

LIGHTING

EQUIPMENT NEWS

APRIL 1988

In brief . . .

- **EDP**, lighting engineers and consultants of Stockport, has been awarded contracts to supply lighting systems for four neighbourhood offices in the City of Manchester.
- **Skandesco plc** has appointed new sole distributors for Scotland and Eire. The Scottish representatives are Clyde Factors of Glasgow and the Eire distributors are Falks of Dublin. Details from Skandesco 0709 530221.
- **Walter S Meser and Son** has been appointed sole distributor in Northern Ireland for Chloride Bardic's new range of fire alarm systems and self-contained emergency lighting. Details from R E Matthews 0703 30611.
- **Security Lighting** has appointed Alfred E J Hurst of Belfast as agents in Northern Ireland to market its Securi-light range of emergency lighting equipment. The company has also moved into larger premises at Bond Street Works, Northam, Southampton. Details 0703 333811.
- **Horstmann Timers and Controls**, has sold its photo-electric control business to Royce-Thompson Electric. The company will concentrate on electricity tariff control, heating control and general time switch business. Details 0272 332251.
- **Petrel** has appointed Dron and Dickson as Scottish Regional Distributors for the Petrel range of hazardous area lighting. In addition to stocking and supplying the equipment, Dron and Dickson are able to offer a comprehensive lighting system design back-up service. Details from Petrel 021-328 5055.
- **ACDC Lighting** has moved into a new 4500 sq ft unit at Lome-shaye Industrial Estate, Nelson in Lancashire, the neon lighting company supplied the impressive lighting on television's chart show 'The Roxy', the 'Dagmar' sign on 'Eastenders' and the quiz board on 'Connections'. Details 051-227 3456.
- **The Economic Secretary** to the Treasury is to legislate to permit disclosure by sale of the names and addresses of importers. The change, he says, should add significantly to the free flow of information on which competitive and efficient markets rely and will help to improve the effectiveness of marketing, market research and product development.

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Pulling a bank job

Refurbishment of the Midland Bank's Bridge Street premises in Warrington has recently been completed and includes a new lighting scheme featuring specially designed wall and floor standing uplighters from Osram-GEC together with exterior façade floodlighting.

On the ground floor, a simplified classical bracket design has been used for twelve wall mounted light fittings. Here, the requirement was to produce a fitting with 'clean' modern design lines which was also in sympathy with the classical design of the original ceiling.

Initial sketches for the fitting were produced by Midland Bank architect Kevin Seers. These were then developed further in conjunction with Osram's designers in St Helens and Wembley into full working diagrams. In addition to

the wall mounted fittings, nineteen free-standing uplighters, located on ground and mezzanine floors, were also designed jointly by the Midland Bank and Osram.

Both wall mounted and free-standing uplighters are manufactured from sheet steel and are fitted with Osram's 250 watt high-pressure sodium SON Deluxe lamps. Chosen for their colour rendering properties, the SON lamps, in conjunction with fluorescent and tungsten halogen units, provide a lighting level of 300 lux to meet the recommended CIBSE guidelines for banking areas.

Outside, Osram's Solarbeam floodlights together with 120 watt SON lamps have been used to create an attractive night-time appearance for the façade of the Victorian building.

Details from Osram-GEC, 01-904 4321.



Facade of the Victorian building by night.



Interior view of the banking hall.



London's Retail Design Centre has just been refurbished to show some of the latest concepts in shop fitting — including lighting. Low voltage tungsten halogen lights predominate over displays, with fully recessed mercury downlights in the central circulation area. The Centre reports that interest from abroad in British design, as displayed there, has exceeded all expectations. As a result, some of the products have been specified for shops as far away as Qatar and the Seychelles.

Major new event for CIBSE

The council of the CIBSE has agreed to the arranging of a National Conference in April 1989. If successful, it could be the prototype for a new and important focal point in the Institution calendar.

The Conference would combine a number of meetings held, at present, on different dates and provide the opportunity for many committees and task groups to meet at a common and convenient location.

The principal ingredients in this National Conference are the successful bi-annual Technical Conference and the annual general meeting.

The conference is to be held at the University of Warwick on April 16-18 1989 and further information is available from CIBSE, Delta House, 222 Balham High Road, London SW12 9BS.

In Brief . . .

● **Lighting manufacturer** ACEC Electric's parent company, National Industri A/S of Norway, has become part of ASEA Brown Boverie, one of the largest electrical groups in the world. Rapidly expanding ACEC, now to be known as NI Lighting Limited, has moved to new premises in Hertfordshire. The new address is Intech House, 34/35 Cam centre, Wilbury Way, Hitchin, Herts SG4 0AP. Tel: 0462 420908.

Ship-shape and lit up

Specially designed brass rails carrying hidden recessed halogen lamps have been used in the lighting scheme in Captain O M Watts' chandlery, in London's Piccadilly.

The long established centre for London's seafarers has undergone a complete face-lift, with lighting designed by Equation Lighting Design.

A major feature of the chand-

lery is the stretched sailcloth panels in the ceiling. They clip into a central ladder beam which runs the length of the shop. This also carries the main lighting elements, a series of banked fluorescent housings mounted on extension arms in a catamaran arrangement.

The shop front and double bays continue the theme, combining timber and brass. Illumination to the main fascia and signage and window displays is achieved through the special brass rails.

Details from John Bullock at Equation, 01-221 8724.

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HELVAR

NEWS

Bridging the light gap

Work has started on an ambitious £1/2 million scheme to floodlight Tower Bridge. The scheme, designed by Philips Lighting, is due for completion in good time for the 1988 tourist season and should result in a 'spectacular night time illumination' unlike any other on the River Thames.

The two main towers of the famous bridge are already lit, but the new floodlighting will fill in the entire bridge from bank to bank, including all the spans, towers, struts and turrets.

The project for the Corporation

of London, which has owned and maintained the bridge since its opening in 1894, will involve the LEB in installing some 560 individual Philips floodlights and almost 7,500 metres of cable. The total power load of 130 kW produces sufficient light to serve more than 500 typical 1930's semi-detached houses.

Spotlights will be used to highlight the Cororation of London crest on the top gantry, and the walkway itself will be lit with protected fluorescent fittings. The rest of the structure will be illuminated

using metal halide floodlights, a variation in light level of 50 per cent between elevations resulting in an exciting 3-D effect.

The brief to Philips Lighting from the Corporation, which reports increasing traffic on the Thames, was to provide floodlighting which would present Tower Bridge as the "Gateway to London".

The floodlighting will be officially switched on at a special ceremony on, Wednesday 18 May. Further details from Roger Stubbs 01-434 0939.

Breaking new ground

A leading Midlands industrial and commercial light fitting manufacturer has marked the start of a major expansion and relocation project with a ground-breaking ceremony at Redditch.

F W Thorpe plc, founded at Small Heath, Birmingham 51 years ago, is consolidating its operations from six manufacturing and storage units into a purpose-built factory, as part of a £2.3 million investment.

Ernest Thorpe, a founding director of the company and son of F W Thorpe, cut the first piece of turf assisted by Ian McKay, of the Commission for the New Towns at Redditch, which sold the freehold site.



Work started immediately on a 11 100m² unit for the manufacture and storage of light fittings which the company produces under the

name Thorlux. Completion is scheduled for the end of the year.

Details from Colin Brangwin, 021-459 1122.

ACEC win factory contract

Lighting manufacturers ACEC Electric has won a £45,000 contract to supply standard and special lighting for the 20,000 square metre Ricoh factory in Telford.

The factory's production area has 'lay-in' luminaires with 250 watt SON Deluxe light sources giving an illuminance of 300 lux. Assembly lines have standard fluorescent battens for task lighting.

The warehouse and racking areas utilise low bay luminaires supplied by ACEC, with 250 watt SON T sources giving an illuminance of 200 lux. ACEC 'Universal' modular fluorescent luminaires complete the contract with a combination of drop-dish prosthetic lenses and parabolic louvers.

Details from ACEC Electric 0462 420908.

A light to the Olympics

As part of the build-up to the 1988 Olympic Games in Seoul, South Korea, a massive programme of hotel refurbishment is taking place. UK specialist manufacturer and retailer, Christopher Wray, is contributing to the frenzied activity in Seoul with the supply of a £100,000 order of decorative lighting to one of the major contractors.

A wide range of Christopher



Wray decorative lighting products are destined for several hotels in the capital, including the prestigious Hyatt Regency which is undergoing a major revamp in expectation of the massive influx of visitors to the Games.

Details from Christopher Wray Lighting, 01-736 8434.

Advancing lighting technology

A new company, Leading Edge Lighting, has been formed to develop and market innovative products for effect and display lighting, particularly within retail premises.

The new company, which is part of the Whitecroft group, hopes to launch its first new product this month.

The aim is to offer a wide range of lighting innovation which will combined 'original thinking with aesthetically appealing design.'

It is expected that several other hi-tech, low and mains voltage products will be introduced during 1988. Details from Leading Edge Lighting on 061-330 6811.

Fears over inferior fittings

SGS Quality Control International, part of the world's largest inspection group, has reported a new scare over floods of inferior light fittings entering the country.

Alex Dobie, head of the electrical testing laboratories, says "Consultants, installers, retailers and distributors are very worried about imports from a number of countries that should know better."

Creepage and clearance distances on many luminaires tested by SGS recently have been seriously below the safe minimum measurements specified in BS 4533.

"Luminaires seem to have no middle ground" says Mr Dobie. "They are either very good and meet all the safety standards, or very bad and fall down on the most basic criteria. One problem is the unpredictable change in sourcing of any one of many components."

For more information contact Alex Dobie, 01-998 2171.

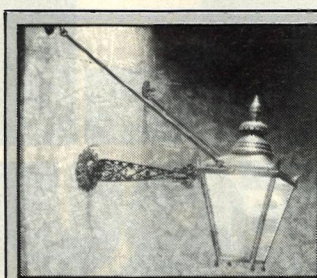
Lighting up the East

Lighting Design has won two major overseas contracts to light a five-star hotel in Calcutta and a large modern shopping centre in Tel Aviv.

Lighting Design chairman, Sally Storey, says "It is reassuring to know that British lighting designers are considered some of the best in the world and can compete successfully in the international market."

The luxurious Taj Bengal hotel is centred around an atrium built in attractive local dholpur stone, featuring cascades and tropical foliage, and offering plenty of scope to produce some dramatic lighting effects with contrasts between night and day living.

The shopping centre in Israel, open until midnight, also incorporates a water display with a large seating area in the central mall where shoppers are encouraged to relax and pause for thought.



This antique style bracket lantern is on sale from a London company that normally deals in salvaged antique light fittings. Made to an original pattern it uses cast iron balusters and a Winsor lantern and can be wired for up to 100W. It is available from the London Architectural Salvage and Supply Company Ltd. Details 01-739 0448.

People in brief...

● Colin Stephen has been appointed Senior Sales Engineer for Scotland, by Moorlite Electrical. Details 0625 34343.

● Colin Inglis has been appointed Sales and Marketing Manager for Square D Ltd's Distribution Equipment Division. Details 0793 513533.

● Graham White has been appointed National Accounts Manager for the Retail Petroleum Services division of Parkersell (Lighting and Electrical) Services Ltd. Details 0962 66141.

● Consortium of Regional Electrical Wholesalers has appointed G D Shawcross Board Chairman, as well as Trading Committee Chairman, and B L Marr as Vice-Chairman and Trading Committee Vice-Chairman. Details 021-354 4181.

● The International Association of Lighting Designers has announced the election of new officers and board members. The officers are Gary Steffy, president; Helen Diemer, vice president; Robert Newell, secretary and Stephen Bernstein, treasurer. The board members are Peter Barna, Michael Smith and Andre Tammes.

● John Cockerill has been appointed to the board of AEG (UK) as Divisional Director. Details 0753 872101.

