

LIGHTING

EQUIPMENT NEWS

JUNE 1988

In brief . . .

● Joint winners of the Millar Award this year are George Fatseas, Bartlett School of Architecture, London, and Roger Sexton, who wrote his paper while at Liverpool University. The judges said these two papers were of a high standard, but the number of entries on this occasion was disappointingly low.

● Christopher Wray has opened another Lighting Emporium in Nottingham, at 69-73 Derby Road. The premises are divided into separate sections to display the wide ranging stock, from low voltage tungsten halogen spotlights to Tiffany lights.

● Ascog Lighting has merged with Lucas Pride to form Alpa Lighting.

● Orbik Electronics Ltd has moved to: Orbik House, Northgate, Aldridge, Walsall, West Midlands WS9 8TH. Telephone (0922) 743515.

● The management team at the Power Centre Division of Simplex Electrical has purchased the division's installation products business for £4.35 million. The new company is called Power Centre Holdings Ltd.

● Osram-GEC Ltd has formed a special fittings design department at its Wembley headquarters to cater for the growing market for custom-designed luminaires. A major proportion of the work undertaken is expected to be fluorescent fittings for offices, though commercial uplights, downlights and wall lights will be a significant part of the work.

New division

JEL, designers and manufacturers of energy management systems, has formed a lighting controls division.

"This is the first major initiative to exploit the benefits of a totally integrated approach to energy management and lighting control," commented JEL managing director Ken Smith.

"Generally, lighting is a little appreciated element of a premises' running costs" he said. "There are undoubtedly substantial savings to be made by utilising a stand-alone system. Our new division offers both this, and the ability to integrate efficient lighting control within a building management system."

Further details from Adrian Blundell, 061-434 1211

INSIDE THIS ISSUE

News	1, 2, 20
New products	3
IDI review	4,5
Airports	6,7,8
Orbik supplement	9,10,11,12
Light in the urban environment	14
Where to buy directory	15, 16, 17
Catalogue directory	17
Classified advertising	18
Lighting technology	19

London's 'gateway' illuminated

The formal switching on by the Prime Minister of Tower Bridge's new floodlighting on 19 May signalled the completion of one of Britain's most complex floodlighting design and installation projects.

Previously the illumination of the bridge was limited to the river faces of the two main towers. The aim of the client, the City of London, was to fill the entire structure with lighting to establish it as the 'Gateway to London' — and a fit rival to the world's other famous illuminated monuments.

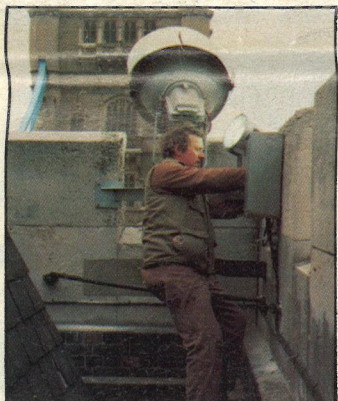
The new scheme lights the bridge throughout its length,

stretching between the small abutment towers on either bank, and taking in its full height from the gold pinnacles of the towers down to water level. Struts, turrets and pedestrian walkways are all included.

The floodlighting is designed to create a three-dimensional effect by varying the brightness of the surfaces on adjacent faces of the towers — elevations facing the river are twice as bright as those facing the roadway — thus, showing off the scale of the bridge to full advantage. In all, 218 luminaires are used with a total installed load of 130kW. Most of the floodlights use a metal halide source, but slate roofs are illuminated by high pressure mercury. The top walkway is outlined by a continuous row of 58W fluorescent lamps, and the crest of the Corporation of London is picked out with white SON.

A new road lighting scheme was installed at the same time, and light sources were changed from high pressure sodium to metal halide to be more in keeping with the floodlighting.

The project presented a number of interesting technical problems, stemming from the fact that Tower Bridge is both a working bridge and an historic monument.



Mounting the control gear for a 2kW floodlight.



After the switch-on — Tower Bridge illuminated from bank to bank.

The structure is a Grade 1 listed building and any installations had to be carefully positioned to minimise their visual effect during daylight hours. Fixtures and cables were installed as inconspicuously as possible and a number of the lights were painted to tone in with the stonework and the colour scheme of the steelwork.

The bridge serves as an important river crossing between the London boroughs of Southwark and Tower Hamlets and provides river access into the City Basin. All equipment, thus, had to be placed to eliminate glare to road users, and many of the floodlight are fitted with special louvres to restrict stray light. Permission also had to be sought from adjoining property owners to place equipment on the river wall.

River traffic presented compli-

cations. Lights which might otherwise dazzle helmsmen as boats passed through the bridge had to be capable of extinguishment from either side of the bridge, and two cabins have been installed with dual switching to permit this operation.

River traffic

The frequent raising and lowering of the bridge for river traffic meant that cables could not run the length of the roadway but had to travel up the towers and along the elevated pedestrian walkway. As a consequence, many of the cables had to be unusually long; so to minimise cable sizes, step-up transformers were installed at their remote ends to compensate for voltage drop. In all, nearly 9 kilometres of electrical cable were used in the scheme.

In addition, the installation has been designed to ensure that any fault results in the loss of supply to no more than one fitting. This was achieved by installing a separate circuit controlled by a residual current device to each fitting, ensuring compliance also with IEE requirements for shock protection.

Installation work was completed in the space of 12 weeks between February and May 1988, necessitating a tight programme of work. Some of the rewiring required complete closure of the bridge — a procedure which requires six weeks' notice — so scheduling had to be exact. The nine-man team of electricians worked suspended above the water in safety harnesses to reach the more inaccessible parts of the stonework, with a rescue boat on duty below.

GTE shake-up continues

The series of ripples started in the British lighting industry when USA multi-national GTE Corporation bought Concord Lighting is still spreading.

The saga continues with the announcement that Courtney Pope has acquired the Lighting Workshop, Lightstyle, and the lighting consultancy Maurice Brill Design International.

GTE, which already owned the Sylvania lampmaking company in Britain, purchased Concord in a surprise bid in 1986.

Concord's main line of business is precision display lighting, but in recent years it has acquired an interest in a series of smaller firms making luminaires complementary to its main activities. It was also involved in several other fields such as lighting retailing and the use of fibre optics.

GTE sold off both TBL Fibre Optics and Lighting Developments; it has now told *Lighting Equipment News* that it sold its 50% holdings in The Lighting Workshop and Lightstyle in April this year to Brian Norris, the other 50% shareholder.

Brian Norris subsequently sold out to Courtney Pope (Holdings) and has now become managing director of Courtney Pope Lighting with a seat on the Courtney Pope (Holdings) board.

GTE discussed with Brian Norris the "strategic relevance" of The Lighting Workshop and Lightstyle to GTE and commented: "It was clear from these (discussions) that it was in the interests of both parties to separate."

World leadership

During a recent visit to London, Charles R Lee, senior vice president of finance and planning, GTE Corporation, stressed that lighting was important to the GTE Group. The Corporation was committed to world leadership in its core businesses.

LEN wondered how this statement equated with what some might call asset-stripping of Concord's peripheral companies.

In an exclusive interview with LEN, from his Geneva office, Greg Rice, chairman of GTE Rotaflex Group and president of GTE Sylvania Europe, explained

GTE's actions.

He said the fact that GTE spins off two or three businesses has nothing to do with its main activities. "The Corporation is too big to be in the retail business," he said, emphasising that its policy is to sell its lighting through wholesalers in the UK.

On being asked about the fibre optics companies, he said that GTE thought TBL was "going no place". He thought fibre optics was a very narrow activity. GTE strategy was to concentrate on mainstream lighting.

On being questioned about GTE's long term plans for Concord, Mr Rice enthused about the company's excellent reputation. GTE was "delighted" to have acquired Concord.

The intention was to extend the sale of Concord's "prized line" of luminaires not only in the UK but around the world.

"Concord is doing better than it has ever done," he said, adding that London had been set up as the headquarters of total European fittings activity from May.

See also story on page 20.

HELVAR

LIGHTING TECHNOLOGY TO YOUR REQUIREMENTS

Helvar Limited
01-568 6205

NEWS

Building a healthy workforce

The Health and Safety Executive (HSE) has issued two new publications aimed at encouraging employers to identify their needs for providing health advice at the workplace. The booklets form part of an action programme to improve levels of occupational health provision.

According to Dr Tim Carter, HSE's Director of Medical Services, many employers are failing in their responsibilities for preventing work-related ill health. 'We know that this is often because health risks and health needs of workers are simply not recognised. This is especially true in smaller companies.'

Successful businesses rely on healthy workforces. The HSE is asking employers to think hard about their existing health care arrangements and undertake a

systematic review of how health hazards can be reduced.

The first publication, a free checklist, provides a good starting point by listing a number of questions that employers should ask themselves to help pinpoint areas where they may need to take action. In addition, a short guide for employers expands on the checklist and gives advice on drawing up an appropriate action plan.

The publications will be supported by local action by HSE's Inspectors and Employment Medical Advisory Services (EMAS). In the course of contacts with employers, HSE staff will take the opportunity to check on arrangements for occupational health advice. In addition, regional senior employment medical advisers, in collaboration with area directors of the Factory Inspectorate, will be mounting local initiatives aimed increasing awareness of occupational health.

The employer's IND/G 58 checklist is available free of charge from HSE. The employer's guide IND/G 57 costs £1.25 from HMSO or booksellers.

1992 and all that

The United Kingdom is late and needs to make an effort to catch up with the rest of the European Community if it is to get the full benefit from plans to create a real common market by 1992 according to Lord Cockfield.

The Vice President of the Commission of the European Communities was speaking at a seminar 1992 - *Opportunity or threat*, organised by BEAMA in London in February.

He welcomed the UK government's plans to launch a campaign in April to publicise the 1992 objectives. The UK now carried out more than 50% of its trade with the European Community, and had a unique interest in the completion of the internal market.

British design wins in Europe

Concord's MIL range of luminaires has won two awards: France's *Syndicat National des Architectes d'Intérieur* has voted it an *Oscar d'Honneur*, and Germany has given it *Die Gute Industrieform* for good design.

MIL's 56 luminaires are in seven groups and provide a continuity of design throughout a building.

In addition, Concord's Myriad range of miniature downlights received a *Gute Industrieform* award.



German lighting manufacturer, Erco has received recognition under BSI's quality assurance scheme BS 5750; Part 2: 1987, equivalent to the international standard ISO 9002. Leslie Miles, Assistant Director of BSI, is here shown presenting the certificate of compliance to Peter Schwarzfischer, managing director of ERCO Ludenscheid GmbH at Erco's London office. Further details from Molly Rubinstein on 01-408 0320.

Lighting award for major contribution

A new award, for a person who has made a major contribution to lighting over a number of years, has been introduced by the Lighting Division of The Chartered Institution of Building Services

Engineers.

John G. Holmes is the first person to receive the award, which was presented to him at a lunch held by the Lighting Division in London recently.

Mr Holmes joined what was then the Illuminating Engineering Society in 1934 and his work has covered topics from searchlights to factory lighting. He has also been a consultant to Trinity House and chairman of the National Illumination Committee of Great Britain.

Trade literature in brief . . .

- A leaflet on Walklite, solar powered garden lighting, has been published by Chronar Ltd.
- The British Electrical Systems Association has a new edition of its illustrated *Buyers' Guide* detailing different types of electrical installation equipment available from its member companies.
- The Health and Safety Executive has produced a booklet called *Review your occupational health needs: employer's guide*.
- Thorn Lighting's *Accent on display lighting* catalogue gives information about low voltage and mains voltage lamps, including the electronic PAR lamp; Lightstream miniature spotlights and downlights; transformers; mains voltage spotlights, and lighting track.
- Royal range of cast aluminium, traditional style lanterns from Felton Electric Lighting is described in a new leaflet.
- Green Tree Lighting Company has produced a brochure called *Lighting for Young Living*, showing some of its home lighting.
- Marlin's accent lighting catalogue gives up-to-date information on its downlights, spotlights and track systems.
- Poselco Lighting has a leaflet on its Perivale range of fluorescent lighting. Options now include high frequency control gear.
- There is a new look for data sheets from Centec Lighting. The sheets cover the company's range of uplighters, downlighters, spotlights, floodlights, fluorescent and display fittings. Details 01-661 1618.

Keeping drugs at bay

Dutch authorities have found an enlightened way to stop drug addicts using underground stations as places to inject heroin - by making them "blue light" areas.

Addicts in Amsterdam were causing a considerable public nuisance by congregating in quiet areas in the city's underground system. By using a new infra-red detector,

the authorities can automatically trigger lights to come on when drug addicts go into such an area.

The Argus detector is sold in Britain to detect prowlers around homes and businesses and switch on floodlights. In Amsterdam, the light automatically brought on is a diffused blue one which creates a blue haze, thus preventing addicts from finding a vein in their arm to inject into.

Further details from Euro-electric: 0933 673144.

IMI Reeves Candleholders outshine all others.

Save valuable assembly time and labour costs by fitting IMI Reeves Candleholders.

Neat, no-nonsense, two-piece construction makes them easy to fit - quickly. Their slim-fitting design gives you wider

flexibility of application. As you'd expect from Reeves, every one meets BS 5042: Part 1: 1981.

And so that you know you're using the best, every one carries the Reeves logo.

IMI Reeves Candleholders - for the enlightened manufacturer.

IMI Reeves Lampholders

Holdford Road, Witton, Birmingham B6 7ES.

Tel: 021-356 7369 Telex: 335959

IMICOM G. London Office Tel: 01-636 9533

IMI

Set the scene with Electrosonic

Electrosonic have set the standard in 'scene set' architectural lighting control. Now, we offer a choice of two systems to meet every lighting requirement at the touch of a button.

DIGI

A unique and flexible combination of product to suit the most sophisticated of larger installations.

SYSTEM



Now, Electrosonic have brought the benefit of scene-setting into the smaller retail and leisure installation with this compact wall mounted package.



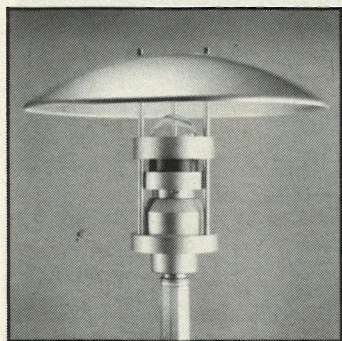
For full details, distributors, etc., contact:

ELECTROSONIC

815 Woolwich Rd. London SE7 8LT. Telephone: 01-855 1101. Telex: 896323 ESMX G.

NEW PRODUCTS

Amenity lighting



Cityscape is the name given to a new range of amenity and security lighting launched by Thorn Lighting.

It has been developed to fulfil a dual function within the environment. By day it serves to enhance

the landscape of paths, parks, precincts, residential and inner city areas, by night it serves to illuminate and promote safety.

The range includes Johanna which incorporates a lantern and bollard using either high pressure sodium or mercury light sources. The Corsa 18W 2L linear compact fluorescent bulkhead with its modular design can be used either wall mounted, as a bollard or bracket mounted.

Cityscape, as a complete range, incorporates an extensive series of bulkheads, lanterns, bollards, wall mounted and post top mounted fittings to match the requirements of specific areas.

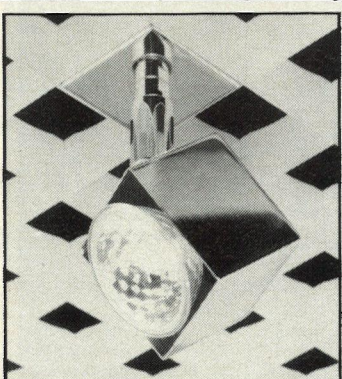
Reader Service No. 196

Flexible Micro

Interlite Linear Controls has introduced a low voltage, integrated spotlight and ceiling system which can be easily installed, and relocated, in the Interlite range of suspended ceilings.

The principal component of the system is the new Microstar spotlight range. This consists of the Micro Cell — a fixed unit; and the Micro Swivel — which is spigot mounted and can be swivelled and rotated.

The Microstar range is available



in black, white, chrome and brass finishes.

Reader Service No. 191

High tech spotlights

Focus spotlights are among additions to Marlin Lighting's High Accent 2 programme. Designed to exploit the small size and optical precision of low wattage tungsten halogen lamps, the tiny Focus spotlights are engineered and styled for today's high-tech interiors.

Housings are machined from cast aluminium with a high quality, matt black or titanium silver anodised finish. They are available with bullet shaped ends for side attachment of the supporting arm and flat ends for end attachment. Adjustable supporting arms and either track adaptor or ceiling plate are in matt black aluminium.

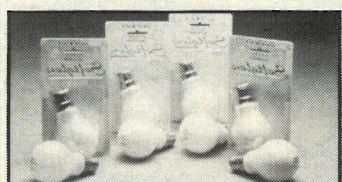
The range includes versions for both 50mm and 35mm lamps, with either remote or integral transformer. There is also a twin-lamp ceiling model.

Reader Service No. 157

More coloured lamps for the home

Softglow lamps are the latest addition to the Mazda Stylelight range by Omega Lighting.

In subtle pastel shades of Rose White, Apple White, Primrose White and Peach White, Softglow



is designed to enhance existing interior decor simply by the changing of a lamp.

Competitively priced, 60W Softglow lamps are available in single colour-matched blister packs.

Reader Service No. 156

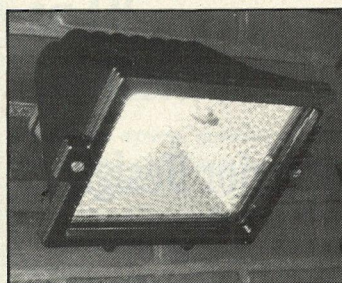
For more information on any of the products listed above, circle the enquiry number on the free reader reply service card.

Outdoor halogen from Ring

Ring Lighting is launching a powerful 500W sealed halogen unit, designed for external use. It conforms to the IP55 rating, making it weather resistant, dust and moisture proof and ideal for both security and other outdoor lighting purposes.

The housing is of light, but strong and rustproof alloy construction and has a toughened glass shield. It is supplied with a 500W tungsten halogen lamp and a mounting bracket. Typical retail prices range from £24.99 to £29.95.

Ring is also planning to launch a 500W 'open' halogen lamp for



outdoor use. Rust and weather proof, it conforms to the IP54 rating and is most suitable for wall mounting. A 500W halogen lamp comes with the unit. Typical retail price will be £19.99.

Reader Service No. 198

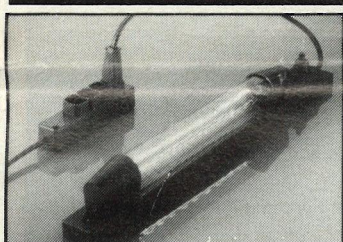
Globe lamps with decorative finish

Globe shaped tungsten lamps with decorative finishes, for use in luminaires where the lamp is exposed to view, are available in the UK through ERL Ltd.

Made by Lindner Licht, Germany, there are 15 variations in four sizes. Finishes include marbled green, crystalline amber, cracked ice, topaz, gold lustre and top ring mirrored gold. Average life quoted is 2000 hours.

Available also are globe shaped compact fluorescent lamps, called Ecoglobe, in 9W, 7W and 5W ratings. They have a G23 base, are produced in three diameters and have a choice of opal or granulated finish.

Reader Service No. 159



Striplight safety feature

User safety is a strong feature in the Power Break strip light recently launched by Unerman Greenman Berger. As well as having base mounting, lamp end caps and push-button switch all in a heat resistant grade of nylon, it has an automatic cutout which disconnects the power supply when the lamp is removed.

The body components are injection moulded in white, brown or beige Jonylon nylon 66. Measuring 330mm x 40mm deep, the UGB L10031 fitting takes 221mm clear or opal lamps and is intended for wardrobes, kitchen units, cocktail cabinets or anywhere supplementary lighting is needed.

Reader Service No. 193

Weatherproof floodlight

Chalmit has added a 1000 watt luminaire to its floodlighting range. It can be used with high pressure sodium or MBI lamps with integral control gear and eliminates the need for separate control gear boxes usually associated with such high wattage floodlights.

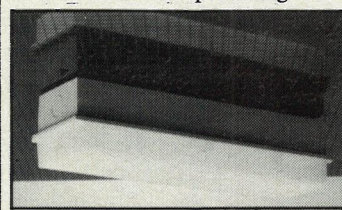
Chalmit says it is simple to install and maintain and offers great versatility in high intensity floodlighting.

Reader Service No. 194

Self-contained emergency lighting

Chloride Bardic has launched a maintained version of its 8W Acorn general purpose self-contained emergency luminaire.

It is ideal for providing both



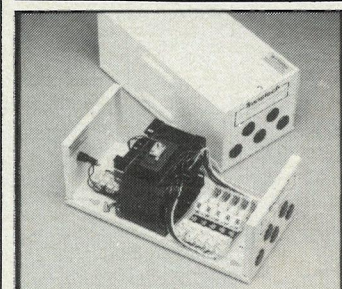
normal and emergency illumination in a wide range of applications including corridors and small rooms.

Used with a self-adhesive exit legend it provides a small, inexpensive exit sign suitable for licensed premises.

The simple clip-together construction of the 8W Acorn is further improved by the addition of a base mounted input terminal allowing fast installation.

Optional extras include a weather resistant kit which raises the unit to IP54 rating and semi-recessing bezels, available in both neutral painted and brass finishes.

Reader Service No. 197



Transformers for LV lighting

Transtech Ltd has a range of low voltage supply units for use with miniature tungsten halogen lamps.

Each output is individually protected by anti-surge fuses. Additional protection is provided by an externally accessible input fuse and also a thermal cut-out.

To maintain optimum lamp performance, the transformer regulation has been designed to give 11.8V minimum at full load and maximum operating temperature, and 12.3V maximum at half load and room temperature, both at rated input voltage.

