

LIGHTING EQUIPMENT NEWS

JANUARY 1991

Sterling design

The new £37.5m Gatwick Sterling Hotel, designed by the YRM Partnership; the hotel is square in plan with eight floors of bedrooms rising above two public floors. The central feature is an atrium designed to look like a public square with an avenue of trees. Bars, cafes, restaurants and shops open onto this plaza.

The hotel is designed along a diagonal axis with the entrances on one corner and a large glazed slot running the full height of the building, cut into the opposite corner, giving dramatic views of aircraft taking off and landing at the South Terminal Satellite. A water feature runs the length of this diagonal.

The atrium is illuminated by theatre lights that project changing patterns and intensities of lighting onto the public areas giving the effect of sunlight filtered through leaves. The lighting responds to the exterior conditions creating different moods.

The public rooms use low voltage dichroic lamps, controlled by



dimmers, and compact fluorescent tubes in mini ceiling fixtures. HQI 3000K lighting is used to illuminate the entrance to the podium and compact PL lamps are integrated into the passages.

Fibre optic lights emphasise the curved wall to the a la carte restaurant and the water feature.

Features on hotel lighting appear on pages 6-11.

Urbis wins Chunnel order



The multi-million pound contract to supply lighting fittings for the

INSIDE THIS ISSUE

News	1,2,3,20
New products	4,5
Hotel lighting:	
Design	6,7,8
Case studies	10,11
National Lighting Awards	12,13
Euroluce	14
Where to buy directory	15,16,17,18
Catalogue directory	18
Classified advertising	19

Channel Tunnel has been awarded to Urbis Lighting and its French sister company Comatelec. They will provide 6000 luminaires for the service tunnel and some 13 000 for the running tunnels.

As members of the Schreder Group, their research and development centre was involved from the beginning. This enabled them to offer a cast aluminium prototype months ahead of the determined international competition from big companies and, most importantly, before the order was placed. Because of this substantial advance investment, delivery can commence within six months.

The service tunnel will be lit

24 hours a day by standard MY Urbis fittings for pedestrian underpasses. Sealed to IP66 standard, they use 36W compact fluorescent lamps and have polycarbonate diffusers.

Specially designed luminaires for the running tunnels will be lit only in the event of an emergency. However, they must withstand pressure waves from trains travelling at high speed.

Streamlined

The streamlined profile is lozenge shaped in cross section. Housings are high pressure diecast aluminium for strength, with toughened glass diffusers held very tightly in special frames. Glass was chosen because it is more resistant than plastic to scratching by dust.

Compact fluorescent 18W PL type lamps are to be used in the luminaires, which will be surface mounted at about 18m spacings along one side only of the tunnels.

As a precaution against power failure, alternate fittings will be supplied by electricity from the British and French ends of the Chunnel.

Courtney Pope

The lighting business of Courtney Pope (Holdings) is being put into receivership. The group had tried unsuccessfully to sell The Lighting Workshop and Courtney Pope Lighting and has now withdrawn support from these subsidiaries.

UK lighting is below EC requirements

Nearly one-third of office workers operating VDUs suffer from eye strain, tiredness or pains in the back, shoulder or neck. Almost one in four (24%) experience headaches as well. This was shown by the first Gallup survey into the changing working environment of Britain's four million office workers.

It also showed that 27% of those asked complained about glare and reflection which can make reading the screen difficult.

Between 26 October and 6 November Gallup interviewed more than 700 office workers — 391 men and 323 women — aged between 16 and 65 at some 200 sampling points throughout the country.

They found that 56% of those asked said that the lighting in their offices had not been changed since VDUs were introduced. For example, fluorescent lighting fittings with low brightness louvres or low brightness reflectors had not been installed.

More than 20% of those interviewed said the lighting in their offices had not been modernised for six or more years, and 11% thought it had not been redesigned for over 10 years.

Legislation

Tony Armstrong, president of the Lighting Industry Federation said:

"If only 21% of those interviewed knew that their lighting had been changed with the arrival of VDUs, it almost certainly means that working conditions in the vast majority of UK offices are below the minimum European health and safety standard. . .

The European Community has issued a directive requiring all member countries to introduce legislation by the end of 1992 making all VDU screens free of reflected glare and reflections.

"Work stations will have to be designed so that windows, lamps or brightly coloured fixtures or walls cause no direct glare and, as far as possible, no reflections

on the screen.

"The importance of the Gallup survey is that it shows the government, employers and trade unions just how much we still have to do to provide efficient working conditions, to boost productivity, reduce staff sickness, fatigue and eyestrain — and at the same time reduce energy bills."

To explain the facts about the new legislation and help to raise the standard of lighting in Britain's offices, the LIF has produced a new set of guidelines for each office to conduct its own lighting audit.

This brochure, *Better Lighting at Work* was launched by Georgios Gouvas of the European Community's directorate general for employment, industrial relations and social affairs, and Brenda Dean, general secretary of the Society of Graphical and Allied Trades and a member of the National Economic Development Council.

In brief . . .

● **BDC** is now a distributor of Philips' lamps and is stocking 275 different types (tel 081-881 2001).

● **May and Christie GmbH**, manufacturers of transformers and lamp control gear, have set up a UK subsidiary: May and Christie Ltd, Mead Park, River Way, Harlow, Essex CM20 2SE.

● **Image Pro** stage lighting should be ordered from Optikinetics on 0582 411413, rather than the number given in *LEN* November issue.

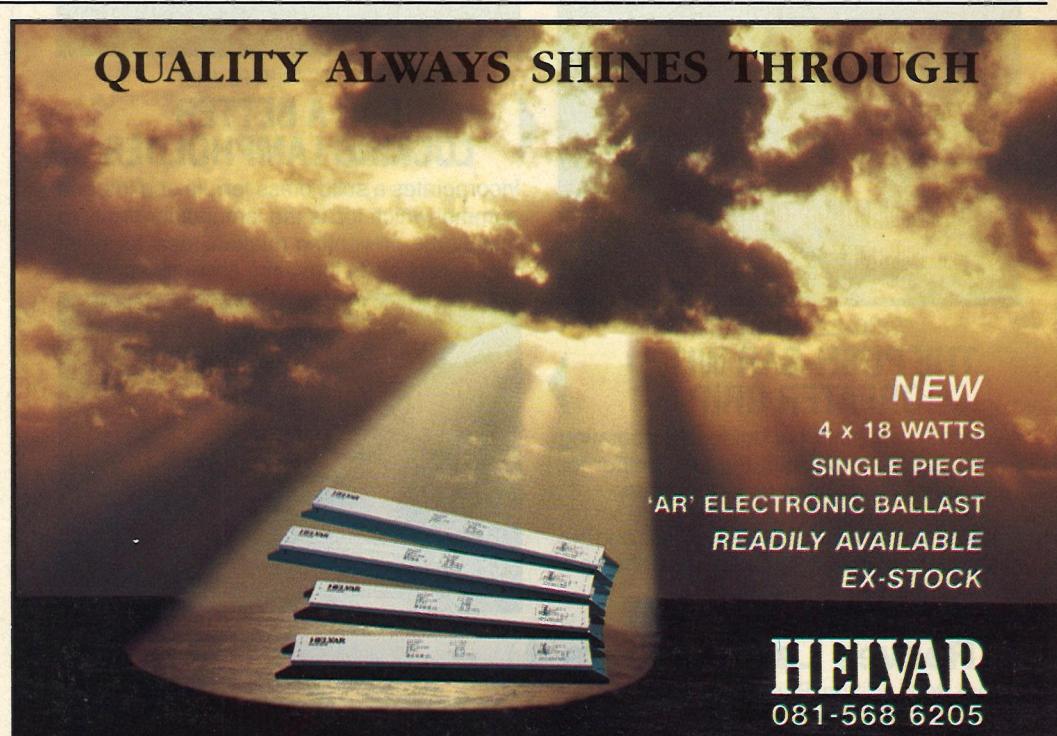
● **Pillar Electrical** has formed a new company, Davis Alumex Lighting Ltd by bringing together Davis Lighting (London) and Alumex Lighting, based in Scotland.

● **Electrosonic** has moved from Woolwich to a new headquarters building at Hawley Mill, Dartford. The new building, over 5000m² in area, houses administration, sales, product development, project engineering and a special systems building.

● **AB Wibe** has acquired Dutch group Electro Beheer making it Europe and Scandinavia's largest cable support system company.

● **Tenby Industries Ltd**, part of the Emess group, has acquired midland-based lighting manufacturer Crossland Rolls. The company will now trade as Tenby Crossland.

QUALITY ALWAYS SHINES THROUGH



NEW
4 x 18 WATTS
SINGLE PIECE
'AR' ELECTRONIC BALLAST
READILY AVAILABLE
EX-STOCK
HELVAR
081-568 6205
Reader Service No. 1

NEWS

Catch up on lighting developments

Lighting developments and applications is the title of a conference and exhibition being organised by ERA Technology. It will be held on 16 January at the Heathrow Penta Hotel, Hounslow, Middlesex.

The conference will review current interior lighting requirements and recent changes in technology which are providing a wide variety of new opportunities for both designers and users.

Included in the programme are

sessions on codes and regulations (with special reference to 1992); quality and efficiency; lamps and luminaires, and ideas for tomorrow. The last session is split into *Piping light using fibre optics*, and *Dimming the undimmable*.

For further details of the conference or to reserve exhibition space, contact Miss Linda Jelly, ERA Technology, Cleeve Road, Leatherhead, Surrey KT22 7SA (tel 0372 374151).

factors affecting the provision of aesthetically pleasing schemes will be reviewed.

Guidelines for lighting areas with visual display terminals, and electronics in lighting equipment will also be discussed.

The venue will be the Building Services Engineering Centre, London. To reserve places contact CIBSE, 222 Balham High Road, London SW12 9BS.

products.

The event will incorporate the South Asian Association for Regional Co-operation lighting conference, and the Afro-Asia Oceania Congress on Lighting.

For further information on exhibition space and conference programme contact: H S Mamak, Indian Society of Lighting Engineers, c/o Philips India, Hindustan Times House, Kasturba Gandhi Marg, New Delhi 110001, India.

Learn about successful office lighting

A one-day course on lighting for offices, on 19 February, will demonstrate the design process and calculations for successful lighting installations. In addition,

International lighting event in India

An international lighting exhibition and conference will be held in New Delhi from 7-13 October 1991. Special emphasis will be placed on energy management and on energy efficient

DIARY

JANUARY

6-10

Lightshow, Olympia, London. Details from the organisers, The Decorative Lighting Association 058-84658.

9

Application of compact fluorescent sources. Afternoon lecture at Olympia, London. Details from S Lane 081-568 7751.

9-11

Lighting design. A three-day course in London arranged by the Centre for Continuing Professional Education, Institute of Environmental Engineering. Details from A H Fuad, director, 071-928 8989.

10-15

Paris International Lighting Exhibition. Details from Promosalons 071-221 3660.

14

Airport lighting. An evening meeting at Belfast International Airport arranged by the Northern Ireland Region of CIBSE. Details from J Patton 0232 732121.

15

Young Lighters of the Year. Lectures presented by the finalists and announcement of winners at an evening meeting in London organised by the Lighting Division of CIBSE. Details from member services department 081-675 5211.

16

Lighting developments and

applications. One-day conference and exhibition in London organised by ERA Technology. Details from Miss Linda Jelly 0372 374151.

17

High frequency lighting and lighting electronics. Evening meeting at the Post House Hotel, Southampton, held by Southern Region of CIBSE. Details from M R Dorgan 0703 339300.

24

Lighting design principles. One-day course in London. Details from Mid Career College 0223 880016.

24-25

Interior lighting design. Two-day course in London arranged by the Centre for Continuing Professional Education. Details from A H Fuad, director, 071-928 8989.

28-1 Feb

Photometry and management course for lighting engineers. A new course arranged by the Institution of Lighting Engineers. Details from ILE 0788 576492.

31

Lighting controls in offices and shops. One-day course in London. Details from Mid Career College 0223 880016.

FEBRUARY

5

Lighting in the electronic age. Evening meeting in Leicester arranged by CIBSE East Midlands region. Details from S Nicholson, 19 Greythorn Drive, West Bridgford, Nottingham NG2 7GG.

6

Lighting in the electronic age. Evening meeting in Manchester organised by CIBSE North West region. Details from L Daniels 061-228 2331.

7

Exterior lighting. One-day course in Birmingham. Details from Mid Career College 0223 880016.

7-8

Daylight and energy management systems. Two-day course in London held by the Centre for Continuing Professional Education. Details from A H Fuad, director, 071-928 8989.

12

Lighting: emergency, high frequency, uplighting. Evening meeting in Cardiff arranged by CIBSE South Wales region. Details from A D Jones 0792 641172.

13

Emergency lighting design and practice. One-day course in London. Details from Mid Career College 0223 880016.

19

Lighting for offices. One-day continuing professional development course in London arranged by CIBSE Lighting Division. Details from 081-675 5211.

Biological effects and protection standards for optical radiation. Evening meeting in London organised by CIBSE Lighting Division. Details from member services department 081-675 5211.

Intelligent buildings. One-day conference in London. Details from Eurodata Foundation 071-629 0991.

CIBSE



The Chartered Institution of Building Services Engineers

For those who suffer in silence

From time to time I am asked to go and look at places where someone has thought "there may be a problem with the lighting". What amazes me is not the problems I find, but the fact that unfortunate individuals have put up with the situation sometimes for months, before anything gets done about it.

Nearly always it is a single individual who is affected — if the staff of a whole office or a whole shopfloor are complaining, then something will be done. Sometimes it is glare, or uneven illuminance across someone's desk, or a disturbing pattern, or the lack of a view of the outside world, but almost always it is only a single person's workplace that is affected.

I regret to say that often the individual concerned knows well what the problem is, but dare not complain about it for fear of victimisation.

In one case, a junior typist in an office in a University complained of continual eyestrain. She was using a word processor and the VDU was against a wall. On either side of it were brilliantly lit white wallcharts, much brighter than anything on her VDU. No wonder she had problems. But she dared not ask for them to be taken down — the professor had put them there! It took a stiff letter from me to get them moved. And this happened in a department of environmental health.

Sometimes the agony is prolonged beyond belief. A certain glassblower in a research institute had been suffering badly. First it was headaches and eyestrain; new glasses made no difference. Then it was conjunctivitis. Then severe clinical depression: the local hospital referred him to their psychiatrists. Then someone thought, "Could it be the lights?" and I was called in. What I found was beyond belief.

There were five glassblowers whose benches formed a continuous strip along one wall of the workshop. The benches were black. There were a few windows, far above eye level, and the whole place relied on electric lighting.

Over each man's bench there was a large fluorescent luminaire hung on long chains from a high ceiling — except for this man's bench. Someone had decided that the whole building needed more ventilation and a huge ventilation duct had been put clean through the glassblowing shop. This chap's luminaire had been in the way, so they had simply pulled it to one side and laid it on top of the new trunking — and there it was, still *alight*, on top of the trunk where no light could get out of it at all.

The man's workplace was in deep shadow, he had less than one-tenth of the illuminance of his colleagues on either side. Why on earth had no-one seen what was wrong? He had been ill for nearly a year.

Sometimes I have to remind myself that this is 1991 and not 1891. Bad visual conditions that are tantamount to cruelty are quite common, and nowhere is this so apparent as the question of "visual escape" — the ability to see the outside world.

In a supposed "sick building" I found that the chairman's office had a magnificent view over trees and gardens. He only comes in on Mondays. Down below, I found office juniors working in half of an underground corridor; it had been divided longitudinally to get more work space and those poor kids saw no daylight, week in, week out. It was a dreadful place. It was grossly unfair to those youngsters. But none of them dared complain.

So what do we do about it? Most of these problems arise because buildings are used in ways grossly different from those the architect and lighting designer were led to believe they would be. Do we need, as some countries have, a small army of office and factory inspectors to see that the visual conditions are all they should be? And all the legislation to back them up? No, I don't think we need that.

What we need is a greater awareness on the part of office and factory managers that visual conditions *matter*. That's our job, and it seems that we still have a long way to go.

Dr Arthur Tarrant

NEW FROM IMI REEVES

Three lampholders made to order!

It's always been IMI Reeves policy to listen and respond to the special needs of lighting manufacturers. That's why we've introduced these three new lampholders to our already extensive range. All three have been developed to meet the exacting high standards you expect of IMI Reeves Lampholders.

*1510/RTS & PTS

SPECIALLY DEVELOPED FOR CHILD-APPEAL LUMINAIRES

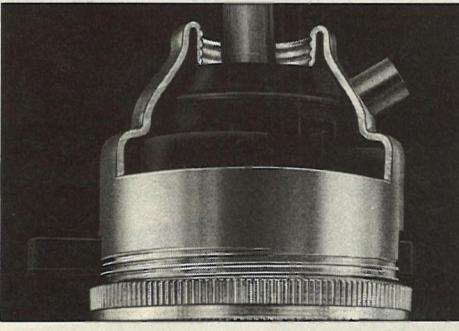
Approved by the Technical Consultant of Decorative Lighting Association as satisfying Electrical Safety Regulations.

Available in B15 size, 12 volts supply with or without Shade Ring.



FOR A BETTER LOCKING LAMPHOLDER

Incorporates a solid brass ferrule and integral pummel which locks the lampholder firmly to metal tube preventing rotation. Ideal for hotel and crystal glass luminaire assemblies.



*2210/2212/2213/RXTC

THE PUSH-BAR WITH GREATER GRIP

A bayonet cap, push-bar holder incorporating a unique cord grip within the lampholder for extra safety. Grip tested to 50 Newtons.

For details of these three new products and the complete range of IMI Reeves Lampholders write, phone, fax or telex today.

IMI Reeves Lampholders 

Holdford Road, Witton, Birmingham, B5 7ES
Tel: 021-356 7369 Telex: 335959 IMICOM G Fax: 021-356 7987

Reader Service No. 2

Page 2

Lighting Equipment News, January 1991

NEWS

Hilight speakers announced

Hilight exhibition at London's Business Design Centre from 20-23 February will include display, office and exterior lighting. There will be a student designers' feature called *Lighting the future*.

On 20 February, John Shipley, Walt Disney Imagineering, will speak on the Disney approach to lighting, reviewing the peculiar problems of theme park lighting.

Richard Forster, Thorn, will conduct a light source review workshop, and David Loe, Bartlett School of Architecture, will talk about the true cost of lighting.

Among other speakers that day will be Nick Chatham, Lighting Design Partnership, dealing with the control of light, and Markus Hoffmeister, Hoffmeister Lighting, Germany, leading a workshop on understanding optics and lightshades.

The lighting artisan will be the subject of Albert Jaspers from Albert Jaspers & ZN BV, the Netherlands, on 21 February.

Klaus Maack, Erco Lighting,

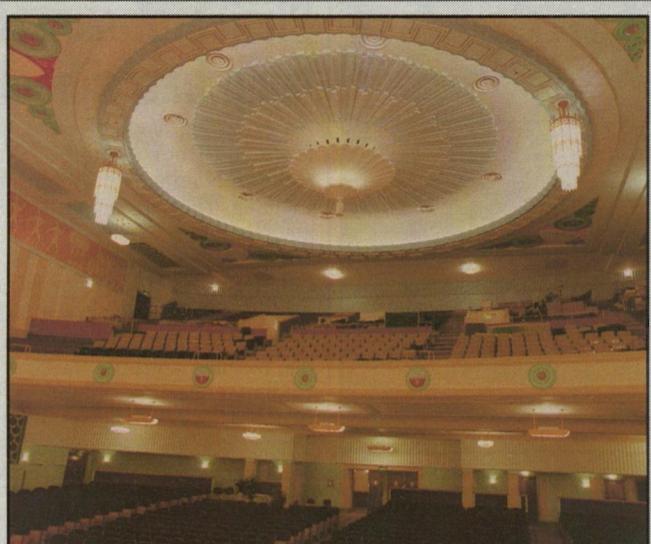
Germany, will take as his subject *Design for lighting design*, while Sally Storey, Lighting Design Ltd, will speak on designing with light. André Tammes, Lighting Design Partnership, will present a major study called *Lighting a city*.

Speakers on 22 February will include John Bullock, Equation Lighting, on *Lighting to draw*, and Barrie Wilde, Building Design Partnership, on lighting designers' future hardware needs.

Claude Engle, Washington lighting consultant, will review notable international projects, followed by the architect's point of view on the same projects, presented by Sir Norman Foster and Spencer de Grey, Foster Associates.

Design director of British Rail, Jane Priestman, will assess the value and expectations of including a lighting designer in the design team.

For further details contact the Business Design Centre on 071-359 3535.



Replacing a thousand filament lamps by compact fluorescents has reduced energy consumption by nearly 80%. The Forum Cinema in Bath was built in 1933 and lit by 1145 filament lamps of various wattages in single and multi-light luminaires.

It fell into disuse and in 1990 was sold by the Bath Corporation to the Bath Christian Trust. The total installed load was 68.7kW although only used for short periods.

When the Christian Trust wished to use it as an assembly hall and conference centre, the lamps were replaced on a one-for-one basis with BC compact fluorescent PLCE lamps. The 60W GLS lamps were replaced with 916 PLCE 11W lamps, the 100W GLS with 210 PLCE 20W and 13 PLCE 15W lamps, and six 40W GLS lamps with PLCE 9W.

The new total installed load is 14.525kW a reduction of 54.175kW or 78.8%. In addition, the eight times longer service life has greatly reduced the maintenance problem.

LIF training courses

For 1991 the Lighting Industry Federation has arranged three of its Lighting Certificate courses and three further Advanced

Module courses.

The Certificate courses will take place from January to May with two seminars at Aston University; from April to July with two seminars at Leeds University, and September to December with seminars in London.

An Advanced Module on interior lighting will run from May to September, including a seminar at Aston University. Exterior lighting will be the subject of an Advanced Module to be held from September to December, also with a seminar at Aston Uni-

versity. The third Advanced Module will deal with light measurement and will commence in the autumn; the seminar will be held in London.

Details can be obtained from the LIF, 207 Balham High Road, London SW17 7BQ.

People in brief . . .