PUSH YOUR PRODUCTS WITH THIS KIND OF QUALITY

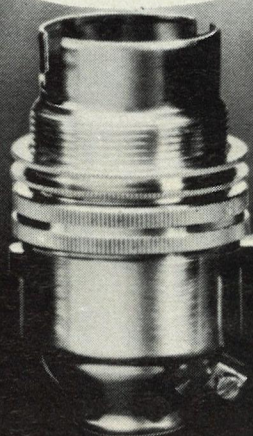
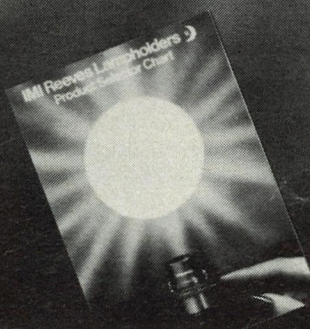
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IMI



The refurbished reception area of the Crest International offices in Manchester includes a 'chandelier' ceiling from ADD Louvre Sales Ltd, of Basildon. The ceiling consists of a vast series of vertically hung blades in gold and mirror finishes, with modular light fittings suspended above. The 'elite' range of open cell ceiling, in cream, was used for the remaining area. ADD marketing manager Bill Hunts says "The idea was to provide lighting that set the decorative theme and provided interest to the reception area." Further details from ADD 0268 415828.

NEWS

Computers give Thorn sporting chance

Computer aided design helped Thorn Lighting prepare finely tuned floodlighting for the football pitches and running track at the National Sports Complex at Kasarani in Kenya.

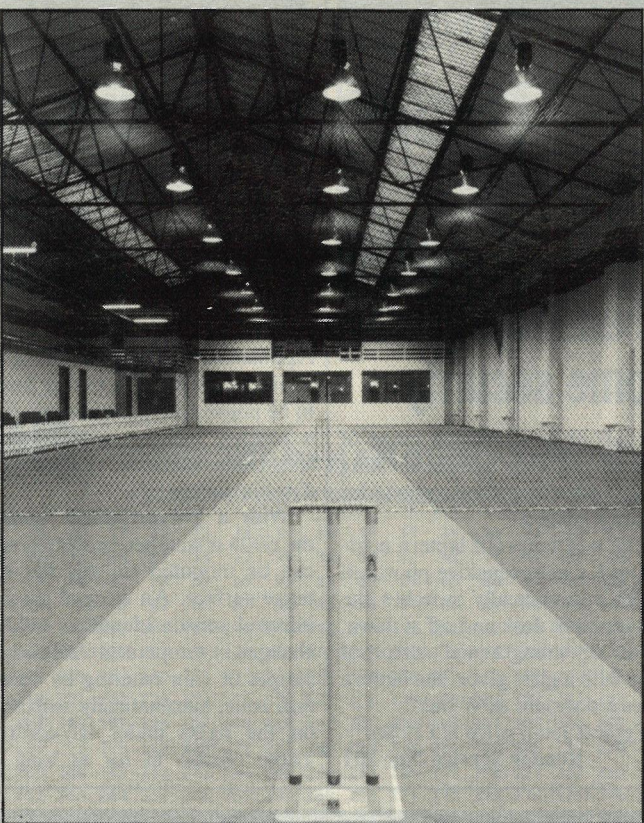
Two nearly continuous rows of floodlights were mounted on the roof fascias of facing grandstands. A complex cross aiming pattern was adopted to provide good horizontal and vertical illuminance for spectators, particularly those behind the goals viewing down the length of the football pitch.

A total of 588 floodlights were installed, housing 1500W MBIL linear metal halide discharge lamps. Three levels of illuminance were provided, the first producing

an average horizontal and vertical illuminance of 700 lux and 100 lux. The intermediate level gives an average 1700 lux and 2000 lux over both the football pitch and running tracks.

A series of control gear cubicles, each containing 21 sets of ballasts, ignitors and capacitors were located on a cat-walk built above the grandstand roof, situated behind the floodlight gantry to reduce cable runs and provide easy access for maintenance.

The installation was completed in time for the Fourth All African Games. Further details available from Hugh King, Thorn Lighting, 01-363 5353.



Tamlite High Bay luminaires have been used to provide lighting that is suitable for national and international standards of play at the new Strikers Indoor Cricket Centre in Birmingham. Fifty-four luminaires, using 400W high pressure mercury vapour lamps provide an average luminance of some 800 lux for the three playing areas. The ease of installation was a major factor in choosing Tamlite High Bay fittings. The 'plug-in' gear tray control module enables the luminaire body to be installed quickly and the gear tray is simply slotted into position without the need for hand tools. For maintenance and upgrading the gear tray can be easily unplugged and removed. Details from 0952 586818.

Urban lighting design

Lighting engineers and urban designers got together to discuss urban lighting design, at a recent meeting held at the Royal Institution.

The meeting was attended by members of the Institute of Lighting Engineers (London and South East Region) and the Urban Design Group.

Two papers were presented, the first was a joint presentation by Patrick Baldrey of Urbis Lighting and John Clements of D W Windsor. The authors offered a knowledgeable approach to urban lighting manufacture, based on good optical design.

They concentrated the atten-

tions of those present on the importance of thinking laterally in order to achieve a satisfactory lighting solution.

Patrick and John pulled no punches in their presentation, but the only injured party was the ubiquitous 'opal sphere'.

The second paper by Jonathan Speirs of the Lighting Design Partnership promoted the importance of the lighting designer having an open mind to the many imaginative effects that can be achieved. The influence of theatre lighting was apparent in Jonathan's paper and he suggested it as a useful, albeit unusual, aid to good lighting design.

COMMENT

Finding the light way out

At last it is out. We refer, of course, to the long-awaited BS 5266, the code of practice for emergency lighting reviewed on page 9 of this issue.

Undeniably, the major change introduced by the standard is the increased flexibility to rearrange furniture layouts offered by the concept of *undefined escape routes*, which permit open plan spaces such as offices or shopping spaces to be lit to a specified overall level of horizontal illuminance rather than requiring the delineation of a fixed escape route. This certainly conforms more closely with the realities of commercial usage.

This innovation, together with the recommendation to use a larger number of low-powered luminaires rather than more widely spaced but higher-powered units to minimise the effects of possible luminaire failure, is likely to lead to an increase in the number of emergency luminaires installed.

All this is excellent and meets a long-felt need, but the next step must be to ensure that these requirements are backed by the law. The fact remains that there is still no *general* requirement at law to ensure that an installed emergency lighting system will actually perform adequately when called upon to do so, or that its components meet certain minimum standards. Moreover, loopholes in current legislation coupled with considerable variations in its interpretation by the various enforcing authorities lead to widely differing standards being demanded. Thus, the provision of safety precautions represents a varying 'penalty' to building owners and occupiers in different parts of the country, a situation which seems manifestly unfair.

Two recent tragedies — the Kings Cross Underground Station fire and the Zeebrugge ferry disaster — have demonstrated that commercial operators and statutory bodies forced to operate on a quasi-commercial basis will always tend to give operational and cost considerations priority over those of safety.

So, the law must step in to demand the mandatory installation of reliable emergency lighting in areas where the public is present and may be placed at risk — and the requirements of BS 5266 : Part 1 : 1988 provide an excellent working basis for such legislation.



Insight Design Services of Welwyn Garden City has brought about a complete transformation in appearance at Eastern Electricity's new pathfinder showroom in Edmonton Green. Background illumination for the shop is provided by the latest in lighting technology. Recessed fluorescent reflector luminaires are fitted with low-glare parabolic diffusers to eliminate glare and dazzle from most viewing angles. The background lighting level provided by fluorescent luminaires is 750 lux average. The main ceiling lights are supplemented by Concord lighting tracks on which are fitted Thorn Camera Lightstream spotlights to provide 1250 lux of focussed display illumination and which add an attractive sparkle and accent to the colourful product displays in the shop. Details 0707 322930.

DIARY

APRIL

11

IFSEC 88, International fire and security exhibition and conference at Olympia, London, until 15 April. Further details available from Victor Green on 01-446 8211.

13 and 14

Leeds Electrical Show. Two-day event at The Sports Centre, University of Leeds. More information from Technology Exhibitions 01-760 0009.

14

Selling to architects. One-day seminar for manufacturers arranged by RIBA Services Ltd at the Royal Institute of British Architects' headquarters, London. Contact Sara Chisnell on 01-251 5885 for more details. **Spectroradiometric measurement**. Meeting organised by the

Institute of Physics. Further details from Dr G H C Freeman, National Physical Laboratory 01-943 6821.

ABTT Trade Show '88 until 16 April. Tenth exhibition of entertainment industry equipment, organised by the Association of British Theatre Technicians. Details from ABTT 01-434 3901.

15

Multi-use arts buildings for small and medium sized communities. One-day conference at the Riverside Studios, west London, organised jointly by the Association of British Theatre Technicians and the Association of Consultant Architects. Further information from Ethel Langstreth 01-434 3901.

19

Fundamentals of lighting design. Afternoon and evening course in London running until 5 May (six sessions). Contact the Institute of Environmental Engineering, Polytechnic of the South Bank on 01-928 8989, extension 2004.

20

Lighting for churches. One-day symposium at University College, London, organised by the Bartlett School of Architecture. For details see page 16.

Millar Award. Three finalists present their papers and judges select winner at a meeting of CIBSE Lighting Division. Evening event at CIBSE Building Services Engineering Centre, London. Details from Debbie Rowe 01-675 5211.

20

Electrical Installation and Electronics in a Modern Ship. Evening address at Austin and Pickersgill Shipyard, Southwick, Sunderland. Details from The Institution of Electrical and Electronics Incorporated Engineers 01-836 3357. **Hanover Industry Fair 1988**. Hanover Showground until 27th. Details from 01-651 2199.

25

Lighting Technology Part Three. Course organised by The Institution of Lighting Engineers. Details from ILE 0788 76492.

27

The Newcastle-upon-Tyne Electrical Show. The Gosforth Park Hotel, High Gosforth Park until 28th. Details from Technology Exhibitions 01-760 0009.

MAY

5

Services in health care buildings. Half-day seminar at the CIBSE Building Service Engineering Centre, London. Arranged by Electrical Services Group of the Chartered Institution of Building Services Engineers. Details from 01-675 5211.

9

Intermediate lighting design. Afternoon and evening course running until 26 May (six sessions). Details from IOEE, Southbank Polytechnic 01-928 8989 extension 2004.

15

Interior Design International. Earls Court, London, until 19 May. Information from AGB Exhibitions on 01-868 4499.

LIGHTING EQUIPMENT NEWS

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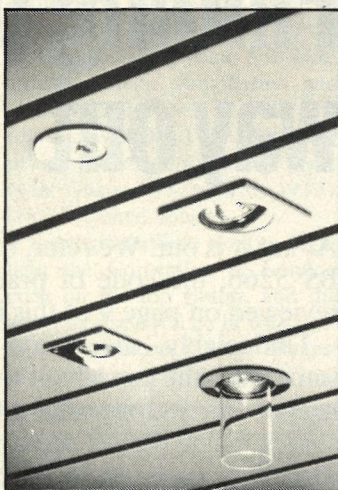
NEW PRODUCTS

Multitude of combinations

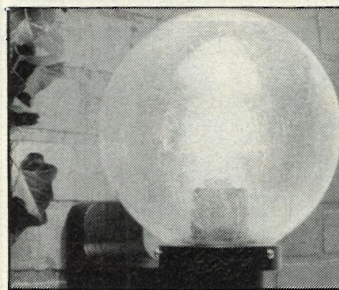
A range of low voltage downlighters has been introduced, based on eleven basic housings and offering a possible 170 alternative combinations. This is achieved through a unique system of interchangeable bezels and an assortment of essential accessories.

These downlighters boast distinguishing technical features such as adjustable lampholders for precision focusing, a rapid spring-mounting device for easy installation, and lamp replacement without removal of the fixture.