Where troublesome line voltage drop is likely to occur, compensation is provided to give 0.5V boost to output circuits.

Keyhole slots give easy fixing and access for maintenance is facilitated even in restricted locations by two screws on the top of the casing.

Reader Service No. 155

COMMENT

You know it makes sense

The video *Out of Darkness*, produced by the British Parliamentary Lighting Group, draws attention to the urgent need for greater investment in urban lighting. In launching the film, Environment Minister David Trippier stressed the need for hard evidence of the direct correlation between better lighting and reduced crime, and challenged the lighting industry to produce figures to validate the need for government to fund a programme of direct action.

Fortunately for the industry, figures *have* just become available to prove that improving street lighting in inner cities makes sense and that actual crime, and not just the fear of crime, is decreased when better lighting is installed in inner city problem areas. Preliminary results of the Edmonton study indicate improvements of over 80% in both actual and perceived levels of violent crime, according to the Middlesex Polytechnic Centre for Criminology and Police Studies.

The study, the first independent attempt in the UK to evaluate the effect of lighting upon inner city crime by interviewing local inhabitants both before and after improving illumination in their street, disclosed the facts that nearly nine out of ten women feared sexual assault at night and 72% of people would not go out in the dark alone. Real crime levels were equally high. One in ten people questioned had been victims of a robbery or physical attack during the previous year and a further 11% had had their car stolen or damaged.

Six weeks after the new lighting installation had improved lighting levels fivefold, 80% of those approached indicate that their fear of crime had decreased. Actual crime also fell noticeably; just one robbery or physical attack was reported in comparison with five in a similar period; two auto crimes (compared with 12); threatening behaviour disappeared (4 cases previously).

Commented Geroe Robertson MP, joint chairman of BPLG, "This study demonstrates the tremendous impact that lighting can have on crime, and on the fear of crime that destroys so many of our city-dwellers' lives".

But benefits are not restricted to falling crime rates and eliminating the fear of going out after dark. New, more energy-efficient installations produce savings in running costs and maintenance that — costed over the life of the scheme — more than compensate for initially higher installation costs. Moreover, traders experience greater prosperity as shopping after dark becomes safer and more attractive.

So what, now, needs to be done? Copies of the BPLG video are being sent to the leaders of all English councils and will draw their attention to the fact that their constituents are demanding improved lighting to enhance their quality of life.

In the current political climate it is unrealistic to expect an increase in local authority capital expenditure to finance improved lighting, but funds can certainly be reallocated out of capital grants, given the political will. Finally, expenditure on lighting should attract much greater priority in the urban regeneration initiatives currently under way in this country.

LIGHTING EQUIPMENT NEWS

Editor: Judy Sewell

Associate Editor: Barbara Trigg

Art Editor: Lorna Francis

Midlands Area Manager: John Allen

Northern Area Manager: Robert Ditchfield

Southern Area Manager: David Townley

Classified Sales: Joanne Barker

Production Manager: Samantha Bishop

Circulation: Kirtie Parmar

Associate Publisher: Brendan O'Connor

Publisher: Nigel Foster

Directors: D G Campbell, Canadian (Chairman), G J F Brigg (Managing Director), N C G Foster, D L Jones. Published monthly by Maclean Hunter Ltd, Maclean Hunter House, Chalk Lane, Cockfosters Road, Barnet, Hertfordshire EN4 0BU. Telephone: 01-441 6644. Facsimile: 01-441 1796 or 01-441 1361. Telex: 299072 MACHUN G. Midlands, 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 £36 (£3.00 per copy including postage) but free to executives in the UK and Ireland concerned with all aspects of commercial, industrial, public and decorative lighting.



ABC CIRCULATION
JANUARY-
DECEMBER 1988
16,538 copies monthly



A Maclean Hunter
Publication

© 1988 ISSN 0024-3418

IDI REVIEW

Lighting at IDI

LEN reviews new lighting on display at the Interior Design International exhibition, Earls Court.

White SON spotlight

Multiflux WS is a low energy spotlight from The Lighting Workshop which uses Philips' White SON 50W lamp.

It combines a number of advantages in one fitting: good colour rendering, warm-white light and consistency of colour irrespective

of fluctuation in power supply.

A faceted aluminium reflector gives a high intensity 13° beam and good optical control. There is minimal generation of both heat and ultra-violet radiation.

The Multiflux spotlight is best suited for accent and display lighting or commercial downlighting. It measures 210 x 200mm and is 175mm deep. Control gear is integral.

Reader Service No. 170

Traditional chandeliers

Club is a range of chandeliers available from Chelsom Ltd in an antique brass finish and styled in the manner of 19th century gentleman's club lighting.

The model shown has eight artificial candles and a crown.

Reader Service No. 165

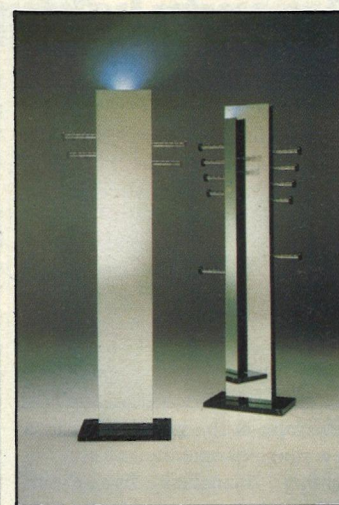


Uplights for offices

Bravo is a commercial uplight from Hitech Lighting plc which is available in floor standing and wall mounted versions.

A 250W metal halide lamp is used and the fittings have integral control gear. The wall light gives an asymmetrical light distribution.

Standard colours are all white, all grey and a combination of red/black/blue. However the metal components are interchangeable



Hokuspokus among the uplights

A new application for lighting was shown by Keith de la Plain Ltd at IDI. It is a piece of furniture combining the functions of a dressing room fitting, office coat stand, full length mirror and uplight.

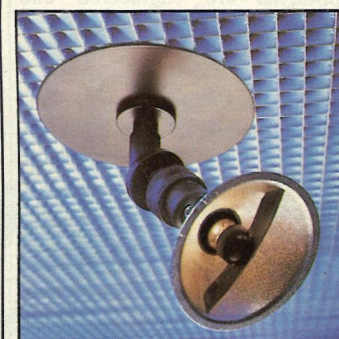
The metal arms to hold clothes pull out from the tall, rectangular structure as required. The base is a block of black marble.

A 500W linear tungsten halogen lamp concealed in the top of the structure is dimmer controlled. This furnishing accessory is made in Italy and called Hokuspokus.

Reader Service No. 163

Invaders in many variations

Light Projects Ltd has a range of low voltage tungsten halogen spotlights called Invader. This flexible



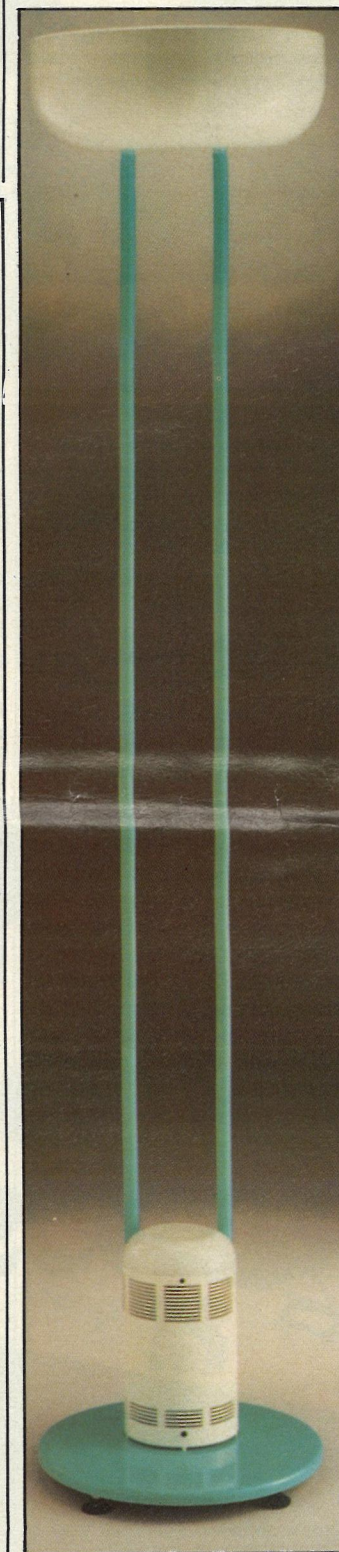
system of SBC and bi-pin fittings is suitable for discreet lighting of retail displays and for special effects in restaurants and hotels.

The basic components are said to allow about 70 possible variations with a wide range of atmospheric effects.

There are models for track or surface mounting and also a choice of mounting rods. Some versions have integral transformers.

Optional accessories include a louvre and a frame to hold colour gels or safety glass.

Reader Service No. 172



and Hitech are prepared to mix and match them for customers.

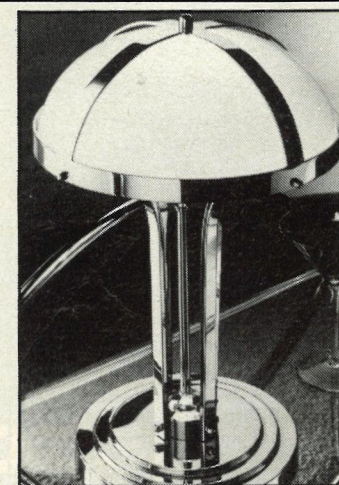
Reader Service No. 171

Cocktail lighting range

The German Bauhaus movement was the design inspiration behind the Cocktail collection of lighting introduced by Chelsom Ltd.

The range comprises two sizes of uplight wall brackets (250mm and 300mm in diameter); a single pendant in two sizes, 300mm and 420mm; a pendant with side arms (420mm in diameter) and a matching flush ceiling fitting in three sizes, 250, 300 and 420mm. A three-light chandelier and table lamp complete the range.

There is a choice of two finishes: chromium plated steel or solid pol-



ished brass. Glass shades are in either opal white or amber speckle.

Reader Service No. 173

Totally new -
the Tiller Collection.

A miniature low-voltage lighting
system available in three versions.

Dedicated low-voltage micro track.

Surface-mounted.

Or with an integral transformer
for direct mains supply.

THE ART OF LIGHT

An elegant new low-voltage light
fitting, with its 'tiller' arm for accurate
and safe fingertip adjustment.

THE TECHNOLOGY OF LIGHTING

Every fitting supplied with lamp.

Either a 13° spot or 28° flood from the revolutionary
new Tru-Aim Professional range of sealed dichroic lamps.

And a choice of accessory - cowl or barn door.

All adding up to the perfect lighting combination
for a wide range of lighting requirements.

TILLER
COLLECTION

Concord House, 241 City Road, London EC1V 1JD. Telephone: 01-253 1200. Telex: 263084. Fax: 01-251 2588.



Concord

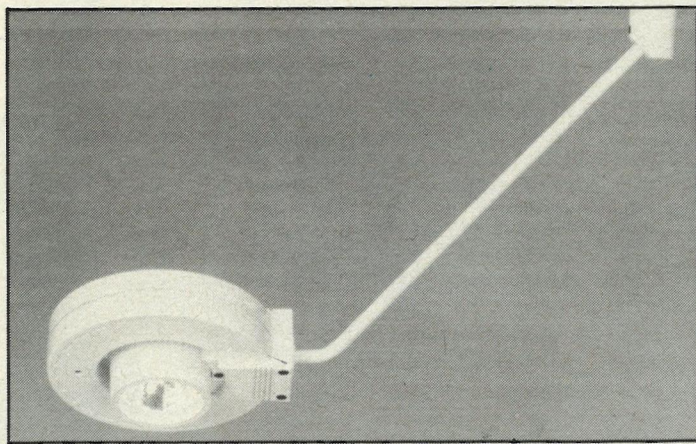
IDI REVIEW

Stylish spotlights

Discuss is a range of flat, circular, low voltage tungsten halogen spotlights made by Brendel, Germany, and available in the UK through Staff Lighting Ltd.

A circular, toroidal electronic transformer frames the miniature lamp and an LED indicates that it is operating correctly. A dimming facility is built in.

The lamphead is on a long slender



der stem and is adjustable through 360°. An easily accessible short

circuit fuse is included.

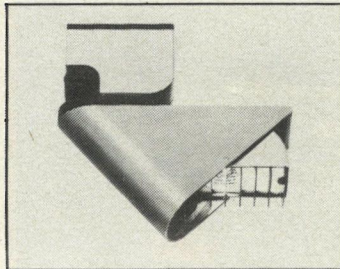
Reader Service No. 160

Adjustable triangular lights

Lucifaro is a range of triangular, adjustable wall and ceiling lights distributed in Britain by Candell Ltd.

They use either metal halide lamps (70 or 150W), or low voltage tungsten halogen dichroic lamps rated at 50W.

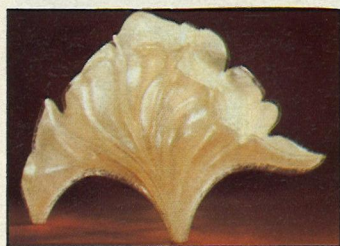
The lamphead is hinged to the control gear box and can also be rotated. A further adjustment is obtainable because the reflector



pivots through almost 180°. An optional louvre is available for the reflector.

A colour choice of white, black, red, grey and yellow is available for the aluminium housing.

Reader Service No. 166



Cockle shells from France

Dramatic luminous sculptures are available from Rougier Delorme and Cie, France. They take the form of large sea shells, flowers and other exotic shapes lit internally by 40W GLS lamps.

They are made of polymethylacrylate sheet by craftsmen.

Reader Service No. 169.

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

Emergency light with style

A range of eight emergency luminaires designed to appeal to leisure and office lighting specifiers has been introduced by Pickering & Berthoud. All can be supplied either as emergency lights or as ordinary decorative lighting.

Model PB101 illustrated here uses a 2D 38W compact fluorescent lamp.

The diffuser is made of glass and metalwork is brushed nickel.

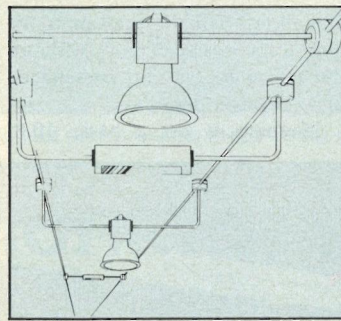
Reader Service No. 161

Lighting system on LV parallel rods

Paralight system consists of pairs of parallel rods 6mm in diameter which conduct power to miniature low voltage spot or flood spotlights positioned at any point along its length.

Available from Fairfield Displays Ltd, Paralight has a range of fittings to allow rods to be fixed in a variety of positions. The system can be ceiling mounted or wall-fixed, either horizontally or vertically. Special connectors allow rods to be joined in line or at an angle.

Decorative in-fill panels such as mirrors can be clipped between



rods. Sign panels, shelves and other display items can also be suspended.

The specially designed transformer has safety features including fuses to protect against overheating, overloading or short circuits.

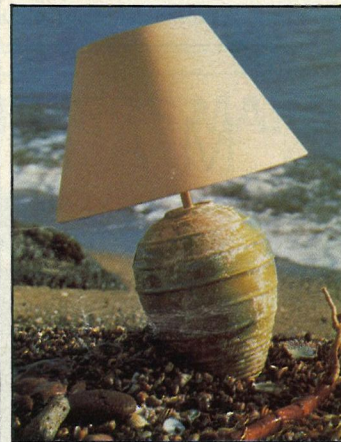
Reader Service No. 168

Reflecting the magic of the sea

Atlantide is the name of a large table lamp by Drimmer (UK) Ltd. The vase shaped base with horizontal ribbing is made of sea-green pottery and is partially encrusted in veined off-white and red, to give it a feel of beachcomber's treasure.

The 420mm high base is topped with a plain, caramel coloured lampshade.

This is one of a number of Drim-



mer table lamps designed to reflect the magic of the sea.

Reader Service No. 164

LIF LINE

Light years ahead

Outgoing LIF President Mike Lippold broke with tradition when, instead of reviewing his year in office, he made some predictions for the future when speaking at the Federation's annual luncheon in May. The following are extracts from his thought-provoking address.

"LIF will be ready"

1992 is the date by which the EEC will have become a single market — "an area without internal frontiers" for "persons as well as for goods" and for "services and capital" as well. Completing the internal market by 1992 is now enshrined in the Single European Act approved by the Parliaments of all member states. It is going to happen, not overnight on 31 December 1991, but gradually over the next three years.

LIF will be ready, having followed in the footsteps of four "guinea pig" companies who, in 1987/88, with Jim Greenhill's and the DTI's help, sought VDE certification and are exploiting the West German market; by 1992 LIF will have probed and researched all of the other member states' markets. We will be thinking in terms of "Euro fittings" and we will be the ones reacting swiftly to changing Euro-user demands. By 1992 all of our luminaires and control gear will be covered by European norms.

Certification

By 1992 Certification will have become as necessary in the UK market as it currently is in the German market and, along the way, national accreditation will have been conveniently shelved and forgotten. All of us will have BS 5750, or equivalent, operating in our factories. There will be no place in our market for "designer rubbish"!

Investment

Investment in new plant, CAD and CAM, innovation, technology and people, will all have increased dramatically. Investment in training will have doubled; the number of graduates coming into our sector will have doubled; the number of students holding the LIF Lighting Education Certificates will have passed 500.

As a result, innovation will have continued apace with even more and better products coming forward, taking us further into the electronic age and leaving far behind us our "tin bashing" image of the past. High frequency lighting will have become the norm, electronic ballasts may well be the size of Mars bars and could be available for all discharge lamps.

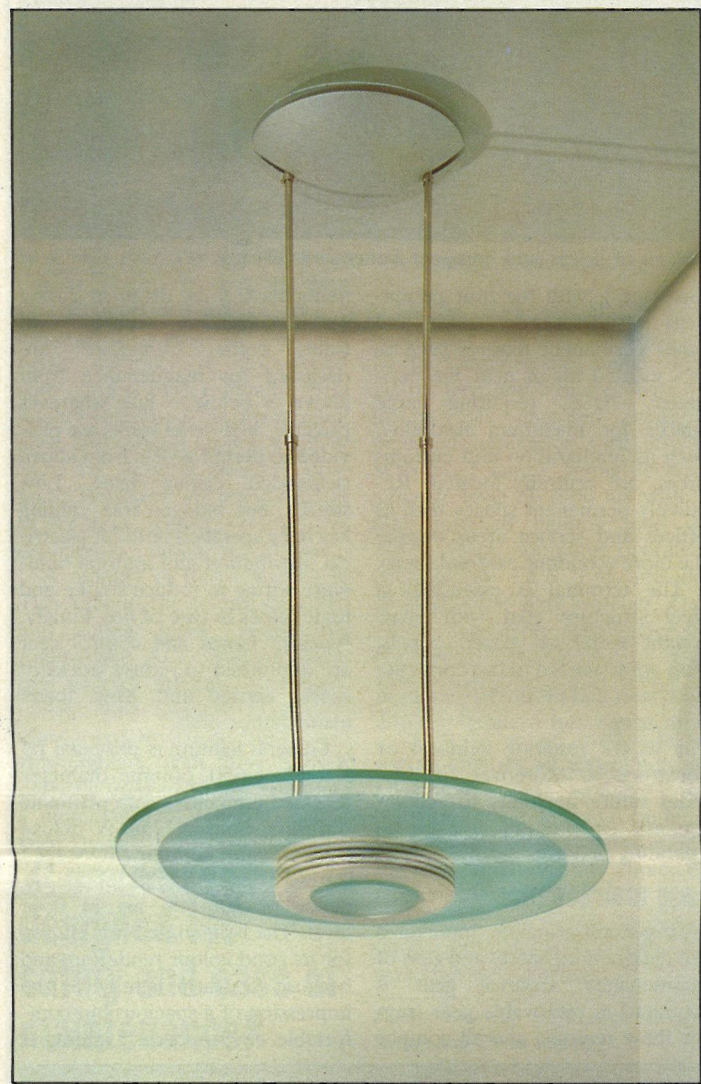
The customer

As a result of LIF promotions such as the NLA, EMILAS and inner city lighting, there will be an even greater understanding amongst our customers of the benefits of good lighting and the unique contribution it makes to our environment. Concern to reduce electricity and maintenance costs will play a greater role in purchasing decisions.

Rebuilding and refurbishment will be continuing as strongly as they were in 1987 and are now, but with high specification becoming much more important. Office design and space planning will become even more important with the old 1960's inflexible buildings being demolished and Victorian ones being refurbished to meet the hi-tech demands of the '90s.

Of his hopes for the next four years, Mr. Lippold said: "In the UK I trust that by 1992 we will have persuaded the government to invest in the infrastructure, lit all the motorways to reduce night-time accidents by 30%, and relit our cities to reduce the fear of night-time crime. Above all, I hope we will have convinced them of the need to relight their own offices to reduce their electric lighting bills by at least 20% or by £15m; then they will be practising what they are now preaching. I also hope that we will have persuaded them to make emergency lighting mandatory in public buildings and places where people might gather together who, when plunged into darkness, may not be familiar with the exit routes.

Mike Lippold concluded thus: "Those are my predictions and hopes for the future — a future which is ever full of risk, opportunity and change. But for those of us who read the signs correctly, invest accordingly and support the Federation in all that it is doing on our behalf, the future is bright. A 30% growth is achievable in our manufacturing turnover by 1992. But the new, European business isn't just going to fall into our laps — we've got to abandon parochial thinking and adopt broader strategies and I really do believe that working together through LIF is going to bring greater dividends in these years of change ahead of us".