- **Ken Last** retired from active directorship of LB Lighting at Christmas, though he continues as chairman. As well as being a co-founder of the company he is a past master of the Worshipful Company of Lightmongers.
- **George Dale** has joined ceiling manufacturer Ecophon International as its first lighting product manager. He will be expanding its lighting range.
- **Alan Green** has been appointed national sales manager at GTE Sylvania.
- **David Baker** is the new sales manager at De La Mer. This is part of a restructuring.
- **Paul Covell** has left Lighting Design Partnership and set up a consultancy covering theatre design and fit-out, as well as theatre and architectural lighting. For details, contact him at "Greyhurst", Old Lane, St John's, Crowborough, East Sussex.
- **John Hardman** is now managing director of Moorlite Electrical.
- **Peter Gould** has become executive chairman of Whitecroft following the retirement of **Tom Weatherby**. The new deputy chairman is **John Marvin**.
- **George Mela** has been appointed to the new post of technical sales manager at Mattalex.

COMMENT

Countdown to Europe

A slow but far-reaching series of changes is now underway which may ultimately end in a United States of Europe — and which we ignore at our peril.

Legislation now in the Brussels pipeline will force governments to change national laws in a way that will profoundly affect the UK building services industry. Three groups of directives are particularly pertinent here: building services products directives, including the Construction Products Directive; health and safety at work directives; and finally, public procurement directives.

The effect of the Construction Products Directive is that products installed in buildings will have to comply with more severe regulations than in the past and regulations will rely heavily on product standard and quality assurance.

Two points should be grasped here. One is that this directive is concerned with the fitness for use of the product rather than safe incorporation into a building, so its full rigour will be brought to bear on the manufacturer rather than the electrical contractor or the installation designer. The other is that it affects you even if you do not wish to trade across national boundaries. It will be mandatory to apply the fitness for use provisions to goods sold at home as well as in the wider community.

Health and safety requirements will have the effect of forcing employers to provide their workforce with a better standard of working environment than in the past, and this may well provide increased market opportunities for office and factory lighting, particularly in areas where new technology has been taken on board.

Finally, public sector and utility companies will be forced to remove many national restrictions on tendering, and the manufacturer of lighting equipment may find himself with increased competition when it comes to building projects. The other side of the coin is, of course, true. He, in turn, will be given enhanced opportunities to go out and tender for work on someone else's national patch.

How then is it possible to keep on top of this mass of information and keep abreast of the rapidly changing scene? Primarily by keeping in contact with your trade or professional association which will probably have a representative involved in standards and regulation making. A further useful contact is the EuroCentre of the Building Services Research and Information Association which has been undertaking an ambitious review of the EC codes, standards and legislation relative to building services. This information is to be updated twice yearly with bulletins covering developments at intervals between.

LIGHTING EQUIPMENT NEWS

Editor: Judy Sewell

Associate Editor: Barbara Trigg

Art Editor: Lorna Francis

Midlands Area Manager: Jim Hughes

Northern Area Manager: Robert Ditchfield

Southern Area Manager: Jim Hughes

Classified Sales: Alastair Moyes

Production Manager: Lee Hibbert

Circulation: Kirtee Parmar

Associate Publisher: John Bull

Publisher: Nigel Foster

Directors: R W Osborne, (Chairman), G J F Brigg (Managing Director), N C G Foster, D L Jones, D B Wright.

Published monthly by Maclean Hunter Ltd,

Maclean Hunter House, Chalk Lane, Cockfosters Road, Barnet, Hertfordshire EN4 0BU.

Telephone: 081-975 9759. Facsimile: 081-975 9753

Telex: 290072 MACHUN G. Northern Area Office,

Tel: Cannock (05435) 72771.

Origination by Facsimile Graphics Ltd, Coggeshall, Essex.

Printed by E. T. Heron (Print) Ltd, Silver End, Witham, Essex.

Annual subscription £42 (£3.50 per copy including postage) but free to executives in the UK and Ireland meeting the terms of control.



A Maclean Hunter Publication



Member — British Business Press

MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS

© 1991 ISSN 0024-3418

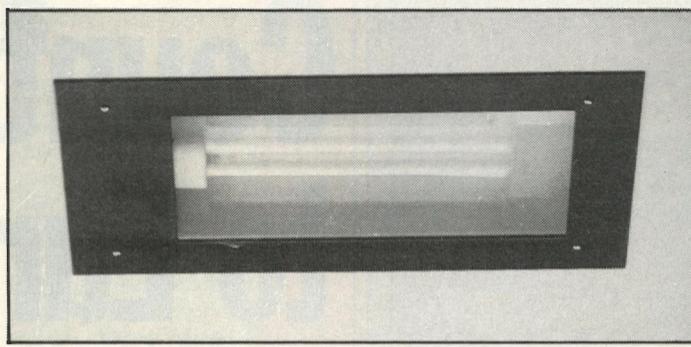
NEW PRODUCTS

Corridor and bathroom luminaire

A luminaire for hotel corridors and bathrooms has been introduced by Green Island. It is fully recessed and uses an 18W PLC type compact fluorescent lamp.

The reflector is finished gold colour and gives a broad spread of light. The rectangular bezel is also finished gold. A diffuser is available for locations where steam or dust need to be excluded.

Reader Service No. 151



Choice of lamp bases

An extensive range of bases for table and floor lights is being made in Nottingham by Leisure Lighting. They are supplied complete with plug.

The round steel bases have either a brass, bronze or black finish, while the cylindrical plastic stems are available in a choice that includes a marble finish.

Shades can be supplied if required, in card-backed or soft styles. Reader Service No. 152

type luminaires. An advantage is that dust does not collect easily.

The ring is located between the luminaire and the mounting surface and is held in position automatically once the luminaire is installed in the normal way.

The rings are available in white or brass coloured finishes.

Reader Service No. 153



Ringing the changes

Lumiance has introduced a choice of aluminium ring accessories for the Giotto range of ceiling and wall luminaires. They convert Giotto Circo models into drum

Transformer system for LV lighting

LightGraphix has introduced a low voltage transformer system which provides a safe, simple and quick-to-install method of providing an electrical supply to low voltage luminaires.

The transformer module consists of a 200VA 240/12V boxed transformer with input socket for mains supply and 4 x 50VA 12V fused socket outlets. The transformer is a double wound safety type with auto-resettable thermal cut-out and mains input fuse.

Connection between the transformer and luminaires is provided by means of two-core leads with moulded-on connectors to ensure that the correct cable size and length is used.

Mains connection is by means of three-core cable with moulded-on plug into the transformer. All fuse holders are accessible without removing the cover.

Reader Service No. 154

Continuous lighting system

Philips has introduced an easily installed, continuous fluorescent lighting system called Tourlite which is available in two widths and with a choice of prismatic panel, louvre or low glare mirror controller.

This versatile system permits complex lighting layouts.

Reader Service No. 167

Plug-in LV spot

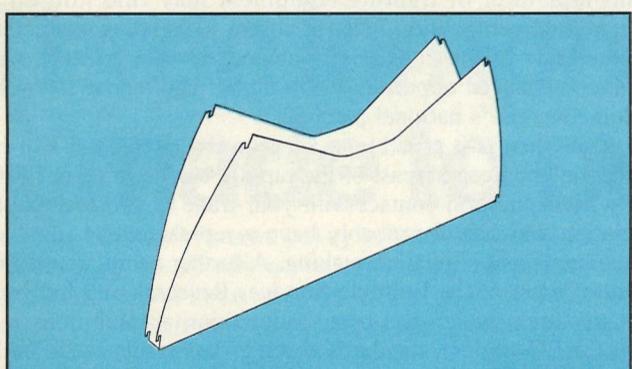
Lumiance has extended its plug-in low voltage Primosystem with the introduction of two spotlight ranges: Primostar Comfort and Primostar Quadro.

The Primostar range uses 50W dichroic lamps. In addition Primostar Comfort offers the option of a 50W capsule lamp fully enclosed with a glass cover.

There is a wide choice of styles and arm lengths in black or white.

Reader Service No. 168

ALTERLUX®



Alterlux® is an innovative range of modular recessed luminaires for all commercial interiors, that meets all categories and requirements of the CIBSE Lighting Guide LG3, and is designed to fit most suspended ceiling systems.

ILUXONIC
LIGHTING PLC

Tel: 0420 541166 Fax: 0420 541270

Reader Service No. 4

Page 4

Floodlights use compact lamps

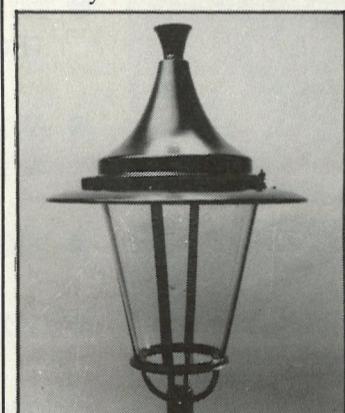
The Omnilux range of floodlights by Powerlite Electrical Products uses either two or four 9W PL type compact fluorescent lamps.

These polycarbonate luminaires can be either wall mounted or fitted under roof eaves. A knuckle adjusts through 180°. Extension arms 130mm and 400mm long are also available.

Reader Service No. 155

Range of amenity lanterns

The Hatfield lantern is now available from D W Windsor as a standard product — it was originally designed for Welwyn Garden City.



Post top and pendant versions are being produced in three sizes for mounting heights from 4m to 8m, making it suitable for a wide range of requirements.

The hood is spun aluminium with stainless steel fixings on an aluminium frame. The glazing is ultra-violet stabilised polycarbonate. It is finished in black powder coating but can be supplied on request in any BS or RAL colour.

There is a choice of high pressure sodium, mercury, metal halide, compact fluorescent or tungsten lamps. Either a reflector or a refractor can be provided.

The style bridges the gap between traditional and modern designs. Ingress protection rating is IP64. Reader Service No. 156

Portable lighting on site

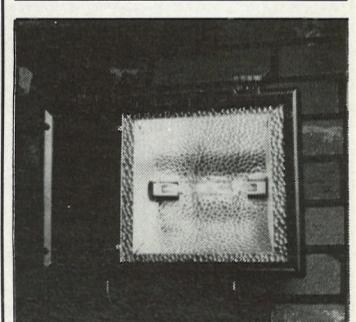
A weatherproof portable floodlight complete with 500W tungsten halogen lamp, metal stand with integral carrying handle and 5m of cable is available



from Tamlite Fase.

Designed for exterior and interior use the overall height of the fitting is 840mm. Suggested applications include building, plumbing and electrical work, and use in agricultural buildings, garages and private gardens.

Reader Service No. 157



Floodlights for wall mounting

Linolite has launched two floodlights called Flood 70 for wall or ground mounting. Both have black, diecast aluminium housings, zinc plated steel mounting brackets and hinged, heat resistant protective glass fronts.

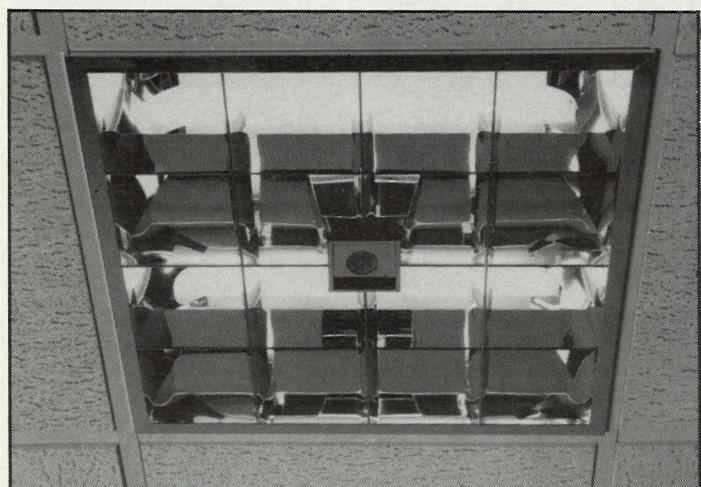
One uses a 70W high pressure sodium lamp, the other a metal-arc lamp.

Applications include car parks, utility areas and security lighting.

Reader Service No. 158

For more information on any of the products listed, circle the enquiry number on the free reader reply service card.

NEW PRODUCTS



The intelligent luminaire

Sensa is an intelligent, independent luminaire for offices. Introduced by Thorn Lighting, it makes use of the latest developments in lighting technology.

Every 600mm square, recessed luminaire incorporates in the centre of the louvres a pre-set photoelectric cell to monitor the ambient lighting level, and an infra-red presence detector.

The two 40W 2L compact fluorescent lamps operate off a high frequency dimmable ballast.

Sensa saves energy by adjusting its light output according to the amount of daylight available locally. The change is made smoothly so that it is imperceptible to those working below it. In addition, when it detects that no one is present in its 2.5m radius zone, it switches off the lamps until the zone is occupied again.

Ease of installation is another feature. It is easily handled by

one person and because of being self-contained it is connected directly to the lighting ring circuit; no wall switches are required, nor links to a central energy management computer.

When an office layout is altered, the fitting's automatic sensing enables it to adapt to the changes; it is not necessary to re-position these luminaires.

Sensa is designed to provide an illuminance of around 500 lux where the ceiling height is 2.4m to 2.7m. A 16-cell, specular, double parabolic, low brightness reflector makes the luminaire suitable for VDU areas. High frequency operation also contributes to a pleasant environment, helping to eliminate eye strain and headaches for people who are sensitive to flicker.

An emergency version is also available, for design continuity.

Reader Service No. 159



Triangular light is versatile

A versatile range of wall lights called Sydney, made in Denmark, is available from Elemsystems.

The triangular design in either white, black or grey gives downward light, or can be inverted for use as an uplight. There is a choice of GLS (maximum 60W), tungsten halogen or PLC compact

fluorescent lamps.

This stove enamelled aluminium luminaire also produces a subtle spill light on the wall which softens the lighting effect.

As well as being used indoors, it can be used outdoors as a downlight, when a range of nameplates can be added below it.

Another option is to mount the fitting as a downlight on low posts for pathway lighting.

Reader Service No. 160

Transformers solve problems

Low Voltage Technology has a range of 12V toroidal transformers for low voltage lighting.

Made from grain-orientated EN52 steel laminate and high quality copper, the range is available in sizes from 20VA to 750VA.

Individually fused outputs from separate secondary windings are provided in all sizes over 50VA, minimising the traditional regulation problem of output voltage varying with load and affecting lamp life.

In addition, the spun aluminium housings with an enhanced heat-dissipating finish reduce temperature problems often associated with this type of transformer.

Reader Service No. 161

Asymmetric floodlight

Abacus Municipal AM540 Series floodlight has an asymmetric light distribution. There is also a choice of narrow or wide beam. The diecast aluminium housing is finished in dark bronze polyester powder coating.

Both wall and column mounted versions are adjustable and can be specified with integral or remote control gear.

Either tubular high pressure sodium or metal halide lamps



from 70W to 400W can be used.

Additional features include easy access for maintenance, toughened front glass, ingress protection rating IP55 and a support rod to prop up the top cover for hands-free maintenance.

Reader Service No. 162



Spaceframe has lighting

Trimesh and Trilight are modular space and light frame systems from Clip finished in black, grey, red, blue or white.

Structures can be built up either horizontally or vertically with easy push-fit assembly to form illuminated displays. Free standing units, such as walk-

through archways, can be created. Shelf and racking systems can be supported by Trimesh.

Complementary Trilight has built-in fluorescent luminaires with Perspex diffusers. Red, green and blue acrylic sleeves are available for the lamps to add further colour. Graphics can be added to the diffusers.

Trimesh and Trilight are both supplied in lengths from 0.5m to 2.25m.

Reader Service No. 163

Electronic ballast reduces stage problems

Lumo Lighting has developed a universal electronic ballast which can drive any of the company's 575W, 1.2kW or 2.5kW Super Daylight Fresnel luminaires. It not only gives flicker-free light but includes for the first time power factor correction.

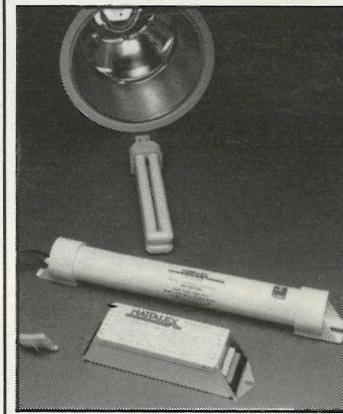
The benefits for users of a single ballast which drives three different luminaires include reduced

equipment stockholding, lower capital investment, and ease of transportation.

An example of the benefits of power factor correction can be clearly illustrated with the 2.5kW 240V unit. It reduces input current dramatically from 17.5A to 11A, enabling the unit to be powered from a domestic power outlet.

Other benefits arise when the ballast is powered by a mobile generator. Because the power factor corrected ballast load is resistive, potential problems with generators and electronic ballasts are eliminated.

Reader Service No. 164



Versatile wallwasher

The Micropan Wallwash from Microlights accepts 35W, 50W, 75W or 100W low voltage tungsten halogen capsule lamps and is

Conversion kit saves space

Mattalex has an emergency lighting conversion kit for downlights using 10W or 13W Dulux DE 4-pin compact fluorescent lamps.

Electronics for the new ML418 module have been arranged in double-deck format so that a shorter can may be used, saving both space and cost.

Reader Service No. 165

available with either a 10° spotlight reflector, a 20° medium reflector, or 40° flood reflector.

These luminaires complement the other fittings in the Micropan range which all use the same reflectors and lamp types.

Reader Service No. 166

LIF LINE

Lighting industry partnership beats crime

"We also know that many people are afraid of becoming victims of crime. That crime can alter the way in which they live, and that turns the fear into reality because if people are over-fearful, it stunts their lives. That is why so many women are worried about travelling after dark."

John Patten MP

The Ministry of State, Home Office

The national crime statistics published recently by the Home Office revealed that in the second quarter of 1990, the number of crimes recorded by the police had increased by 17%. Theft from motor vehicles had increased since the previous quarter by 16%, burglary by 14%, violence against the person by 7% and sex offences by 4%. Although quarterly figures are subject to wide variations, the annual figures to March 1990 still show that recorded crime has risen by 9% on the previous 12 months — 4 million crimes were recorded.

The increase in crime is a cause of fear and anxiety, even among people who have not yet been its victims. A summer poll in The Observer showed that the single most important issue which concerns the public is the breakdown of law and order. Women and elderly people, especially, are afraid to go out alone at night.

People have a right to be safe and to feel safe. Safety is an important element in the quality of our lives. The government has a duty to meet the commitment to law and order for its citizens. Fear is as real a problem as crime itself because crime disfigures society and threatens the quality of life.

The Home Office warns that crime statistics should be treated with caution because attitudes to crime and reporting crime have changed and continue to change. For example, although the figures show that rape and child abuse is more prevalent than previously, what is really happening is that in these areas such offenders are no longer hidden, they are now being reported.

With caution in mind, the figures still show an alarming picture which may yet be hiding the fact that many people still do not report certain crimes because they do not want to prolong their distress by police involvement.

But help is at hand. A recent debate in the House of Commons highlighted two simple steps which the government could initiate to make our streets and homes safer.

The first is to make more police available to combat crime. Although the statistics may show that certain groups are less vulnerable to crime than others and that the figures should be treated with caution, statistical explanations are no substitute for a beat policeman. General foot patrol is mainly about public confidence rather than stopping criminals, as a recent Audit Commission report stated. Only 10% of police time is devoted to investigating crime while 22% is currently spent on preventive patrol. Opinions surveys have shown that the public sees the principal police function as deterring crime by being visible on the streets.

The other way in which the government could make a real difference is by activating and co-ordinating programmes of crime prevention among local authorities. A principal feature of such a programme would have to include better street lighting. Improved public lighting can transform the environment. Our streets would be perceived to be places where people could go out, even at night, with confidence.

A partnership between local councils, community groups and the police can create a wholly different environment.

Such a transformation is currently underway in Manchester, Strathclyde, South Glamorgan, Birmingham, Humberside and Leeds.

The lighting industry is working with local authority engineers, the police and academics to monitor the impact of improved lighting in these areas. Researchers and criminologists will carry out questionnaires and surveys during December 1990 prior to relighting. By the end of January the street lighting along the routes will be upgraded to comply with the revised British Standard for road lighting.

In preparation for National Crime Prevention Week in April 1991, LIF has been working closely with local authorities and crime prevention groups to ensure that the crime figures are reduced.

Better lit streets and public places deter crime and reduce the fear engendered by crime. Street lighting is, for example, under review in central Gloucester after a serious assault on the city newspaper's chief reporter. The city council believes that street lighting can help prevent crime and has already ploughed money into special lighting programmes in areas where there is felt to be a danger of crime, including car parks and shopping centres. LIF will be participating in the activities arranged for Crime Prevention Week by the Gloucestershire Crime Reduction Programme.

These joint exercises with local authorities have helped to illustrate that street lighting and crime prevention at night go hand in hand, and provide an excellent opportunity for street lighting engineers and the police to forge closer links with a common aim.

Working together in this way, the lighting industry is helping to make Britain a safer and more enjoyable place to live.

Designed for effect

The hotel is daily life in a microcosm, and as such it presents the lighting designer with a major challenge. *Mike Jankowski, of Marlin Lighting, discusses lighting design for hotels.*

The term 'lighting' is normally taken to refer to electric light, but this is only the most recent of the three broad types of light source available to the lighting designer. These are: natural daylight; light from burning organic materials; and electric light.

Historically, architecture has frequently taken special account of daylight to maximise daylight, to exclude excessive solar radiation, or to utilise the penetration of light through carefully-designed openings for special effect. Cheap electric light has made us cave dwellers again, all-too-often excluding daylight from our considerations. Happily, there is a perceptible trend back to the recognition that daylighting has an important contribution to make to the lighting of many interiors.

Organic materials — such as candles, wood and oil lamps — are not normally considered for general lighting in the West, but in restaurants candles can make a unique contribution to the 'ambience' while the crackling log fire imparts character to a country pub.

The importance of integrating these different sources is not always appreciated: sometimes it may be possible to use daylight as the principal light source, progressively increasing the amount of electric lighting as daylight fades or changes. Elsewhere, the transition from bright daylight to the relative gloom inside a building may require special lighting measures at the entrance.

Purpose

The objective of lighting can play an important part in the selection of an appropriate lighting scheme. Six main purposes may be defined:

- 1 Ambient lighting aims to achieve a pre-determined level of light within an interior so that normal activities can take place. This will normally be a combination of natural light and electric lighting.
- 2 Orientation lighting leads people from one area to another — from the exterior to the interior, from the entrance to the reception desk, from reception to the lift or lobby, or to the restaurants or shopping plaza. Emergency lighting is a special form of orientation lighting.
- 3 Atmosphere lighting creates a special atmosphere, for example in a restaurant, bar, lounge or in the grounds of a hotel. It

is sensually orientated. Typical forms are decorative luminaires, standard lamps or even exterior floodlighting.

