

S. E. C.

G.E.C. TERMS OF BUSINESS AND CONDITIONS OF SALE

1-HOW TO ORDER.

WHEN ORDERING

(a) Quote Section Letter and Catalogue No. If special quotation has been submitted, give quotation reference also.

(b) State whether order to be sent in one consignment only, or whether immediate delivery

is to be made of what is in stock.

(c) If it is not imperative that the exact articles specified be sent, add the words "or similar."

TELEPHONE ORDERS-

The telephone number of the G.E.C. Head Office, Magnet House, Kingsway, is TEMple Bar 8000 (90 lines). That of each of the Company's branches will be found on page 64. The Company is prepared to execute orders from its customers received by telephone, but in the interests of customers themselves all such orders should be confirmed in writing All Orders confirming Verbal Orders should be plainly marked "Confirmation."

CORRESPONDENCE—

Owing to the variety of the goods handled by the Company, letters and telegrams dealing with orders should specify-

(a) Order number and date.

(b) The nature of the goods, or the Section of the Catalogue concerned.

2-A WARNING.

Instances have occurred where Shippers, Merchants, Contractors, and others receiving indents, specifications, and orders for goods described merely by reference to letters and numbers contained in the Company's Catalogues have quoted for or supplied the goods of other manufacturers under the said letters and numbers. The Directors of the Company have been advised that such action is a fraud upon the Company's rights, and have been successful in obtaining an injunction and damages in proceedings taken in the Chancery Division of the High Court of Justice. The injunction restrained (inter alia) the use or employment in connection with electrical goods not manufactured or supplied by the Plaintiffs, of letters or figures having reference to the Plaintiff's Catalogue, so as to induce the belief that such goods are manufactured or supplied by the Plaintiffs.

While inviting all persons engaged in the electrical trade to make frequent reference to the Company's Catalogue as a standard work on electrical materials and goods, the Directors feel

bound to issue this warning against an improper use of the Catalogue.

3—GENERAL CONDITIONS OF SALE.

The Company will use its best endeavours to execute Orders to time, but under no circumstances will be responsible for late delivery.

The Catalogue prices are those ruling on date of issue and are subject to alteration without notice.

The Company reserves the right to cancel any uncompleted Order or suspend delivery in the event of any of the buyers' engagements not being duly met, or if it has reason to believe that such engagements may not be met.

RETURNS.—Goods cannot be taken back later than 10 days from date of Invoice.

Returned goods will not be accepted unless accompanied or preceded by an Advice Note. Advice Note must state reason for the return of goods, the date, reference letter and number of the Invoice on which the goods were charged.

The acceptance of returned goods does not necessarily entitle to credit for same. Credit can only be given when the claim has been examined and found correct.

Goods should not be returned in cases consigned as "empty," since, if so consigned, they are very liable to get lost in transit, or overlooked, in which case the Company will not hold itself responsible, and no credit can be given.

Continued on page 3 of Cover

O.S. SECTION 13th Edition

September, 1937.

OSRAM on an electric lamp is more than a trade mark. It signifies the product of the best methods of electric lamp manufacture, is the Hall Mark of quality and the guarantee of a unique lamp service.

OSRAM, in a word, is the epitome of long experience—of widespread investigations and tests carried out at the G.E.C. Research Laboratories at Wembley—of the most up-to-date processes and discoveries which, in combination, have produced the OSRAM Electric Lamp.

MADE IN ENGLAND.

The material listed in this publication is offered subject to the Company's terms of business and conditions of sale, a copy of which may be obtained on request.

Prices apply to Great Britain and Northern Ireland.

Manufacturers, Wholesale only

THE GENERAL ELECTRIC CO., LTD.

MAGNET HOUSE, KINGSWAY, LONDON, W.C.2.

Telephone: TEMple Bar 8000 (90 lines).
Telegrams: "Electricity, Westcent, London."
Cablegrams: "Polyphase, London."

Branches throughout Great Britain and all the principal markets of the World.

SENERAL LIGHT'G SERVICE

DOWN

STRIPLITE AND TUBULAR

> ARCHITEC-TURAL

G.E.C.

SGLIM IND

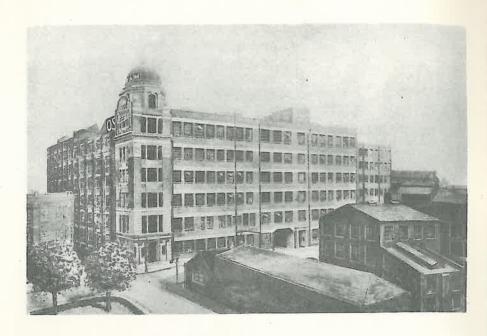
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AUTO

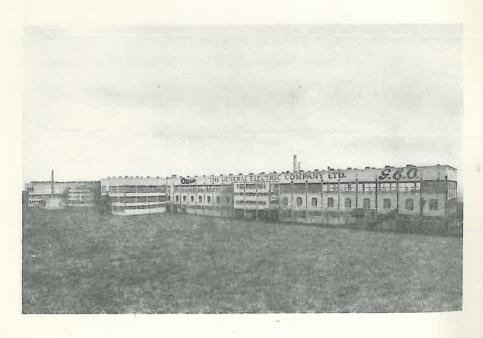
FLASH-

MINERS

JLTRA 10LET



OSRAM-G.E.C. LAMP WORKS, HAMMERSMITH, LONDON.



OSRAM-G.E.C. LAMP WORKS, WEMBLEY.



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GENERAL LIGHT'S SERVICE

OSIRA



FOREWORD

The central idea which governs the manufacture of Osram lamps is the maintenance of the highest standard of quality and the closest degree of uniformity of performance which can be attained, and considerations of cost are not allowed to interfere with the achievement of this main object.

The standards by which the quality of Osram lamps is gauged are the British Standard Specifications 161 (1937) and 555 (1935). Samples from every batch of lamps made are tested not only for correct rating but for actual life performance, with the definite aim of ensuring that the quality of every batch shall be at least equal to the requirements of the specifications. Thus very large quantities of lamps are yearly tested to destruction as part of the rigid system of control which ensures the maintenance of these standards.

In addition, exacting tests are applied step by step throughout the manufacture, not only of the lamps themselves, but of their component parts, a procedure which is possible only when, as with Osram lamps, the manufacturers are themselves the producers of every one of the materials and parts they use.

The factories of The General Electric Company Limited are equipped not only for the production of Osram Lamps, but for every constituent part required for these Lamps. Brass caps are made at Chesterfield; glass bulbs, tube and rod are manufactured by automatic bulb blowing and tube and rod drawing machines, which ensure uniformity of product, at the Lemington-on-Tyne and Wembley Glass Works of the Company. Tungsten filaments and argon gas used in the manufacture of Osram lamps, are produced at the Osram Works, where also leading-in conductors and filament supports are manufactured. It is due to the fact that The General Electric Co., Ltd. controls within its own factories the manufacture of every requisite item from the tungsten filament to the finished lamp, that it is enabled to maintain at all times the high and uniform quality of the Osram lamp.

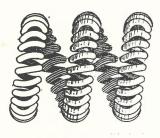
Recognising the value of research, The General Electric Co., Ltd. has erected large and fully equipped Research Laboratories at Wembley, Middlesex, and a substantial portion of these laboratories is devoted specially to research in connection with electric lamps.

In a "Lamp Development" section of these laboratories every new idea in lamp making is scientifically investigated. These laboratories ensure, from the manufacturers' point of view, that new developments in electric lighting will not go unperceived, and, from the users' point of view, that continual progress is being made in efficiency and reliability.

OSIRA



ELECTRIC LAMPS



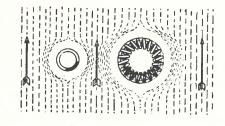


Fig. 1.

Fig. 2.

OSRAM COILED COIL LAMPS

Made under British Patents: 226,455, and other British Patents granted, and pending.

The application of electricity to the problems of everyday life is the subject of constant research, and in the field of lighting this research has brought two great benefits—a steady reduction in the cost of electric lamps, and a definite increase in their efficiency.

"More Light for Less Current" is the ideal, and Coiled Coil lamps represent remarkable progress in this direction.

The principle of the incandescent filament is retained, but in these lamps the filament, after being coiled, is coiled again upon itself, as shown in the illustration (Fig. 1). Thus the total filament surface exposed to the inert gas surrounding it is reduced, and less current is needed to maintain its brilliance. The Coiled Coil lamps, by this method of construction, give up to 20 per cent. more light for the same current consumption, with normal length of life.

The diagram (Fig. 2) shows to scale the relative diameters of the ordinary coiled filament and of the "Coiled Coil" filament and the surrounding gas layers. The diameter being larger in the second case, it might at first be supposed that losses would be greater, but the sectional diagrams do not show the reduction of effective filament length, which much more than compensates for the increased diameter.

The high standard of quality which characterises all G.E.C. products is applied rigorously in the manufacture of Osram Coiled Coil lamps, and the claims made for them are unconditionally guaranteed by The General Electric Company, Ltd.

Osram lamps which incorporate the "Coiled Coil" filament are 40, 60, 75 and 100 watts with Pearl, Clear or Opal bulbs in the 100/130 and 200/260 volt range.



SERVICE DEPOTS

ABERDEEN	••	••	••	••		••	Magnet House, 32, Market Street Telephone No. Central 2770/1
BELFAST	••	••	••		••	••	Magnet House, Queen Street Telephone No. Belfast 25656 (3 lines)
BIRMINGHAM	••	••	••	••	••	••	Magnet House, Moor Street Telephone No. Midland 4421/8 (8 lines)
BLACKBURN	••	••	••	•••	• •	••	Magnet House, 40/42, Darwen Street Telephone No. 4141/2 (2 lines)
BLACKPOOL	••	••	••	••	••	••	Magnet House, 24, Birley Street Telephone No. 3233 (2 lines)
BRIGHTON	••			••	••	••	Regent Hill, Western Road Telephone No. 3277/8
BRISTOL	••			••	••		Magnet House, 26, Victoria Street, 1 Telephone No. 24551 (3 lines)
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GLASGOW			••				Telephone No. 23241/5 Magnet House, 71, Waterloo Street, C.2
GLOUCESTER							Telephone No. Central 9250 Magnet House, 2, St. Aldate Street Telephone No. 3017*
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IPSWICH							Telephone No. 830 Electric House, Lloyd Avenue
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LEICESTER	••						Telephone No. 20671 (3 lines) Magnet House, 33, Rutland Street
LIVERPOOL							Telephone No. 58111/2 Magnet House, Church Alley
MANCHESTER							Telephone No. Royal 5380 (6 lines) Magnet House, Victoria Bridge
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NEWCASTLE-0	N-TY	NE					Telephone No. 3621/2 Magnet House, Gallowgate
NOTTINGHAM							Telephone No. 25160/1/2/3/4 Magnet House, 25, Stoney Street
PLYMOUTH							Telephone No. 43547/8/9 and 43540 Magnet House, 175, Union Street
SHEFFIELD							Telephone No. 60226 (3 lines) Magnet House, Fitzalan Square, 1
SOUTHAMPTON	N						Telephone No. 25101/2/3 Magnet House, Commercial Road.
STOKE-ON-TRE	ENT						Telephone No. 5631/2/3 Magnet House, South Wolfe Street
							Telephone No. 48575/6 (2 lines)
SWANSEA .	••	••	••	••	••	• •	Magnet House, Northampton Place Telephone No. 5026/7/8 (3 lines)

Head Office: Magnet House, Kingsway, London, W.C.2.

Telephone: TEMple Bar 8000 (90 lines). Telegrams: "Electricity, Westcent, London."

OSIRA



ELECTRIC LAMPS STANDARD VOLTAGES

GROUP I.

Below are given the voltages which have been standardized for Group I. Lamps from 25 to 260 volts. The prices of Group I. Lamps shown in this catalogue apply only to the standard voltages in each range

Prices of lamps for other voltages will be quoted on application.

					
ASFILLED LAMPS.					
Standard Voltages.					
25, 30					
35, 40, 45, 50, 55					
60, 65, 70, 75, 80, 85					
100, 105, 110, 115, 120, 125, 130					
200, 210, 220, 230, 240, 250, 260					
ACUUM LAMPS.					
Standard Voltages.					
25, 30					
50					
60, 65, 70, 75, 80, 85					
100, 105, 110, 115, 120, 125, 130					
200, 210, 220, 230, 240, 250, 260					
BON FILAMENT LAMPS.					
Standard Voltages.					
100, 105, 110, 115, 120, 125, 130					
200, 210, 220, 230, 240, 250. 260					



STANDARD PACKAGES

The ordering of lamps in standard packages cannot be recommended too strongly as it expedites delivery and reduces transit breakages. All lamps are stocked ready packed in the quantities shown in the accompanying schedule, so that they can be despatched at a moment's notice.

FIBERITE STORAGE BINS.

For transit, in addition to the individual packing, the lamps are packed in strong fiberite boxes. These boxes are of a convenient size, shape and substance to be stacked one on top of the other and used as storage bins, thus effecting considerable saving both in time and space.

SCHEDULE OF STANDARD PACKING.

