f +

## LAMPS \& LIGHTING EQUIPMENT

# PHILIPS ELECTRICAL LTD 

HEAD OFFICE AND SHOWROOMS<br>CENTURY HOUSE, SHAFTESBURY AVE., LONDON, W.C. 2

## TELEPHONE GERrard 7777 (45 IInes)

MEMBERS OF E.L.M.A. AND THE $\quad$ TELEGRAMS
LIGHTING SERVICE BUREAU

"PHONELAMPS"
BRANCHES AND SALES DEPOTS

| BRANCHES AND SALES DEPOTS Phone |  |  |  |  |  |  |  |  |  | Grams. <br> Phillamps Phone Belfast |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BELFAST | $\cdots$ | ... | 28A, Alfred Street | ... | ... | Belfast | Phone |  | 22047 |  |
| BIRMINGHAM Showr | ooms | ... | 28, Ludgate Hill ... 108, Dale End | $\ldots$ | $\ldots$ | Central Central | $\ldots$ | $\ldots$ | $\left.\begin{array}{l} 7201 \\ 2454 \end{array}\right\}$ | Phillamps BIrmingham |
| BLACKBURN | ... | ... | 1/3, Corporation Street | ... | ... | Blackburn | ... |  | 44921 | Phillamps Blackburn |
| BRISTOL 1 | ... | ... | 86, Redcliff Street | ... | ... | Bristol | ... |  | 20307 | Phillamps Bristol |
| CARDIFF | ... | ... | 11/13, Penarth Road | $\cdots$ | ... | Cardiff | ... |  | 24854 | Phillamps Cardiff |
| EDINBURGH 2 |  |  | 34, N.W. Thistle Street Off Frederlck Street. | Lane, | ... | Caledonian |  | ... | 3539 | Phillamps Edinburgh |
| GLASGOW C.2. | ... | ... | 26, Bothwell Street | $\ldots$ | ... | Central | ... | ... | 4302 | Phillamper Glasgow |
| LEEDS 10 | ... | ... | 100 Hunslet Lane | ... | ... | Leeds | ... |  | 29001/2/3 | Phillamps Leeds |
| LIVERPOOL 3 | ... | ... | 6/IO, Leeds Street | $\cdots$ | ... | Central | ... | ... | 4584 | Phillamps Liverpool |
| LONDON, W.C. 2 | $\ldots$ | ... | 24, Great Queen Street Trade Counter <br> 34, Parker Street | $\}$ | ... | Chancery | $\ldots$ | ... | 2251 | Phillamps Phone London |
| MANCHESTER I | ... | ... | 40, Little Lever Street | ... | .. | Central | ... | ... | 7766 | Phillamps Manchester |
| NEWCASTLE-ON | -TYN | E 2 | 1/3, Picton Terrace, off New Bridge St. | ... | ... | Newcastl | on-Ty | e | 21236 | Phillamps Newcastle |
| NOTTINGHAM | ... | ... | 27, St. Mary's Gate | ... | ... | Nottingha |  |  | 40581 | Phillamps Nottingham |
| PORTSMOUTH | ... | ... | 27, Landport Terrace, Southsea |  |  | Portsmouth |  |  | 73580 | Phillamps Portsmouth |
| SHEFFIELD | ... | ... | 21, Waingate ... | $\cdots$ | ... | Sheffield | $\ldots$ |  | 24980 | As Postal |
| STOKE-ON-TREN |  | ... | 21-23, Hope Street, Hanley |  | ... | Stoke-on-Trent |  | ... | 2532 | As Postal |
| SWANSEA .. | ... | ... | 20-21, Orchard Street | $\cdots$ | ... | Swansea | ... | ... | 4312 | As Postal |

Central Stores \& Traffic Dept. :-
No. 2 BUILDING, WADDON FACTORY ESTATE, CROYDON, SURREY.
Main Lamp Factory :-
HAMILTON, LANARK. Other Factorles, BALHAM, BRIXTON, MITCHAM, ETC.

## ALL PRICES SHOWN IN THIS CATALOGUE ARE LIST AND DO NOT APPLY IN EIRE

This Edition cancels those prior to Sept. Ist., 1953.

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## PHILIPS network of Branches \& Depots

The wide range of electrical products developed, manufactured and distributed by Philips is listed at the back of this catalogue. Here you see something of the vast organisation behind the products. A network of Branches and Depots throughout the country is supported by extensive modern factories and research laboratories.

The manufacture of lamps has been a speciality of the Philips Company for more than sixty PHILIPS years. The vast knowledge accumulated by this long experience, together with persistent laboratory research, has resulted in a manufacturing technique which ensures that every lamp leaving the Philips factories is of the highest quality, is rigorously tested, and will give long economical service. The comprehensive range of Tungsten, Fluorescent and Discharge Lamps and Lighting Fittings shown provides for all general domestic, commercial and industrial lighting requirements, and for many purposes where special lighting equipment is required.


# Some of PHILIPS Factories 

Philips Mitcham Works is the largest Philips factory in the London area, employing several thousand people. It is here that the famous Philips Radio and Television Receivers are manufactured.


Well equipped Showrooms, at Century House and at many branches, are at your service. The complete range of Philips Lamps and Lighting Fittings is on show, immediately available for examination and comparison. Specialist Illumination Engineers are always available to advise on lamp and lighting problems.


1. PRICE VARIATIONS. The prices quoted are based on the cost of material, labour, transport and of conforming to statutory obligations ruling at the date of quotation, and if between thas date and the date on which the goods are despatched variations, either by rise or fall, occur in these costs, then the prices quoted shall be amended to provide for these variations.
2. GENERAL. All orders accepted are contingent upon strikes, fires or other causes beyond our control and are subject to the following terms and conditions :-
(a) The Company reserve the right to alter prices, discounts and conditions of sale without notice.
(b) All quotations and orders are subject to our confirmation and will be executed at the price ruling at the date of delivery.

## 3. VALIDITY OF QUOTATIONS.

Unless previously withdrawn all quotations are open for acceptance within 30 days only from the date thereof, and are sublect to confirmation at the time of such acceptance.

4, DISCOUNTS. The goods listed herein will be charged at the prices quoted on the condition that they are sold retail at Maker's list prices. No cash or other discounts whatsoever are allowed upon resale, except as follows :-

For Lamps-The Electric Lamp Manufacturers' Association Scale.
For Apparatus-The Electric Discharge Lamp Auxiliaries Council Scale.
For Lighting Fittings-The Electric Light Fittings Association Scale.
Acceptance of the goods will constitute an acceptance of these Conditions of Sale and creates a binding agreement.
5. PAYMENT. Alt accounts are payable on demand, and must be paid not later than the end of the month following date of despatch, and are subject to $2 \frac{1}{2} \%$ cash discount unless quoted otherwise, only If paid within that period. No receipt valid except on the Company's official form.
6. DESPATCH. The time given for despatch is to date from receipt by the Company of a written order to proceed, and of all the necessary information and drawings to enable the Company to put the work in hand.

The Company will use its best endeavours to despatch on the date given, but will accept no liability for failure to do so, unless a guarantee shall have been given in writing under an agreed sum, as liquidated damages, for late despatch, and the customer shall have suffered loss by the delay. Should despatch be hindered or delayed by the Customer's instructions or lack of instructions or by any cause whatsoever beyond the Company's reasonable control, a reasonable extension of time shall be granted.

## 7. PACKING AND DELIVERY.

Packing cases and/or packlng material when charged for will be credited in full if returned in good condition, duly advised and carriage paid, within one month from date of despatch.
(A) LAMPS.
(i) Within "ELMA" Free Delivery

## Areas.

Packing and delivery of any number of lamps free. Souhd delivery guaranteed under conditions given below.
(ii) Outside "ELMA" Areas.

Orders of $£ 1$ list value or over to one address, packing and delivery free. Sound delivery guaranteed under conditions given below.
Orders of less than $f 1$ list value to one address, packing free but carriage chargeable at not less than cost. Sound delivery not guaranteed, lamps being forwarded at cusiomer's risk.
(B) APPARATUS AND LIGHTING FITTINGS. For complete delivery of one order to a specified destination sound delivery guaranteed under conditions given below.
(i) Orders below $E 10$ nett value. Packing-Cartons free. Wooden cases charged and returnable (carriage paid) for credit. Car-riage-Paid and charged to customer.
(ii) Orders of $f 10$ nett value and above
Packing-Cartons free. Wooden cases charged and returnable (carriage paid) for credit. Carriage-Paid by us.
8. TRANSIT DAMAGE, When sound delivery is guaranteed we will credit or replace lamps, apparatus or lighting fittings broken in transit between our store
and the customer's premises, provided the Carriers and the Company are duly advised within three days of receipt, and the goods returned complete in the original package carriage pald, within seven days of date of despatch, our despatch note number to be quoted. Otherwise no claim will be entertained. We will not accept responsibility for safe custody of such returned goods. No transportation or breakage allowance will be given by us except on dellveries made by us.
9. SHORT DELIVERY. Shortage claims will be considered only if the Carriers and the Company receive written notification of suspected pilferage or shortage within three days of delivery, but not otherwise. The packing and the contents should be retained for examination by the Carrier's Inspectors.
10. NON-DELIVERY. Failure to advise us of non-delivery of goods within 10 days from date of despatch will be held to free us from any responsibility.
II. RETURNS. Returned goods will not be accepted unless accompanied or preceded by an advice note, giving the reason for return and the date and number of our invoice. All goods returned must be consigned carrlage paid and reasonably packed.
12. DESCRIPTIVE MATTER AND

ILLUSTRATIONS. All descriptive and forwarding specifications, drawings and particulars of weights and dimensions issued by the Company are approximate only, and are intended only to present a general idea of the goods to which they refer and none of these shall form part of a contract.
13. PATENTS. In the event of any claim being made or action brought against you in respect of Infringements of patents by the manufacturer or sale by us of goods supplied to you hereunder, you are to notify us immediately and we shall be at liberty with your assistance if required, but at our expense, to conduct all negotiations for the settlement of the same or any litigation that may arise therefrom: subject to such notification and provided that no goods, or any part thereof, shall be used for any purpose other than that for which we supply them, we will indemnify you in respect of any such claims.

## HOW TO ORDER

When ordering Philips. Fluorescent, Tungsten, Mercury or Sodium lamps, apparatus or lighting equipment, please give the A.C. Mains voltage and frequency and the following information :-
LAMPS. Class, Wattage, Type of Cap, Colour or Finish. When ordering Projector Lamps, please state make and type of apparatus for which they are to be used.
APPARATUS. Cat. No. of item and Class and Rating of Lamp for which required.
LIGHTING FITTINGS. Cat. No. of item and Class and Rating of Lamp for which required.

When taxable lamps are sold at List Prices, the amount of Tax to be added by the Reseller, by agreement with the Central Price Regulation Committee, is as follows:-

| TYPE OF LAMP |  | PURCHASE TAX APPLICABLE TO: | PURCHASE <br> TAX RATE <br> (\% of List Price) |
| :---: | :---: | :---: | :---: |
| Group | 1 | All lamps up to and including 250 w , except: Projector lamps Class AI and G, and Neon Lamps. | 1818\% |
| Group | 2 | All lamps. | 164\% |
| Group | 4 | All lamps. | $16 \frac{1}{4} \%$ |
| Group | 5 | The Miners' Lamps shown on Page 20 are M.O.F. \& P. approved types and are not subject to Purchase Tax. <br> Tax applies only to Miners' Lamps which are not M.O.F. \& P. approved types. |  |
| Group | 6 | All lamps. | $18 \frac{1}{2} \%$ |
| Group | 9 | Fluorescent Tubular Lamps only up to and including 80 w . | 18\%\% |
| Group |  | All lamps. | 164\% |

## GROUP I and GROUP 9 LAMPS

| Where List Price:- |  | Add to List Price | Where List Price:- |  | Add to List Price | Where List Price:- |  | Add to List Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| is over | does not exceed |  | is over | does not exceed |  | is over | does not exceed |  |
| s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. |
| 1 I | 12 | 5. $2 \frac{1}{2}$ | 48 | 411 | $10 \frac{1}{2}$ | 128 | 12 II | 24 |
| 12 | I 5 | $3{ }^{2}$ | 411 | 52 | 11 | 12 II | 135 | 25 |
| 15 | 18 | $3 \frac{1}{2}$ | 52 | 55 | $11 \frac{1}{2}$ | 135 | 1311 | 26 |
| 18 | 111 | $4{ }^{2}$ | 55 | 58 | $10^{2}$ | 13 II | 148 | 27 |
| 111 | 22 | $4 \frac{1}{2}$ | 58 | 62 | 11 | 148 | 1411 | 28 |
| 22 | 25 | 5 | 62 | 611 | 12 | 1411 | 155 | 29 |
| 25 | 28 | $5 \frac{1}{2}$ | 611 |  | 14 | 155 | 165 | 211 |
| 28 | 211 | 6 | 75 | 85 | 15 | 165 | 175 | 31 |
| 211 | 32 | $6 \frac{1}{2}$ | 85 | 95 | 17 | 175 | - 185 | 33 |
| 32 | 35 | 7 | 95 | 105 | 110 | 185 | 198 | 35 |
| 35 | 38 | 8 | 105 | 108 | 111 | 198 | 210 | 310 |
| 38 | 311 | $8 \frac{1}{2}$ | 108 | II 2 | 20 | 210 | 230 | 41 |
| 311 | 42 | 9 | 112 | 118 | 21 | 230 | 260 | 47 |
|  |  | $9 \frac{1}{2}$ | 118 | 122 | 22 | 260 | 290 | 50 |
| 44 | 48 | $10^{\frac{1}{2}}$ | 122 | 128 | 23 | 290 | 320 | 56 |
|  |  |  |  |  |  | 320 | 350 | 64 |

GROUP 2, GROUP 4 and GROUP 10 LAMPS



# CLEAR，PEARL \＆White lamps 

## GASFILLED AND VACUUM <br> Group 1

| CLEAR－SINGLE COIL |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Watts | Nom．InitialLumensat 230 v. | Approximate Dimensions mm ． |  | Cap | Standard Voltages List Price Each |  |  |
|  |  | Dia． | Length |  | 25,35 ， 50， 55 ， 60，65， 75 | $\begin{aligned} & 100,110, \\ & 120,130, \end{aligned}$ | $\begin{aligned} & 200,210, \\ & 220,230, \\ & 240,250, \\ & 260, \\ & 260 \end{aligned}$ |
| $\begin{array}{r} 15 \\ 25 \\ 40 \\ 40 \\ 75 \\ 100 \\ 150 \\ 200 \\ 300 \\ 500 \\ 750 \\ 1000 \\ 1500 \end{array}$ | $\begin{array}{r} 120 \\ 220 \\ 355 \\ 620 \\ 840 \\ 840 \\ 12450 \\ 2150 \\ 2890 \\ 8830 \\ 13900 \\ 19900 \\ 19400 \\ 31000 \end{array}$ | 55 60 60 60 70 75 80 90 110 130 150 150 170 | $\begin{aligned} & 92 \cdot 5 \\ & 100 \\ & 100 \\ & 110 \\ & 125 \\ & 137 \cdot 5 \\ & 160 \\ & 178 \\ & 233 \\ & 236 \\ & 300 \\ & 300 \\ & 335 \end{aligned}$ | $(B 22 / 25 \times 26)$ <br> E．S．（E27／25） <br> （EETO／45） | $\begin{array}{ccc}\text { si } & \text { di } \\ 1 & 11 \\ 2 & 11 \\ 2 & 3 \\ 4 & 3 \\ 4 & 0 \\ 6 & 0 \\ 9 & 0 \\ 12 & 0 \\ 16 & 0 \\ = & \\ =\end{array}$ | $\begin{array}{ccc}\text { s．} & \text { d } \\ 1 & 5 \\ 1 & 5 \\ 1 & 5 \\ 1 & 5 \\ & 10 \\ 1 & 11 \\ 2 & 8 \\ 4 & 3 \\ 8 & 0 \\ 10 & 6 \\ 10 & 6 \\ 17 & 0 \\ 25 & 0\end{array}$ | $\begin{array}{cc}\text { s．} \\ \text { d } \\ 1 & 5 \\ 1 & 5 \\ 1 & 3 \\ 1 & 3 \\ 1 & 8 \\ 1 & 9 \\ 2 & 6 \\ 3 & 9 \\ 7 & 6 \\ 10 & 0 \\ 16 & 0 \\ 17 & 6 \\ 25 & 0\end{array}$ |
| CLEAR－DOUBLE COIL |  |  |  |  |  |  |  |
| $\begin{array}{r} 40 \\ 60 \\ 75 \\ 100 \end{array}$ | $\begin{array}{r} 430 \\ 725 \\ 960 \\ \hline 980 \end{array}$ | $\begin{aligned} & 60 \\ & 60 \\ & 70 \\ & 75 \end{aligned}$ | 110 110 125 137.5 | $\underset{(\mathrm{B} 22 / 25 \times 26)}{\text { B.C. }}$ | 二 | 二 | $\begin{array}{rr}1 & 7 \\ 1 & 7 \\ 1 & 10 \\ 2 & 0\end{array}$ |
| PEARL－SINGLE COIL |  |  |  |  |  |  |  |
| Watts | Nom．Initial Lumens at 230v． | Approximate Dimensions mm． |  | Cap | Standard Voltages List Price Each |  |  |
|  |  | Dia． | Length |  | $\begin{aligned} & 25,35,50, \\ & 55,9,60, \\ & 75 \\ & 75 \end{aligned}$ | $\begin{aligned} & 100,110, \\ & 120, \\ & 130, \end{aligned}$ | $\begin{aligned} & 200,210, \\ & 220,230, \\ & 240,250, \\ & 260, \\ & 260 \end{aligned}$ |
| $\begin{array}{r} 15 \\ 25 \\ 40 \\ 40 \\ 75 \\ 715 \\ 100 \\ 150 \\ 200 \end{array}$ | $\begin{gathered} 120 \\ 220 \\ 355 \\ 820 \\ 840 \\ 1240 \\ = \end{gathered}$ | $\begin{aligned} & 55 \\ & 60 \\ & 60 \\ & 60 \\ & 70 \\ & 75 \\ & 80 \\ & 90 \end{aligned}$ | $\begin{aligned} & 92.5 \\ & 100 \\ & 110 \\ & 110 \\ & 125 \\ & 137.5 \\ & 160 \\ & 178 \end{aligned}$ | ${ }_{(B 22 / 25 \times 26)}^{\text {B.C. }}$ <br> E．S．（E27／25） |  | $\begin{array}{cc}\text { s．} \\ \text { i } \\ 1 & \text { c } \\ 1 & 5 \\ 1 & 5 \\ 1 & 5 \\ 1 & 10 \\ 1 & 11 \\ 2 & 8 \\ 4 & 9\end{array}$ | $\begin{array}{cc}\text { s．} \\ \text { i } \\ 1 & 5 \\ 1 & 5 \\ 1 & 3 \\ 1 & 3 \\ 1 & 8 \\ 1 & 9 \\ 2 & 6 \\ 4 & 3\end{array}$ |
| PEARL－DOUBLE COIL |  |  |  |  |  |  |  |
| $\begin{gathered} 40 \\ 60 \\ 75 \\ 100 \end{gathered}$ | $\begin{gathered} 430 \\ 725 \\ 960 \\ 1380 \end{gathered}$ | $\begin{aligned} & 60 \\ & 60 \\ & 70 \\ & 75 \end{aligned}$ | $\begin{aligned} & 110 \\ & 110 \\ & 125 \\ & 137.5 \end{aligned}$ | $\underset{(822 / 25 \times 26)}{\text { B.C. }}$ | ＝ | 二 | $\begin{array}{rr}1 & 7 \\ 1 & 7 \\ 1 & 10 \\ 20\end{array}$ |
| WHITE－SINGLE COIL |  |  |  |  |  |  |  |
| Watts | Nom．InitialLumensat 230 | Approximate Dimensions mm ． |  | Cap | Standard Voltages List Price Each |  |  |
|  |  | Dia． | Length |  | $\begin{aligned} & 200,210,220, \\ & \text { 230, } 240, \text {, 250, } \\ & 260, \end{aligned}$ |  |  |
| $\begin{gathered} 40 \\ 60 \\ 100 \end{gathered}$ | ב | $\begin{aligned} & 60 \\ & 60 \\ & 75 \end{aligned}$ | $\begin{aligned} & 110 \\ & 110 \\ & 137.5 \end{aligned}$ | $(822 / 25 \times 26)$ | 二 | 二 | $\begin{array}{ll}1 & 6 \\ 1 & 6 \\ 2 & 0\end{array}$ |

Page Six

## ARGENTA LAMPS

## GASFILLED

Philips Argenta Lamps are available in a new and more efficient form.

The new opalescent internal coating has remarkably low absorption and provides soft, evenly distributed light for general lighting purposes.


## ROUGH SERVICE LAMPS

VACUUM

| Watts | $\begin{gathered} \text { Approximate } \\ \text { Dimensionons } \\ \text { mm. } \end{gathered}$ |  |  | Cap | Finish | Standard Voltages. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dia. | Lengch | L.c.L. |  |  | (100, 110. $120.1130,200,210$, |
| 40 60 | 60 65 | $\begin{aligned} & 110 \\ & 117.5 \end{aligned}$ | 80 85 | $\begin{aligned} & \text { B.C. }(\mathrm{B} 22 / 25 \times 26) \\ & \text { E.S. }(\mathrm{E} 27 / 25) \end{aligned}$ | $\begin{aligned} & \text { Clear } \\ & \text { or } \\ & \text { Pearl } \end{aligned}$ | $\begin{array}{ll} \text { s. } & \text { d. } \\ \text { 2 } & 0 \\ 2 & 0 \end{array}$ |

## TRAFFIC SIGNAL LAMPS

## VACUUM

| Watts | ApproximateDimensions m.m. |  |  | Cap | Finish | Standard Voltages List Price Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dia. | Length | L.c.L. |  |  | $110.120 .2120 .220, ~$ $230.240,250$ |
| 60 | 65 | $\begin{aligned} & 108 \\ & 117.5 \end{aligned}$ | $\begin{aligned} & 62 \\ & 85 \end{aligned}$ | $\begin{aligned} & \text { B.C. }(\text { B22 } 225 \times 26) \\ & \text { E.S. }(E 27 / 25) \end{aligned}$ | Clear | $\begin{array}{ll} \text { s. d. } \\ 2 & 0 \end{array}$ |

## SERIES BURNING TRACTION LANPS

GASFILLED Group I

| Rated Amps | Nominal Watts | Approximate Dimensions m.m. |  |  | Cap |  | Finish | Standard Voltages. List Price Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Dia. | Length | L.C.L. |  |  | 100, 110, 120, 130 |
| 0.35 | 40 | 60 | 110 | 80 |  | $\begin{aligned} & (\mathrm{B} 22 / 25 \times 26) \\ & \text { or } \times 25 \\ & (\mathrm{E} 27 / 25) \end{aligned}$ |  | Clea or <br> Pear | $\begin{array}{cc} \text { s. } & \text { d. } \\ 1 & 9 \end{array}$ |
| 0.52 | 60 | 65 | 117.5 | 85 | B.C <br> E.S | $\begin{aligned} & (\mathrm{B} 22 / 25 \times 26) \\ & \text { or } \\ & (\mathrm{E} 7 / 25) \end{aligned}$ |  | 19 |
| GASFILLED, WITH FUSIBLE CUT-OUT |  |  |  |  |  |  |  |  |
| Watts |  |  | Cap |  | Finish |  |  | Standard Voltages. List Price Each |
|  |  |  |  |  |  | 40,50 |  |
| 40 or 60 |  |  | E.S. (E.27/25) |  |  |  | Clear or Pearl |  |  | $\begin{array}{ll} \text { s. d. } \\ 2 & 5 \end{array}$ |

Group 1

PURCHASE TAX—All the lamps listed on this page ARE SUBJECT TO PURCHASE TAX-see Page 5.
Made in Great Britoin

| Type | Watts. | Approximate Dia. mm. mm. | Cap | Finish | Standard Voltage. List Price Each 35 V . |
| :---: | :---: | :---: | :---: | :---: | :---: |
| instrument <br> Side <br> Interior <br> Interior <br> Headlamp | $\begin{array}{r} 6 \\ 6 \\ 15 \\ 20 \\ 36 \end{array}$ | $\begin{gathered} 22 \\ 38 \\ 38 \text { or } 50 \\ 38 \\ 38 \end{gathered}$ | $\begin{aligned} & \text { S.B.C. }(\mathrm{B} 15 \mathrm{~d} / 17) \\ & \text { B.C. }(\mathrm{B22} 2 / 22) \\ & \text { B.C. }(\mathrm{B22/21} \times 26) \\ & \text { B.C. }(\mathrm{B2} 221 \times 26) \\ & \text { S.B.C. }(\mathrm{B} 15 \mathrm{~d} / 17) \end{aligned}$ | Clear <br> Clear or Pearl Clear | $\begin{array}{ll} \text { s. } & \text { d. } \\ 2 & 6 \\ 2 & 6 \\ 2 & 9 \\ 3 & 0 \\ 4 & 0 \end{array}$ |

## BUS INTERIOR LAMPS <br> Group 2

PEARL

| Volts | Watts | Cap | Approximate Dimensions mm. |  | Filament | List <br> Price <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Dia. | Length |  |  |
| $\begin{aligned} & 12 \\ & 24 \\ & 24 \end{aligned}$ | $\begin{aligned} & 12 \\ & 12 \\ & 20 \end{aligned}$ | $\begin{aligned} & \text { B.C. }(B 22 / 21 \times 26) \\ & \text { or } \\ & \text { S.B.C. }(\mathrm{B} \mid 5 \mathrm{~d} / 17) \end{aligned}$ | $\begin{aligned} & 38 \\ & \text { or } \\ & 50 \end{aligned}$ | $\begin{aligned} & 55 \\ & \text { or } \\ & 68 \end{aligned}$ | $\begin{aligned} & \text { " } V \text { " } \\ & \text { or } \\ & \text { Bow } \end{aligned}$ | $\begin{array}{ll} \text { s. } & d . \\ 2 & 4 \\ 2 & 6 \\ 2 & 9 \end{array}$ |

PURCHASE TAX-All the lamps listed above ARE SUBJECT TO PURCHASE TAX-see Page 5.

