

LIGHTING

EQUIPMENT NEWS

MAY 1989

Lighting up Love

The opening night of Aspects of Love, Andrew Lloyd Webber's latest musical was marked in spectacular fashion using Sky-Tracker multi-beam searchlights from the USA.

Stationed in the Aldwych, Sky-Tracker's xenon beams, which total nearly 1 billion candlepower, could be seen over 15 kilometres away as they welcomed guests to the first-night party at the Waldorf Hotel.

The US manufactured searchlights have been used extensively in America on projects ranging from concert tours for the Rolling Stones to the closing ceremony of the 1984 Los Angeles Olympic Games. They were first seen briefly in the UK during Jean Michel Jarre's docklands specta-



cular in 1988, and are now available through Theatre Projects Services for hire or installation.

INSIDE THIS ISSUE

News	1,2,3,24
New products	4,5,6
Museums and art galleries	
The Louvre	8,9,10
Gallery review	11,12,13
Display lighting	16
Hanover highlights	17
Where to buy directory	18,19,20
Catalogue directory	20
Classified advertising	21,22,23
Diary	23



Sporting a new image

When Italian sports car manufacturer, Alfa Romeo, was looking for a new corporate identity scheme to improve the appearance of its 80 UK dealerships it came to Philips for lighting. First Alfa Romeo dealer to sport the new design is Lyles of Newcastle in their 10 car showroom.

The corporate Alfa Romeo lighting design is centred upon an innovative Spacioliota square created by architect, Alistair Morrison, of Cheney and Thorpe. This square of twelve Spacioliota modules has been developed to form a focal point for all future Alfa Romeo showrooms. Six of the modules are the fluorescent luminaires; six for spotlight tracks.

The square forms a flexible system that can be altered to create the desired modelling effects on the cars. By varying the combinations of spotlights and fluorescent, different effects and emphases can be produced.

Philips Colour 83 lamps have been chosen for the fluorescent luminaires in order to bring a warm, inviting atmosphere to the environment and bring out the qualities of the paintwork through the excellent colour rendering properties of the lamps. Moreover, the vital role of red in the corporate design, is enhanced by the warm colour temperature of the Colour 83 lamps.

A row of twin-lamp recessed

fluorescent luminaires equipped with widespread mirror controllers has been mounted parallel to the window along the front of the showroom to reduce daytime reflection in the front windows. To enhance this effect, spotlights on the forward edge of the Spacioliota square have also been fitted as close as possible to the window.

Depth has been added to the interior by fitting TCS 607 asymmetric luminaires for a well washing effect down the full length of decorative wall panels that carry the Alfa Romeo logo.

Above the reception counter, the salesmen's desks and the adjoining seating area, groups of the new Montana fully recessed adjustable downlights fitted with low-voltage dichroic lamps create the right atmosphere.

Lyles' sales manager, Malcolm Galston, underlined the importance of lighting for motor car showrooms: "We go home but customers continue to pass by. A fair proportion of our sales is directly linked to motorists who drive past and like what they see. We know we are a 24-hour showroom — not just eight hours — and this is something many retailers forget."

New energy policy

The energy policy of the Chartered Institution of Building Services Engineers has been revised to reflect the current energy situation.

A 12-point statement has been issued listing measures which CIBSE believes will promote the best use of energy resources and aid the protection of the environment.

The first point is that buildings and their engineering services should be designed, installed,

operated and maintained to efficiently and effectively use energy in whatever form, and that designs should incorporate economically viable means of energy recovery.

Other recommendations include that the control of engineering systems should achieve optimum environmental conditions with efficient use of energy, and that energy awareness should be promoted among building owners and operators.

The Institution urges that selection of primary and secondary energy sources for building services should be made with full awareness of current and future availability, depletion rate and associated risk of pollution to the environment.

Full advantage should be taken, says CIBSE, of passive and renewable energy sources.

It also states that government action to encourage energy efficient measures should be supported and that there should be energy awareness education in schools and universities.