Inexpensive lamp alternatives include M32, M47 with built-in reflectors and dichroic versions. round or square bezels are available in chrome, polished solid brass, satin solid brass, gold, white, black and satin chrome.



This range, from Targetti, is available from, C and R Lighting Systems. **Reader Service No. 100**



Shedding light on home security

As part of its increasing range of security lighting products, Ring Lighting has launched an exterior security lantern.

The weatherproof lantern is fitted with a light-sensitive photocell which automatically switches the lantern on at dusk and off at dawn. Made of strengthened rustproof alloy with a glass globe, the lantern takes a standard 60W bulb.

Typical retail price is £19.95.

Reader Service No. 101

Control unit for outside lights

An infrared control unit, designed to switch on external lights when people approach, has been introduced by Superswitch Electric Appliances. The new model 6004 allows either new or existing lamps to be converted inexpensively into a security lighting system which will both welcome visitors and deter intruders.

With a polycarbonate casing, the 6004 is weather-protected and can be mounted on any flat exterior surface. An integral passive infrared sensor identifies sudden changes in temperature caused by people or cars entering its detection zone, automatically switching on the lights under its control. These remain lit for as long as

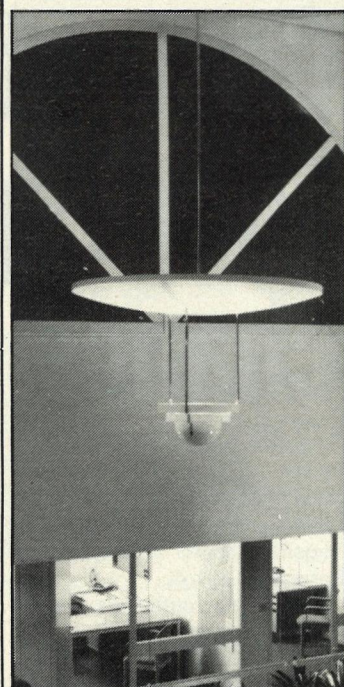
movement is registered. When no further movement is detected the light then remains on for a further period, which can be adjusted for any duration between 12 seconds and 12 minutes.

The 6004 has a maximum range of 16 metres and detection field of 110°. This field of view can be accurately controlled by the use of a unique masking set, which fits over the face of the sensor. The detection zone can be further controlled by varying the angle of the head, which is adjustable on both horizontal and vertical planes, with a calibrated scale assisting in this procedure. Whatever the range chosen, the sensor head monitors at three different levels, a feature which eliminates the possibility of intruders by-passing the detection zone by crawling under the beam.

Supplied with a twelve month guarantee, the 6004 has an approximate retail price of £69.96.

Reader Service No. 102

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



Light and quiet

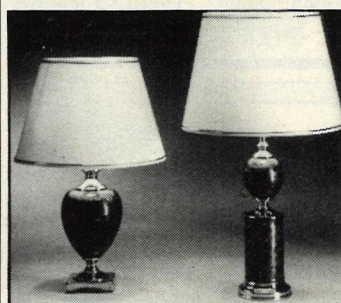
A new uplighter, designed to spread light and absorb sound, has been developed by Ecophon International Ltd.

Called the Laterna Acustica, the uplighter uses a special aluminium reflector which concentrates the light beam up onto a round, acoustic, dish shaped panel. This ensures maximum downward light reflectance while at the same time airborne noise is reduced because of the sound absorption properties of the panel.

Requiring a minimum ceiling height of 4 metres, the Laterna Acustica could be used in large open areas such as banks, hotel and office foyers, terminals, leisure centres, swimming pools and concert halls.

A variety of light sources can be used, including metal halide lamps, high pressure sodium lamps, compact fluorescent tubes and tungsten halogen lamps. Details from Ecophon International 0256 850977.

Reader Service No. 105



Stippled effect

Cresswell has launched four new table lamp designs with a stippled gold and black finish. The richness of the gold effect is reminiscent of ancient South American artifacts and so the lamps have been named 'Inca', 'Maya', 'Lima' and 'Brasilia'.

Two of the models are blended with polished and lacquered brass components and the shades are produced from laminated glazed chintz with brass effect trim.

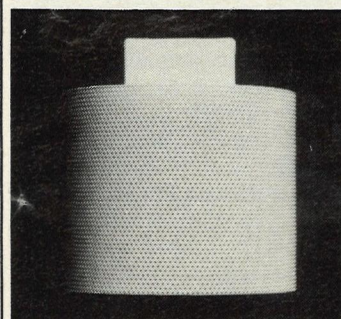
Heights of the lamps are 18" (Maya), 19" (Inca), 23" (Lima) and 28" (Brasilia). Details from Cresswell 0763 41166.

Reader Service No. 103

Small scale solution

Spectrum has launched a new series of external fittings for domestic and commercial developments where a small scale lighting solution is required.

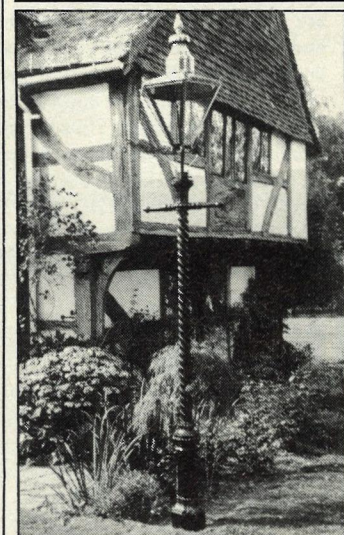
The precise perforations used on some fittings give a soft, diffuse general light with a more con-



centrated downlight to illuminate footpaths or walkways.

The 900 series of fittings, which incorporate a wire mesh grill or minimise vandal damage, can be wall or post mounted and is available for use with either sodium or mercury lamps. The housings are manufactured from sheet steel and are epoxy powder coated.

Reader Service No. 104



Barley sugar

The Barley Sugar Column, a faithful reproduction of the south Eastern and Chatham Railway column, is now produced in four sizes offering posts for internal decorative schemes or for street lighting in conservation areas.

The columns, manufactured by Sugg Lighting, feature intricate design detailing and are finished in a black polyester powder coat on aluminium. They are designed to be bolted down to a suitably prepared foundation.

New to the range are the extended 3000mm post and an 2450mm post. Others are the extended 2150mm and the 1675mm posts. Ladder bars are standard on the three larger posts but are an optional extra on the smallest one.

Reader Service No. 106

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
fitting, 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

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

NEW PRODUCTS

Stylish uplighter

Gemini, a stylish wall-mounted quarter-sphere uplighter, is the latest addition to the growing range of units from Orgatech Lighting.

It produces a restful, warm light which is particularly suited to restaurants and corridors. It can also supplement existing lighting in cellular office layouts. Gemini is easily adaptable as an attractive wall-mounted planter.

Standard colour finishes include gloss white, mid-grey, raven, pol-

ished chrome and lacquered brass.

The uplighter is available in three lamp types: compact twin fluorescent, twin 18/24 watt or single 24 watt linear tungsten halogen.

Orgatech has also introduced the Antenna range of uplighters, with a ceiling suspended version.

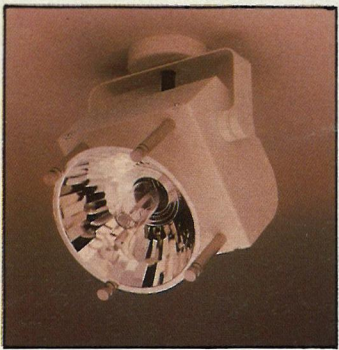
This new range offers a choice of freestanding, wall-mounted, desk or screen mounted units as well as the ceiling suspended version. **Reader Service No. 120**

Spotlight with many advantages

Multiflux is a new low energy spotlight from the Lighting Workshop. It is one of the few fittings on the market to use the Philips White SON lamp.

Multiflux combines a number of advantages in one fitting. There is warm-white light, excellent colour rendering and a consistency of colour irrespective of fluctuation in power supplies.

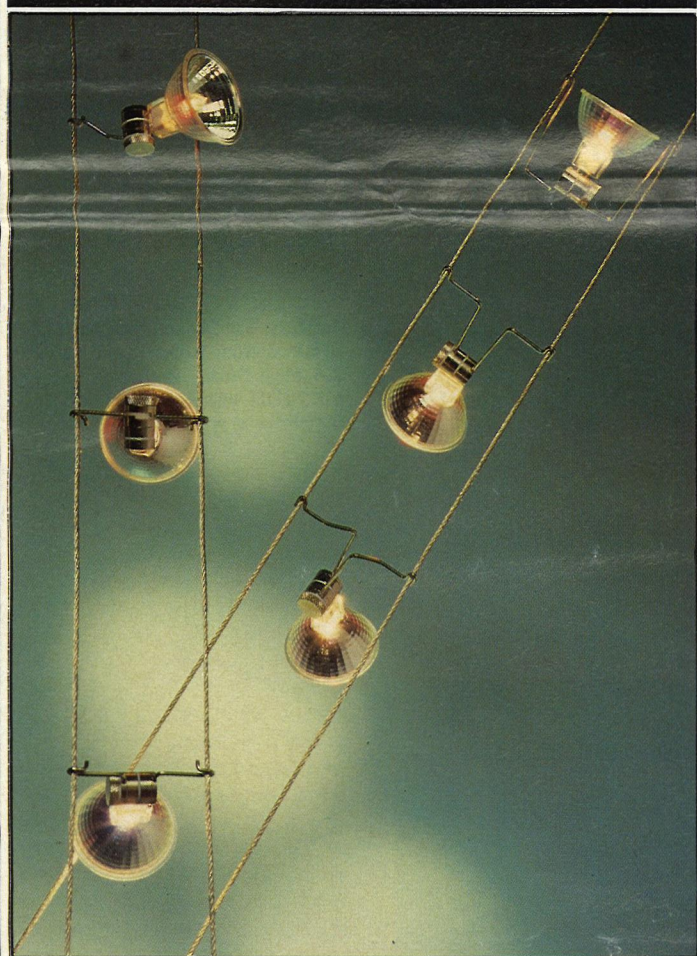
A faceted aluminium reflector ensures a high intensity 13° beam and good optical control. There is minimal heat generation and almost no emission of UVA rays.



The spotlight is suitable for accent and display lighting or commercial downlighting. It is ideal for retail displays, because its brightness is coupled with its capability to bring out the best colours in the merchandise.

Multiflux comes, complete with control gear, in black and white.

Reader Service No. 121



Cable lighting system

A flexible low voltage lighting system for vertical, horizontal or angled use is being launched by Light Years. Wirelight, comprises two parallel wires which act as electrical conductors to fittings which can be slotted out, changed and adjusted at will. It is ideal for shops, galleries and museums where display and exhibits are often changed.

Wirelight is shockproof, and a

back-up protector is built into the transformer so that, in the event of an overload or short circuit through contact with a metal object, the system will automatically switch off, search for the fault and reset after a 3 second interval.

The maximum wattage is 300W but this can be increased to 600W if a centre feed is made with a maximum of 300W on each wire. The system is suitable for 20W or 50W low voltage tungsten halogen lamps with reflectors and a stirrup piece is available to change the angle of the wires.

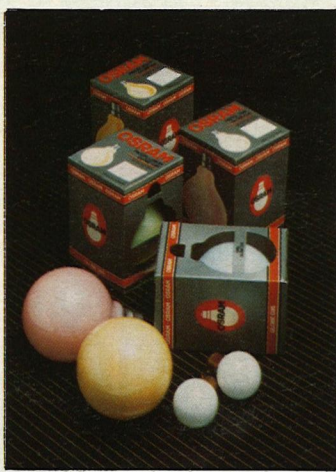
Reader Service No. 127

Canopy pack

Fitzgerald Lighting has introduced a recessed luminaire for use on exposed T Bar ceilings, with flat panel diffusers. The luminaire,

Canopy Pack, is available in 300mm or 600mm widths and from 600mm to 1500mm lengths. It has a demountable gear tray to enable easy stocking, and to comply with 'F' mark requirements.