Telescopic pendant

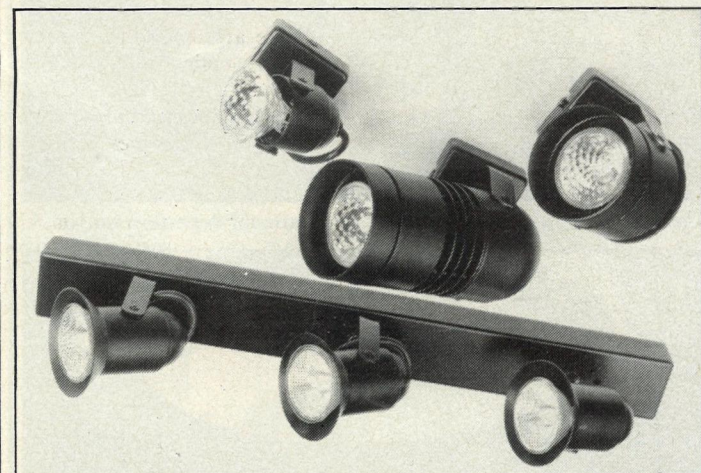
Zenith Cartagine is a striking pendant that gives both indirect and direct light. It has an Art Deco influence and was shown at IDI by Prima Lighting Ltd.

The pendant takes a 300W linear tungsten halogen lamp and

has telescopic rods which allow the height to be adjusted from 730mm to 1280mm.

The sanded glass disc is 600mm in diameter.

Reader Service No. 162



Low voltage spotlights

Lee Environmental Lighting has launched its Leon range of low voltage lights.

There are four fittings with distinctive cylindrical styling and each can be either ceiling or track mounted.

A 50W fitting has a lightweight integral electronic transformer; a small 20W/50W model has a remote transformer; a large 20W/50W/70W fitting is for use with a remote transformer, and a three-way 20W x 3 lightbar has an integral electronic transformer.

Each of the fittings is available in white, black, chromium plated or gold.

Reader Service No. 167

Getting off to a flying start

Flexibility for growth and change, and careful attention to passenger comfort characterise Gatwick's new North Terminal. LEN takes a look at the building and its lighting.

Gatwick, the world's third busiest airport, has a new terminal building. Designed with the changing character of passenger traffic and the huge growth of passenger volumes in mind, the building also provides the higher standards of comfort and security increasingly demanded by passengers.

It accordingly reflects a more sophisticated approach to lighting. The £200 million contract for this development, included some 3000 lighting fittings at a cost of over £1 million, supplied by Philips Lighting.

This is only the first phase in a continuing programme of expansion, increasing passenger capacity at Gatwick by 5 million passengers a year. Later phases will bring the annual total to 25 million passengers and 500,000 tonnes of cargo.

The North Terminal building is 140 metres square. This plan form was developed to minimise walking distance to the wrap-around piers, giving access to the aircraft, which will eventually be three in number.

The building is planned on three levels: arrivals are located on level 1 and departures on level 3, with road access at both levels; level 2 is divided into a land and an air side. The former houses The Avenue, the shopping and restaurant complex on the departures side. It also gives access to the rapid transit system — linking the

‘The building is conceived as a highly flexible, serviced shell’

building with airport's South Terminal and the British Rail station — the car parks and a proposed second airport hotel. The air side takes passengers from the West Pier down to the arrivals area below.

Main plant and service areas are located on the roof and in the basement. Within each floor zone permanent service elements such as service distribution networks are located above the suspended ceiling where they can be reached

by catwalks, and maintenance carried out safely and away from public view.

Flexibility

The building is conceived as a highly flexible, serviced shell, designed to adapt quickly and easily to short-term changes of use and allow gradual expansion to its long-term capacity without disruption to existing passengers or to airport operations.

Planning is on a basic 10.8



The departure lounge uses a combination of linear and compact fluorescent fittings.



The international departure hall, showing the combined skylight/luminaires.

metre grid, with the four permanent vertical service cores and other permanent fixtures such as lifts located on or near the perimeter. Areas requiring large spaces for maximum flexibility, such as immigration and customs areas, are centrally located. Relatively permanent spaces such as offices and service areas occupy the more economic external spans.

The terminal is essentially a steel structure clad with lightweight metal or glazed panels. This approach led to fast construction times and produced savings in both frame and foundation costs due to the resulting lightness of construction. Moreover, it provides future flexibility to accommodate changes in use or in operating practice.

Easy maintenance

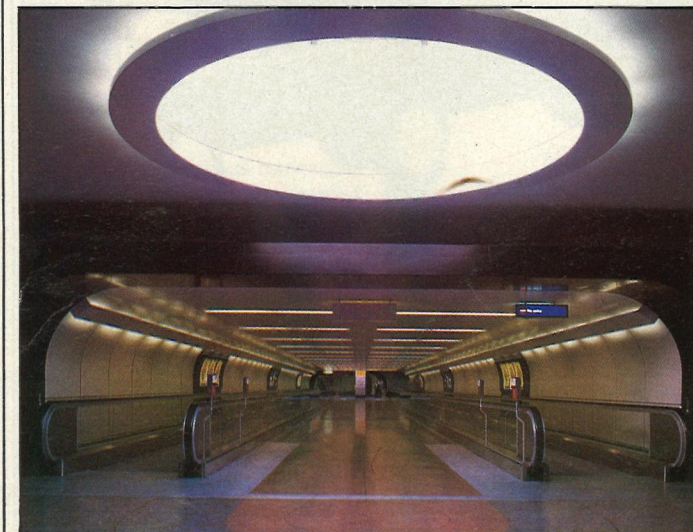
As a general principle, luminaires are designed for safety and ease of maintenance. Control gear is mounted in removable gear trays for these reasons, and all compo-

nents liable to be dropped during maintenance are secured with safety cords. Luminaires are designed for maintenance from above or below — but, wherever possible, high-level walks are provided to permit access from above suspended ceiling level. Low smoke and halogen-free cabling has been specified both for electrical distribution and internal luminaire wiring to reduce smoke and toxic fumes in case of fire. Finally, types of lamps and control gear are minimised to reduce stocks of spares carried and, thus, lower maintenance costs.

General lighting is provided by a total of 650, 600mm diameter recessed luminaires with prismatic diffusers, housing 250 W deluxe high pressure sodium (SON DL) lamps. These provide an illuminance of 300-500 lux at floor level. The light source was chosen for its good colour rendering, and because its warm light gives the impression of a spacious but comfortable environment. Lighting is



The duty-free shop located in the international departure lounge.



Bridge leading to the rapid transit system to the North Terminal.

For supermarkets, department stores, high-tech offices and exhibitions. Lighting Equipment Service and Supply provide a complete service to designers and specifiers.

MAKING

LIGHT WORK



Recent exhibition held at Cartier of H.M. The Queen's private photographs showing the Royal Family and their jewellery. The designers commissioned LESS to plan, manufacture and install lighting.

For use adjacent to supermarket display cabinets Shelflites provide high levels of even illumination over the full spread of displayed product.

less
LIGHTING EQUIPMENT
SERVICE AND SUPPLY

For details of Shelflite and further products and services contact:
Lighting Equipment Service and Supply, 14/15 Grand Parade,
Harringay, London N4 1LA. Tel: 01-800 8049 Fax: 01-809 4619

computer controlled to compensate for daylight gains through rooflights and windows. At the public check-in concourse level, lighting again uses 250W SON DL lamps which highlight the terracotta fleck in the terrazzo floor finish. Fluorescent wall washers use high frequency electronic control gear, and local task lighting is provided at check-in desks.

In the departure area an unusual feature maximises the use of daylight. Square skylights with cross baffles to prevent glare have a single 250W SON DL-T lamp installed at each corner in a modified Radpak 350mm recessed reflector. These serve to boost the illuminance above escalator areas in particular, improving safety and producing a feeling of spaciousness at the same time. Chromium plated wire guards to these lamps give protection against shatter.

Duty free

Arena linear fluorescent fittings and 28W 2D compact luminaires are installed in the departure lounge to create a relaxing environment for passengers. The use of security cameras here called for the use of low glare louvers which have also generally improved the quality of light. The duty free shop in the departure lounge uses a Magnagrid ceiling at 5400mm height centrally, in conjunction with clusters of 4 Formalux HID luminaires above the main retail area, and centred around a 150W SON DL 600mm diameter prismatic luminaire. At the perimeter of the shop, however, ceilings are dropped to a height of 3245mm.

A number of shops situated in The Avenue, the central shopping and eating plaza, incorporate Lightstream 12V tungsten halogen display lighting. Corridors, lobbies and entrance zones are illuminated by Thorn Dark Light downlighters, with 70W SON-E colour corrected lamps, providing a illuminance of 600-700 lux at floor level.

Luminaires are designed for safety and ease of maintenance



The arrivals area. Lighting, signs and indicators are carefully designed and positioned to avoid visual conflict.

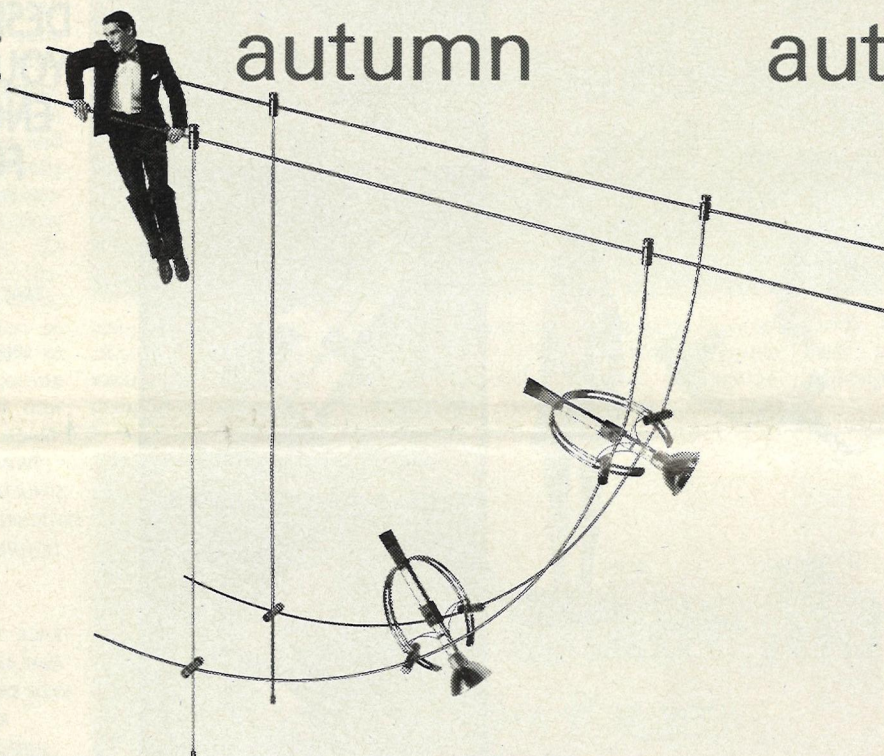
Finally, both site and service tunnels are lit by SON fittings. The North Terminal site tunnel, 440 metres long and 7 metres wide, is lit by 227 enclosed cornice-mounted luminaires with 250W SON SL-T lamps, giving an illuminance level of 1600 lux with a total installed lighting load of 33kW. Here, computer operated controls by ECS Ltd include photocells and time switches. The scheme was highly commended in the recent EMILAS awards. The service tunnel uses twin SON DL tunnel fittings.

In short, lighting plays a large part in creating an atmosphere of relaxation and comfort at Gatwick, while keeping running costs for this 24-hour a day building to a minimum. The choice of modern lamps and luminaires ensures that high standards of passenger comfort are compatible with operational efficiency.

Photos courtesy of Conran Design Group and Thorn Lighting.

Internationale Frankfurter Messe Herbst autumn automne

Spotlights
Halogen
lighting systems
Wall lights
Light objects
Table lamps
Hanging lamps
etc.



SAVE MONEY BUY IN ADVANCE

Fair and travel information,
admission tickets:

Collins & Endres
18 Golden Square
London W1R 3AG
Tel: 01-734 0543
Telex: LOP G 262236
Telefax: 01-734 4561



From 27th - 31st August, 1988 you will find the Trade Fair for Domestic Lighting at the world's biggest consumer-goods fair.

Reader Service No. 20

MINOLTA METERS MAKE MEASURING LIGHT WORK!

In the factory, office or laboratory, Minolta Meters made light of measuring!

Superb design and advanced electronics ensure accurate and reliable results — time after time.

Our Chroma Meters are ideal where the colour of luminaires has to be checked as well as light output. Read-out is digital and the Meter is battery powered and fully portable.

The Luminance and Illuminance Meters can be used to measure light output and brightness of lamps, back-lit panels, legends, LED's, etc, as well as general illumination levels in warehouses, factories and offices.

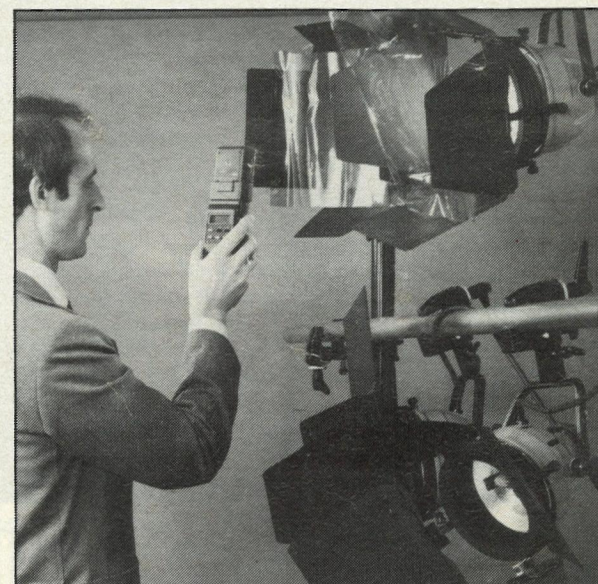
We make Meters for most applications — see if we can make your light work!!!



ILLUMINANCE
METER



LUMINANCE
METER



CHROMA METER

For full details of all Minolta Light Meters, or a "no strings" demonstration contact:

The Industrial Department at Minolta (UK) Limited
1-3 Tanners Drive, Blakelands North, Milton Keynes,
Bucks MK14 5BU. Telephone: (0908) 211211



Reader Service No. 21
Page 7



The Glass House in the arrivals section of the airport.

Hangar lighting that won a prize

Modern lighting in one of the aircraft hangars at Heathrow has improved working conditions and is saving money for British Airways.

A good example of modern lighting for an aircraft hangar is that in Technical Block B at Heathrow airport. The hangar has been refurbished for British Airways Property Branch to provide improved working facilities for maintenance staff.

Previously, a cold cathode fluorescent lighting scheme dating from 1960 lit this 7875m² area. It

consisted of some 3000 lamps, each rated at 60W, in four-lamp luminaires and consumed over 230kW.

Service illuminance had dropped to about 200 lux and maintenance was both costly and time consuming. British Airways decided a complete refurbishment was called for and contacted Luxonic Lighting Ltd.

A blended lighting scheme was

chosen using Osram's 400W high pressure sodium (SON Plus), and Philips' 400W metal halide lamps in Hi-Mount high bay luminaires by Luxonic.

This has given high efficiency, improved light output and superior colour rendering. Good colour rendering was essential to provide high visual acuity for maintenance work, particularly where colour co-ordinated wiring looms are



A view of British Airways' refurbished hangar at Heathrow.



TRACK DESIGNED FOR YOUR CLIENTS. ENGINEERED FOR YOU.

TRACK. VERSATILE. WITH
GOOD LOOKS,
UNRIVALLED QUALITY.

TRACK. THREE CONDUCTOR,
TWIN CIRCUIT SYSTEMS.
SIMULTANEOUS OR SEPARATE
SWITCHING FOR THREE DIFFERENT
LIGHTING CONFIGURATIONS.

TRACK. THREE TRACK SYSTEMS
AVAILABLE. FULLY POLARISED.
WIDE RANGE OF ACCESSORIES.
IEC570. BS4533.
SUPPLIED COMPLETE WITH
LIVE AND DEAD ENDS.
EASY TO INSTALL.

TRACK. NEW SPOTS. BULLET 2.
MULTI 2. QUADRO 2. RONDO 2.
SUPERIOR QUALITY.
POPULAR STYLE.

LUMIANCE.
MASTERS OF LIGHTING
TECHNOLOGY. WE UNDERSTAND
THE ART OF MAKING
LIGHT WORK - FOR YOUR
CLIENTS AND FOR YOU.
WRITE FOR A FULL
INFORMATION PACK.

used in connection with computerised lighting controls.

Luminaires are mounted in pairs, one containing a SON, the other a metal halide light source. The reflectors were specially adapted to hold wire guards with a safety strap for extra security.

Electrical contractors, Alpha Electrical Ltd, made special mounting brackets from trunking to facilitate this paired arrangement and allow through-wiring.

This not only reduced installation cost but makes maintenance easier.

Controls

A dramatic reduction in the number of luminaires has resulted from the new installation - from about 750 to 87. This has brought the installed lighting load down to 82kW, an energy saving of 64%.

At the same time, illuminance has increased 138% to 475 lux. Efficiency is now 2.2W/m²/100 lux.

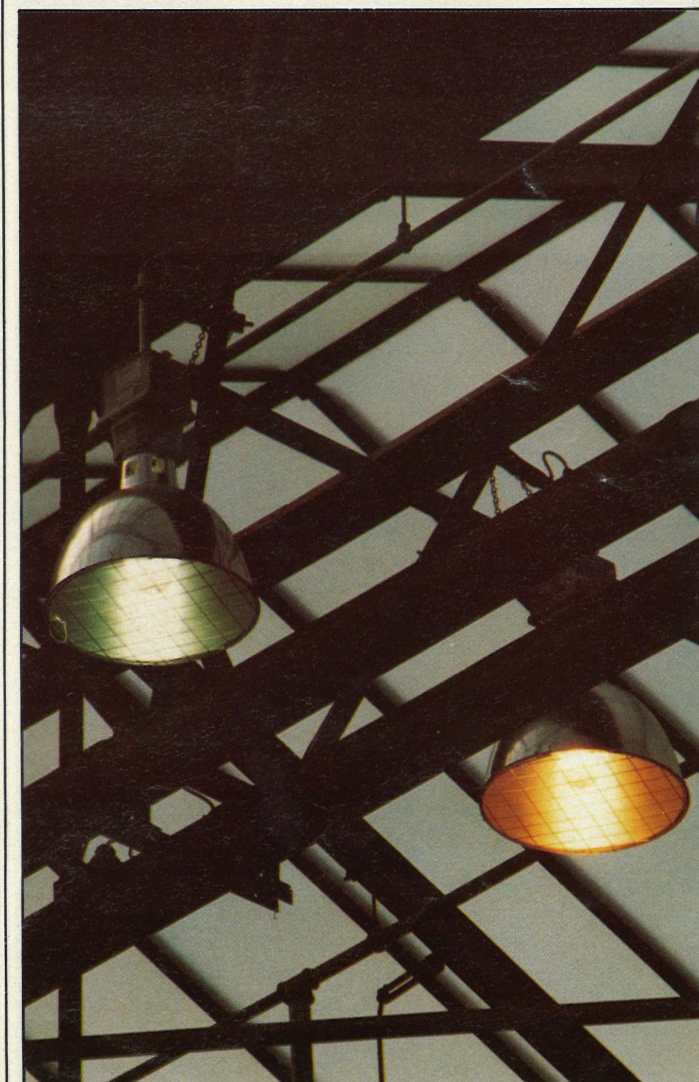
British Airways' commitment to energy efficiency is also reflected in the range of energy management features associated with this

lighting scheme. Controls include a computer-linked energy management system by Transmitton Ltd and photo-cells. Regular cleaning and maintenance ensure maximum light output and efficiency; bulk re-lamping is to be operated.

The installation won first prize in the industrial section of the Energy Management in Lighting Awards Scheme (EMILAS). At the presentation ceremony recently the judges said they had no hesitation in selecting this scheme. They added that the back-up provided by efficient lighting controls and a commitment to good energy management practices would ensure maximum user and operating benefits.

Jim Alabaster, British Airways property maintenance manager, says that BA is very pleased with the completed project. "It's the result of true teamwork between British Airways, Alpha Electrical and Luxonic Lighting", he stated.

More information can be obtained from Luxonic Lighting Ltd, Unit 1, Kingsley Business Park, Kingsley, near Bordon, Hants. GU35 9LY.

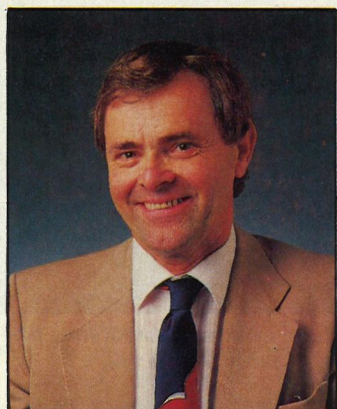


The paired mounting arrangement of luminaires: one SON with one metal halide.

Lumiance

A GTE Company

Marketing Dept (AB14), Lumiance Malmesbury, Wiltshire, SN16 9JX.



Pim Elshout Chairman

I was born in Holland and educated in Rotterdam Grammar School followed by 4 years economics in Rotterdam School of Economics. After 3 years with a Dutch Bank I joined Philips Electrical in Eindhoven Holland on the Sales/Light Technical side. After marrying an English Girl (pen friend) I settled in Sutton Coldfield and joined Carrier Engineering Co. Ltd., a large heating and ventilating company as a site clerk. After two years I was promoted to manager of local depot from where all West Midlands contracts were handled (approximately 150 men). With two other colleagues we started a Company called Richard Groves Ltd., with £250 and a bag of tools and sold out to the How group in 1967. I could not settle with the

How Group and decided to start my own company in 1969 above a draper's shop in Aldridge to be called Aldridge Air Control Ltd. After a few months I was joined by Ron Sudlow (now Managing Director of our associate company AC Eurovent Ltd) and the company rapidly outgrew the premises above the shop and moved to bigger premises in Aldridge.

