

**F (4)**

**SECTION**

**10th EDITION  
(October, 1939)**

**G.E.C.**  
**INDUSTRIAL**  
**LIGHTING**  
**FITTINGS**  
**AND**  
**ACCESSORIES**

**MADE IN  
ENGLAND**

The prices in this publication are not necessarily the prices ruling at any given date. For details of variations, if any, to these prices, reference should be made to the latest G.E.C. Price Variation Sheet.

**THE GENERAL ELECTRIC CO., LTD., OF ENGLAND**



# G.E.C.

**F (4)**  
**SECTION.**

10th EDITION  
October, 1939

## INDUSTRIAL LIGHTING FITTINGS AND ACCESSORIES

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*The Material listed in this Publication is offered subject to the Company's Terms of Business and Conditions of Sale, a copy of which may be obtained on request. Prices apply in Great Britain and Northern Ireland.*

## THE GENERAL ELECTRIC CO. LTD.

*(Manufacturers and Wholesale only)*

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

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Cablegrams : " Polyphase, London."

Branches throughout Great Britain and in all principal markets of the world.

## FOREWORD

### MODERN INDUSTRIAL LIGHTING

**T**HE important part which good lighting plays in modern industry is to-day so fully proved by practical experience that no enterprising industrialist can afford to install anything less than the best if he wishes to maintain or improve his position in the face of competition.

It is now an established fact that good lighting means :—

1. **Increased factory output** to a value out of all proportion to the extra cost involved.
2. **Reduction of wastage and spoiled material.**
3. **Reduction of accidents to operatives.**
4. **Increased comfort of employees,** with resultant improvement in physical and mental well-being.

For many years it was considered axiomatic that production must be less and wastage greater during the hours of darkness. To-day it is established that with good artificial light, results in both these directions can be obtained which equal or are an improvement on daylight results.

### G.E.C. ILLUMINATING ENGINEERING SERVICE

The G.E.C. is in an exceptional position to give its customers first-class service in all matters relating to industrial lighting. The essentials of good industrial lighting are, first, correctly designed lighting equipment, and, secondly, the use of such equipment to the best advantage. To provide these two essentials for its customers, the Company has established an Illumination Research Section at its Research Laboratories at Wembley, and employs a staff of expert illuminating engineers both in London and at its branch establishments. The Laboratories dealing with illumination research are the best equipped for their particular purpose of any in the British Empire, and to ensure their efficiency, reliability, and suitability, all reflectors and light controlling equipment are thoroughly tested at these Laboratories before being put on the market. Not only are all matters relating to optical design investigated by the Laboratory staff, but tests under varying conditions to ensure reliability in service are a regular feature. Within this category, for example, comes the regular testing of reflecting equipment under a combination of heat and sea spray conditions such as will ensure satisfactory performance under all climatic conditions.

To enable customers to take full advantage of this technical service, the illuminating engineering staff in London and throughout the country is prepared, without obligation, to advise on all industrial lighting problems, including such matters as the lighting intensity required for any particular process, the correct type of reflector to use, and the mounting height and spacing at which such reflectors should be installed. Customers find such advice particularly valuable in the case of unusual lighting problems, such as artificial lighting for various sports, the underwater lighting of swimming pools or cascades and problems pertaining to the use of artificial daylight.

## THE PRINCIPLES OF GOOD ARTIFICIAL LIGHTING

To perform its function satisfactorily, any industrial lighting installation must conform to the following requirements and must :—

1. Provide adequate intensity of illumination on the horizontal plane.
2. Provide adequate illumination on the vertical plane.
3. Avoid harsh shadows while retaining sufficient directional quality to ensure definition.
4. Avoid glare both direct from the fitting and reflected from the work.
5. Provide even illumination over the whole area so that the eye will not constantly have to adjust itself to different degrees of brightness.

The relative importance of the above requirements will vary according to circumstances. For instance, in some processes illumination on a horizontal plane only will be required, while in others illumination on the vertical will be all important. When dealing with polished materials the question of reflected glare assumes an importance which is entirely absent where matt materials are involved.

The illuminating engineering staff of the Company has these essentials continually in mind, while the wide range of equipment at its disposal enables it to offer an ideal combination for almost any requirement.

### **OSIRA** (REGD. TRADE MARK)

## ELECTRIC DISCHARGE LAMPS FOR INDUSTRIAL LIGHTING

Osira High Pressure Mercury Vapour Electric Discharge lamps possess outstanding advantages for industrial lighting purposes. Not only does the electric discharge lamp give between two and three times as much light as can be obtained from an incandescent lamp of equivalent wattage, but the colour and quality of the bluish-white light is of material advantage in the vast majority of industrial lighting applications.

Osira lamps are suitable for use on A.C. supplies only and each lamp requires a choke in series with it. The power factor is approximately 0.6, but can be raised to between 0.8 and 0.95 by the use of a suitable condenser.

The shape and size of the light source have involved the design of special reflectors to take the fullest possible advantage of the light available, and a complete range of equipment for use with these lamps is catalogued on pages 6 to 16.

As stated on the previous page, the Research Laboratories of the Company are responsible for the optical design of all illumination equipment, and in conjunction with designers at the Head Office and Works the whole of the equipment is evolved and manufactured under the Company's control, in England, entirely of British materials.

## DISPERSIVE REFLECTORS FOR DIRECT LIGHTING

To ensure the necessary high efficiency in factory lighting being secured without undue glare or unevenness of lighting, the British Standards Institution, in Standard Specification No. 232 (1938), laid down certain requirements for the purpose of protecting the user as regards :—

1. Overall efficiency.
2. Elimination of glare.
3. Mechanical strength and quality of reflecting surface.

The various types of G.E.C. dispersive reflectors for use with tungsten lamps shown in the following pages are guaranteed to conform in every respect to the above Specification.

G.E.C. dispersive reflectors are designed for installation at a spacing-height ratio not exceeding  $1\frac{1}{2}$  to 1, i.e., the distance between reflectors should not be more than  $1\frac{1}{2}$  times the height of each unit above the working plane. If spaced at this ratio, practically even intensity will be obtained over the whole area and objectionable shadows will be eliminated.

As an alternative unit to the vitreous enamelled dispersive reflector, the G.E.C. has designed a special high-efficiency mirror glass unit which, while conforming to the requirements of the above Specification as regards cut-off and consequent elimination of glare, permits a far wider spacing without unevenness of lighting, and at the same time its high efficiency tends to economy in over-all wattage. While, therefore, the fitting itself is more expensive than the vitreous enamelled dispersive reflector, a reduction in the number of points and consequent wiring charges cancels this increased outlay per unit and the reduction in wattage is reflected in permanently reduced running costs.

These reflectors can be used at a spacing-height ratio up to  $2\frac{1}{2}$  to 1, and in addition to their efficiency for ordinary general lighting, they are particularly suitable where a high degree of illumination is required on vertical or nearly vertical surfaces.

Dispersive reflectors designed for use with OSIRA electric discharge lamps also conform to the requirements of the above B.S. Specification.

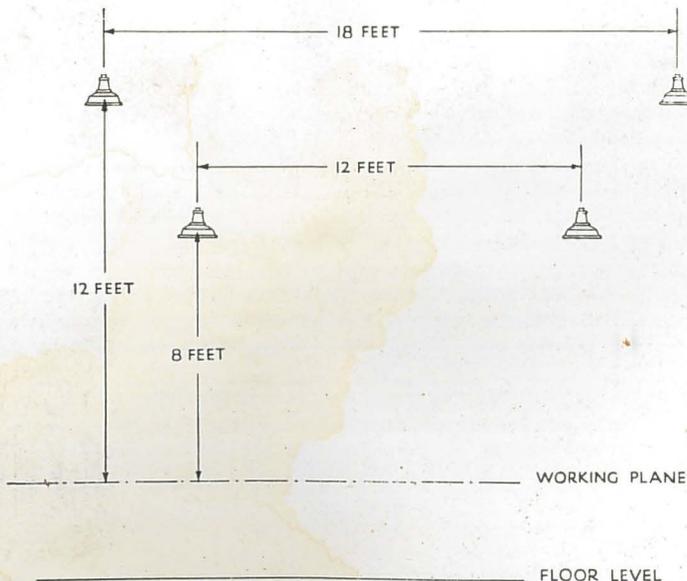


Diagram illustrating maximum recommended spacing of G.E.C. dispersive reflectors.

**“ SAAFLUX ” REFLECTORS**

The introduction of Osram gasfilled lamps has brought with it an increase in lamp-holder temperatures due to the more rapid conduction of heat from the filament to the cap. In recent years this high temperature has sometimes given rise to trouble due to the insulation of the cables perishing and causing short circuits or to loose caps.

The many advantages of reflectors which are detachable from their flanges for wiring and cleaning are now generally recognised, and the Saaflux top provides a system which includes all these advantages and at the same time protects the leads from overheating.

In the Saaflux design the reflector *and* lamp are detachable from the flange as one complete unit, thereby considerably simplifying wiring, cleaning, and lamp renewals. Furthermore, all top flanges are of one standard design so that any reflectors may be changed for units of other types or wattage without the necessity of re-wiring. The temperature of the cables is in general kept below the maximum for safety specified in the I.E.E. Wiring Regulations by an ingenious yet simple method of heat dissipation. Leading-in wires are taken direct to a terminal block in the top flange, *before* the reflector and lampholder assembly is fitted. The combined reflector and lamp, as one unit, is easily fitted to the top flange containing the terminal block and secured by means of a single milled nut. A positive method of suspension is assured with no risk of falling.

A supplementary reflector is fitted round the neck of the lamp, which provides more useful light (by utilising that which is normally lost up the neck) and makes it impossible for the lamp cap to be touched when it is making contact with the lampholder, thus minimising risk of shock. The Saaflux unit has earthing continuity right through from flange to supplementary reflector and this, in common with all other Saaflux features, complies with Home Office requirements.

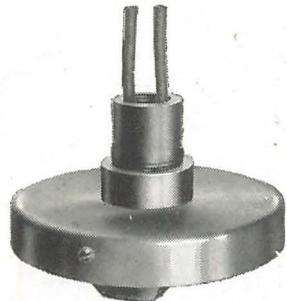
Briefly, Saaflux reflectors save time and installation costs, are foolproof and shockproof, simplify installation, provide for easy cleaning and lamp and reflector renewals. They ensure SAFETY and MORE LIGHT.



Unit easily detachable.



Reflector and lamp easily cleaned.



Wires terminate away from lampholder and remain cool. Safe insulation.

**“ SAAFLUX ” HEAVY DUTY TOP**

The Heavy Duty Saaflux top is intended for situations where a more robust construction than that of the standard Saaflux top is required. It can be used in exposed situations in the open air and where moisture is present.

The heavy duty Saaflux top can be supplied with any type of Saaflux Reflector to order, and is constructed in cast silicon-aluminium arranged for  $\frac{3}{4}$ -in. E.T. connection. The part attached to the reflector is secured by a screwed flanged ring and on unscrewing this the reflector is still held in slots, which also ensure correct alignment of the contacts. Thus it cannot fall or be removed completely until lifted and turned. All the usual Saaflux features, such as heat dissipation, easy wiring, earth continuity and simple detachability for cleaning, are retained. A complete top can be seen on page 24.

F 16300 Heavy Duty Saaflux top only  
Price .. 10s. 6d. each extra.



F 16300 Heavy Duty Top.

# G.E.C.

## DISPERSIVE REFLECTORS

FOR "OSIRA" LAMPS

SPACING-HEIGHT RATIO,  $1\frac{1}{2}$  to 1



F 16604/6/8  
(Type I).



F 16602/3  
(Type II).

**Specification.**—All reflectors and canopies are of heavy gauge vitreous enamelled steel, and are tapped for  $\frac{3}{4}$ -in. E.T. conduit or suspension hook mounting.

**Type I (125, 250 and 400-watt sizes)** embodies a skeleton lampholder connected solidly to blade type plugs which engage with shrouded contacts on an easy wiring terminal block, which is accessibly located on the cadmium plated top flange. This flange is provided with a spring clip secured by a single milled nut, allowing the reflector and lamp assembly to be easily detached for maintenance. A polished aluminium baffle and reflector, which also serves as a Home Office shield, is arranged to surround the neck of the lamp and thus avoids both overheating of the lamp cap and wastage of light in the canopy. The reflector skirt is easily detachable from the canopy by means of a dust-tight bayonet catch without disturbing the lamp, and a locking device is included to avoid accidental removal.

**Type II (80 and 125-watt sizes)** embodies a one-piece reflector and canopy similar in shape to the standard R.L.M. reflector, with easy wiring detachable top flange and other Saalux features as in Type I.

Cat. No.	Type.	For OSIRA lamp.	Diam.	Height.	Lampholder.	Weight.	Price each.		
			ins.	ins.		lbs.	£	s.	d.
F 16601	I	80w. Fluorescent	14	$16\frac{1}{2}$	} 3-pin B.C.	$4\frac{3}{4}$ {			
F 16602	II	80w. Pearl	16	$13\frac{3}{4}$					1
F 16603	II	} 125w. Pearl {	18	$16\frac{1}{2}$	} 3-pin B.C. {	6	1	13	0
F 16604	I		13 $\frac{3}{4}$	15		5	1	13	0
F 16605	I	125w. Fluorescent	14	$17\frac{1}{2}$	G.E.S.	$6\frac{3}{4}$	2	2	6
F 16606	I	250w. Clear	14	$17\frac{1}{2}$	G.E.S.	$6\frac{3}{4}$	2	2	6
F 16608	I	{ 400w. Clear or Fluorescent }	18	20	G.E.S.	$10\frac{3}{4}$	2	7	6

Prices include lampholders but not lamps.

Dustproof glass covers suitable for use with these reflectors are listed on page 31.

# ANGLE REFLECTORS

FOR "OSIRA" LAMPS

SPACING-HEIGHT RATIO, 1 to 1



F 16624/6/8  
(Type I).



F 16622  
(Type II).

**Specification.**—All reflectors and canopies are of heavy gauge vitreous enamelled steel, and are tapped for  $\frac{3}{4}$ -in. E.T. conduit mounting.

**Type I (125, 250 and 400-watt sizes)** embodies a skeleton lampholder connected solidly to blade type plugs which engage with shrouded contacts on an easy wiring terminal block, which is accessibly located on the cadmium plated top flange. This flange is provided with a spring clip secured by a single milled nut, allowing the reflector and lamp assembly to be easily detached for maintenance. A polished aluminium baffle and reflector, which also serves as a Home Office shield, is arranged to surround the neck of the lamp and thus avoids both overheating of the lamp cap and wastage of light in the canopy. The reflector skirt is easily detachable from the canopy by means of a dust-tight bayonet catch without disturbing the lamp, and a locking device is included to avoid accidental removal.

**Type II (80 and 125-watt sizes)** embodies a one-piece reflector and canopy with easy wiring detachable top flange and other Saafux features as in Type I.

Cat. No.	Type.	For OSIRA lamp.	Diam.		Lampholder.	Weight.	Price each.			
			ins.	ins.			£	s.	d.	
F 16621	I	80w. Fluorescent	12	18	} 3-pin B.C.	6	}	1	17	6
F 16622	II	80w. Pearl	15	17½				1	5	0
F 16624	I	125w. Pearl	12	18	} 3-pin B.C. G.E.S.	5	}	1	17	6
F 16625	I	125w. Fluorescent	14	20				2	5	0
F 16626	I	250w. Clear	14	20½	G.E.S.	6		2	5	0
F 16628	I	{ 400w. Clear or Fluorescent }	18	24	G.E.S.	8¾		2	10	0

Prices include lampholders but not lamps.

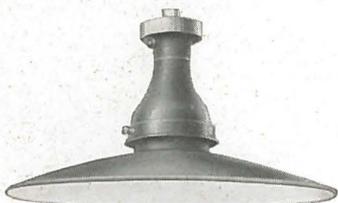
Dustproof glass covers suitable for use with these reflectors are listed on page 31.

# G.E.C.

## DISTRIBUTING REFLECTORS

FOR "OSIRA" LAMPS

SPACING-HEIGHT RATIO, 2 to 1



F 16644/6/8  
(Type I).



F 16642  
(Type II).

**Specification.**—All reflectors and canopies are of heavy gauge vitreous enamelled steel, and are tapped for  $\frac{3}{4}$ -in. E.T. conduit or suspension hook mounting.

**Type I (125, 250 and 400-watt sizes)** embodies a skeleton lampholder connected solidly to blade type plugs which engage with shrouded contacts on an easy wiring terminal block, which is accessibly located on the cadmium plated top flange. This flange is provided with a spring clip secured by a single milled nut, allowing the reflector and lamp assembly to be easily detached for maintenance. A polished aluminium baffle and reflector, which also serves as a Home Office shield, is arranged to surround the neck of the lamp and thus avoids both overheating of the lamp cap and wastage of light in the canopy. The reflector skirt is easily detachable from the canopy by means of a dust-tight bayonet catch without disturbing the lamp, and a locking device is included to avoid accidental removal.

**Type II (80 and 125-watt sizes)** embodies a one-piece reflector and canopy with easy wiring detachable top flange and other Saafux features as in Type I.

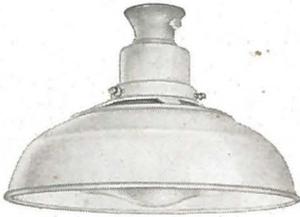
Cat. No.	Type.	For OSIRA lamp.	Diam.		Lampholder.	Weight.	Price each.				
			ins.	Height (without lamp).			lbs.	£	s.	d.	
F 16641	I	80w. Fluorescent	16	11	} 3-pin B.C.	4½	}	1	12	6	
F 16642	II	80w. Pearl	15	10				19	0		
F 16644	I	125w. Pearl	16	11	} 3-pin B.C. G.E.S.	}	5	}	1	12	6
F 16645	I	125w. Fluorescent	16	11½					2	0	0
F 16646	I	250w. Clear	16	11½	G.E.S.	7¾	2	0	0		
F 16648	I	{ 400w. Clear or Fluorescent }	21	12	G.E.S.	8½	2	5	0		

Prices include lampholders but not lamps.

G.E.A.

**"GLASSTEEL" DIFFUSERS**  
FOR "OSIRA" LAMPS

SPACING-HEIGHT RATIO,  $1\frac{1}{4}$  to 1



F 16661/5



F 16666

**Specification.**—Pressed steel vitreous enamelled reflectors and canopies with 3-pin B.C. or G.E.S. lampholders and Saflux easy wiring detachable top flanges tapped for  $\frac{3}{4}$ -in. E.T. conduit or hook suspension. The globes are of high-transmission flashed opal glass and are secured by three setscrews. Apertures in the upper part of the reflectors allow a proportion of light to pass upwards, thus providing a light ceiling.

Cat. No.	For OSIRA lamp.	Diameter.	Height.	Lampholder.	Weight.	Price each.
F 16661	80w. Fluorescent	} 18	} 13	} 3-pin B.C.	} 7½	£ s. d. 2 7 6
F 16662	80w. Pearl					
F 16664	125w. Pearl	} 20	} 18½	} 3-pin B.C. G.E.S.	} 9½	3 0 0
F 16665	125w. Fluorescent					
F 16666	250w. Clear	20	18½	G.E.S.	10¾	4 0 0

Prices include lampholders but not lamps.

**SPARE OPAL GLOBES.**

For F 16661/2 Globe diameter 10 ins. . . . . Price 10s. 0d. each.  
For F 16664/6 " " 12 ins. . . . . " 12s. 6d. "

# S.E.C.

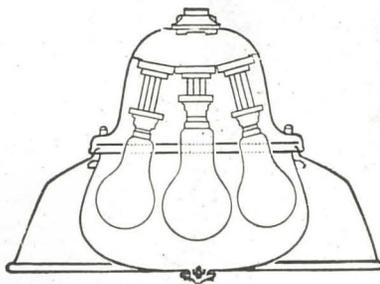
## COMBINATION DIFFUSER FITTING

For one OSIRA electric discharge lamp and two OSRAM tungsten filament lamps.

