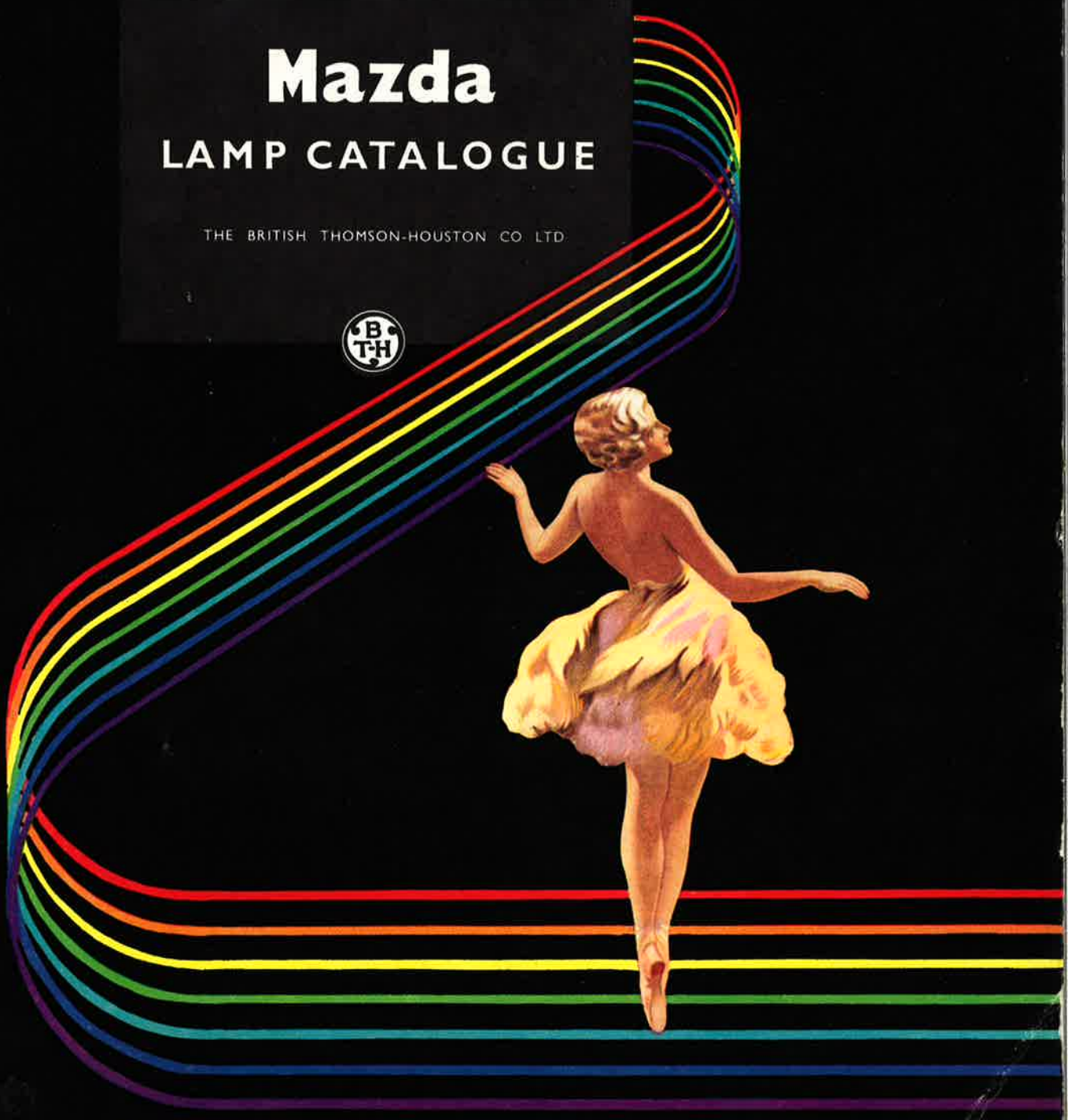
Mazda

LAMP CATALOGUE

THE BRITISH THOMSON-HOUSTON CO LTD



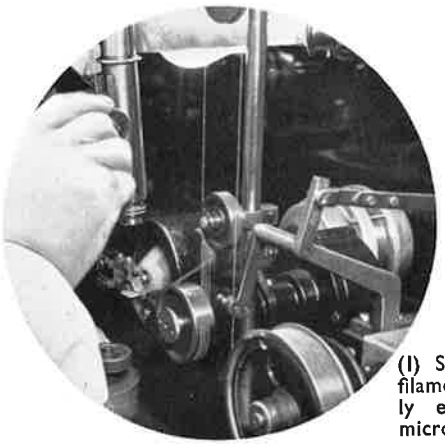
Mazda lamps stay brighter longer

Mazda

lamps stay brighter longer

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.

Making Mazda G.L.S. Lamps



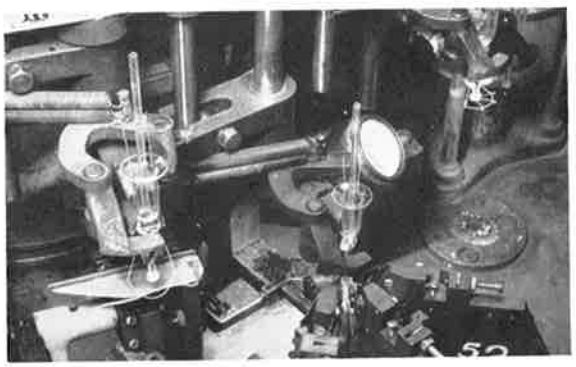
(1) Samples of the coiled filament wire are frequently examined through a microscope.

MAZDA LAMPS have achieved a world wide reputation for their quality, reliability and uniformity. Such a reputation is only won and maintained by using the best materials available and by constant checks at every stage of manufacture.

In the BTH lamp factories all the many components that go to make a Mazda General Lighting Service Lamp are manufactured with the utmost precision, and modern methods of assembly ensure complete standardization which is so necessary.

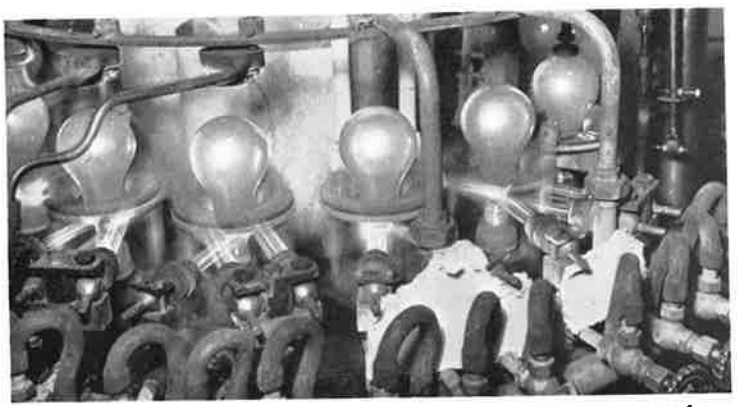
Samples taken from each batch of finished lamps are subjected to tests much more rigorous than they would be expected to encounter in normal usage, and every possible precaution is taken to ensure that no lamp leaves the factory that does not conform to the very high standards of electrical engineering prescribed by BTH traditions.

(2) Every filament is thoroughly inspected in the manner shown above before being used.

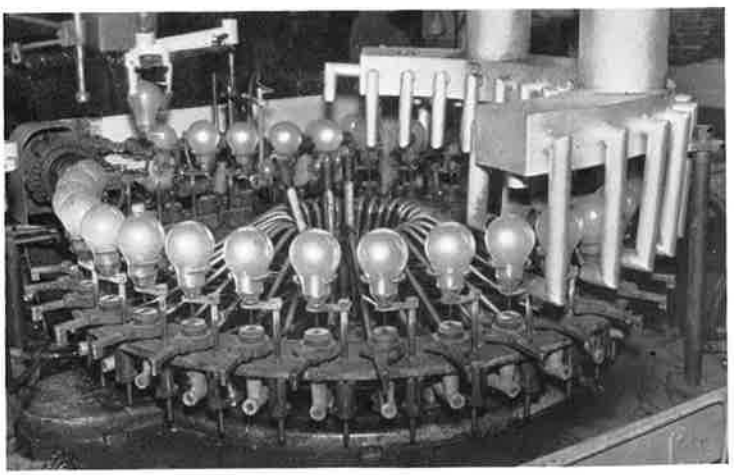


(3) The filaments are then mounted. Exact positioning is of the greatest importance in ensuring that the lamps they light will combine a long life with efficient output.

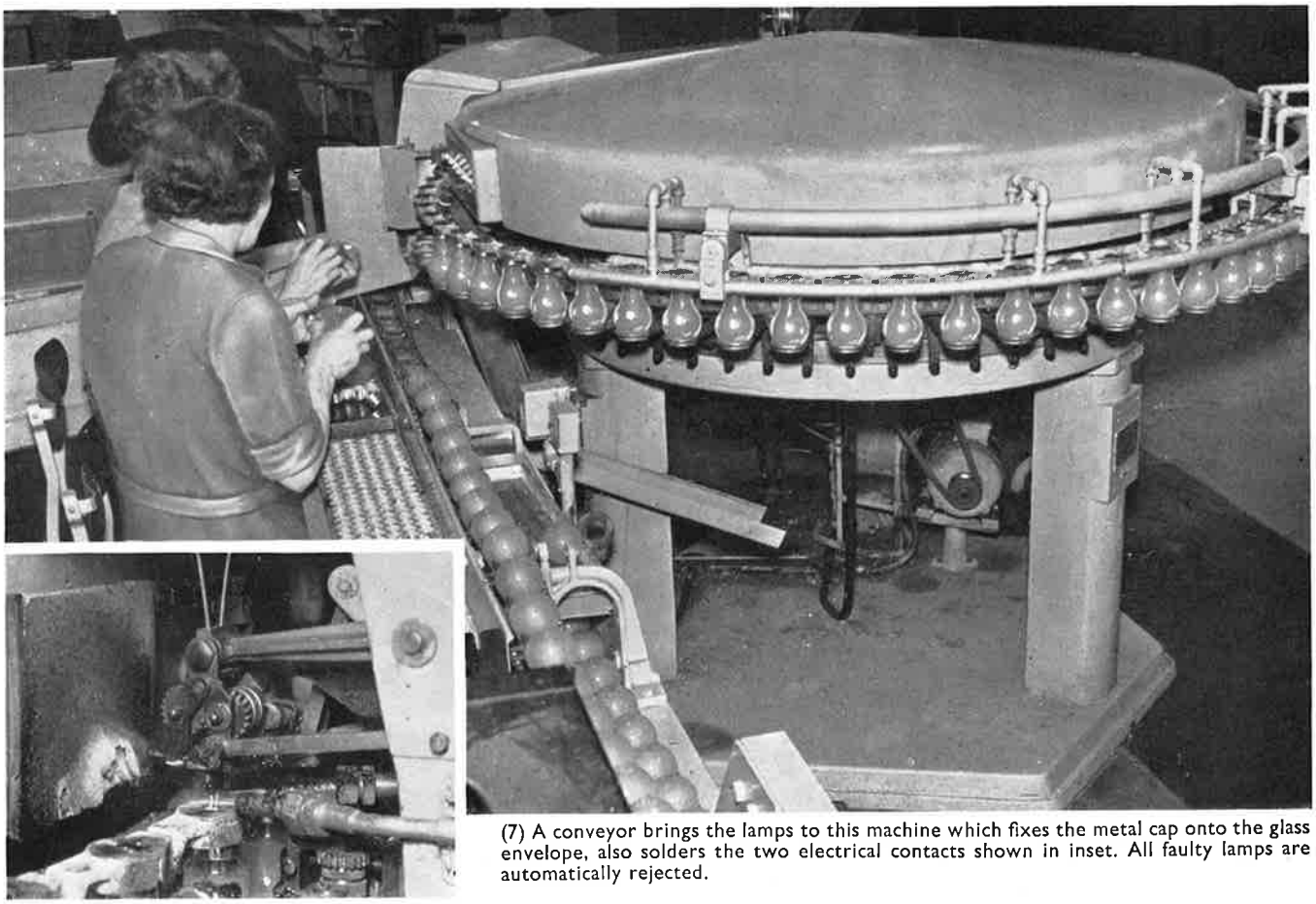
(4) The mounted filaments are inserted into glass envelopes which are then sealed, carefully heated, and shaped into the familiar " bulbs."



(5) A close-up of the sealing process — Mazda precision ensures perfect standardization of each product.



(6) The air in the lamps is then exhausted and replaced with an inert gas — usually argon. Other lamps, depending upon the purpose for which they are intended, may be filled with krypton or xenon.



(7) A conveyor brings the lamps to this machine which fixes the metal cap onto the glass envelope, also solders the two electrical contacts shown in inset. All faulty lamps are automatically rejected.

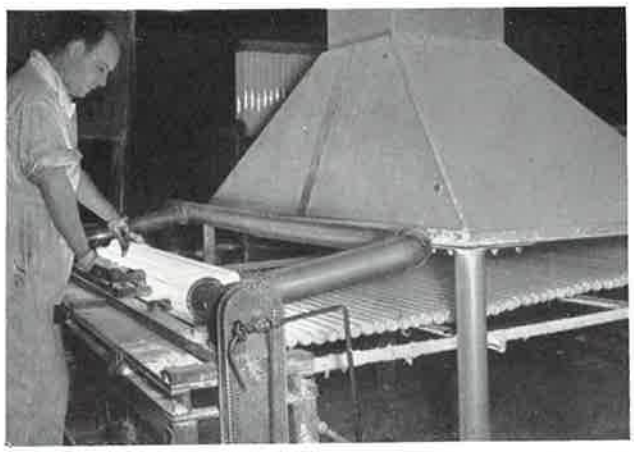
(8) A rigorous inspection — only perfect lamps are branded "Mazda."

(9) The lamps are now ready for packaging and despatch to the world's markets. The product of thorough research, fine materials, scrupulous workmanship and meticulous planning ; we say with good reason "Mazda Lamps Stay Brighter Longer."

Making Mazda Fluorescent Lamps

THE most up-to-date plant in the world, much of it specially designed by BTH engineers, is installed in the Mazda fluorescent lamp factory. From the manufacture of the fluorescent powder to the final light tests every stage in production is closely regulated with the object of ensuring that the finished lamps are unsurpassed for quality.

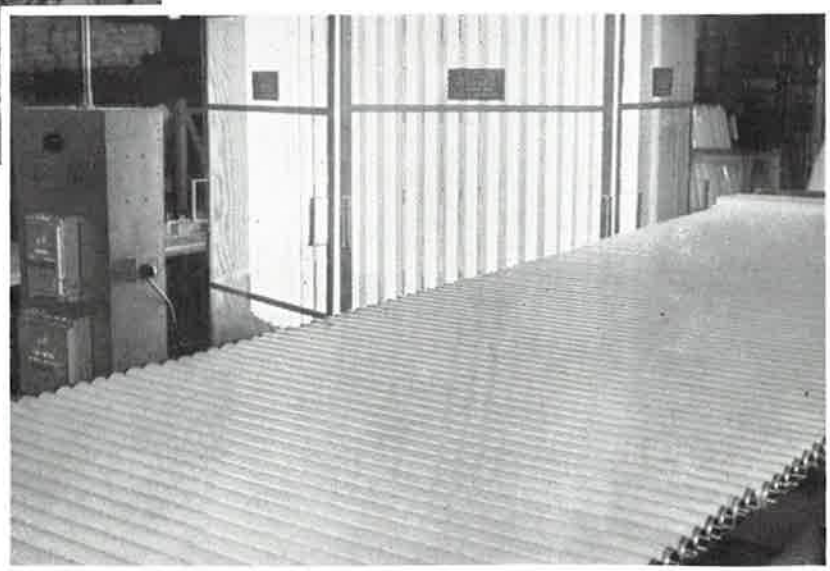
Behind the lamp factory with its team of highly-skilled engineers are the famous BTH Laboratories where new ways of improving performance still further are constantly being sought and tested.



(1) The tubes are baked in an electric oven to harden the internal fluorescent coating. They are then carefully inspected.

(2) Cathodes are then inserted into each end of the tube, which is subsequently sealed in the manner shown above.

(3) The sealed tubes are now capped — either B.C. or bi-pin.



(4) & (5) Finally contacts are soldered (above) and the lamps move on to be 'aged' (right). Mazda Fluorescent Lamps are made in all standard sizes and in a variety of colours to suit all tastes and requirements.

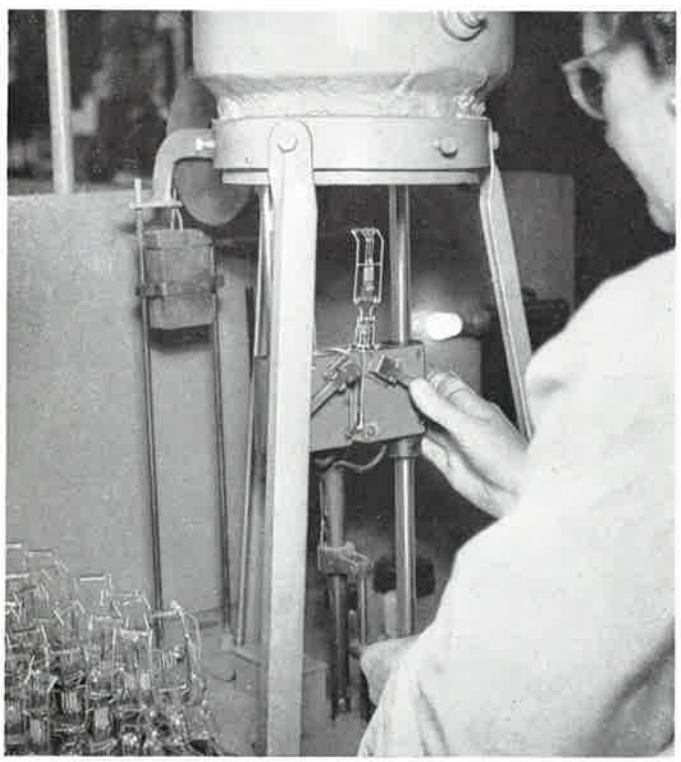
Making Mazda Projector Lamps

(1) The filaments having been wound are shaped over a heated element, great care being taken to ensure correct filament area.

THERE ARE hundreds of different Mazda Projector Lamps and each is precision built for hairsbreadth accuracy in focusing. Most have pre-focus caps and all are designed to give a high proportion of transmitted light.

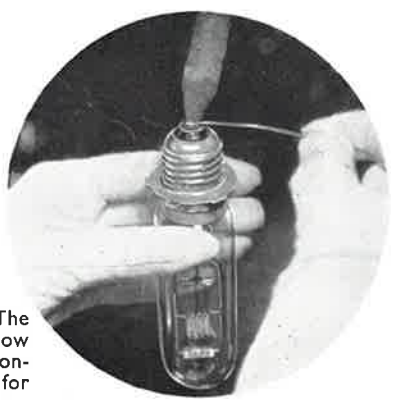
Many of the complicated filaments are assembled by hand and a long period of training is necessary before an operative can undertake this exacting and highly skilled work.

(2) The filaments are now mounted, with great accuracy, onto their supports by the spot-welding process.



(3) Before mounting within a glass bulb they are tested by burning them for a short period in a cylinder containing hydrogen.

(4) The alignment of the filament is now made by projecting the filament image on to a screen marked out for correct positioning.



(5) The final touch. The completed lamp is now given a soldered contact — and is ready for ageing test.

