashing or for a steady light as required.

All Mazda car bulbs have been designed to withstand vibrations of much greater magnitude than will be found in normal driving, so that such lamps as Side and Tail will retain their efficiency even after fairly rough treatment.

Festoon lamps are suitable for many old and new makes of car for roof light or trafficator.

## Stop and Stop/Tail Lamps Bulb Diam.—25 mm. Filament—Transverse

Lamp No.	Volts	Watts	Cap	Length mm.	List* Price	
					s.	d.
383	6(d)(e)	<b>6 &amp; 18</b>	S.B.C. (BA.15d/17)	45.5	<b>3</b>	<b>6</b>
384	6(d)	<b>6 &amp; 18</b>	S.B.C. Index (BA.15d/19)†	47	<b>3</b>	<b>9</b>
334	24(d)	<b>6 &amp; 24</b>	S.B.C. Index (BA.15d/19)†	47	<b>4</b>	<b>6</b>
380	12(d)(f)	<b>21 &amp; 6</b>	S.B.C. Index (BA.15d/19)†	47	<b>3</b>	<b>9</b>
381	12(d)(f)	<b>21 &amp; 6</b>	S.B.C. (BA.15d/17)	45.5	<b>3</b>	<b>6</b>
317	6(s)	<b>18</b>	A.S.C.C. (BA.15s/21)	49	<b>3</b>	<b>9</b>
382	12(s)(f)	<b>21</b>	A.S.C.C. (BA.15s/21)	49	<b>3</b>	<b>6</b>
335	12(s)	<b>21</b>	A.S.B.C. (BA.15d/21)	49	<b>3</b>	<b>7</b>
333	24(s)	<b>24</b>	A.S.B.C. (BA.15d/21)	49	<b>4</b>	<b>6</b>

\* Purchase Tax see note below.

(d) Double Filament (e) Inverted Vee auxiliary Filament no extra (f) Flashing Indicator also.

† Index pins. (s) Single Filament.

## Side and Tail Lamps—Bow Filament

Lamp No.	Volts	Watts	Cap	Dimensions		List* Price	
				Length mm.	Diameter mm.	s.	d.
200	6	<b>3</b>	S.C.C. (BA.15s/17)	32.5	18	<b>1</b>	<b>4</b>
204	6	<b>3</b>	S.B.C. (BA.15d/17)	32.5	18	<b>1</b>	<b>5</b>
988	6	<b>3</b>	M.C.C. (BA.9s/14)	28	15	<b>1</b>	<b>6</b>
951	6	<b>6</b>	M.C.C. (BA.9s/14)	28	15	<b>1</b>	<b>7</b>
205	6	<b>6</b>	S.C.C. (BA.15s/17)	32.5	18	<b>1</b>	<b>7</b>
206	6	<b>6</b>	S.B.C. (BA.15d/17)	32.5	18	<b>1</b>	<b>8</b>
207	12	<b>6</b>	S.C.C. (BA.15s/17)	32.5	18	<b>1</b>	<b>4</b>
209	12	<b>6</b>	S.B.C. (BA.15d/17)	32.5	18	<b>1</b>	<b>5</b>
222	12	<b>4</b>	M.C.C. (BA.9s/14)	28	15	<b>1</b>	<b>7</b>
989	12	<b>6</b>	M.C.C. (BA.9s/14)	28	15	<b>1</b>	<b>7</b>
149 ¶	24	<b>6</b>	S.C.C. (BA.15s/17)	32.5	18	<b>1</b>	<b>6(c)</b>
150 ¶	24	<b>6</b>	S.B.C. (BA.15d/17)	32.5	18	<b>1</b>	<b>6(c)</b>
638 ¶	24	<b>6</b>	B.C. (B22/22 × 16)	37	18	<b>1</b>	<b>6(c)</b>

\* Purchase Tax see note below. (c) Vee Filament no extra. ¶ With Supported Filament.

## Indicator Lamps

Lamp No.	Volts	Watts	Cap	Dimensions		List* Price	
				Length mm.	Diameter mm.	s.	d.
990	6	<b>3</b>	M.E.S. (E10/13)	23	11	<b>1</b>	<b>3</b>
641	6	<b>3</b>	M.C.C. (BA.9s/14)	23.5	11	<b>1</b>	<b>6</b>
981	6	<b>3</b>	M.E.S. (E10/13)	27.5	15	<b>1</b>	<b>3</b>
642	6	<b>3</b>	M.C.C. (BA.9s/14)	28	15	<b>1</b>	<b>6</b>
950	6	<b>6</b>	M.E.S. (E10/13)	28	15	<b>1</b>	<b>3</b>
987	12	<b>2.2</b>	M.E.S. (E10/13)	23	11	<b>1</b>	<b>3</b>
643	12	<b>2.2</b>	M.C.C. (BA.9s/14)	23.5	11	<b>1</b>	<b>6</b>
986	12	<b>2.2</b>	M.E.S. (E10/13)	27.5	15	<b>1</b>	<b>3</b>
645	12	<b>2.2</b>	M.C.C. (BA.9s/14)	28	15	<b>1</b>	<b>6</b>
985 ¶	16	<b>3</b>	M.E.S. (E10/13)	27.5	15	<b>2</b>	<b>3</b>
647 ¶	16	<b>3</b>	M.C.C. (BA.9s/14)	28	15	<b>2</b>	<b>6</b>
993 ¶	24	<b>2.8</b>	M.E.S. (E10/13)	27.5	15	<b>1</b>	<b>8</b>
651 ¶	24	<b>2.8</b>	M.C.C. (BA.9s/14)	28	15	<b>1</b>	<b>11</b>

\* Purchase Tax see note below. ¶ With Supported Filament.

## Festoon Lamps

Lamp No.	Volts	Watts	Cap	Dimensions		List* Price	
				Length mm.	Diameter mm.	s.	d.
255	6	<b>3</b>	S7/8	35.5	7.5	<b>2</b>	<b>3</b>
253	6	<b>6</b>	S8.5/8	38	11	<b>2</b>	<b>7</b>
256	12	<b>3</b>	S7/8	35.5	7.5	<b>2</b>	<b>3</b>
254	12	<b>6</b>	S8.5/8	38	11	<b>2</b>	<b>7</b>
653	24	<b>6</b>	S8.5/8	38	11	<b>2</b>	<b>6</b>
654 ¶	24	<b>6</b>	S8.5/8	38	11	<b>4</b>	<b>6</b>
260	24	<b>6</b>	S8.5/8	44	11	<b>3</b>	<b>0</b>

¶ With Supported Filament.

\* Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added see TABLE B on the card insert.

# ANCILLARY CAR BULBS

for  
Motor Cars,  
Motor Cycles and  
Commercial Vehicles

Stop and Stop/Tail

Side and Tail

Indicator

Festoon

**SECTION 17**



**Cycle Headlamp, Granulated**  
6 volt, 0.45 amp.



**Speedometer**  
6.5 volt, 0.3 amp.



**Cycle Tail**  
6 volt, 0.04 amp.



**Cycle Tail**  
3.5 volt, 0.15 amp.



**Ordinary Flashlight**  
2.5 volt, 0.2 amp.



**Prefocus Flashlight**  
2.5 volt, 0.2 amp.



**Lens End Flashlight**  
2.2 volt, 0.25 amp.



**Mazda**

*lamps  
stay brighter  
longer*

#### **Cycle Dynamo**

Among the lamps listed on the opposite page will be found one to suit every type of cycle lighting equipment in use today. A combination of correctly rated lamps front and rear will give a well balanced and reliable lighting system.