- 4 Accent lighting draws attention to particular features — a painting or sculpture, an architectural feature, an important notice, a special area or even a hazard. Accent lighting plays on the physiological effects of light and dark to create attention, provoke or intrigue.

- 5 Lighting can form a feature in itself, with the lighting or the light source itself as the object of interest — an elaborate crystal chandelier or the use of unshielded tungsten-halogen lamps or capsules.

- 6 Interactive lighting is flexible and can be programmed to respond to changes in the environment to meet the multiplicity of requirements expected of a modern interior. An example of this is the hotel conference centre which may be used for social gatherings, sales presentations, meetings and conferences and a host of other purposes.

These categories may overlap, so that accent lighting may be used for orientation, and atmosphere lighting can contribute to ambient lighting level. Most interiors will demand several, or all, of these forms of light. Interactive lighting is, as yet, a relatively unexplored technique except in the most modern and prestigious projects.

Hotel types

In defining the lighting needs, hotels may be represented on a matrix (Figure 1). The needs of the small hotel catering for the individual can be quite different from those of the large hotel catering for hundreds of people at a time; and the needs of the 'standard' hotel — large or small — offering a basic accommodation package will be different from those of an exclusive luxury hotel.

In the small exclusive hotel (Quadrant 1) the need to create the right atmosphere will be of overwhelming importance, whether it be in the reception area, lounge areas, bedrooms or restaurants. For the small hotel or guest house offering bed and breakfast, on the other hand, (Quadrant 2) the scope for imaginative lighting will be limited by economic factors if nothing else.

In the large holiday hotel (Quadrant 3) there will be a great deal of standardisation throughout

the bedrooms. If the hotel is part of a large chain, this standardisation may apply from hotel to hotel. Large hotel groups often employ their own engineers and design teams who play a major part in determining the choice of lighting.

It is the large exclusive hotel (Quadrant 4) which offers the greatest scope for imaginative lighting. Not only will the owners want to create the right atmosphere in reception areas, lounge and restaurants, but bedrooms may offer varying standards of appointment. Large conference/meeting facilities will also require special lighting techniques. In these hotels an interior designer usually plays a vital role in the selection of lighting.

The first impression of a hotel may be created from a distance. In daylight this impression is created by the architecture — be it the rustic image of the thatched country pub or the grandeur of a towering city hotel — at night this impression will be reinforced by effective floodlighting.

As the guest approaches the hotel — on foot, by car or in a taxi — lighting can again play an important part at night. Good amenity lighting directs the guest faultlessly to the main entrance while poor lighting can create a sense of insecurity or uncertainty. Even worse, it could cause an accident! For guests arriving by car, ease of parking and a sense of security for the car will be important.

A good reception

The reception area is the first space guests experience on entering the hotel; it can help determine whether they will return to that particular hotel.

Daylighting will normally play an important part in the lighting of the reception area. High levels of electric lighting may be necessary close to the entrance to assist adaptation as guests enter the hotel during daytime. At night a



Lighting enhances the night-time scene: the Caversham Hotel on the Thames at Reading.

much lower level near the entrance will prevent a blaze of light dazzling those arriving. It will also assist the departing guest to adapt to lower exterior lighting levels. Grading of lighting levels can start with the canopy area or even the approaches to the hotel.

Inside, reception area lighting may be graded as guests move between the entrance and the interior, but arriving guests should always be guided towards the reception desk. This is achieved by using accent lighting to ensure that the desk is more brightly lit than its immediate surroundings.

From here on, subtle use of accent lighting and orientation lighting can help guide the guests to the other services they require. On first arrival this will be the lift lobby but at other times it may be the restaurants, the shopping plaza, the lounge and meeting area or the exit.

There may be variations in lighting provision in the reception area through the day to suit the different conditions. In the morning a bright interior will assist the activity as guests bustle around to check out, meet business col-

leagues, and prepare for departure. Later in the day a less hurried atmosphere with fewer people may justify lower levels of lighting, while in the evening it may be important to create a more intimate and relaxed atmosphere as guests move about and new guests arrive.

The changing scene

These variations in lighting requirements through the day can be achieved in a number of ways. In the smaller hotel they may be achieved by simple manual switching. In larger premises it will be preferable to use a pre-programmed switching system where a number of different scenes can be programmed to operate automatically through the day, with provision for manual override where necessary. In the largest hotels, a sophisticated computer control system will control these and other lighting functions.

Another consideration in lighting the interior will be whether to create a 'cool' or 'warm' atmosphere. In the tropics, the use of metal halide discharge lamps or fluorescent lighting with a cool

colour temperature of the order of 3500K will be normal, while in temperate regions, the warm colour of incandescent lighting or white SON at approximately 2700K, may be preferred. A combination of the two sources could cope with variations in external temperature between summer and winter, or between day and night.

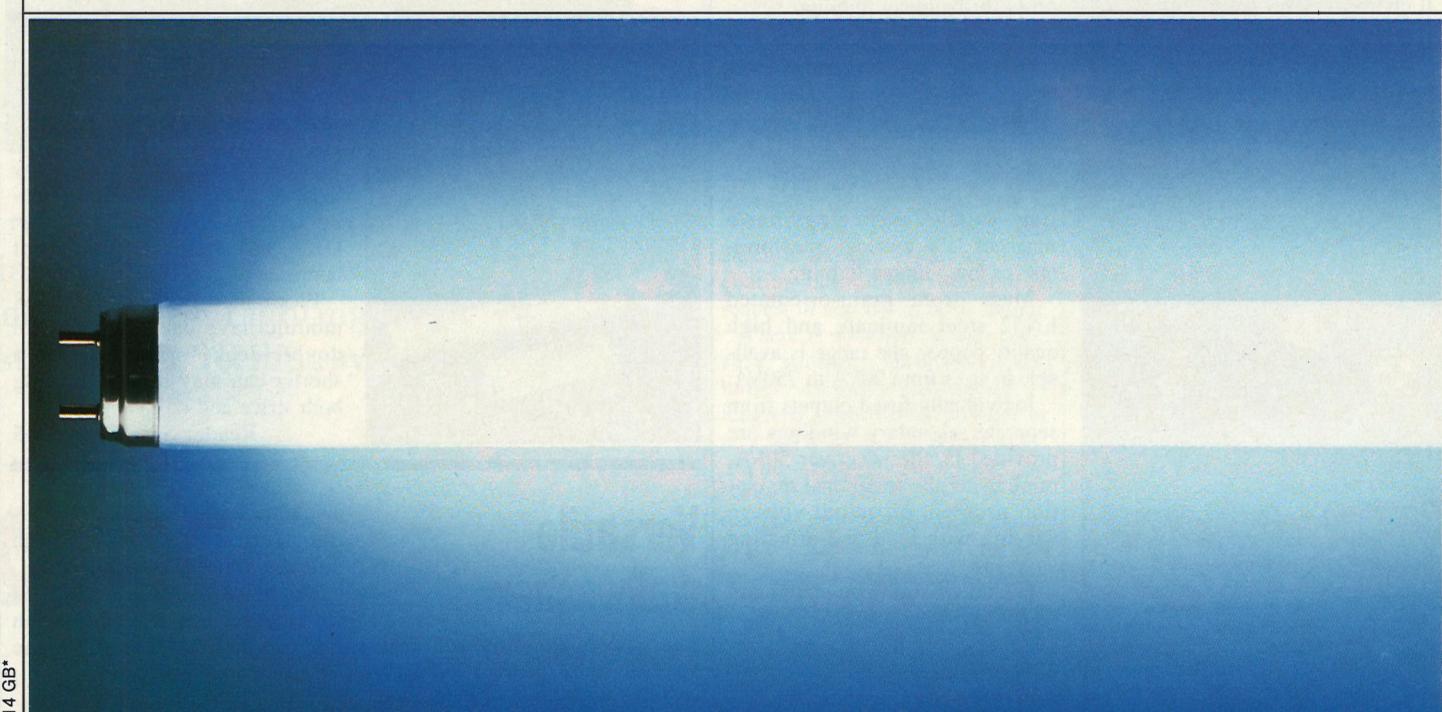
Social areas

Close to, and sometimes a part of, the reception area are areas where people meet during the day. These need to be easily located so that guests and non-residents can quickly find the people they are looking for.

In the more exclusive hotels, these areas will normally have comfortable seating to permit conversation in congenial surroundings. Lighting will be designed to create a relaxed atmosphere and may make use of downlighters and, table or standard lamps, or a combination of the two. There may also be provision for much higher levels of lighting at certain times of the day.

In the large holiday hotels, there may be little or no seating

THE GOOD NEWS FOR FLUORESCENT LAMPS:



314 GB*

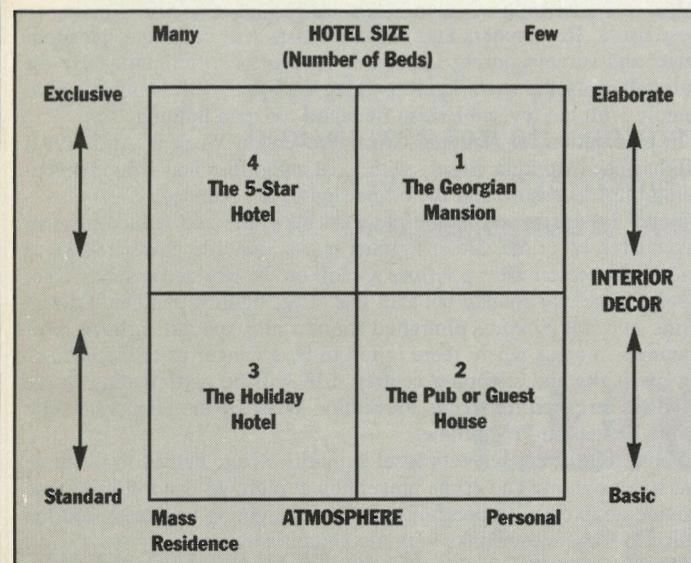
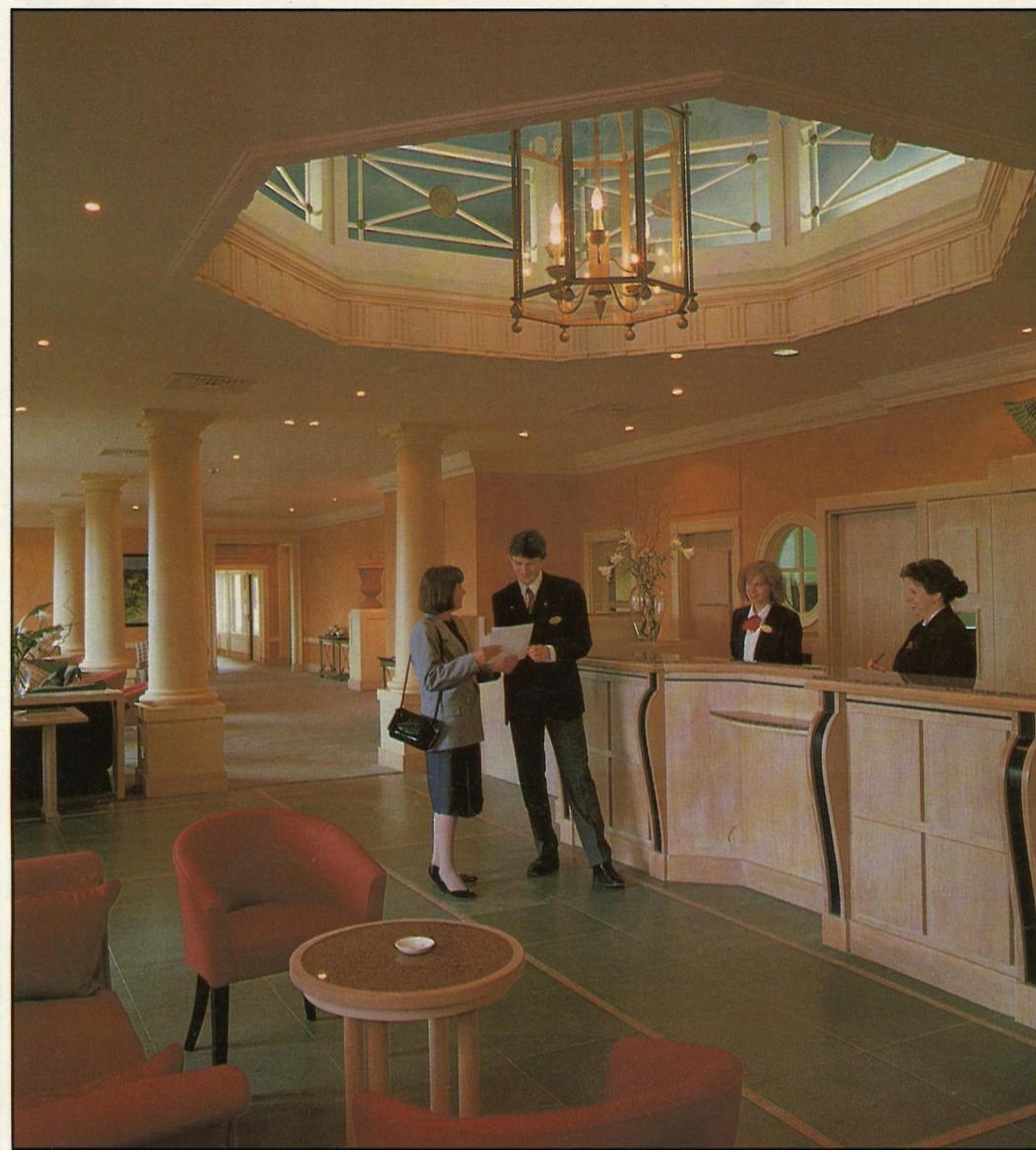


Figure 1. Hotel types



Forte Hotel, Brighouse: The dome in the reception area is lit by L8 fluorescent tubes.



Forte Hotel: Ambient lighting in this lounge is given by 50W low voltage tungsten halogen capsules.

in social areas. The emphasis is on parties gathering together before going out. Here the requirement is normally bright lighting to assist identification and promote activity rather than a relaxed informal atmosphere.

Transit areas

In transit areas the requirement is normally orientation lighting to enable people to move confidently from one part of the building to another. Such areas can still be creatively lit but, in general, the requirement will be fairly high lighting levels to keep people moving.

Transit areas to restaurants or shopping plazas should also create the right atmosphere. Some grading of lighting will be needed near the entrance to restaurants which have a low level of interior lighting.

By contrast, fairly subdued,

but effective, lighting can be provided in the transit areas to bedrooms.

Emergency lighting is very important in transit areas in order to achieve safe and speedy orientation in an emergency. Aesthetically, it may be preferable to incorporate the emergency lighting into selected general light fittings.

Normal emergency lighting standards specify an extremely low 'minimum' lighting level but the use of lighting other than the statutory minimum should always be considered. A substantially higher lighting level could be used to highlight critical features such as exit doors.

Consideration should also be given to providing emergency lighting other than on the ceiling — in a smoke-laden atmosphere the smoke will rise and could obscure the emergency lighting. Lighting closer to floor level pro-

vides better guidance under such circumstances. Non-traditional lighting such as fibre-optics may be used for this purpose. Another possibility is a system that switches all lighting on to maximum for a short period.

Bedrooms

In the guest bedrooms, lighting performs a number of functions: resting, relaxing and watching television; working or writing; social meetings; washing and dressing; and storage of belongings.

First impressions are again important and various questions need to be considered. Should the room be pre-lit (from a switch in the reception area, for instance)? Should the guest switch it on, or should it switch on automatically as he or she enters the room? Should it be a low level for orientation only or full lighting?

The first essential when enter-

ing a room is orientation to enable the guest to move quickly to the bed, the telephone, the bathroom or storage facilities.

Atmosphere is very important in the bedrooms, especially in the more exclusive hotels where suitable lighting adds character to the rooms and will normally be selected by an interior designer as part of the interior decor. Fittings may include table lamps and standard lamps, wallwashers or uplights.

Atmosphere lighting should be supplemented by additional lighting that can be switched separately to give more light to work, dress to go out, or to go about other activities requiring plenty of light. Downlighters and surface fittings may be used for this purpose.

Other lighting may give more concentrated areas of light — downlighters or standard lamps to

create pools of light for reading, make-up lighting over the mirror, and narrow-beam adjustable reading lamps either side of the bed so that one person may read without disturbing the other.

Bathroom lighting is not always given the attention that it might in hotel design. The possibility of automatic activation of the main bathroom light should be considered for safety and convenience. Consideration should also be given to extra lighting for make-up and shaving. Within the bath/shower area there should still be adequate light even when the shower curtain or screen is drawn.

Thought needs to be given to the positioning of switches for convenience and easy appreciation of their function by all visitors. Bedside switches are especially important; the guest should be able to switch off all the lights from the bed without having to get up and go to the door to switch off a light near the entrance. He should also be able to find a switch easily in the middle of the night and have adequate orientation lighting to find his way to the bathroom.

People today are becoming increasingly conversant with the complexities of programmers such as those used for video recorders and other household appliances. So, it may be that facilities should be considered to enable guests to programme the lighting. A series of scenes could be set up by selecting the lighting levels from the various fittings to suit different moods. But the needs of the guest who wants simple, easily-used controls must still be satisfied.

Another area for consideration is an emergency switching system which brings on all the lighting in the room for a short duration — say 10 minutes — in conjunction with the alarm sounder or paging system, to signal an emergency to the guest and help him react quickly. This will be additional to meeting the statutory requirements for emergency lighting.

Eating and drinking

Restaurants and bars represent some of the most fruitful areas for

imaginative lighting to create the right atmosphere. The impression created in these areas can be an important element in attracting repeat business to a hotel. The requirements will vary considerably according to the type of hotel, the character and decor of the restaurant or bar, and the time of day.

In general, the ambient light level within a restaurant will be related to the number of people — the larger the number of diners and servers, the higher the level of lighting.

Breakfast is frequently a busy time when facilities are stretched and both guests and management want a speedy turnaround. Bright lighting will help promote a sense of urgency and efficiency and should enable staff to see guests who require attention. Similar considerations will apply to the quick bar or fast-food restaurant, especially in the larger holiday hotel.

Coffee shop

The breakfast restaurant or coffee shop may be used throughout the day and may require a variety of lighting scenes to suit the occasion — high levels if it is used for quick snacks; more relaxed and yet reasonably good lighting for the buffet-style business lunch; lower lighting or lighting of selected areas for times of day when there is less custom; and more intimate lighting in the evening.

As in the reception area, these lighting changes may be achieved by manual switching, pre-programmed controller or computer.

The role of daylighting is important to eating areas. At times it may be possible to use daylight effectively to help achieve high lighting levels, alternatively it may be necessary to filter the light out by tinted glass, curtains or screens. In some cases the view from the restaurant — a panoramic view of a city, an ornamental garden, a river or mountains, for instance — may be essential to the unique atmosphere of the restaurant.

Sometimes electric lighting may need to simulate the external

QUICKTRONIC® DE LUXE FROM OSRAM.

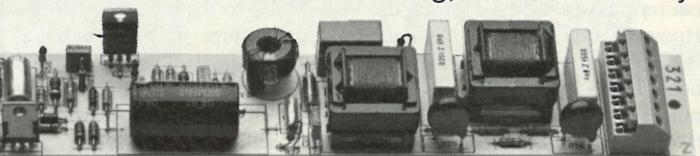
The good news for fluorescent lamps: OSRAM QUICKTRONIC® DE LUXE our fully electronic high frequency ballast gives even better protection against overvoltage. All the original advantages of the QUICKTRONIC® DE LUXE such as economy, compact size and superior quality of light remain the same.



This is because the OSRAM QUICKTRONIC® DE LUXE is fully electronic and operates at high frequency. As a result, lamps start without flicker in only 0.1 second. They continue to work free of flicker and hum, and without stroboscopic effects or radio interference. There is also a reduction in heat generation.

Even when the mains electricity fails the lamps can keep going. This is because QUICKTRONIC® DE LUXE can operate on a DC emergency supply. It simply doesn't matter whether it's direct or alternating current.

Furthermore, when a lamp reaches the end of its life there is no more flashing, it is immediately



and automatically switched off.

OSRAM QUICKTRONIC® DE LUXE not only pays for itself, it creates a better working environment.

TECHNOLOGY
BROUGHT TO LIGHT

OSRAM

Reader Service No. 5

conditions. In a basement restaurant, for example, subtle use of concealed lighting may be used to follow the general pattern of daylight and so convey the impression of contact with the outside world. At other times it may be important to provide a sense of relief from the outside environment — a welcoming sense of 'warmth' in contrast to a cold exterior: 'cool' lighting when it is hot outside, or a sense of peace and relaxation from the bustle of a city.

Where ambience is all

When it comes to specialist restaurant and bars, the requirements vary radically from the ultra-modern bar using high lighting levels with metal halide lighting, to the small exclusive restaurant or bar where candles, oil lamps or a crackling log fire create a totally different ambience.

Accent lighting can be used to good effect to pick out special features such as prints or paintings on the wall, or an architectural feature of the interior. A lighting feature, such as a chandelier, may form part of the internal scene.

In some cases, the provision of atmosphere and accent lighting may extend to the outside environment, especially for a terrace restaurant or one which looks out onto attractive or interesting grounds. Trees and shrubs, water features or structures may require illumination.

Careful grading of lighting levels where the restaurant meets other areas of the hotel will be important both for adaptation as people move from brightly-lit areas into a bar and restaurant, and also to avoid undesirable glare through doors and entrances. This will be especially true of the interface with the serving areas. It may be necessary to provide a special adaptation zone between a brightly-lit serving area and the subdued atmosphere of a restaurant.