LEADERSHIP IN LIGHTING

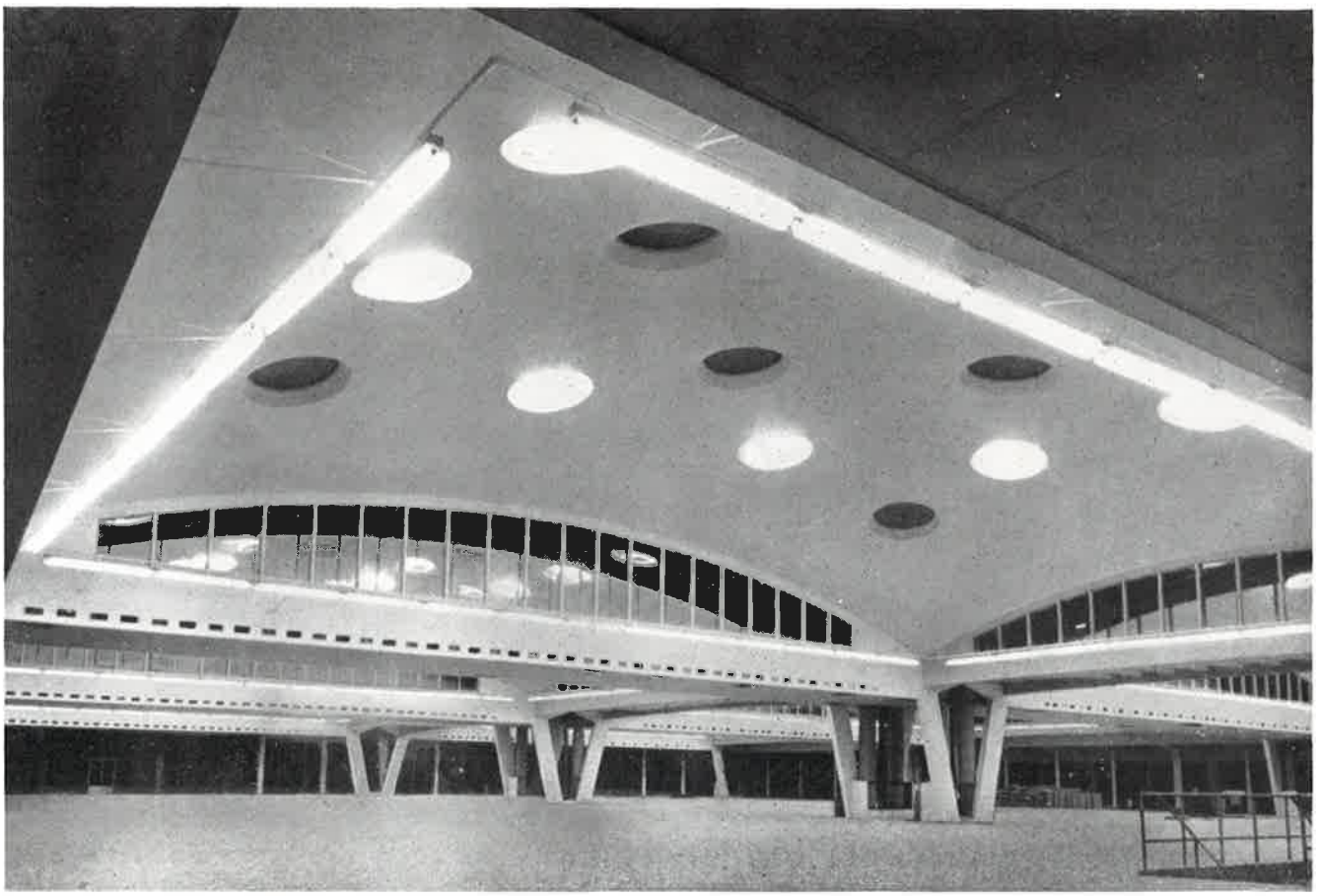
THE claim of BTH to leadership in lighting does not rest solely upon the quality and reliability of Mazda lamps. No less distinguished is the reputation of Mazda Lighting Fittings and Lamp Control Gear. Both lamps and lighting equipment must, however, be supported by sound practice: the BTH Lighting Advisory Service, staffed by experienced lighting engineers, is fully equipped to examine any lighting problem and ensure that both lamps and equipment are employed to their fullest advantage.

R.M.S. *Caronia*, Britain's largest liner to be built since the war, is lighted with Mazda lamps and fittings. She is the first of the great ships to have fluorescent lighting in all public spaces. Employed mainly on dollar-earning cruises, she is a worthy ambassador of all that is newest and best in British marine engineering and interior design. The world's largest ships—the *Queen Elizabeth* and the *Queen Mary*—also use Mazda lighting.

BTH designed the world's first fluorescent mines lighting system at Birch Coppice Colliery, Warwickshire, and the world's largest — over —3500 Mazda fluorescent mines fittings — for Turkey.

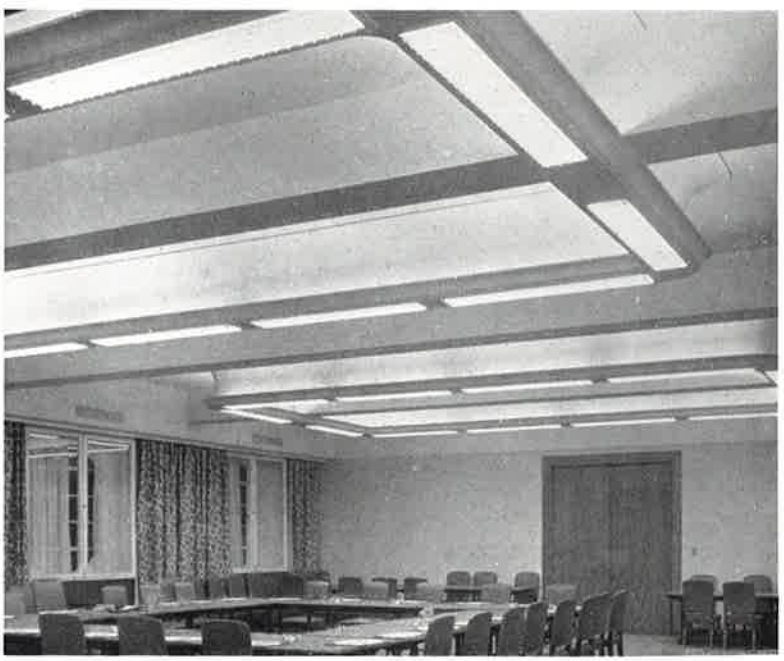
The Steel Company of Wales—the largest steelworks in Europe. Mazda lighting for the huge Rolling Mills includes over 1000 Blended Light Fittings designed for Mazda Tungsten and Mercury Vapour Lamps.

BTH were the first lighting engineers in the world to develop practical fluorescent streetlighting. From early experiments in Rugby have sprung some of the world's largest installations of which this scheme on the Avenida Brasil, Rio de Janeiro employing over 360 lanterns, is an outstanding example.



One of the most remarkable factories to be built since the War—the new works of Brynmawr Rubber Ltd., South Wales—has an ingenious lighting system specially designed by BTH engineers. The fluorescent lighting from artificial portlights simulates the daylight from roof portholes so nearly that at nightfall the transition is almost imperceptible.

One of Britain's longest stretches of sodium streetlighting. Part of the new 7½ miles stretch of Mazda lamps and lanterns on the Glasgow-Carlisle road.



BTH designed this impressive fluorescent lighting installation for the conference room at the headquarters of the British Electricity Authority in London. This is a typical example of effective co-operation between the lighting engineer and the architect.

CONTENTS

LAMPS

EQUIPMENT

GENERAL INFORMATION

PRICES IN THIS CATALOGUE APPLY ONLY IN GREAT BRITAIN AND NORTHERN IRELAND.

Foreword

THIS latest Mazda Lamp Catalogue is as comprehensive as it has been possible to make it. Within its covers will be found full information on the many types, multitudinous ratings and myriad individual lamps manufactured by The British Thomson-Houston Co., Ltd.

It does not, however, include certain non-standard lamps which cannot be listed, or, of course, lamps made only to special order to meet individual specialized requirements. Should your needs appear not to be fully satisfied by any of the lamps listed in this catalogue you are asked to communicate at once with the nearest BTH Office. Mazda technical experts will be pleased to collaborate with you on any lamp problem.

The Mazda technical service is second to none, and the BTH laboratories are constantly seeking, not only to improve the performance and life of existing lamps, but also to devise new types to meet special requirements.

BTH also manufacture Mazda Lighting Fittings and Auxiliary Gear ; some representative examples indicating the completeness of the range will be found on pages 47 to 53 at the end of this catalogue.

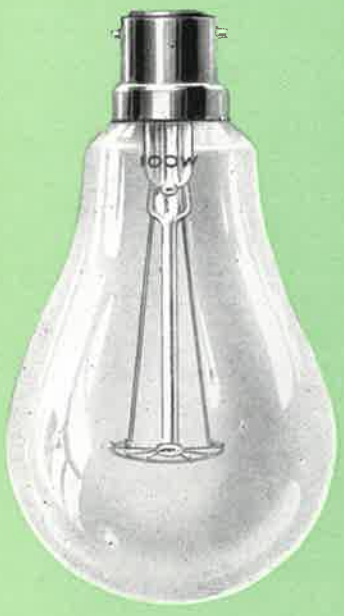
A network of BTH Offices enables prompt deliveries of lamps and lighting equipment to be made to any part of the United Kingdom. At each of these centres specialist lighting engineers on the staff of the BTH Lighting Advisory Service are available to help you to get the very best out of your lamps and lighting equipment.

Mazda Lamps and Lighting Equipment are produced by The British Thomson-Houston Co., Ltd., to the very high standards which have for more than half a century been associated with the BTH Monogram. In this fact lies your assurance of reliable and efficient operation.

Clear Lamps

SINGLE COIL AND COILED COIL FILAMENTS

Mazda
lamps
stay brighter longer



CLEAR G. L. S. LAMPS

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.
SINGLE COIL										
15	1	5†	1	5†	1	11†	1	11	1	11
25	1	5†	1	5	1	11	1	11	1	11
40	1	3	1	5	2	3	2	3	2	3
60	1	3	1	5	2	3	2	3	2	3
75	1	8	1	10	—		—		—	
100	1	9	1	11	4	0	4	0	4	0
150	2	6	2	8	6	0	6	0	—	
200	3	9	4	3	9	0	9	0	—	
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	—		—		—	
COILED COIL										
40	1	7	—		—		—		—	
60	1	7	—		—		—		—	
75	1	10	—		—		—		—	
100	2	0	—		—		—		—	

✲ **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 extension of page 55.
§ Lamps over 250 watts are exempt from purchase tax.
† These lamps are vacuum only, all other lamps on this page are gasfilled.

Caps and Dimensions

Watts	Cap §	Approximate Dimensions †					
		Diameter		Length		Light Centre Length ‡	
		in.	m/m	in.	m/m	in.	m/m
15	B.C. (B22/25 × 26)	2·17	55	3·63	92·5	2·56	65
25		2·36	60	3·94	100	2·76	70
40		2·36	60	4·33	110	3·15	80
60		2·56	65	4·61	117·5	3·35	85
75		2·76	70	4·92	125	3·54	90
100		2·95	75	5·39	137·5	3·94	100
150		3·15	80	6·30	160	4·72	120
200	E.S. (E27/25)	3·54	90	7·00	178	5·24	133
300	G.E.S. (E40/45)	4·33	110	9·17	233	7·00	178
500		5·12	130	10·51	267	7·95	202
750		5·91	150	11·81	300	8·86	225
1000		5·91	150	11·81	300	8·86	225
1500		6·69	170	13·19	335	9·84	250

§ **Cap illustrations** will be found on pages 44 and 45.
† **Lamp Outlines** are shown on pages 42 and 43.
‡ **Light Output** of these lamps is given on page 46.

PEARL G. L. S. LAMPS

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.
SINGLE COIL										
15	1	5†	1	5†	1	11†	1	11	1	11
25	1	5†	1	5	1	11	1	11	1	11
40	1	3	1	5	2	3	2	3	2	3
60	1	3	1	5	2	3	2	3	2	3
75	1	8	1	10	—		—		—	
100	1	9	1	11	4	0	4	0	4	0
150	2	6	2	8	—		—		—	
200	4	3	4	9	—		—		—	
COILED COIL										
40	1	7	—		—		—		—	
60	1	7	—		—		—		—	
75	1	10	—		—		—		—	
100	2	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 extension of page 55.
† These lamps are vacuum only, all other lamps on this page are gasfilled.

Caps and Dimensions

Caps and Dimensions of Pearl Lamps are the same as the equivalent wattage Clear Lamps ; see list on opposite page.

MAZDA CLEAR LAMPS (Opposite page)

A choice of either clear or pearl lamps is offered in wattages up to and including 200 watts. Higher wattages are available only with clear glass bulbs. The majority of both clear and pearl lamps are filled with an inert gas which permits the filament to be operated at a higher temperature and consequently at a higher efficiency than is possible with a vacuum lamp. As will be seen from the tables, in certain wattages lamps are also available with coiled coil filaments.

MAZDA PEARL LAMPS

The inside frosting of the Mazda Pearl Lamp diffuses the light and reduces glare, while the amount of light absorbed by the frosting is negligible. Lamps with coiled coil filaments are also available in the wattages shown.

Pearl Lamps

SINGLE COIL AND COILED COIL FILAMENTS

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Silverlight Lamps

COILED COIL AND SINGLE COIL FILAMENT

Mazda lamps stay brighter longer

SILVERLIGHT G. L. S. LAMPS

Watts	Voltages	Cap §	List ✲ Price s. d.	Dimensions † Diameter in.	Diameter m/m	Length in.	Length m/m
COILED COIL							
40	200, 210, 220, 230, 240, 250, 260	B.C. (B22/25×26)	1 10	2·36	60	4·33	110
60			1 10	2·56	65	4·61	117·5
100			2 3	2·95	75	5·39	137·5
SINGLE COIL							
150	200, 210, 220, 230, 240, 250, 260	B.C.(B22/25×26)	3 0	3·15	80	6·30	160
200		E.S. (E27/25)	4 9	3·54	90	7·00	178

✲ **Purchase Tax** must be added to the prices in this column. For the exact amount of purchase tax to be added, see TABLE A on the extension of page 55.
§ **Cap illustrations** will be found on pages 44 and 45.
† **Lamp Outlines** are shown on pages 42 and 43.

Mazda Silverlight GLS Lamps are particularly attractive in all fittings in which the lamp is not completely hidden from view by some form of shade or reflector. They are recommended for use in floor standards and table lamps, and for all close and continuous work. The inside of the bulb is coated with very finely-divided silica which adheres so well to the bulb surface that the lamp will withstand all normal handling. The bright spot, so dazzling in a clear lamp and still present, though to a much lesser degree, in the pearl lamp has been smoothed away and, instead, the whole surface of the bulb glows with a beautifully soft, even brightness. Lit or unlit, it is of attractive appearance and the coating diffuses the light so evenly that the lamp needs only to be shaded and not totally enclosed.

60w COILED COIL

200w SINGLE COIL

Reflector Lamps

SPOTLIGHT AND FLOODLIGHT

Mazda lamps stay brighter longer

REFLECTOR SPOTLIGHT (Satin Frosted)

Watts	Volts	List Price* Ring Filament s. d.	List Price* Grid Filament s. d.	Cap	Approximate Dimensions Length m/m	Length in.	Diameter m/m	Diameter in.
150	110, 210, 230, 240, 250,	15 6	18 6	E.S. (E27/54×38)	176±6·5	6·93	126±1·5	4·96

REFLECTOR FLOODLIGHT (Pearl)

Watts	Volts	List Price* s. d.	Cap	Approximate Dimensions Length m/m	Length in.	Diameter m/m	Diameter in.
150	110, 210, 230, 240, 250	15 6	E.S. (E27/54×38)	176±6·5	6·93	126±1·5	4·96

* **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 extension of page 55.

REFLECTOR LAMPS

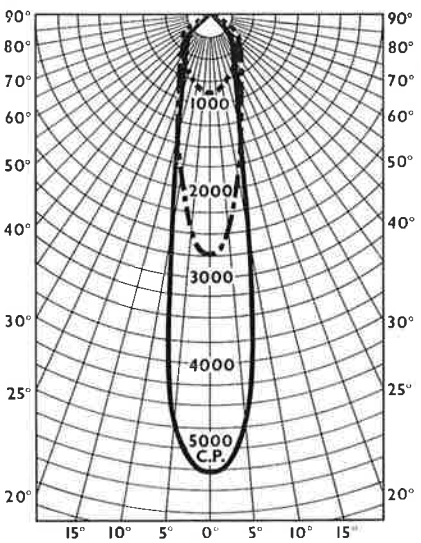
These lamps are parabolic in shape and have the upper part coated on the inside with aluminium to form a highly efficient internal reflector which enables the light output to be used with maximum effect.

REFLECTOR SPOTLIGHT

The bulbs of these lamps are satin-frosted and the combination of filament and internal reflector ensures that the majority of the light output is concentrated into a narrow beam. The lamp is thus ideally suited for giving sparkle and emphasis to displays in show-rooms, shop windows etc. and can also be used for lighting photographic subjects, both in the studio and in the home.

REFLECTOR FLOODLIGHT

The Reflector Floodlight differs from the Reflector Spotlight in having a pearl finish. This spreads the beam so that the light can be projected on to comparatively large areas, such as hoardings, exhibition displays, school chalk-boards etc.



Polar Diagram (Candle power)

REFLECTOR LAMP

Grid Filament Spotlight — Ring Filament Spotlight — Floodlight

Fluorescent Lamps

TYPE MCF/U FOR GENERAL LIGHTING

Mazda lamps stay brighter longer

STANDARD RANGE

Watts	Nominal Length	Colours Available	List Price ✲ Ordinary MCF/U s.	d.	Instant Start MCFA/U s.	d.
15	1½ ft.	Natural, Warm-White, Mellow	9	9	—	
20	2 ft.	Natural, Warm-White, Mellow	10	6	—	
30	3 ft.	Natural, Warm-White, Mellow	11	0	—	
40	2 ft.	Natural, Warm-White, Mellow	11	0	12	0
40	4 ft.	Natural, Warm-White, Mellow, Daylight	11	9	12	9
		Colour Matching	13	3	14	3
80	5 ft.	Natural, Warm-White, Mellow, Daylight	13	0	14	0
		Colour Matching	14	6	15	6
		Red, Blue, Green, Yellow	17	6	18	6

8 ft. FLUORESCENT LAMPS

Watts Determined by Auxiliary Gear	Nominal Length	Colours Available	List Price ✲ s.	d.
50 or 70	8 ft.	Natural	30	0
125	8 ft.	Natural	32	6

✲ **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 extension of page 55.

CAPS AND DIMENSIONS

Watts	Nominal Length	Cap §	Dimensions Overall Length in.	Overall Length m/m	Diameter in.	Diameter m/m
15	1½ ft.	Med. Bi-pin 23(G2·4×13/23×10)	17 25/32	451	1	26
20	2 ft.	Med. Bi-pin 35(G2·4×13/35×10)	23 25/32	604	1½	38
30	3 ft.	Med. Bi-pin 23(G2·4×13/23×10)	35 25/32	909	1	26
40	2 ft.	Med. Bi-pin 35(G2·4×13/35×10)	23 25/32	604	1½	38
40	4 ft.	Med. Bi-pin 35(G2·4×13/35×10)	47 25/32	1214	1½	38
80	5 ft.	B.C. (B22/25×26)	60	1524	1½	38
50 or 70	8 ft.	Raised Contact (S24s/17)	93 7/8	2384	1	26
125	8 ft.	B.C. (B22/25×26)	96	2438	1½	38

§ **Cap illustrations** will be found on pages 44 and 45.
Light Output of these lamps is given on page 46.
Details of some of the Auxiliary Gear for use with these lamps are given on pages 48 and 49.
IMPORTANT NOTICE.—Mazda Electric Discharge Lamps are made to operate only with lamp auxiliary gear manufactured or approved by The British Thomson-Houston Co., Ltd.

40w 2 ft. 20w 2 ft. 15w 1½ ft.

FLUORESCENT LAMPS. These lamps are designed to give all round satisfaction because BTH with their long experience of lamp manufacture realize that not one but many factors must be taken into account when assessing fluorescent lamp quality. Among these factors are :—

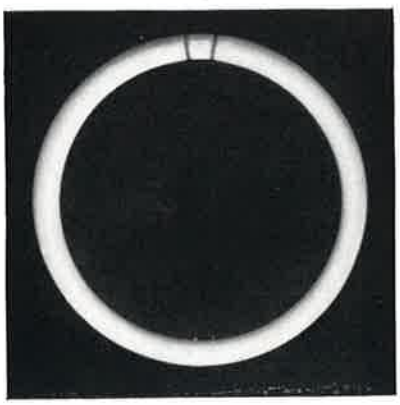
Initial light output	Maintenance of light output
Total watts consumed	Dependability
Uniformity	Colour
Price	Life

The fluorescent lamp is one of the most efficient of modern light sources and the lamp efficiency of Mazda Fluorescent Lamps is demonstrated by these figures based on the nominal average lumens output through the first 5000 hours of lamp life :—

80-watt Daylight and Warm-White	40 lumens per watt
80-watt Natural	34 lumens per watt
40-watt Daylight and Warm-White	44 lumens per watt
40-watt Natural	38 lumens per watt

Mazda Low Pressure Fluorescent Lamps are made under one or more of the following British Patents : 469732, 480356, 520759, 521110, 523528, 530531, 533451, 535897, 537901, 563185, 578192, 580363, 610025, 578195, *and other patents granted or pending.*

THE MAZDA FLUORESCENT CIRCLE



This circular fluorescent lamp is suitable for use in shops, restaurants, hotels or similar places where attractive appearance and adequate illumination are essential. It is also a very useful lamp for sign or display work. The gap between the ends of the lamp is filled by means of a special 4-pin cap, so completing the circular appearance.

The lamp is rated at 40 watts and uses ordinary switch start auxiliary gear as used for the 40 w. 4 ft. straight lamps.

Lamp Watts	Colour	Dimensions in m/m		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 the price of this lamp. For the exact amount of purchase tax to be added, see TABLE A on the extension of page 55.

STANDARD† COLD-CATHODE LAMPS *(Requiring high-voltage control-gear for operation)*

Colours Available	List Price (Purchase Tax not chargeable)		Dimensions					
			Overall Length		Lit Length		Diameter	
	s.	d.	in.	m/m	in.	m/m	in.	m/m
Daylight Mellow Warm-White Natural Intermediate Gold	36	6	114	2896	102	2591	¾ appx.	20
Colour-matching	41	6	114	2896	102	2591	¾ appx.	20

† Cold-cathode lamps can also be supplied in non-standard lengths and in a variety of colours. Prices on application.

30w 3 ft. 40w 4 ft. 80w 5 ft.

