"ROBERTSON"
INCANDESCENT
LAMPS.

"ROBERTSON" LAMPS.

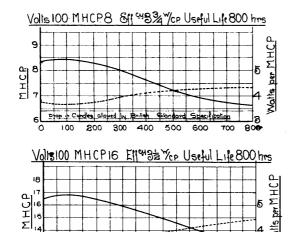
The following curves are typical of the behaviour of "Robertson" Lamps during their useful iife.

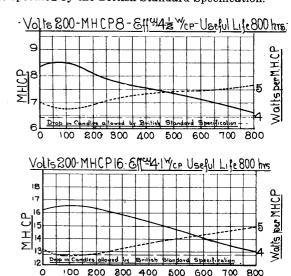
They are average results taken from a large number of actual life tests, and will serve to show how completely the requirements of the British Standard Specification for Carbon Lamps are complied with by the Standard "Robertson" Lamps.

Curve—— shows the actual Mean Horizontal English Candles during the whole of the useful life of the lamp. Curve..... gives the Watts consumed per Candle Power at any period.

The dotted horizontal line to be noticed in every table indicates the drop in Candle Power (20% of the nominal) allowed before a lamp has arrived at the end of its useful life."

It will be noticed that the "Robertson" Lamps maintain their Candle Power well above this point, which has the effect of extending their useful life considerably beyond the time specified by the British Standard Specification.





The following illustrations show the Fittings in most general use. Standard Lamps can be fitted with any of the Standard Caps shown, but a small extra charge is made for the Special ones.

Any Fitting not illustrated below can however be supplied if required, but a sample should always be submitted.

STANDARD CAPS.



200

300 400

500 600

Standard Bayonet Cap.



Standard Edison Screw (English).



Standard Edison Screw (American).



Standard Centre Contact.



Standard Small Bayonet Cap.



Standard Small Edison Screw.



Standard Small Centre Contact.

SPECIAL CAPS.

The following are a selection only from many patterns regularly made for special clients.















Illustrations two-thirds size.

TRANSFORMERS FOR OSRAM LAMPS, &c.

ALTERNATING CURRENT.

BRITISH MANUFACTURE, COILS CONFORM TO PHOENIX FIRE OFFICE NEW RULES.

HE introduction of Metallic Filament Lamps, has created a large demand for transformers for reducing high voltages (200 to 600) to low (100, 50 and 25), to enable consumers to use lower c.p. lamps

The transformers shown give a **very high all-day efficiency.** The importance of this cannot be over estimated, as high full load efficiency but comparatively low efficiency at small loads would materially discount the saving effected by **Osram** Lamps.

For the same reason, it is most important that the open circuit loss should be as small as possible, as in many cases it is not feasible to switch off the primary circuit during any large portion of the day and in most cases the transformer is left on circuit for the whole 24 hours. The open circuit loss of the transformers listed has been reduced to the lowest possible figure and will compare very favourably with that of any other transformer on the market.

These transformers are made in the following styles:

- (1). Balanced Auto Transformer, with two pairs of secondary terminals, that is to say, suitable for 3-wire distribution; the voltage between either of the outers and the middle wire being equal to half the main voltage. Also made with 3 or more pairs of terminals, for 4 (or more) wire distribution.
- (2) Plain Auto Transformer, with one pair of primary and one pair of secondary terminals; the standard windings having secondary voltages of 100, 50 and 25. (See diagrams).
- (3). **True Transformer**, with one pair of primary, and one pair or more secondary terminals; the primary windings entirely separated from secondary.

The first class are more efficient in use, as being only balancers, they can be used to control a circuit of far greater capacity than the transformer itself. For instance, the transformer which will give 5 amperes on one side alone will safely give up to 15 amperes on each side (in fact there is no limit provided the "out of balance" current does nor exceed 5 amperes. The total loss when working in this way, does not exceed the loss in the same coil when giving 5 amperes on a single secondary circuit, and the efficiency under full load will be well over 99%.

All Single Phase transformers up to R type and 3-phase to L type are mounted in strong cast iron cases with removable lids, and provided with 4 strong lugs for fixing. They are **efficiently air cooled,** terminals are enclosed and leading-in holes for cables are fitted with china bushes. Cable connections are supplied when desired.

Special coils of all descriptions quoted for on application, giving full particulars of output, primary and secondary Voltage, Periodicity, nature of load, &c.

Large stock of smaller sizes.

Quick delivery of all sizes.

OSRAM LAMPS

WITH DRAWN WIRE FILAMENTS.

Special types for DRAWING ROOM Fittings, Brackets, PICTURE and SHOP WINDOW Reflectors, &c.

These types can be supplied from stock suitable for burning on any supply voltage.

Special attention is called to the Twisted Flame (see below) and Striplite (see page 709) types, which have been introduced to meet the increasing demand for Osram Lamps of these patterns.

OSRAM TWISTED FLAME LAMPS.

Dimensions 115 m/m long \times 35 m/m wide.

Voltage. WATTS.		Approx. Hefner C.P.	Approx. British C.P.	Description.	Price each.
25	10 & 16	10 & 16	9 & 14.5	1	
<i>33-40</i>	10 & 16	10 & 16	9 & 14.5	Twisted Flame or Crinkled Candle	0.10
<i>50-55</i>	10 & 16	10 & 16	9 & 14.5		3/9
6 0 -67	11 & 17	10 & 16	9 & 14.5	These lamps are supplied with S.B.C.	
<i>70-80</i>	11 & 17	10 & 16	9 & 14.5	unless otherwise)
100/130	11 & 17	10 & 16	9 & 14.5		4/-



Series 5 % extra.