SPACING-HEIGHT RATIO,  $1\frac{1}{4}$  to 1



F 16692/4



Section showing interior arrangement.

This fitting accommodates in a single unit one 125-watt Osira lamp and two 100 or 150-watt Osram lamps, or, alternatively, one 80-watt Osira lamp and two 75 or 100-watt Osram lamps. The light is blended by the diffusing glass globe and the resultant illumination is of a pleasing "daylight" quality and suitable for general industrial and commercial use.

**Specification.**—Pressed steel vitreous enamelled reflector and canopy with terminal box at top for  $\frac{3}{4}$ -in. E.T. conduit or hook suspension. With skeleton type B.C. and 3-slot B.C. lampholders ready wired to three-way porcelain connectors and protected by inner aluminium baffle and reflector. The diffusing glass globe totally encloses the lamps and is fixed to the reflector skirt, which is secured to the canopy by three screws and is easily removable with the globe to give access to the lamps.

Cat. No.	Type.	For OSIRA lamp.	Diam. of Reflector.	Diam. of Globe.	Overall Height.	Price each.		
		watts.	ins.	ins.	ins.	£	s.	d.
F 16692	} Combination Diffuser Fitting {	80	20	12	$17\frac{1}{2}$	4	0	0
F 16694		125	20	12	$17\frac{1}{2}$	4	0	0

Spare Glasses for above fittings, price 20/- each.

Prices include lampholders but not lamps.

**G.E.C.**

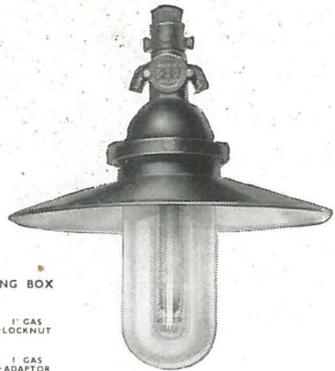
# WEATHER-PROOF LIGHTING FITTINGS

FOR "OSIRA" LAMPS

Suitable for outdoor and other situations where moisture is present.

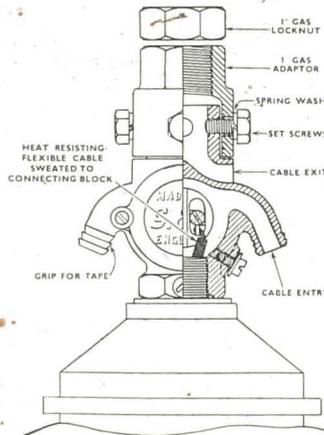


F 16703/5/7



F 16744/6/8

G.E.C. TYPE "D" PATENT CONNECTING BOX



Construction of anti-condensation top of cast-iron canopy embodied in the fittings listed on this page.



F 16704 6 8



F 16724/6/8

**Specification.**—Pressed steel vitreous enamelled reflectors mounted on cast canopies with skirted all-porcelain G.E.S. or 3-pin B.C. lampholders and embodying special anti-condensation device and terminal box. Clear heat-resisting screw-necked well glasses with felt gaskets are included in standard fittings, but frosted well glasses are available. Reflectors are attached by means of three locked setscrews and can be removed without disturbing the well glass or lamp. Standard tapings are detailed on page 12, but alternatives up to 1½ in. or shackles can be supplied on request by means of interchangeable adaptors secured by setscrews above the anti-condensation device.



**Weather-proof Lighting Fittings for OSIRA lamps (continued)**

Suitable for outdoor and other situations where moisture is present.

**PARTICULARS AND PRICES**

*(For Specification see page 11.)*

Cat. No.	Type.	For OSIRA lamp.	Diam.	Standard tapping.	Lamp-holder.	Apprx. weight.	Price each.		
		watts.				ins.	lbs.	£	s.
F 16703	Without reflector	125 Pearl	—	$\frac{3}{4}$ " E.T.	3-pin B.C.	10 $\frac{1}{4}$	1	14	0
F 16705		250 Clear	—	$\frac{3}{4}$ " Gas	G.E.S.	10 $\frac{3}{4}$	1	19	0
F 16707		400 Clear	—	1" Gas	G.E.S.	15 $\frac{1}{2}$	2	2	0
F 16704	With dispersive reflector	125 Pearl	13 $\frac{3}{4}$	$\frac{3}{4}$ " E.T.	3-pin B.C.	13 $\frac{1}{4}$	2	16	0
F 16706		250 Clear	14	$\frac{3}{4}$ " Gas	G.E.S.	14 $\frac{1}{2}$	3	2	6
F 16708		400 Clear	18	1" Gas	G.E.S.	21	3	7	6
F 16724	With angle reflector	125 Pearl	12	$\frac{3}{4}$ " E.T.	3-pin B.C.	12 $\frac{3}{4}$	2	16	0
F 16726		250 Clear	14	$\frac{3}{4}$ " Gas	G.E.S.	14 $\frac{1}{2}$	3	2	6
F 16728		400 Clear	18	1" Gas	G.E.S.	21 $\frac{1}{4}$	3	7	6
F 16744	With distributing reflector	125 Pearl	16	$\frac{3}{4}$ " E.T.	3-pin B.C.	13	2	11	6
F 16746		250 Clear	16	$\frac{3}{4}$ " Gas	G.E.S.	13 $\frac{1}{2}$	2	18	0
F 16748		400 Clear	21	1" Gas	G.E.S.	20 $\frac{1}{4}$	3	3	0

If supplied with inside frosted well glasses in place of clear . . Price 3s. 0d. each extra.

*NOTE.—The 80, 125 and 400-watt Osira Fluorescent Lamps are not suitable for use with the above fittings with well glasses.*

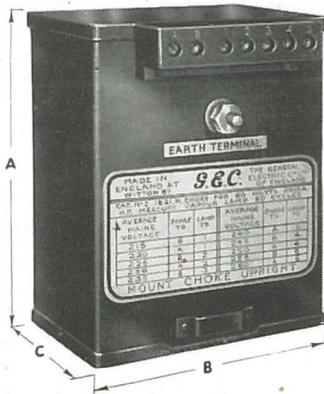
**Prices include lampholders but not lamps.**

**SPARE WELL GLASSES AND GASKETS**

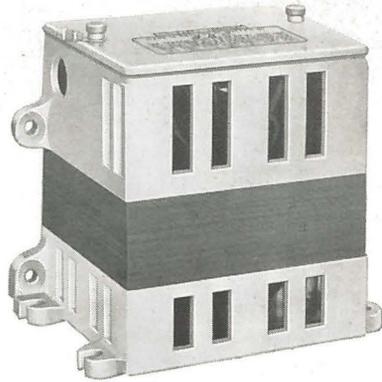
Spare clear well glasses, 125-watt size	..	..	..	..	Price 12s. 0d. each.
"    "    "    "    250-watt size	..	..	..	..	"    16s. 6d. "
"    "    "    "    400-watt size	..	..	..	..	"    18s. 0d. "
Spare felt gaskets, 125-watt size	..	..	..	..	Price 4s. 6d. dozen.
"    "    "    250-watt "	..	..	..	..	"    4s. 6d. "
"    "    "    400-watt "	..	..	..	..	"    6s. 0d. "

**G.E.C.**

**TAPPED CHOKE COILS**  
FOR USE WITH "OSIRA" LAMPS



**F 16801/8**  
Waxfilled Choke Coil.



**F 16812/8** Standard Open Protected Type Choke.

**F 16801/8** Waxfilled Chokes are totally enclosed in sheet steel containers filled with high melting point wax which protects the D.C.C. windings against moisture, ensures the permanence of the choke characteristics, and renders them silent in operation. External bakelite shrouded terminal blocks and open earthing terminals are provided. A special wall mounting bracket is included with each choke. For mounting from roof members special accessories embodying conduit entry facilities are recommended. Details will be supplied on application. Fixing heads providing conduit entries are described on page 14.

**F 16812/8** Standard Open Protected Type Chokes are wound with enamelled wire and are protected by die-cast aluminium covers with  $\frac{3}{4}$ " conduit entries and a detachable lid giving access to the terminal block. The covers are slotted for ventilation and provided with fixing lugs suitable for wall or suspended mounting.

All G.E.C. chokes are designed for use on 50-cycle supplies, but details of special arrangements for other frequencies will be supplied on application. All are provided with tapplings in 5-volt steps covering a voltage range sufficient for any normal conditions.

For nominal voltages of 200 to 220 "L" chokes should be used (e.g., **F 16808L**).  
" " " 230 to 250 "H" chokes should be used (e.g., **F 16808H**).

Lamp rating. watts.	Supply. volts.	Choke Cat. No.	Length A. ins.	Width B. ins.	Pro- jection C. ins.	Weight. lbs.	Price each. £ s. d.
<b>Waxfilled Type.</b>							
80	200/220 (L) OR	{ <b>F 16801</b> <b>F 16803</b>	5 $\frac{7}{8}$	4 $\frac{1}{8}$	3*	8 $\frac{1}{4}$	<b>1 18 0</b>
125			6	4 $\frac{3}{8}$	3 $\frac{3}{4}$ *	11 $\frac{1}{2}$	<b>2 0 0</b>
250	230/250 (H)	{ <b>F 16806</b> <b>F 16808</b>	6 $\frac{5}{8}$	4 $\frac{3}{8}$	4 $\frac{1}{4}$ *	14 $\frac{1}{2}$	<b>2 1 4</b>
400			6 $\frac{1}{8}$	5 $\frac{1}{4}$	5 $\frac{1}{2}$ *	20 $\frac{3}{4}$	<b>2 8 8</b>
<b>Standard Open Protected Type.</b>							
80	200/220 (L) OR	{ <b>F 16812</b> <b>F 16814</b>	4 $\frac{1}{8}$	4 $\frac{3}{8}$	3 $\frac{5}{8}$	4 $\frac{3}{4}$	<b>1 15 8</b>
125			4 $\frac{11}{16}$	4 $\frac{3}{8}$	3 $\frac{5}{8}$	6 $\frac{3}{4}$	<b>1 17 4</b>
250	230/250 (H)	{ <b>F 16816</b> <b>F 16818</b>	5 $\frac{7}{16}$	6	4 $\frac{5}{8}$	9 $\frac{1}{4}$	<b>1 17 8</b>
400			6 $\frac{1}{16}$	6	4 $\frac{1}{8}$	12	<b>2 5 4</b>

\* Projection over terminal block lin. more on waxfilled chokes.

**S.E.C.**

**FIXING HEADS  
FOR WAXFILLED CHOKES**



**F 16093/5**  
Shown fitted to choke.

**Specification.**—These attachments have been designed to provide conduit entries and totally enclosed wiring together with easy fixing facilities for all interior situations. The fixing head comprises a malleable cast iron top fitting over the choke, with long bolts and cross strap holding the choke from below. A removable terminal cover is attached to the top, which is drilled for  $\frac{3}{4}$ -in. E.T. conduit and fixing holes. The attachment is fixed and wires drawn in before the choke is placed in position.

							Price each.
<b>F 16093</b>	Fixing Head for <b>F 16801/2</b> chokes	..	..	..	..		<b>3s. 6d.</b>
<b>F 16094</b>	.. .. <b>F 16803/4</b> ..	..	..	..	..		<b>3s. 9d.</b>
<b>F 16095</b>	.. .. <b>F 16806</b> ..	..	..	..	..		<b>4s. 0d.</b>
<b>F 16096</b>	.. .. <b>F 16808</b> ..	..	..	..	..		<b>4s. 6d.</b>
<b>F 16097</b>	Angle Brackets for wall fixing with any of the above					Price <b>1s. 6d.</b> per pair.	

**CONDENSERS**

FOR POWER FACTOR IMPROVEMENT WITH "OSIRA" LAMPS



F 16831/9 Conduit Entry Type Condenser.



F 16841/6 Condenser with T.R.S. Tails.

The power factor of an Osira lamp and choke load is of the order of 0.6, but this can be raised to between 0.8 and 0.95 by the introduction of condensers across the lamp circuits on the supply side of the chokes (see diagrams on page 16). Individual condensers for small groups of lamps or for each lamp are recommended.

**Specification.**—G.E.C. condensers are of the highest quality metal foil and paper construction impregnated with high melting point compound, and are fitted with internal safety leaks. All condensers are sealed in stout metal containers with fixing lugs. F 16831/9 are fitted with terminals in 3/4-inch conduit entry boxes, while F 16841/6 are provided with T.R.S. flexible leads.

The capacity recommended for single Osira lamps of each size is as follows :—

80 watts	125 watts	250 watts	400 watts
200/220 volts, 10 mfd.	200/220 volts, 12½ mfd.	15 mfd.	20 mfd.
230/250 volts, 7½ mfd.	230/250 volts, 10 mfd.		

**DIMENSIONS AND PRICES**

Condenser Cat. No.	Capacity. mfd.	Width. ins.	Overall Height. ins.	Projection. ins.	Approx. Weight. lbs.	Price each. £ s. d.
<b>With terminals and conduit entry box.</b>						
F 16831	7½	4	4 1/8	2 1/4	2	9 8
F 16832	10	4	5 1/8	2 1/4	2 1/2	11 0
F 16833	12½	4	5 7/8	2 1/4	3	12 8
F 16834	15	4	5 7/8	2 1/4	3	14 0
F 16835	20	4	5 7/8	2 3/4	3 1/2	16 8
F 16836	30	4 1/2	6 7/8	3	4 3/4	1 4 0
F 16837	40	4 1/2	6 7/8	3 3/4	6	1 9 0
F 16838	60	5 1/2	6 7/8	4 1/2	8 1/2	1 19 8
F 16839	80	7 3/4	6 7/8	4 1/2	11 1/4	2 10 8
Height dimension includes terminal box.						
<b>With T.R.S. flexible leads.</b>						
F 16841	7½	3 5/8	2 3/4	2 3/4	1 3/4	8 4
F 16842	10	3 5/8	2 3/4	3 5/8	2	9 8
F 16843	12½	3 5/8	2 3/4	3 1/2	2 1/4	11 4
F 16844	15	3 5/8	2 3/4	3 5/8	2 1/2	12 8
F 16845	20	3 5/8	3 5/8	4	3 1/4	15 4
F 16846	30	4 1/4	3 5/8	4 1/4	4 1/4	1 2 8

## TYPICAL WIRING DIAGRAMS

### FOR "OSIRA" LAMPS

NOTE.—Choke tapings should be selected to suit working voltage at the lamp in accordance with instructions printed on each choke.

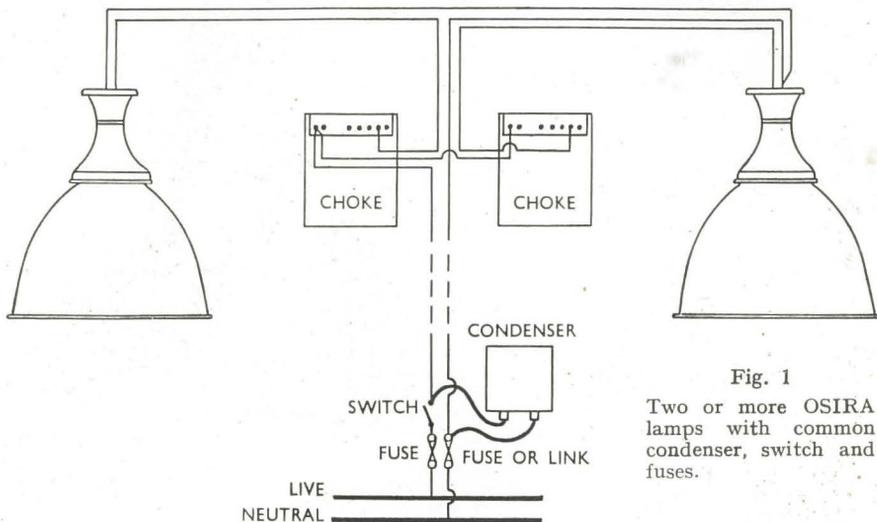


Fig. 1

Two or more OSIRA lamps with common condenser, switch and fuses.

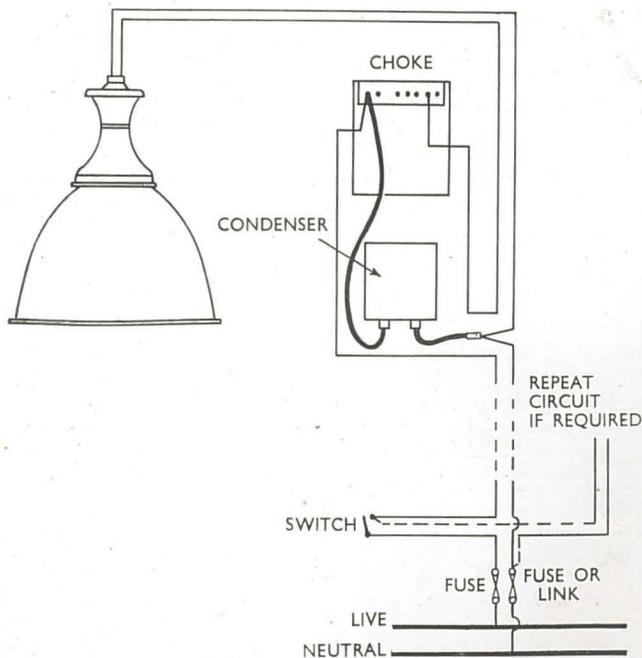


Fig. 2

One or more OSIRA lamps with individual condensers supplied from common fuses and controlled by a common switch.

**G.E.C.**

**LIGHTING FITTINGS  
WITH "GECORAY" REFLECTORS**

SPACING-HEIGHT RATIO,  $2\frac{1}{2}$  to 1.



F 4711



F 4715

Georay industrial reflectors are the latest development for factory and allied lighting with Osram lamps. While conforming to the angle of cut-off specified by the British Standard Specification for factory lighting, the mirrored glass reflector provides appreciably higher overall efficiency than is obtainable with vitreous enamel. Furthermore, the special contour of the reflector enables the units to be spaced further apart for any given working height than is obtainable with the orthodox type of factory lighting unit, without affecting the evenness of illumination.

As a result of these advantages it is possible: (1) To save installation charges, owing to the reduced number of reflectors required by employing wider spacing; and (2) to save running cost, owing to the lower wattage needed to give any required foot-candle intensity.

**Specification.**—Copper housing, with detachable cast iron top. Georay silvered mirror reflector. A special satin finish Georay silvered mirror reflector for providing additional diffusion can be supplied to order.

Cat. No.	Dimensions.		Weight complete	Standard tapping.	OSRAM lamp recommended.	Price each.	If with satin finish GECORAY reflector Price each.
	Diam.	Height.					
F 4711	ins. 10	ins. $10\frac{1}{4}$	lbs. $4\frac{1}{2}$	$\frac{3}{4}$ " E.T.	watts. 200	£ s. d. 2 9 6	£ s. d. 2 12 0
F 4715	ins. 16	ins. 20	lbs. $18\frac{1}{2}$	$\frac{3}{4}$ " gas	300 or 500	£ s. d. 5 15 6	£ s. d. 6 0 0

Prices include lampholders but not lamps.

# G.E.C.

## ENAMELLED STEEL DISPERSIVE REFLECTORS

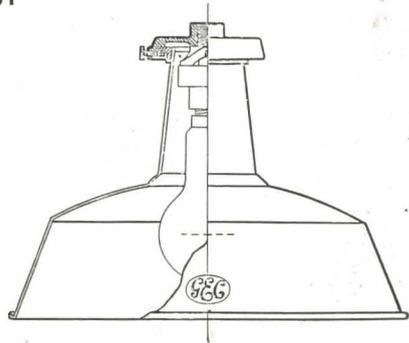
SPACING-HEIGHT RATIO,  $1\frac{1}{2}$  to 1.



F 4701



F 4731/41



F 4731/41  
Sectional view.

The sectional view of F 4731/41 G.E.C. reflectors given above shows the method of removing the reflector from the detachable top; when the single screw is loosened the entire reflector can be removed in a few seconds. Ventilation slots are provided in the cast ring to which the removable cast iron top is clamped.