Light Tubes

ARCHITECTURAL SERIES

Mazda
lamps
stay brighter longer

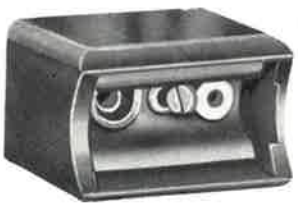
LIGHT TUBES

Watts	Nominal Length in.	Voltages and List Prices* 200, 210, 220, 230, 240, 250, 260 s. d.	100, 110, 120, 130 s. d.	Dimensions ‡ Overall Length m/m	Diameter m/m	Distances between Round-Peg Side-Caps m/m
STRAIGHT LENGTHS (White Opal †)						
35	12	**13 6**	13 6	305	30	229
75	24	**22 6**	22 6	610	30	534
110	36	**30 0**	—	915	30	839
150	48	**35 0**	—	1220	30	1144
CURVES—⅛, ¼, or ½ CIRCLES (White Opal †)						
60	20	**30 0**	30 0	500§	30	⅛ Circle 416 ¼ ,, 393 ½ ,, 309

* **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 extension of page 55.
† **Colour Spraying** 10% extra for Red, Blue, Green, Yellow, Flame, Orange, Pink, or Amber.
‡ **Lamp Outlines** are shown on pages 42 and 43.
§ Centre line of the curve.

MAZDA LIGHT TUBES (Architectural Series)

These lamps, both the straight and curved variety, provide delightful lighting effects in the home, their appearance being that of a simple bar of light. They are particularly useful for installing above or on either side of wall mirrors and they can also be used for emphasizing architectural features. They can be used very effectively for display lighting in shops and stores, particularly in show-cases where their very neat appearance is an asset since it does not obtrude itself. The curved lamps are extensively used for decorative lighting in hotels, restaurants etc., and also for outlining advertising signs.



LAMPHOLDERS

Special lampholders, as illustrated, are required for use with Light Tubes.

List Price
6s. 6d. per pair
Purchase Tax not chargeable.

Colour sprayed **8d.** extra

Tubular Candle and Longlite Lamps

FOR DECORATIVE LIGHTING

Mazda lamps stay brighter longer

TUBULAR (CLEAR)

Watts	Voltages and List Prices ✲ 200, 210, 220, 230, 240, 250, 260 s. d.	110, 120 s. d.	60, 65, 75 s. d.	50 s. d.	Cap §	Approximate Dimensions † Diam. m/m	Length m/m
Single Cap (Vacuum)							
10	—	3 9	4 9	4 9	B.C. (B22/21)	25	63
					S.B.C. (B15d/17)	25	63
25	3 9	3 9	4 9	4 9	B.C. (B22/21)	25	86
					S.B.C. (B15/24×17)	25	92
					S.E.S. (E14/27×18)	25	94
Double Cap (Vacuum)							
30	5 9	5 9	—	—	C.C. (S 15s)	25	221 or 284
60	6 0	6 0	—	—		25	284

CANDLE (PLAIN AND TWISTED)

Watts	Voltages and List Prices ✲ 200, 210, 220, 230, 240, 250, 260 s. d.	100, 110, 120, 130 s. d.	60, 65, 75 s. d.	50 s. d.	Cap §	Approximate Dimensions † Diam. m/m	Length m/m
Plain							
25a	3 9	3 9	4 9	4 9	B.C. (B22/25×26)	38	114
					S.B.C. (B15/26×22)	38	116
40b	4 3	4 3	—	—	B.C. (B22/25×26)	46 (max.)	135 (max.)
					S.B.C. (B15/26×22)	46 (max.)	133 (max.)
60	4 9	4 9	—	—	B.C. (B22/25×26)	45±2	125±5
					S.B.C. (B15/26×22)		128±5
Twisted							
25a	4 3	4 3	—	—	B.C. (B22/25×26)	39 (max.)	119 (max.)
					S.B.C. (B15/26×22)	39 (max.)	121 (max.)
40b	5 0	5 0	—	—	B.C. (B22/25×26)	57 (max.)	152 (max.)
					S.B.C. (B15/26×22)	57 (max.)	150 (max.)
60	5 6	5 6	—	—	B.C. (B22/25×26)	55±2	142±5
					S.B.C. (B15/26×22)		144±5

Candle Lamps sprayed in standard colours (page 26) **(a) 2d. each extra (b) 3d. each extra.**

LONGLITE (OPAL)

Watts	Voltages and List Prices ✲ 200, 210, 220, 230, 240, 250, 260 s. d.	110, 120 s. d.	Cap §	Approx. Dimensions † Diam. m/m	Length m/m
40	8 6	8 6	B.C. (B22/25×26) or	38	302
60			E.S. (E27/25)		

✲ **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 extension of page 55.
§ **Cap Illustrations** will be found on pages 44 and 45.
† **Lamp outlines** are shown on pages 42 and 43

DOUBLE CAP TUBULAR

LONGLITE

CANDLES (TWISTED & PLAIN)

Photographic Lamps

PHOTO PEARL
PHOTO FLOOD
PHOTO ENLARGER

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PHOTOGRAPHIC LAMPS

Watts	Voltages	List Price s.	d.	Cap	Approximate Dimensions: Overall Length m/m	Overall Length in.	Diameter m/m	Diameter in.	Objective Life † Hours
PHOTO-FLOOD (Pearl)									
275	100/110, 200/210 220/230, 240/250	2	6	B.C. (B22/25×26) E.S. (E27/25)	117·5	4·61	65	2·56	2
500	100/110, 200/210 220/230, 240/250	6	6	E.S. (E27/25) E.S. (E27/35×30) B.C. (B22/25×26)	160	6·30	80	3·15	10
1000	110	16	6	G.E.S. (E40/45)	233	9·17	110	4·33	10
PHOTOGRAPHIC PEARL									
500	110, 210, 230, 250	22	0	E.S. (E27/45×38)	178	7·0	90	3·54	100
PHOTOGRAPHIC ENLARGER (Inside Silica-coated)									
150	210, 230, 250	3	9✲	B.C. (B22/25×26) E.S. (E27/25)	117·5	4·61	65	2·56	100
PHOTOGRAPHIC ENLARGER (2 in. Spot Frosted)									
400	110, 210, 230, 250	27	6	E.S. (E27/45×38)	253	9·96	110	4·33	100

✲ **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 extension of page 55.
† **Light Output** of these lamps is given on page 46.
§ **Cap Illustrations** will be found on pages 44 and 45.

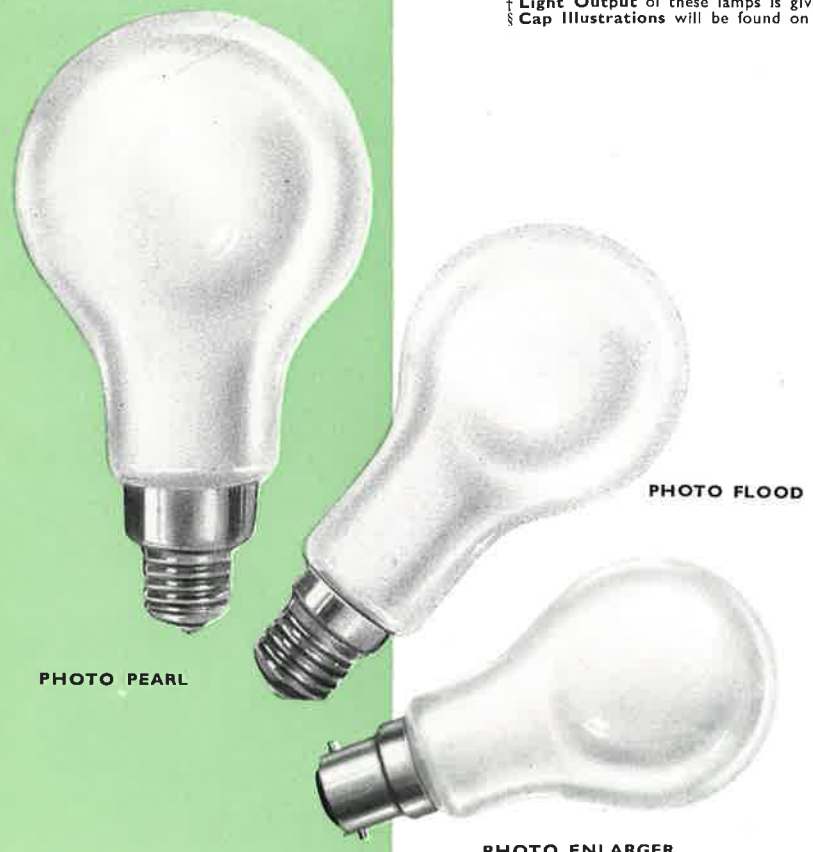

PHOTO FLOOD

PHOTO PEARL

PHOTO ENLARGER
(Inside Silica-coated)

PHOTO-FLOOD and PHOTO-PEARL

These lamps are for use on normal lighting circuits and provide a ready means of obtaining a large amount of light of high photographic efficiency for a low current consumption. They are invaluable to the home photographer and cinematographer, and greatly facilitate the operations of commercial photographers both inside and outside the studio.

PHOTO-ENLARGER (Inside Silica-coated)

The new Mazda Photo-enlarger Lamp is a high intensity 150-watt lamp, internally silica-coated and concentrated into a 60-watt size bulb with a B.C. or E.S. cap. It is highly efficient, with a 100 hours life. The internal silica coating gives an even distribution of vivid light over the whole bulb and the completely smooth exterior is easily kept clean.

Photographic Lamps

FLASH DISCHARGE TUBES AND PHOTOFLASH LAMPS

FLASH DISCHARGE TUBES

Type	Volts	List Price (Purchase Tax not chargeable) £ s. d.	Cap	Dimensions m/m Length (excluding pins)	Diameter of Glass	L.C.L.
FA 1	2000—2500	6 0 0	3-pin Special	150±7	64±4	89±5
FA 2	2000—2500	5 0 0	3-pin 5 amp.	90±5	51±2	55±5
FA 3	2000—2500	5 0 0	U.X. 4-pin	80±2	31±2	48±5
FA 6	800—1000	5 10 0	U.X. 4-pin	70±2	31±2	42±3
FA 7	2000—2500	5 0 0	U.X. 4-pin	85±2	31±2	52±5

CHARACTERISTICS

Type	Volts	Capacity uF at max. voltage	Rate of Flashing per sec.	Energy per flash W. sec.
FA 1	2000—2500	320	1 in 10 sec.	1000
FA 2	2000—2500	160	1 in 10 sec.	500
FA 3	2000—2500	32	1 in 10 sec.	100
FA 6	800—1000	200	1 in 10 sec.	100
FA 7	2000—2500	64	1 in 10 sec.	200

The ratings shown in this table are conservative and should be taken as a guide only.

Mazda Flash Discharge Tubes are intended to produce a flash of light of high intensity and short duration for either photographic or stroboscopic applications. The intensity of the flash and its duration may be controlled by varying the values of the components in the electrical circuit. The tubes may be flashed repeatedly for many thousands of times to give single flashes with relatively long intervening intervals for photographic purposes. Types FA 1 and FA 2 can also be flashed at a rate of up to some hundreds of flashes per second for stroboscopic applications. The mean power dissipation is 80 watts and 40 watts respectively.

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PHOTOFLASH LAMPS

Type	Volts✲	List Price (Purchase Tax not chargeable) s. d.	Cap	Overall Dimensions m/m Length	Diameter
No. 5	3–9	1 1	S.C.C. (B15s/21)	64	34
S.M.		1 3			
No. 22		1 8	E.S.	125	60

✲ These lamps are designed to operate from a 3-9 volts dry battery. Two **fresh** dry cells in series will flash many lamps.

Both the " No. 5 " and " SM " are designed to give adequate light for general indoor photography. Their bulbs are lacquered both internally and externally, but it is recommended that they should be used in conjunction with a simple transparent protective screen.

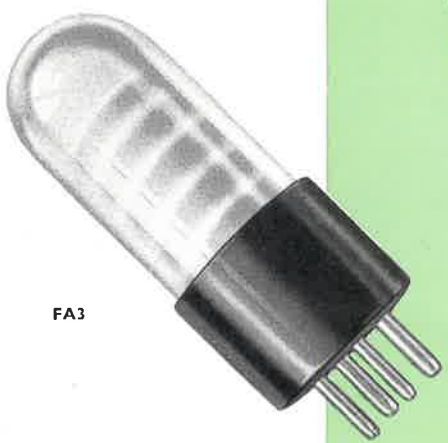
" No. 5." This lamp is filled with shredded aluminium foil and is designed to operate with conventional synchronisms adjusted so that the camera shutter is fully opened in 21 milliseconds which is the time taken for the lamp to reach peak intensity.

" Speed Midget." The combustible material used in the " SM " lamp consists of zirconium mixed with oxidizing agents. It can be used with a simple pair of contacts which are closed immediately the blade or compur type shutter is released, thus synchronizing with the peak intensity which occurs after 7 milliseconds.

" No. 22." Like the " No. 5," this bulb has a filling of thin aluminium foil. It is larger than the others and is designed primarily for outdoor work or for use in very spacious halls. The " No. 22 " is convenient and reliable when used with a camera fitted with a synchronizer.

" S.M."

No. 5



FA3

No. 22

Projector Lamps

CLASS A I

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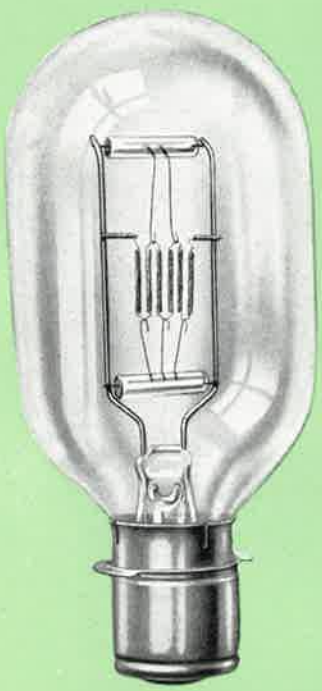
CLASS A I *(Purchase Tax not chargeable)* — *Burning Position—Cap-down (except where indicated)*

Lamp Ref. No.	Watts	Voltages	List Price s. d.	Cap	Approx. Dimensions m/m Length	Diam.	L.C.L.	Special Features	Objective Life Hours
A1/ 72	10	20	4 9	S10/20 × 13, Pathé T Piece	57 ±3	15±1	25 ±0·5	—	100
A1/ 73	15	40	4 0	S.C.C. (B15s/21)	57 ±3	16±1	29 ±2	—	50
A1/ 1	25	50	4 9	S.C.C. (B15s/21)	57 ±3	16±1	29 ±2	—	50
A1/ 2	50	100, 110, 115	7 3	S.C.C. (B15s/21)	76±3	25±1	34·5±2	—	50 S
A1/ 21	100	100, 110, 115	12 9	S.C.C. (B15s)	76±5	25±1	34·5±2	—	50 S
A1/ 23	100	12	11 9	E.S. (E27/25)	128±7	25±1	75 ±5	—	50 S
A1/ 4	100	12	12 9	Prefocus (P28/25)	133±7	25±1	55·5±0·5	—	50 S
A1/ 3	100	30	12 9	Prefocus (P28/25)	133±7	25±1	55·5±0·5	Offset Fil.	50
A1/ 79	100	80	11 9	Pathé T Piece	93·5±3	23±1	35 ±0·5	Offset Fil.	50
A1/121	100	100, 110, 115	12 9	S.B.C. (B15d)	76±3	25±1	34·5±2	—	50 S
A1/ 22	100	100, 110, 115	12 9	S.E.S. (E14/23 × 15)	80±5	25±1	45 ±5	—	50 S
A1/ 4	100	100, 110, 115 / 200-10-20-30-40-250	12 9	Prefocus (P28/25)	133±7	25±1	55·5±0·5	—	50 S
A1/ 23	100	100, 110, 115 / 200-10-20-30-40-250	11 9	E.S. (E27/25)	128±7	25±1	75 ±5	—	50 S
A1/151	200	50	23 0	S.C.C. (B15s)	87±5	25±1	34·5±2	Grid Fil.	50
A1/ 12	200	50	23 0	E.S. (E27/25)	128±7	32±2	75 ±5	Central Fil.	50
A1/ 13	200	50	24 0	Prefocus (P28/25)	133±7	32±2	55·5±0·5	Central Fil.	50
A1/113	200	50	24 0	Prefocus (P28/25)	133±7	32±2	55·5±0·5	Offset Fil.	50
A1/ 80	200§	100	26 0	3-pin B.C.	82±3	32±2	51 ±0·5	Offset Fil. / Cap-up Burning	25
A1/ 25	200§	100	18 6	S.B.C. (B15d)	87±5	25±1	34·5±2	—	25
A1/ 26	200	100	18 6	S.C.C. (B15s)	87±5	25±1	34·5±2	—	25
A1/ 27	200	100, 110	19 6	Prefocus S.C.C. (P15s)	87±5	25±1	31·5±0·5	—	25
A1/127	200	100, 110	19 6	Prefocus S.B.C. (P15d)	87±5	25±1	31·5±0·5	—	25
A1/ 82	200	100, 115	18 6	S.C.C. (B15s)	87±5	32±1	34·5±0·5	—	50
A1/ 83	200	100, 115	18 6	S.B.C. (B15d)	87±5	32±1	34·5±0·5	—	50
A1/ 81	200	110	19 6	Pathé T Piece	133±7	32±2	58 ±0·5	Offset Fil.	50
A1/ 12	200	110	18 6	E.S. (E27/25)	128±7	32±2	75 ±5	—	50
A1/ 13	200	110	19 6	Prefocus (P28/25)	133±7	32±2	55·5±0·5	—	50
A1/ 85	250	50	24 0	Prefocus B & H (small)	128±7	32±2	59 ±0·5	—	50 S
A1/ 14	250	50	23 0	E.S. (E27/25)	128±7	32±2	75 ±5	Central Fil.	50 S
A1/ 16	250	50	23 0	E.S. (E27/25)	128±7	32±2	75 ±5	Offset Fil.	50 S
A1/ 15	250	50	24 0	Prefocus (P28/25)	133±7	32±2	55·5±0·5	Offset Fil.	50
A1/ 5	250	50	24 0	Prefocus (P28/25)	133±7	32±2	55·5±0·5	Central Fil.	50 S
A1/ 5	250	55	24 0	Prefocus (P28/25)	133±7	32±2	55·5±0·5	Central Fil.	50 S
A1/ 5	250	100, 110, 115 / 200-10-20-30-40-250	23 0	Prefocus (P28/25)	133±7	32±2	55·5±0·5	Central Fil.	50 S
A1/ 14	250	100, 110, 115 / 200-10-20-30-40-250	22 0	E.S. (E27/25)	128±7	32±2	75 ±5	—	50 S

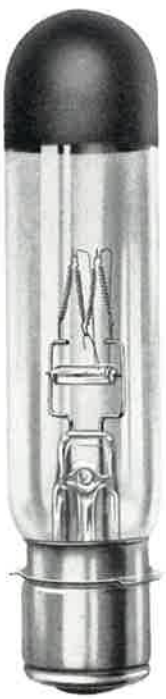
For Notes see opposite page.

CLASS A1 PROJECTOR LAMPS

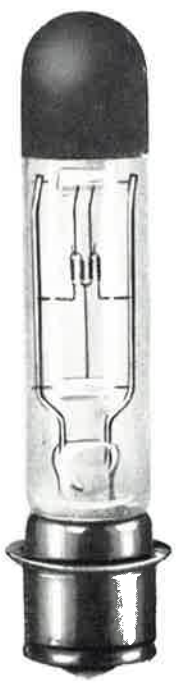
Class A1 lamps have tubular bulbs and are used for cap-down burning in Cinema Projectors, Home Cinema Apparatus, Advertising Projectors, Photo-enlarging Apparatus, etc. They can be brought close to the lens and by use of a short focus condenser, an unusually large proportion of light can be transmitted. For the home cinema the introduction of the prefocus cap has reduced focusing difficulties to a minimum.