	Watts		Voltage range	Quantity in standard package		
OSRAM LAMPS (Gasfilled)	15 25 40 60 75 100 150 200 300 500		25 to 55 25 to 130 25 to 260 25 to 260 100 to 260 35 to 260 35 to 260 35 to 260 35 to 260 35 to 260 35 to 260 100 to 260	100 100 100 100 50 50 24 12 12		
	750 1000 1500		100 to 260 100 to 260 100 to 260	12 12 12		
OSRAM LAMPS (Vacuum)	15 25 40		100 to 260 100 to 260 100 to 260	100 100 100		
MPS ile)	Туре		Bulb diameter	Quantity in standard package		
OSRAM LAMPS (Automobile)	WAY Headlight Sidelight Tail-light Indicator Festoon		m/m 38 23 and 19 15 11 and 8	12 12 25 12		
	Watts		Voltage Range	•		
G.E.C. Type "B"	40 60 100		} 100/130 200/260	100 100 50		

OSIRA



ELECTRIC LAMPS PACKING, DELIVERY & BREAKAGES IN TRANSIT

Quantity	District.	Packing.	Delivery	Transit breakages.
Groups I., II., III., V., VI. and VIII. Any quantity.	Inside G.E.C. free delivery areas.*	FREE	FREE	
Group I. Lamps to the list value of NOT less than £1 sent to one address Groups II., V., VI. and VIII. Lamps to the list value of NOT less than £1 sent to one address.	Inside Railway Company's free delivery areas.	FREE	FREE	Replaced or credited at G.E.C. option.†
Group III. Standard boxes of 100 lamps.	Anywhere in the United Kingdom , by post.	FREE	FREE	
Group I. Lamps to the list value of LESS than £1. Groups II., V., VI. and VIII. Lamps to the list value of LESS than £1. Group III. LESS than 100 lamps	Outside G.E.C. free delivery areas.*	FREE	Charged at cost.	At purchasers' risk.

† Transit breakages must be returned Carriage Paid, within 7 days, and G.E.C. advice note number quoted.

The Company does not accept responsibility for the safe custody of, or undertake to return, lamps forwarded for examination.

G.E.C. FREE DELIVERY AREAS.

Within 20 miles of the G.P.O., London.
Within 10 miles of the G.P.O., in the following towns:—

Chester Hasting Processing

PH	CHESTEL
Accrington	Chesterfield
Ashford (Kent)	Colchester
Barrow	
Bedford	Colwyn Bay
	Cork
Belfast	Coventry
Birkenhead	Croydon
Birmingham	Darlington
Blackburn	Derby
Blackpool	Doncaster
Bournemouth	
	Dorchester
Bradford	Dublin
Brighton	Dundee
(including Lewes)	Eastbourne
Bristol	Edinburgh
Burnley	Exeter
Burslem	Glasgow
Cambridge	Glasgow
	Gloucester
Canterbury	Grimsby
Cardiff	Guildford
Carlisle	Guiseley
Carmarthen	Halifax
Cheltenham	Hanley
Onon-onnain	ташеу

Aberdeen

ester	Hastings
esterfield	Huddersfield
chester	
	Hull
wyn Bay	Inverness
k	Ipswich
ventry	Lancaster
vdon	
	Leeds
rlington	Leicester
rby	Lincoln
ncaster	Llandudno
rchester	Liverpool
blin	Maidstone
ndce	
	Manchester
tbourne	Middlesbrough
nburgh	Newcastle-on-Tyne
eter	Newport (Mon.)
sgow	Northampton
ucester	Norwich
	Notwich
msby	Nottingham
latord	Oxford
seley	Peterboro
ifax	Plymouth
aley	Postom auth
1107	Portsmouth

Preston
Reading
Rhyl
Rotherham
Rugby
Salisbury
Sheffield
Southampton
Southend-on-Se
Southport
South Shields
Stockton-on-Te
Stoke-on-Trent
Sunderland
Swansea
Taunton
Tonbridge
Tunbridge Well
Walsall
Wolverhampton
Worthing



ELECTRIC LAMPS STANDARD LAMP CAPS

The illustrations below show the standard types of lamp caps fitted to OSRAM lamps together with the names by which they are known. The letters in brackets are the abbreviations used for these names throughout this catalogue.



Bayonet (B.C.)



Goliath Edison Screw (G.E.S.)



Edison Screw (E.S.)



Small Bayonet (S.B.C.)



Small Edison Screw (S.E.S.)



Prefocus



Miniature Edison Screw (M.E.S.)

Scale :--- Half size.

LIST OF EXTRA CHARGES ON LIST PRICES FOR VARIATIONS FROM STANDARD PRACTICE

GROUP I.

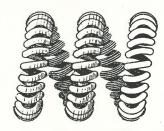
	Group I.					
Variation from standard	OSF	ROBERTSON.				
	Vacuum.	Gasfilled.	Carbon.			
VARNISHING	10%	10%				
SILVERING	Price quoted	on applicati	on —			
*CAPS: For S.B.C., S.E.S., S.C.C., in place of B.C., E.S., (See also exceptions for Sign Lamps on pages 27, 28 and 29)	2d. each.	2d. each.	2d. each.			
For G.E.S. in place of B.C. or E.S. Caps or vice versa	·	1/- each.				

^{*}S.B.C., S.E.S. and S.C.C. Caps cannot be supplied for higher wattages than 40 watts.



FOR GENERAL LIGHTING SERVICE GROUP I.

COILED COIL LAMPS



A portion of an OSRAM Coiled Coil filament highly magnified.

Osram Coiled Coil lamps give more light for the same current consumed than ordinary single coil gasfilled lamps.

Osram Coiled Coil lamps are guaranteed to comply in every detail with the British Standard Specifications No. 161-1937 for Coiled Coil lamps.

The approximate extra light given by Osram Coiled Coil lamps over single coil lamps is up to 20% for 40 watt lamps, up to 15% for 60 watt lamps, up to $12\frac{1}{2}\%$ for 75 watt lamps, and up to 10% for 100 watt lamps.

EXAMPLE.

LIGHT OUTPUT OF OSRAM 230 Volt COILED COIL AND 230 Volt SINGLE COIL LAMPS.

Type of Lamp.	Wattage and approx. Light Output in Lumens							
Type of Lamp.	40 watts.	60 watts.	75 watts.	100 watts.				
OSRAM Coiled Coil Lamps , Single Coil Lamps	415 345	700 610	930 820	1340 1210				
Extra light given by OSRAM COILED COIL LAMPS	70	90	110	130				

For description of the Coiled Coil filament see page 5.

OSRAM COILED COIL LAMPS

100-130 and 200-260 Volts.

	7737	DE			WATTAGES & PRICE PER LAMP						
TYPE					40 watts 60 watts		75 watts	100 watts			
PEARL					1/7	1/7	2/3	2/3			
CLEAR				• • • •	1/9	1/9	2/6	2/6			
OPAL	***	•••	• • •	•••	1/10	1/10	2/9	2/9			

For dimensions see page 13.



FOR GENERAL LIGHTING SERVICE GROUP I.

PEARL OSRAM LAMPS

The Pearl, or inside frosted bulbs, are recognised as standard for 15 to 100 watts General Lighting Service Lamps by the British Standards Institution in B.S.S. 161—1937, with which specification PEARL OSRAM Lamps comply in every detail.





25 watts

100 watts

		S	TANDA	RD VOL	TAGE	S AN	D PR	ICE .	PER :	LAM	Р
Standard Watts	Standard Cap	130, 2	200, 210	, 115, 120, , 220, 230, 260, Volts	240,		nd 30 olts	50 a	10 , 45 , nd 55 olts	75, 8	55, 70 30 and Volts
			s.	d.		s.	d.	s.	d.	S	d.
15	1		1	9		2	1	2	6	2	6
25						2	1	2	6	2	6
*40		}	1	7	1	2	6	2	6	2	6
*60	B.C.	J				3	0	3	0	3	0
*75		}	2	3	{		-	5	- 3	5	_ 3
*100		, 								3	
150	1		3	6		-	-	-		-	

NOTE: In the above table the 15 watts size for 60 to 260 volts and the 25 watts size for 200 to 260 volts are vacuum type.

* These lamps (100/130 & 200/260 volt) are made with the "Coiled Coil" filament (see pages 5 and 11)

For Extras see page 10. For Dimensions and Light Output see pages 13 and 15.

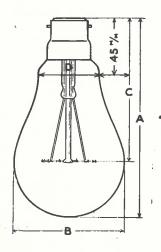
For PEARL OSRAM Traction Lamps see pages 32-33.

ELECTRIC LAMPS FOR GENERAL LIGHTING SERVICE

GROUP I.

PEARL AND CLEAR OSRAM LAMPS

15 to 100 watts.



Dimensional Diagram 15-100 watts.

			Len	gth	Bulb di	ameter	Cap con filament	tact to	Neck diamet	
Standard watts	Voltage range	Approx.		A	E	3	C		r)
watts	range	Tunicits	Tolerance ± 3½ m/m		Tolerance ± 1 m/m		Tolerance ± 3 m/m		Tolerance ± 1 m/m	
15	25 and 30 35-55 60-130 200-260	155 145 †140 †118	m/m 92.5	ins.	m/m 55	ins.	m/m 65	ins.	m/m 30	ins,
25	25 and 30 35-55 60-85 100-130 200-260	290 275 260 240 †215	100	3 ∤}	60	28	70	28	33	1.5
40	25 and 30 35-55 60-85 100-130 200-260	540 515 470 470 410	110	4 18	60	28	80	31	33	1 1/1
60	25 and 30 35-55 60-85 100-130 200-260	870 835 790 790 *690	117.5	49	65	21	85	3 ∯	35	1#
75	100-130 200-260	1060 *910}	125	47	70	21	90	31	39	11
100	35~55 60-85 100-130 200-260	1480 1400 1500 *1320	137.5	53	75	2措	100	3 18	39	11

These light output figures are for coiled coil filament lamps. The remainder are for single coil lamps.
 † These lamps are Vacuum, remainder Gasfilled.



FOR GENERAL LIGHTING SERVICE
GROUP I.



200 watts OSRAM Gasfilled Lamp. E.S. Cap.

CLEAR GASFILLED LAMPS

			SI	CANDARD	VOLTAGE	S AND	PRI	CE PE	R LA	MP	
Standard watts	Standard cap	100, 130,	200,		120, 125, 230, 240, Volts	25 and Volt		35, 40 50 an Vo	id 55	60, 65 75, 80 8,5 V) an
*†40 *†60 *†75 *†100 150 200 300 500 750 1000 1500	B.C. B.C. B.C. B.C. E.S. G.E.S. G.E.S. G.E.S. G.E.S.		£	s. 1 1 2 2 3 6 10 12 16 16	d. 9 9 6 6 6 6 0 0	2	d. 9 3	s. 23 579 125 15	d. 9 3 6 9 6 3 6	5. 23 59 125 19	d. 9 8 0 3 6 6

For EXTRAS see page 10.

^{*} These lamps (100/130 volts and 200/260 volts) are made with the coiled-coil filament (see pages 5 and 11).

[†] The dimensions and light output figures of the 40, 60, 75 and 100-watt sizes are the same as those shown on page 13 for PEARL OSRAM Lamps which are the recognised standards for these wattages, and should be used in preference to clear lamps for General Lighting Service. For dimensions of the other sizes see page 15.

OSIRA



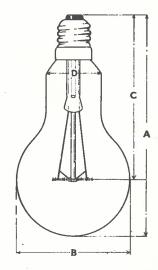
ELECTRIC LAMPS

FOR GENERAL LIGHTING SERVICE

GROUP I.

CLEAR GASFILLED LAMPS

150 to 1500 watts.



Dimensional Diagram 150-1500 watts.

		DIM	ENSIO	NS A	ND LI	GHT	OUTP	UT		
Standard Voltage watts range		Approx.	Leng	th	Bulb dia	ameter	Cap con filamen	tact to	Neck diameter	
Watts	Tange	TOTAL	A		В	1	(:		
			m/m	ins.	ın/m	ins.	m/m	ins.	m/m	ins.
150	35-55 60-85 100-130 200-260	2370 2240 2130 2030	160±4.5	61	80±1	31	120±4	42	39±1	11
200	35-55 60-85 100-130 200-260	3340 3250 2960 2900	178±5.5	7	90±1	31	133±5	5 <u>ł</u>	45±1	15
300	35-55 60-85 100-130 200-260	5300 5220 4770 4720	233±7	9 1	110±1.5	4 1	178±6	7	50±1	1 18
500	35-55 60-85 100-130 200-260	9550 9200 8700 8470	267±8	10 1	130±1.5	51	202±7	7₩	52±1	2
750	100-130 200-260	13610}	300±9	112	150±1.5	53	225±8	87	55±1	2♣
1000	100-130 200-260	19300 19100}	300±9	112	150±1 5	57	225±8	87	55±1	2 3
1500	100-1 30 200260	30300 30300}	335±9	131	170±1 5	6 11	250±8	91	60±1	28



FOR GENERAL LIGHTING SERVICE

GROUP I.



60 watts OSRAM Opal Lamp.

OPAL LAMPS (GASFILLED)

G. 1 1	0. 1.1	VOLTAGE RANGES AND PRICE PER LAMP.
Standard watts	Standard cap	100 to 130 Volts and 200 to 260 Volts
†25 *40 *60 *75 *100 150 200 300 500	B.C. B.C. B.C. B.C. B.C. E.S. G.E.S. G.E.S.	s. d. 1 10† 1 10 1 10 2 9 2 9 4 0 7 6 11 3

	Approx. Di	imensions		
Standard watts	Lei	ngth	Dian	neter
25	m/m 100	ins. 3 ½	m/m 55	ins. 2 3
40	110	4 5	60	23
60	118		65	21/2
75	125	45 47 8	70	23
100	138	58	75	2 16
150	175	$6\frac{7}{8}$	90	3 ½
200	200	778	110	4 16
300	267	107	130	5 5
500	300	113	150	5 8

† 100 to 130 volts only.

^{*} These lamps are made with the coiled-coil filament (see pages 5 and 11).

GROUP I.



150 watts OSRAM Daylight Lamp.