The lampholder need not be unscrewed for wiring purposes.

F 4701 is supplied with  $1\frac{1}{8}$ -in. hole for attaching to standard shade carrier lampholder.

**Finish.**—Highest grade vitreous enamel: White inside and green outside.

Standard tapping  $\frac{3}{4}$ -in. E.T.

Cat. No.	Holder.	Dimensions.		OSRAM lamp recommended.	Weight.	Price each.		
		Diam.	Height.			£	s.	d.
F 4701	$1\frac{1}{8}$ -in. hole	12	$6\frac{3}{8}$	watts. * 60	lbs. $1\frac{3}{4}$			
F 4731	B.C.	14	$10\frac{1}{4}$	* 100	$4\frac{1}{4}$			6
F 4733	E.S.	14	$10\frac{3}{4}$	† 150	$4\frac{1}{4}$			6
F 4735	E.S.	16	12	† 200	$6\frac{1}{2}$	1	1	6
F 4737	G.E.S.	18	$14\frac{1}{8}$	† 300	$7\frac{3}{4}$	1	13	0
F 4739	G.E.S.	18	15	† 500	8	1	13	0
F 4740	G.E.S.	20	$16\frac{1}{4}$	750 or 1000	$8\frac{1}{2}$	1	18	6
F 4741	G.E.S.	20	$17\frac{1}{4}$	1000 or 1500	$8\frac{3}{4}$	1	18	6

\* For 60 and 100 watt sizes use Osram lamps.

† For 150 to 500 watts, Pearl or Bowl-sprayed White Osram lamps are recommended.

The above prices, except F 4701, include lampholders.

Prices do not include lamps.

**G.E.C.**

# OVERLAMP TYPE DISPERSIVE REFLECTORS

(Patent No. 258211)

SPACING-HEIGHT RATIO,  $1\frac{1}{2}$  to 1.



F 4752/60

**Application.**—These reflectors are suitable for general industrial lighting purposes, and embody an easily cleaned detachable skirt which can be removed without disturbing the lamp.

**Specification.**—Cast top screwed  $\frac{3}{4}$ -in. E.T. and carrying skirted all-porcelain lampholder, with detachable neck and skirt in vitreous enamelled steel, finished grey outside and white inside. The skirt is arranged with 3 bayonet slots for attaching to the canopy.

Cat. No.	OSRAM lamp recommended.	Diameter.	Holder.	Price each.		
				£	s.	d.
F 4752	watts. 100	ins. 14	B.C.	14	9	7 1/2%
F 4754	150	14	E.S.	16	6	7 "
F 4756	200	16	E.S.	18	6	7 "
F 4758	300	18	G.E.S.	1	7	9 "
F 4760	500	18	G.E.S.	1	9	6 "

Prices include lampholders but not lamps.

# S.E.C.

## "R.L.M." REFLECTORS

SPACING-HEIGHT RATIO,  $1\frac{1}{2}$  to 1.



F 16111/9  
Saaflux type.



F 16121/9  
Flange type.

**Specification.**—R.L.M. reflectors are constructed of heavy gauge steel and finished with Crysteel vitreous enamel, green outside and white inside, in three types : (a) Saaflux type for lamps from 60 to 1,500 watts, complete with lampholders ; (b) flange type for use with lamps from 60 to 1,500 watts, complete with skirted all-porcelain lampholders—standard tapping  $\frac{3}{8}$ -in. E.T. ; (c) with  $1\frac{1}{8}$ -in. hole (no lampholders) for lamps from 40 to 150 watts. The full range is made in accordance with British Standard Specification No. 232.

### SA AFLUX TYPE.

### FLANGE TYPE.

Cat. No.	Price each.		OSRAM lamp recommended.	Diam.	Holder.	Cat. No.	Price each.	
	s.	d.					s.	d.
F 16111	15	3	60-75	12	B.C.	F 16121	13	9
F 16112	18	6	100	14	B.C.	F 16122	16	9
F 16113	18	6	150	14	B.C.	F 16123	16	9
F 16114	19	6	150	14	E.S.	F 16124	17	9
F 16115	21	6	200	16	E.S.	F 16125	19	6
F 16116	33	0	300	18	G.E.S.	F 16126	30	0
F 16117	33	0	500	18	G.E.S.	F 16127	30	0
F 16118	38	6	750-1000	20	G.E.S.	F 16128	35	0
F 16119	38	6	1500	20	G.E.S.	F 16129	35	0

Prices include lampholders but not lamps.



F 16131/8

### $1\frac{1}{8}$ -INCH HOLE TYPE.

Plain $1\frac{1}{8}$ -in. hole.		Diam.	OSRAM lamp recommended.	With attachment for fixing to B.C. holder without use of shade carrier ring.	
Cat. No.	Price each.			Cat. No.	Price each.
	s. d.	ins.	watts.		s. d.
F 16131	5 0	10	40	F 16135	<del>5 6</del> 5/ + 20%
F 16132	6 6	12	60-75	F 16136	<del>7 0</del> 7/ + "
F 16133	9 9	14	100	F 16137	<del>10 3</del> 10/ + "
F 16134	10 3	14	150	F 16138	<del>10 9</del> 10/6 + "

Prices do not include lampholders or lamps.

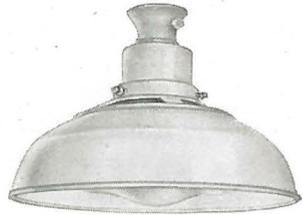
**S.E.C.**

**“GLASSTEEL” DIFFUSERS AND  
“GLASSTEEL” DAYLIGHT DIFFUSERS**

SPACING-HEIGHT RATIO,  $1\frac{1}{4}$  to 1.



**F 16241/6**  
With flange type top.



**F 16421/6**  
With Saaflux top.

**Application.**—Glassteel diffusers are designed for the general illumination of areas where perfect diffusion is required, such as Printing Works, Drawing Offices, General Offices, locations using small machinery, e.g., sewing machines, and where work is carried out on polished materials. Glassteel daylight diffusers are designed for the general illumination of areas where diffused lighting approximating daylight colour is required.

**Specification.**—Glassteel reflectors are constructed in heavy gauge steel with white Crysteel vitreous enamel finish. Globe of special diffusing glass or of special inside frosted daylight blue glass. Fitted with skirted all-porcelain lampholder. Made with flange type top or with Saaflux top. Standard fitting  $\frac{3}{4}$ -in. E.T.

**“ GLASSTEEL ” DIFFUSERS.      “ GLASSTEEL ” DAYLIGHT DIFFUSERS.**

Cat. No.	Flange type top. Price each.		Saaflux top. Price each.	OSRAM lamp recommended.	Diam.	Lamp-holder.	Cat. No.	Flange type top. Price each.		Saaflux top. Price each.
	s.	d.						s.	d.	
F 16241	40	0		watts.	ins.		F 16251	60	0	
F 16421			47 6	100	18	B.C.	F 16431			67 6
F 16242	40	0					F 16252	60	0	
F 16422			47 6	150	18	B.C.	F 16432			67 6
F 16243	40	0					F 16253	60	0	
F 16423			47 6	150	18	E.S.	F 16433			67 6
F 16244	40	0					F 16254	60	0	
F 16424			47 6	200	18	E.S.	F 16434			67 6
F 16245	50	0					F 16255	76	6	
F 16425			60 0	300	20	G.E.S.	F 16435			86 6
F 16246	50	0					F 16256	76	6	
F 16426			60 0	500	20	G.E.S.	F 16436			86 6

Prices include lampholders but not lamps.

**SPARE GLOBES.**

For F 16241/4  
and F 16421/4  
Diam. 10ins.  
Price each  
**10/-**

For F 16245/6  
and F 16425/6  
Diam. 12ins.  
Price each  
**12/6**

For F 16251/4  
and F 16431/4  
Diam. 10ins.  
Price each  
**30/-**

For F 16255/6  
and F 16435/6  
Diam. 12ins.  
Price each  
**39/-**

# S.E.C.

## DISTRIBUTING REFLECTORS

SPACING-HEIGHT RATIO,  $1\frac{1}{2}$  to 1.



**F 16221/7**  
Saafux type



**F 16231/7**  
Flange type

**Application.**—Distributing reflectors are used in locations where light is required sideways up to a height level with that of the reflector.

**Specification.**—Reflectors are constructed in heavy gauge steel with white Crysteel vitreous enamel finish, in three types, for lamps from 60 to 1,500 watts : (a) SAAFLUX type ; (b) FLANGE type, complete with all-porcelain lampholders—standard tapping  $\frac{3}{4}$ -in. E.T. ; (c) with  $1\frac{1}{8}$ -in. hole (no lampholder) for ordinary B.C. lampholder.

### SAAFLUX TYPE.

### FLANGE TYPE.

Cat. No.	Price each.		OSRAM lamp recommended.	Diam.	Holder.	Cat. No.	Price each.	
	s.	d.					watts.	ins.
F 16221	14	0	40-75	12	B.C.	F 16231	12	6
F 16222	18	0	100	15	B.C.	F 16232	16	6
F 16223	18	0	150	15	B.C.	F 16233	16	6
F 16224	19	0	150	15	E.S.	F 16234	17	6
F 16225	22	6	200	18	E.S.	F 16235	20	0
F 16226	35	0	300	21	G.E.S.	F 16236	32	6
F 16227	35	0	500	21	G.E.S.	F 16237	32	6

Prices include lampholders but not lamps.

### $1\frac{1}{8}$ -in. HOLE TYPE.

Cat. No.	Diameter.	OSRAM lamp recommended.	Price each.	
			s.	d.
F 16208	12	40-75	6	6
F 16209	15	100-150	10	3

Prices do not include lampholders or lamps.

**CONCENTRATING REFLECTORS**

SPACING-HEIGHT RATIO, 1 to 1.



**F 16141/9**  
Saaflux type.



**F 16151/9**  
Flange type.

**Application.**—In the larger sizes these units are used for lofty mounting since their light is mainly projected in a downward direction. Locations for which the larger concentrating reflectors are recommended include FOUNDRIES, POWER STATIONS, EXHIBITIONS, GYMNASIA, RAILWAY TERMINI, etc.

The smaller concentrating reflectors are used for locations where local high illumination with absence of filament glare is called for, such as FITTERS' BENCH VICES, and SMALL ASSEMBLY BENCHES, where they should be used to supplement general lighting.

**Specification.**—Reflectors are constructed of heavy gauge steel and finished in white Crysteel vitreous enamel, in two types, for lamps from 60 to 1,500 watts: (a) SAAFLUX type, complete with lampholders; and (b) FLANGE type, complete with skirted all-porcelain lampholders.

Standard tapping  $\frac{3}{4}$ -in. E.T.

**SAAFLUX TYPE.**

**FLANGE TYPE.**

Cat. No.	Price each.		OSRAM lamp recommended.	Diam.	Holder.	Cat. No.	Price each.	
	s.	d.					s.	d.
F 16141	14	0	watts. 60-75	ins. 9	B.C.	F 16151	12	6
F 16142	18	0	100	12	B.C.	F 16152	16	6
F 16143	18	0	150	12	B.C.	F 16153	16	6
F 16144	19	0	150	12	E.S.	F 16154	17	6
F 16145	22	6	200	15	E.S.	F 16155	20	0
F 16146	32	6	300	15	G.E.S.	F 16156	27	6
F 16147	36	0	500	18	G.E.S.	F 16157	32	6
F 16148	42	0	750-1000	18	G.E.S.	F 16158	37	6
F 16149	42	0	1500	18	G.E.S.	F 16159	37	6

Prices include lampholders but not lamps.

# G.E.C.

## HIGH BAY REFLECTOR

SPACING-HEIGHT RATIO, 1 to 1.



F 16401/3

**Application.**—This fitting is intended for use in buildings where the mounting height is considerable as compared with the width of the area to be illuminated. To aid maintenance where access is difficult, it is made dustproof by incorporating a glass cover.

**Specification.**—The reflector is made in anodized aluminium. The top is of the heavy duty Saafux type, of which details are given on page 5, and is tapped for  $\frac{3}{8}$ -in. E.T. conduit. A dustproof clear glass cover as listed under Cat. No. F 16682 is included.

Cat. No.	OSRAM Lamp recommended.	Diam.	Height.	Price each.
	watts.	ins.	ins.	£ s. d.
F 16401	500	} 18	21	4 9 0
F 16402	750 or 1000			
F 16403	1500			

Price includes G.E.S. lampholder but not lamp.

**G.E.C.**

**VERTICAL ELLIPTICAL  
REFLECTORS**

SPACING-HEIGHT RATIO,  $1\frac{1}{2}$  to 1 (on long axis).



**F 16181/7**  
Saaflux type.



**F 16191/7**  
Flange type.

**Application.**—Designed for adequate illumination in locations where the area to be lighted is long in proportion to its width. Library book-stacks, gangways between storage bins, and benches placed along walls cannot be lighted economically with circular dispersive reflectors, and the Vertical Elliptical Reflector is ideal for this purpose.

Ratio of length to width of illuminated area  $1\frac{1}{2}$  to 1.

**Specification.**—Reflectors in heavy gauge steel with Crysteel vitreous enamel finish, green outside and white inside, in three types, for use with lamps from 60 to 500 watts : (a) SAAFLUX type; (b) FLANGE type, complete with skirted all-porcelain lampholders; (c)  $1\frac{1}{8}$ -in. hole type, without lampholder, for use with 60 to 100-watt lamps.

Standard tapping  $\frac{3}{4}$ -in. E.T.

**SAAFLUX TYPE.**

**FLANGE TYPE.**

Cat. No.	Price each.		OSRAM lamp recommended.	Dimensions.	Holder.	Cat. No.	Price each.	
	s.	d.					s.	d.
F 16181	21	0	watts. 60-75	ins. 13 × 9 $\frac{3}{4}$	B.C.	F 16191	18	6
F 16182	21	0	100	13 × 9 $\frac{3}{4}$	B.C.	F 16192	18	6
F 16183	30	0	150	16 $\frac{1}{4}$ × 12	B.C.	F 16193	27	6
F 16184	31	0	150	16 $\frac{1}{4}$ × 12	E.S.	F 16194	28	6
F 16185	31	0	200	16 $\frac{1}{4}$ × 12	E.S.	F 16195	28	6
F 16186	42	0	300	20 × 15 $\frac{1}{2}$	G.E.S.	F 16196	38	6
F 16187	42	0	500	20 × 15 $\frac{1}{2}$	G.E.S.	F 16197	38	6

Prices include lampholders but not lamps.

F 16199 with  $1\frac{1}{8}$ -in. hole (no lampholder) suitable for 60 or 100-watt lamps. Dimensions, 13 ins. × 9 $\frac{3}{4}$  ins. . . . Price each, 13s. 6d.,

# S.E.C.

## PARABOLIC ANGLE REFLECTORS



**F 16161/8**  
Saafux type



**F 16171/9**  
Flange type

**Application.**—For the illumination of vertical surfaces where light is required up to or above the level of the reflectors. Particularly suitable for the side lighting of high bays and for use outside shop premises to direct strong illumination on the goods and pavement immediately beneath (see also Elliptical Angle Reflectors, page 27).

**Specification.**—Reflectors are constructed of heavy gauge steel and finished in white Crysteel vitreous enamel, in two types, for lamps from 60 to 1,500 watts: (a) SAAFLUX type, complete with lampholders; and (b) FLANGE type, complete with skirted all-porcelain lampholders.

Standard tapping  $\frac{3}{4}$ -in. E.T.

### SAAFLUX TYPE.

### FLANGE TYPE.

Cat. No.	Price each.		OSRAM lamp recommended.	Diam.	Holder.	Cat. No.	Price each.	
	s.	d.					watts.	ins.
F 16161	14	0	60-75	9	B.C.	F 16171	12	6
F 16162	18	0	100	12	B.C.	F 16172	16	6
F 16163	18	0	150	12	B.C.	F 16173	16	6
F 16164	19	0	150	12	E.S.	F 16174	17	6
F 16165	25	0	200	15	E.S.	F 16175	22	6
F 16166	30	0	300	15	G.E.S.	F 16176	27	6
F 16167	42	0	500	18	G.E.S.	F 16177	37	6
F 16168	45	0	750-1000	18	G.E.S.	F 16178	42	0
—	—	—	1500	18	G.E.S.	F 16179	42	0

Prices include lampholders but not lamps.

**G.E.C.**

**ELLIPTICAL ANGLE REFLECTORS**

SPACING-OFFSET RATIO,  $1\frac{1}{2}$  to 1.



**F 16201/7**  
Saaflux type.



**F 16211/7**  
Flange type.



**F 16218/9**  
 $1\frac{1}{8}$ -in. hole type.

**Application.**—Designed for Sign and Poster Lighting and for other vertical surfaces such as facias and blackboards.

Also suitable for high factory bays and similar locations.

**Specification.**—Reflectors are constructed in heavy gauge steel with Crysteel vitreous enamel finish, green outside and white inside, in three types, for use with lamps from 60 to 500 watts: (a) SAAFLUX type; (b) FLANGE type, complete with skirted all-porcelain lampholders—standard tapping  $\frac{3}{4}$ -in. E.T.; (c) With  $1\frac{1}{8}$ -in. hole (no lampholder) for lamps from 60 to 100 watts.

**SAAFLUX TYPE.**

**FLANGE TYPE.**

Cat. No.	Price each.		OSRAM lamp recommended.	Dimensions.	Holder.	Cat. No.	Price each.	
	s.	d.					s.	d.
F 16201	21	0	60-75	13 × 9 $\frac{3}{4}$	B.C.	F 16211	18	6
F 16202	21	0	100	13 × 9 $\frac{3}{4}$	B.C.	F 16212	18	6
F 16203	22	0	150	13 × 9 $\frac{3}{4}$	B.C.	F 16213	19	0
F 16204	23	0	150	13 × 9 $\frac{3}{4}$	E.S.	F 16214	20	0
F 16205	32	0	200	16 $\frac{1}{4}$ × 12	E.S.	F 16215	28	6
F 16206	42	0	300	20 × 15 $\frac{1}{2}$	G.E.S.	F 16216	38	6
F 16207	42	0	500	20 × 15 $\frac{1}{2}$	G.E.S.	F 16217	38	6

Prices include lampholders but not lamps.

**$1\frac{1}{8}$ -in. HOLE TYPE.**

Cat. No.	Dimensions.	OSRAM lamp recommended.	Price each.	
			s.	d.
F 16218	13 × 9 $\frac{3}{4}$	60-75	13	6
F 16219	13 × 9 $\frac{3}{4}$	100	13	6

Prices do not include lampholders or lamps.

# S.E.C.

## "COOLICON" REFLECTORS

(Patents Nos. 419602 and 436933)

**Application.**—Coolicon reflectors are recommended where an inexpensive yet satisfactory open fitting is required. They pass sufficient light upwards to avoid a dark ceiling.

**Specification.**—Metal reflectors are constructed in vitreous enamelled steel, finished white inside and green outside, and conforming to H.O. requirements regarding cut-off.

Glass shades are constructed in white or tinted opal glass with detachable steel gallery. In both types the open construction of the top avoids overheating the lampholder and flexible and provides room for a skirted bakelite lampholder. Standard fitting  $1\frac{1}{8}$ -in. hole, but can be supplied with  $2\frac{1}{4}$ -in. lip for use with standard galleries. In the latter case E.S. lampholders can be used if required.



F 16492/5

VITREOUS ENAMELLED TYPE.

With  $1\frac{1}{8}$ -in. hole.

With  $2\frac{1}{4}$ -in. lip, without gallery.

Cat. No.	Price each.	OSRAM lamp recommended.	Diameter.	Cat. No.	Price each.
	s. d.	watts.	ins.		s. d.
F 16492	2 6	60	9	F 16105	2 6
F 16493	3 0	100	11	F 16106	3 0
F 16495	3 6	150	13		



F 16462/5

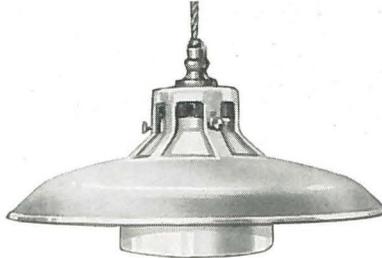
OPAL GLASS TYPE.