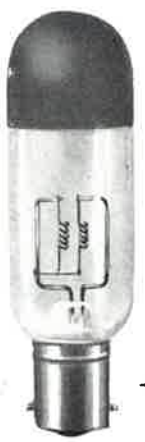
115v 500w
PREFOCUS
(A1/8)



← 230v 300w
PREFOCUS
(A1/154)



← 30v 100w
PREFOCUS
(A1/3)



← 100v 200w
S.C.C.
(A1/26)

CLASS A1 *(Purchase Tax not chargeable)* ***Burning Position—Cap-down (except where indicated)***

Lamp Ref. No.	Watts	Voltages	List Price s. d.	Cap	Approx. Dimensions m/m Length	Diam.	L.C.L.	Special Features	Objective Life Hours
A1/ 38	300§	100, 115	28 6	Prefocus S.C.C. (P15s)	100±5	25±1	31·5±0·5	—	25 S
A1/ 36	300§	100, 115	28 6	Prefocus S.B.C. (P15d)	100±5	25±1	31·5±0·5	—	25 S
A1/ 37	300§	100, 115	27 6	S.C.C. (B15s/21)	100±5	25±1	34·5±2	—	25 S
A1/ 33	300§	100, 115	27 6	S.B.C. (B15d/21)	100±5	25±1	34·5±2	—	25 S
A1/ 35	300§	100, 110, 115	27 6	E.S. (E27/25)	128±7	32±2	75 ±5	—	25 S
A1/ 6	300§	100, 110, 115	28 6	Prefocus (P28/25)	133±7	32±2	55·5±0·5	—	25 S
A1/154	300	210, 230, 240, 250	28 6	Prefocus (P28/25)	133±7	32±2	55·5±0·5	—	50
A1/ 86	300§	100, 110, 115	35 0	S.26s/25 large B & H Ring	128±7	32±2	59 ±0·5	Bi-plane Fil.	25
A1/ 40	400§	100, 110, 115	34 0	E.S. (E27/25)	128±7	32±2	75 ±5	Bi-plane Fil.	25 S
A1/ 39	400§	100, 110, 115	35 0	Prefocus (P28/25)	133±7	32±2	55·5±0·5	Bi-plane Fil.	25 S
A1/ 87	400§	110	35 0	Prefocus B & H (small)	128±7	32±2	59 ±0·5	Bi-plane Fil.	25 S
A1/159	400§	110	35 0	Prefocus B & H (large)	128±7	32±2	59 ±0·5	Bi-plane Fil.	25 S
A1/ 88	450	15	44 0	Special 2-prong	195	79 / 30	136	Special Shape Bulb, Cap-up Burning	100
A1/ 42	500	100, 110, 115 / 200-10-20-30-40-250	26 6	E.S. (E27/25)	128±7	64±2	75 ±5	—	50
A1/ 43	500	100, 110, 115 / 200-10-20-30-40-250	26 6	G.E.S. (E40/45)	135±10	64±2	90 ±5	—	50
A1/ 44	500	100, 110, 115 / 200-10-20-30-40-250	29 0	Mogul Prefocus (P40/41)	140±10	64±2	50 ±0·5	—	50
A1/ 8	500	100, 110, 115 / 200-10-20-30-40-250	27 6	Prefocus (P28/25)	133±7	64±2	55·5±0·5	—	50
A1/ 46	500§	100, 110	37 0	3-pin B.C. (B22/25×26)	142 max.	38 max.	95	Bi-plane Fil. Offset, Cap-up Burning	25
A1/ 47	500§	110	37 0	Prefocus B & H (small)	128±7	32±2	59 ±0·5	Bi-plane Fil.	25 S
A1/160	500§	110	37 0	Prefocus B & H (large)	128±7	32±2	59 ±0·5	Bi-plane Fil.	25 S
A1/ 48	500§	110, 115	36 0	E.S. (E27/25)	128±7	32±2	75 ±5	Bi-plane Fil.	25 S
A1/ 7	500§	110, 115	37 0	Prefocus (P28/25)	133±7	32±2	55·5±0·5	Bi-plane Fil.	25 S
A1/102	500§	115	41 0	Miniature Bi-post	125 max.	38±1	81 ±1	Bi-plane Fil. Offset	25
A1/153	500	110, 115	38 0	3-fin Ring	145±8	38 max.	81	Bi-plane, Central Fil.	25
A1/ 89	750	15	38 6	G.E.S. (E40/45)	230±10	64±2	120 ±5	—	50
A1/ 90	750	15	41 0	Mogul Prefocus (P40/41)	235±10	64±2	84 ±0·5	—	50
A1/ 52	750§	110, 115	43 6	3-fin Ring	145±8	38 max.	81	Bi-plane Fil. Offset, Cap-up Burning	25
A1/ 53	750§	100, 110	42 6	Prefocus B & H (large)	128±7	38±2	59 ±0·5	Bi-plane Fil.	25 S
A1/ 54	750§	110, 115	41 6	E.S. (E27/25)	128±7	38±2	75 ±5	Bi-plane Fil.	25 S
A1/ 9	750§	110, 115	42 6	Prefocus (P28/25)	133±7	38±2	55·5±0·5	Bi-plane Fil.	25 S
A1/111	900	24, 30	38 6	G.E.S. (E40/45)	230±10	64±2	120 ±5	—	50
A1/ 10	900	30	41 0	Mogul Prefocus (P40/41)	235±10	64±2	84 ±0·5	—	50
A1/ 92	1000§	100	49 6	Prefocus B & H (large)	175	38±2	78	Bi-plane Fil.	25 S
A1/ 57	1000	100, 110, 115 / 200-10-20-30-40-250	33 0	G.E.S. (E40/45)	230±10	64±2	120 ±5	—	50
A1/ 11	1000	100, 110, 115 / 200-10-20-30-40-250	35 6	Mogul Prefocus (P40/41)	235±10	64±2	84 ±0·5	—	50
A1/ 59	1000§	110, 115	49 6	Prefocus (P28/25)	133±7	38±2	55·5±0·5	Bi-plane Fil.	25 S
A1/ 91	1000§	110, 115	49 6	Prefocus B & H (large)	128±7	38±2	59 ±0·5	Bi-plane Fil.	25 S
A1/ 58	1000	110	49 6	Prefocus (P28/25)	133±7	64±2	55·5±0·5	Bi-plane Fil.	25

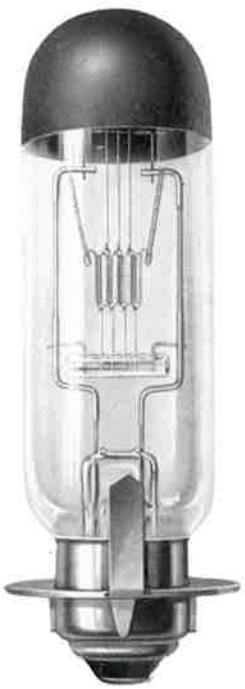
NOTE: If ordering by Lamp Reference Number please be sure to state voltage required. In the case of Bell & Howell Projector lamps, state also whether large or small prefocus ring is required.

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

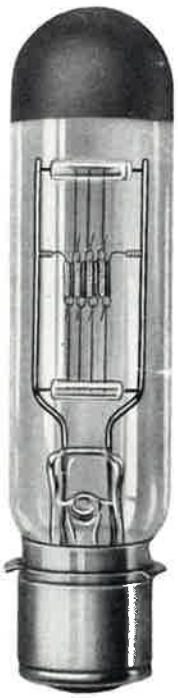
S. These lamps are black sprayed. Where bulbs are tip black sprayed, the 25 mm/ diameter bulb is sprayed to 22·5±2·5 m/m from the centre of the filament to the edge of the black spray; in the case of the 32 and 38 m/m dia. bulbs to 27·5±2·5 m/m.

Cap Illustrations will be found on pages 44 and 45.

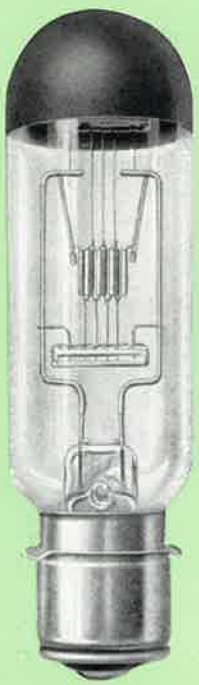
→ 115v 250w PREFOCUS (A1/5)



→ 110v 750w B & H CAP BI-PLANE FIL. (A1/53)



→ 110v 500w PREFOCUS BI-PLANE FIL (A1/7)



110v 1000w PREFOCUS BI-PLANE FIL. (A1/59)

Projector Lamps

CLASS A1

Mazda lamps stay brighter longer

Projector Lamps

CLASS B 1
CLASS A 3

Mazda
lamps
stay brighter longer

CLASS A3 and B1

Lamp Reference Number	Watts	Voltages	List Price s. d.	Cap	Approx. Dimensions m/m Length	Diameter	L.C.L.	Objective Life Hours
CLASS A 3		*Burning Position—Horizontal*						
A3/1	100	110 / 200-10-20-30-40-250	11 9✲	E.S. (E27/25)	115±10	70±2	95±5	300
A3/2	250	110 / 200-10-20-30-40-250	22 0✲	E.S. (E27/35×30)	160±10	90±2	120±5	300
CLASS B 1		*Burning Position—Any, except within 45° of Cap-up position*						
B1/1	100	115 / 200-10-20-30-40-250	10 0✲	E.S. (E27/25)	115±10	80±2	75±5	800
B1/2	250	115 / 200-10-20-30-40-250	19 3✲	E.S. (E27/25)	125±10	95±2	75±5	800
B1/3	500	115 / 200-10-20-30-40-250	25 3	G.E.S. (E40/45)	180±10	130±5	115±5	800
B1/4	1000	115 / 200-10-20-30-40-250	33 0	G.E.S. (E40/45)	180±10	130±5	115±5	800

✲ **Purchase Tax** must be added to the list price of these lamps. For the exact amount of purchase tax to be added see TABLE A on the extension of page 55.

Cap Illustrations will be found on pages 44 and 45.

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

CLASS A 3 PROJECTOR LAMPS

Class A 3 lamps are used extensively for various stage lighting purposes in theatres and cinemas, and have also found wide application in Photographic and Film Studios.

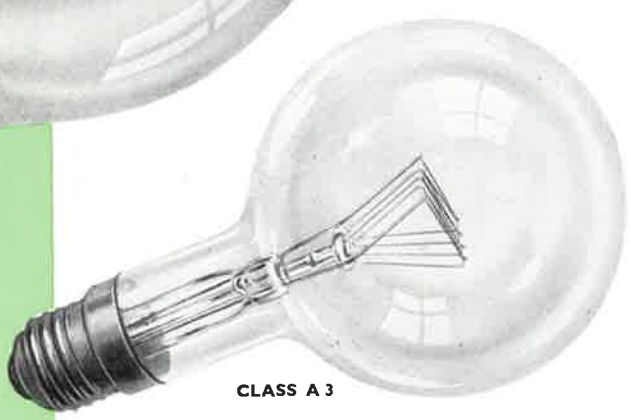
They are intended for burning in a horizontal position, but slight variations of burning angle up to about 15° will not affect the life.

CLASS B 1

Class B 1 lamps are made with concentrated bunch filaments of small area and are particularly suitable for use in conjunction with parabolic mirrors. They are employed generally for stage and theatre floodlighting and the floodlighting of tall buildings, hoardings, signs, etc., where long life and reliability are of chief importance.

Class B 1 lamps may be burned in any position except within 45° of Cap-up position.

CLASS B 1



CLASS A 3

Projector Lamps

CLASS E, EPIDIASCOPE
CLASS F,
MICRO-PROJECTION

CLASS E, EPIDIASCOPE *Burning Position—Any within 45° of Cap-down position*

Lamp Reference Number	Watts	Voltages	List† Price s.	d.	Cap	Approx. Dimensions m/m Length	Diameter	L.C.L.	Objective Life Hours
E/1	500	115 / 200-10-20-30-40-250	31	3	Prefocus (P28/25)	135±10	100±5	60 ±0·5	100
E/3	500	110 / 200-10-20-30-40-250	30	3	E.S. (E27/30)	135±10	100±5	85 ±5	100
E/4	500	110 / 200-10-20-30-40-250	31	3	Prefocus (P28/25)	130±10	95±5	55·5±0·5	100

† **Purchase Tax** not chargeable.

CLASS F, MICRO-PROJECTION

Lamp Refer'ce Number	Watts	Voltages	List✲ Price s.	d.	Special Features	Cap	Approximate Dimensions m/m Length	Diam.	L.C.L.	Objective Life Hours
F/24	24	6	4	0	—	E.S. (E27/25)	57±5	38±2	47±5	100
F/10	24	6	4	0	—	S.E.S. (E14/23×15)	60±5	38±2	50±5	100
F/ 3	24	12	4	0	Transverse Filament	S.B.C.(B15d/24×17)	60±5	38±2	44±5	100
F/25	30	6	6	6	—	E.S. (E27/35×30)	63±5	35±2	53±5	25
F/ 1	30	6	6	6	Transverse Filament	S.E.S. (E14/23×15)	57±5	35±2	47±5	25
F/ 2	48	6	8	3	Transverse Filament	S.B.C.(B15d/24×17)	60±5	35±2	40±3	100
F/ 4	48	12	6	0	Twin Pillar	S.E.S. (E14/23×15)	70±5	50±2	40±3	100
F/13	48	12	6	0	—	E.S. (E27/25)	70±5	50±2	38±5	100
F/27	72	6	11	9	Tubular Bulb	E.S. (E27/25)	128±7	32±1	75±3	100
F/14	100	12	13	3	—	E.S. (E27/25)	85±5	60±2	55±5	100
F/15	108 (18 amp.)	6	34	0	Axial Ribbon Filaments	Prefocus (P28/25)	139±7	32±2	65±0·5	50
F/16	108 (18 amp.)	6	33	0		E.S. (E27/25)	135±4	32±2	86±3	50
F/48	108 (18 amp.)	6	34	0		Prefocus (P28/25)	133±7	32±2	55·5±0·5	50
F/49	108 (18 amp.)	6	33	0		E.S. (E27/25)	128±7	32±2	75±5	50
F/46	108 (18 amp.)	6	34	0	Horizontal Ribbon Filaments	Prefocus (P28/25)	139±7	32±2	65±0·5	50
F/47	108 (18 amp.)	6	33	0		E.S. (E27/25)	135±4	32±2	86±3	50
F/50	108 (18 amp.)	6	34	0		Prefocus (P28/25)	133±7	32±2	55·5±0·5	50
F/51	108 (18 amp.)	6	33	0		E.S. (E27/25)	128±7	32±2	75±5	50

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

✲ **Purchase Tax** must be added to the prices in this column. For the exact amount of purchase tax to be added, see TABLE A on the extension of page 55.

Cap Illustrations will be found on pages 44 and 45.

Mazda
lamps
stay brighter longer

CLASS E, EPIDIASCOPE

Class E lamps are used in episcope and epidiascope apparatus for the projection of lantern slides, small solid objects, picture book pages, etc. They are also suitable for spotlight and shop window projectors which have to be rotated through wide angles. Can be operated in any position up to 45° from vertical, cap downwards.

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.

E/1 EPIDIASCOPE

F/10 MICRO-PROJECTION

Projector Lamps

CLASS G AND TUBULAR FLOODLIGHT

Mazda lamps stay brighter longer

CLASS G, EXCITER

Must not be burned cap-up

Lamp Reference Number	Amps	Voltages	List Price† s. d.	Cap	Approx. Dimensions m/m Length	Diam.	L.C.L.	Objective Life Hours
G/18	0·2	7 (EL No. 1)	6 0	Prefocus (P15s/19)	57±3	16±1	28·5 ±0·5	100
G/19	0·75	4	6 0	B15s and liner	48±3	15±1	31·75±0·75	50
G/29	0·75	4	7 0	Prefocus (P15s/19)	57±3	16±1	28·5 ±0·5	50
G/ 4	1·0	6	6 0	S.C.C. (B15s/17)	40±2	18±1	21·5 ±0·5	100
G/ 5	1·0	6	6 0	Prefocus (P15s/19)	57±3	16±1	28·5 ±0·5	100
G/16	1·0	27	9 0	S.C.C. (B15s/21)	75±3	25±1	41 ±1	100
G/ 6	2·0	8 (EL No. 4)	6 0	S.C.C. (B15s/21)	75±3	25±1	44 ±1	100
G/ 8	4·0	8 (EL No. 2)	6 0	S.C.C. (B15s/21)	75±3	25±1	44 ±1	100
G/ 7	4·0	8	7 0	Prefocus (P15s/19)	75±3	25±1	37·3 ±0·5	100
G/ 9	4·0	8·5 (EL No. 3)	6 0	S.C.C. (B15s/21)	75±3	25±1	44 ±1	100
G/11	5·0	10 (EL No. 5)	8 0	S.C.C. (B15s/21)	75±3	25±1	41 ±1	100
G/10	5·0	10	9 0	Prefocus (P15s/19)	75±3	25±1	37·3 ±0·5	100
G/12	5·0	10 (EL No. 6)	8 0	S.C.C. (B15s/21)	75±3	25±1	44 ±1	100
G/22	6·0	4	6 6	S.C.C. (B15s/21)	49±3	25±1	31·5 ±1	100
G/14	7·5	10 (EL No. 7)	8 0	S.C.C. (B15s/21)	75±3	25±1	41 ±1	100
G/13	7·5	10	9 0	Prefocus (P15s/19)	75±3	25±1	37·3 ±0·5	100
G/15	7·5	10 (EL No. 8)	8 0	S.C.C. (B15s/21)	75±3	25±1	44 ±1	100

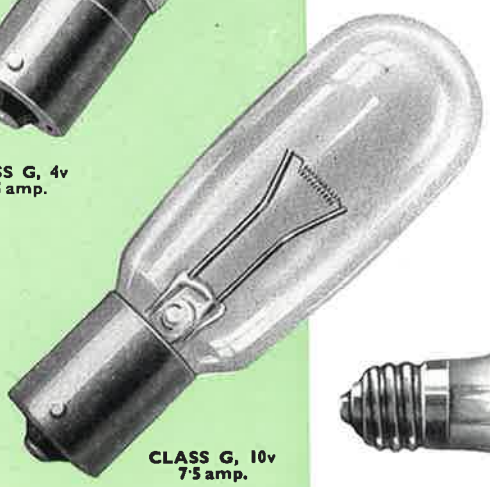
TUBULAR FLOODLIGHT

Burning Position—Horizontal

Lamp Reference Number	Watts	Voltages	List Price† s. d.	Cap §	Approx. Dimensions m/m Length	Diameter	Objective Life Hours
FL/1	500	{ 115 / 200-10-20-30-40-250 }	38 6	G.E.S. (E40/45)	355±10	90±2	1000
FL/2	1000	{ 115 / 200-10-20-30-40-250 }	49 6	G.E.S. (E40/45)	390±10	90±2	1000

† **Purchase Tax** not chargeable.
§ **Cap Illustrations** will be found on pages 44 and 45.
NOTE :—If ordering by Lamp Reference Number please be sure to state voltage required.

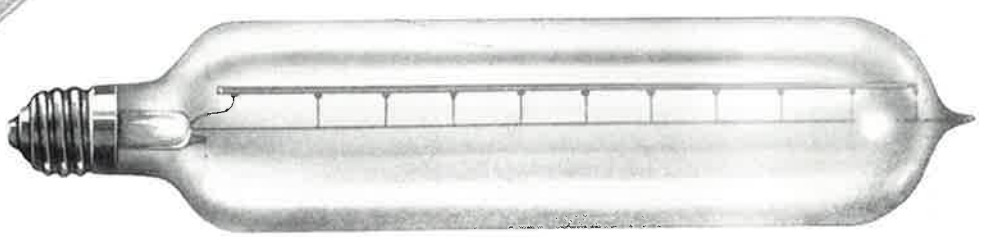
CLASS G, 4v 0·75 amp.



CLASS G, 10v 7·5 amp.

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.



TUBULAR FLOODLIGHT

Projector Lamps

STUDIO SPOTLIGHTS
" BROADSIDE "
COLOUR TEMPERATURE
HOSPITAL THEATRE

STUDIO SPOTLIGHTS

Lamp Reference Number	Watts	Voltages	List Price† s. d.	Cap§	Approx. Dimensions m/m Length	Diameter	L.C.L.	Objective Life Hours
S/4	1000	115, 210, 230, 240, 250	71 6	Bi-post	232±6	152·5±2	127±2	100
S/1	2000	115, 210, 230, 240, 250	93 6	Bi-post	232±6	152·5±2	127±2	100
S/2	5000	115, 230, 240, 250	300 0	Bi-post	335±6	203 ±2	165±2	100

† **Purchase Tax** not chargeable.

" BROADSIDE "

Watts	Voltages	List Price† s. d.	Cap §	Approximate Dimensions m/m Length	Diameter	L.C.L.	Objective Life Hours
1000	110, 115, 200, 210, 220, 230, 240, 250, 260	17 6	G.E.S. (E40/45)	300	150	225	1000
1500	110, 115, 200, 210, 220, 230, 240, 250, 260	25 0	G.E.S. (E40/45)	335	170	250	1000

† **Purchase Tax** not chargeable.

COLOUR TEMPERATURE 3400°K

Watts	Voltages	List Price † s. d.	Cap §	Approximate Dimensions m/m Length	Diameter	L.C.L.	Objective Life Hours
2000	115	93 6	Bi-post	232±6	152·5±2	127±2	15
5000	115	300 0	Bi-post	335±6	203 ±2	165±2	25

† **Purchase Tax** not chargeable.
§ **Cap illustrations** will be found on pages 44 and 45. Details of Bi-post lampholders are given on page 47.

HOSPITAL THEATRE DOUBLE FILAMENT PEARL LAMP

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

✲ **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 extension of page 55.

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

Mazda
lamps
stay brighter longer

FILM STUDIO LAMPS

The Tubular Floodlights (see previous page), Studio Spotlights, and " Broadside " Lamps fully meet the exacting requirements of film production whether sound or silent, in black and white, or in colour. They are silent in operation. Their light is definite and constant in colour, bringing out the full possibilities of the various film emulsions. They have concentrated light sources of high intrinsic brilliancy, giving the powerful light concentration so necessary for efficient spotlight work, and their absolute reliability has resulted in their adoption almost exclusively by the British film industry. The Colour Temperature Lamps have been specially developed for the making of colour films.

HOSPITAL THEATRE LAMP

The Hospital Theatre Lamp has a secondary filament which operates off a low volt emergency supply in the event of a mains failure.

1000w STUDIO SPOTLIGHT

1500w " BROADSIDE "

Neon Switchboard Traction Rough Service

Mazda
lamps
stay brighter longer

NEON LAMPS

Watts	List Price (*Purchase Tax Not Chargeable*) s. d.	Cap §	Approximate Dimensions: Maximum Length m/m	Maximum Length in.	Diameter m/m	Diameter in.
Type "N" Nightlight (Voltages 200/220, 230/240, 250/260)						
5	4 6	B.C. (B22/31×30) E.S. (E27)	125	4·89	61 (max.)	2·40
Type "Cruciform" (Voltages 200/220, 230/240, 250/260. Containing Cruciform, Letters or Numbers)						
5	8 6	B.C. (B22/31×30) E.S. (E27)	125 (max.)	4·89	61 (max.)	2·40
Type "I" Indicator (Voltages 100, 110, 120, 130, 200//260)						
0·5	4 0	B.C. (B22/21)	56	2·21	28	1·09
		E.S. (E27)	58	2·28		
		S.B.C. (B15/24×18)	54	2·12	18	0·71
		S.E.S. (E14/27×18)	56	2·21		
Current Polarity Indicator (Voltages 110/750)						
0·5	8 9	Special	79	3·12	20	0·78

SWITCHBOARD INDICATOR

Volts †	List Price ✲ Clear s. d.	List Price ✲ Colour Sprayed s. d.	Cap §	Approximate Dimensions: Overall Length m/m	Overall Length in.	Diameter m/m	Diameter in.
100/130 200/260	2 6	2 8	B.C. (B22/21)	56	2·21	28	1·09

✲**Purchase Tax** see note below.
† 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.