Reader Service No. 123



Exciting lighting from Osram

Osram-GEC has launched a new range of pastel Globe light bulbs which are ideal for creating different interior lighting effects and are suitable for use when the bulb remains visible, for instance in centre lights.

The light bulbs, 95mm in diameter, are available in peach, pink, lemon and soft white in 60 and 100W.

Reader Service No. 124

Twinlights get new design

Chloride Bardic has launched a completely redesigned range of Twinlights. The non-maintained TH Twinlight range is supplied fully packed with 10, 20 or 55W tungsten halogen projectors and maintenance-free sealed lead acid battery packs offering 1 or 3 hour duration.

Ideal for providing emergency lighting in large open areas such as factories and warehouses, twinlights can also be used to spotlight hazards such as dangerous machinery.

Reader Service No. 125

Combining style with performance

The Heritage series of post-top luminaires, launched by Holophane, has been designed to meet the requirements of residential street lighting while offering a number of benefits. Traditional in design, Heritage offers high illumination levels with reduced energy consumption and operating costs.

The lighting characteristics are achieved by using sophisticated



prismatic refractor enclosures with precisely cut prisms moulded in polycarbonate plastic.

Available with optional filigree and scroll styling, Heritage is designed to blend in with period as well as modern architecture. Poles are available to 3, 4 and 5 metre mounting heights with cast iron base compartment and flange plate and die-cast aluminium housing and ribs.

Reader Service No. 126

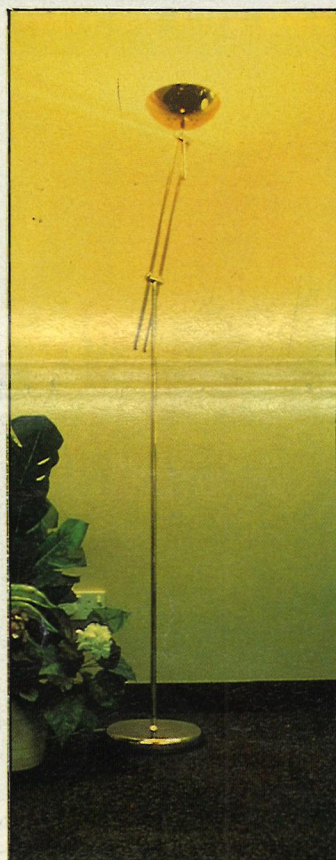
Greater output

Anglepoise Lighting has introduced a metal halide Quad uplighter to take a 150W lamp.

Anglepoise had been receiving requests for a higher output version since the Quad's launch last year and feels that the energy efficient 150W lamp will make the Quad even more popular with specifiers.

The Quad, a stylish quarter-sphere, is a wall-mounted uplighter which provides well-diffused light and glare control through indirect illumination. Optional extras include a protective toughened glass cover and re-ignition monitor package for use with mercury, SON and metal halide lamps which provides instant illumination while the discharge lamp is reaching full output.

Available in painted or metallic finishes, the Quad is marketed in matt white, brushed aluminium, brushed and polished brass antique pewter and antique bronze finishes. **Readers Service No. 127**



Versatile uplighter

A high output lamp, a double arc movement and a dimming facility are the main features of a versatile new standard type uplighter from Tally Ho Lighting.

Appropriately named Heron, because of its ultra slender shape and tall height (180cms), the new uplighter can project light in nearly all directions.

It is ideal, says Tally Ho, for ambient lighting in offices, hotels, restaurants or any large rooms with high ceilings.

Its multi-directional ability is achieved by a double arc movement of the swing arm and lamp swivel. A long swing arm can be rotated through nearly 360°. The second swivel enables the lamp and reflector to be turned through another wide arc.

The high intensity of the 300W Halogen lamp can be softened by a foot dimmer switch. There is a choice of finishes: either all brass or a combination of brass and chrome. A matching wall light is also available.

Reader Service No. 128

LIF LINE

Guide to the new technology

New technology brings many advantages but, as most people in the building industry will readily acknowledge, it can sometimes produce a problem or two for the unwary, especially during the time it is being assimilated into current building practice. This is no less true of lighting, and it was with this in mind that the Federation decided to publish its Guidance Notes on High Frequency Ballasts for Tubular Fluorescent Lamps*.

While the arguments for using electronic ballasts in high frequency fluorescent lighting are overwhelming, it is important to understand the need for:

1. Careful attention to be paid to the circuitry and to component selection and testing
2. Pre-aging so that "early rogues" do not get outside the factory
3. The ballast temperature to be checked in prototype luminaires in accordance with the guidance of the ballast manufacturer.

Not to do so could mean risking short lamp lives, a shorter ballast life or even your or your client's life if the wrong circuitry were to cause a fire! Remember that an electronic ballast is not repairable and, if faulty, would have to be replaced in its entirety. Only by purchasing from reputable Western European manufacturers can you be assured that these costs are avoided.

High frequency operation has developed along two paths: one where the ballast is designed to operate only argon filled lamps, and the other where the ballast will operate any T8 lamp. The advantages of HF operation using the right sort of electronic ballast are several:

- The lamp efficacy goes up by 10-15%, and the ballast losses are about half those of conventional 50Hz ballasts. This gain can lead to a payback period as short as 2-3 years despite the higher cost of HF ballasts.
- Visual comfort is increased. At HF there is not the usual 100Hz ripple in the light output. Though it is too early to make positive claims, the experience of lighting users is that HF operation is more comfortable. In addition, starting is smoother, and most ballasts switch off if a lamp becomes defective.
- Regulating or controllable HF ballasts can regulate the power input and light output of the lamp from 100% to a low level.

Regulating HF ballast circuits have the usual advantages of efficacy and visual comfort, and in addition introduce a new flexibility in the way that lighting is controlled. Most of these forms of control bring even further savings in energy. The obvious example is daylight linkage. At any time, the only electricity used is the minimum for topping up the daylight lux to the desired lux. Extra energy savings up to about 40% can be obtained.

Even in the centre of buildings, some extra saving comes from regulated or controllable HF, if the geometrical layout of luminaires produces higher lux than the target level. The feedback circuit and photosensor will bring the illumination level down to the desired level and then hold it there, irrespective of changes in supply voltage or lamp depreciation. A clock control, as well, can achieve further savings by adapting the lighting to the usage patterns.

Regulating and controllable HF ballasts are not just an improved product: they will also involve changes in electrical installation and lighting design practice. Four of the most important changes are:

1. No sub-circuit wall switches are required in the supply mains. "Off" can be made a control level just below minimum lux, the actual control is by low voltage DC control lines.
2. No external regulator is required. Control of light output of the lamps is incorporated within the ballast.
3. In installations with semi-central batteries, no emergency inverter ballasts are required. Most HF ballasts operate on DC as well as on AC.
4. The lighting designer no longer has to think of a lamp as having fixed lumen output; each lamp becomes a multi-lumen lamp. Over the working area, different lux levels can be set for different tasks. The switching pattern and the lux pattern can speedily be adjusted when occupancy changes.

Overwhelming advantages, as you will appreciate, but remember, if you want to enjoy them all trouble-free, your best bet is to stick with the people who know what they're doing — and possibly get a copy of the LIF Guidance Notes!

* Guidance Notes available from LIF at £7.50.

Lighting up time in Nottingham

A look at the contribution of modern lighting to the refurbishment of a shopping complex in Nottingham.

At the Victoria Centre, Nottingham's foremost shopping complex, the public malls have been refurbished as part of a continuing development plan of the owner, Capital and Counties plc.

The 1960's-designed, internal two-storey malls were originally lit using 250W mercury light sources in decorative but inefficient housings, giving an illumination of barely 150 lux. The luminaires were generally unswitched since trading hours, coupled with out-of-hours cleaning and security, necessitated lighting during the majority of the day.

Dark ceilings and wall surfaces divorced the interior of the centre from outside daylight conditions.

The refurbishment plan involved recladding of all internal surfaces in light, bright colours and mirrors, and the forming of large roof lights in three positions to provide a link with the outside environment.

The aim was to create a bright airy environment with water features, tropical planting and splashes of colour.

High frequency

Efficiency and increased control were high on the priority list for the new lighting installation. Philips' high frequency, recessed, louvred fluorescent luminaires on dimmers were selected for the main ambient lighting. Dimming of the lighting, between 550 and 100 lux, is carried out by a Transmitton building management system, enabling lighting conditions to be adjusted to suit the time of day.

Sophisticated switching enables careful management of the lighting outside trading hours, which is expected to result in substantial energy savings.

The control centre at Not-

tingham is the focus of all control functions for lighting, fire alarms and air-conditioning plant. Computer colour graphics illustrate the state of the lighting in the malls. Adjustment to the switching schedule can be easily made by a few keystrokes on the VDU.

Attracting shoppers

To conserve energy, photocell control in courts reduces ambient lighting intensity when sufficient daylight is available.

During trading hours, ambient lighting is supplemented by special

effect and display lighting using a variety of sources such as the new Philips' White SON, Oldham Claudgen's Hislim, long life fluorescent, and cold cathode lighting. The emphasis has been to put light onto surfaces to create interest and attract shoppers to the spaces.

Cornice detailing conceals more Hislim lighting to accentuate the cellular ceiling with fibrous plaster steps.

Philips' White SON lamps in recessed, adjustable housings with their powerful light output are used to highlight planter boxes



Uplights built into the staircase balustrading.

and bring to life the variegated colours of the foliage.

Lita low voltage spotlights in both fixed and adjustable form pick out the hanging banner signs and add sparkle to the lift cores.

Special uplights

Uplights on staircases were specially manufactured by LB Lighting and were designed to blend with and accentuate the architectural decor. Powder-coated spun bowls in pastel shades of green and pink were mounted on solid, polished brass spigots comprising part of the new balustrade system. The uplights throw light onto the ceiling, adding depth and height to the walkways.

The exotic trees were lit with a number of 400W metal halide lamps in special housings to match the Philips fluorescent luminaires. The switching of these luminaires ensures that plant lighting require-

ments are met.

Capitals of columns receive special treatment, using two colours of cold cathode lighting — alpine white and magenta — to create a colour scheme which can be seen along the mall.

Neon Court, one of the six open courts on the mall, receives additional feature lighting comprising Oldham Claudgen cold cathode lighting at high level around the perimeter of the court and on the faces of the planted boxes.

Architects for the project were Michael Haskoll Associates. The lighting consultants were Roberts and Partners, while MJN Ltd acted as electrical contractors.

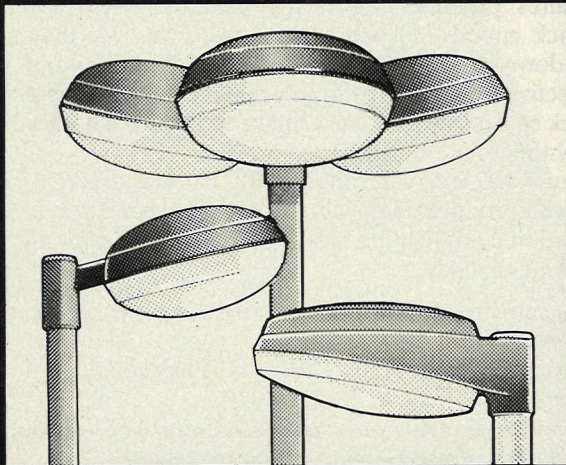
This article was contributed by Stuart Alexander, a director of Roberts and Partners. Further information can be obtained from Roberts and Partners, 2-4 High Street, Kidlington, Oxford OX5 2DH, telephone 0865 842222.



A general view of the refurbished Victoria shopping centre in Nottingham.



Column capitals with decorative cold cathode lighting.