With  $1\frac{1}{8}$ -in. hole.

With  $2\frac{1}{4}$ -in. lip, without gallery.

Cat. No.	White. Price each.	Colours: Champagne, Pink or Green. Price each.	OSRAM lamp recommended.	Diam.	Cat. No.	White. Price each.	Colours: Champagne, Pink or Green. Price each.
	s. d.	s. d.	watts.	ins.		s. d.	s. d.
F 16462	3 9	4 6	40-75	9	F 16482	3 9	4 6
F 16463	4 3	5 0	100-150	11	F 16483	4 3	5 0

Prices do not include lampholders or lamps.

**G.E.C.****“BENFLUX” REFLECTORS**SPACING-HEIGHT RATIO,  $1\frac{1}{3}$  to 1.**F 16101/8/9**

**Application.**—“ Benflux ” fittings are used in locations where diffused general illumination—including upward light—is desired. The opal glass shade avoids glare, yet allows a fairly wide spacing to be employed.

Apertures above the glass shade help to keep the flexible cool.

**Specification.**—“ Benflux ” reflectors are made in heavy gauge steel with Crysteel vitreous enamel finish. **F 16101** and **F 16109** are supplied white inside and out. **F 16108** is supplied in white, yellow or green outside and white inside.

Special glass diffusing shade, easily removable for cleaning.

$1\frac{1}{8}$ -in. hole fitting

Cat. No.	Diameter.	OSRAM lamp recommended.	Price each.	Spare Glass Shades.
			Price each.	Price each.
	ins.	watts.	s. d.	s. d.
<b>F 16108</b>	10	40-60	<del>5</del> <b>9 8/10%</b>	<b>2 6</b>
<b>F 16101</b>	12	60-100	<b>11 9</b>	<b>3 0</b>
<b>F 16109</b>	14	100-150	<b>15 9</b>	<b>4 6</b>

Prices do not include lampholders or lamps.

# S.E.C.

## GARAGE PIT FITTING



F 17001

This fitting is designed for use in garage or locomotive inspection pits and similar situations. It is of robust construction and can be mounted on the side wall of an existing pit or in a recess specially provided.

**Specification.**—Body and front frame made in cast iron galvanized finish outside and white enamelled inside. The armour-plate front glass is cemented into the front frame. The fitting is arranged for  $\frac{3}{4}$ -in. E.T. conduit entry at one end and includes a porcelain B.C. lampholder.

Cat. No. F 17001. Pit Lighting Fitting suitable for 40 or 60-watt Osram lamp.

Overall dimensions :  $11\frac{1}{2}$  in. long (over lugs),  $5\frac{1}{4}$  in. high,  $5\frac{1}{2}$  in. projection

Price £1 6 6 each

## WIRE GUARDS FOR INDUSTRIAL REFLECTORS



F 4059

Made in strong galvanized iron wire and arranged to clip over the rim of reflectors of the diameter stated.

Cat. No.	Diameter—ins.	9	10	12	14	15	16	18	20
F 4059	Price per dozen	s. d. 9 0	s. d. 9 6	s. d. 15 0	s. d. 19 9	s. d. 19 9	s. d. 43 0	s. d. 46 3	s. d. 72 6

**DUSTPROOF AND DAYLIGHT  
GLASS COVERS**



Daylight Glass



Gasket



Clear Glass



Retaining Band

**Application.**—These covers are suitable for use with reflectors F 16111/7, F 16121/7, F 16141/7, F 16151/7, F 16161/7, F 16171/7, F 16602/38.

**Specification.**—The dustproof attachment comprises heat-resisting domed clear glass screen, circular U-section gasket and cadmium plated steel retaining band with spring-loaded locking lever. Frosted glass can be supplied to order.

The Daylight attachment comprises daylight blue glass screen with gasket and retaining band as above. (Suitable for use with tungsten filament lamps only.)

**DUSTPROOF COVERS.**

Cat. No.	Diam.	Price each.		Spare Glasses, each.	
		s.	d.	s.	d.
	ins.				
F 16672	12	12	6	5	0
F 16674	13 $\frac{3}{4}$	14	0	5	6
F 16676	14	15	3	6	3
F 16678	15	16	9	7	0
F 16680	16	18	0	7	6
F 16682	18	24	0	10	6

**DAYLIGHT COVER GLASSES.**

Cat. No.	Diam.	Price each.		Spare Glasses, each.	
		s.	d.	s.	d.
	ins.				
F 16307	6 $\frac{1}{2}$	12	6	3	6
F 16308	12	33	0	25	6
F 16309	14	36	0	27	0
F 16310	16	45	0	34	6

F 16307 has a bronze colour band with three retaining screws, rubber gasket and flat glass.



F 16296

**LOCAL LIGHTING REFLECTORS  
WITH DAYLIGHT COVER GLASSES.**

Reflector type.	Diam.	1 $\frac{1}{2}$ -in. hole type.		With Bakelite lampholder.	
		Cat. No.	Price each.	Cat. No.	Price each.
	ins.				
EXTENSIVE	6 $\frac{1}{2}$	F 16291	18 0	F 16296	20 6
INTENSIVE	6 $\frac{1}{2}$	F 16292	18 0	F 16297	20 6
ANGLE	6 $\frac{1}{2}$	F 16293	18 6	F 16298	21 0
HORIZONTAL	6 $\frac{1}{2}$	F 16294	18 6	F 16299	21 0

# S.E.C.

## LOCAL LIGHTING REFLECTORS



F 16261/8



F 16264/6

**Application.**—Designed for supplementary illumination of local areas. Ideal for lighting small lathes, fitters' bench vices, small assembly benches, and all locations where the source of light is required close to the work while being shielded from the eyes of the operator.

**Specification.**—Reflectors are constructed in heavy gauge steel with Crysteel vitreous enamel finish, green outside and white inside. Supplied in extensive and intensive types, the former suitable for  $1\frac{1}{2}$  to 1, and the latter for 1 to 1 spacing to height ratio. When included, B.C. lampholders are bakelite skirted type, tapped  $\frac{3}{8}$ -in. E.T. F 16267/8 and F 16277/8 reflectors are flange type with all porcelain lampholders tapped  $\frac{3}{8}$ -in. E.T.

Extensive type, with B.C.  
or E.S. holder.

Extensive type,  $1\frac{1}{8}$ -in. hole,  
without holder.

Cat. No.	Price each.		OSRAM lamp recommended	Diam.	Cat. No.	Price each.	
	s.	d.				s.	d.
F 16261	7	0	watts. 15-40	ins. $5\frac{1}{2}$	F 16264	4	6
F 16262	8	0	60-75	$6\frac{1}{2}$	F 16265	5	6
F 16263	9	0	100	$7\frac{1}{2}$	F 16266	6	6
F 16267	11	6	60-75	$6\frac{1}{2}$	—	—	—
F 16268	12	6	100	$7\frac{1}{2}$	—	—	—



F 16271/8



F 16274/6

Intensive type, with B.C.  
or E.S. holder.

Intensive type,  $1\frac{1}{8}$ -in. hole,  
without holder.

Cat. No.	Price each.		OSRAM lamp recommended	Diam.	Cat. No.	Price each.	
	s.	d.				s.	d.
F 16271	7	0	watts. 15-40	ins. $5\frac{1}{2}$	F 16274	4	6
F 16272	8	0	60-75	$6\frac{1}{2}$	F 16275	5	6
F 16273	9	0	100	$7\frac{1}{2}$	F 16276	6	6
F 16277	11	6	60-75	$6\frac{1}{2}$	—	—	—
F 16278	12	6	100	$7\frac{1}{2}$	—	—	—

Prices do not include lamps

## Local Lighting Reflectors (continued)



F 16281



F 16282

**Application.**—For special local lighting application where light is required on a vertical plane or at an angle.

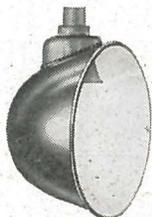
**Specification.**—Made in heavy gauge steel with Crysteel vitreous enamel finish, green outside and white inside. When included, lampholders are bakelite skirted type tapped  $\frac{3}{4}$ -in. E.T.

### 45° ANGLE TYPE.

With B.C. holder:

$1\frac{1}{8}$ -in. hole, without holder.

Cat. No.	Price each.	OSRAM lamp recommended.	Diam.	Cat. No.	Price each.
F 16281	s. d. 8 6	watts. 15-75	ins. $6\frac{1}{2}$	F 16282	s. d. 6 0



F 16283



F 16284

### HORIZONTAL TYPE.

With B.C. holder:

$1\frac{1}{8}$ -in. hole, without holder.

Cat. No.	Price each.	OSRAM lamp recommended.	Diam.	Cat. No.	Price each.
F 16283	s. d. 8 6	watts. 15-75	ins. $6\frac{1}{2}$	F 16284	s. d. 6 0

### ADJUSTABLE TYPE.

$1\frac{1}{8}$ -in. hole, without holder.

The lampholder fits into a sliding strip, allowing the tilt of the reflector to be adjusted.

Cat. No.	Diameter.	OSRAM lamp recommended.	Price each.
F 16287	ins. $7\frac{3}{4}$	watts. 15-75	s. d. 10 6



F 16287

Prices do not include lamps.

**S.E.C.**

**ADJUSTABLE  
WORKSHOP, STANDARD AND  
SEWING MACHINE BRACKETS**



**F 5060**



**F 5065/6**

Machine standards for local lighting.

**Application.**—These fittings are designed for use with low voltage lamps and thus eliminate the possibility of electric shock from the fitting or wiring. The necessary supply can conveniently be obtained through a small transformer stepping down from supply voltage to 12 volts, and a single transformer of suitable rating can be arranged to supply a number of fittings if required.

H.M. Inspectors of Factories regard this type of local lighting fitting with particular favour as it is completely safe even if the wiring is faulty or in damp situations. The system possesses the additional advantage that the low voltage lamps employed are very robust.

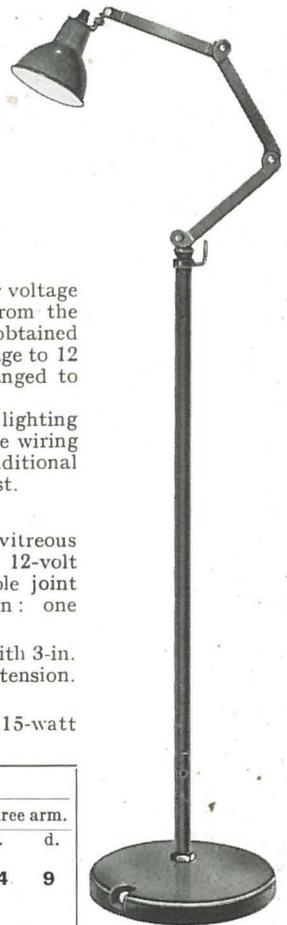
Especially suitable for use on sewing machines.

**Specification.**—**F 5060.** Made in enamelled steel with vitreous enamelled reflector, 4 in. diameter, and S.B.C. lampholder for 12-volt lamps. The reflector is fitted to the bracket in an adjustable joint so that it can be moved as required. Maximum extension: one arm 17 ins., two arm 26 ins., three arm 35 ins.

**F 5065.** Lighter pattern bracket for sewing machines with 3-in. diameter reflector and two arms giving 24 ins. maximum extension. A switch is included in the cast base.

**F 5066.** As above, but with B.C. lampholder for 15-watt Pygmy sign type lamps.

Cat. No.	Description.	Price each.					
		One arm.		Two arm.		Three arm.	
		s.	d.	s.	d.	s.	d.
<b>F 5060</b>	Bracket with S.B.C. lampholder .. ..	<b>18</b>	<b>3</b>	<b>21</b>	<b>6</b>	<b>24</b>	<b>9</b>
<b>F 5065</b>	With S.B.C. lampholder and switch in base .. ..			<b>13</b>	<b>3</b>	—	
<b>F 5066</b>	With B.C. lampholder and switch in base .. ..			<b>13</b>	<b>3</b>	—	



**F 5067**

Floor Standard.

**Price of transformer on application.**

**F 5067**

Heavy pattern floor standard, finished black and green enamel, with 15-in. diameter base (25 lbs.), 4-ft. upright stem telescopically adjustable to 5 ft. 6 ins. Mounted on top is a 3-arm fitting. A connection box is arranged in the base for connecting the incoming flexible to the flexible of the adjustable arm. Complete with reflector and bakelite lampholder for a 60-watt Osram lamp.

**£3 19s. 3d.** each.

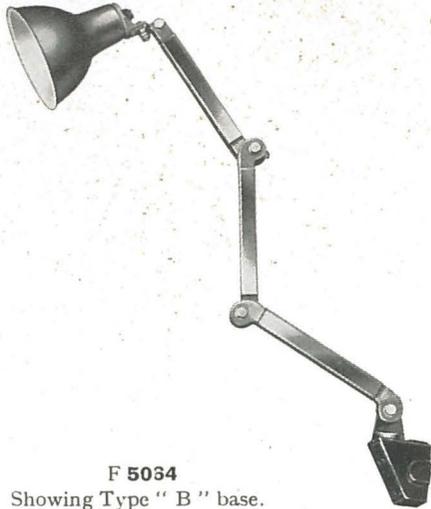
Can be supplied with **S 2143** factory type switch lampholder, if required, at **2/3** extra.

**Prices include reflectors and lampholders but not wiring or lamps.**

**Adjustable Workshop Brackets** (continued)



**F 5033**  
Showing Type " A " base.



**F 5034**  
Showing Type " B " base.

**Application.**—The above fittings are of robust construction and capable of universal movement. They are suitable for either workshop or office.

**Specification.**—The adjustable arms consist of square section steel tube, having the hinge lugs welded in position, thus affording extreme strength combined with lightness, and at the same time providing maximum protection for the cable, which is further safeguarded by a specially designed swivelling shackle which retains the cable in position and eliminates slack at the elbow. The construction of the elbow joints, in conjunction with an earthing screw on the base, enables all parts of the fitting to be efficiently earthed as required by factory regulations. Suitable for 40 or 60-watt Osram lamps.

A light pattern concentrating type reflector, finished vitreous enamel, green outside, white inside, reduces weight at the extremity of the bracket and eliminates the tendency to sag when mounted on a vibrating machine or bench. Bakelite lampholders with shield and screw-down nipple for C.T.S. flexible are included.

Maximum extension one arm, 17½ in. ; two arm, 27½ in. ; three arm, 37½ in.

Fixing base Type " A " is standard for bench, wall or desk fixing. Type " B " consists of a bracket box for wall fixing, and is tapped ¼-in. E.T. for conduit. Side or through entry can be supplied if required.

Standard finish is green enamel.

Cat. No.	Base.	Description.	Price each.					
			One arm.		Two arm.		Three arm.	
			s.	d.	s.	d.	s.	d.
F 5033	Type " A "	{ Supplied complete with concentrating type reflector and bakelite B.C. lampholder .. }	<b>21</b>	<b>3</b>	<b>24</b>	<b>0</b>	<b>26</b>	<b>6</b>
F 5064	Type " B "		<b>22</b>	<b>6</b>	<b>25</b>	<b>6</b>	<b>28</b>	<b>0</b>

Can be supplied with S 2143 Factory type Bakelite B.C. switch lampholder, if required, at 2/- extra.

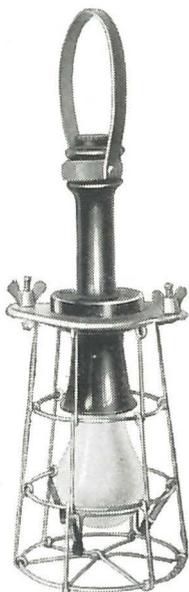
**Prices include lampholders but not wiring or lamps.**

# S.&C.

## SHOCK-PROOF HANDLAMPS FACTORY TYPE

(Patent No. 374116)

Complying with Home Office regulations.



F 5024

F 5024 handlamp has been designed to suit the conditions normally encountered in factory and installation work. It comprises an ebonized hardwood handle, strong galvanized wire guard, cord grip, and skirted bakelite lampholder, together with a patent spring ring attachment for engaging the lamp and holding it in position in the lampholder. It is designed to accommodate a standard 40 or 60-watt Osram lamp with bayonet cap.

Some advantages of this design are as follows:—

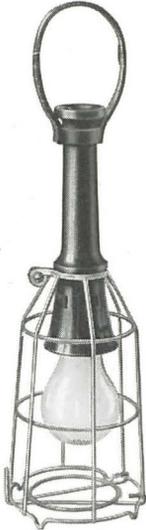
1. The lamp will not light unless the guard is properly secured in position.
2. If the bulb is shattered the lamp cap is automatically ejected from the lampholder, so that no live parts are left exposed.
3. The user is never faced with the problem of removing a lamp cap having jagged edges of glass attached.
4. If the bulb is only cracked, the retaining ring helps to hold the glass together, and thus prevents broken glass from falling into machinery or elsewhere.
5. The method of fixing the lamp provides an efficient buffer and shock absorber, which further protects and prolongs the life of the lamp.

Cat. No.	Weight.	OSRAM lamp recommended.		Price each.	
		lbs.	watts.	s.	d.
F 5024	1 $\frac{1}{4}$		40 or 60	15	0

Price does not include lamp.

## Shock-proof Handlamps (continued)

Complying with Home Office regulations.



F 5028/30



F 5026



F 5048

These handlamps consist of reinforced bakelite handles to withstand rough usage and are supplied with tinned wire guards hinged at bottom, leather loops and cord grips.

F 5028/29/30 are arranged for one 40 or 60-watt Osram lamp.

F 5030 is fitted with a half-round reflector.

F 5026 is arranged with S.B.C. lampholder for a 12-volt Osram lamp used in conjunction with a transformer or accumulator.

F 5048 consists of a reinforced black bakelite handle with black fibre guard and B.C. lampholder.

Cat. No.	Description.	Weight.	Price each.
		lbs.	s. d.
F 5026	With S.B.C. lampholder .. .. .	$\frac{1}{2}$	6 3
F 5028	With B.C. lampholder .. .. .	$\frac{3}{4}$	5 6
F 5029	With E.S. lampholder .. .. .	$\frac{3}{4}$	6 3
F 5030	With half-round reflector and B.C. lampholder .. .. .	1	6 3
F 5048	With B.C. lampholder .. .. .	$\frac{3}{4}$	16 6

Prices do not include lamps.

Complying with Home Office regulations.



F 5031/3



F 5035



F 5037/9



F 5041/6

25 or 40-watt Osram lamps are recommended for use with these handlamps.

Cat. No.	Description.	Weight.	Price each.	
		lbs.	s.	d.
F 5031	Ebonized wood handle, B.C. porcelain lampholder, strong galvanized guard, without well glass .. .. .	1 $\frac{1}{4}$	7	3
F 5032	As F 5031, but with E.S. lampholder .. .. .	1 $\frac{1}{4}$	7	6
F 5033	As F 5031, but with clear well glass .. .. .	1 $\frac{1}{4}$	8	6
F 5035	Shock-proof fibre handlamp, the guard being made of strong insulating material .. .. .	$\frac{3}{4}$	12	9
F 5037	Similar to F 5035, with cord grip but without leather loop .. .. .	1	15	6
F 5039	Similar to F 5037, but with leather loop .. .. .	1	16	6
F 5041	Ebonized wood handle, with stout wire guard, cord grip, bakelite holder and leather loop (without reflector) .. .. .	1	6	0
F 5046	As F 5041, but fitted with aluminium half screen reflector .. .. .	1	7	3

E.S. lampholders can be supplied for F 5035/9 at an extra cost of 1/6 each.

Prices include B.C. lampholders but not lamps.

Shock-proof Handlamps (continued)

Complying with Home Office regulations.



F 5050



F 5042



F 5044

25 or 40-watt Osram lamps are recommended for use with these handlamps except F 5050.