BTH technicians have developed the alternative of granulated finish for all 15 mm. Headlamps. This process provides the lamp with greater light-diffusion properties.

#### **Lens End Flashlights**

This lamp has been designed to give a concentrated 'circle' of light for small flashlamps. Used in such electric torches as the 'fountain pen' type, they make full use of the small current available.



## Cycle Dynamo Headlamps

Volts	Amps.	Finish	Cap	Diameter mm.	List Price*		
					s.	d.	
6	0.2	Clear	M.E.S. (E10/13)	15	8		
6	0.2	Granulated		15	8		
6	0.3	Clear		15	8		
6	0.3	Granulated		15	8		
6	0.45	Clear		15	8		
6	0.45	Granulated		15	8		
6	0.5	Clear		15	8		
6	0.5	Granulated		15	8		
6	0.3	Clear		S.C.C. (BA.15s/17)	18	1	4
6	0.5	Clear			18	1	4

\* Purchase Tax see note below.  
Granulated bulbs give better light diffusion.

## Cycle Dynamo Tail Lamps

Volts	Amps.	Finish	Cap	Diameter mm.	List Price*	
					s.	d.
1.5	0.15	Clear	M.E.S.(E10/13)	15	8	
3.5	0.15		M.C.C.(BA.9s/14)	11 or 15	8	
6.0	0.04		M.E.S.(E10/13)	11 or 15	8	
6.0	0.10		M.E.S.(E10/13)	11	8	

\* Purchase Tax see note below.

## Speedometer

Volts	Amps.	Finish	Cap	Diameter mm.	List Price*	
					s.	d.
6.5	0.3	Clear	M.C.C.(BA.9s/14)	11	7	

\* Purchase Tax see note below.

## Flashlight Lamps

Volts	Amps.	Finish	Cap	Diameter mm.	List Price*	
					s.	d.
<b>Ordinary Flashlight</b>						
1.5	0.11	Clear	M.E.S. (E10/13)	15	8	
2.0	0.6			15	8	
2.5	0.2			11	4	
2.5	0.3			11	4	
3.5	0.15			11	4	
3.5	0.3			11	4	
4.0	0.3			11	4	
4.5	0.3			15	4	
5.0	0.15			15	8	
<b>Lens End Flashlight</b>						
2.2	0.25	Clear	M.E.S.(E10/13)	9.5 max.	7	
<b>Prefocus Flashlight</b>						
2.5	0.2	Clear	Special Prefocus	11	1	0
2.5	0.3			11	1	0
3.5	0.3			11	1	0

\* Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added see TABLE B on the card insert.

# CYCLE DYNAMO & FLASHLIGHT LAMPS

## Cycle Dynamo Headlamps

## Cycle Dynamo Tail Lamps

## Speedometer

## Flashlight

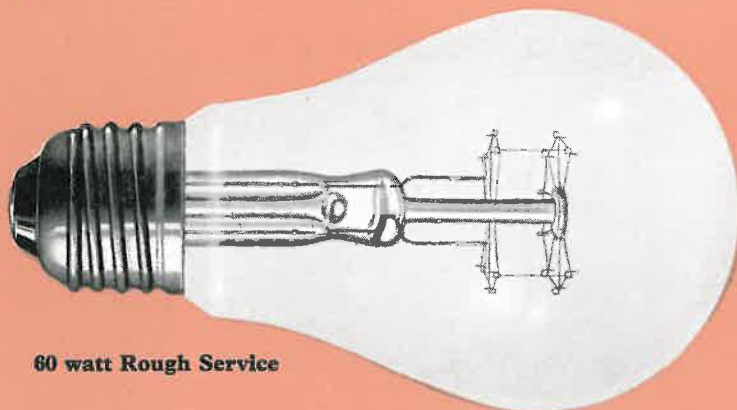
## Lens End Flashlight

## Prefocus Flashlight





2 volt 0.75 amp. Police



60 watt Rough Service



60 watt Traction



60 watt Traffic Signal



12 watt Bus Interior



**Mazda**

*lamps  
stay brighter  
longer*

**Bus Interior**

Pearled to counter glare to passengers, bus interior lamps are available in standard voltages with two varieties of cap.

**Traffic Signal**

Suitable for red, amber and green signals these Mazda lamps are available in two types with different Light Centre Lengths to fit standard types of traffic control equipment.

**Traction**

Produced for wiring in series in tube-trains, tramcars and other public service transport, Mazda traction lamps have an accurately rated amperage to give maximum efficiency.

**Rough Service**

Designed for circumstances in which a high wattage is unnecessary but where they will be liable to undergo severe vibration or continual movement (as on machinery or high-voltage handlamps, etc.), these lamps are subjected to rigorous batch testing for strength of construction and long life.

**Police**

These lamps are produced in accordance with the strict standards demanded by the Metropolitan Police for their handlamps. They are vacuum lamps and they can be supplied with alternative types of cap.

# TRANSPORT & SPECIAL SERVICE

## Police

## Traffic Signs

## Traction

## Rough Service

## Bus Interior

### Vacuum Police Lamps

Volts	Amps.	Cap	Dimensions		List   Price	
			Length mm.	Diameter mm.	s.	d.
2	0.75	Wootton B9-5s/11	28	18	2	6
2	0.75	M.E.S.(E10/13)	27.5	15	2	6

|| Purchase Tax must be added to the prices in this column. For the exact amount of purchase tax to be added see TABLE B on the card insert.

### Traffic Signal Clear, Vacuum, Spiral Filament

Standard Caps:—B.C. (B22/25 × 26) or E.S. (E27/25)

Watts	Volts	Description	Dimensions		List* Price	
			Length mm.	Diameter mm.	s.	d.
60	110, 120, 210, 220, 230, 240, 250	Spiral Filament	108	65	2	0
60		Bulbs marked 'TC'	117.5	65	2	0

\* Purchase Tax see note below.

### Traction Series Burning†

Nom. Watts	Rated Amps.	Volts	Cap	Dimensions		List* Price Clear or Pearl	
				Length mm.	Diameter mm.	s.	d.
40	0.35	100, 110, 120, 130	B.C.(B22/25 × 26) or E.S.(E27/25)	110	60	1	9
60	0.52			117.5	65		

\* Purchase Tax see note below.

† With fusible cut-out E.S. cap 40 volt and 50 volt only. 2s. 5d. each.

### Rough Service Vacuum, Spiral Filament

Watts	Voltages	Cap	Dimensions		List* Price Clear or Pearl	
			Length mm.	Diameter mm.	s.	d.
40	100, 110, 120, 130, 200, 210, 220, 230, 240, 250, 260	B.C.(B22/25 × 26) or E.S.(E27/25)	110	60	2	0
60			117.5	65		

\* Purchase Tax must be added to the prices in these columns. For the exact amount of purchase tax to be added see TABLE A on the card insert.

### Bus Interior Pearl

Standard Caps:—B.C. (B22/21 × 26) or S.B.C. (BA.15d/17) Filaments:—Vee or Bow

Watts	Volts	Description	Dimensions		List   Price	
			Length mm.	Diameter mm.	s.	d.
12	12	55 (B.C.) 56 (S.B.C.) or 68	38 38 or 50	38	2	4
12	24				2	6
20	24				2	9

|| Purchase Tax must be added to the prices in this column. For the exact amount of purchase tax to be added see TABLE B on the card insert.

