

COSMOS LAMPS



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COSMOS LAMPS

THE name "COSMOS" is derived from the Greek word "KOSMOS," meaning the ordered system of ideas—the sum total of experience. This symbolizes the quality of the COSMOS Lamp and the service given by its manufacturers.

METROPOLITAN
Vickers
ELECTRICAL CO., LTD.

Special Publication No. 7102/8, Form 3138, Cancelling all publications issued prior to September, 1935.

As efforts are made constantly to improve both designs and methods of manufacture, material supplied may differ in details from the illustrations.

GENERAL PURPOSE LAMPS.

PROJECTOR AND TUBULAR LAMPS

CANDLE, CARBON, NEON, SIGN AND TRACTION LAMPS

ALTAR, "THRIFTLITE" AND DECORATION LAMPS

AUTOMOBILE AND MINERS' LAMPS

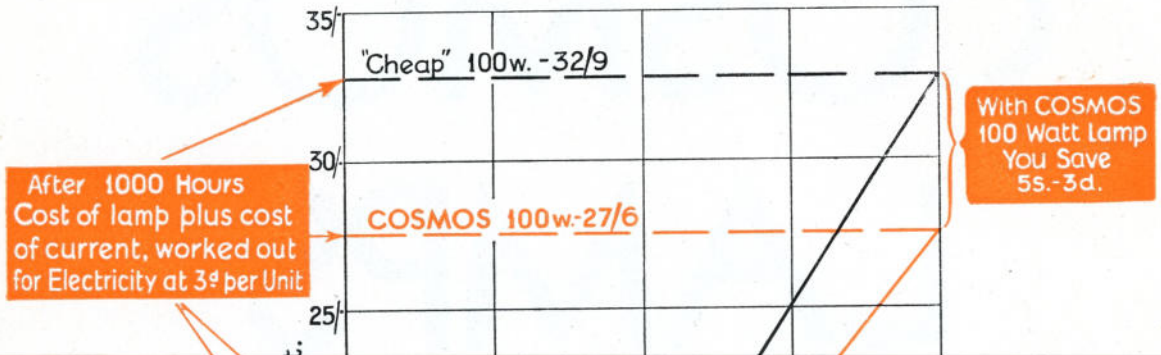
ELECTRIC DISCHARGE LAMPS AND EQUIPMENT

GENERAL INFORMATION

COSMOS

ECONOMY CHART

(49633)



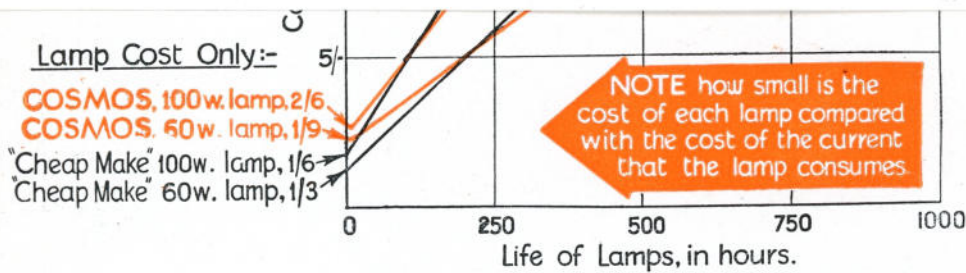
Addendum

Sept. 1st, 1935

SPECIAL DECORATION LAMPS.

These coloured lamps are specially introduced at a low price for seasonal or occasional use, such as Fairs, Festivals, temporary decoration schemes, etc. They do not replace standard "Sign Type" lamps, which are for use on permanent installations and which will give better service under conditions where the labour cost of lamp maintenance is an important factor.

Volts	Watts	Cap	Approximate Dimensions				Price— White or colour sprayed
			Diameter		Length		
			mm.	ins.	mm.	ins.	s. d.
200, 210, 220, 230, 240, 250, 260	15	B.C. or E.S.	44	1 $\frac{3}{8}$	90	3 $\frac{2}{16}$	1 3
14	7	S.B.C. or S.E.S.	38	1 $\frac{1}{2}$	58	2 $\frac{1}{4}$	1 0
			38	1 $\frac{1}{2}$	64	2 $\frac{1}{2}$	



Even if cheap lamps were given away it would not pay to use them as many makes consume a quarter more current for the same amount of light than do COSMOS Lamps.

The above diagram shows the effect that this has on the increased cost of current, which easily outweighs any initial saving on the cost of the lamps.

"There is hardly anything in the world that some man cannot make a little worse, and sell a little cheaper, and the people who consider price only are this man's lawful prey."—Ruskin.

BRITISH

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MADE

COSMOS LAMPS

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CLASSIFICATION IN GROUPS

- Group I. Lamps for working from Supply Mains or Private Plant.
- Group II. Automobile and Battery Lamps.
- Group V. Miners’ Lamps.
- Group VI. Christmas Tree and Decoration Lamps.
- Group IX. Electric Discharge Lamps.

BRITISH

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MADE

GENERAL
PURPOSE
LAMPS.

PROJECTOR
AND TUBULAR
LAMPS

CANDLE, CARBON,
NEON, SIGN AND
TRACTION LAMPS

ALTAR, “THRIFTLITE”
AND DECORATION
LAMPS

AUTOMOBILE
AND MINERS’
LAMPS

ELECTRIC DISCHARGE
LAMPS AND
EQUIPMENT

GENERAL
INFORMATION



COSMOS

GROUP I

GENERAL

The General Service Lamps Listed in this catalogue the 40, 60, 75 and 100 watt Coiled-coil Lamps are covered

PEARL, CLEAR, OPAL, DAYLIGHT, VACUUM AND

(26391A)
230 Volt, 60 Watt Cosmos
Gasfilled Pearl Lamp.

Volts	TYPR	PRICE EACH		
		15 Watts	25 Watts	40 Watts
100, 105, 110, 115, 120, 125, 130 200, 210, 220, 230, 240, 250, 260	PEARL (Vacuum)	s. d. 2 0	s. d. 1 9*	s. d. —
	PEARL (Gasfilled)	—	1 9†	1 9‡
	CLEAR (Vacuum)	2 0	1 11	1 11
	CLEAR (Gasfilled)	—	1 11†	1 11‡
	OPAL (Gasfilled)	—	2 0†	2 0‡
	WHITE and COLOUR SPRAYED (Vacuum)§	—	2 0*	2 1
	WHITE and COLOUR SPRAYED (Gasfilled)§	—	2 0†	2 0
DAYLIGHT (Gasfilled)	—	—	2 5	
25, 30	PEARL (Gasfilled)	2 1	2 6	2 6
	CLEAR (Gasfilled)	—	2 6	2 9
	OPAL (Gasfilled)	2 4	2 10	2 10
35, 40, 45, 50, 55	PEARL (Gasfilled)	2 6	2 6	2 6
	CLEAR (Gasfilled)	—	2 9	2 9
	OPAL (Gasfilled)	2 10	2 10	2 10
60, 65, 70, 75, 80, 85.	PEARL (Vacuum)	2 10	—	—
	PEARL (Gasfilled)	—	2 6	2 6
	CLEAR (Gasfilled)	—	2 9	2 9
	CLEAR (Vacuum)	2 6	—	—
	OPAL (Gasfilled)	—	2 10	2 10
150	PEARL (Vacuum)	2 6	2 2	—
	PEARL (Gasfilled)	—	—	2 2
	CLEAR (Vacuum)	2 6	2 4	2 4
	CLEAR (Gasfilled)	—	—	2 4
	OPAL (Gasfilled)	—	—	2 7

Standard Package Quantities shown on page 22.

*For 200/260 volts only.

Extras : For special caps and other extras, see page 31. †For 100/130 volts only.

‡ In the 200/260 voltage range, these lamps have the improved Coiled-coil Filament. (see page 24).

BRITISH



MADE

LAMPS

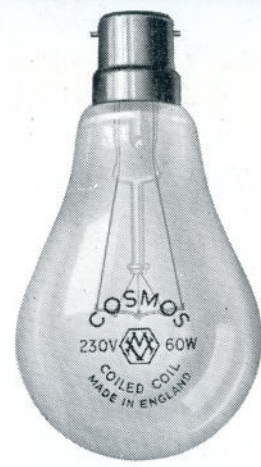
GROUP I

S E R V I C E

comply with the Latest British Standard Specifications No. 161-1934;
by the addendum to that Specification, dated June, 1935.

WHITE and COLOUR SPRAYED

GASFILLED



(30847 A)
230 Volt, 60 Watt Cosmos
Gasfilled Clear Lamp.

GENERAL
PURPOSE
LAMPS.

PROJECTOR
AND TUBULAR
LAMPS

CANDLE, CARBON,
NEON, SIGN AND
TRACTION LAMPS

ALTAR, "THRIFTLITE"
AND DECORATION
LAMPS

AUTOMOBILE
AND MINERS'
LAMPS

ELECTRIC DISCHARGE
LAMPS AND
EQUIPMENT

GENERAL
INFORMATION

PRICE EACH

60 Watts	75 Watts	100 Watts	150 Watts	200 Watts	300 Watts	500 Watts	750 Watts	1000 Watts	1500 Watts
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
—	—	—	—	—	—	—	—	—	—
1 9†	2 6†	2 6†	4 3	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
1 11†	3 0†	3 0†	4 3	7 6	10 0	12 6	16 0	16 0	22 6
2 0†	3 1†	3 2†	4 10	8 6	11 3	14 0	—	—	—
—	—	—	—	—	—	—	—	—	—
2 0	3 3	3 2	4 10	8 4	—	—	17 9	—	—
2 5	—	4 0	5 9	—	12 9	—	—	—	—
3 0	—	—	—	—	—	—	—	—	—
3 3	—	—	—	—	—	—	—	—	—
3 6	—	—	—	—	—	—	—	—	—
3 0	—	5 3	—	—	—	—	—	—	—
3 3	—	5 6	7 9	9 6	12 3	15 6	19 3	—	—
3 6	—	6 0	8 9	10 8	13 9	17 6	—	—	—
—	—	—	—	—	—	—	—	—	—
3 0	—	5 3	—	—	—	—	—	—	—
3 3	—	5 6	9 0	12 3	15 6	19 6	24 0	—	—
—	—	—	—	—	—	—	—	—	—
3 6	—	6 0	10 0	13 9	17 6	22 0	—	—	—
—	—	—	—	—	—	—	—	—	—
2 2	—	3 6	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
2 4	—	4 0	6 3	8 9	11 6	14 0	19 0	19 0	26 3
2 7	—	4 6	7 0	9 10	12 11	15 9	—	—	—

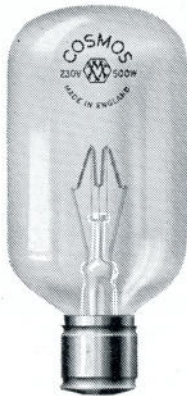
§ Standard Colours: Red, Pink, Flame, Orange or Amber, Yellow, Green, Blue and Ivory.
Standard Caps : 15 to 150 watt, B.C. ; 200 watt, E.S. ; 300 watt and over, G.E.S.
Outlines and Dimensions shown on pages 19 and 20.

COSMOS LAMPS

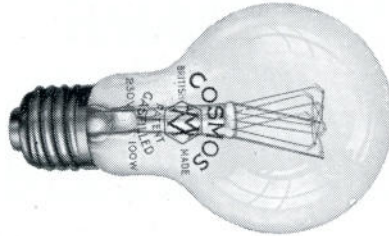
GROUP I

PROJECTOR GAS FILLED

For Home Cinema Projectors, Optical Lanterns, etc.



(49771)
230 Volt, 500 Watt
Cosmos Gasfilled Tubular
Projector Lamp



(30831 A)
230 Volt, 100 Watt
Cosmos End-on Type
Projector Lamp



(16082 Ch1 A)
11C Volt, 500 Watt
Cosmos Floodlighting
Lamp

CLASS A 1

VERTICAL TUBULAR TYPE

Watts	Caps	Dimensions			Voltage Range and Price				
		Dia. mm.	Over- all Length mm.	Light Centre Length mm.*	30	50	60	100, 110, 115	200, 210, 220, 230, 240, 250, 260
100	E.S.	25	144	77	s. d.	s. d.	s. d.	s. d.	s. d.
100	E.S.	32	140	75	—	—	12 6	—	—
150	E.S.	32	140	75	12 0	—	—	10 9	10 9
200	E.S.	32	140	60	—	—	17 6	—	—
250	E.S.	32	140	55	—	21 0	—	—	—
250	E.S.	32	132	75	—	—	—	21 0	21 0
250	E.S.	64	140	75	—	22 6	—	—	—
250	E.S.	64	140	75	22 6	—	—	20 0	21 0
400§	E.S.	32	140	75	—	—	—	40 0	—
500§	E.S.	32	145	56	—	—	—	42 6	—
500	E.S.	64	140	75	—	26 0	—	25 0	25 0
600	G.E.S.	64	230	120	38 0	—	—	—	—
750	G.E.S.	64	230	120	43 0†	—	—	—	—
900	G.E.S.	64	230	120	35 0	—	—	—	—
1000	G.E.S.	64	230	120	—	—	—	32 0	32 0

†Supplied for 15-volts only. § With biplane filament and pre-focus cap.

CLASS A 2

VERTICAL ROUND TYPE

100	E.S.	70	115	80	—	—	—	10 9	10 9
250	E.S.	90	160	115	—	—	—	20 0	21 0
500	G.E.S.	120	250	190	—	—	—	28 6	30 0
1000	G.E.S.	150	300	225	—	—	—	39 0	40 0
1500	G.E.S.	170	335	250	—	—	—	52 6	55 0
2000	G.E.S.	200	350	250	—	—	—	76 0	86 0
3000	G.E.S.	200	350	250	—	—	—	105 0	115 0
3000	G.E.S.	240	395	275	—	—	—	105 0	115 0

CLASS A 3

"END-ON" ROUND TYPE

100	E.S.	70	115	95	10 9	—	—	10 9	10 9
250	E.S.	90	160	120	—	20 0	—	20 0	21 0
500	G.E.S.	120	250	205	—	—	—	28 6	30 0
1000	G.E.S.	150	300	240	—	—	—	39 0	42 0
1500	G.E.S.	170	335	270	—	—	—	52 6	57 6

*This dimension is from sole plate of cap to centre of filament.

BRITISH

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MADE

COSMOS LAMPS

GROUP I

PROJECTOR—(cont.)