Cat. No.	Description.	Weight.	Price each.	
		lbs.	s.	d.
F 5042	Bakelite body, wire guard and spring grip ..	1 $\frac{3}{4}$	11	0
F 5044	Similar in design to F 5042 but with bakelite shrouded grip handle and stout ebonite guard .. .. .	1 $\frac{3}{4}$	<del>16</del>	<del>6</del>
F 5050	Insulated barrel inspection handlamp. Length 33" overall, 1 $\frac{1}{2}$ " diam. With glass and lampholder for 25-watt S.B.C. Osram tubular lamp .. .. .	1	23	9

21-10-62

Prices include B.C. lampholders but not lamps.

Complying with Home Office regulations.



F 5047



F 5051

### BAKELITE PATTERNS

Type F 5047 handlamp is made in oak finished bakelite and incorporates the following special features:—

1. The lampholder is reinforced with a metal liner, and a bakelite shield covers the lamp cap, thus minimising the possibility of accidental contact with the hands of the user.
2. The tinned wire guard, which is hinged at the bottom to facilitate lamp renewal, is held in position by fitting into slots between the moulded handle and the backplate lampholder. The fixing screws are recessed on each side and cannot be removed by any unauthorised person.
3. The guard is well insulated from the lampholder. This obviates any risk of the user receiving a shock through the lampholder becoming alive.

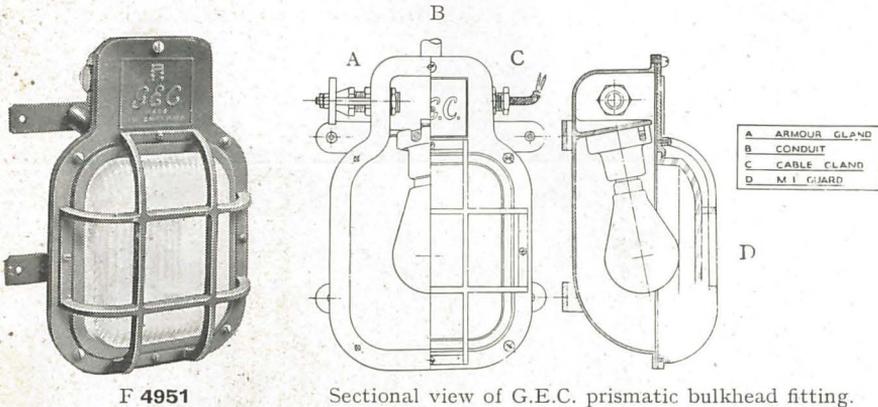
It is intended for general workshop and factory use where a shock-proof handlamp is necessary.

F 5051 handlamp has been specially designed for use in hospital wards and possesses many advantages over other patterns. The reflector is made of aluminium, polished outside and matt inside. It is secured between the bakelite handle and the lampholder by means of two recessed screws and nuts. The handle is fitted with a polished brass hook for hanging on bed-rails, etc.

Cat. No.	Diameter.	Overall length without loop.	Weight.	OSRAM lamp recommended.	Price each.	
	ins.	ins.	lbs.	watts.	s.	d.
F 5047	5	13	$\frac{3}{4}$	40 or 60	13	6
F 5051	$4\frac{1}{2}$	$11\frac{1}{2}$	$1\frac{3}{4}$	25 or 40	16	6

Prices include B.C. lampholders but not lamps.

## PRISMATIC BULKHEAD FITTINGS



F 4951

Sectional view of G.E.C. prismatic bulkhead fitting.

**Application.**—This prismatic bulkhead fitting has been designed to meet the demand for a fitting giving a wide lateral distribution of light. Suitable for illuminating confined areas, such as passages and tunnels.

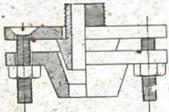
**Specification.**—The fitting is of cast iron, aluminium colour or galvanized finish. Can be used for either wall or ceiling mounting. It is completely watertight, as the glass is cemented into the front ring, and this in turn is fixed to the body of the fitting by screws and made watertight by means of a rubber gasket. The glass has been produced after careful experiment and research, and is so designed that it produces the maximum side spread of light compatible with efficiency and minimum projection. The prisms are on the inside of the glass, the outer surface being smooth, so that collection of dust is reduced to a minimum, enabling the fitting to be easily kept clean. The fitting is tapped for  $\frac{1}{4}$ -in. E.T. and is supplied complete with B.C. or E.S. porcelain lampholder, as required. It is suitable for a 40-watt or 60-watt Osram lamp. Unless otherwise specified, B.C. lampholders will be supplied.

Cat. No.	Description.	Overall dimensions.			Weight complete.	Price each.					
		Width.	Height.	Depth.		Aluminium finish.			Galvanized finish.		
		ins.	ins.	ins.	lbs.	£	s.	d.	£	s.	d.
F 4951	With Guard .. ..	8	11½	5½	13	1	4	9	1	10	9
	Without Guard .. ..	8	11½	5	12½	1	1	6	1	6	6
	Spare Glasses .. ..	5½	7	1½	1		4	0			
	Spare Rubber Gaskets	—	—	—	—		1	3			

Prices include B.C. or E.S. porcelain lampholders but not lamps or cable glands.

### CABLE GLANDS

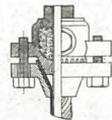
Cable glands for this fitting can be supplied, if required. Size of cable being used should be specified when ordering.



Type "A"  
Malleable iron armour gland.  
2/9 each.



Type "C"  
Brass cable gland for C.T.S. cable.  
1/9 each.



Type "E"  
Brass armour clamp with sealing chamber.  
4/3 each.

# G.E.C.

## BULKHEAD AND ROOF FITTINGS



F 4943 (Clear)  
F 4945 (Cut Crystal)



F 4950



F 4947



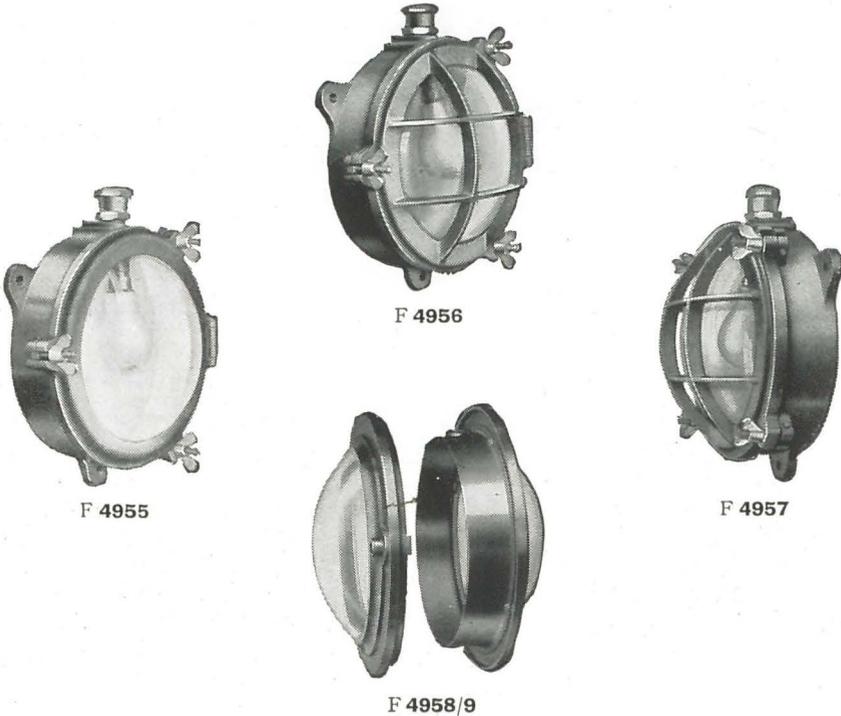
F 4965

**Specification.**—These fittings are made in cast brass (except F 4947, which is cast iron finished aluminium colour). Arranged for one 40 or 60-watt Osram lamp.

Cat. No.	Description.	Diameter	Overall	Weight	Price each.		
		of front.	depth back to front.		complete.	£	s.
		ins.	ins.	lbs.			
F 4943	Polished Brass, vitreous enamelled reflector inside, clear flint dish .. .. .	9 $\frac{5}{8}$	4	6	1	11	0
F 4945	Ditto, but with cut crystal dish	9 $\frac{5}{8}$	4	6 $\frac{1}{2}$	2	9	6
F 4950	Black Bronze finish, clear glass	8	4 $\frac{7}{8}$	5 $\frac{3}{4}$	2	3	0
F 4947	Cast iron back and guard ..	11 $\frac{1}{4}$	4	12 $\frac{1}{4}$	1	3	3
F 4965	Black Bronze finish with guard, white vitreous enamelled reflector inside, clear glass ..	9 $\frac{1}{4}$	4 $\frac{3}{4}$	5	1	14	9

Prices include lampholders but not lamps.

## Bulkhead Fittings (continued)



**Specification.**—F 4955/6/7 bulkhead fittings are made in cast iron and fitted with watertight cable glands and heavy pattern clear glasses. They are arranged for one 60-watt or 100-watt Osram lamp. Cable glands can be omitted if desired. Standard tapping  $\frac{1}{8}$ -in. gas.

F 4958 and F 4959 are double-sided type bulkhead fittings and are made in polished brass or cast iron as required, and fitted with one clear and one frosted glass. One side is hinged for access to the interior, which is arranged for one 40-watt or 60-watt Osram lamp.

Cat. No.	Description.	Diam. of front.	Overall depth back to front.	Weight complete.	Price each.			
					Aluminium finish.		Galvanized finish.	
		ins.	ins.	lbs.	s.	d.	s.	d.
F 4955	With hinged front secured by 3 brass wing nuts, without guard ..	10	5	11½	29	9	33	0
F 4956	Ditto. With guard ..	10	5½	13½	32	0	36	6
F 4957	With guard secured by 4 brass wing nuts ..	10	5½	13½	32	0	36	6
F 4958	Polished brass, double-sided ..	9½	—	6½	38	6	—	—
F 4959	Cast iron ditto ..	9½	—	8	18	9	20	0

Prices include lampholders but not lamps.



F 4961



F 4963



F 4969



F 4967 (angle type)



F 4971

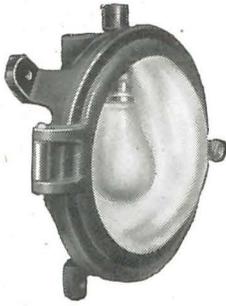
**Specification.**—Cast iron fittings finished aluminium colour outside, stove enamelled white inside with clear glass. Suitable for use with one 40 or 60-watt Osram lamp. Can also be supplied galvanized finish where quoted below.

Cat. No.	Description.	Diam. of front.	Overall depth back to front.	Weight complete.	Price each.			
					Aluminium finish.		Galvanized finish.	
		ins.	ins.	lbs.	s.	d.	s.	d.
F 4931	Cast iron, screwed $\frac{3}{4}$ -in. E.T. . . . .	9	4 $\frac{3}{4}$	8 $\frac{1}{2}$	10	9	12	6
F 4963	Cast iron, without guard, screwed $\frac{3}{4}$ -in. E.T. . . . .	9	5	8	10	0	12	0
		9	5 $\frac{3}{4}$	10	16	9	19	9
F 4967	Ditto, but with brass guard . . . . .	9	5 $\frac{3}{4}$	10	16	9	19	9
F 4969	Cast iron, screwed $\frac{3}{4}$ -in. E.T. . . . .	9	4 $\frac{3}{4}$	8 $\frac{1}{2}$	13	3	16	6
F 4971	Cast iron, with "Through-way" for wires to simplify installing, screwed $\frac{3}{4}$ -in. E.T. . .	9 $\frac{1}{4}$	5 $\frac{1}{2}$	13 $\frac{1}{4}$	16	0	—	—
	Cast iron, screwed $\frac{3}{4}$ -in. E.T. . . . .	8 $\frac{1}{4}$	5 $\frac{3}{4}$	10 $\frac{1}{2}$	25	6	—	—

↓  
Suspended.  
2-1-42.

Prices include lampholders but not lamps.

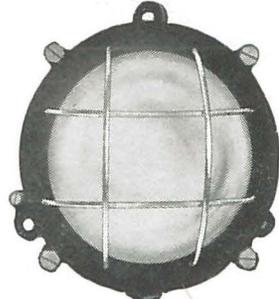
## Bulkhead Fittings (continued)



F 4973/5



F 16070



F 4979



F 4981/3

**Specification.**—Standard finish for above is aluminium colour outside, stove enamelled white inside, with clear glasses. Can also be supplied galvanized finish where quoted below. Suitable for use with 40 or 60-watt Osram lamps.

F 16070 is a miniature bulkhead fitting, made in cast iron painted black, with guard, frosted glass and B.C. lampholder for one Osram Pygmy or low voltage Bus lamp. The back is drilled for fixing to B.S. box, and a  $\frac{3}{4}$ -in. E.T. entry on one side is provided.

Cat. No.	Description.	Diam. of front.	Overall depth back to front.	Weight complete.	Price each.	
					Painted finish.	Galvanized finish.
		ins.	ins.	lbs.	s. d.	s. d.
F 4973	Cast iron, screwed $\frac{3}{4}$ -in. E.T., without guard.. ..	8 $\frac{1}{2}$	5	8 $\frac{1}{4}$	16 6	19 0
	Ditto. With guard ..	8 $\frac{3}{4}$	6	10	20 0	23 3
F 4975	As F 4973, but with brass front, without guard.. ..	8 $\frac{7}{8}$	5	10	23 9	—
	Ditto. With guard ..	8 $\frac{5}{8}$	6 $\frac{1}{2}$	10 $\frac{1}{2}$	29 3	—
F 4979	Cast iron, to British Standards Specification No. 97/1926, without guard ..	9 $\frac{1}{4}$	5	10 $\frac{1}{2}$	15 6	17 9
	Ditto. With brass guard	9 $\frac{1}{4}$	5 $\frac{1}{2}$	11	19 3	21 6
F 4981	Cast iron fittings for converting F 4961, F 4963/7/9, F 4973 and F 4975 to 2-light (without holders) ..	—	—	—	1 6	—
F 4983	Detachable holders ..	—	—	—	1 0	—
F 16070	Miniature bulkhead ..	4 $\frac{1}{2}$ × 4 $\frac{1}{2}$	2 $\frac{3}{4}$	3 $\frac{1}{4}$	6 3	—

x F. 4975.  
Suspended.  
1-1-42.

Prices include lampholders but not lamps.

# S.E.C.

## MARINE TYPE FITTINGS



F 4878



F 4880



F 4879

**Specification.**—Heavy cast brass top fitted with B.C. lampholder and clear glass globes. Standard finish : Polished brass. Suitable for 40 or 60-watt Osram lamps.

F 4878 with 5¼-ins. diam. gallery for deckhead mounting.

F 4879 with 3-ins. diam. flange for deckhead mounting.

F 4880 with 3-ins. diam. flange and bracket for bulkhead mounting.

Cat. No.	Overall length.	Projection.	Diameter of glass.	Weight.	Price each.
	ins.	ins.	ins.	lbs.	s. d.
F 4878	6	—	5¼	1½	9 6
F 4879	8½	—	5¼	1¾	15 9
F 4880	12½	4	5¼	2	18 3

Inside frosted glasses can be supplied at 6d. each extra.

Prices include lampholders but not lamps.

**S.E.C.****WATERTIGHT FITTINGS**

SCREWED GUARD TYPE FOR MARINE USE



**Specification.**—Heavy cast brass domed top and substantial screw-on guard. Standard finish: Black bronze. Fitted with B.C. lampholder. Clear well glass, fitted with rubber gaskets.

Suitable for 40 or 60-watt Osram lamps.

F 4871 with 4 $\frac{1}{4}$ -ins. diam. flange for deckhead mounting.

F 4872 with 3-ins. diam. flange for deckhead mounting.

F 4873 screwed  $\frac{3}{8}$ -in. E.T.

F 4874 with 3-ins. diam. flange and bracket for bulkhead mounting.

Cat. No.	Overall length.	Projection.	Weight.	Price each, with light pattern well glasses.	
				s.	d.
F 4871	ins. 7 $\frac{1}{4}$	ins. —	lbs. 2	9	9
F 4872	9	—	2 $\frac{1}{4}$	10	6
F 4873	8	—	1 $\frac{3}{4}$	9	6
F 4874	12 $\frac{1}{2}$	5 $\frac{1}{2}$	2 $\frac{1}{2}$	12	3

Heavy pattern well glasses can be supplied at 16/6 dozen extra.

Prices include lampholders but not lamps.

## HEAVY STIRRUP GUARD PATTERN FOR MARINE USE



F 4875



F 4877



F 4876

**Specification**—Heavy cast brass domed top with D-section drawn brass guard with ends riveted to prevent loss of nuts or guards. Standard finish: Black bronze. Fitted with B.C. lampholder and clear flangeless well glass with gasket. Suitable for 40 or 60-watt Osram lamps.

F 4875 with 3-ins. diam. flange for deckhead mounting.

F 4877 with 3-ins. diam. flange and bracket for bulkhead mounting.

F 4876 screwed  $\frac{3}{4}$ -in. gas.

Cat. No.	Overall length.	Projection.	Weight.	Price each.	
	ins.	ins.	lbs.	s.	d.
F 4875	8 $\frac{1}{2}$	—	2 $\frac{3}{4}$	12	3
F 4876	8	—	2	10	6
F 4877	11	4	3	15	0

Prices include lampholders but not lamps.

## Watertight Fittings (continued)

### CAST IRON



**F 4891**  
Without reflector.

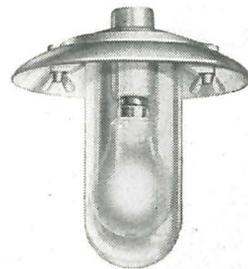
**F 4895**  
With reflector as  
illustrated.



**F 4899**



**F 4909**



**F 4910**

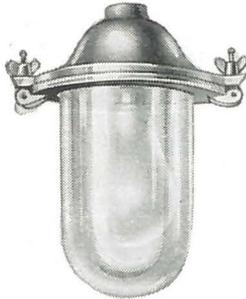
**Specification.**—The metalwork is made in cast iron, finished aluminium colour (F 4909/10 supplied galvanized if required) outside and stove enamelled inside. Fitted with B.C. lampholders and clear glass, except F 4899, which has a ruby globe.

Standard tapping  $\frac{3}{4}$ -in. E.T.

Cat. No.	Overall height.	Overall diam.	Glass.		Weight.		OSRAM lamp recommended.	Price each.	
			Diam.	Depth.	Fitting.	Glass.		Aluminium finish.	Galvanized finish.
	ins.	ins.	ins.	ins.	lbs.	lbs.	watts.	s.	d.
<b>F 4891</b>	12 $\frac{1}{2}$	9 $\frac{1}{2}$	7	8	3 $\frac{1}{4}$	1 $\frac{3}{4}$	100*	11	9
<b>F 4895</b>	12 $\frac{1}{2}$	12	7	8	7	1 $\frac{3}{4}$	100*	14	3
<b>F 4899</b>	17 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	13 $\frac{1}{2}$	5 $\frac{1}{2}$	4 $\frac{1}{2}$	40-60	69	6
<b>F 4909</b>	7 $\frac{1}{2}$	7 $\frac{1}{4}$	3	6 $\frac{1}{2}$	2 $\frac{1}{4}$	$\frac{1}{2}$	40-60	4	9
<b>F 4910</b>	8 $\frac{1}{2}$	8 $\frac{1}{4}$	4 $\frac{1}{2}$	6 $\frac{1}{2}$	3 $\frac{1}{4}$	$\frac{1}{2}$	60-100	6	9

\* Also suitable for one 80-watt Osira lamp.

Prices include lampholders but not lamps.



F 4892



F 4896



F 4911



F 4913/5



F 4918



F 4919

**Specification.**—The metalwork is made in cast iron, finished aluminium colour or galvanized outside and stove enamelled white inside, with clear well glasses and B.C. lampholders. Aluminium colour finish will be supplied unless otherwise ordered. Standard tapping  $\frac{1}{4}$ -in. E.T. F 4911 is supplied with swing bolts, F 4913 is supplied without a reflector, and F 4915 with a reflector. F 4918 is arranged for fixing to a small B.S.S. conduit box.