TRACTION (Gasfilled, Series Burning)

Nominal Watts	Rated Amps.	Voltages and List Prices ✲ 100, 110, 120, 130 Clear s. d.	Voltages and List Prices ✲ 100, 110, 120, 130 Pearl s. d.	Cap §	Approximate Dimensions: Overall Length m/m	Overall Length in.	Diameter m/m	Diameter in.
40	0·35	1 9†	1 9†	B.C. (B22/25×26)	110	4·33	60	2·36
60	0·52	1 9†	1 9†	E.S. (E27/25)	117·5	4·61	65	2·56

✲**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) CLEAR or PEARL

Watts	Voltages and List Prices ✲ 100, 110, 120, 130, 200, 210, 220, 230, 240, 250, 260 s. d.	Cap §	Approximate Dimensions: Overall Length m/m	Overall Length in.	Diameter m/m	Diameter in.	L.C.L. m/m
40	2 0	B.C. (B22/25×26)	110	4·33	60	2·36	80
60	2 0	or E.S. (E27/25)	117·5	4·61	65	2·56	85

✲**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 extension of page 55
§ **Cap illustrations** will be found on pages 44 and 45.

40w ROUGH SERVICE

NEON INDICATOR

Decoration Sets

FAIRY LIGHTS
CINDERELLA
DISNEYLIGHTS
FAIRY CANDLES

One spare bulb in every set

FAIRY LIGHTS

These attractive lamps provide brilliant colour, making them ideally suitable for festooning public rooms in hotels, restaurants or similar places. Used alone, or in conjunction with Cinderella or Fairy Candle sets, they give a warm, colourful display — so essential to Christmas tree decoration. Each set comprises twelve lamps ready wired to a flexible cord fitted with an adaptor and suitable for 200/260 volt supplies.

Price per set £1 2s. 9d. including 25% P.T.

CINDERELLA (Disneylight)

The colourful characters and scenes from Walt Disney's famous film are faithfully reproduced by means of coloured transfers on the dainty lamp shades. For all festive and decorative lighting Mazda Cinderella sets provide an enchanting atmosphere of gaiety. A set comprises twelve lights with one spare 20 volt bulb. The flexible wiring is complete with combined plug adaptors and each individual shade may be affixed to a twig or projection by means of the sliding berry-bead device.

Price per set £1 15s. 0d. including 25% P.T.

FAIRY CANDLES

Mazda Fairy Candles make an attractive complement to the already popular Fairy Lights and Cinderella Disneylights produced by BTH.

The new Fairy Candles have the appearance of glowing candles with their traditional Christmas associations. They are easily clipped to the Christmas tree or to any type of horizontal rod. Each set contains twelve Candles of various colours, ready wired and complete with clips.

Price per set £2 6s. 8d. including 25% P.T.

Spare Mazda Decoration Lamps Clear and Coloured fit any 12-light set, 20 volt M.E.S. Price 1/- each plus P.T. 3d.

FAIRY

CINDERELLA

FAIRY CANDLE


MAZDA Cinderella DISNEYLIGHTS
MAZDA Cinderella DISNEYLIGHTS
CINDERELLA DISNEYLIGHTS
PIGMY SIGN
Maz
Decorative
INTERNALLY COLOUR SPRAYED
MAZDA FAIRY-LIGHTS
MAZDA Fairy-Lights
FAIRY-LIGHTS
Mazda Fairy Candles
Mazda Fairy Candles
FAIRY CANDLES
B T-H

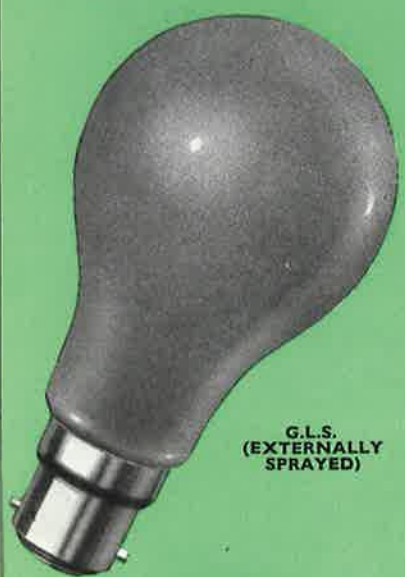

CANDLE
TUBULAR
da
Coloured Lamps
LONGLITE
COLOUR SPRAYED
5 ft. FLUORESCENT

Colour Sprayed

COLOURS AND SIGN COLOUR SPRAYED

SIGN (EXTERNALLY SPRAYED)

SIGN (INTERNALLY SPRAYED)



G.L.S. (EXTERNALLY SPRAYED)

COLOUR SPRAYED (Single Coil)

Watts	Voltages and List Prices ✲ 200, 210, 220, 230, 240, 250, 260 s. d.	100, 110, 120, 130 s. d.	Colours Available
15	1 7a	1 7a	Black and Standard Range →
25	1 7a	1 7	
40	1 6	1 8	Standard Range →
60	1 6	1 8	
75	1 11	2 1	
100	2 1	2 3	
150	3 3	3 5	White Only (wholly or partially sprayed)
200	5 3	5 9	
300†	9 3	9 9	
500†	12 3	12 9	

Range of Standard Colours

White
Red
Blue
Green
Yellow
Flame
Orange
Pink
Amber

✲ **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 extension of page 55.
† Lamps over 250 watts are exempt from purchase tax.
Caps and Dimensions as for clear lamps, see page 8.
a These lamps are vacuum only, all other lamps in the above table are gasfilled.

COLOURED LAMPS

Colour Sprayed General Service and Sign Lamps are ideal for festive illuminations at the seaside, in parks, etc., and for the exterior and interior decoration of such public buildings as halls, cinemas and theatres. Both types of lamp are also extensively used for display lighting and for advertisement signs.

SIGN LAMPS (Clear and Colour Sprayed)

Watts	Voltages and List Prices ✲ 100, 110, 130, 200, 210, 220, 230, 240, 250, 260 CLEAR s. d.	WHOLLY SPRAYED † s. d.	25, 50, 60, 65, 75 CLEAR s. d.	WHOLLY SPRAYED † s. d.	Cap §	Approx. Dimensions ‖ Overall Length m/m	Diameter m/m
15	1 10	2 0	2 5	2 7	B.C. (B22/21)	56	28
					E.S. (E27)	58	
					S.B.C.(B15/24×17)	62	
					S.E.S. (E14/27×18)	64	

SIGN LAMPS (Internally Coloured—Wholly only, Red, Green, Yellow, Blue, White or Orange)

Watts	Voltages and List Prices ✲ 110, 200, 210, 220, 230, 240, 250, 260 s. d.	Cap §	Approx. Dimensions ‖ Overall Length m/m	Diameter m/m
15	2 1	B.C. (B22/21)	90	44
		E.S. (E27)	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 extension of page 55.
† **Standard Range of Colours** as for Colour Sprayed Lamps.
§ **Cap Illustrations** will be found on pages 44 and 45.
‖ **Lamp outlines** are shown on pages 42 and 43.

INFRA RED

Watts	Voltages	List Price ✲	Cap	Approximate Dimensions			
				Length		Diameter	
WITH INTERNAL REFLECTOR							**Parabolic Bulb**
250	100/130 200/260	s. d. 15 6	E.S. (E27/54×38) Cementless	m/m 176±6·5	in. 6·93	m/m 126±1·5	in. 4·96
FOR USE WITH EXTERNAL REFLECTOR							**Round Bulb**
250	100/130	Clear s. d. 7 9 Pearl s. d. 8 3	E.S. (E27/30)	178±5	7·00	90±1	3·54
WITH METAL FILAMENT (Radiant Heat)							**Round Bulb**
60	110-120 210-230-250	s. d. 2 3	B.C. (B22/25×26) or E.S. (E27/25)	117·5±3·5	4·61	65±1	2·56

✲**Purchase Tax** must be added to the prices of the 250 watt Lamps.
For the exact amount of purchase tax to be added, see TABLE A on the extension of page 55.

INFRA-RED LAMPS

Mazda 250 watt Infra-Red Lamps are extensively used for Industrial baking and drying processes, and because of their wavelength they are also suitable for heat therapy both in the home and the clinic. Visible light forms only a small percentage of radiant energy, the bulk of which is produced at the invisible infra-red wavelengths.

REFLECTOR TYPE

The reflector type lamp has a parabolic shaped bulb which is satin frosted. The upper half of the bulb is coated on the inside with aluminium to form an efficient reflector which concentrates the radiant energy from the filament into a beam which has a total spread of not more than 120 degrees. Being protected by the glass and the inert gas filling, the reflector does not tarnish and therefore its initial efficiency is maintained to a high degree throughout the lamp life. The outer surface of the glass bulb can readily be cleaned to prevent reduction of the radiation by dust, paint splashes etc., and the lamp is fitted with a mechanically attached (cementless) cap to enable it to withstand the severe heating conditions in an infra-red oven. Since no external reflector is required, lamps can be mounted close together and this permits a high degree of concentration where it is desirable. The 100/130 volt lamps are used two in series on 200/250 volt supplies.

NON-REFLECTOR TYPE

The non-reflector lamp, for maximum efficiency, must be used in conjunction with an external reflector. This lamp has two finishes—satin frosted or clear. The former is generally to be preferred since the frosting helps to smooth out hot spots. These lamps operate two in series on 200/250 volt supplies.

RADIANT HEAT

The 60 watt Radiant Heat Lamp has a metal filament and is specially designed for use in clinical apparatus employed for heat therapy in hospitals and clinics.

250w
INTERNAL
REFLECTOR

Infra-red Lamps

REFLECTOR AND NON-REFLECTOR TYPES FOR INDUSTRIAL DRYING AND BAKING

Mazda
lamps
stay brighter longer

Motor Car Bulbs

(Motor Cars, Motor Cycles & Commercial Vehicles)

SINGLE AND DOUBLE FILAMENT

Mazda lamps stay brighter longer

SINGLE FILAMENT HEADLAMPS

Standard Cap :—S.C.C. (B15s/17) §
Standard Filament :—Axial
Bulb :—Round or Pear-shaped

Volts	Watts	List Price✲ s.	List Price✲ d.	Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.	L.C.L. m/m	L.C.L. in.
6	18	3	0	56	2·20	38	1·50	28·5	1·12
6	24	2	6						
6bc	36	2	9						
12b	24	2	6						
12b	36	2	6						
12c	48	4	0						
12	60	5	6	63	2·48	50	1·97	28·5	1·12
24ac	36	3	0	56	2·20	38	1·50	28·5	1·12
24a	48	4	6						
24a	60	6	0	63	2·48	50	1·97	28·5	1·12

✲ **Purchase Tax** see note below.
(a) For S.B.C. or B.C. or Coiled Coil Filament, **No Extra.**
(b) For "V" Filament, **No Extra.**
(c) For Pre-focus (P15s or P15d) Cap **6d. Extra,** and for "U" Filament **3d. Extra** for these lamps only.
§ Extras :—For S.C.C. (B15s/21) or S.B.C. (B15d/17 or B15d/21) caps **1d. Extra.** For Bosch cap **3d. Extra.**

DOUBLE FILAMENT HEADLAMPS

Standard Caps :—S.B.C. (B15d/17 or B15d/21) ¶

Volts	Watts	List Price ✲ s.	List Price ✲ d.	Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.
6	18 & 18	4	6	56	2·20	38	1·50
6	24 & 24	3	6				
6	30 & 30	3	6				
6	36 & 36	3	6				
12	36 & 36	3	6				
24d	36 & 36	5	9				

✲ **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 extension of page 55.
(d) For Coiled-coil filament, no extra.
¶ Extras :—For Bosch cap **3d. Extra.** For Prefocus cap **6d. Extra.**

6v 36 and 36w DOUBLE FILAMENT

12v 36w SINGLE FILAMENT

MAZDA HEADLAMPS

Gasfilled tungsten filament lamps have proved to be by far the most satisfactory means of providing a headlight of sufficient versatility to meet the exacting and changing requirements of the road. In normal conditions, they have an efficiency of from 15-19 lumens per watt, according to rating, voltage and objective life.

Motor Car Bulbs

(Motor Cars, Motor Cycles & Commercial Vehicles)

PREFOCUS SINGLE AND DOUBLE FILAMENT

SINGLE FILAMENT (British Type) PREFOCUS HEADLAMPS

Standard Caps :—(P22s/21) or (P22d/21)

Volts	Watts	List Price✲ s.	d.	Description	Contact	Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.	L.C.L. m/m	L.C.L. in.
6	36	3	9	Single Coil Axial Fil.	Single	62 (max.)	2·44	28	1·10	21·5	0·85
6	36	4	0	Single Coil Trans. Fil.	Single						
12a	36	3	9	Coiled Coil Axial Fil.	Single						
12a	36	3	9	Coiled Coil Axial Fil.	Double						
12	38	3	9	Single Coil Trans. Fil.	Single						
12	38	3	9	Single Coil Trans. Fil.	Double						
12	48	4	9	Single Coil Trans. Fil.	Single						
12a	48	4	9	Coiled Coil Axial Fil.	Single						
24	44	5	6	Coiled Coil Axial Fil.	Double						
24	44	5	6	Coiled Coil Trans. Fil.	Double						

✲ **Purchase Tax** see note below.
(a) Also available in Single Coil.

DOUBLE FILAMENT (British Type) PREFOCUS HEADLAMPS

Standard Cap :—(P22d/21)

Volts	Watts	List Price✲ s.	d.	Description	Contact	Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.	L.C.L. m/m	L.C.L. in.
6	18 & 18	5	3	Single Coil Trans. Fil.	Double	62 (max.)	2·44	28	1·10	21·5	0·85
6	24 & 24	4	9	Single Coil Trans. Fil.	Double						
6	30 & 24	5	6	Single Coil Trans. Fil.	Double						
6	36 & 36	4	6	Single Coil Trans. Fil.	Double						
12	42 & 36	5	0	Single Coil Trans. Fil.	Double						
12b	44 & 38	6	3	Single Coil Trans. Fil.	Double						
12a	48 & 48	6	9	Coiled Coil Trans. Fil.	Double						
24	38 & 38	6	9	Coiled Coil Trans. Fil.	Double						
24b	44 & 38	7	6	Coiled Coil Trans. Fil.	Double						

✲ **Purchase Tax** see note below.
(a) Also available in Single Coil.
(b) For Commercial Vehicles only.

SINGLE FILAMENT (American Type) PREFOCUS HEADLAMPS

Standard Caps :—(P15s) or (P15d)

Volts	Watts	Description	List Price✲ s.	d.
6	36	Single Coil " U " Filament	3	6
12	48	Single Coil " U " Filament	4	9
24	36	Coiled Coil " U " Filament	3	9

✲ **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 extension of page 55.

PREFOCUS HEADLAMPS

Though many motor cars still operate with headlamps fitted with bayonet caps, the modern trend is toward the use of pre-focus caps, which maintain the original beam character whenever and wherever replacement bulbs are needed.

Mazda
lamps
stay brighter longer

12v 48w
" U " FILAMENT

12v 42 and 36w
TRANSVERSE
FILAMENT

Motor Car Bulbs

(Motor Cars, Motor Cycles & Commercial Vehicles)

SIDE TAIL
DASH STOP
INDICATOR
FESTOON
TRAFFICATOR

Mazda
lamps
stay brighter longer

INDICATOR

SIDE, TAIL

FESTOON

STOP, TAIL

SIDE, TAIL, DASH LIGHTS

Standard Cap :—S.C.C. (B15s/17) ‡

Volts	Watts	List Price✲ s.	d.	Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.
6†	3	1	6	32·5	1·32	15	0·59
6	3	1	4	32·5	1·32	18	0·71
6	6	1	7	32·5	1·32	18	0·71
12†	6	1	7	32·5	1·32	15	0·59
12	6	1	4	32·5	1·32	18	0·71
24§	6	1	8	32·5	1·32	18	0·71

✲ **Purchase Tax** see note below.
† MCC cap. ‡ For S.B.C. cap (B15d/17) **1d.** extra. § S.B.C. or B.C. No extra.

STOP, TAIL LIGHTS

Standard Cap :—S.B.C. (B15d/17)
Filament :—" V "

Volts	Watts	List Price✲ s.	d.	Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.
6a	3 & 18	3	6	46	1·81	25	0·98
6b	18	3	9				
12a	6 & 18	3	6				
12b	18	3	6				

✲ **Purchase Tax** see note below.
(a) With S.B.C. cap with off-set pins (B15d/19) (Index) **3d.** extra.
(b) With S.C.C. cap (B15s/21).

INDICATOR LAMPS

Standard Cap :—M.E.S. (E10/13)†

Volts	Watts	List Price✲ s.	d.	Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.
6	3	1	3	27·5±1·5	1·08	15	0·59
6	3	1	3	23 ±1	0·91	11	0·43
8	1·6	2	3	27·5±1·5	1·08	15	0·59
12	2·2	1	3	27·5±1·5	1·08	15	0·59
12	2·2	1	3	23 ±1	0·91	11	0·43
16	3	2	3	27·5±1·5	1·08	15	0·59
24	2·8	2	0	27·5±1·5	1·08	15	0·59

✲ **Purchase Tax** see note below.
† With M.C.C. (B9s/14) cap **3d.** extra.

FESTOON TRAFFICATOR LAMPS

Double Capped

Volts	Watts	List Price✲ s.	d.	Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.
6	3	2	3	35·5	1·39	7·5±0·5	0·30
6	6	2	7	38	1·50	11 ±0·5	0·43
12	3	2	3	35·5	1·39	7·5±0·5	0·30
12	6	2	7	38	1·50	11 ±0·5	0·43
24	6	2	6	38	1·50	11 ±0·5	0·43
24	6	3	0	44	1·73	11 ±0·5	0·43

✲**Purchase Tax** see note below.

BUS INTERIOR LAMPS (Pearl)

Standard Caps :—B.C. (B22/21×26) or S.B.C. (B15d/17)
Filaments :—" V " or Bow

Volts	Watts	List Price✲ s.	d.	Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.
12	12	2	4	55 (B.C.)	2·17	38	1·50
24	12	2	9	56 (S.B.C.)	2·20	38	1·50
24	20	2	9	68	2·68	50	1·97

✲ **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 extension of page 55.

Cycle Flashlight Radio Panel & Police Lamps

CYCLE DYNAMO LAMPS

Headlights
Cap :—M.E.S. (E10/13) Round Bulb

Volts	Amps.	List Price* each Clear s.	d.	Diameter m/m
6	0·2		9	15
6	0·3		9	15
6†	0·3	1	4	18
6	0·45		9	15
6	0·5		9	15
6†	0·5	1	4	18

NOTE : All 15 m/m diameter Headlights can be supplied with the new striated bulb ; this gives better light diffusion at no extra cost (*see illustration*).

Tail Lights—Round Bulb
Cap :—M.C.C.(B9s/14) for 3·5 volt
M.E.S. (E10/13) for 6 volt

Volts	Amps.	List Price* each Clear s.	d.	Diameter m/m
3·5	0·15		9	15
3·5	0·15		9	11
6	0·04		9	15
6	0·04		9	11

* **Purchase Tax** see note below.
† S.C.C. Cap (B 15s/17)

FLASHLIGHT LAMPS ††

Standard Cap :—M.E.S. (E10/20×23)

Volts	Amps.	List Price		Diameter m/m
		Without Purchase Tax	Purchase Tax	
1·5	0·11	8d.	1½d.	15
2	0·6	8d.	1½d.	15
2·5	0·2	5½d.	1½d.	11
2·5	0·3	5½d.	1½d.	11
3·5	0·15	5½d.	1½d.	11
3·5	0·3	5½d.	1½d.	11
4	0·3	5½d.	1½d.	11
4·5	0·3	5½d.	1½d.	15
5	0·15	8d.	1½d.	15

†† Extras for Varnishing—**2d.** each or **8s. 0d.** per 100.

RADIO PANEL LAMPS ††

Standard Cap :—M.E.S. (E10/13) §

Volts	Amps.	List Price* each s.	d.	Length m/m	Diam. m/m	Volts	Amps.	List Price* each s.	d.	Length m/m	Diam. m/m
ROUND											
6	0·04	1	0	24	11	6·2	0·3		7½‡	29	15
6	0·06	1	0	24	11	6·3	0·11		7½	24	11
						6·5	0·3		7½	24	11
TUBULAR											
6·2	0·3		7½‡	30	10	6·5	0·3		7½	30	10
6·3	0·15		7½‡	30	10						

* **Purchase Tax** see note below.
‡ Objective Life 10 hours.
§ For M.C.C. Cap, **1d. each extra.**
†† Extras for Varnishing—**2d.** each or **8s. 0d.** per 100.