# Aircraft



12v. 30w.  
Identification  
downwards



24v. 80w.  
Identification  
downwards



3v. 0.24 amp.  
Warning

# Miners



3-75v.  
1.0 and 1.0 amp  
Cap bulb



4v.  
0.75 amp.  
Handlamp  
bulb

## Miners' Cap (Clear Bulb)

Lamp Code Number	Rating		Diameter mm.	Length mm.	MFP Category	Cap	List Price Each s. d.
	Volts	Amps.					
<b>Argon—Double Filament</b>							
13B	4-0	0.55 & 0.55	25	49	1 (B)	BA.15d/21	2 9
<b>Krypton—Single Filament</b>							
13A	3-6	1.0	18	31	3/1	E10	2 8
15A	4-0	0.8	18	31	2	E10	2 8
<b>Krypton—Double Filament</b>							
14A	3-75	1.0 & 1.0	18	40	3/2	BA.15d/17	3 6

FOR NOTES SEE OPPOSITE PAGE



# Miners

Coalmines have had to surmount numerous problems peculiar to their calling. Not least of their worries is the provision of adequate, safe lighting for many and varied applications.

Today in many mines throughout this country and abroad will be found BTH lighting equipment and lamps at every turn. In coal mines the Mazda coalface fluorescent fitting can be seen in use at the coalface. The Mazda fluorescent 'Roadway' fitting is extensively used for general lighting and of course the miner's cap or handlamp will contain one of the lamps listed on the opposite page.

# Aircraft

The varied and special conditions in modern aircraft demand highly efficient and vibration-proof lamps and lighting equipment.

Whether the requirements are for a low voltage—high wattage lamp such as those shown under Landing or a low rating Instrument type, the lamps chosen will operate with efficiency and reliability throughout life.

# MINERS

## Cap Lamps

## Handlamp Lamps

# AIRCRAFT

## Miners Handlamp Pearl Bulb

Lamp Code Number	Rating		Diameter mm.	Length mm.	MFP Category	Cap	List Price Each	
	Volts	Amps.					s.	d.
<b>Krypton—Single Filament†</b>								
11B	2.5	1.5	18	43.5	1 (B)	953	3	0
12B	2.5	1.5	18	45.5	1 (B)	E14	3	0
11A	2.5	1.75	18	43.5	3/1	953	3	0
12A	2.5	1.75	18	45.5	1 (B)	E14	3	0
14B	4.0	0.75	18	45.5	1 (B)	E14	3	0
15B	4.0	0.75	18	47a	1 (B)	Peg	3	0
16A	4.0	1.0	18	45.5	1 (B)	E14	3	0

† Supplied with fuse in the cap. (a) With Pip.  
 E 14 = E 14/23 × 15 = S.E.S. E 10 = E 10/13 = M.E.S. 953 = Special S.C.C. BA.15d/17 or BA.15d/21 = S.B.C.  
 All the Miners' Lamps listed on this and the opposite page are approved by the Mines Department and are exempt from Purchase Tax.

## Aircraft Lamps

Watts	Volts	Cap	Filament	Type and Finish	Dimensions			List Price* s. d.
					Length mm.	Diameter mm.	L.C.L. mm.	
<b>Landing</b>								
240	12	P28/25	Twin Pillar	Clear G.F.	95	60	37 ± 0.5	29 0A
240	26	P28/25	Tr. C.C.	Clear G.F.	95	60	44.5	29 0A
350	26	P40/41	Tr. C.C.	Clear G.F.	120	75	43	33 0
<b>Instrument or Indicator Lamps</b>								
1.2	12	{ End piece and Clips }	—	Clear Vac.	38	6.5	—	2 2C
2.4	24		—	Clear Vac.	38	6.5	—	2 2C
6	12	S8.5/8	Axial	Clear Vac.	38	11	—	2 7B
6	24	S8.5/8	Axial	Clear Vac.	38	11	—	2 6B
2.36	6.5	E10/13	Tr. Bow or 'V'	Clear Vac.	23	11	—	7B
2.2	12	E10/13	Bow or 'V'	Clear Vac.	27.5	12 or 15	—	1 3B
2.8	24	E10/13	Bow or 'V'	Vac.	27.5	15	—	1 8B
<b>Warning Lamps</b>								
0.24	3	E10/13	Tr. Bow or 'V'	Clear Vac.	23	11	—	1 0B
0.24	6	E10/13	Tr. Bow or 'V'	Vac.	23	11	—	1 0B
<b>Cockpit</b>								
7	12	BA.15d/17	Bow or 'V'	} Clear G.F. Varnished Red Vac. {	32.5	18	17.5	3 0B
2.2	12	E10/13	Bow or 'V'		27.5	12 or 15	—	1 5B
2.8	24	E10/13	Bow or 'V'		27.5	15	—	1 11B
<b>General Service Lamps</b>								
6	12	BA.15d/17	Bow or 'V'	} Clear G.F. Vac. {	32.5	18	—	1 5B
6	24	BA.15d/17	Bow or 'V'		32.5	18	—	1 6B
<b>Cabin Lamps</b>								
12	12	BA.15d/17	Bow or 'V'	} Clear G.F. Clear G.F. {	56	38	—	2 4B
15	24	BA.15d/17	Bow or 'V'		56	38	—	2 9B
<b>Navigation, Head, Tail and Side</b>								
10	12	BA.15d/17	} Single T Coil Special Trans. Trans. {	} Clear G.F. Clear Vac. or G.F. Clear G.F. Clear G.F. {	46	25	30	3 6B
10	24	BA.15d/17			46	25	30	4 6B
20	12	BA.15d/17			57	38	33	4 0B
20	24	BA.15d/17			57	38	33	4 6B
<b>Identification Downwards</b>								
30	12	BA.15d/17	} Special Special {	} Internally Frosted G.F. {	58	27	38	5 0B
80	24	BA.15d/17			58	38	38	7 6B
<b>Taxying</b>								
36	12	BA.15d/17	} 'V' Ax. C.C. or 'V' {	} Clear G.F. Clear G.F. {	56	38	28.5	2 7B
60	24	BA.15d/17			56	38	28.5	6 0B

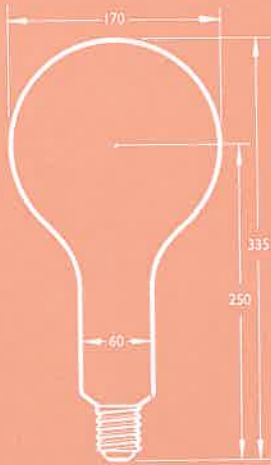
\* Purchase Tax must be added to the prices of all lamps in these columns except the 350w. 26v. Landing lamp. The exact amount of Purchase Tax to be added to the list prices with the suffixes 'A' and 'B' will be found in TABLES A and B respectively on the card insert. Purchase Tax equal to 18½% must be added to list prices with the suffix 'C'.