GASFILLED

FLOODLIGHTING LAMPS WITH CONCENTRATED FILAMENT

Principally for use in illuminating exteriors of buildings, etc. Spherical bulbs.

Burning Position: At any angle, except within 45 degrees of the vertical with cap above.

CLASS B

Watts	Caps	Diam. mm.	Overall Length mm.	Light Centre Length* mm.	Voltage Range and Price			
					100, 105, 110, 115, 120, 125, 130		200, 210, 220, 230, 240, 250, 260	
100	E.S.	80	130	75	s. d.	s. d.	s. d.	s. d.
250	E.S.	95	135	75	9 0	9 0	19 0	19 0
500	G.E.S.	130	190	115	19 0	19 0	25 0	25 0
1000	G.E.S.	130	190	115	25 0	25 0	32 0	32 0

TUBULAR FLOODLIGHTING LAMPS

Watts	Cap	Diam. mm.	Overall Length mm.	Voltage Range and Price			
				100, 105, 110, 115, 120, 125, 130		200, 210, 220, 230, 240, 250, 260	
1000	G.E.S.	90	390	s. d.	s. d.	s. d.	s. d.
				45 0	45 0	45 0	45 0

CLASS E

EPIDIASCOPE LAMPS

Watts	Cap	Diam. ±2mm. mm.	Overall Length ±10mm. mm.	Light Centre Length ±5mm. mm.	Voltage Range and Price			
					100, 110, 115,		200, 210, 220, 230, 240, 250, 260	
250	E.S.	100	150	85 & 100	s. d.	s. d.	s. d.	s. d.
500	E.S. and G.E.S.	100	150	85 & 100	25 0	27 6	37 6	37 6
					35 0	37 6	37 6	37 6

CLASS F

LOW VOLTAGE PROJECTOR LAMPS

Volts	Watts	Cap	Shape of Bulb	Diam. + 2mm. mm.	Overall Length + 10mm. mm.	Light Centre Length* + 5mm. mm.	Price	
							s.	d.
4	8	S.E.S.	Spherical	35	62	52	3	9
6	24	E.S.	Spherical	35	60	50	4	3
12	24	S.B.C.	Spherical	35	55	45	3	9
12	48	E.S.	Spherical	50	80	40	3	9
12	100	E.S.	Tubular	38	140	75	10	9
12	300	E.S.	Tubular	64	134	75	32	6

CLASS G

EXCITER LAMPS

Volts	Watts	Cap	Diam. + 1mm. mm.	Overall Length + 2mm. mm.	Light Centre Length* + 1½mm. mm.	Price	
						s.	d.
6	4.8	S.E.S.	18	75	31	11	6
6	8.7	S.E.S.	28	75	31	11	6
8	32	A.S.C.C.	26	76	50	5	6
8½	34	A.S.C.C.	26	76	56	6	0
10	50	A.S.C.C.	26	76	48.5	7	6
10	75	A.S.C.C.	26	76	50	7	6

*This dimension is from sole plate of cap to centre of filament, except for S.B.C., which is measured from bulb side of pins.

BRITISH

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MADE

PROJECTOR
AND TUBULAR
LAMPS

CANDLE, CARBON,
NEON, SIGN AND
TRACTION LAMPS

ALTAR, "THRIFTLITE"
AND DECORATION
LAMPS

AUTOMOBILE
AND MINERS'
LAMPS

ELECTRIC DISCHARGE
LAMPS AND
EQUIPMENT

GENERAL
INFORMATION

COSMOS LAMPS

GROUP I

TUBULAR VACUUM



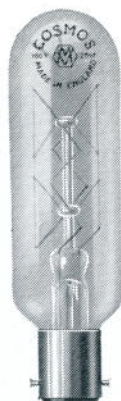
(48734)

230 Volt, 40 Watt Cosmos Opal Tubular Vacuum Lamp—Single Cap



(49788)

230 Volt, 30 Watt Cosmos Tubular Vacuum Lamp—Double Cap



(49789)

100 Volt, 20 Watt
Cosmos Tubular
Vacuum Lamp—
Single Cap

Watts	Approximate Dimensions				Voltage Range and Price					
	Diameter		Overall Length		50	60, 65, 70, 75, 80, 85,	100, 105, 110, 115, 120, 125, 130	150	200, 210, 220, 230, 240, 250, 260	
	mm.	ins.	mm.	ins.						
SINGLE CAP—Clear										
25	25	1	92	3 5/8	s. d. 3 6	s. d. 4 0	s. d. 3 0	s. d. 4 6	s. d. 3 0	
30	25	1	{ 75 150 204	{ 2 13/16 5 7/8 8 1/16	—	—	{ 3 6 4 0 5 6	—	{ 3 6 4 0 5 6	
40	38	1 1/2	302	11 7/8	—	—	6 6	—	6 6	
SINGLE CAP—Colour Sprayed†										
25	25	1	92	3 5/8	4 0	4 7	3 6	5 2	3 6	
SINGLE CAP—Opal										
40	38	1 1/2	302	11 7/8	—	—	6 0	7 6	6 0	
60	38	1 1/2	302	11 7/8	—	—	6 0	7 6	6 0	
SINGLE CAP—Opal—Colour Sprayed†										
40	38	1 1/2	302	11 7/8	—	—	6 6	8 0	6 6	
60	38	1 1/2	302	11 7/8	—	—	6 6	8 0	6 6	
SINGLE CAP—Morse—Clear										
10	26	1	51	2	3 6	4 0	3 0	—	—	
DOUBLE CAP—Clear										
30	25	1	221 & 284	8 11/16 & 11 3/16	—	—	4 0	—	4 0	
60	25	1	284	11 3/16	—	—	4 9*	—	4 9*	
100	46	1 13/16	309	12 1/8	—	—	6 9	—	6 9	
DOUBLE CAP—Colour Sprayed†										
30	25	1	221 & 284	8 11/16 & 11 3/16	—	—	4 9	—	4 9	
60	25	1	284	11 3/16	—	—	5 9	—	5 9	
100	46	1 13/16	309	12 1/8	—	—	7 6	—	7 6	

†For list of colours available see page 2.

Caps.—Single Cap Lamps.—Standard Caps, B.C., S.B.C., S.E.S., for 25 watt lamp; B.C., C.C. or E.S. for 40 watt; B.C., E.S. for 60 watt.
S.B.C. supplied for 25 watt unless otherwise specified.

C.C., S.C.C., E.S. Caps may be supplied for 25 watt lamp at 3d. extra each.

Double Cap Lamps—Standard Caps—S.C.C. for 30 or 60 watt, C.C. for 100 watt, Clip Contact Caps may be supplied at 3d. each extra per lamp.

Outline of above lamps shown on pages 21 and 22.

Extras.—For other extras, see page 31.

BRITISH

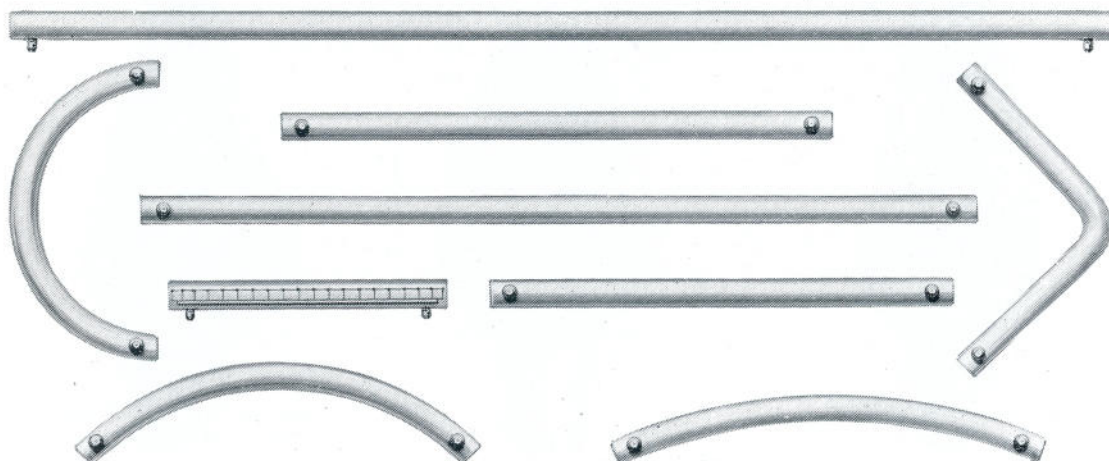
5

MADE

COSMOS LAMPS

GROUP I

“DECORA” ARCHITECTURAL TUBULAR (Vacuum)



(49627 Ch)

“DECORA” Straight, Curved, and Angle Architectural Tubular Lamps

Highly decorative and striking effects can be produced by simple arrangements of the various shapes available ; these are enhanced by the fact that the light source inside the tube is continuous from tip to tip, and connections are brought out to peg caps at the side, thus enabling solid lines of light to be formed.

Volts: 100, 105, 110, 115, 120, 125, 130; 200, 210, 220, 230, 240, 250, 260. (Above 24 ins., 200-260 volts. only)

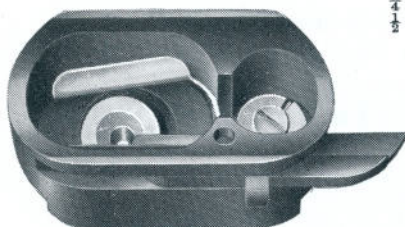
Nominal Watts	Dia. +1mm. -2mm.		Overall length -4mm.		Straight Lengths			Curves in $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$ circles. † -4mm.			Right Angle Bend in centre		
	mm.	App ins.	mm.	App ins.	White Opal	Coloured Opal†	Colour* Sprayed	White Opal	Coloured Opal†	Colour* Sprayed	White Opal	Coloured Opal†	Colour* Sprayed
					s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
40	30	1 $\frac{3}{16}$	300	12	10 6	12 0	11 6	...	...	...	...	...	...
40	30	1 $\frac{3}{16}$	500	20	14 6§	16 9	15 6	20 0	23 0	22 0	23 6	27 0	25 6
60	30	1 $\frac{3}{16}$	500	20	14 6§	16 9	15 6	20 0	23 0	22 0	23 6	27 0	25 6
75	30	1 $\frac{3}{16}$	610	24	16 0	18 6	17 0	...	...	...	...	...	...
100	30	1 $\frac{3}{16}$	500	20	21 9	...	...	...	...	...	...	...	...
110	30	1 $\frac{3}{16}$	900	36	21 0	24 6	23 0	...	...	...	...	...	...
150	30	1 $\frac{3}{16}$	1220	48	25 6	29 3	27 6	...	...	...	...	...	...
60	40	1 $\frac{3}{16}$	300	12	14 9	16 3	16 0	...	...	...	...	...	...
100	40	1 $\frac{3}{16}$	500	20	20 3§	22 3	21 9	28 0	30 9	30 9	33 0	36 3	35 9
120	40	1 $\frac{3}{16}$	610	24	22 6	24 9	23 9	...	...	...	...	...	...
180	40	1 $\frac{3}{16}$	900	36	29 6	33 6	32 6	...	...	...	...	...	...
240	40	1 $\frac{3}{16}$	1220	48	35 9	39 3	38 6	...	...	...	...	...	...

* White, Pink, Red, Flame, Orange Amber, Yellow, Green, Blue and Ivory.

† Pink, Red, Flame, Orange, Yellow and Green: Colour between first and third ply.

§ May also be supplied in Clear, Outside Frosted or Opalised at same prices.

‡ $\frac{1}{8}$ circle has radius 636 mm. or 25 ins.
 $\frac{1}{4}$ circle has radius 318 mm. or 12 $\frac{1}{2}$ ins.
 $\frac{1}{2}$ circle has radius 160 mm. or 6 $\frac{1}{4}$ ins.

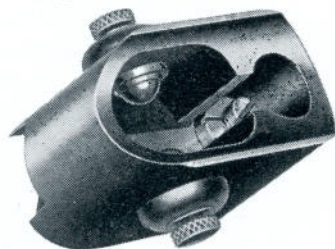


(52170)
Holder for round Peg Cap with sliding grip

LAMP HOLDERS

PRICES, each

Round peg type 2s. 0d.
 Flat plug type ... 2s. 0d.



(51126)
Holder for flat Plug Cap

Standard colours for Round Peg cap holders, black and walnut; for Flat Plug cap holders, black.

Extra if holders are coloured to match lamps, 4d.

These special sockets of moulded bakelite have strong springs which hold the lamp safely in any position, whilst ensuring positive contact. Mounting these fittings is simplified by the templates which are provided with each lamp.

BRITISH

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MADE

CANDLE, CARBON, NEON, SIGN AND TRACTION LAMPS

ALTAR, "THRIFTLITE" AND DECORATION LAMPS

AUTOMOBILE AND MINERS' LAMPS

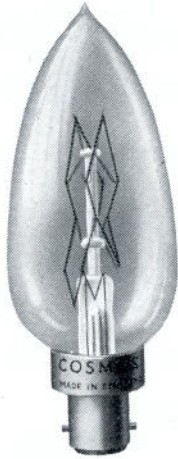
ELECTRIC DISCHARGE LAMPS AND EQUIPMENT

GENERAL INFORMATION

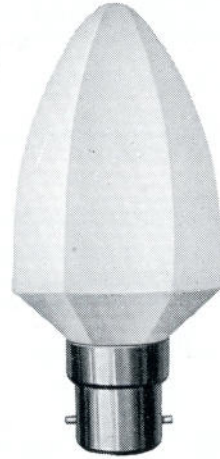
COSMOS LAMPS

GROUP I

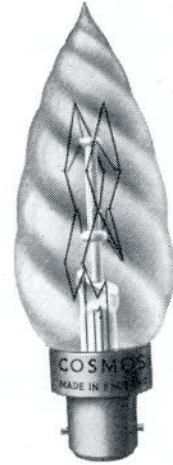
CANDLE VACUUM AND GASFILLED



(20427 Ch3)
110 Volt, 25 Watt Cosmos
Candle Lamp, Plain



(30422 B Ch)
100 Volt, 25 Watt Cosmos
Gothic Candle Lamp



(17565 Ch3)
210 Volt, 25 Watt Cosmos
Candle Lamp, Twisted

CLEAR

Std. Watts	Type	Voltage Range and Price				
		50	60, 65, 70, 75, 80, 85	100, 105, 110, 115, 120, 125, 130	150	200, 210, 220, 230, 240, 250, 260
25	{ Plain ...	s. d.	s. d.	s. d.	s. d.	s. d.
	{ Twisted ...	3 6	4 0	3 0	4 0	3 0
40§	{ Plain ...	—	—	3 6	4 6	3 6
	{ Twisted ...	4 3	4 6	3 6	4 6	3 6
	{ Twisted ...	—	5 0	4 0	5 0	4 0

COLOUR SPRAYED †

25	{ Plain ...	3 11	4 5	3 4	4 5	3 4
	{ Twisted ...	—	—	3 11	5 0	3 11
25	Gothic*	—	—	4 6	—	4 6
40§	{ Plain ...	4 9	5 0	3 11	5 0	3 11
	{ Twisted ...	—	5 6	4 5	5 6	4 5

Approx. Dimensions.—Plain Candle Lamp.

