



PHILIPS

LIGHTING

CATALOGUE

PART ONE

GENERAL LAMPS

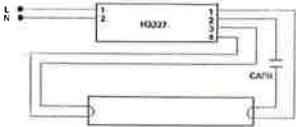
including
Tungsten
Fluorescent, Discharge
and Infra Red

SEPT. 1966

PRICES QUOTED IN THIS CATALOGUE ARE NOT SUBJECT TO RETAIL PRICE MAINTENANCE.

PL 7645 PHILIPS LIGHTING CATALOGUE PART I

Addendum

page 6	Argenta G.L.S. Argenta White lamps now no longer available.	page 31	Circuit diagram 13 correction
			
26	40W 4' © 1410 to read 1510 NEW LAMP INTRODUCED Colour 37 20W 2' © TLA 12s. 0d., 2s. 3d. P.T. Lighting Design Lumens 575	43	80W rating. Lighting Design lumens 3100 to read 3200
		44	Amend packing Qty 80W to 32 125W to 24
28	Reflectalite lamps are available in Colours 29, 33 & 35 The 5' 120W is available in Colour 33 only.	45	Delete © reference to 500W type.

*Gervand
777.*

Tungsten Fluorescent Discharge Lamps and Apparatus

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DISTRIBUTION CENTRES

Croydon	17 Beddington Farm Road.	<i>Municipal 3377</i>
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PHILIPS ELECTRICAL LIMITED
LIGHTING DIVISION
CENTURY HOUSE, SHAFTESBURY AVENUE
LONDON, W.C.2



INFORMATION ON PHILIPS GENERAL LIGHTING LAMPS

BRITISH STANDARDS

Philips G.L.S. lamps are made under B.S.I. Licence No. 333 and wherever British Standards exist the lamps shown in this Catalogue are made to comply with the provisions of such Standards.

In the case of Philips G.L.S. Lamps, B.S.161 refers.

LUMEN VALUES THROUGHOUT LIFE

G.L.S. Lamps at 240v—Single Coil.

Watts		Watts		Watts	
15	112	100*	1160	500	7,700
25	200	150	1960	750	12,400
40*	325	200	2720	1000	17,300
60*	575	300	4300	1500	27,500

* Coiled Coil = 40w-390L; 60w-665L; 100w-1260L

LAMP FUSES

Special Monel Wire Fuses are used in Philips Single Coil and Coiled Coil G.L.S. Lamps from and including 40w rating, but not below 100v for any wattage.

In the case of 1500w Lamps, fuses are fitted to 170v ratings and over.

ARGENTA FINISH

Philips Argenta White Lamps are internally coated under special process with titanium dioxide for maximum light diffusion and near shadowless lighting.

COILED COIL LAMPS

Philips top efficiency Coiled Coil Lamps give up to 20% more light than equivalent wattage single coil lamps.



EXTRA CHARGES ON PRICE—GROUP I

ETCHING OR SPECIAL MARKING

- (a) For 1000 identical lamps for delivery in one consignment—No extra charge.
(b) For quantities below 1000—3d. per lamp extra.

LAMP CAPS

Where existing standard types are *suitable* for recapping the following extras apply when the caps are fitted to quantities of less than 1000 identical lamps or bulbs in place of the listed standard cap. Where special production is necessary a minimum ordering quantity will be quoted.

B.C., E.S., S.B.C., S.E.S., 3-pin B.C.	=	1/-	per lamp
G.E.S. 	=	2/-	„ „



GENERAL LIGHTING SERVICE



PEARL AND CLEAR COILED COIL—TOP EFFICIENCY

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Diameter mm.	Length mm.					
40	200/210	60	105	B.C. or E.S.	25	1 6½	3½	1 10
60	220/230	60	105			1 6½	3½	1 10
*75	240	60	105			1 11	4½	2 3½
100	250	60	105			1 6½	3½	1 10

* B.C. only.

SINGLE COIL

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Finish	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Diameter mm.	Length mm.						
15†	110	60	105	B.C.	PEARL	25	1 11	4½	2 3½
25		60	105				1 6½	3½	1 10
40		60	105				1 6½	3½	1 10
60		60	105				1 6½	3½	1 10
75†	200/210	60	105	B.C. or E.S.	PEARL OR CLEAR	25	1 11	4½	2 3½
100	220/230	60	105				1 6½	3½	1 10
150	240	80	160				2 0	4½	2 4½
200	250	80	170				2 9	6½	3 3½
300	250	110	233	G.E.S.	CLEAR	12	7 3	—	7 3
500		110	233				10 0	—	10 0
750		150	300			6	17 0	—	17 0
1000		150	300				17 0	—	17 0
1500		170	335			4	24 0	—	24 0

† Available 240, 250v only.

PEARL—EXTRA LOW VOLTAGE—SINGLE COIL

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Diameter mm.	Length mm.					
25	25	60	105	B.C. or E.S.	25	3 6	8	4 2
40		60	105			3 6	8	4 2
60		60	105			3 6	8	4 2
100		60	105			4 6	10	5 4

Made in Gt. Britain.



ARGENTA LAMPS

SUPERLUX

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Qty.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
60	240	55	93	B.C.	25	2 4	5½	2 9½
100	250	65	107			2 6½	6	3 0½
150		75	120			2 10	6½	3 4½



K. MUSHROOM

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Qty.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
40	200/210	55	93	B.C.	25	1 11	4½	2 3½
60	220/230	55	93			1 11	4½	2 3½
100	240	65	107			2 1½	5	2 6½
150	250	75	120			2 5	5½	2 10½



ARGENTA G.L.S.

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	ARGENTA WHITE			ARGENTA ROSE		
						Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Diameter mm.	Length mm.								
60	240	60	105	B.C.	25	1 11	4½	2 3½	2 1½	5	2 6½
100	250	60	105			1 11	4½	2 3½	2 1½	5	2 6½
150		80	160			2 5	5½	2 10½	—	—	—

Made in Gt. Britain.



ARGENTA LAMPS

'3'-LIGHT LAMPS

Philips '3'-Light lamps—the new way to economical and versatile lighting for living rooms, dining rooms and hallways. This cleverly designed lamp contains two high efficiency filaments which can be switched on separately or in combination, thus providing three different levels of illumination.



Watts	Volts Range	Cap	Diameter mm.	Length mm.	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
*60/100/160	240/250	Special E.S.	80	142	50	6 3	1 2	7 5
40/60/100			70	124		4 11	11	5 10

* GZ9901 Lamp and Adaptor Unit combined: 17/6 inc. P.T.

FANTASIE



A



B



C

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Qty.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
'A' 60	240 250	90	260	B.C.	16	10 8	2 0	12 8
'B' 60		94	215			10 8	2 0	12 8
'C' 40		70	135		50	3 10	9	4 7

Made in Holland.



ARGENTA LAMPS

COLORENTA—TUBULAR

Watts	Standard Voltage	Approx. Dimensions		Stand-ard Cap	Stand-ard Box Qty.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
40	240/250	38	302	B.C.	25	11 0	2 1	13 1
60						11 0	2 1	13 1



PHILINEA—ARCHITECTURAL (TUBE DIA. 30mm.) STRAIGHT

Watts	Standard Voltage	Overall Length		Stand-ard Cap	Stand-ard Box Qty.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		mm.	ins.					
35	240/250	305	12	PEG	25	13 0	2 5	15 5
53		457	18		18	18 0	3 5	21 5
60		500	20			20 0	3 9	23 9
75		610	24			24 0	4 6	28 6
110		915	36		6	32 0	6 0	38 0
150		1220	48			37 0	7 0	44 0



PHILINEA ARCHITECTURAL—CURVED

Watts	Standard Voltage	Curve	Radius ins. mm.	Stand-ard Cap	Stand-ard Box Qty.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
60	240/250	$\frac{1}{2}$ circle	25 637	PEG	1	32 0	6 0	38 0
		$\frac{1}{4}$ "	12 $\frac{1}{2}$ 318					
		$\frac{1}{8}$ "	6 $\frac{1}{4}$ 159					



White Philinea Lampholders Type Z9902 available. 6/9 list per pair.

Made in Gt. Britain.



STRIPLITES - DOUBLE CAPPED 25mm. $\varnothing$ DIAMETER



CLEAR STRIPLITES

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Length						
		mm.	ins.					
30	240/250	221	8½	Centre Contact (S15S/15)	50	6 3	1 2	7 5
30		284	11¼			6 3	1 2	7 5
60		221	8½			6 3	1 2	7 5
60		284	11¼			6 3	1 2	7 5

OPALISED STRIPLITES

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Length						
		mm.	ins.					
30	240/250	221	8½	Centre Contact (S15S/15)	50	6 9	1 3	8 0
30		284	11 7⁄8			6 9	1 3	8 0
60		221	8½			6 9	1 3	8 0
60		284	11 7⁄8			6 9	1 3	8 0

SINGLE CAPPED TUBULAR—CLEAR

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Qty.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia.	Length					
		mm.	mm.					
25	220/230 240/250	28	89	B.C. S.B.C.	50	4 3	9 $\frac{1}{2}$	5 0 $\frac{1}{2}$



Made in Gt. Britain.



CANDLES AND LUSTRE LAMPS

ARGENTA LUSTRE ROUND

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Qty.	Price		P.T. Extra	Total Selling Price
		Dia. mm.	Length mm.			s. d.	s. d.		
25	240/250	45	74	B.C. E.S.	*48	2 6	6	6	3 0
40				S.B.C. S.E.S.		2 6	6		

*(4 x 12 sub-packs.)



ARGENTA CANDLES

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price		P.T. Extra	Total Selling Price
		Dia. mm.	Length mm.			s. d.	s. d.		
25	240/250	35	96	B.C. S.B.C. S.E.S.	*48	3 0	7	7	3 7
40						3 0	7		
60		45	126	B.C. S.B.C.	50	3 3	7½	7½	3 10½

*(4 x 12 sub-packs.)



PLAIN CANDLES

						CLEAR			FROSTED		
Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.								
25	240/250	35	96	B.C.	50	3 0	7	3 7	3 9	8½	4 5½
40				S.B.C.		3 0	7	3 7	3 9	8½	4 5½
60		45	126	S.B.C.		3 3	7½	3 10½	3 9	8½	4 5½



TWISTED CANDLES

						CLEAR			FROSTED		
Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.								
25	240/250	35	102	B.C.	50	3 9	8½	4 5½	4 3	9½	5 0½
40		45	127	S.B.C.		3 9	8½	4 5½	4 3	9½	5 0½
60						3 9	8½	4 5½	4 3	9½	5 0½

Made in Gt. Britain.





COLOURED LAMPS

RED, PINK, AMBER, YELLOW, GREEN, BLUE, WHITE

G.L.S.—EXTERNALLY SPRAYED

Watts	Standard Voltage	Standard Cap	Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
40	240 /250	B.C.	25	2 5	5½	2 10½
60				2 5	5½	2 10½
100				2 11½	7	3 6½

G.L.S.—INTERNALLY SPRAYED

15	240 /250	B.C. E.S.	25	2 1½	5	2 6½
25				2 1½	5	2 6½

28mm. SIGNS—INTERNALLY SPRAYED

15	200 /250	B.C.	100	2 2½	5	2 7½
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COLOUR SPRAYING

For any Philips Lamps required to be colour sprayed and not listed above the following extras to price will apply. Subject to Purchase Tax and normal discount. Minimum order: Standard Quantity of one type and rating and Colour.

G.L.S.	Extra s. d.	Standard Quantity	Philinea	Extra s. d.	Standard Quantity
15w— 75w ...	1 0	50	35w ...	4 6	3
100w— 200w ...	1 6	50	53w ...	7 0	3
300w— 500w ...	2 6	24	60w ...	7 6	3
750w— 1000w ...	5 0	12	75w ...	10 0	3
			110w ...	13 0	3
			150w ...	20 6	3
			Curved 60w ...	13 0	3
28mm. Signs			Candles		
15w ...	4½	100	25w, 40w, 60w ...	6	50
Striplites					
30w and 60w ...	1 0	50			

Made in Gt. Britain.



SPECIAL PURPOSE LAMPS

TUBULAR APPLIANCE—CLEAR

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
25	230/250	28.5	61 max.	B.C. E.S.	100	2 6	6	3 0



ROUND—APPLIANCE—PEARL

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
25	240/250	45	74	E.S.	50	3 0	7	3 7



PEAR SHAPE APPLIANCE—PEARL

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
40	110/120 230/250	44.5	90	E.S.	25	2 6	6	3 0



BAKERS OVEN LAMP—CLEAR (450°F.)

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
60	240 250	60	105	B.C. or E.S.	25	2 0	4½	2 4½



CARBON FILAMENT LAMPS—CLEAR

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
60	240/260	60	110	B.C.	50	6 0	1 2	7 2
115		70	125			6 0	1 2	7 2



Made in Gt. Britain and Holland.



SPECIAL PURPOSE LAMPS

CLEAR SIGN LAMPS

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
15	25	28	57	B.C.	100	3 0	7	3 7
	50							
	110 .							
	120 /130			B.C. E.S.		1 10	4	2 2
	200 /250			S.B.C.		1 10	4	2 2
	260			S.E.S.		1 10	4	2 2



FROSTED SIGN LAMPS

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
15	200/250	28	57	B.C. S.B.C. S.E.S.	100	2 2½	5	2 7½

SWITCHBOARD INDICATORS—CLEAR

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
—	100/130 200/260	28	57	B.C.	100	2 6	6	3 0

PILOT LAMPS—CLEAR

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
6	120	18	48	S.B.C. S.E.S. E12	100	4 0	9	4 9
10	220/230 240/250					4 0	9	4 9



Made in Gt. Britain and Holland.



SPECIAL PURPOSE LAMPS

ROUGH SERVICE—PEARL

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
40	110/120	60	105	B.C. or E.S.	25	2 0	4½	2 4½
60	200/220	60	105			2 0	4½	2 4½
100	230/250	68	125			2 9	6½	3 3½



TRAFFIC SIGNAL—CLEAR (62mm. L.C.L.)

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
65	240 250	60	107	E.S.	25	2 3	5	2 8

DAYLIGHT BLUE LAMPS (NATURAL GLASS)

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
60	240/250	60	105	B.C.	25	5 6	1 1	6 7
100		68	125			7 6	1 5	8 11

FIREGLOW AMBER—LACQUERED

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
60	230/260	60	105	B.C. or 3-pin B.C.	25	3 9	8½	4 5½

PEARL NIGHTLIGHT

Watts	Standard Voltage	Approx. Dimensions		Standard Cap	Standard Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
		Dia. mm.	Length mm.					
—	200/260	60	105	B.C.	25	2 0	4½	2 4½

Made in Gt. Britain and Holland.



BOWL MIRRORED LAMPS

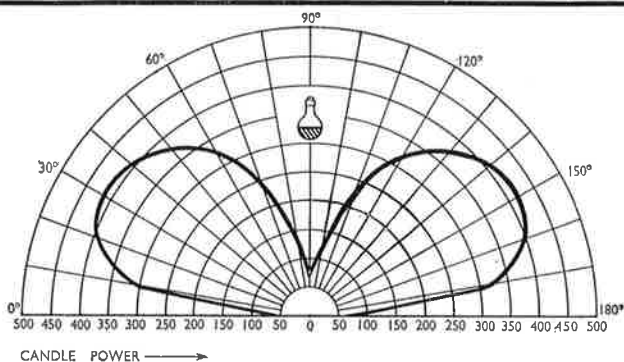


Bowl Silvered Reflector Lamp with W9237 Fitting and Reflector.