In 1975 another company was formed; AAC Plastics Ltd concentrating on plastic ductwork and fabrications in plastic. In recent years this company moved into a new one acre site in Aldridge and now employs approximately 75 people manufacturing for the lighting display and point of sale industries.

In 1981 a company called AAC Eurovent Ltd was formed to han-

dle specialised building services contracts and deodorisation problems (with activated carbon) for the sewage industry, Ministry of Defence and industries where odour problems existed. In 1983 Orbik Electronics was formed primarily to manufacture and sell emergency lighting but soon branched out into passive infrared detectors and transformers. This company, which started in rented two roomed premises and has now moved into a wholly owned one acre site with purpose-built offices and factory, employs approximately 70 people. To complement AAC Plastic's vacuum forming facilities, the AAC Group have recently formed an injection moulding company to provide our 'in-house' injection moulding operation and is now



able to offer this service to new clients. All developments and financing for the entire group of companies is handled by AAC

Group Services, an umbrella company which provides corporate counselling, finance and specialised services when required.

Orbik Electronics' new custom built premises at Northgate, Aldridge

Reader Service No. 1



Philip Elwell Managing Director

Just over 5 years ago, Philip Elwell, who was then Deputy Managing Director of Mackwell Electronics, was about to embark on a major new venture. Philip, with his many years of design experience both with Mackwell and previously Woden Automation Everready (C.M. Churchouse) and Crompton Lighting, formed Orbik Electronics: an electronics company majoring in the design and production of emergency lighting control gear for the lighting manufacturer.

He realised the benefits of a marketing policy which remained loyal to one client base where his customers could be assured that their supplier of emergency components would not be competing in their market place. The roots of the company were very basic and fraught with the inevitable difficulties. The major problems had been overcome by the formation of a joint venture with the AAC Group, chaired by 'local' businessman — Pim Elshout. The relationship proved to be a winner from the start and support, both financial and advisory, was a tremendous asset in those early days. "Pim is a Dutchman and thinks

differently to the average British businessman — his European attitudes and adventurous ideas were so refreshing and have taught us all a great deal".

The company originally consisted of 3 people including Philip. As with every new company, with basic hard work and enthusiasm (and a few lucky breaks) Philip eventually achieved the turnover necessary to increase his administrative and works personnel and was fortunate in finding a young BSC qualified Technical Engineer — Ian Taylor BSc to assist him with the upgrading of existing designs and the development of products — security as well as lighting — which would take the company through the next 5 years.

The first 10 months and £90,000 turnover was carried out in an area no larger than a garage. Suitable rented premises were soon found at Middlemore Lane, Aldridge and it was here that the company consolidated the business achieved in the early days and built up new clients tempted by the innovation, flexibility and competitiveness. "By 1986 we had brought our production and quality control levels up to a standard where we could actively seek to

double our turnover. We had more than doubled again in our third year to just under £600,000 and it was time to strengthen our sales and management structure."

In June 1986, Pauline Mann joined the company as Sales Manager. As well as her previous sales experience, she also had invaluable knowledge of the lighting market due to several years, experience in Simples Lighting's Marketing Department. This proved a great benefit in identifying the prime manufacturers to approach in her new function. "In analysing the previous year's turnover — it was evident that though Philip had built up a sound client base with reliable and regular business, the company was too vulnerable and reliant on this small nucleus of high turnover customers. From June 1986 up to the present day, we increased our lighting clients from under 15 to over 50, with more in the pipeline.

The company during 1987 has obviously enjoyed its most rapid period of growth. A passive infrared security product is another area where substantial orders have been achieved from specific OEM clients — this topped the yearly results, ending April, 1988 to just



Pauline Mann Sales Manager

under £1.5 million.

This welcome success story did bring some problems, mainly with production and technical capacity and as every company in this demanding industry is aware, deliveries need to be executed quickly preferably ex-stock for popular lines, while retaining flexibility for special developments.

The new factory just round the corner, Northgate, Aldridge, is ideal for our expected growth over the next few years. Building work on Phase II of the 35,000 sq.ft. site has just started with massive expansion to the Laboratory and Quality Control Departments anticipated for completion in the

next few months.

As the company grows, with new security and lighting products already on the drawing board, the site can continue to be built upon, increasing factory and office capacity to match the growth.

Inevitably, with the encouragement from and with our own commitment to quality, LIF and British Standards, the factory will be approved to BS 5750 in the very near future, going hand-in-hand with ICEL 1001: 1986 on all popular products. Other important improvements in recent months include a much strengthened internal sales team to deal with the ever increasing administration

load and efficient execution of enquiries, orders and deliveries. Mrs. Shirley Collins, with her varied administration experience was brought in in January 1988, to head up this department leaving Pauline once again to promote and market the company's products both to new and existing clients.

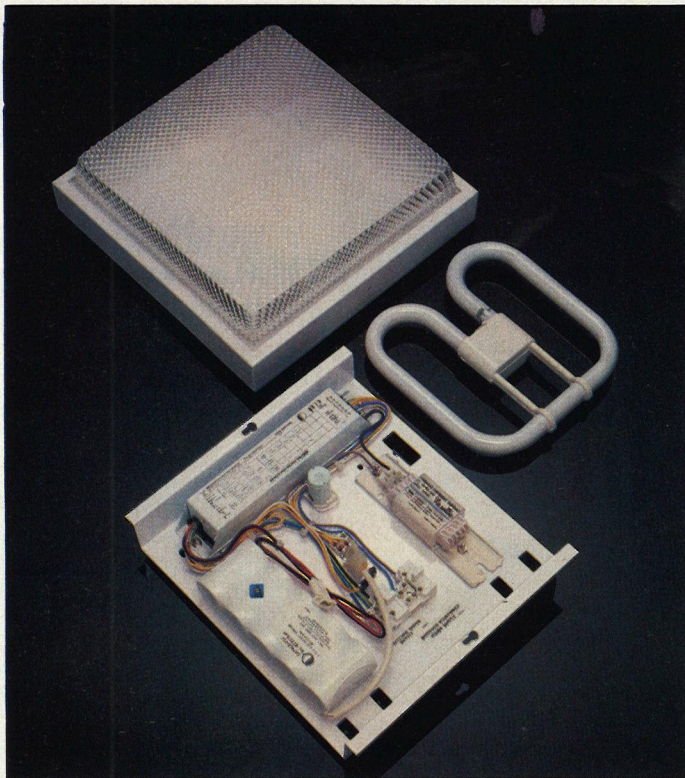
"We are dedicated to provide a service to our customers and we shall endeavour not to let the syndrome of the "large" company affect our flexibility and willingness to provide a service whether the requirement be for small special orders or volume business. Here's to the next 5 years."



Shirley Collins Sales Office Supervisor

COMPACT SOURCES

Design options using compact source 4 pin lamps in the emergency luminaire markets

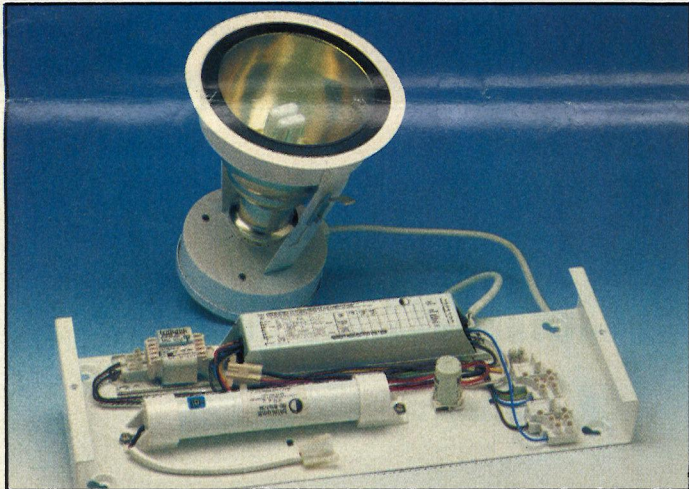


Maintained 3 hour 38 watt 2D luminaire by Beta Lighting
Reader Service No. 2

The introduction of the compact source lamp has brought with it an influx of innovative luminaire designs both from the traditional "brick, box and drum" manufacturers and also from new designers who see an opportunity to combine all the technical benefits of these new lamps with an imaginative approach to commercial lighting design. If they get it right, the benefits to the consumer are substantial — improved efficiency, extended lamp life, energy

Lamp	AV. Total Lumens	Battery Type	AV. Emergency Lumens
T5 4W	100	2.4V	54
T5 6W	250	2.4V	87
T5 8W	420	3.6V	160
T5 13W	750	3.6V	170
S/E 5W	250	2.4V	120
S/E 7W	400	3.6V	168
D/E 10W	600	3.6V	192
S/E 11W	900	3.6V	234
D/E 13W	900	3.6V	234

Fig 1. Comparison of average lumen output on emergency of T5 lamps to compact source

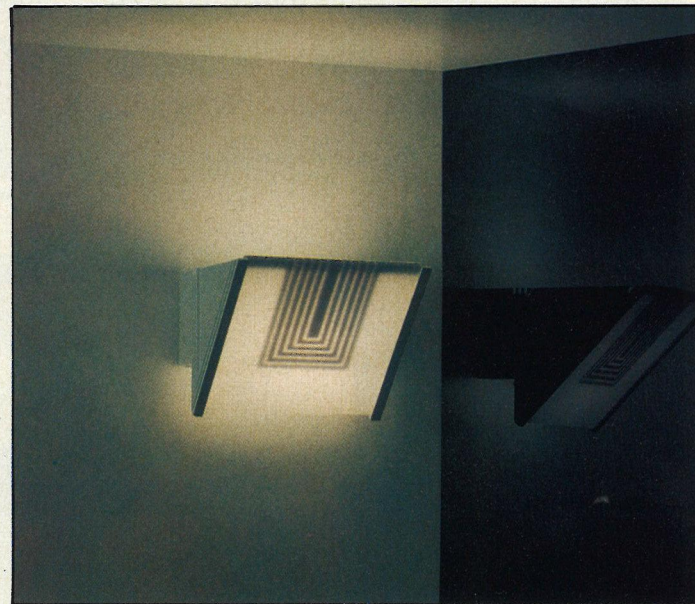


13 watt DE down-lighter with remote box incorporating mains gear by Pine Heron Reader Service No. 3

savings over incandescent lamps of up to 80% and with the emphasis on aesthetics — the specifier can provide their clients with lighting design that will enhance their new environment as well as being effective, safe, and efficient. However, to comply with the vigorous regulations as defined in the new upgraded and improved BS 5266 — the Code of Practice for the Emergency Lighting of Premises — they have to include for correct emergency lighting levels. The new Code of Practice now attaches even more importance to undefined escape routes (average 1 lux with a uniformity of 0.025). The average lumen output of the typical 8W non-maintained luminaire is 150 lumens, so the

number of self-contained units using these T5 lamps will increase making it more and more difficult to disguise the detrimental effects of the non-maintained "brick" spoiling the designer's carefully planned mains lighting scheme. This is where the compact source 4 pin lamp can provide a solution. We are now all aware of the 16W, 28W and even the 38W 2D 4 pin lamps which have now been successfully incorporated to provide a fully maintained emergency facility into many existing and indeed new luminaire designs.

The higher wattage PL/S/PLC 4 pin lamps (18W - 36W) can be considered, but achieving a satisfactory balance between compact aesthetic luminaire design and correct internal thermal results is more difficult especially with maintained luminaires where the mains ballast can create high temperatures. Some recessed and surface modular luminaire manufacturers have complemented their existing fluorescent range by offering a version of their product with these new lamps as an alternative to the fluorescent tube. This provides an energy saving product which can easily incorporate emergency components either internally or onto the back of the



Uplighter from Designed Architectural Lighting incorporating non-maintained emergency control gear Reader Service No. 4

luminaire.

In recent months Wotan have offered the 4 pin compact source D/E lamps in two wattages - 10W and 13W. Many manufacturers have taken advantage of this development realising that, without the integral starter switch contained in the 2 pin version, it was now possible to use these lamps in conjunction with high frequency control gear without any adverse effect on components in the circuit and with substantial cost savings. Downlighters are particularly suited to these lamps, whereby the luminaire is recessed into a false ceiling and a remote box can be provided which houses all emergency gear. If required, the mains gear including starter switch etc. can also be incorporated into the box, providing a real installation benefit to the contractor who can simply connect four wires from the box to the downlighter.

Even an uplighter which primarily utilizes high intensity discharge lamps as a mains light source can now incorporate the 10W/13W D/E 4 pin as an emergency lamp, offering an alter-

native to the 10/20W tungsten/tungsten halogen. The compact profile of the D/E lamp can easily be concealed in the optical assembly of the uplighter and an economical non-maintained 3 hour emergency package using 3 x 4 AH nickel cadmium cells fitted into the existing control gear compartment. Again, worthwhile savings can be made both in cost and space over a tungsten emergency package.

While the short, chunky profile of these lamps is ideal for the above mentioned applications, they have their limitations, with the slim and shallow format of many PL 2 pin style luminaires, and cannot be easily substituted. Due to continued market demand Wotan have now extended their 4 pin range to include 5W, 7W, 9W, 11W and 13W in the popular 'S' (or PL) shape. This should encourage manufacturers of compact source mains luminaires to re-think and provide a fully maintained facility using these 4 pin S/E lamps in conjunction with a 2 or 3 cell maintained emergency package.



The new range of Dulux S.E. 4 pin lamps

Reader Service No. 5

As with any emergency luminaire, it is vital to perform stringent tests on the thermal performance. The move towards compact source lamps has encouraged manufacturers to design small shallow profile units which can be prohibitive in terms of internal temperatures. Most reputable emergency control gear compan-

ies will be happy to test their gear with your chosen luminaire to ensure thermal and electrical compatibility.

It is an encouraging sign that developments from the lamp companies are enabling the specifiers to provide their clients with a most energy efficient scheme and have not been forced, to sacrifice the overall aesthetic appearance for the vital safety standards of emergency lighting practice.

Emergency lighting conversion packages from Orbik Electronics



To meet the ever increasing demands of the emergency lighting market, Orbik Electronics have produced a quality range of conversion modules to offer their clients a comprehensive range of options for all fluorescent lamps from 5W - 125W, including all 4 pin compact source lamps. The most popular products in this range are the 5 and 6 cell conversion kits.

In both cases, using design expertise to create the most efficient product, they have reduced the number of nickel cadmium cells required to operate certain wattages of lamp over conventional packages. ie, their 6 cell module will operate lamps from 28W - 6 ft 70/75W with an option to choose a 5 cell package which covers all compact source 4 pin lamps from 18W - 38W and standard fluorescent tubes from 2 ft 18/20W up to 4 ft 36/40W.

This reduction in cells enables these conversion kits to be incorporated into the more compact luminaires.

To cover all eventualities, they can offer a 10 cell module should a very high Ballast Lumen Factor be specified. This product will also operate 8 ft 85W, 100W and 125W lamps.

A 4-pole relay is now incorporated into the design to ensure compatibility with high frequency electronic ballasts and dimming control gear.

The maintained modules are all of the same slim and shallow profile incorporating deep discharge protection as standard. Should there be temperature or space restrictions within the luminaire, there is a compact remote box which can house all necessary emergency control gear and mains components if necessary.

ORBIK Electronics Limited

Orbik House, Northgate, Aldridge, Walsall WS9 8TH
Tel: (0922) 743515 Fax: (0922) 743173 Telex: 339612.

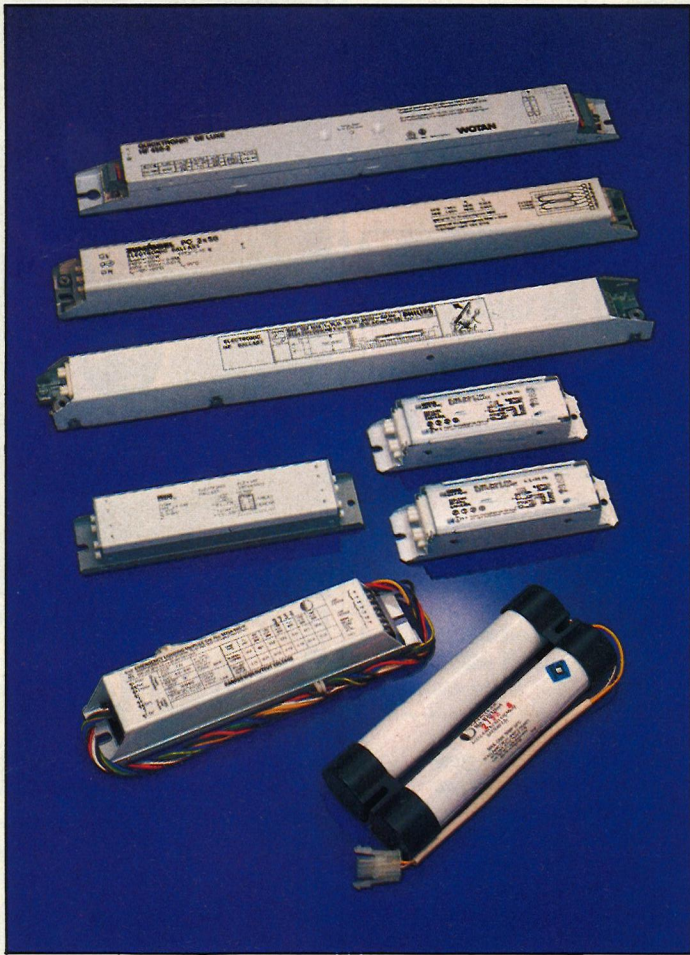
Launch of new conversion module

With the growth in popularity of high frequency electronic control gear and dimming ballasts, we have decided to follow the recommendations of such manufacturers and re-design our conversion modules to use a 4-pole change-over relay to switch lamp connectors, instead of the 2-pole relay that was previously incorporated.

This will simplify the inter-connection wiring required, and allow the wiring to be identified to that used on our range of central battery system inverters.

This feature will be incorporated into the whole range of conversion modules from the economical 5 cell module up to the 10 cell module, and we are in the process of submitting to BSI to achieve ICEL 1001: 1986 approval.

As with its predecessor our 6 cell module will operate all lamps



from 28W up to 85W with the option to choose the economical 5 cell package to operate lamps

from 18W — 40W including all compact source 4-Pin lamps.

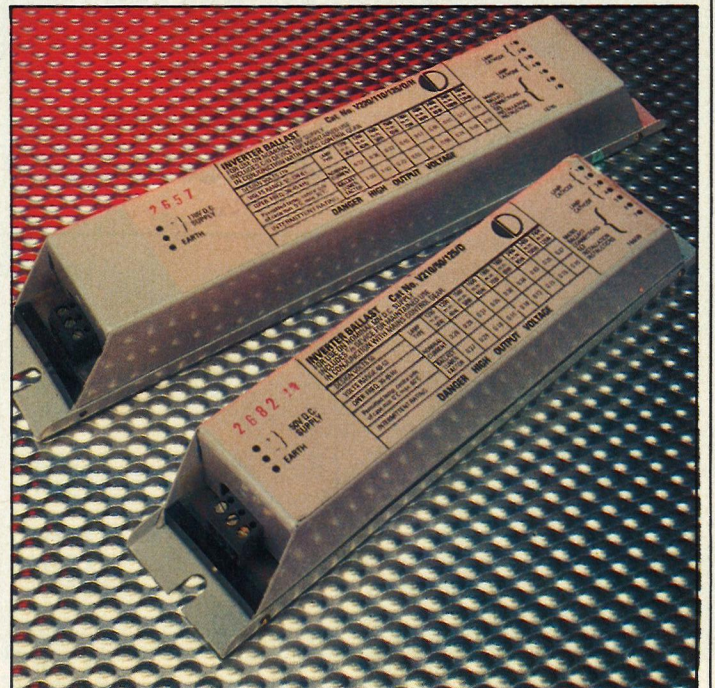
Reader Service No. 7

Central battery inverters

Within the scope of emergency lighting, choosing the most suitable central battery system and associated equipment for the application surely presents the specifier, and in turn the lighting manufacturer with the most complex of tasks. Each project is riddled with a quagmire of ambiguities where the slightest mis-interpretation can prove very costly indeed.

At Orbik, we have combined the innovation of our electronics team with many years' experience of central system and inverter design to provide a range of AC/DC inverters which can cope with standard and non-standard systems alike. Our experience has taught us that in providing the widest range available it was vital that the lamps should perform at their optimum running parameters, especially now that all of our AC/DC inverters can be continuously operated.

To achieve this we have split the



range into three:

For lamps from 4W — 20W (excluding 16W 2D)

For lamps from 24W — 30W (including 16W 2D)

For lamps from 36W — 125W.