25 Watts.— $3\frac{1}{8} \times 1\frac{3}{8}$ ins. ; 40 Watts.— $4\frac{1}{8} \times 1\frac{1}{8}$ ins.

Twisted Candle Lamp.

25 Watts.— $3\frac{1}{8} \times 1\frac{3}{8}$ ins. ; 40 Watts.— $4\frac{1}{8} \times 1\frac{1}{8}$ ins.

Gothic Candle Lamp.— $4\frac{7}{32} \times 2\frac{3}{32}$ ins.

Outlines of above lamps shown on page 22.

Standard Caps.—B.C., S.B.C., S.E.S. for Plain and Twisted Lamps.—B.C. for Gothic Lamps.

Extras.—Caps C.C., E.S., S.C.C., for Plain and Twisted Lamps may be supplied at 3d. each extra.

Caps S.E.S., S.B.C., E.S., for Gothic Lamps may be supplied at 2d. each extra.

† White, Pink, Red, Flame, Orange-Amber, Yellow, Green, Blue and Ivory.

§Lamps marked thus are Gasfilled.

*Ivory (or parchment) and flame colour only.

BRITISH

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MADE

COSMOS LAMPS

GROUP I

CARBON FILAMENT and NEON TYPE



(49621)

200 Volt, 16 C.P. Cosmos Carbon Filament Lamp



(52051 B)

Cosmos Large Neon Indicator Lamp



(30831 Bch)

Cosmos Lighting Type Neon Lamp

CARBON FILAMENT LAMPS

c.p.	Approx. Dimensions		Voltage Range and Price	
	Dia. ins.	Length ins.	100, 105, 110, 115, 120, 125, 130	200, 210, 220, 230, 240, 250, 260
8	2 $\frac{3}{8}$	4 $\frac{5}{16}$	s. d. 1 6	s. d. 1 6
16	2 $\frac{3}{8}$	4 $\frac{5}{16}$	1 6	1 6
32	2 $\frac{9}{16}$	4 $\frac{11}{16}$	1 9	1 9

Standard Caps.—B.C., E.S. or C.C.

Extras.—For special caps and other extras, see page 31.
For standard packages, see page 22.

RADIATOR LAMPS—Sprayed Flame Colour only.



(49772)

Cosmos Tubular Switch Indicator Lamp

Watts	Caps	Voltage Range and Price	
		100/110, 115/125	200/220, 230/250
250	1" B.C., B.C. or E.S.	s. d. 4 3	s. d. 4 3



(49613 Ch)

Cosmos Small Neon Indicator Lamp

NEON TYPE LAMPS

Type	Watts	Caps	Approximate Dimensions				Voltage Range and Price
			Length		Diameter		
			mm.	ins.	mm.	ins.	200/220, 230/240, 250/260
Lighting ...	5	B.C.	125	4 $\frac{7}{8}$	56	2 $\frac{1}{8}$	s. d. 3 1
Figure, Letter, or Cross, etc.*...	5	B.C.	125	4 $\frac{7}{8}$	56	2 $\frac{1}{8}$	3 4
		B.C.	110	4 $\frac{3}{8}$	30	1 $\frac{1}{8}$	
Indicator ...	$\frac{1}{2}$	B.C., E.S., S.B.C. or S.E.S.	58	2 $\frac{9}{32}$	28	1 $\frac{3}{32}$	200/250 (A.C.)
							s. d. 2 6
Switch Indicator§ ...	$\frac{1}{8}$	S.B.C.	52	2 $\frac{1}{4}$	18	$\frac{1}{4}$	2 6
		S.E.S.	28	1 $\frac{1}{8}$	12	$\frac{1}{8}$	2 0

* For ~~S~~brine and Remembrance Lamps see p.11
For outlines of above lamps see p.20

§ Must only be used in series with at least 50,000 ohms resistance.

BRITISH

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MADE

CANDLE, CARBON, NEON, SIGN AND TRACTION LAMPS

ALTAR, "THRIFTLITE" AND DECORATION LAMPS

AUTOMOBILE AND MINERS' LAMPS

ELECTRIC DISCHARGE LAMPS AND EQUIPMENT

GENERAL INFORMATION

COSMOS LAMPS

GROUP I

SIGN

VACUUM



(52051 A)
15 Watt "Pygmy" Sign Lamp,
28 mm. Bulb

(17335 Ch2)
200 Volt, 20 Watt Cosmos Sign
Lamp
CLEAR

(49761)
14 Volt, 7 Watt Cosmos Sign
Lamp

Watts	Caps	Approximate Dimensions				Voltage Range and Price For extra for natural coloured glass, see page 31.					
		Diam.		Length		25, 30	50	60, 65, 70, 75, 80, 85	100, 105, 110, 115, 120, 125, 130	150	200, 210, 220, 230, 240, 250, 260
		mm.	ins.	mm.	ins.						
10 15*† 20	B.C., E.S. or C.C.	}44	1½	90	3⅞	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	2 0					2 6	2 6	2 0	—	—	
	2 0					2 6	2 6	2 0	2 6	2 0	
	2 0					2 6	2 6	2 0	2 6	2 2	

† Designed as "Switchboard Indicator" Lamp in 28 mm. bulb, price 6d. extra.

‡ WHITE and COLOUR SPRAYED

Standard Watts	Standard Caps	Approximate Dimensions				Voltage Range and Price per Lamp					
		Diam.		Length		25, 30	50	60, 65, 70, 75, 80, 85	100, 105, 110, 115, 120, 125, 130	150	200, 210, 220, 230, 240, 250, 260
		mm.	ins.	mm.	ins.						
15*§ 20 40§	B.C., E.S. or C.C.	}44	1½	90	3⅞	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	2 3					2 9	2 9	2 1	2 9	2 1	
	2 3					2 9	2 9	2 3	2 9	2 5	
		60	2⅝	110	4⅞	—	—	—	2 1	—	2 1

† White, Pink, Red, Flame, Orange-Amber, Yellow, Green, Blue and Ivory.

§ Can be supplied inside sprayed at same price.

DAYLIGHT SIGN LAMPS

Watts	Caps	Approximate Dimensions				Voltage Range and Price					
		Diam.		Length		25, 30	50	60, 65, 70, 75, 80, 85	100, 105, 110, 115, 120, 125, 130	150	200, 210, 220, 230, 240, 250, 260
		mm.	ins.	mm.	ins.						
15* 20	B.C., E.S. or C.C.	}44	1½	90	3⅞	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	2 6					3 2	3 2	2 6	3 2	2 6	
	2 6					3 2	3 2	2 6	3 2	2 6	
	2 6					3 2	3 2	2 6	3 2	2 9	

LOW VOLTAGE SIGN LAMPS—Clear or Coloured ||

Volts	Watts	Caps	Approximate Dimensions				Price			
			Diameter		Length		Clear	White or Colour Sprayed	Natural Coloured Glass Standard Colours	
			mm.	ins.	mm.	ins.				s. d.
14	5	{	S.E.S.	32	1½	63	2⅞	s. d.	—	—
	S.B.C.		25	1	40	1⅞	1 9	1 11	—	
14	7		or	or	or	or	1 3	1 5	1 8	
		S.E.S.	49	1⅞	70	2¼				

*Can also be supplied in 28 mm. Pygmy bulb with B.C., E.S., S.B.C., or S.E.S. Cap at same price. Overall length of this lamp with B.C. or E.S. Cap is 56 mm., and with S.B.C. or S.E.S. Cap, 59 mm. For standard packages, see page 22. Outline standard sign lamps shown on page 20.

|| Fitted with short-circuiting device at no extra charge.

BRITISH

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MADE

COSMOS LAMPS

GROUP I



(19098A Ch3)
110 Volt, 30 Watt Cosmos
Vacuum Lamp, Traction
(Clear)

TRACTION VACUUM AND GASFILLED FOR SERIES BURNING



(26391AX)
110 Volt, 60 Watt Cosmos
Gasfilled Lamp, Traction
(Pearl)

FOR TRAM AND ELECTRIC TRAIN LIGHTING VACUUM—Clear

Volts	Amps.	Nominal Watts	Caps	Approximate Dimensions				Price	
				Diameter		Length		Hairpin Filament	
				mm.	ins.	mm.	ins.	Clear	
100 110 120 130	0.27	30	B.C. or E.S.	53.5	2 1/8	110	4 1/2	s. d.	
1 11									
	0.35	40	B.C. or E.S.	53.5	2 1/8	110	4 1/2	1 11	

Clear lamps can be supplied with Coiled Filaments at no extra cost ; the bulb size in this case is 60 mm. diameter, 110 mm. overall length.

GASFILLED—Clear, Pearl, Opal and Sprayed

Volts	Amps.	Nom- inal Watts	Caps	Approximate Dimensions				Price			
				Diameter		Length		Pearl	Clear	Opal	Sprayed
				mm.	ins.	mm.	ins.				
100 110 120 130	0.35	40	B.C. or E.S.	60	2 3/8	110	4 1/2	s. d.			
1 9											
	0.52	60	B.C. or E.S.	65	2 9/16	117.5	4 3/8	1 9			
2 0											

GASFILLED—Pearl, Clear, Opal and Daylight with Fusible Cut-out

Volts	Amps.	Nominal Watts	Cap	Approximate Dimensions				Price			
				Diameter		Length		Pearl	Clear	Opal	Day- light
				mm.	ins.	mm.	ins.				
40	1.0	40	B.C. or E.S.	60	2 3/8	110	4 1/2	1 10	2 0	2 1	2 6
40	1.5	60	B.C. or E.S.	65	2 9/16	117.5	4 3/8	1 10	2 0	2 1	2 6
50	0.8	40	B.C. or E.S.	60	2 3/8	110	4 1/2	1 10	2 0	2 1	2 6
50	1.2	60	B.C. or E.S.	65	2 9/16	117.5	4 3/8	1 10	2 0	2 1	2 6

When ordering Traction Lamps for Tram and Train Lighting, please state (1) Maximum, minimum and nominal volts ; (2) Wattage of Lamp required ; (3) Number of lamps in series.

Outline of above lamps shown on page 20.

Extras.—For special caps and other extras, see page 31.

For standard packages, see page 22.

N.B.—Unless otherwise specified, lamps will be supplied with Standard Bayonet Caps.

BRITISH

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MADE

ALTAR, "THRIFTLITE"
AND DECORATION
LAMPS

AUTOMOBILE
AND MINERS'
LAMPS

ELECTRIC DISCHARGE
LAMPS AND
EQUIPMENT

GENERAL
INFORMATION

COSMOS LAMPS

GROUP I

ALTAR LAMPS



(31413Ch)
Cosmos "Shrine" Lamp

NEON TYPE

Voltage Range : { A.C. 200/230 and
A.C. 240/260 volts.

Rating : 5 watts.

Cap : B.C.

Outlines of these lamps shown on page 22.

Price ... 3s. 4d.



(22673Ch)
Cosmos "Remembrance" Lamp

These attractive little electric Altar lamps are ideal for the Home Shrine. The elements appear to burn steadily with a soft roseate glow, the effect at night being particularly pleasing and comforting.

Two models are available, the "Shrine" Lamp containing the symbol of the Cross, and the "Remembrance" Lamp with the emblem of the Shield of David.

Once installed they need no further attention ; they are distinctive, clean and fireproof, having many advantages over the old type of oil lamp which required constant attention and frequent replenishing with the ever-present risks of upset and fire. They burn throughout a long life at a most economical rate, consuming only one unit of electricity for two hundred hours burning.

The COSMOS Altar lamps could also be used as very efficient night lights, and on account of their extremely low maintenance cost their use in dark corridors, landings, niches, alcoves and halls is not only effective but economical.

"THRIFTLITE" LAMP—VACUUM



(23863)
Cosmos "Thrifflite"
Dual-purpose Lamp.

This dual-purpose lamp is a considerable advance over the old-fashioned night-light.

It only takes approximately 4 watts, giving a dim glow just suitable for nurseries, hospitals, landings, etc., which need only a glimmer of light. But when a brighter light is required, a gentle pull on one of the cords switches on a 25-watt filament in place of the secondary one.

The "Thrifflite" is in effect two lamps in one, and is very economical in use, as it gives 250 hours light for one unit when working on the "dim" position, and 40 hours with the brighter light.

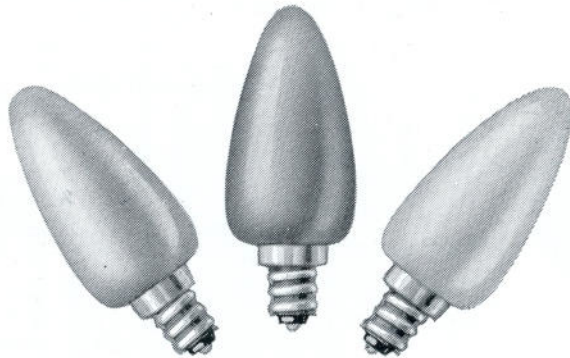
Volts	100-130 200-260
Price	4s. 3d.

COSMOS LAMPS

GROUP VI

MINIATURE DECORATION OUTFITS

WITH OLIVE SHAPE LAMPS (VACUUM)



(49786)

Cosmos Olive Shape, 14-volt, 7-watt Decoration Lamps

These Lamps are made up in complete outfits intended for interior decoration, each outfit comprising a set of lamps screwed into holders wired on flexible cord, ready for use by merely inserting the adaptor supplied into any convenient B.C. Lampholder. This method of packing the lamps completely wired up enables the whole equipment to be tested with the minimum of trouble before being sent out.

The flexible is complete with beads between each lampholder, so that the lamps can be firmly fixed to pegs for festooning, or to the twigs of a Christmas Tree.

Lamps are supplied varnished in the following colours: White, Red, Orange, Blue, Yellow and Green.