CLEAR HIGH INTENSITY SPOTLIGHT LAMPS

These lamps are for use in conjunction with the Philips display lighting fittings W9237 and reflector.

Watts	Volts Range	Cap	Dia. mm.	Length mm.	Beam Intensity (candelas)	Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
100	24	3-pin B.C.	70	120	80,000		6 6	1 3	7 9
100	220/230 240/250	3-pin B.C.	70	120~	18,000	50	6 6	1 3	7 9
100	240/250	E.S.	70	120	18,000		6 6	1 3	7 9



Light Distribution. For 240v, 200w Bowl Mirrored Lamp.

PEARL BOWL MIRRORED LAMPS

Watts	Volts Range	Cap	Diameter mm.	Length mm.	Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
60	240/250	B.C.	60	110		5 3	1 0	6 3
100		B.C.	70	120	25	6 3	1 2	7 5
200		E.S.	80	170		9 6	1 10	11 4
300		G.E.S.	110	233	12	14 6	—	14 6

Made in Gt. Britain and Holland.



REFLECTOR FLOODLAMPS

This is the general purpose lamp of display lighting and is especially useful for counter and shop window illumination.

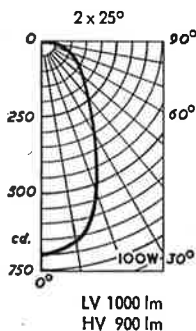


Watts	Volts Range	Cap	Dia. mm.	Length mm.	Box Qty.	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
100	110 240 250	B.C., E.S.	95	130	24	8 6	1 7	10 1
150		E.S.	126	178		12 9	2 5	15 2

100w			150w		
Suspension height in feet	Illumination in beam centre (Lm. per sq. /ft.)	Beam* width in feet	Suspension height in feet	Illumination in beam centre (Lm. per sq. /ft.)	Beam* width in feet
3	80	4	3	110	4
6	20	8	6	30	8
10	7	14	10	10	14

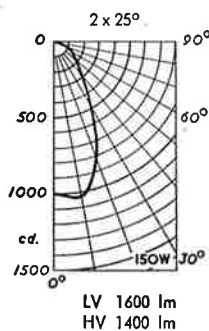
* Width at which the illumination is at least 20% of that at the centre of the beam.

240v 100w



Made in
Gr. Britain.

240v 150w





REFLECTOR LAMPS—SPOT

Spotlamps are particularly suitable for accentuating the details of goods displayed in shop windows, showrooms, etc. By using "Attralux" 24v 150w lamps a narrower beam of still higher intensity can be obtained. For these lamps step-down transformers are required.

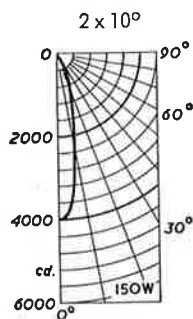


Watts	Volts Range	Cap	Dia. mm.	Length mm.	Type	Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
150	110 240, 250	E.S.	126	178	—	24	12 9	2 5	15 2
150	24	E.S.	125	165	Attralux		18 6	3 6	22 0

110, 200-250v 150w			24v 150w Attralux		
Suspension height in feet	Illumination in beam centre (Lm. per sq. /ft.)	Beam* width in feet	Suspension height in feet	Illumination in beam centre (Lm. per sq. /ft.)	Beam* width in feet
3	440	2	3	2,800	1
6	110	4½	6	700	2
10	40	2	10	250	3½

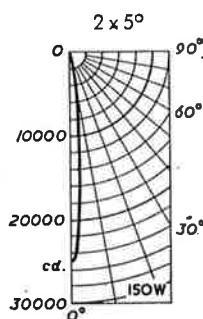
* Width at which the illumination is at least 20% of that at the centre of the beam.

110, 240, 250v 150w



100-250V
LV 1600 lm
HV 1400 lm

24v 150w



24 V
2400 lm

Made in Gt. Britain
and Holland.



REFLECTOR LAMPS PAR-38 PRESSED GLASS

PAR-38 bulbs are formed of heat resistant glass, and have sealed-in parabolic reflectors which, in conjunction with the cover plate, or lens system incorporated in the face of the lamp, accurately control the beam pattern, and give a spot or floodlight beam of very high intensity. Mounted in watertight lampholders these lamps are suitable for outdoor floodlighting of buildings, statues, advertising signs, service stations, sports grounds, car parks, etc.

SPOT LAMPS

Watts	Type	Volts Range	Cap	Diameter mm.	Length mm.	Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
150	13011E	24	E.S.	122	135	9	24 6	4 7	29 1
		110					17 6	3 4	20 10
		240, 250					17 6	3 4	20 10
100	13987E	240, 250					17 6	3 4	20 10

FLOOD LAMPS

Watts	Type	Volts Range	Cap	Diameter mm.	Length mm.	Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
150	13012E	110	E.S.	122	135	9	17 6	3 4	20 10
		240, 250					17 6	3 4	20 10
		240, 250					17 6	3 4	20 10

COLOURED FLOOD LAMPS

Watts	Type	Volts Range	Cap	Diameter mm.	Length mm.	Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
100	13985E	240, 250	E.S.	122	135	9	23 6	4 5	27 11

Coloured 100w Flood PAR-38 Pressed Glass Lamps are available in Red/476, Yellow/472, Blue/470 and Green/473.



FLOOD



SPOT

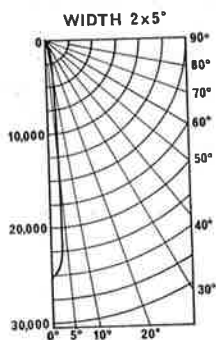
Made in Holland.



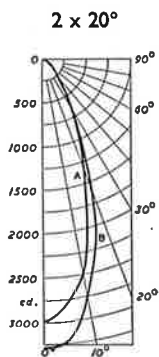
REFLECTOR LAMPS PAR-38 PRESSED GLASS

ILLUMINATION DATA

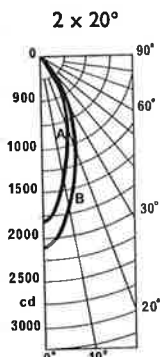
	Suspension height in feet	Illumination in beam centre (Lm. per sq. /ft.)	Beam* width in feet
24v 150w Spot	3 6 10	2,800 700 250	$\frac{1}{2}$ 1 $1\frac{1}{2}$
H.V. 150w Spot	3 6 10	825 200 75	$1\frac{1}{2}$ 3 $5\frac{1}{2}$
H.V. 150w Flood	3 6 10	340 85 30	3 6 $10\frac{1}{2}$
H.V. 100w Spot	3 6 10	440 110 40	$1\frac{1}{2}$ 3 $5\frac{1}{2}$
H.V. 100w Flood	3 6 10	200 50 18	3 6 $10\frac{1}{2}$



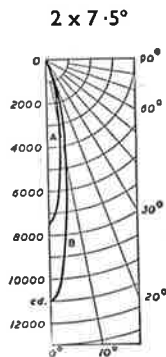
24v 150w



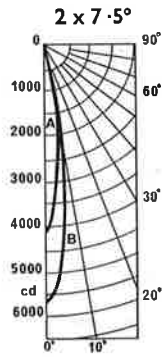
LV 1900 lm.
HV 1700 lm.
Flood 150w



LV 1100 lm.
Flood
100w Clear



LV 1900 lm.
HV 1700 lm.
Spot 150w



HV 1000 lm.
Spot
100w Clear

A = High Voltage (240)

B = Low Voltage (110)

* Width at which the illumination is at least 50% of that at the centre of the beam.



REFLECTOR LAMPS

PAR-56 PRESSED GLASS

The Philips PAR-56 is a new and powerful 300w addition to our existing range of PAR Reflector Lamps.

The PAR-56 is compact and precision made, having a built-in reflector/lens system which provides for a powerfully projected and accurately controlled beam pattern of elliptical form.

Designed for high mounting and long-throw lighting applications, the PAR-56 gives a choice of three beam types—narrow **SPOT**, medium **FLOOD** and **WIDE FLOOD**.

Watts	Standard Voltage	Types	Cap	Approx. Dimensions		Box Quantity	Price
				Length (from pins)	Dia.		
300	120	13027 x /99	GLX / 16D	140mm. (max.)	179 (max.)	6	65 /- (No P.T.)
	240	13028 x /99					
	250	13029 x /99					

LIGHT TECHNICAL DATA

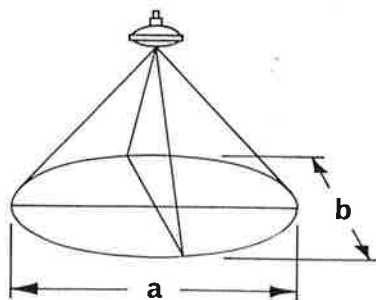
Type No.	Beam Type	Half Values* Beam Angles		Light Intensity in Beam Centre (Candelas)	Illumination in Beam Centre (Lumens per sq. /ft.)			
		Horizontal	Vertical		†10ft.	†15ft.	†20ft.	†25ft.
13027 x /99	Narrow Spot	2 x 7°	2 x 5°	33,000	330	147	83	53
13028 x /99	Medium Flood	2 x 12.5°	2 x 6°	18,000	180	80	45	29
13029 x /99	Wide Flood	2 x 19°	2 x 8°	9,000	90	40	23	14

* At which the light intensity is half of that in the beam centre.

† Suspension height of lamp in feet.



a = horizontal beam width.
b = vertical beam width.

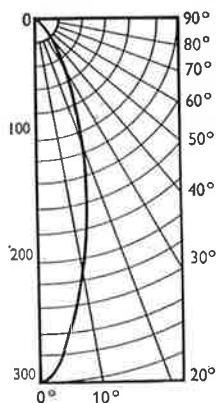


Made in W. Germany.



REFLECTOR LAMP—SMALL DISPLAY

The 20w reflector lamp although originally designed for aircraft cabin lighting now has many other uses. Its small size and low heat dissipation enables it to be placed near to objects to be high-lighted in displays. It is also used in industry, e.g. for operating photoelectric cells, and as a medical or industrial examination lamp.



20w

Suspension Height in feet	Illumination in Beam Centre (Lm. per sq. /ft.)	Beam Width* in inches
2	75	12
3	33	18
5	12	30

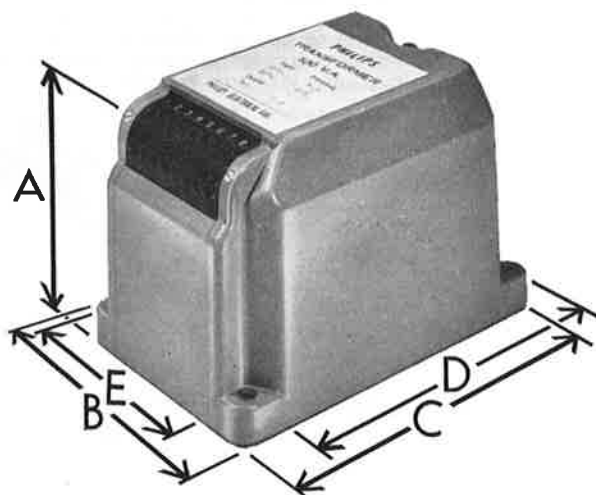
* Width at which the illumination is 20% of that at the centre of the beam.

Watts	Volts	Cap	Diameter mm.	Length mm.	Type No.	Box Quantity	Price s. d.	P.T. Extra s. d.	Total Selling Price s. d.
20	24/28	S.C.C.	38	67	12105N/13	50	15 0	2 10	17 10

Made in Holland.



TRANSFORMERS FOR LOW VOLTAGE DISPLAY LAMPS



The L4501 transformer is used in conjunction with Philips 24v 100w Bowl Mirrored lamps, utilized in the W9237 narrow beam spotlight fittings. One transformer per lamp.

The L4502 transformer has been designed for use with one Philips 24v 150w Attralux Reflector Spotlamp.

Where lighting schemes include the Philips 20w reflector lamp, up to 5 lamps may be operated safely with the L4501 transformer and up to 7 lamps with the L4502.

Both transformers are of the solid filled type and are completely metal encased. They can be operated both indoors and out and are not affected by humid conditions. The mounting position is universal.

Cat. No.	Rating	Input Volts	Output volts (on load)	Dim. ins.			F.C. ins.		Wt. lbs.	Price s. d.
				A	B	C	D	E		
L4501	100vA	215, 245	24	$4\frac{9}{16}$	$4\frac{1}{2}$	$6\frac{3}{4}$	$6\frac{1}{16}$	$3\frac{13}{16}$	9	70 0
L4502	150vA									81 0

Made in Gt. Britain.

REFLECTOR LAMP FITTINGS



Cat. No. W.4001

Fully Recessed. This fitting is ideal for false ceilings and shop windows and where required to be virtually flush against the ceiling.

(INDOOR)

Materials and Finish: Aluminium and sheet steel. Natural anodised flange. White stove enamelled bracket.

Fixing: Ceiling cut-out $5\frac{3}{4}$ " diameter. $3 \times \frac{3}{16}$ " diameter holes in flange on $6\frac{1}{2}$ " p.c.d. $\frac{7}{32}$ " holes on 2" centre in top of body for B.S. box.

Semi-Recessed Swivel Spotlight. For similar application to the W.4001 but, as the name suggests, the fitting can be swivelled—180° in the horizontal plane and 30° either side of the vertical.

(INDOOR)

Materials and Finish: Aluminium stove enamelled matt black body. Aluminium stove enamelled white flange.

Fixing: Ceiling cut-out $7\frac{3}{4}$ " diameter. $3 \times \frac{3}{16}$ " holes. Flange on $8\frac{1}{2}$ " p.c.d.



Cat. No. W.4040



Cat. No. W.4021

Adjustable Spotlight. Designed for lighting on show stands, in stores, shops and display windows.

(INDOOR)

Materials and Finish: Aluminium stove enamelled matt black body. Stove enamelled matt black steel base plate.

Fixing: The base plate has $\frac{7}{32}$ " holes on 2" centre for B.S. box mounting.

Adjustable Spotlight. This fitting offers an alternative design and fixing position to the W.4020 and is used for similar applications.

(INDOOR)

Materials and Finish: Stove enamelled matt black aluminium body. Stove enamelled matt black steel base plate.

Fixing: $\frac{7}{32}$ " holes in base plate on 2" centre for B.S. box.



Cat. No. W.9255



REFLECTOR LAMP FITTINGS



Weatherproof Fitting, for exterior use. This fitting is free standing and available with a base plate, W4246; with a spike, for use in soft ground, W.4247; for conduit mounting, W4245; or with a base plate and spike, for extra support, W.4248.

(OUTDOOR)

Materials and Finish: Natural aluminium body and accessories. Galvanised steel base plate. Silicone rubber sealing ring.