VACUUM POLICE LAMPS

Volts	Amps.	List Price* s.	d.	Cap	Approximate Dimensions			
					Length		Diameter	
					m/m	In.	m/m	In.
2	0·75	2	6	Wootton B9·5s/11	28	1·09	18	0·71
2	0·75	2	6	M.E.S. (E10/13)	27·5	1·08	15	0·59

* **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 extension of page 55.

Mazda
lamps
stay brighter longer

FLASHLIGHT LAMP

6v 0·5 amp CYCLE HEAD

6v 0·04 amp. CYCLE TAIL

6v 0·45 amp. CYCLE HEAD (STRIATED BULB)

Miners' Lamps

MINERS' CAP AND HANDLAMPS

Mazda
lamps
stay brighter longer

MINERS' CAP (Clear Bulb)

Lamp Code Number	Rating		List Price Each	Diameter		Length		MFP Category	Cap
	Volts	Amps.	s. d.	m/m	in.	m/m	in.		
ARGON—DOUBLE FILAMENT									
13B	4·0	0·55 & 0·55	2 9	25	0·98	49	1·93	1 (B)	B15d/21
KRYPTON—SINGLE FILAMENT									
13A	3·6	1·0	3 0	18	0·71	31	1·22	3/1	E10
15A	4·0	0·8	3 3	18	0·71	31	1·22	2	E10
KRYPTON—DOUBLE FILAMENT									
14A	3·75	1·0 & 1·0	3 6	18	0·71	40	1·60	3/2	B15d/17

MINERS' HANDLAMP

Lamp Code Number	Rating		List Price Each	Diameter		Length		MFP Category	Cap
	Volts	Amps.	s. d.	m/m	in.	m/m	in.		
KRYPTON—SINGLE FILAMENT (Pearl Bulb) †									
11B	2·5	1·5	3 0	18	0·71	43·5	1·69	1 (B)	953
12B	2·5	1·5	3 0	18	0·71	45·5	1·80	1 (B)	E14
11A	2·5	1·75	3 0	18	0·71	43·5	1·69	3/1	953
12A	2·5	1·75	3 0	18	0·71	45·5	1·80	1 (B)	E14
14B	4·0	0·75	3 0	18	0·71	45·5	1·80	1 (B)	E14
15B	4·0	0·75	3 0	18	0·71	47a	1·85	1 (B)	Peg
16A	4·0	1·0	3 0	18	0·71	45·5	1·80	1 (B)	E14

† 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. B15d/17 or B15d/21 = S.B.C.

All the Miners' Lamps listed on this page are approved by the Mines Department and are exempt from Purchase Tax.

HANDLAMP
2·5v 1·5 amp.
E 14 CAP

HANDLAMP
3·6v 1·0 amp.
E 10 CAP

MINERS' CAP
4v 0·55 AND
0·55 amp.
B15d/21 CAP

AIRCRAFT LAMPS

Watts	Volts	List Price ✲ s.	d.	Cap	Filament	Type and Finish	Approximate Dimensions: Length m/m	Length in.	Diameter m/m	Diameter in.	L.C.L. m/m	L.C.L. in.
LANDING												
240	12	29	0A	P28/25	Twin Pillar	Clear G.F.	95	3·74	60	2·36	44·5	1·75
240	26	29	0A	P28/25	Tr. C.C.	Clear G.F.	95	3·74	60	2·36	44·5	1·75
350	26	33	0	P40/41	Tr. C.C.	Clear G.F.	120	4·72	75	2·95	43	1·69
INSTRUMENT or INDICATOR LAMPS												
1·2	12	2	2C	End piece and Clips	—	Clear Vac.	38	1·50	6·5	0·26	—	—
2·4	24	2	2C		—	Clear Vac.	38	1·50	6·5	0·26	—	—
6	12	2	7B	S8·5/8	Axial	Clear Vac.	38	1·50	11	0·43	—	—
6	24	2	6B	S8·5/8	Axial	Clear Vac.	38	1·50	11	0·43	—	—
2·36	6·5		7½B	E10/13	Tra. Bow or "V"	Clear Vac.	23	0·91	11	0·43	—	—
2·2	12	1	3B	E10/13	Bow or "V"	Clear Vac.	27·5	1·08	12 or 15	0·47 or 0·59	—	—
2·8	24	2	0B	—	Bow or "V"	Vac.	27·5	1·08	15	0·59	—	—
WARNING LAMPS												
0·24	3	1	0B	E10/13	Tra. Bow or "V"	Clear Vac.	23	0·91	11	0·43	—	—
0·24	6	1	0B	—	Tra. Bow or "V"	Vac.	23	0·91	11	0·43	—	—
COCKPIT												
7	12	3	0B	B15d/17	Bow or "V"	Clear G.F.	32·5	1·28	18	0·71	17·5	0·69
2·2	12	1	5B	E10/13	Bow or "V"	Varnished	27·5	1·08	12 or 15	0·47 or 0·59	—	—
2·8	24	2	3B	E10/13	Bow or "V"	Red Vac.	27·5	1·08	15	0·59	—	—
GENERAL SERVICE LAMPS												
6	12	1	5B	B15d/17	Bow or "V"	Clear G.F.	32·5	1·28	18	0·71	—	—
6	24	1	8B	—	Bow or "V"	Vac.	32·5	1·28	18	0·71	—	—
CABIN LAMPS												
12	12	2	4B	B15d/17	Bow or "V"	Clear G.F.	56	2·20	38	1·50	—	—
12	24	2	9B	B15d/17	Bow or "V"	Clear G.F.	56	2·20	38	1·50	—	—
NAVIGATION, HEAD, TAIL, and SIDE												
10	12	3	6B	B15d/17	Single T Coil	Clear G.F.	46	1·81	25	0·98	30	1·18
10	24	4	6B	B15d/17	Special	Clear Vac. or G.F.	46	1·81	25	0·98	30	1·18
20	12	4	0B	B15d/17	Trans.	Clear G.F.	57	2·24	38	1·50	33	1·30
20	24	4	6B	B15d/17	Trans.	Clear G.F.	57	2·24	38	1·50	33	1·30
IDENTIFICATION DOWNWARDS												
30	12	5	0B	B15d/17	Special	Internally Frosted G.F.	58	2·28	27	1·06	38	1·50
80	24	7	6B	B15d/17	Special	Internally Frosted G.F.	58	2·28	38	1·50	38	1·50
TAXYING												
36	12	2	7B	B15d/17	"V"	Clear G.F.	56	2·20	38	1·50	28·5	1·12
60	24	6	0B	—	Ax. C.C. or "V"	Clear G.F.	56	2·20	38	1·50	28·5	1·12

✲**Purchase Tax** must be added to the prices of all lamps in this column except the 350 w. 26 v. Landing lamp. The exact amount of Purchase Tax to be added to the list prices with the suffices "A" and "B" will be found in TABLES A and B respectively on the extension of page 55. Purchase Tax equal to 25% must be added to list prices with the suffix "C."

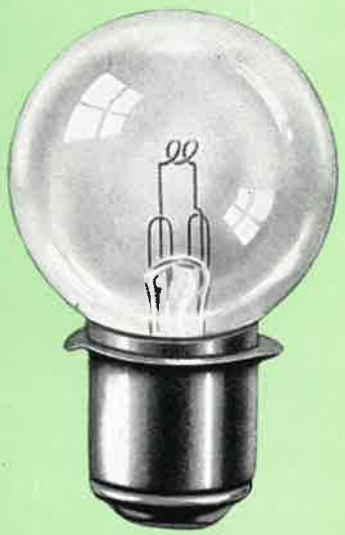
IDENTIFICATION

CABIN

Aircraft Lamps

GENERAL SERVICE
INSTRUMENT
WARNING
COCKPIT
CABIN
NAVIGATION
IDENTIFICATION
TAXYING
LANDING

Mazda
lamps
stay brighter longer



LANDING

Electric Discharge

MERCURY VAPOUR TYPE MA/V, MA/U AND MB/V

Mazda lamps stay brighter longer

MERCURY VAPOUR *(Purchase Tax not chargeable)*

Watts	A.C. Voltages	List Price s. d.	Cap §	Approximate Dimensions m/m† Length	Diameter	L.C.L.‡
TYPE MB/V						**Round Bulb**
80	200/210, 220/230, 240/250	39 6	3-pin B.C. (B22/31×30)	160	80	113
125	200/210, 220/230, 240/250	45 0	3-pin B.C. (B22/31×30)	178	90	128
1000	350/450	160 0	G.E.S. (E40/45)	335	165 max.	200
TYPE MA/V						**Tubular Bulb**
250	100, 110, 120, 130, 200/210, 220/230, 240/250	54 0	G.E.S. (E40/45)	290	51	170
400	100, 110, 120, 130, 200/210, 220/230, 240/250	59 0	G.E.S. (E40/45)	330	51	190
TYPE MA/U						**Tubular Bulb**
250	200/210, 220/230, 240/250	57 6a	G.E.S. (E40/45)	290	51	170
400	200/210, 220/230, 240/250	62 6a	G.E.S. (E40/45)	330	51	190

a These prices are for Soft Glass Envelope ; hard Glass Envelopes are available if required, at extra cost.

§ **Cap Illustrations** will be found on pages 44 and 45.

† **Lamp Outlines** are shown on pages 42 and 43.

‡ **Light Output** of these lamps is given on page 46.

IMPORTANT NOTE.—Mazda Electric Discharge Lamps are made to operate only with lamp auxiliary gear manufactured or approved by The British Thomson-Houston Co., Ltd. See pages 48 and 49.

MERCURY VAPOUR LAMPS

These lamps find their principal applications in streetlighting, floodlighting, and industrial lighting.

The lamp consists of two envelopes, the space between the inner and outer envelope being for heat retention purposes. The electrodes, which require no separate heating transformers, are mounted one at each end of the inner tube and give a high electronic emission when incandescent. A third electrode situated close to one of the main electrodes and connected to the mains through a series resistance serves to stimulate conduction at starting.

Each lamp requires a choke in series with it, to control the current passing, since the lamp has no electrical resistance of its own ; in some cases certain other auxiliary equipment is desirable, such as a capacitor connected across the mains for power-factor correction.

80w TYPE MB/V

400w TYPE MA/V OR MA/U

MERCURY VAPOUR FLUORESCENT *(Purchase Tax not chargeable)*

Watts	A.C. Voltages	List Price s. d.	Cap §	Approximate Dimensions m/m† Length	Overall Diam.	Neck Diam.	L.C.L.‡
TYPE MBF/V							**Round Bulb**
80	200/210, 220/230, 240/250	48 6	3-pin B.C. (B22/31×30)	178	110	50	123
125	200/210, 220/230, 240/250	59 0	G.E.S. (E40/45)	233	130	52	167
TYPE MAF/V							**Iso-thermal Bulb**
400	200/210, 220/230, 240/250	81 6	G.E.S. (E40/45)	335	165	50	—

§ **Cap Illustrations** will be found on pages 44 and 45.
† **Lamp Outlines** are shown on pages 42 and 43.
‡ **Light Output** of these lamps is given on page 46.
IMPORTANT NOTE.—Mazda Electric Discharge Lamps are made to operate with lamp auxiliary gear manufactured or approved by The British Thomson-Houston Co., Ltd. See pages 48 and 49.

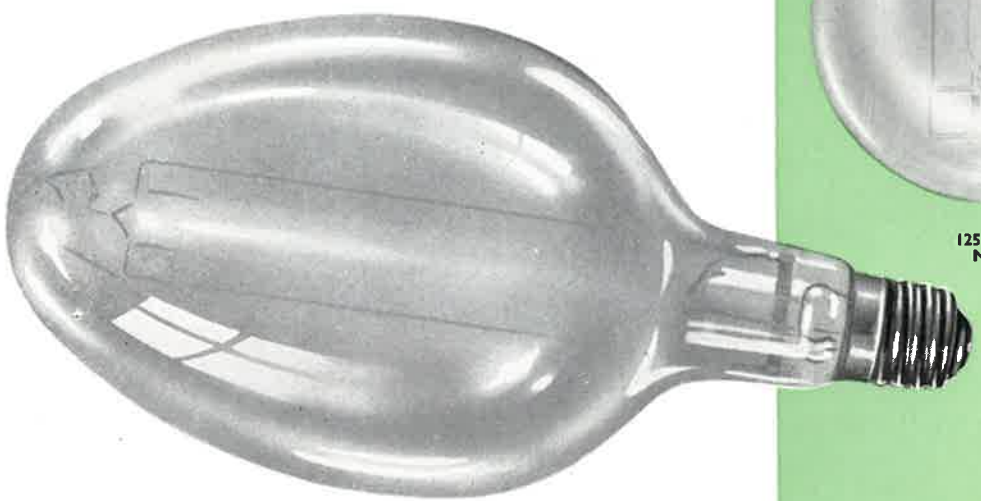
MERCURY VAPOUR FLUORESCENT LAMPS

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. This mercury vapour lamp with fluorescent bulb has been developed to meet requirements where some degree of colour rendering is important.

The mercury vapour discharge tube is mounted in an enlarged outer jacket, the inner surface of which is coated with powder which fluoresces under ultra-violet radiation from the inner lamp. This fluorescent radiation provides colour correction, by adding red light.

The electrical characteristics of these lamps are similar to the standard Mazda mercury vapour lamps in that they require to be operated with a standard choke and, where necessary, a capacitor for power factor correction.

While the degree of colour correction does not render the light emitted from the lamp equivalent to daylight, it is nevertheless much more pleasing than uncorrected mercury vapour light.



400w TYPE MAF/V

Mazda lamps stay brighter longer

125w TYPE MBF/V

Electric Discharge Lamps

SODIUM VAPOUR
TYPE SO/H

Mazda
lamps
stay brighter longer

SODIUM VAPOUR *(Purchase Tax not chargeable)*

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

† **Lamp Outlines** are shown on pages 42 and 43.

‡ **Light Output** of these lamps is given on page 46.

NOTE.—Lamps should normally be used in a HORIZONTAL position, but the 45 and 60 watt sizes will operate in any position between vertical (cap up) and horizontal.

SODIUM VAPOUR LAMPS

Sodium Vapour Electric Discharge Lamps are primarily designed for street-lighting or floodlighting and they have found application in the industrial field for the illumination of yards and other open spaces.

The lamp consists of two separate components, an inner arc tube bent into a U shape and fitted with a Bayonet Ceramic cap, and an outer envelope which is a double-walled vacuum flask. When it is necessary therefore to make a lamp replacement, as a rule only the arc tube need be replaced.

For a Sodium Vapour Electric Discharge Lamp to operate efficiently a steady voltage must be applied to it, and for this purpose transformers with tapped primary windings to cover the normal voltage range are supplied. See pages 48 and 49.

The orange-yellow light given by the sodium vapour lamp is monochromatic. The lamp gives a single line spectrum, as distinct from the continuous spectrum of the tungsten lamp and the multi-line spectrum of mercury vapour discharge lamps.

45w
SO/H

140w
SO/H

ULTRA VIOLET Type MBW/V *(Purchase Tax not chargeable)*

Watts	A.C. Volts	List Price s. d.	Cap	Approximate Dimensions			
				Overall Length		Diameter	
				m/m	in.	m/m	in.
125	200/210 220/230 240/250	63 0	3-pin B.C. (B22/31×30)	178	7·00	90	3·54

COMPACT SOURCE Type ME/D *(Purchase Tax not chargeable)*

Watts	A.C. or D.C. Volts	Description	List Price s. d.	Cap	Dimensions m/m		
					Overall Length	Diameter	L.C.L.
250	200/250	Glass Envelope	250 0	3-pin	135±3a	50±2	85±1
250		Oval	350 0	P28/25	103 max.	43×34b	55·5±0·5
250		Glass Envelope	250 0	P40/41	156±3	50±2	65 ±0·5

(a) Excluding Pins. (b) With a 5·5 m/m projection on the major axis opposite the L.C.L.

ULTRA-VIOLET LAMP

This special lamp has been developed as a highly efficient source of near ultra-violet radiation with a minimum of visible light. The near ultra-violet radiation, lying just beyond the violet end of the visible spectrum, does not cause sunburning, but has power to excite fluorescence and phospherescence in many substances and this makes it very effective in special displays. In addition, where identification is almost impossible in visible light, substances may often be easily identified by means of such fluorescence. Stains on fabrics often become strikingly evident under this radiation and it is also possible to distinguish between apparently similar materials such as natural and artificial gems.

As with other electric discharge lamps, the U.V. lamp is designed to operate only with lamp auxiliary gear manufactured or approved by BTH.

COMPACT SOURCE LAMP

The Type ME high-pressure mercury vapour lamp consists of a quartz bulb containing two tungsten electrodes, between which an arc of high brightness burns steadily. The quartz bulb is mounted in an oval canister having a glass window in the front, through which the light emerges.

Where this lamp can be operated in a separate protective housing two variants, in clear-glass outer envelopes, are also available.

The small concentrated source burns steadily with a high brightness in the region of 20,000 candles per sq.cm. The radiation has a high actinic value and the lamp operates with little deterioration of light output throughout its long life. The lamp, which should always be operated vertically base downwards, is suitable for a number of applications :—

In optical instruments such as projection microscopes for visual examination, gear profile projectors, and similar instruments.

In projection microscopes for micro-photography.

In film printers.

In lantern slide or film projectors for monochrome film. (It is not recommended for use with colour films.)

As a light source for examining polished metal or glass surfaces.

125w MBW/V

250w OVAL CANISTER ME/D

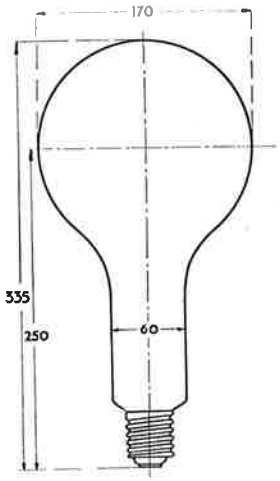
Electric Discharge Lamps

MERCURY VAPOUR TYPE MBW/V, ME/D

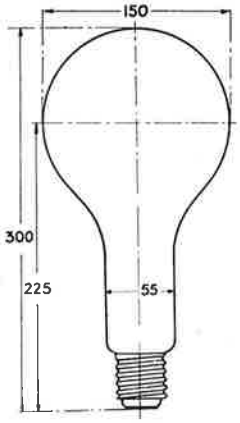
Mazda lamps stay brighter longer

LAMP OUTLINES

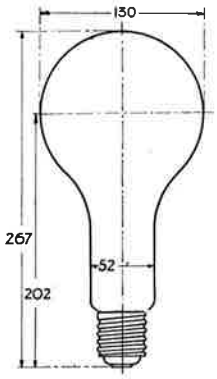
Dimensions in Millimetres



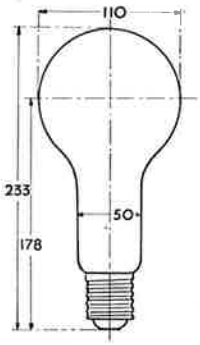
1,500w G.E.S. Cap.
G.F. Clear



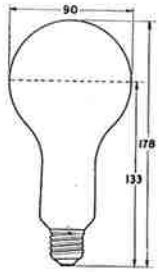
1,000 & 750w G.E.S. Cap.
G.F. Clear



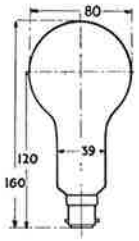
500w G.E.S. Cap.
G.F. Clear



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



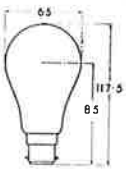
200w E.S. Cap.
G.F. Pearl and Clear



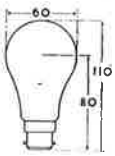
150w B.C. Cap.
G.F. Pearl and Clear

100w B.C. Cap.
Pearl, G.F. Clear,
and Coiled-Coil

75w B.C. Cap.
Pearl, Clear, and
Coiled-Coil



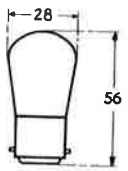
60w B.C. Cap.
Pearl, G.F. Clear,
G.F. Traction,
and Coiled-Coil



40w B.C. Cap.
Pearl, G.F. Clear,
G.F. Traction,
and Coiled-Coil

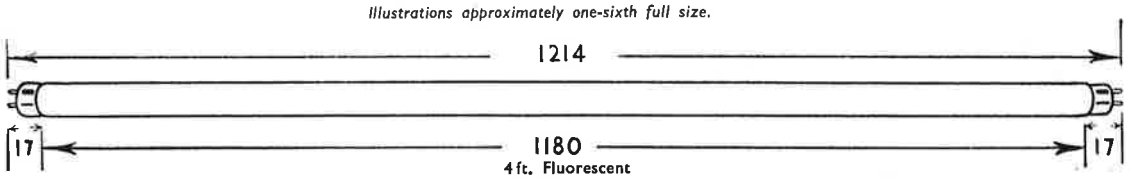
25w B.C. Cap.
Pearl, G.F. Clear,
Vac. Clear

15w B.C. Cap.
Pearl, Vac.
Clear

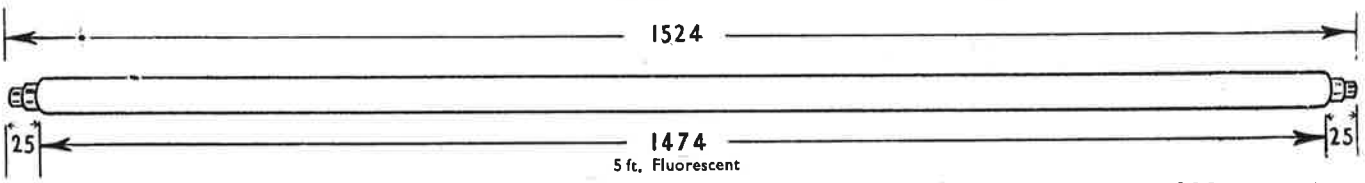


15w B.C. Cap.
Pigmy Sign Bulb

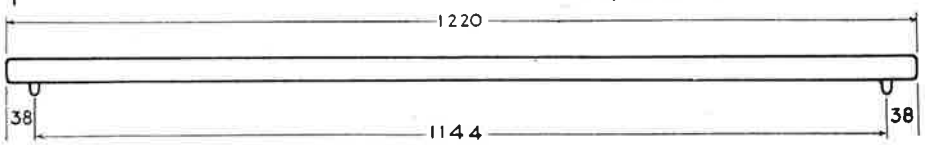
Illustrations approximately one-sixth full size.