Cat. No.	Overall diam.		Well glass.		Weight.		OSRAM lamp recommended.	Price each.			
	Overall height.		Diam.	Depth.	Fitting.	Glass.		Aluminium finish.		Galvanized finish.	
	ins.	ins.	ins.	ins.	lbs.	lbs.	watts.	s.	d.	s.	d.
F 4892	8½	7	4½	6½	2	½	60 to 100	7	6	8	3
F 4896	8½	9	4½	6½	3	½	60 to 100	3	3	9	9
F 4911	8	5½	3	6½	1½	¼	40 or 60	4	3	4	9
F 4913	8	5½	3	6½	1½	¼	40 or 60	4	3	4	9
F 4915	8	7½	3	6½	2	¼	40 or 60	5	3	6	0
F 4918	8½	5	3	6½	2½	¼	40 or 60	7	3	8	0
F 4919	10	10	3	6½	6½	¼	40 or 60	11	0	13	0

Prices include lampholders but not lamps.

**G.E.C.**

**WEATHERPROOF FITTINGS**  
(CAST IRON)



F 4881



F 4883



F 4885



F 4887



F 4889

**Specification.**—F 4881/3/5/9 metalwork made in cast iron, finished aluminium colour outside and stove enamelled inside.

F 4887 metalwork made in cast iron, galvanized outside and stove enamelled inside or finished aluminium colour outside and vitreous enamelled inside.

All models are ventilated, fitted with B.C. lampholders and clear glass. Standard tapping  $\frac{1}{4}$ -in. E.T. with the exception of F 4885 which is  $\frac{3}{4}$ -in. gas.

Cat. No.	Overall height.	Overall diam.	Glass.		Weight.		OSRAM lamps recommended.	Price each.			
			Diam.	Depth.	Fitting.	Glass.		Aluminium finish.		Galvanized finish.	
	ins.	ins.	ins.	ins.	lbs.	lbs.	watts.	s.	d.	s.	d.
F 4881	13 $\frac{1}{2}$	18	7 $\frac{1}{2}$	8 $\frac{1}{2}$	10 $\frac{1}{2}$	2 $\frac{1}{2}$	One 150 or 200*	31	6	33	0
F 4883	14 $\frac{1}{2}$	16	10 $\frac{1}{2}$	9 $\frac{1}{2}$	18 $\frac{1}{2}$	2 $\frac{1}{2}$	Two 100	32	6	—	—
F 4885	15	18	12 $\frac{1}{2}$	9 $\frac{1}{2}$	26 $\frac{1}{2}$	3	Four 100	49	6	—	—
F 4887	10	10 $\frac{1}{2}$	4 $\frac{1}{2}$	6	8	$\frac{3}{4}$	One 100	21	6	24	9
F 4889	11	11 $\frac{1}{2}$	8 $\frac{1}{2}$	5	8 $\frac{1}{2}$	1 $\frac{1}{2}$	One 100	20	6	—	—

\* Also suitable for one 80 or 125-watt Osira lamp.

Prices include lampholders but not lamps.



F 4904/7



F 3773

**Specification.**—Cast iron galleries. F 4904/7 galleries are provided with drip holes. Standard tapping  $\frac{1}{4}$ -in. E.T.

Cat. No.	For globes with lip. diam.	Approx. weight.	Gallery only.			
			Alumin. finish.		Galv. finish.	
	ins.	lbs.	doz.	d.	doz.	d.
F 4902	5	3½	109	0	119	0
F 4905	3½	1	82	6	89	3
F 4906	4	2	92	6	99	0
F 4904	6	4½	119	0	132	0
F 4907	7	5	128	9	148	6

Cat. No.	For globes with lip. diam.	Approx. weight.	Gallery only.			
			Alumin. finish.		Galv. finish.	
	ins.	lbs.	doz.	d.	doz.	d.
F 3773	3½	½	34	6	48	0
	4	1½	43	6	61	3
	5	2½	60	6	84	3
	6	2½	69	3	96	9
	7	4½	79	9	112	3

Prices do not include glassware or lampholders.

### GLASSWARE FOR USE WITH ABOVE.

“SUPERLUX.”  
Satin opal globe.



G 140/9

“BRITALUX.”  
White opal cube.



G 6672/8

“EQUILUXO.”  
Fluted opal globe.



G 1540/6

Cat. No.	Globe diam.		Lip. diam.		Price each.	
	ins.	ins.	ins.	s. d.	s. d.	s. d.
G 140	6	3½	4	3	4	3
G 143	7½	4	5	9	5	9
G 145	10	4	10	6	10	6
G 147	12	5	14	6	14	6
G 149	16	6	36	0	36	0

Cat. No.	Cube size.		Lip.		Price each.	
	ins.	ins.	ins.	s. d.	s. d.	s. d.
G 6672	4	3½	7	0	7	0
G 6674	6	3½	9	3	9	3
G 6676	8	4	13	6	13	6
G 6678	10	6	27	6	27	6

Cat. No.	Globe diam.		Lip. diam.		Price each.	
	ins.	ins.	ins.	s. d.	s. d.	s. d.
G 1540	6	3½	7	9	7	9
G 1542	8	4	10	0	10	0
G 1544	10	5	17	6	17	6
G 1546	12	6	29	0	29	0

## ACCESSORIES FOR USE WITH WATERTIGHT FITTINGS

(For watertight fittings as illustrated, see pages 50 and 51.)



**F 4923**

Iron bracket only.  
Projection 6 ins.  
Screwed  $\frac{3}{4}$ -in. E.T.  
Cast iron backplate 4 ins. diam.



**F 4925**

Iron pendant only.  
Length 6 ins.  
Screwed  $\frac{3}{4}$ -in. E.T.  
Cast iron backplate 4 ins. diam.



**F 4927**

Iron bracket only, for fixing  
over doorways.  
Projection 7 ins.  $\times$   $\frac{3}{4}$ -in. E.T.  
Backplate 4 ins. diam.

Cat. No.	Description.	Price each.
F 4923		s. d.
	Aluminium colour finish	2 0
	Galvanized finish	2 3

Cat. No.	Description.	Price each.
F 4925		s. d.
	Aluminium colour finish	1 9
	Galvanized finish	2 0

Cat. No.	Description.	Price each.
F 4927		s. d.
	Aluminium colour finish	3 6
	Galvanized finish	4 0

**NOTE.** If specified, backplates  $2\frac{1}{2}$  ins. diam. drilled for fixing to B.S.S. conduit boxes can be supplied for any of these brackets without extra charge.

Prices do not include fittings or lamps.



**F 4898**

Cast iron backplate, 4 ins. diam., screwed  $\frac{1}{2}$ -in. gas or  $\frac{3}{4}$ -in. E.T., with front entry for conduit screwed  $\frac{1}{2}$ -in. gas or  $\frac{3}{4}$ -in. E.T.



**F 5257**



**F 4920/2**

Galvanized wire guard.

Cat. No.	Description.	Price each.
F 4898		s. d.
	Aluminium colour finish	2 0
	Galvanized finish	2 6

Cat. No.	Description.	Price per doz.
F 4920		s. d.
	Wire guard for F 4909	10 0
	Wire guard for F 4913/5	10 0
F 4922	Wire guard for F 4910	11 0

Cat. No.	Description.	Thread.	Price each, aluminium finish.		Price each, galvanized finish.	
			s.	d.	s.	d.
F 5257	{ Angle type backplate for corner fixing }	$\frac{1}{2}$ -in. E.T.	4	9	6	0
		$\frac{3}{4}$ -in. iron	6	3	—	—
		1-in. iron	15	9	—	—

# S.E.C.

## BRACKETS FOR WATERTIGHT FITTINGS, ETC.



F 5251  
"UPLANDS."

Light iron bracket only,  $\frac{3}{4}$ -in. E.T., with backplates  $3\frac{3}{8}$  in. diam. on 9-in. and 12-in. and 4-in. diam. on 15-in. and 18-in. sizes. Watertight fitting as illustrated, see page 50.

Cat. No.	Pro-jection.	Aluminium finish. Price each.		G'nized finish. Price each.	
		s.	d.	s.	d.
F 5251	9	3	3	3	6
	12	3	6	3	9
	15	3	9	4	3
	18	4	0	4	9



F 5255  
"UPSHIRE."

Light iron bracket only,  $\frac{3}{4}$ -in. E.T., with backplates  $3\frac{3}{8}$  in. diam. on 12-in. and 4-in. diam. on 15-in., 18-in. and 24-in. sizes. Fitting as illustrated, see page 52.

Cat. No.	Pro-jection.	Aluminium finish. Price each.		G'nized finish. Price each.	
		s.	d.	s.	d.
F 5255	12	2	9	3	3
	15	3	6	4	0
	18	3	9	4	6
	24	4	0	4	9

### F 5253

Round backplate  $4\frac{1}{8}$  in. diam. on brackets with 15-in. and 18-in. projections.

Oblong backplate 6 in.  $\times$  4 in. on 24 in. and 30 in.

If fitted with F 5257 angle backplate for corner fixing, 6s. 3d. each extra.

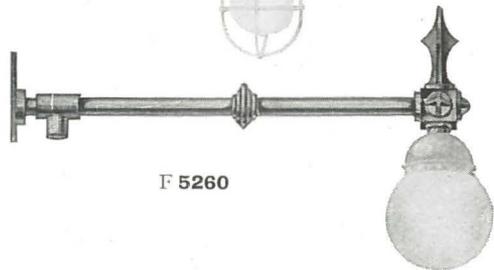
For fitting illustrated, see page 51.

### F 5260

Tee inlet screwed  $\frac{3}{4}$ -in. E.T. End of arm screwed  $\frac{3}{4}$ -in. E.T.

For prices of galleries and globes see page 52.

### F 5253

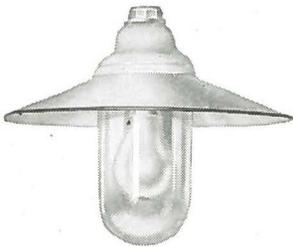


### F 5260

Cat. No.	Projection.	Size of Tube.	Size of Backplate.	Approx. weight.	Price each. Bracket only. Aluminium finish.		
					£	s.	d.
F 5253	15	$\frac{1}{2}$ -in. Gas	4 $\frac{1}{8}$ Round	4 $\frac{1}{2}$ lbs.		10	0
	15	$\frac{3}{8}$ -in. "	4 $\frac{1}{8}$ "	5 $\frac{1}{4}$		12	0
	18	$\frac{3}{8}$ -in. "	4 $\frac{1}{8}$ "	6	1	0	0
	24	$\frac{3}{4}$ -in. "	6 $\times$ 4 Oblong	8	1	3	3
	30	$\frac{3}{4}$ -in. "	6 $\times$ 4 "	11	1	6	6
F 5260	18	$\frac{3}{4}$ -in. "	6 $\times$ 4 "	11		13	0
	24	$\frac{3}{4}$ -in. "	6 $\times$ 4 "	12		13	9
	30	$\frac{3}{4}$ -in. "	9 $\times$ 5 "	15		16	0

Prices do not include galleries or globes.

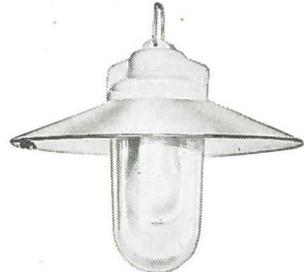
**PORCELAIN  
WATERTIGHT FITTINGS**



F 4932/6



F 4938



F 4934

**Application.**—These fittings are designed to avoid deterioration when used in damp situations or in the presence of corrosive vapours.

**Specification.**—All types have white glazed porcelain tops and porcelain skirted B.C. or E.S. lampholders. The well glasses are screw-necked and fitted with rubber gaskets. F 4932/4/6 can be supplied with vitreous enamelled steel reflectors, while F 4938 includes a white opal globe in place of the well glass.

Cat. No.	Description.	Weight.	Diameter of reflector.	OSRAM lamp recommended.	Price each.
F 4932	Without reflector, tapped $\frac{3}{4}$ " E.T. .. .. .	2 $\frac{3}{4}$	—	40 or 60 Pearl	8 3
	With reflector ditto .. .. .	3 $\frac{1}{2}$	12	40 or 60 ..	10 6
F 4934	Without reflector, with suspension loop .. .. .	2 $\frac{3}{4}$	—	40 or 60 ..	8 3
	With reflector ditto .. .. .	3 $\frac{1}{4}$	12	40 or 60 ..	10 6
	Spare screw-neck well glasses for F 4932/4, $7\frac{1}{4}$ " deep, $3\frac{3}{4}$ " diam. .. .. .	$\frac{3}{4}$	—	—	2 0
F 4936	As F 4932, without reflector, 100-watt lamp size .. .. .	3	—	100 ..	15 0
	As F 4932, with reflector, 100-watt lamp size .. .. .	4 $\frac{1}{2}$	14	100 ..	18 6
	Spare screw-neck well glasses for F 4936, $7\frac{3}{4}$ " deep, $4\frac{3}{4}$ " diam. .. .. .	1 $\frac{1}{4}$	—	—	4 0
F 4938	As F 4936, but with opal globe (E.S. lampholder) .. .. .	4 $\frac{1}{2}$	—	150-200	24 9
	Spare screw-neck opal globes, 9" deep, 10" diam. .. .. .	2 $\frac{3}{4}$	—	—	13 9

Prices include lampholders but not lamps.



F 16486/8



F 16487

**Application.**—These fittings are designed for use in damp situations.

**Specification.**—White glazed porcelain tops with porcelain B.C. or E.S. lamp-holders.

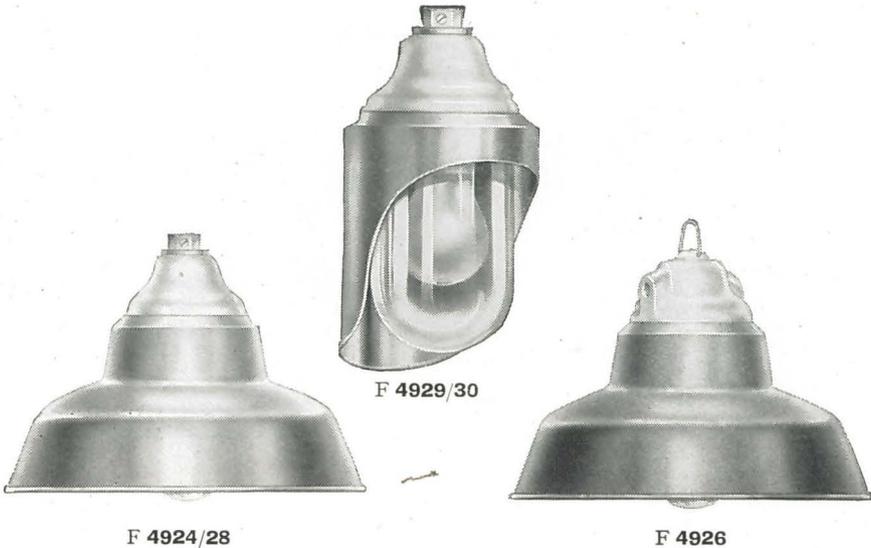
The globes are of white opal glass with screw necks.

Cat. No.	Description.	Weight.	Diameter of globe.	OSRAM lamp recommended.	Price each.	
					s.	d.
F 16486	Tapped $\frac{3}{4}$ " E.T. ..	2 $\frac{1}{2}$	6	40 or 60	11	9
F 16487	With suspension loop	2 $\frac{1}{2}$	6	40 or 60	11	9
F 16488	Tapped $\frac{3}{4}$ " E.T. ..	3 $\frac{1}{2}$	8	100	18	3

Prices include lampholders but not lamps.

Porcelain Watertight Fittings (continued)

WITH  
WHITE VITREOUS ENAMELLED REFLECTORS



**Application.**—These fittings are suitable for similar purposes as F 4932/8, but are provided with dispersive or scoop type reflectors giving better light control and avoiding glare.

**Specification.**—Porcelain top and screw-necked well glass identical with F 4932/6, but F 4924/28 types are provided with detachable vitreous enamelled skirted reflectors, and F 4929/30 are provided with scoop-shaped vitreous enamelled reflectors for directional lighting.

Cat. No.	Description.	Weight.	OSRAM lamp	Price		
			recommended.	each.	£	s.
		lbs.	watts.			
F 4924	F 4932 porcelain fitting with 12-in. dispersive reflector. Tapped $\frac{3}{4}$ -in. E.T. .. .. .	4 $\frac{1}{4}$	40 or 60	16	6	
F 4926	F 4934 porcelain fitting with 12-in. dispersive reflector .. .. .	4 $\frac{1}{4}$	40 or 60	16	6	
F 4928	F 4936 porcelain fitting with 14-in. dispersive reflector .. .. .	5 $\frac{1}{2}$	100	1	6	6
F 4929	F 4932 porcelain fitting with scoop-shaped reflector .. .. .	2 $\frac{3}{4}$	40 or 60	16	6	
F 4930	F 4936 porcelain fitting with scoop-shaped reflector .. .. .	3 $\frac{3}{4}$	100	1	4	9

Prices include lampholders but not lamps.

## WITH SILVERED ENCLOSED GLOBES



**F 4939**  
with **F 4941** bracket.



**F 4940**

**Application.**—F 4939 fitting is suitable for lighting spray booths from outside and in other cases where a high intensity of light is required over a small area. F 4940 is suitable for general lighting and can be used with a spacing to mounting height ratio up to  $2\frac{1}{2} : 1$ . Both types are dust-tight and watertight.

**Specification.**—Both fittings consist of glazed porcelain top, carrying porcelain-skirted E.S. lampholder and screw-necked enclosed reflector, with mirrored and lead-backed reflecting surface and sand-blasted domed front.

Either type is suitable for mounting direct on  $\frac{3}{4}$ -in. E.T. conduit, or can be used with F 4941 adjustable bracket and glands for T.R.S. cable. The bracket is designed for screwing to  $\frac{3}{4}$ -in. E.T. conduit.

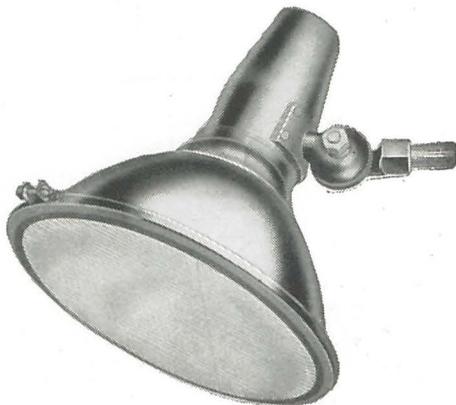
Cat. No.	Description.	Weight.	Diam. of reflector.	OSRAM lamp recommended.	Price each.		
		lbs.	ins.	watts.	£	s.	d.
F 4939	Without bracket .. ..	5 $\frac{1}{4}$	12	150-200	2	13	0
F 4940	Without bracket .. ..	5	10	150-200	2	13	0
F 4941	Bracket only for F 4939/40 ..	3	—	—	1	13	0
—	Spare glass reflector for F 4939	3 $\frac{3}{4}$	—	—	2	1	3
—	Spare glass reflector for F 4940	3 $\frac{1}{2}$	—	—	2	1	3

Prices include lampholders but not lamps.

**“INTENSOLUX” AND “PROJECTOLUX”  
REFLECTORS**



**F 4942/4**  
“Intensolux.”



**F 4946**  
“Projectolux.”

**F 4942/4. “Intensolux” Reflectors.**

**Application.**—For the supplementary lighting of small areas to a considerably higher level of illumination than that from the general lighting of the room, or for inaccessible positions. Examples: Delivery ends of printing presses, dies of stamping presses, baking oven interiors, etc.

**F 4946. “Projectolux” Reflectors.**

**Application.**—For the illumination of plane surfaces such as walls, ceilings, etc., from a grazing angle, i.e., where the fitting is close to one end of the surface to be lighted.