DAYLIGHT LAMPS (GASFILLED)

OSRAM Daylight lamps have special blue glass bulbs which produce a light corresponding closely to a north sky light, making them very useful for lighting purposes where colour discrimination is important.

When substituting Daylight lamps for Standard lamps, it generally will be found

necessary to use lamps of a higher wattage to compensate for the light absorbed by the blue glass.

Standard	Standard	VOLTAGE RANGES A	ND PRICE PER LAM
watts	cap	100 to 130 Velts ar	nd 200 to 260 Volts
60 100 150 300	B.C. B.C. B.C. G.E.S.	s. 2 3 4 12	d. 3 6 9

For EXTRAS see page 10.

The dimensions of these lamps are the same as those of the corresponding clear lamps given on pages 13 and 15.

STRIPLITE UBULAR

ARCHITEC-

OSGLIM

MINERS AND DECOR'N



FOR GENERAL LIGHTING SERVICE

GROUP I.



25 watts OSRAM Vacuum Lamp.

CLEAR VACUUM LAMPS

While for certain types of fittings and lighting service clear lamps can be used for all General Lighting purposes the PEARL OSRAM Lamps shown on pages 11 and 12 are recommended in preference.

Standard watts	Type of filament	Standard	VOLTAGE RANGES AND PRICE PER LAN				
watts	шашен	cap	100 to 130 Volts	200 to 260 Volts			
15 25 40	Coil Coil Cage	} B.C. {	s. d. 1 9 —	s. d. 1 9 1 9			

CAPS: Edison screw caps are fitted if required without extra charge.

For Extras see page 10.

DIMENSIONS AND LIGHT OUTPUT.

Standard Vol	Voltage	Approx.	Lei	ngth	Bulb d	iameter	Cap contact to file		
watts ranges		lumens	Tolerance ± 31 m/m		Toles ± 1	rance m/m	Tolerance ± 3 m/m		
15	100-130 200-260	140 1 18	m/m } 92.5	ins. 3§	m/m 55	ins. 2 Å	m,/m 65	ins. 2½	
25	200-260	215	100	3 18	60	23	70	21	
40	100-130 200-260	372 348	}136.5	53	62	27	_	_	

ELECTRIC LAMPS FOR SPECIAL LIGHTING SERVICE

GROUP I.



OSRAM OPAL Turn-down Lamp.

OSRAM TURN-DOWN LAMPS (VACUUM)

OSRAM Turn-Down Lamps are made to meet the many cases where it is an advantage to be able to regulate the light in a room—such as in bedrooms, sick rooms, night nurseries, etc.

They have two filaments, the brighter of which consumes 25 watts, and by simply pulling one or other of the switch cords the light can be increased or decreased as desired.

The bulbs are made of opal glass, which diffuses the light and produces a restful light absolutely free from glare.

Maximum Watts	Сар	Finish	Approx. Dimensions Length Diameter				VOLTAGE PRICE P	RANGES & ER LAMP
		_ W					100-130 & 200-260 volts	
25 & 4	B.C.	Opal	m/m 105	ins. 4 l	m/m 60	ins. 28	s. 4	d. 3



ELECTRIC LAMPS FOR SPECIAL LIGHTING SERVICE.

GROUP I.



PEARL OSRAM (Gasfilled).
Photo-Flood Lamp.

PEARL OSRAM PHOTO-FLOOD LAMPS (GASFILLED)

SERIES "S" and "N.N."

The filaments of these lamps run at an extremely high temperature, which results in the production of a light especially suitable for indoor photography. The series "S" lamp will enable approximately 2,000 feet of ciné film to be exposed, or about 300 ordinary photographs to be taken; this represents a life of 2 hours, compared with 6 hours for the "NN" type lamp.

The smaller lamp is fitted with a standard bayonet cap and is no larger than the 60-watt Pearl OSRAM lamp, so that it can be used in any ordinary electric light fitting. A safety fuse is incorporated in the caps for protection in the case of accidental breakage.

	Nom-		Ct 1	N.	Dimen	sions		PR	ICE
Standard Voltages	inal watts	Series	Standard cap	Len Tolerance		Dian Tolerance	PER LAMP		
100-110 200-210				m/m	ins.	m/m	ins.	s.	d.
220-210	275	"S"	B.C.	117.5	4 §	65	21/2	2	6
240-250	500	"NN"	E.S.	137.5	5옿	75	3	6	0

OSRAM PHOTOGRAPHIC LAMPS

(GASFILLED)

SERIES "B"
These are internally frosted high efficiency la

These are internally frosted, high efficiency lamps made on similar lines to the Photo-Flood Lamps described above. To meet the exacting requirements of professional photographers, for which they are especially suitable, they give a powerful light and last for approximately 100 hours. For best results these lamps should be used in conjunction with a reflector.

17-14	Standard	Ct dod		Dimer	nsions		$ _{P_{I}}$	RIC	Œ		
Voltage ranges	watts	cap	Leng	Length Tolerance ±4.5 m/m		Diameter Tolerance $\pm 1.5 \text{ m/m}$			PER LAMP		
100–130 and 200–260 volts	500	E.S.	m/m 175	ins.	m/m 100	ins. 3 11	£ 1	s. O	d. O		

Particulars of special reflectors for use with these lamps will be sent on application.

FOR SPECIAL LIGHTING SERVICE GROUP I.

STRIPLITE LAMPS



OSRAM Striplite Lamps have spiralized tungsten filaments burning in a vacuum. The tubes are lighted uniformly throughout their length.

Standard	Len	gth	Diam	eter		VOLTAGE RANGES and PRICE PEI LAMP 100-130, 200-260 volts					
watts	Tolerance	$\pm 1 \text{ m/m}$	Tolerance	Cl	ear	Colour sprayed					
30	m/ m { 221 284	ins. 8 ll 11 ll	m/m ins. 25 1 1 25 1		s. 4	d. O	s. 4	d. 9			
60	284	11 1	25	1	4	9	5	9			
100	309	121	46	1 18	6	9	7	6			

STANDARD CAPS: Centre Contact. The 60 and 100-watt sizes can be supplied if required with clip contact caps at 3d. per lamp extra.

STANDARD COLOURS: Red, Orange, Yellow, Green, Blue, Flame, Pink, White.
For prices and particulars of special trough reflectors, for use with OSRAM "Striplite" lamps, see G.B.C. Catalogue, Fittings Accessories Section F (2).



TUBULAR LAMPS

OPAL TUBULAR LAMPS are useful for positions where it is not practicable to employ a double capped lamp.

STANDARD COLOURS SPRAYED ON OPAL:—Blue, Green, Yellow, Amber, Orange, Flame and Pink.

OSRAM Clear Tubular Lamp. (Approximately & full size)



OSRAM Opal Tubular Lamp. (Approximately & full size)

Ct1-1										per Lamp	
Standard Watts.	Standard Cap.	Len ±3 r		Diam		1	100—130) volts an	d 200—:	260 volts	
	oap.			±1 m/m		Cl	Clear		White Opal		ıred
25 •	*S.B.C.	m/m 85	in. 3¶	m/m 25	m/m in. 25 1		đ. O	. s.	d.	s	d.
40 60}	†B.C.	302	117	38	11	-	-	5	0	5	6

* B.C. or S.E.S. at same price if specially ordered. † E.S. at same price if specially ordered.

STRIPLITE TUBULAR

OSGLIM

MINERS

OSIRA



ELECTRIC LAMPS FOR SPECIAL LIGHTING SERVICE

GROUP I.

ARCHITECTURAL LAMPS

100-130 and 200-260 volts.



STANDARD STRAIGHT LENGTHS AND PRICE PER LAMP

Ler	ngth	Di	ameter 3	0 m	/m (1 &	ins.)		1	Diameter 40 m/m (1 ft ins.)									
m/m	Ins.	Watts	Opa	1		olour Opa		Spr	lour		Watts		Opal		C	oloure Opal		† S	Colo	
305	12	35	£ s.	d. 6	£	s. 1 2	d. 0		1	d. 6	60	£	s. 14	d. 9	£	s. 16	d. 8	£	s. 1 6	d.
500	19 ₩	60	14	6		16	9	1	5	6	100	1	0	3	1	2	3	1	1	9
610	24	75	16	0		18	6,	1	7	0	120	1	2	6	1	4	9	1	3	9
*915	36	110	1 1	0	1	.4	6	1	а	0	180	1	9	6	1	13	6	1	12	6
*1220	48	150	1 5	6	1	9	3	1	7	6	240	1	15	9	1	19	3	1	18	6

^{* 200-260} volts only.

STANDARD CURVES AND PRICE PER LAMP

	1	Diameter 30 m/m (1 👬 ins.)							Diameter 40 m/m (1 & ins.)											
	Watts		Ора	1		Opa			Color		Watts		Opa		C	olour Opa			Colou	
Radius 25" h circle Radius 12½" circle Radius 6½" h circle	60	£	s,	d. •	£	s. 3	d.	1		d. O	100	€ 1	s. 8	d.	£ .	s. 10	d.		s. 10	đ
Right angle bend	60	1	3	6	1	7	0	1	5	6	100	1	13	0	1	16	3	1	15	8

For Standard Curves the overall length measured along the centre line of the lamp is 500 m/m (19 Hin.). COLOURED OPAL STANDARD COLOURS: Red, Pink, Orange, Yellow, Green and White. STANDARD CAPS, round peg type. Flat-sided caps, will also be supplied without extra charge. PRICES FOR OTHER LENGTHS AND CURVES ON APPLICATION.

Maximum length 48 inches.

Lamps exceeding 24 inches in length are only available in 200-260 volts.

ALPHABETICAL LAMPS FOR WORD AND SIGN BUILDING

The introduction of two standard size range of letters (12in. and 20in.) greatly facilitates the creation of attractive signs in white or coloured tubing at reasonable cost. Simplicity of wiring and installation, as well as ease of maintenance, are features which weigh heavily in favour of this type of lighting.

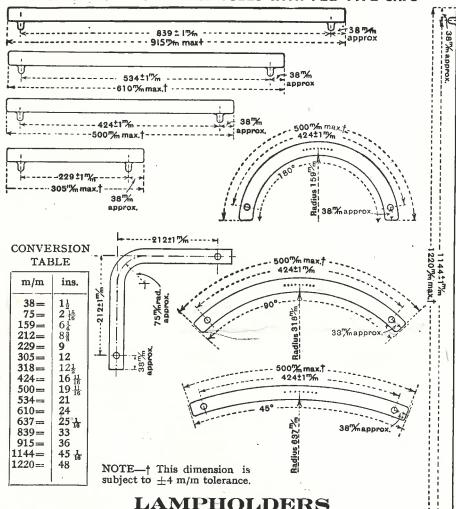
Prices of the component parts of each letter are given in a separate OSRAM Catalogue No. OS 7943.

When ordering replacement parts it is essential to quote the catalogue number of the lamps. Standard metal letters for signs are described in this catalogue.

[†] Standard colours: Same as for Striplite Lamps on page 23.

ARCHITECTURAL LAMPS

DIMENSIONS OF STANDARD TUBES WITH PEG TYPE CAPS



LAMPHOLDERS (SUITABLE

Architectural lampholders are available either in black or white bakelite with locking screws. A weatherproof model* with moulded rubber gaskets and pads should be used for outdoor situations.

When mounting these holders on conduit boxes it is essential to use C4511 bakelite discs

Catalogue No.	Finish	Price per pair
S 1347 S 1347 S 1347a	Black Bakelite with Locking Screws White Black Bakelite with weatherproof Gaskets and Pads Black Bakelite Girenter Bergroof	s. d. 2 8‡ 4 0‡ 4 8‡

Bakelite Discs. Catalogue No. C4511 Drilled at 2-inch centres for use with Malleable Iron B.S. Conduit Boxes, 6;- per dozen.

‡ These prices are subject to a 10% increase.

OSIRA



ELECTRIC LAMPS FOR SPECIAL LIGHTING SERVICE

GROUP I.



100 watts WHITE OSRAM Gasfilled Lamp.

WHITE & COLOUR SPRAYED LAMPS (GASFILLED)

OSRAM Colour Sprayed Lamps are standard lamps, the bulbs of which have been coated with a layer of unglazed china, which produces a very highly diffused light.

Standard colours :--

1.—White. 2.—Red. 3.—Pink. 4.—Orange. 5.—Yellow. 6.—Green. 7.—Blue. 8.—Flame Tint.

They will be found an ideal means of obtaining coloured light in the Home, Theatre, Cinema, Ballroom, Hotel, Restaurant, Shop Window, etc.

Standard watts	Ctondowl con	VOLTAGE RANGES	and PRICE PER LAMP						
Standard watts	Standard cap	100-130 and 200-260 Volts							
40	B.C.	s. 1	d. 10						
60	B.C.	1	10						
100	B.C.	2	9						
150	B.C.	4	0						
200	E.S.	7	4						
†300	G.E.S.	11	2						
†500	G.E.S.	13	9						
† 750	G.E.S.	17	9						

The 100-watt to 750-watt sizes can also be supplied bowl sprayed white if required at the same prices as above.

† These wattages are supplied in white only.
The dimensions of these lamps are the same as those of the corresponding wattages shown on pages 13 and 15.

TYPE "B" LAMPS

GROUP VIII.



The 40 watts G.E.C. Type "B" Lamp.

A single Coil Lamp of good performance manufactured specially to meet the demand where initial cost is the primary consideration.

PEARL

Volts	Watts	Сар	PRICE PER LAMP
100, 105, 110, 115,) (s. d.
120, 125, 130 200, 210,	40		1 0
220, 230,	60	B.C.	1 0
240, 250,	100		1 6
260	J		



FOR SPECIAL LIGHTING SERVICE

GROUP I.