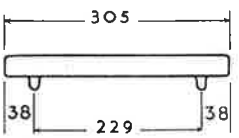
4 ft. Fluorescent



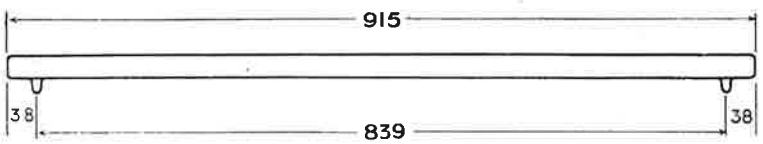
5 ft. Fluorescent



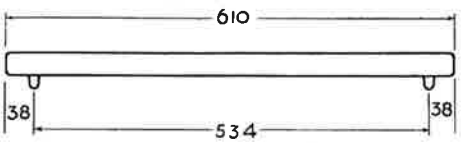
150w Straight Light Tube



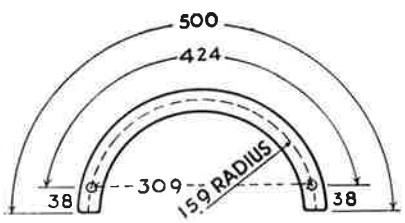
35w Straight Light Tube



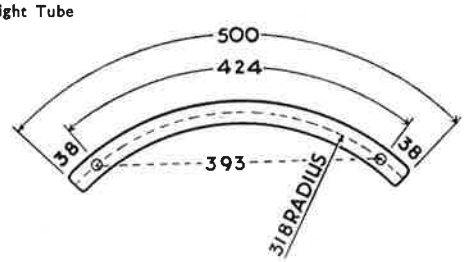
110w Straight Light Tube



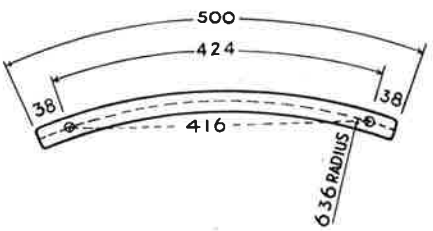
75w Straight Light Tube



60w ¼ Circle Light Tube



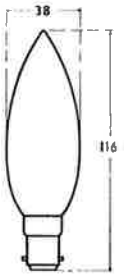
60w ¼ Circle Light Tube



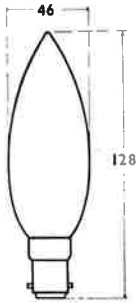
60w ⅛ Circle Light Tube

LAMP OUTLINES

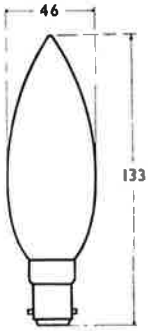
Dimensions in Millimetres.



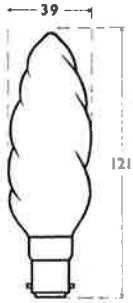
25w S.B.C. Cap
Plain Candle



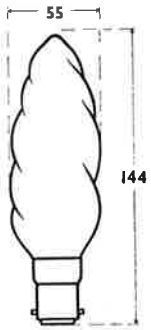
60w S.B.C. Cap
Plain Candle



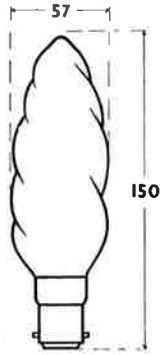
40w S.B.C. Cap.
Plain Candle



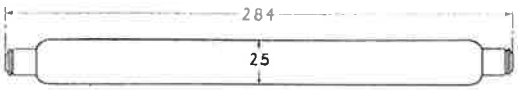
25w S.B.C. Cap.
Twisted Candle



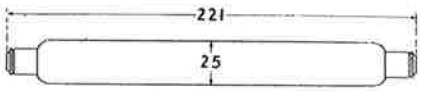
60w S.B.C. Cap.
Twisted Candle



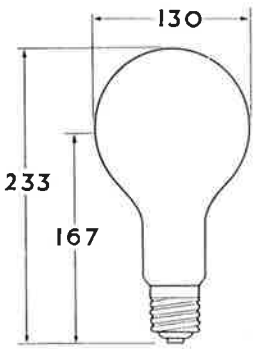
40w S.B.C. Cap.
Twisted Candle



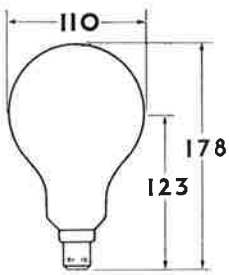
30 and 60w C.C. Cap. Double Capped Tubular



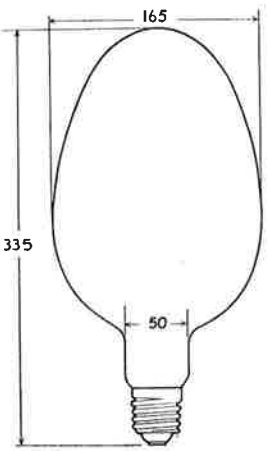
30w C.C. Double Capped Tubular



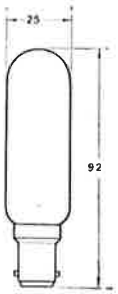
125w G.E.S. Cap.
Mercury Vapour with
Fluorescent Bulb
(MBF/V)



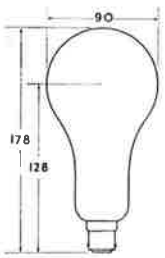
80w 3-pin B.C. Cap.
Mercury Vapour with
Fluorescent Bulb
(MBF/V)



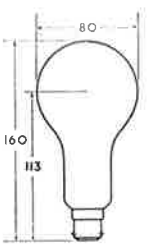
400w G.E.S. Cap.
Mercury Vapour
with Fluorescent
Iso-thermal Bulb
(MAF/V)



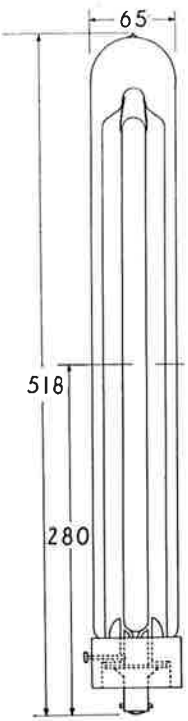
25w S.B.C.
Single Capped
Tubular



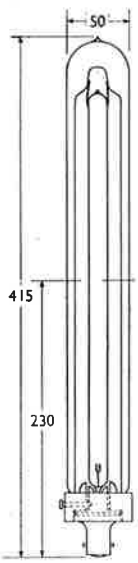
125w
3-pin B.C. Cap. Mercury
Vapour (MB/V) and Mer-
cury Vapour with Ultra-
Violet Filter Bulb



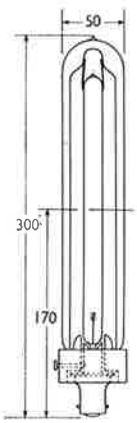
80w
3-pin B.C. Cap.
Mercury Vapour
(MB/V)



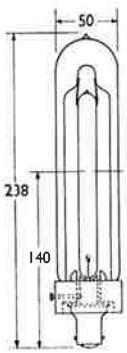
140w B.C.
Ceramic Cap.
Sodium Vapour
(SO/H)



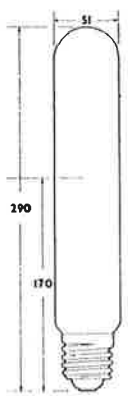
85w B.C.
Ceramic Cap
Sodium Vapour
(SO/H)



60w B.C.
Ceramic Cap
Sodium Vapour
(SO/H)



45w B.C.
Ceramic Cap
Sodium Vapour
(SO/H)



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

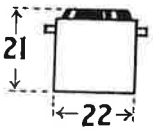
250w
G.E.S. Cap.
Mercury Vapour
(MA/V)

LAMP CAPS

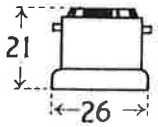
The illustrations are approximately half full size with normal dimensions in millimetres.

BAYONET CAPS
Double Contact (B.C.)

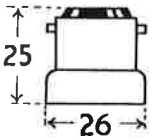
Plan of barrel of Caps



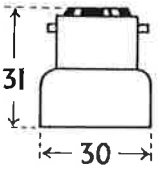
No. B 22/21



No. B 22/21 × 26

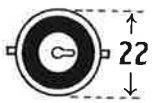


No. B 22/25 × 26

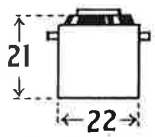


No. B 22/31 × 30

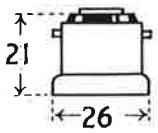
Centre Contact (C.C.)



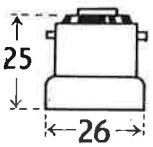
Plan of barrel of Caps



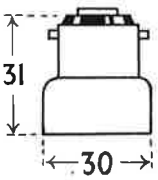
No. B 22s/21



No. B 22s/21 × 26



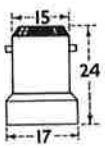
No. B 22s/25 × 26

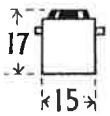


No. B 22s/31 × 30

SMALL BAYONET CAPS
Double Contact (S.B.C.)


No. B 15/24 × 17



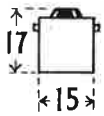


No. B 15d/17

Miniature Centre Contact (M.C.C.)

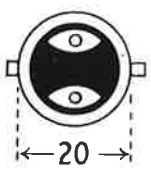
No. BA 9s/14

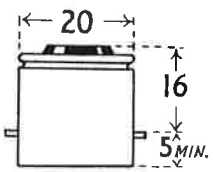
Centre Contact (S.C.C.)



No. B 15s/17

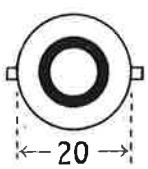
BOSCH CAPS
Double Contact

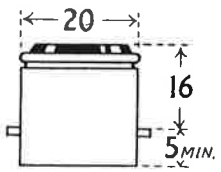




No. BA 20d

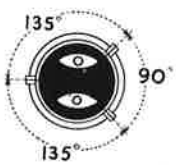
Centre Contact

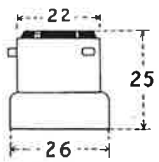




No. BA 20s

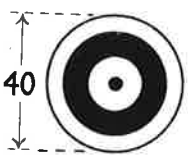
THREE PIN BAYONET CAP

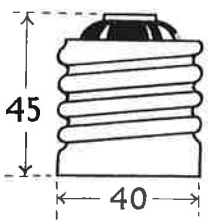




No. B 22/25 × 26 (3-pin)

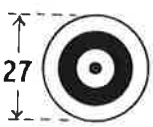
EDISON SCREW CAPS
Goliath (G.E.S.)

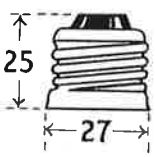




No. E 40/45

Standard (E.S.)





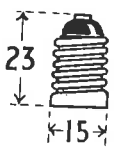
No. E 27/25

Miniature (M.E.S.)

No. E 10/13

MINERS' HANDLAMP CAPS

No. S 11s/23



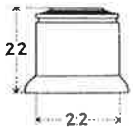
No. E 14/23 × 15

LAMP CAPS (contd.)

CAPS FOR DOUBLE-ENDED TUBULAR LAMPS

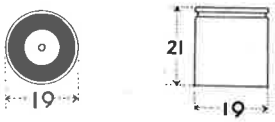
Centre Contacts

No. S 15s



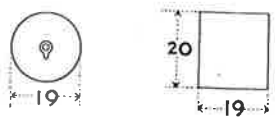
Clip Contacts

No. S 15



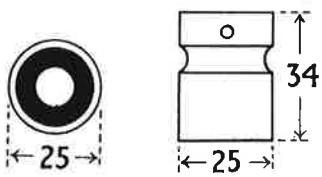
No. S 19s

No. S 22s

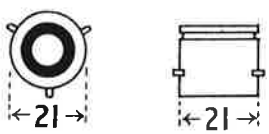


No. S 19

HOLLOW TUBULAR CAP

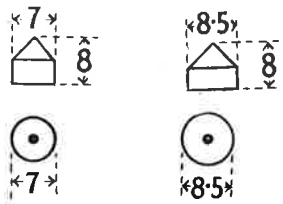


THREE PIN CENTRE CONTACT CAP (3-pin C.C.)



No. B 21s (3-pin)

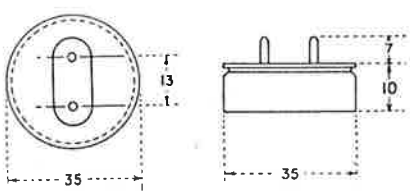
FESTOON LAMP CAPS



No. S 7/8

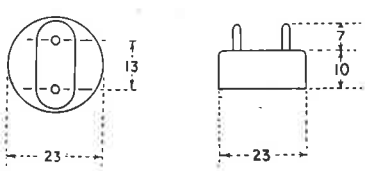
No. S 8·5/8

MEDIUM BI-PIN 35



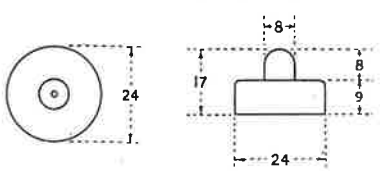
(G 2·4 × 13/35 × 10)

MEDIUM BI-PIN 23



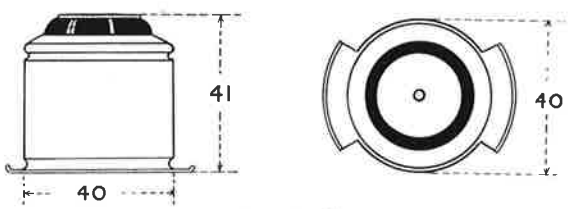
(G 2·4 × 13/23 × 10)

RAISED CONTACT

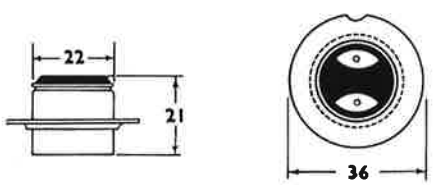


S 24s/17

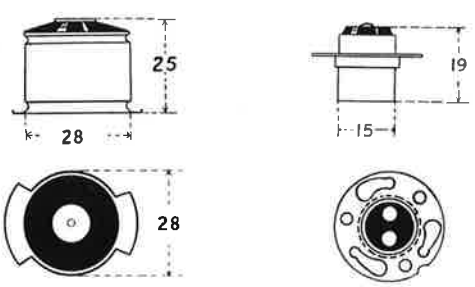
PRE-FOCUS CAPS



No. P 40/41



No. P 22d/21



No. P 28/25

No. P 15/19

LAMP EFFICIENCIES

G. L. S. CLEAR & PEARL

Listed on pages 10 & 11

Lamps 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	4690	5250	5170	5330	—
500	8410	9500	9340	9570	—
750	13500	15150	14800	15130	—
1000	18900	20900	20600	20830	—
1500	30100	32200	—	—	—

*Coiled Coil.

SILVERLIGHT

Listed on page 12

Lamp Watts	Approximate Initial Total Lumens Output 200/260 volts
COILED COIL	
40	390
60	660
100	1270
SINGLE COIL	
150	1980
200	2730

FLUORESCENT LAMPS

(MCF/U) *Listed on pages 14 & 15*

Lamp Watts	Nominal Length	Colour †	LUMENS Average for first 5000 hours	LUMENS Initial after 100 hours
80	5 ft.	D or W/W	3200	4000
		N	2700	3440
		CM or M	2200	2960
125	8 ft.	N	5000	6000
40	4 ft.	D or W/W	1800	2080
		N	1500	1800
		CM or M	1200	1600
40	2 ft.	W/W	—	1320
		N	—	1200
		M	—	1040
30	3 ft.	W/W	—	1380
		N	—	1260
		M	—	1080
20	2 ft.	W/W	—	760
		N	—	680
		M	—	600
15	1½ ft.	W/W	—	510
		N	—	465
		M	—	405

† D = Daylight, N = Natural, W/W = Warm-White, CM = Colour-matching, M = Mellow.

PHOTOGRAPHIC LAMPS

Listed on page 18

Lamp Watts	Voltage	Initial Light Output Lumens
PHOTO FLOOD		
275	100/110, 200/210	9350
500	100/110	17000
	220/230, 240/250	17500
1000	110	33000
PHOTO PEARL		
500	100/130, 200/260	11250
PHOTO ENLARGER (Inside Silica-coated)		
150	210, 230, 250	2100 approx.

MERCURY VAPOUR LAMPS

Lamp Watts	Voltage	Initial Light Output Lumens
TYPE MA/V *(Listed on page 38)*		
250	100/130	8500
	200/250	8750
400	100/130	16000
	200/250	16800
TYPE MA/U *(Listed on page 38)*		
400	200/250	15200
TYPE MAF/V *(Listed on page 39)*		
400	200/250	15200
TYPE MB/V *(Listed on page 38)*		
80, 125	200/250	3000, 5300

MERCURY VAPOUR LAMPS

Lamp Watts	Voltage	Initial Light Output Lumens
TYPE MBF/V *(Listed on page 39)*		
80, 125	200/250	3000, 5300

SODIUM VAPOUR LAMPS

Listed on page 40

Lamp Watts	Voltage	Initial Light Output Lumens
45	190/250	2700
60		4200
85		6460
140		10640

Mazda Lampholders

CATALOGUE No.	DESCRIPTION
C 69119	G.E.S. Unskirted (BTH Patent) (Tungsten Lamps)
C 69120	G.E.S. Skirted (BTH Patent) (Tungsten Lamps)
C 76551	B.C. Rubber Sleeve (Fluorescent Lamps)
C 77969	Medium Bi-pin Rubber Sleeve (Fluorescent Lamps)
C 78679	Medium Bi-pin Compact (Fluorescent Lamps)
C 83024	B.C. Rubber Sleeve for Sodium Lamps
C 83145	Medium Bi-pin (White) (Fluorescent Lamps)
F 2010	B.C. with Anti-Flicker Shield (Tungsten Lamps)
M 252	For ME/D lamps
T 385	Bi-post (Studio Spotlights)

Prices on application

C 76551

F 2010

M 252

T 385

C 69119

C 69120

C 83024

C 78679

C 77969

C 83145


MAC
CHOKE 501

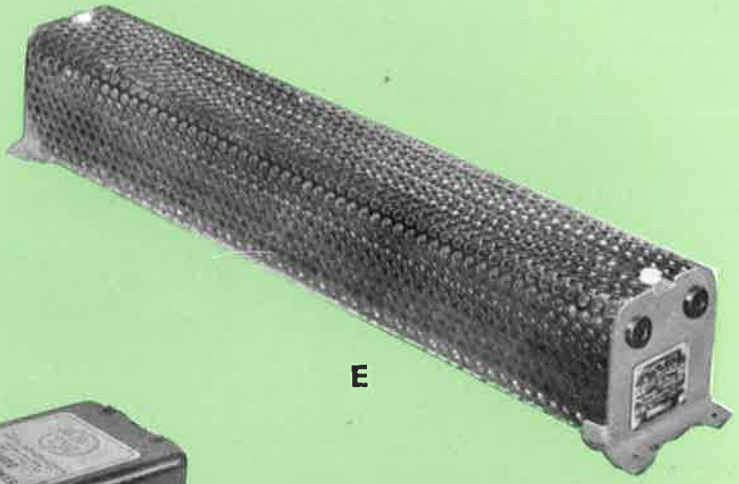
A


MCG
TRANSFORMER
101

B


CAT. NO. 77077
20 μF
260 V. A.C.
WORKING

C



E


CHOKE
MK1 165

D

F

G

H


P.J. 12 CAPACITOR

I

J

MAZDA LAMP AUXILIARY GEAR

Prices and full details on application.

For illustrations see opposite page

Mazda Fluorescent, Mercury Vapour, and Sodium Vapour Lamps are made to operate only with lamp auxiliary gear manufactured or approved by The British Thomson-Houston Company, Ltd.

(A) CHOKES

for use with mercury vapour lamps (pages 38, 39 & 41)*

Catalogue No.	A.C. 50 Cycles Supply Voltages	Lamp Watts
MRG 501	190/230	400 MA
MRG 502	215/255	400 MA
MRG 503	190/230	250 MA
MRG 504	215/255	250 MA
MRG 505	190/230	125 MB
MRG 506	215/255	125 MB
MRG 507	190/230	80 MB
MRG 508	215/255	80 MB
MRG 509	100/120	400 MA
MRG 510	100/120	250 MA

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

(B) TRANSFORMERS

for use with sodium vapour lamps (page 40)

Catalogue No.	A.C. 50 Cycles Supply Voltages	Lamp Watts
MCG 101	190/220	140
MCG 102	220/250	140
MCG 103	190/220	45/60/85
MCG 104	220/250	45/60/85

(C) CUBIC CAPACITORS

for use with electric discharge lamps (pages 38—41).