By the use of COSMOS Decoration Lamps on Christmas Trees, excellent ornamental effects are obtainable without the usual fire risks inseparable from the old-fashioned wax candle. For all festive occasions these lamps are ideal for gala effects in restaurants, shops, halls, etc.

OUTFIT No. 1.—For 100-125 volt Circuits.

9 Cosmos Lamps (2½ ins. long), 14 volt, 7 watt (M.E.S. Caps), varnished in various colours, together with 8 Holders, 25 feet of flex, and B.C. Adaptor	... ..	12s. 6d.
Price of Spare Lamps	... ..	1s. 0d. each

OUTFIT No. 2.—For 200-250 volt Circuits.

18 Cosmos Lamps, (2½ ins. long), 14 volt, 7 watt (M.E.S. Caps), varnished in various colours, together with 16 Holders, 41 feet of flex, and B.C. Adaptor	... ..	19s. 6d.
Price of Spare Lamps	... ..	1s. 0d. each

OUTFIT No. 3.—For 200-250 volt Circuits.

12 Cosmos Lamps (2 ins. long), 19 volt, 3 watt, (M.E.S. Caps), varnished in various colours, together with 12 Holders, 18 feet of flex and B.C. Adaptor	... ..	10s. 6d.
Price of Spare Lamps	... ..	9d. each

ALTAR, "THRIFTLITE"
AND DECORATION
LAMPS

AUTOMOBILE
AND MINERS'
LAMPS

ELECTRIC DISCHARGE
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BRITISH

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MADE

COSMOS LAMPS

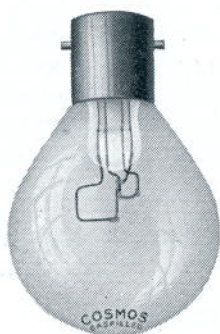
GROUP II

AUTOMOBILE B.A.S. and Non-B.A.S. RATINGS

HEADLIGHTS—GASFILLED SINGLE FILAMENT



(20813C ChA)
Cosmos B.A.S. Automobile
Headlight (Gasfilled)



(20844C ChA)
Cosmos Double Filament
Headlight (Gasfilled)



(20843 CX)
Cosmos Headlight—
Cadmium Yellow

No.	Volts	Watts	Dia. of Bulb	Price			
				Clear		Daylight Blue	
				British Cap	American Cap	British Cap	American Cap
B.A.S. RATINGS							
			mm.	s. d.	s. d.	s. d.	s. d.
1	6	12	38	2 6	2 7	3 2	3 3
2	6	18a	38	2 3bq	2 4b	2 10	2 11
3	12	24a	38	2 3bqr	2 4br	2 10	2 11
4	12	36a	38	2 6bcr	2 7bcr	3 2	3 3
NON-B.A.S. RATINGS							
—	4	6	38	2 9	2 9	—	—
—	4	8	38	2 9	2 9	—	—
—	6	4.5g	38	2 9	2 9	—	—
—	6	6	38	2 9	2 9	—	—
—	6	24a	38	2 6bcfr	2 6bcfr	3 2	3 2
—	6	30	38	4 0	4 0	5 0	5 0
—	6	36	38	3 6r	3 6r	4 4	4 4
—	6.75	24m	38	2 10	2 10	—	—
—	8	16	38	3 6	3 6	—	—
—	12	12	38	3 0	3 0	—	—
—	12	48	38	4 0	4 0	5 0	5 0
—	12	60	38	4 6	4 6	5 8	5 8
—	13.5	24m	38	2 10	2 10	—	—
—	13.5	36m	38	2 10	2 10	—	—
—	24	24	38	3 0	3 0	—	—
—	24	36	38	3 6	3 6	—	—

DOUBLE FILAMENT

Volts	Watts	Dia. of Bulb	Price			
			Clear		Daylight Blue	
			British Cap	American Cap	British Cap	American Cap
		mm.	s. d.	s. d.	s. d.	s. d.
4	12 & 12	38	4 0	4 0	—	—
6	12 & 3	38	3 6b	3 6b	4 4	4 4
6	12 & 12	38	3 6	3 6	—	—
6	18 & 3	38	3 6d	3 6d	4 4	4 4
6	18 & 18	38	3 3d	3 3d	—	—
6	24 & 18	38	3 6e	3 6e	4 4e	4 4e
6	24 & 24	38	3 0d	3 0d	3 9	3 9
6	30 & 30	38	4 6	4 6	—	—
6	36 & 24	38	4 6	4 6	5 8	5 8
12	24 & 6	38	3 6b	3 6b	—	—
12	24 & 24	38	4 3	4 3	—	—
12	36 & 6	38	3 6	3 6	—	—
12	36 & 36	50	5 0	5 0	—	—

CADMIUM YELLOW HEADLIGHT

Volts	Watts	Dia. of Bulb	Price	Caps
SINGLE FILAMENT				
		mm.	s. d.	} S.B.C. S.C.C.
6	24	38	3 2	
6	30	38	5 0	
12	36	38	3 2	
DOUBLE FILAMENT				
6	24 and 24	38	3 9	} S.B.C. S.B.C. or Bosch Bosch
6	24 and 18	38	4 4e	
12	36 and 24	38	—	
13.5	36 and 24	38	—	

BRITISH

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MADE

COSMOS LAMPS

GROUP II

AUTOMOBILE (cont.)

GRAVES' (Gasfilled) Patent Headlights WITH INTERNAL REFLECTORS

Volts	Watts	Dia. of Bulb mm.	Price each	
			Clear	Daylight Blue
SINGLE FILAMENT†				
			s. d.	s. d.
6	24	38	4 0	—
12	36	38	4 0	—
DOUBLE FILAMENT*				
			s. d.	s. d.
6	6 & 6	38	4 3	—
6	12 & 12	38	3 6	—
6	18 & 18	38	3 6	—
6	24 & 18	38	3 6	4 4
6-75	24 & 18	38	4 0h	—
12	24 & 24	38	3 6	—
12	36 & 24	38	3 6	4 4
13-5	24 & 24	38	4 0h	—
13-5	36 & 24	38	4 0h	—
24	36 & 24	38	4 6	—

†Satin finish bulb.

*These lamps may be supplied with clear or satin finish bulbs at the same price. Bosch or S.B.C. Cap.

SIDE, TAIL AND DASHLIGHTS

No.	Volts	Watts	Diameter of Bulb mm.	Price	
				British Cap	American Cap
B.A.S. RATINGS					
				s. d.	s. d.
8	6	3	18	1 3	1 4
9	6	6	22	1 3	1 4
10	12	6	22	1 3	1 4
NON-B.A.S. RATINGS					
3	2	18	1 8	1 8	1 8
4	3	18	1 8	1 8	1 8
8	4	18	1 8	1 8	1 8
12	4	18	1 8	1 8	1 8
24	6	22	2 3	2 3	2 3

INTERIOR LAMPS

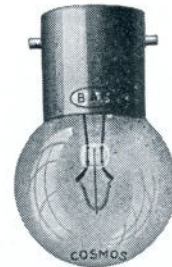
Volts	Watts	Approx. Dimensions		Price
		Dia. mm.	Length mm.	
INDICATOR*				
				s. d.
4	2-0	15	27-5	1 10
6	3-0	15	27-5	1 8
8	1-6	15	27-5	1 8
12	2-4	15	27-5	1 8
16	3-0	15	27-5	1 8
TUBULAR†				
12	6-0	18	50	2 9

Standard Cap:—*M.E.S., †S.B.C., S.C.C., A.S.B.C., A.S.C.C.

- a Supplied with Bosch, Fiat or 3-pin cap and "V" filament at 25 per cent. extra.
- b Supplied half yellow sprayed horizontally from cap to end of bulb at 9d. each extra.
- c Supplied with "V" filament at 3s. 0d. with British cap; 3s. 1d. with American cap for B.A.S. Lamp.
- d With special moulded bulb, anti-dazzle type, at no extra price.
- e With special moulded bulb, anti-dazzle type.
- f With "V" filament and moulded bulb 4s. 6d.
- g With "V" filament 3s. 6d. clear. 4s. 4d. Daylight Blue.
- h Supplied with Bosch cap only.
- m Supplied with Bosch or S.B.C. caps.
- n With "V" filament.
- p Graves type, with internal reflector.
- q With "V" filament, 2s. 9d.
- r Safe-Beam bulb with anti-dazzle filament, 25% extra.



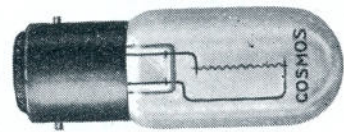
(22537)
Graves Type
Anti-dazzle Headlight



(20845A ChB)
Cosmos B.A.S. Automobile
Side, Tail and Dashlight



(16072A Ch4)
Cosmos Automobile Indicator
Lamp



(16412A Ch3)
Cosmos Automobile Tubular
Lamp

AUTOMOBILE
AND MINERS'
LAMPS

ELECTRIC DISCHARGE
LAMPS AND
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GENERAL
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BRITISH

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MADE

COSMOS LAMPS

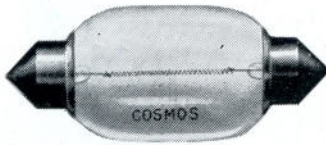
GROUP II

AUTOMOBILE (cont.)

VACUUM

FESTOON LIGHTS (TUBULAR)

FESTOONS§



(35656 Ch1A)
Cosmos Automobile Festoon Lamp

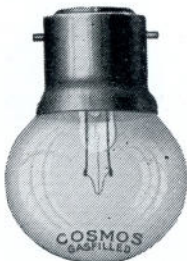
Volts	Watts	Approx. Dimensions		Price s. d.
		Dia. mm.	Length mm.	
6	3	8	38	2 0
6	6	11	38	2 0
6	6	16	43.5	2 0
12	3	8	38	2 0
12	6	11	38	2 0
12	6	16	43.5	2 0

§Double capped.

BUS LAMPS

VACUUM* AND GASFILLED

Clear, Pearl (Inside Frosted), or Opal



(19097 ChA)
Cosmos Bus Lamp
(Gasfilled)

Volts	Watts	Approximate Dimensions		Price		
		Diameter mm.	Length mm.	Clear	Pearl	Opal
12*	6	26	42	s. d. 1 8	—	—
12*	12	49	70	1 9	—	—
12	10	} 49	} 70	2 3	2 3	2 6
12	12			2 1	2 1	2 4
24	15			2 1	2 1	2 4
24	12			2 6	2 6	2 10
24	20			2 1	2 1	2 4
12	10	} 38	} 56	2 6	2 6	2 10
12	12			2 3	2 3	2 6
24	15			2 4	2 4	2 7
24	12			2 9	2 9	3 1
24	20			2 4	2 4	2 7

*Vacuum.

Standard Caps :—B.C. and S.B.C. For special caps, see page 32.

INSPECTION LAMPS

VACUUM

POLICE AND MINE INSPECTION LAMPS



(16072A Ch3A)
Cosmos Police and Mine
Inspection Lamp

Volts	Watts	Approximate Dimensions		Price s. d.
		Diameter mm.	Length mm.	
*2	1.5	15	27.5	1 10
†2	1.45	18	27.5	1 10
*2.4	1.2	18	32	1 8
*2.4	1.92	18	32	1 8

Standard Caps.—*M.E.S. †M.S.B.C.

For standard packages, see page 30.

BRITISH

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MADE

COSMOS LAMPS

GROUP V

MINERS' SAFETY LAMP BULBS

Clear or Pearl



(20845E Ch)
Cosmos Miners' Bulb
(Taper Peg Cap)



(49663)
Cosmos Miners' Bulb
for Alkaline Cell
(S.C.C. Cap.)



(20845D Ch1)
Cosmos Miners' Bulb
(S.E.S. Cap.)

Bulbs of the ratings mentioned below for Miners' Safety Lamps are the standards under the revised regulations termed the "Coal Mines Regulations (Lighting) 1934."

Under these new Regulations, makers of miners' bulbs were required to submit samples of their bulbs to the Mines Department for testing, and authority was given to the makers to stamp the cap of all bulbs which complied with the tests, with the following mark (or any approved modification). The full range of COSMOS bulbs have passed the tests in question, and bear the authorized mark.



(70042)

Type of Miners' Lamp	Rating of Bulb		Shape of Bulb	Bulb Dimensions		Standard Cap	Clear	Pearl
	Volts	Amps.		Dia.	Length			
Cap	2.0	0.85	Squat	26±1	46±2	S.E.S. (E.14)	s. d. 1 6	s. d. 1 6
Cap	2.0	1.0	Round	18±1	31±1½	M.E.S. (E.10)	1 6	—
Hand	2.0	1.0	Pear	25±1	46±2	S.E.S. (E.14)	1 5	—
Cap	2.5	1.0	Squat	26±1	46±2	S.E.S. (E.14)	1 8	1 8
Cap	2.5	1.0	Squat	26±1	44±2	S.B.C.C. (953)	1 8	1 8
Hand	2.5	1.5	Pear	25±1	52±2	S.E.S. (E.14)	1 6	1 6
Hand	2.5	1.5	Pear	25±1	50±2	S.B.C.C. (953)	1 6	1 6
Hand	2.5	1.75	Pear	25±1	52±2	S.E.S. (E.14)	1 8	1 8
Hand	2.5	1.75	Pear	25±1	50±2	S.B.C.C. (953)	1 8	1 8
Cap	4.0	0.65	Round	18±1	31±1½	M.E.S. (E.10)	1 8*	—
Hand	4.0	0.75	Squat	26±1	46±2	S.E.S. (E.14)	1 6	1 6
Hand	4.0	0.75	Squat§	26±1	50±2	Taper Peg(741)	1 6	1 6
Hand	4.0	1.0	Squat	26±1	46±2	S.E.S. (E.14)	1 8	1 8

* May be supplied ½ externally frosted at same price.

§ With pip.

BRITISH

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MADE

ELECTRIC DISCHARGE
LAMPS AND
EQUIPMENT

GENERAL
INFORMATION

COSMOS LAMPS

GROUP IX

“METROVICK” ELECTRIC DISCHARGE LAMPS

For use on A.C. 50-Cycle Circuits.
Voltage Range : 200/250.

THE “Metrovick” Electric Discharge Lamp is a departure from the usual method of producing light, by which a tungsten filament is heated to incandescence. No filament is used as a light source, the light emission being solely due to the radiation from a discharge through Mercury Vapour.