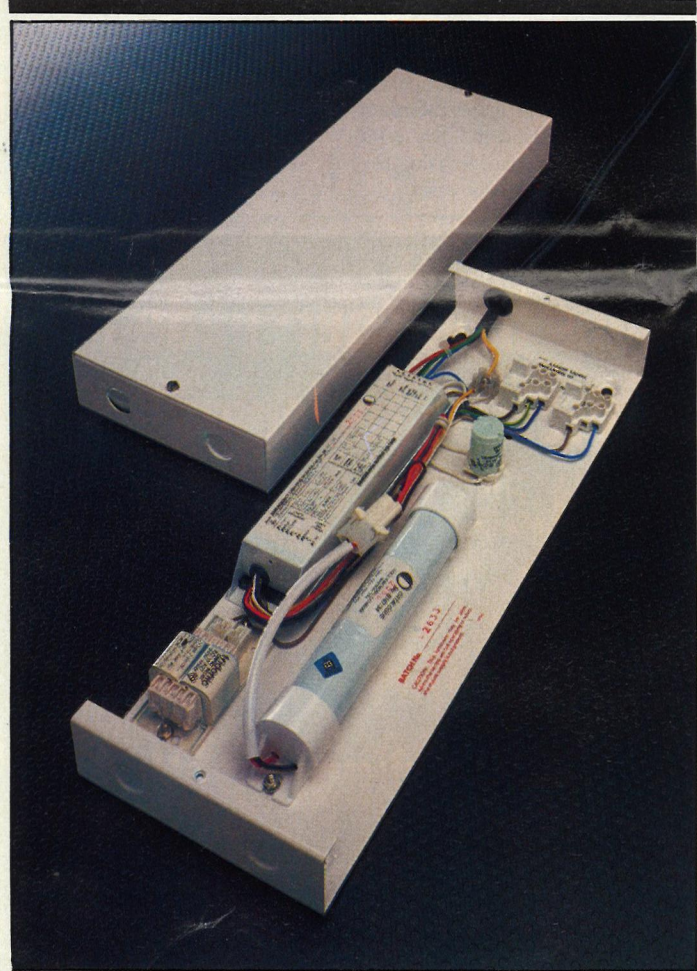
All inverters are available as AC/DC or DC only and can incorporate a changeover or hold off relay if required. Versions are available with very high ballast factors for specific lamps.

Where costs and space are a

prime consideration, inverters without relays can be supplied as open printed circuit boards for lamps from 4 — 30W.

With any installation that may be causing difficulties, our technical back up team with their many years' experience of problem solving will assist with the correct specification and selection of equipment for your project. If in doubt — ASK.

Reader Service No. 10



Remote boxes for fluorescent lamps

Many luminaire manufacturers have experienced problems achieving satisfactory thermal results when converting their standard luminaires with emergency control gear. When heat or space restrictions do not facilitate the embodiment of emergency gear, there is an option to choose a remote box which will house all emergency (and mains) components if necessary.

The box design is very sturdy yet compact — 420mm x 150mm x 50mm — and finished in white epoxy polyester. Its convenient construction incorporates a base compartment complete with four 20mm knockouts without side panels, providing easy access for

wiring into components. Fixing is via four keyhole slots.

Luminaire design and site conditions vary considerably so we can provide any configuration of terminal blocks or plug and socket arrangements to suit our clients' specifications.

Remote boxes for lamps up to 28W 2D can be provided complete with mains components. This offers an installation benefit as the installer can simply connect four wires from the box to the luminaire.

Boxes without mains gear are available to operate all lamps from 10W — 125W including all compact source 4-pin lamps.

Reader Service No. 8

STOP PRESS . . .

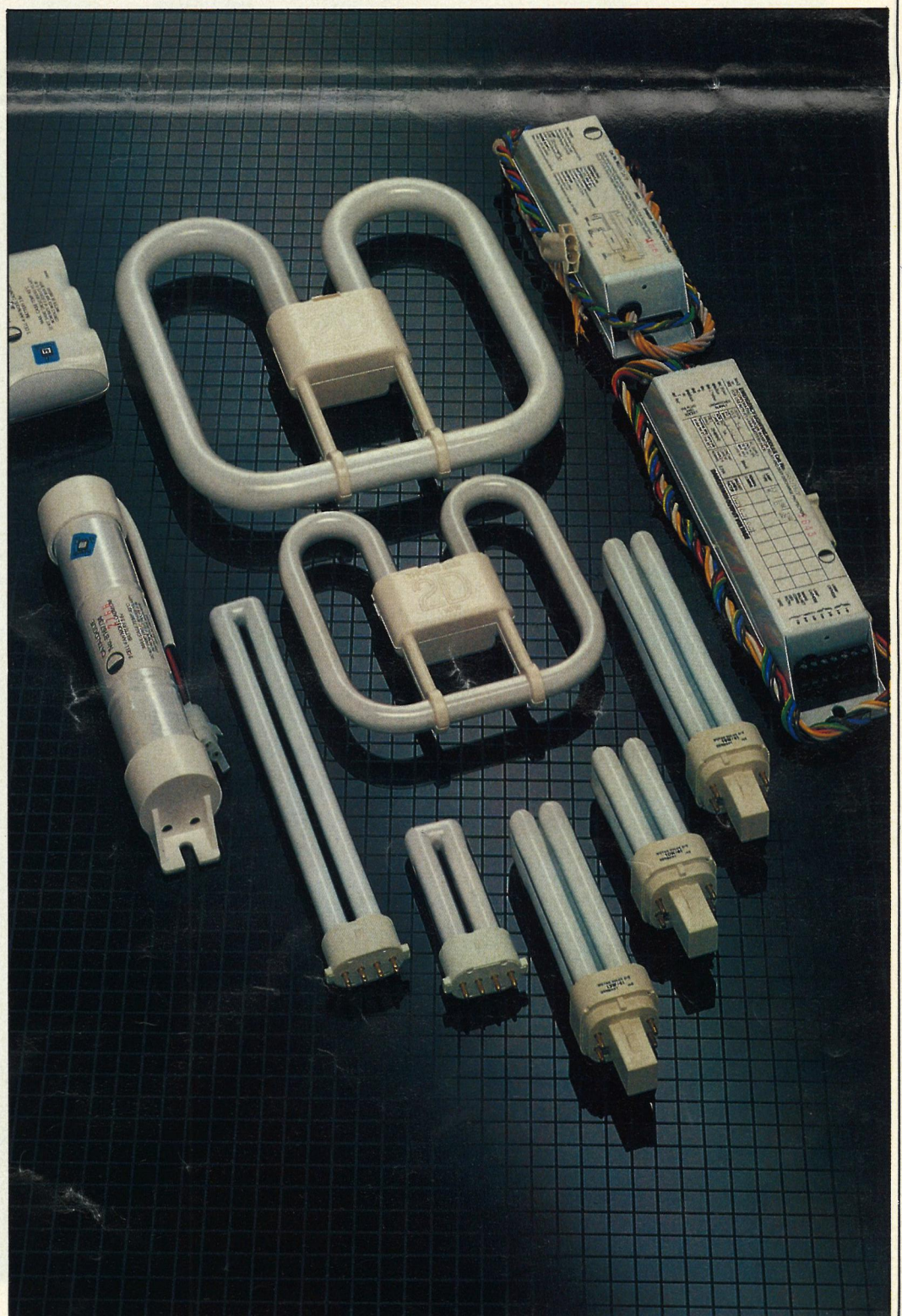
New opportunities for emergency luminaire design with Wotan's new range of S/E pin lamps

We have enjoyed great success with our self-contained 3 cell emergency package for the 10/13 Dulux D/E 4 pin and 16W 2D 4 pin lamps. The advent of the 4 pin compact source lamp without internal starters has encouraged many lighting designers to offer fully maintained emergency facilities within certain luminaires and the lamps have been incorporated into downlighters using a compact remote box as the emergency back-up or even uplighters using the 10W D/E as a non maintained stand-by lamp.

Certain luminaires are not entirely suitable for the short chunky profile of the D/E lamps. Continued market demand has resulted in a brand new range of 5W, 7W, 9W and 11W S/E lamps in the popular 'S' configuration but utilising a 4 pin lampholder.

Tests are still on-going but preliminary work on the 5W and 11W S/E lamps has produced satisfactory results with our 2 and 3 cell non maintained and maintained emergency packages.

Reader Service No. 9



LOW VOLTAGE

Emergency lighting packs for low voltage lamps

To satisfy the increasing demand for low voltage lighting projects, we have produced a range of emergency boxes to operate up to a 12V 50W lamp for various durations depending on the wattage of lamp chosen.

The box has been designed to be as compact as possible — 332mm x 332mm x 102mm — to house up to 4-6V 8AH sealed lead acid batteries which would provide the maximum duration of 3 hours for one 50W tungsten/tungsten halogen lamp.

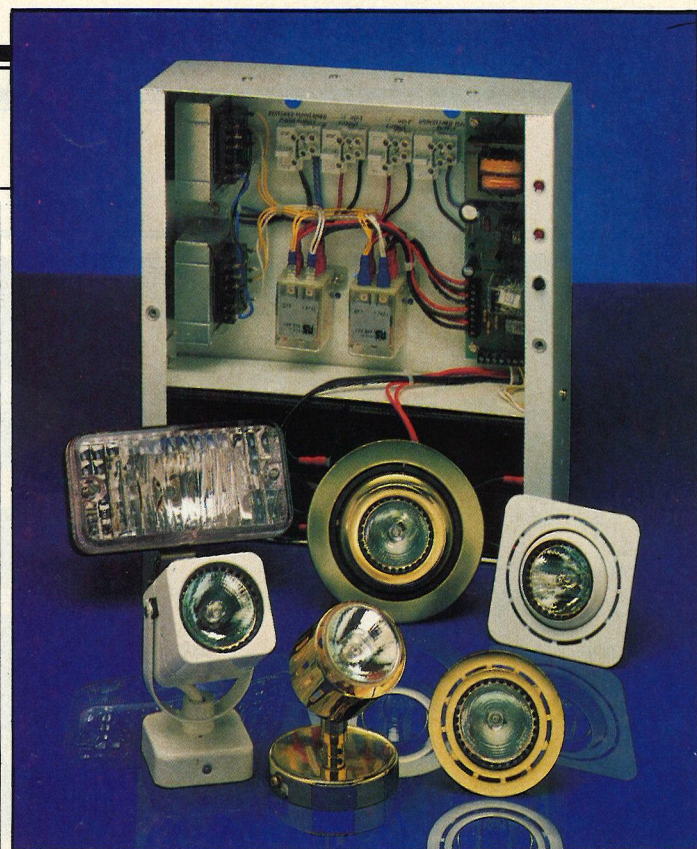
It is available as maintained or non-maintained, and with the maintained version we can provide a transformer within the box to operate the lamp on mains. If the low voltage luminaire is operating from its own mains transformer, the box would be supplied with a heavy duty 25A changeover relay to change the lamp from mains to emergency in the event of power failure. Special wiring looms can be provided to order to suit any variation of box required.

Should there be a requirement for the emergency pack to be used as a self contained twin spot unit incorporating spot lamps, there is a facility in the box to house up to 2 x 20W tungsten/tungsten halogen spot lamps.

Reader Service No. 11

Reader Service No. 13

Cat. No	Lamp Load	Maintained Non-maintained	1 hour	2 hour	3 hour
R760/50	1 x 10W	non-maintained	1 x 10W	1 x 10W	1 x 10W
	1 x 20W	non-maintained	1 x 20W	1 x 20W	1 x 20W
	2 x 20W	non-maintained	2 x 20W	—	—
	1 x 50W	non-maintained	1 x 50W	—	—
R759/50	2 x 20W	non-maintained	—	2 x 20W	2 x 20W
	1 x 50W	non-maintained	—	1 x 50W	1 x 50W
R759/50	3 x 20W	non-maintained	3 x 20W	3 x 20W	—
	4 x 20W	non-maintained	4 x 20W	—	—
	2 x 50W	non-maintained	2 x 50W	—	—
R757/50	1 x 10W	maintained	1 x 10W	1 x 10W	1 x 10W
	1 x 20W	maintained	1 x 20W	1 x 20W	1 x 20W
	2 x 20W	maintained	2 x 20W	—	—
	1 x 50W	maintained	1 x 50W	—	—
R758/50	2 x 20W	maintained	—	2 x 20W	2 x 20W
	1 x 50W	maintained	—	1 x 50W	1 x 50W
R758/50/2 (incorporating 2x50W transformers)	3 x 20W	maintained	3 x 20W	—	—
	4 x 20W	maintained	4 x 20W	—	—
	2 x 50W	maintained	2 x 50W	—	—
Maintained tungsten, remote boxes without maintaining transformer					
R835/50	1 x 10W	maintained	1 x 10W	1 x 10W	1 x 10W
	1 x 20W	maintained	1 x 20W	1 x 20W	1 x 20W
	2 x 20W	maintained	2 x 20W	—	—
	1 x 50W	maintained	1 x 50W	—	—
R836/50	2 x 20W	maintained	—	2 x 20W	2 x 20W
	1 x 50W	maintained	—	1 x 50W	1 x 50W
	3 x 20W	maintained	3 x 20W	—	—
	4 x 20W	maintained	4 x 20W	—	—
	2 x 50W	maintained	2 x 50W	—	—



Low voltage luminaire supplied by Lux Lighting

Compact remote box using Nickel Cadmium batteries

For low wattage lamps ie. 10W or 10W, there is an option to choose a nickel cadmium charger module and battery pack housed with a 420 x 150 x 50mm white sheet steel box. This pack can provide 3 hours duration on a 10W lamp or 1 hour on a 20W or 2 x 10W lamps.

A useful application may be to fit a high intensity discharge luminaire ie. an uplighter with a standby tungsten/tungsten halogen lamp which can operate from the compact nickel cadmium kit either by fixing the box onto the structure or incorporating the individual components within the

luminaire.
Reader Service No. 12



AAC
PLASTICS

FREE-BLOWN
MOULDING

PRESS-MOULDING

VACUUM-
FORMING

FABRICATION &
LINE-BENDING

DRAPE-
MOULDING

PRESS-
MOULDING
in acrylic

VACUUM-
FORMING

Vacuum formers and fabricators of all thermoplastic sheet

Orbik Electronics have 'persuaded' (at vast cost!) their sister company, namely AAC Plastics, to place this advertisement to tell the lighting industry we vacuum form all plastic sheet materials exceedingly well and at very competitive prices.

Now we've told you we would welcome the opportunity to quote

Thank you

AAC

AAC PLASTICS LIMITED

Burnfields Close, Aldridge,
West Midlands WS9 8BE
Tel: 0922 51176 (10 lines)
Telex: 339612 AACLTD Fax: 0922 743640

P.S. AAC Plastics are the official sponsors of Philip Elwell's wedding present.

'Hi-tech' approach aids equipment manufacturers

Philips Lighting has opened a demonstration, training, and conference facility for equipment manufacturers — the Lamp and Component Centre — at the company's Croydon headquarters. The centre is geared to the use of lamps — including ultra-violet and infra-red sources — in original equipment.

The key method of presenting such a wide range of products and

Any meeting needs to include an element of training as well as discussion and demonstration.

When Philips looked to improve its service to manufacturers, a simple showroom was considered inadequate.

applications is through Variwall — a system of 25 floor to ceiling interchangeable display panels which can be viewed up to seven at a time. Display areas — some of which include working models — cover such diverse applications as UVA sunbed simulation, reflector design, fluorescence, high frequency lighting, and temperature considerations in low voltage halogen lamps. Further panels cover infra red lamps, compact fluorescents, disinfection by ultra-violet sources and process applications of ultraviolet.

Other facilities include an infra-red cooker hob, infra-red area warming and a variety of recent light sources and luminaires in a

comprehensive ceiling installation.

A key point in this type of work is that potential customers are often unsure of what can reasonably be done with the lamps and Philips, equally, needs to be involved early in the project to ensure its engineers can get the very best out of the light source chosen. So, any meeting needs to include an element of training as well as discussion and demonstration.

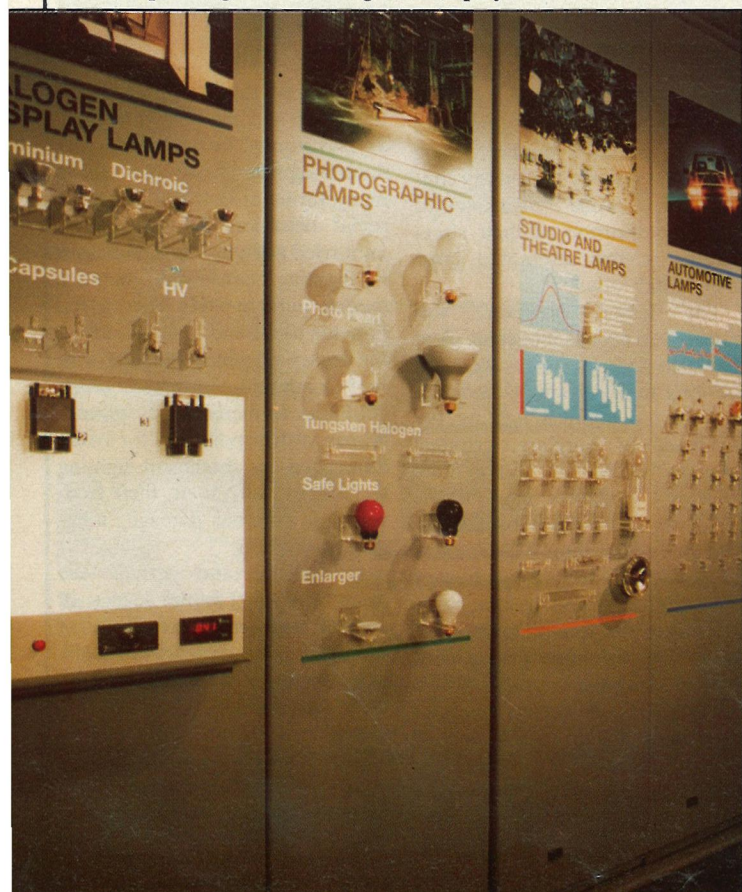
For this reason, a simple showroom was considered inadequate for such purposes. The centre, therefore, features a built-in range of training and conference facilities including a twelve-sided table with rise and fall colour television screens linked to remote controlled video and slide projection equipment and a portable video camera. The intention is to permit clients as well as Philips to train their staff on the premises.



Rise and fall colour television screens in the conference table.



Variwall panels give interchangeable displays.



Variwall panels in position.

DAVIS



From May 5th 1988 these four men will be seen in a different light.

These are the men who had successfully made the Lighting Division of the Davis Group one of the most dynamic forces in the industry.

Men with as much faith in themselves as in their products.

So much so that on May 5th 1988 in a mutually beneficial arrangement, they bought the Company outright from its parent, Eleco Holdings plc. Each is now free to develop the areas it has most expertise in.

The new company is called Davis Lighting Limited and will continue trading from the same address in Romford.

In announcing this change of ownership the four Directors would publicly like to thank all the members of their workforce who have contributed to the success.

They would also like to thank the photographer who, they think, did the best he could.

DAVIS
LIGHTING LTD

DAVIS LIGHTING LTD. SPILSBY ROAD, HAROLD HILL, ROMFORD, ESSEX RM3 8SB. TEL: 04023 71711. TELEX: 299420 MORLEY G. FAX: 04023 76724.

LIGHTING

Looking at outdoor life

CIBSE Lighting Division has embarked on a revision of its Lighting Guide to the outdoor environment. Gerry Worthington reports on the new approach under consideration.

Against a background of urban crime and road accident casualties, the lighting guide to the urban environment is to be revised by the Lighting Division of the Chartered Institution of Building Services Engineers. The original was published in 1975, by the then Illuminating Engineering Society.

It was a guide planned and compiled before the energy crisis, and CIBSE recognises that it now needs to be expanded and upgraded, to become a document that focuses on the considerable scope for effective exterior lighting using energy-saving techniques. Views expressed by members of CIBSE and professional managers in commerce and industry have served to reinforce the technical committee's opinion that the re-issue of a CIBSE application guide on exterior lighting is long overdue.

The original IES publication looked in detail at lighting the outdoor night-time environment, with the priorities oriented towards aesthetics and the achievement of visual compatibility of effect with the spaces and structures it was designed to serve. Obviously, these will always remain important factors which required consideration, but the revised application guide will need to weigh the priorities in terms of energy, security and visual balance. It will indicate techniques and examples of how light may be applied effectively to many of the problem areas and situations presently to be found in our inner cities, commercial business areas and residential estates.

For example, the external surfaces of any building are normally considered for some treatment of

external floodlighting on the premise that the fabric will be enhanced by the lighting effect. It is normally then accepted that an additional 'spin-off' benefit will be the improved security. However, the climate is such that we should be in a reverse situation; we ought now to consider the external skin of a building as its primary line of defence against intrusion and further, that the external walls should be considered as the first and only line of defence if the building is not situated within some other form of secure perimeter. The purpose of the building envelope is to contain and afford protection to the occupants, and all the contents within. Lighting that has been well conceived, whether it is internal or external, is now a vital component of building management, and it is anticipated that the revised application guide will offer practical advice to assist in the application of lighting in a crime prevention role.

The CIBSE is ideally placed to deal sensitively with the aims, objectives and principles of lighting exterior spaces and structures and through the Lighting Guide to qualify the benefits that may be derived by a community from its investment in exterior night-time lighting.

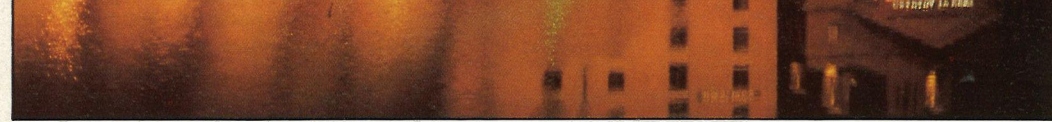
Sections on methods of design and calculation will be expanded and all the latest data on lamps and luminaires will be included.

Residential

It is hoped to include a selective amount of guidance for various types of residential areas — not the lighting requirements for the public lighting of roadways, but helpful guidance towards the achievement of visual satisfaction within the community. Criteria in

terms of comfort, pleasantness, visual orientation, and illumination of the space to provide minimum recognition distances are all new and exciting concepts for residential area lighting. Many crime prevention officers express disappointment that many Home-watch schemes suffer in their potential effectiveness because of poor standards of residential lighting; many residents losing interest because easy observation across the street was not possible.