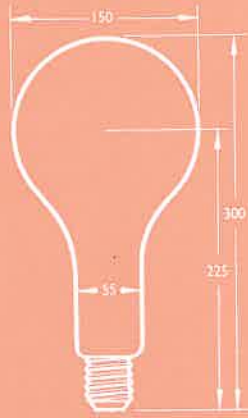
# LAMP OUTLINES

Dimensions in millimetres

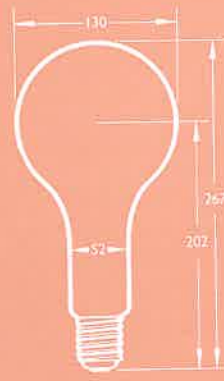
## General Lighting Service



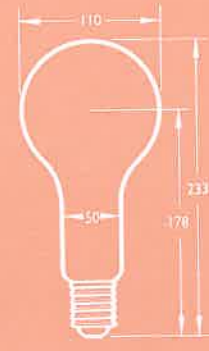
1500w. G.E.S. Cap  
G.F. Clear



1000w. and 750w. G.E.S.  
Cap G.F. Clear



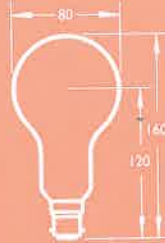
500w. G.E.S. Cap  
G.F. Clear



300w. G.E.S. Cap  
G.F. Clear



200w. E.S. Cap  
G.F. Clear, Pearl  
and Silverlight



150w. B.C. Cap  
G.F. Clear  
and Silverlight



100w. and 75w. B.C. Cap  
Clear, Pearl, Silverlight  
(100w.) and Coiled Coil



60w. and 40w. B.C. Cap  
Clear, Pearl, Silverlight  
and Coiled Coil

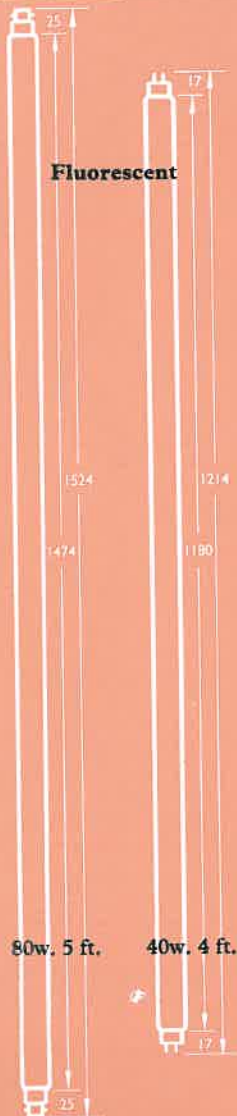


25w. B.C. Cap  
Clear and Pearl



15w. B.C. Cap  
Clear and Pearl

## Fluorescent



80w. 5 ft.

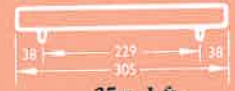
40w. 4 ft.



150w. 4 ft.



110w. 3 ft.



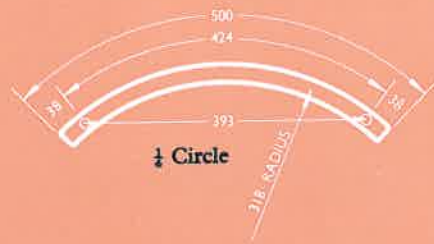
35w. 1 ft.



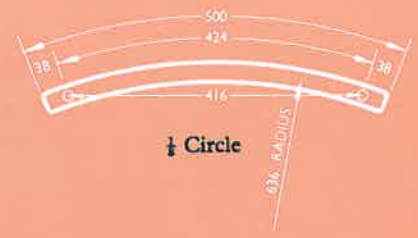
$\frac{1}{2}$  Circle



75w. 2 ft.



$\frac{1}{4}$  Circle



$\frac{1}{4}$  Circle

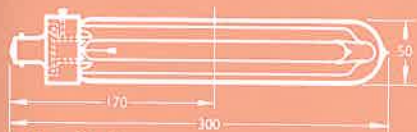
## Light Tubes

# LAMP OUTLINES

Dimensions in millimetres



45w. Sodium Vapour



60w. Sodium Vapour

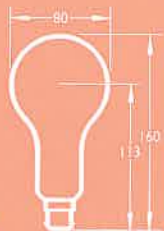


85w. Sodium Vapour



140w. Sodium Vapour

80w. 3-pin Cap Mercury Vapour (MB/U & MBF/U)



125w. 3-pin Cap Mercury Vapour (MB/U, MBF/U and MBW/U)



400w. G.E.S. Cap Mercury Vapour (MBF/U)



400w. G.E.S. Cap Mercury Vapour (MA/V and MA/U)



250w. G.E.S. Cap Mercury Vapour (MA/V and MA/U)



25w. S.B.C. Cap Plain Candle



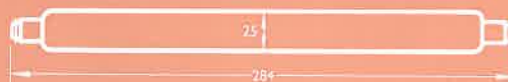
40w. and 60w. S.B.C. Cap Plain Candle



40w. and 60w. S.B.C. Cap Twisted Candle



25w. S.B.C. Cap Twisted Candle



60w. and 30w. Double Cap Tubular



30w. Double Cap Tubular



25w. Single Cap Tubular

# LAMP CAPS

Dimensions in millimetres

## Bayonet Double Contact



B22/22



B22/21 × 26

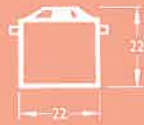


B22/25 × 26



B22/31 × 30

## Bayonet Single Contact



B22s/22



B22s/21 × 26



B22s/25 × 26



B22s/31 × 30

## Small Bayonet



B15d/24 × 17



BA.15d/17



BA.9s/14



BA.15s/17

## 3-pin Bayonet



B22/25 × 26  
(3-pin)

## Bosch



BA.20d



BA.20s

## Edison Screw



G.E.S.  
E40/45



E.S.  
E27/25



M.E.S.  
E10/13

## Miner's



S11s/23



E14/23 × 15



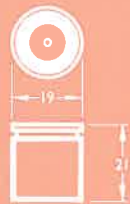
# LAMP CAPS

Dimensions in millimetres

## Caps for Double Ended Tubular lamps



S15s



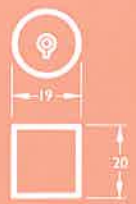
S19s



S22s



S15/15



S19/20

### Hollow Tubular



### 3-pin C.C.



BA.21s (3-pin)

### Festoon



S7/8



S8-5/8

## Caps for Fluorescent Lamps



G13/35



G13/23



S24s/17

## Prefocus Caps



P40/41



P22d/21



P28/25



P15/19

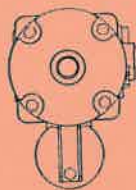
**SECTION 22**



# MAZDA FLUORESCENT FITTINGS



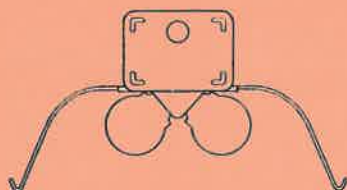
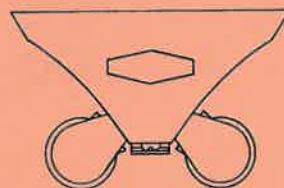
**'Monolux' F 1004/1/8060**



**'Flameproof' F 1130/1/8060**



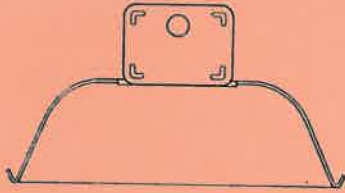
**'Seagull' F 1080/2/8060**



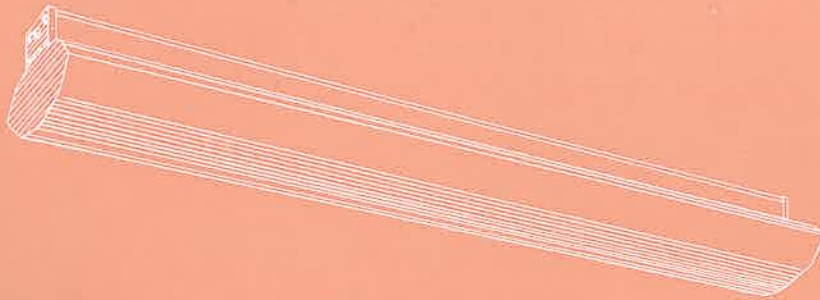
**F 1160/2/8060S**

# MAZDA FLUORESCENT FITTINGS

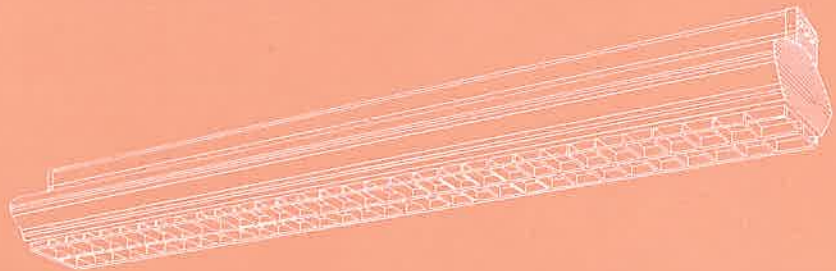
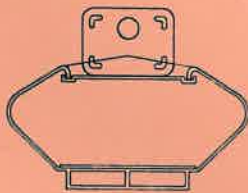
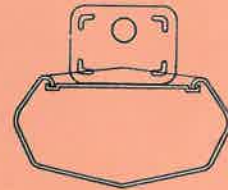
The fittings illustrated on these pages are selected from the complete range of Mazda Fluorescent Fittings designed for every type of Industrial, Commercial, and Decorative Lighting. Prices and full details of these and other lighting fittings will be supplied on application.



