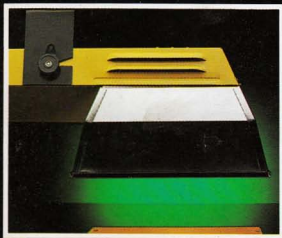
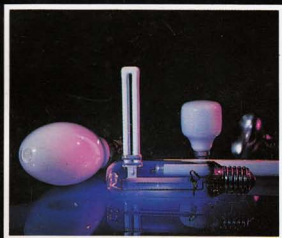


Osram-GEC

LIGHTING CATALOGUE



**LOOKING AT ENERGY SAVING
IN A DIFFERENT LIGHT.**

OSRAM-GEC

A Subsidiary of the General Electric Company, p.l.c. of England

LIGHTING CATALOGUE

CONTENTS

The complete range of lighting fittings, lamps and control gear and accessories manufactured by Osram (GEC) Limited is listed and described in this catalogue. A selection of the more popular lanterns, columns and high masts produced by GEC Street Lighting is included. A separate catalogue is available on request. Similarly, whilst some photometric data is given, detailed photometric data sheets are available on request.

Some fittings are packaged complete with lamps and where this occurs it is stated in the product specification. If one fitting is available in two versions, packaged either with or without a lamp, separate catalogue numbers have been allocated.

The maximum lamp wattage for which each luminaire is designed is clearly stated and should not be exceeded.

All the products listed in this catalogue are offered subject to the company's terms of business and general conditions of sales which are printed on page 244.

The company undertakes a continuous programme of research, development and product improvement. This means that products may be subject to change without prior notice or public announcement. All descriptions, illustrations, dimensions and drawings in this catalogue are typical of the products to which they refer and must not be interpreted as a guarantee of individual performance or characteristics, and shall not form any part of any contract.

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INTRODUCTION

In 1986 The General Electric Company celebrates its centenary, and nearly 100 years in lighting. During these years the company has won worldwide recognition for its outstanding contribution towards the development of all types of light source – tungsten filament lamps, high pressure mercury lamps, fluorescent tubes, tungsten halogen lamps and high and low pressure sodium lamps. Scientific discoveries by GEC's research laboratories have resulted in a host of world 'firsts'.

It is on this solid base of research and development that the products in this catalogue are founded. Many of these developments are today helping to combat the problem of escalating energy costs and meet ever more sophisticated lighting demands.

Energy Efficient Lighting

Sharply rising electricity costs, following the energy crisis of the '70s, has increased the demand for energy efficient lighting. GEC, who pioneered the high pressure sodium lamp in the '60s are, as a result of continuous research, well placed to exploit this need with a range of Solarcolour lamps which are now more efficient in terms of light output and life.

The Solarcolour Plus lamp, for instance, gives up to 18% more light than any standard high pressure sodium lamp on the market. The standard 250W Solarcolour lamp achieves 32,000 lumens, almost equalling the 400W lamp when it was first introduced in 1966.

In areas where colour rendering is of primary importance, such as commercial premises, Solarcolour Deluxe lamps are now widely accepted. In traditional fluorescent lighting, krypton tubes and new high efficiency phosphors in trichrome tubes are also cutting the use and cost of energy.

Specially designed fittings such as Harrier and Solarflood, which use discharge lamps, and Vantage for use with fluorescent tubes, fully exploit new lamp technology and provide efficient lighting packages. In commercial and domestic installations, the Opus compact fluorescent range is also helping to reduce energy consumption.

Planned Lighting Maintenance

The energy cost spiral has brought the subject of PLM to the forefront since good housekeeping, the essence of planned maintenance, can bring substantial savings and benefits to the user.

PLM or bulk replacement as it is sometimes called, is based on the cleaning and replacement of lamps and fittings to a predetermined time, irrespective of the fact that the lamp may not have failed.

The overall cost of replacing a simple lamp (ignoring the cost of the lamp) is often considerable, but by replacing several in one operation, the cost per lamp becomes marginal.

In a typical unmaintained fluorescent light-

INTRODUCTION

ing scheme, the average loss in light output after one year is 30 per cent. Only 6 per cent of this is due to lumen depreciation, the majority being due to dirt and soiling of reflective and diffusing surfaces. After two years, the loss in light output could be as high as 55 per cent. This loss of output can be expressed as a wastage in energy costs because the energy consumed remains constant – the user pays for lighting which is not being obtained. If a lower level of lighting is found to be acceptable, then it may be argued that with regular cleaning and replacement, the number of luminaires could be reduced, thereby cutting down the lighting load.