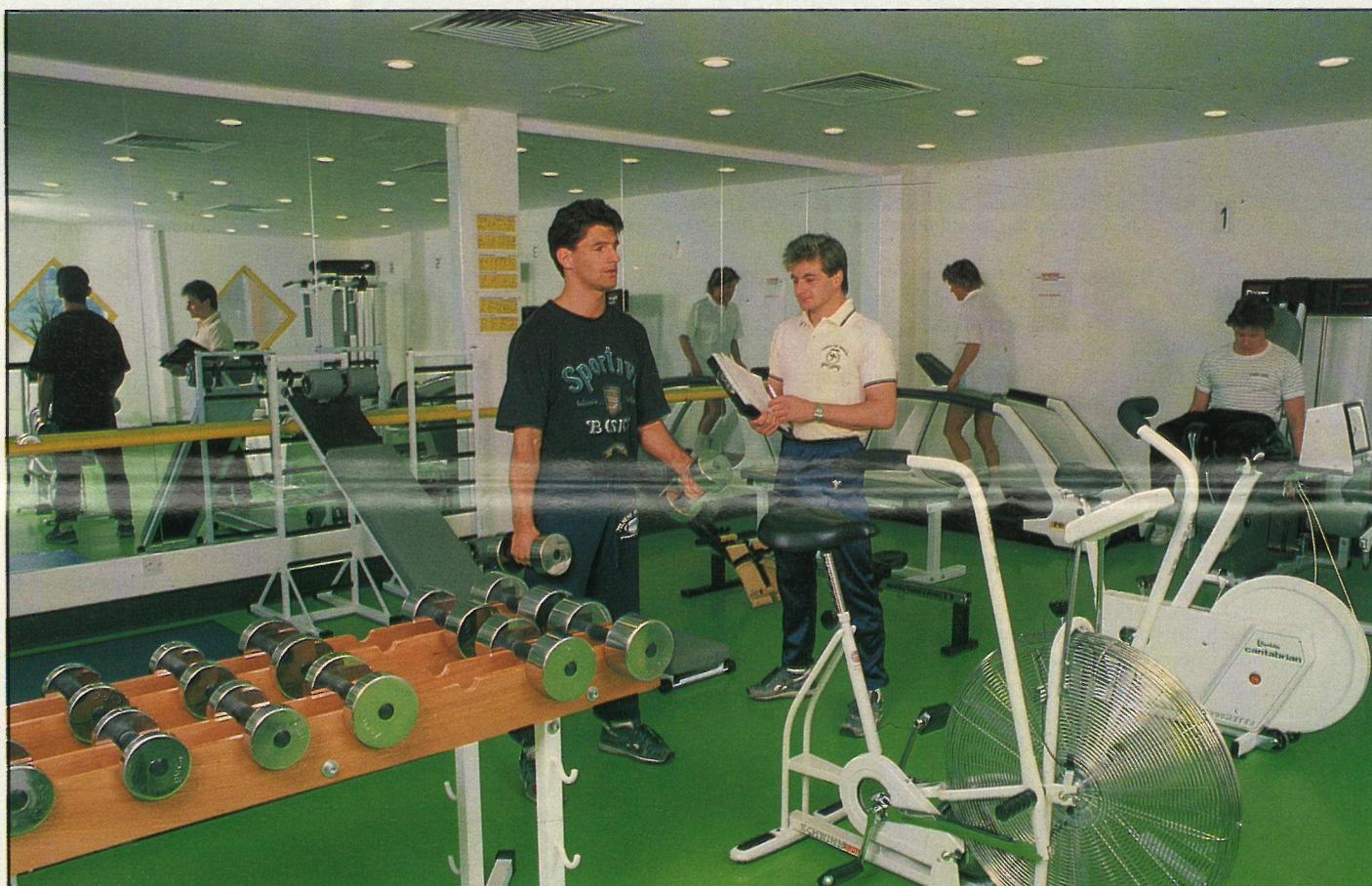
Conference and meeting rooms

Facilities for meetings and conferences are an important service offered by the more exclusive hotels. These may vary from small meeting rooms to large conference halls for hundreds of people.

The range of activities in these areas will vary considerably even



Forte Hotel: The bedrooms are lit by wall lights and table lamps using PL13 compact fluorescents; the ceiling fittings take two such lamps.



Forte Hotel: the gymnasium is lit by PLC Dulux 10 compact fluorescents.

in a single event, and make it possibly the most complex area to light effectively. Activities will include plays or concerts, lectures and sales presentations, films and audio-visual presentations, reading and writing, small discussions, receptions and meals.

The range of lighting requirements may include dramatic, brash and aggressive lighting for sales presentations and product launches; high levels of uniform lighting for reading and writing; softly supportive lighting for receptions and evening functions. Facilities for frequent fading of house lights will be necessary for lectures, while concerts and theatrical presentations may require the full range of theatrical lighting.

There is no ideal solution that encompasses all these needs. However, one possible technique is a slatted or louvred ceiling behind which are placed a whole range of light sources including: fluorescent fittings, downlighters, metal halide lamps, spotlights and floodlights. These should then be backed by soft wall-washers and orientation lighting for use when lights are dimmed for audio-visual presentations.

A less costly solution would be a mix of downlighters, including wide-angled fittings to provide uniform light levels and narrow beam fittings to provide dramatic

effect or a variation of light and shadow.

Modern controls will again enable different scenes and changes to be programmed. The ideal for effective use is for the hotel to provide, as part of the hire package, specialist staff who are familiar with the capabilities and limitations of the system and who can create sympathetic and supportive lighting solutions.

Conclusion

The larger hotel today is a complex of specialist premises: residential, recreational, commercial and even industrial. Each area has its own lighting requirements and solutions.

The choice of lighting will be influenced by different people according to the type of premises — the owner or his electrical contractor in the case of a small pub, the engineering department in the case of a large holiday hotel, an interior designer or, a specialist lighting consultant, in the case of the exclusive hotel. Lighting manufacturers provide a free computerised lighting scheme design service and offer a wide range of high quality products, thus providing solutions for all lighting requirements. In reality, a combination of the intelligence, skills and expertise of each is probably needed.

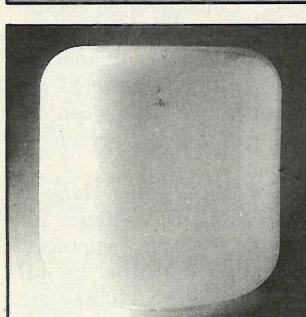
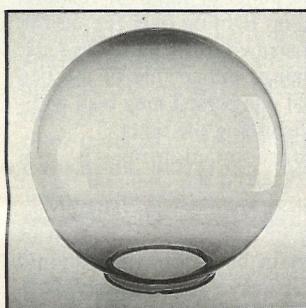
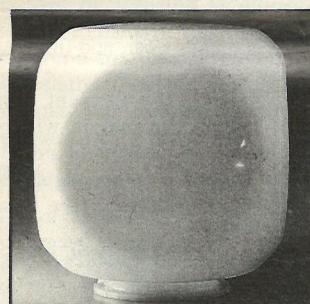
Have You got gear problems?

We carry a wide range
of Chokes, Ballasts,
Capacitors and Gear
Trays for Fluorescent,
SON, MBI, MBF,
MBF/U and SOX lamps

 Lighting Components Limited
249 Seaside, Eastbourne, East Sussex BN22 7NT England
Telephone: 0323 410105 Fax: 0323 410161

ACRILUX THE GLOBE SPECIALIST TO THE INDUSTRY

POLYCARBONATE
ACRYLIC
KAMAX



VERALUX-LTD
TEL. 071-4021997
FAX 071-4021998

Reader Service No. 6



HAL-LITE
Neo Halogen Lamp
Cool Mini
with Toshiba Dichroic
Mirror 12 Volt

BEAMS	Narrow	Medium	Wide	Price	Price
35mm DICROIC MIRROR Inner Pack 25	20 Watt	x	x	2.30	2.05
35 Watt	x	x	x		
50mm DICROIC MIRROR Inner Pack 20	20 Watt	x	x	2.30	2.05
35 Watt	x	x	x		
50 Watt	x	x	x		
50mm DICROIC MIRROR WITH LENS COVER Inner Pack 20	20 Watt	x	x	2.50	2.30
35 Watt	x	x	x		
50 Watt	x	x	x		
CAPSULE HALOGEN Halogen G6.3	50 Watt			0.85	0.75
Halogen G4	20 Watt			0.85	0.75
LINEA WITH WEST GERMAN GLASS — 240 VOLT 200/300/500 Watt				1.30	1.20
DL Lamps with Japanese Glass Compact Fluorescent Tubes				1.15	1.10
DL 5	20 Watt			1.10	1.05
DL 7				1.15	1.10
DL 9				2.20	2.00
DL 10 — doubles				1.30	1.25
DL 11				2.40	2.20
DL 13 — doubles					
DL Electronic Holder for Double and Quadruple DL Lamps				5.30	4.50
B22 — BC-Type				5.30	4.50
E27 — ES-Type					

'SEE YOU AT LIGHTSHOW
STAND 35'.

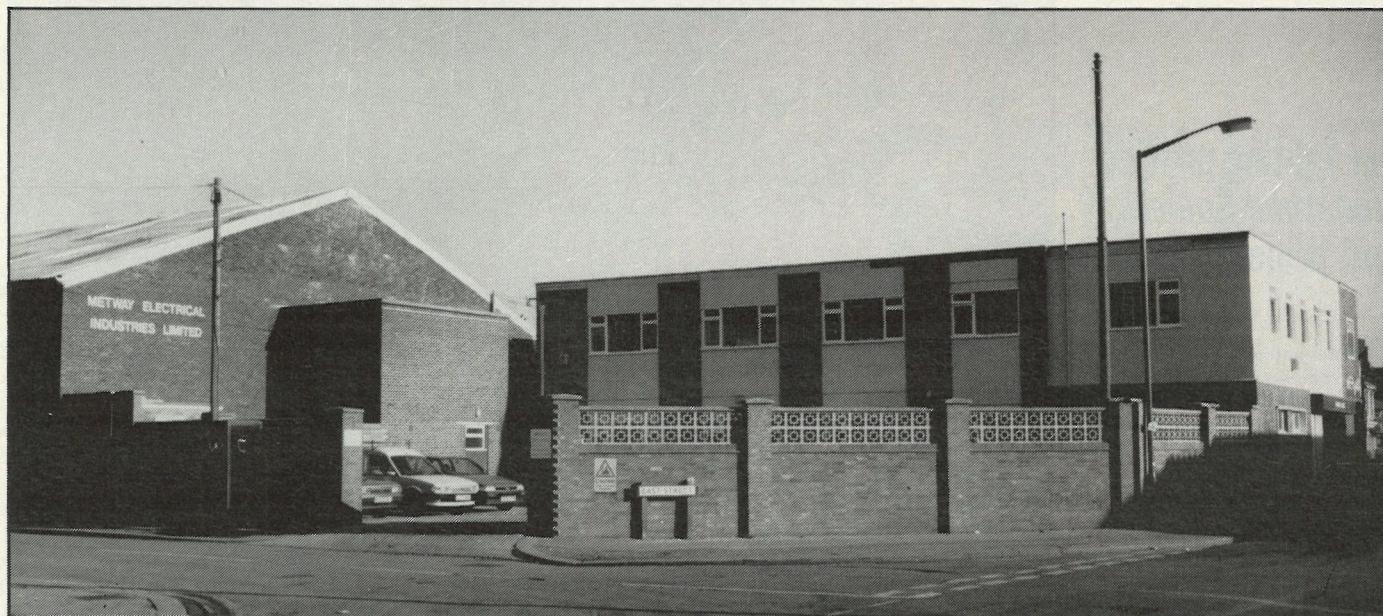
HAL-LITE, 3 SOMERS CRESCENT, LONDON W2 2PN
Fax: 071-262 0067 Telex: 268581 Tel: 071-402 1622

Reader Service No. 7
Page 8

Reader Service No. 8

Lighting Equipment News, January 1991

Metway goes from strength to strength



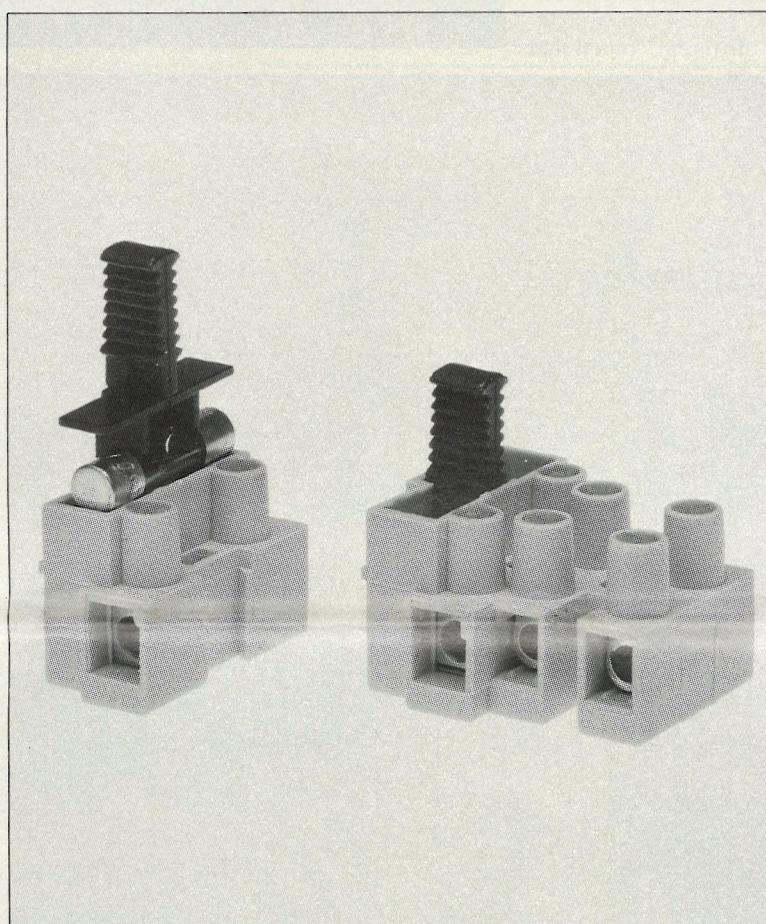
METWAY FUSED TERMINAL BLOCKS.

ALWAYS MAKE THE RIGHT CONNECTION.

- Fused terminal blocks available in two sizes.
- Series 503 Sl: to suit 20mm x 5mm fuses.
- Series 1003 Sl: to suit 25mm x 6mm or 32mm x 6mm fuses.
- Available in 2-5 pole lengths with additional single pole connectors which can be interlocked to make up longer lengths.
- Can be supplied with base entry earthing screws and available with or without wire protectors.
- Moulded in grey and black flame retardant nylon 6/6.

Send for catalogue ref. MEI 895

METWAY
Metway Electrical Industries Ltd.
Barrie House, 18 North Street, Portslade
East Sussex BN41 1DG
Tel: (0273) 439266 Fax: (0273) 439288
Telex: 877166



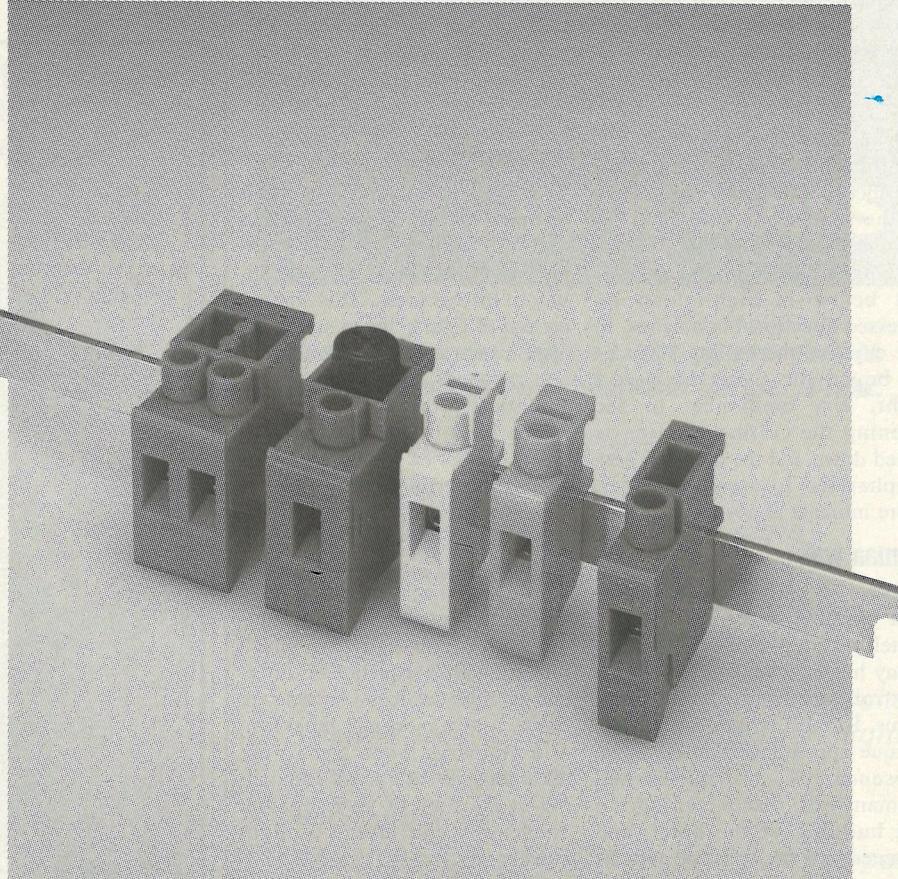
METWAY TRANSFORMER CONNECTOR BLOCKS.

A FITTING TRIBUTE.

- Terminal block connectors for use with transformers.
- Available in single or double pole format for current ratings from 10 amp to 61 amp.
- Available in fused or earthed versions.
- All types suitable for mounting on standard 10mm x 2mm rail.
- Most types supplied in a choice of three colours - red, grey and orange.
- Can be supplied with full range of accessories including barrier plates, mounting rails, markers, etc...

Please ask for our brochure ref. MEI 895

METWAY
Metway Electrical Industries Ltd.
Barrie House, 18 North Street, Portslade
East Sussex BN41 1DG
Tel: (0273) 439266 Fax: (0273) 439288
Telex: 877166



Metway — from small beginnings

When Mr. Douglas Barrie formed "Metropolitan Electrical Supplies" in 1937 the electrical industry was quite a bit different to today. Just three years later, Douglas was already shaping the company for the future.

He changed its name to Metway Electrical Industries and acquired freehold premises in the Kemp Town area of Brighton, where they stayed until the move to larger premises in Portslade last May.



Metway — exporting success

The new 20,000 sq. ft. factory and offices house separate manufacturing divisions for both domestic appliances and lighting fittings.

Metway's extremely successful own-brand jug kettles and lead lamps are both manufactured

here, alongside a comprehensive range of electrical and electronic components for clients both at home and abroad. Over 25% of Metway's production is exported throughout the world, especially the USA, Europe, the Far East, Australasia and even Japan.



Metway — the growth continues

Even in the current economic climate, Metway's business is growing. Sales Director Mike Brimacombe says "It has always been Metway's policy to increase our product range whilst staying with

the market that we know." "Most households will have a Metway product somewhere. It could be a light fitting, a kettle element or a connector in a kitchen appliance."

Metway — the extensive product range

For screw, tab and solder tag type terminal blocks; fuses, clips, grommets, glands and wiring accessories; printed circuit connectors; steatite and porcelain ter-

minal blocks and explosion proof terminals and replacement electrical elements for domestic and industrial use, trust Metway to get it right.

They have for over 50 years!

METWAY

Tel: (0273) 439266
Fax: (0273) 439288
Telex: 877166

Metway Electrical Industries Ltd, Barrie House, 18 North Street, Portslade, East Sussex BN41 1DG.

Putting on the style

Traditional reserve or designer chic, nowhere can lighting provide a more useful sense of identity than in hotels. *Jonathan Speiers*, of Lighting Design Partnership, talks about recent projects in the UK and abroad.

New hotels need to be given a sense of identity — otherwise they can be cold and soulless places. In establishing this identity interior design is all-important — and one of the designer's key tools is lighting.

The Hotel Conrad on London's Chelsea Harbour is a brand new building, so one of the most important things lighting has to do is create a distinctive and individual character for the hotel.

3kW PASSIVE INFRA-RED

**At last
PIR Switches
you can use
with fluorescents**

Now, the Tristat Green Switch handles the power that other PIR switches just can't manage. With a big 16 amp switching capacity it can cope with up to 3kW of lighting appliances — including tungsten and banks of fluorescents.

EASY TO FIT

Either into a single gang box, or as a replacement for existing light switches.

ADJUSTABLE OFF DELAY

The Tristat Green can be adjusted to switch off after a delay of 2-30 minutes.

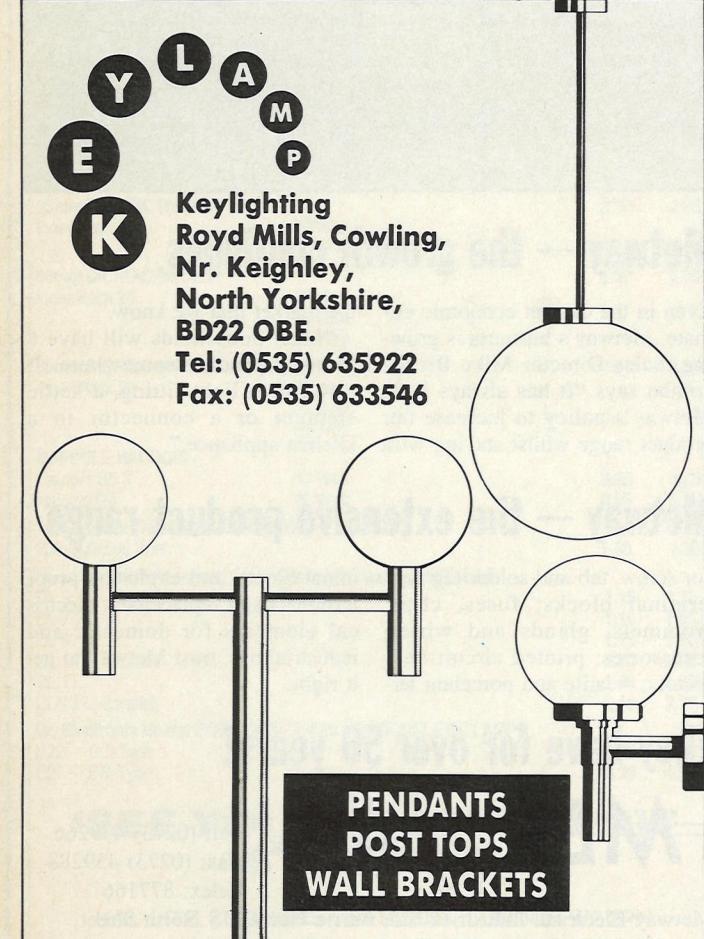
Get all the PIR power you need.
Phone, fax or write for full details and prices.