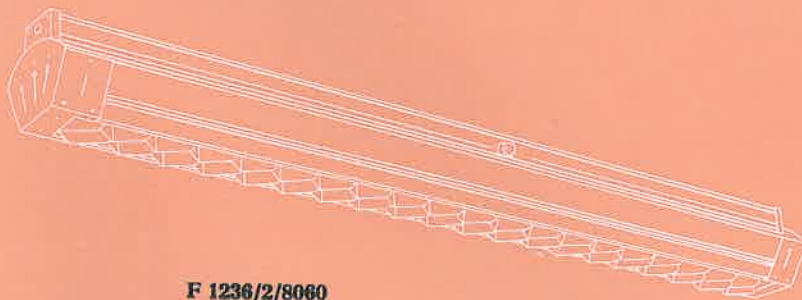
F 1162/2/8060S



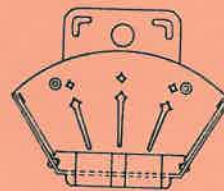
F 1234/2/8060



F 1235/2/8060



F 1236/2/8060



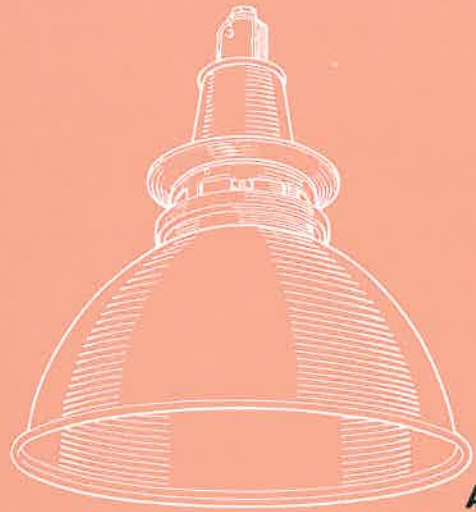
# Mazda 'Rugby' Range

*The fittings on this page represent only a small fraction of the complete range of Mazda Equipment for interior lighting of all kinds. Full details and prices of these and other fittings will be supplied on application.*

Key	Description
A	High Bay Fitting
B	Dispersive Fitting
C	45° Angle Fitting
D	Glassteel Diffuser Fitting
E	Bulkhead Fitting
F	Mercury Vapour Fitting
G	'Cupola' Spotlight
H	150 watt Translucent Shade



**A**



**B**



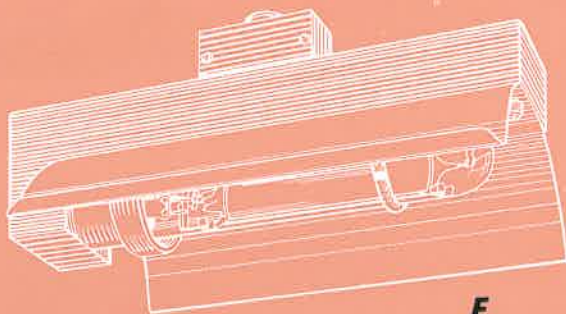
**C**



**D**



**E**



**F**



**G**



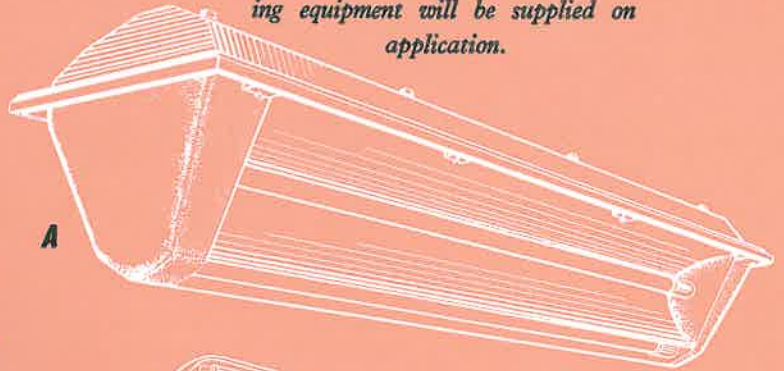
**H**



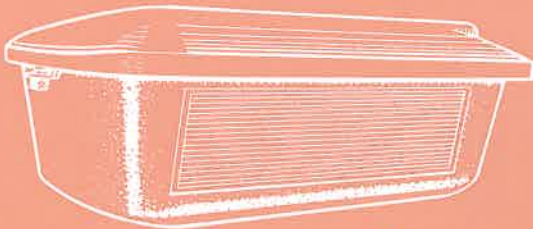
# Mazda Streetlighting Lanterns and Floodlights

Key	Description
A	Fluorescent Lantern
B	'Amber' Sodium Lantern
C	Sodium Open Lantern
D	'Sapphire' Mercury Lantern
E	'M Nine' Floodlight
F	(SL 602) 600 Series Lantern
G	Rural Series Lantern
H	'M Three' Floodlight

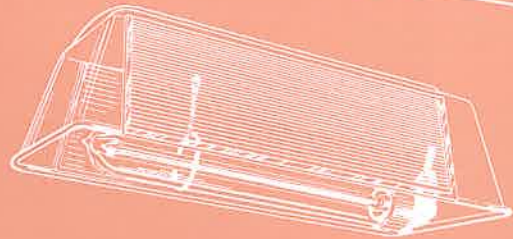
*The Lanterns and Floodlights illustrated on this page are selected from the comprehensive range of Mazda Fittings designed to meet every outdoor lighting requirement. Full details and prices of this and other outdoor lighting equipment will be supplied on application.*