Fixing: A 2-way terminal block and earth point are fitted inside the knuckle joint.

Weatherproof Fitting (wall mounting). This is suitable for interior and exterior use where floodlighting of small signs, entrances and similar applications is required.

(OUTDOOR)

Materials and Finish: Philitite asbestos body. Galvanised steel bracket. Silicone rubber sealing ring.

Fixing : $3\frac{7}{8}$ " (5.6 mm) dia. holes in bracket.



Cat. No. W.4260



G.W. 1069

Ceiling pendant, suitable for window and counter display. Black cone with copper ring surround. 150w Pressed Glass flood-lamp included.

PAR 56

Display fitting for 300w PAR 56 pressed glass lamp, for all forms of interior spot (W.4131) flood (W.4132) lighting. Complete with a 300w PAR 56 lamp—narrow or medium beam distribution to choice.





PHILIPS FLUORESCENT LAMPS

Philips manufacture a wide range of fluorescent lamps for general lighting service and for specialized applications. All lamps are made to B.S. 1853, where applicable, and Philips are holders of B.S.I. Licence No. 3296.

"WHITE" COLOURS

High Efficiency. Selected phosphors ensure high lumen output, maintained throughout life. All installations which require efficiency as the chief criterion, e.g. factories, loading bays, store rooms, exterior lighting, call for the use of these tubes.

Name	No.	Colour Temp. °K	Colour Co-ordinates		Description
			x	y	
White	35	3500	*0.410 †0.405	0.389 0.391	Intermediate colour for all installations where a specific tone is not required. C.R.I.66.
Cool White (Daylight)	33	4300	*0.368 †0.365	0.371 0.373	Mixes well with outside daylight. Popular in heavy industry and Street Lighting. C.R.I.67.
Warm White	29	2900	*0.442 †0.436	0.402 0.404	A warm colour for the lighter industries. C.R.I.53.

Deluxe. The colour rendering (especially of reds) has been improved with a slight reduction in efficiency (though still high). For shops, offices and the home Philips Deluxe lamps are established as leaders for high quality colour rendering.

Name	No.	Colour Temp. °K	Colour Co-ordinates		Description
			x	y	
Colour 32	32	2900	*0.439 †0.436	0.400 0.405	For the lighting of food, blending well with tungsten filament and kind to the complexion this lamp is double coated—a second layer of phosphor absorbing the distorting component and providing additional red. C.R.I.87.
Colour 34	34	3900	*0.384 †0.382	0.368 0.374	A companion to Colour 32, but of cooler appearance. Especially for the lighting of clothing stores and used as a standard light source in the Graphic Arts for colour transparencies and paintings. C.R.I.85.
Colour 37	37	4200	0.374	0.373	For Hospitals and Art Galleries where colour rendering is of the utmost importance. Colour Rendering Index 96. C.R.I.96.
Colour matching	55	6500	0.313	0.323	For critical appraisal i.e. in paint and dye industries, etc. C.R.I.93.

* Lamps Loaded. ≤ 10 watts/ft.

† Lamps Loaded. > 10 watts/ft.



STANDARD FLUORESCENT LAMPS BI-PIN CAP

1½" (38 mm.) DIAMETER

Rating	Standard Description	Price s. d.	P.T. s. d.	Packing Quantity	Lighting Design Lumens							
					29	33	35	32	34	37	55	
125w 8'⊙	TLA	16 0	Nil	12	8150	8000	8200					
		18 0	Nil					5125	5350	N.A.	5350	
120w 5'⊙	TLM	20 0	Nil	24	N.A.	5880	N.A.					
85w 8'⊙	TL	16 0	Nil	12	6400	6100	6450					
		18 0	Nil					3800	3900	N.A.	N.A.	
65/80w 5' * †	MCFA or MCFE	10 6	2 0	25	4850	4840	4850					
		12 6	2 4					3100	3100	N.A.	3360	
65w 5'	MCFE	10 6	2 0	25	4400	4220	4500					
		12 6	2 4					2800	2850		N.A.	
65w 5'⊙	TLA	14 6	2 9	24						2275		
40w 4'	MCFA or MCFE	9 9	1 10	25	2650	2600	2700					
		11 0	2 1					1700	1800		1880	
40w 4'⊙	TLA	13 0	2 5	24						1410		
40w 2'⊙	TLAK	9 9	1 10	24	1450	1435	1450					
		11 0	2 1					950	990	N.A.	990	
30w 3'⊙	TLA	9 9	1 10	24	1800	1760	1760					
		11 0	2 1					1140	1175	N.A.	1175	
20w 2'⊙	TLA	9 3	1 9	24	1050	1000	1050					
		10 6	2 0					640	680	N.A.	680	
15w 18"⊙	TLA	8 9	1 8	24	695	695	N.A.					

MCFE: With Silicone Coat.

MCFA: With Earth Stripe.

TLA: Made in Holland with Silicone Coat and Earth Stripe.

NOTE: 8 ft. TLA 125w and 8 ft. TL 85w are Silicone Coated only.

* Light Output figures measured at 80w rating.

† Available in B.C. Cap but branded 80w.

Made in Holland.



STANDARD FLUORESCENT LAMPS BI-PIN CAP

1" DIAMETER (26 mm.)

Rating	Standard Description	Price s. d.	P.T. s. d.	Packing Quantity	Lighting Design Lumens					
					29	33	35	32	34	55
30w 3'⊙	TLAD	9 9	1 10	24	1820	1800	N.A.			
		11 0	2 1					1175	1220	N.A.
15w 18"⊙	TLAD	8 9	1 8	24	770	730	N.A.			
		9 9	1 10					N.A.	495	495



5/8" DIAMETER (16 mm.)

13w 21"⊙	TL	11 6	2 3	24	670	660	N.A.			
8w 12"⊙	TL	7 6	1 5	24	340	335	340			
		8 0	1 6					N.A.	248	N.A.
6w 9"⊙	TL	7 6	1 5	24	192	192	192			
4w 6"⊙	TL	7 6	1 5	24	78	78	N.A.			

GEARLESS FLUORESCENT LAMPS

Where simple circuits and quick starting with low initial cost, light weight and a mixture of tungsten light are required gearless lamps (which have an internal starting strip) operated on ballast lamps are recommended. P.F.C. capacitor not required.



1 1/2" (38 mm.) DIAMETER

Rating	Standard Description	Price s. d.	P.T. s. d.	Packing Quantity	Lighting Design Lumens					
					29	33	35	32	34	55
40w 4'⊙	TLS	11 9	2 3	24	2240	2240	N.A.			
		12 6	2 4					1420	1460	1600
20w 2'⊙	TLS	11 3	2 1	24	870	870	N.A.			

D.C. FLUORESCENT LAMP

Rating	Standard Description	Price s. d.	Purchase Tax s. d.	Packing Quantity	Lighting Design Lumens	
					29	32
20w 2'⊙	TLR	13 9	2 7	24	820	540

For Circuit Data see Page 33.
⊙ Made in Holland.



Reflectalite

FLUORESCENT LAMPS BI-PIN CAP

With a special internal reflector unaffected by tarnishing or dust deposition, of especial value in industrial and shop window lighting. The maximum intensity through the 130° window is up to 180% of standard tubes.

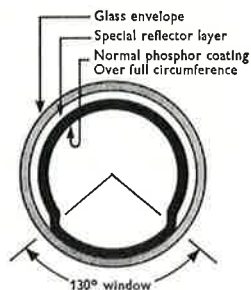
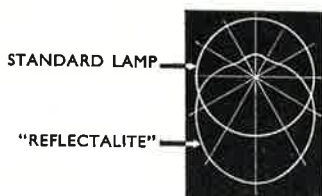
EXISTING FITTINGS

Simply replace your existing standard lamps with Reflectalite lamps and you will immediately gain all the advantages.

NEW LIGHTING INSTALLATIONS

Where Reflectalite lamps are considered for new lighting schemes, lighting design data will be supplied on request.

Rating	Standard Description	Price		P.T.		Packing Quantity
		s. d.	s. d.	s. d.	s. d.	
125w 8'⊙	Tlaf	19 0		Nil		12
85w 8'⊙	Tlf	19 0		Nil		12
120w 5'⊙	Tlmf	22 0		Nil		24
65/80w 5'	MCFRE MCFRA	12 6	2 4			24
40w 4'	MCFRE	11 9	2 3			24
20w 2'⊙	Tlaf	11 3	2 1			24



CIRCULAR FLUORESCENT LAMPS

Reception areas, restaurants, small shops, hotels, corridors, staircases, and private offices are particularly suited by these fluorescent lamps of rapidly increasing popularity. All wattage operated on standard switch-start gear. 40w may also be operated on Switchless Start semi-resonant gear. A special four pin cap completes the circle and is standard for all three ratings.

Circular 40w on Ballast Lamps

For incorporation in lighting fittings or for loose installation (especially in shop fitting and display work), the 40w circular lamp is available with metallic earth strip so that it may also be operated in series with a Tungsten Ballast Lamp (Circuit 10 page 31) with a saving in cost and weight.



Rating	Standard Description	Price		P.T.	Packing Quantity	Lighting design Lumens		
		s. d.	s. d.			29	32	34
40w 16" ⊙	TLE	27 6	5 2		6	2120	1440	1600
32w 12" ⊙	TLE	25 0	4 10		6	1472	1056	1152
22w 8½" ⊙	TLE	25 0	4 10		6	836	N.A.	638

Note: 40w Lamp with Earth Stripe Branded TLEM 40/29.
⊙ Made in Holland.

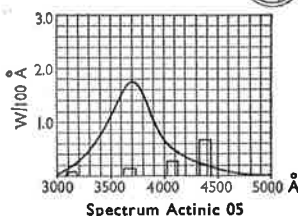


SPECIAL FLUORESCENT LAMPS ©

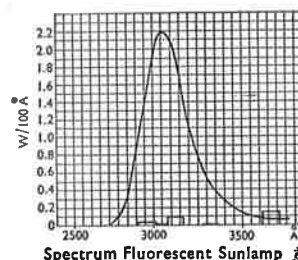
Actinic 05. A U.V. phosphor (long wavelength) for use in the printing industry, especially in the making of diazo photo-copies. Available in several lengths and ratings. Replacements for printing machines are normally obtained through the machine maker.

Fluorescent Blacklamps (Colour 08). A phosphor similar to Actinic 05 but in a tube of black filter glass (to remove visible radiation). Available in 40w 4' and 20w 2' for Switch Start only. For excitation of fluorescent pigments in display work or for industrial grading.

Fluorescent Sunlamp (Colour 12). A phosphor emitting in the erythema U.V. band, in a tube of special glass. Available in 20w 2' for Switch Start only. An extended source for U.V. irradiation. To be used with proper precautions under medical instruction.



Fluorescent Blacklamp



TUV GERMICIDAL TUBES Philips 15w and 30w low pressure mercury vapour TUV lamps resemble standard fluorescent tubes without phosphor and freely transmit 2537Å (close to the effective germicidal peak) for the control of moulds, yeast, viruses and bacteria. 6w gearless also available with E.S. cap.

TUNGSTEN BALLAST LAMPS

For operating gearless lamps

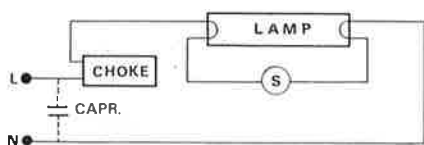
Type	Price s. d.	P.T. s. d.	Packing Quantity	230v (140v 70w)	240v (150v 75w)	250v (160v 80w)
Silica	3 0	7	25	735	790	840
Bowl Silver	4 3	9½	25	NA	743	790
Spot	8 0	1 6	40	NA	743	NA

GEARLESS ON GEAR

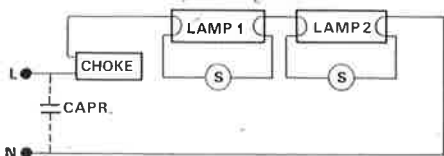
Gearless lamps may also be operated in series with a normal choke thus giving the advantages of switchless start at switch start circuit costs. The efficiency is considerably improved by comparison with Tungsten ballast lamp control. The normal P.F.C capacitor is required.



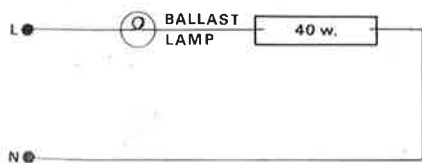
CIRCUIT DIAGRAMS



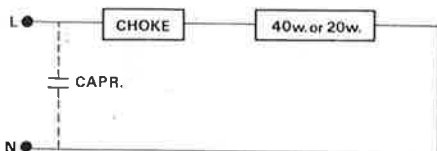
(1) Single lamp switchstart



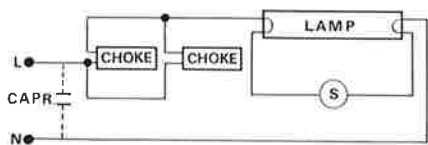
(3) Twin lamp in series switchstart



(5) Single lamp 40w gearless

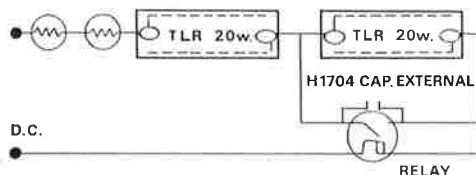


(7) Single lamp "Gearless on Gear"

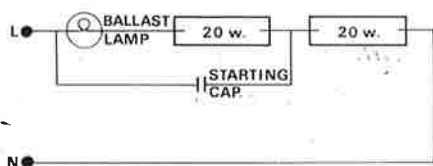


(2) Single lamp 120w 5' switchstart

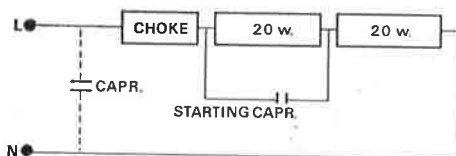
H 1506 STABILIZERS



(4) Twin lamp D.C. circuit

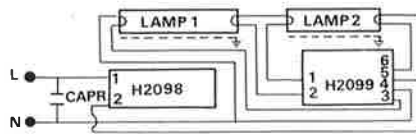


(6) Twin lamp 20w gearless

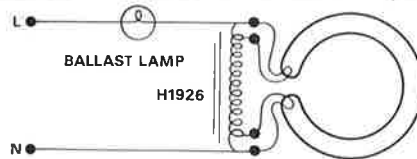


(8) Twin lamp in series "Gearless on Gear"

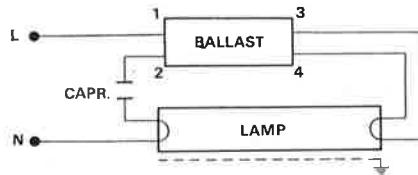
CIRCUIT DIAGRAMS (continued) SWITCHLESS START



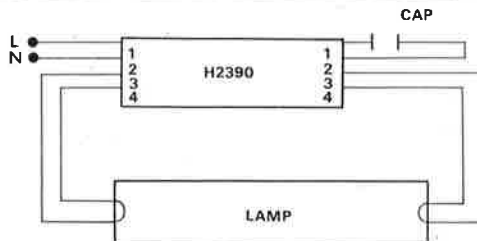
(9) 2 x 2' 40w lamps Switchless Start in series