## MINERS, LAMPS Group 5

| KRYPTON |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Volts | Amps | Cap | Approximate Dimensions |  | Finish | For usein :- | M.O.F. \& P. Category | $\begin{aligned} & \text { List } \\ & \begin{array}{c} \text { Price } \\ \text { Price } \end{array} \end{aligned}$ |
|  |  |  | Dia. mm. | Length mm. |  |  |  |  |
| $\begin{aligned} & 2.5(a) \\ & 2.5(a) \\ & 2.5(a) \\ & 2.5(a) \\ & 3.6 \\ & 3.75 \\ & 4.0(a) \\ & 4.0(a) \\ & 4.0 \\ & 4.0(a) \end{aligned}$ | $\begin{gathered} 1.5 \\ 1.5 \\ 1.75 \\ 1.75 \\ 1.0 \\ 1.0+1.0 \\ 0.75 \\ 0.75 \\ 0.8 \\ 1.0 \end{gathered}$ | $\begin{gathered} 953 \\ \mathrm{E} 14 / 23 \\ 953 \\ \mathrm{E} 14 / 23 \\ \mathrm{E} 10 \\ \mathrm{~B} 15 \mathrm{~d} / 17 \\ \mathrm{E} 14 / 23 \\ \mathrm{Peg} \\ \mathrm{PE} 10 \\ \mathrm{E} 14 / 23 \end{gathered}$ | 18 18 18 18 18 18 18 18 18 18 | $\begin{aligned} & 43 \cdot 5 \\ & 45 \cdot 5 \\ & 43 \cdot 5 \\ & 45 \cdot 5 \\ & 31 \\ & 40 \\ & 45 \cdot 5 \\ & 47 \\ & 31 \\ & 45 \cdot 5 \end{aligned}$ | Pearl <br> Pearl <br> Pearl <br> Pearl <br> Clear <br> Clear <br> Pearl <br> Pearl <br> Clear <br> Pearl | Hand <br> Hand <br> Hand <br> Hand <br> Cap <br> Cap <br> Hand <br> Hand <br> Cap <br> Hand | $\begin{array}{ll} 1 & B \\ 1 & B \\ 1 & A \\ 1 & A \\ 1 & A \\ 1 & A \\ 1 & B \\ 1 & B \\ 1 & A \\ 1 & A \end{array}$ | $\begin{array}{lll} \text { s. } & \text { d. } \\ 3 & 0 \\ 3 & 0 \\ 3 & 0 \\ 3 & 0 \\ 3 & 0 \\ 3 & 6 \\ 3 & 0 \\ 3 & 0 \\ 3 & 3 \\ 3 & 0 \end{array}$ |
| ARGON |  |  |  |  |  |  |  |  |
| 4.0 | $0.55+0.55$ | B15d/21 | 25 | 49 | Clear | Cap | 1 B | 29 |

Note: (a) Supplied with fuse in the cap.
PURCHASE TAX
All the miners' lamps on this page are M.O.F. \& P. approved types, and therefore are not subject to Purchase Tax.

## decoration Sets

For Christmas tree decoration and other festive occasions throughout the year. Each Philips

## 

 Decoration Set consists of twelve lamps, sprayed in various attractive colours, ready wired in series for operation on $200 / 260$ volt supplies. A spare lamp is included in each set.

| DECORATION SETS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type <br> Number | Voles | List Price <br> Each | Purchase Tax <br> extra | Total |  |  |
| Standard Set No. 1 | $200 / 260$ | s. | d. | s. d. |  |  |
| 18 | 2 | 3 | 5 | s. |  |  |

Note: As the lamps are series wired, should one lamp fail the set will not light. To trace the faulty lamp, test each one separately on an ordinary 4.5 volt battery.

| DECORATION LAMPS (GROUP 6) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Volts | Watts | Cap | Dia. mm. | Shapo | Finish | $\begin{aligned} & \text { List } \\ & \text { Price } \end{aligned}$ | P. Tax extra |
| 20 | 3 | M.E.S. (EIO/I3) | 18 | Conical | Clear or Colour Sprayed | $\begin{array}{ll} \text { s. } & d \\ i & 0 \end{array}$ | s. $\underset{2 \frac{1}{2}}{ }$ |

# COLOURED LAMPS 

## GASFILLED AND VACUUM Group I

Philips Coloured Lamps are ideal for commercial display and decorative domestic lighting.

| OUTSIDE SPRAYED-SINGLE COIL |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Watts | Approximate Dimensions, mm. |  | Cap | Standard Voltages. <br> List Price Each |  | Standard Colours |
|  | Dia. | Length |  | $\begin{aligned} & 100,110, \\ & 120,130 \end{aligned}$ | 200, 210, <br> 220, 230, 240, 250, <br> 260 |  |
| $\begin{array}{r} 15 \\ 25 \\ 40 \\ 60 \\ 75 \\ 100 \end{array}$ | $\begin{aligned} & 55 \\ & 60 \\ & 60 \\ & 60 \\ & 70 \\ & 75 \end{aligned}$ | $\begin{aligned} & 92.5 \\ & 100 \\ & 110 \\ & 110 \\ & 125 \\ & 137.5 \end{aligned}$ | ( ${ }^{\text {B.C. }}$ (822/25 $\left.\times 26\right)$ | $\begin{array}{cc} \text { s. } & \text { d. } \\ 1 & 7 \\ 1 & 7 \\ 1 & 8 \\ 1 & 8 \\ 2 & 1 \\ 2 & 3 \end{array}$ | $\begin{array}{cc} \text { s. } & d . \\ 1 & 7 \\ 1 & 7 \\ 1 & 6 \\ 1 & 6 \\ 1 & 11 \\ 2 & 1 \end{array}$ | Wholly only: <br> Red, Blue, Green, <br> Flame, Orange, <br> Yellow, Pink and Amber. <br> Wholly or partially: White. |
| 150 | 80 | 160 |  | 35 | 33 |  |
| 200 | 90 | 178 | E.S. (E27/25) | 59 | 53 | Wholly or partially: |
| $\begin{aligned} & 300 \\ & 500 \end{aligned}$ | $\begin{aligned} & 110 \\ & 130 \end{aligned}$ | $\begin{aligned} & 233 \\ & 267 \end{aligned}$ | $\} \quad \text { G.E.S. }$ | 9 12 9 | 93 12 | $\int$ White. |
| OUTSIDE ENAMELLED-SINGLE COIL |  |  |  |  |  |  |
| $\begin{aligned} & 15 \\ & 25 \end{aligned}$ | 55 60 | $\begin{gathered} 92 \cdot 5 \\ 100 \end{gathered}$ | $\}$ (B22/25 $\times 26$ ) | 18 18 | $\begin{array}{ll} 1 & 8 \\ 1 & 8 \end{array}$ | Red, Blue, Green, Orange, Yellow, White. |



# SIGN LAMPS 

| Watts | Approximate Dimensions, mm. |  | Cap | Finish | Standard Voltages List Price Each |  | Colours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dia. | Length |  |  | $\begin{gathered} 25,50,60, \\ 65,75 \end{gathered}$ | $\begin{aligned} & 100,110, \\ & 130,200, \\ & 210,220, \\ & 230,240, \\ & 250,260 \end{aligned}$ |  |
| 15 | $28\{$ | 56 58 62 64 |  | Clear <br> Outside <br> Sprayed <br> Outside <br> Enamelled | s. d. <br> 25 <br> 27 | $\begin{array}{cc} \text { s. } & d . \\ 1 & 10 \\ 2 & 0 \\ 2 & 1 \end{array}$ | Red, Biue, Green, Flame, Yellow, Pink, Amber, White. <br> Red, Blue, Green, Orange, Yellow, White. |
|  |  |  |  |  | 110 | $\begin{gathered} 200,210, \\ 220,230, \\ 240,250, \\ 260 \end{gathered}$ |  |
| 15 | 44 | 90 | $\begin{gathered} \text { B.C. } \\ \text { (B22/25 } \times 26 \text { ) } \\ \text { or } \\ \text { E.S. } \\ (E 27 / 25) \end{gathered}$ | Outside Enamelled or Internally Coloured | s. d. <br> 21 | s. d. <br> 110 | Red, Blue, Green, Orange, Yellow White. |
| SWITCHBOARD |  |  | INDICATOR LAMPS |  |  | 100/130 or 200/260 |  |
| Not specified | 28 | 56 | $\underset{\text { (B22/22) }}{\text { B.C. }}$ | Clear Sprayed |  | s. | $\begin{aligned} & \mathrm{d} . \\ & 6 \\ & 8 \end{aligned}$ |

# SPOTLIGhT REFLECTOR LAMPS Gasfilled Group 1 

Specially designed for store display and shop window lighting. The internal silvering of Philips Spotlight Reflector Lamps provides a builtin parabolic reflector which remains untarnished throughout the life of the lamp. The crown of the lamp is internally frosted to ensure even distribution of light and to prevent projection of the filament image.


PURCHASE TAX: These lamps are SUBJECT TO PURCHASE TAX—see Page 5.

## CANDLE LAMPS VACUUM e GASFILLED



These lamps are available sprayed ivory or pink.
STANDARD COLOURS : Red, Blue, Green, Flame, Orange, Yellow, Pink, Amber and White.
PURCHASE TAX: All the lamps listed on this page ARE SUBJECT TO PURCHASE TAX -see Page 5 .
Made in Great Britain
Page Twelve

# TUBULAR LAMPS <br> Group I 

TUBULAR-SINGLE CAP

| Watts | Approximate Dimensions m.m. |  | Cap | Finish | Standard Voltages Llst Price Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dia. | Length |  |  | $\begin{gathered} 50 \\ 60,65,75 \end{gathered}$ | $\begin{aligned} & 110, \\ & 210, \\ & 200, \\ & 200, \\ & 200, \\ & 250, \\ & 230, \end{aligned}$ |
| 25 | 25 | $\begin{aligned} & 86 \\ & 92 \\ & 94 \end{aligned}$ | $\begin{aligned} & \text { B.C. }(B 22 / 21) \\ & \text { S.B.C. }(B 15 / 24 \times 18) \\ & \text { S.E.S. }(E 14 / 27 \times 18) \end{aligned}$ | Clear | s. d. 49 | $\begin{array}{ll} \text { s. } & \text { d. } \\ 3 & 9 \end{array}$ |
| $\begin{aligned} & 40 \\ & 60 \end{aligned}$ | $\begin{aligned} & 38 \\ & 38 \end{aligned}$ | $\begin{aligned} & 302 \\ & 302 \end{aligned}$ | B.C. $(B 22 / 25 \times 26)$ or E.S. (E27/25) | Opal or Opalised | - | $\begin{array}{ll} 8 & 6 \\ 8 & 6 \end{array}$ |

STRIPLITE-DOUBLE CAP

| Watts | Approximate Dimensions |  |  | Caps | Finish | Standard Voltages. List Price Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dia. mm. | Length |  |  |  | $\begin{gathered} 110,120,200,210,220 \\ 230,240,250,260 \end{gathered}$ |
|  |  | mm. | ins. |  |  |  |
| $\begin{aligned} & 30 \\ & 30 \\ & 60 \end{aligned}$ | $\begin{aligned} & 25 \\ & 25 \\ & 25 \end{aligned}$ | $\begin{aligned} & 221 \\ & 284 \\ & 284 \end{aligned}$ | $\begin{aligned} & 8 \frac{3}{4} \\ & 11 \frac{3}{16} \\ & 11 \frac{3}{16} \end{aligned}$ | Centre <br> Contact $(S \mid 5 s)$ | Clear | $\begin{array}{cc} \text { s. } & d . \\ 5 & 9 \\ 5 & 9 \\ 6 & 0 \end{array}$ |

ARCHITECTURAL-STRAIGHT

| Watts | Approximate Dimensions |  |  | Caps | Finish | Standard Voltages. List Price Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dia. mm. | Length |  |  |  | $\begin{aligned} & 100,110, \\ & 120,130 \end{aligned}$ | $\begin{gathered} 200,210,220,230 \\ 240,250,260 \end{gathered}$ |
|  |  | mm. | ins. |  |  |  |  |
| $\begin{array}{r} 35 \\ 75 \\ 110 \\ 150 \end{array}$ | $\begin{aligned} & 30 \\ & 30 \\ & 30 \\ & 30 \end{aligned}$ | $\begin{array}{r} 305 \\ 610 \\ 915 \\ 1220 \end{array}$ | $\begin{aligned} & 12 \\ & 24 \\ & 36 \\ & 48 \end{aligned}$ | $\begin{aligned} & \text { Side Caps } \\ & \text { (Peg) } \end{aligned}$ | White Opal | $\begin{array}{cc} \text { s. } & d . \\ 13 & 6 \\ 22 & 6 \\ - & \\ = & \end{array}$ | s. d. <br> 136 <br> 226 <br> 300 <br> 350 |
| ARCHITECTURAL-CURVED ( $\frac{1}{6}, \frac{1}{4}$ or $\frac{1}{2}$ circle) |  |  |  |  |  |  |  |
| 60 | 30 | 500 | 20 | Side Caps (Peg) | White Opal | 300 | 300 |

Made in Great Britain


STRIPLITE LAMPS
Extra for frosting or spraying in standard colours 4d. each.
Standard Colours: Red, Blue, Green, Flame, Orange, Yellow Pink, White and Amber.

## ARCHITECTURAL LAMPS

Extra for spraying Architectural lamps in standard colours ... $10 \%$.

## PURCHASE TAX

All the lamps listed on this page ARE SUBJECT TO PURCHASE TAX-see Page 5.


# NEON VOLTAGE INDICATORS 

Philips Neon Voltage Indicators are necessary sure whether the mains or circuits are live or not.


Cat. No. Q. 5005 Neon Voltage and Polarity Indicator
Made in Holland

Philips Pencil Type Voltage Indicator (Cat. No. Q.500I) is for
use on A.C. or D.C. mains between
black "Phillite" holder fitted with a
metal probe, and provided with a pocket
clip and metal cap. The probe is connected
via a resistance, to one electrode of a smal
neon indicator, the other electrode of which is
connected to the metal cap and clip.
connected to the me and the neolip.
Both the resistance and the neon indicator are well
insulated.
To test whether the mains are live, the probe is brought
into contact with wires or socket entries, the metal
IlOV., the neon Indicator will give a red glow, if the tested
point is live. point is live.

Philips Neon Voltage and Polarity Indicator. (Cat.
No. Q.5005) is suitable for A.C. mains 80 V . to 750 V ., and D.C.
mains 100 V . to 750 V .
It has two moulded "Philite " insulated casings connected by a 39 " length of tough rubber covered cable, each with a metallic probe at one end ; collars prevent accidental hand contact with the probes.

The larger casing houses a Philips Neon Indicator Lamp. Type 4017, which has a resistance in the cap, and a positive sign stamped in the circular electrode. Apart from testing for potential, the indicator can be used for indiating polaricy on. . mains. with., I che casing holding the neon electrode glows red. When the casing holding the neon lamp is connected wish egegative lead, the positive sign remains black, and the second electrode glows red

The Philips H.T. Voltage Indicator 2,000/15,000V. (Cat, No, Q.5010) comprises a

The indicator itself consists of a glass tube filled with Neon gas, the "pipped "end of which The indicator itself consists of a glass tube filled with Neon gas, the "pipped end of which
should be inserted in the holder so that the rounded end is in contact with the spring loaded should be inse
The hoider, Q.5010, is provided with an earth screw fixed in a cylindrical metal cover holding the insulating tube. It should be noted that this cover is capacitatively, not physically, connected the insulating tube. It should

The instrument is provided with a cover, used both as an insulating handle and as protection for the tube during handling and transit. The overall dimensions are thereby reduced.
Operation. The voltages mentioned on this page are applicable to 40,50 and 60 cycle supplies only.
To test H.T. lines or equipment, the cover should be slid over the rounded end and Screw B tightened.
Screw A must be connected to earth to conform with regulations and the contact made either by contact with
the bus-bars or by hooking over the line to be tested. the bus-bars or by hooking over the line to be tested.
General. The neon tube will glow when the voltage exceeds 1,500 . The brightness, however, is low and may not be easily visible if the surrounding illumination is high as in daylight. If the H.T. voltage is increased, the brightness of the neon glow wilt also increase to a given level, alker whita ing $15,000 \mathrm{~V}$ Further operating instrut of the applied voltage. Min. operating voltage $2,000 \mathrm{~V}$. Max. operating, voltage $15,000 \mathrm{~V}$. Further operating instructions are available on request. Replacement Neon tubes Q. 5012 are available.

Cat. No. Q. 5010 H.T. Voltage Indicato Made in Gt. Britain

NEON INDICATOR LAMPS, Q.5102 \& 4017

| Volts | Approximate Dimensions <br> $m m$. |  |  | Type | List <br> Price Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dia. | Length |  | Es.d. |  |
| $2,000 / 15,000 \mathrm{~V}$. | 18 | 260 | Q.5012 | 110 | 0 |
| $110 / 750 \mathrm{~V}$. | 20 | 79 | 4017 | 8 | 9 |

PURCHASE TAX
does not apply to the items listed on this page.

## Page Fourteen

Group 1

| NIGHT LIGHT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Watts | Approximate Dimensions mm . |  | Cap | Standard Voltages. List Price Each <br> 200/260 |
|  | Dia. | Length |  |  |
| 5 | 61 (max.) | 125 (max.) | $\begin{aligned} & \text { B.C. }(\mathrm{B} 22 / 31 \times 30) \\ & \text { or } \\ & \text { E.S. }(E 27 / 25) \end{aligned}$ | s. d. $46$ |


| INDICATOR |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Watts | Approximate Dimensions mm . |  | Cap | Standard Voltages. List Price Each |  |
|  | Dia. | Length |  | 100/260 | 100/130, 200/260 |
| 0.2 | 12 | 28 | S.E.S. (E14/16.5) | $\text { s. } \frac{d .}{9}$ | s. d. |
| 0.5 | $\begin{aligned} & 28 \\ & 28 \\ & 18 \\ & 18 \end{aligned}$ | $\begin{aligned} & 56 \\ & 58 \\ & 54 \\ & 56 \end{aligned}$ | $\begin{aligned} & \text { B.C. }(\mathrm{B} 22 / 22) \\ & \text { E.S. }(\mathrm{E} 27 / 25) \\ & \text { S.B.C. }(\mathrm{B} 15 / 24 \times 17) \\ & \text { S.E.S. }(\mathrm{E} 14 / 27 \times 18) \end{aligned}$ | - | $\begin{aligned} & \text { Plain Neon } \\ & 40 \end{aligned}$ <br> Colour Glow Green or Amber $60$ |

Note: Except when ordered otherwise, these lamps are supplied with built-in resistances.


# MOTOR CAR LAMPS 

 GASFILLED Group 2HEADLAMPS-SINGLE FILAMENT

| $\begin{gathered} \text { Lamp } \\ \text { No. } \end{gathered}$ | Vols | Watts | Approximate Dimensions mm . |  | Cap | Filament | $\begin{aligned} & \text { List } \\ & \text { Price } \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Dia. | Length |  |  |  |
| $\begin{array}{r} 109 \\ 106 \\ 605 \\ 111 \\ 108 \\ 608 \\ 75 \\ 607 \\ 130 \\ 1 \\ 5 \\ 2 \\ 27 \\ 57 \\ 612 \\ 615 \end{array}$ | $\begin{aligned} & 6 \\ & 6 \\ & 6 \\ & 6 \\ & 6 \\ & 6 \\ & 6 \\ & 6 \\ & 6 \\ & 12 \\ & 12 \\ & 12 \\ & 12 \\ & 12 \\ & 12 \end{aligned}$ | $\begin{aligned} & 24 \\ & 24 \\ & 24 \\ & 36 \\ & 36 \\ & 36 \\ & 36 \\ & 36 \\ & 36 \\ & 24 \\ & 36 \\ & 36 \\ & 36 \\ & 36 \\ & 36 \end{aligned}$ | $\begin{aligned} & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \\ & 38 \end{aligned}$ | $\begin{aligned} & 56 \\ & 56 \\ & 61 \\ & 56 \\ & 56 \\ & 56 \\ & 56 \\ & 61 \\ & 67 \\ & 56 \\ & 56 \\ & 56 \\ & 56 \\ & 61 \\ & 56 \end{aligned}$ |  | Axial S.C. <br> Axial S.C. <br> Axial S.C. <br> Axial S.C. <br> Axial S.C. <br> Transverse S.C. <br> Transverse S.C. <br> Axial S.C. <br> Axial S.C. <br> Axial S.C. <br> Axial S.C. <br> Axial S.C. <br> Transverse S.C. <br> Axial S.C. <br> Transverse S.C. <br> or C.C. | $\begin{array}{cr}\text { s. } & \\ 2 & \\ 2 & 7 \\ 2 & 6 \\ 2 & 9 \\ 2 & 10 \\ 2 & 9 \\ 3 & 0 \\ 2 & 9 \\ 3 & 3 \\ 3 & 0 \\ 2 & 6 \\ 2 & 7 \\ 2 & 6 \\ 2 & 6 \\ 2 & 9 \\ 3 & 0\end{array}$ |
|  |  |  |  |  | S.B.C. (B15D/17) |  |  |
| 23 | 12 | 48 | 38 | 56 | S.C.C. ( $15 \mathrm{~s} / 177)$ | Axial S.C. | 40 |
| 96 | 12 | 48 | 38 | 67 | Bosch S.C. (B20s) | Axial S.C. | 43 |
| 616 |  |  |  | $61$ |  |  |  |
| 26 | 12 | 60 | 50 | 63 | S.B.C. (B15d/17) | Axial S.C. |  |
| 90 | 12 | 60 | 50 | 63 | S.C.C. (B15s/17) | Axial S.C. | 56 |
|  | 12 | 60 | 38 | 61 | 3-pin B.C. (BA21s) | Axial S.C. |  |
| 87 | 12 | 60 | 50 | 74 | Bosch S.C. (BA20s) | Axial S.C. |  |
| 619 | 12 | 60 | $28$ | $65$ |  |  |  |
| 123 | 24 | 36 | 38 | $56$ | S.B.C. (B15d/17) | Axial C.C. | 28 |
| 621 622 | 24 | 36 36 | $38$ | $56$ | S.C.C. ${ }^{\text {B.C. }}$ ( $\mathrm{B} 22 / 5 \mathrm{~s} / 17$ ) | Axial C.C. | $\begin{array}{ll}2 & 8 \\ 2 & 8\end{array}$ |
| 622 140 | 24 | 36 | $\begin{aligned} & 38 \\ & 38 \end{aligned}$ | $\begin{aligned} & 56 \\ & 56 \end{aligned}$ | B.C. (B22/22) S.B.C. (B15d/17) | Axial ${ }_{\text {Axial }}$ C.C. ${ }^{\text {c. }}$ | $\begin{array}{ll}2 & 8 \\ 4 & 3\end{array}$ |
| 623 | 24 | 48 | 38 | 56 | S.C.C. $(\mathrm{B} / 5 \mathrm{~s} / 17)$ | Axial C.C. | 43 |
| 624 | 24 | 48 | 38 | 56 | B.C. (B22/22) | Axial C.C. | 43 |
| 128 | 24 | 60 | 50 | 63 | S.B.C. (B15d/17) | Axial C.C. | 59 |
| 124 | 24 | $60$ | 50 | $63$ | S.C.C. (BI5s/17) | Axial C.C. |  |
|  | 24 | 60 60 | 50 50 | $\begin{aligned} & 63 \\ & 74 \end{aligned}$ | B.C. (B22/22) <br> Bosch (B20d) D.C | Axial C.C. | 5 5 6 |
| 131 | 24 | 60 |  |  | Bosch (B20d) D.C. | Axial C.C. |  |

HEADLAMPS-DOUBLE FILAMENT


PREFOCUS HEADLAMPS-SINGLE FILAMENT


PREFOCUS HEADLAMPS-DOUBLE FILAMENT

| $\begin{aligned} & 311 \\ & 166 \\ & 166 \\ & 3126 \\ & 354 \\ & 355 \\ & 358 \\ & 302 \\ & 359 \end{aligned}$ | 6 6 6 <br> 6.4 <br> 12 12 <br> 12 (a) <br> 12 (b) <br> 24 (a) | $\begin{aligned} & 18 / 18 \\ & 24 / 24 \\ & 30 / 24 \\ & 45 / 35 \\ & 42 / 36 \\ & 42 / 36 \\ & 44 / 38 \\ & 48 / 48 \\ & 44 / 38 \end{aligned}$ | $\begin{aligned} & 28 \\ & 28 \\ & 28 \\ & 28 \\ & 28 \\ & 28 \\ & 28 \\ & 28 \\ & 28 \end{aligned}$ | $\begin{aligned} & 62 \\ & 62 \\ & 62 \\ & 62 \\ & 62 \\ & 62 \\ & 62 \\ & 62 \\ & 62 \end{aligned}$ | Double Double Double Double Double Double Double Double Double | Vertical Dip S.C. <br> Vertical Dip S.C. <br> Vertical Dip S.C. <br> Left Dip S.C. <br> Left Dip S.C. <br> Right Dip S.C. <br> Left Dip S.C. <br> Left Dip S.C. or C.C. <br> Left Dip C.C. | $\begin{aligned} & 5 \\ & 4 \\ & 5 \\ & 5 \\ & 5 \\ & 5 \\ & 6 \\ & 6 \\ & 7 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

(a) For commercial vehicles only, (b) Both filaments are offset.