At present, the need to demonstrate trading profits is of prime interest to local authorities and the involvement of the direct labour



Floodlighting at the Albert Dock, Liverpool, made a considerable difference to the skyline at night.

organisations in their operations is stimulating authorities to review their procedures in lighting. It is vital that those local authorities are encouraged to consider their community lighting not only as the statutory street lighting commodity, but in terms of community safety and security.

It is hoped that the new publication will serve as an organiser for project justification, approval,

design and equipment installation, and will assist in the pursuit of good quality exterior lighting.

Good roadway lighting has always been accepted as being virtually indispensable to our motorised urbanised society. It plays a major role in enabling traffic to keep moving swiftly and safely and research has shown how its presence significantly reduces traffic accidents.

in burglary offences and a 59% increase in thefts from unattended motor vehicles during the hours of darkness compared with the same period in 72/73. The Lancashire Constabulary gave detailed information which indicated there was an overall increase in criminal activity for this period of 55%.

The tragic fact about these deplorable statistics is that they resulted from negative attempts at saving energy, and that the wounds, which have been self-inflicted, show no signs of healing. As a nation we appear to take for granted now the fact that some 6000 deaths occur on our roads every 12 months — about 17 people every single day, the greater proportion of those on other classes of roads than motorways. A detailed analysis of the relationship of accident costs to accident savings is not possible within the scope of this article. Studies over the years have confirmed the effectiveness of good road lighting. It is time however, now to evaluate how to establish priorities for the night-time visual environment so that a balanced, energy effective decision on the provision of lighting may be reached.

Every fatal accident costs the UK taxpayer £170 000. Can we as a nation go on indefinitely spending some 2% of the gross national product on death, and not engage ourselves in the enterprise of improved safety? If we accept that there is an identifiable relationship between light and the incidence of roadway accidents, the instantaneous increase in crime that accompanied the lighting cuts of 1974 surely demonstrates a relationship between light and crime.

Take a stand

Fortunately, this is much simpler to explain and can be summarised as opportunity. Darkness provides natural concealment and allows many forms of criminal and anti-social behaviour to take place, unhurried and unseen. Reductions in lighting conceived to save money unfortunately have given impetus to a trend in street crime, the legacy of which remains with us. Community oriented crime continues to increase; the type of crimes with a potential for being influenced by intelligent lighting techniques; auto theft, theft from vehicles, criminal damage, mugging, vandalism.

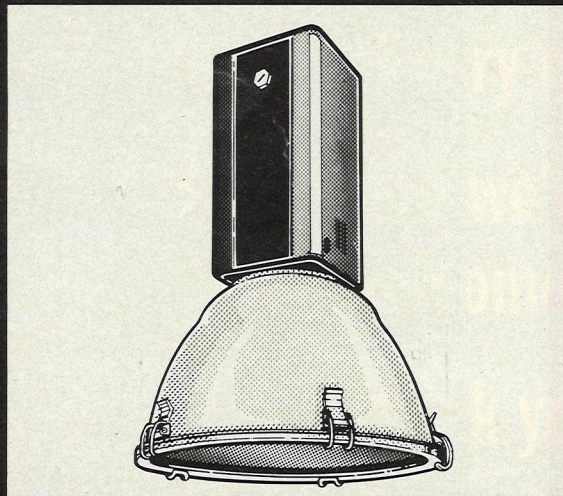
In addition and perhaps the more worrying, is the legacy of anxiety and fear, particularly of the older generation who are now anxious about many aspects of their personal security if they live alone.

Can we afford not to make a stand against economic pressures by permitting so much lethargy to continue about the role lighting can play so well?

Gerry Worthington FCIBSE AMILE is an independent lighting specialist.



Gower Memorial, Stratford-upon-Avon, floodlit with a mixture of tungsten halogen and high pressure sodium by F W Thorpe.

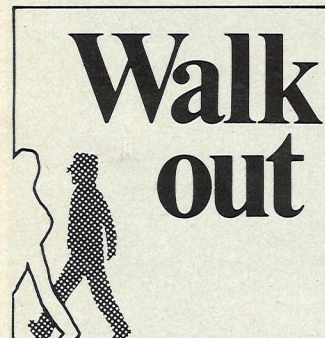


H-I-G-H B-A-Y L-I-G-H-T-I-N-G

These versatile high bay fittings are just part of the brand new Abacus range of more than 123 different luminaires for every possible lighting situation. If you'd like our comprehensive literature pack please use the Reader Service Card or ring 0623 511111 - it could make illuminating reading!

Abacus

Abacus Municipal Ltd · Sutton-in-Ashfield · Notts NG17 5FT
Reader Service No. 18



Walk out

Why light empty rooms?

RIPUL offer energy-savings with this automatic person detector.

Existing lights switch ON when anyone enters its 15m range — with automatic switch OFF 10 minutes after room is vacated. Photocell override during daylight (Time and Lux adjustable).

Easily installed — simply snap into a Rock KLIK-AX ceiling socket.

Order code RCO6AS PIR and RPC SOC.

Switches are readily available from Home Automation Distributors.

Phone (0992) 446633 for nearest distributors.

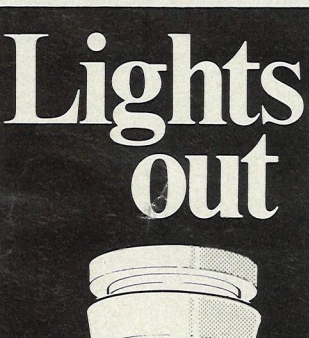
RIPUL Ltd., Pindar Road, HODDESDON, Herts, EN11 0ET. Tel: (0992) 446363 Telex: 28826

ripul

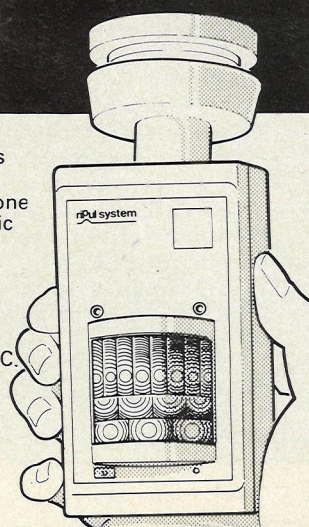
PLUG-IN OCCUPANCY DETECTOR

Reader Service No. 24

Page 14



Lights out



£39.50

TRADE

Contact:
Joanne Barker

WHERE TO BUY DIRECTORY

Telephone:
01-441 6644 Ext.1154

ACCESSORIES — BRASS PRESSED AND TURNED

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

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



Castelco (GB) Ltd.,
High Street, Old Woking,
Surrey GU22 9LE
Tel: 04862 4172/3
Fax: 04862 5317
Reader Service No. 52

Collingwood—VLM Ltd.,
17 Stillbrook Road,
Olney
Bucks
MK46 5LS
Tel: 0234 712121

LIGHT SOURCE

**Light Source Electrical
Equipment Ltd.,**
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 01-960 2188
Telex: 915506
Fax: 01-960 8901

ACCREDITED SAFETY TESTS



Albury Laboratories Ltd.,
Albury, Guildford,
Surrey GU5 9AZ
Tel: (048641) Shere
2041/4
Telex: 859336 Albury G



SGS Quality Control Int.
Alperton Lane,
Wembley, HA0 1WU
Tel: 01-998 2171

ALUMINIUM LOW BRIGHTNESS AND YOU LOUVRES



Avonlux Limited,
Nathan Way, Woolwich
London SE28 0AZ
Tel: 01-854 3388
Telex: 896061 (ALPA G)

Maxi Engineering Company,
26/32 Plumstead High St.,
London SE18 1SL
Tel: 01-854 3181

ALUMINIUM — PURE ANODISED, PAINTED & OTHERS

Alcan Metal Centres Ltd.,
Birmingham New Road,
Tipton, West Midlands
DY4 9AG
Tel: Sedgley (09073) 4133
Telex: 336074

ANODISED ALUMINIUM COIL AND SHEET

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

Alanod
Garfield Lewis Ltd.,
PO Box 21, Banbury,
Oxon OX17 2ES.
Alanod pre-anodised
aluminium strip and blanks
from stock held in the
following service centres:
London 01-805 7320
Camberley 0276 26974
Birmingham 021-554 5242
Bristol 0272 637471
Altrincham 061-928 6499
Leeds 0532 434566
Tyne & Wear 091-416 8254
Glasgow 041-946 0221

BATTENHOLDERS/ CEILING ROSES/ JUNCTION BOXES

**Rock Electrical Accessories
Ltd.,**
Commerce Road,
Brentford,
Middx. TW8 8LN
Tel: 01-560 8151
Telex: 264803

BATTERY BASED EMERGENCY STANDBY SYSTEMS

Colbere Eng Ltd.,
Church Lane,
Caldwell, Burton on Trent,
DE12 6RT
Tel: 0283 761267



P. B. Design/Dev
Batteries, Chargers, U.P.S.
Emergency Lighting
Systems, Service and
Sales.
24 Stokes Croft
Bristol BS1 3PR
Tel: 0272 40248
Telex: 444220 COMTEL
Reader Service No. 53

BEGA LIGHTING STOCKISTS LIGHTING COLUMN SUPPLIES UNDERWATER LIGHTING

Exterior-Lite Services Ltd.,
Unit 4, The Empire Centre,
Imperial Way, Watford,
Herts, WD2 4YH
Tel: 0923 247254
Telex: 916196

BULKHEAD LUMINAIRES — TUNGSTEN AND ENERGY SAVING



BG Electrical Accessories
Arlen House,
808 Oxford Avenue
Slough, Berks
Tel: 0753 37921
Telex: 847194
Fax: 0753 691468

**Super Electrical Products
(Walsall) Ltd.,**
Commercial Road,
Leamore Industrial Estate,
Walsall,
West Midlands WS2 2NH
Tel: 0922 710333
Telex: 333394 super

CABLES/SILICONE

Technical Silicones Ltd.,
3rd Floor,
Stamford House,
Stamford New Road,
Altrincham,
Cheshire WA14 1BL
Tel: 061-941 5766

COLD CATHODE

National Signs Ltd.,
1 Hampshire Street
London NW5 2TE
Tel: 01-485 3363
Cold Cathode/Lighting
installations * servicing
nationwide. Wide range of
colours.

S.W.1.

We are Specialist
Consultants in Cold Cathode
and Neon Lighting. Our
company undertakes
design, supply and
Installation. Contact Mr
Beecroft or Mr Watts on 01-
720 2650/01-720 4305

COLOURED SLEEVES FOR FLUORESCENT TUBES

“COLORAP”

E.C. Hinton & Co. Ltd.,
225 Cannon Hill Lane,
London SW20 9DB
Tel: 01-540 5813

COMBINED MAINS AND EMERGENCY LUMINAIRES

EXISTALITE LTD

Project House,
156 Crow Lane,
Romford, Essex RM7 0ES
Tel: 0708 751002
Telex: 262916 APEX

DECORATIVE LIGHTING GLASS

Collingwood Lighting Glass Ltd.,
17 Stillbrook Road,
Olney
Bucks
MK46 5LS
Tel: 0234 712121

DECORATIVE OUTDOOR LIGHTING

D.R. Illuminations
Whitegate, Broadway,
Chadderton, Oldham
Lancs OL9 9QG

DECORATIVE WIRE

Arthur Bridgens Ltd.,
Tel: 0742 21477
Fancy, decorative wires
rolled in brass to
customers design

DIMMERS



DFP Electronics Ltd
Meadow Road,
Apperley Bridge
Bradford, BD10 0LY
Tel: 0274 616395

R. Hamilton & Co. Ltd.,
Unit G, Quarry Ind. Estate,
Mere, Warminster,
Wilts. BA12 6LA
Tel: 0747 860088
Telex: 41416 HAMLIT G
Fax: 0747 861032

OXTRON Digital Systems

2 Severn Way
Watford WD2 6DJ
Tel: (0923) 672058
Fax: 09236 71592

Rossula Environment Lighting,
Unit 11, Fairway Drive
Greenford, Middlesex
Tel: 01-575 2288 (8 lines)

Strand Lighting (Environ),
Grant Way (off Syon Lane)
Isleworth
Middlesex TW7 5QD
Tel: 01-560 3171
Telex: 27976
Fax: 01-568 2103

HELVAR

Helvar Ltd.,
1 Ealing Road Trading Est.
Ealing Road, Brentford,
Middlesex TW8 0QY
Tel: 01-568 6205
Fax: 01-568 6473
Telex: 291439 HELVARG

Home Automation Ltd.,
Pindar Road,
Hoddesdon,
Herts. EN11 0ET
Tel: 0992 460355
Telex: 28826

Polaron Controls Ltd.,
21 Greenhill Crescent,
Holywell Ind. Estate,
Watford, Herts WD1 8XG
Tel: 0923 40272/5
Telex: 934191

Strand Lighting (Environ),
Grant Way (off Syon Lane)
Isleworth
Middlesex TW7 5QD
Tel: 01-560 3171
Telex: 27976
Fax: 01-568 2103

United Automation Ltd.,
Heat Lamp Dimmers
Liverpool Road,
Southport PR8 4PJ
Tel: 0704 65713
Telex: 67464 UNITAM

EFFECT & DISPLAY LIGHTING

Lightfactor Sales Limited
Unit 11, Fairway Drive,
Greenford, Middlesex
Tel: 01-575 5566 (8 lines)
Effect Lighting & Sound
Distributors

ELECTRONIC CONTROL GEAR

LEL

Lighting Electronics Limited
P.O. Box 28
Havant, Hants PO9 2UB
Tel & Fax: 0705 483687
FASTLUX fitted for life fast
electronic starters for
fluorescent fittings.

Tridonic

Tridonic Ltd.,
Unit D1, Grafton Way
West Ham Industrial Estate,
Basingstoke, Hampshire,
RG22 5HY
Tel: 0256 843232
Telex: 858137
Fax: 0256 840113



Ram Electronics (UK) Ltd.,
Iron Row,
Burley in Wharfedale,
West Yorks LS29 7DB.
Tel: 0943 863884
Telex: 518285 RAM G
Transformers. Electronic for
low voltage lighting. High
frequency fluorescent
electronic ballasts. Panel
dimmers.

EMERGENCY LIGHTING CONTROL GEAR

ORBIK

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

EMERGENCY LIGHTING EQUIPMENT

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

EXISTALITE LTD

Existalite Ltd,
Project House,
156 Crow Lane, Romford,
Essex RM7 0ES
Tel: 0708 751002
Telex: 262916 APEX



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

MATALEX

Matalex
West Side Old Stables,
Birlingham,
Pershore, Worcs.
WR10 3AA.
Tel: 0386 750900
Telex: 334066

**Menvier (Electronic
Engineers) Ltd**
Southam Road, Banbury
Oxon. OX16 7RX
Tel: 0295 56363/273939
Telex: 837829 MENVI G

Plasmold Safety Systems,
Bruntcliffe Lane,
Morley,
Leeds,
West Yorkshire,
LS27 0LZ
Tel: (0532) 521220
Telex: 556322



Ring Electronics Ltd.,
Croydon House,
17 Domestic Street,
Leeds, LS11 9RT
Tel: 0532 421666
Telex: 556101

**Secundalux Emergency Lighting
Ltd.,**
Gratrix Works, Gratrix Lane
Sowerby Bridge
West Yorkshire HX6 2PH
Reader Service No. 50

ENERGY MANAGEMENT LIGHTING CONTROL

Concord Controls Ltd.,
3 Dawson Road,
Mount Farm, Milton Keynes,
Bucks MK1 1LH
Tel: 0908 644366
Fax: 0908 644166

ripul limited

Pindar Road,
Hoddesdon EN11 0ET
Tel: 0992 460355
Reader Service No. 51

Rossula Environment Lighting,
Unit 11, Fairway Drive
Greenford, Middlesex
Tel: 01-575 2288 (8 lines)

ENVIRONMENTAL LIGHTING CONTROL

OXTRON Digital Systems

2 Severn Way
Watford WD2 6DJ
Tel: (0923) 672058
Fax: 09236 71592

FLUORESCENT COMPONENTS AND ACCESSORIES



EFA Ltd.,
Arlen House,
808 Oxford Avenue,
Slough, Berks.
Tel: 0753 37921
Telex: 847194
Fax: 0753 691468

LIGHT SOURCE

**Light Source Electrical
Equipment Ltd.,**
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 01-960 2188
Telex: 915506
Fax: 01-960 8901



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

Tridonic

Tridonic Ltd.,
Unit D1, Grafton Way,
West Ham Industrial Estate,
Basingstoke, Hampshire
RG22 5HY
Tel: 0256 843232
Telex: 858137
Fax: 0256 840113

FLUORESCENT/ DISCHARGE CONTROL GEAR

HELVAR

Helvar Ltd.,
1 Ealing Road Trading Est.
Ealing Road, Brentford,
Middlesex TW8 0QY
Tel: 01-568 6205
Fax: 01-568 6473
Telex: 291439 HELVAR G

LIGHT SOURCE

**Light Source Electrical
Equipment Ltd.,**
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 01-960 2188
Telex: 915506
Fax: 01-960 8901

PARMAR

W. J. Parry (Electrical) Ltd.,
Victoria Mills,
Draycott, Derby DE7 2PW
Tel: 03317 2321
Fax: 03317 4035
Telex: 37374

FLUORESCENT LIGHTING COMPONENTS/TERMINAL STRIPS/STARTER SWITCHES



EFA Ltd.,
Arlen House,
808 Oxford Avenue,
Slough, Berks.
Tel: 0753 37921
Telex: 847194
Fax: 0753 691468

GASKET MANUFACTURERS

Kaymar Rubber and Plastics Ltd.,
Stanmore Industrial Estate,
Bridgnorth, Shropshire,
WV15 5HP
Tel: 07462 61343
Telex: 334506

GENERATING SETS

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

GOLD PLATING OF LAMPS AND CHANDELIERS

Somerville Laboratories Ltd.,
2 Quebec Way,
Redriff Road,
London S.E.16 1LF
Tel: 01-231 1359
Reader Service No. 54

Contact:
Joanne Barker

WHERE TO BUY DIRECTORY

Telephone:
01-441 6644 Ext.1154

Contact:
Joanne Barker

WHERE TO BUY DIRECTORY

Telephone:
01-441 6644 Ext.1154

HI TEC AND LOW ENERGY DESIGN LIGHTING



Offital UK Limited
Myddleton Hall
Almeida Street
London N1 1TD
Tel: 01-226 3443
Telex: 94012823 (SSPL G)
Fax: 01-354 1397

INDUSTRIAL OUTDOOR FESTOON LIGHTING

D. R. Illuminations
Whitegate, Broadway,
Chadderton, Oldham
Lancs OL9 9QG

Deta (Electrical) Co. Ltd.,
Deta House,
Westmoreland Road,
London NW9 9RN
Tel: 01-206 0515 (6 lines)

LAMP HOLDERS

Collingwood-VLM Ltd.,
17 Stillbrook Road,
Olney
Bucks
MK46 5LS
Tel: 0234 712121



EFA Ltd.,
Arlen House,
808 Oxford Avenue,
Slough, Berks.
Tel: 0753 37921
Telex: 847194
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. Hackney & Co. Ltd.,
Westport Road, Burslem,
Stoke-on-Trent ST6 4AP
Tel: 0782 577575
Telex: 36674
Fax: 0782 575230

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

LIGHT SOURCE

**Light Source Electrical
Equipment Ltd.,**
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 01-960 2188
Telex: 915506
Fax: 01-960 8901

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

BENDER + WIRTH



C. Quitman Ltd.,
Sole Agent and Stockist for
Bender and Wirth
Ullswater Crescent,
Marlpit Lane, Coulsdon,
Surrey CR3 2HR
Tel: 01-668 5295/6
Telex: 945809

Rock Electrical Accessories Ltd.,
Commerce Road, Brentford,
Middlesex TW8 8LN
Tel: 01-560 8151
Telex: 264803

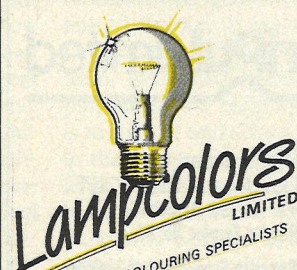


Tridonic Ltd.,
Unit D1, Grafton Way,
West Ham Industrial Estate,
Basingstoke, Hampshire
RG22 5HY
Tel: 0256 843232
Telex: 858137
Fax: 0256 840113



Vossloh Ltd.,
122 Tanners Drive,
Blakelands,
Milton Keynes MK14 5BP
Tel: 0908 611060
Telex: 825606 LIVO G
Fax: 0908 613131

LAMP COLOURING



Lampcolors Ltd.,
Wiseman Street,
Burnley,
Lancs BB11 1RU
Tel: 0282 56231/2
The largest independent
lamp spraying company
in Europe, with the fastest
turnround of orders in the
business.

Lampspray (Lampcolourers)
Unit 41/42,
Cromwell Industrial Estate,
Staffa Road, London E10
Tel: 01-539 7785

LAMP SHADE FRAMES

Brendon C. Hoarau,
149 Tideswell Road,
Eastbourne, Sussex
Tel: 0323 37096
Frames plastic coated
delivered anywhere in
England. Good quality, good
prices, fast and reliable
delivery.