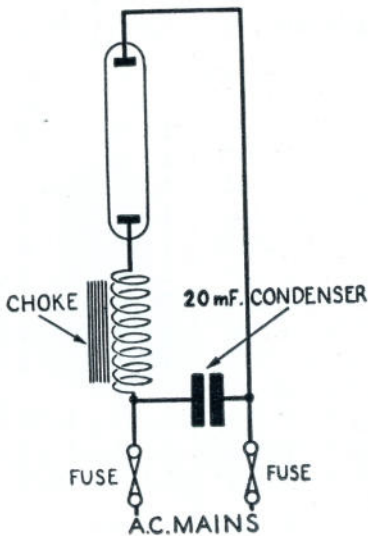


(52096)
“METROVICK”
Electric Discharge
Lamp.

The lamp consists of two glass envelopes, the inner being of special heat-resisting glass, whilst the space between the inner and outer envelopes is evacuated for heat-retention purposes. At each end of the inner tube are mounted electrodes specially treated to give a high electronic emission. The inner tube contains a small quantity of inert gas together with a little mercury. On connecting to an A.C. supply an arc is struck through the inert gas, the heat then generated being sufficient to vapourize the mercury, which emits a luminous glow, building up to full light output in from three to four minutes.

At the moment of switching on, the resistance of the lamp is very low and it is necessary to control the current rush by means of a choke. As the vapour pressure builds up the resistance of the lamp increases, the voltage drop across the lamp becoming practically constant, any small variations only being due to the irregularity of the supply pressure. The choke controls the watts passed to the lamp.

No separate filament transformers are required with this lamp. For the purpose of improving the power factor of the lamp and choke (approximately 0.6) a condenser is connected in parallel with the supply, raising the power factor to approximately 0.9.



(70022)
Wiring Diagram.

PRICES

	250 watt	400 watt
	£ s. d.	£ s. d.
Lamp	1 17 6	2 0 0
Series Choke	2 10 0	2 14 0
Condenser	1 2 0 (15 mf.)	1 5 0 (20 mf.)
Complete Control Box	5 5 0	5 18 0

BRITISH

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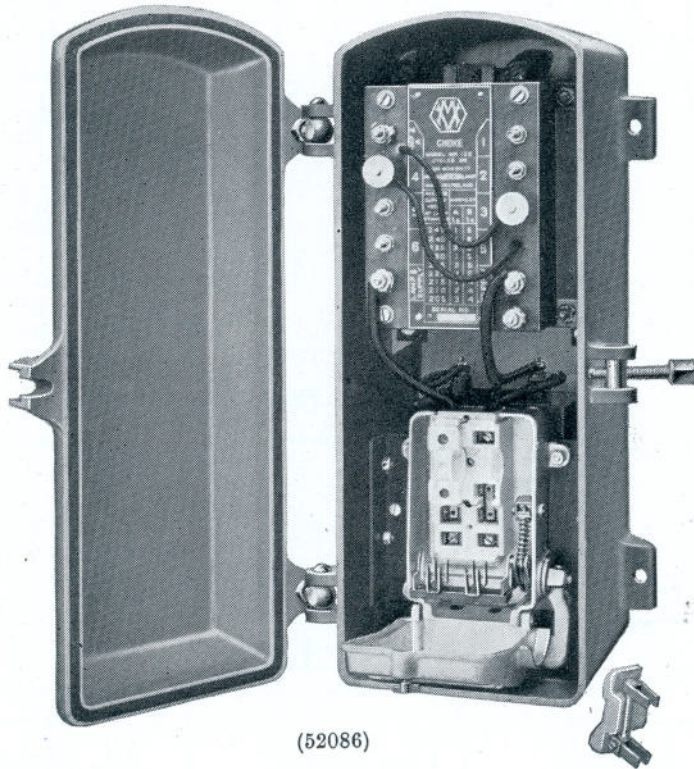
MADE

COSMOS LAMPS

GROUP IX

“METROVICK” ELECTRIC DISCHARGE LAMPS

(continued)



Left : Control Box for
Electric Discharge
Lamps.

Overall Dimensions :—

Height, 18 ins.

Width, $8\frac{1}{4}$ ins.

Depth, $9\frac{1}{2}$ ins.

4 Fixing Holes, symmetrically spaced on centres $4\frac{1}{4}$ ins. \times $16\frac{1}{2}$ ins.

These boxes are constructed of sheet steel, with cast iron covers.

DISCHARGE LAMP DATA

	250 Watt	400 Watt
Initial Light Output, in lumens	9,000	17,000
Average Life, in hours	1,500	1,500
Loss in Choke, in watts (approximately)	20	20

NOTE.—The light output is equal to approximately $2\frac{1}{2}$ times (for the 400 watt lamp) and twice (for the 250 watt lamp) the output of a gasfilled tungsten-filament lamp of corresponding wattage.

DIMENSIONS	250 Watt	400 Watt
Overall length	290mm. \pm 15mm.	325mm. \pm 15mm.
Diameter (external)	51mm.	51mm.
Light centre length... ..	170mm. \pm 6mm.	190mm. \pm 6mm.
Cap	G.E.S.	G.E.S.
Standard Burning Position	Vertically, with cap up.*	

* In the case of burning with cap down, a special lamp would be supplied at no increased cost. For horizontal burning the standard lamp is suitable, but must be used only in the specially-designed lanterns.

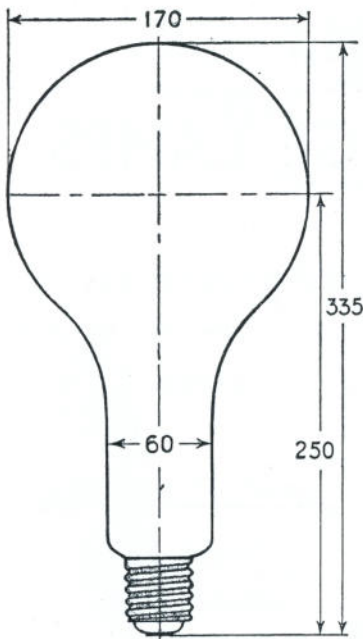
BRITISH

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MADE

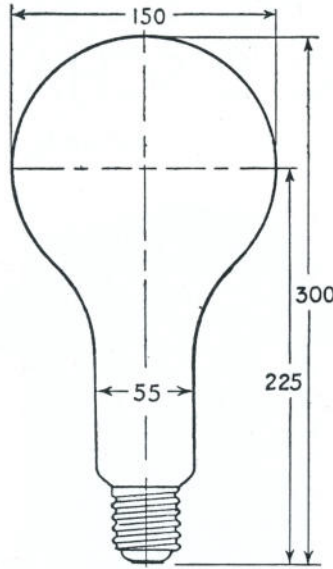
OUTLINES—COSMOS VACUUM LAMPS

DIMENSIONS IN MILLIMETRES



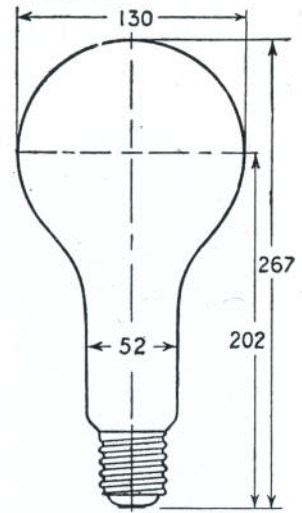
LAMP OUTLINE
No. 212

1500 watts Clear



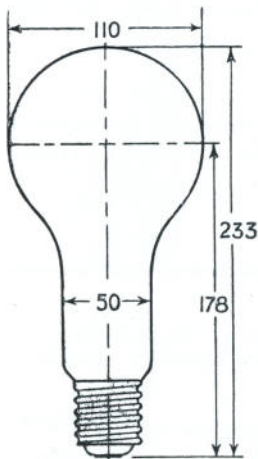
LAMP OUTLINE
No. 211

1000 & 750 watts Clear
500 watts Opal



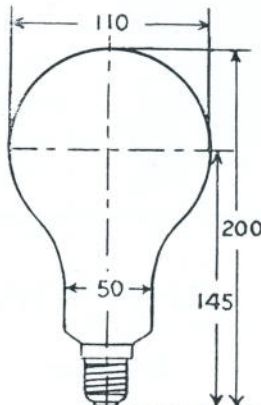
LAMP OUTLINE
No. 210

500 watts Clear
300 watts Opal



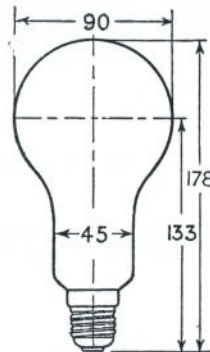
LAMP OUTLINE
No. 209

300 watts Clear, G.E.S. Cap
200 watts Opal, E.S. Cap



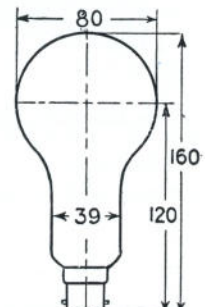
LAMP OUTLINE
No. 209A

200 watts Opal



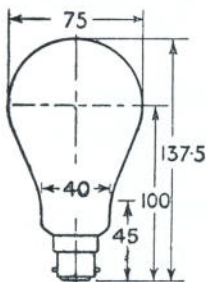
LAMP OUTLINE
No. 208

200 watts Clear
150 watts Opal



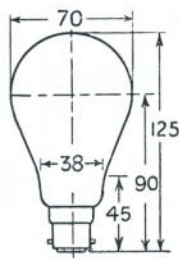
LAMP OUTLINE
No. 207

150 watts Clear



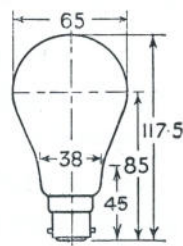
LAMP OUTLINE
No. 206

100 watts



LAMP OUTLINE
No. 205

75 watts



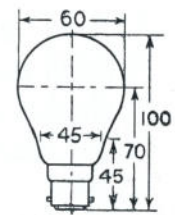
LAMP OUTLINE
No. 204

60 watts



LAMP OUTLINE
No. 203

40 watts



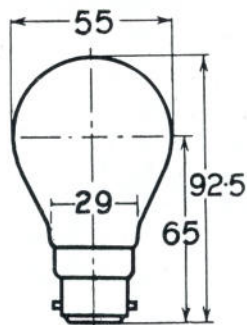
LAMP OUTLINE
No. 202

25 watts

Pearl, Clear and Opal

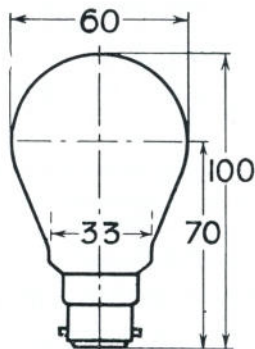
OUTLINES—COSMOS GASFILLED AND VACUUM LAMPS

DIMENSIONS IN MILLIMETRES



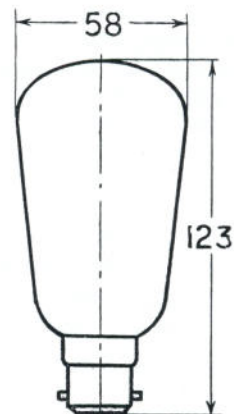
LAMP OUTLINE
No. 34

Vacuum Lamp
L. and H.V.
15 watts



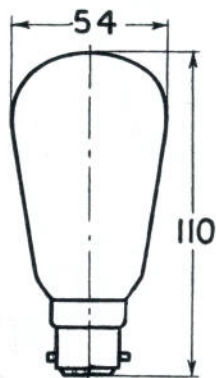
LAMP OUTLINE
No. 35

Vacuum Lamp
L. and H.V.
25 watts



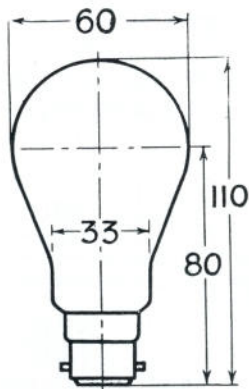
LAMP OUTLINE
No. 2

Vacuum Lamp
L. and H.V.
40 watts



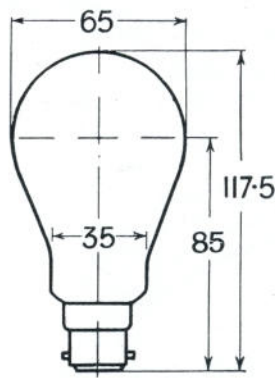
LAMP OUTLINE
No. 5

Vacuum Traction Lamp
L.V., 30 and 40 watts



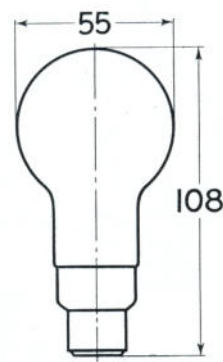
LAMP OUTLINE
No. 36

Gasfilled Traction Lamp
L.V., 40 watts



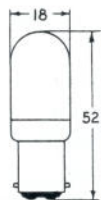
LAMP OUTLINE
No. 37

Gasfilled Traction Lamp
L.V., 60 watts



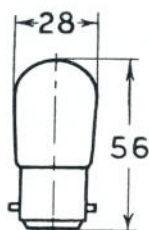
LAMP OUTLINE
No. 215

Lighting Type Neon Lamp
5 watts



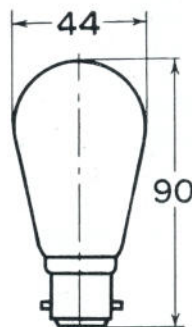
LAMP OUTLINE
No. 214

Small Neon Type
Indicator Lamp



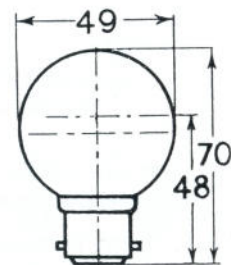
LAMP OUTLINE
No. 213

Pygmy Bulb
i. Vacuum Sign Lamp
L. and H.V., 15 watts
ii. Neon, Large Indicator
0.5 watts