Catalogue No.	Capacity	Catalogue No.	Capacity
	mfd.		mfd.
C 82595	8	**C 82604**	60
C 82596	10	**C 82605**	70
C 82597	13	**C 82606**	80
C 82598	15	**C 82607**	90
C 82599	20	**C 82608**	100
C 82600	25	**C 82609**	120
C 82601	30	**C 82610**	140
C 82602	40	**C 82611**	160
C 82603	50		

(D) CHOKES

for use with fluorescent lamps (pages 12 and 13)

Catalogue No.	Dimensions				Weight
	Length in.	Width in.	Height in.	Fixing Centres in.	lb.
MRJ 101	$6\frac{1}{8}$	$3\frac{1}{8}$	$2\frac{1}{4}$	$5\frac{5}{8}$	$6\frac{1}{2}$
MRJ 102	$6\frac{1}{8}$	$3\frac{1}{8}$	$2\frac{1}{4}$	$5\frac{5}{8}$	$6\frac{1}{2}$
MRJ 103	$6\frac{1}{8}$	$3\frac{1}{8}$	$2\frac{1}{4}$	$5\frac{5}{8}$	$6\frac{1}{2}$
MRJ 104	$6\frac{1}{8}$	$3\frac{1}{8}$	$2\frac{1}{4}$	$5\frac{5}{8}$	$6\frac{1}{2}$
MRJ 105	$6\frac{1}{8}$	$3\frac{1}{8}$	$2\frac{1}{4}$	$5\frac{5}{8}$	$6\frac{1}{2}$
MRJ 106	$6\frac{1}{8}$	$3\frac{1}{8}$	$2\frac{1}{4}$	$5\frac{5}{8}$	$6\frac{1}{2}$
MRJ 201	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 202	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 203	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 204	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 205	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 215	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 216	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 217	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 218	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 219	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 220	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 221	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4
MRJ 222	$5\frac{3}{4}$	$2\frac{1}{2}$	2	$5\frac{1}{8}$	4

(E) RESISTORS

for use with fluorescent lamps (pages 12 and 13) on D.C. supplies †

Lamp Watts	Choke	Starter	Resistor Type AF					
			200v.	210v.	220v.	230v.	240v.	250v.
80 (5 ft.)	MRJ 101	ST 15	**2051**	**2052**	**2053**	**2054**	**2055**	**2055**
40 (4 ft.)	MRJ 201	ST 24	**2057**	**2058**	**2059**	**2060**	**2061**	**2061**
30 (3 ft.)	MRJ 201	ST 25	**2059**	**2060**	**2061**	**2062**	**2063**	**2063**
40 (2 ft.) 2 in series	MRJ 101	ST 15	**2052**	**2053**	**2054**	**2054**	**2055**	**2055**
20 (2 ft.) 2 in series	MRJ 201	ST 25	**2056**	**2057**	**2058**	**2059**	**2060**	**2061**
15 ($1\frac{1}{2}$ ft.) 2 in series	MRJ 201	ST 25	**2058**	**2059**	**2060**	**2061**	**2062**	**2062**

† A reversing switch Cat. No. E 1951 can also be supplied for use with Fluorescent Lamps on D.C. supplies.

(F) TRANSFORMERS

for use with fluorescent lamps (pages 12 and 13) on low voltage supplies

Catalogue No.	A.C. 50 Cycles Input Voltage	Lamp Watts
MC 188	110/115	80
MC 189	110/115	40 (4 ft.) 30

(G) INSTANT START BALLAST

for use with Instant Start fluorescent lamps (pages 12 and 13)

Cat. No.	Lamp Watts	A.C. 50 cycles Supply Voltage	Overall Length in.	Overall Width in.	Overall Height in.	Fixing Centres in.	Approx. Weight lb.
MK 108	80	200/210	$10\frac{1}{4}$	$3\frac{1}{16}$	$2\frac{1}{4}$	$9\frac{5}{8}$	10
MK 109	80	220/230	$8\frac{13}{16}$	$3\frac{1}{16}$	$2\frac{1}{4}$	$8\frac{1}{16}$	$8\frac{1}{2}$
MK 110	80	230/240	$8\frac{13}{16}$	$3\frac{1}{16}$	$2\frac{1}{4}$	$8\frac{1}{16}$	$8\frac{1}{2}$
MK 116	80	240/250	$8\frac{13}{16}$	$3\frac{1}{16}$	$2\frac{1}{4}$	$8\frac{1}{16}$	$8\frac{1}{2}$
MK 112	40	200/210	$8\frac{9}{16}$	$2\frac{1}{2}$	2	$7\frac{15}{16}$	7
MK 113	40	220/230	$8\frac{9}{16}$	$2\frac{1}{2}$	2	$7\frac{15}{16}$	7
MK 114	40	230/240	$8\frac{9}{16}$	$2\frac{1}{2}$	2	$7\frac{15}{16}$	7
MK 115	40	240/250	$8\frac{9}{16}$	$2\frac{1}{2}$	2	$7\frac{15}{16}$	7

(H) STARTER SOCKET

for use with fluorescent lamps (pages 12 and 13)

Catalogue No. C 77592

(I) CAPACITORS

for use with fluorescent lamps (pages 12 and 13)

Catalogue No.	Capacitance	Max. Working Voltage	Lamp Watts	
			Single	Double
PJ 11	7·5 mfd.	260	80	40 (4 ft.) 40 (2 ft.) 30
PJ 12	3·25 mfd.	260	40 (4 ft.) 30	20 15
PJ 13	4·5 mfd.	260	20 15	—
PJ 51	7·0 mfd.	400	—	80

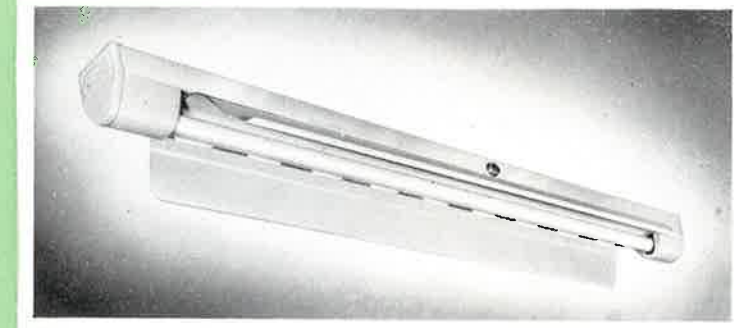
(J) STARTERS

for use with fluorescent lamps (pages 12 and 13)

Lamp Wattage	A.C. Supply		D.C. Supply	
	100/130v.	200/250v.	100/130v.	200/250v.
80w 40w 24″ 2 in Series	Cat. No. **ST 14**	Cat. No. **ST 14**	Cat. No. **ST 15**	Cat. No. **ST 15**
40w 48″	**ST 24**	**ST 24**	**ST 24**	**ST 24**
30w 36″ 20w 24″ single or 2 in series 15w single or 2 in series	**ST 25**	**ST 25**	**ST 25**	**ST 25**

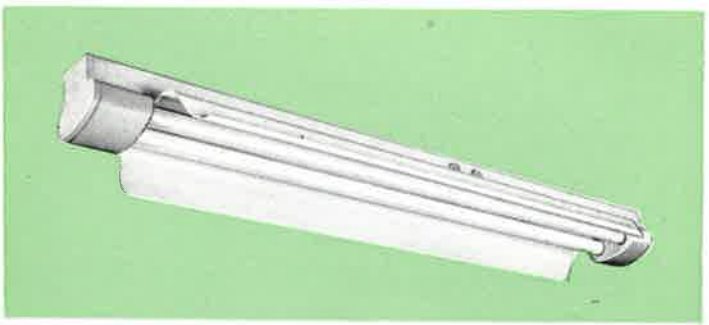
Mazda Fluorescent Fittings

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.

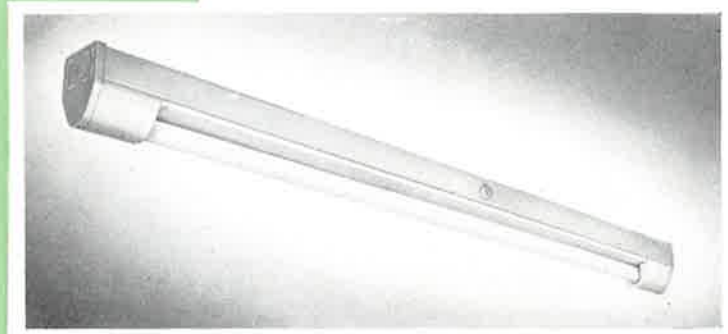


F 1150/1/8060

Mazda
lamps
stay brighter longer



F 1150/2/8060

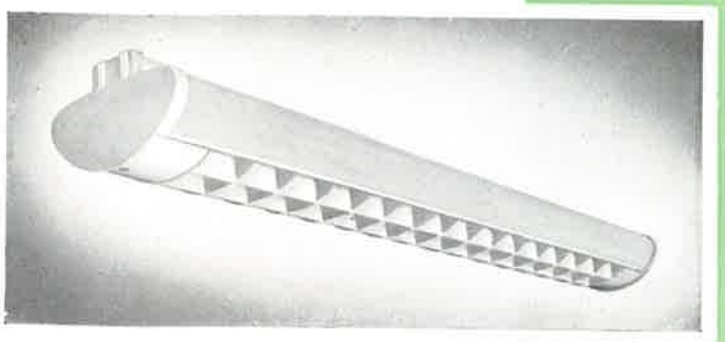


F 1050/1/8060

F 1050/2/8060

Mazda Fluorescent Fittings

The BTH Company are also leaders in the design of special decorative and functional fittings to cater for individual tastes or particular requirements not fully covered by the standard range, and BTH Engineers, with their wide experience, will always be pleased to give expert advice on any lighting problem.



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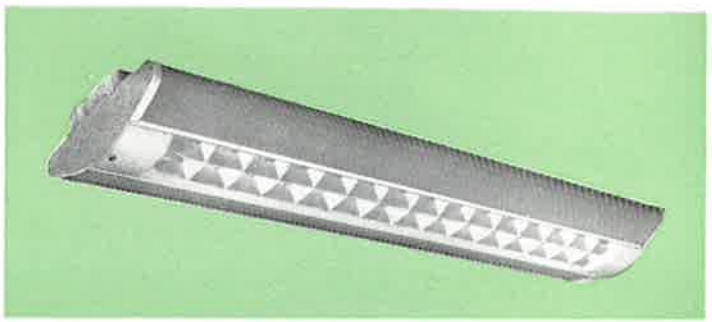

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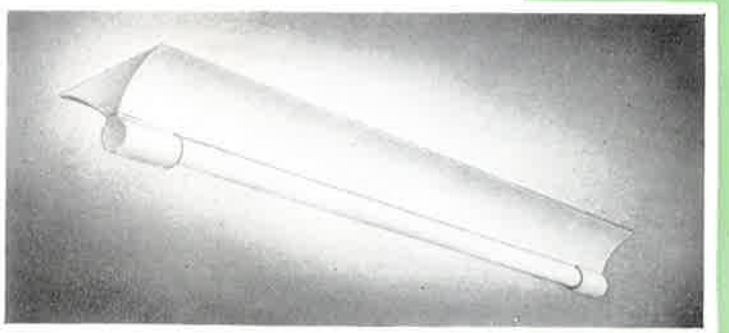

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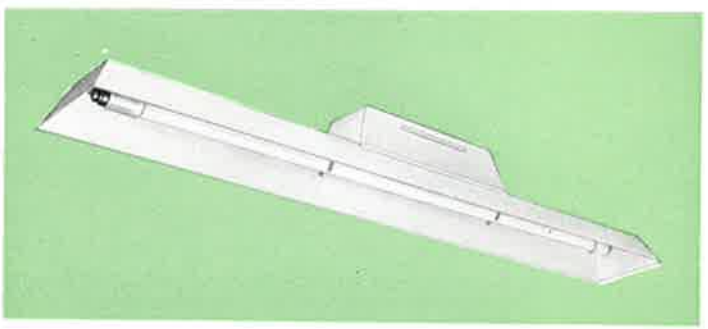


F 207

Mazda
lamps
stay brighter longer

Mazda Reflectors & Fittings

FOR USE WITH TUNGSTEN OR MERCURY VAPOUR LAMPS

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	Dispersive Reflector
B	Concentrating Reflector
C	45° Angle Reflector
D	Elliptical Angle Reflector
E	Vertical Elliptical Reflector
F	Glassteel Diffuser
G	Deep Cut-off Fitting
H	Deep Cut-off Reflector
I	Dispersive Heavy Dustproof
J	Bulkhead Fitting

A

B

C

D

E

F

G

H

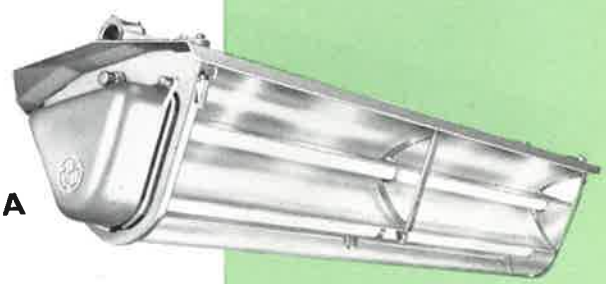
I

J

Mazda Streetlighting Lanterns & Floodlights

KEY	DESCRIPTION
A	Fluorescent Lantern
B	Sodium Enclosed Lantern
C	Sodium Open Lantern
D	Side Entry Mercury Lantern
E	Parish Lantern
F	Horizontal Mercury Lantern
G	"Ten" Area Floodlight
H	Rural Open Lantern
I	"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.



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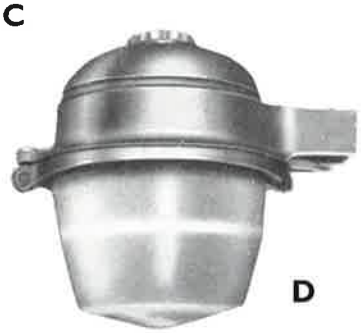
C

B



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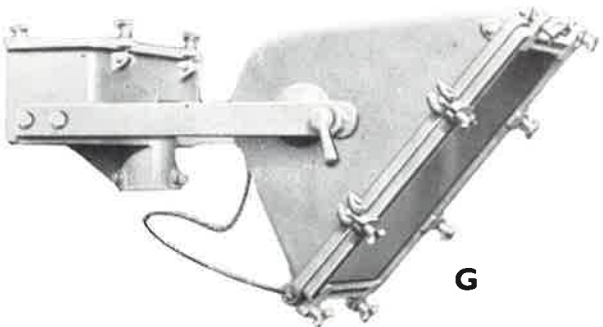

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THE BRITISH THOMSON-HOUSTON COMPANY, LTD.

Electrical Engineers and Manufacturers

LONDON – – – – – – **Crown House, Aldwych, 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

BIRMINGHAM .. Geoffrey Buildings, John Bright Street. Midland 6335

BLACKBURN .. "Old Bank," Old Bank Street, King Street. Blackburn 7093

BLACKPOOL .. 8-9 Cowley Road, Marton. South Shore 41422

BOURNEMOUTH 511 Roumelia Lane, Boscombe. Boscombe 34194

BRISTOL, 1 .. 119 Victoria Street. Bristol 20111

CAMBRIDGE .. Fellowship House, 133 Fitzroy Street. Cambridge 54370

CARDIFF .. .. Jotham's Buildings, 26–27 St. Mary Street. Cardiff 32291/3

CHELTENHAM .. 17 Grosvenor Street. Cheltenham 2776

CHESTER .. .. 5 Boughton. Chester 20813

COLCHESTER .. Culver Street. Colchester 2843

CROYDON .. 54 Selsdon Rd., Sth. Croydon. Croydon 5633

DUBLIN .. .. Mazda House, 25 Suffolk Street. Dublin 77379/70

DUNDEE .. .. 17 Baltic Street. Dundee 5600

EDINBURGH, 2 .. 130 George Street. Central 6922

EXETER .. .. Post Office Chambers, 83/84 Queen St. Exeter 55749

GLASGOW, C.2 .. 53 Pitt Street. Central 4331

GUILDFORD .. Bedford House, Bedford Rd. Guildford 2788

HASTINGS .. 17 Dorset Place. Hastings 2734

HUDDERSFIELD 7 Brook Street. Huddersfield 3291

HULL .. .. 2 Prince's Dock Chambers, Prince's Dock Street. Central 36241

ILFORD .. .. 23 & 25 Green Lane. Ilford 2561

LEEDS, 1 .. .. 46 Wellington Street. Leeds 31541

LEICESTER .. 5 Campbell Street. Granby 291/2

LIVERPOOL, 1 .. 27-29 Stanley Street. Central 5721

LONDON .. .. Crown House, Aldwych, W.C.2. Temple Bar 1343 or 44 Fitzroy Road, N.W.1 Primrose 7750-62

MANCHESTER, 3 15 Quay Street, Deansgate. Blackfriars 2691

MIDDLESBROUGH Post Office Buildings, Marton Road. Middlesbrough 2476

NEWCASTLE-ON-TYNE, 1 9 Higham Place. Newcastle 25040

NORTHAMPTON College Street. Northampton 2981

NORWICH .. St. Michael's Chambers, St. Andrew St. Norwich 22541

NOTTINGHAM .. 71-73 Lower Parliament Street. Nottingham 43588/9

OXFORD .. .. 90 St. Aldates. Oxford 4170

PLYMOUTH .. Chapel Street, Regent Street. Plymouth 61915

PORTSMOUTH .. 54 St. Vincent Street. Southsea. Portsmouth 4383

READING .. .. 74 Oxford Road. Reading 2700

SHEFFIELD, 1 .. Mazda Buildings, Campo Lane. Sheffield 23086

SOUTHAMPTON .. 33 Carlton Crescent. Southampton 3369

STOKE-ON-TRENT King's Chambers, Kingsway. Stoke-on-Trent 48768

SWANSEA .. .. 12/13 The Kingsway. Swansea 2151

B T-H

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.
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STANDARD PACKING QUANTITIES

Lamps are supplied packed in the quantities stated below.

Type of Lamp	Page	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 and Pearl	10, 11	50	50	50	50	50	50	50	25		12	9	6	6	4
G.L.S. Coiled-coil, Clear and Pearl	10, 11			50	50	50									
Silverlight	12			50	50		50	50	25						
Reflector Type Lamps (Spotlight and Floodlight)	13							6							
(Infra-red)	31									6					
Tubular Lamps	17	25	25												
Longlite	17			25	25										
Plain and Twisted Candle	17		72	72	72										
No. 5 S.M.	19	packed in quantities of 72													
No. 22	19	packed in quantities of 50													
All fluorescent lamps up to and including 80 watt	14	packed in quantities of 25													

DELIVERY CONDITIONS FOR LAMPS

Within Free Delivery Areas

Any number of Lamps in ALL Groups may be packed and Delivered FREE within :—

(a) Twenty miles radius of G.P.O., London.

(b) Ten miles radius of G.P.O. at :—

Aberdeen	Chesterfield	Hull	Preston
Accrington	Colchester	Inverness	Reading
Ashford	Colwyn Bay	Ipswich	Rhyl
Aylesbury	Cork	Kendal	Rotherham
Barrow	Coventry	Lancaster	Rugby
Bath	Croydon	Leeds	Salisbury
Bedford	Darlington	Leicester	Sheffield
Belfast	Derby	Lincoln	Slough
Birkenhead	Doncaster	Liverpool	Southampton
Birmingham	Dorchester	Llandudno	Southend-on-Sea
Blackburn	Dublin	Luton	Southport
Blackpool	Dundee	Maidstone	South Shields
Bournemouth	Eastbourne	Manchester	Stockton-on-Tees
Bradford	Edinburgh	Middlesbrough	Stoke
Brighton (incl. Lewes)	Exeter	Newcastle-on-Tyne	Sunderland
Bristol	Glasgow	Newport (Mon.)	Swansea
Burnley	Gloucester	Newton Abbot	Taunton
Burslem	Grimsby	Northampton	Tonbridge
Cambridge	Guildford	Norwich	Trowbridge
Canterbury	Guiseley	Nottingham	Tunbridge Wells
Cardiff	Halifax	Oxford	Wakefield
Carlisle	Hanley	Peterborough	Walsall
Carmarthen	Harrogate	Plymouth	Watford
Cheltenham	Hastings	Pontypridd	Wolverhampton
Chester	Huddersfield	Portsmouth	Worthing

Sound Delivery guaranteed under conditions given below.

Outside Free Delivery Areas

(Route to be at Supplier's discretion)

(a) *For not less than* £1 list value (excluding Purchase Tax) to one address. Packed and delivered free within any railway free delivery radius. *Sound delivery guaranteed* under conditions given below.

(b) *For less than* £1 list value (excluding Purchase Tax) to one address. *Packed free*, but *Carriage* chargeable at not less than cost. *Sound delivery NOT guaranteed*, lamps being forwarded at buyers' risk.

Sound Delivery Conditions

Where sound delivery is guaranteed we credit or replace lamps broken in transit between our store and customers' premises, provided we are duly advised and the lamps returned, carriage paid, within 7 days of date of despatch, our despatch note number to be quoted. We will not accept responsibility for safe custody of such returned lamps.

Re-Delivery, Breakage

No transportation or breakage allowance will be given by us except on deliveries made by us direct.

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L.902