OSRAM Traction Lamp. (Clear Vacuum).



PEARL OSRAM.
Gasfilled Traction Lamp.

SERIES TRACTION LAMPS TRAMCAR, TRAIN LIGHTING, ETC.

OSRAM Traction Lamps are specially designed to withstand the voltage fluctuations, rough usage, vibration and other severe conditions met with in traction service.

All OSRAM Traction Lamps are marked with their rated current in amperes and only those having the same current rating should be connected up to each other in series.

When ordering Traction Lamps for tram or train lighting please state: (i) maximum voltage; (ii) minimum voltage; (iii) nominal voltage; (iv) wattage of lamp; (v) number of lamps in series.

PEARL OSRAM-GASFILLED

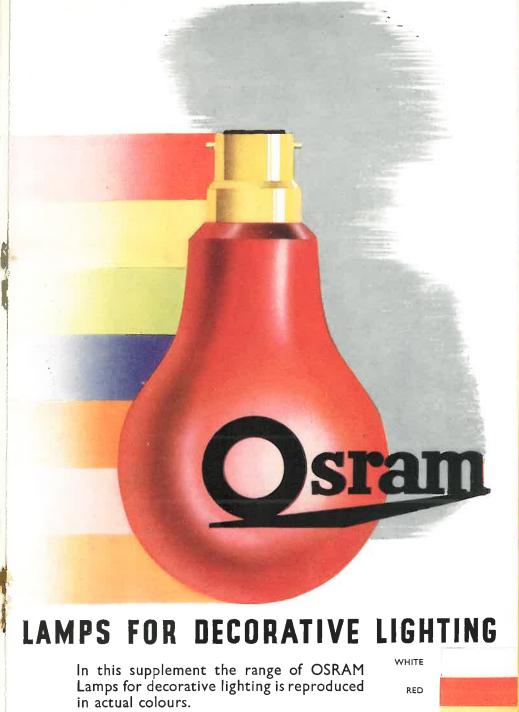
These lamps are internally frosted in the same manner as the Standard PEARL OSRAM Lamps. They give a brighter and better light than the vacuum lamps and eliminate glare.

Amnara	Nominal	Len	gth	Dian	neter.	Standard voltages and PRICE PER LAMP				
rating	watts	Tolei	rance 5 m/m	Toler ± 1		100, 110, 120, 130 Vo				
0.35 0.52	40 60	m/m 110 117.5	ins. 4 $_{16}^{5}$ 4 $_{8}^{5}$	m/m 60 65	$\begin{bmatrix} \mathbf{ins.} \\ 2\frac{3}{8} \\ 2\frac{1}{2} \end{bmatrix}$	s. 1	d. 8			

CLEAR VACUUM (STRAIGHT FILAMENT)

Ampere	Nominal		gth	Dian	neter	Standard voltages and PRICE PER LAMP				
rating	watts	Tole	Tolerance ± 3.5 m/m		rance m/m	100, 110, 120, 130 Volts				
0.27 0.35	30 40 }	m/m 110	ins. 4 5	m/m 60	ins. 23	s.	d. 10			

Standard Caps :- B.C. or E.S.



These lamps will be found to meet all requirements where purely decorative lighting is required, or where colour is needed to supplement the general scheme of illumination.

Full particulars and prices are given in the catalogue.

YELLOW

GREEN

BLUE

ORANGE

PINK

FLAME

TRACTION

OSGLIM

Projector

Α ...

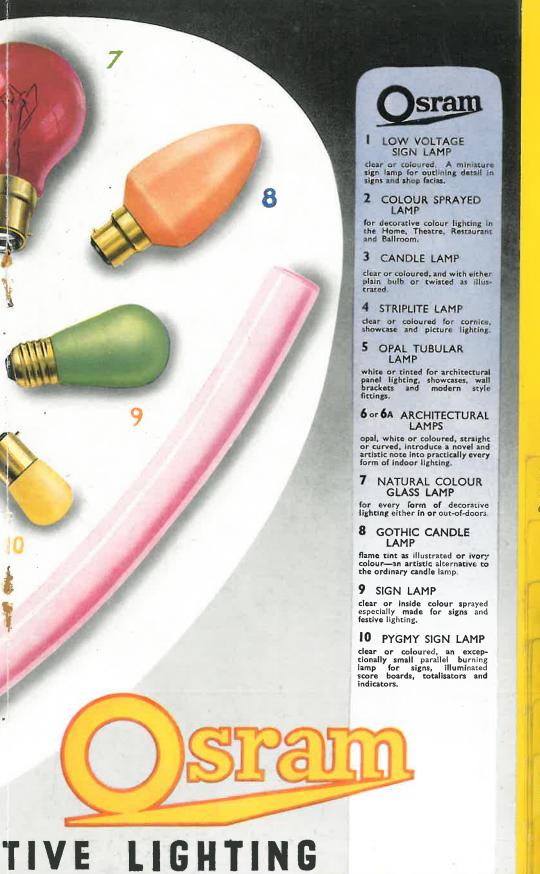
FLASH

MINERS

ULTRA

DSIRA





PACTION

OSGLIM AND Robertson

Projector

Au

IERS FL

VIOLET

OSIRA



OSIRA



ELECTRIC LAMPS FOR SPECIAL LIGHTING SERVICE GROUP I.



PEARL OSRAM Low Voltage, Long Series Traction Lamp. (Gasfilled.)

EXTRA LOW VOLTAGE LONG SERIES TRACTION LAMPS (GASFILLED)

These lamps are a new departure in Traction Lamps. They are made for connection in series of 10 to 15 lamps.

The small voltage drop across each lamp enables a thicker and stronger filament to be used, so that these lamps are even more robust than the ordinary traction type.

A further advantage is that each lamp is fitted with a short-circuiting device, which only comes into action when a lamp fails, so that the rest of the series is unaffected and the burnt-out lamp can be located at once.

These lamps are only supplied with E.S. caps, and should only be used with the G.E.C. Patent short-circuiting lampholders, which enable lamps to be changed without putting out the rest of the lamps in the series.

	Nominal	Len	gth	Di	am.	Standard	PRICE PER LAMP					
VOLTS	watts	Toler ±3.5		1/m ±1 m/m		cap	Pearl		С	lear		
40 50 }	40	m/m 110	ins. 4 5	m/m 60	ins. 23	E.S.	s.	d. 9	s.	d.		
40 }	60	117.5	4 8	65	21/2							

PEARL OSRAM SHIP LAMPS

The Pearl OSRAM Lamps shown on page 12 are recommended for ship lighting. The filaments of these lamps are tempered by a special heat treatment, which makes them capable of standing up to rough service. Their size and shape are suitable for the fittings usually installed on ships. The frosted bulbs eliminate all glare—a matter of great importance in ship lighting, where lamps have to be fixed in low positions and come into the line of vision. The frosting being on the inside of the bulb, the exterior is quite smooth and easily kept clean.

Osglim

REGD, TRADE MARK

ELECTRIC NEON DISCHARGE LAMPS

GROUP 1.





OSGLIM Tubular Switch Indicator Lamp. (Full size.)



OSGLIM Small Indicator Lamp (Full size.)

OSGLIM Lamp (Lighting Type). (Half size.)

These Neon discharge lamps are manufactured in a number of different types, of which those in most general use are listed below. The lighting type is specially suitable for burning in positions where a dim illumination is constantly required, and is, therefore, an ideal night light. The large indicator lamp is designed for use with domestic appliances such as cookers, where it is desirable for the indicator to give a more conspicuous light than that given by the smaller type, and for the lamp to have a full size bayonet cap. Particulars of other types will be sent on application.

	Standard	Standard		Approx.	limensions			RICE
Type	watts	cap	Len	gth	Dian	neter	PER	LAMP
LIGHTING			m/m	ins.	m/m	ins.	s.	d.
LETTER	-	D.C					з	4
FIGURE	5	B.C.	125	47	56	2 #	3	4
PHOTOGRAPHIC- (with Bulb varnished Ruby)					,		(a	4
INDICATOR \ \ \begin{align*} \text{Large} \\ \text{Large} \end{align*}	} 0.5 {	B.C.	58	21	28	11	2	6
Small	J [S.B.C.	53	2計	18	2	2	6

^{*} Voltages :-- 200/220, 230/240, 250/260 Volts.

TUBULAR SWITCH INDICATOR LAMPS

These small indicator lamps are made for incorporation in switches, the lamp being wired so that it glows when the switch is in the "off" position. This makes it easy to find the switch in the dark, and is specially convenient in hotels, boarding houses, etc., where the rooms are chiefly used by people who are not familiar with the positions of the switches.

Standard	Standard	Standard	A	Approx.	limensions	3	PRICE PER LAM			
voltages	watts	cap	Len	Length		neter	Clear		Spr	yed
200/220			m/m	ins.	m/m	ins.	s.	d.	s.	d.
230/240 250	0.2	S.E.S.	28	11	12	1	2	0	2	1

CAUTION—These Switch lamps must only be used in series with approximately 200,000 ohms resistance.

ROBERTSON ELECTRIC LAMPS

CARBON FILAMENT

GROUP I.



ROBERTSON Lamp.



ROBERTSON Flame-colour Radiator Lamp.

LIGHTING TYPE.

N	C4	total	watts		Maxidimen				Ranges and PER LAMP	
candle	Nominal Standard candle cap power	Voltage	range					100-130 and 200-260 volts		
power		100-130 Volts	200–260 Volts	Leng	th	Dia	ım.			
				m/m	ins.	m/m	ins.	s.	d.	
8 16	} B.C. {	30 56	36 : 66	}110	4 5	60	28	1	6	
32	1	115	136	117.5	45	65	2 16	1	9	

RADIATOR LAMPS

(VERTICAL PATTERN)

Robertson radiator lamps are supplied with flame-coloured bulbs, which give a red glow very similar to that of a coal fire, and create an atmosphere of cosiness, comfort and warmth.

Standard watts	Standard cap,	Approx. dimensions				Voltage range and PRICE PER LAMP		
		Length		Diameter		*100-250 Volts		
250	B.C.	m/m 285	ins. 11‡	m/m 57	ins. 21	s. 4	d. 3	

Large bayonet caps (1 in. diameter) can be fitted if desired without extra charge. * STANDARD VOLTAGES: 100/110, 115/125, 200/220, 230/250.

×.

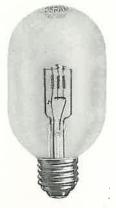
FLASH-LIGHT

OSIRA



FOR SPECIAL LIGHTING SERVICE

GROUP I.



A full range of Osram Projector Lamps is incorporated in Osram Projector Lamp Catalogue O.S. 7906.



250 watts (Class A.1) OSRAM Gasfilled Projector Lamp. (Illustration approximately half full size.)

100 watts (Class A.1) OSRAM Gasfilled Projector Lamp. (Illustration approximately half full size.)

GASFILLED PROJECTOR LAMPS

Specially designed for accurate projection work.

CLASS A.1 TUBULAR. GRID FILAMENT. VERTICAL BURNING

These lamps have grid filaments and must be burned vertically, cap below. Tilting the lamp results in reduction of burning life. Suitable for OPTICAL LANTERNS, SPOTLIGHTS, PHOTOGRAPHIC ENLARGING, ADVERTISING PROJECTORS, HOME CINEMAS, ETC.

Voltage	Watts	Dimensions m/m			Approx.	1	ĺ		
		Overall length ±10	Diam, ±2	Light centre length ±5	area of filament	Standard Cap	PRICE PER LAMP		
зо {	100 250 600 900	m/m 135 135 230 230	m/m 32 64 64 64	m/m 75 75 120 120	m/m 6 × 6 8 × 8 13 × 12 14 × 12	E.S. E.S. G.E.S. G.E.S.	£ 1 1 1	s. 10 2 15 15	d
50 {	200 250 500	135 135 135	32 32 64	75 75 75	6 × 7 7 × 8 14 × 12	E.S. E.S. E.S. or G.E.S.	1111	1 1 6	
100	300	135	32	55.6	11 × 10	Prefocus	1	6	-
110	500	135	32	55.6	*9 × 9	Prefocus	1	17	(
110	750	135	38	55	*10 × 10	Prefocus	2	2	
100 and 110	100 250 250 500 1000	135 135 135 135 230	32 or 25 32 64 64 64	75 55.6 75 75 120	10 × 9 11 × 10 11 × 10 13 × 16 16 × 15	B.C. or E.S. Prefocus E.S. E.S. or G.E.S. G.E.S.	1 1 1 1	10 1 0 4 10	1
200 { to 260 {	100 250 500 1000	135 135 135 230	32 64 64 . 64	75 75 75 75 120	8 × 13 11 × 13 15 × 18 17 × 20	B.C. or E.S. E.S. E.S. or G.E.S. G.E.S.	J	10 0 4 10	

* Biplane filament.

Prefocus Caps where not standard can be supplied at 1/- extra.

CAUTION.—It is essential for projector lamps to be used in the position for which they are designed, and for the apparatus in which they are used to be well ventilated, otherwise their life may be seriously reduced.



ELECTRIC LAMPS FOR SPECIAL LIGHTING SERVICE

GROUP I.







1,500 watts (Class A.2) OSRAM Gasfilled Projector Lamp.

GASFILLED PROJECTOR LAMPS

Specially designed for accurate projection work.

CLASS A.2. ROUND BULB. GRID FILAMENT. VERTICAL BURNING, CAP DOWN.