LAMP OUTLINE
No. 15

Vacuum Sign Lamp
L. and H.V.
10, 15 and 20 watts

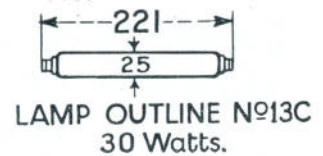
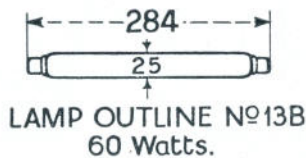
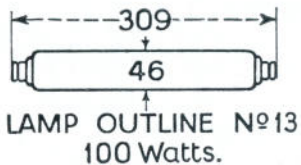
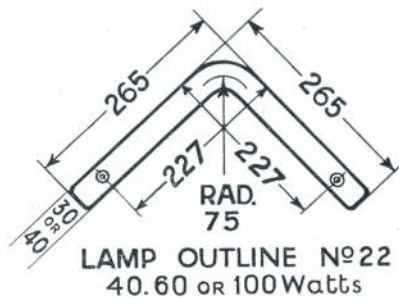
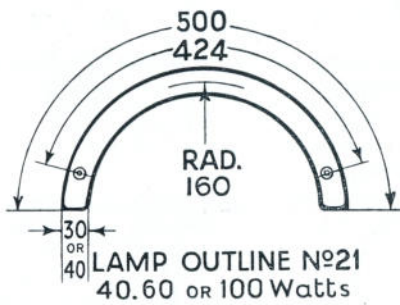
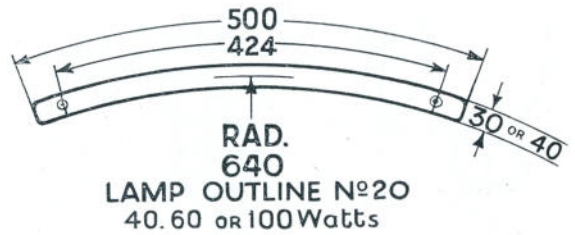
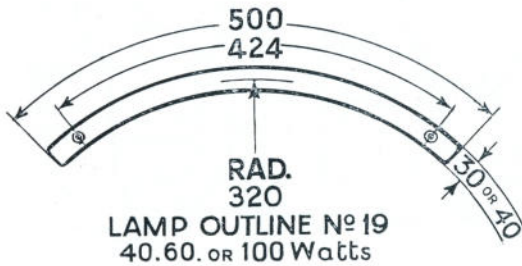
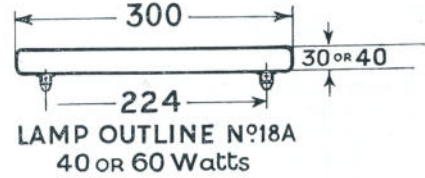
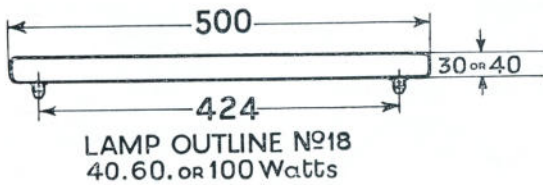
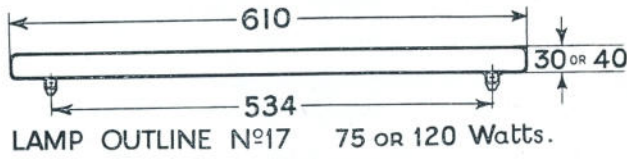
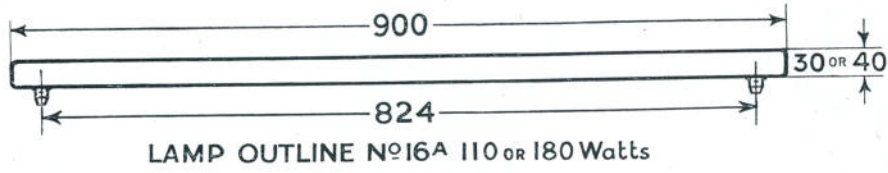
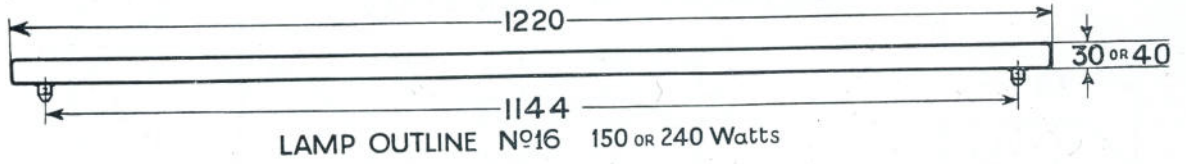


LAMP OUTLINE
No. 44

Vacuum and Gasfilled
Train Lighting Lamp
15-30 watts, 16-25 volts

OUTLINES—COSMOS VACUUM LAMPS

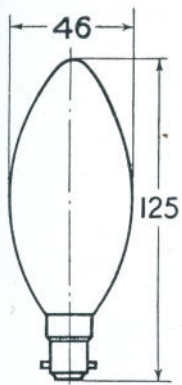
DIMENSIONS IN MILLIMETRES



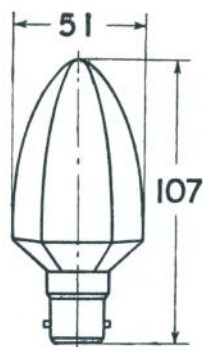
ARCHITECTURAL TUBULAR LAMPS
and
STANDARD DOUBLE-CAPPED TUBULAR LAMPS

OUTLINES—COSMOS VACUUM LAMPS

DIMENSIONS IN MILLIMETRES

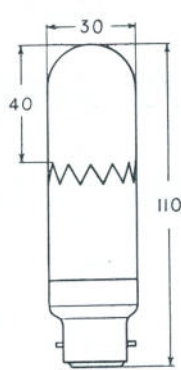


LAMP OUTLINE
No. 8A
Plain Candle Lamp
40 watts



LAMP OUTLINE
No. 10

Gothic Candle Lamp
25 watts



LAMP OUTLINE
No. 12A

Sbrine and
Remembrance Lamp
5 watts



LAMP OUTLINE
No. 9A

Twisted Candle Lamp
40 watts



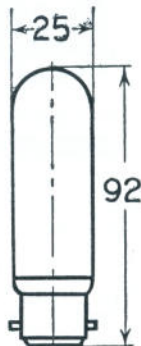
LAMP OUTLINE
No. 11

Opal Tubular Lamp
40 and 60 watts



LAMP OUTLINE
No. 8

Plain Candle Lamp
25 watts



LAMP OUTLINE
No. 12

Tubular Lamp
25 watts



LAMP OUTLINE
No. 9

Twisted Candle Lamp
25 watts

STANDARD PACKAGE QUANTITIES

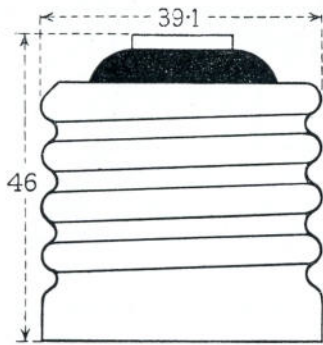
GASFILLED (Clear and Pearl) LAMPS	25, 40, 60, 100 and 150 watt	...	50	Cartons per outer container.
	200 watt	...	24	" " " "
	300 watt	...	18	" " " "
	500 watt	...	9	" " " "
	750 watt	...	4	" " " "
	1000 watt	...	4	" " " "
OPAL LAMPS	1500 watt	...	4	" " " "
	25, 40, 60 and 100	...	50	" " " "
	150 watt	...	24	" " " "
	200 watt	...	18	" " " "
	300 watt	...	9	" " " "
VACUUM LAMPS	500 watt	...	4	" " " "
	Up to 40 watt (including traction)	...	50	packed in wrappers, per outer container.
CARBON LAMPS	All ratings	...	50 or 100	per container
AUTOMOBILE LAMPS,	Festoon	...	12	per box
	Side, Tail and Dash	...	12	"
	Tubular	...	12	"
	Head, Spotlight	...	12	"
	Indicator	...	100	"
SIGN LAMPS (Low Voltage)	Bus	...	12	"
	...	...	12	"
MINERS' LAMPS	...	...	25	"
POLICE AND MINE INSPECTION LAMPS	...	...	100	"

These are afterwards packed into containers in multiples of these quantities.

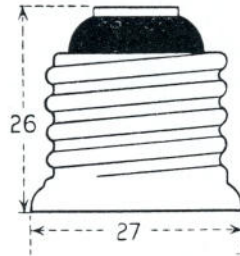
COSMOS LAMPS

CAPS—APPROXIMATE DIMENSIONS

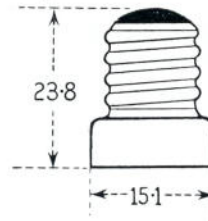
IN MILLIMETRES.



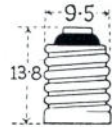
Cap No. E.S.40
Goliath Edison
Screw Cap



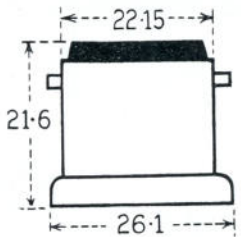
Cap No. E.S.27
Edison Screw Cap



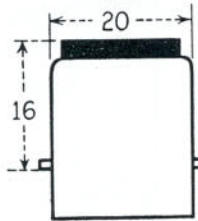
Cap No. S.E.S.14
Small Edison
Screw Cap



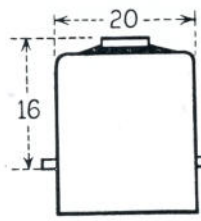
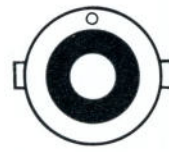
Cap No. M.E.S.10
Miniature Edison
Screw Cap



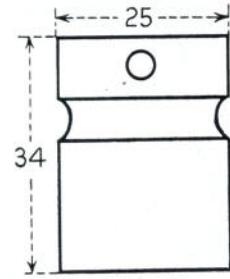
Cap No. B.C.100
Standard Bayonet Cap



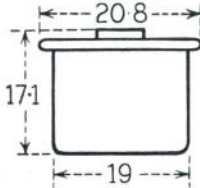
Cap No. B.A.20D
Bosch Type



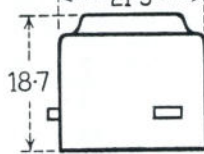
Cap No. B.A.20S
Automobile Caps



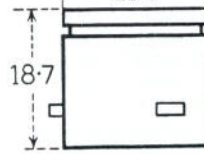
Cap No. 848
Italian Automobile Cap



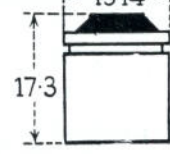
Cap No. 929
Cartridge Cap



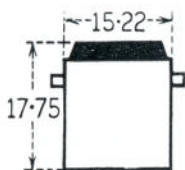
Cap No. B.A.21d
French Automobile Caps (3-pin)



Cap No. B.A.21S
French Automobile Caps (3-pin)



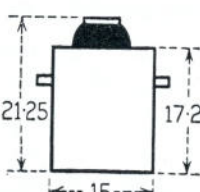
Cap No. S.15S1
Cap for Double Ended
Tubular Lamp



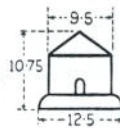
Cap No. S.B.C.200
Small Bayonet Cap
(British Type)



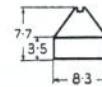
Miners' Taper
Peg Cap
CEAG



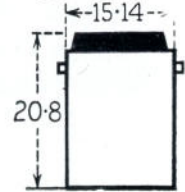
Miners' Small
Bayonet Cap



Festoon Lamp
Cap



Festoon Lamp
Cap for
11mm. x 38mm.
Lamp



Cap No. B.A.15/21D
Small Bayonet Cap
(American Type)

Bayonet Caps can be supplied with Centre Contact (C.C.) if required, instead of Double Contact (B.C.)

COSMOS LAMPS

GLOSSARY OF LAMP AND ILLUMINATION TERMS

- Ageing** The preliminary burning of new lamps at or above normal voltage to stabilise their characteristics.
- Architectural Lamp** ... A tubular lamp in which the connections are brought out at the side to enable lamps to be installed end-to-end. (See page 6.)
- Axis of Lamp** An imaginary straight line through the centre of the lamp longitudinally.
- B.S.I.** British Standards Institution.
- B.S.S.** British Standards Specification.
- Candle** The International Candle, i.e., the unit of luminous intensity standardised by the National Standardising Laboratories of Great Britain, France and the United States.
- Candle Power Maintenance** The extent to which a lamp maintains its candle power throughout life.
- Cap** The metallic shell fixed to the lamp, thus providing the means of supply of electric current to the lamp. The standard caps in use are:—
1. Goliath Screw (G.E.S.).
 2. Edison Screw (E.S.).
 3. Bayonet (B.C.).
 - 4a. Small Bayonet Cap—Double Contact (S.B.C.).
 - 4b. Small Bayonet Cap—Centre Contact (S.C.C.).
 5. Small Edison Screw (S.E.S.).
 6. Miniature Screw (M.E.S.).
- Carbon Lamp** An incandescent lamp of which the filament is a fine homogeneous thread of carbon.
- Choke** A coil used to limit the current taken by an electric discharge lamp (See page 17.)
- Coiled Filament** A filament wound in a close spiral before mounting. All gasfilled lamps have such filaments.
- COILED-COIL Lamp.** A lamp with a doubly coiled filament which increases the working temperature by retaining the heat, resulting in a much greater light output than is obtained with a single coil. The increase in light given by COSMOS Coiled-coil Lamps without any increase in current consumed is, in the case of the 40 watt, 20 per cent.; 60 watt, 15 per cent.; 75 watt, 12½ per cent.; 100 watt, 10 per cent. The Coiled-coil filament constitutes the greatest advance in electric lamp manufacture since the introduction of the gasfilled lamp.



COILED-COIL FILAMENT

(Highly magnified)



Single Coiled Filament

(Same magnification as above)

(49770)

- Concentrated Filament** ... A filament so arranged in the bulb as to occupy the smallest space possible consistent with safety in running. Such filaments are commonly used in all Projector Lamps.
- Condenser** A device used to improve the power factor of an electric discharge lamp circuit. (See page 17.)