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Reader Service No. 6

Light entertainment in store

How light and sound in the high street is drawing the customers and putting up profits

Carnaby Street's newest shop could be mistaken for a disco if it were not for the displays of gifts, jewellery, toys and novelties. The owner of Cascade, Alan Natarajan, believes in using light and sound to attract and entertain his customers.

The lighting scheme was designed by Tony Timms of Classic Electrical Contractors Ltd, (who installed all the special effects), and Bob Hall of Anytronics Ltd. They believe it is the most advanced, programmable, low voltage lighting scheme in a British shop. They worked with Maureen Jordan of M J Designs to produce an outstanding result.

It was part of the client's brief that the hardware was to be exposed on the ceiling, to give a busy effect, and the lighting fittings were to be easily moveable when displays were changed.

A chromium plated grid by Meroform is suspended below the ceiling. Spotlights from the Eclipse and Optec ranges by Erco Lighting are attached to the grid by specially made brackets. All the spotlights are low voltage and have integral transformers.

A Moonflower lighting effect by Coemar UK Ltd is also attached to the grid. This spotlight has a colour wheel and sends rays of coloured light across the shop, bouncing off the various chromium plated fittings.

Array

Another eye-catching effect is the array of Tube Lights by Lynx Lighting. These units have angular, chromium plated, motorised "arms". The vertical and horizontal sections of the tubular arms revolve independently to throw moving beams of light around the shop from the 100W low voltage, miniature, tungsten halogen lamp in the end of each arm.

A display of holograms on one wall is lit from above by a line of miniature tungsten halogen spotlights by Concord, on long curved stems.

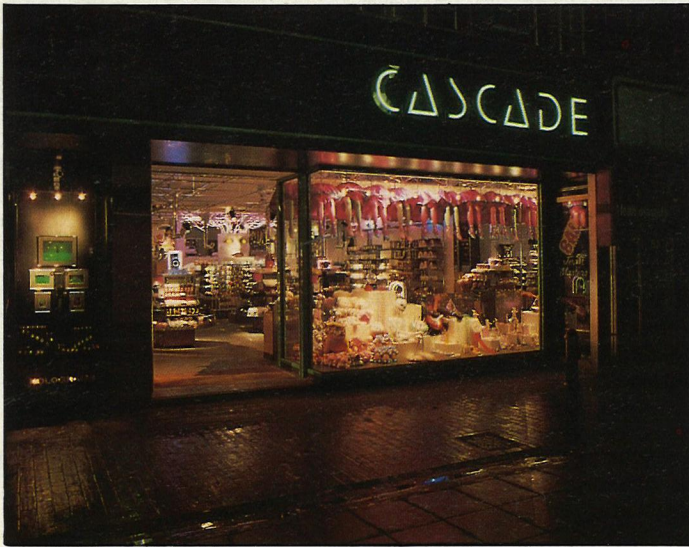
The lighting control console, by Zero 88, is positioned behind the shop's check out point. It controls 99 programs through 24 channels divided into six zones.

The console emits 10V signals to distribution units on electrical trunking around the perimeter of the ceiling. These units are by Classic Electrical.

Chromium plated power packs, produced specially for this installation by Anytronics, are attached to the ceiling grid and are plugged into 13A sockets on the distribution units. At the back of each power pack is a 5DIN socket which takes a lead to connect it with any of the six sockets on the distribution units, representing the six lighting control zones.

The lighting plugs into special sockets on the power packs. Dimming and manual override facilities are also provided.

In addition, the lighting is controlled by eight channel time clocks. These switch on the first lighting at 7am with additional circuits at 8am. In the evening the lighting gradually switches off



A view of Cascade from Carnaby Street.



Inside the shop the lighting hardware is exposed on the ceiling.

between 9 and 11pm.

One of the most spectacular effects at Cascade is a huge plastercast face about 1m high. Above the face is flowing hair in pink and blue neon tubing by Party Line Lighting, which is about another metre high.

Fibre optics give constantly changing colours in the eyes. This is achieved by 99 fibres for each eye and a colour wheel revolving in front of a 50W tungsten halogen lamp. The colours mix in the iris to give continually changing, sparkling effects using red, blue, yellow, green and white. The fibre optics are by Paropti Projects.

Other illuminated effects placed around the shop by Cascade include plasma balls, and neon clocks and radios.

Windows

One of the shop windows is lit by Modupoint miniature tungsten halogen spotlights by Marline Lighting. These are on long sticks that plug into special power sockets at the top of the window. They are also dimmer controlled.

A second shop window has a display of holograms for the opening, also lit by Marlin spotlights and on sequential switching to add movement to the holographic effect.



An atmospheric shot with lighting effects, including the face with neon hair.

For more details contact Classic Electrical Contractors Ltd, Unit 4, Enterprise Estate, Station Road West, Ash Vale, Hants, GU12 5QU. Telephone: 0252 519178.

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less Shelflites

Shelflite installed at a Tesco Superstore.

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COMPETITIVE MAINTENANCE CONTRACT RATES	✓		✓
WIDE CHOICE OF BATTERY TYPES INCLUDING RECOMBINATION SEALED LEAD ACID	✓		✓
RANGE OF COMPLEMENTARY SLAVE FITTINGS		✓	✓
AC STATIC INVERTER SYSTEMS AVAILABLE	✓		✓
QA APPROVED TO BS5750 PART 2	✓		✓
WIDE RANGE OF OPTIONAL EXTRAS	✓		✓
2 YEAR GUARANTEE ON CENTRAL BATTERY SYSTEM ELECTRONICS			✓

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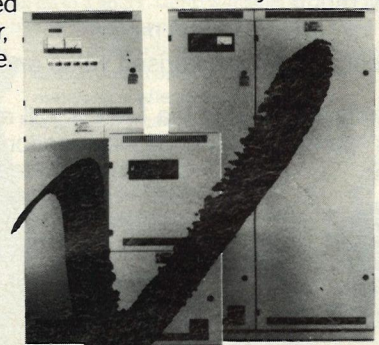
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Emerging from the shake-down

Osram-GEC has been shaking down, sorting out and checking up on its marketing performance, headed by Pat Sansom. Now that the dust has settled, where is the company going?

Pat Sansom, managing director of Osram-GEC, is not keen on making the company a personal fiefdom; in fact, he prefers not to be interviewed as the company's "voice", since he feels that one person's view is an unfair representation of a lighting company so large and active.

How does he feel about the recent reshuffling at Osram? "Now that the dust has settled, the company is emerging with a strong

future ahead of it, again," and he concedes that this once-great GEC division has some lost ground to make up.

Recent performance

This is a fair reflection on the performance of recent years, and Mr Sansom is entirely sanguine about the company history. But the future provides him with great hope: "The link with the Germans [Osram GmbH, part of Siemens] has done us no end of good, provid-

ing access to research and expertise which we cannot do without."

He says that the two companies' main fields of excellence by and large do not overlap, and that there is considerable exchange of ideas and information already. In reply to the rumour that most of the traffic has been one-way, from Osram-GEC to Osram GmbH, he denies it, genially: "The information flows freely both ways. We have acknowledged skills in the high- and low-pressure sodium lighting

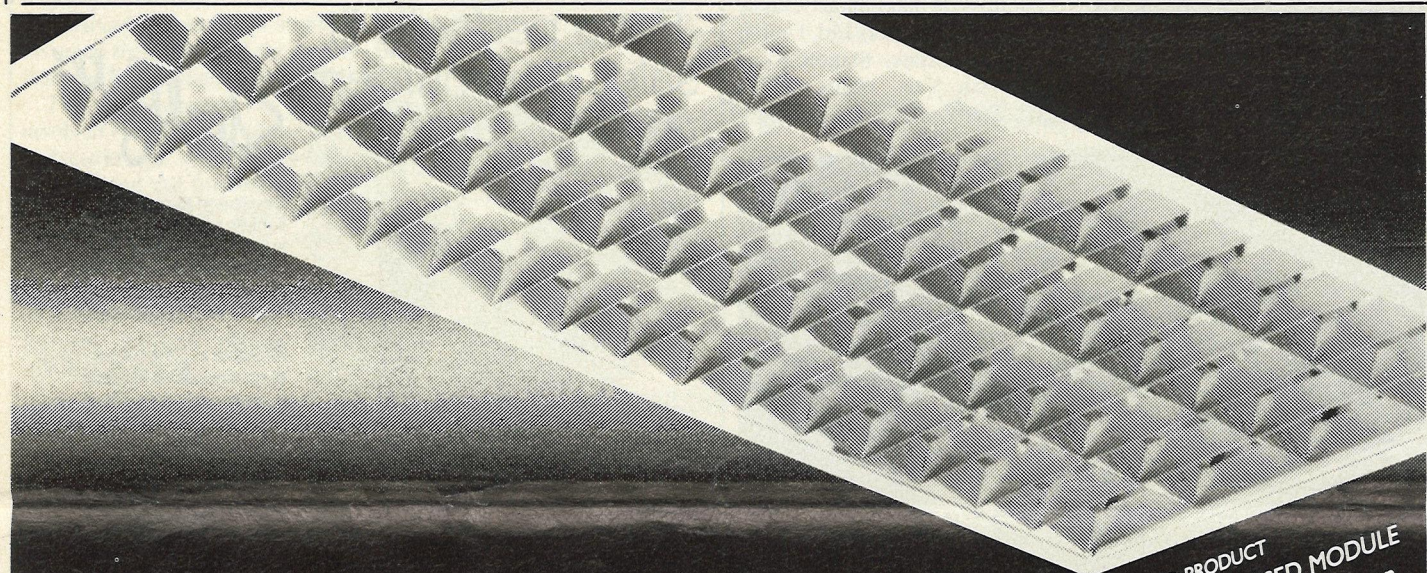
fields, and they have acknowledged skills in the metal-halide and mercury fields — so, naturally, we swap our technical know-how."

Osram-GEC is 49% owned by Osram GmbH, and there is a possibility (if not a probability) that at some stage GEC will decide to sell the controlling proportion of its shares. Except for the believers in British ownership as the sole solution to economic problems, Mr Sansom sees nothing exceptional in the change of status this would bring to the cards, and that's it.

Reassessment

One of the major changes over the last couple of years has been a reassessment of the way in which Osram lighting is sold. The main area for marketing and sales effort has for years been the wholesale trade. This has to a large degree receded. "Time was," says Sansom, "when all a lighting manufacturer had to do was keep the wholesalers sweet, ensuring that they stocked your products in preference to Joe Soap's."

"Since the advent of specifier business, however, Osram have identified this as an opportunity. By referring back these specifier requirements to stockists we



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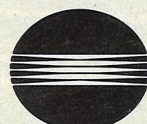
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MINOLTA

expand this important distribution link in an area where electrical wholesalers have slightly less influence."

Pat Sansom is a pleasant, robust character, keen on the marketing angle of running a business, not keen on the politics and in-fighting that can characterise running a large company. He reports to the GEC board. He is nearing retirement, and realises that there is a stage at which it will simply be the right moment for him to leave the company. He is deliberately

Thorn). It is co-owned by the General Electrical Company (GEC) and OSRAM GmbH, W. Germany. Distribution centres and sales offices are located throughout England (5), Scotland (1) and Northern Ireland (1). A full range of industrial, commercial and domestic lighting fittings are manufactured at the River Works factory in Birmingham while lamps are made at the Wembley factory and at Shaw, near Oldham in Lancashire.

Development plan

In 1987, Osram began implementing a major, company-wide development plan, the overall objective of which was growth. One of the key elements of the plan was the formation of a new commercial department headed by David Schofield. The new department comprises wholesale, retail and contract sales teams, marketing and, significantly, new product design and development. The aim of the commercial department is to increase Osram's presence in key market sectors and this will be achieved by supporting a programme of product development and innovation by sales, marketing and promotional activities.

The formation of the new commercial department is one of three major developments at Osram. A complete review of the company's order entry planning and distribution systems is also underway and will result in investment in new computer-based systems. A programme of investment in plant at Osram's three factories is also planned. Over the next 12 months, Osram anticipates spending over £4 million across each of these three main areas.