The round bulb causes a small reduction in optical efficiency by keeping the reflector further away from the filament than in Class A.1, listed on page 36. These lamps may be tilted slightly without reducing their life. Suitable for STAGE LIMES, SPOTLIGHTS, ETC.

ij.		D	imensions n	1/m	A		1		
Voltage	Watts	Overall length ±10	Diam. ±2	Light centre length ±5	Approx. area of filament	Cap	PI	PRICI ER LA	
20 100 and 110	80 100 250 500 1000 1500 2000 3000	m/m 80 115 160 250 300 330 350 395	m/m 60 75 90 120 150 170 200 240	m/m 30 80 115 190 220 250 250 275	$\begin{array}{c} \text{m/m} \\ \dagger 9 \\ 10 \times 13 \\ 11 \times 10 \\ 13 \times 16 \\ 17 \times 23 \\ 22 \times 32 \\ 26 \times 34 \\ 30 \times 35 \end{array}$	S.B.C. E.S. E.S. G.E.S. G.E.S. G.E.S. G.E.S.	f 1 1 2 3 5	s. 8 10 0 7 18 12 16	6 9 0 6 0 6
200 to 260	100 250 500 1000 1500 2000 3000	115 160 250 300 330 350 395	75 90 120 150 170 200 240	80 115 190 220 - 250 250 275	8×18 11×13 15×18 20×36 26×38 22×35 30×42	E.S. E.S. G.E.S. G.E.S. G.E.S. G.E.S. G.E.S.	111245	10 0 7 18 15 6 15	9 0 6 0 0 0

† Line filament.

CAUTION.—It is essential for projector lamps to be used in the position for which they are designed, and for the apparatus in which they are used to be well ventilated, otherwise their life may be seriously reduced.



ELECTRIC LAMPS FOR SPECIAL LIGHTING SERVICE

GROUP I.



100 watts (Class A.3) OSRAM Gasfilled Projector Lamp.

GASFILLED PROJECTOR LAMPS

CLASS A.3.

ROUND BULB. GRID FILAMENT. HORIZONTAL BURNING.

Similar to Class A.2, but designed for horizontal burning. Suitable for Spotlights, Stage Limes, Medical Examination Tubes, Advertising Projectors, etc.

	Watts	D	imensions	m/m	Approx.		PRICE
Voltage		Overall length ±10	Diam. ±2	Light centre length ±5	area of filament	Cap	PER LAMP
100 and 110	100 250 500 1000 1500	m/m 115 160 250 300 335	m/m 75 90 120 150	m/m 95 120 205 240 270	m/m 10×15 13×13 15×18 17×23 22×32	E.S. E.S. G.E.S. G.E.S. G.E.S.	£ s. d. 10 9 1 0 0 1 7 6 1 18 0 2 12 6
200 to 260	100 250 500 1000 1500	115 160 250 300 335	75 90 120 150 170	95 120 205 240 270	10 × 13 14 × 15 20 × 15 20 × 36 26 × 38	E.S. E.S. G.E.S. G.E.S. G.E.S.	10 9 1 0 0 1 7 6 1 18 0 2 15 0

Ventilation.—Owing to concentration of filament and small size of bulb, it is important that the lantern should be ventilated, otherwise the life of the lamp may be seriously reduced.



FOR SPECIAL LIGHTING SERVICE GROUP I.



250 watts (Class B.1) OSRAM
Gasfilled Projector Lamp.
(Illustration approximately one-third
full size.)



500 watts (Class B.2) OSRAM
Projector Lamp.
(Illustration approximately one-quarter
full size.)

GASFILLED PROJECTOR LAMPS CLASS B1.

ROUND BULB.

BUNCH FILAMENT.

FLOODLIGHTING TYPE.

These lamps may be used at any angle except within 45° of vertical (cap upwards). They are suitable for floodlighting and also for types of theatre spotlights in which ability to withstand rough usage is more important than high optical efficiency.

- 10		Di	mensions	m/m			
Voltage	Watts	Overall Length ±10	Diam. ±2	Light centre length ±5	Approx, area of filament	Сар	PRICE PER LAMP
100 to 130	100 250 500 1000	m/m 130 122 190 190	m/m 80 95 130 130	m/m 75 75 115 115	m/m 10×11 8×11 11×14 18×23	E.S. E.S. G.E.S. G.E.S.	£ s, d. 90 176 1 30 1 100
200 to 260 {	100 250 500 1000	130 122 190 190	80 95 130 130	75 75 115 115	10×10 11×10 15×15 20×25	E.S. E.S. G.E.S. G.E.S.	9 0 17 6 1 3 0 1 10 0

CLASS B2.

STANDARD GENERAL SERVICE BULB. BUNCH FILAMENT.

These Lamps can be used in any position.

to	200 260	500 1000	267±8 130±1.5 300±9 150±1.5	202±7 225±8	15×20 25×25	G.E.S. G.E.S.	1	3 10	0
----	------------	-------------	--------------------------------	----------------	----------------	------------------	---	---------	---





ELECTRIC LAMPS
FOR SPECIAL LIGHTING SERVICE
GROUP I.

GASFILLED PROJECTOR LAMPS



500 watts (Class E) OSRAM Gasfilled
Epidiascope Lamp.
(Illustration approximately one-third
full size).

24 watts (Class F)
OSRAM Gasfilled Projector Lamp.

CLASS E. ROUND BULB. GRID FILAMENT. EPIDIASCOPE TYPE.

This class is specially designed for EPIDIASCOPE apparatus. It is suitable also for spotlight and shop window projectors, which have to be rotated through wide angles. They can be used safely in any position up to 45° from vertical cap downwards.

	Watts	Dimensions m/m						
Voltage		Overall length ± 10	Diam. ± 2	Light centre length ± 5	Approx. area of filament	Сар	PRICE PER LAMP	
100 and 110	500	m/m 135	m/m 100	m/m 85	m/m 13×16	E.S	£ s. d. 1 10 0	
200 to 260 }	500	135	100	85	15×18	E.S.	1 10 0	

CLASS F. EXTRA LOW VOLTAGE. ROUND BULB

These lamps, though of low wattage, give a very intense, concentrated light. They are specially suitable for all purposes where small dimensions in the apparatus employed is of primary importance. The 8 and 24 watts lamps have straight filaments, the 48 and 100 watts grid filaments. The 48 and 100 watts sizes are designed for vertical burning.

		Di	Dimensions m/m			1		
Voltage	Watts	Max. Overall length ± 10	Diam. ± 2	Light centre length ± 5	Approx. area of filament	Сар	PRICE PER LAMP	
4 6 12 12 †12	8 24 24 48 100	m/m 60 60 60 70 135	m/m 38 38 38 50 32	m/m ·50 50 50 40 75	m/m *4 *4 *6 4×3 5×6	S.E.S. E.S. S.B.C. E.S. E.S.	s. 3 4 3 3 3 10	

^{*} Filament length.

[†] Tubular bulb.



ELECTRIC LAMPS FOR SPECIAL LIGHTING SERVICE GROUP I.



32 watts (Class G) OSRAM Exciter Lamp (Gasfilled).

GASFILLED PROJECTOR LAMPS

CLASS G. EXCITER LAMPS FOR SOUND FILM APPARATUS.

These lamps are intended for use in conjunction with Photo-cells for sound reproduction and similar purposes.

Of tubular bulb shape they are designed for burning vertically, cap down, and it is essential they should be used in this position only.

Owing to concentration of filament and small size of bulb it is important that the lantern in which this lamp is used should be ventilated. Otherwise the life of the lamp may be seriously reduced.

Code numbers	Voltage	Watts	Apparatus for which suitable	Сар	PRICE PER LAMP		
8450 8456 85450	8 8 8.5	32 32 34	British Acoustic B.T.P.	A.S.C.C.	s. 5 5	d. 6 6	
105475 1075475	10 10	50 75	R.C.A. R.C.A.	A.S.C.C.	7	6	

DIMENSIONS.

Code	Length	Diameter	Filament centre to cap central contact plate
numbers	Tolerance	Tolerance	Tolerance
	± 2 m/m	± 1 m/m	± 1.5 m/m
8450 8456 85450	m/m 76 76 76	m/m 26 26 26	m/m 50 56 56
105475	76	26	48.5
1075475	76	26	48.5



ELECTRIC LAMPS

FOR SPECIAL LIGHTING SERVICE

GROUP I.

OSRAM PROJECTOR LAMPS

Recommended for use in some of the most widely used projectors.

	Apparatus		Type of OSRAM Projector Lamp recommended.
	A		
1	Pattern 45 "Minature" Spotlight		250w. Class B.1 round bulb with E.S. cap.
	Pattern 44 "Baby" Spotlight		500w. Class B.1 round bulb with G.E.S. cap.
	Fallem 4.1 Focus Lantern		1,000w. Class B.1 round bulb with G.E.S. cap.
1	Pattern 50 "Pageant" Lantern Pattern 43a "Batten" Focus Lantern		1 LUUUW, Class A. I III DIII ar or Class H 1 with C E C
1	Pattern 43a "Batten" Focus Lantern		1,000w. Class A.1 tubular or Class B.1 with G.E.S. cap.
			1,000w. Class A.1 tubular with G.E.S. cap.
	rattern 2/ "Float Baby" Spot		100w. or 250w. Class B.1 round bulb with E.S. cap.
1	Pattern 52 2,000w. Focus Lantern		2,000w. round bulb Cinema Studio Spotlight lamp with
	· ·		
1	Pattern 73 Mirror Spot	٠.	1,000w. Class A.1 or B.1 projector lamp with G.E.S. cap.
1 4	Pattern 41 Photo, Flood		1,000w. Class A.1 projector lamp with G.E.S. cap.
	Pattern 46B Photo Spot		2.000w cinema studio projector lamp with G.E.S. cap.
1		٠.	2,000w. cinema studio projector lamp with G.E.S. cap.
1	В		
1 (Optical Lanterns (all types)		Class A Land A 2 with TO C.
1 1	focuslite Outfits (all types)		Class A.I and A.3 with E.S. cap.
1		• •	Class A.1 and A.3 with E.S. cap.
1 1	o. 54 Spotlight	• •	500w. Class A.1 with E.S. cap.
1 2	No. 55 Spotlight		100w. Class A.3 with E.S. cap.
1 1			ZOUW, Class A.I with F.S. can
l i	Jo 50 Spotlight	* *	500w. Class A.I with E.S. cap.
15	lo 61 Cabarat Flood	• •	1.000w. Class A.1 with G.E.S. can.
1 %	Je 150 Flanding		1 DUUW, General Service with G E S con
15	to (2 Crisodignt		JUUW, to 500W. General Service with G.F.S. ann
1 5	o. 63 Searchlight		1 JOOW, Class A.I with E.S. can
1 2	lo. 150 Floodlight lo. 63 Searchlight lo. 157/161 Floodlight	٠.	500w. Photographic with E.S. cap.
			o i mana and sup.
Ι.	C		
I.N	Ionolite Lantern Outfits		250w. or 500w. Class A.1 tubular projector lamp with E.S. cap.
l ::	Alpha" or SS 100 Projector		60v. 100w. Class A.1 projector lamp with E.S. cap.
	Silent Sixteen" SS 180 Projector		60v. 180w. Class A.1. projector lamp with E.S. cap.
1 ''	Super Cine" SS 250 Projector		50v. 250w. Class A.1 projector lamp with prefocus cap.
E			60v. 50w. Class A.1 tubular projector lamp with small
1		••	over come class A.1 tubular projector lamp with small
ľΕ	nsign "100B" Projector		100v 100v Class A 1 bayonet cap.
		•••	100v. 100w. Class A.1 projector lamp with prefocus cap and
E	nsign "300B" Projector		100 v 200 v Class A 1 25 mm, bulb.
44		• •	100v. 300w. Class A.1 projector lamp with prefocus cap.
	Optiscope Lantern No. 6	•••	200w. of 300w. Class A.1 tubular projector lamp, silver backed,
11	Optiscope" Lantern No. 9		
Ш.	Opuscope Lantern No. 9	• -	250w. or 500w. Class A.1 tubular projector lamp, silver
		- 1	backed, with E.S. cap.
	D	- 1	,
K	odorooma (IAI)	ļ	FO: 000 050 050
TV.	odascone (IRI)	••	50v. 200w. or 250w. Class A.1 tubular with perfocus or E.S. cap.
	odaecona (ICI)	· ·	UVY, ZUUW, OF ZOOW, Class A tubular with profession and
ı	odascope "C"	• • [100v. 100w. Class A.1 tubular with prefocus cap and 25 m/m
V	odassona IIII and IIII	- 1	hulb
T			100V, 300W, Class A.1 projector lamp with professes and
K	odascope "L"]	100v. 300w., 110v. 500w., 110v. 750w. Class A.1 with prefocus
7.7	4.4.	1	
IX.	odatoy odalite "A" and "B" odalite "E"		110V, DUW, Class A. I projector lamp with A C C C and
K	odalite "A" and "B"	1	Joow. Class A.1 with prefocus can.
K	odalite "E"	. 1	JUUW, Dhotographic lamp with E C com
K			500w. Class A.1 or Class E with E.S. cap.
		- 1	or orange 27 with 12.00. cap.
	E	- 1	
Pa	thescone "R" Projector	.	110v. 200w Class A 1 projector 1
Pa	thescope "Imp"		110v. 200w. Class A.1 projector lamp with special "Pathe" cap.
Pa	thescope "Ace"		
	thescope "Ace"	-	lov. ow, round bulb projector lamp.
P			
Pa		:	18v. 9w. round bulb projector lamp, 16v. 128w. round bulb projector lamp;

Manufactured and supplied by The Strand Electric & Engineering Co., Ltd. Manufactured and supplied by Cinema Traders, Ltd. Manufactured and supplied by Ensign, Ltd. Manufactured and supplied by Kodak, Ltd. Manufactured and supplied by Pathescope, Ltd. For prices see pages 36, 37, 38, 39 & 40.