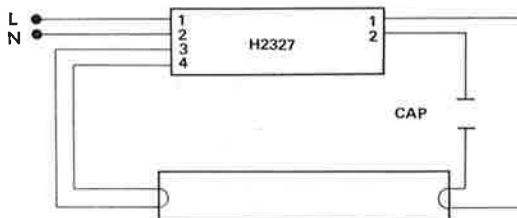
(10) 40w Circular on ballast lamp



(11) Single lamp Switchless Start 40w 65w 80w



(12) Single lamp 8' 85w Switchless Start



(13) Single lamp 8' 125w Switchless Start



SPECIAL CIRCUITS GEARLESS ON GEAR

Type	Choke	P.F.C. Capacitor	Starting Capacitor	Circuit
1 × 40w 4' TLS	1 × H2240	H1714	—	7
1 × 20w 2' TLS	1 × H2220	H1212	—	7
2 × 20w 2' TLS	1 × H2240	H1714	C.120 AB/AIMO	8

CIRCULAR ON BALLAST LAMP

Type	Preheat Transformer	Ballast Lamp	Circuit No.
40w 16" TLEM	H1926	TBL	10

GEARLESS ON BALLAST LAMP

Type	Ballast Lamp			Starting Capacitor	Circuit No.
	230v	240v	250v		
1 × 40w 4' TLS	140v 70w	150v 75w	160v 80w	—	5
2 × 20w 2' TLS	140v 70w	150v 75w	160v 80w	C.120 AB/AIMO	6

D.C. CIRCUIT

Type	Stabiliser	Relay	Capacitor	Circuit
2 × 20w 2' TLR	H1506	K3090	H1704	4

TRANSFORMERS

Cat. No.	Price £ s. d.	Packing Qty.	Type	Description	Cross Section (mm)	Length (mm)	Fixing Centres (mm)
H2024 ⊙	1 12 6	12	Canister	Primary 100-125v Secondary 220v Max. Loading 100VA	45 × 64	150	135 × 42
H1923	17 6	1	Open	Primary 240v Secondaries 2 × 8v, 0.5a (Electrode heating for Flashing/ Dimming)	45 × 37	82	68
H1926	11 3	40	Open	Preheat transformer for 40w Circular on Ballast Lamp	43 × 40	51	42

⊙ Made in Holland.

SWITCH START CIRCUITS **USING SMALL CROSS SECTION BALLASTS (47 × 38 mm.)**

Circuit 230/250v	Ballast	Ballast Price £ s. d.	P.F.C. Capacitor	Capacitor Value	Starter Switch	Circuit No.
1 × 5' 120w	2 × H2265	4 8 0	2 × H1607	16 mfd ± 5% 250v	1 × K3012	2
1 × 5' 65w	1 × H2265	2 4 0	1 × H1715	6.0 mfd ± 10% 250v	1 × K3001	1
1 × 4' 40w	1 × H2240	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	1 × K3001	1
1 × 16" 40w	1 × H2240	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	1 × K3001	1
1 × 3' 30w	1 × H2230 L	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	1 × K3001	1
1 × 12" 32w	1 × H2230 L	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	1 × K3001	1
1 × TLW 25w	1 × H2225	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	1 × K3001	1
1 × 2' 20w	1 × H2220 L	1 12 0	1 × H1212	4.5 mfd ± 10% 250v	1 × K3002	1
1 × 8 1/4" 22w	1 × H2220 L	1 12 0	1 × H1212	4.5 mfd ± 10% 250v	1 × K3002	1
1 × 18" 15w	1 × H2415 L	1 14 0	1 × H1212	4.5 mfd ± 10% 250v	1 × K3001	1
1 × 21" 13w	1 × H2213	0 17 6	—	1.5 mfd ± 10% 250v	1 × K3002	1
1 × 12" 8w	1 × H2206	0 17 6	—	1.5 mfd ± 10% 250v	1 × K3002	1
1 × 9" 6w	1 × H2206	0 17 6	—	1.5 mfd ± 10% 250v	1 × K3002	1
1 × 6" 4w	1 × H2206	0 17 6	—	1.5 mfd ± 10% 250v	1 × K3002	1
2 × 2' 20w	1 × H2240	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	2 × K3002	3
2 × 18" 15w	1 × H2230 L	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	2 × K3002	3
2 × 12" 8w	1 × H2216	0 17 6	—	1.5 mfd ± 10% 250v	2 × K3002	3
2 × 9" 6w	1 × H2213	0 17 6	—	1.5 mfd ± 10% 250v	2 × K3002	3
2 × 6" 4w	1 × H2206	0 17 6	—	1.5 mfd ± 10% 250v	2 × K3002	3

For Capacitor & Starter Data see page 38

SMALL CROSS SECTION BALLASTS (47 × 38 mm.)

PHYSICAL DETAILS

Ballast	Length mm.	Width mm.	Height mm.	Fixing Centres mm.	Additional Centre Fixing mm.	Finish	Termination
H2265	203	47	38	190 × 37.5	None	S.E. White	Pinch Screw
H2240	153	47	38	140 × 37.5	None	S.E. White	Pinch Screw
H2230 L	153	47	38	140 × 37.5	None	S.E. White	Pinch Screw
H2225	153	47	38	140 × 37.5	None	S.E. White	Pinch Screw
H2220 L	153	47	38	140 × 37.5	None	S.E. White	Pinch Screw
H2415 L	153	47	38	140 × 37.5	None	S.E. White	Pin
H2216	98.4	41.3	34.9	85.7 × 28.6	85.7	S.E. White	Pinch Screw
H2213	98.4	41.3	34.9	85.7 × 28.6	85.7	S.E. White	Pinch Screw
H2206	98.4	41.3	34.9	85.7 × 28.6	85.7	S.E. White	Pinch Screw



All Ballasts are Polyester Filled.



CIRCUITS USING STANDARD CROSS SECTION BALLASTS (64 × 45 mm.) SWITCH START

Circuit 230/250v	Ballast	Ballast Price £ s. d.	Capacitor	Capacitor Value	Starter Switch	Circuit No.
1 × 5' 120w	2 × H2365	4 8 0	2 × H1607	16 mfd ± 5% 250v	1 × K3012	2
1 × 5' 80w	1 × H2380	2 4 0	1 × H1607	8 mfd ± 5% 250v	1 × K3001	1
1 × 5' 65w	1 × H2365	2 4 0	1 × H1715	6.0 mfd ± 10% 250v	1 × K3001	1
1 × 4' 40w	1 × H2340	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	1 × K3001	1
1 × 16" 40w	1 × H2340	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	1 × K3001	1
1 × 3' 30w	1 × H2330	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	1 × K3001	1
1 × 12" 32w	1 × H2330	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	1 × K3001	1
2 × 2' 40w	1 × H2380	2 4 0	1 × H1607	8 mfd ± 5% 250v	2 × K3002	3
2 × 2' 20w	1 × H2340	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	2 × K3002	3
2 × 18" 15w	1 × H2330	1 12 0	1 × H1714	3.5 mfd ± 10% 250v	2 × K3002	3
SWITCHLESS START CIRCUIT						
1 × 8' 125w	1 × H2327	6 0 0	1 × C120HB/B7M6	7.6 mfd ± 5% 380v	—	13
1 × 8' 85w	1 × H2390	4 7 0	1 × H1605	5 mfd ± 5% 440v	—	12
1 × 5' 80w	1 × H2388	4 2 0	1 × H1811	11 mfd ± 5% 250v	—	11
1 × 5' 65w	1 × H2568	3 13 6	1 × H1607	8 mfd ± 5% 250v	—	11
1 × 4' 40w	1 × H2548	3 1 0	1 × H1606	5.5 mfd ± 5% 250v	—	11
2 × 2' 40w	1 × H2098 1 × H2099	4 6 0	1 × H1607	8 mfd ± 5% 250v	—	9

NOTE : Capacitor included in list price for all switchless start circuits except 2 × 2' 40w.

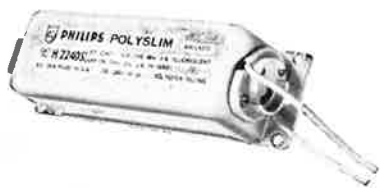
STANDARD CROSS SECTION BALLASTS (64 × 45 mm.)
PHYSICAL DETAILS
SWITCH START



Ballast	Length mm.	Width mm.	Height mm.	Fixing Centres mm.	No. of K7310 (where reqd.)	Finish	Termination
H2380	150	64	45	135 × 42	1	Zinc Plate	Pin
H2365	128	64	45	113 × 42	1	Zinc Plate	Pin
H2340	105	64	45	90 × 42	1	Zinc Plate	Pin
H2330	105	64	45	90 × 42	1	Zinc Plate	Pin
SWITCHLESS START							
H2327	315	62	46.5	305 × 42	3	Zinc Plate	Pin
H2390	251	62	46.5	241 × 42	4	Zinc Plate	Pin
H2388	195	64	45	180 × 42	2	Zinc Plate	Pin
H2568	150	64	45	135 × 42	2	Zinc Plate	Pin
H2548	128	64	45	113 × 42	2	Zinc Plate	Pin
H2099	105	64	45	90 × 42	Not Reqd.	S.E. Grey	Pinch Screw
H2098	180	64	45	165 × 42	Not Reqd.	S.E. Grey	Pinch Screw

SPECIAL NOTE: K7310 Pin/Pinch Screw adaptors can be made available where required.

All Ballasts are Polyester Filled.



LOW POWER FACTOR SWITCH START UNITS ('S' TYPE)
STARTER HOLDER SUPPLIED WITH FLEXIBLE WIRES
EQUAL TO APPROPRIATE LAMP LENGTH PLUS 2 FEET

Circuit 230-240v	Type No.	Price	Length mm.	Width mm.	Height mm.	Fixing Centres mm.	Starter Required
1 × 2' 20w	H2220S	£. s. d. 1 15 6	153	47	38	140 × 37.5	K3002
1 × 3' 30w	H2230S	1 15 6	153	47	38	140 × 37.5	K3001
1 × 4' 40w	H2240S	1 15 6	153	47	38	140 × 37.5	K3001
1 × 5' 65w	H2265S	2 7 6	203	47	38	190 × 37.5	K3001

Add 1" to length of H22-S units for starter switch.



HIGH POWER FACTOR SWITCH START UNITS ('G' TYPE)

Circuit 230-240v	Type No.	Price	Length mm.	Width mm.	Height mm.	Fixing Centres mm.	Starter Required
		£ s. d.					
1 × 2' 20w	H2620G	2 0 0	282.4	60.3	41.3	266.2 × 38.1	K3002
1 × 3' 30w	H2630G	2 0 0	282.4	60.3	41.3	266.2 × 38.1	K3001
1 × 4' 40w	H2640G	2 0 0	282.4	60.3	41.3	266.2 × 38.1	K3001
1 × 5' 65w	H2665G	2 10 0	311	60.3	46	295 × 38.1	K3001
1 × 5' 80w	H2680G	2 12 6	311	60.3	46	295 × 38.1	K3001

Add 1" to height of H26-G units for starter switch.

Note: (1) Starter switches K3001 and K3002 supplied at extra price of 2s. 9d.
 (2) Lampholders supplied at extra price according to type.



CAPACITORS

Philips capacitors are oil filled and fitted with discharge resistor, terminal shroud and 9" wire tails.



POWER FACTOR CORRECTION

CAPACITORS

To correct Power Factor, by parallel connection across mains, to greater than 0.85.

Cat. No.	Price £ s. d.	Packing Qty.	For use with	Capacitance (mfd)	Length (mm)	Dia. (mm)
H1607	1 0 0	50	1 × 80w 5' 2 × 40w 2'	8.0	103	38
H1715	0 18 0	100	1 × 65w 5'	6.0	94	38
H1212	0 16 0	100	1 × 20w 2' 1 × 15w 18"	4.5	81	38
H1714	0 14 0	100	1 × 40w 4' 1 × 30w 3' 2 × 20w 2' 2 × 15w 18"	3.5	72	38

SERIES CAPACITOR special close tolerance type for switchless start circuits

Cat. No.	Price £ s. d.	Packing Qty.	For use with	Capacitance (mfd)	Length (mm)	Dia. (mm)
C120HB/ B7M6 ⊙	Included in Ballasts Price	25	H2327	7.6	116	45 × 26 Oval
H1811		50	H2388	11	154	38
H1607		50	H2568	8	103	38
H1606		100	H2548	5.5	87	38
H1605		50	H2390	5.0	151	38

STARTER SWITCHES

Starter switches in metal canisters incorporating R.I.S. Capacitors.



Two-contact starter.

Cat. No.	Price s. d.	Packing Qty.	Type	For use with
K3001 ⊙	2 9	25	Miniature 2 pin	Single 13, 30, 32, 40, 65, 80w on 200- 250v.
K3002 ⊙	2 9	25	Miniature 2 pin	Single 4, 6, 8, 15, 20, 22w on 200-250v.
K3079	3 6	12	Large Can 4 pin	One 30w, 40w, 4' or 80w on 200-250v.
K3012 ⊙	2 9	25	Miniature 2 pin	1 × 120w 5' on 200- 250v.

⊙ Made in Holland.



TUV GERMICIDAL FITTINGS



Catalogue No. K7209.

Materials: Sheet steel body stove enamelled white.
Finish: Aluminium reflector polished and anodised.
Packing: Two per carton.

15w & 30w TUV BASIC CHANNELS

Single lamp mounting channels for space irradiation.

WARNING

This is specialised equipment which should only be used under guidance as the ultra violet energy radiated by the lamps used in these units is injurious to the eyes and skin of humans and animals.

For TUV Lamp	Cat. No.	Price £ s. d.	Dimensions (ins.)			Fixing		Weight with Lamp (lbs.)
			L	W	D	$\frac{3}{4}$ " Cond. Holes	Wood Screw Holes (Pairs)*	
18" 15w	K7213	6 9 9	18 $\frac{1}{2}$	3 $\frac{1}{2}$	3 $\frac{1}{2}$	7 $\frac{1}{8}$ " ctrs.	7 $\frac{7}{8}$ " & 10 $\frac{1}{4}$ "	4 $\frac{1}{2}$
3' 30w	K7209	6 19 9	36 $\frac{1}{2}$	"	"	18 $\frac{3}{32}$ " ctrs. & central	18 $\frac{3}{32}$ " ctrs. & others	7 $\frac{1}{2}$

Fittings are supplied with switch start apparatus and are not power factor corrected. Suitable for 210/240v A.C. 50 c/s.

* Pairs of holes 1 $\frac{1}{2}$ " apart.
 2 x $\frac{5}{8}$ " conduit entries in each endplate.

TROUGH REFLECTOR ATTACHMENT



Cat. No. K7209 with K7211.

This closed end trough reflector attachment may be added to the 30w basic channel to give concentrated irradiation.

Material: Aluminium.

Finish: Endplates—white stove enamelled. Side panels—white stove enamelled outside, anodised inside.

Packing: Four per carton.