Since the advent of specifier business, however, Osram have identified this as an opportunity. By referring back these specifier requirements to stockists we expand this important distribution link in an area where electrical wholesalers have slightly less influence.

grooming the Osram board to take account of his pending departure. Though he has thought through retirement, he is clear that he does not specifically want to go; but he will.

With 2,800 employees in the UK and a turnover of the order of £64 million, Osram-GEC Ltd is one of the three lighting giants in the UK (the other two being Philips and

Up to standard

Chris Parker, Marketing Director of Menvier (Electronic Engineers) Ltd. discusses the implications of designing to the new BS 5266 : 1988.

The long-awaited revision of BS 5266: Part 1: Code of practice for the emergency lighting of premises has now been published. This much more comprehensive document has taken into account the experience gained by users, specifiers and manufacturers over the years since the first version was published in 1975.

One of the significant changes is a more detailed definition of the required illuminance of escape routes. Escape routes have been divided into two types: *defined*, which can be thought of as a specific corridor or corridor area, and *undefined*, which can be thought of as an open area on the escape route such as an open office or supermarket. The design criteria of the defined escape route are very similar to what we are used to, except that the 0.2 lux minimum requirement on the centre line has been enhanced by putting a 2m width criterion on the escape route. In addition, 50% of the route width should be lit to a minimum of 0.1 lux. Wider escape routes can be treated as a number of 2m wide bands.

Alternatively, in open areas where it is impractical or inconvenient to establish a clearly defined escape route, emergency lighting system designers can follow clause 5.3.2. This clause states "Where no escape route is convenient, the horizontal illuminance over the whole area must be lit to an average of 1 lux".

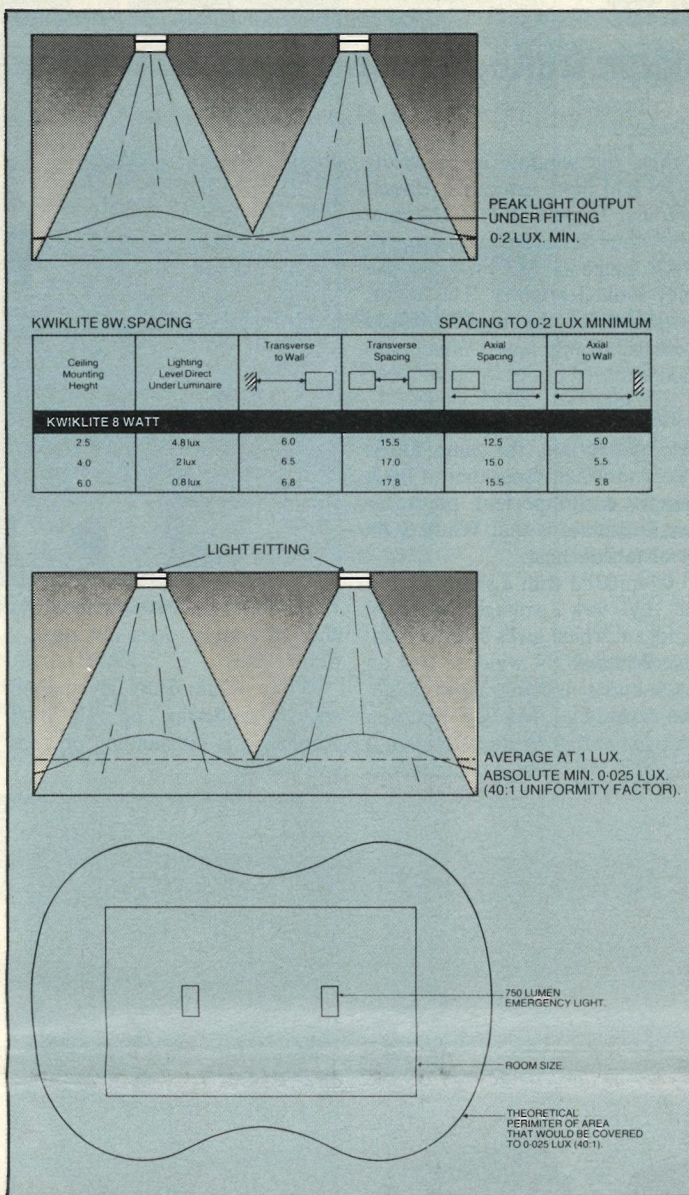
Escape path

Undefined escape routes through open areas are now becoming much more common. To try and define an escape path which must then be kept unobstructed is often impractical and seriously limiting for the user. Consequently, as an alternative in these areas, it is now possible to cover the total floor area to an average of 1 lux.

This requirement encourages the use of high light output fittings which are more economical at producing the greater light levels needed to cover an area instead of a narrow strip. The optimum light output is found to be around 750 lumens for ceiling heights up to 4 metres. Provided that the fitting is not a very specialised low brightness type with a strict light cut-off, the uniformity factor will not be a problem.

One of the most cost effective ways of producing a high light output emergency luminaire is to incorporate a "conversion kit" inside a standard mains luminaire. These typically give light outputs of the order of 300 to 800 lumens, as opposed to an average single point 8W emergency luminaire, which gives a light output of around 140 lumens. A typical example of this type of device is the Menvier Convertalite range. In fact, Menvier was the company that pioneered the use of such systems.

A Convertalite comprises a high temperature sealed nickel cadmium battery pack, with an expected operating life of over 5 years, and a module containing a solid state inverter/charger and a changeover sensor. In the event of a mains failure, the converted fitting remains illuminated at a reduced level for the rated duration of 3 hours. Once the mains



Implications of BS 5266 : Part 1: 1988

supply is restored, the luminaire resumes its normal operation, and the battery is recharged. This is a simple and extremely cost-effective way of providing emergency lighting.

Although this new concept for open areas may seem expensive as it covers a large area when only a narrow route is needed, the better value of high light output units outweighs this. It also eases the user's problems, as he can change the floor plan of his conference room, move the desk layout in his office, or replan the counters on his shop floor, without worrying about contravening escape route requirements.

The boxed example of this application demonstrates the cost appeal of using Convertalites operating in the maintained mode to provide emergency illumination for these open areas, instead of conventional maintained emergency lighting, which satisfies the same requirements.

Changes in BS:5266 with regard to central battery systems, refer mainly to cabling and battery type. While Mineral Insulated or other specialist fire resistant cables are acceptable, steel and PVC conduit need to be given additional protection, either by siting them within the building structure or by cladding. To remove any area of doubt, it is now required that the cabling voltage drop for the installation should not exceed 10%. This figure enables the system designer to allow correctly for the minimum voltage reaching a slave luminaire and, in the case of a fluorescent unit, ensuring the voltage is adequate for the unit to strike.

In addition, batteries for central systems should be designed for stationary use and should not be of an automotive type of construction. These requirements are designed to improve the reliability of these systems. Whilst these new requirements are not, of course, retrospective, if a system is modified the whole unit may well have to be upgraded.

In terms of documentation, the

This is a typical building, measuring 35m by 55m, with a luminaire height of 3.5m, such as a supermarket or an open plan office. The emergency light output per luminaire is 700 lumens and a service factor of 0.8 is assumed, with an end duration factor of 0.75.

To calculate the 'Room Index' (how much of the light output of the luminaire will hit the floor and how much will be absorbed by the walls, which are assumed to have zero reflectance) the following formula is employed:

$$\text{Room index} = \frac{\text{Length} \times \text{Width}}{\text{Height} (\text{Length} + \text{Width})}$$

which, in this instance, is

$$\text{Room Index} = \frac{35 \times 55}{3.5 (35 + 55)} = 6.1$$

This will typically produce a Utilisation Factor, at zero reflection, of 0.45.

To calculate the number of luminaires required to provide the necessary level of emergency illumination, the following formula should be employed:

$$N = \frac{E \times L \times W}{\text{UFO} \times \text{SF} \times \text{ELDL} \times K}$$

where N = Number of fittings
UFO = Utilisation factor at zero reflectance

L = Room Length
W = Room Width
E = Average illuminance required (normally 1)
SF = Service correction factor (to cover voltage drop etc)
ELDL = EL Design Lumens at nominal volts
K = Reduction in light output at either end of discharge or after 5 seconds, whichever is the lowest.

which, in this instance, is

$$N = \frac{1 \times 35 \times 55}{0.45 \times 0.8 \times 700 \times 0.75}$$

= 10.2 luminaires (11, for practical purposes)

Alternatively, using single point 8 watt luminaires, with an output of 150 lumens per luminaire, the calculation would be as follows:

$$N = \frac{1 \times 23 \times 55}{0.45 \times 0.8 \times 150 \times 0.75}$$

= 47.5 luminaires (48, for practical purposes)

This, despite a unit cost which is around 25% higher than each conventional maintained emergency luminaire, the total cost is less than 30% of the cost of providing sufficient conventional luminaires to produce the equivalent level of emergency illumination.

Comparative application

previous standard called up the need for a completion certificate to be signed when the equipment was handed over. But it is unreasonable that a contractor should sign this when it also covers a design which may not have been produced by him. These two areas have now been split and the signature obtained should only be for the work done by the engineer responsible.

Log records

The test schedule is largely unchanged but this area is one of the most important to ensure that the system will operate when needed. A system of log records is now required and leading manufacturers are likely to make them available to enable site owners to satisfy the inspecting authority that correct testing and maintenance has been undertaken. Indeed, Menvier has already produced an Emergency Lighting Log Book which conforms to the requirements of the new standard.*

* Copies of the Emergency Lighting Log Book are available at a unit price of £13.50 net trade plus VAT from distributors or from Menvier's Marketing Department at Southam Road, Banbury, Oxford. Tel. 0295 5636.

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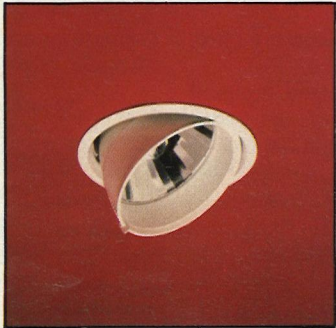
Adding a new dimension to retail displays

A dramatic demonstration of the potential of Philips' White SON lamp for retail lighting was recently given at the Chelsea showroom of Adel Rootstein, leading maker of fashion mannequins.

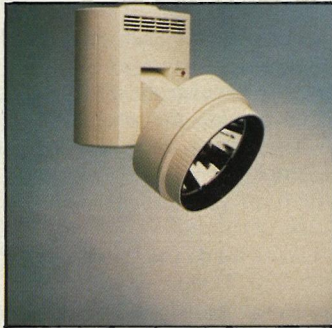
This new generation of high pressure sodium lamp gives display managers a new and versatile lighting tool. Lita, one of the companies in the Philips group, has designed two spotlight projectors and four downlights for it that offer beam angles from 5° to 42°.

Two shop windows side by side were identically dressed with mannequins wearing vividly coloured cocktail and evening dresses with trimmings such as beads that reflected the light. Huge

Dramatic colour rendering tool introduced for merchandising displays. We look at the Philips White SON lamp.



Adjustable downlight by Lita for White SON lamp.



Spotlight projector by Lita for White SON lamp.

pieces of sparkling jewellery were also worn.

A very wide selection of luminaires, (part of the permanent equipment of the showroom incidentally), enabled White SON to be compared with commonly used display lamps.

When compared with PAR

lamps, the window lit by White SON had more saturated, vibrant colours. Because this SON lamp gives four times the light output of PAR lamps the SON window display looked brighter. The colour rendering of the models' faces, with its slightly warm effect, was flattering.

Long life

At 5000 hours, the lamp life is two-and-a-half times that of PAR lamps. An important point for retail displays is that White SON gives far less heat.