Prefocus caps: Single Contact P22s/21; Double Contact P22d/21. Left dip-right hand drive; Right dip-left hand drive. SPECIAL CAPS-S.B.C. (BI5d/I7), A.S.C.C. (BI5s/21) or A.S.B.C. (BI5d/21) caps can be supplied at an extra charge (unless PURCHASE TAX-All hown astandard) of ld. each , Bosh Caps (BA20s or BA20d) 3d. each.

## GASFILLED AND VACUUM Group 2

| GASFILLED SIDE AND TAIL LAMPS <br> Standard Bulb=Clear Round. Standard Filament=Bow. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{\text {Lamp }}^{\text {Lo. }}$ | Volts | Watts |  |  | Cap | (ist |
|  |  |  | Dia. | Length |  |  |
|  |  |  |  |  | s.B.C. ( B150/17) $^{\text {a }}$ | ${ }_{5}$ |
| 200 | 6 | ${ }_{3}^{3}$ | $\underset{18}{18}$ | ${ }_{28}^{32.5}$ |  | ${ }_{6}^{6}$ |
| 2068 | 6 | 6 | 18 | ${ }_{32,5}^{28}$ |  | ${ }_{7}^{8}$ |
| ${ }_{222}$ | ${ }_{12}^{6}$ | ${ }_{4}$ | $18$ | ${ }^{38} 8$ |  | 7 |
| 207 | 边 | ${ }_{6}^{6}$ | $\begin{aligned} & 15 \\ & 188 \end{aligned}$ | - 32.5 |  | ${ }_{5}^{4}$ |
| (149 | ${ }_{24}^{12}$ |  | 18 | $\begin{array}{r}32.5 \\ 32 \\ \hline\end{array}$ |  | 6 |

(a)-Also with " V " Filament. Except for 6 V .3 W . and 12 V .6 W . the above lamps may be supplied in Vacuum.

| STOP LAMPS-SINGLE FILAMENT <br> Standard Filament $=$ Transverse |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 317 \\ & 221 \end{aligned}$ | $\begin{array}{r} 6 \\ 12 \end{array}$ | $\begin{aligned} & 18 \\ & 18 \end{aligned}$ | 25 25 | $\begin{aligned} & 49 \\ & 49 \end{aligned}$ | A.S.C.C. (BAI5s/19) <br> A.S.C.C. (BAl5s/19) | $\begin{array}{cc}\text { s. } & \text { d. } \\ 3 & 9 \\ 3 & 6\end{array}$ |
| STOP LAMPS-DOUBLE FILAMENT <br> Standard Filament $=$ Double Transverse. |  |  |  |  |  |  |
| $\begin{aligned} & 190 \\ & 352 \end{aligned}$ | 6 | $\begin{array}{r} 3 / 18 \\ 3 / 18 \end{array}$ | 25 25 | $\begin{aligned} & 45.5 \\ & .47 \end{aligned}$ | $\begin{aligned} & \text { S.B.C. (B15d/17) (b) } \\ & \text { S.B.C. (Ofset) } \\ & \text { (B15d/119) } \end{aligned}$ | 3 3 3 |
| $\begin{aligned} & 369 \\ & 361 \end{aligned}$ | $\begin{aligned} & 12 \\ & 12 \end{aligned}$ | $\begin{aligned} & 6 / 18 \\ & 6 / 18 \end{aligned}$ | $\begin{aligned} & 25 \\ & 25 \end{aligned}$ | $\begin{aligned} & 45.5 \\ & 47 \end{aligned}$ | S.B.C. (B15d/I7) (b) <br> S.B.C. (Offset) <br> (B15d/19) | 3 3 3 |

(b) -Or with the Auxillary " $V$ " shape.

| INDICATOR LAMPS Standard Bulb $=$ Clear Round |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 990 | 6 |  |  | 23 | M.ES. |  |
| 641 | 6 | 3 | 11 | 23.5 | M.C.C. | 16 |
| 981 | 6 | 3 | 15 | 27.5 | M.E.S. | 13 |
| 642 | 6 | 3 | 15 | 28 | M.C.C. | 16 |
| 987 | 12 | 2.2 | 11 | 23 | M.E.S. | 13 |
| 643 | 12 | 2.2 | 11 | 23.5 | M.C.C. | 16 |
| 986 645 | 12 | 2.2 2.2 | 15 15 | 27.5 28 | M.E.S. | 13 1 |
| 645 985 | 12 | 2.2 3 | 15 15 | 28 27.5 | M.C.C. | $\begin{array}{ll}1 & 6 \\ 2 & 3\end{array}$ |
| 985 647 | 16 | 3 3 | +15 | 28.5 | M.C.C. | 26 |
| 993 | 24 | 2.8 | 15 | 27.5 | M.E.S. | 18 |
| 651 | 24 | 2.8 | 15 | 28 | M.C.C. | 23 |

Caps. $M C C=B 9 s / 14$. $\quad S C C=B 15 s / 10$. $M E S=E 10 / 13$.

| Standard $\mathrm{Bulb}=$ Clear Tubular |  | FESTOON LAMPS |  | Standard Cap $=$ S7/8 or S8.5/8. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Lamp No. | Volts | Watts | Approximate Dimensions mm . |  | List Price Each |
|  |  |  | Dia. | Length |  |
| 255 253 256 254 653 654 260 | $\begin{array}{r} 6 \\ 6 \\ 12 \\ 12 \\ 24 \\ 24 \\ 24 \end{array}$ | $\begin{aligned} & 3 \\ & 6 \\ & 3 \\ & 6 \\ & 6 \\ & 6 \\ & 6 \end{aligned}$ | $\begin{gathered} 7.5 \\ 11.5 \\ 7.5 \\ 11 \\ 11 \\ 11 \\ 11 \end{gathered}$ | $\begin{aligned} & 35.5 \\ & 38 \\ & 35.5 \\ & 38 \\ & 38 \\ & 38 \\ & 44 \end{aligned}$ | $\begin{array}{ll}\text { s. } & \text { d. } \\ 2 & 3 \\ 2 & 7 \\ 2 & 7 \\ 2 & 3 \\ 2 & 7 \\ 2 & 6 \\ 4 & 6 \\ & \\ & \\ & \end{array}$ |


| CADMIUM YELLOW HEADLAMPS-SINGLE FILAMENT |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Lamp } \\ & \text { No. } \end{aligned}$ | Volts | Watts | Approximate Dimensions mm. |  | Cap | Filament | List <br> Price <br> Each |
|  |  |  | Dia. | Length |  |  |  |
| $\begin{aligned} & 374 \\ & 375 \\ & 600 \\ & 601 \end{aligned}$ | $\begin{aligned} & 6 \\ & 12 \\ & 12 \\ & 24 \text { (d) } \end{aligned}$ | $\begin{aligned} & 36 \\ & 36 \\ & 48 \\ & 44 \end{aligned}$ | $\begin{aligned} & 38 \\ & 38 \\ & 28 \\ & 28 \end{aligned}$ | $\begin{aligned} & 56 \\ & 56 \\ & 62 \\ & 62 \end{aligned}$ | $\begin{aligned} & \text { S.C.C. }(\mathrm{B} 15 \mathrm{~s} / 17) \\ & \text { S.C.C. }(\mathrm{B} 15 \mathrm{~s} / 17) \\ & \text { P22s/21 } \\ & \text { P22d/21 } \end{aligned}$ | Axial S.C. <br> Axial S.C. <br> Transverse S.C. or C.C. <br> Transverse C.C. | $\begin{array}{cc}\text { s. } & \text { d } \\ 4 & 0 \\ 3 & 9 \\ 6 & 0 \\ 6 & 3\end{array}$ |

(c)-With supported filament (Festoon Lamps and Cadmium Yellow Headlamps). (d)-For commercial vehicles only.

| CADMIUM YELLOW HEADLAMPS-DOUBLE FILAMENT |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 602 \\ & 376 \\ & 603 \\ & 604 \end{aligned}$ | $\begin{aligned} & 6 \\ & 12 \\ & 12 \\ & 12 \end{aligned}$ | $\begin{aligned} & 30 / 24 \\ & 36,36 \\ & 42 / 36 \\ & 42 / 36 \end{aligned}$ | $\begin{aligned} & 28 \\ & 38 \\ & 28 \\ & 28 \end{aligned}$ | $\begin{aligned} & 62 \\ & 56 \\ & 62 \\ & 62 \end{aligned}$ | $\begin{aligned} & \text { P22d } / 21 \\ & \text { S.B.C. }(\mathrm{B} 15 \mathrm{~d} / 17) \\ & \text { P22d/21/ } \\ & \text { P22d } / 21 \end{aligned}$ | Vertical Dip Vertical Dip <br> Right D <br> Right Dip | s. <br> 6 <br> 4 <br> 4 <br> 69 <br> 6 <br> 6 |

Left Dip-Right Hand Drive.
Right Dip-Left Hand Drive.
PURCHASE TAX-All the lamps listed on this page ARE SUBJECT TO PURCHASE TAX-see Page 5.
Made in Great Britoin

# CYCLE DYNAMO LAMPS 

HEADLAMPS-CLEAR FINISH, ROUND BULB

| Volts | Amps | Cap | Dia. mm. | List Price Each |
| :---: | :---: | :---: | :---: | :---: |
| 6 (a) <br> 6 (a) 6 6 (a) 6 (a) 6 | $\begin{aligned} & 0.2 \\ & 0.3 \\ & 0.3 \\ & 0.45 \\ & 0.5 \\ & 0.5 \end{aligned}$ | M.E.S. M.E.S. S.C.C. M.E.S. M.E.S. S.C.C. | $\begin{aligned} & 15 \\ & 15 \\ & 18 \\ & 15 \\ & 15 \\ & 18 \end{aligned}$ | $\begin{array}{ll}s . & d . \\ 0 & 8 \\ 0 & 8 \\ 1 & 4 \\ 0 & 8 \\ 0 & 8 \\ 1 & 4\end{array}$ |

TAIL LAMPS-CLEAR FINISH, ROUND BULB

| 1.5 | 0.15 | M.E.S. | 15 | 0 | 15 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 3.5 | 0.15 | M.C.C. | 11 or 15 | 0 | 8 |
| 6 | 0.04 | M.E.S. | 11 or 15 | 0 | 0 |
| 6 | 0.1 | M.E.S. | 11 | 8 |  |
| 6 |  |  | 8 | 8 |  |

CAPS-S.C.C. (B/5s/I7), M.E.S. (EIO/13).
Note: (a) These headlamps are also available with "stippled " bulbs at the same prices.

## RADIO PANEL LAMPS

| ROUND BULBS-CLEAR |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Volts | Amps | Cap | Approximate Dimensions mm . |  | List Price Each |
|  |  |  | Dia. | Length (max.) |  |
| $\begin{aligned} & 6 \\ & 6 \\ & 6 \cdot 2 \\ & 6 \cdot 3 \\ & 6 \cdot 5 \end{aligned}$ | $\begin{aligned} & 0.04 \\ & 0.06 \\ & 0.3 \\ & 0.11 \\ & 0.3 \end{aligned}$ | M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. | $\begin{aligned} & 11 \\ & 11 \\ & 15 \\ & 11 \\ & 11 \end{aligned}$ | $\begin{aligned} & 24 \\ & 24 \\ & 29 \\ & 24 \\ & 24 \end{aligned}$ | $\begin{array}{ll} \text { s. } & d . \\ i & 0 \\ 1 & 0 \\ 0 & 7 \\ 0 & 7 \\ 0 & 7 \end{array}$ |
| TUBULAR BULBS-CLEAR |  |  |  |  |  |
| $\begin{aligned} & 6 \cdot 2 \\ & 6 \cdot 3 \\ & 6 \cdot 5 \end{aligned}$ | $\begin{aligned} & 0.3 \\ & 0.15 \\ & 0.3 \end{aligned}$ | M.E.S. M.E.S. M.E.S. | 10 10 10 | $\begin{aligned} & 30 \\ & 30 \\ & 30 \end{aligned}$ | $\begin{array}{ll} 0 & 7 \\ 0 & 7 \\ 0 & 7 \end{array}$ |

## TORCH BULBS

| CLEAR FINISH |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Volts | Amps | Cap | Dia. mm. | Price Each s. d. |
| 1.5 1.5 2 2.5 2.5 3.5 3.5 4 4.5 5 2.2 2.5 | $\begin{aligned} & 0.11 \\ & 0.2 \\ & 0.6 \\ & 0.2 \\ & 0.3 \\ & 0.15 \\ & 0.3 \\ & 0.3 \\ & 0.3 \\ & 0.15 \\ & 0.25 \\ & 0.3 \end{aligned}$ | M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. <br> M.E.S. <br> Prefocus | 15 11 15 11 11 11 11 11 15 15 Lens End $9 \cdot 5$ (max.) 11 | $\begin{array}{rr} 0 & 8 \\ 0 & 8 \\ 0 & 8 \\ 0 & 4 \\ 0 & 4 \\ 0 & 4 \\ 0 & 4 \\ 0 & 4 \\ 0 & 4 \\ 0 & 8 \\ & \\ 0 & 10 \\ 1 & 4 \end{array}$ |



PURCHASE TAX—All the lamps listed on this page ARE SUBJECT TO PURCHASE TAX-see Page 5.
Made in Great Britain
Page Eighteen

## "PHOTOFLUX"


"Photoflux" Flashbulbs are made in various types and sizes to cover practically all photographic requirements.
Types PF.3, PF.14, PF.25, PF.38., and PF. 60 are primarily intended for use with between-lens shutters; owing to their accurate time/light characteristic they are equally suitable for use by the open-fiash method or with cameras having built-in flash contacts or auxiliary synchronisers.
Type PF. 100 is a bulb of very high light output and is ideal for covering large areas. It may be used either by the open-flash method or may be synchronised with between-lens shutters, in which case it is recommended that shutter speeds up to $1 / 25$ th of a second be used.
Type PF. 24 and PF. 45 are long-duration flashbulbs, especially designed for use with focal-plane shutters. The PF. 60 can also be used with most 35 mm . precision miniature cameras having focal plane shutters.

Bulbs having blue and yellow coatings, for use with colour films of the daylight and tungsten types respectively, are also available in types PF.25, PF.60, PF100, PF. 24 and PF. 45.

Every "Photoflux" Flashbulb has a strong coating of lacquer and, in addition, a patented blue safety spot on the top of the bulb which gives warning by changing colour should damage have allowed air to enter the bulb. Bulbe on which this spot has turned pink ahould not be used.

Write for your copy of "Perfection in a Flash", which gives complete technical details for the use of "Photoflux" flashbulbs,

## TIME 』 LIGHT Specifications

FOR BLACK AND WHITE PHOTOGRAPHY


FOR COLOUR PHOTOGRAPHY

| TYPE | For between-lens shutters |  |  |  |  |  | For focal-plane shutters |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | PF.25/97 | PF.25/98 | PF.60/97 | PF.60/98 | PF.100/97 | PF.100/98 | PF.24/97 | PF.24/98 | PF.45/97 | PF.45/98 |
| Colour of Bulb | Blue | Yellow | Blue | Yellow | Blue | Yellow | Blue | Yellow | Blue | Yellow |
| Total light output in visual lumen seconds ... | 9,000 | 16,000 | 30,000 | 56,000 | 45,000 | 88,000 | 7,000 | 13,000 | 22.000 | 40,000 |
| Max. luminous flux in millions of visual lumens | 0.7 | $1 \cdot 2$ | 1.4 | 2.5 | 1.8 | 3.2 | $0 \cdot 25$ | 0.5 | 0.5 | 1.0 |
| Effective flash duration in milliseconds ... | 24 | 24 | 35 | 35 | 40 | 40 | - | - | - | - |
| Time to full peak in milliseconds ... | 20 | 20 | 20 | 20 | 30 | 30 |  |  |  |  |
| Flash duration at half peak in milliseconds | 12 | 12 | 20 | 20 | 22 | 22 | 25 | 25 | 45 |  |
| Time to half peak in milliseconds | 15 | 15 | 11 | 11 | 19 | 19 | 17 | 17 3.400 | 18 | 18 3.400 |
| Colour temperature in ${ }^{\text {c }}$ Kelvin ${ }^{\text {V }}$, ${ }^{\text {a }}$ | 6,000 $3-30$ | 3.400 $3-30$ | 6,000 | 3,400 $3-30$ | 6,000 | 3.400 $3-200$ | 6,000 | 3,400 $3-30$ | 6,000 $3-30$ | 3,400 $3-30$ |
|  | ASCC | $3-30$ ASCC | 3-30 | 3-30 | 3-250 | ES | ASCC | $\stackrel{3}{\text { ASCC }}$ | ES | ES |
| Bulb diameter in ${ }^{\text {millimetres ... }}$.... ${ }^{\text {a }}$... | ${ }_{30}$ | ${ }_{30}$ | 60 | 60 | 70 | 70 | ${ }^{36}$ | ${ }_{36}$ | 60 | 60 |
| Overall length in millimetres ... ... ... | 65 | 65 | 115 | 115 | 122 | 122 | 75 | 75 | 115 | 115 |
| PRICE ... ... ... ... | 1/4 | 1/4 | 1/10 | 1/10 | 2/9 | 2/9 | 1/7 | 1/7 | 2/- | 2/- |

PF 38

# PHOTOGRAPHIC LAMPS 

## Group I

Philips Photographic lamps are well known to all photographers, both professional and amateur, who use them extensively for still and cine interior and exterior photography, for which they offer many advantages.

"PHOTOLITA" (Photofloods Reflector Type)

| Type | Watts | Volts | Approximate Dimensions (mm.) |  | Cap | Approx. Beam Candle Power (230V. Lamp) | List <br> Price <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Diameter | Overall <br> Length |  |  |  |
| Photolita S.M. <br> Photolita N.M. | $\begin{aligned} & 275 \\ & 500 \end{aligned}$ | $\left\{\begin{array}{c}100,110 \\ 115,200 \\ 210,220,230 \\ 240,250\end{array}\right\}$ | $\begin{array}{r} 80 \pm 1 \\ 110 \pm 1 \end{array}$ | $\begin{aligned} & 120 \pm 3.5 \\ & 152 \pm 3.5 \end{aligned}$ | $\begin{aligned} & \text { B.C. } \\ & \text { or } \\ & \text { E.S. } \end{aligned}$ | $\begin{array}{r} 3600 \\ 10000 \end{array}$ | $\begin{array}{ll} 13 & 0 \\ 22 & 0 \end{array}$ |

PURCHASE TAX does NOT apply to the lamps listed on this page.
Made in Holland

## "ARGAPHOTO" (Reflector Type)

| Type | Watts | Volts | Cap | Approximate Dimensions (mm.) |  | List <br> Price <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Diameter | Overall <br> Length |  |
| Argaphoto B.M. | 500 | $\left\{\begin{array}{c}115,210 \\ 230,240 \\ 250\end{array}\right\}$ | E.S. | $156 \pm 1.5$ | $207 \pm 7$ | 5. ${ }_{4}{ }^{\text {d }}$ |

## SAFELIGHT DARKROOM LAMPS

These light sources have been scientifically designed to confine the light output to the respective waveband requirements for the processing of various photographic emulsions. They are suitable for amateur or professional use.


| 1. NEGATIVE MATERIALS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type No. | Colour | Use | Volts | Watts | Cap | List Price Each |
| PF 704 <br> PF 744 | Dark Red <br> Green | $\left.\begin{array}{l} \text { Processing of Normal } \\ \text { Orthochromatic } \\ \text { Material } \\ \text { Processing of } \\ \text { Panchromatic } \\ \text { Material } \end{array}\right\}$ | $\begin{aligned} & \text { 200/210 } \\ & 220 / 230 \\ & 240 / 250 \end{aligned}$ | $\left\{\begin{array}{c} 15 \\ 0.25 \end{array}\right\}$ | B.C. | s. d. $66$ |

In view of the high sensitivity of modern negative emulsions, it is recommended that these light sources be used only for brief inspection periods.

| 2. POSITIVE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type No. | Colour | Use | Volts | Watts | Cap | $\begin{aligned} & \text { List } \\ & \text { Price } \\ & \text { Each } \end{aligned}$ |
| PF 701 | Light Red | Bromide, Printing and Enlarging |  | $\left(\begin{array}{ll} 40 \end{array}\right)$ |  |  |
| PF 723 | Yellow | Chloride, Printing Paper, Contact and less sensitive materials | $\begin{aligned} & 200 / 210 \\ & 220 / 230 \\ & 240 / 250 \end{aligned}$ |  | B.C. | s. d. <br> 66 |
| PF 732 | Yellow/ <br> Green | Bromide, Printing and Enlarging |  | $(15)$ |  |  |

The lamps listed above ARE SUBJECT TO PURCHASE TAX-See page 5.
All lamps are natural colour glass with the exception of the Yellow/Green (PF.732) which has a special ceramic finish Note 1: Light Red Lamps are suitable as pilot lights for Contact Printers. Note 2 : GENERAL DIMENSIONS. Diameter 60 mm . Overall Length 105 mm . Note 3: It is most important that the correct voltage bulb be used for the supply, as over-running these lamps will affect the colour emission.