GROUP II.





OSRAM (BAS) Type

Headlight Lamp (Gasfilled).

OSRAM (BAS

Туре

Side, Tail and Dash Lamp (Gasfilled).

BAS TYPES

Standardised in accordance with Specification No. 6R of the Society of Motor Manufacturers and Traders (I.A.E. Data Sheet 104R).

All BAS Lamps are marked (BAS

HEADLIGHT (GASFILLED)

			Diam.	BI	RITISH (AMERICAN CAP		
Volts	Watts	Amps.		Catalogue No.	BAS No.	PRICE PER LAMP	Catalogue No.	PRICE PER LAMP
6 †6 †12 †*12	12 18 24 36	2 3 2 3	m/m 38 38 38 38 38	OS 7000 OS 7002 OS 7010 OS 7012	BAS 1 BAS 2 BAS 3 BAS 4	s. d. 2 6 2 3 2 3 2 6	OS 7017 OS 7018 —	s. d. 2 7 2 4

^{*} Supplied with 3-pin C.C. caps at $2/7\frac{1}{2}$ each, or with Bosch type caps at 2/9 each. † For headlight lamps with "V" filaments, see page 44.

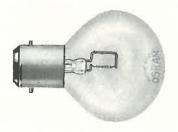
SIDE, TAIL AND DASH (GASFILLED)

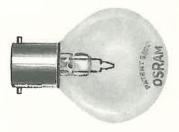
			Diam.	BRI	TISH CA	AMERIC	CAN CAP	
Volts	Watts	Amps.		Catalogue No.	BAS No.	PRICI PER LAMP	Catalogue	PRICE PER LAMP
6 6 12	3 6 6	0.5 1.0 0.5	m/m 19 19 19	OS 7123 OS 7144 OS 7168	BAS 8 BAS 9 BAS 10	s. d	OS 7114	s. d. }1_4

For additional sizes see pages 44 and 48.



GROUP II.





Headlight Lamp (Gasfilled).

"V" Filament Headlight Lamp (Gasfilled).

HEADLIGHT

ADDITIONAL SIZES (GASFILLED)

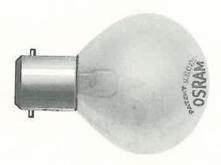
			L.		H CAP	AMERIC	AN CAP
Volts	Watts	Amps.	Diam of bulb	Catalogue No.	PRICE PER LAMP	Catalogue No.	PRICE PER LAMP
4 †6 †6 †6 †6 †*12 †*12 †*12 †*12	8 18 24 24 S.C.C. 30 36 24 S.C.C. 36 48 48 60 60	23445562344555	m/m 38 38 38 38 38 38 38 38 38 50	OS 4800 OS 6180 OS 7004 OS 8000 OS 6366 OS 1224 OS 1236 OS 7014	s. d. 2 9 2 2 3 3 1 6 9 3 4 4 6 6 6 6	OS 6194 OS 7019 OS 8001 OS 6377	s. d. 2 9 2 3 3 6
	BLUE B	ULB HE	ADLI	GHT LAN	APS (GAS	FILLED).	
†6 †12			38 38	OS 8050 OS 8051	2 10	OS 8052	2 10

^{† &}quot;V" Filament. ¶ "V" Filament, Satin etched. ‡ Supplied with 3-pin C.C. caps at 2/4½ each.

^{*} Satin etched bulbs 11d. each extra. Bosch cap 3d. extra. For 24V lamps see page 52.



GROUP II.



OSRAM Cadmium Yellow Lamp (Gasfilled).

ANTI-DAZZLE HEADLIGHT LAMPS

CADMIUM YELLOW HEADLIGHT LAMPS (GASFILLED)

These are Standard OSRAM Headlight Lamps, with natural colour yellow glass bulbs. They are especially recommended for driving in rain or fog as they reduce back glare to a minimum and are far more efficient than fog caps, screens, etc. There is no need to change them in clear weather, as in yellow light visibility is, if anything, better than in white light.

WITH S.B.C. and S.C.C. CAPS FOR BRITISH AND AMERICAN CARS.

Volts	Watts	Amps.	Diam. of bulb	Catalogue No.	Сар	P	ICE ER MP
6 {	*24 *36 ‡24 & 24 †24 & 18	4 6 4 & 4 4 & 3	m/m 38 38 38 38 38	OS 7004 Y OS 6240 Y OS 8010 LY	S.B.C. or S.C.C. S.B.C. or S.C.C. S.B.C. Bosch	s. 2 4 3 4	d. 10 4 9
12 {	*36 *48 †36 & 24	3 4 3 & 2	38 38 40	OS 7012 Y OS 7014 Y OS 8015 LY	S.B.C. or S.C.C. Do. Bosch	3 5 4	2 0 4
**13.5 {	*36 †36 & 24	3 3 & 2	38 40	OS 136 Y OS 1336 LY	S.B.C. or S.C.C. Bosch	3	7

^{* &}quot;V" or line Filament.

FLASH-

MINERS AND DECOR N

VIOLET

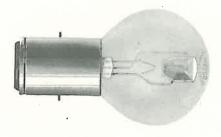
[‡] Bi-focal, British Car Type.

[†] Lucas-Graves Type.

^{**} For commercial vehicles and buses.



GROUP II.



OSRAM Lucas-Graves Patent Anti-Dazzle Headlamp (Gasfilled) with Bosch Cap.

ANTI-DAZZLE HEADLIGHT LAMPS

(GASFILLED)

LUCAS-GRAVES PATENT

British Patent No. 210105.

Irish Free State Patent No. 210105.

These are twin filament lamps, fitted with a special form of internal reflector. When switched on to the driving filament a full, brilliant beam is obtained. When the anti-dazzle filament is switched on, the top half of the beam is cut off and the driving light is concentrated on the road.

			Diam.	Standard	BOSCH CAP		
Volts	Watts	Amps.	of finish bulb		Catalogue No.	PRICE PER LAMP	
6 { 12 12 12 6	12 & 12 18 & 18 24 & 18 24 & 24 36 & 24 36 & 24	2 & 2 3 & 3 4 & 3 2 & 2 3 & 2 6 & 4	m/m 40 40 40 40 40 40 40	Clear { Satin- etched Clear	OS 6121 L OS 8008 L OS 8010 L OS 8014 L OS 8015 L	s. d. 3 6 4 6	

GROUP II.





OSRAM Bi-Focal Lamp, with corrugated bulb and American prefocus cap.

Made under British Letters Patent 425653. OSRAM British Motor Cycle Bi-Focal Lamp.

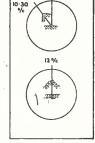
ANTI-DAZZLE HEADLIGHT LAMPS

BI-FOCAL (GASFILLED).

These lamps have twin V-shaped filaments located one above the other. Normally only the lower filament is alight. By switching over to the upper filament the beam of light is "dipped," Bi-focal lamps are made in three types: (i) American type, with corrugated bulbs and the auxiliary filament in the 12 o'clock position. (ii) British car type with the auxiliary filament in the 10.30 position. The main or lower filament produces the normal driving beam, but the upper filament gives a beam which is both dipped and twisted towards the near side of the road. (iii) British motor cycle type, with the auxiliary filament in the 12 o'clock

position, which produces a dipped beam.

Туре	Volts	Watte	Amps.	Catalogue No.	PRICE PER LAMP	
American. Corrugated bulb and 12 o/c filaments.	} 6	{ †18 & 1 †24 & 2 †36 & 2	4 4.8.4	OS 7146 OS 7147 OS 6324	3 3	d. 3 0
British car type anti-dazzle filament located at 10.30 position	6 12 12	24 & 2 24 & 2 36 & 3	4 2 & 2	OS 6240 OS 1240 OS 1360	3 3 5	9
British motor cycle type anti-dazzle filament located at 12 o'clock position	6	24 % 2 12 & 1		OS 6242 OS 6122 B	3	0



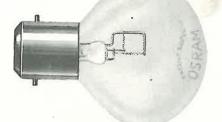
Filament
Positions
End view of Bulb

VIOLETRA VIOLET

[†] American prefocus cap-6d. extra.



GROUP II





OSRAM Twin-Filament Head and Side Lamp (Gasfilled).

OSRAM combined Tail and Stoplight for American cars.

TWIN-FILAMENT COMBINED HEAD & SIDELIGHT

(GASFILLED)

			Diam.	BRITISH CAP		AMERICAN CAP		
Volts	Watts	Amps.	of bulb	Catalogue No.	PRICE PER LAMP	Catalogue No.	PRICE PER LAMP	
6 6 12 12	12 & 3, 18 & 3, 24 & 6 36 & 6	2 & .5 3 & .5 2 & .5 3 & .5	m/m 38 38 38 38	OS 7099 OS 6183 OS 7101 OS 7097	s. d. 6	OS 7129 OS 6184	s. d. 3 6	

SIDE, TAIL & ADDITIONAL SIZES. DASH

			Diam.	BRITIS		AMERICAN CAP		
Volts	Volts Watts Am	Amps.	of bulb	Catalogue No.	PRICE PER LAMP	Catalogue No.	PRICE PER LAMP	
3 4 8 12	2 3 4 4	0.66 0.75 0.5 0.33	m/m 19 19 19 19	OS 7128 OS 7125 OS 7126	sd. }1 8{	OS 7110 OS 7171 OS 7116	s. d. 1 8	

SPECIAL AMERICAN SIDE & TAIL LAMPS

Volts	Watts	Amps.	Diam.	Cat. No.	PRICE	Description
6 6 12 6 6 12	1 2.5 3.6 12 18 & 3 18 & 3	.16 .42 .30 2 3 & 5 1.5 & .25	m/m 11 14 12 (Flat) 25 25 25	OS 610 OS 625 OS 124 OS 126 OS 6185 OS 1218	s. d. 1 6 1 10 2 0 2 6 2 6	Miniature bayonet cap centre con- tact (M.C.C) Stoplight A.S.C.C. Combined tail and stoplight A.S.B.C.

AUTOMOBILE LAMPS GROUP II.





OSRAM Festoon Lamp (8 m/m × 38 m/m). Actual Size. OSRAM Festoon Lamp (11 m/m × 45 m/m). Actual Size.

FESTOON OR TRAFFICATOR

Catalogue	Volts	Watts	Amps.	Max. di	mensions	PRICE PER	
No.			· · ·		Diameter	LAMP	
OS 7268 OS 7282 OS 6338 OS 638 OS 1233 OS 1238	6 12 6 6 12	6 6 3 6 3	1.0 0.5 0.5 1.0 0.25 0.5	38 38 38 38 38	m/m 11 	s. d. 2 0 2 0 2 0, 2 0	

MOTORISTS' SPARE LAMP CASES



OSRAM Motorists' Spare Lamp Case.

These cases have been designed for the convenience of motorists, who should be persuaded always to carry spare lamps on their cars. Lamps can be carried in these cases without the slightest risk of breakage.

Capacity:—Seven Lamps (2 head, 2 side or tail, 2 festoon and 1 ignition indicator lamp).

Price (without lamps)

3/- each

FLASH-

MINERS

ULTRA



GROUP II



OSRAM Indicator Lamp with 12 m/m Flat Bulb.



OSRAM Indicator Lamp. With 15 m/m Round Bulb.



OSRAM Tubular Lamp with Bosch Cap.

COIL IGNITION INDICATOR OR WARNING LIGHTS

WITH M.E.S. CAPS

Catalogue No.	Volts.	Watts	Amps.	Diam. of bulb		E PER
*OS 7577 OS 7582 OS 618 OS 7584 OS 7588 OS 123 OS 7592 OS 7954	2 4 †6 6 8 †12 12 16	1.5 2 1.8 3 1.6 3.6 2.4 3.0	0.75 0.5 0.3 0.5 0.2 0.3 0.2	m/m 15 round 15 ", 12 flat 15 round 15 ", 12 flat 15 round 15 ",	s. 1 1 1 1 1 1 1 1	d. 10 8 10 3 6 10 3

* This lamp is also suitable for some types of police and mine inspection lamps. For 2.5 and 3.5 volt indicator lamps for use in series with a resistance—see page 53.

† Trafficator Tell-tale Lamps.

TUBULAR

Valte Watts Amp			BRITISH CAP		BOSCH CAP		FIAT CAP (Old Type)		
Volts	Watts	Amps.	Cat. No.	PRICE PER LAMP	Cat. No.	PRICE PER LAMP	Cat. No.	PRICE PER LAMP	
12	6	0.5	OS 7224	s. d. 2 9	OS 7032	s. d. 3 O	OS 7016	s. d. 3 1	



GROUP II.



Pearl OSRAM (Interior Lighting) Motor Bus Lamp (Gasfilled).

Motor Bus & Commercial Vehicle Lamps

For use on controlled voltage lighting sets
18.5 & 12 VOLTS
HEADLIGHT (GASFILLED).

Volts	Watts	Dia. of bulb	Туре	Cap	PRICE LA	PER MP
13.5 13.5	24 36	38 m/m }	Single filament (Clear)	B.C., S.B.C. or Bosch		d. 10 10
13.5	· 36	38 m/m	Single filament Cadmium Yellow	S.B.C. or S.C.C.	3	7
13.5	36 & 24	40 m/m.	Lucas-Graves Satin-Etched	Bosch	4	0
	JU 00 24	1 11/111.	Lucas-Graves Cadmium Yellow	Bosch	5	0

INTERIOR LIGHTING (GASFILLED).