Compared with a shop window lit by low voltage tungsten halogen, which gives a cool effect, the White SON window had an even more inviting atmosphere. An advantage over LV tungsten halogen is that White SON is not affected by voltage fluctuations



White SON lights a corner of Adel Rootstein's showroom.

and, of course, does not need a transformer.

While White SON gives good colour rendering on all bold colours, it is outstanding on reds and yellows.

Overall, the display lit by White SON had more impact, or "stopping power" as Philips put it. Colour filters are also available with the luminaires for colour display work, as with tungsten lamps.

In fact, White SON widens the display lighting options available. Where warm coloured light sources are being used, such as tungsten or Colour 83 fluorescent lamps, White SON not only complements them but can also highlight selected areas or objects.

Used with metal halide lighting, White SON in a narrow beam luminaire can accent a feature with a warm "halo" effect compared to the cool wash of light from the metal halide source.

Other applications include interiors where the lighting must be mounted at a high level, such as atria and churches, and still be sufficiently powerful to give adequate illuminance at floor level.

Philips believe that at about £200 for a luminaire plus lamp, White SON gives users value for money. It is also available through the company's Lighting Management Service.

For more details contact Jeremy Ling at Philips on 01-689 2166.



White SON gives good colour rendering from red, through yellow, to blue and green.

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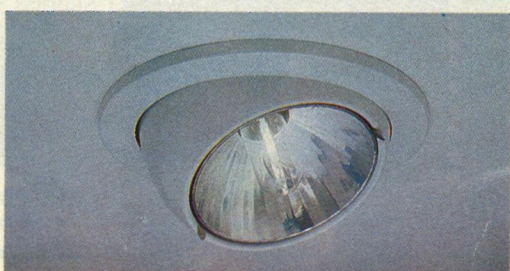
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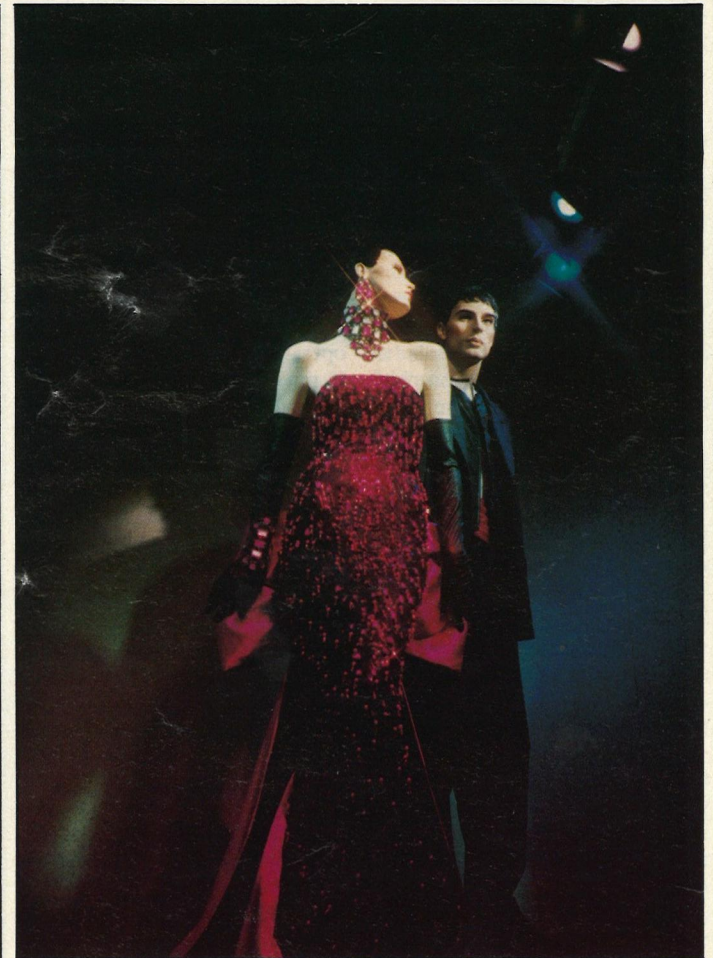
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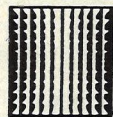


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Fax: 0705 241602

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Marlipit Lane, Coulsdon,
Surrey CR3 2HR
Tel: 01-668 5295/6
Telex: 945809

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Telex: 848686 BENTMG



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West Sussex PO20 7DA
Tel: 0243 512387

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

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



Minolta UK Limited,
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Blakelands North
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MK14 5BU
Tel: 0908 211211

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Tel: 0249 814548
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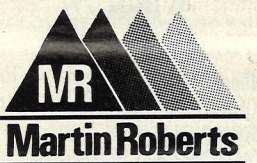
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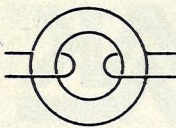
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Telex: 871117



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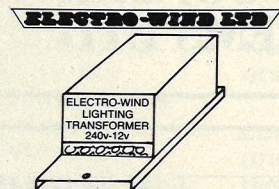
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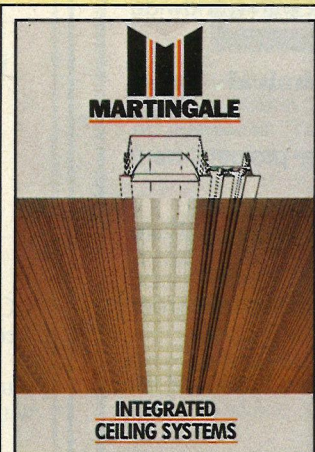
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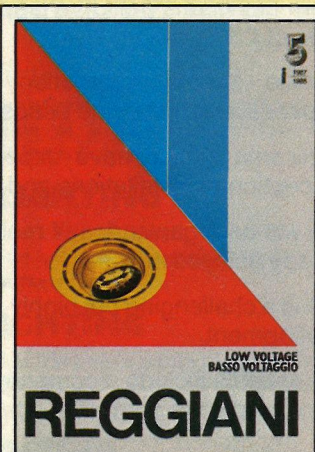
CATALOGUE DIRECTORY



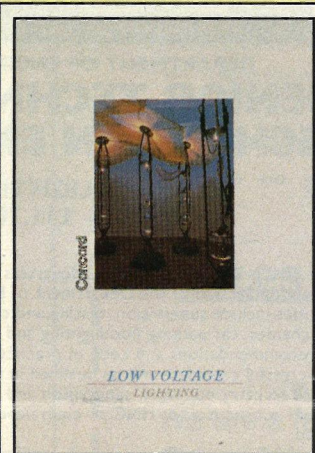
Martingale Technical Systems Ltd: A new brochure illustrating the range of integrated ceiling systems, including design services, integrated power cabling systems, lighting and air conditioning. Intended for shops, offices and general commercial interiors. Martingale Technical Systems Ltd: circle 90



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



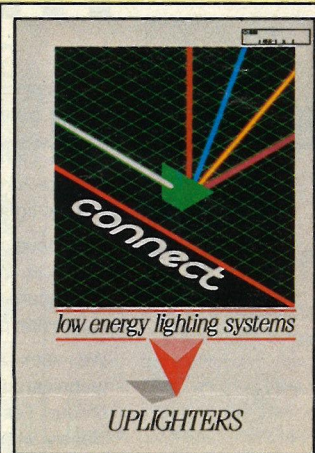
Reggiani: A new brochure describing the low-voltage range in colour. Gives details of the entire range of low-voltage fittings, from ceiling fittings (recessed and surface), to free-standing floor spots. Includes technical and electrical information for lighting designers. Reggiani: circle 92



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 louvers 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



Connect Lighting Systems Ltd: A catalogue of Connect's low-energy uplighting systems. Gives details of lamp types, construction and final appearance on site. Light sources include compact fluorescent and metal halides. Connect Lighting Systems Ltd: circle 95

Catalogue Directory

From March 1988, *Lighting Equipment News* will offer a new service to its readers, **Catalogue Directory.**

You will now be able to promote your current catalogue through the pages of *Lighting Equipment News*. The catalogues will be 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

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effectively, and thereby justify the horrendous production costs, will have a market place created specifically for this purpose.

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

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Salary negotiable Location — Rugby

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The successful candidate will undertake varied duties including attendance at ILE Technical Committee meetings and the preparation of minutes and associated documents. A good command of English, both written and oral is essential.

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Please apply for an application form to:

Mrs D Barnes, Secretary
Institution of Lighting Engineers
Lennox House, 9 Lawford Road
Rugby, Warwickshire CV21 2DZ
Tel: 0788 76492

LIGHTING DESIGN & SALES ENGINEERS

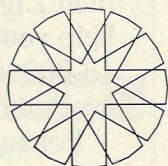
Applicants for these two positions will be qualified lighting engineers with already established contacts in major E & M consultancies, architects and interior design practices. They will be capable of advising on the design of lighting schemes and will be responsible for projects from first contact to completion of installation. Products include tubular and recessed lighting systems, special decorative lighting features, complete integrated ceiling systems to include lighting, air conditioning & acoustics.

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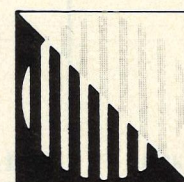
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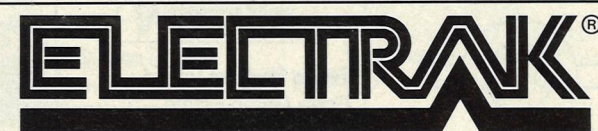
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It's a brief that calls for specific knowledge of the ceiling industry and, ideally, the lighting

industry. Initiative, together with excellent communication and presentation skills are essential, as is an awareness of building and safety codes. To complement these skills we'll provide all the training and encouragement you require.

In return for your commitment, professionalism and willingness to work to a highly flexible schedule, we can offer a competitive salary and benefits package, including a company car and excellent prospects for career progression.

In the first instance send a CV to Bob Caddick, KSH Plastics (UK) Ltd, George Street Industrial Estate, Huntingdon, Cambs. PE18 6AD.

Alternatively, call 0480 411261 for an application form.



LIGHTING ENGINEER — YORKSHIRE

An excellent and promising opportunity now exists for an experienced Lighting Engineer with a highly successful and market leading lighting company.

Significant expansion in the specification market has led to the need for a skilled Engineer to join the existing team in the Yorkshire area.

Working closely with the salesforce, you will be involved in site visits and customer liaison, the preparation of detailed drawings, plans and scheme designs and of course the provision of the excellence of service which our client's customers have come to expect.

In your 30's with a sound and varied background in the lighting industry, we expect the successful candidate to show flair and creativity in the planning and design of lighting systems and have the independence and personal strengths to work very often without supervision.

In return for your commitment to excellence, you will be offered an attractive salary, company car and other benefits which are just part of the picture.

Please contact Gillian Amos, Recruitment Consultant,
Pre-Selection Ltd., 32a Main Street,
Garforth, Leeds LS25 1AA.
Tel: (0532) 872855

PRE-SELECTION

EXECUTIVE SEARCH & SELECTION

LIGHTING SUPPLIES

TEKNOLIT

UNIVERSAL TRACK SYSTEMS

Prima Lighting Ltd, the sole UK distributor for Europe's unique 32 amp low voltage track systems are interested in negotiating contracts to supply other UK lighting manufacturing and distributing companies.

Available ex-stock — Low Voltage and Mains Tubular and Square Profile track and accessories. Colours: white, polished gold, black and anodised.

For full details please contact:

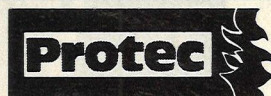
Richard Turpin — Sales Director, Prima Lighting Ltd,
Giltland House, 12 Chester Road, Borehamwood,
Hertfordshire WD6 1LT
Tel: 01-953 0855. Fax: 01-207 3923.
Telex: 8956076 PRIREG G

PRIMA

NEW PRODUCTS



Reader Service No. 15



Protec Fire Detection Limited, a highly successful Private Company of repute, has created a separate Lighting division "Anchorlite", to increase its market penetration by acquisition and the development of luminaires. The company has commissioned the construction of a new Head Office and Manufacturing facility at Nelson, Lancashire and wishes to recruit the following staff:

DIVISIONAL MANAGER — LIGHTING

The successful candidate is likely to come from a lighting background with experience in the design, manufacture and marketing of related products. He/she will demonstrate a positive record of achievements and possess strong communication qualities and management skills.