For TUV Lamp	For Basic Channel	Cat. No.	Type	* Price £ s. d.	With Fittings (ins.)		
					Length	Width	Depth
3' 30w	K7209	K7211	Trough Reflector	4 0 0	37 $\frac{3}{32}$	4 $\frac{1}{2}$	4 $\frac{3}{32}$

Purchase Tax Not Applicable.

Made in Holland.

* The price shown is for attachment only, to which must be added the price of the basic channel.



TRANSISTOR BALLASTS ©

For operation of standard tubes on 12v and 24v DC



Caravans, Boats, Lorries, Vans, Cars and Mobile Signs can all now have fluorescent lighting by the installation of the self-contained Philips Transistor Ballasts.

Cat. No.	Price £ s. d.	Packing Qty.	To Operate	Voltage v	Length (mm)	Breadth (mm)	Depth (mm)	F.C. (mm)
FA1308	5 0 0	12	1 × 6/8w	12	220	62	33	145 × 55
FA1318*	8 10 0	9	Inverter-Ballast for up to 3 FA1637 or FA1637B	12	285	64	38	200 × 57
FA1320C	6 0 0	12	1 × 20w 2'	12	285	64	38	200 × 57
FA1608	5 0 0	12	1 × 6/8w	24	220	62	33	145 × 55
FA1613C	6 0 0	12	{ 1 × 13w21" 2 × 6/8w }	24	220	62	33	145 × 55
FA1620C	6 0 0	12	1 × 20w 2'	24	285	64	38	200 × 57
FA1630C	8 0 0	12	{ 1 × 30w3" 2 × 15w18" }	24	285	64	38	200 × 57
FA1636*	9 0 0	9	Inverter-Ballast for up to 6 FA1637 or FA1637B	24	285	64	45	270 × 50
FA1637†	1 10 0	24	1 × 6w	—	83	47	38	68 × 30
†FA1637B†	1 10 0	24	1 × 6w	—	55	55	20	41
FA1650C	8 0 0	12	{ 2 × 20w 2' 1 × 40w 4' }	24	285	64	38	200 × 57
FA1662	8 0 0	12	2 × 30w 3'	24	277	64	38	200 × 57

† Open type.

‡ Separate Inverter-Ballast required.

* Separate Capacitor H1300 supplied F.O.C.

© Made in Holland.

NOTE: Strict observance of polarity is essential since reversal of polarity will immediately destroy the transistors, except for those with suffix 'C'.

GEAR TRAYS

During the currency of this catalogue we shall be introducing a range of transistor gear trays where the open gear is placed at either end of the lamp. These are intended for embodiment in fittings and vehicles where depth is restricted, and where the gear would otherwise have to be mounted remotely. Please ask for further information.



FLUORESCENT LAMP ACCESSORIES



K.7253. © Adjustable rotor bi-pin, for 'Reflectalite' lamps. **Price 3/3**



K.7229. © Miniature bi-pin pillar type. **Price 2/9**



K.721E © Sprung rotor bi-pin batten lamp holder, with earth contact. **Price 2/9**



K.7251. Miniature bi-pin floating type. **Price 2/10**



K.7222. © Sprung rotor bi-pin holder. **Price 2/0**
K.7248. Earth contact for K.7222. **Price 6d.**



K.8312. 3-slot B.C. batten type. **Price 3/10**



K.7261E. Bi-pin push-on socket with earth contact. **Price 2/6**



K.7323. Special bi-pin lamp holder for use with TLW lamps. **Price 4/3**



K.7225. Single contact pillar type. **Price 4/-**



K.7240. Single contact floating socket. **Price 4/-**



FLUORESCENT LAMP ACCESSORIES

K.7360. Moulded push-on lamp holder for 1" and 1½" dia. lamps 60" lead.

Price 2/6

K.7362. As K.7360 but 2 holders on 60" lead.

Price 4/-



K.7230. © 4-pin socket for circular fluorescent lamps.

Price 3/-



K.7595E. 2-contact miniature starter holder with earth contact - solder terminals. **Price 2/8**

K.7596E. 2-contact miniature starter holder with earth contact - screw terminals. **Price 2/8**



K.7232. © Mounting base for K.7230 lampholder and K.7231 support.

Price 1/6



K.7227. © 4-contact starter or relay holder, non-corroding contacts.

Price 5/0



K.7231. © Spring support for circular fluorescent lamps.

Price 2/-



K.7235. Spring clip for 1½" dia. tube. **Price 4d.**

K.7257. Spring clip for 1" dia. tube. **Price 4d.**



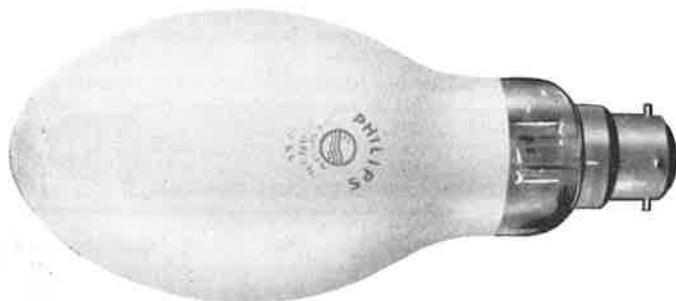
K.7322. Floating 4-pin lamp-holder for Circular Fluorescent lamps.

Price 2/6

© Made in Holland.



MERCURY FLUORESCENT LAMPS (MBF/U)



A comprehensive range of eight ratings in isothermal envelopes internally coated with a specially developed phosphor giving maximum efficiency combined with optimum colour correction. They incorporate many of the exclusive features such as twin auxiliary electrodes and mechanical caps used in Philips MB/U lamps. Ideal for both industrial and street lighting applications where good colour and high efficiency is required.

Rating Watts	Nett Trade Price £ s. d.	Pkg. Qty.	Lighting Design Lumens	Dimensions (mm.)		Lamp		Cap	Ballast	P.F.C. Capacitor φ
				O.A.L.	Dia.	V.	Amps			
50	1 3 0	50	1750	125	55	95	0.6	E.S.	L4050 ◇	L4008 ◎
80	1 10 6	32	3100	152	70	115	0.8	3-pin B.C.	L4080 ◇	L4008 ◎
125	1 16 3	24	5200	172	75	125	1.15	3-pin B.C. or G.E.S.	L4125 ◇	L4008 ◎
250	2 18 6	9	11500	220	90	135	2.0	G.E.S.	L4250 ◇	L4013 ◎
400	4 8 6	6	19600	282	120	140	3.2	G.E.S.	L4400 ◇	L4020 ◎
700	7 12 6	6	34500	320	140	140	5.6	G.E.S.	L4700 ◇	2 × L4020
1000 ◎	9 10 0	4	49000	400	165	145	7.3	G.E.S.	L4999 ◇	3 × L4020
2000 ◎	15 15 0	1	118000	435	185	270	8.0	G.E.S.	L4991 ★	L4661

◇ With Polyester Filling.

Voltage Grading: None.

50w to 1000w. All lamps suitable for
200/250v 50 c/s A.C.

2000w suitable for 380/440v 50 c/s A.C.

◎ Made in Holland.

φ Giving correction to > 0.8.

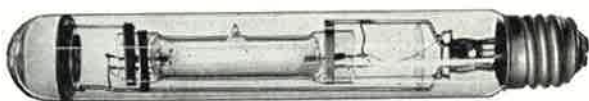
Burning Position: Any.

The "Average Through Life" values are
for the first 5000 hours life to provide
guidance for lighting design purposes.

★ Made in Belgium.



MERCURY LAMPS (MB/U)



The use of quartz discharge tubes in the 250w and 400w ratings makes Philips Mercury Lamps even more suitable for public and industrial lighting and makes the former MA/V types obsolete. A 25% increase in efficiency, combined with universal burning position for the entire range, is obtained.

The 250w and 400w ratings make magnetic arc deflectors unnecessary.

Twin auxiliary electrodes ensure reliable starting, even at -40°C .

Use Philips control gear with Polyester filling.

Rating W	Nett Trade Price £ s. d.	Pkg. Qty.	Lumens		Dimensions (mm.)			Lamp		Cap	Ballast	P.F.C. ϕ Capaci- tor
			Intl.	ATL	OAL	Dia.	LCL	V	A			
80	1 11 0	12	3100	2850	148	70	94	115	0.8	3 pin B.C.	L4080 ◇	L4008 ⊙
125	1 17 6	12	5400	4950	168	75	107	125	1.15	3 pin B.C.	L4125 ◇	L4008 ⊙
250	2 6 6	12	11500	10600	290	48	170	135	2.0	G.E.S.	L4250 ◇	L4013 ⊙
400	2 11 6	12	20500	18800	330	48	190	140	3.2	G.E.S.	L4400 ◇	L4020 ⊙
1000 ⊙	8 5 0	4	52000	48000	372	65	240	145	7.3	G.E.S.	L4999 ◇	3 × L4020

$\diamond$ With Polyester Filling.

Voltage Grading: None.

All lamps suitable for 200/250v 50 c/s A.C.

ϕ Giving correction to > 0.8 .

Burning Position: Any.

The "Average Through Life" values are for the first 5000 hours life to provide guidance for lighting design purposes.

$\odot$ Made in Holland.



BLENDED LAMPS (MBTL)

These replace the former MBT/U Lamp—they are the same size but with new features: the life is doubled and the lumen output greater than the old lamps.

By a judicious blend of the tungsten filament and mercury discharge tube the lamp operates from the mains to give "instant-start" light output with no control gear.

The 250w and 500w ratings use a specially developed phosphor on the inside of the envelopes to give extra red light for improved colour rendition. The 160w is silica coated for diffuse white output.

They are most suitable for industrial, commercial and public lighting where their long life and independence of external control gear is an advantage, particularly where maintenance or accessibility is a problem. After switching off there will be a short restarting delay of two or three minutes. These lamps are not suitable for operation on D.C. mains.

Rating Watts	160	250	500 ☉
Nett Trade Price	£ s. d. 1 16 0	£ s. d. 2 2 6	£ s. d. 3 18 9
Initial Lumens	2900	5500	12500
A.T.L. Lumens	2560	4840	11000
O.A.L. mm.	178	233	267
Diameter mm.	90	110	130
Lamp Voltage	As mains voltage		
Lamp Current	0.65	1.05	2.2
Cap	B.C. or E.S.	G.E.S.	G.E.S.
Packing Quantity	12	12	6



Voltage Grading:
160w and 250w: 240/250v.
500w: 230/240v.

Power factor > 0.96.

Burning Position: Vertical (cap up). (Any position if supply regulation good.)

The "Average Through Life" values are for the first 6000 hours life, to provide guidance for lighting design purposes.

The 100w MBT/U is not part of the above range, and remains unchanged.

Rating	Nett Trade Price	Lumens		O.A.L. mm.	Dia. mm.	Lamp Voltage	Lamp Current	Cap
		Initial	A.T.L.					
100w	£ s. d. 1 16 0	1300	1250	152	70	As Mains Voltage	0.45	B.C.

Voltage Grading: 240/250v only.

Packing Quantity: 32.

Burning Position: Any.

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MERCURY FLUORESCENT INTERNAL REFLECTOR LAMPS (MBFR/U)

Philips internally reflectorised mercury fluorescent lamps are ideally suited for high-bay mounting where maintenance is a problem. This range—the largest available—has a titanium dioxide reflector surface (first introduced in the Philips Reflectalite lamps) inside the lamp and is therefore independent of atmospheric pollution and maintains its high efficiency throughout the long reliable life of the lamp. The fluorescent coating is applied to the inside of this reflector.

Rating W	125 ⊙	250 ⊙	400 ⊙	700 ⊙	1000 ⊙
Nett Trade Price	£ s. d. 2 12 6	£ s. d. 3 15 0	£ s. d. 5 2 6	£ s. d. 8 15 0	£ s. d. 10 15 0
O.A.L. mm.	185	257	297	320	370
Diameter mm.	125	165	180	200	220
Lamp Voltage V	125	135	140	140	145
Lamp Current A	1.15	2.0	3.2	5.25	7.3
Cap	E.S. or 3 pin B.C.	G.E.S.	G.E.S.	G.E.S.	G.E.S.
Ballast	L4125 ◇	L4250 ◇	L4400 ◇	L4700 ⊙	L4999 ◇
Capacitor φ	L4008 ⊙	L4013 ⊙	L4020 ⊙	2 × L4020	3 × L4020
Packing Qty.	9	5	5	4	4

◇ With Polyester Filling.

φ Giving Correction to > 0.8.

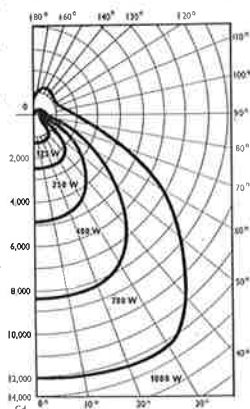
Voltage Grading: None. All lamps suitable for 200/250v 50 c/s A.C.

Note: Due to the preferential distribution of these lamps, calculations of illumination levels should be based on the polar curve. For this reason lumen output figures are not given.

⊙ Made in Holland.



LIGHT DISTRIBUTION
DIAGRAM





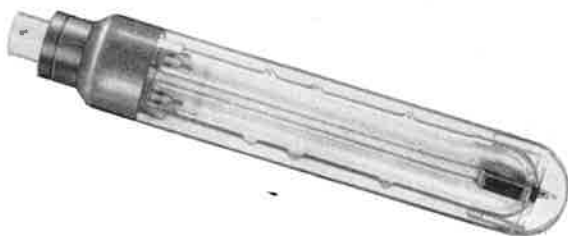
SODIUM LAMPS SOX (INTEGRAL)

Philips new SOX lamps are the logical development of the highly efficient SOI/H lamps. SOX are the most efficient lamps available in the world and are interchangeable with the SOI/H and SO/H. This new efficiency is obtained by an exclusive, optimum tin oxide coating, giving up to 150 lm/W.

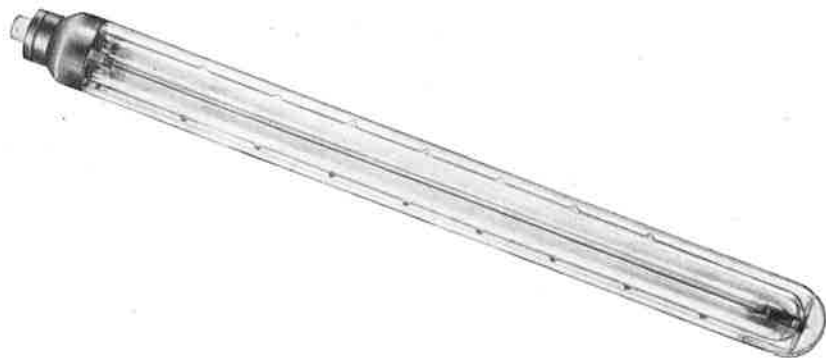
They operate on the same control gear as SOI/H-SO/H equivalents and fit the same lanterns. A new 200w rating has an output of 30,000 lumens and operates from the normal 200w H.P.F. ballast—also used for the 150w SOX.

Dimple construction, single B.C. cap, fully interchangeable, triple coil cathodes—all features are designed to give a longer, more light-giving life.