COSMOS LAMPS

GLOSSARY (continued)

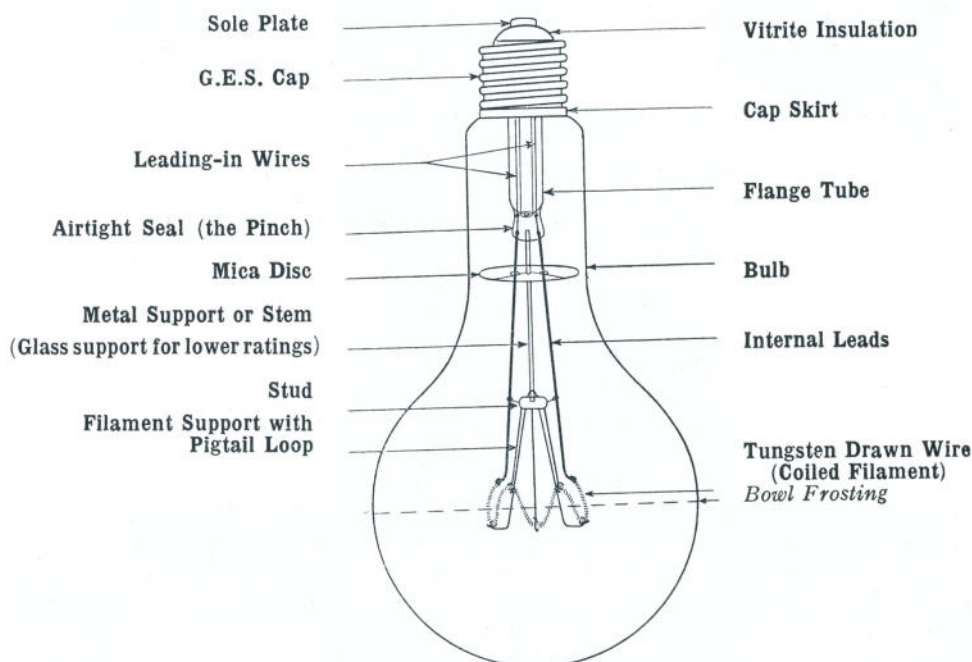
Cosmos Lamp ...	...	An electric lamp. The name "COSMOS" is derived from the Greek word "KOSMOS," meaning the ordered system of ideas—the sum total of experience. This is symbolised by the quality of the COSMOS Lamp and the service given by the manufacturers, the Metropolitan-Vickers Electrical Company Limited.
Daylight Lamp ...	...	A lamp having a bulb of special blue glass such that the resulting light approximates to daylight.
DECORA Lamp ...	...	The COSMOS Architectural tubular lamp. (See page 6.)
Depreciation of Light Output ...	...	The loss in light due to the internal blackening of, or to external dirt on a lamp or to a dirty reflector.
Efficiency...	...	Usually expressed in lumens per watt, and is the ratio of light output to total power consumed.
ELECTRIC DISCHARGE Lamp ...	...	A lamp in which the light is due to a luminous discharge through Mercury Vapour, no filament being used. (See page 17.)
Foot Candle ...	...	The illumination at a point one foot distance from a source of one candle power.
Gasfilled Lamp ...	...	A lamp filled with an inert gas such as argon or nitrogen. This enables lamps of certain wattages to be run at a higher temperature than in a vacuum, and results in a greater light output for the same current consumption.
Glare ...	...	The cause of the feeling of discomfort to the eyes due to the unrestricted light from a lamp with a clear bulb.
Glareless Lamp ...	...	A Pearl (inside frosted) or Opal lamp.
Helix Filament ...	...	See "Coiled Filament."
I.E.S. ...	...	Illuminating Engineering Society.
Incandescence ...	...	The emission of visible radiation from a filament due to its high temperature.
In Focus ...	...	The position of a lamp in a projection apparatus such that the filament is at that point which will produce the maximum efficiency of light projection.
Inside Frosting ...	...	The internal frosting by a chemical of the inside surface of a bulb. The advantage of such a lamp is that the outside surface is left smooth so that dust does not so readily collect. (See Pearl Lamp.)
Life ...	...	The number of burning hours for which a lamp is designed.
Life Test ...	...	The testing of a batch of lamps to obtain their operating characteristics, and the observation of the life of such a batch.
Light Centre Length ...	...	The distance from the centre of the filament to a given point on the cap. In the case of standard general lighting service lamps with bayonet or Edison Screw caps, this distance is measured from the soleplate of the cap to the centre of the light source. With lamps fitted with small Bayonet Caps (motor car lamps, etc.), the distance is measured from the bulb side of the pins to the centre of the light source.
Lumen ...	...	The unit of luminous flux—the lumens of a lamp are equal to the Mean Spherical Candles $\times 12.57$.
Lumens per Watt ...	...	The term used to denote the efficiency of a lamp. It represents the amount of light obtained per unit of power consumed.
Mean Horizontal Candle Power ...	...	The average value of candle power measured in all directions in a horizontal plane.
Mean Spherical Candle Power ...	...	The average value of candle power in all directions.
Mica Disc...	...	Used only in high wattage gasfilled lamps, it consists of a disc affixed to the rod between the airtight seal and the filament. It deflects the hot currents of gas from the seal and neck of the bulb. Shown in lamp outline on page 27.
Natural Coloured Lamp...	...	A lamp having a bulb of transparent coloured glass.
Neon Discharge Lamp ...	...	A lamp containing metal electrodes and filled with Neon gas. When on circuit the surface of the electrodes is covered with an orange-pink colour discharge.

COSMOS LAMPS

GLOSSARY (continued)

Opal Lamp	A lamp having a semi-opaque white glass which completely diffuses the light.
Overrun	The application of a voltage to a lamp higher than that for which it is designed. This results in an increase of light and efficiency but a decrease in the life.
Pearl Lamp	A lamp with the bulb frosted on the inside (see "Inside Frosting.")
Photometer	An instrument for measuring the light output from a lamp.

PARTS OF A COSMOS HIGH WATTAGE GASFILLED LAMP

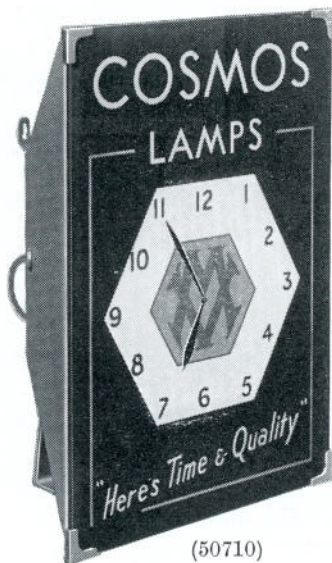


(48743 Ch)

Projector Lamp	A lamp specially designed for use in parabolic reflectors, projector apparatus, etc. Such a lamp is made with a concentrated light source at a high efficiency and short life.
Quality	The inherent quality of lamps, indicated by efficiency, life and lumen maintenance.
Rating	Expresses the voltage and wattage for which lamps are designed. For lamps designed for operation in series it is usual to rate them in volts and amperes.
Reduction Factor	The ratio between mean spherical candlepower and mean horizontal candlepower.
Survivor Curve	A curve showing the relation between the number of lamps burning and the hours of burning.
THRIFTLITE Lamp	A COSMOS lamp in which there are two alternative filaments, one having a very low consumption. (See page 11.)
Tolerances	The margins allowed in the B.S.S. in the manufacture of lamps
Vacuum Lamp	A lamp in which the filament operates in a vacuum.

COSMOS LAMPS

ADVERTISING MATERIAL



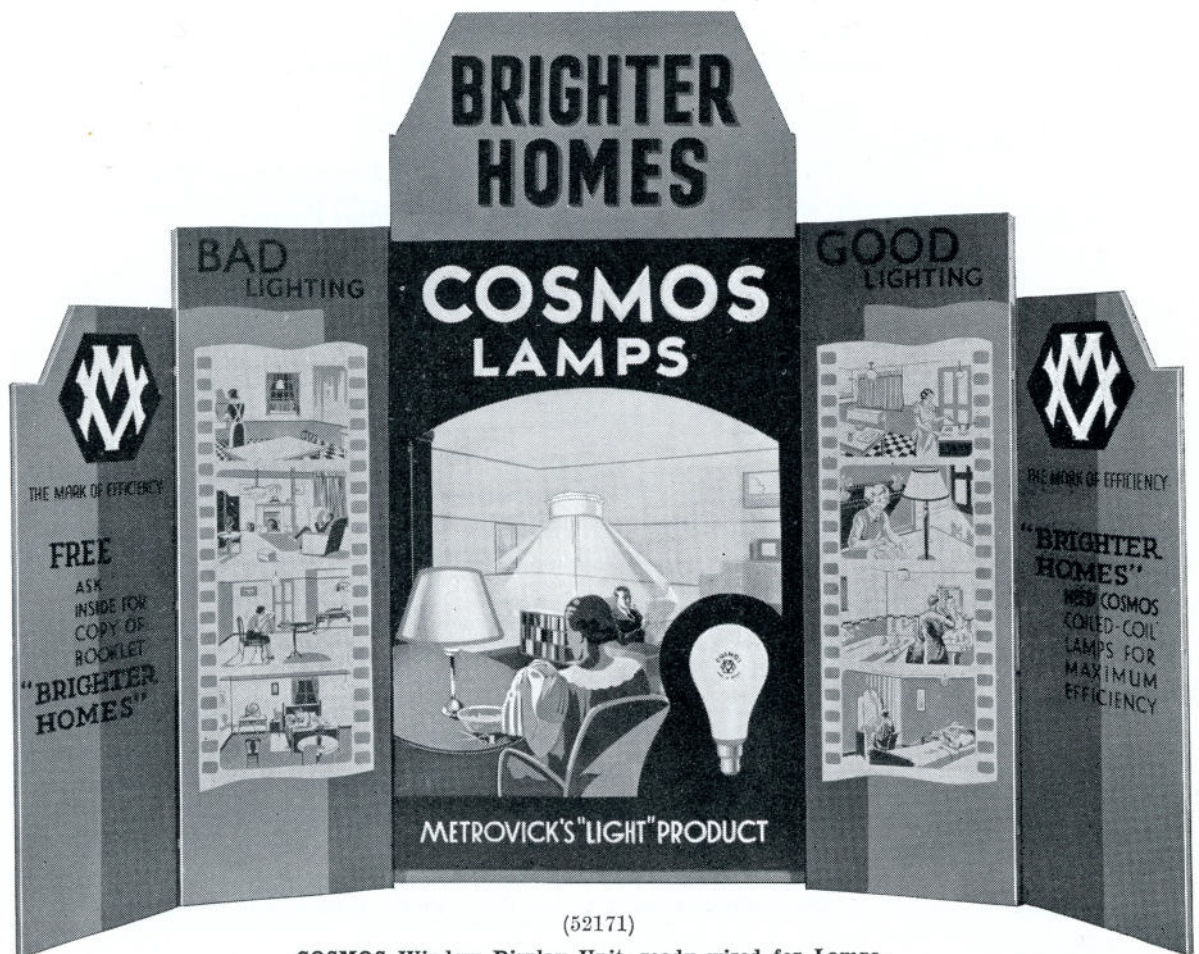
(50710)

**COSMOS Illuminated
Electric Clock**



(52173)

COSMOS Spotlight Sign



(52171)

COSMOS Window Display Unit, ready wired for Lamps.

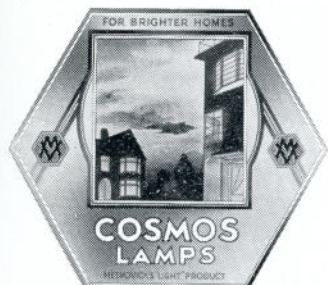
BRITISH

27

MADE

COSMOS LAMPS

ADVERTISING



(49798)
COSMOS Showcard
printed on metal.



(70700)
COSMOS Motor Bulb
Price Card.

MATERIAL



(52169)
COSMOS Translucent
Window Transparency.

COSMOS Showcard
with translucent



embossed lettering
and lamps.

(32006)

The following aids to sales are available to dealers in COSMOS Lamps, and will gladly be supplied on request :—

Lamp Catalogue, S.P.7102/8. This catalogue is the one now before you, and includes the whole range of COSMOS Lamps. It gives full particulars of all lamps available, together with other useful information such as a lamp glossary and tables, which make the booklet well worth keeping handy for ready reference.

Envelope Series Booklet, E.S. No. 4102/16. This little publication is much more than a handy price list of the more popular COSMOS Lamps; it is a practical handbook on home lighting. "Brighter Homes"—the title of the booklet—describes how to obtain good lighting in the home by the use of correct fittings and by placing them in the correct position, at the same time advising the correct COSMOS Lamp to use for each case. It is issued ready overprinted with the reseller's name and address on the front cover, which does not mention the subject of COSMOS Lamps.

Envelope Series Folder, E.S. No. 4102/13. With their rather specialised appeal, the "Shrine" and "Remembrance" Lamps deserve a publication of their own and this folder, which is supplied overprinted, gives full particulars of these lamps and special bakelite fittings.

DISPLAY MATERIAL

Showcards. Last year's popular card with the translucent embossed lettering and lamps has been repeated by request, and further supplies are available.

A new showcard of particularly original appearance is being issued. This is printed on metal and has a hexagonal outline; the design links up with the "Brighter Homes" theme.

Window Displays. This is designed to form the centrepiece or background for a display for "Brighter Homes," and illustrates the difference between good and bad lighting. It is strongly made, self-contained for transport and ready wired for three lamps. It needs no special erecting and can be opened up to six feet wide by four feet high. The design includes an invitation to step inside the shop and obtain a free copy of the "Brighter Homes" booklet. Size of Display, open : 4 ft. high x 2 to 6 ft. wide.

Electric Signs. This year's model is a "Spotlight" sign that focusses the light into a beam. It is impossible to pass this beam without the attention being caught, and the sign is adjustable for obtaining the best angle of projection. Owing to efficiency in design, a 40-watt lamp is suitable.

There are a limited number of illuminated electric clocks driven by METROVICK synchronous movements, being suitable only for frequency-controlled 50 period 200/250 volt supplies.

Transparency. A brightly-coloured transparency is available for fixing to the shop door or window. Mounting is very easy and can be done on either the back or front.

Calendar. A beautiful calendar with a very subdued reference to COSMOS Lamps is available to the trade. The daily date pad runs from October, 1935, to September, 1936. Early application is advisable.

COSMOS LAMPS

ILLUMINATION DATA

NOMINAL LUMEN OUTPUT §

Watts *	200-250 Volts
	Lumens
15	115
25	210
40	410 †
60	690 †
75	910 †
100	1,320 †
150	1,950
200	2,730
300	4,380
500	7,920
750	12,800
1,000	17,900
1,500	28,700

* 15 to 100 watt General Purpose Lamps are standard with Pearl bulbs ; 150 watts and over are standard with clear bulbs. † Coiled-coil filaments.