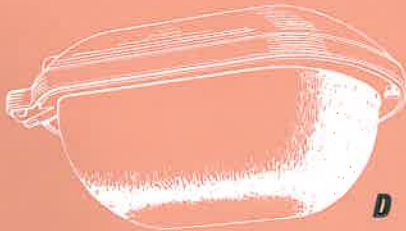
**A**



**B**



**C**



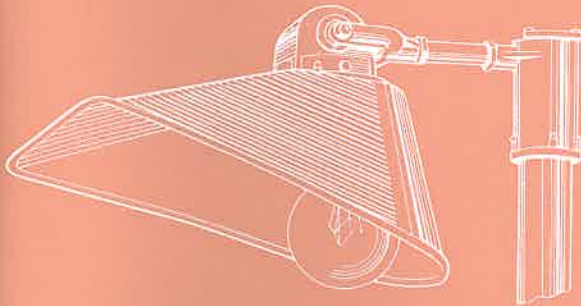
**D**



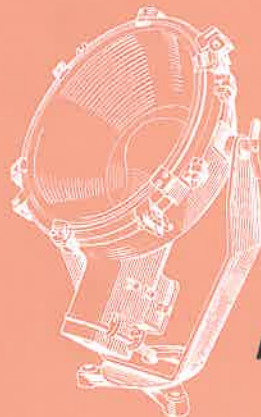
**F**



**G**



**E**



**H**

**SECTION 24**





A



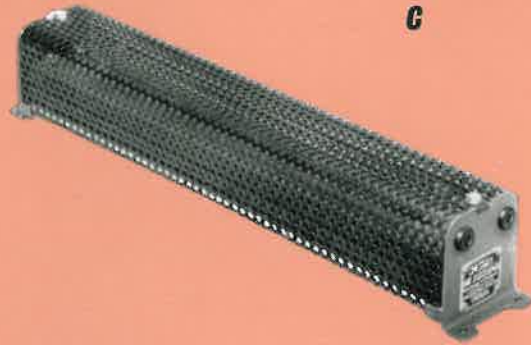
B



C



D



F



E



G



I



H



J

# MAZDA LAMP AUXILIARY GEAR

Prices and full details on application

Illustrations on opposite page

- (A) **Chokes**  
for use with mercury vapour lamps (Sections 8 and 9)

Catalogue Number	A.C. 50 Cycles Supply Voltages	Lamp Watts
MRG 501	190/230	400
MRG 502	215/255	400
MRG 503	190/230	250
MRG 504	215/255	250
MRG 505	190/230	125
MRG 506	215/255	125
MRG 507	190/230	80
MRG 508	215/255	80
MRG 509	100/120	400
MRG 510	100/120	250

Special Choke Cat. No. MRG 101 must be used with 250 watt ME/D lamp.

- (B) **Transformers**  
for use with sodium vapour lamps (Section 8)

Catalogue Number	A.C. 50 Cycles Supply Voltages	Lamp Watts
MCG 106	190/220	140
MCG 107	220/250	140
MCG 108	190/220	45/60/85
MCG 109	220/250	45/60/85

- (C) **Capacitors**  
for use with electric discharge lamps (Sections 8 and 9)

Catalogue Number	Capacitance	Catalogue Number	Capacity
C 82595	8 mfd.	C 82602	40 mfd.
C 82596	10	C 82603	50
PL 26 or C 82597	13	C 82604	60
PL 27 or C 82598	15	C 82605	70
PL 28 or C 82599	20	C 82606	80
C 82600	25	C 82607	90
C 82601	30	C 82608	100
		C 82609	120
		C 82610	140
		C 82611	160

- (D) **Chokes**  
for use with fluorescent lamps (Section 7)

Catalogue Number	Dimensions				Weight lb.
	Length in.	Width in.	Height in.	Fixing Centres in.	
MRJ 201	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 202	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 203	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 204	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 205	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 215	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 216	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 217	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 218	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 219	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 220	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 221	5 $\frac{1}{2}$	2 $\frac{1}{4}$	2	5 $\frac{1}{2}$	4
MRJ 304	6 $\frac{1}{2}$	3 $\frac{1}{4}$	2 $\frac{1}{4}$	5 $\frac{1}{2}$	6 $\frac{1}{2}$

- (E) **Transformers**  
for use with fluorescent lamps on low voltage supplies (Section 7)

Catalogue Number	A.C. 50 Cycles Input Voltage	Lamp Watts
MC 188	110/115	80
MC 168	110/115	{ 40 (4 ft.) 30

- (F) **Resistors for use with fluorescent lamps on D.C. supplies are available. Details on application. (Section 7)**

- (G) **Starter Socket**  
for use with fluorescent lamps (Section 7)  
Catalogue No. C 77592

- (H) **Capacitors**  
for use with fluorescent lamps (Section 7)

Catalogue Number	Capacitance	Max. Working Voltage	Lamp Watts	
			Single	2 in series
PL 11C	7.5 mfd.	260	80	40 (2 ft.)
PL 12	3.25 mfd.	260	40 (4 ft.) 30 20 15	20 15
PJ 13	4.5 mfd.	260		—
PL 51	7.0 mfd.	450	—	80 (T.L. circuit)

- (I) **Instant Start Ballast**  
for use with Instant Start fluorescent lamps (Section 7)

Cat. No.	Lamp Watts	A.C. 50 cycles Supply Voltage	Overall Length	Overall Width	Overall Height	Fixing Centres	Approx. Weight
			in.	in.	in.	in.	lb.
MK 108	80	200/210	10 $\frac{1}{8}$	3 $\frac{1}{8}$	2 $\frac{1}{4}$	9 $\frac{5}{8}$	10
MK 109	80	220/230	8 $\frac{13}{16}$	3 $\frac{1}{8}$	2 $\frac{1}{4}$	8 $\frac{1}{16}$	8 $\frac{1}{2}$
MK 134	80	230/240	8 $\frac{13}{16}$	3 $\frac{1}{8}$	2 $\frac{1}{4}$	8 $\frac{1}{16}$	8 $\frac{1}{2}$
MK 135	80	240/250	8 $\frac{13}{16}$	3 $\frac{1}{8}$	2 $\frac{1}{4}$	8 $\frac{1}{16}$	8 $\frac{1}{2}$
MK 136	40(4')	200/210	8 $\frac{13}{16}$	2 $\frac{1}{8}$	2	7 $\frac{15}{16}$	7
MK 113	40(4')	220/230	8 $\frac{13}{16}$	2 $\frac{1}{8}$	2	7 $\frac{15}{16}$	7
MK 138	40(4')	230/240	8 $\frac{13}{16}$	2 $\frac{1}{8}$	2	7 $\frac{15}{16}$	7
MK 115	40(4')	240/250	8 $\frac{13}{16}$	2 $\frac{1}{8}$	2	7 $\frac{15}{16}$	7

† Radio Suppressor included.

- (J) **Starters**  
for use with fluorescent lamps (Section 7)

Lamp Watts	Catalogue Numbers	
	A.C.	A.C. or D.C.
80 watt 60"	ST 26	ST 23
40 watt 48"	ST 26	ST 24
30 watt 36"	ST 26	ST 25
40 watt 24"	ST 23	ST 23
20 watt 24"	ST 25	ST 25
15 watt 18"	ST 25	ST 25

# MAZDA LAMPHOLDERS

Catalogue No.	Description <i>(Prices and Full Details on Application)</i>
C 84456	Circular Fluorescent holder and supports
C 83024	B.C. Rubber Sleeve (Sodium Lamps)
C 69120	G.E.S. Skirted (Tungsten Lamps, BTH patent)
C 84079	Bi-post (Studio Lamps)
C 85830	Swivel Holder (Reflector Lamps)
C 69119	G.E.S. Unskirted (Tungsten Lamps, BTH patent)
T 957	Medium Prefocus (Projector Lamps)
C 83131	Miniature Bi-pin (Miniature Fluorescent Lamps)
C 76551	B.C. Rubber Sleeve (Fluorescent Lamps)
C 86267	Fixed B.C. (Fluorescent Lamps)
C 86486	Medium Bi-pin Compact (Fluorescent Lamps)
C 83145	Medium Bi-pin (Fluorescent Lamps)
C 77969	Medium Bi-pin Rubber Sleeve (Fluorescent Lamps)



C 76551



C 86267



C 84456



C 69120



C 69119



C 86486



C 84079



T957



C 83145



C83024



C 85830



C 83131



C 77969



# LAMP OUTPUT

## G.L.S. Clear and Pearl (Section 1)

Lamp Watts	Voltage Range and Approximate Initial Total Lumens Output				
	200-260	100-130	60-75	35-55	25
15	120	140	—	150	165
25	220	240	260	280	310
40	*430	470	470	500	550
60	*725	790	780	820	890
75	*960	1060	—	—	—
100	*1380	1500	1460	1510	1600
150	2150	2360	2330	2400	—
200	2960	3280	3240	3350	—
300	4830	5250	5170	5330	—
500	8660	9500	9340	9570	—
750	13900	15150	14800	15130	—
1000	19400	20900	20600	20830	—
1500	31000	32200	—	—	—

\* Coiled Coil.