Cumbria Products Group Limited,

23A Solway Estate, Maryport, Cumbria CA15 8NF. Tel: 0900 816400. Fax: 0900 816175

Reader Service No. 10



Reader Service No. 11

Working in close collaboration with the interior designer, David Hicks, LDP designed a flexible and responsive lighting scheme which visually supports the interior design.

Control system

Since the hotel opened earlier this year, LDP has received a 'highly commended' award for its work on the project in the Lighting Industry Federation National Awards. What caused particular

comment was the use of microprocessor-linked control systems to regulate all the hotel's lighting automatically (responding to differing conditions of natural lighting and different functional



Lounge area at the Hotel Conrad in London's Chelsea Harbour reflects a restrained traditional atmosphere.

requirements throughout the day.

A striking trompe l'oeil painting incorporated into the ceiling in the reception, was lit using luminaires concealed behind the surrounding coving; and the carpet below is highlighted by recessed directional luminaires. In the daytime the ceiling surfaces are brightly lit, giving the space a light, airy ambience. In the evening the ceiling lighting is toned down and the carpeted area emphasised to create a softer, more intimate atmosphere.

Roman wall

Another recently completed project by LDP is the SAS Royal Hotel in central Brussels. Like so many hotels nowadays, this has a central atrium as its internal focus. But this atrium space has a unique appearance thanks to the presence of a triple-arched Roman wall, discovered during the building of the hotel, and retained and incorporated into its design. The atrium encloses a number of different bars and restaurants and is extensively planted, with trees and natural

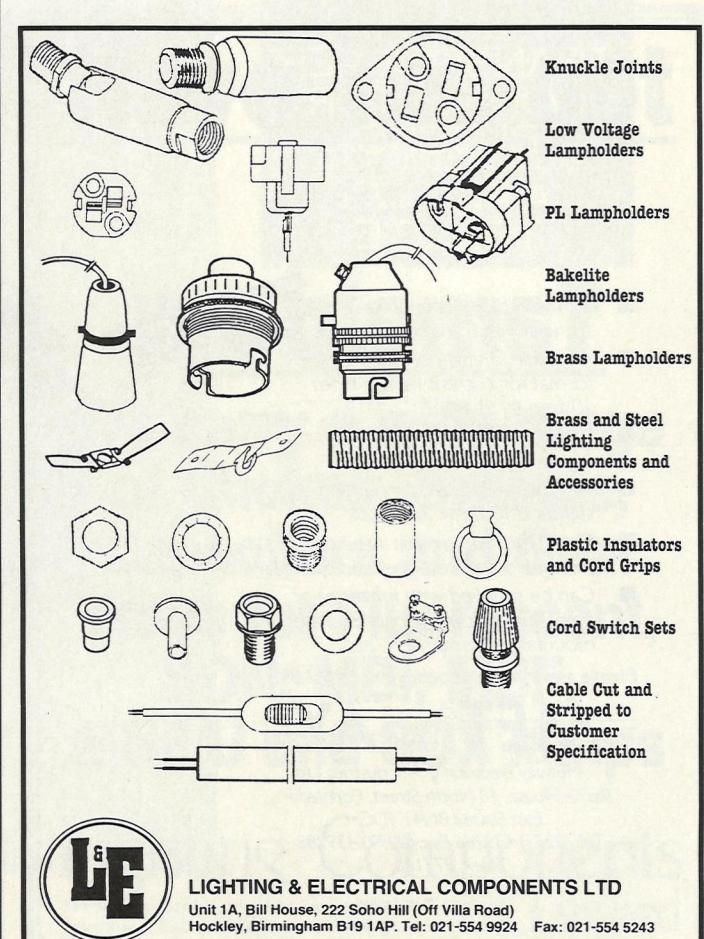
landscaping recreating an outdoor atmosphere. The architect's intention that this should read as an exterior space reinforced by using same light fittings here as outside the building.

Leaf patterns

Theatrical 'gobo' projectors throw leaf patterns and dappled shadows onto the wall to give added texture, and also onto the guests sitting in the bar areas. This shifting pattern of light helps to soften the appearance of the atrium space and responds to the many trees and plants within it.

The base of the Roman wall sits in a pool of water. Spotlights were mounted under the water to shine up onto the surface of the wall, casting shimmering ripple-patterns of light across it. The whole lighting system is fully integrated into an overall computer-based control system which runs through a sequence of different daytime scenes — pre-dawn, dawn, early morning, breakfast, mid-morning, lunch and so on, the timing of each scene responding to the time of year, weather conditions and levels of light outside.

One of the most unusual and exciting new commissions is to design the lighting for the six hotels at the Euro Disneyland



Reader Service No. 12

Lighting Equipment News, January 1991

Reception area of the Hotel Conrad. The ceiling is lit by concealed luminaires, while recessed downlighters pick out the colours in the carpet.

development, due to open near Paris in the Spring of 1992.

Each hotel has a specific theme. The Magic Kingdom Hotel, Hotel New York, Sequoia Lodge, Newport Bay Club, Santa Fe and the Cheyenne Hotel: in each case the hotel's individual character will be brought out with lighting designs which add to the atmosphere.

Gentleman's club

Once the Langham Hilton in London's Upper Regent Street, is opened in March 1992 guests will be able to relax in the Club Bar which was designed to feel like a traditional gentleman's club. The lighting system, thus, uses a wide range of different fittings to give the impression of something which has evolved gradually. There is also a palm court which used to be open to daylight, located beneath a new plant room. This uses the familiar computer-controlled dimming system (linked via photocells to outside lighting conditions) to simulate daylight convincingly.

The Langham Hilton is strong on period detail. This has prompted designing purpose-built chandelier fittings to harmonise with the interiors while providing good lighting.

So much for interior spaces — but a hotel's exterior deserves equally serious consideration. Particularly after dark, it is the exterior lighting which defines and establishes its character. Lighting can play a vital role in distinguishing a hotel as an attractive landmark, and, thus, an obvious place to stay.

The major practical problems include keeping light out of bedroom windows and finding suitable mounting points for the light fittings. One answer is to mount fittings very close to the building so that the light washes up the walls without being directed into windows. This was the technique adopted for lighting the SAS Royal Hotel in Brussels.

Fingers of light

It was lit to emphasise the building's verticality with fingers of light grazing up the facades.

The Langham Hilton Hotel meanwhile is actually one of the



trickiest exterior projects LDP have ever had to light in London. Although, basically one large building, it is irregular in shape, bending round a corner and features an asymmetrically placed tower which conflicts with the symmetrical main facade. The appearance is almost one of three different buildings. As a result, a great deal of planning went into designing an installation which would light each of these elements effectively while at the same time producing a coherent and unified scheme.

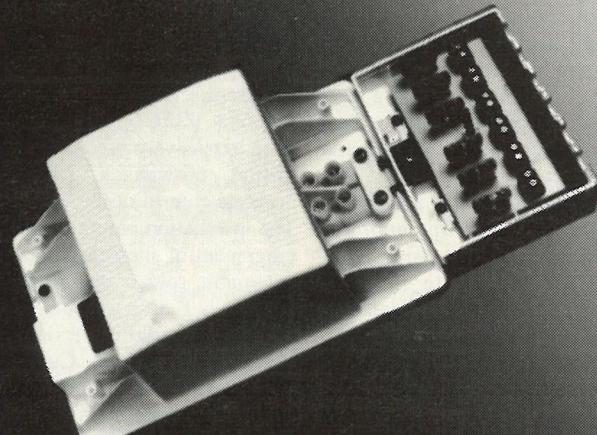
Powerful tool

Finally, lighting is a powerful psycho-suggestive tool and can be used to influence people to move in a pre-determined way. To take the SAS Royal Hotel Brussels again as an example. The colour temperature of different light sources was used to draw customers into the hotel. The exterior of the building is relatively warmly lit, but the area directly outside the main entrance is deliberately kept cool, and this contrasts strongly with the much warmer lighting of the hotel's reception and atrium area. The effect is to make guests feel welcomed by the cosy, inviting atmosphere of the hotel reception space beyond.



Emilo Low Voltage Transformers

- The safety isolating transformer
- Attractive Modular Styling
- Combination Splitter box for simplified installation
- Primary and secondary fusing with thermal overload protection



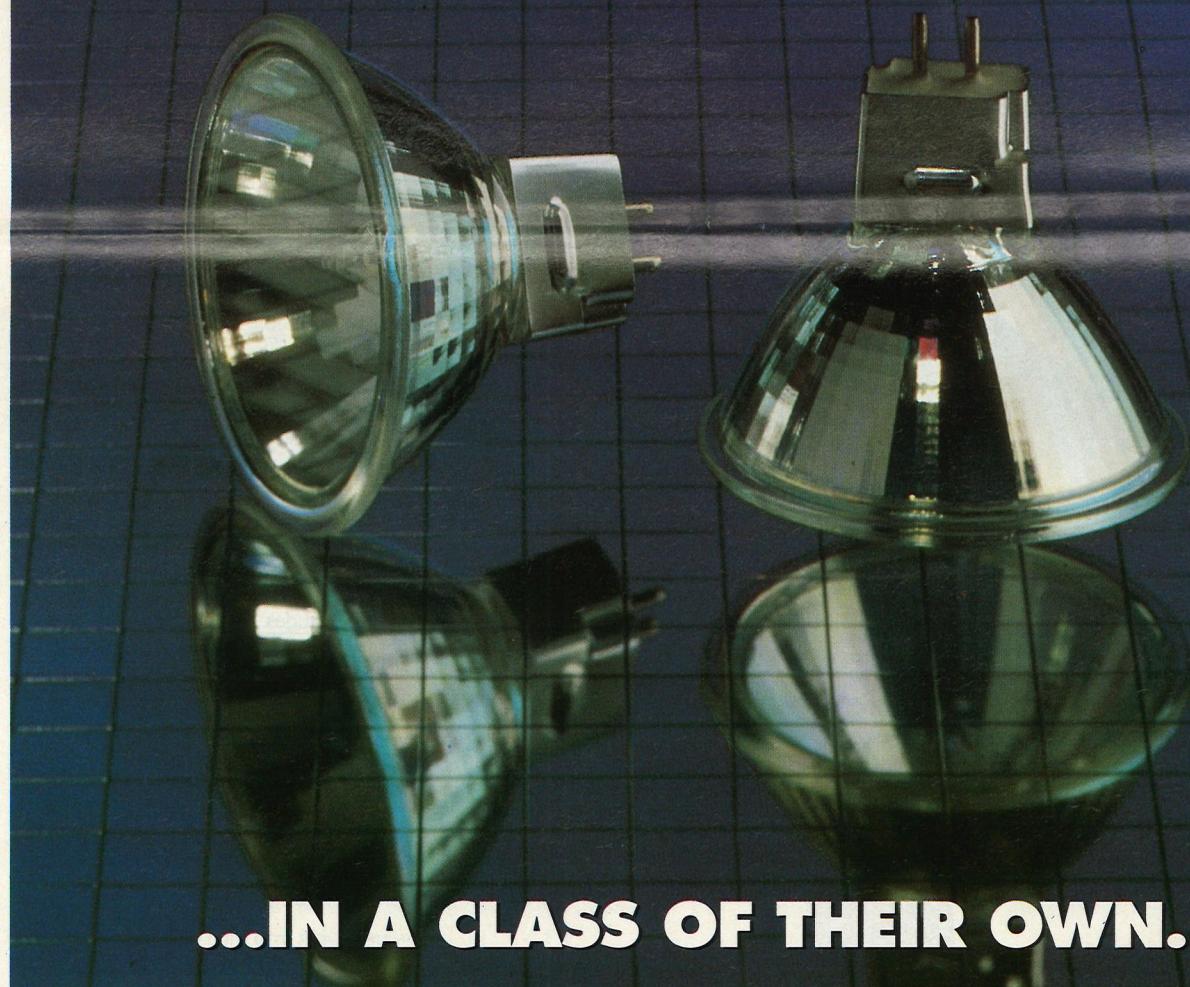
Tel: (0753) 37811 Fax: (0753) 73275

Enterprise House, 370/386 Farnham Road,
Slough, Berks SL2 1JD

Reader Service No. 13

Lighting Equipment News, January 1991

MASTER *line*TM HALOGEN DICHROIC LAMPS...



...IN A CLASS OF THEIR OWN.

Masterline from Philips Lighting represents the 3rd generation in dichroic lamps. It has:

- higher performance burners
- computer designed reflectors
- clear, flat, optical quality front glass
- a new metal cased cap

NEW features producing benefits of:

- 15 watts less per point for the same results as standard lamps or up to 70% more light
- sparkle maintained
- complete safety
- interchangeability with existing lamp types
- enhanced results from crisp white light

For more information fill in your details below.

Name _____

Position _____

Company _____

Address _____

Postcode _____

O.E.M. Division, Philips Lighting Limited, Freepost, City House, 420-430 London Road, Croydon CR9 9ET. Fax: 081-665 5102

Philips Lighting



PHILIPS

Reader Service No. 14

Page 11

The role of the National Lighting Awards is to challenge accepted standards of lighting and to ensure that more people enjoy the benefits of a well-lit environment — part two of a feature in which *LEN* looks at this year's winners

Best of British

No entry in the industrial section was adjudged to be worthy of the major award, but the **factory complex at Felixstowe for Schlumberger Industries** was highly commended. This £8.0 million complex is the design and manufacturing headquarters for the company's production of electricity meters.

Mechanical and electrical services were designed by William Steward Eastern, and a major aspect of the brief was to produce

an innovative lighting scheme for the factory. Within the production area the lighting scheme also had to be practical and cost effective. Here, the designers finally decided that an uplighting scheme would be most suitable, and would be more visually attractive than the large quantity of fluorescents luminaires that would be required to achieve the same illumination level.

To enhance the clean, crisp environment it was decided to use 400W metal halide lamps

enclosed within Crompton Gladiator luminaires which had to be finished in white for this high tech environment.

The Gladiator was chosen for its versatility as it was to be stirrup mounted and turned through 180 degrees with the asymmetric reflector distributing the light evenly over the structural linear tray which was to be the reflective surface. Four hundred and thirty-two of these luminaires were installed, mounted onto purpose-made brackets suspended



Schlumberger Industries' electricity meter factory at Felixstowe — highly commended in the industrial section.

Innovative lighting technology — planning, design, installation.



Lighting in all its forms and variations will be the focus of attention at the **World Light Show** — the largest and most important trade forum for in-depth information and for placing orders.

More than 400 exhibitors from 24 countries will present the full spectrum of innovative lamps, lights and lighting systems. Plus architectural lighting solutions and the latest design trends. A comprehensive range of exhibits which also includes electrical installation technology for buildings. Covering a total area of over 31,000 m², the World Light Show is a magnet for designers, architects and users in industry and the public sector. As well as for the skilled trades and the electrical goods trade. Come to Hannover for a unique insight into the latest lighting technology.

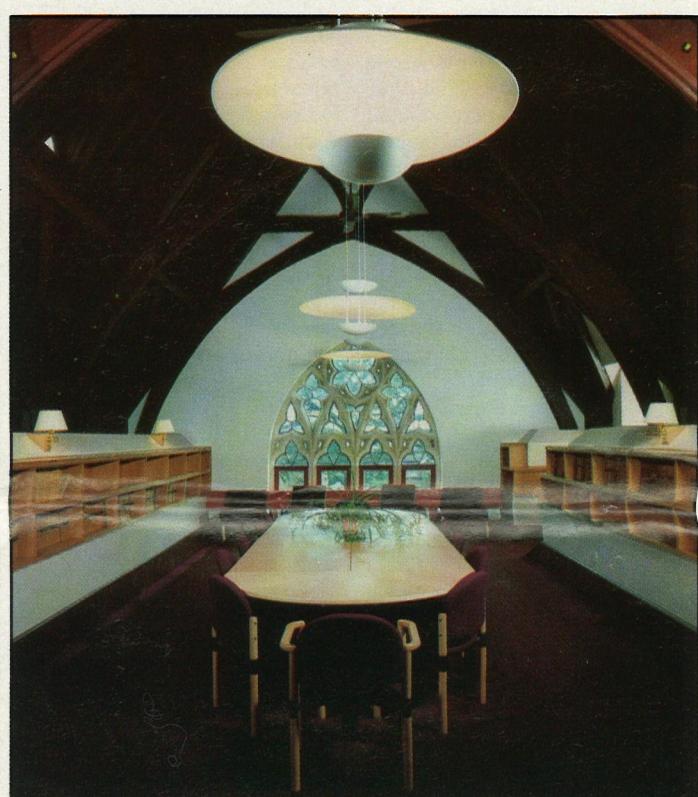
10TH - 17TH APRIL 1991

HANNOVER MESSE 91
INDUSTRIE

The key industrial fair

Further information: Arnold Rustemeyer, 25 Hurst Way, South Croydon Surrey CR2 7AP, Tel.: (081) 6 88 95 41, Fax: (081) 6 81 00 69

 DEUTSCHE MESSE AG, HANNOVER/GERMANY



Wood Green Crown Court, a combination of new build and Victorian gothic. Picture shows the Judges' Library.

from the air conditioning duct-work. The wiring was carried out using PVC single cables installed within lighting trunking, the final connections being made using a plug-in ceiling rose and butyl flexible cable.

Winner of the civic section is the lighting scheme designed for the multi-million pound refurbishment of the **Imperial War Museum**. Housed in the surviving part of the old Bedlam lunatic asylum, the museum needed to increase the amount of gallery space and provide better environmental conditions for displaying relics, principally of the Second World War.

Floor space on four levels is planned around a new central exhibition hall, formed by roofing over an old courtyard with a steel structure supporting a lattice barrel vault covered with UV filtered polycarbonate.

The brief required a lighting installation which was unobtrusive, aesthetically pleasing, controllable and flexible — while capable of achieving dramatic effects.

A particularly interesting aspect of this installation is the micro-processor control and dimming system which enables the lighting to respond to changing daylight entering through the translucent covering. The system is automatic, requiring no action on the part of museum staff. Low volt-

age sealed beam lamps, used in association with louvres, provide precise optical control.

In the main atrium, high level lighting provides a glare-free situation with the exhibits as the brightest points in the field of vision. Modelling of large exhibits is achieved with key and fill lights of different values directed from two or three angles. Metal halide uplighting concealed within the original anti-aircraft searchlights, prevents too much silhouetting of suspended aircraft during daylight hours and the effect of a night sky is provided by dark blue uplighting into the interior of the barrel vault.

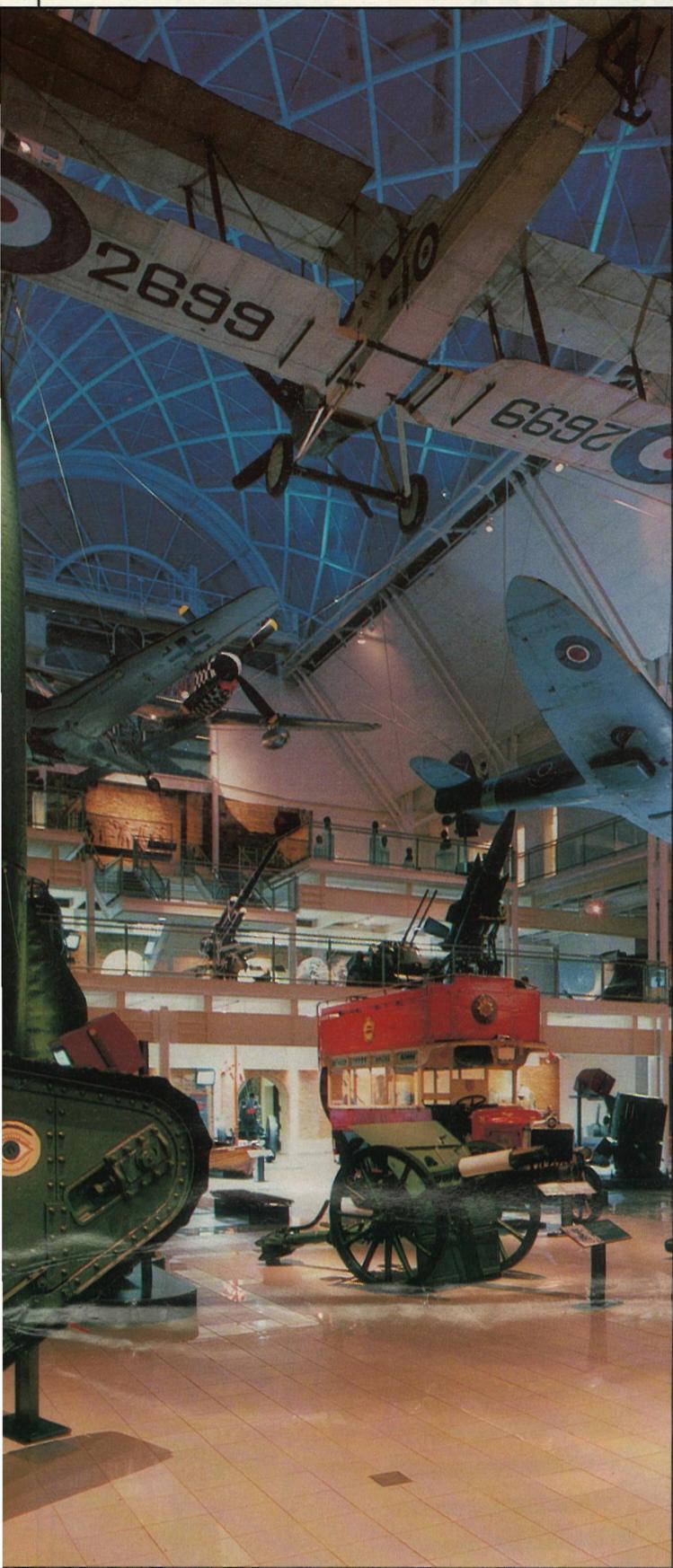
Showcases

Finally, a glare-free environment has been created for the small exhibits. Fibre optic lighting has been extensively used within individual showcases, permitting accurate control of the light beam.

The installation permits easy rearrangement of showcase interiors.