1992 LIF-style

If Europe's future in the world is to be ensured we must complete the single European market by the end of 1992. That was the stark message presented at the LIF annual luncheon held on 24 April.

Guest speaker Dr Ramaer, of the European Lighting Council, underlined the fact that, even if the task was achieved by the end of 1992, this was still 22 years later than had been envisaged by the EC treaty of 1957. This had seen a European community free of barriers to the movement of goods, services, capital and people by 1970!

"The waste due to our failure to achieve that target", he continued "has been enormous. It has been calculated that in all those years — year in year out — we paid between 4% and 6½% of our incomes on all the regulations and other things we invented to keep ourselves as separate national entities."

What is worse, we had denied ourselves one of the most effective tools for building a strong competitive position in the world: the world's largest home market.

Creating a European market now would be an important means of preparing us for the competition and cooperation of the next century. By then the biggest home market in the world have a population equal to only 10 per cent of that of the Pacific basin. We needed to keep up the momentum

we had regained.

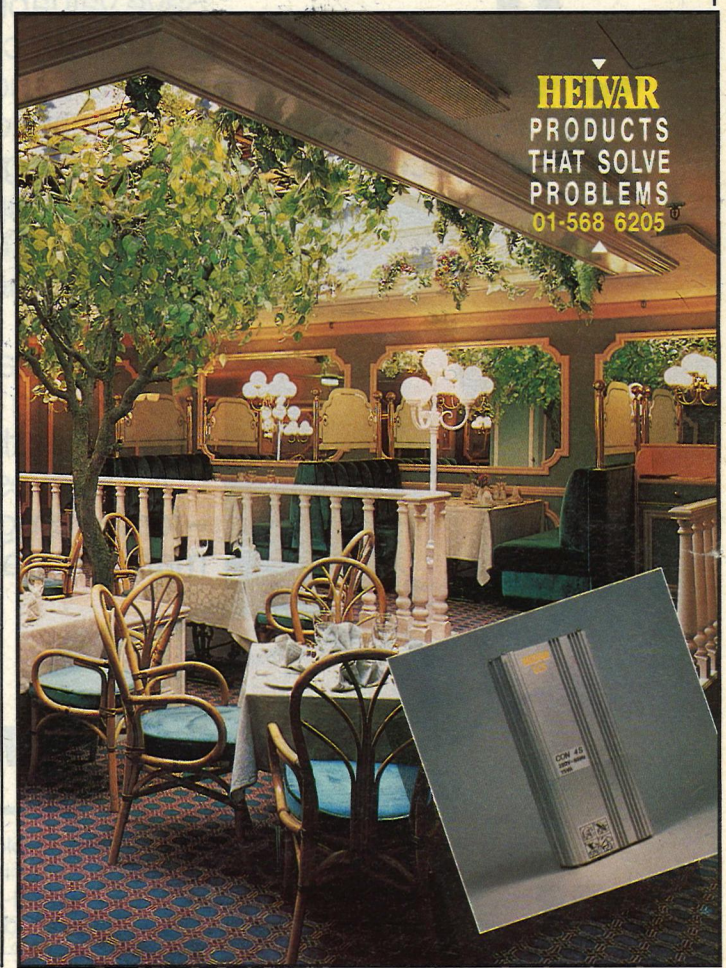
He concluded with a few remarks on the lighting industry. Europe was leading in lighting, but to maintain that position we had to be prepared to seize the opportunities that technological advances offered. We had to welcome the introduction of electronics in lighting, to invest in this area and to cooperate on a European scale.

In reply, the retiring president, John Terry, thanked Dr Ramaer for encouraging the European lighting industry to push ahead with the necessary tasks by 1992. Lighting manufacturers had done much to rationalise specifications and standards throughout Europe and were, he believed, well placed for the future.

The importance of the date to LIF was emphasised by the creation of a Council Chair for 1992, currently occupied by Past President Mike Lippold.