## "PHOTOCRESCENTA"

# (HIGH INTENSITY PHOTO EMLIARGERS) 

DETAILS ON APPLICATION

## INFRA-RED LAMPS

## Group I

Philips Infra-
Red Lamps are used extensively for pig, poultry and other animal rearing, for which they offer many advantages.

They have many other applications for industrial heating and drying processes, such as for paint and lacquer finishing, for drying textiles, seeds and vegetables.


I50W internal Reflector Bulb (Crown red glazed)

Full information about the uses of these lamps is available on request.

## INTERNAL REFLECTOR BLLB

| Watts | Volts | Approximate Dimensions (mm.) |  |  | Cap | List <br> Price <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Diameter | Overall Length | L.C.L. |  |  |
| (a) 250 <br> (b) 150 | $\left\{\begin{array}{l}110 / 120 \\ 200 / 210 \\ 220 / 230 \\ 240,250\end{array}\right.$ | $\begin{aligned} & 126 \pm 1.5 \\ & 111 \pm 1.5 \end{aligned}$ | $\begin{gathered} 185 \pm 5 \\ 155 \pm 2 \cdot 5 \end{gathered}$ | $110 \pm 5$ | E.S. E.S. | $\begin{array}{ll} \text { s. } & \text { d. } \\ 15 & 6 \\ 14 & 0 \end{array}$ |

Note: (a) Can also be supplied with crown red glazed at 17 s . Od. list price. (b) Crown red glazed.
When ordering please state whether required for poultry or pig rearing, or for industrial purposes.
Made in Holland


## CLEARBCLB

| Watts | Voles | Approximate Dimensions (mm.) |  |  | Cap | List <br> Price Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Diameter | Overall <br> Length | L.C.L. |  |  |
| 250 | 100/130 | $90 \pm 1$ | $178 \pm 5$ | $133 \pm 5$ | E.S. | s. d. <br> Clear: <br> 79 <br> Pearl: <br> 83 |

## PURCHASE TAX

All the lamps listed on this page ARE SUBJECT TO PURCHASE TAX—see Page 5.

## INFRA-RED FARROWING INIT

PHILIPS INFRA-RED FARROWING UNIT is stoutly constructed of seasoned timber and hardboard, finished in green fireproof paint, and is complete with two E.S. skirted porcelain lampholders and two Philips E/99 Infra-Red lamps. The use of nonconducting materials for this unit makes a special earthing connection unnecessary.
Dimensions: Length, $31 \frac{1^{\prime \prime}}{}$; Height, $7 \frac{2^{\prime \prime}}{}$; Max. width, $1 \frac{1}{2} \frac{1}{2}^{\prime \prime}$; Weight (complete), 7 lbs .
These Units are sold as a kit and can easily be assembled by the user.
List Price each $\& 2$ 19s.0d., (complete, including lamps)

## INFRA-RED POULTRY BROODING INITS

PHILIPS INFRA-RED POULTRY BROODING UNITS are made in two sizes. The larger, incorporating the Philips 250 W . type E/44 Infra-Red lamp, is recommended for the rearing of up to 75 chicks or 40 to 50 Turkey poults and ducklings. The smaller unit incorporates a Philips 150 W . type E/98 Infra-Red lamp and is recommended for rearing up to 40 chicks at a time.


250W. Poultry Brooding Unit

Dimensions:-

| 250W. | Diameter | 117* |
| :---: | :---: | :---: |
|  | Height ... | 104* |
|  | Weight ... | 1 lb .6 ors. |
| 150W. | Diameter | $7{ }^{\circ}$ |
|  | Height ... | 81/" |
|  | Weight ... | 14 ozs. |

List price each (complete, including lamp)

250W. 36/-
150W. 28/6
With Red-Glaze lamp
250W. 37/6
I50W. 28/6

IMPORTANT. All units and holders for Infra-Red lamps should be wired and connected to the mains by a quallfied electrician.


150W. Poultry Broodine Unit
PHIIITPS


# PROJECTOR LAMPS <br> <br> Group I 

 <br> <br> Group I}

Class A．1．Lamps are for use in Cinematograph Projectors， Home Cinemas，Film Strip and Slide Projectors，etc．

| Watts | Volts | Cap | CLASS A．I． |  |  |  | Special Features | $\underset{\text { Ref. }}{\text { E.L.M.A. }}$ | Philips Type Nos． | List <br> Price <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Dimensions（mm．） |  |  | Obj． Ar＇ge Life （Hours） |  |  |  |  |
|  |  |  | Dia． | Overall <br> Length | L．C．L． |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | s．d． |
|  | 20 40 | Pathe Baths | $15 \pm 1$ | $57 \pm 3$ | $25 \pm 0.5$ | 100 | Special Features | Al／72 | ${ }^{390 \mathrm{C}}$ | 49 |
| $\begin{aligned} & 15 \\ & 25 \end{aligned}$ | 40 | B15s 815 s | $16 \pm 1$ | 57 | $29 \pm 2$ | 50 50 50 |  | Al／37 | 6179 N | 40 |
| 50 | 100，110， 115 | B15s | $25 \pm$ | $76 \pm 3$ | 34．5 ${ }^{\text {土 }}$ 2 | 50 | 二 | Al／2 | 6156 N | 73 |
| 50 | 100，110， 115 | B15d | $25 \pm 1$ | $76 \pm 3$ | 34．5 | 50 |  | A $1 / 19$ | 6156 W | 73 |
| 100 100 |  | P28 | $25 \pm 1$ | $133 \pm 7$ | $55.5 \pm 0.5$ | 50 | Offset Filament |  | 7223C | 129 |
| 100 | $\begin{aligned} & 12,100,110,115,200,210,220, \\ & 230,240,250 \end{aligned}$ |  | $25 \pm 1$ | $133 \pm 7$ | $55.5 \pm 0.5$ |  | － | Al／$/ 4$ | 6067C | 129 |
| 100 | 12，100，110， $\begin{gathered}\text { 115，} 230,240,250 \\ 230,220,\end{gathered}$ | E27 | $25 \pm 1$ | $128 \pm 7$ | $75 \pm 5$ | 50 | － | AI／23 | 6067 E | 119 |
| 100 | 230，24， 1250 | Pathe | $25 \pm 1$ | $87 \pm 3$ | $30 \pm 0.5$ | 25 | － | A1／156 | $7238 \times$ | 116 |
| 100 | 100，110， 115 | B15s | $25 \pm 1$ | $76 \pm 5$ | $34.5 \pm 2$ | 50 | － | Al／21 | 6158 N |  |
| 100 | 100，12， 115 |  | 25 圭 | $76 \pm 5$ | 34.5 | 50 | － | Al／21 | 7238 N |  |
| 100 | 100，110， 115 |  | $25 \pm 1$ | $76 \pm 5$ | $34.5 \pm 2$ | 50 | － | Al／121 | 6158W |  |
| 100 | 24 | B15d | $25 \pm 1$ | $75 \pm 3$ | $55 \pm 2$ | 100 | Inverted Burning | Al／135 | － | 139 |
| 100 | 80 |  | $23 \pm 1$ | $93.5 \pm 3$ | $35 \pm 0.5$ | 50 |  |  |  |  |
| 200 200 | 100 | B15d | $25 \pm$ | ${ }_{87} 87 \pm 5$ | $34.5 \pm 2$ | 25 | － | Al／25 | ${ }^{6166 W}$ | 186 |
| 200 200 | ${ }_{100}^{100}$ | B15s | $25 \pm 1$ | $87 \pm 5$ | $34.5 \pm 2$ | 25 | － | Al／26 | $6166 N$ | 186 |
| 200 200 | 100,110 100,110 | P15s | $25 \pm 1$ | $87 \pm 5$ | $31.5 \pm 0.5$ | 25 | － | A 1／27 | $6166 \times$ |  |
| 200 | 100， 50 | ${ }_{\text {E } 27}$ | $32 \pm 2$ | 128 ${ }^{87}$ | －75 75 | 50 50 | Central Filament | ${ }^{\text {Al／}}$ Al／27 | 6166C | 19 23 |
| 200 | 110 | E27 | $32 \pm 2$ | $128 \pm 7$ | $75 \pm 5$ | 50 | Central Filament | Al／i2 | 6160 E | 18 18 |
| 200 | 50 |  | $32 \pm 2$ | $128 \pm 7$ | $75 \pm 5$ | 50 | Offset Filament | Al／112 | 7224 E | 230 |
| 200 | 50 | P28 | $32 \pm 2$ | $133 \pm 7$ | $55.5 \pm 0.5$ | 50 | Central Filament | Al／ 13 |  |  |
| 200 200 | 110 50 | P28 <br> P28 | $32 \pm 2$ 32 | 133 <br> 133 <br> 13 <br> 1 | 55．5 5.5 | 50 50 | Central Filament | Al／13 | 6160C 7224 C | 196 |
| 200 200 | 50 110 | P28 | $32 \pm 2$ $32 \pm 2$ | $133 \pm 7$ $133 \pm 7$ | $\begin{aligned} 55.5 & \pm 0.5 \\ 58 & \pm 0.5\end{aligned}$ | 50 50 | Offset Filament Offiset Filament | Al／ 113 $\mathrm{Al} / 81$ | 7224C 6132 C | $\begin{array}{ll}24 & 0 \\ 19 & 6\end{array}$ |
| 200 | 15 | Pathe | $32 \pm 2$ | $128 \pm 7$ | $75 \pm 0.5$ | 50 | \｛Offset Filament | A1／105 | 7201 C | 26 |
|  |  | B15d | $32 \pm 1$ | $87 \pm 5$ | $34.5 \pm 0.5$ | 50 | \｛inverted Burning | Al／83 | － | 186 |
| 250 | 50 | E27 | $32 \pm 2$ | $128 \pm 7$ | $75 \pm 5$ | 50 | Central Filament | Al／14 | 7217E | 18 23 23 |
| 250 | 100，110，115，200，210，220，230，240， 250 | E27 | $32 \pm 2$ | $128 \pm 7$ | $75 \pm 5$ | 50 | Cencal－ | Al／14 | 6070 E |  |
| 250 |  | E27 | $32 \pm 2$ | $128 \pm 7$ | 75 ${ }^{75} 5$ | 50 | Offset Filament | Al／16 | 7230 E | 230 |
| 250 | 50 | P28 | $32 \pm 2$ | $133 \pm 7$ | $55.5 \pm 0.5$ | 50 |  | Al／15 | 7230 C |  |
| 250 | 100，110，115，200， 50 | P28 | $32 \pm 2$ | $133 \pm 7$ | $55.5 \pm 0.5$ | 50 | Central Filament | A1／5 | 7217 C | 240 |
| 250 250 | $100,110,115,200,210,220,230,240,250$ | ${ }^{\mathrm{P} 28}$ | $32 \pm 2$ | $133 \pm 7$ | $55.5 \pm 0.5$ | 50 | Central Filament | A1／5 | 6070 C | 230 |
| 250 | ， 50 | BH38 | $32 \pm 2$ | $128 \pm 7$ | $59 \pm 0.5$ | 50 |  | AI／85 | 7217X |  |

Bulb Shape－Tubular．Operating Position－ Vertical，cap down unless otherwise stated．
Caps illustrated on Pages 57 \＆ 58.

Made in Holland
PURCHASE TAX does NOT apply to Class A．I．lamps．


AI／3 7223C
100W


AI／4 6067C 100W
$\mathrm{Al} / 26156 \mathrm{~N}$
50 W

# PROJECTOR LAMPS <br> Group I 

Class A.1. Lamps are for use in Cinematograph Projectors,
Home Cinemas, Film Strip and Slide Projectors, etc.

| CLASS A.I.-Contd. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Watts | Volts | Cap | Dimensions mm. |  |  |  | Special Features | E.L.M.A. | $\begin{aligned} & \text { Philips } \\ & \text { Type } \\ & \text { Nos. } \end{aligned}$ | $\begin{aligned} & \text { List } \\ & \begin{array}{l} \text { Price } \\ \text { Price } \\ \text { Each } \end{array} \end{aligned}$ |
|  |  |  | Dia. | Overall Length | L.C.L. |  |  |  |  |  |
| $\begin{aligned} & 300 \\ & 300 \\ & 300 \\ & 300 \\ & 300 \\ & 400 \end{aligned}$ | 100,115 100,115 $210,230.240,250$ $100,110,15$ $100,110,115$ 31 |  | $\begin{aligned} & 25 \pm 1 \\ & 25 \pm 1 \\ & 32 \pm 2 \\ & 32 \pm 2 \\ & 32 \pm 2 \\ & 38 \pm 2 \end{aligned}$ | $\begin{aligned} & 100 \pm 5 \\ & 100 \pm 5 \\ & 133 \pm 7 \\ & 133 \pm 7 \\ & 128 \pm 7 \\ & 128 \pm 7 \end{aligned}$ | $\begin{aligned} & 34.5 \pm 2 \\ & 55.5 \pm 0.5 \\ & 55.5 \pm 0.5 \\ & 59 \pm 0.5 \\ & 75 \pm 0.5 \end{aligned}$ $75 \pm 5$ | $\begin{aligned} & 25 \\ & 25 \\ & 50 \\ & 25 \\ & 25 \\ & 50 \end{aligned}$ | (a) <br> (a) <br> Biplane <br> (2) <br> \{Inverted Burning \} <br> Offset Filament | $\begin{aligned} & \text { Al/37 } \\ & \text { Al/33 } \\ & \text { Al\|1/54 } \\ & \text { Al/ } 186 \\ & \text { Al/108 } \end{aligned}$ | 7212 N 7212 W 6131 C 6131 C 13142 H 7204 C | $\begin{array}{ll}5 . & \text { d } \\ 27 \\ 27 & 6 \\ 27 & 6 \\ 28 & 6 \\ 28 & 6 \\ 35 & 6 \\ 30 & 0\end{array}$ |
| $\begin{aligned} & 400 \\ & 400 \\ & 400 \\ & 500 \\ & 500 \end{aligned}$ | $\begin{gathered} 100,110,115 \\ 110 \\ 10 \\ 210,230,240250 \\ 115 \end{gathered}$ | $\begin{aligned} & \text { P28 } \\ & \text { B\& \& } 38 \\ & \text { B \& } \& 46 \end{aligned}$ $\begin{aligned} & \text { P28 } \\ & \text { Debrie } \end{aligned}$ | $\begin{aligned} & 32 \pm 2 \\ & 32 \pm 2 \\ & 32 \pm 2 \\ & 32 \pm 2 \\ & 38 \text { max. } \\ & 38 \end{aligned}$ | $\begin{aligned} & 133 \pm 7 \\ & 128 \pm 7 \\ & 128 \pm 7 \\ & 133 \pm 7 \\ & 145 \pm 8 \end{aligned}$ | $\begin{array}{rl} 75 & \pm 5 \\ 55.5 & =5 \\ 59 & 0.5 \\ 59 & 0.5 \\ 55.5 & 0.5 \\ 5.5 & 0.5 \\ 81 \end{array}$ | $\begin{aligned} & 25 \\ & 25 \\ & 25 \\ & 25 \\ & 25 \end{aligned}$ |  | A1/39 A1/87 Al/159 Al/ $/ 162$ $\mathrm{Al} / 153$ AI/IS. | 6117 C 6117 H 6617 X 6152 C 6169 C | $\begin{array}{ll}35 & 0 \\ 35 & 0 \\ 35 & 0 \\ 37 & 0 \\ 38 & 0\end{array}$ |
| $\begin{aligned} & 500 \\ & 500 \end{aligned}$ | $\begin{gathered} 110,115 \\ 100,110,115,200,{ }_{2} 210,220,230, \\ 240,250 \end{gathered}$ | $\begin{aligned} & \text { P28 } \\ & \text { P27 } \end{aligned}$ | $\begin{aligned} & 32 \pm 2 \\ & 64 \pm 2 \end{aligned}$ | $\begin{aligned} & 133 \pm 7 \\ & 128 \pm 7 \end{aligned}$ | $\begin{gathered} 55.5 \pm 0.5 \\ 75 \pm 5 \end{gathered}$ | 25 50 | Biplane (a) | $\begin{aligned} & A_{1} 1 / 7 \\ & A_{1} \end{aligned}$ | ${ }_{3752 \mathrm{E}}^{6152 \mathrm{E}}$ | $\begin{array}{ll}37 & 0 \\ 26 & 6\end{array}$ |
| 500 | $\begin{aligned} & 100,110,1155,200,210,20,220,230, \\ & 240,250 \end{aligned}$ | E40 | $64 \pm 2$ | $135 \pm 10$ | $90 \pm 5$ | 50 | - | A1/43 | 375 G | 26 |
| 500 | 100, 110, 115, 200, $240,210,220,230$, | P28 | $64 \pm 2$ | $133 \pm 7$ | $55.5 \pm 0.5$ | 50 | - | Al/ 8 | 375 C | 27 |
| 500 | 100, 110 | B22 3-pin | 38 max. | 142 max. | 95 | 25 | \{Biplane (a) \} | Al/46 | 6169 F | 37 |
| $\begin{aligned} & 500 \\ & 500 \\ & 750 \\ & 750 \\ & 750 \end{aligned}$ | $\begin{gathered} 110 \\ 110 \\ 110,115 \\ 210,230,240 \\ 110,115 \end{gathered}$ | $\begin{gathered} \text { B \& H } 38 \\ \text { B \& } 46 \\ \text { P28 } 46 \\ \text { P28 } \\ \text { Debrie } \end{gathered}$ | $\begin{aligned} & 32 \pm 2 \\ & 32 \pm 2 \\ & 32 \pm 2 \\ & 32 \pm 2 \\ & 38 \text { max. } \end{aligned}$ | $\begin{aligned} & 128 \pm 7 \\ & 128 \pm 7 \\ & 133 \pm 7 \\ & 133 \pm 7 \\ & 145 \pm 8 \end{aligned}$ | $\begin{array}{r} 59 \pm 0.5 \\ 59 \pm 0.5 \\ 55.5 \pm 0.5 \\ 55.5 \pm 0.5 \\ 81 \end{array}$ | $\begin{aligned} & 25 \\ & 25 \\ & 25 \\ & 25 \\ & 25 \end{aligned}$ |  | Al/46 Al/47 A /1/60 Al/ 163 Al/52 | 6152H 6152 X 6153 C 6153 C 6170 C | $\begin{array}{ll}37 & 0 \\ 37 & 0 \\ 42 & 6 \\ 42 & 6 \\ 43 & 6\end{array}$ |
| 750 750 750 750 900 900 1000 1000 1000 |  | $\begin{gathered} \text { P40 } \\ \text { E40 } \\ \text { B\& } \& 4 \\ \text { E40 } \\ \text { P40 } \\ \text { P28 } \\ \text { P28 } \\ \text { P40 } \end{gathered}$ | $\begin{aligned} & 64 \pm 2 \\ & 64 \pm 2 \\ & 384 \pm 2 \\ & 34 \pm 2 \\ & 64 \pm 2 \\ & 64 \pm 2 \\ & 64 \pm 2 \\ & 64 \pm 2 \end{aligned}$ | $\begin{aligned} & 235 \pm 10 \\ & 230=10 \\ & 128=7 \\ & 230 \pm 10 \\ & 235=10 \\ & 133 \pm 7 \\ & 133=7 \\ & 235 \pm 10 \end{aligned}$ |  | $\begin{aligned} & 50 \\ & 50 \\ & 25 \\ & 50 \\ & 50 \\ & 25 \\ & 25 \\ & 50 \end{aligned}$ |  |  |  | $\begin{array}{ll}41 & 0 \\ 38 & 6 \\ 42 & 6 \\ 38 & 6 \\ 41 & 0 \\ 49 & 6 \\ 49 & 6 \\ 35 & 6\end{array}$ |
| 1000 | 100, 110, 115, 200, $210,220,230$, | E40 | $54 \pm 2$ | $230 \pm 10$ | $120 \pm 5$ | 50 | - | A1/57 | 2976 | 330 |
| $\begin{aligned} & 1000 \\ & 1000 \\ & 1000 \end{aligned}$ | $\begin{aligned} & 240,250 \\ & 100 \\ & 110,115 \\ & 110,115 \end{aligned}$ | $\begin{aligned} & \text { B \& H } 46 \\ & \text { P\& \& } 46 \end{aligned}$ | $\begin{aligned} & 38 \pm 2 \\ & 38 \\ & 38 \pm 2 \\ & 38 \\ & \hline \end{aligned}$ | $\begin{array}{r} 175 \\ 133 \pm 7 \\ 128 \pm 7 \end{array}$ | $\begin{gathered} 78 \\ 55.5^{78} \\ 59 \pm 0.5 \\ \hline 0.5 \end{gathered}$ | $\begin{aligned} & 25 \\ & 25 \\ & 25 \end{aligned}$ | Biplane (a) Biplane (a) Biplane (a) | $\begin{aligned} & \text { Al/92 } \\ & \text { Al/59 } \\ & \text { Al/91 } \end{aligned}$ | $\begin{aligned} & 6186 \mathrm{H} \\ & 7242 \mathrm{C} \\ & 7242 \mathrm{H} \end{aligned}$ | 49 <br> 49 <br> 49 <br> 49 |
| 1000 | 110 | P40 | $64 \pm 2$ | $235 \pm 10$ | $84 \pm 0.5$ | 25 | Biplane | A1/60 | 7225 C | 520 |

BULB SHAPE-Tubular
OPERATING POSITION-Vertical, cap down unless otherwise stated
CAPS illustrated on Pages 57 \& 58.
(a) Indicates that forced cooling is necessary for these lamps so that no part of the wall of the bulb exceeds a temperature of $500^{\circ} \mathrm{C}$.


Page Twenty-five

# PROJECTOR 

Group I


Class A.3. Lamps are used in horizontal burning wide angle floodlights in Photographic and Film Studios and for Stage lighting.

| CLASS A.3. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Watts | Volts | Cap | Dimensions (mm.) |  |  | Obi. Av. <br> (Hours) | $\underset{\text { Ref. }}{\text { E.L.M.A. }}$ | Philips Type Nos. | List <br> Price Each |
|  |  |  | Diameter | Overall Length | L.C.L. |  |  |  |  |
| 100 \} | 110, 200, 210, 220, | E27 | $70 \pm 2$ | $115 \pm 10$ | $95 \pm 5$ | 300 | A3/1 | 107E |  |
| $250\}$ | 230, 240, 250 | E27 | $90 \pm 2$ | $160 \pm 10$ | $120 \pm 5$ | 300 | A3/2 | 432 E |  |

BULB SHAPE-Spherical with neck.
OPERATING POSITION-Horizontal or within $15^{\circ}$ thereof. CAPS illustrated on Page 57. PURCHASE TAX-The lamps listed above ARE SUBJECT TO PURCHASE TAX-see Page 5.

Class B.1. Lamps are used for theatre and film studio spot and floodlighting, where long life and reliability are required.

| CLASS B.I. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 100 | $115,200,210,220,$ | E27 | $80 \pm 2$ | $115 \pm 10$ | $75 \pm 5$ | 800 | B1/1 | 120E | $\begin{array}{ll} \text { s. } & \text { d. } \\ 10 & \end{array}$ |
| 250 | $\begin{gathered} 115,200,210,220, \\ 230,240,250 \end{gathered}$ | E27 | $95 \pm 2$ | $125 \pm 10$ | $75 \pm 5$ | 800 | B1/2 | 123E | 193 |
| 500 | $\begin{gathered} 115,200,210,220, \\ 230,240,250 \end{gathered}$ | E40 | $130 \pm 5$ | $180 \pm 10$ | - | 800 | B1/3 | 125G | 253 |
| 1000 | $\begin{gathered} 115,200,210,220, \\ 230,240,250 \end{gathered}$ | E40 | $130 \pm 5$ | $180 \pm 10$ | $115 \pm 5$ | 800 | B1/4 | 504G | 330 |

BULB SHAPE-Spherical.
OPERATING POSITION-Any, except within $45^{\circ}$ of vertical cap-up position. CAPS illustrated on Page 57. PURCHASE TAX-Class B1// 100 watt and B1/2 250 watt lamps ARE SUBJECT TO PURCHASE TAX - see Page 5 Purchase Tax does not apply to the Class BI/3 500 watt and BI/4 I,000 watt lamps listed above.