**Specification.**—Reflector made in heavy gauge copper with chromium-plated interior surface and green enamelled exterior.

**F 4942/4.** Fitted with B.C. or E.S. adjustable lampholder, universal knuckle joint tapped  $\frac{1}{2}$ -in. E.T. and domed clear glass front, which renders the fitting dust-tight.

**F 4946.** Fitted with skirted all-porcelain G.E.S. lampholder, special ribbed glass front lens and universal joint, enabling the unit to be tilted or rotated at any angle. The whole fitting is dustproof and is wired with a length of special wire ready for connecting.

Cat. No.	Diameter.	Lampholder.	OSRAM lamp recommended.	Price each.		
				£	s.	d.
F 4942	9 ins.	B.C.	60-100 watts.	2	2	0
F 4944	12	E.S.	150-200	3	3	0
F 4946	12 $\frac{3}{4}$	G.E.S.	300	4	4	0

Prices include lampholders but not lamps.

# G.E.C.

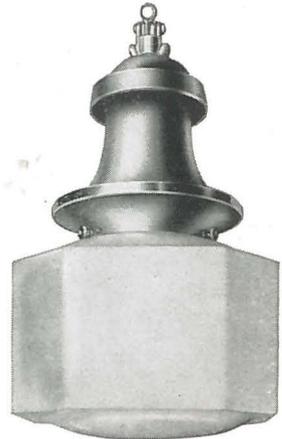
## WEATHERPROOF LANTERNS FOR EXTERIOR LIGHTING



F 4858  
"SARON"



F 4861  
"GUILDHALL"



F 4868  
"RIDGEWAY"

F 4858 canopy is made in copper, finished bronze colour. Supplied with 16-in. "Britalux" low absorption opal globe.

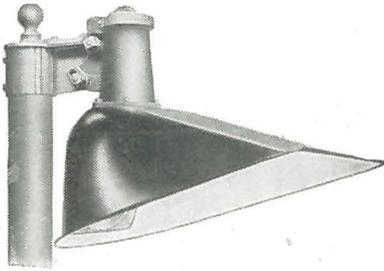
F 4861 canopy is made in iron, finished green vitreous enamel. With "Superlux" low absorption opal globe.

F 4868 canopy is made in copper, finished bronze colour. Supplied with 12-in. square shape low absorption opal glass globe with chamfered corners.

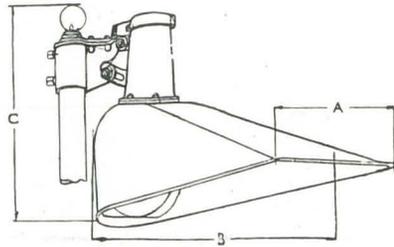
Cat. No.	Finish.	Overall height.	Overall diam. of canopy.	Glass		Weight.		OSRAM lamp recommended	Price each.
				Diam.	Depth.	Fitting.	Glass.		
F 4858	Bronze colour	21	10	16	11	3½	4½	watts. } Up to 200 } }	£ s. d.
F 4861	Green	23	9	12	11½	3½	3½		1 18 6
F 4868	Bronze colour	21	10	12	11	3½	5½		3 3 3

Prices include E.S. lampholders but not lamps.

**“DUOFLUX” FLOODLIGHTS**



F 16411/8



Dimensional Drawing.

**Application.**—“Duoflux” floodlights are designed for floodlighting downwards and forwards in such locations as petrol stations and loading banks. Their construction assures that no upward light is wasted, as it is caught and re-directed by the reflector.

**Specification.**—The reflector is made in heavy gauge steel, “Crysteel” vitreous enamelled green outside and white inside. The auxiliary reflector is of anodised aluminium. Top and mounting are of special die-cast aluminium alloy. The mounting is adjustable to allow up to a 15 degree tilt above or below the normal position, which gives a horizontal cut-off. “Duoflux” floodlights for OSIRA lamps include a heat-resisting glass cylinder surrounding the lamp.

Supplied in two types for alternative mounting as follows :—

Pole top type—Small size, suitable for mounting at the top of 1½-in. gas tube. Large size, supplied with removable liner for mounting at the top of 1½-in. gas tube or 3-in. diam. pole.

Pole clamp type—Both sizes, suitable for fixing to poles of 3 to 4 in. diam.

**For use with OSRAM Tungsten Filament Lamps.**

Cat. No.	Type.	Dimensions.			OSRAM lamp recommended.	Price each.		
		A	B	C		£	s.	d.
F 16411	Pole top mounting	ins.	ins.	ins.	watts.	£	s.	d.
F 16412		19	17½	15	300	5	5	0
F 16413		25	22¼	19½	500	7	7	0
F 16414		25	22¼	19½	750-1000	7	7	0
F 16415	Pole clamp mounting	19	17½	15	300	5	5	0
F 16416		25	22¼	19½	500	7	7	0
F 16417		25	22¼	19½	750-1000	7	7	0
F 16418		25	22¼	19½	1500	7	7	0

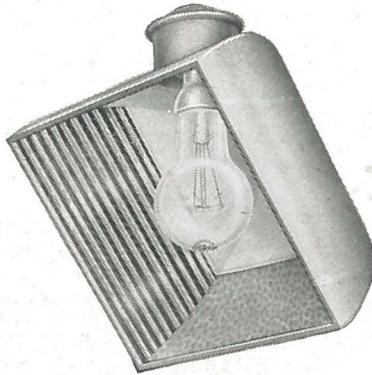
**For use with OSIRA Electric Discharge Lamps.**

Cat. No.	Type.	Dimensions.			OSIRA lamp recommended.	Price each.		
		A	B	C		£	s.	d.
F 16751	Pole top mounting	ins.	ins.	ins.	watts.	£	s.	d.
F 16752		19	17½	15	125 Pearl	5	5	0
F 16753		19	17½	15	250 Clear	6	5	0
F 16412		25	22¼	19½	400 Clear	8	10	0
		25	22½	19½	400 Fluorescent	7	7	0
F 16755	Pole clamp mounting	19	17½	15	125 Pearl	5	5	0
F 16756		19	17½	15	250 Clear	6	5	0
F 16757		25	22¼	19½	400 Clear	8	10	0
F 16416		25	22¼	19½	400 Fluorescent	7	7	0

Prices include lampholders but not lamps.

# S.E.C.

## GARAGE FLOODLIGHT



F 17551

**Application.**—This unit is specially designed for illuminating the front of petrol service stations, small roadside hotels and similar establishments from an elevated position.

The floodlight, while of an inexpensive nature, is scientifically designed to give the very best possible light distribution for the purpose, and in this respect is superior to many more expensive pieces of apparatus on the market.

**Specification.**—Constructed in sheet copper, finished aluminium colour, with mirror and opal reflectors.

The mirror glass side reflectors are of a carefully designed contour to spread the light at a wide angle across the building face, while the opal glass top reflectors give a soft even illumination immediately below the floodlight.

Supplied with a skirted porcelain E.S. lampholder, the unit is designed to take Osram lamps of 150 or 200 watts. For outside use it should be mounted so that the lamp is in a vertical position, cap upwards.  $\frac{1}{4}$ -in. E.T. fitting.

The fitting can be mounted on the top or at the side of a post, a simple strap iron bracket being all that is required for the purpose. Suitable brackets can be supplied on request.

Cat. No.	Dimensions.		Weight complete.	OSRAM lamp recommended.	Price each.
	Height overall.	Width.			
F 17551	ins. 13	ins. 10	lbs. 5	watts. 150 or 200	£ s. d. 2 12 3

Price includes lampholder but not lamp.

**CARGO FITTINGS**



F 4985



F 4987



F 4989

Illustrated without guards.

**F 4985.** Arranged for one 300-watt or 500-watt Osram lamp. The reflector is made of iron, vitreous enamelled green outside, white inside. Supplied with stout galvanized wire guard, G.E.S. lampholder and anti-vibrator. Diameter of reflector, 20 in. Overall length, 24 in. Weight, 18 lb.

**F 4987.** Arranged for one 100-watt or 200-watt Osram lamp. The reflector is made of iron, vitreous enamelled green outside and white inside. Supplied with stout galvanized wire guard, B.C. or E.S. lampholder and anti-vibrator. Diameter of reflector, 15 in. Overall length, 16 in. Weight, 13½ lb.

**F 4989.** The reflector is made of iron, vitreous enamelled green outside, white inside. Supplied with stout galvanized wire guard, anti-vibrator, and E.S. lampholder included. Arranged for one 200-watt Osram lamp. Diameter of reflector, 18 in. Overall length, 18 in. Weight, 11½ lb.

**F 4991.** This fitting illuminates an area approximately 70 ft. in diameter when slung at a height of 30 ft., and does not interfere with harbour lights owing to its deep skirt. The reflector is made of iron, green and white vitreous enamelled with ventilated canopy and stout hinged wire guard. A G.E.S. lampholder is included. Arranged for one 300-watt Osram lamp. Diameter of reflector, 14½ in. Overall length, 19½ in. Weight, 17 lb.



F 4991

Cat. No.	Description.	OSRAM lamp recommended.	Price each.		
			£	s.	d.
F 4985	Cargo reflector fitting	300-500 watts.	2	12	3
F 4987	" " "	100-200	2	6	9
F 4989	" " "	• 200	2	9	6
F 4991	" " "	300	4	13	6

Prices include lampholders but not lamps.



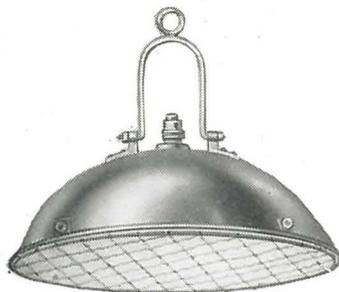
F 4993

This pattern complies fully with Home Office requirements. The vitreous enamelled iron reflector is finished blue outside and white inside, with brass fittings and strong hinged galvanized iron guard. The lampholders are mounted on a plate which is insulated from the reflector by moulded mica bushes. The reflector is bonded to the dome, and efficient means are provided for earthing. Osram lamps up to 60 watts are recommended.



F 4997

Blue and white vitreous enamelled iron reflector. Galvanized cast iron cap with terminals.



F 5001

Blue and white vitreous enamelled iron reflector. Brass fittings and stout galvanized wire guard.

Cat. No.	Diameter of reflector.	Number of lights.	Weight.	Price each.		
				£	s.	d.
F 4993	ins. 20	6 (with lampholders)	17	3	19	3
	20	8 (with lampholders)	17	4	1	6
F 4997	18	3 to 5	9½	1	19	9
	24	3 to 8	12	2	6	3
F 5001	20	5 to 8 (with guard)	9	2	9	6

Prices do not include lamps or lampholders, except where otherwise stated.

**FLAMEPROOF FITTINGS**

While a variety of enclosed lighting fittings have been, and are still used and regarded as safe in inflammable and explosive atmospheres, many of these would not pass the rigorous tests now imposed before such fittings are officially approved and certified by the Board of Trade.

Ability to withstand internal ignition pressures, surface temperature rise, mechanical and electrical construction are all taken into account in assessing the safety of fittings for use in industries where fire and explosion risks are high.

The G.E.C. manufactures a range of fittings designed to meet specialised requirements of this type, but would point out that where even the smallest temperature rise is unwanted, as for instance in the cellulose industries, the satisfactory illumination of any but small areas by means of certified fittings becomes both cumbersome and costly. An alternative method of illumination by means of standard equipment situated outside the danger area is sometimes possible, however, and the experience of the G.E.C. Illuminating Engineering Department is always at the disposal of those interested in this matter.

All the fittings listed in this section have been certified by the Mines Department of the Board of Trade as flameproof and suitable for use in explosive or inflammable atmospheres as detailed. Copies of the Buxton Test certificates issued in respect of each individual type may be obtained on request.



**F 16501**  
**Flameproof**  
**Portable**  
**Handlamp.**

*(Buxton Test Report, No. FLP 545.)*

**Application.**—This handlamp has been designed to meet the requirements of oil tankers, garages and other locations. It can be used with safety in a pentane or methane laden atmosphere.

**Auxiliaries.**—While any type of strong flexible cable can be used with this lamp, a special Pirelli-General industrial screened flexible cable is recommended. In this the two main conductors are separately screened by a tinned copper braiding, the screens being earthed at the supply end. Thus the fuse or circuit breaker is operated by the abnormal current flowing should the cable be damaged sufficiently to break the insulation between screen and conductor. Full particulars of cable and circuit breakers on request.

**Specification.**—Flameproof portable handlamp suitable for 40 or 60-watt Osram lamps, made in cast aluminium alloy with heavy well glass cemented into fixing ring, strong metal guard and stand, 1/2-in. coned cable gland and separate terminal chamber.

Cat. No. F 16501 .. .. .	Price £2 1s. 3d. each.
Cat. No. F 16502 Spare well glasses with rings for F 16501 ..	Price 13/3 each.
1/4-in. box spanners to fit shrouded bolts on this fitting .. ..	Price 1/- each extra.

**Price includes lampholder but not lamp.**



F 16511/3/5/7  
(Buxton Test Certificate No. FLP 739.)



F 16540/1  
(Buxton Test Certificate No. FLP 1190.)

**Application.**—These fittings are suitable for general lighting purposes in any atmosphere covered by B.O.T. Groups I, II and III classifications. The temperature rise on the surface of the fittings is within the limit permitted where acetone is used, as in cellulose industries. Alternate dispersive and angle type reflectors are available, rendering the fittings applicable for pendant and wall mounting.

**Specification.**—F 16511/3 flameproof fittings made in cast iron with heavy well glass cemented to fixing ring, strong wire guard and B.C. lampholder with terminal chamber and fixing arranged for  $\frac{3}{4}$ -in. conduit. The internal connections are of solid metal (not wire) passing through insulating sleeves. F 16513 well glass part is hinged to the main body of the fitting.

Cat. No.	Description.	Price each.		
		£	s.	d.
F 16511	60-watt fitting for $\frac{3}{4}$ -in. conduit suspension ..	1	9	9
F 16513	100-watt fitting for $\frac{3}{4}$ -in. conduit suspension ..	1	13	0
F 16515	60-watt fitting with 4-way entries, tapped 1-in. E.T., with loop suspension .. .. .	2	2	6
F 16517	100-watt fitting with 4-way entries, tapped 1-in. E.T., with loop suspension .. .. .	2	5	9
F 16540	Fitting with 3-pin B.C. holder to take 80 or 125-watt Osira H.P. Mercury lamp .. .. .	3	17	0
F 16541	Fitting with E.S. holder to take 150 or 200-watt Osram lamp .. .. .	3	17	0

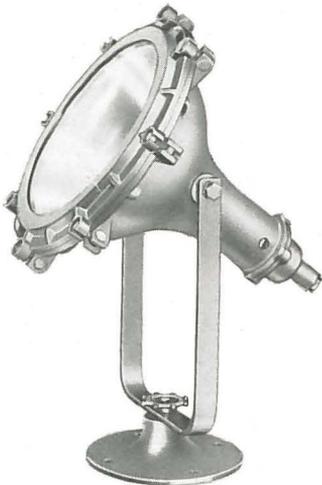
NOTE.—The above prices include lampholders but not reflectors.  
All the above fittings can be supplied with E.S. lampholders if required

### REFLECTORS.

Cat. No.	Description.	Price each.	
		s.	d.
F 16523	12" diameter dispersive vitreous enamelled reflector for F16511/15 fittings .. .. .	8	3
F 16524	14" diameter dispersive vitreous enamelled reflector for F16513/17 fittings .. .. .	11	0
F 16525	Angle reflector skirt for F 16511/15 fittings ..	11	6
F 16526	Angle reflector skirt for F 16513/17 fittings ..	12	9
F 16542	16 $\frac{1}{2}$ " diameter dispersive vitreous enamelled reflector for F 16540/41 fittings .. .. .	12	3
F 16543	14" diameter parabolic angle vitreous enamelled reflector for F 16540/41 fittings .. .. .	14	6

Spare well glasses with rings for F 16511/15 fittings .. 11s. 0d. each.  
Ditto ditto for F 16513/17 fittings .. 15s. 0d. "  
Ditto ditto for F 16540/4 fittings .. 27s. 6d. "

**FLOODLIGHTS**



**F 16531**

(Buxton Test Certificate No. FLP 918.)



**F 16534**

(Buxton Test Certificate No. FLP 1233.)

**Application.**—These floodlights embody flameproof features which render them suitable for use in oil refineries, chemical plants, petrol stores, etc., where inflammable vapours are present. The fitting is certified for use in all situations covered by B.O.T. Groups II and III, with the exception of positions where acetone vapour is present, as in cellulose industries.

**Specification.**—Flameproof floodlight constructed in cast alpac aluminium alloy with bright anodized aluminium reflector, heavy armour plate front glass cemented in mounting ring, G.E.S. lampholder, terminal chamber and gland for C.T.S. cable. Supplied mounted in wrought iron cradle with cast base. F 16531, suitable for use with 500-watt Osram General Service or Class B 2 projector lamps, F 16534 for 1,000-watt Osram G.S. or Class B 2 projector lamps.

Illumination data of F 16531 is approximately similar to that for F 17555 floodlight (see Cat. F6, "G.E.C. Floodlights and Floodlighting").

	<b>F 16531</b>	<b>F 16534</b>
Overall Dimensions :		
Height .. .. .	22½ ins. max.	24½ ins. max.
Front ring to cable gland .. .. .	20 ins.	22 ins.
Diameter of front .. .. .	18½ ins.	18½ ins.
Weight .. .. .	50 lbs.	57 lbs.
Cat. No. F 16531 .. .. .	.. .. .	Price £23 13s. 0d. each.
Cat. No. F 16534 .. .. .	.. .. .	Price £24 15s. 0d. each.

Prices include lampholders but not lamps.

# G.E.C.

## CLAUDGEN ARTIFICIAL DAYLIGHT UNITS

Natural daylight varies from day to day, even from minute to minute, according to cloud, mist or sunshine. Its composition is also influenced by the colour and nature of the surroundings in any particular locality, but CLAUDGEN DAYLIGHT never varies. In colour rendering it is the nearest approach to clear north sky daylight yet attained, and



F 16464

CLAUDGEN Portable Daylight Lighting Unit for studying colour combinations during manufacturing operations.

*Claudgen is the Registered Trade Mark of Messrs. Claude General Neon Lights Ltd., an associated company of the G.E.C.*

Is well diffused.

Is a pleasant light for all working conditions and causes no injurious effect to eyesight.

Promotes acuity of vision.

Is less costly to run than any other form of true colour corrected light.

Requires little maintenance.

Is entirely British made and has been subjected to comprehensive tests in the G.E.C. Research Laboratories, and during every process of manufacture.

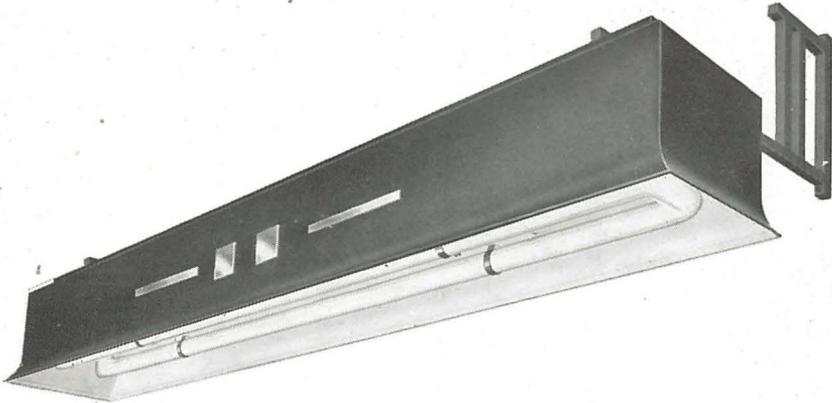
Claudgen Daylight is incapable of igniting inflammable or explosive gases or materials, and is therefore particularly suitable for use in Cellulose Spraying Shops and other situations where inflammable materials are being handled.

Claudgen Daylight lighting is supplied in the form of luminous tubing. This tubing can be installed on ceilings or walls either with or without special reflectors, or it can be supplied in the form of a portable unit. The latter, however, is not suitable for use in inflammable surroundings.