LAMPS AND LIGHTING

American Lamps and Lighting Ltd.,
367 Uxbridge Road,
Acton, London W3 9RH
Tel: 01-993 3181
Telex: 894452



Chadwell T.S.M. Ltd.,
Unit No.2
Southbrook Mews,
Southbrook Road, Lee,
London SE12 8QL
Osram-Thorn-Philips-
Omega-Wotan.
Tel: 01-318 5071

MS Electrical Wholesale Ltd.,
Unit 2, Waterside,
Maidstone, Kent ME14 1LE
Tel: 0622 683731/2

H. J. Rose,
84 Boundary Road,
London E17 8JU
Tel: 01-521 5845
Coloured lamps a
speciality.

TUNGSRAM

Tungsramp Lighting Ltd.,
151b Park Road
St John's Wood
London NW8 7HT
Tel: 01-722 6611
Telex: 266086 TULITE G
Fax: 01-586 1758

LIGHTING ACCESSORIES/ CONNECTORS

**Rock Electrical
Accessories Ltd.,**
Commerce Road,
Brentford, Middx. TW8 8LN
Tel: 01-560 8151
Telex: 264803
The revolutionary new
KLIC connector makes a
mechanical and electrical
connection simultaneously.

LIGHTING COLUMNS

**Bollards, Modern/Period Style
Lanterns, Repairs & Restorations.**
P.M. Restoration Ltd.,
(Victorian Lamp Co.)
Unit 1, Aysgarth Road,
Waterloo, Hants.
Tel: 0705 258107/261311
Fax: 0705 241602

LIGHTING CONSULTANTS

Light Years,
4 Hutton Grove,
London N12 8DS
Tel: 01-446 6021

LIGHTING DIFFUSERS

**Diffuser Replacement
Services,**
197 Eade Road,
London N4 1DN
Tel: 01-802 1429
Fax: 01-800 9819
Manufacturers of all types of
diffusers and metal louvers.

LIGHTING DIFFUSERS/ PLASTICS

Arrow Plastics Ltd.,
Arrow Works,
Hampden Road,
Kingston-upon-Thames,
Surrey
Tel: 01-546 6258
Telex: 8955343

LIGHTING GLASS

Glastics Ltd.,
Common Lane,
Wath-upon-Dearne,
Rotherham, S63 7DY
Tel: 0709 878721
Telex: 547455



C. Quitman Ltd.,
Ullswater Crescent,
Marlpit Lane, Coulsdon,
Surrey CR3 2HR
Tel: 01-668 5295/6
Telex: 945809

LIGHT MEASURING INSTRUMENTS

Bentham Instruments Ltd.,
2 Boulton Road,
Reading,
Berks RG2 0NH
Tel: 0734 751355
Telex: 848686 BENTMG



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

Megatron Limited,
165 Marlborough Road,
London N19 4NE
Tel: 01-272 3739

Micron Techniques Ltd.,
Representing (Photo
Research, Optronics Labs,
LMT, Berlin)
15 Riverside Park,
Wimborne Minster,
Dorset BH21 1QU
Tel: 0202 841261
Fax: 0202 884353
Telex: 417204 MICRON G



Minolta UK Limited,
1-3 Tanners Drive
Blakelands North
Milton Keynes
MK14 5BU
Tel: 0908 211211

LIGHT SOURCES & COMPONENTS TO OEM MANUFACTURERS



EFA Ltd.,
Arlen House,
808 Oxford Avenue,
Slough, Berks.
Tel: 0753 37921
Telex: 847194
Fax: 0753 691468

**Thorn EMI Lamps &
Components Ltd.,**
Miles Road, Mitcham,
Surrey CR4 3YX
Tel: 01-640 1221
Telex: 25534 TELC.G

LOW BRIGHTNESS VDU LOUVRES

ALC CELLITE LIMITED
AMERICAN LOUVER COMPANY

A.L.C. Cellite Ltd.,
Unit 16 Alder Ind. Est.,
Betam Road, Hayes,
Middlesex UB3 1ST
Tel: 01-848 1881

MANUFACTURERS OF SPECIAL AND PURPOSE MADE FITTINGS

Maxi Engineering Co.,
26/32 Plumstead High St.,
London SE18 7SL
Tel: 01-854 3181



Vector Lighting Ltd.,
Porte Marsh Estate,
Calne, Wiltshire SN11 9PU.
Tel: 0249 814548
Telex: 445966 TEKCON G

SYMONDS

Symonds Engineering plc,
High Street, Cheshunt,
Herts EN8 0BU
Tel: 0992 26222
Telex: 28725
Luminaires/louvers, major
trade suppliers.
BS5750 part 2.
Contact: Steve Law.

METAL FINISHERS

Shield your metal products
with



Armourfin
A superb simulated brass or
gunmetal finish on steel and
other metals.
Will not tarnish or oxidise.
Does not affect springs or
hinges.
Other colours available.
All finishes to a high gloss.

Regency Line Ltd.

3-9 Norman Road, Ilford,
Essex IG1 2NQ
Tel: 01-553 1551/1779

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.,
29 Hunters Road
Birmingham B19 1DP
Tel: 021-554 0424
Metal Spinners for the
Lighting Industry.

Anglia Spinners,
Spinnings, presswork,
spraying & finishing,
Unit 115a,
Little Staughton Airfield,
Little Staughton, Beds
Tel: Colmworth
0230 62 398

H.D. Collins Ltd.,
Delamare Road,
Cheshunt,
Herts. EN8 9TB
Tel: 0992 25981/24936.
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: 01-902 2153
01-903 3171

**K.A.S.
Metal Spinning Ltd.,**
Glebe Farm, Creake Road
Sculthorpe, Nr Fakenham
Norfolk NR21 9NF
Tel: 0328 55208

COLOUR LOGOS

You can now add even further impact to your
message by running your company logo in
colour.

The cost of a colour logo is £20 per month, and
for black & white £10 per month. If you would
like to benefit from this improved service phone
Joanne Barker on 01-441 6644 ext 1154.

Jacksons General Metal Spinners
Prototypes and small
quantities a speciality
Paramount Industrial Estate
Sandown Road
Watford, Herts
Tel: 0923 50510

METAL SPINNING/ASSEMBLY ANODISING/PRESSWORK METAL WORK/SPRAYING

Shawe Metal Spinners Ltd.,
Injection Moulders &
Component suppliers. The
complete Lighting Services.
Tariff Road, London,
N17 0EJ
Tel: 01-808 1271
Telex: 25545

MINIATURE FILAMENT LOW VOLTAGE, SIGNAL AND PROJECTOR LAMPS

Lita Lamps Ltd.,
11 Woodcock Hill,
Kenton, Harrow
Middx. HA3 0XP
Tel: 01-907 3651

NATURAL LIGHT LAMPS NULITE AND SUNGRO LITE

Sungro-Lite

Sungro-Lite Limited
Tel: 01-459 2636
C.S.M. Lighting
Tel: 0666 53499
Lampa
Tel: 021 233 3883
City Electrical Factors Ltd.,
(Branches throughout U.K.)

NEODYMLITE LAMPS

High Fidelity Lighting Ltd.,
14 Tenby Street, North,
Birmingham B1 3EN
Tel: (021) 233 3222.

NEON TUBES, ELECTRONIC AND HT TRANSFORMERS AND ACCESSORIES

P. J. Mason & Co. Ltd.,
36 Second Avenue,
Chatham, Kent ME4 5AX
Tel: 0634 812751 (4 lines)

ORIENTAL LAMPS AND SHADES

**50-Steps Lighting International
Ltd.,**
5th Floor
Federal Centre
77 Sheung on Street
ChaiWan, Hong Kong.
Tel: 5 897 1060
Telex: 78049 FIFTY HX

PETROL FORECOURT UNDER CANOPY LIGHTING UNITS

National Signs Limited,
1 Hampshire Street,
London NW5 2TE
Tel: 01-485 3363

PLASTER WALL UPLIGHTS

Tornado Lighting
235 Upper Richmond Road,
Putney, London SW15 6SN
Tel: 01-788 2324
For top quality wall lights in
T/Halogen GLS and PL.
Phone or write for brochure.

PLASTIC POLYCARBONATE SHEET



C. Quitman Ltd.,
Sole Agent and Stockist for
Dansk Kunststof Industri A/S
Ullswater Crescent,
Marlpit Lane, Coulsdon,
Surrey CR3 2HR
Tel: 01-668 5295/6
Telex: 945809

PRE-HEAT ELECTRONIC STARTER SWITCHES

Pulsestarter

**Pulsestarter
Arlen**
Arlen House
808 Oxford Avenue
Slough, Berks
Tel: 0753 37921
Telex: 847194
Fax: 0753 691468

PRESSWORK

M.R.L. Ltd.,
115 Brunswick Park Road,
New Southgate,
London N11 1JR
Tel: 01-368 2267/8

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

Argand Lighting Limited
Units 12/14
Roxwell Trading Park
Argall Avenue, Leyton,
London E10 7QE
Tel: 01-556 6423
Contact: Barry Davolls
Established supplier to
major brand names.

SPECIAL & PURPOSE MADE FITTINGS

DAVIS CASH

Davis, Cash & Co. Ltd.,
Alexandra Road,
Enfield, Middx.
Tel: 01-804 4028

SPECIAL & PURPOSE MADE FITTINGS



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 louvers
to the Trade.

Contact:
Joanne Barker

WHERE TO BUY DIRECTORY

Telephone:
01-441 6644 Ext.1154

WHERE TO BUY DIRECTORY

SPRINGS & WIRE SHAPES FOR DIFFUSERS AND LOUVRES

MH Springs Ltd.,
Unit 5, Brunswick Park
Industrial Estate, London
N11 1JF
Tel: 01-368 0004
Fax: 01-368 0078

STANDARD & SPECIAL LUMINAIRES & FLUORESCENT LIGHTING DESIGN SERVICE

Maxi Engineering Co.,
26 Plumstead High Street,
London SE18 1SL
Tel: 01-854 3181

STEEL LIGHTING COLUMNS

Concrete Utilities Ltd.,
Lower Road,
Great Amwell,
Ware, Herts.
Tel: 0920 2272/6
Telex: 81398

SWITCHES



Castelco (GB) Ltd.,
High Street, Old Woking,
Surrey GU22 9LE
Tel: 04862 4172/3
Fax: 04862 5317
Reader Service No. 52

D.P. Distribution Ltd.,
Ricebridge Ind. Estate
Thorpe-le-soken
Essex CO16 0HH
Tel: 0255 862001
Fax: 0255 862014
We specialise in TILT/TIP
switches and RELAYS/
CONTACTORS.

TOROIDAL TRANSFORMER MANUFACTURERS

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



Lemark Electronics Ltd.,
12 Bridge Road,
Haywards Heath, W. Sussex
RH16 1UA
Tel: 0444 450501
Telex: 87117



Toroid Technology Ltd.,
175A Brigstock Road,
Thornton Heath,
Surrey CR4 7JP
Tel: 01-689 8002, 684-4217
Telex: 8813271 Gecom G

TOWER/MAST FLOODLIGHTING

Francis & Lewis Ltd.,
The Runnings,
Kingsditch Estate,
Cheltenham,
Gloucester GL51 9NJ
Tel: 0242 513882
Telex: 43428

Padnall Structures Ltd.,
27 Cheyne Walk, Horley,
Surrey
RH6 7PE
Tel: 0293 784168

Towermaster Steelwork Ltd.,
Braintree,
Essex CM7 7YN
Tel: 0376 24809
Telex: 987312 TOWERS G

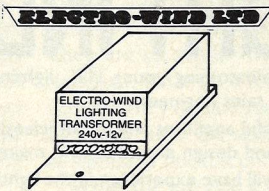
TRANSFORMER MANUFACTURERS

A. A. Samsons Electronics Ltd.,
Lighting Transformer
Specialists
23 Crawford Place,
London W1
Tel: 01-262 5125 or
01-723 7851

Burrows Electrical Ltd.,
Railway Street,
Chelmsford, Essex
Tel: 0245 267428

Colbere Eng Ltd.,
Church Lane,
Caldwell, Burton on Trent,
DE12 6RT
Tel: 0283 761267

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.



Electro-Wind Ltd.,
1A High Street
Newchapel
Stoke-on-Trent,
Staffordshire ST7 4PU
Tel: 0782 776422/776321



Lemark Electronics Ltd.,
12 Bridge Road,
Haywards Heath,
W. Sussex RH16 1UA
Tel: 0444 450501
Telex: 87117

parmeko

Parmeko Components Ltd.,
Percy Road
Aylestone
Leicester
LE2 8FT
Tel: 0533 440044
Telex: 341689
Fax: 0533 440000



Tekcon Electrical Limited
Porte Marsh Estate
Calne, Wilts. SN11 9PU
Tel: 0249 814548
Telex: 445966 TEKCON G
Lamp Transformers (SELV)
50VA to 600VA rating.



Tridonic Ltd.,
Unit D1, Grafton Way,
West Ham Industrial Estate,
Basingstoke, Hampshire
RG22 5HY
Tel: 0256 843232
Telex: 858137
Fax: 0256 840113

Toroid Technology Ltd
175a Brigstock Road,
Thornton Heath,
Surrey CR4 7JP
Tel: 01-689 8002
Telex: 8813271 Gecom G

TRENCHERS FOR SALE OR HIRE

A. F. Trenchers Ltd.,
Gosbecks Road,
Colchester CO2 9JS
Tel: 0206 44411
Telex: 987562

TUBES — ALUMINIUM

Thames Tube Ltd.,
8F Bedford Avenue,
Slough, Berks SL1 4RU
Tel: 0753 821316
Telex: 846533
Manufacturers of small
(30mm max) diameter
drawn tubing suitable for
decorative anodising.

TUBES — BRASS LENGTHS AND BENDS

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

ULTRA VIOLET/SPECIALIST LAMPS & EQUIPMENT

American Lamps and Lighting Ltd.,
367 Uxbridge Road,
Acton, London W3 9RH
Tel: 01-993 3181
Telex: 894452



Coast Air,
PO Box 797,
Sudbury,
Suffolk CO10 6FL
Tel: 0787 76259
Telex: 987126

Starna Ltd.,
33 Station Road,
Chadwell Heath, Romford,
Essex RM6 4BL
Tel: 01-599 5115
Telex: 8951154 Starna G
Fax: 01-599 5415

VICTORIAN REPRODUCTION GAS AND ELECTRIC LIGHT FITTINGS

Sugg Lighting Ltd.,
65 Gatwick Road,
Crawley, Sussex
Tel: 0293 540111

WOOD FLOOR STANDARD LAMPS

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

ZONES 1 & 2 BASEEFA APPROVED LIGHTING FITTINGS

B.V. Industria,
2 Duke Street,
Liverpool L1 5AS
Tel: 051-709 7041
Telex: 629135
Fax: 051 709 1981

Communciation & Control Engineering Co. Ltd.,
Park Road, Calverton,
Nottingham NG14 6LL
Tel: (0602) 652574
Telex: 37362 comcon G

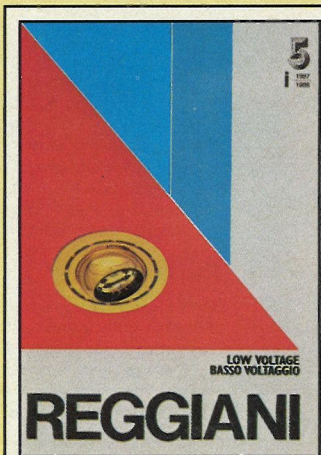
CATALOGUE DIRECTORY



Martingale Technical Systems Ltd: A new brochure illustrating the range of integrated ceiling systems, including design services, integrated power cabling systems, lighting and air conditioning. Intended for shops, offices and general commercial interiors. Martingale Technical Systems Ltd: circle 90



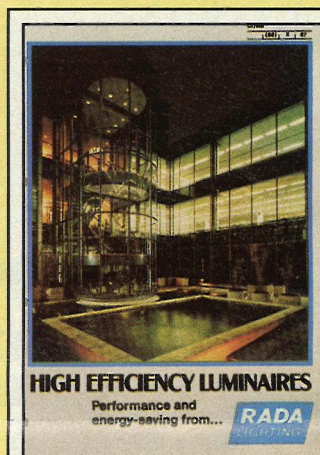
Boone Systems Ltd: lighting products. A range of fluorescent luminaires for the home, fitted kitchen, bedroom; units for offices, shops and other commercial interiors, Boone Systems Ltd: circle 91



Reggiani: A new brochure describing the low-voltage range in colour. Gives details of the entire range of low-voltage fittings, from ceiling fittings (recessed and surface), to free-standing floor spots. Includes technical and electrical information for lighting designers. Reggiani: circle 92



Concord Lighting Ltd: Concord manufacturers an extensive range of commercial lighting products. This new catalogue gives details of low voltage systems including technical information. A separate catalogue gives details of the new "Tiller" collection. Concord Lighting Ltd: circle 93



Rada Lighting Ltd: High-efficiency fluorescent luminaires and continuous lighting systems. Ultra-low glare louvres for maximum performance in VDU environments. Compact luminaires for low energy lamp sources. Vandal and weather resistant luminaires for external locations. Rada Lighting Limited: circle 94



Channel Safety Systems Ltd: The LASER PACK Low Voltage Conversion Kit presents the opportunity to convert selected luminaires in a low-voltage tungsten halogen installation to emergency operation, whilst retaining their primary role as an integral part of the overall designed lighting scheme: circle 95

Catalogue Directory

You are now able to promote your current catalogue through the pages of *Lighting Equipment News*. The catalogues are displayed in the format above, with a brief description of the content.

Readers will then be able to keep up with the profusion of catalogues currently aimed at the lighting specifier.

Companies wishing to distribute their catalogues to specifiers more effectively, and thereby justify the horrendous production costs, have a

market place created specifically for this purpose.

The cost of one catalogue, in full colour, is £120 per insertion, for a minimum of six insertions.

If you have a catalogue, either already printed or in production, which is targeted at lighting specifiers, then *Lighting Equipment News* can help you reach them effectively. Over 13,000 lighting specifiers request LEN every month.

For full details, contact Joanne Barker on 01-441 6644, Ext. 1154.

CATALOGUE DIRECTORY

I would like to advertise in the Catalogue Directory, at a cost of £720 for six insertions.

NAME POSITION
COMPANY
ADDRESS
ADDRESS POSTCODE
TELEPHONE

Send to Joanne Barker, Lighting Equipment News, Maclean Hunter House, Chalk Lane, Barnet, Hertfordshire EN4 0BU, or telephone Joanne on 01-441 6644.

WHERE TO BUY DIRECTORY

DAVIS

The Position

We require, for a busy and energetic design office, a Lighting Design Engineer, capable, from concept to completion, of producing full design and production drawings, to all relevant BS Standards. Full understanding of CNC machinery within design and a lighting background would be an advantage, although not essential. This position would be both challenging and rewarding.

The Company

Davis Lighting Ltd. manufactures a wide range of both standard and custom built interior luminaires, specialising in major project work and the supply of luminaires to large retail groups. The company is also a major manufacturer of lanterns for street lighting purposes.

The Rewards

We want the right person for the job and are willing to offer an excellent package, including salary, productivity bonus and all other benefits associated with a major lighting company.

If you wish to apply please contact:

Mr. G. R. PHILLIPS
Sales Director
Davis Lighting Limited
Spilsby Road
Harold Hill
ROMFORD
Essex, RM3 8SB.
Telephone 04023 71711



LIGHTING



LIGHTING WORKSHOP SALES ENGINEERS / EXECUTIVES

Competitive Salary/Commission Package

The Lighting Workshop, one of the fastest growing display lighting companies is seeking to recruit Sales Engineers for the following areas:

Central London — Midlands — Yorkshire/Lancashire

Due to rapid expansion we are looking for experienced, self motivated sales people to sell an excellent product range to the design and specification market.

SHOWROOM MANAGER/ESS

Salary negotiable.

An exciting opportunity has been created to run our new showroom opening at the Business Design Centre in Islington. A knowledge in lighting design would be preferable, but not essential, as training will be given.

Send your written career details to:

Mr C Wilson, Regional Sales Manager,
Lighting Workshop, 197 Eade Road,
Finsbury Park, London N4 1DN.
Tel: 01-809 5656.

Lightning Growth

ERCO

- ▼ Senior Lighting Design Engineer
- ▼ Lighting Product Design Engineer

- Regional Sales Manager
- Regional Sales Engineer
- Sales Engineer (Fluorescents)

The people we seek for these London posts will be able to equal the exacting standards of our products and clients — architects, consulting engineers, government departments and major retail chains.

We are intent on employing the very best, and offer salaries and company benefits accordingly. If you are confident that you can rise to these opportunities to develop your career in conjunction with our rapid growth, please contact either:-

- ▼ Mark Rowling
Technical Manager
- Mike Hill
National Sales Manager
- ERCO Lighting Limited
38 Dover Street
London W1X 3RB

SPECIALIST LIGHTING AGENTS

We are seeking two talented Agents to enhance our existing salesforce.

1. North West and North East England
2. South East England

STRUCTURA

We have an excellent programme of highly viable products and we offer a full support package including schemes design. We represent (exclusively) two of Western Europe's most influential manufacturers in the Display, Commercial and Contract Lighting fields.

Because we offer good income earning opportunities we invite you to contact us immediately:

Mr B. V. Newey, Sales Director
C & R Lighting Systems
Ambrooke House, Southfields Road
Dunstable, Bedfordshire LU6 3EJ
Tel: (0582) 662423

We are inviting applications for the position of
Laboratory Test Engineer.

This position entails the thermal and photometric testing of Luminaires to both national and industry standards and the production of subsequent reports and recommendations. Some site investigations may be required.

The successful candidate will be self motivated and also able to work with and assist a team of Engineers who develop the high quality products for which this company has become renowned.

Applications from persons with electrical or associated Laboratory experience would be welcome. Although previous Lighting Laboratory experience is not essential, it would be an advantage.

Apply in the first instance together with a full CV to:

Mr D.F. Javes, Holophane Europe Limited
Bletchley, Milton Keynes, Bucks MK1 1JG
Telephone: (0908) 649292



FIELD SALES EXECUTIVE SOUTH EAST/SOUTHERN ENGLAND

THORN EMI Lamps and Components Limited are the largest UK manufacturers and distributors of Lightsources and Components to the O.E.M. Markets.