DOUBLE-ENDED TUBULAR LAMPS	
30	221
60	492
100	820

§ Reprinted, by permission, from British Standard Specification No. 161-1934 (Tungsten Filament General Service Electric Lamps) and addendum dated June, 1935, official copies of which can be obtained from the British Standards Institution, 28 Victoria Street, London, S.W.1., price 2s. 2d. post free.

REFLECTING VALUES OF COLOURED SURFACES

Colour	Percentage Reflection	Colour	Percentage Reflection
White ...	84%	Dark Stone ...	33%
Golden Yellow ...	80%	Light Battleship	
Primrose... ..	76%	Grey	31%
Pale Cream ...	76%	Deep Buff ...	31%
Deep Cream ...	70%	Quaker Grey ...	30%
Lemon	69%	Sky Blue... ..	30%
Portland Stone ...	62%	Light Brown ...	27%
Light Buff ...	61%	Golden Brown ...	25%
Light Stone ...	58%	Sage Green ...	19%
Middle Buff ...	54%	Grass Green ...	18%
Eau de Nil ...	47%	Post Office Red... ..	17%
Salmon Pink ...	44%	Turquoise Blue ...	15%
Orange	42%	Middle Brown ...	12%
Sea Green ...	38%	Dark Battleship	
Middle Stone ...	37%	Grey	11%
Silver Grey ...	37%	Peacock Blue ...	11%
French Grey ...	36%	Crimson	6%

COSMOS LAMPS

USEFUL GENERAL DATA

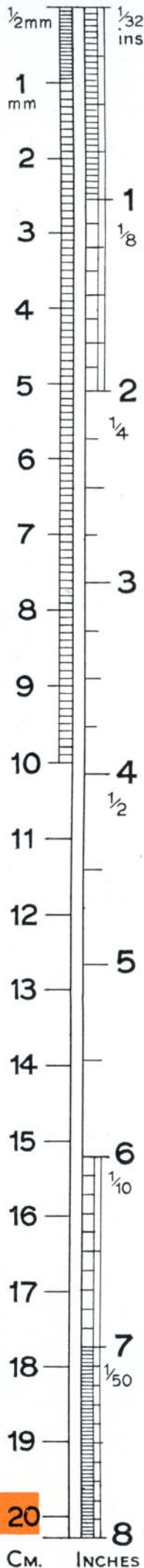
METRIC EQUIVALENTS

To Convert	Into	Multiply by
Millimetres	MILS (1 MIL=1/1000 INCH) ...	0.0039
MILS	Millimetres	0.0254
Centimetres	INCHES	0.3937
INCHES	Centimetres	2.5400
Metres	FEET	3.2810
FEET	Metres	0.3048
Metres	YARDS	1.0936
YARDS	Metres	0.9144
Kilometres	MILES	0.6214
MILES	Kilometres	1.6093
Square Centimetres	SQUARE INCHES	0.1550
SQUARE INCHES	Square Centimetres	6.5416
Square Metres	SQUARE YARDS	1.1960
SQUARE YARDS	Square Metres	0.8361
Cubic Metres	CUBIC YARDS	1.3079
CUBIC YARDS	Cubic Metres	0.7646
Litres	GALLONS	0.22
GALLONS	Litres	4.546
Kilogrammes	POUNDS	2.2046
POUNDS	Kilogrammes	0.4536
Metric H.P. (736 watts)	BRITISH ELEC. H.P.	0.9691
BRITISH H.P. (746 watts)	Metric Elec. H.P.	1.0319
Kilogrammes per sq. cm.	POUNDS PER SQ. IN.	14.223
POUNDS PER SQ. IN.	Kilogrammes per sq. in.	0.0703

FRACTIONS OF AN INCH

INCH		
Fraction	Decimals	Millimetres
$\frac{1}{8}$	.02	0.4
$\frac{1}{32}$	.03	0.8
$\frac{3}{32}$	.05	1.2
$\frac{1}{16}$	.07	1.6
$\frac{5}{32}$	.08	2.0
$\frac{3}{16}$	.09	2.4
$\frac{7}{32}$	.11	2.8
$\frac{1}{8}$	.13	3.2
$\frac{9}{32}$	.14	3.6
$\frac{5}{16}$	.16	4.0
$\frac{11}{32}$	.17	4.4
$\frac{3}{8}$	.19	4.8
$\frac{13}{32}$	.20	5.2
$\frac{7}{16}$	.22	5.6
$\frac{15}{32}$	.23	6.0
$\frac{1}{4}$	.25	6.4
$\frac{17}{32}$	.27	6.7
$\frac{9}{16}$	.28	7.1
$\frac{19}{32}$	.30	7.5
$\frac{5}{8}$	.31	7.9
$\frac{21}{32}$	.33	8.3
$\frac{11}{16}$	.34	8.7
$\frac{23}{32}$	.36	9.1
$\frac{3}{8}$	.38	9.5
$\frac{25}{32}$	.39	9.9
$\frac{13}{16}$	.41	10.3
$\frac{27}{32}$	.42	10.7
$\frac{7}{10}$	.44	11.1
$\frac{29}{32}$	.45	11.5
$\frac{15}{16}$	.47	11.9
$\frac{31}{32}$	.48	12.3

INCH		
Fraction	Decimals	Millimetres
$\frac{1}{2}$	.50	12.7
$\frac{17}{32}$	.52	13.1
$\frac{19}{32}$	.53	13.5
$\frac{25}{32}$	.55	13.9
$\frac{1}{2}$	.56	14.3
$\frac{23}{32}$	.58	14.7
$\frac{27}{32}$	.59	15.1
$\frac{29}{32}$	.61	15.5
$\frac{5}{8}$	.63	15.9
$\frac{21}{32}$	.64	16.3
$\frac{25}{32}$	.66	16.7
$\frac{27}{32}$	.67	17.1
$\frac{11}{8}$	.69	17.5
$\frac{29}{32}$	.70	17.9
$\frac{31}{32}$	.72	18.3
$\frac{33}{32}$	.73	18.7
$\frac{3}{4}$	.75	19.0
$\frac{25}{32}$	.77	19.4
$\frac{27}{32}$	.78	19.8
$\frac{29}{32}$	.80	20.2
$\frac{13}{16}$	.81	20.6
$\frac{31}{32}$	.83	21.0
$\frac{33}{32}$	.84	21.4
$\frac{35}{32}$	.86	21.8
$\frac{7}{8}$	.88	22.2
$\frac{37}{32}$	.89	22.6
$\frac{39}{32}$	.91	23.0
$\frac{41}{32}$	.92	23.4
$\frac{17}{16}$	.94	23.8
$\frac{43}{32}$	.95	24.2
$\frac{45}{32}$	.97	24.6
$\frac{47}{32}$	.98	25.0
1	1.0	25.4



COSMOS LAMPS

EXTRAS

	GROUP I			GROUP II	
	Gasfilled	Vacuum	Carbon	B.A.S. Ratings	Non B.A.S. Ratings
				Where Inside Frosted not Listed	
1. Frosting.					
Outside Frosting	—	—	—	5%	5%
2. Tinting.					
(a) Superficial colouring or varnishing	10%	10%	—	10%	10%
(b) For white or colour spraying ...	See pages	See pages	—	—	—
(c) For natural-coloured green, blue and amber :—	1, 2	1, 2	—	—	—
10, 15 and 20 w. Vac. Sign Lamp,	—	7d.	—	—	—
100/130 and 200/260 v.	—	7d.	—	—	—
25 and 40 w. Vacuum Lamp	—	—	—	—	—
25, 40 and 60 w. Gasfilled Lamp	7d.	—	—	—	—
100 and 150 w. Gasfilled Lamp	1/-	—	—	—	—
(d) For natural-coloured red, ruby and other tints :—					
10, 15 and 20 w. Vac. Sign Lamp,	—	10d.	—	—	—
100/130, 200/260 v.	—	10d.	—	—	—
25 and 40 w. Vacuum Lamp	—	—	—	—	—
25, 40 and 60 w. Gasfilled Lamp	10d.	—	—	—	—
100 and 150 w. Gasfilled Lamp	1/6	—	—	—	—
3. Caps.					
(a) For S.B.C., S.E.S., S.C.C., in place of B.C., E.S., C.C. (except for sign lamps)	2d.*	2d.*	2d.*	—	—
Ditto for Sign Lamps	1d.	1d.	—	—	—
(b) For A.S.B.C. and A.S.C.C.	—	—	—	1d.	no extra
(c) For 3-pin caps (B.C.)	—	—	—	1½d.	1½d.
(d) G.E.S. in place of B.C. or E.S. or vice versa	1/-	—	—	1d.	—
(e) For B.C., E.S. and S.E.S.	—	—	—	—	no extra
(f) For medium prefocus caps for Projector Lamps and other special caps up to 100 w.	1/-	1/-	—	—	—
(g) For Goliath prefocus caps for Projector Lamps	2/6	—	—	—	—
(h) For Bosch caps	—	—	—	3d.	3d.
(i) M.E.S. for 15 and 19 mm. bulbs only	—	—	—	2d.	no extra
(k) Hollow and cartridge caps	—	—	—	4d.	4d.

*Applicable up to 40 watts only; 8 c.p. for Carbon Lamps. Larger wattages cannot be supplied with smaller than standard caps.

COSMOS LAMPS

CONDITIONS OF SALE

SELLING PRICES.—Our prices and terms are quoted on the distinct understanding that selling prices to customers are those of our list price net, without any cash discount, and orders received for all lamps will be taken as acceptance of these conditions.

PACKING, DELIVERY AND TRANSIT

DELIVERY AREA	GROUP	QUANTITY OR VALUE	PACKING AND DELIVERY	TRANSIT BREAKAGES
Within 12 miles G.P.O. London or 6 miles of main Post Office in Branch Office towns specified†	All Groups	Any Quantity	Free	* Replaced or Credited at our option
Outside above areas but within free delivery area of any Railway Company (Route at our discretion)	Group I	For not less than £2 list value to one address	Free	* Replaced or Credited at our option
		For less than £2 list value to one address	Packing free. Carriage charged at not less than cost	At purchaser's risk
	Group II V VI	For not less than 20/- list value to one address	Free	* Replaced or Credited at our option
		For less than list 20/- value to one address	Packing free. Carriage charged at not less than cost	At purchaser's risk

Mixed Groups.—For mixed consignments which include any Group I lamps the charges and conditions of Group I are to apply.

*Where Sound Delivery is guaranteed we will credit or replace lamps broken in transit between our store and the customer's premises, provided we are duly advised and the lamps returned, carriage paid, within 7 days of date of despatch, our despatch note number being quoted.

We will not accept responsibility for the safe custody of such returned lamps.

†**Free Delivery Areas.**—Aberdeen, Accrington, Ashford, Bedford, Belfast, Birmingham, Blackburn, Blackpool, Bournemouth, Bradford, Brighton, Bristol, Burslem, Cardiff, Cheltenham, Chesterfield, Colchester, Cork, Coventry, Croydon, Derby, Doncaster, Dublin, Dundee, Eastbourne, Edinburgh, Exeter, Glasgow, Gloucester, Grimsby, Hastings, Huddersfield, Hull, Inverness, Ipswich, Leeds, Leicester, Lincoln, Liverpool, Maidstone, Manchester, Middlesbrough, Newcastle-on-Tyne, Newport (Mon.), Norwich, Nottingham, Plymouth, Portsmouth, Preston, Reading, Rotherham, Rugby, Sheffield, Southampton, Stoke, Sunderland, Swansea, Taunton, Tonbridge, Tunbridge Wells, Worthing.

All prices are subject to the Company's Standard "Conditions of Sale," and to change without notice.

Standard Package Quantities, see page 30

Metropolitan-Vickers Electrical Co. Ltd.

Lamp Sales Department

Telegrams
"MULTIPHASE
ESTRAND, LONDON"

NUMBER ONE
KINGSWAY
LONDON W.C.2

Telephone
TEMPLE BAR
4422 (10 lines)

DISTRICT OFFICES

BELFAST	...	Lamp Sales Dept.	55 Waring Street.	Tel. No. 4936.
BIRMINGHAM	...	Lamp Sales Dept.	International Exchange Buildings, Edmund Street.3.	Tel. Nos. Central 2801/2/3.
BRISTOL	...	Lamp Sales Dept.	22 Victoria Street, 1.	Tel. Nos. Bristol 22161/2.
CARDIFF	...	Lamp Sales Dept.	"Mervyn House," Frederick Street.	Tel. Nos. Central 4712/3.
DUBLIN†	...	Irish Free State Agent	Mr. T. N. MARTIN, 28, Grosvenor Square, Rathmines.	Tel. No. Rathmines 1017.
GLASGOW	...	Lamp Sales Dept.	"Metrovick" House, 74 Waterloo Street, C.2.	Tel. Central 6140.
IPSWICH	...	Lamp Sales Dept.	34 Princes Street.	Tel. No. 3941.
LEEDS	...	Lamp Sales Dept. Trade Counter and Stores	Permanent House, The Headrow.1. 53 Aire Street, 1.	Tel. Nos. 20444/5 Tel. No. 20444/5
LONDON*	...	Lamp Sales Dept.	75/77 Margaret Street, W.1.	Tel. Nos. Museum 3404/5/6.
MANCHESTER...	...	Lamp Sales Dept.	3 Victoria Bridge.3.	Tel. City 6230/2.
NEWCASTLE-ON- TYNE	...	Lamp Sales Dept.	"Metrovick" House, Northumber- land Road 1.	Tel. Nos. Central 26060/1/2.
SHEFFIELD	...	Lamp Sales Dept.	Howard Gallery, Chapel Walk, Fargate.1.	Tel. Nos. 23114/5.
STOCKTON-ON- TEES	...	Lamp Sales Dept.	26, Tennant Street.	Tel. Stockton 66302.
STOKE-ON- TRENT	...	Lamp Sales Dept.	Winton House, Newlands Street.	Tel. Hanley 48600.
SWANSEA	...	Lamp Sales Dept.	62 Wind Street.	Tel. No. 4336.

Telegraphic Addresses for all District Offices—

" Multiphase," with name of Town, except* which is " Metviclamp,
Rath, London," and † which is " Business, Dublin."

WHEN ORDERING

Please send your enquiries, orders and correspondence to
the nearest office of the Company, the address of which will
be found on this page.

Please state voltage, wattage, and type of cap required.
If lamps are required for series burning, please specify
same on your order.

ILLUMINATING ENGINEERING

Our Illuminating Engineering Department is at your
service in dealing with all lighting problems.

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General Illumination & General Data on Pages 29 & 30.



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