Class E Lamps are principally for use in Epidiascopes and for Theatre and Photographic spot lighting.

| CLASS E. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\left.\begin{array}{l}500 \\ 500\end{array}\right\}$ | $\begin{gathered} 110,200,210,220, \\ 230,240,250 \end{gathered}$ | $\begin{aligned} & \text { E27 } \\ & \text { P28 } \end{aligned}$ | $\begin{array}{r} 100 \pm 5 \\ 95 \pm 5 \end{array}$ | $\begin{aligned} & 135 \pm 10 \\ & 130 \pm 10 \end{aligned}$ | $\begin{gathered} 85 \pm 5 \\ 55.5 \pm 0.5 \end{gathered}$ | $\begin{aligned} & 100 \\ & 100 \end{aligned}$ |  | $\begin{aligned} & 437 E \\ & 437 C \end{aligned}$ | $\begin{array}{ll} \text { s. } & \text { d. } \\ 30 & 3 \\ 31 & 3 \end{array}$ |

BULB SHAPES-Spherical.
OPERATING POSITION-Vertical, cap down, $\pm 45^{\circ}$. CAPS illustrated on Pages 57 \& 58 . PURCHASE TAX does not apply to the Class E lamps listed above.

## Group I



Class F Lamps are for use in micro-projection and microscope illumination, and have a very wide range of application, including Home Cine Projectors.

| CLASS F. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Watts | Volts | Cap | Dimensions (mm.) |  |  | Obj. Av. <br> Life <br> (Hours) | Special Features | $\underset{\text { Ref. }}{\text { E.L.M.A. }}$ | Philips Type Nos. | $\begin{aligned} & \text { List } \\ & \text { Price } \\ & \text { Each } \end{aligned}$ |
|  |  |  | Diameter | Overall Length | L.C.L. |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 24 24 | 12 | E14 | $38 \pm 2$ $38 \pm 2$ | $60 \pm 5$ $60 \pm 5$ | $50 \pm 5$ $50 \pm 5$ | 100 100 | Horiz. Coil | F/10 F/10 | 6100 M 6163 M | 40 40 |
| 30 | 6 | E14 | $35 \pm 2$ | $57 \pm 5$ | $47 \pm 5$ | 25 | "." | F/l | 6164 M | 66 |
| 30 | 6 | E27 | $35 \pm 2$ | $63 \pm 5$ | $53 \pm 5$ | 25 | " | F/25 | 6164 E | 66 |
| 30 | 6 | E27 | $35 \pm 2$ |  | $53 \pm 5$ | 200 |  | F/23 | 397 E |  |
| 30 | 6 | E14 | $35 \pm 2$ | $65 \pm 5$ | $47 \pm 5$ | 200 | ". | F/26 | 6106 M |  |
| 48 | 8 | E14 | $40 \pm 3$ | $60 \pm 5$ | $41 \pm 3$ | 100 | " | F/7 | 6019M | 83 |
| 48 | 12 | E27 | 50 主2 | $70 \pm 5$ | $38 \pm 5$ | 100 |  | F/13 | ${ }^{6143 E}$ | ${ }^{6} 0$ |
| 72 | 6 | E27 | $32 \pm 1$ | $128 \pm 7$ | $75 \pm 3$ | 100 | Axial Coil | F/27 | 7076E | 119 |
| 100 | 12 | E27 | $60 \pm 2$ | $85 \pm 5$ | $55 \pm 5$ | 100 |  | F/14 | 6031 E | 133 |
| 108 | 6 | P28 | $32 \pm 2$ | $133 \pm 7$ | $55.5 \pm 0$. | 50 | Ribbon | F/5 | 6002 C | 340 |
| 108 | 6 | E27 | $32 \pm 2$ | $128 \pm 7$ | $75 \pm 5$ | 50 | Ribbon Filament | F/-1 | 6002 E | 330 |

BULB SHAPES-Various.
OPERATING POSIT!ON-According to type CAPS illustrated on Page 57. PURCHASE TAX: The lamps listed above ARE SUBJECT TO PURCHASE TAX-see Page 5

Class G Lamps are for use with Film Sound Reproduction and recording Units.

| CLASS G |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Amps | Volts | Cap | Dimensions (mm.) |  |  | Obj. Av. Life (Hours | Special Features | $\underset{\text { Ref. }}{\text { E.L.M.A. }}$ | Philips Type Nos. | List Price Each |
|  |  |  | Diameter | Overall Length | L.C.L. |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 0.75 0.75 | 4 | P15s P15s | $25 \pm$ | $48 \pm 3$ $57 \pm 3$ | 28.5 <br> 28.5 <br> 1.750 .5 <br> 0.5 | 50 50 |  | G/1 | $7250 \times$ 7253 C | 70 70 |
| 0.75 | 4 | B15s | $15 \pm 1$ | $48 \pm 3$ | $31.75 \pm 0.7$ ! | 50 | " | G/19 | 7253 N | 60 |
| 0.75 | 4 | B15s | $25 \pm 1$ | $48 \pm 3$ | $32 \pm 1.5$ | 50 |  | G/2 | 7250 N | 60 |
| 1.0 | 6 | P15s | $16 \pm 1$ | $57 \pm 3$ | $28.5 \pm 0.5$ | 100 | Axial Filament | G/5 | ${ }^{7210 \mathrm{C}}$ | 60 |
| 1.0 | 6 | B15s | $18 \pm 1$ | $40 \pm 2$ | $21.5 \pm 0.5$ | 100 |  | G/4 | $6142 N$ $6139 N$ | ${ }_{6}^{60}$ |
| 1.0 | 27 | 8155 | $25 \pm 1$ | $75 \pm 3$ | $41 \pm 1$ | 100 | Transverse Filament | G/16 | 6139 N | $90$ |
| 1.48 4.0 | $6.5$ | PG |  | $75 \stackrel{\text { a }}{ }$ | $44 \pm 1$ | 100 100 | Axial Filament | G35 | 3874 C 6055 N | $\begin{array}{rr}12 & 6 \\ 6 & 0\end{array}$ |
| 4.0 4.0 | $\begin{aligned} & 8 \\ & 8.5 \end{aligned}$ | B15s B15s | $25 \pm 1$ | $75 \pm 3$ <br> 75 <br> 1 | $44 \pm 1$ | 100 100 | Transverse Filament | G/8 G/9 | 6055 N 6058 | 60 6 |
| 5.0 | 10 | P15s | $25 \pm 1$ | $75 \pm 3$ | $37.3 \pm 0.5$ | 100 | ". | G/10 | 6057 C | 90 |
| 5.0 | 10 | B15s | $25 \pm 1$ | $75 \pm 3$ | $41 \pm 1$ | 100 | ". | G/11 | 6057 N | 80 |
| 5.0 | 10 | B15s | $25 \pm 1$ | $75 \pm 3$ | $44 \pm 1$ | 100 | .. | G/12 | 6138 N | 80 |
| 7.5 | 10 | B15s | $25 \pm 1$ | $75 \pm 3$ | $44 \pm 1$ | 100 | " | G/15 | 650 | 80 |
| 7.5 | 10 | 815 s | $25 \pm 1$ | $75 \pm 3$ | 41 ${ }^{47.3}$ | 100 | " | G/14 | 6056 N 6056 | 80 |
| 7.5 | 10 | Pl5s | $25 \pm 1$ | $75 \pm 3$ | $37 \cdot 3 \pm 0.5$ | 100 | ., ." | G/13 | 6056 C |  |

[^0]
# PROJECTOR LAMPS 



Class FL Lamps are for use in stage lighting, shop window lighting, and floodlighting.


Class S Lamps are for use in Photographic and Film Studios.


BULB SHAPES-Spherical, except $5,000 \mathrm{w}$., which has a straight-sided bulb.
OPERATING POSTION-Va
OPERATING POSITION-Vertical, cap down, $\pm 45^{\circ}$. CAPS illustrated on Pages $57 \& 58$.
PURCHASE TAX does not apply to the Class S lamps listed above.
These Lamps are specially designed at a colour temperature of $3350^{\circ} \mathrm{K}$ and are suitable for colour photography lighting, especially with the Technicolor process.

| COLOUR TEMPERATURE. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Watts | Volts | Cap | Dimensions (mm.) |  |  | Philips Type No. | Bulb Shape | List Price Each |
|  |  |  | Diameter | Overall <br> Length | L.C.L. |  |  |  |
| 2000 | 115 | Bi 38 | $152.5 \pm 2$ | $232 \pm 6$ | $127 \pm 2$ | 13187P | Spherical | s. ${ }^{\text {d }}$ 9 |
| 5000 | 115 | Bi 38 | $203 \pm 2$ | $335 \pm 6$ | $165 \pm 2$ | 13186P | Straight Sided | 3000 |

OPERATING POSITION-Cap down $\pm 45^{\circ}$. BI-POST BASES are illustrated on Page 57. PURCHASE TAX does not apply to these lamps.

## Whatever the lighting problem...



The Triumphal Arches in The Mall with Ministry of Works decorative lighting in which Philips 'Altrilux high intensity internal reflector lamps were used to light the Arches and the Coronet from with.in the legs of the Arches themselves.

## PHILIPS have the answer

THE PHILIPS LIGHTING DESIGN SERVICE offers electrical contractors anywhere in Great Britain and Northern Ireland free advice and assistance in the preparation of lighting schemes for all purposes.

At our branches, registered lighting engineers, experienced in solving all lighting problems, are available to co-operate with you in the design of efficient and economical schemes. These lighting engineers in the field can call on the accumulated knowledge of the Century House staff, which includes a fully qualified architect who has made a special study of lighting in conjunction with architecture and colour.

Philips will be happy to design for you-there is no charge.





A The m.v. "Pericles" floodlit with Philips "Altrilux" high intensity internal reflector lamps for the Spithead Naval Review.

B Chatsworth, famous family home of the Duke of Devonshire, is floodlit with Philips 140 W SO/H Sodium lamps in "Redhill" and " Reigate " fittings.

C Newcastle United (First Division), use Philips "Winchester" floodlights with Philips I000W. projector lamps to floodlight their ground.

## PHILIPS

D Where good lighting is required without colour discrimination, Philips Sodium lamps provide the most economical lighting possible.

E Philips Sodium lamps give effective forecourt lighting at the Hillcrest Filling Station, Luton.

F Philips "Altrilux" high intensity internal re flector lamps reveal the beauty of Grantham Church's 282 ftc. medieval spire from ground level.

# FLUORESCENT 

Philips Fluorescent Lamps are excellent for most general lighting purposes, both for new installations or for replacement lamps.

Their principal features are :-
丸 EFFICIENCY Up to four times that of ordinary lamps
BRIGHTNESS Low, obviating glare.
$\star$ DIFFUSION Soft and well-diffused light

* COOLNESS Heat radiation about one quarter that of ordinary lamps. $\star$ COLOUR Choice of five pleasing colours. $\star$ LIFE Long average life.

One of the latest Philips developments is the Philips Instant-Self-Start Fluorescent Lamp, MCFB/U40W., 4 ft ., for operation in series with a Philips Tungsten Ballast Lamp, which also is an efficient source of light. No auxiliaries are required. Further information is given en pages $32 \& 33$.

## dISCHARGELAMPS

The outstanding features of Philips Discharge Lamps are the special qualities of their light, their luminous efficiencies of about three to five times those of ordinary lamps, and their long useful lives. These lamps permit better and cheaper lighting, and more economic use of electricity. Evolved from many years of research and development, the Philips range includes :-

* BLENDED LAMPS
$\star$ MERCURY LAMPS
$\star$ MERCURY-FLUORESCENT LAMPS
SODIUM LAMPS
ULTRA-VIOLET FLLTER MERCURY LAMPS
$\star$ ULTRA-VIOLET GERMICIDAL MERCURY TUBES
together with the apparatus necessary for these lamps, and many types of lighting fittings. The Philips Lighting Design Service is at your disposal to give free advice and recommendations.


## NOTE :

Use Philips Fluorescent and Discharge Lamps only with apparatus manufactured or approved by Philips Electrical Ltd. This does not refer to (i) the Philips Instant-Self-Start Fluorescent Lamps MCFB/U 40w. 4 ft ., which require no apparatus in circuit and should be connected in series with Philips Ballast Lamps, on A.C. mains of the correct voltage, (ii) Philips Blended Lamps MBT/U 160w. and 250w., Page 37, which require no apparatus in circuit, and should be connected direct to A.C. mains of the correct voltage.

## INSTANT-SELF-START FLLORESCENT



The principal features of this
Philips System are:-

- SIMPLICITY. One each of these Fluorescent and Ballast Lamps connected in series. form a complete circuit for use on A.C. 220-250V. mains. Chokes, capacitors and starters are eliminated, togetber with their materials, weight, wiring, housings, and cost.

HIGH EFFICIENCY. The overall luminous efficiency is about 22 lumens/watt initial ("Natural" fluorescent), or double that of ordinary tungsten lamps. The substantial total light output reduces the number of lighting fittings required for a given illumination level.

* PLEASING COLOUR. A pleasing blend of soft fluorescent in " Natural " " Daylight " or "Mellow" colour, with crisp tungsten light from the ballast lamp. "Colour Matching " also available.
* INSTANT-SELF-STARTING. The lamps are instant-self-starting. Normal drops in the supply voltage do not extinguish the lamps, once alight.

HIGH POWER FACTOR. The operating circuit has the inherent high power factor of about 0.97 . Capacitors are unnecessary.

L LONG LIFE LAMPS. The lamps have long average lives.
\& CHOICE OF TWO BALLAST LAMP TYPES. There are two Philips types, one with an internal reflector bowl, for upward light, the other having an Argenta bulb. Both bave the renowned Philips Double-Coil filaments for high efficiency, and for three different voltages.
*
LIGHTING FITTINGS. There is a complete range of Philips Instant-Self-Start Fluorescent Lighting Fittings, for various applications. These pleasing and easily installed units provide full utilisation and distribution of the light from the fluorescent and ballast lamps.

## Groups 9 \& I

A remarkable Philips development, this Philips Fluorescent Lamp operates in series with a Philips Tungsten Ballast Lamp controlling the current, and producing additional light with high efficiency.


Philips Tungaten Ballast Lamp with Internal Reflector Bowl.


Philips Tungsten Baliast Lamp with Argenta Bulb

EARTH


# LIGHTING SYSTEM 

| $\begin{gathered} \text { Class } \\ \text { and Rating } \end{gathered}$ | A.C. 50 Cycle Mains Voltages (for Series Combination) | Ballast Lamp Operation |  | Approx. Initial Watts | Nominal Lumens |  | Nominal Initial Efficiency $\mathrm{Lm} / \mathrm{w}$ | Approximate Dimensions |  |  | Finish | Caps | Price Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Volts | Amp. |  | Initial | Average Through Life |  | Nom. OverLength | Dia. | Light <br> Centre <br> Length |  |  | List | P.T. Extra |
| Instant-Self-Start Fluorescent MCFB/U. 40 W . 4 ft . | 220-250 | - | - | 40W. | "N" 1680 "D" 1680 "M" 1520 "CM"'1320 (100 hours) | $\begin{aligned} & 1560 \\ & 1560 \\ & 1320 \\ & 1160 \end{aligned}$ | $\begin{gathered} 42 \\ 42 \\ 38 \\ 29 \\ \text { (100 } \\ \text { hours) } \end{gathered}$ | $\begin{gathered} 48 \\ \text { ins. } \end{gathered}$ | $\begin{gathered} 1 \frac{1}{4} \\ \text { ins. } \end{gathered}$ | - | Fluorescent | Two Single S35s/21 | $\begin{array}{cc} s . & d . \\ 13 & 3 \\ 13 & 3 \\ 13 & 3 \\ 13 & 3 \end{array}$ | $\begin{array}{ll} 5 . & d . \\ 2 & 5 \\ 2 & 5 \\ 2 & 5 \\ 2 & 5 \end{array}$ |
| Tungsten Ballast Internal Reflector Bowl <br> Pearl | $\begin{gathered} 220-230 \\ \text { or } \\ 240 \\ \text { or } \\ 250 \end{gathered}$ | $\begin{aligned} & 140 \\ & 150 \\ & 160 \end{aligned}$ | $\begin{aligned} & 0.5 \\ & 0.5 \\ & 0.5 \end{aligned}$ | 70W. <br> 75W. <br> 80W. | $\begin{aligned} & 796 \\ & 854 \\ & 910 \end{aligned}$ | $\begin{aligned} & 692 \\ & 743 \\ & 790 \end{aligned}$ | $\begin{aligned} & 11 \\ & 11 \\ & 11 \end{aligned}$ | $103$ mm. | $65$ $\mathrm{mm} .$ | $75$ mm. | Internal Reflector Bowl Pearl | $\begin{aligned} & 3-\text { pin B.C. } \\ & B 22 / 25 \times 26 \end{aligned}$ | 43 | $9 \frac{1}{1}$ |
| Tungsten Ballast Argenta | $\begin{gathered} 220-230 \\ \text { or } \\ 240 \\ \text { or } \\ 250 \end{gathered}$ | $\begin{aligned} & 140 \\ & 150 \\ & 160 \end{aligned}$ | $\begin{aligned} & 0.5 \\ & 0.5 \\ & 0.5 \end{aligned}$ | 70W. <br> 75W. <br> 80W. | $\begin{aligned} & 847 \\ & 908 \\ & 968 \end{aligned}$ | $\begin{aligned} & 735 \\ & 790 \\ & 840 \end{aligned}$ | $\begin{aligned} & 12 \\ & 12 \\ & 12 \end{aligned}$ | $\begin{gathered} 117.5 \\ \mathrm{~mm} . \end{gathered}$ | $65$ mm. | 85 mm. | Argenta | $\begin{aligned} & 3-\text { pin B.C. } \\ & B 22 / 25 \times 26 \end{aligned}$ | 30 | 61 |
| Series Combination (data for "N", "D", M" or "CM" Reflector Ballast Lamp) | $\begin{gathered} 220-230 \\ \text { or } \\ 240 \\ \text { or } \\ 250 \end{gathered}$ | - | - | llow. <br> 115W. <br> 120W | $\begin{aligned} & 2476 \\ & 2534 \\ & 2590 \end{aligned}$ | $\begin{aligned} & 2252 \\ & 2303 \\ & 2350 \end{aligned}$ | $\begin{aligned} & 22 \\ & 22 \\ & 21 \end{aligned}$ | - | - | - | - | - | - | - |



Cat. No, R. 8312 Three-slot Bayonet Lampholdor


Cat. No. A. 7225 Lampholder, Ivory white


PHILIPS INSTANT-SELF-START FLUORESCENT LAMPS MCFB/U. 40 W . 4 FT . These Lamps are for use one in series with one Philips Tungsten Ballast Lamp. They must not be used with choke or transformer bailasts. Starters are unnecessary. COLOURS. " $D$ " = Daylight. " $N$ " = Natural. " $M$ " = Mellow. "C.M" $=$ Colour Matching.
PHILIPS TUNGSTEN BALLAST LAMPS. These Lamps are for use one in series with one Philips Instant-Self-Start Fluorescent Lamp MCFB/U. 40 W .4 ft . They must not be used with fluorescent lamps of classes other than MCFB/U. 40 W .4 ft . Nor Lamp MCFB/U. 40 W . 4 ft . The
MAINS VOLTAGES. For A.C. 220-250V. mains. Not for D.C. Please order the Ballast Lamps for 220-230V., or 240V., or 250 V., according to the A.C. mains voltage. For A.C. 200-210V. Cat. No. H. 1723 transformer giving 240V. is available, for mounting on the Philips Cat. No. A. 6240 or A. 6246 Fittings, or for fixing separately with other fittings.
CONSUMPTION. The total consumption of one Philips Instant-Self-Start Fluorescent Lamp MCFB/U. 40W. 4 ft . and one Philips Ballast Lamp, is from 110W. to 120W. according to mains voltage. See Table. Double this for fittings with two Fluorescent and two Ballast Lamps.
LIGHTING FITTINGS. These Philips Lamps can be used in any makes of lighting fittings specially designed for them. Or for " built-in" lighting, as in display windows, cornices, luminous ceilings, etc. They may be operated in any position.
The lamps listed above ARE SUBJECT TO PURCHASE TAX AS SHOWN,
LAMPHOLDER prices are given on Page 56.
LAMP INSERTION. The Philips Instant-Self-Start Fluorescent Lamp MCFB/U. 40 W .4 ft . should be inserted into the special holders, and turned $90^{\circ}$, leaving the stripe out of view. When using these Lamps in multiples, install so that the lamp brandings are at opposite ends.


Philips Fluorescent Lamps are suitable for most lighting purposes. They are from three to four times as efficient as ordinary lamps, are cool in operation, and have long useful lives. The light is soft, in colours as shown in the table. Use only in circuit with Ballast and Starter Switch supplied or approved by Philips Electrical Ltd.

Lamps grouped for the A.C. $\mathbf{5 0}$ Cycle Voltages shown in table.

| $\begin{gathered} \text { Class } \\ \text { and Rating } \end{gathered}$ | $\begin{aligned} & \text { A.C. } \\ & 50 \text { Cycle } \\ & \text { Voltage } \\ & \text { lange } \end{aligned}$ | Approx. Watts with Appar.on 230 V . on 230 V | Colours <br> " Daylight " "Warm "Natural" "Colour Matching ", "Mellow" | Nominal Lumens |  | Nom. init. ency at 100 Lm/W | ApproximateDimensions ins. |  | Caps | Price Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { Init. } \\ & \text { at } 100 \\ & \text { Hours } \end{aligned}$ | Aver. ${ }_{\substack{\text { through } \\ \text { Life }}}^{\text {Aver }}$ |  | Nom. Overall Length | Dia. |  | List | P. Tax Extra |
| MCFIU 15 W . $18^{\prime \prime} \times 1{ }^{\prime \prime}$ | 100-130V. | 40W.* | WW-N-M | 465 | 380 | 31 | 18 | 1 | Two Med. Bi-pin G13/23 | s. ${ }_{9}{ }_{9}$ | ${ }_{\text {s }}{ }_{10}^{\text {d }}$ |
| MCF/U 20W. $2 \mathrm{ft} . \times 1 \frac{1}{1 \prime \prime}^{\prime \prime}$ | 100-130v. | 52W.* | WW-N-M | 680 | 560 | 34 | 24 | $1 \frac{1}{2}$ | G13/35 | 106 | 111 |
| MCF/U 30W. 3f. $\times \mathrm{I}^{\prime \prime}$ | 200-250V. | 40W. | WW-N-M | 1,260 | 1,100 | 42 | 36 | 1 | G13/23 | 11 | 20 |
| +MCF/U 40W. $2 \mathrm{ft}. \times 1 \frac{1}{1}{ }^{\text {n }}$ | 100-130V. | 100W.* | WW-N-M | 1,200 | 1,000 | 30 | 24 | $1 \frac{1}{2}$ | G13/35 | 11 | 20 |
| +MCF/U $40 \mathrm{~W} .4 \mathrm{ft} . \times 1 \frac{1}{4}^{\prime \prime}$ | 200-250V. | 50w. | D-WW-N-M | 2,080 | 1,800 | 52 | 48 | $1 \frac{1}{2}$ | G13/35 | 119 | 22 |
| +MCF/U BOW. $5 \mathrm{ft} . \times 1 \frac{1}{1 *}^{\prime \prime}$ | 200-250V. | 96W. | D.WW-N-M | - | 3,600 | - | 60 | $1 \frac{1}{1}$ | Two B.C. (822/25 $\times 26$ ) |  | 25 |
|  | 200-250V. | 50 W. | C.M. | 1,600 | 1,200 | 40 | 48 | $1 \frac{1}{2}$ | Two Med. Bi-pin GI3/35 |  | 22 |
| TMCF/U 80W. $5 \mathrm{ft} \times \times 1{ }^{\text {² }}$ | 200-250V. | 96 W . | c.M. | 2,960 | 2,200 | 37 | 60 | $1 \frac{1}{1}$ | Two B.C. (B22/25 $\times 26$ ) |  | 25 |

[^1]
## CIRCULAR FLLORESCENT LAMPS

PHILIPS now add to the existing range of fluorescent lamps a Circular Lamp type MCF/U 40W. 16 in . diameter having a more compact form. A specially designed 4-pin cap completely closes the circle by filling the gap between the ends of the lamp tube.
Suitable for decorative and domestic lighting.


| Class and Rating | A.C.50 cycle Voltage Range | Approx. <br> Tot. Init. <br> Watts <br> with <br> Appar. <br> on 230 V . | Colour | Nom. Init. Efficiency at 100 Hours Lm/W | Approximate Dimensions | Cap | Price Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | List | P. Tax extra |
| MCF/U 40W $16^{\prime \prime}$ circular | 200-250V. | 50 W. | Mellow | 38 | Outside dia. <br> $403 \pm 8$ m.m. <br> Inside dia. <br> $339 \pm 4 \mathrm{~m} . \mathrm{m}$. <br> Tube dia. <br> $32 \pm 2 \mathrm{~m} . \mathrm{m}$. | $\begin{aligned} & \text { 4-pln } \\ & \text { special } \end{aligned}$ | s. d. <br> 350 | $\begin{array}{ll} \text { s. } & \text { d. } \\ 6 & 4 \end{array}$ |

This new lamp can be used with standard Philips MCF/U 40W. Ballasts and PF Capacitors and K3080 Starters.