Similar figures can be calculated for high and low pressure discharge lamps, and all other light sources. Visually, group replacement ensures the installation maintains a uniform appearance; electrically, group replacement reduces the risk of damage to control gear caused by lamps nearing the end of their electrical life; and financially, by relamping in association with luminaire cleaning at a time when it will cause minimum disturbance to the work place, the overall cost of lamp replacement is minimised.

The timing and nature of lamp replacement is usually a matter of economic and managerial judgement and may be determined by factors other than those directly related to the lighting. However, the proposed lamp replacement procedure should be taken into account during the design of the installation.

Lighting Design Service

GEC's lighting engineers will survey, design and plan new lighting installations, or update existing ones free of charge. Lighting design teams located around the U.K. can produce lighting solutions for any scheme, from small offices to cathedrals. They will produce Lighting Economy Reports with recommendations for saving energy and lighting costs and can often do so without loss of lighting levels and, in some cases, improve on them. This report is free of charge.

Our lighting engineers can be contacted at any of the regional offices listed on the back of this catalogue.

Compliance With Standards

Products in this catalogue are manufactured to BS4533 and its associated safety standards and are compatible with European and International standards. They are licensed to carry the BSI Kite and Safety marks and these symbols are shown on each page where applicable; exceptions are a few products currently being tested to secure BSI approval.

Information on any product's compliance with BS4533 can be provided on application.

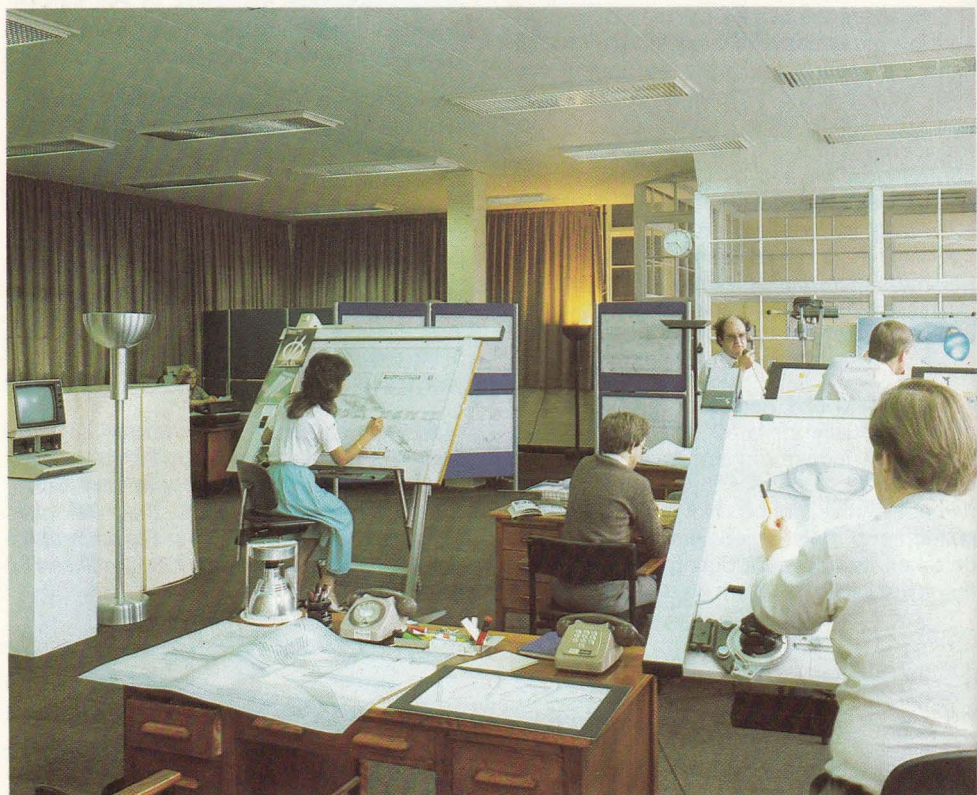
GEC's factories and quality control departments are licensed by the BSI as having the necessary testing system to Kite and Safety mark the products that BSI have approved. The BSI carry out regular inspections of these systems under the licensing procedure.

CUSTOM BUILT LUMINAIRES

Architects and designers frequently require specialist, non-standard luminaires. At GEC we can design and manufacture custom-built luminaires to suit specific commercial and industrial installations. Our Special Project Design department ensures that the lighting integrates with the interior and complements the architectural considerations of ceiling structure and layout at an economic cost.

Trained, experienced lighting engineers will undertake special lighting projects, including testing in our BSI registered laboratory, without obligation.

Contact any of our sales offices for further advice on custom built lighting design.



The Central Lighting Design Office, Wembley.

CUSTOM BUILT LUMINAIRES



The Brighton Primark store features continuous lines of recessed fluorescent fittings which include air handling facilities and low brightness louvres.