** 11	37-14- 337-44-		Diam of bulk	PRICE PER LAMP			
Volts	Volts Watts	Amps.	Diam. of bulb	Pearl or Clear	Opal		
12 *12	10 12	0.85	{ 38 m/m 50 m/m 38 m/m 50 m/m	s. d. 2 6 2 3 2 3 2 1	s, d, 2 10 2 6 2 6 2 4		

Unless otherwise specified the standard 50 m/m bulb will be supplied.

REAR	, WING	and	DESTINATIO	N BOAR	D LAMPS	(CLEAR	ONLY).
12	6		0.5 25±	1 m/m	Cat. No. OS 7214	8. 1	d. 6

^{*} Made to B.S.S. 555, 1935.



MOTOR
AND
TROLLEY
BUS
LAMPS



24-VOLT
AND
35-VOLT

Pearl OSRAM Interior Lighting Motor and Trolley Bus Lamp (Gasfilled)

24 VOLTS

HEADLIGHTS.

Volts	Watts	Diam. of	Сар	PRICE' PE	R LAMP
		bulb		Cle	ar
24 {	24 36	38 m/m 38 m/m	S.B.C. S.B.C.	s. 3	d. O 6
		SIDEI	LIGHTS		
24	6	23	S.B.C. or B.C.	2	3
	311	INTERIOR	LIGHTING.		
				Pearl or Clear	Opal
24 24 24 24 24 24 24	12 12 15 15 20	50 38 50 38 50 38	B.C. B.C. B.C. B.C. B.C. B.C.	s. d. 2 6 2 9 2 1 2 4 2 1 2 4	s. d. 2 10 3 1 2 4 2 7 2 4 2 7

Unless otherwise specified the standard 50 m/m bulb will be supplied.

35 VOLTS

Description	Volts	Watts	Bu	ılb•		
		Watts	Diam.	Туре	Cap	PRICE PER LAMP
Instrument Side	35 35 35 35 35 35	6 6 15 15 15 20	m/m. 23 38 50 50 50	Clear Clear Clear Daylight Opal Clear	S.B.C. B.C. B.C. B.C. B.C. B.C.	s. d. 2 1 2 4 2 2 3 3 2 6 3 3

ELECTRIC LAMPS

SPECIAL LIGHTING



GROUP III.



OSRAM Flashlight Bulb. Focussing Type.



OSRAM Tubular Radio Panel Lamp.

OSRAM Flashlight Lamp. Flat Bulb. Clear.

OSRAM Flashlight Lamp. Flat Bulb. Half Opal.

FLASHLIGHT LAMPS

NON-FOCUSSING TYPE.

Flat Bulb with M.E.S. Caps. (Packed in boxes of 50).

Volts	Amps.	Diameter	Shape of	PRICE PER LAMP		
		m/m	Bulb	Clear	Half Opal	
1.25 2.0 2.0 ††2.2 ††2.2 † 2.5	.20 .30 .60 .25 .29	12 12 15 12 12 12	Flat	2½d. 2½d. 2½d. 2½d. 2½d.	2½d. 2½d. 2½d. 2½d.	
†3.5 3.5	.15 .30	12 12 & 15	"	2½d. 2½d.		

[†] These lamps are used for COIL IGNITION WARNING LIGHTS in series with an appropriate resistance.

FOCUSSING TYPE.

(Packed in boxes of 50).

For Spotlight Torches, Pilot Lamps for wireless receivers, Battery Cycle Lamps, etc.

Volts	Amps.	Maximum	Shape of Bulb	PRICE PER LAMP
		Diam. m/m		Clear only
††2.2 2.5	.29	12	Round	7
2.5	.20 .3	12 12	,,	
*3.5	.15	12	"	
3.5	.3	12	",	} 3d.
4.0	.3	12		
4.0	.5	15	,,	11
4.5	.3	15	,,	J
**6.2	.3	15	Round)
***6.5	.3	12	,,	} 8d.

^{††} Specially designed for use with small capacity 2-cell batteries. Recommended for fuse bulbs on wireless receivers.

TUBULAR RADIO PANEL LAMPS

				1777	
Volts	Amps.	Diam. Bu	llb Overall	Cap	PRICE EACH
2 4 6.2	0.1 0.3 0.3	m/m 10 10 10	m/m 30 30 30	M.E.S. M.E.S. M.E.S.	9d. 9d. 9d.

Special prices will be quoted for quantities of 100 lamps and over of one type and rating of any of the above lamps.

^{**}Specially suitable for pilot lamps on wireless receivers, in which case they should be used on a 4-v. circuit, and also for series burning with .2 amp. Universal valves.

**Recommended for series burning with .3 amp. Universal valves.



ELECTRIC LAMPS FOR SPECIAL LIGHTING SERVICE GROUP V.







OSRAM Miners' Lamp, with taper peg cap.

For Acid Accumulator. 2v. & 4v. 26 m/m Bulb.

OSRAM Lamp For Alkaline Accumulators 2.5v. 25 m/m Bulb.

Fearl OSRAM Miners' Lamp With S.E.S. (E14) cap.

2v. & 4v. 26 m/m Bulb.

All Osram Miners' lamps listed below have been approved by H.M. Mines Dept., after having passed exacting tests. They bear the Mines Dept. official stamp



MINERS' LAMPS

	MINES	DEPARTM	ENT CA	TEGORY 1.	(B.S.S. 53	5)		
For use in :-	Ra	tings	Dimensions		Stnd.	LIST PRICE EACH		
2 02 day in ,	Volts	Amps.	Diam. ± 1 m/m	Ov. Length ± 2 m/m	Сар	Clear	Pearl	
(a) (c) Cap Lamp Hand Lamp	2 2.5 4	1.0 1.5 0.75	18 25 26	31 52 50 44 47(b)	E.10 E.14 953 E.14 Taper	s. d. 1 6 1 6	s. d. 1 6	
Hand "	4	1.0	28	51 54}	Peg E.14 Taper Peg	1 6	1 6	
	M	INES DEI	PARTME	NT CATEGOI	RY 2.			
(a) Cap Lamp (a) Cap ,, (a) Cap ,, (a) Cap ,, (a) Cap ,,	2 2 2.5 2.5 2.5 2.5	0.85 0.85 .5 1.0	21(Squat) 26 18 21 26	28.5±1.5 (c) 44 31 34 (c) 44 42	E.10 E.14 E.10 E.10 E.14 953	1 10 1 6 2 0 1 10 1 8	1 6 1 10 1 8	
Cap ,, Cap ,, Hand ,,	2.5 2.5 2.5	1.0 1.25 1.75	25 21 25	46.5 34 52 l	E.10 E.14 \	1 10 1 6		
(a) (c) Cap Lamp (a) (d) Cap ,, (d) Cap ,,	4 2.5 4	0.65 .55 & .55 1.0 & .75	18 25 25	50 } 31 48 48	953 E.10 B.A.15D B.A.15D	1 8 2 6 2 0	2 6 2 0	
Old type Hand Lamps (not approved)	2 (a)	1.0	25	46	E.14	1 5	1 5	

Cap lamp bulbs will not comply with the Mines Department's regulations if used in Hewers (a) With pip.

Way be supplied one third crown frosted without extra charge.

Twin filaments.

Osram

DECORATION LAMP OUTFITS

GROUP VI

These Lamp Outfits are SAFE and RELIABLE. Outfits Nos. 1—4 are suitable for large Christmas Trees, also for decorating Ballrooms, Restaurants, Shopwindows, etc., where they are required to remain on circuit for long periods. Their appearance is enhanced

by the use of the Dahlia or Water Lily Shades illustrated below. Cut-outs in each lamp prevent the failure of one from extinguishing the series.

Outfit No. 5 is ideal for small and medium Christmas Trees and for children's parties where SAFETY is of paramount importance.



Outfit Nos. 2—4. (Outfit No. 5 is illustrated on page 4 of coloured centre spread).

STANDARD LAMP OUTFITS

55

Outfit	Volts	No. of	Lamps	Type of Lamps	Spacing of	Price
No.		In Circuit	Spare		Lamp- holders	complete
1 .	100/125	8	1	14v. 7w. Olive	24"	12/6
2 3 4	200/ 21 0 220/230 240/250	15 1 7 18	3 1 0	}14v. 7w. Olive	24"	19/6
5	200/250	12	1	19v. 3w. Cone	12"	10/6

Spare Lamps: Olive type 1/- each; Cone type 9d. each.

ACCESSORIES

ACCESSORIES	
For Outfit No. 1. Dahlia Shades, box of 8	3/6 2/9
For Outfits Nos. 2—4. Dahlia Shades, box of 18 Water Lily Shades, box of 18	7/- 5/6
For Outfit No. 5. Nursery Rhyme Bells, box of 12	5/-
For all Outfits. Antumn Leaves, per doz. yards	7/6





NURSERY RHYME BELL (For use with Outfit No. 5).



DECORATION LAMP OUTFITS

GROUP VI.

"PARTY LIGHTS" OUTFIT

SERIES "A." NURSERY RHYMES.

200/250 voits.

15/6 complete.

This outfit comprises twelve miniature Bell-Shades in six attractive colours, which are attached to Cone Type (19v.3w.) Lamps, fitted in coloured holders and wired

together with multi-coloured flex to a B.C. adaptor. The Bells are translucent and each bears a delightful coloured representation of some well known English Nursery Rhyme.

Osram Party Lights will be found invaluable for parties of all kinds—Christmas, Birthday, etc., where they will aid in diffusing an atmosphere of good cheer.



CHRISTMAS TREE TABLE CENTRE

200/250 Volts. Pri

Price 17/6 complete.

This illuminated centre piece for the table makes a wide appeal to children at Christmas time, or in fact at any festive gathering.

It consists of an artificial Christmas Tree of English manufacture, mounted on a decorated wooden base, and wired complete with 5ft. of extension flexible and adaptor, 12 green bakelite lampholders, twelve OSRAM cone type (19 volt 3 watt) lamps in assorted colours and one spare lamp.



For prices of spares, see page 55



ELECTRIC LAMPS

FOR SPECIAL LIGHTING SERVICE

GROUP I.



OSRAM Ultra-Violet Lamp.

OSRAM ULTRA-VIOLET LAMP

The Osram ultra-violet lamp comprises a tungsten filament with an arc in mercury vapour between cylindrical tungsten electrodes. The greater part of the light and infra-red rays is radiated from these incandescent electrodes, and the ultra-violet rays radiate from the arc stream between them. The filament ensures automatic striking of the arc.

The lamp's radiation has a close affinity to that of sunlight, and as such can be used, when concentrated on the human body, for purposes of a general tonic or for the treatment of specific diseases.

The lamp is designed for use on alternating current (50 cycles) only, in conjunction with a specially designed transformer. Voltages 100/105, 200/220, 230/250.

Standard Watts	Standard Cap	Ap	Approximate Dimensions				E PER	LAMP
	72	Ler	ngth	Diar	neter	£	s.	d,
400	G.E.S.	m/m 165	ins.	m/m 70	ins. 23	2	10	0

Particulars of Osram Ultra-violet lamp standard for use with above lamp will be forwarded on request.

OSIRA

REGD. TRADE MARK.

HIGH PRESSURE MERCURY VAPOUR ELECTRIC DISCHARGE

LAMPS

Made in England by the G.E.C. under one or more of the following British Patents:—344497, 384067, 391971, 397162, 405605, 410787, 415570, 426129 and other British Patents and pending Patent applications.

A G.E.C. Invention.

The Osira H.P.M.V Lamp was invented and developed in the Research Laboratories of The General Electric Co., Ltd. at Wembley, Middlesex, and were first put into operation for street lighting on June 22nd 1932, in East Lane, Wembley. This was the first public lighting installation in the world in which this type of lamp was used.

Principle of Operation.

Osira H.P.M.V. lamps constitute the most important recent advance in the technique of light production. The light is produced not because the gas or vapour is very hot but by the discharge of electricity through a mixture of gases which includes mercury vapour at a higher pressure than has been practical hitherto.

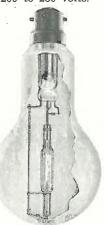
400 WATT OSIRA H.P.M.V. LAMP.

Efficiency.

Osira H.P.M.V lamps give 3 times as much light as ordinary gasfilled tungsten filament lamps of equivalent wattage; for instance the 400 watt Osira Mercury Discharge lamp gives practically the same light as a 1,000 watt Osram Incandescent lamp. Thus by using these lamps the illumination can be greatly increased without adding to the amount of electricity consumed.

Electricity Supply.

Osira Lamps can only be used on alternating current supplies of voltages from 200 to 260 volts.



80 WATT OSIRA LAMP.

Choke Coils.

The characteristics of these OSIRA lamps are similar to those of an electric arc, i.e., they have a "negative" resistance and .consequently they must always be used in conjunction with a specially designed choke.

Power Factor.

The power factor of lamp and G.E.C. choke is about 0.6 but by suitable condensers this can be raised to between 0.8 and 0.9.

Switching.

When first switched on Osira lamps pass about twice their normal burning current and take roughly between two and five minutes, according to wattage, to attain full brightness.

If the electricity supply is interrupted the lamp will have to cool down before it will light up again which it will do automatically if the switch is left on.

OSIRA

HIGH PRESSURE MERCURY VAPOUR ELECTRIC DISCHARGE LAMPS-CONT.

Fuses.

The provision of separate fuses for each lamp is recommended.

Wiring.

Osira lamps are arranged for parallel burning, each lamp must have a G.E.C. choke coil in series with it, preferably on the phase side of the lamp.

If a condenser is used for power factor correction it should be connected across the mains on the mains side of the choke.

Burning Position.

The standard lamps are made for burning in the cap-up position only, but if specially ordered, lamps can be supplied for burning cap-down.