## Fluorescent (Section 7)

Watts	Nominal Length	Colours	Average Lumens through the first 5000 hours of Life
125	8 ft.	New Warm White ..	6875
		Natural .. ..	5375
80	5 ft.	New Warm White ..	4160
		Daylight .. ..	3600
		Natural .. ..	3120
		Deluxe Warm White..	2560
		Colour Matching ..	2200
40	4 ft.	New Warm White ..	2160
		Daylight .. ..	1920
		Natural .. ..	1640
		Deluxe Warm White..	1360
		Colour Matching ..	1200
40	2 ft.	New Warm White ..	1320
		Natural .. ..	1080
		Deluxe Warm White..	760
30	3 ft.	New Warm White ..	1380
		Natural .. ..	1170
		Deluxe Warm White..	840
20	2 ft.	New Warm White ..	800
		Natural .. ..	640
		Deluxe Warm White..	460
15	1½ ft.	New Warm White ..	480
		Natural .. ..	420
		Deluxe Warm White..	330

## Silverlight (Section 1)

Lamp Watts	Approximate Initial Total Lumens Output 200/260 volts
<b>Coiled Coil</b>	
40	410
60	690
100	1310
<b>Single Coil</b>	
40	335
60	590
100	1180
150	2045
200	2810

## Mercury Vapour (Sections 8 and 9)

Watts	Average Lumen Output through 4000 hours Life
<b>MA/V</b>	
250	7750
400	13600
<b>MA/U</b>	
250	7000
400	12400
<b>MA/H</b>	
250	7000
400	12400
<b>MB/U</b>	
80	2320
125	3875
<b>MBF/U</b>	
80	2320
125	3875
400	16800

## Sodium Vapour (Section 8)

Watts	Average Lumen Output through 4000 hours Life
45	2250
60	3420
85	5525
140	9100



# READY RECKONER

1	2	3	4	5	6	7	8	9	10	11	12	20	25	50
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1	2	3	4	5	6	7	8	9	10	11	1 0	1 8	2 1	4 2
2	4	6	8	10	1 0	1 2	1 4	1 6	1 8	1 10	2 0	3 4	4 2	8 4
3	6	9	1 0	1 3	1 6	1 9	2 0	2 3	2 6	2 9	3 0	5 0	6 3	12 6
4	8	1 0	1 4	1 8	2 0	2 4	2 8	3 0	3 4	3 8	4 0	6 8	8 4	16 8
5	10	1 3	1 8	2 1	2 6	2 11	3 4	3 9	4 2	4 7	5 0	8 4	10 5	20 10
6	1 0	1 6	2 0	2 6	3 0	3 6	4 0	4 6	5 0	5 6	6 0	10 0	12 6	25 0
7	1 2	1 9	2 4	2 11	3 6	4 1	4 8	5 3	5 10	6 5	7 0	11 8	14 7	29 2
8	1 4	2 0	2 8	3 4	4 0	4 8	5 4	6 0	6 8	7 4	8 0	13 4	16 8	33 4
9	1 6	2 3	3 0	3 9	4 6	5 3	6 0	6 9	7 6	8 3	9 0	15 0	18 9	37 6
10	1 8	2 6	3 4	4 2	5 0	5 10	6 8	7 6	8 4	9 2	10 0	16 8	20 10	41 8
11	1 10	2 9	3 8	4 7	5 6	6 5	7 4	8 3	9 2	10 1	11 0	18 4	22 11	45 10
1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0	11 0	12 0	20 0	25 0	50 0
1 1	2 2	3 3	4 4	5 5	6 6	7 7	8 8	9 9	10 10	11 11	13 0	21 8	27 1	54 2
1 2	2 4	3 6	4 8	5 10	7 0	8 2	9 4	10 6	11 8	12 10	14 0	23 4	29 2	58 4
1 3	2 6	3 9	5 0	6 3	7 6	8 9	10 0	11 3	12 6	13 9	15 0	25 0	31 3	62 6
1 4	2 8	4 0	5 4	6 8	8 0	9 4	10 8	12 0	13 4	14 8	16 0	26 8	33 4	66 8
1 5	2 10	4 3	5 8	7 1	8 6	9 11	11 4	12 9	14 2	15 7	17 0	28 4	35 5	70 10
1 6	3 0	4 6	6 0	7 6	9 0	10 6	12 0	13 6	15 0	16 6	18 0	30 0	37 6	75 0
1 7	3 2	4 9	6 4	7 11	9 6	11 1	12 8	14 3	15 10	17 5	19 0	31 8	39 7	79 2
1 8	3 4	5 0	6 8	8 4	10 0	11 8	13 4	15 0	16 8	18 4	20 0	33 4	41 8	83 4
1 9	3 6	5 3	7 0	8 9	10 6	12 3	14 0	15 9	17 6	19 3	21 0	35 0	43 9	87 6
1 10	3 8	5 6	7 4	9 2	11 0	12 10	14 8	16 6	18 4	20 2	22 0	36 8	45 10	91 8
1 11	3 10	5 9	7 8	9 7	11 6	13 5	15 4	17 3	19 2	21 1	23 0	38 4	47 11	95 10
2 0	4 0	6 0	8 0	10 0	12 0	14 0	16 0	18 0	20 0	22 0	24 0	40 0	50 0	100 0
2 3	4 6	6 9	9 0	11 3	13 6	15 9	18 0	20 3	22 6	24 9	27 0	45 0	56 3	112 6
2 6	5 0	7 6	10 0	12 6	15 0	17 6	20 0	22 6	25 0	27 6	30 0	50 0	62 6	125 0
2 9	5 6	8 3	11 0	13 9	16 6	19 3	22 0	24 9	27 6	30 3	33 0	55 0	69 9	137 6
3 0	6 0	9 0	12 0	15 0	18 0	21 0	24 0	27 0	30 0	33 0	36 0	60 0	75 0	150 0
3 3	6 6	9 9	13 0	16 3	19 6	22 9	26 0	29 3	32 6	35 9	39 0	65 0	81 3	162 6
3 6	7 0	10 6	14 0	17 6	21 0	24 6	28 0	31 6	35 0	38 6	42 0	70 0	87 6	175 0
3 9	7 6	11 3	15 0	18 9	22 6	26 3	30 0	33 9	37 6	41 3	45 0	75 0	93 9	187 6
4 0	8 0	12 0	16 0	20 0	24 0	28 0	32 0	36 0	40 0	44 0	48 0	80 0	100 0	200 0
4 3	8 6	12 9	17 0	21 3	25 6	29 9	34 0	38 3	42 6	46 9	51 0	85 0	106 3	212 6
4 6	9 0	13 6	18 0	22 6	27 0	31 6	36 0	40 6	45 0	49 6	54 0	90 0	112 6	225 0
4 9	9 6	14 3	19 0	23 9	28 6	33 3	38 0	42 9	47 6	52 3	57 0	95 0	118 9	237 6
5 0	10 0	15 0	20 0	25 0	30 0	35 0	40 0	45 0	50 0	55 0	60 0	100 0	125 0	250 0
6 0	12 0	18 0	24 0	30 0	36 0	42 0	48 0	54 0	60 0	66 0	72 0	120 0	150 0	300 0
7 0	14 0	21 0	28 0	35 0	42 0	49 0	56 0	63 0	70 0	77 0	84 0	140 0	175 0	350 0
8 0	16 0	24 0	32 0	40 0	48 0	56 0	64 0	72 0	80 0	88 0	96 0	160 0	200 0	400 0
9 0	18 0	27 0	36 0	45 0	54 0	63 0	72 0	81 0	90 0	99 0	108 0	180 0	225 0	450 0
10 0	20 0	30 0	40 0	50 0	60 0	70 0	80 0	90 0	100 0	110 0	120 0	200 0	250 0	500 0
11 0	22 0	33 0	44 0	55 0	66 0	77 0	88 0	99 0	110 0	121 0	132 0	220 0	275 0	550 0
12 0	24 0	36 0	48 0	60 0	72 0	84 0	96 0	108 0	120 0	132 0	144 0	240 0	300 0	600 0
13 0	26 0	39 0	52 0	65 0	78 0	91 0	104 0	117 0	130 0	143 0	156 0	260 0	325 0	650 0
14 0	28 0	42 0	56 0	70 0	84 0	98 0	112 0	126 0	140 0	154 0	168 0	280 0	350 0	700 0
15 0	30 0	45 0	60 0	75 0	90 0	105 0	120 0	135 0	150 0	165 0	180 0	300 0	375 0	750 0
16 0	32 0	48 0	64 0	80 0	96 0	112 0	128 0	144 0	160 0	176 0	192 0	320 0	400 0	800 0
17 0	34 0	51 0	68 0	85 0	102 0	119 0	136 0	153 0	170 0	187 0	204 0	340 0	425 0	850 0
18 0	36 0	54 0	72 0	90 0	108 0	126 0	144 0	162 0	180 0	198 0	216 0	360 0	450 0	900 0
19 0	38 0	57 0	76 0	95 0	114 0	133 0	152 0	171 0	190 0	209 0	228 0	380 0	475 0	950 0
20 0	40 0	60 0	80 0	100 0	120 0	140 0	160 0	180 0	200 0	220 0	240 0	400 0	500 0	1000 0