PRODUCT MANAGER — LIGHTING

To support the Divisional Manager in the design, manufacture and marketing of our lighting products — with the utmost professionalism and efficiency. The candidate will come from a lighting background and, ideally, have several years' experience in a similar position.

SALES ENGINEERS — LIGHTING

(All Areas — except Scotland)

The successful candidates will be self-motivators, representing our company to the highest degree of professionalism. He/she will have experience in the lighting industry dealing, at all levels, with Contractors, Consultants, Architects, Government Departments and other specifiers.

SALES ENGINEERS — FIRE DETECTION

Birmingham/Nottingham/Leicester/London/South

The candidates will have experience in the sales of Fire Detection and/or Emergency Lighting systems, be self-motivators, representing our company to the highest degree of professionalism. A background and knowledge of dealing, at all levels, with Contractors, Consultants, Architects, Government Departments and other specifiers.

REMUNERATION

We expect the highest calibre of staff and likewise the remuneration packages will be commensurate with this policy.

Applications treated in the strictest confidence.

Write or telephone for an application form to:

**PROTEC FIRE DETECTION LIMITED, PROTEC HOUSE
WATERFORD STREET, NELSON BB9 8AQ**

SALES

EXECUTIVES

• THE COMPANY •

We are a fast-growing, privately-owned manufacturer and distributor of quality light fittings.

• THE POSITION •

Sales Executives to work with a highly successful team selling lighting products to electrical wholesalers in the U.K.

• THE CANDIDATE •

We require motivated sales executives with a proven track-record, selling to the electrical wholesale trade.

• THE PACKAGE •

First class salary, plus commission, plus bonus. BMW car, BUPA, pension and benefits commensurate with a company of our standing.

• THE FIRST STEP •

Reply in writing and in the strictest confidence to:

The Sales Director

**Powerlite Electrical Products Limited
122 North Street, LEEDS LS7 1AF**

DESIGN ENGINEER

COURTNEY POPE LIGHTING LIMITED, a leading Company within the industry, has a vacancy for an experienced Design Engineer to join our Design Team, developing standard and special luminaires.

Previous experience in CNC close limit sheet metal design, as well as a knowledge of electrical/mechanical engineering principles, essential.

Salary circa £13K, attendance bonus, Company pension scheme, 5 weeks' annual holiday, subsidised canteen and excellent working conditions.

Please apply in writing or telephone:

THE PERSONNEL MANAGER
COURTNEY POPE
LIGHTING LTD
AMHURST PARK WORKS
TOTTENHAM
LONDON N15 6RB
Telephone: 01-800 1270

LIGHTING DESIGNERS

Fast expanding lighting design practice requires ambitious, dedicated designers to join an established team.

The job offers the opportunity to run a wide range of prestigious lighting projects and to see through detailed design work from start to finish.

The successful candidates will have a combination of design flair and an eye for detail as well as the ability to communicate with people at all levels in the lighting business.

Direct experience in lighting design would be beneficial, but an electrical engineering or architectural background would also be useful.

We offer competitive salaries and excellent prospects.

Please apply in writing with C.V. to:
Sally Storey, Chairman
Lighting Design Limited
Unit 15, Park House
140 Battersea Park Road,
London SW11 4NB

SALES ENGINEERS

We are renowned as manufacturers of the highest quality products, a combination of excellent design, engineering and technical standards and we have vacancies for

3 SALES ENGINEERS

covering Central London, North London and the West Midlands.

The applicants must be self motivating and have a genuine enthusiasm for the promotion of good lighting techniques using quality products. Experience of dealing with Architects, Consultants and Designers is essential.

Remuneration will include an attractive Salary package according to age and experience.

If you would like to join an established force within the lighting industry please apply in writing together with your CV to:

John Butler, Director
Staff Lighting Limited

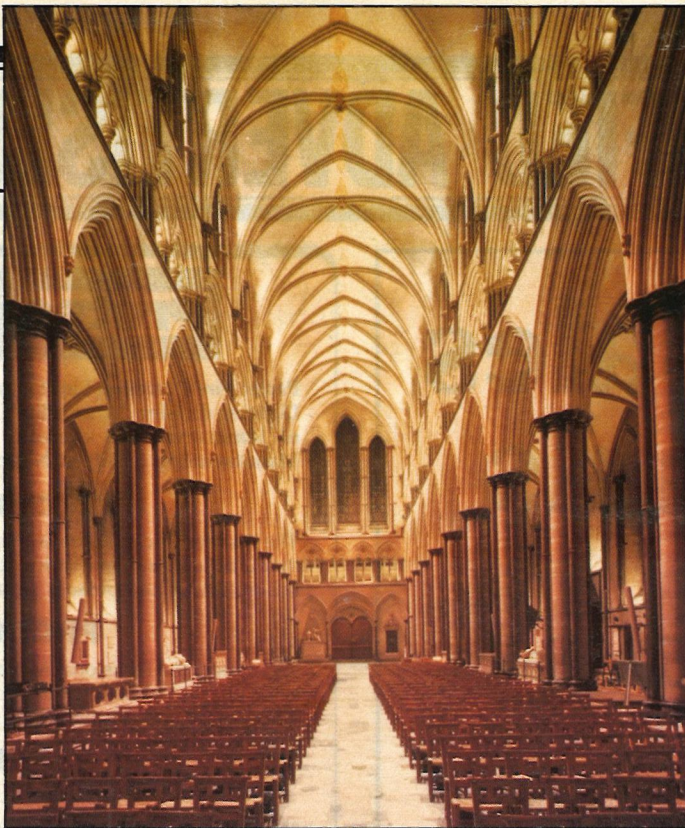
Yalverton Works, Lyndhurst Road, Ascot, Berks SL5 9EE

STAFF LIGHTING LIMITED

Symposium to aid church lighting design

A one-day symposium addressing the design of church lighting will be held at University College London on 20 April 1988. The Symposium is being organised by the Philips Centre for Lighting Education and Research — part of the Bartlett School of Architecture and Planning — in conjunction with the Council for the Care of Churches and the Lighting Division of the Chartered Institution of Building Services Engineers.

The symposium — an aid to the designers and users of church lighting — will discuss the requirements for good interior and exterior lighting and will consider the conservation of fugitive materials with respect to light — both artificial and natural. Appropriate lighting equipment and its installation for both lighting effectiveness and architectural sensitivity will be described and details will be given of recent successful installations, ranging from the modest to the grand.



Salisbury Cathedral — lighting by design

The registration fee for the symposium is £45, and a few places are still available. Applications should

be made *immediately* to Mrs R. Goodman at Bartlett School of Architecture and Planning, Wates House, 22 Gordon Street, London WC1H 0QB. Telephone 01-387 7050, extension 4829.

Industry in good shape

Sir Gordon Manzie, Chief Executive of the Property Services Agency, enthused over the recent growth of the construction industry in his speech at the Annual Dinner of the Chartered Institution of Building Services Engineers (CIBSE).

Sir Gordon celebrated the new

generation of clients who have greater expectations of value for money, quality and speed, but emphasised that clients must be educated in the need for high quality as well as low costs. Contractual issues and strategy, and the implementation of quality assurance are both topics of immediate importance according to Sir Gordon.

The CIBSE President, Hugh Johnston, replied, saying that future growth of the industry must not be restricted by a scarcity of degree and other courses in building services engineering. Mr Johnston called for essential time and effort to be put into training, research and development to avoid "catastrophic results in the longer term".

New offices on right rails

A former Liverpool railway station has been converted into what is described as the most advanced office building in the North West.

Mercury Court has the latest technology and includes lighting controls from Delmatic Lighting. The controls allow tenants to erect partitions, designate corridors and fit local switches — each one of which can control up to 200 luminaires — where they wish without having to revise mains wiring.

The controls are mounted in metal enclosures in the ceiling void. They receive automatic com-

mands via a multiplex cable which runs alongside the mains cables in the trunking and conduit distribution system. The same cable also sends back to a building services controller the status of the lighting for the offices and corridors in each wing of the building.

For security purposes the current status of the lighting is shown on a Delmatic illuminated mimic panel. A special safety feature is that corridor/exit lighting for each zone is held on as long as anyone is working in the zone.

There is photocell control of perimeter lights during bright weather and full local control of lights at all times.

Details from Paul Milton at Delmatic Lighting, 01-637 3696.



I·L·L·U·M·I·N·A·T·I·N·G R·E·A·D·I·N·G

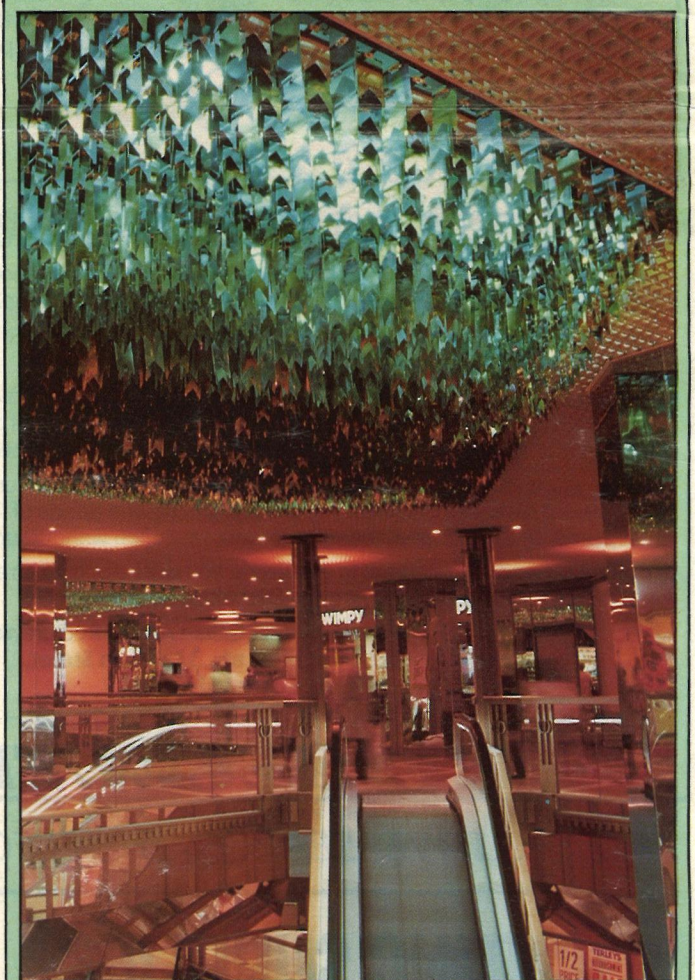
Our comprehensive new literature pack tells you everything you need to know about Britain's widest range of luminaires, including our latest Designer series.

Don't be left in the dark. Use the reader reply card or phone Mansfield (0623) 511111 for your free copy. You're sure to find it enlightening!

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Ceilings with cascading chandeliers from ADD set the willow tree theme for Sauchiehall in Glasgow. Rendered in chrome and gold, the chandelier lighting shimmers and sparkles to match the whole interior designed by Bradshaw, Rowse and Harker. Sauchiehall means the hall of willows, and the blades of the chandeliers were designed to simulate the movement of willow trees. The achieve this, ADD used changes of finish and different lengths of blade. Further information from 0268 415828.

IN YOUR NEXT ISSUE

Lighting of museum buildings is the major topic covered in the May issue of *Lighting Equipment News*. In showing unique items, there is a conflict between the requirements for display and the need for conservation. After outlining the problems, we shall go on

to review the way they have been resolved in a number of recent museum installations.

A special feature on floodlighting will bring you up to date on new products and techniques. Finally, there will be more news about mercury fluorescent lamps.