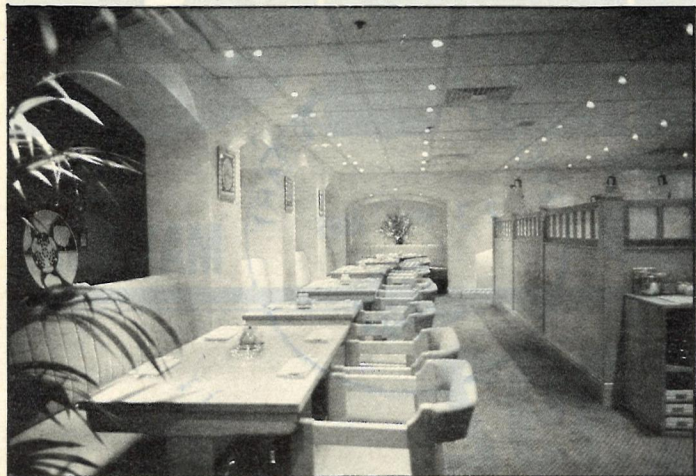
New president

At the conclusion of the luncheon Barrie Hurst, of Menvier (Electronic Engineers) Ltd was installed as president of LIF for 1989-90. Mr Hurst, who hails from the north east, was LIF vice president in 1988-89 and has been a member of Council since 1985.



Reader Service No. 1

Page 1



Eastern style for Hilton

Pub into Japanese restaurant was the transformation recently accomplished at the Regent's Park Hilton.

The resulting interior is a creative blending of Japanese understatement and contemporary lighting. A natural theme — emphasised by the use of unstained beech woodwork for tables, chairs and screens — is set against beige and sand colourings.

The lighting had to meet several requirements. It had to be discreet, and to provide accent lighting for ornaments and plants. In addition, both ambient and directional lighting had to be flexible to allow for changing dining table configurations.

In planning the lighting scheme, Light Years specified linear and rectangular configurations of 63mm diameter recessed low voltage fittings using wide beam 20W

lamps to illuminate the Sushi bar and cast an even flood of light over the restaurant. Directional lighting targeted on table surfaces was rejected as being restrictive to table reorganisation.

Wall panels featuring Japanese ladies in softly coloured kimonos have been highlighted by recessed mini wallwashers with overlapping beams of light creating a fan-like effect. These fittings, adjustable vertically through 360 degrees, are positioned around the perimeter of the restaurant.

Light fittings have all been specified with dichroic lamps to minimise heat levels in the restaurant, keeping the interior cool and airy.

Latticed Shoji screens of opaque Perspex across the windows filter the daylight and are backlit with fluorescent tubes at night.

Trade Literature In brief...

● **Telemecanique Electrique (GB) Ltd** has produced its 1989 components catalogue in A5 size. There are 14 sections including programmable controllers, busbar trunking and relays.

● A brochure on the Plugway power ducting system is available from **Cressall Manufacturing**, part of Astra Engineering Division Ltd. Among other items it illustrates the self-locking, fused, plug tap-off unit that can be supplied as a switched plug for lighting circuits.

● **Candell Ltd** has set up a new division called Candell Triodo to concentrate on exclusive, creatively designed, mains and low voltage commercial lighting. An illustrated product guide is available.

● **Connect Lighting Systems Ltd** has leaflets on its Conduct track lighting system; low energy luminaires, and low energy lamps.

Eclipse becomes Crescent Lighting

Crescent Lighting Ltd is the new name of the company previously known as Eclipse Lighting.

The change is effective from 31 March and has been made because a German company was already using Eclipse as its trademark.

Crescent continues to operate from 8 West Mills, Newbury, Berks RG14 5HJ.



An arch success

Smollensky's on the Strand opened its doors to the public at the end of March.

Three main light fittings designed and constructed by Classic Electrical Contractors Ltd and BWL are finished in brass and fitted out with specially shaped stained glass to reflect the colours of the interiors. Each fitting is lit with 20 GLS tungsten lamps which are completely dimmable and incorporate a three hour emergency light system.