You can choose more light at the same cost or even lower cost, or the same light with considerable saving.



40w SOX



150w SOX

Rating	Nett Trade Price £ s. d.	Pkg. Qty.	Lighting Design Lumens*	Dimensions (mm.) max.		Lamp		Cap	Recom- mended Ballast	Recom- mended Cap
				OAL	Dia.	V	A			
40w	2 9 6	9	4200	310	52	75	0.6	B.C.	L4045	L4015
60w	2 17 6	9	7050	425	52	115	0.6			
100w	3 6 9	9	12250	528	66	125	0.9		L4140	L4100
150w	4 2 6	9	19500	775	66	185	0.9		L4200	None required H.P.F. Unit
200w	6 5 0	9	28500	1120	66	265	0.9		L4200	

*at 3000 hours

Made in Gt. Britain and Holland.



INTEGRAL SODIUM LAMPS (SOI/H)



For those customers using lanterns designed for 45w lamps only, the 45w SOI/H lamp supplies will be maintained.

Rating W	Nett Trade Price £ s. d.	Pkg. Qty.	Lumens		Dimensions (mm.)			Lamp		Cap	Recom- mended Ballast	Recom- mended Cap
			Intl.	ATL	OAL	Dia.	LCL	V	A			
45	2 4 6	9	3300	3100	257	52	160	80	0.6	B.C.	L4045	L4018

Voltage Grading: None. All lamps suitable for 200/250v 50 c/s A.C.

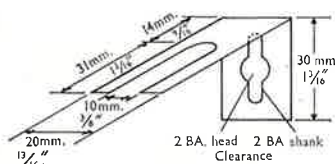
Operating Position: 45w; from 20° above horizontal (cap down) to vertical (cap up).

The "Average Through Life" values are for the first 4000 hours life (which is guaranteed) to provide guidance for lighting design purposes. The average rated life is 6000 hours for all ratings.

Equivalent Table	
SOX	SOI/H and SO/H
—	45w
40w	60w
60w	85w
100w	140w
150w	200w
200w	—



DISCHARGE LAMP APPARATUS—CAPACITORS



FIXING BRACKET

An ingenious base stud is used which, with an 'L' shape bracket, enables 'back' or 'side' fixing with only one screw. In fact, the bottom screw used for the Polyester ballast can be used, so reducing installation space and cost considerably.

The power factor in discharge lamp circuits may be improved by the appropriate Power Factor Correction Capacitor. Philips Capacitors use special low-loss paper and super purity chlorinated hydrocarbons giving long life even in the most arduous conditions. The new range L4008/4100 operates from -20°C to $+80^{\circ}\text{C}$ and are for 250v working.

Cat. No.	Price £ s. d.	Pkg. Qty.	Capacity Mfd.	A		B		C	
				mm.	ins.	mm.	ins.	mm.	ins.
L4008 ©	†	25	8	38	$1\frac{1}{2}$	55	$2\frac{1}{4}$	57	$2\frac{7}{8}$
L4010 ©	†	25	10	38	$1\frac{1}{2}$	55	$2\frac{1}{4}$	71	$2\frac{5}{8}$
L4013 ©	†	25	13	38	$1\frac{1}{2}$	55	$2\frac{1}{4}$	86	$3\frac{3}{8}$
L4015 ©	†	20	15	38	$1\frac{1}{2}$	55	$2\frac{1}{4}$	99	$3\frac{5}{8}$
L4018 ©	†	20	18	38	$1\frac{1}{2}$	55	$2\frac{1}{4}$	109	$4\frac{1}{8}$
L4020 ©	†	20	20	38	$1\frac{1}{2}$	55	$2\frac{1}{4}$	124	$4\frac{7}{8}$
L4100 ©	†	20	25	38	$1\frac{1}{2}$	55	$2\frac{1}{4}$	148	$5\frac{7}{8}$
L4661	13 0 0	1	40*	99	4	120	$4\frac{3}{4}$	190	$7\frac{1}{2}$

* 440v A.C. Working. (Not illustrated.) † Special nett prices available on application.

All dimensions measured in millimetres, conversions to inches are approximate.

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DISCHARGE LAMP APPARATUS—BALLASTS

Discharge Lamps need control gear to limit the current flowing through the circuit and the characteristics must match the lamp requirements. Philips ballasts are designed to provide and maintain these characteristics throughout life.

FOR MERCURY LAMPS

Rating W	Cat. No.	Packing Qty.	Price £ s. d.		A		B		C		D		E		Weight lbs.	Voltage Range	Total Watts	Recommended Cap
			£	s. d.	mm.	ins.	mm.	ins.	mm.	ins.	mm.	ins.	mm.	ins.				
50	L4050 ◇	6	2	0 0	70	2 $\frac{3}{4}$	65	2 $\frac{1}{2}$	90	3 $\frac{1}{2}$	136.5	5 $\frac{3}{4}$	148	5 $\frac{3}{4}$	3 $\frac{5}{8}$	B	59	L4008
80	L4080 ◇	6	2	5 0	90.5	3 $\frac{9}{16}$	67	2 $\frac{1}{4}$	90.5	3 $\frac{9}{16}$	128.5	5 $\frac{1}{4}$	138	5 $\frac{1}{4}$	4 $\frac{3}{8}$	A	90	L4008
125	L4125 ◇	6	2	12 0	90.5	3 $\frac{1}{16}$	67	2 $\frac{1}{4}$	115	4 $\frac{1}{16}$	153.5	6 $\frac{3}{4}$	163	6 $\frac{3}{4}$	6 $\frac{1}{8}$	A	138	L4008
250	L4250 ◇	4	4	14 0	102	4 $\frac{1}{4}$	90	3 $\frac{3}{8}$	125	4 $\frac{3}{8}$	171.5	6 $\frac{3}{4}$	183.5	7 $\frac{3}{8}$	10 $\frac{1}{2}$	A	255	L4013
400	L4400 ◇	4	5	9 0	108	4 $\frac{1}{4}$	106	4 $\frac{1}{4}$	130	5 $\frac{1}{16}$	176.5	6 $\frac{3}{4}$	188.5	7 $\frac{3}{8}$	13	A	420	L4020
700	L4700 ◇	2	12	5 0	133	5 $\frac{1}{4}$	116	4 $\frac{1}{8}$	170	6 $\frac{1}{16}$	220	8 $\frac{3}{4}$	235	9 $\frac{1}{4}$	23	C	730	2 × L4020
1000	L4999 ◇	2	15	4 8	133	5 $\frac{1}{4}$	114	4 $\frac{1}{8}$	170	6 $\frac{1}{16}$	220	8 $\frac{3}{4}$	235	9 $\frac{1}{4}$	28 $\frac{1}{4}$	C	1040	3 × L4020
2000	L4991 ★	1	30	0 0	180	7 $\frac{3}{8}$	135	5 $\frac{1}{8}$	240	9 $\frac{3}{8}$	180	7 $\frac{3}{8}$	256	10 $\frac{1}{4}$	59	E	2080	L4661

FOR SODIUM LAMPS

Rating W	Cat. No.	Packing Qty.	Price £ s. d.		A		B		C		D		E		Weight lbs.	Voltage Range	Total Watts	Recommended Cap
			£	s. d.	mm.	ins.	mm.	ins.	mm.	ins.	mm.	ins.	mm.	ins.				
45(SOI/H)	L4045 ◇ L4140 ◇* L4200 ◇	4	4	14 0	92	3 $\frac{5}{8}$	90	3 $\frac{3}{8}$	125	4 $\frac{3}{8}$	171.5	6 $\frac{3}{4}$	183.5	7 $\frac{3}{8}$	10	A	65	L4018
60		2	6	10 0	112	4 $\frac{3}{8}$	110	4 $\frac{1}{4}$	165	6 $\frac{1}{2}$	211.5	8 $\frac{3}{4}$	223.5	8 $\frac{3}{4}$	17 $\frac{3}{4}$	D	80	L4015
100		2	9	18 0	116	4 $\frac{9}{16}$	110	4 $\frac{1}{4}$	235	9 $\frac{1}{4}$	281.5	11 $\frac{5}{8}$	293.5	11 $\frac{3}{8}$	20	D	125	L4100
150		2															186	Not Req.
200																	236	

◇ With Polyester Filling.

* Used for Spectral Lamp range also.

The above ballasts are suitable for 50 c/s supply. Ballasts for other voltage and frequency ranges and for printing and special lamps are available. Full details gladly given.

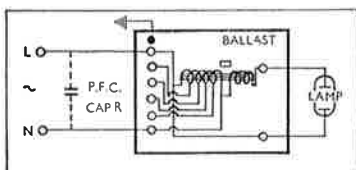
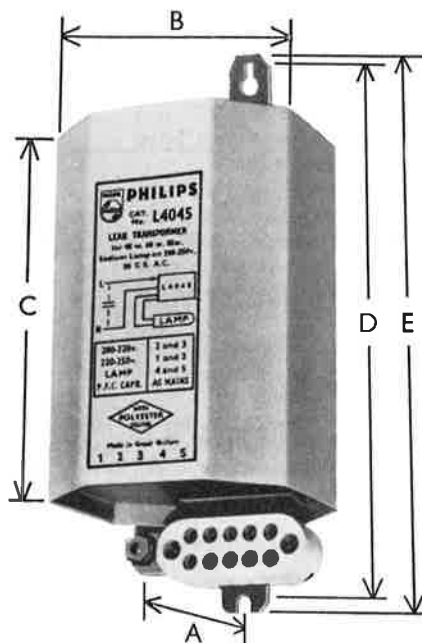
Voltage Ranges:
A 200/250v
B 220/250v
C 230/250v
D 190/260v
E 380/440v

All dimensions measured in millimetres, conversions to inches are approximate.

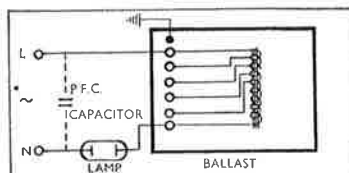
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★ Made in Belgium.

DISCHARGE LAMP APPARATUS BALLASTS



For Sodium lamps on 200/250v. 50 ~



For Mercury lamps on 200/250v. 50 ~



SPECIAL DISCHARGE LAMPS

Technical advice on the countless uses of this equipment is always available from Philips without obligation.

PRINTING LAMPS Philips "HO" printing lamps have many applications in photo chemical processes, diazo printing being one of the most familiar. For high speed continuous printing HOGK lamps, having a quartz envelope, and HOKI, having a quartz burner with integral jacket, are used.

The HOQ quartz type allows high speeds and being non-ozone forming do not require a jacket.

The Philips MBR/U "Repro" lamps are specifically designed for photocopying, plate making and photo litho processes, with a specially shaped bulb and internal reflector. In addition to the high efficiency in the visible range there is copious emission in the ultra-violet band.

SPECTRAL LAMPS Philips spectral lamps have been developed for laboratory use and are generally employed in refractometry polarimetry, spectroscopy, etc. The extensive range of interchangeable lamps gives a wide choice of spectra in both the visible and ultra-violet bands.

OZONE LAMP The small Philips OZ4w lamp is a special germicidal type having an envelope transmitting 1850Å which produces ozone, a powerful deodoriser.

THE Q.5002 SCREWDRIVER INDICATOR is for use on 110/500v A.C. or D.C. A blade of high grade nickel vanadium steel is incorporated in a transparent plastic body which houses a replaceable neon lamp.





MINIATURE LAMPS

ROUND TORCH BULBS

Volts	Amps	Cap	Dia. mm.	L'nth mm.	Fig.	Price s. d.	P.T. Extra s. d.
1.25	0.25	M.E.S.	11	23	1	7	1½
1.5	0.2	M.E.S.	11	23	1	4	1
2.5	0.2	M.E.S.	11	23	1	4	1
2.5	0.3	M.E.S.	11	23	1	4	1
3.5	0.15	M.E.S.	11	23	1	4	1
3.5	0.3	M.E.S.	11	23	1	4	1
4.0	0.3	M.E.S.	11	23	1	4	1
4.5	0.3	M.E.S.	11	23	1	4	1



Fig. 1

Round bulbs are suitable for torches from which an even spread of light is required, or which have a focusing arrangement.

LENS END TORCH BULBS

Volts	Amps	Cap	Dia. mm.	L'nth mm.	Fig.	Price s. d.	P.T. Extra s. d.
1.2	0.22	M.E.S.	9.5	23	2	7	1½
2.2	0.25	M.E.S.	9.5	23	2	7	1½



Fig. 2

The lens end bulbs are commonly used for pencil type torches and produce a concentrated spot of light.

PREFOCUS TORCH BULBS

Type No.	Volts	Amps	Dia. mm.	L'nth mm.	Fig.	Price s. d.	P.T. Extra s. d.
PR 8	1.9	0.6	11	30.5	3	7½	1½
PR 2	2.4	0.5	11	30.5	3	7½	1½
PR 6	2.5	0.3	11	30.5	3	7½	1½
PR 9	2.7	0.15	11	30.5	3	7½	1½
PR 3	3.6	0.5	11	30.5	3	7½	1½
PR 7	3.8	0.3	11	30.5	3	7½	1½
PR 12	6.0	0.5	11	30.5	3	7½	1½



Fig. 3

A beam of high intensity may be obtained by using a pre-focus bulb in conjunction with a parabolic reflector. The filament of the lamp will be automatically positioned in the focal point of the reflector by the focusing ring on the lamp cap.



MINIATURE LAMPS

RADIO PANEL LAMPS

Volts	Amps	Cap	Dia. mm.	L'nth mm.	Fig.	Price s. d.	P.T. Extra s. d.
6.2	0.3	M.E.S.	15	29	3	7	1½
6.3	0.11	M.E.S.	11	23	1	7	1½
6.3	0.15	M.E.S.	10.5	29	2	7	1½
6.3	0.3	M.C.C.	10.5	29	—	7	1½
6.5	0.3	M.E.S.	11	23	1	7	1½
6.5	0.3	M.C.C.	11	23	—	7	1½
6.5	0.3	M.E.S.	10.5	29	2	7	1½
19	0.097	M.E.S.	10.5	29	2	1 0	2



Fig. 1 Fig. 2 Fig. 3

Manufactured in both round and tubular bulbs, these small lamps are used extensively throughout the radio industry for panel lighting and indication on radios, radiograms, tape recorders and electronic assemblies.

SUB-MINIATURE LAMPS

Volts	Amps	Cap	Dia. mm.	L'nth mm.	Fig.	Price s. d.	P.T. Extra s. d.
*1.25	0.15	L.E.S.	7.5	15.5	4	1 0	2
*2.5	0.3	L.E.S.	5	14	5	1 0	2
2.5	0.3	L.E.S.	7.5	15.5	4	1 0	2
6.5	0.15	L.E.S.	5	14	5	1 0	2
*6.5	0.15	L.E.S.	7.5	15.5	4	1 0	2
14	0.075	L.E.S.	5	14	5	1 0	2
14	0.075	None	5	12	6	1 0	2

*Available to Special Order Only.



Fig. 4 Fig. 5 Fig. 6

Philips sub-miniature indicator lamps have the two-fold advantage of being remarkably small and providing an excellent light source. Designed originally for model train and village layouts, the use has now been extended to include personal radios, electronic equipment and industrial and domestic electrical apparatus.