Notable runner up in the civic section is the spectacular flood-lighting installation designed by Philips for **St Paul's Cathedral**. The company was commissioned by the Corporation of the City of London to create the scheme to mark the 800th anniversary of the founding of the mayoralty of London.

The design uses metal halide lamps which enhance the ivory



Winner of the civic category — the Imperial War Museum's refurbishment and extension.

white of the Portland limestone out of which the building is constructed, and enables the building to stand out from the high pressure sodium used locally for street lighting and to floodlight other city landmarks.

Aesthetically, the aim of the installation was to show the cathedral as it would have appeared by moonlight to its architect Sir Christopher Wren.

The upper part of the dome is illuminated by 1800W Arenavision floodlights which even manage to light the lantern, orb and cross surmounting the dome from ground level. The lower half of the building is principally lit by 2000W luminaires with 400W fittings to provide fill light.

Wood Green Crown Court, provides a unique location for the administration of justice. A further runner up in the civic buildings category, the scheme is based on a remodelled Gothic building dating from 1865. This has variously served across the years of the Royal Masonic Institute for Boys, a missionary nurses' training college, and offices and workshops for the Gas Board.

The scheme as built retains the original Gothic facade and the chapel wings of the building. To provide the required extra accommodation the roof now houses three extra floors. The space defined by the exist-

ing building houses the courts — two per floor — and ancillary areas such as offices, robing rooms, judges' rooms, libraries, and dining areas together with secure accommodation for the defendants in the basement. The ground floor houses administration offices, a public restaurant and shared services. Circulation is segregated both horizontally and vertically so that members of the public, jurors, judges, and defendants only meet in the courtroom.

Fluorescent ceiling

As there is no natural daylight to the court rooms, the main lighting is provided by fluorescent lamps mounted in the central ceiling void. A ceiling, formed from translucent panels gives the impression of a rooflight and also serves to diffuse the light from the fluorescent fittings.

Supplementary lighting is provided by spotlights above the judges' bench, jury and public seating areas, and by low glare fluorescent task lighting. Fluorescent uplighters fitted with low energy lamps provide modelling to the ceilings.

The staircase is lit using profiled tubes which follow the soffit of the staircase, while lighting in the judges' library uses a combination of direct lighting and uplighting to counter the low reflectance of a dark, oak beamed ceiling.



Dominating the London skyline — the highly commended floodlighting installation for St Pauls.

You'd be forgiven for thinking that such an endorsement would only be allowed with BSI's blessing.

Not so. As the law stands anyone can claim to have manufactured their products to our standards.

The truth is, not all of the goods embellished in such a way are up to the standard claimed.

So how can you be sure that the products supplied have in fact been manufactured to the standard you've specified?

At the very least, you should insist on seeing a type test certificate. But bear in mind this only means that the one sample submitted was passed at the time of testing.

It's left up to you to determine whether the manufacturer has maintained those standards throughout production.

Hardly peace of mind for specifiers and buyers.

You could of course go to the

considerable expense of doing your own testing.

But why should you? Surely that should be the responsibility of the manufacturer.

After all, you don't expect your customers to test your goods for you.

If only a quality system existed that really did offer peace of mind to specifiers and buyers.

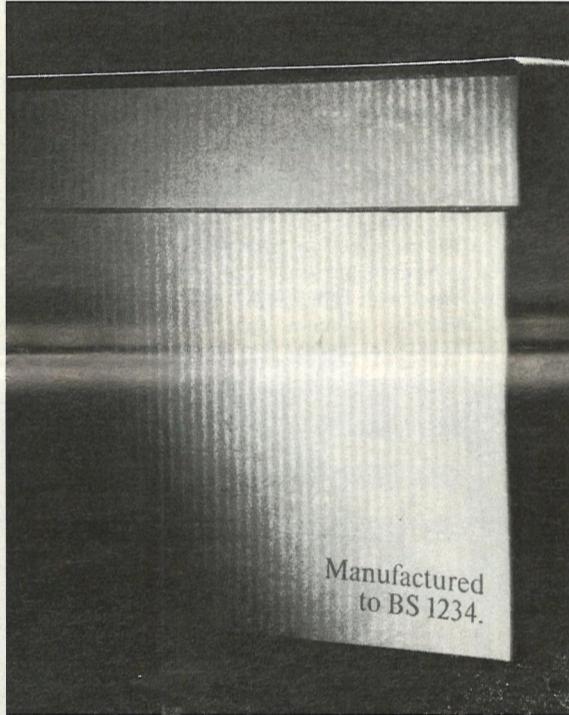
One that thoroughly tested both the product and the company manufacturing it. One that assessed a supplier's planning, record

keeping, manufacturing control and their ability to take corrective action.

One that continually checked to see if standards were being maintained by testing a supplier's output on a rolling basis.

Well, exist it does. It's the BSI Kitemark, the country's top quality symbol. It proves that a product meets every aspect of the relevant British Standard.

On that, you can take our word.



WHO SAYS SO?



THE KITEMARK
ENHANCES YOUR REPUTATION
AND REDUCES YOUR COSTS

For more information send this coupon to BSI, Freepost, London W4 2BR.

Name _____ Position _____ Company _____

Address _____

Type of Product _____ Tel. _____ Fax. _____

(Please tick appropriate box) Manufacturer Importer Retailer No. of employees _____ 3LEN5

Lighting Italian style

Part two of our report on Euroluce concludes the review of new interior fittings and examines an exciting new range of amenity lighting

Butterfly bright colours make the Titania suspension lamp from Luce Plan one of the most attractive fittings on offer this year.

The luminaire uses a 150-250W halogen lamp. The elliptical body, which provides screening for the light source, is made of aluminium strips in black or silver finish. Five pairs of interchangeable silk-screened polycarbonate filters allow the body to assume different colourations, while diffused lighting remains a natural white. The filters are available in green, with red, yellow, blue and violet as optional.

The lamp has a dynamic quality. Depending on the observer's viewpoint, the fixture changes from a transparent form when viewed straight ahead to a solid body when viewed end on. Physical support is provided by a hook fixed to the ceiling, which is separate from the electrical connection formed by a white ABS ceiling rose. This also enables the product to be positioned anywhere in the room.

On a contract scale, the Cini and Nils decorative light system, designed for reception areas in

public buildings, meeting spaces, and hotels, is a low voltage system based on two elementary modules: the ceiling rose and the arm. A number of from two to eight arms can be fitted to any one ceiling rose to give the desired lighting levels. The ceiling rose is available in both a flush version using a remote transformer and a ceiling or wall mounted rose with its own integral transformer. Both models are finished in chrome.

Modelling with light

The arms, of brass finished in bright chrome, come in four versions: two straight angled arms and angled arms with clockwise and anticlockwise curves.

Each arm enables a bulb up to a maximum of 50W 12V — or in some cases 100W 24V — to be used, and these arms are fitted to the rose simply by pressure on a patented clip-in joint. This then effects both mechanical and electrical connections simultaneously.

The possibility of grading the number of arms and of selecting lamps of different powers allows the designer to model with lighting: making it uniform, concen-

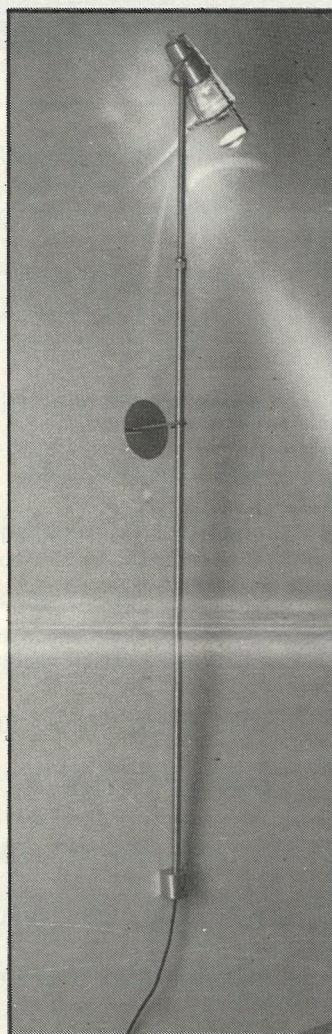
trating it in certain areas or creating areas of varying light intensity in patterns.

The control of light was one of the key design themes of the show. Light is modelled, bounced off reflective plates, concentrated by lenses — all in an attempt to show that the designer is master of his medium. One of the simpler designs in this category is Magritte, a table lamp from New Society Illuminazione. This comes in two versions: aluminium and copper on aluminium and black lacquered aluminium, both with an adjustable reflector in polished aluminium that it can bounce the light onto a wall or display object. Light from the 50W 12V dichroic lamp is softened by a polycarbonate diffuser.

The Galileo system from Antonangeli takes the notion of control a stage further. The fitting comprises a dichroic lamp with an adjustable diaphragm made of segments of toughened steel. This enables the diameter of the cone of light to be altered. Fixed a short distance in front of this diaphragm is a lens which controls the degree of focus of the light. For all settings, therefore,



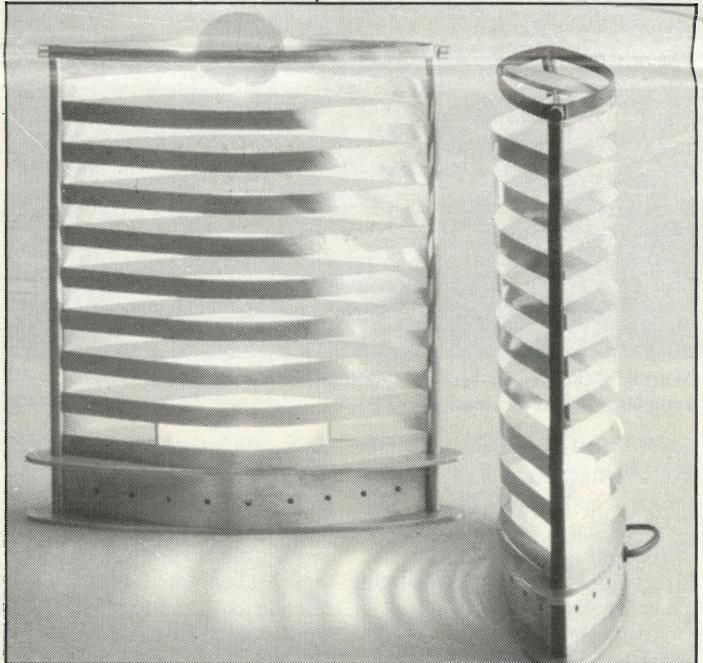
Arc exterior lighting from Guzzini is an unusual bow-shaped luminaire in cast aluminium.



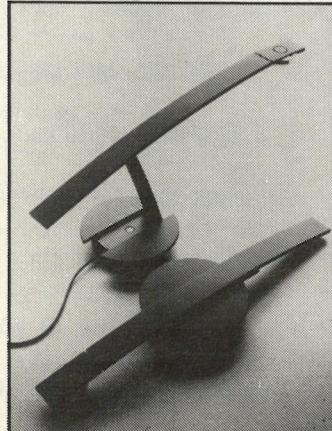
The Galileo system offers the user advanced lighting control.



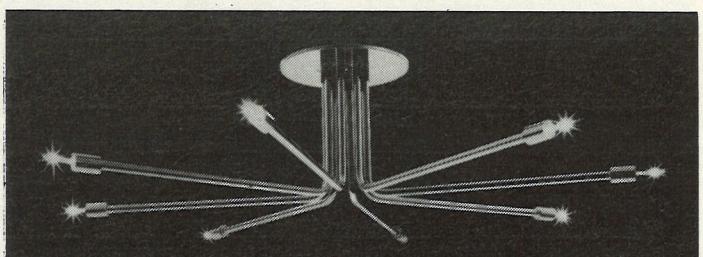
Titania pendant lamp from Luce Plan.



Magritte table lamp with adjustable reflector.



Folding table lamp by Tronconi.



Cini and Nils lighting system gives design flexibility.

light can be concentrated, diffused or put out of focus. The body is in cast aluminium with the front part formed from narrow mesh expanded steel sheet. The whole fitting is mounted on a chromed steel telescopic pole.

Galileo is available in a range of designs, including floor and table models and fittings for wall or ceiling mounting. The table model comes with a switch which permits three intensities of light.

Designed for convenience of another sort is the Master table lamp from Tronconi. This folds flat for easy storage. The luminaire, designed by Paul Barbieri, is finished in black with a bright

red switch. It features a balanced rocker arm, giving a height of up to 300mm on a 240mm rotating base. The luminaire takes a low voltage halogen lamp of up to 35W.

Amenity lighting

On the exterior amenity lighting front, the most exciting range of products was undoubtedly i Guzzini's range of fittings originating from Yamada of Japan and adapted by them for the European market.

These include Arc, an unusual bow-shaped cast aluminium fitting in natural metallic finish taking an 18W compact fluorescent lamp.

The diffuser is in polycarbonate, and the fitting as a whole meets IP55. On a more conventional note, low level lighting is provided by the Bliz luminaire, produced in natural cast aluminium with a methacrylate diffuser. The fitting takes a 24W compact fluorescent lamp. Finally, from the same stable, Kriss, a stylish wall fitting taking a 150W halogen lamp, provides mostly downlighting. What distinguishes the fitting, however, is that a flat convex lens on top of the luminaire gives a single vertical line of light up the wall to a height of 10m. The fitting, to IP54, is available in black or white.

RAM

ADVANCED DESIGN TRANSFORMERS & DIMMERS FOR LOW VOLTAGE LIGHTING



TRANSFORMER FEATURES

- Compact size
- Cool running
- Light weight
- Energy efficient
- Soft start
- Overload protected
- Short circuit protected
- Suppressed to BS800-VDE 0875
- Safety isolated
- Anodised extruded Aluminium case

HARD FIRED DIMMER CONTROLS FOR ELECTRONIC & CONVENTIONAL INDUCTIVE TRANSFORMERS

DIMMER FEATURES

- 500VA and 1000VA
- Flush or surface mounting
- Hard fired
- Separate rocker switch
- Internally fused
- 16A Accessible Terminals
- Auxiliary output
- Mains 'on' indication
- Enclosed electronics
- Optically coupled output stage

RAM ELECTRONICS
THE PROFESSIONALS IN POWER CONTROL

Ram Electronics (UK) Limited, Wharfedale House, Iron Row, Burley-in-Wharfedale, West Yorkshire LS29 7DB
Tel: (0943) 863884 Telex: 578285 RAM(G) Fax: (0943) 862630
A MEMBER OF THE AIR MOVEMENT GROUP

To advertise in
this Directory contact
Alastair Moyes

WHERE TO BUY DIRECTORY

Telephone:
081-975 9759

ACCESSORIES — BRASS PRESSED AND TURNED

S. Lilley & Son Ltd.,
80 Alcester Street,
Birmingham B12 0QE
Tel: 021-622 2385
Fax: 021-666 6148

ACCESSORIES — CEILING CUPS/ CORD-GRIPS/PLUGS/ SWITCHES

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901

ACCREDITED SAFETY TESTS



Albury Laboratories Ltd.,
Albury, Guildford,
Surrey GU5 9AZ
Tel: (04641) Shere
2041/4
Telex: 859336 Albury G



Laboratories Ltd.,
Norman Road
Broadheath, Altrincham
Cheshire WA14 4EP
Tel: 061-928 8924
Telex: 665337 AMTAC G
Fax: 061 927 7359



BSI Testing
Maylands Avenue
Hemel Hempstead
Herts HP2 4SQ
Tel: 0442 230442
Contact: David Price
Safety testing and
photometry.



SGS Inspection Services Ltd.
Alperton Lane,
Wembley, HA0 1WU
Tel: 081-998 2171

ALUMINIUM LOW BRIGHTNESS AND VDU LOUVRES

A.D.D. Louvre Sales Ltd.,
8 Seax Way,
Laindon, Basildon,
Essex SS15 6SL
Tel: 0268 415828
Fax: 0268 410985
The UK's foremost
manufacturers of low
brightness aluminium
louvres.



Lighting & Electrical Distributors
(L.E.D.)

109 Wood Street
London E17 3LL
Fax/Tel: 081-521 5485
Importers indoor/outdoor
lighting, LV fittings,
decorative, ceramic and
crystal. Flush fittings. Street
and amenity, security/PIR
commercial light fittings.



BBI Lighting
23 Parkside
Coventry CV1 2NE
Tel: 0203 551444
Fax: 0203 525862



Lighting & Electrical Distributors
(L.E.D.)

109 Wood Street
London E17 3LL
Fax/Tel: 081-521 5485
Importers indoor/outdoor
lighting, LV fittings,
decorative, ceramic and
crystal. Flush fittings. Street
and amenity, security/PIR
commercial light fittings.



REFLEXION
Design for Light

MBM Plastics Ltd
Aluminium Division
204 Oldbury Road,
West Bromwich,
West Midlands B70 9DE
Tel: 021-553 7551
High quality louvres for the
lighting industry.
Also — a wide range of
plastic light controllers.

ANODISED ALUMINIUM COIL AND SHEET



alanod & Garfield Lewis
Birmingham B21 0BH.
Pre-anodised strip-blanks
for louvres and reflectors
available from stock to your
precise requirements.
Telephone or fax for more
information. Garfield Lewis
is a quality assured source
to BS5750/1S09002
Tel: 021-554 5242
Fax: 021-551 9315



Anocoil pre-anodised
aluminium coil, sheet and
blanks available ex-stock
from the following service
centres.
Tipton 0902 880881
Uxbridge 0895 444554
Leeds 0532 450304
Glasgow 041-647 9222
Southampton 0703 611471
Bridgend 0656 55981

ANOCOIL
Ano-Coil Ltd.,
Bilton Road, Bletchley,
Milton Keynes MK1 1HT
Tel: 0908 75642
Telex: 825031
Fax: 0908 643956
Pre-anodised aluminium
for reflectors, louvres and
decorative uses.

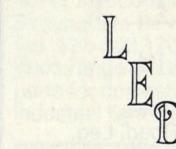
Non Ferrous
and Feralco
Non Ferrous and Feralco
Pre-anodised and pre-
painted aluminium slit coil
and cut sheet for your
lighting reflector and louvre
requirements available ex
stock.
Contact

Non Ferrous and Feralco
Tel: Walsall (0922) 722200.
Fax: Walsall (0922) 722466

ARCHITECTURAL & COMMERCIAL LIGHTING CONSULTANTS & SUPPLIERS



BBI Lighting
23 Parkside
Coventry CV1 2NE
Tel: 0203 551444
Fax: 0203 525862



Lighting & Electrical Distributors
(L.E.D.)

109 Wood Street
London E17 3LL
Fax/Tel: 081-521 5485
Importers indoor/outdoor
lighting, LV fittings,
decorative, ceramic and
crystal. Flush fittings. Street
and amenity, security/PIR
commercial light fittings.

REFLEXION
Design for Light

The Old Court,
All Saints Road, Newmarket,
Suffolk, CB8 8HH
Tel: 0638 662140
Fax: 0638 662143
Lighting, design,
consultancy, concept
engineering, specification.

ASSEMBLY — COMPLETE MANUFACTURING SERVICE

ASSEMBLY

LE

EC

ME

AS

SE

MB

LE

AS

SE

SMART & BROWN

Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625

EMERGENCY LIGHTING EQUIPMENT

Armeda Lighting and Fire Ltd.,
Unit 1, Huxley Close,
Plympton,
Plymouth PL7 4JN
Tel: 0752 342942
Fax: 0752 342864

D.C. Emergency Systems Ltd
Wharf Street, Dukinfield
Cheshire SK16 4JG
Service and Sales
Tel: 061-343 1189

Ensura Systems Ltd.,
Farrington Road,
Burnley, Lancs.
Tel: 0282 29261/2/3
Telex: 63300 (Ensura)

Erskine Systems Ltd.,
Lee De Forest House,
Eastfield,
Scarborough,
Yorkshire YO11 3DU
Tel: 0723 583511
Telex: 52562



Exstalite Ltd.,
Project House,
18 Tallon Road, Hutton,
Essex CM13 1TZ
Tel: 0277 263600
Telex: 996770 Apex
Fax: 0277 263592



JSB Electrical Ltd.,
Manor Lane,
Holmes Chapel,
Crewe, Cheshire CW4 8AB
Tel: 0477 37773
Telex: 36526
Fax: 0477 35722



Matalex
Waterloo Rd
Bridford on Avon
Alcester
Warwicks, B50 4JH
Tel: 0789 490900
Fax: 0789 490516

Menvier (Electronic Engineers) Ltd
Southam Road, Banbury
Oxon. OX16 7RX
Tel: 0295 256363
Fax: 0295 270102

PLASMOLD

Plasmold Safety Systems Ltd.,
Bruncliffe Lane,
Morley, Leeds, LS27 0LZ
Tel: 0532 539119
Telex: 556322
Fax: 0532 535665

Selite

Selite Ltd
19 Stafford Road,
Croydon CR0 4NG
Tel: 081-686 9919
Fax: 081-680 9288
Telex: 917759

ENERGY MANAGEMENT LIGHTING CONTROL

ripul limited

Bumpers Way,
Chippennan
Wiltshire SN14 6LF
Tel: 0249 443511
Reader Service No. 51

FLUORESCENT COLOURED SAFETY LIGHTING

EncapSulite

Encapsulite sleeves with aluminium end-caps and COLOURED filters, offer the widest possible choice in single or multi-coloured fluorescent lighting. For a free brochure; Tel: 0525 376974

FLUORESCENT & COMMERCIAL LIGHTING

MANLIGHT LIGHTING LIMITED

22 Nursery Place,
Chipstead, Sevenoaks,
Kent TN13 2RH
Tel: 0732 451744
Fax: 0732 456205
The home of Ronald Dury!

FLUORESCENT COMPONENTS AND ACCESSORIES

ADVANCED LIGHTING INDUSTRIES

Advanced Lighting Industries,
Electronic Fluorescent
Starters,
Electronics and Adapters,
Motem House,
Brooker Road,
Waltham Abbey,
Essex EN9 1JW
Tel: 0992 88668

KNOBEL

Sole UK Agent and
Distributor
Hylec Eletto Gibi (UK) Ltd
Unit 4, Trinity Centre,
Wellingborough
Northants NN8 3ZB
Tel: 0933-677633
Fax: 0933-675771

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901

SMART & BROWN

Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625

Transtar

Transtar Ltd.,
Victoria Industrial Estate
Victoria Road West
Hebburn
Tyne and Wear NE31 1UB
Tel: 091-4832797
Telex: 537234 Transtar

ENERGY MANAGEMENT LIGHTING CONTROL

Tridonic

Tridonic Ltd.,
Hampshire International
Business Park,
Crockford Lane,
Chineham, Basingstoke,
Hampshire RG24 0NA
Tel: 0256 707000
Fax: 0908 613131
Telex: 825606 VOSUK G

ripul limited

Bumpers Way,
Chippennan
Wiltshire SN14 6LF
Tel: 0249 443511
Reader Service No. 51

FLUORESCENT/ DISCHARGE CONTROL GEAR



Control Components (EW) Ltd
3 Macadam Road
Corby, Northants NN17 2JN
Tel: 0536 402403
Fax: 0536 402419

HELVAR

Helvar Ltd.,
1 Ealing Road Trading Est.
Ealing Road, Brentford,
Middlesex TW8 0QY
Tel: 081-568 6205
Fax: 081-568 6473
Telex: 291439 HELVAR G

Lighting Components Limited

249 Seaside, Eastbourne,
East Sussex, England
BN22 7NT.
Tel: (0323) 410105
Fax: (0323) 410161

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901

MAY & CHRISTIE

Manufacturers of
OPTIMA control gear
May & Christie Ltd
Unit 22, Mead Park,
Rover Way, Harlow
Essex CM20 2SE
Tel: 0279 422540
Fax: 0279 421570

PARMAR

W. J. Parry (Electrical) Ltd.,
Victoria Mills,
Draycott, Derby DE7 2PW
Tel: 033 17 2321
Fax: 033 17 4035
Telex: 37374

SMART & BROWN

Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625

Tridonic

Tridonic Ltd.,
Hampshire International
Business Park,
Crockford Lane,
Chineham, Basingstoke,
Hampshire RG24 0NA
Tel: 0256 707000
Fax: 0908 613131
Telex: 825606 VOSUK G

VS

Vossloh-Schwabe UK Ltd
38 Tanners Drive
Blakelands
Milton Keynes MK14 5BW
Tel: 0908 611060
Fax: 0908 613131
Telex: 825606 VOSUK G

GARDEN LIGHTING

Alectralink Distributing Company
Unit 5, Popin Building,
Southway, Wembley,
Middlesex HA9 0HB
Tel: 081-900 2322
Fax: 081-903 3403
New range low voltage
path and garden lights
only knee high! + five way
garden transformer to suit.
Low voltage sunken
Uplighter with integral
transformer.