The scheme includes two specially designed arches constructed of brass and stained glass. One arch incorporates the restaurant's name etched into copper mirror. The arches also act as a unique waitress call system. Food and

drinks are prepared for the waitresses and sent to the serving counter.

The Kitchen staff operate an electronic call button which activates a section in the special arch, represented by a letter of the restaurant's name. The lighting in that section will flash slowly for a set period of time, it will then light flash at a faster rate until the dish is collected; the waitress then resets her station via an electronic reset panel.

The restaurant is also lit with concealed neon lighting. The numerous other light sources around the restaurant include low voltage brass fittings supplied by Candela. Stage and mural lighting is chosen from the Microlite range.

Conversions supplied from stock

Crompton Lighting can now supply direct from stock 1.5m single lamp Crompack and Tufflite luminaires, factory-converted to include emergency operation.

Both Crompack battens suitable for many indoor applications and Crompton Tufflite, totally enclosed luminaires designed for arduous environments, are both now obtainable as stock items, ready fitted with a three hour maintained emergency lighting capability.

Security-safety merger

Bradley Lomas and Electrolok, both members of the Portals Group, have merged to form a strong new safety/security orientated grouping to be known as Bradley Lomas Electrolok Ltd.

Bradley Lomas manufacture a comprehensive range of emergency lighting and fire alarm equipment and Electrolok are installers and suppliers of a sophisticated range of microprocessor controlled access control systems and closed circuit TV surveillance.

The new company has an extensive research and development programme scheduled for 1989/90 and growth is expected to continue at around 35% per annum.

IMI Reeves Candleholders outshine all others.

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

Neat, no-nonsense, two-piece construction makes them easy to fit — quickly. Their slim-fitting design gives you wider flexibility of application. As you'd expect from Reeves, every one meets BS 5042: Part 1: 1981.

And so that you know you're using the best, every one carries the Reeves logo. IMI Reeves Candleholders — for the enlightened manufacturer.

IMI Reeves Candleholders — for the enlightened manufacturer.

IMI Reeves Lampholders

Holdford Road, Witton, Birmingham B6 7ES.
Tel: 021-356 7369 Telex: 335959
IMICOM G. London Office Tel: 01-636 9533

IMI

Boots increases efficiency

Boots' Romford store has recently doubled its selling space through acquiring a property next door to the existing site.

The entire store has been redesigned to create a modern shopping environment with 224 luminaires provided by Courtney Pope.

The new area of the store uses lighting from the standard range. In the existing building it was decided to retain the previous luminaire bodies, so as to maintain the existing false ceiling. Here, purpose-made luminaires were used.

Low brightness, wide distribution louvres have been used throughout. So, in the original store sufficient illumination can now be provided by a smaller



luminaire: 1.8m x 300mm in place of the previous 2.4m x 600mm unit. An infill panel makes good the aperture. Fully electronic gear trays were also incorporated.

Two 70W warm white T8 fluorescent lamps have replaced the former 4 x 85W arrangement,

leading to substantial energy savings.

Luminaires in the new area, too, have fully electronic control gear. Each houses 2 x 58W T8 warm white fluorescent lamps, giving an average level of illumination of 850 lux.

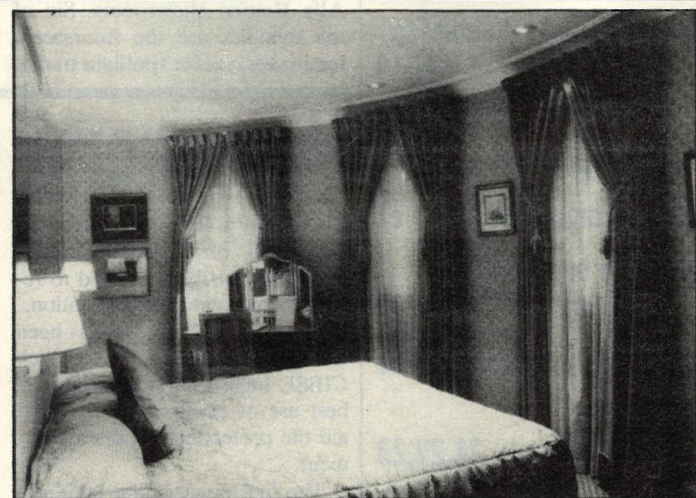
Going for gold

When the Royal Horseguards Hotel, overlooking the Thames, added an additional wing with over 100 bedrooms to its Whitehall Court premises, it looked for a lighting scheme that would enhance the extension.