# STANDARD PACKING QUANTITIES

Lamps are supplied packed in the quantities stated below.

Type of Lamp	Section	Wattages and Packing Quantities													
		15 watt	25 watt	40 watt	60 watt	75 watt	100 watt	150 watt	200 watt	250 watt	300 watt	500 watt	750 watt	1000 watt	1500 watt
G.L.S. Single-coil, Clear	1	50	50	50	50	50	50	50	25		12	9	6	6	4
G.L.S. Single-coil, Pearl	1	50	50	50	50	50	50	50	25						
G.L.S. Coiled-coil, Clear and Pearl	1			50	50	50	50								
Silverlight	1			50	50		50	50	25						
Reflector Type Lamps (Spotlight and Floodlight) (Infra-red)	4					24		6							
	5								6						
Tubular Lamps	3	25	25												
Longlite	3			25	25										
Plain and Twisted Candle	3		24	24	24										
All fluorescent lamps up to and including 80 watt } No. 3 No. 5 and S.M. No. 22 50 mm. Headlamps (Except Bosch Caps) 28 mm. Prefocus Headlamps 38 mm. Headlamps (Except Bosch Caps) 25 mm. Stop Lamps 18 mm. Side, Tail & Dash	7	Packed in quantities of 25.													
	14	Display carton of 5 or box of 400													
	14	Packed in quantities of 72.													
	14	Packed in quantities of 50.													
	15	Display cartons of 12, or 72 in corrugated outer carton.													
	15 & 16	Display cartons of 12, or 1 gross in corrugated outer carton.													
	17	Display cartons of 12 or 2 gross in corrugated outer carton.													

### DELIVERY CONDITIONS

Packing and delivery of lamps is free of charge. The British Thomson-Houston Co., Ltd., 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.

# THE BRITISH THOMSON-HOUSTON CO., LTD.

*Electrical Engineers and Manufacturers*

**Head Office and Show Room - Crown House, Aldwych, London, W.C.2**  
Telephone: Temple Bar 8040      Telegrams: Asteroidal, Estrand, London

## LIGHTING DEPARTMENT HEADQUARTERS

44 Fitzroy Road, N.W.1 - - - - - Primrose 7750-62

## LAMP & LIGHTING TRADE COUNTERS AND LIGHTING ADVISORY SERVICE

*Technical Advice and Information may be obtained through any of the following Offices:*

BELFAST	.. 12 Alfred Street. Belfast 29368/9	LEICESTER	.. 5 Campbell Street. Granby 291/2
BIRMINGHAM	.. Geoffrey Buildings, John Bright Street. Midland 6335	LEYTONSTONE	220 High Road, Leytonstone, E.11. Maryland 4784/5
BLACKPOOL	.. 8 Edward Street. Blackpool 26936	LIVERPOOL, 1	.. 27-29 Stanley Street. Central 5721
BOURNEMOUTH	511 Roumelia Lane, Boscombe. Boscombe 34194	LONDON	.. 44 Fitzroy Road, N.W.1. Primrose 7750-62
BRISTOL, 1	.. 119 Victoria Street. Bristol 20111	MANCHESTER, 3	15 Quay Street, Deansgate. Blackfriars 2691
CAMBRIDGE	.. Fellowship House, 133 Fitzroy St. Cambridge 54370 & 57366	MIDDLESBROUGH	Prudential Chambers, 27 Albert Road. Middlesbrough 2476
CARDIFF	.. Jotham's Buildings, 26-27 St. Mary Street. Cardiff 32291/3	NEWCASTLE-ON-TYNE, 1	9 Higham Place. Newcastle 25040
CHELTENHAM	17 Grosvenor Street. Cheltenham 2776	NORTHAMPTON	College Street. Northampton 2981
CHESTER	.. 5 Boughton. Chester 20813	NORWICH	.. St. Michael's Chambers, St. Andrew St. Norwich 22541
COLCHESTER	.. Culver Street. Colchester 2843	NOTTINGHAM	71-73 Lower Parliament Street. Nottingham 43588/9
CROYDON	.. 54 Selsdon Rd., South Croydon. Croydon 3839	OXFORD	.. 90 St. Aldates. Oxford 4170
DUBLIN	.. Mazda House, 25 Suffolk Street. Dublin 77379/70	PLYMOUTH	.. Chapel Street, Regent Street. Plymouth 61915
DUNDEE	.. 17 Baltic Street. Dundee 5600	PORTSMOUTH	.. 54 St. Vincent Street, Southsea. Portsmouth 4383
EDINBURGH, 2	12 Thistle Street. Central 6922	READING	.. 74 Oxford Road. Reading 2700
EXETER	.. Post Office Chambers, 83/84 Queen Street. Exeter 55749	SHEFFIELD, 1	.. Mazda Buildings, Campo Lane. Sheffield 23086
GLASGOW, C.2	.. 53 Pitt Street. Central 4331	SOUTHAMPTON	33 Carlton Crescent. Southampton 23369
GUILDFORD	.. Bedford House, Bedford Road. Guildford 2788	STOKE-ON-TRENT	King's Chambers, Kingsway. Stoke-on-Trent 48768
HASTINGS	.. 17 Dorset Place. Hastings 2734	SWANSEA	.. 13 The Kingsway. Swansea 2151
HULL	.. 2 Prince's Dock Chambers, Prince's Dock Street. Central 36241		
LEEDS, 1	.. 46 Wellington Street. Leeds 31541		