AIRCRAFT INTERIOR LAMPS

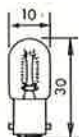


Fig. 1

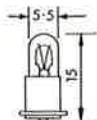


Fig. 2

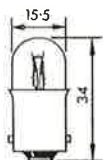


Fig. 3

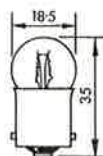


Fig. 4

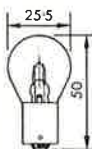


Fig. 5

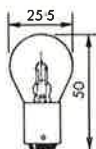


Fig. 6

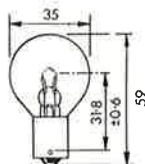


Fig. 7

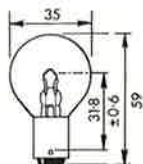


Fig. 8

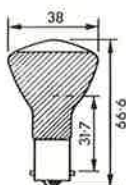


Fig. 9

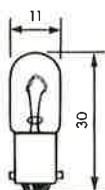


Fig. 10

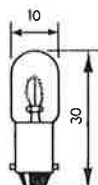


Fig. 11

All dimensions in millimetres.

Made in Holland.



AIRCRAFT INTERIOR LAMPS

Volts	Rating	Cap	Philips Type No.	BSE39 and Other Types	American GE Equiv.	Fig.	Price s. d.	P.T. Extra s. d.
28	0.035A	BA9s	I2005N	A6	1819	1	2 6	5½
28	1.12W	S6/8	—	A7	327	2	4 3	9
28	0.17A	BA9s	I2006N	A203	313	1	2 6	5½
28	0.1A	BA9s	I2003N	A8	1820	1	2 6	5½
28	3 CP	BA15s	I2000N	A102	301	3	2 6	5½
28	6 CP	BA15s	I2001N	A1	303	4	2 6	5½
28	15 CP	BA15s	I2100N	A2	305	5	4 0	8½
28	15 CP	BA15s	I2100N/02	A2-s	305SB	5	6 0	1 1
28	15 CP	BA15d	I2100W	—	306	6	4 0	8½
28	21 CP	BA15s	I2101N	A3	307	5	4 0	8½
28	21 CP	BA15s	I2101N/02	A3-s	307SB	5	6 0	1 1
28	21 CP	BA15d	I2101W	—	308	6	4 0	8½
28	32 CP	BA15s	I2102N	A104	309	7	4 6	9½
28	32 CP	BA15d	I2102W	—	310	8	4 6	9½
28	20W	BA15s	I2105N/13	A103	1385	9	15 0	2 8

Volts	Rating	Cap	Philips Type No.	American GE Equiv.	Fig.	Price s. d.	P.T. Extra s. d.
6.3	0.15A	BA9s	8008N	47	10	1 0	2
12-16	0.1A	BA9s	I2002N	1813	11	2 6	5½

Made in Holland.

PHILIPS NEON LAMPS

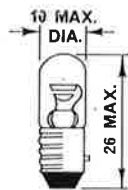


Fig. 1



Fig. 2

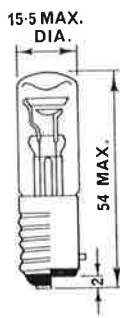


Fig. 3

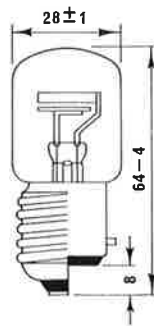


Fig. 4

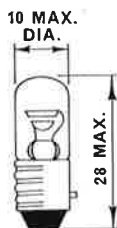


Fig. 5

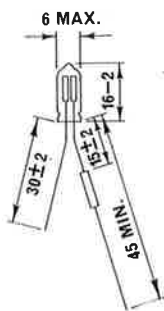


Fig. 6

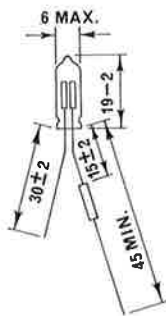


Fig. 7

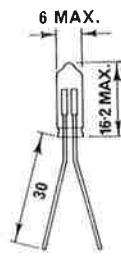


Fig. 8

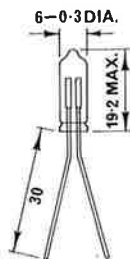


Fig. 9

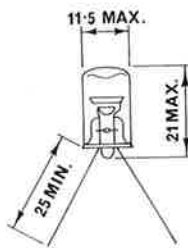


Fig. 10

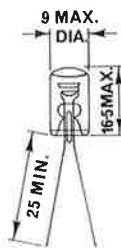


Fig. 11

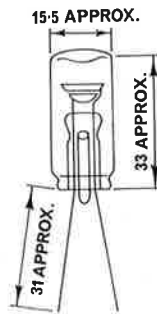


Fig. 12

All dimensions are in millimetres.



NEON INDICATORS

LAMPS WITH BUILT-IN RESISTOR IN THE CAP

Type No.	Current mA.	Volts Range	Cap	Special Features	Price s. d.	Fig.	Price (Coloured) s. d.
GL.45	3-5	220/250	B.C. or E.S.	—	4 0	4	5 0
GL.41M	2-3	220/250	S.E.S.	H.B. Lens End	4 0	2	5 0
GL.41W	2-3	220/250	S.B.C.	H.B. Lens End	4 0	2	5 0
GL.42M	3-4	220/250	S.E.S.	H.B. Lens End	4 0	3	5 0
GL.42W	3-4	220/250	S.B.C.	H.B. Lens End	4 0	3	5 0
GL.50D	1-1.5	220/250	M.E.S.	H.B. Lens End	3 0	5	4 0
GL.50N	1-1.5	220/250	M.C.C.	H.B. Lens End	3 0	5	4 0

The lamps listed above can be made available coloured (Red, Green, Blue and Amber) to special order minimum quantities of 500 lamps per colour.

FLUORESCENT GREEN

Type No.	Current mA.	Volts Range	Cap	Special Features	Price s. d.	Fig.	Price (Coloured) s. d.
GR.60D	1.4	200/260	M.E.S.	H.B.	4 0	1	—
GR.60N	1.4	200/260	M.C.C.	H.B.	4 0	1	—

LAMPS WITHOUT BUILT-IN RESISTOR*

Type No.	Current mA.	Volts Range	Cap	Special Features	Price s. d.	Fig.
GL.7	0.75-1	150/260	Wire End	H.B.	1 0	8
GL.8	0.4-0.6	65/250 A.C.		—	1 0	9
GL.9	2.0	100/260 A.C.		H.B.	1 0	9
GL.12	1-1.5	200/260 A.C.		H.B. Lens End	2 0	11
GL.14D	1.0	90/260 A.C.	M.E.S.	—	2 3	1
GL.14N	1.0		M.C.C.	—	2 3	1
GL.12D	1-1.5	200/260	M.E.S.	H.B. Lens End	2 3	1
GL.12N	1-1.5		M.C.C.	H.B. Lens End	2 3	1

FLUORESCENT GREEN

Type No.	Current mA.	Volts Range	Cap	Special Features	Price s. d.	Fig.
GL.52	1.4	200/260	Wire End	H.B.	1 6	9
GL.69	1.4	200/260		H.B.	1 6	8

Made in Gt. Britain and Holland.



LAMPS AVAILABLE TO SPECIAL ORDER ONLY

Type No.	Current mA.	Volts Range	Cap	Special Features	Fig.	
With Resistor						
GR.7	1.5	220/250	} Wire End	H.B.	6	
GR.9	2.0	220/250		H.B.	7	
Without Resistor						
GL.4	2.3	220/250	} Wire End	H.B. Lens Ended	10	
GL.16	2.3	220/250		H.B. Lens End	12	
fluorescent Green Without Resistor						
GL.60	1.5	220/250		H.B.	—	

Minimum Order Quantities 500.

Prices Available on Application.

* For approximate external resistor values, please see overleaf.

H.B. indicates High Brightness.

For peak performance High Brightness types are recommended for use on A.C. only

All neon lamps have indefinite long life. Neon lamps are not subject to Purchase Tax.

Technical Data Sheets are available on request.

RECOMMENDED RESISTOR VALUES FOR A.C.

Type No.	Striking Voltage	Volts Range	Resistor Value (Ohms)	Volts Range	Resistor Value (Ohms)
GL.4	< 187 A.C.	—	—	220/250	47,000
GL.7	< 150 A.C.	—	—	220/250	100,000
GL.8	< 65 A.C. 90 D.C.	110/130	120,000	220/250	330,000
GL.9	< 100 A.C.	110/130	27,000	220/250	68,000
GL.12	< 187 A.C.	220/230	68,000	230/250	82,000
GL.12D	} < 200 A.C.	—	—	220/250	82,000
GL.12N		—	—	220/250	82,000
GL.14D		—	—	220/250	82,000
GL.14N		—	—	220/250	82,000
GL.16	< 75 A.C. 105 D.C.	110/130	56,000	220/250	180,000
GL.52	< 150 A.C.	—	—	220/250	33,000
GL.60	< 187 A.C.	220	68,000	240	82,000
GL.69	< 187 A.C.	220	82,000	240	100,000
GL.69	< 145 A.C.	220	82,000	240	100,000

INFRA-RED LIVESTOCK REARING UNITS

These units are constructed of Aluminium or Fibreglass for lightness and durability and are fitted with Z 9528 E.S. skirted drip-proof porcelain lampholders and are supplied complete with Infra-Red lamps. Because of this the Catalogue Number of the Unit will vary with the type and wattage of lamp fitted.

The explanation of the Catalogue Numbers of the Units is as follows:—

The prefixes A or F indicate Aluminium or Fibreglass Insulated canopy. S or D indicating Single or Double Unit. F, C or R indicating Frosted, Clear or Red ('Infraglo') finish of the lamps and the figures indicate the total wattage of the Livestock Rearing Unit. The Philips 'Infraglo' Infra-Red lamps have been developed for poultry farmers who wish to obtain all the advantages of bright emitter heaters without the full amount of light. Purchase tax is not applicable to COMPLETE UNITS.

In the interests of safety we recommend that the wiring and connection to the mains supply be carried out by a qualified electrician. This will insure that all local electrical and safety regulations are observed.

For further information about livestock rearing please send for booklet No. PL.6993.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

AREA WARMING UNITS

There are many situations where working conditions are very cold or draughty and where for various reasons it has not been found possible to supply adequate warmth by orthodox heating methods.

This inefficiency is generally due to the fact that the orthodox heating appliances depend upon the use of air as a heat transfer medium and thus warm a large quantity of air which does not perform any useful task.

It is now possible to use Infra-Red Area Warming Units for heating, producing short wave infra-red radiation which has a direct heating effect and does not depend upon the use of air as a heat transfer medium. It is thus possible to provide a reasonable degree of warmth over the required area very economically.

A few examples of the situations in which these units can be used are as follows:—

Garage Pay Kiosks; Tobacco and Confectionery Kiosks; Receptionists' Offices; Ticket Collectors' Boxes; Fitting Cubicles; Newspaper Stalls; Vestibules; Entrance Halls; Gatekeepers' Huts; Open Snack Bars; Waiting Rooms; Coffee Stalls; Corridors; Passage Ways; Market Stalls also Hotel; Theatre and Cinema Canopies; and Workshops.

Philips Infra-Red Area Warming Units are supplied complete with Infra-Red lamps, because of this the Catalogue Number of the Unit will vary with the type and wattage of lamp fitted. The explanation of the Unit Catalogue Numbers is as follows:—S, D or R indicate Single, Double or Recessed Units (I indicates Industrial) and the letter C, F or R immediately before the figures indicate Clear, Frosted or Red ('Infraglo') finish of the lamps. The figures given after the oblique stroke constitute the total wattage of the Unit.

For full details regarding Area Warming please send for leaflet PL.6096.



PHILIPS INFRA-RED FITTINGS

1. FOR LIVESTOCK REARING OR AREA WARMING

Cat. No. of Unit	Price each s. d.	Cat. No. of Lamps Fitted	Fig.
ASF/250	41 0	†250E/44	3
ASC/250	44 6	†250E/99	
ASR/250	44 6	*250E/479	
ASC/300	46 6	†300E/99	4
ASR/300	49 6	*†300E/479	
ADF/500	95 0	†250E/44	
ADC/500	102 0	†250E/99	5
ADR/500	102 0	*250E/479	
FSF/250	45 6	†250E/44	
FSR/300	54 0	*†300E/479	5
FSC/300	51 0	†300E/99	

FULLY INSULATED UNITS

2. FOR LIVESTOCK REARING

Cat. No. of Unit	Price each s. d.	Cat. No. of Lamps Fitted	Fig.
ASR/150	34 6	*†150E/479	3
ASF/150	33 0	†150E/44	
ADR/300	83 0	*†150E/479	4
ADF/300	80 0	†150E/44	
FSR/150	41 6	*†150E/479	5
FSF/150	40 0	†150E/44	

FULLY INSULATED UNITS

3. FOR AREA WARMING

Cat. No. of Unit	Price each s. d.	Cat. No. of Lamps Fitted	Fig.
RSF/250	44 6	†250E/44	2
RSC/250	48 0	†250E/99	
RSR/250	48 0	*250E/479	
RSC/300	50 0	†300E/99	3
RSR/300	53 0	*†300E/479	
RSC/375	53 0	†375E/99	
ASC/375	49 6	†375E/99	5
FSR/300	54 0	*†300E/479	
FSC/300	51 0	†300E/99	

FULLY INSULATED UNITS

DOUBLE UNITS

ADF/500	95 0	†250E/44	4
ADC/500	102 0	†250E/99	
ADR/500	102 0	*250E/479	
ADC/600	106 0	†300E/99	
ADR/600	112 0	*†300E/479	4
ADC/750	112 0	†375E/99	

Cat. No. of Unit	Price each s. d.	Cat. No. of Lamps Fitted	Fig.
SIF/250/B	63 0	†250E/44	1
SIC/250/B	66 6	†250E/99	
SIR/250/B	66 6	*250E/479	
SIC/300/B	68 6	†300E/99	1
SIR/300/B	71 6	*†300E/479	
SIC/375/B	71 6	†375E/99	

* Philips 'INFRAGLO' Infra-Red Lamps.

† Philips 'HARD GLASS' Infra-Red Lamps.

‡ Philips Frosted front Infra-Red Lamps.

Purchase Tax is not applicable to complete units

INFRA-RED INDUSTRIAL HEATING UNIT

Philips Infra-Red lamps offer many advantages for all production processes requiring heat treatment such as:— Baking, Drying, Degreasing, Preheating, Dehydrating.

Full details of the lamps used for normal production processes are given on page 64.



SIQ/1000
Price each
128s. 6d.

(Spare Lamp for SIQ/1000)
Cat. No. 1000/Q Price each 92s. 6d.

This industrial heating unit has been designed for industrial applications where higher intensities are required than can normally be obtained with 250 watt, 300 watt and 375 watt Infra-Red lamps. The unit is compact and light in weight and can easily be fitted on to a framework to suit any shape or size of oven. The reflector is made of super-purity aluminium electrolytically polished and anodised.