Uplighters with 250W Solarcolour De Luxe lamps provide efficient, glare-free lighting for colour printers Hunterprint at their Corby based offices.

MARKS

BSI SAFETY AND KITE MARKS



Safety Mark

Type tested and approved by BSI to meet the safety requirements only of BS4533 and licensed to use this mark.



Kite Mark

Type tested and approved by BSI to meet safety and performance requirements of BS4533 and licensed to use this mark.



F Mark

Type tested and approved by BSI to deem luminaires with built-in ballasts or transformers suitable for direct mounting on normally flammable surfaces. Requirement of BS4533.

Other Marks shown in the catalogue:



Denotes luminaire supplied complete with lamp.



Quick Fit

Denotes luminaire with plug and socket connection between control gear and mains supply.

QUICK FIT

It is now GEC design policy that all new discharge lamp luminaires are connected to the mains supply via a **quick fit** plug and socket. The advantages given in this facility are five fold:

For the contractor:

- (i) The luminaires need not be mounted until all other work on the installation has been completed. Thus accidental damage, paint spills etc can be prevented
- (ii) Reduced installation costs since the mounting of a lightweight support bracket or backplate and the wiring of a socket can be done more quickly and by one man.
- (iii) The electrical testing of a new installation is simplified.

For the user:

- (iv) Lower maintenance costs since luminaires can be speedily disconnected.

- (v) In the case of large installations, spare plug-in gear units can be available to ensure maximum lighting efficiency.

The following luminaires incorporate this facility:

Speedpack

Vantage

Matrix

Nightwatch 10 and 18

Valiant Bulkheads

Watchlight

Opus Valiant

Opus Pathlite

Champion

Harrier

Hi-Saver range

Solarflood range

Solarbeam range

Timesaver ranges

INGRESS PROTECTION TO BS 4533

FIRST DIGIT (Solid Object Protection)

	Short description
0	Non-protected
1	Protected against solid objects greater than 50mm
2	Protected against solid objects greater than 12mm
3	Protected against solid objects greater than 2.5mm
4	Protected against solid objects greater than 1.0mm
5	Dust-protected
6	Dust-tight

SECOND DIGIT (Water Ingress Protection)

	Short description
0	Non-protected
1	Protected against dripping water
2	Protected against dripping water when tilted up to 15°
3	Protected against spraying water
4	Protected against splashing water
5	Protected against water jets
6	Protected against heavy seas
7	Protected against the effects of immersion
8	Protected against submersion

The first number after the letters IP refers to the protection of persons against live parts in the luminaire and ingress of solid foreign bodies.

The second number gives the degree of protection against harmful ingress of water.

HOSPITAL LIGHTING

The CIBS Lighting Guide: Hospitals, gives details of the lighting requirements throughout a hospital complex. It was written in conjunction with the D.H.S.S. and is, therefore, compatible with their recommendations. There are many areas within a hospital complex that can be lit in the same way as similar commercial and industrial areas. These include kitchens, canteens, workshops, stores, entrance halls and external areas such as car parks. For these areas our standard luminaires are suitable e.g. Duralite range, Speedpack range, Champion and Hi-Saver, Valiant, Nightwatch, Emergency and Floodlights.

The D.H.S.S. have issued a list of 'standard reference luminaires' for use in hospitals. The general appearance and performance of the luminaires are specified for use in particular areas, generally referred to as clinical areas, which have lighting requirements peculiar to hospitals.

STANDARD REFERENCE 'B'

(Fluorescent luminaires for bedded areas – surface mounted.)

- (a) VANTAGE S
- (b) WARD LIGHTING (Surface)

STANDARD REFERENCE 'C'

(Fluorescent luminaires for bedded areas – suspended.)

CUSTOM BUILT LUMINAIRES

STANDARD REFERENCE 'D'

(Fluorescent Modular luminaires.)

- (a) T PACK
- (b) MATRIX
- (c) CUSTOM BUILT LUMINAIRES*

STANDARD REFERENCE 'L'

(Tungsten filament night luminaires.)

CUSTOM BUILT LUMINAIRES*

STANDARD REFERENCE 'M'

(Tungsten filament wall mounted luminaire fixed arm.)

ADJUSTABLE WALL LIGHT F42226

STANDARD REFERENCE 'O'

(Tungsten filament ceiling mounted bed head luminaires.)

CUSTOM BUILT LUMINAIRES*

STANDARD REFERENCE 'P'

(General purpose tungsten filament luminaires.)

FGR370, F40280
FGR327WPG, FGR339
F40259WHI
COURIER RANGE

*For these luminaires refer to Government Contracts Department, Wembley, or to local Sales Office.