The cap pins are movable through an angle of $\pm 5^{\circ}$ from the set position of $45^{\circ}$ to plane of lamp.

## FLUORESCENT

These starters are of the automatic glow switch type, operating with a predetermined delay of a moment or two after switching on the supply, to ensure the optimum starting conditions for the lamp. Each starter, with a small capacitor and a series resistance, is housed within a sealed canister with four contact pins which lock into the special starterholders. One starter must be used in circuit with each lamp. Philips Fluorescent Starters are interchangeable with other makes of starters of similar types and ratings. Information about other types of Starters on request.

| Cat. No. | For Lamp Class and Rating | A.C. 50 Cycle Mains Voltage | Approximate Dimensions |  | Llot <br> Price Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Overall Length | Diameter |  |
| K. 3080 | $\begin{array}{lll} \text { MCF/U } & 30 \mathrm{~W} . & 3^{\prime} \\ M C F / U & 40 \mathrm{~W} . & 4^{\prime} \\ M C F / U & 80 \mathrm{~W} . & 5^{\prime} \end{array}$ | 200-250V. | $2^{\prime \prime}$ | $11^{\prime \prime}$ | $\begin{array}{cc} \text { s. } & \text { d. } \\ 6 & 0 \end{array}$ |

PURCHASE TAX does not apply to the Starter listed above.


# FLUORESCENT LAMP APPARATUS 

## FOR A．C．MAINS 50 CYCLES

## PURCHASE TAX does not apply to this apparatus．

CIRCUITS．On A．C．supplies，each fluorescent lamp requires a low power factor ballast，a capacitor and a starter．To form a high power factor＂twin－lamp＂circuit，reducing stroboscopic effects，for the MCF／U 80 w .5 ft ．，and 40 w .4 ft ．lamps，two single lamp low power factor ballasts may be used with a 440 v ．series capacitor．Please ask for details of connections and state for which mains voltage required．
HOUSING．This apparatus usually is housed within the lighting fittings．When this is not possible，the apparatus should preferably be installed in a ventilated metal box．See page 56 ．

## BALLASTS

## FOR 40w． 4 FT．LAMPS

| Cat．No． | For A．C． Voltages | Type | Dimensions | Weight | List Price Each | Std．Pkge． Quantity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| H． 1750 | 200－250v． | Elongated |  | $\begin{array}{cc} \text { lb. } & \text { oz. } \\ 3 & 12 \end{array}$ | $\begin{array}{ccc} f & \text { s. } \\ 1 & 10 & 8 \end{array}$ | 12 |

Note I：Under suitable circumstances these ballasts may be used for twin MCF／U20w． 2 ft．（ $1 \frac{1}{2}{ }^{\prime \prime}$ dia．）lamps in series． Further details and circuit on request．
FOR 80w． 5 FT．LAMPS


$$
\text { Note 2: These ballasts may be used for twin MCF/U } 40 \mathrm{w} .2 \mathrm{ft} \text {. ( } 1 \frac{1}{2}{ }^{\prime \prime} \text { dia.) lamps in series. Further details and circuit on }
$$ request．

## CAPACITORS

CAPACITOR TYPES．275v．For parallel connection in ballast circuits，for power factor improvement．
440 v ．For series connection in＂twin－lamp＂circuits，for the MCF／U $80 \mathrm{w}, 5 \mathrm{ft}$ ，or $40 \mathrm{w}, 4 \mathrm{ft}$ ．lamps Please ask for details when ordering．

## FOR 40w． 4 FT．LAMPS

| Cat． <br> No． | $\underset{\text { Max.V. }}{\text { A.C. }}$ | Cap． mFd ． | Circuit | Type | Dimensions | Weight | List Price Each | Std．Pkge． Quantity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{H} .1709 \\ & \mathrm{H} .1710 \end{aligned}$ | $\begin{aligned} & 275 \mathrm{v} . \\ & 440 \mathrm{v} . \end{aligned}$ | $\begin{aligned} & 3 \cdot 25 \\ & 3 \cdot 5 \end{aligned}$ | ＂Single－Lamp，＂ <br> ＂Twin－Lamp＂ | Elongated |  | $\begin{array}{cc} \text { lb. } & \text { oz. } \\ 0 & 11 \\ 1 & 3 \end{array}$ | $\begin{array}{ccc} f & \text { s. } & d . \\ 12 & 0 \\ 19 & 0 \end{array}$ | $12$ |

FOR 80w． 5 FT．LAMPS


## INSTANT START BALLAST－COMBINED UNIT

| FOR $80 w .5$ FT．LAMPS MCFA／U  <br> H．I885 $200-210$ <br> H．I886 $220-230$ <br> H． 1887 $240-250$ | Elongated Elongated Elongated |  | 6 | $4$ | $\begin{array}{rrr}3 & 16 \\ 3 & 9 \\ 3 & 9\end{array}$ | 4 0 0 | 6 ＂̈ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FOR 40 w .4 FT．LAMPS MCFA／U <br> H．1755 $200-210$ <br> H．I786 <br> H． 1787 <br> $2200-230$ | Elongated Elongated Elongated |  | 4 | 8 | $\begin{array}{lll}2 & 17 \\ 2 & 17 \\ 2 & 14 \\ 2 & 14\end{array}$ | 8 4 4 | 6 |

## STANDARD BOX QUANTITIES

| GENERAL LIGHTING SERVICE LAMPS |  |  |  |  |  | DISCHARGE LAMPS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BOX QUANTITIES |  |  |  |  |  | BOX QUANTITIES |  |  |  |
| Wattages | Gasfilled，Clear |  | Gasfilled，Pearl |  | Vacuum | Lamp Type |  |  | Qty． |
| 15 | － |  | － |  | $\begin{aligned} & 100 \\ & 100 \end{aligned}$ |  |  |  |  |
| 25 |  |  | 3 |  |  |  |  |
| 40 | 100 |  |  |  | 100 |  | － | 3 |
| 60 | 100 |  | 3 |  |  |  |  |  |  |
| 75 | 7550 |  | 10075 |  | － |  |  |  | 3 |
| 100 |  |  | 7550 |  | － |  |  |  | 3 3 |
| 150 | 50 |  | 50 |  | － |  |  |  | 12 |
| 200 | 24 |  | － |  | － |  |  |  | 12 |
| 300 | 12 |  | － |  | － |  |  |  | 12 |
| 500 | 9 |  | － |  | － |  |  |  | 12 12 |
| 750 | $\begin{aligned} & 6 \\ & 6 \end{aligned}$ |  | 二 |  | 二 |  |  |  | 12 |
| 1000 |  |  | 12 |  |  |  |  |  |
| 1500 | 4 |  |  |  | － |  | － | 12 |
|  |  |  | 1 |  |  |  |  |  |  |
| BOX QUANTITIES |  |  |  |  |  |  |  |  | SÖ/H | \％ | V．J． | 12 |
|  |  |  |  |  |  |  | V．J． | 12 |  |
| Side Lamps | Head Lamps | Striplites 8年＂\＆ $11 \frac{1}{10} \mathbf{n}^{\prime \prime}$ |  | Neon | Candio |  |  |  | SÖ／H | 85w. | Vamp | 12 12 12 |
|  |  |  |  |  |  |  | ， |  | 12 |
| 288 | 144 |  |  | 50 | 25 | MBW | 125w． |  | 12 |



Page Thirty－six

# BLENDED LAMPS 

## Group 9



MBT/U 160W. Bulb removed to show inner construction.

Philips Blended Lamps are suitable for commercial and industrial lighting, public lighting, and floodlighting. They resemble 200W. and 300 W . tungsten lamps in size, shape and caps. The light is of a crisp near-white colour, approaching average daylight quality.

The Philips Blended Lamps can be utilised either to economise in electricity, or to obtain higher illumination levels without increasing consumption.

Each of these lamps contains a quartz mercury discharge tube, with a filament in series as a resistance ballast and to give light. There is a short restarting delay.

No external apparatus is required, the lamps being for direct connection to A.C. mains They have long useful lives. Not suitable for D.C. mains.

Lamps grouped for A.C. 50 cycles (200-210V.), (220-230V.), or (240-250V.)

| $\begin{aligned} & \text { Class } \\ & \text { and Rating } \end{aligned}$ | Nominal Lumens |  | $\begin{aligned} & \begin{array}{c} \text { Nominal } \\ \text { Intitial } \\ \text { Efficiency } \\ \text { Lm/W. } \end{array} . \end{aligned}$ | Approx. Dimensions mm. |  |  | Finish | Cap | $\begin{aligned} & \text { List } \\ & \text { Price } \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Initial | Average through throug Life |  | Overall Length | Dia. | L.C.L. |  |  |  |
| MBT/U I60W. | 3,000 | 2,400 | 18.7 | 178 | 90 | $\begin{aligned} & D=128 \\ & F=133 \end{aligned}$ | Internal Silica coating |  | ${ }^{5} 88$. |
| MBT/U 250 W . | 5,100 | 4,250 | 20.4 | 233 | 110 | $\begin{aligned} & \mathrm{D}=173 \\ & \mathrm{~F}=178 \end{aligned}$ | . | G.E.S. (E40/45) | 569 |

[^2]
## PHILIPS



# MERCURY LAMPS AND MERCURY-FLLORESCENT LAMPS 

## Group 9

Philips Mercury and Mercury-Fluorescent Lamps are used extensively for public and industrial lighting, and for floodlighting. They give up to three times more light than ordinary lamps of similar consumption, and have long useful lives. When Philips Mercury Lamps are used alone, their bluish-white light gives increased visual acuity; while in combination witht ungsten lamps, the resultant "blended light" is of crisp white quality, with good overall efficiency. Philips Mercury-Fluorescent Lamps have fluorescent phosphor internal coatings to the bulbs which modify the light to one nearer white than that of the mercury light alone. Use only on A.C. mains in circuit with apparatus supplied or approved by Philips Electrical Ltd.

Lamps grouped for A.C. $\mathbf{5 0}$ cycles (200-210V.), (220-230V.), (240-250V.)

| $\begin{gathered} \text { Class } \\ \text { and Rating } \end{gathered}$ | Approx. Total Initial Watts* | Nominal Lumens |  | Nominal Initial Efficiency Lm/W | Approx. Dimensions mm. |  |  | Finish | Cap | List Price Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Initial | Average through Life |  | Overall Length | Dia. | L.C.L. |  |  |  |
| Mercury Lamps   <br> MB/V 80 w. 90 w. <br> MB/V 125 w. 135 w. <br> MA/V 250 w. 270 w. <br> MA/V 400 w. 425 w. |  |  |  |  |  |  |  |  |  |  |
|  |  | 3,000 | 2,500 | 37 | 160 | 80 |  | Pearl | 3-pin B.C. (B22/31 $\times 30$ ) | 39 <br> 45 |
|  |  | 5,300 8,750 | 4,100 | 42 | 178 | 90 | 128 |  | G ${ }^{\circ} \mathrm{S}$. ${ }^{(E 40 / 45)}$ " | 450 |
|  |  | 8,750 16,800 | 8,000 14,400 | 35 42 | 290 330 | 48 48 | 170 190 | Clear | G.E.S. (E40/45) | 54 59 |
|  |  | 16,800 | 14,400 | 42 | 330 | 48 | 190 | " |  |  |
| Mercury-Fluorescent Lamps    <br> $\mathrm{MBF} / \mathrm{V}$ 80 w. 90 w. 3,000 <br> $\mathrm{MBF} / \mathrm{V}$ 125 w. 135 w. 5,300 |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 2,500 4,100 | 37 42 | 178 233 | 110 130 | $\begin{aligned} & 123 \\ & 167 \end{aligned}$ | Fluor. | 3-pin B.C. $(\mathrm{B} 22 / 31 \times 30)$ G.E.S. (E40/45) | 48 59 |

* With Apparatus on 230v.
L.C.L.-Light Centre Length. Lm/W.-Lumens per watt.

NORMAL OPERATING POSITION for MA/V lamps is vertical cap up or down. These lamps also may be used horizontally in lanterns fitted with magnetic arc deflectors.
NORMAL OPERATING POSITION for MB/V and MBF/V lamps is vertical cap up. These lamps may be operated in other positions without serious loss of performance.
RAIN: When used for exterior lighting, these lamps should be adequately protected from rain.

BALLASTS FOR MERCURY AND MERCURY-FLUORESCENT LAMPS

| Cat. <br> No. | A.C. | Ballast Price | Use Capacitor | Capacitor Price |
| :---: | :---: | :---: | :---: | :---: |
| For 80w. lamps (MB/V or MBF/V) |  |  |  |  |
|  |  | $f$ s. d |  | $f$ s. d. |
| $\begin{array}{r} \mathrm{L} .3924 \\ \mathrm{~L} .3925 \end{array}$ | $190-230 \mathrm{v}$ $215-255 \mathrm{v}$. | $\begin{array}{llll}2 & 18 \\ 2 & 18 & 8\end{array}$ | L. 4600 (86 mfds.) | 17 17 |
| For 125 w . lamps (MB/V, MBF/V, MBW/V) |  |  |  |  |
| L. 3964 | 190-230v. | 4190 | L. 4604 (13 mfds.) | 198 |
| L. 3965 | 215-255v. | 4190 | L. 4604 (13 mfds.) | 198 |
| L. 3966 | 190-250v. | 498 | L. 4604 ( 13 mfds.$)$ | 198 |
|  |  |  |  |  |
|  |  |  | $\text { L.4610 ( } 20 \mathrm{mfds} \text {.) }$ | 204 |
| L. 3816 | 215-255v. | 5114 | $\begin{gathered} 230 \mathrm{v} \text { up } \\ \text { L. } 4606 \text { ( } 15 \mathrm{mfds} \text {. }) \end{gathered}$ | 113.4 |
| For 400 w . lamps (MA/V, MAF/V) |  |  |  |  |
| L. 3776 | 190-230v. | 680 | L. 4610 ( 20 mfds .) |  |
| L. 3777 | 215-255v. | 680 | L. 4610 ( 20 mfds .) | 20 |

PURCHASE TAX does not apply to the items listed on this page.

# SODIUM LAMPS 

## Group 9

## Philips Sodium

Lamps are well known
and extensively used for
public lighting, floodlighting
and some types of industrial
lighting, where colour discrimination
is not required. They give up to five times more light than ordinary lamps of similar consumption and have long useful lives.
Excellent visibility is obtained under the monochromatic yellow sodium light, due to the increased visual acuity, enhanced contrasts, and freedom from glare. Use only on A.C. mains in circuit with


#### Abstract

apparatus supplied or approved by Philips Electrical Ltd.


| $\begin{gathered} \text { Class } \\ \text { and Rating } \end{gathered}$ | Approx. <br> Total Init. Watts with Apparatus on 230 V. | Nominal Lumens |  | Nominal Initial Efficiency Lm/W | Approx. Dimensions (Lamps in Jackets) mm. |  |  | Finish | $\underset{\text { (Ceramic) }}{\text { Cap }}$ | List <br> Price Each |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Initial | Average through Life |  | Overall Length | Dia. | L.C.L. |  |  | Lamp only | v.J. only |
| SO/H 45W. | 65W. | 2,700 | 2,200 | 60 | 238 | 50 | 140 | Clear | B.C. (B22/S) | $\begin{array}{ll}\text { s. } \\ 42 & \text { d. }\end{array}$ | $2{ }_{2 i}{ }^{\text {s. }} 9$ |
| SO/H 60W. | 80 W . | 4,200 | 3,400 | 70 | 300 | 50 | 170 | " | " | 526 | 246 |
| SO/H 85W. | 105W. | 6,460 | 5,400 | 76 | 415 | 50 | 230 | " | " | 630 | 293 |
| SO/H 140W. | 165W. | 10,640 | 9,000 | 76 | 518 | 65 | 280 | " | B.C. (B22/M) |  | 330 |


| BALLASTS and CAPACITORS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cat. No. | A.C. | Ballast List <br> Price <br> Each | 45 \& 60W. Use Capacitor | Cap'tor List Price Each | 85W. <br> Use Capacitor | Cap'tor List Price Each |
| $\begin{gathered} \text { For 45W.. } \\ \text { L. } 3611 \\ \text { L.3612 } \\ L .3613 \end{gathered}$ | 60W $85 \mathrm{~W} . \mathrm{L}$ $190-210 \mathrm{~V}$ $210-230 \mathrm{~V}$ $230-250 \mathrm{~V}$. | $\begin{array}{ccc} C & \text { s. } & \text { d. } \\ \text { amps } & \text { (SOC/h } \\ 4 & 17 & 0 \\ 4 & 17 & 0 \\ 4 & 17 & 0 \end{array}$ | L. 4610 L.4610 L. 4606 | $\begin{array}{ccc} f & \text { s. } & d . \\ 2 & 0 & 4 \\ 2 & 0 & 4 \\ 1 & 13 & 4 \end{array}$ | L.4606 L. 4606 L.4606 | $\begin{array}{ccc} \mathcal{E} & s & d . \\ 1 & 13 & 4 \\ 1 & 13 & 4 \\ 1 & 13 & 4 \end{array}$ |
| $\begin{gathered} \text { For } 140 \mathrm{~W} \\ \text { L. } 3631 \\ \mathrm{~L} .3632 \\ \mathrm{~L} .3633 \end{gathered}$ | Lamps (SO/H $190-210 \mathrm{~V}$. $210-230 \mathrm{~V}$ $\mathbf{2 3 0 - 2 5 0 V}$. | $\begin{array}{llll}5 & 15 & 0 \\ 5 & 15 & 0 \\ 5 & 15 & 0\end{array}$ | L. 4610 L. 4610 L.4610 | $\begin{array}{lll}2 & 0 & 4 \\ 2 & 0 & 4 \\ 2 & 0 & 4\end{array}$ | - | 二 |

L.C.L.-Light Centre Length. Lm/W-Lumens per watt. Normal operating position for all these lamps is horizontal. The SO/H 45 W . and 60 W . may be operated from the vertical to 85 W . and 140 W . may be operated from the horizontal down to $20^{\circ}$ below, cap up. Caps must never be lower than the lamp tubes. The detachable vacuum jackets may be used with severa replacement lamps.

[^3]

## MERCLRY PRINTING LANPS

Philips Repro Lamp Type MBR/U I25W. is a high pressure mercury discharge lamp specifically designed for the printing industry. No additional lamp housing is required and the lamp is particularly suitable for photo-copying, plate making and photo-litho processes. In addition to the visible light emitted in the blue part of the spectrum there is considerable radiation in the near ultra-violet region, this being the region in which photographic and reproduction materials are most sensitive.
The bulb is specially shaped so that the combination of internally silvered reflector and granular front result in an extremely even beam of light. This beam pattern is designed to give maximum uniformity of illumination on the reproduction board when inclined at an angle of $35^{\circ}$. These lamps should only be operated in series with Philips Ballasts Cat. Nos. L.3964, L. 3965 and L. 3966 .

Lamp grouped for A.C. 50 cycles ( $\mathbf{2 0 0} \mathbf{2 1 0 v}$.), (220-230v.), or (240-250v.)

| $\begin{aligned} & \text { Class } \\ & \text { and Rating } \end{aligned}$ | Approx. Total Watts* | Approximate Dimensions mm. |  | Finish | Cap | List <br> Price <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Overall Length | Dia. |  |  |  |
| $\begin{aligned} & \mathrm{MBR} / \mathrm{U} \\ & 125 \mathrm{~W} . \end{aligned}$ | 135 | 232 | 108 | Internal Reflector | E.S. | $\begin{array}{ll} \text { s. } & \text { d. } \\ 76 \end{array}$ |

## ULTRA-VIOLET FILTER MERCURY LAMPS

## Made in Great Britain

Philips Ultra-Violet Mercury Filter Lamps emit practically no visible light and are intended only for the production of fluorescence by the irradiation of fluorescent materials with $3650 \AA$ U.V. radiation. Fluorescent paints and materials are supplied by specialist manufacturers (names on request). The soft, self-luminous and richly coloured glow of such fluorescence is most attractive. These lamps are also used in laboratories for the examination or analysis of various substances, as well as in forensic science for the detection of forgeries and the examination of stains.
Concentrating reflectors should be used to direct the U.V. radiation where required. The lamps have long useful lives. Use only on A.C. mains in circuit with apparatus supplied or approved by Philips Electrical Ltd.
Lamp grouped for A.C. 50 cycles (200-210v.), (220-230v.), or (240-250v.)

| $\begin{gathered} \text { Class } \\ \text { and Rating } \end{gathered}$ | Approx. Total Init. Watts* | Near Ultra-Violet Radiation | Approx. Dimen. mm. |  |  | Finish | Cap | List <br> Price <br> Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Overall Length | Dia. | L.C.L. |  |  |  |
| MBW/V 125W. | 135W. | At $3023 \AA$ less than 2\% | 178 | 90 | 128 | Black | 3-pin B.C. (B22/31 $\times 30$ ) | s. d. <br> 630 |
|  |  | At $3130 \AA$ less than 6\% |  |  |  |  |  |  |
|  |  | At $3650 \AA$ not less than 40\% |  |  |  |  |  |  |

[^4]

Most of the energy radiated by Philips TUV tubes has a wave-length of 2537 Angstrom Units (short-wave, ultra-violet). $2537 \AA$ 年 radiation attacks the cell structure of micro-organisms and is thus highly effective against the germs, mould and fungus spores, wild yeasts and bacteria which cause human infections, spoil food and beverages, and contaminate pharmaceutical products.
Such harmful and costly infection can be prevented by Philips Germicidal TUV cubes when used for:-
(i) Direct radiation for surface sterilization.
(ii) Indirect upper-air irradiation.
(iii) Air-conditioning systems and air ducts.

Details of tube apparatus, reflectors, recommended radiation schemes, and prices. available on application.
The special glass used in Philips TUV tubes does not permit ultra-violet rays of wavelengths below $2000 \AA$ A to pass through, so that initial formation of ozone is only slight, and negligible after 100 hours' burning.
These tubes should not be viewed directly for lengthy periods unless glasses or protective goggles are worn.
Effective doses of germicidal radiation depend on the type of germ, intensity and
duration of the radiation, area irradiated and distance from the tube.

| Class and Rating | Tube Current Amps. | Tube Volts | Intensity <br> UV. $2537 \AA$ $\mu \mathrm{W} / \mathrm{cm}^{2}$ at 1 m . | Energy Output. UV2537A Watts | Approx. Dimensions |  | Cap | List Price s. d . |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Overall length | Dia. |  |  |  |
| TUV 7W. | 0.033 | 200-250 | 1.1 | 0.1 | 5?* | 1" | E.S. | 32 | 6 |
| TUV 15W. | 0.33 | 53 | 30 | 2.9 | $18^{\prime \prime}$ | $1^{\prime \prime}$ | $\begin{aligned} & \text { Med, } \\ & \mathrm{Bi}-\mathrm{pin} \\ & \mathrm{GI} 13 / 23 \end{aligned}$ | 70 | 0 |
| TUV 30W. | 0.37 | 100 | 75 | 7.2 | $36^{\prime \prime}$ | $1 *$ | do. | 103 | 0 |



TUV. 7W. Tube


This new air-sterilizer consists of a dual purpose reflector and Philips I5W. TUV Germicidal Ultra-violet tube, and has been developed for the medical field, but will serve equally well in industry.
For upper-air irradiation, when personnel are present, the hinged and counterbalanced reflector is closed; after working hours the reflector is pulled down for air, floor and equipment irradiation.
Fitted with neon pilot lamp and built-in switch. Finished white stove enamel with bright aluminium foil reflector.
Size closed, $20 \frac{1}{2}$ ins. wide ; $6 \frac{1}{2}$ ins. high; $12 \frac{2}{}$ ins. deep.
open, $20 \frac{\pi}{4}$ ins. wide ; 11 ins. high ; $8 \frac{1}{2}$ ins. deep.
A.7002. Air Sterilizer complete with I5W. TUV tube and control gear

List price $£ 13$ || 6
A.7000. 30W. TUV Trough Reflector

List price

| 13 | 11 |
| :--- | :--- |

Please state A.C. voltage when ordering. Ballasts for voltages other than those listed here are available on request.