Obscuring 5 % extra.

OSRAM PLAIN FLAME LAMPS.

Dimensions 115 m/m long \times 35 m/m wide.

Voltage. WATTS.		Approx. Hefner C.P.	Approx. British C.P.	Description.	Price each
22	10 & 16	10 & 16	9 & 14.5)
25	10 & 16	10 & 16	9 & 14.5	Plain Flame.	0.10
<i>33</i> -40	10 & 16	10 & 16	9 & 14.5		3/3
50 - 55	10 & 16	10 & 16	9 & 14.5	These lamps are supplied with S.B.C.)
6 0 -67	11 & 17	10 & 16	9 & 14.5	unless otherwise ordered.)
<i>70-80</i>	11 & 17	10 & 16	9 & 14.5		3/6
100/130	11 & 17	10 & 16	9 & 14.5		



Series $5^{\circ}/_{\circ}$ extra.

See the name OSRAM on every Lamp.

OSRAM CANDLE LAMPS WITH DRAWN WIRE FILAMENTS.



SPEARHEAD.

This type of Candle Lamp is also supplied with ""SHADOLESS" special Pin Cap, designed to form a centre contact with a 3-prong fitting specially made for its accommodation, this combination being so thin as to cast no shadow inside the upper part of the candle tube.

For price and particulars of Fig. 4, see page 708.

Fig. 3.

Fig. 3.

DESCRIPTION.							
Voltage,		WATTS.	Approx. Hefner C.P.	Approx. British C.P	Dimensions.	Price each,	
25-80	{	10 13	10 12	9 11	119 m/m long	} 3/3	
100-130	{	10 13	10 12	9 11	27 m/m diameter Approx.	} 4/-	

Series

5.°/o extra.

Obscuring ...

 $5^{\circ}/_{\circ}$ extra.



Fig. 4.

OSRAM STRIPLITE LAMPS.



MADE IN TWO LENGTHS.

Voltage.	WATTS.	Approx, Hefner C.P.	Approx, British C.P.	Approx, British C.P. DESCRIPTION.		nsions. /m B.	Price each.
25	10	10	9	"Striplite" pattern, with	22 3	24)
			centre contact small cap at each end.	25 3	24	5/6	

The lamps with dimensions 253 m/m are suitable for use with our F22041 to F22048 series of Striplite Reflectors.

The other stock size will be found suitable for other makes of reflectors which may be in use.

REFLECTORS FOR SHOPS ETC.

STRIPLITE."

Patent No. 17855-1907.

VOLTAGE. FOR HIGH OR LOW

The neatest and most efficient Reflector yet produced for Shop Windows. Shop Cases or Comice Lighting. This Reflector has a maximum reflecting surface with a minimum exterior width.

EASILY INSTALLED

EASILY KEPT CLEAN.

The Standard finish is Polished Aluminium inside and outside, but 'Striplite' can be supplied polished inside and enamelled any color outside at a slight increase in price.

STRIPLITE FOR INDOOR USE.



F 22041

7/6 per foot, wired complete with lamps.

For voltages, 100-125 in parallel or 200-250 in series.

F 22042

STRIPLITE FOR PICTURES AND SHOWCASES.

Extra wide one side.



F 22045

8/■ per foot, wired, complete with lamps.

For voltages, 100-125 in parallel or 200-250 in series.

8/6 per foot, wired, complete with lamps.

For voltages, 200-250 in parallel. $\frac{1}{2}$ -in. Brass Nozzle in centre.



WITH FLAT GLASS FRONT.

To comply with the regulations of the L.C.C. requirements affecting Showcases.

16 8/3 per foot, wired, complete with lamps. For voltages 100-125 in parallel, or 200-250 in series. F 22046

8/9 per foot, wired, complete with lamps For voltages 200-250 in parallel.

WITH BENT GLASS FRONT.

To comply with the regulations of the L.C.C. requirements affecting Showcases.

2048 ... **9/-** per foot, wired, complete with lamps. For voltages 100-125 in parallel, or 200-250 in series. F 22048 ...

9/6 per foot, wired, complete with lamps.

For voltages 200-250 in parallel.

NARRO STRIPLITE.



F 22036

7/6 per foot, wired complete with lamps.

For voltages, 100-125 in parallel or 200-250 in series.

F 22037

... 8/- per foot, wired complete with lamps.

For voltages, 200-250 in parallel.

Supplied in lengths from 1 to 8 feet. One lamp per foot.

STRIPLITE FOR OSRAM CANDLE LAMPS.



F 22039

8/**-** per foot

F 22040

8/-

Unless otherwise ordered, supplied arranged for two lamps per foot. For voltages, 25-125 in parallel and for voltages, 200-250 in series. LAMPS EXTRA.



Nickel-plated Clips and L Screws for fixing "Striplite" so that Reflector can be adjusted to position required.



STRIPLITE LAMP.

100-125 Volts. 12 c.p.

F 22049

2/- each

200-250 Volts. 12 c.p. ...

F 22050

2/6 each ...