Due to internal promotion we are looking for an ambitious Field Sales Executive to cover the above areas to develop existing accounts and promote new business with O.E.M.'s within the area. You will be preferably aged 21 to 40 with a basic technical background in the Lighting Industry. The position carries an attractive salary and Company benefits package.

Please forward your CV to:

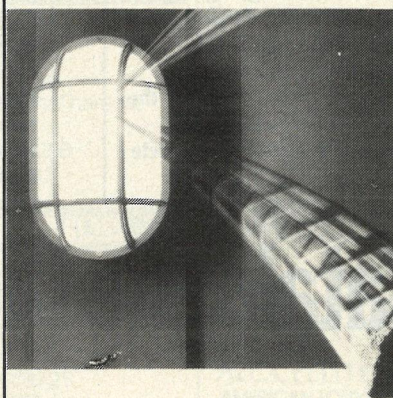
G. F. Walker, Associate Director
THORN EMI Lamps and Components Limited
Miles Road, Mitcham, Surrey CR4 3YX
Telephone: 01-640 1221



PROTECT

EXCLUSIVE IMPORTER REQUIRED FOR VANDAL RESISTANT BULKHEADS

DEFA, is a Norwegian company specialising in decorative vandal resistant exterior lighting fixtures and is currently represented in Scandinavia, Holland, West Germany, Austria, Switzerland and Italy.



It is our objective to be the European market leader in the segment of vandal resistant lighting fixtures.

If you want to participate in our development in the UK please contact Mr. T. Wesche.

DEFA INTERMOTIVE A.S.
P.O. BOX 370
N-1301 SANDVIKA,
NORWAY

Tel. + 47-2-54 90 80
Telex - 76940
Fax. + 47-2-54 33 85

SALES EXECUTIVE OTE £16,000 + car

Due to expansion a leading manufacturer of Emergency and Commercial Lighting requires a self-motivated sales person to sell to electrical wholesalers and specifiers in East Anglia and Northern Home Counties.

Applications to:
General Manager, Ring Electronics Limited,
17 Croydon House, Croydon Street,
Leeds, LS11 9RT.

GENERATORS & TOWER LIGHTS from 1/2 to 80 kW

BRIMOTOR LTD.
Clarence Works, 30A Church Road,
Turbridge Wells TN11 1P Kent Tel 0892 37588 Telex 95446

LIGHT INDUSTRY

We are a blossoming young U.K. lighting and furniture manufacturer in search of a sales engineer.

The successful applicant will be sufficiently high powered to deal with the architects and design practises who make up our client list.

He or she will have experience in the lighting industry and will feel at home working in a small frenetic office.

Far too much money awaits.

Please send your C.V. to:
George Dale, Light Industry,
Unit 49, Camden Lock, London, NW1 8AF.
Telephone: 01-267 6530

LIGHTING SALES ENGINEERS LONDON & THE SOUTH EAST NORTH MIDLANDS

LightGraphix require a Lighting Sales Engineer based in each of these areas. Applicants should be capable of liaising with Architects, Interior Designers and Specifiers on the sale and specification of our ever widening ranges of commercial and decorative lighting. Attractive salary, prospects, company car and other benefits.

Please apply in writing with career and personal details to:
Sales & Marketing Manager
LightGraphix Ltd, Vauxhall Place,
Lowfield Street, Dartford, Kent DA1 1HU.

SALES REPRESENTATIVE

A busy and energetic company supplying commercial and domestic lighting requires sales representative for London and Home Counties.

Preference will be given to applicants with experience and existing contacts. A good salary, bonus scheme, four weeks annual holiday and company car is provided.

Please send CV to:
Infax Limited
Unit 13
Worcester Road Industrial Estate
Chipping Norton
Oxon OX7 5XP
or Telephone: 0608 44114

AGENTS REQUIRED IN MOST AREAS

to sell a unique range of high quality children's decorative lighting.
Please reply with full details to:
Miss J. K. Farnworth
Saville Marketing Company
(Bolton) Ltd
Millfield House
Boundary Industrial Estate
Millfield Road, Bolton BL2 6QW
Lancashire

**COPY DATE
FOR THE
JULY ISSUE IS
JUNE 24 1988**

NEW PRODUCTS



The compact way to cut lighting costs

Barry Grossmith unravels some of the complexities of compact fluorescent lamps.

Since the filament lamp was invented more than a century ago, scientists have sought to retain all its benefits — good colour rendering, warm colour temperature, small size and convenience — while overcoming its two major disadvantages: high running costs and short life.

The emergence of compact fluorescent lamps proved to be the answer. The increase in energy prices over the past decade or so had already forced the lamp makers to take a giant step forward by using triphosphors in fluorescent lamps instead of the previously used halophosphates, and by changing the tube diameter from 38 to 26mm. One result of these changes was an increase in light output.

Running costs

The advent of the compact fluorescent lamp brought with it further major savings in energy usage and running costs, and in greatly reduced maintenance. Lower running costs mean that more lighting can be used in a scheme without affecting the long-term budget.

The range of compact fluorescent lamp types available is fascinating. This article concentrates primarily on the Dulux/PL type. There are the self-ballasted lamps for direct replacement of GLS lamps and the more efficient types which require an additional ballast for new installations.

There is the standard 12mm diameter fluorescent tube bent into the shape of a U-lamp with a single two-pin base. The starter is integral in the base. All four wattages, 5, 7, 9, and 11W, can be run from one ballast in single lamp operation. The 5, 7, and 9W, but

For use with external ballast, for new installations				With integral ballast, for retrofit in existing installations	
Without integral starter, four pin		With integral starter, two pin			
bi	quad	bi	quad	quad	circular
S/E, L	D/E	S	D	ED	Circolux
For all new installations including electronic HF, dimming and emergency		Not suitable for dimming or emergency purposes			

Guide to the classification of Dulux/PL type compact fluorescent lamps.

not the 11W, lamps can be run also from another 2 x 5/7/9W ballast in series pair. The single lamp ballast is also available in a 13A three-prong or Europlug adaptor.

The lamps are available coated with triphosphor white or Interna phosphors.

The longer compact fluorescent lamps will replace conventional tubular fluorescent lamps in commercial applications in the future. They are of similar design to the standard, but with a four-pin base because they do not contain a starter. They have the same rated life as standard fluorescent lamps.

While the integral starters of the short compact fluorescent lamps make electronic high frequency (HF) applications and dimming difficult, the four-pin long fluorescent lamps facilitate such applications. They can also be used with electronic HF ballasts for even greater efficiency. They are available in three colour appearances: triphosphor White, Warm White and Interna.

Double

The quad, or double compact fluorescent lamps, are more compact and designed to replace GLS lamps in commercial installations

such as downlights. They are bent a second time. The standard versions contain integral starters, and their volume is similar to that of a GLS lamp. A little longer but smaller in diameter, they cannot be used in series pair.

The smaller diameter of this lamp type increases the light output ratio of existing luminaire designs if they are converted from GLS to quad compact fluorescent lamps.

There are also four-pin, bi and quad electronic versions which are identical to the two-pin versions but which do not contain an integral starter. For this reason, they are suitable for electronic HF operation, dimming, and emergency lighting applications.

Electronic

A breakthrough in lighting technology came with the development of electronic compact fluorescent lamps. They are the most compact and lightweight fluorescent lamps and contain integral electronic HF ballasts.

The electronic HF ballasts permit instant start and uniform, flicker-free light. The colour appearance and colour rendering are similar to that of GLS lamps, but they only consume one fifth of the electrical energy, last six times as long, and weigh only about 100g.

Self-ballasted lamps serve the purpose of updating existing GLS installations. For new installations, the higher efficiency types for use with external ballast are preferable.

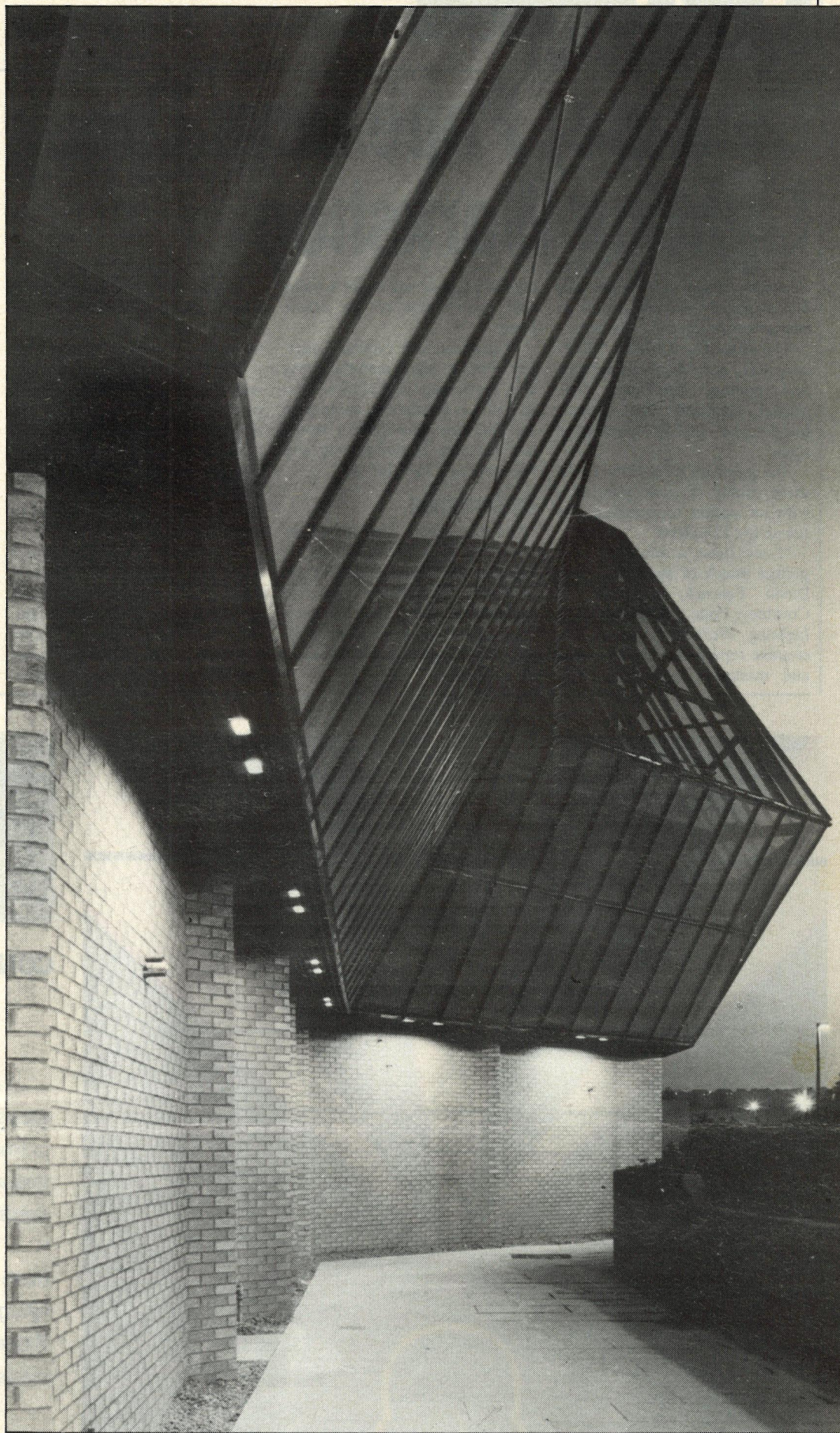
Because self-ballasted lamps contain an integral ballast, they are not suitable for dimming.

There is also available a miniature circular compact fluorescent lamp with an electronic HF ballast. Its advantages are light weight (about 200g) and efficiency.

The most progressive manufacturers of luminaires for GLS and tubular lamps already have fittings on the market for compact lamps.

Temperature and burning position both have considerable influence on the performance of single-bent lamps. In cold applications, base-down burning position should be used to achieve full luminous flux.

To summarise, the two-pin bi and quad compact fluorescent lamps contain an integral starter. They and the lamps with integral ballast are therefore not suitable for dimming. The four-pin long and quad electronic compact fluorescents do not contain a starter and therefore are suitable for dimming, electronic HF and emergency circuits.

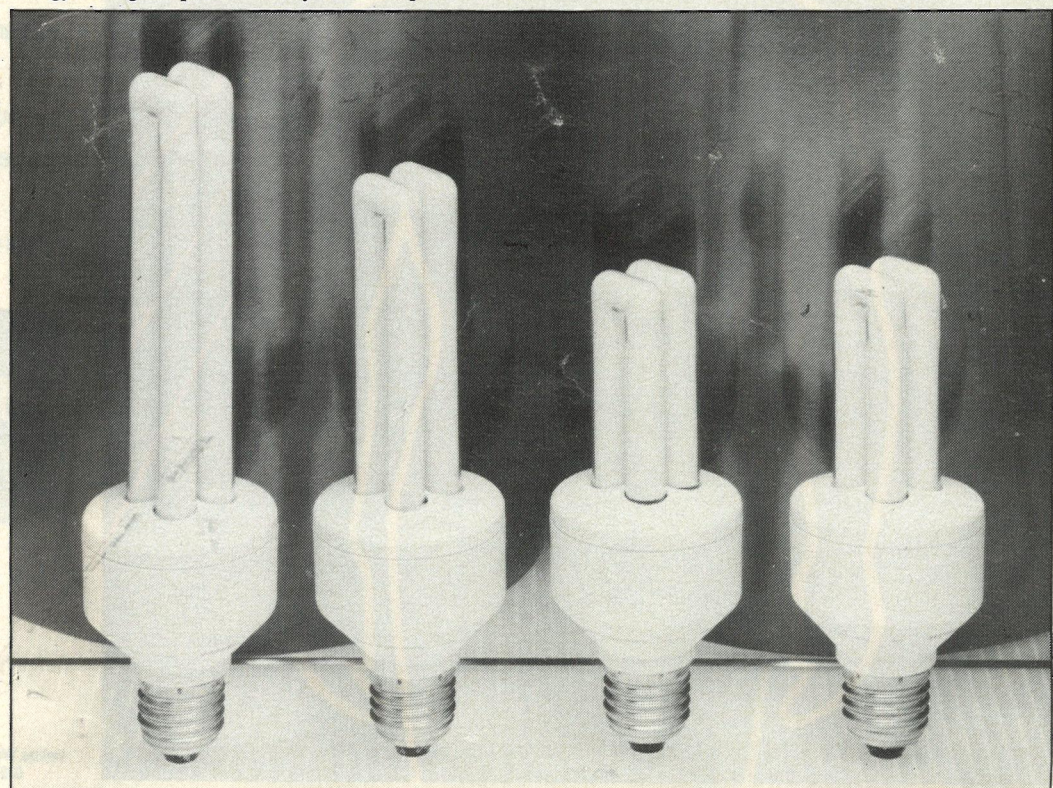


Compact fluorescent lamps used around the perimeter of Edinburgh's Cameron Toll Shopping Centre.

Power factor correction is not necessary for proper operation of lamps below 20W. In commercial installations, the drain from these energy saving lamps is normally so

much smaller than that from air conditioners, lifts and other electrical installations that group PF correction is almost always the cheapest solution.

Barry Grossmith is marketing services manager at Wotan Lamps Ltd, 01-947 1261.



Wotan Dulux EL compact fluorescent lamp with integral electronic ballast. From right to left ratings are: 7W, 11W, 15W and 20W.

Courtney Pope buys The Lighting Workshop

Courtney, Pope (Holdings) plc, has acquired two companies to strengthen its electrical division.

The first, The Lighting Workshop Ltd., is a design consultancy and lighting distributor. The second, Euroneon Ltd, designs, makes and installs illuminated signs.

The purchase is for 75% of the share capital of both companies with an option to purchase the remaining 25% later.

"I see these acquisitions as a perfect match of strengths," said David Peacock, chairman of Courtney, Pope (Holdings). "The Lighting Workshop has a fine creative reputation and its design and marketing expertise, parti-

cularly abroad, will make a valuable contribution to the whole group.

"Euroneon will expand Courtney Pope's sign manufacturing and marketing capabilities. The advantages for the two companies are that they now have a strong and versatile manufacturing and financial base to build on.

Restructuring

"Perhaps most important for Courtney Pope, however, is the fact that the purchase of these two profitable companies and the availability of their strong management enables us to complete the restructuring of our electrical division."

Day-to-day responsibilities of The Lighting Workshop will remain under the control of managing director, Michael Dunk.

The retail outlet, Lightstyle Ltd, and the Cellular Ceilings Company Ltd, will come under the direction of Paul Morris.

Maurice Brill Design International Ltd, lighting consultancy, will continue to operate autonomously under the direction of its senior directors.

In addition to being appointed managing director of Courtney Pope Lighting Ltd, Brian Norris, previously chairman of The Lighting Workshop Group, joins Courtney, Pope (Holdings) board and has been given overall respon-

sibility for restructuring the sales and marketing functions of the electrical division, which will be centred in London.

Over the last three years the various manufacturing facilities of the electrical division have been overhauled and centralised in Manchester. As recently as March the company opened a new lighting showroom in north London, but is now said to be considering the possibility of a central London showroom to display the products of the whole group.

Another change is that Derek Callender has been promoted to managing director of the Lighting Maintenance Company, one of the companies in the electrical division.

The Euroneon business remains under the current chairman, Michael Thomas, and sales director, Michael Stankiste. Mr Thomas joins Courtney, Pope (Holdings) as a technical director and assumes responsibility for all the group's signmaking activities.



Life in the medieval manor revolved around its great hall. Today the great hall at Parnham School for Craftsmen in Wood continues this tradition as focal point of the house and a place for celebration and for exhibitions. Here, a newly installed Erco Hi-Trac system — comprising 150 W tungsten halogen uplights to accentuate the beamed ceiling and 50W compact Optec low voltage spotlights to illuminate the exhibits — shows that twentieth century design can blend happily into an Elizabethan manor. Further details from Erco on 01-408 0320.

RADA: ALL THE BETTER TO SEE YOU WITH.

CONTINUOUS SYSTEMS: LIGHTING FOR THE SPACE AGE.

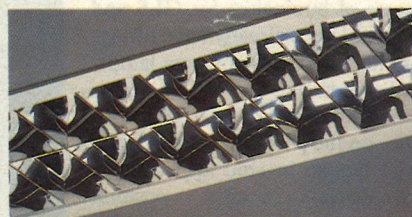
At Rada, we manufacture very successful luminaires — continuously. As continuously as you like. For as capacious a space as you'd like. Indeed, we'd be happy to consider illuminating the channel tunnel.

With Rada components, you have the chance virtually to design your own continuous lighting system, both for general offices and VDU-intensive areas, and effect quite dramatic savings for your company.

As just one example of Rada problem-solving, consider metal plank ceilings: luminaires are specially designed so that the metal planks clip firmly to them and, as a consequence, the lighting system can actually form the ceiling grid. Thus there's no need for a separate ceiling support system.

Standard Rada designs also simplify continuous lighting in concealed grid and exposed 'T' ceiling systems.

Rada solves lighting problems. Just ask us the question; then see the light.



Rada Lighting Limited,
Hollies Way, High Street, Potters Bar, Herts. EN6 5BH, England.
0707 43401 Telex: 266036 RADA G. Fax: 0707 45548

BRE reassesses low-energy office

After six years of operating its low-energy office, the Building Research Establishment has identified a number of lessons in the design of energy-saving systems, installation of equipment and in the use of insulation materials in the building. This latest assessment of the building's performance is published in an Information Paper, *The BRE low-energy office: a longer-term perspective* by R W John and A C Salvidge.

The authors conclude that energy consumption in the building was between a half and one-third of that of buildings of standard design and similar age. The BRE low-energy office was among the first buildings constructed in the UK with the aim of minimising energy use.

Copies of the Information Paper, IP 4/88, price £1.00 each, are available from Publication Sales, BRE, Garston, Watford, Herts WD2 7JR.

BEMS learning package

A new software package on building energy management systems provides an interactive teaching aid for potential users, specifiers and those involved in education.

The package, produced by BSRIA's Building Energy Management Systems Centre, is designed to provide a comprehensive understanding of the technology involved and also the fundamentals of heating, ventilating and air conditioning control. The student can select from 16 independent modules with a total learning time of over four hours.

The whole package is supplied on eight diskettes and is intended for use on any IBM-compatible micro that has a colour screen. The package, costing £90 inclusive of VAT and postage, is available from BEMS Centre, BSRIA, Old Bracknell Lane West, Bracknell, Berkshire RG12 4AH.

People in Brief...

● **Brian Wright** has been appointed national sales manager of Ring Lighting, and **Simon Smith** has been appointed Southern regional sales manager. Details from Ring Lighting 0532 791791.

● **Paul Milton** has been appointed regional sales manager of Delmatic Lighting Controls and will be marketing their new modular controls incorporating custom-built ICs. Details from Delmatic 01-637 3696.

● **Alan Poland** has been appointed product manager within OSRAM-GEC's marketing department. He will be responsible for sourcing new lighting products from Europe. Details from OSRAM-GEC 01-904 4321.

● **David Kempster** has joined Arcoelectric Switches as export sales manager to restructure the company's export procedures and further develop their overseas sales. Details from Arcoelectric 01-979 3232.

IN YOUR NEXT ISSUE

The July issue of *Lighting Equipment News* takes a look at hospital lighting. Health service management is under continuous pressure to improve operational efficiency by reducing overheads: new lamps, fittings and design techniques can help make more efficient use of energy. We also review some

recent hospital projects to see the effect new design layouts have had on lighting design.

High pressure sodium is an increasingly popular light source; *Lighting Equipment News* surveys its use to date and likely future developments in the field.