## ACCESSORIES \& APPARATUS FOR TUV GERMICIDAL TUBES

## Cat. No.

7W.
15W.
H. 1568
H. 1569
H. 1709
K. 3015
A. 7217
A. 7205

DESCRIPTION
List Price
 Each
s.
d. No apparatus required.

215/235V. 50C. A.C.

$$
\begin{aligned}
& \text { Cäpacitor' for P."̈. correction. } 3.25 \text { mfds. } 250 \text { "̈V. }
\end{aligned}
$$

15W. Starter 2 contact type Bi-Pin Lampholder, black (2 per tube) ...

In food stores, refrigerators, food processing plants, and many similar situations Philips TUV Germicidal tubes and control gear can be mounted as shown above.
ACCESSORIES \& APPARATUS FOR TUV GERMICIDAL TUBES contd. Cat. No. DESCRIPTION List Price

## 30W.

H. 1650
H. 1651
H. 1709
K. 3030
A. 7217
A. 7205

30W. Ballase with s. $215 / 235 \mathrm{~V}$ 50 3'2ं ". ". 235/255V. ." ." ...
3.25 mfds. Capacitor ...

Starter Holder 2 contact type. White Bi-Pin Lampholders, black ( 2 per tube)

Each
$\begin{array}{ll}32 & 8 \\ 32 & 8\end{array}$ $\begin{array}{ll}32 & 8 \\ 12 & 0\end{array}$

PHILIPS
Purchase Tax does not apply to the Germicidal Tubes and Equipment listed on this page.

Made in Holland

## DISCHARGE LAMP APPARATUS

## FOR A.C. MAINS 50 CYCLES

PURCHASE TAX does not apply to this apparatus.
BALLAST TYPES. All are tapped, low power factor, " single-lamp" type.
CAPACITOR TYPES. These are recommended for use in parallel connection, 275 v ., A.C. max., for power factor improvement.
HOUSING. This apparatus usually is housed in boxes and installed close to the lighting fittings. For details of suitable boxes, see Page 56.

BALLASTS FOR MERCURY AND MERCURY-FLUORESCENT LAMPS


## BALLASTS FOR SODIUM LAMPS



CAPACITORS FOR DISCHARGE LAMP CIRCUITS (275 A.C. MAX.)


## Page Forty-two

# fluorescent lighting fittings 

## FOR SINGLE OR TWIN 80W. 5 FT. LAMPS

All fittings include H.P.F. Apparatus and Starters. Finish: White Stove Enamel unless stated otherwise.



Lighting Fittings for Trunking Systems are available; details on request.

Fluorescent Lamps are listed on page 34 and details of apparatus, mains voltages and suspension sets are on page 45.

## Upward Light

Cat. Nos. A.6003, A.6004. A.6033, and A. 6034 can be supplied with slotted reflectors if ordered specially. No extra charge.

# FLLORESCETT 

## FOR SINGLE OR TWIN 40 W .4 FT. LAMPS

All fittings include H.P.F. Apparatus and Starters. Finish: White Stove Enamel unless stated otherwise.

## Ceiling Channel

For Single
40W. 4 ft . lamp A.6I50 "ASHFORD"
5150
For Twin
40W. 4 ft . lamps A. 6185 "ALTON"
Fixing Centres $30^{\prime \prime}$ ( $\mathbf{z}^{\prime \prime}$ conde.)
990

## Open-end detachable Trough <br> (Cat. Nos. A. 7270 Chain or A. 7271 Tube Suspensions extra)

For Single
40W. 4 ft. lamp A. 6155 "ASHBURTON"
For Twin
40W. 4 ft . lamps A.6190 "ALNESS"
Fixing Centres: $\mathbf{3 0 ^ { \prime \prime }}$ ( $\mathbf{i}^{\prime \prime}$ condt.)
Open-end detachable " Perspex " Trough
(Cat. Nos. A. 7270 Chain or A. 7271 Tube Suspensions extra)
For Single
40 W .4 ft .

| 40W. 4 ft. lamp <br> For Twin <br> 40W. 4 ft. lamps | A.6160 | "ASHTON" | A.6195 | "ALBANY" | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 0 |  |  |  |  |  |

Fixing Centres: $30^{\prime \prime}$ ( $\mathbf{1}^{\prime \prime}$ condt.)

| Angle fitting <br> (Cat. Nos. A. 7270 Chain or A. 7271 Tube Suspensions extra) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| For Single 40W. 4 ft . lamp | A. 6145 | "ASHCROFT" <br> (Open end) | 7 | 9 | 0 |
| For Twin 40W. 4 ft. lamps <br> Fixing Centres: $30^{\prime \prime}$ | A. 6192 <br> condt.) | "ABERFORD" <br> (Closed end) | II | 10 | 0 |
| Ceiling Vee |  |  |  |  |  |
| For Single 40W. 4 ft . lamp | A. 6162 | "ASHLEY" | 7 | 4 | 4 |
| For Twin 40W. 4 ft . lamps | A. 6197 | "APPLEBY" | 11 | 0 | 0 |
| Fixing Centres: $30^{\prime \prime}\left(z^{\prime \prime}\right.$ condt.) |  |  |  |  |  |

Fuorescent Lamps are listed on page 34 and details of apparatus, mains voltages and suspension sets are on page 45.

## FLUORESCENT LIGHTING FITTINGS

FOR SINGLE OR TWIN 80W. 5 FT. \& 40 W. 4 FT. LAMPS.


## SUSPENSION SETS

Cat. Nos. of suitable Chain or Tube Suspension Sets are shown in brackets under description of fittings on pages 43-45. Please order additionally by Cat. No.
Cat. Nos. A. 7270 and A. 7300 Chain Sets
Cat. No. A. 7271 Tube Set $\ldots$
....

## APPARATUS

All these Philips Fittings supplied complete with Philips H.P.F. Apparatus and Starters wired ready for use. Lamps not included should be ordered additionally.
MAINS VOLTAGE
All these Philips fittings have tapped 80 w . ballasts for A.C. 50 cycle mains supplies. Tappings are available for any one of the three voltage groups (200-210v.) (220-230.) (240-250v.). Fittings for other A.C. voltages or for D.C.
on request. on request.
CLEANING " PERSPEX"
We recommend "Perspex " Polish No. 3 for cleaning " Perspex" fittings. Jars: 4 oz ., 2s. 6d., and $8 \mathrm{oz} ., 4 \mathrm{~s}$. 0d. net. The word "PERSPEX" is a registered trade mark of Imperial Chemical Industries, Ltd.

## PHILIPS

Made in Great Britain

# INSTANT. SELF. START fluorescent lighting fittings 

## GENERAL DESCRIPTION

The important feature of the Philips Instant-Self-Start Fluorescent Lighting Fittings illustrated on this page and the next is that they require NO APPARATUS, with consequent saving in capital outlay. The Philips Fluorescent Lamp (Class MCFB/U) operates in series with a Philips Tungsten Ballast Lamp controlling the current and producing additional light with high efficiency.

The fittings are lightweight, simple to install, instant-selfstarting and have a power factor of 0.97 approx. The overall luminous efficiency is about 22 lumens/watt initial or double that of ordinary tungsten lamps.

Radio interference suppressors are incorporated in each fitting.

Lamp details are given on pages 32 and 33.


Commercial diffuser fitting with " Crinothene" side panels and plastic louvre (Cat. No. A.7280 Tube Suspension Set extra.)

## A. 6246 "ALVA" <br> A,6246 "ALVA"

Fixing Centres : $17 \mathrm{H}^{*}$ " Weight: $11 \frac{1}{2} \mathrm{lbs}$, approx. (incl. lamps)
8160
All-metal semi-indirect commercial fitting in ivory stove enamel
(Cat. No. A.7280 Tube Suspension Set extra)

## A. 6240 "AMESBURY"

Fixing Centres: $17 \frac{11^{\prime \prime}}{}$ Weight $14 \frac{1}{2} \mathrm{lbs}$. approx. (incl. lamps)

## GENERAL DESCRIPTION

LIST PRICE
(excluding lamp and suspensions)

1130


All-metal trough Industrial fitting, stove enamel, white inside, grey outside
(Cat. Nos. A. 7280 Tube, A. 7270 Chain or A. 7271 Tube Suspension Sets extra)
A. 6252 "ARDINGLEY"

700
Also with slotted
Reflector A. 6256 "ARBROATH"
Can be fitted with Cat. No. A. 6260 Polystyrene
Fixing Centres: 41z" or $17 z^{\prime \prime}\left(\tilde{z}^{*}\right.$ " conde.) Louvre
A. 6252 Weight: $17+16$. (lincl. 1 lamps) $A$ A. 6256 Weight: $16+16$. (incl. lamps


Polystyrene Louvre A. 6260 (Metal Frame)
For single attachment to
Cat. No. A. 6252 "ARDINGLEY"' and A. 6256 "ARBROATH"

* P.T. not opplicable when louvre is ordered at the same time as "Ardingley" and "Arbroath" fittings.

700

## INSTANT - SELF - START fluorescent lighting fittings

## GENERAL DESCRIPTION

LIST PRICE (excluding lamp and suspensions)


Lightweight single lamps, Industrial Channel Fittings for ceiling mounting, in ivory stove enamel.

$$
\text { A. } 6280 \text { "ASCOT" }
$$

276
Weight: $\mathbf{3} \mathrm{lb}$. 15 oz . (incl. lamps)


Lightweight twin lamps, Industrial Channel Fittings for ceiling mounting, in ivory stove enamel.

## A. 6285 "AINTREE"

3130
Weight 5 lb .6 oz . (incl. lamps)


Lightweight single lamps, Industrial Channel Fitting for ceiling mounting, in ivory stove enamel.

$$
\text { A. } 6290 \text { "AYR" }
$$

2106
Weight: $4 \mathrm{lb}, 2 \mathrm{oz}$. (incl. lamps)


Lightweight twin lamps, Industrial Channel Fitting for ceiling mounting, in ivory stove enamel.

## A. 6295 "ALFRISTON"

420
Weight : 5 lb . 1 lloz . (incl. lamps)

2160
Polystyrene Louvre Screen A. 6297
Finish: Metal frame, Ivory stove enamelled
Primarily designed for use with
Philips Cat. No. A.6295, "Alfriston."
Weight: $4 \frac{\mathrm{l}}{\mathrm{lb}}$.

Made in Great Britain

## SUSPENSION SETS

Cat. No. A. 7280 -See page 46 for details and price.
Cat. No. A.7270-Chain Set .
Cat. No. A.7271—Tube Set ... ... ... ... ... ... ... ... ... ... ., ., 13s. 0d.
Lamp details are given on pages 32 and 33 .
£ s. d.

Weizk: 5 Ib. Il oz. (indilat

# FLOODLGHT PROJECTORS 

## FOR TUNGSTEN, MERCURY AND BLENDED LAMPS



Decription: The "WHITBY" Cat. No. W.8820. Patent No. 674817. A versatile lightweight floodlight projector for medium beam floodlighting.
For Philips lamp
Tungsten G.L.S. 200W. E.S. Clear, Pearl, or "Argenta".
MBT/U 160 W , Blended E.S. Pearl or Silica Coated. MB/V 125 W .
Any operating position.
Beam Angular Width (approximately) :
$35^{\circ}$ to $60^{\circ}$.
$35^{\circ}$ to $60^{\circ}$.
SPECIFICATION :
Reflector-Aluminium mirror polished, and heat resisting lacquered.
Baseplate and Mounting Bracket-Cadmium plated steel with $4 \times \frac{1}{4}$ dia. holes at Baseplate and Mounting B
Fully adjustable through $360^{\circ}$ in horizontal plane: $105^{\circ}$ in vertical plane.
Front cover-Moulded "Perspex" held by 4 screws, available in these finishes and
W.ag23C colours
W. 8823 C Stippled, Uncoloured, Diffuse beam (supplied as standard).
W.8824C Reeded
W.8825C Clear, Red (Phillips Pearl or "Argenca" lamp advised).
W.8826C
W.8827C
W.8827C
$W .8828 C$

Made in Greot Britain

> Description: The "WINCHESTER" Cat. No. W.8810. A heavy duty projector for narrow and medium beam floodlighting. Beam angle is approx. as follows :-
> Facet Mirror Smooth Mirror
> $\begin{aligned} & \text { Beam C.P. at } 0^{=} \\ & \text {Smooth Mirror }\end{aligned}$
> 500W. G.L.S.
> 500W. or 1,000W. B.I Proj.


Body of heavy gauge galvanised steel. Faceted silvered glass reflector as standard, or smooth reflector if required. Heat-resisting clear glass front with wire safety mesh. Complete with porcelain G.E.S. lamp-holder, interior terminal block and $\frac{1}{2}$ "dia. cable entry. Externally adjustable focusing. Steel strirrup and baseplate with four $\frac{1}{2}{ }^{\prime \prime}$ holes at $6 \frac{1}{2}^{\prime \prime}$ centres, fully adjustable with locking devices.
LAMPS Tungsten 500W. G.L.S. Tungsten 500W. or $1,000 \mathrm{~W}$. Class B.I Projector in any operating position excepting within $45^{\circ}$ of vertical, cap up.


Description: The "WESTCLIFF" Cat. No. W.8790. A weatherproofed floodlight projector for general purpose wide and medium beam floodlighting.
For Philips lamp
 cf the vertical cap up or down.
Beam Angular Width :
White Vitreous Enamelled interior- $140^{\circ}$.
With additional aluminium reflector- $70^{\circ}$.

## SPECIFICATION

Body-Heavy gauge sheet steel vitreous enamelled white inside, grey outside.
Reflector (extra)-Polished aluminium, heat resisting lacquered, secured by central screw and nut already fitted in W. 8790 .
Lampholder-G.E.S. Porcelain, H.O. Skirted type, fitted to reversable plate to suit lamp rating.
ront Glass-Clear, heat-resisting "Hysil"
Base plate and Trunnion Arms-Wrought Iron, stoved aluminium, $4 \times \frac{1}{2}{ }^{\prime \prime}$ fixing holes at $67^{\prime \prime}$ centres.
Fully adjustable through $360^{\circ}$ in the vertical and horizontal planes.
Aluminium Reflector extra-Cat. No. W.8791C 17s. 6d. list.

| Cat. No. | Description | For Philips Lamp | Lampholder incl. | Ext. Finish | Dimensions |  |  | Weight lb. | List Price (Fitting only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Depth | Width | Height |  |  |  |
| W. 8820 | "Whitby" Pat. No. 674817 | See above | E.S. | Aluminium Anodised | 13" | $15^{\prime \prime}$ | $18 *$ | $4 \frac{1}{2}$ | ${ }_{7}^{\prime}$ s. |  |
| W.8810 | "Winchester ${ }^{\text {" }}$ | $\begin{aligned} & \text { See } \\ & \text { above } \end{aligned}$ | G.E.S. | Galv. | $20 \frac{1}{2}$ | 20" | 23* | 30 | 2510 | 0 |
| W. 8790 | "Westcliff" | See above | G.E.S. See above | Vitreous Enamelled Grey | $122^{*}$ | 223** | 25* | 27 | 147 | 6 |

## FLOODLIGHT PROJECTORS

## FOR SODIUM LAMPS

Description: The "REIGATE" Cat. No. R.7670. A heavy duty sodium floodlight projector, for wide rectangular beam general purpose floodlighting.

Beam Angle (approx.)
$40^{\circ} \times 20^{\circ}$
SPECIFICATION :
Body-Wrought iron frame with welded sheet steel plates.
Reflector-Mirror polished anodised aluminium,
Front Glass-"Armour Plate ", clear, in sliding frame.
Apparatus Box-Cast iron finished green, complete with wood block, fuses, cable entry glands, and adjustable brackets.
Fully adjustable in vertical plane.
Notes : 1. Sodium lamp apparatus is not included and muse be ordered additionally. Please state voltage.
2. Pole clamps can be supplied if required. Please state pole diameter price on application


Description: The "RENFREW" Cat. No. R.7660. An extra heavy duty sodium floodlight for general purpose wide angle floodlighting.

## Beam Angle (approx.) ;

$45^{\circ} \times 100^{\circ}$
SPECIFICATION:
Body-Silicon alloy.
Reflector-Stainless steel, polished.
Trunnion Arms - M.S. Stove enamelled aluminium.
Front Glass-"Armour plate", clear.
Apparatus Box - Cast iron, stove aluminium, with hinged cover: complete with wood block and brass cable
Fully adjustable in vertical plane.
Notes : I. Suitable clamps and trunnion arms for pole mounting can be supplied to order-price on application. Please state diamerer of pole.
2. List Price of Fitting does not include gear or lamp.

Description: The "READING" Cat. No. R.7620. A weatherproofed general purpose lightweight sodium floodlight projector for wide rectangular beam floodlighting.

## SPECIFICATION :

Body-Sheet steel.
Front Cover-" Perspex", clear with vertically reeded front ends.
Trunnion Arms-Wrought iron stove enamelled aluminium.
Apparatus Box-Sheet steel stove enamelled aluminium complete with wood block, 2-15 amp. fuses and main I" cable gland.
Reflector-Polished aluminium, stove enamelled clear lacquer,
Fixings- 4 Drilled feet $12^{\prime \prime} \times 6^{\prime \prime}$ fixing centres.
Fully adjustable in the vertical plane.
Notes : I. Pole mounting clamps can be supplied to order; please state pole diameter-price on application.
2. Sodium lamp apparatus is not included and must be ordered separately.
3. List Price of Fitting does not include gear or lamp.


| Cat. No. | Description | For Philips Lamp | Lampholder incl. | Ext. Finish | Dimensions |  |  | Weight lb. | List Price (Fitting only) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Depth | Width | Height |  |  |
| R. 7670 | "Reigate " | $\begin{aligned} & \text { SO/H } \\ & 140 \mathrm{~W} . \end{aligned}$ | B.C. | Green | $13^{\prime \prime}$ | 29" | 21*" | 60 | $\begin{array}{ccc} f & \text { s. } \\ 23 & 19 & 4 \end{array}$ |
| R. 7660 | " Renfrew " | $\begin{aligned} & \text { SO/H } \\ & 140 \mathrm{~W} . \end{aligned}$ | B.C. | Aluminium | $8^{\prime \prime}$ | $28^{\prime \prime}$ | 23 " | 71 | 3000 |
| R. 7620 | "Reading " | $\begin{aligned} & \text { SO/H } \\ & \text { I40w. } \end{aligned}$ | B,C. | Aluminium | $8^{\prime \prime}$ | 291* | 221 ${ }^{\prime \prime}$ | 48i | 17100 |

## THE "WARRINGTON" - Cat. No. W. 8860

Description : A wide-angled floodlight for directing light forward and downward.

## For PHILIPS LAMPS

|  | 300/500W. G.L.S. |  | 250/400W. MA/V. |  |
| :---: | :---: | :---: | :---: | :---: |
| List Price (excluding lamps) | V.E. <br> Reflector only | Additional Specular metal Reflector | V.E. Reflector only | Additional Specular metal Reflector |
| With Pole Clamps 3" to 5" <br> With Spigot Cap $2^{\prime \prime}$ to $4^{\prime \prime}$ <br> With Wall Bracket | $\begin{array}{ccc} f & \text { s. } & d . \\ 16 & 14 & 0 \end{array}$ | $\begin{array}{cccc} f & \mathrm{~s} . & \mathrm{d} . \\ 18 & 5 & 0 \end{array}$ | $\begin{array}{ccc} £ & s . & d . \\ 18 & 5 & 0 \end{array}$ | $\begin{array}{ccc} f & \text { s. } & d . \\ 19 & 16 & 0 \end{array}$ |
| With Angled Wall Bracket | 1700 | 18110 | 18110 | 2020 |







 Reflector-4 Ib .


## THE "WEYBRIDGE" - Cat. No. W. 8590

Description: A spun aluminium housing and baseplate for Philips 500 W . "Altrilux" lamp.

## For PHILIPS LAMP

500W. "Altrilux" Parabolic internal silvered reflector, bulb top clear or frosted. Beom Angular Width (approximately): Clear, $40^{\circ}$; Frosted, $60^{\circ}$. SPECIFICATION.-Body : Aluminium, stove enamelled clear lacquer with drainage holes in base. Baseplate : $6^{\prime \prime}$ dia. (Standard), steel galvanised with earth screws ; $3^{\prime \prime}$ dia. for $2^{\prime \prime}$ cond. box (to order). Lampholder: G.E.S. Porcelain, with $\frac{3^{\prime \prime}}{4}$ cond. cable gland. Lampholder and lamp made watertight by rubber sleeve. Fully adjustable through $360^{\circ}$ in horizontal plane; $160^{\circ}$ in vertical plane.
Note. $-6^{\prime \prime}$ base plates can be provided with a galvanised steel earth spike, Cat. No. W.8591C ; $8^{\prime \prime}$ long at $2 / 6 \mathrm{~d}$, each list extra.
Dimensions: Cone housing $10 \frac{\theta^{\prime \prime}}{\prime \prime}$ long $\times 8 \frac{81}{1 \prime \prime}$ max. dia. Weight : $2 \frac{1}{2}$ lbs. excluding lamp and earth spike.

## THE "WAKEFIELD" - Cat. No. W. 8900

Description: A large circular sheet steel, punched edge, reflector canopy, vitreous enamelled. For general wide angle downward floodlighting of lawns, flower beds, etc.

## For PHILIPS LAMPS

3 60W. up to 200 W . Clear, Pearl "Argenta" or 160 W . Blended MBT/U or MB/V 125 W .
SPECIFICATION. $-28^{*}$ dia. steel, vitreous enamelled white inside green outside : complete with chromium plated lampholder gallery for 3-I" conduit B.C. fampholders : gallery has $1^{\prime}$ dia., only conduit entry co receive vertical support which should carry the cable, the latter is secured by lock nuts at the top.
Installation Note. Recommended height for the reflector canopy is 4 fc. from ground to rim, allowance should be made for supporting member to be set firm into che ground.


| Cat. No. | Description | For <br> Philips <br> Lamps | Lampholder incl. | External Finish | Dimensions |  |  | Weight lb . | List Price (Fitting only) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Depth | Width | Height |  | $f$ s. d. |
| W. 8860 | "WARRINGTON " | See above | See above | See above | See above | $25^{\prime \prime}$ | $17^{\prime \prime}$ | See above | See above |
| W. 8900 | " WAKEFIELD " | See above | B.C. | Green Vitreous Enamel | - | - | - | - | 4150 |
| W. 8590 | " WEYBRIDGE " | $\begin{aligned} & \text { 500W. } \\ & \text { "Altrilux" } \end{aligned}$ | G.E.S. | Aluminium | - | 883 ${ }^{\prime \prime}$ max. | - | $2 \frac{1}{2}$ | 2130 |

## INDLSTRIAL LIGHTING FITTINGS

## FOR TUNGSTEN OR BLENDED LAMPS



## GENERAL DESCRIPTION

## LIST PRICE (excluding lamps)

Standard Dispersive Reflector. $1 \frac{1}{\frac{1}{8}}$ hole type. Lampholder not included. Spacing-Height Ratio $1 \frac{1}{2}: 1$.
W.8506. For 40 W . lamp. $10^{\prime \prime}$ dia. $5^{\prime \prime}$ ht. $\mid ~ \mathrm{lb}$. app. wt.
W.8507. For 60 W . lamp. $12^{\prime \prime}$ dia. $6^{\prime \prime}$ ht. $1 \frac{3}{4} \mathrm{lb}$. app. wt.
W.8508. For 100 W . lamp. $14^{\prime \prime}$ dia. $7 \frac{1}{4}{ }^{\prime \prime}$ ht. $2 \frac{1}{4} \mathrm{lb}$. app. wt.
W.8536. For 150 W . lamp. $14^{\prime \prime}$ dia. $7 \frac{1}{4}{ }^{\prime \prime}$ ht. $2 \frac{1}{4} \mathrm{lb}$. app. wt.