Claudgen Daylight is not expensive to maintain. Beyond regular cleaning of the tubing, it needs no attention and continues to operate at its maximum efficiency subject to the periodic replacement of the gas which is slowly used up in the tube.

**Claudgen Artificial Daylight Units** *(continued)***F 16071**

A Claudgen portable unit for producing artificial daylight. It is particularly suitable for shop and store counters where accurate colour matching is constantly required.

**F 16075**

A Claudgen artificial daylight unit for permanent installation on bracket mounting. The necessary transformer can conveniently be housed under the bench.

The Illuminating Engineering Department of the G.E.C. will be pleased to supply further details of the Claudgen Daylight Lighting and to submit quotations on request.

# G.E.C.

## "LAMPLOUGH" DAYLIGHT FITTINGS



F 16476



F 16474/5



F 16477



F 16479

**Application.**—G.E.C. fittings incorporating "Lamplough" daylight glass provide the most accurately colour corrected light obtainable from tungsten filament lamps with colour filters.

These fittings give satisfactory service for many colour matching and allied inspection purposes.

**Specification.**—Each fitting is equipped with two tinted glass screens with selective absorption giving a close approximation to north sky daylight. The screens for each size of fitting are selected to give the appropriate absorption for the particular lamp size to be employed.

F 16474/6/7/8 fittings are constructed in vitreous enamelled iron, green outside and white inside. F 16475 fitting is finished real bronze colour. F 16479 fitting is designed as a table standard, finished real bronze colour, and fitted with a switch in the base.

Cat. No.	Diam. of glass.	Standard Fitting.	Lamp-holder.	OSRAM lamp recommended.			Price each.		
				watts.			£	s.	d.
F 16474	6 $\frac{3}{8}$	1 $\frac{1}{8}$ -in. hole	—	100	Clear	..	5	4	6
F 16475	6 $\frac{3}{8}$	1 $\frac{1}{8}$ -in. hole	—	100	"	..	5	15	6
F 16476	8 $\frac{1}{2}$	$\frac{3}{4}$ -in. E.T.	E.S.	200	"	..	9	18	0
F 16477	12	$\frac{3}{4}$ -in. E.T.	G.E.S.	500	"	..	16	10	0
F 16478	12	$\frac{3}{4}$ -in. E.T.	G.E.S.	1000	"	..	17	12	0
F 16479	6 $\frac{3}{8}$	—	B.C.	100	"	..	9	7	0

Prices include lampholders (except F 16474/5) but not lamps.

See page 31 for daylight blue glass covers for industrial reflectors.

**G.E.C.**

## "WEDGWOOD" DAYLIGHT REFLECTORS

SPACING-HEIGHT RATIO,  $1\frac{1}{2}$  to 1.



F 16467



F 16468

**Application.**—G.E.C. fittings with "Wedgwood" daylight reflectors are attractive in appearance, efficient in performance, and easy and inexpensive to maintain. For drawing and design offices and all situations where a pleasing partially corrected light is required, G.E.C. "Wedgwood" reflectors are ideal. For best results they should be used with Osram Daylight lamps.

**Specification.**—Shades of the well-known Wedgwood blue porcelain. Metalwork chromium plated. Length 30 ins. overall.

Cat. No.	Type.	Diam.	Holder.	OSRAM lamp recommended.	Price each.
F 16467	Dispersive	ins. 12	B.C.	watts. 75-100	s. d. 38 0
F 16468	,,	14	B.C.	150	49 6
F 16469	,,	14	E.S.	200	59 6

Prices include lampholders but not lamps.

**LOCAL LIGHTING TYPES**



**F 16472**



**F 16473**



**F 16470/1**

**Application.**—Designed for local lighting over desks or benches where a partially corrected light is required.

**Specification.**—Shades of the well-known Wedgwood blue porcelain. Metalwork chromium plated.

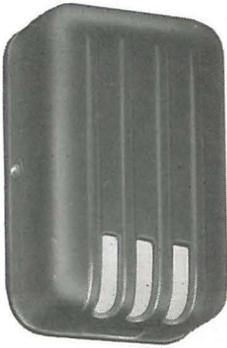
F 16470/1 includes ceiling plate, chain and lampholder. Length 30 ins. overall.

F 16472/3 includes reflector and gallery only to fit B.C. lampholder.

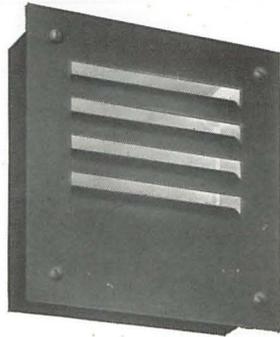
Cat. No.	Type.	Diam.	Lamp-holder.	OSRAM lamp recommended.	Price each.	
				watts.	s.	d.
F 16470	Concentrating	7	B.C.	75-100	26	6
F 16471	„	8	B.C.	150	36	3
F 16472	Angle	6 $\frac{3}{4}$	—	60	15	0
F 16473	„	8	—	100-150	21	6

Prices do not include lamps.

**GANGWAY AND PASSAGE FITTINGS**



**F 17002**



**F 17003**

**F 17002** louvre box (for surface mounting) is designed for cinema gangway step lighting by fixing on the end seat of a row and provides ample illumination without interfering with the vision of stage or screen. Arranged with back entry for fixing to small B.S. box or conduit entry in bottom of fitting. Overall dimensions, 6in. x 4in. x 2in. Complete with porcelain B.C. holder for one 15-watt Osram Pygmy lamp. Made in cast iron undercoated ready for painting.

**F 17003** Flush louvre fitting is designed for use in passages or halls. Consists of cast iron box 5in. x 5in. x 2in. (undrilled) with sheet metal front plate 6in. x 6in. Complete with porcelain B.C. holder for one 15-watt Osram Pygmy lamp. Painted undercoat ready for painting.

Cat. No.	Description.	Price each.
<b>F 17002</b>	Gangway fitting .. ..	s. d. <b>9 6</b>
<b>F 17003</b>	Passage fitting .. ..	<b>7 3</b>

*X Suspended.*

**Prices include lampholders but not lamps.**

**S.E.C.**

**LIBRARY STACK LIGHTING  
UNIT**

*Patent No. 402864.*



**F 16480**

**Application.**—This unit has been specially designed for illumination between library stacks with narrow gangways. The frosted sections throw a good light on to the shelves, while a diffused light is provided along the gangway through the opal sections.

**Specification.**—This fitting consists of a white glass shade with frosted panels, open at the bottom and with the top recessed to allow of close mounting to the ceiling. Fitted with B.C. backplate lampholder suitable for 40 or 60-watt Osram lamps.

**F 16480.** Stack Lighting Unit . . . . . Price **21s. 6d.** each

**Price includes lampholder but not lamp.**

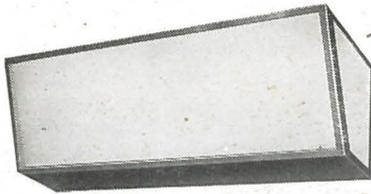
**SPORTS LIGHTING**

The problems of sports lighting, involving in many cases the illumination of small rapidly moving objects, have received very special attention from the Illuminating Engineering Department of the Company, whose experts are in a position to advise on all problems connected with such lighting, whether for the benefit of players only or where the interests of spectators have also to be considered. Installations in use include many dog tracks and speedways, badminton and squash racket courts, fives courts, boxing rings, cricket and football practice grounds, bowling and putting greens, curling rinks, swimming baths, etc., etc. Many of these installations can be satisfactorily carried out with standard equipment correctly used, but for others special equipment has had to be designed. Typical examples of such equipment are illustrated on this and the following page.

**BADMINTON AND GYMNASIUM FITTINGS**

F 16465/66 fittings have been designed for the lighting of badminton courts. For a single court two single-sided fittings are required, one at each end of the net mounted 8 ft. from the ground. For fixing between two courts a double-sided unit is available. Each fitting is glazed with spreader glass at the ends and front, and is supplied complete with three porcelain E.S. holders to take 200-watt Osram lamps. Fittings can be supplied for ceiling suspension, wall or post-top mounting.

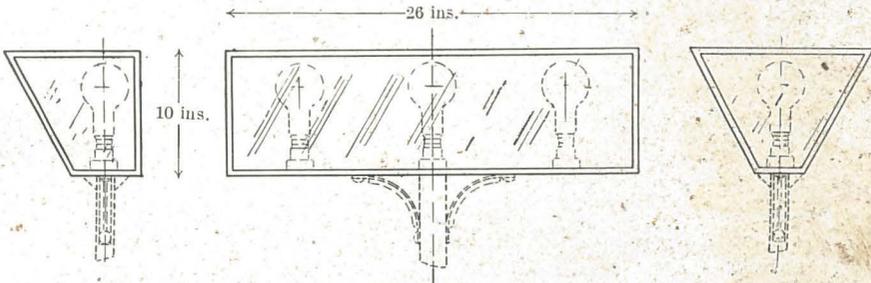
F 16485 fitting is designed for gymnasium lighting by surface mounting on concrete ceilings. It is fitted with a heavy gauge wire safety guard. Diam. 14 ins., depth 10 ins. overall. 200-watt Osram lamps are recommended.



F 16465



F 16485



F 16465. End view of single-sided badminton fitting.

Side view of F 16465 badminton fitting.

End view of F 16466 double-sided badminton fitting.

Cat. No.	Description.	Price each.
F 16465	Single-sided Badminton unit ..	£ 3 14 3
F 16466	Double-sided Badminton unit ..	4 12 6
F 16485	Wire Guarded Gymnasium unit ..	2 9 6

Prices include lampholders but not lamps.

## GREYHOUND TRACK LIGHTING REFLECTOR



F 4724

The F 4724 fitting has been specially designed to fulfil the requirements normally met with in the illumination of Greyhound Tracks, etc., where a brilliant, even intensity light is required over a comparatively narrow strip of ground, with the minimum wastage of light outside the area to be illuminated, and complete absence of glare in the eyes of spectators around the track.

The fitting is rectangular in shape, the shorter sides being fitted with high efficiency anodized aluminium reflectors to punch the light as far as possible up and down the track, while the two long sides are vitreous enamelled to give a diffused light immediately below the fitting.

With the specially designed contour of the end reflectors, these fittings can be spaced appreciably wider apart than is possible with other units, without affecting the evenness of intensity between fittings.

**Specification.**—F 4724 fitting has a vitreous enamelled steel housing with anodized aluminium end reflectors. The cast iron tap is arranged for side entry to fit a 1-in. gas tube (not threaded). The fitting is finished green outside.

The F 4723 fitting has been designed for speedway and similar tracks where the width of track is greater than for the Greyhound Track. Three sides of the fitting are fitted with mirror reflectors to punch the light up and down and also across the track.

**Specification.**—F 4723 fitting has a stove enamelled steel housing and is fitted with 3-way mirror reflectors together with a vitreous enamelled top reflector.

The cast iron top is arranged for side entry to fit a 2-in. gas tube.

Special pole mountings can be quoted for on application.

Cat. No.	Dimensions.			Approx. weight complete.	OSRAM lamp recommended.	Price each.
	Length.	Width.	Height.			
F 4724	ins. 18½	ins. 12	ins. 19	lbs. 14	watts. 1000 or 1500	£ s. d. 4 0 0
F 4723	24	18	18	20	1000 or 1500	5 5 0

Prices include lampholders but not lamps.

**G.E.C.**

**EGG TESTING AND CANDLING LAMP**



**F 18252**



**F 18253**

We are included in the list of suppliers of egg testing apparatus issued to National Mark Egg Packers by the Ministry of Agriculture.

These fittings give a brilliant beam of light at the orifice when used with either a 40 or 60-watt Osram lamp. A circular pad, which is easily renewable, is fitted at the orifice.

**F 18252** can be used as a standard, but a clip is supplied for attaching to egg crates, etc.

**F 18253** is a portable model with hard wood handle for use in incubators, etc.

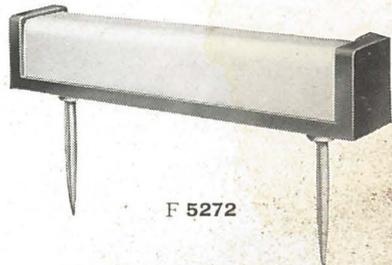
May be used with batteries or accumulators with B.C. to S.B.C. adaptor for 6-volt 30-watt or 12-volt 36-watt Osram automobile lamps.

Cat. No.	Description.	Price each.		
		£	s.	d.
<b>F 18252</b>	G.E.C. electric egg testing and candling lamp, polished brass finish, with white or black cellulose enamelled hood .. .. .	<b>1</b>	<b>8</b>	<b>9</b>
<b>F 18253</b>	Ditto, with black hood and wood handle .. .. .	<b>1</b>	<b>2</b>	<b>0</b>
<b>S 864</b>	B.C. to S.B.C. adaptor for battery operation ..		<b>4</b>	<b>8</b>

Prices include switch lampholder and 3 yards 3-core flexible, but not lamp.

**FLOWER BED LIGHTING UNIT**

This unit has been designed for outlining flower beds, garden paths, etc. It consists of a metal base with spikes for fixing in the ground, and a flashed opal glass trough tinted amber, green or white. The lampholders are suitable for 221 m/m Osram Striplite lamps.



**F 5272**

Cat. No.	Finish.	Dimensions.			Weight.	With White Glass, each.			With Amber or Green Glass, each.		
		Length.	Width.	Depth		£	s.	d.	£	s.	d.
<b>F 5272</b>	Painted green	ins. 12	ins. 2 3/4	ins. 2 1/2 without spikes.	lbs. 3 3/4	<b>1</b>	<b>15</b>	<b>9</b>	<b>1</b>	<b>17</b>	<b>6</b>

Prices include lampholders but not lamps.

# S.E.C.

## SPARE GLASSES AND RUBBERS

The following prices are for spare glasses and rubbers for the various fittings shown in the preceding pages. For ease of reference the page number is given in the first column and the number of the fitting in the second column.

Page No.	Fitting No.	Description.	Price. Glasses only.	Price. Rubbers only.
17	F 4711	Gecoray mirror reflector (Standard finish)	27/- each	
17	F 4715	ditto ditto	54/- "	
60	F 4861	" Superlux " glass globe	14/6 "	
60	F 4868	Opal glass cube	27/6 "	
47	F 4871/2/3/4	Clear well glass	10/6 dozen	3/9 dozen
48	F 4875/6/7	ditto	14/- "	
46	F 4878/9/80	Clear globe	26/- "	
51	F 4881	Clear well glass	4/6 each	9/- "
51	F 4883	ditto	7/6 "	10/6 "
51	F 4885	ditto	13/6 "	17/6 "
51	F 4887	ditto	2/6 "	10/6 "
51	F 4889	ditto	3/9 "	10/6 "
49	F 4891	ditto	3/3 "	10/6 "
50	F 4892	ditto	<del>4/9</del> 16/6 doz	10/6 "
49	F 4895	ditto	3/3 "	10/6 "
50	F 4896	ditto	<del>4/9</del> 14/6 doz	10/6 "
49	F 4899	Ground glass ruby letters	55/- "	
49	F 4899	Ruby glass ground letters		
49	F 4909	Clear well glass	10/6 dozen	3/9 "
49	F 4910	ditto	<del>4/9</del> 14/6 doz	10/6 "
50	F 4911	ditto	10/6 dozen	3/9 "
50	F 4913	ditto	10/6 "	3/9 "
50	F 4915	ditto	10/6 "	3/9 "
50	F 4918	ditto	10/6 "	3/9 "
50	F 4919	ditto	10/6 "	3/9 "
55	F 4932/4	ditto	<del>2/5</del> 3/4 5/6	
55	F 4936	ditto	4/- "	
42	F 4943	Clear glass dish	3/9 "	
42	F 4945	Cut crystal dish	22/6 "	
42	F 4947	Clear bulkhead glass	3/9 "	
42	F 4950	ditto	4/9 "	
41	F 4951	Prismatic bulkhead glass	4/- "	15/- "
43	F 4955	Clear bulkhead glass	37/6 dozen	37/6 "
43	F 4956	ditto	37/6 "	37/6 "
43	F 4957	ditto	37/6 "	37/6 "
43	F 4958	ditto	54/- "	
43	F 4959	ditto	54/- "	
44	F 4961/3	ditto	25/6 "	9/- "
42	F 4965	ditto	5/6 each	
44	F 4967	ditto	25/6 dozen	9/- "
44	F 4969	ditto	25/6 "	9/- "
45	F 4973/5	ditto	25/6 "	
45	F 4979	ditto	39/- "	
38	F 5033	Clear well glass	10/6 "	3/9 "

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(6) FLOODLIGHTS AND FLOODLIGHTING
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(4) WATER HEATING AND WATER HEATING EQUIPMENT
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(2) OUTDOOR SWITCHGEAR  
(3) AUTOMATIC CIRCUIT-BREAKERS  
(5) INDUSTRIAL MOTOR CONTROL GEAR
- X & Y** IRONCLAD SWITCHGEAR
- Z** (1) STREET LIGHTING EQUIPMENT

In addition to these the G.E.C. publishes from time to time numerous specialised Booklets and Brochures on subjects such as Church Lighting, Fluorescent Tubes, Hospital Lighting, Photocells, Sound Reproduction, etc., etc., any of which will be sent on receipt of application stating which is required.



# THE GENERAL ELECTRIC CO., LTD., OF ENGLAND

Known throughout the world as the

## G.E.C.

REGD. TRADE MARK

Manufacturers and Suppliers of Everything Electrical.

### HOME BRANCHES AND SALES DEPOTS:

	Address.	Telephone No.
ABERDEEN .. ..	Magnet House, 32, Market Street ..	Central 8343/4/5
BELFAST .. ..	Magnet House, Queen Street .. ..	25656 (3 lines)
BIRMINGHAM, 4 ..	Magnet House, Moor Street .. ..	Midland 4421 (14 lines)
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*BLACKPOOL .. ..	Magnet House, 214, Church Street ..	8235
*BOURNEMOUTH ..	68, Holdenhurst Road .. ..	5763
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DUNDEE .. ..	26/30, North Lindsay Street .. ..	5073/4/5
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GLASGOW, C.2. ..	Magnet House, 71, Waterloo Street ..	Central 9250
GLOUCESTER .. ..	Magnet House, 2, St. Aldate Street ..	3017
HULL .. ..	Magnet House, 83/84, Wright Street ..	Central 84627 (4 lines)
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IPSWICH .. ..	Electric House, Lloyds Avenue .. ..	3771/2/3
LEEDS .. ..	Magnet House, Wellington Street ..	20671
LEICESTER .. ..	Magnet House, 33, Rutland Street ..	58111/2/3
LIVERPOOL, 1 .. ..	Magnet House, Church Alley .. ..	Royal 7232 (3 lines)
LONDONDEERRY ..	12, Foyle Street .. ..	2816
LUTON .. ..	39/43, John Street .. ..	3591/2
MANCHESTER, 3 ..	Magnet House, Victoria Bridge .. ..	Blackfriars 3434
MIDDLESBROUGH ..	Magnet House, 52/58, Corporation Road..	3621/2
NEWCASTLE-ON-TYNE	Magnet House, Gallowgate .. ..	25160/1/2/3/4
*NORTHAMPTON ..	32a Newland .. ..	2058
NOTTINGHAM .. ..	Magnet House, 25, Stony Street .. ..	43549 and 43547/8/9
PLYMOUTH .. ..	Magnet House, 175, Union Street ..	60226 (3 lines)
READING .. ..	72/74, Castle Street .. ..	3237/8
SHEFFIELD, 1 .. ..	Magnet House, Fitzalan Square .. ..	95101/2/3
SOUTHAMPTON .. ..	Magnet House, Commercial Road .. ..	5691/2/3
STOKE-ON-TRENT ..	Magnet House, South Wolfe Street ..	48575/6
SWANSEA .. ..	Magnet House, Northampton Place ..	5026/7/8

\* Osram Lamp Sales Depots only.

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