GEWISS

Gewiss UK Limited
Bumpers Way
Chippenham SN14 6LH
Tel: 0249 444734
Fax: 0249 444514
Cylindrical and angle
luminaires to IP55

GEAR TRAYS

JERRARD BROS

Jerrard Bros PLC
Arcadia House
Cairo New Road
Croydon CR0 1XP
Tel: 081-688 8222
Fax: 081-681 3119
Standard and made to
measure fluorescent gear
trays and control boxes.

Lighting Components Limited

249 Seaside, Eastbourne
East Sussex, England
BN22 7NT
Tel: (0323) 410105
Fax: (0323) 410161

GENERATING SETS

Brimotor Ltd.,
Tel: 0892 37588
Fax: 0892 27724
Telex: 95446+Floodlighting

GLOBES

ACRILUX

Veralux Ltd
Tel: 071-402 1997
Fax: 071-402 1998
Spheres and other
architectural shapes in
Polycarbonate, Acrylic and
Kamax, injection/blow
moulded.

HEAT RESISTANT LAMP COVERS

TORNADO

Tornado Lighting
235 Upper Richmond Road
Putney
London SW5 6SN
Tel: 081-788 2324
Heat resistant glass covers
for Tungsten Halogen lamps
in both clear and opaque
with various clip. For
information contact above.

LAMPHOLDERS

SMART & BROWN

Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625

Collingwood VLM Ltd

North Drive,
Deer Park Road,
Moulton Park,
Northampton NN3 1NP
Tel: (0604) 495151
Fax: (0604) 495095

Golden Peacock

A-143 New Friends Colony
New Delhi — 110065
India
Tel: (91-11) 635322, 529545
Telex: (031) 62324 LITE IN
Cable: Lightwest
All items meet BS 5042
Part 1: 1981.

A G H

A. G. Hackney & Co. Ltd.,
Westport Road, Burslem,
Stoke-on-Trent ST6 4AP
Tel: 0782 577575
Telex: 36674
Fax: 0782 575230

IMI Reeves Lampholders

IMI Reeves Lampholders
Holdford Road, Witton,
Birmingham B6 7ES
Tel: 021-356 7369
Telex: 335959
Fax: 021-356 7987

L&E

Lighting & Electrical Components
Ltd
Unit 1A, Bill House,
222 Soho Hill (off Villa Rd)
Hockley,
Birmingham B19 1AP
Tel: 021-554 9924
Fax: 021-554 5243

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901

S. Lilley & Son Ltd.,
80 Alcester Street,
Birmingham B12 0QE
Tel: 021-622 2385
Fax: 021-6666 148

LINDNER

Sole Agent and Distributor
Hylec-Eletto Gibi (UK) Ltd
Unit 4, Trinity Centre
Park Farm Industrial Estate
Wellingborough
Northants NN8 3ZB
Tel: (0933) 677633
Telex: 312620 HYLEC G
Fax: (0933) 675771

BENDER + WIRTH

TORNADO

C. Quitman Ltd.,
Sole Agent and Stockist for
Bender and Wirth
Ullswater Crescent,
Marlpit Lane, Coulsdon,
Surrey CR3 2HR
Tel: 081-668 5295/6
Telex: 945809
Fax: 081-660 2589

SMART & BROWN

Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625

Studen Products Ltd.

Hedgehog House,
Unit 8,
Caldershaw Centre,
Rooley Moor Road,
Rochdale OL12 7NR
Tel: 0706 45225
Bakelite and brass wired
holders.

VS

Vossloh-Schwabe UK Ltd.,
38 Tanners Drive,
Blakelands,
Milton Keynes MK14 5BW
Tel: 0908 611060
Fax: 0908 613131
Telex: 825606 VOSUK G

LAMP COLOURING

Lampcolors Limited
Lampcolors Ltd.,
Wiseman Street,
Burnley,
Lancs BB11 1RU
Tel: 0282 562312
The largest independent
lamp spraying company
in Europe, with the fastest
turnround of orders in the
business.

LAMP SHADE FRAMES

The London Trend Lighting Co. Ltd.,
3/5 Coxtie Green Road
Pilgrims Hatch, Brentwood,
Essex CM14 5PN
Tel: 0277 374247
Fax: 0277 374949

LIGHTING DIFFUSERS

</div

LIGHTING LOW VOLTAGE FLEXIBLE STRIP

Alectralink Distributing Company
Unit 5, Popin Building,
South Way, Wembley,
Middlesex HA9 0HB
Tel: 081-900 2322
Fax: 081-903 3403
Only 1/2" wide uses new
type of miniature Halogen
lamps, runs bright, white,
cool (low heat emission).
It is new it is amazing.

LIGHT MEASURING INSTRUMENTS



Hagner International (UK) Ltd.
Itchore, Chichester,
West Sussex PO20 7DA
Tel: 0243 512387

Megatron Limited,
165 Marlborough Road,
London N19 4NE
Tel: 071-272 3739
Fax: 071-272 5975

LIGHT SOURCES & COMPONENTS TO OEM MANUFACTURERS



Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625

Thorn EMI Lamps & Components Ltd.,
Miles Road, Mitcham,
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625

LOW BRIGHTNESS VDU LOUVRES

ALC CELLITE LIMITED
AMERICAN LOUVER COMPANY
A.L.C. Cellite Ltd.,
Unit 16 Adler Ind. Est.,
Betam Road, Hayes,
Middlesex UB3 1ST
Tel: 081-848 1881
Fax: 081-569 1837

LOW VOLTAGE TRACK SYSTEMS



Lamplighter House,
Shropshire Road,
Bognor Regis,
West Sussex PO22 9LL
Tel: 0243 829040
Fax: 0243 829051

MANUFACTURERS OF SPECIAL AND PURPOSE MADE FITTINGS



Unit 29, Mochdre Ind
Estate, Newtown,
Powys, SY16 4LE
Wales. Tel: 0686 625797
Fax: 0686 623084
London. Tel: 081 857 3565
Fax: 081 857 0964
Specialist Fitting, Louvre & Reflector, Manufacturer.
Write or phone for details.

SONDIA LIGHTING LTD.

45 Portland Place,
Hull, HU2 8QP
Tel: (0482) 223353
Fax: (0482) 26811
Design and manufacture of
special purpose light
fittings. Sub-contract sheet
metalwork and assembly.



Luna Lighting Ltd.,
Corton House
Shrivenham 100 Business
Park
Watchfield, Nr. Swindon
SN6 8T2, United Kingdom.
Tel: 0793 784400
Fax: 0793 784488

Designers and
manufacturers of
luminaires to architects
instructions.



Martin Roberts

Martin Roberts
Grimrod Place,
East Gillibrands,
Skelmersdale
Lancashire WN8 9UU
Tel: 0695 33068
Telex: 629020

Fax: 0695 50227
Manufacturers of all types
of luminaires and metal
louvres to the trade.

Maxi Engineering Co.,
26/32 Plumstead High St.,
London SE18 7SL
Tel: 081-854 3181

SYMONDS

Symonds Engineering plc,
High Street, Cheshunt,
Herts EN8 0BU
Tel: 0992 26222
Telex: 28725
Fax: 0992 37738
Luminaires/louvres, major
trade suppliers.
BS5750 part 2.
Contact: Lee Freeman.

METAL FINISH PLASTIC BASES & FITTINGS

Febus Agencies
75 Jackson Street
Manchester M32 8BA.
For bases, risers, breaks
etc., ring 061-865 4237 or
061-872 3276

METAL PRESSWORK

TRANSTEEL
TRANSTEEL COMPONENTS LTD.
Trinity Road, Richmond
Surrey TW9 2LG
Tel: 081 948 8822
Fax: 081 948 1998
Metal Pressing and Deep
Drawing for the Lighting
Industry.

METAL PRESSWORK AND POWDER COATING

Colmore Pressings Ltd.
40-41 Macdonald Street,
Birmingham B5 6TQ
Tel: 021-692 1701/1702
Wide range of standard
parts for domestic and
industrial light fittings.

METAL SPINNERS

A. L. Munro (B'ham) Ltd.,
46 New Summer Street
Newtown, Aston
Birmingham B19 3TG
Tel: 021-333 3454
Fax: 021-359 6865
Metal Spinning and deep
drawn presswork for the
lighting industry.
Write or phone for details.

Anglia Spinners,
Spinnings, Presswork,
Spraying & Finishing,
Unit 115a,
Little Staughton Airfield,
Little Staughton, Beds
Tel: Colmworth 0230 62 398
Fax: 0230 62506

H.D. Collins Ltd.,
Delamare Road,
Cheshunt,
Herts EN8 9TB
Tel: 0992 25981/24936
Fax: 0992 36915
Auto and manual spinners,
presswork and assy.

E.G. Sheet Metal Works,
Metal spinners and
general sheet metal
workers. A complete
service to the lighting
industry.
Third Way,
Exhibition Grounds,
Wembley, Middlesex
Tel: 081-902 2153
081-903 3171

Jacksons General Metal Spinners
Prototypes and small
quantities a speciality
Unit 1
Noke Lane Business
Centre
Noke Lane, St. Albans
Herts AL2 3NY
Tel: 0727 46038
Fax: 0727 46658

Vale Metal Spinners Ltd.,
7 Bryngelli Industrial
Estate,
Hirwaun, Mid Galmorgan,
South Wales, CF44 9PT
Tel: 0685 811706
Fax: 0685 811340
General metal spinners
Max spin 1828mm dia.,
Tool-room and Capstan
turning. Press and sheet
metal work, Polishing and
lacquering. Large and
small quantities and
prototypes undertaken.

METAL SPINNING/ASSEMBLY ANODISING/PRESSWORK METAL WORK/SPRAYING

Shaw Metal Spinners Ltd.,
Injection Moulders &
Component suppliers. The
complete Lighting
Services.
Tariff Road, London,
N17 0EJ
Tel: 081-808 1271
Telex: 25545

MODULAR LUMINAIRES ENERGY SAVING & EMERGENCY LIGHTING

ADLITE
ADLITE
Unit 242J Redwithers
Complex
Wrexham Industrial Estate,
Wrexham,
Clwyd LL13 9UG
Tel: 0978 661083

NATURAL LIGHT LAMPS SUNODYM AND SUNGRO LITE

Sungro-Lite Ltd.,
Tel: 081-459 2636
Fax: 081-459 4130
From main elec w/salers.

OPERATING AND MAINTENANCE INSTRUCTION MANUALS

Nash Draughting Services,
Enterprise House,
181-189 Garth Road,
Morden, Surrey SM4 4LL
Tel: 081 330 7566

PETROL FORECOURT UNDER CANOPY LIGHTING UNITS

National Signs Limited,
1 Hampshire Street,
London NW5 2TE
Tel: 071-485 3363
Fax: 071-284 1700

PHOTOMETRY



B.S.I. (reg) Laboratory
Photometry/Reflector
Design and development
Exterior and Interior
luminaires.
Tel: Dr Harold Pfitzman
(0920) 462272
Charles House, Furlong
Way, Gt. Amwell, Ware,
Herts SG12 9TA

PICTURE LIGHTS



JCC Marketing,
Lamplighter House,
Shropshire Road,
Bognor Regis, West Sussex,
PO22 9LL
Tel: 0243 829040
Fax: 0243 829051
A range of traditional picture
lights available in brass,
satin, reeded and gilt.

PLASTER WALL UPLIGHTS



Green Tree Lighting
Top quality uplighters in
plaster, alabaster and glass.
GLS, halogen and low
energy. Colour brochure
available.
Tel: 0904 691122
Fax: 0904 691123



Tornado Lighting
235 Upper Richmond Road,
Putney, London SW15 6SN
Tel: 081-788 2324
For top quality wall lights in
T/Halogen GLS and PL.
Phone or write for brochure.

POLYCARBONATE GLOBES



iGuzzini
Sphere
Cube

Octahedron
Ellipse
OPAL — SMOKE — CLEAR

Sole UK Distributor

Forma Lighting Limited
Unit 3
Mitcham Industrial Estate,
85 Streatham Road
Mitcham
Surrey CR4 2AP
Tel: 081-640 6811
Telex: 945414
Fax: 081-640 6910

Y L A M E K
Outdoor Lighting

Keylighting Components
Royd Mill, Cowling
N. Yorks, BD22 0BE
Tel: 0535 35922
Fax: 0535 33546
Cube Sphere Amphora
Opal Smoke Clear
Polycarbonate and Acrylic
150mm through to 500mm
Screw and Bayonet neck
fixing. Full range of galleries.
Wall brackets posts.
All Ex-Stock.

POWDER COATING AND STOVE ENAMELLING

TRINITY ENAMELLERS LTD.

Trinity Road, Richmond,
Surrey TW9 2LG
Tel: 081 948 9152
Fax 081 948 1998
Powder Coating and Stove
Enamelling for the Lighting
Industry.

POWDER COATING SERVICES

Purpose Products Ltd.,
Powder Coating Specialists
18 Manor Grove
London SE15 1BR
Tel: 071-639 2511
Fax: 071-277 5942

RECESSED LIGHTING



Lamplighter House,
Shropshire Road,
Bognor Regis,
West Sussex PO22 9LL
Tel: 0243 829040
Fax: 0243 829051
A full range of recessed
lighting in Energy Saving
Low Voltage and 240 Volt
Mains.

REFLECTORS



Tridonic Ltd.,
Hampshire International
Business Park,
Crockford Lane,
Chineham, Basingstoke,
Hampshire RG24 0NA
Tel: 0256 707000
Fax: 0256 707002

REPRODUCTION VICTORIAN LIGHTING

The Copper Lamp Co Ltd.,
Nutt Lane, Hinckley,
Leics LE10 3EJ
Tel: 0455 633140
Fax: 0455 632664

SELF ADHESIVE LABELS AND BASE COVERS

Rosehill Printers and Converters Ltd.,
50A Bolton Street, Bury
BL9 0LL
Tel: 061-761 3501

SHEET METAL WORKERS/ PRESSWORKERS AND ASSEMBLERS TO THE LIGHTING INDUSTRY

Alpha Lighting Services Ltd
55 Canning Street,
Kemptown, Brighton,
Sussex, BN2 2ES.
Tel: 0273 620840
Fax: 0273 620850
Contact: Francis Stevens
Comprehensive service to
Lighting and sign industries.

SPECIAL & PURPOSE MADE FITTINGS

DAVIS CASH

Davis Cash & Co. Ltd.,
Alexandra Road,
Ponders End, Enfield,
Middlesex EN3 7EN
Tel: 081-804 4028
Fax: 081-805 2896
Quality manufacturing
service to customer
drawings.

MR

Martin Roberts

Martin Roberts
Grimrod Place
East Gillibrands
Skelmersdale
Lancashire WN8 9UU
Tel: 0695 33068
Telex: 629020
Fax: 0695 50227

Manufacturers of all types of
luminaires and metal louvres
to the Trade.

SPRINGS AND CLIPS

Simpson Springs & Pressings Ltd
Unit 4 Station Ind Estate,
Oxford Rd, Wokingham,
Berks RG11 2YQ
Tel: 0734-786573
Fax: 0734-894434

Manufacturers of all types of
Springs & Clips for the
Lighting Industry.

TOROIDAL TRANSFORMER MANUFACTURERS

Airlink Transformers Ltd.,
Unit 6, The Maltings,
Sawbridgeworth, Herts.
Tel: 0279 724425
Fax: 0279 726379



Toroid Technology Ltd.,
175A Brigstock Road,
Thornton Heath,
Surrey CR7 7JP
Tel: 081-689 8002, 684-4217
Telex: 8813271 Gecoms G
Fax: 081-689 0002

TOWER/MASTS FLOODLIGHTING

Strumech Versatower Ltd
Portland House,
Coppice Side, Brownhills,
Walsall WS8 7EX
Tel: 0543 452321
Fax: 0543 361050
Static and Portable
Floodlight Units

Cumbernauld Transformers Ltd.
18-20 West Lenziemill
Industrial Estate,
Cumbernauld,
Glasgow G67 2XT
Tel: 023-67 25914
Telex: 777350
Full range of low-voltage
transformers available.

D.E.C.S.
E.L.t.d.

DECS Ltd
Unit 10 D.E.
North Seaton Ind. Estate
Ashington NE63 0YB
Tel: 0670 855161
Fax: 0670 855211
Low voltage transformer
manufacturer and suppliers.
Certified I.E.C. 742



Low Voltage Transformers
WIRE WOUND
50VA + 100VA
COMPACT
ELECTRONIC
50VA + 100VA + 150VA
DIMMABLE
COMPACT
Sole UK Distributor

Forma Lighting Limited
Unit 3
Mitcham Industrial Estate
85 Streatham Road
Mitcham
Surrey CR4 2AP
Tel: 081-640 6811
Telex: 945414
Fax: 081-640 6910

KNOBEL

Sole Agent and Distributor
Hylec Elettrico Gibi (UK) Ltd
Unit 4, Trinity Centre,
Wellingborough
Northants NN8 3ZB
Tel: 0933-677633
Fax: 0933-675771

Lighting Components Limited
249 Seaside, Eastbourne
East Sussex,
England BN22 7NT
Tel: (0323) 410105
Fax: (0323) 410161

LIGHT SOURCE

Light Source Electrical Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901

MAY & CHRISTIE

Electronic and wound transformers
May & Christie Ltd
Unit 22,
Mead Park,
River Way,
Harlow,
Essex CM20 2SE
Tel: (0279) 422540
Fax: (0279) 421570

ORBIK

ORBIK Electronics Ltd.,
ORBIK House
Northgate
Aldridge, Walsall
West Midlands WS9 8TH
Tel: 0922 743515
Telex: 339612
Fax: 0922 743173

RAM

Ram Electronics (UK) Ltd.,
Iron Row,
Burley in Wharfedale,
West Yorks LS29 7DB.
Tel: 0943 863884
Telex: 518285 RAM G
Fax: 0943 862630
Electronic Transformers for
low voltage lighting and hard
fired dimmers for electronic
and conventional lighting
transformers.



TOROID
TECHNOLOGY LTD

Toroid Technology Ltd
175a Brigstock Road,
Thornton Heath,
Surrey CR7 7JP
Tel: 081-689 8002,
684-4217
Telex: 8813271 Gecoms G
Fax: 081-689 0002

Tridonic

Tridonic Ltd.,
Hampshire International
Business Park
Crockford Lane,
Chineham, Basingstoke,
Hampshire RG24 0NA
Tel: 0256 707000
Fax: 0256 707002

UNIVERSAL
TRANSFORMERS

Universal Transformers
9 Hurworth Road,
Aycliffe Industrial Estate,
Newton Aycliffe,
County Durham DL5 6UD
Tel: 0325 317429
Fax: 0325 311081
Fax for instant quote.
Full range of Toroidal and
Laminated Transformers
available Ex-Stock.

VICTORIAN REPRODUCTION
GAS AND ELECTRIC
LIGHT FITTINGS

The Copper Lamp Co Ltd.,
Nuits Lane, Hinckley
Leics LE10 3EJ
Tel: 0455 633140
Fax: 0455 632664

D. W. Windsor Ltd.,
Pindar Road,
Hoddesdon,
Herts EN11 0EZ
Tel: 0992 445666
Fax: 0992 440493

ULTRA VIOLET/SPECIALIST LAMPS & EQUIPMENT

Starna Ltd.,
33 Station Road,
Chadwell Heath, Romford,
Essex RM6 4BL
Tel: 081-599 5115
Fax: 081-599 5415

U.V. Systems Ltd.,
PO Box 797, Sudbury,
Suffolk CO10 6PL
Tel: (0787) 76259

George Wood Ltd.,
Laundry Street,
Pendleton
Salford
Lancs. M6 6WJ
Tel: 061-736 6855

S. Smith (E.F.) Ltd.,
85 Abercromby Avenue,
High Wycombe,
Tel: 0494-21667

ZONES 1 & 2 BASEEFA APPROVED LIGHTING FITTINGS

B.V. Industria,
52-62 Brasenose Road
Bootle, Merseyside L20 8HG
Tel: 051-922 0052
Telex: 629135
Fax: 051-922 0099

Lighting Equipment News is the
monthly marketplace for
you to promote your
company and services to
those important buyers,
specifiers, installers and
stockists who regularly
read the lighting industry's
leading journal.