112
W.8509. For 200W. or MBT/U 160W. lamp. $16^{\prime \prime}$ dia. $9^{\prime \prime}$ ht. $3 \frac{1}{4} \mathrm{lb}$. app. wt.


Deep Dispersive Fitting. Detachable weatherproof canopy top, tapped $\frac{3}{4}$ " conduit. Complete with porcelain lampholder. Spacing-Height Ratio $1 \frac{1}{2}: 1$.
W.8502. For 100 W . lamp. B.C. hidr. $14^{\prime \prime}$ dia. $9^{\prime \prime}$ ht. $3 \frac{1}{4} \mathrm{lb}$. app. wt.
W.8537. For I50W. lamp. B.C. hldr. $14^{\prime \prime}$ dia. $9^{\prime \prime}$ ht. $3 \frac{1}{4} \mathrm{lb}$. app. wt.
W.8503. For 200W. or MBT/U 160W. lamp. E.S. hldr. $16^{\prime \prime}$ dia. $10 \frac{1^{\prime \prime}}{}$ ht. 4 lb . app. wt.

1124
1134
W.8504. For 300-500W. or MBT/U 250W. lamp. G.E.S. hldr. $18^{\prime \prime}$ dia. $13^{\prime \prime} \mathrm{ht} .5 \mathrm{lb}$. app. wt.


Dispersive "Overlamp" Fitting. Weatherproof top, tapped $\frac{3}{4}$ " conduit. Complete with porcelain lampholder. SpacingHeight Ratio $1 \frac{1}{2}: 1$.
W.8527. For 150 W . lamp. B.C. hldr. $14^{\prime \prime}$ dia. $10 \frac{1^{\prime \prime}}{}$ ht. 4 lb . app, wt.
W.8528. For 200W. or MBT/U 160 W . lamp. E.S. hldr. $16^{\prime \prime}$ dia. $11 \frac{1^{\prime \prime}}{}$ ht. 5 lb . app. wt.
W.8529. For 300 W . or MBT/U 250W. lamp. G.E.S. hldr. $18^{\prime \prime}$ dia. $14^{\prime \prime}$ ht. $6 \frac{1}{2} \mathrm{lb}$. app. wt.
W.8530. For 500 W . lamp. G.E.S. hldr. $18^{\prime \prime}$ dia. $14 \frac{1^{\prime \prime}}{}$ ht. $6 \frac{1}{2} \mathrm{lb}$. app. wt.

1184
258
398
398

Elliptical Angle Fitting. Detachable weatherproof canopy top, tapped $\frac{3}{4}{ }^{\prime \prime}$ conduit. Complete with porcelain lampholder. Spacing details on request.
W.8510. For $100-150 \mathrm{~W}$. lamp. B.C. hidr. $\quad 13^{\prime \prime} \times 9 \frac{3}{4}{ }^{\prime \prime}$ dia. $\quad 11 \frac{3}{4}{ }^{\prime \prime}$ ht. $2 \frac{1}{2} \mathrm{lb}$. app. wt.
W.85II. For 200 W . or MBT/U 160 W . lamp. E.S. hldr. $16 \frac{1_{4}^{\prime \prime}}{} \times 12^{\prime \prime}$ dia. $15^{\prime \prime} \mathrm{ht} .4 \mathrm{lb}$. app. wt.

All fittings vitreous enamelled white interior, green exterior, except where stated otherwise.

Made in Great Britain

# INDISTRIAL LIGHTING FITTINGS 

## FOR TUNGSTEN MERCURY OR BLENDED LAMPS



All fittings vitreous enamelled white interior, green exterior.

[^5]
## industrial lighting fittings

FOR SODIUM AND MERCURY LAMPS

FOR SODIUM LAMPS


## GENERAL DESCRIPTION

## Sodium Industrial Fitting.

Weatherproof top, tapped $\frac{3^{\prime \prime}}{4}$ conduit. Complete with porcelain lampholder. Exterior finish-Grey. Spacing-Height Ratio at right angles to lamp 2 : I. Parallel to lamp $1 \frac{1}{2}:$.
R.7500. "Redhill." For SO/H 45/60W. lamp. B.C. hidr. $17 \frac{z^{\prime \prime}}{} \times 8 \frac{1}{2} "$ dia. 5 " ht. $5 \frac{1}{2}$. lb . R.7550. "Redhill." For SO/H 85W. lamp. B.C. hldr. $22^{\prime \prime} \times 13 z^{\prime \prime}$ dia. 6 " ht. $10 \div \mathrm{lb}$. app. wt.
R.7590. "Redhill." For SO/H 140 W . lamp. B.C. hldr. $27^{\prime \prime} \times 16 \frac{1}{2}$ dia. $7^{\prime \prime}$ ht. 15 lb . app. wt.

## FOR MERCURY LAMPS



Dispersive "Overlamp" Fitting.
For interior use only. Tapped $\frac{3^{\prime \prime}}{4}$ conduit. Complete with porcelain lampholder. Spacing-Height Ratio $1 \frac{1}{2}: 1$.
R.7703. "Rochester." For $M B / V$ B WW. lamp. 3 -pin B.C. hldr. 14 " dia. $1 I^{\prime \prime} \mathrm{ht} .3 \frac{1}{2} \mathrm{lb}$. app. we.
R.7704. "Rochester." For MBF/V 125 W . lamp. 3 -pin B.C. hidr. 16 " dia. $11 \frac{1}{2}$ " ht. 42 lb .

R.7709. "Rutland." For MBF/V 125 W . lamp. G.E.S. hldr. 18 " dia. $14 \mathrm{f}^{\prime \prime} \mathrm{hc} .7 \mathrm{lb}$. app. we.

210
258
360
$\begin{array}{lll}3 & 9 & 8\end{array}$


## Dispersive "Overlamp" Fitting.

For interior use only. Special cool-wiring top tapped $\frac{3^{\prime \prime}}{4}$ conduit. Complete with porcelain lampholder. Spacing-Height Ratio $1 \frac{1}{2}: 1$.
R.7700. "Richmond." For MA/V 250W. lamp. G.E.S. hldr. 16 " dia. 18 " ht. 9 lb . app. we. R.7701. "Richmond." For MA/V 400W. or MB/V 1000 W . lamp. G.E.S. hidr. 18 " dia.
R.7702. "Richmond." For MAF/V 400 W . lamp. G.E.S. hldr. 18 " dia. $19 \frac{1}{2} " \mathrm{ht} .13 \mathrm{lb}$. app. we.

## FOR TUNGSTEN MERCURY LAMPS (TWO LAMPS)



## Dispersive "Overlamp" Blended Light Fitting.

For interior use only. Special cool-wiring top tapped $\frac{3}{4}$ " conduit. Complete with two porcelain lampholders. Spacing-Height Ratio $1 \frac{1}{2}: 1$.
R.8000. "Radley." For 200W. and MB/V 80W. lamps. E.S., 3-pin B.C. hidrs. 17 " dia. $19 \frac{1}{2}$ " ht. R 8001. "Radley", $8 \frac{8}{2} \mathrm{lb}$. app. wt.
R.800I. "Radley." For 300 W . and MB/V 125W. lamps. G.E.S., 3-pin B.C. hldrs. 17 " dia.
R.8002. "Radley." For 500W. and MA/V 250W. lamps. Two G.E.S. hldrs. 18 " dia.

5160
$\begin{array}{lll}5 & 18 & 8\end{array}$
600 $21^{\prime \prime} \mathrm{ht}$. 102 lb app. we.

All Fittings Vitreous Enamelled White Interior and Green Exterior, except where otherwise stated.

# SPOTLIGT PROJECTORS 

## The "WEYMOUTH" <br> Mk. II <br> Cat. No. W. 8580 €3 4s. 8d. list (Registered Design) <br> Description: A Spotlight fitting of pleasing appearance, designed in contemporary fashion to grace the many situations to which it can be applied.

The body and $3^{\prime \prime}$ baseplate are of aluminium, wire brushed and attractively finished with heat resisting clear lacquer. A cadmium plated knuckle ioint allows the fitting to be rotated through $360^{\circ}$ in the horizontal plane and approximately $62^{\circ}$ in the vertical plane. The unit is wired to an E.S. Porcelain lampholder: a length of twin cable is brought out to allow easy connection to the mains supply.
Special attention has been paid to ventilation of the porcelain E.S. Holder in the main body; the slots are also a decorative feature.
The baseplate has standard $2^{\prime \prime}$ centres for conduit box fixing.
For Philips lamp I50W. Silvered Spotlight. 200W, G.L.S. Tungsten. E.S. clear, Pearl or "Argenta."

## CONTROL RING Cat. No. W. 8584 C 14s. list <br> Additional light control can be obtained by a black anodised aluminium control ring, secured to the "Weymouth Mk. II" by two terminal serews.

The Control Ring gives the following cut-off angles: 150W. Silvered Spatight, $67.5^{\circ} 200 \mathrm{~W}$. G.L.S., $65^{\circ}$.


## Colour Screen Assembly-Cat. No. W.8585C 17s. 6d. per Set list

A set of five, different, best quality colour filters (see below) makes available a wide range of coloured lighting effects to meet all modern requirements.
The colour filters are mounted between two flat aluminium rings, tlack anodised, which are sprung on to the lip of the " Weymouth Mk. II " fitting with three springs. Each set contains one of each of the following colour filters :-
RED (Primary)-Cat, No. W.8615C AMBER (Medium)-Cat. No. W. 8616 C GREEN (Primary)-Cat. No. W.8617C BLUE (Light)-Cat. No. W. 8618 C SURPRISE PINK (Lavender)-Cat. No. W. 8619 C

## DIMENSIONS :

W. 8580 (Maximum depression towards baseplate)
$12 \frac{1}{2}^{*}$ long overall $\times 7 \frac{1}{4}^{\prime}$ high $\times 6 \frac{1}{"}^{\prime \prime}$ deep
W. 8580 (Maximum elevation away from baseplate)
$11 \frac{1}{*}^{*}$ long overall $\times 13 t^{*}$ high $6 \frac{y}{*}^{\circ}$ deep
$11 \frac{1}{2}^{*}$ long overall $\times 13 t^{*}$ high $x 6 \frac{1}{*}^{*}$ deep
Height increased by $1 \frac{1^{*}}{}$ when Control Ring, Cat. No. W. 6584 C is added. Height increased by $\frac{1}{5}^{-}$when Colour Screen Assembly Cat. No. W. 8585 C is added. WEIGHTS :
 INSTALLATION NOTE:
The W. 8580 can be fitted anly with W.8584C or W. 8585 C , not both at one time.

## The "WALTON"

Cat. No. W. 8600 £2 5s. 0d. list (excluding lamp)

Description: A Spotlight fitting for the new 75W. Silvered Spotlight. This is a useful new lighting accessory of modern design for shop window and counter display.

The spun aluminium body and baseplate are wire brushed and attractively finished with clear heat resisting lacquer. The basepplate has standard $2^{\prime \prime}$ fixing centres.
The lampholder, 2 -pin B.C., is wired and a length of flexible cable brought out to allow for nearby connection to the mairs supply.
Adequate ventilation of the lampholder and wiring is provided by the axial slots in the main body.
A Cadmium plated knuckle joint allows the cone lamp housing to be rotated through $360^{\circ}$ in the horizontal plane: $50^{\circ}$ in the vertical plane.
Though designed primarily for use with Philips 75W. Silvered Spotlight, the unit can be used effectively with a 60 W . G.L.S.
Tungsten lamp; or for housing the Tungsten Ballast lamp (Sifica coated) in conjunction with the Philips Instant Self Start fluorescent lamp channels.
Note :-A 3 -slot B.C. holder must be specified when ordering for the latter purpose.
DIMENSIONS: (Maximum depression towards baseplate) $81_{1}^{\prime \prime \prime}$ long overall $\times 4 \mathrm{f}^{\prime \prime} \mathrm{high} \times 4 \mathrm{l}^{\prime \prime}$ deep
WEIGHT. (Maximum elevation away from baseplate) $6 z^{\prime \prime}$ long overall $\times 88^{\prime \prime}$ high $\times 48^{\prime \prime}$ deep

## CONTROL RING UNIT

Cat. No. W. 8605
fl 5s. Od. list (excluding lamp)
Where the lamp housing of the "Walton " is not required, the Philips Control Ring provides effective light control of the 75 W . Silvered Sporlight with equal facilities for lamp movement.
The unit consists of a spun aluminium baseplate, with $2^{\prime \prime}$ fixing centres, and a clip on control ring, both black anodised. A brown bakelite 2 -slot B.C. lampholder with H.O. skirt is secured to the baseplate through a black bronzed knuckle joint. The lampholder has freedom of movement through $360^{\circ}$ in the horizontal plane; $70^{\circ}$ in the vertical plane.


DIMENSIONS:

(With lamp axis perpendicular to baseplate) $10^{\prime \prime}$ high $\times 3 z^{\prime \prime}$ dia. $\times 3 z^{\prime \prime}$ deep (With maximum depression towards baseplate) $9 \frac{1}{2}^{\prime \prime}$ high $\times 7 \frac{t^{\prime \prime}}{}$ dia. $\times 3 \frac{1}{6}^{\prime \prime}$ deep

$$
\text { WEIGHT : W.8605, } 5 \text { ozs. }
$$

CONTROL RING only, Cat. No. W. 8608 , Ils. 6d. list. Baseplate assembly only Cat. No. W. 8607 (including baseplate, knuckle joint and skirted B.C. holder), 13s. 6d. list.

## "WESTBURY" Semi-Indirect Pendant Fitting

## Description :

Cream Stove Enamel bowl and suspension tube. Other exterior metal parts finished in polished aluminium.
W.8548. For 300W. Pearl or MBT/U 250W. lamp G.E.S. holder. 21 " dia. $34^{\prime \prime} \mathrm{ht} .4 \frac{3}{4} \mathrm{lb}$. app. wt.

P.T. | 68 | 10 | 0 |  |
| ---: | ---: | ---: | ---: |
| 1 | 11 | 11 |  |
|  | 10 | 1 | 11 |

## FOR STORE LIGHTING



The "Rotterdam Ceiling " installed by Lewis's Ltd., Birmingham.

The "Rotterdam Ceiling" provides completely flexible lighting in the modern store. A grid suspended below the ceiling carries the special fittirigs, each containing two Phillips instant-Self-Start fluorescent lamps and two tungsten ballast lamps, with louvres filling the two grid squares below each fitting. The whole of the area above the grid is painted midnight blue, thus concealing all electrical and sprinkler services. The lighting units can be moved to form any required lighting pattern, and as no choke coils, capacitors or starters are used, they are of simple construction and light weight. Spotlights are concealed in grid squares not being used for general lighting.

For information about the " Rotterdam Ceiling " or for advice on any lighting problem, consult the Philips Lighting Design Service through your nearest Philips Branch.

## PHIIIPS

# Lighting fittings accessories 

PURCHASE TAX does not apply to these suspensions and accessories.

## APPARATUS BOXES

Each apparatus box accommodates one ballast and one capacitor of the types listed on page 42, and is equipped with a wooden baseboard and a pair of fuses. Entries $\frac{y^{\prime \prime}}{4}$ conduit.

| Cat. No. | Description | Inside Dimensions | List <br> Price <br> Each | Std. Pkge. Quantity |
| :---: | :---: | :---: | :---: | :---: |
|  |  | L. W. D. | $E$ s. d. |  |
| R.8410 | Sheet Steel Box for Interior Use ... | $14 \frac{3}{4 \prime}{ }^{\prime \prime} \times 6 \frac{1^{\prime \prime}}{} \times 6 \frac{33^{\prime \prime}}{}$ | 224 | 1 |
| R.8411 | Sheet Steel Box for Exterior | $14_{4} \times 6{ }_{4} \times 6 \times 4$ | 224 | 1 |
|  | Use ... ... ... ... | $16^{\prime \prime} \times 5 \frac{1}{2}{ }^{\prime \prime} \times 7 \frac{1}{4}{ }^{\prime \prime}$ | 480 | " |

SUSPENSIONS AND ACCESSORIES FOR FLUORESCENT LIGHTING FITTINGS
SUSPENSION SETS

| Cat. No. | Type | For Fitting | List Price Each | Std, Pkge. Quantity |
| :---: | :---: | :---: | :---: | :---: |
| A. 7270 | CHAIN SET | A.6145, A.6155, A.6157, A.6160, A.6190, A.6192, | $\text { s. }{ }_{8}^{\mathrm{d}}$ | 4 |
| A.7271 | TUBE SET | A. $6195, ~ A .6400, ~ A .6405$ As for A. 7270 and A. 7300 | 130 | " |
| A. 7300 | CHAIN SET | A.6000, A.6003, A.6004, <br> A.6005, A.6010, A.6033, <br> A.6034, A. 6060, A. 6064 | 98 | 1 |

## ACCESSORIES



Suspension Scts for Philips Instant-Self-Start Fluorescent Fittings, please see Page 46.
ACCESSORIES FOR TUNGSTEN LIGHTING FITTINGS DUSTPROOF COVERS WIRE GUARDS

| Cat. <br> No. | For Fittings Diameter | List Price Each | Std. Pkge. Quantity |
| :---: | :---: | :---: | :---: |
| W. 8701 <br> W. 8702 <br> W. 8703 <br> W. 8704 <br> W. 8705 | $\begin{aligned} & 10^{\prime \prime} \\ & 12^{\prime \prime} \\ & 14^{\prime \prime} \\ & 16^{\prime \prime} \\ & 18^{\prime \prime} \end{aligned}$ | $\begin{array}{rrr} f & s . & d . \\ 1 & 7 & 4 \\ 1 & 9 & 8 \\ 1 & 15 & 4 \\ 2 & 2 & 0 \\ 2 & 14 & 4 \end{array}$ | $\begin{aligned} & 1 \\ & " \\ & " \\ & " \\ & " \end{aligned}$ |

Please state the Cat. No. of the Fitting for which the dustproof cover is required.

| Cat. <br> No. | For Fittings <br> Diameter | List Price <br> Each | Std. Pkge. <br> Quantity |
| :---: | :---: | :---: | :---: |
|  |  | s. d. |  |
| $W .8711$ | $10^{\prime \prime}$ | 8 | 0 |
| $W .8712$ | $12^{\prime \prime}$ | 8 | 4 |
| $W .8713$ | $14^{\prime \prime}$ | 9 | 1 |
| $W .8714$ | $16^{\prime \prime}$ | 11 | 4 |
| $W .8715$ | $18^{\prime \prime}$ | 12 | 0 |

Please state the Cat. No. of the Fitting for which the wire guard is required.
OPAL GLASS BOWLS (SPARES)

| Cat. No. | For Fitting <br> Cat. No. | Price Each <br> (Add P.T.) | Purchase <br> Tax Extra | Total Price <br> Each | Std. Pkge, <br> Quantity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | C s. |  |  |

MISCELLANEOUS

| Cat. No. | Description | List Price |
| :---: | :---: | :---: |
| $\begin{aligned} & W .9300 c \\ & +W .9316 \end{aligned}$ | $?^{\prime \prime}$ Male Conduit Hooks <br> E.S. Porcelain Skirted Lampholder, with swivel loop ... | E s. d. ${ }_{1}{ }^{2} \quad 3$. ${ }_{6}^{\text {each }} 0$ |

$\dagger$ Lampholders for Philips 250W. Infra-Red lamps.

* Lampholders for " $1 . S .5$ " illustrated on page 33.

Page Fify-six Made in Great Britain

# PRINCIPAL TYPES OF LAMP CAPS 

B.S.S. Cup Designations.

Millimetre Dimensions

## EDISON SCREW



BAYONET

B.15d/I7
(S.B.C.)

B. $15 \mathrm{~s} / \mathrm{I7}$
(S.C.C.)


DOUBLE-ENDED
FESTOON LAMP



## PRINCIPAL TYPES OF LAMP CAPS

## (Continued)

## B.S.S. Cap Designations Millimetre Dimensions



## PHILIPS PRODUCTS

TUNGSTEN, FLUORESCENT, BLENDED AND DISCHARGE LAMPS AND LIGHTING EQUIPMENT • RADIO AND TELEVISION RECEIVERS • RADIOGRAMS AND RECORD PLAYERS . GRAMOPHONE RECORDS . 'PHILISHAVE' ELECTRIC DRY SHAVERS • 'PHOTOFLUX' FLASH BULBS • HIGH FREQUENCY HEATING GENERATORS • X-RAY EQUIPMENT FOR ALL PURPOSES -ELECTRO-MEDICAL APPARATUS . ARC AND RESISTANCE WELDING PLANT AND ELECTRODES • ELECTRONIC MEASURING INSTRUMENTS • MAGNETIC FILTERS . BATTERY CHARGERS AND RECTIFIERS • SOUND AMPLIFYING INSTALLATIONS . CINEMA PROJECTORS . TAPE RECORDERS

## PHILIPS LIGHTING PUBLICATIONS

Copies will be sent free on request.
A.I61. Sodlum Lighting. Floodlight and Industrial Fittings. A.162. Fluorescent Lighting. Industrial Fittings for 80W. 5 ft. lamps. A.163. Fluorescent Lighting. Industrial Fittings for 40W. 4 ft. lamps. A.I66. Mercury Lighting. "Overlamp" Industrial Fittings. A.167. Fluorescent Lighting. Fittings Broadsheet. A.168. Blended Lamps. A.169. Instant-Self-Start Fluorescent Lighting. A.170. Tungsten and Discharge Lighting. Fittings Broadsheet. A.I7I. Special Lamps Catalogue. A.I72. Lamps and Lighting Equipment. (This publication.) A.I73. General Lamp Broadsheet. A.I74. Floodlight Projectors. A.175. Motor Car Lamps Broadsheet.

Also other Publications describing Philips Infra-Red Lamps,
" Photoflux " Flashbulbs, etc.

## THE PHILIPS EMBLEM - SYMBOL OF QUALITY

THE CIRCLE - UNITY. The strength of the Phillps organisation.
THE STARS - LIGHT. The world-wide use of Philips lamps and lighting equipment.
THE WAVES - RADIO and TELEVISION. Millions of people are entertained daily by Philips sets.
Twelve thousand people are employed by the Philips Group in Great Britain.


[^0]:    BULB SHAPE-Tubular.
    OPERATING POSITION-Vertical, cap down. CAPS illustrated on Page 57.
    PURCHASE TAX does not apply to the Class G lamps listed above.

[^1]:    Lm/W.-Lumens per watt. The Average Through Life Values are those for the first 5,000 hours life, and are intended to provide practical guidance for lighting design purposes.
    Luminous efficiencies: For MCF/U 80W. 5 ft. and 40 W .4 ft . are quoted above in "Daylight," \& "Warm White " and in "Colour Matching." For MCF/U 15 W . 18", 20W. $2 \mathrm{ft}, 30 \mathrm{~W} .3 \mathrm{ft}$., and 40 W .2 ft ., are quoted above in "Natural ": efficiencies in "Mellow " and "Colour Matching " are a little lower.
    The overall lengths of the bi-pin capped lamps include the pins of both caps. When in the lampholders, the nominal overall lengths are as shown.
    With special apparatus in circuit these lamps may be used on similar D.C. voltages. Details on request.
    These lamps may be operated in any position.

    * For two lamps in series on one ballast with two starters on A.C. 50 cycles 230 volts.
    $\dagger$ Lamps of these ratings and colours for use with approved instant-start apparatus are also available. Additional price each Is. Od. plus P.T. $2 \frac{1}{2} \mathrm{~d}$.
    PURCHASE TAX-The lamps listed above ARE SUBJECT TO PURCHASE TAX AS SHOWN.

[^2]:    L.C.L.-Light Centre Length. Lm/W.-Lumens per watt.
    "D "-Discharge. " F "-Filament.
    These lamps may be operated in any position.
    PURCHASE TAX does not apply to the Blended lamps listed above.

[^3]:    PURCHASE TAX does not apply to the items listed on this page.

[^4]:    L.C.L.-Light Centre Length. Normal operating position is vertical cap up, but these lamps may be operated in other positions without serious loss of performance.
    PURCHASE TAX does not apply to the lamps listed on this page.

[^5]:    * Note : Suitable also for 250W. Infra-Red Lamp. Please specify E.S. lampholder. List price fl 4s. 8d.