For further details of industrial applications please send for leaflets PL 6018 and PL.6782.



PHILIPS INFRA-RED LAMPS

Internal Reflector Types

1. Blown Bulb Types

Watts	Diameter mm.	Overall Length mm.	Philips Type No.	Cat. No.	Finish (of front)	Price £ s. d.	P.T. Extra s. d.
150 150	} 111 ± 1.5	150 ± 4.5	13346E/44	150E/44	Frosted Red	13 0	2 5
			13346E/479	150E/479		14 6	2 9
250 250 250	} 125 ± 1.5	180 ± 5	13352E/44	250E/44	Frosted	18 6	3 6
			13352E/479	250E/479	Red	1 2 0	4 2
			13372E/06	250E/99	Clear*	1 2 0	4 2
300 300	} 125 ± 1.5	180 ± 5	13374E/06	300E/99	Clear*	1 4 0	—
			13374E/479	300E/479	Red*	1 7 0	—
375	125 ± 1.5	180 ± 5	13344E/06	375E/06	Clear*	1 7 0	—

2. Pressed Glass Type†

Watts	Diameter mm.	Overall Length mm.	Philips Type No.	Finish (of front)	Price £ s. d.	P.T. Extra s. d.
150	122	135	13025E/479	Red*	1 3 6	4 5

* Indicates heat resisting glass.

All of the above have E.S. (E.27) caps and are available in the following voltage ratings:—
220/230 and 240/250v.

† Pressed glass lamps have enclosed parabolic reflectors which in conjunction with the lens system incorporated in the lamp accurately control the beam pattern and give a wide or narrow beam of high radiation intensity. Mounted in watertight lampholders these lamps are suitable for outdoor area warning.

Made in Holland.



QUARTZ TUBULAR INFRA-RED LAMPS



500/Q 500/R



1000/Q 1000/R 2000/Q



500/W 500/Z



1000/W 1000/Z

Watts	Voltage Range	End Connections	Cat. No.	Philips Type No.	Fixing Centres (F) mm.	Heated Length (L) mm.	Finish	Price £ s. d.
500	110/130	Strip Wire	500/Q	13169X	241 ± 5	160 ± 2	Clear	3 8 0
500			500/W	13169Y	222 ± 5	160 ± 2	Clear	3 8 0
1000	200/220 or 220/250	Strip Wire	1000/Q	*13713X	368 ± 5	270 ± 2	Clear	4 12 6
1000		Strip Wire	1000/W	13195Y	341 ± 5	270 ± 2	Clear	4 4 0
1000		Strip	1000/R	13195X/98	368 ± 5	270 ± 2	Reflect- orised	4 12 6
2000	220/250	Strip	2000/Q	13168X	368 ± 5	270 ± 2	Clear	5 12 0
2000		Strip	2000/L	13245X	508 ± 5	425 ± 2	Clear	6 5 0
2000	380/415	Strip	2000/Q	*13765X	508 ± 5	425 ± 2	Clear	6 15 0
3000		Strip	3000/Q	13230X	798 ± 5	720 ± 2	Clear	8 10 0

Tube diameter = 10 ± 1 mm.

*These lamps can be operated in any fixed burning position.

PHILIPS INFRA-RED LAMPS BLOWN BULB TYPES



150E/479



250E/44



250E/99 300E/99 375E/99



250E/479 300E/479

PRESSED GLASS TYPE



13025E/479

INFRA-RED LAMPHOLDERS



E.S. Porcelain Lampholder
Type Z 9528

Made in Gt. Britain.

Price 8s. 9d. each



Holder for 500/Q and
1000/Q Lamps Type Z 9570

Price 12s. 6d. each

DISCOUNT TABLES

To find the total discount on a sum of money, such as £124 6s. 8d., add the amounts under the relevant columns which are opposite the following amounts: £100; £20; £4; 6/-; 8d.

	2½%	5%	10%	15%	17½%	20%	22½%
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1d.	—	—	¼	¼	¼	¼	¼
2d.	—	—	½	½	½	½	½
3d.	—	—	¾	¾	¾	¾	¾
4d.	—	—	1	1	1	1	1
5d.	¼	¼	1 ¼	1 ¼	1 ¼	1 ¼	1 ¼
6d.	½	½	2	2	2	2	2
7d.	¾	¾	2 ¾	2 ¾	2 ¾	2 ¾	2 ¾
8d.	1	1	3	3	3	3	3
9d.	1 ¼	1 ¼	3 ¼	3 ¼	3 ¼	3 ¼	3 ¼
10d.	1 ½	1 ½	3 ½	3 ½	3 ½	3 ½	3 ½
11d.	1 ¾	1 ¾	3 ¾	3 ¾	3 ¾	3 ¾	3 ¾
1/-	2	2	4	4	4	4	4
2/-	4	4	8	8	8	8	8
3/-	6	6	12	12	12	12	12
4/-	8	8	16	16	16	16	16
5/-	10	10	20	20	20	20	20
6/-	12	12	24	24	24	24	24
7/-	14	14	28	28	28	28	28
8/-	16	16	32	32	32	32	32
9/-	18	18	36	36	36	36	36
10/-	20	20	40	40	40	40	40
11/-	22	22	44	44	44	44	44
12/-	24	24	48	48	48	48	48
13/-	26	26	52	52	52	52	52
14/-	28	28	56	56	56	56	56
15/-	30	30	60	60	60	60	60
16/-	32	32	64	64	64	64	64
17/-	34	34	68	68	68	68	68
18/-	36	36	72	72	72	72	72
19/-	38	38	76	76	76	76	76
£1	6	1 0	2 0	3 0	3 6	4 0	4 6
£2	1 0	2 0	4 0	6 0	7 0	8 0	9 0
£3	1 6	3 0	6 0	9 0	10 6	12 0	13 0
£4	2 0	4 0	8 0	12 0	14 0	16 0	18 0
£5	2 6	5 0	10 0	15 0	17 6	1 0 0	1 2 6
£6	3 0	6 0	12 0	18 0	1 1 0	1 4 0	1 7 0
£7	3 6	7 0	14 0	1 1 0	1 4 6	1 8 0	1 11 6
£8	4 0	8 0	16 0	1 4 0	1 8 0	1 12 0	1 16 0
£9	4 6	9 0	18 0	1 7 0	1 11 6	1 16 0	2 0 6
£10	5 0	10 0	1 0 0	1 10 0	1 15 0	2 0 0	2 5 0
£20	10 0	1 0 0	2 0 0	3 0 0	3 10 0	4 0 0	4 10 0
£30	15 0	1 10 0	3 0 0	4 10 0	5 5 0	6 0 0	6 15 0
£40	1 0 0	2 0 0	4 0 0	6 0 0	7 0 0	8 0 0	9 0 0
£50	1 5 0	2 10 0	5 0 0	7 10 0	8 15 0	10 0 0	11 5 0
£60	1 10 0	3 0 0	6 0 0	9 0 0	10 10 0	12 0 0	13 10 0
£70	1 15 0	3 10 0	7 0 0	10 10 0	12 5 0	14 0 0	15 15 0
£80	2 0 0	4 0 0	8 0 0	12 0 0	14 0 0	16 0 0	18 0 0
£90	2 5 0	4 10 0	9 0 0	13 10 0	15 15 0	18 0 0	20 5 0
£100	2 10 0	5 0 0	10 0 0	15 0 0	17 10 0	20 0 0	22 10 0
£200	5 0 0	10 0 0	20 0 0	30 0 0	35 0 0	40 0 0	45 0 0

DISCOUNT TABLES

To find the total discount on a sum of money, such as £124 6s. 8d., add the amounts under the relevant columns which are opposite the following amounts: £100; £20; £4; 6/-; 8d.

	25%	27½%	30%	32½%	33½%	35%
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1d.	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
2d.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
3d.	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
4d.	1	1	1	1	1	1
5d.	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$
6d.	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$
7d.	$1\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{3}{4}$
8d.	2	2	2	2	2	2
9d.	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$
10d.	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$
11d.	$2\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{3}{4}$
1/-	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4	4	$4\frac{1}{4}$
2/-	6	$6\frac{1}{2}$	$7\frac{1}{4}$	$7\frac{1}{2}$	8	$8\frac{1}{4}$
3/-	9	10	$10\frac{1}{4}$	$11\frac{1}{4}$	10	$11\frac{1}{4}$
4/-	1 0	$1\frac{1}{4}$	$2\frac{1}{2}$	$1\frac{3}{4}$	1 4	$1\frac{1}{2}$
5/-	1 3	$1\frac{1}{2}$	6	$1\frac{1}{2}$	1 8	$1\frac{1}{4}$
6/-	1 6	$1\frac{3}{4}$	$9\frac{1}{2}$	$1\frac{1}{2}$	2 0	$2\frac{1}{4}$
7/-	1 9	1 1	$11\frac{1}{2}$	$2\frac{1}{2}$	2 4	$2\frac{1}{2}$
8/-	2 0	$2\frac{1}{2}$	$14\frac{1}{2}$	$2\frac{3}{4}$	2 8	$2\frac{3}{4}$
9/-	2 3	$2\frac{3}{4}$	$18\frac{1}{2}$	3 0	3 0	$3\frac{1}{4}$
10/-	2 6	2 9	3 0	3 3	3 4	3 6
11/-	2 9	3 0	$3\frac{1}{2}$	3 7	3 8	$4\frac{1}{4}$
12/-	3 0	$3\frac{1}{4}$	$7\frac{1}{4}$	$10\frac{3}{4}$	4 0	$4\frac{1}{2}$
13/-	3 3	3 7	$10\frac{3}{4}$	$4\frac{1}{2}$	4 4	$4\frac{1}{2}$
14/-	3 6	$10\frac{1}{4}$	$2\frac{1}{2}$	$4\frac{1}{2}$	4 8	$5\frac{1}{4}$
15/-	3 9	$11\frac{1}{4}$	4 6	$10\frac{1}{2}$	5 0	5 3
16/-	4 0	$4\frac{1}{2}$	$9\frac{1}{2}$	$5\frac{1}{2}$	5 4	$5\frac{1}{4}$
17/-	4 3	4 8	$1\frac{1}{2}$	$5\frac{1}{2}$	5 8	$5\frac{1}{2}$
18/-	4 6	$11\frac{1}{4}$	$4\frac{1}{4}$	$10\frac{1}{4}$	6 0	$6\frac{1}{4}$
19/-	4 9	$5\frac{1}{4}$	$8\frac{1}{2}$	6 2	6 4	$7\frac{1}{4}$
£1	5 0	5 6	6 0	6 6	6 8	7 0
£2	10 0	11 0	12 0	13 0	13 4	14 0
£3	15 0	16 6	18 0	19 6	1 0 0	1 1 0
£4	1 0 0	1 2 0	1 4 0	1 6 0	1 6 8	1 8 0
£5	1 5 0	1 7 6	1 10 0	1 12 6	1 13 4	1 15 0
£6	1 10 0	1 13 0	1 16 0	1 19 0	2 0 0	2 2 0
£7	1 15 0	1 18 6	2 2 0	2 5 6	2 6 8	2 9 0
£8	2 0 0	2 4 0	2 8 0	2 12 0	2 13 4	2 16 0
£9	2 5 0	2 9 6	2 14 0	2 18 6	3 0 0	3 3 0
£10	2 10 0	2 15 0	3 0 0	3 5 0	3 6 8	3 10 0
£20	5 0 0	5 10 0	6 0 0	6 10 0	6 13 4	7 0 0
£30	7 10 0	8 5 0	9 0 0	9 15 0	10 0 0	10 10 0
£40	10 0 0	11 0 0	12 0 0	13 0 0	13 6 8	14 0 0
£50	12 10 0	13 15 0	15 0 0	16 5 0	16 13 4	17 10 0
£60	15 0 0	16 10 0	18 0 0	19 10 0	20 0 0	21 0 0
£70	17 10 0	19 5 0	21 0 0	22 15 0	23 6 8	24 10 0
£80	20 0 0	22 0 0	24 0 0	26 0 0	26 13 4	28 0 0
£90	22 10 0	24 15 0	27 0 0	29 5 0	30 0 0	31 10 0
£100	25 0 0	27 10 0	30 0 0	32 10 0	33 6 8	35 0 0
£200	50 0 0	55 0 0	60 0 0	65 0 0	66 13 4	70 0 0

PURCHASE TAX

The Table below indicates the lamps on which Purchase Tax is chargeable and specifies the percentage of the price value which must be added when selling at a discount.

PERCENTAGE OF PRICE VALUE WHEN SELLING AT A DISCOUNT

Lamp Group	Description	%
Group I	GENERAL PURPOSE LAMPS: 200-260v, 15w-150w in Pearl, Clear, Super-lux, 'K' Mushroom Argenta White and Rose.	
	With B.C. caps { 25 or more identical lamps Less than 25 ditto	18·8 20·109
	With any other type of cap (for all quantities)	18·8

PURCHASE TAX READY RECKONER

PRICE		Tax to be added s. d.	PRICE		Tax to be added s. d.
Over s. d.	Not Over s. d.		Over s. d.	Not Over s. d.	
8½	11	2	13 10	14 3	2 8
11	11½	2½	14 3	14 9	2 9
11½	12	3	14 9	15 2	2 10
12	12½	3½	15 2	15 7	2 11
12½	13	4	15 7	16 1	3 0
13	13½	4½	16 1	16 6	3 1
13½	14	5	16 6	17 0	3 2
14	14½	5½	17 0	17 4	3 3
14½	15	6	17 4	17 10	3 4
15	15½	6½	17 10	18 3	3 5
15½	16	7	18 3	18 8	3 6
16	16½	7½	18 8	19 2	3 7
16½	17	8	19 2	19 7	3 8
17	17½	8½	19 7	20 0	3 9
17½	18	9	20 0	20 6	3 10
18	18½	9½	20 6	20 11	3 11
18½	19	10	20 11	21 4	4 0
19	19½	10½	21 4	21 10	4 1
19½	20	11	21 10	22 4	4 2
20	20½	11½	22 4	22 9	4 3
20½	21	12	22 9	23 2	4 4
21	21½	12½	23 2	23 7	4 5
21½	22	13	23 7	24 0	4 6
22	22½	13½	24 0	24 6	4 7
22½	23	14	24 6	24 11	4 8
23	23½	14½	24 11	25 11	4 10
23½	24	15	25 11	26 9	5 0
24	24½	15½	26 9	27 9	5 2
24½	25	16	27 9	28 6	5 4
25	25½	16½	28 6	29 6	5 6
25½	26	17	29 6	30 4	5 8
26	26½	17½	30 4	31 3	5 10
26½	27	18	31 3	32 2	6 0
27	27½	18½	32 2	33 0	6 2
27½	28	19	33 0	33 11	6 4
28	28½	19½	33 11	34 10	6 6
28½	29	20	34 10	35 8	6 8
29	29½	20½	35 8	36 7	6 10
29½	30	21	36 7	37 6	7 0

**ALL ORDERS ARE ACCEPTED AND EXECUTED SUBJECT TO OUR
STANDARD CONDITIONS OF SALE. COPIES OF THE CONDITIONS
WILL GLADLY BE SUPPLIED UPON REQUEST.**