The **Where To Buy Directory** will
enable you to advertise
effectively, at a low cost, to
over 43,000 readers every
month.

In addition you can display
your company's unique
image, by including your
own individual and
distinctive company logo
and penetrate this highly
selective audience with
even more impact.

For further details on this
highly successful and fast
growing section please
contact:

Alastair Moyes on
081-975 9759

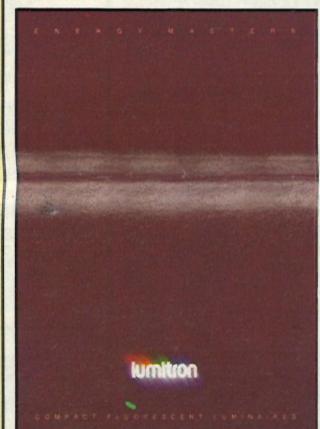
081-975 9759

CATALOGUE DIRECTORY

081-975 9759



Rada Lighting introduce a new range of advanced reflector design downlights for superior lighting efficiency. The Rada Downlight range includes recessed, semi-recessed and surface mounted models with computer designed multiple form reflectors — some with a rare three-stage reflector. A 6 page colour leaflet reveals all: circle 90



Lumitron's new Energymaster catalogue updates the original range to take account of all the new compact fluorescent lamps now available. Illustrated are luminaires ranging from 600 square luminaires down to those using 11 watt TC lamps. The catalogue is in full colour and photometric data is now included: circle 91



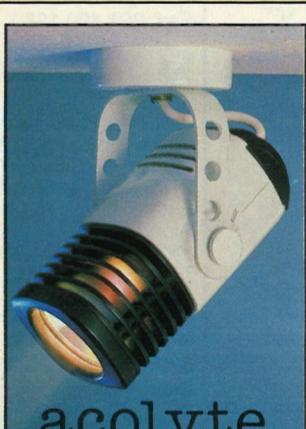
Advanced Lighting Industries has produced a brochure that compares its DURASTART fluorescent starter with conventional starters. Advantages featured are: the virtual elimination of tube blackening; 50% reductions in tube replacement costs; a 70% saving on programmed and interim maintenance costs; and flicker free operation. circle 92



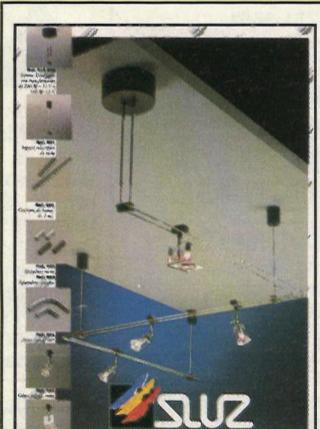
Relamping Equipment: a mechanical extension of the human hand for high or inaccessible lamps. Suits Discharge, GLS and Display/Reflector Lamps (amongst others), recessed or otherwise, up to 30 feet high. Saves time and expense, adds safety. Interchanges with our Fire Sensor Test and Access Tools. New Catalogue. Wider range: circle 93



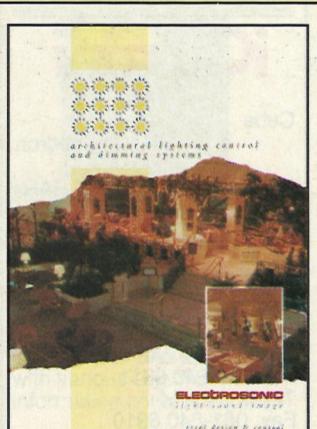
ORA's continued growth in a declining market is the result of flexible response, efficient project management, innovative products, close liaison with the specifier and delivering the goods on time. ORA supply lights to many of the finest and most discerning customers in the country. Why not join them?: circle 94



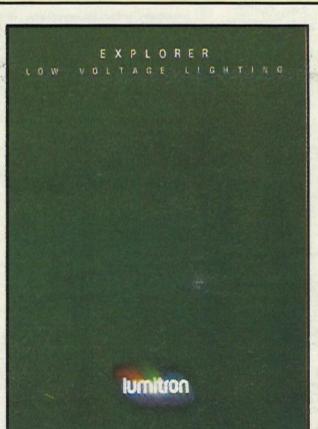
Polestar is a new low-voltage, low energy spotlight from Acolyte Lighting Services, incorporating its own miniature built in transformer. It can be wall/ceiling mounted or used with most existing lighting tracks and unlike any other light of this type it has the capacity to use 50W or 75W dichroic reflector lamps: circle 95



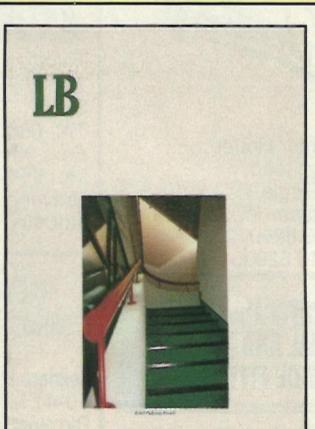
Acorn Lighting is introducing the SLUZ range of lighting products from Spain. This high quality range of products, include a low voltage Rod system, low voltage and mains voltage downlights, Metal Halide downlights and spots, Track system and a complete range of compact source fluorescent downlights: circle 96



The Electrosonic range of architectural lighting control dimming and switching systems provides a solution to all control requirements: from a simple, single channel of dimming, right up to a custombuilt, computercontrolled network capable of running a major building complex. Send for the brochure: circle 97



Lumitron Lighting announce the release of their revised catalogue illustrating the Explorer range of low voltage products, which include the latest additions to the track and surface spotlights with integral transformers, also an interesting and diverse range of new recessed downlighters, many of which are produced from die-cast aluminium: circle 98



Specialist luminaire manufacturers, L. B. Lighting Limited have published a new full colour catalogue which includes comprehensive ranges of Uplites, Tubelites, Globelites, Fluorescent luminaires and Downlights together with illustrations of purpose made units: circle 99

DAVIS ALUMEX

The Positions

Sales Engineers to represent us in three areas: Greater Manchester, Glasgow/Strathclyde Region, and London/South of Thames area.

Applicants should already be experienced in the lighting industry. They will also be confident and convincing in their own presentation.

The Company

As a member of the Pillar Electrical Group of Companies, Davis Alumex Lighting is now geared up for major expansion. 1991 and beyond will see some exciting things happening within the company in addition to our continuing range of standard and custom built luminaires.

Successful applicants will share in this growth.

The Rewards

If you have the necessary abilities you'll be rewarded well. The package will of course include a company car, bonuses and the support of an enthusiastic management team.

If you feel you qualify for any of these positions please contact:

Mr E.K. SMITH
Managing Director
Davis Alumex Lighting Ltd.
1-9 Tannoch Drive
West Lenziehill, Cumbernauld
Glasgow G67 2SX
Tel 0236 722233



a Pillar electrical company

LIGHTING EQUIPMENT SALES

c. £20,000 + car

Sales to specifiers in London, Home Counties, Midlands, North West etc.

**TELEPHONE (0273) 208741
TODAY!**

K. P. Personnel

MANUFACTURER'S AGENTS REQUIRED

Domestic lighting agents required for all areas of the UK, selling shades and bases to specialist lighting shops. Agents must have a large existing customer list.

Phone Mrs Worthington on 061-428 0027

LIGHT FITTING AND LOUVRE MANUFACTURER FOR SALE

Established Light Fittings and Louvre Manufacturer, £1 million turnover approx. 0.6 acre freehold properties, London area good communications.

Principals Only,
Box no. 1490,
Lighting Equipment News,
Maclean Hunter Ltd, Maclean Hunter House,
Chalk Lane, Cockfosters Road,
Barnet, Herts EN4 0BU

HANOVER FAIR

World Light Show

- ★ Best value prices ★
- ★ Guaranteed hotels ★
- ★ Regional flights ★
- ★ Daily transfers ★

BARBOUR EXHIBITION TRAVEL, Lichfield, Staffs, WS14 9DQ. TEL: (0543) 263842

HOW FAR CAN YOU GO BY BUILDING A TEAM

With most Companies the answer is probably 'as far as Sales Director... If you're lucky'. But here is an opportunity for a seasoned Lighting, or related professional to go straight into a soundly-based, rapidly expanding Company as Number Two to the Managing Director. We'll expect you to eat, sleep and breathe Lighting, and have a no-nonsense, hands-on approach to opening doors and bringing the business out. And we'll expect you to continue to build a team around you who can do the same.

The big difference is that you will also have a direct and vital role to play in determining future policies for the Company. Your involvement will be total as will be the commitment we expect from you. And if you can continue the success you have demonstrated in your career so far we can promise you a future which looks to Sales Director and beyond.

Excellent Salary Package Offered.



Managing Director
Office Lighting Systems Ltd
Blackhorse Road, Exhall
Nr Coventry CV7 9FW

FANCY STARTING YOUR OWN LIGHTING BUSINESS?

You are tired of offering one manufacturer's product. You want to promote your name or your Company for a change! You want to work when you want to. You want to benefit from your efforts. You are angry when your big successes go to House Accounts? Pressure and paperwork mount up — to say nothing of targets (the more you do this year — the bigger your target next year! Why can't you have a share of the bigger profit margin projects — and windfalls? You do not mind long hours — as long as it is for you. Your greatest asset is probably your contacts — why can't you use them for your benefit?

We think we have the magic formula to attract people to work with us to find some different incentive for them to sell our products as if they were their own, to run their own business and sharing some of the profit margin as well as taking a good commission to feel free to make their own deals, decide discounts themselves. To sell your personal service for your company. We could carry the financial project funding.

We cannot give our secret success formulae away over the telephone but we will be happy to talk to you in person if you would telephone to fix a meeting.

DON'T START ON YOUR OWN, START WITH US — ON YOUR OWN

Contact: John Smith, Managing Director, on 0582-491955
NI Lighting (UK) Ltd, Unit F.2, Bramingham Business Park, Luton, Beds. LU3 4BU



SALES MANAGER

We require a self starter with a proven record. Must be capable of controlling and motivating staff, agents and distributors throughout the U.K. This is a key company position and therefore has unlimited potential for the right person. Salary and benefits will reflect the importance of this post.

LIGHTING ENGINEER

A bright assistant to our Senior Lighting Engineer required. Must have some experience in preparing lighting schemes. This is a new position which offers a good salary and excellent prospects for rapid advancement in a fast growing company.

Write in strict confidence with full curriculum vitae to D. Silver, Beta Lighting Ltd. 383/7 Leeds Rd., Bradford BD3 9LZ.

Brian Highton Lighting

requires

SALES AGENTS

For their range of high quality brass lighting in the contracts, interior design and retail markets.

For further details telephone:
Michael Highton 0784 452935

**TO ADVERTISE IN THE CLASSIFIED SECTION CONTACT:
ALASTAIR MOYES ON
081-975 9759**



Specialist Service for the Lighting Industry

FOR SALES PROFESSIONALS

Put your valuable experience in the Management time on Lighting Industry to the D.I.Y. Recruiting? We best possible advantage. Enquire today about opportunities for advancement within the Industry. Representative positions circa £20K + CAR. Management positions £25K upwards + CAR.

FOR FURTHER INFORMATION
CALL DOMINIC GRUDZIEN AT:

James Knight
Sales Recruitment for the Lighting Industry
Tel: 081-449 4111

29-31 East Barnet Road, Barnet, Herts EN4 8RN



2 AREA SALES ENGINEERS

Glamox Electric (UK) Ltd leaders in lighting, have an opportunity for two experienced Lighting/Electrical Engineers.

Due to our continued expansion we require engineers to service two very important areas of Glamox UK's business. The areas to be covered are Bristol and Birmingham.

Two highly responsible people reporting to the National Sales Manager, your duties will be demanding and rewarding. You will cover existing accounts and also be responsible for new business.

You should be either already in the lighting market with a proven track record in selling to consultants, specifiers and architects. Alternatively an experienced Electrical Engineer with a good working knowledge of lighting design concepts.

Working from home you will have the back up facilities of the latest G.O.L.D. computer, C.A.D. machines and Glamox expertise in lighting design.

In return we offer a good basic salary, profit sharing, company car and pension plan.

Please write enclosing a CV to:

National Sales Manager, Glamox Electric (U.K.) Ltd.
Anderson House, 29 Coast Road,
Wallsend, Tyne & Wear NE28 8DN.

EUROELECTRIC (UK) LTD SALES REPRESENTATIVES

We are a rapidly expanding manufacturer/importer of lighting and associated products.

Our continued success in this field has lead to the need to appoint two additional salespersons in the London and South East area.

Applicants by preference will have a proven track record selling into the Electrical Wholesale Industry.

We offer a generous salary, plus commission, company car and other fringe benefits.

Please forward your current C.V. or telephone in confidence.

Mr B M Saxby, Sales and Marketing Director
Euroelectric (UK) Ltd, Brunel Close
Park Farm Industrial Estate
Wellingborough, Northants NN8 3QX
Tel: 0933 673144

AGENTS REQUIRED

We require Agents for most areas of U.K. who have established contacts with giftware, photographic and lighting outlets to add to their range an illuminated brass photo frame.

Please call
0666 825450 FAX 0666 825436
CSM Lighting Ltd,
Contact: Rita Legg

Tangara trains set the pace

A new standard of comfort and security is being experienced by commuters in Sydney on the Tangara railway. The order for 450 double decker carriages was the largest rolling stock contract ever undertaken in Australia.

The lighting system blends into the train's interior profile, maintaining the clean, uncluttered lines, and also incorporates speakers and air conditioning equipment.

As well as the comfort, security and well being of the passengers, a further consideration was internal reflectance of the windows, which were specially

designed to reduce solar energy gain. The window reflectance and internal illuminance combine to affect visibility of stations at night; the brighter the lighting the greater the mirror effect. An illuminance of 200 lux at seat level was finally decided on.

Thorn ALI Lighting designed and made the fluorescent luminaires which are mounted longitudinally in two lines of extruded aluminium ducting, one along each side of the carriage. To provide a continuous line of light, ballast units are mounted behind the lamps on the back of the gear trays. Diffusers are formed from



modular lengths of polycarbonate.

The top section of the lighting fittings also provides an outlet for the air conditioning, while the proximity of the inverter ballasts to the conditioned air helps to cool the ballasts.

Public address speakers are mounted behind the gear trays to prevent vandalism.

Certain lights in each compartment are connected to a separate

battery circuit to provide emergency lighting for safe passage on stairways and inter-car gangways.

A certificate of commendation has been awarded by the Illuminating Engineering Society of NSW for the Tangara lighting. The judging panel said, "There is little or no glare and it is the best lighting installation of public transport ever experienced by the judging panel."

Happy birthday Telecom Tower

One of London's most prominent landmarks, the British Telecom Tower has been floodlit to resemble a giant candle. The installation marks the twenty-fifth anniversary of the building.

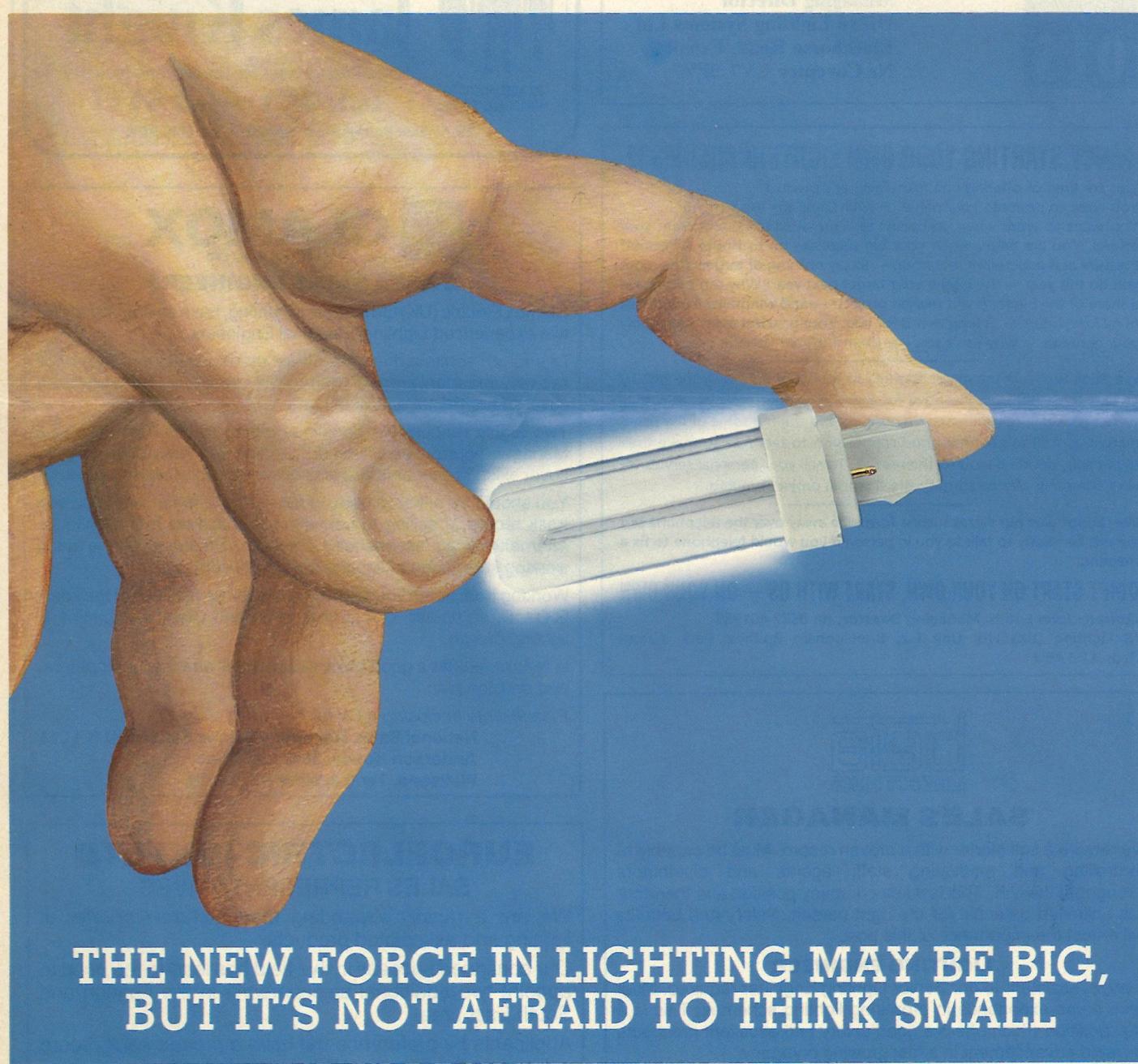
Philips Lighting found designing and installing the scheme presented a real challenge. Fixing points had to be found on adjacent, BT owned, roof tops and a few positions were made available at about fourth floor level.

The light source chosen for the main part of the structure was metal halide which gives a white light to contrast with the high pressure sodium used on many of the surrounding buildings and also with the illuminated lettering. High pressure sodium was used at the top of the Tower, pro-



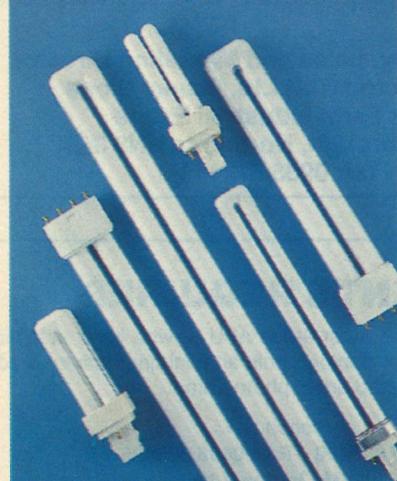
ducing a golden flame effect — hence, the overall impression of a candle.

Sadly the installation will only be seen on special occasions.



THE NEW FORCE IN LIGHTING MAY BE BIG, BUT IT'S NOT AFRAID TO THINK SMALL

Compact fluorescent lamps are one of the ideal lamps



for the lighting needs of the 90s. They take up less space, consume little power, give high efficacy and have long life. All these qualities make them an attractive alternative to incandescent lamps. At GE-Tungsram we stock

a wide range of compact fluorescent lamps including our decorative globe shaped Globolux lamps. They're just part of the extensive choice of popular and premium lamps that we offer. And that's what makes us...

THE NEW FORCE IN LIGHTING



GE-Tungsram Lighting

GE-Tungsram Lighting Limited, Nene House, Drayton Way, Drayton Fields Industrial Estate, Daventry, Northants. NN11 5EA Tel: (0327) 77683 Telex: 311684 Fax: (0327) 76386

IN YOUR NEXT ISSUE

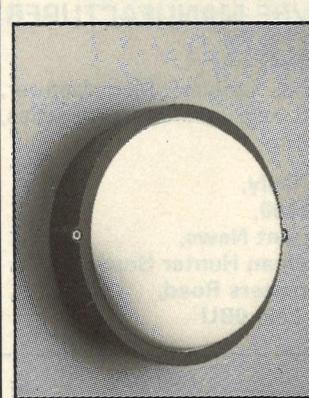
There is a move to require common standards of emergency lighting across the whole of Europe. The February issue of *Lighting Equipment News* looks at the likely impact of this development,

and other changes already agreed, on the emergency lighting sector.

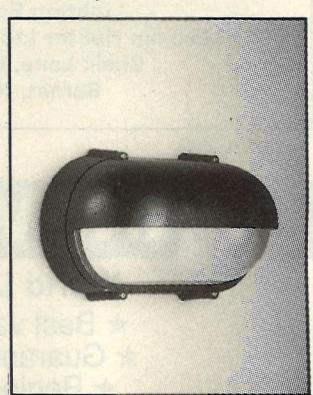
A further feature considers the more unconventional uses for lamps, and reviews the changing face of the OEM market.

VESSCO

SUPPLIES A WIDE RANGE OF HIGH QUALITY LIGHTING FOR THE PROJECT MARKET



- Tubular Lighting Systems
- Low Voltage Lighting
- Downlights and Display Spots for HQI and PL Lamps



- Outdoor Lighting
- Ceiling and Wall Fittings

FOR FURTHER INFORMATION AND CATALOGUES PLEASE CIRCLE THE READER SERVICE NUMBER BELOW