Running Characteristics and Dimensions,

Lamp Rating	Approx. s	starting 230 volts	Average current when burning at full brightness at 230 volts		
Watts	Without Condenser	With Condenser	Without Condenser	With Condenser	
	amps.	amps.	amps.	amps.	
80	1.3	0.8	0.8	0.45	
125	1.7	1.1	1.0	0.6	
150	$2\frac{1}{2}$	13	1 1	1	
250	$4\bar{4}$	3 j	2~	1.3	
400	5 j	4	3.2	2.2	

LIGHT OUTPUT AND DIMENSIONS.								
Standard Watts	Approx. light output in Lumens	Overall L	ength	Overall d	iameter	Length f centre co end of ligh nearer	ntact to it column	
80 125 150 250 400	3040 5000 4800 9000 18000	m/m 160±4.5 178±5.5 230±15 290±10 325±15	ins. 6 fc 7 9 fc 11 g 12 g	m/m 80.0 90.0 43.±4 50±1 50±1	ins. 3 18 3 16 1 16 1 16 1 16	m/m 110±4 118±5 100±10 110±5 110±5	ins. 4 5 4 1 4 1 4 5 4 5 4 5 4 5 6 4 5	

PRICES.

Standard Voltages	Standard Watts	Standard Cap	P	RICE PI EAMP	ER
200/210, 220 230, 240/250	80 125 150 250 400	3 PIN B.C. 3 PIN B.C. E.S. G.E.S. G.E.S.	1 1 1 1 2	s. 10 15 15 17	d. O O O 6

For particulars of Chokes and Condensers for use with Osira discharge lamps see page 60.

OSIRA

HIGH PRESSURE MERCURY VAPOUR ELECTRIC DISCHARGE LAMP ACCESSORIES

G.E.C. TAPPED CHOKE COILS

These G.E.C. Choke Coils have been specially designed for, and must always be used with OSIRA High Pressure Mercury Vapour Lamps.

They are provided with tappings in steps of 5 Volts.

CHOKE COIL PRICES.

Lamp Rating Watts	Lamp Voltages Covered	Catalogue No.	PRICE EACH
80	200/210, 220 230, 240/250	Z.1820 Type B Z.1821 Type H	£ s. d. 3 9 6 2 2 0
125	200/210, 220	Z.1830 Type B	3 9 6
	230, 240/250	Z.1831 Type H	2 2 0
150	200/210, 220	Z.1840 L.50	2 5 0
	230, 240/250	Z.1840 H.50	2 5 0
250	200/210, 220	Z.1860 L.50	2 10 0
	230, 240/250	Z.1860 H.50	2 10 0
400	200/210, 220	Z.1871 L.50	2 14 0
	230, 240/250	Z.1871 H.50	2 14 0

G.E.C. METAL CLAD CONDENSERS

These Condensers are totally enclosed and of the highest quality.

They are designed, when used with one OSIRA High Pressure Mercury Vapour Lamp and Choke, to raise the Power Factor of the unit to over 0.8.

Lamp Rating Watts	Voltages	Recommended Capacity in M.F.D.	Catalogue No.	
80	200/220 230/250	10 7	Z.1850 Z.1849	
125	200/220 230/250	12½ 10	Z.1851 Z.1850	
150	200/250	10	Z.1850	
250	200/250	15	Z.1852	
400	200/250	20	Z.1854	

PRICE EACH; Z.1849 16/- Z.1850 18/- Z.1851 20/- Z.1852 22/- Z1854 25/-

Full details of characteristics, wiring instructions, circuit diagram, technical notes and fittings recommended will be found in the G.E.C. Catalogues Z.(1) for Exterior Lighting and F.7093 for Interior Lighting.

OSIRA FLOODLIGHTING LAMPS

GROUP IX.



"Osira" Floodlighting Lamp.

The special advantages which these lamps possess over other forms of floodlighting lamps are:—

- 1. Economy. The light generated by them is itself coloured, thus obviating the use of coloured media which invariably absorb a large percentage of the light given by ordinary light sources.
- 2. Brilliance. The light given by them is more brilliant and the colours more vivid than that obtained by other methods.

STANDARD COLOURS:—Red, Light Blue, Dark Blue, Light Green, Dark Green and Yellow (Sodium).

ESSENTIAL ACCESSORIES:—Tesla Coil, Filament Transformer and Choke Coil. (Tesla Coil not necessary for Yellow).

PRICES.

Colour	Approx. Watts	Voltage	PRICE PER LAMP
Red			£ s. d.
Light Blue Dark Blue Light green	250 250	200/250	3 0 0
Dark green	100	200/250	3 10 0 2 2 6
Red Light blue, etc. to Dark green	150 100	200/250 200/250	2 2 6

	<u> </u>	DIMENSIONS					
Colour	Watts	Lengt	h	Diame	ter .	Length luminous	
Red Blue, etc Yellow Red Blue, etc	400 250 100 150 100	m/m 1180±19 1180±19 420 690±10 690±10	ins. 463 463 161 27 27	m/m 37 26 46 37±1.5 26±1.5	ins. 176 1 13 13 13	m/m 865 865 230 430±5 430±5	ins, 34 34 9 167 167

Prices and particulars of Tesla Coils, Chokes and Filament Transformers for Osira Floodlighting Lamps will be forwarded on application.

OSIRA LABORATORY LAMPS

GROUP IX.

Many operations which are carried out in physical and chemical laboratories require the use of a light source giving a line spectrum which can be used as a source of known wavelengths for calibration purposes, or from which a single line can be isolated for work requiring monochromatic radiation. To cover these fields the General Electric Company Ltd. has produced a range of special OSIRA electric discharge lamps, particulars of which will be sent on application.

9.6.C.

TYPICAL

STREET LIGHTING INSTALLATIONS



THE CRYSTAL PALACE PARADE, LONDON.
Illuminated by G.E.C. DI-FRACTOR Lanterns equipped with 400 watt OSIRA Lamps.



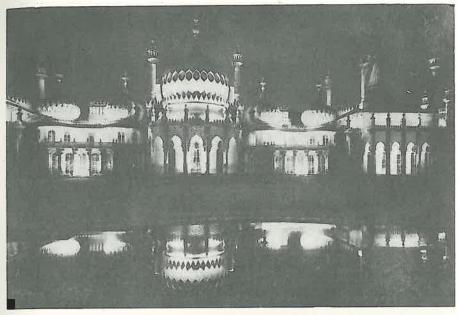
VICTORIA EMBANKMENT, LONDON.

This traffic way which carries the heaviest volume of traffic in the world is illuminated by G.E.C. "Wembley" Lanterns and 1,500 watt Osram Gasfilled Lamps.

9.6.C.

TYPICAL

OSIRA LIGHTING INSTALLATIONS



ROYAL PAVILION, BRIGHTON. Illuminated by G.E.C. Floodlights, equipped with Osira Lamps.



Sir W. G. ARMSTRONG WHITWORTH AIRCRAFT, LTD. Where Osira Lamps are installed for the lighting of important sections of the factory.

THE GENERAL ELECTRIC CO., LTD., OF ENGLAND

Known throughout the world as the

S.E.C.

REGD. TRADE MARK

Manufacturers and Suppliers of Everything Electrical

WORKS:

LONDON, BIRMINGHAM, MANCHESTER, COVENTRY, SOUTHAMPTON, EASTLEIGH, ERITH, NORTHAMPTON AND LEMINGTON-ON-TYNE.

RESEARCH LABORATORIES: WEMBLEY.

HOME BRANCHES:

		Address		Telephone No.
		Magnet House, 32, Market Street		Central 2770/1
BELFAST		Magnet House, Queen Street		25656 (3 lines)
BIRMINGHAM .		Magnet House, Moor Street		Midland 4421/8 (8 lines)
		Magnet House, 40/42, Darwen Street		4141/2 (2 lines)
		Magnet House, 24, Birley Street		3233 (2 lines)
BRIGHTON .		Regent Hill, Western Road		3277/8
BRISTOL .		Magnet House, 26, Victoria Street		24551 (3 lines)
CARDIFF		Magnet House, Castle Arcade & Womanl	by St.	2620
CORK		Magnet House, Grand Parade		823
CROYDON .		516, London Road		Thornton Heath 3246
DUBLIN		Magnet House, Trinity Street		71141/2/3/4
		26/30, North Lindsay Street		2168/9 (2 lines)
		Magnet House, 8, George Street		23241/2/3/4/5
GLASGOW .		Magnet House, 71, Waterloo Street		Central 9250
GLOUCESTER .		Magnet House, 2, St. Aldate Street		3017
		Magnet House, 164, 166, 168, George Stre	eet	Central 34625/6
INVERNESS		14. Falcon Square		830
		Electric House, Lloyds Avenue		3771/2/3 (3 lines)
LEEDS		Magnet House, Wellington Street		20671 (3 lines)
LEICESTER .		Magnet House, 33, Rutland Street		58111/2
LIVERPOOL .		Magnet House, Church Alley		Royal 5380 (6 lines)
		Magnet House, Victoria Bridge		Blackfriars 3434 (8 lines)
MIDDLESBROUG		Magnet House, 52/58, Corporation Road		3621/ 2
NEWCASTLE-ON	-TYNE	Magnet House, Gallowgate		25160/1/2/3/4
		Magnet House, 25, Stoney Street		43547/8/9 and 43540
PLYMOUTH .		Magnet House, 175, Union Street		60226 (3 lines)
SHEFFIELD .		Magnet House, Fitzalan Square		25101/2/3
SOUTHAMPTON		Magnet House, Commercial Road		5631/2/3
STOKE-ON-TREN	TV	Magnet House, South Wolfe Street		48575/6 (2 lines)
SWANSEA .		Magnet House, Northampton Place		5026/7/8 (3 lines)
		*		

OVERSEAS BRANCHES:

NEW ZEALAND: WELLINGTON, CHRISTCHURCH AUCKLAND.

CANADA: MONTREAL.

INDIA:
CALCUTTA.
MADRAS.
BOMBAY.
NEW DELHI.
LAHORE.
CAWNPORE.
BANGALORE.
TRIVANDRUM,
KARACHI.
COIMBATORE.
HYDERABAD (Deccan).

ARGENTINA: BUENOS AIRES.

BURMA: RANGOON.

MALAYA:
SINGAPORE (Straits
Settlements),
KUALA LUMPUR
(Federated Malay States).

CHINA, MANCHUKUO AND KOREA:
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With Agency in:—
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MAGNET HOUSE, KINGSWAY, LONDON, W.C.2

Telephone: TEMple Bar 8000 (90 lines).

Telegrams: Electricity, Westcent, London. Cablegrams: Polyphase, London.

AGENCIES IN ALL OTHER PRINCIPAL TOWNS THROUGHOUT THE WORLD.

BREAKAGE, DAMAGE AND PILFERAGE.—Except in special cases the Company does not hold itself responsible for any loss or damage in transit.

Goods should be examined immediately on delivery, and in case of breakage, damage or pilferage the Consignee should notify the Carriers immediately, and lodge a claim within three days of delivery, keeping the broken or damaged articles for examination. In the case of non-delivery a claim must be lodged with the Carriers within fourteen days of despatch.

- ALLEGED SHORTAGE.—Claims for alleged shortage can only be entertained if received within three days of receipt of goods and if accompanied by fullest possible particulars of case, number, condition, etc.
- consequential DAMAGE.—Whilst every care is taken to ensure correct execution of orders, and whilst any faulty goods are of course replaced, the Company will not entertain claims for consequential damage, loss of time sustained, or cost of repairs executed without previous consent.
- **SUBSTITUTION OF IMPROVED DESIGNS.**—The Company will supply that pattern which experience has shown to be the best, instead of invariably sending exactly the one that may be ordered.
- DIMENSIONS AND DRAWINGS.—Although all dimensions and drawings appearing in the Company's Catalogue have been compiled with every possible care, no guarantee is given that same will not be departed from or varied without notice.

HOME ORDERS.

TERMS OF PAYMENT.—Ledger accounts will be opened upon satisfactory references being furnished.

Accounts are payable monthly subject to a cash discount of 2½% if paid during the month following delivery, unless otherwise agreed (except Electrical Plant 1' Section of the Company's Catalogue, which is strictly Net).

No Cash Discount will be allowed off Overdue Accounts or Accounts under £1.

Cheques, Postal and Money Orders to be made payable to The General Electric Company, Limited, and crossed as follows—

"Midland Bank, Limited."

DELIVERY.—Goods are delivered free within our Van Delivery areas. Outside these areas orders of the value of £5 and upwards will be sent carriage free within the usual delivery areas of the Railway Companies in Great Britain.

(Note.—The Company's extensive Van Deliveries cover a radius of approximately 12 miles from the G.P.O., London, and in the case of most of the Provincial Branches approximately 6 miles from their local G.P.O.).

GASES.—All cases and packing material are charged at cost price, full value being allowed if returned in good condition and carriage paid within one month, and duly advised; only two-thirds value will be allowed on machinery cases.

EXPORT ORDERS.

TERMS OF PAYMENT.—Unless otherwise arranged, customers are requested to provide for payment through a London Bank against Bill of Lading.

Payment for orders received from Export Houses in Great Britain will be 21 per cent. Cash within seven days or Net monthly account (except Electrical Plant P Section and Osram Lamps OS Section of the Company's Catalogue, which are strictly Net).

- DELIVERY.—Free Warehouse or Works. Electrical Plant free on rails Birmingham. Extra charge for delivery f.o.b., case and packing.
- THESE TERMS ARE SUBJECT TO MODIFICATION BY SPECIAL CONDITIONS RELATING TO DIFFERENT DEPARTMENTS, DETAILS OF WHICH WILL BE SENT ON REQUEST.