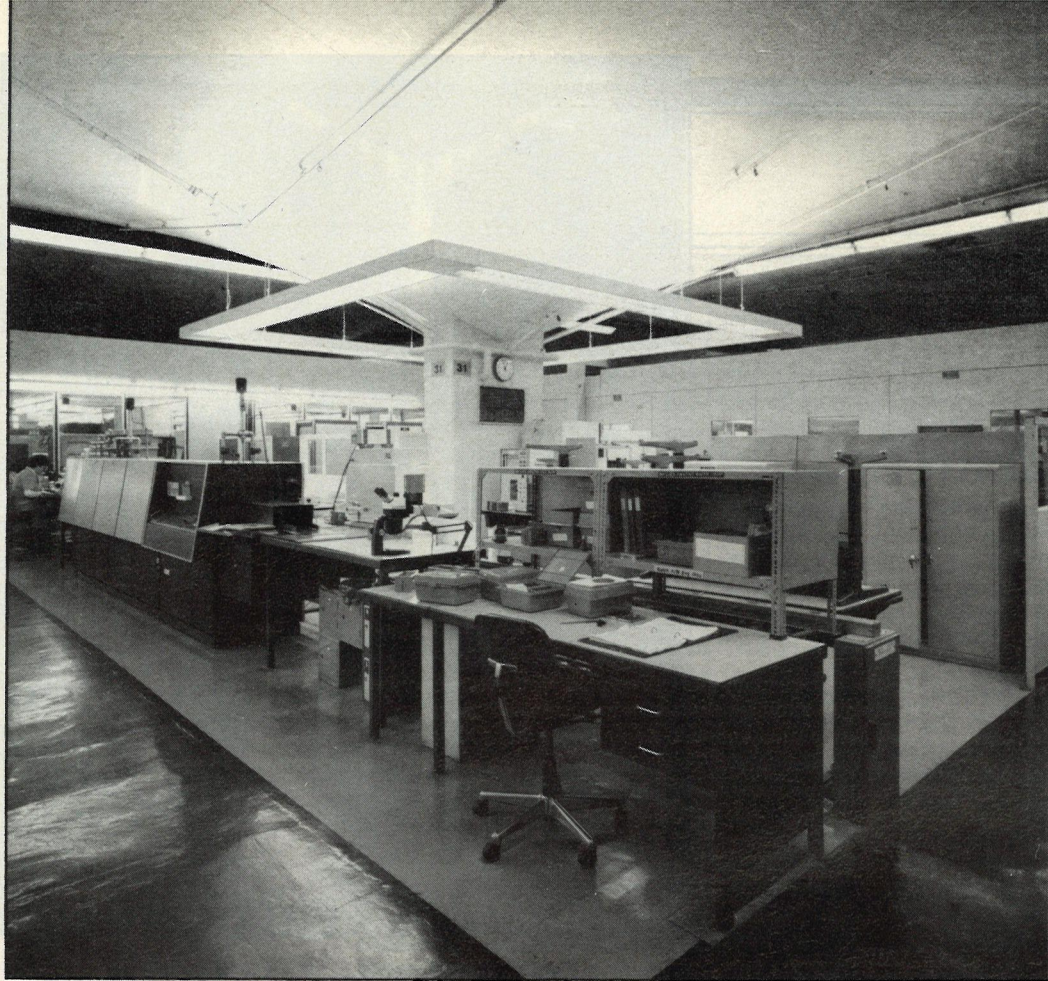
Designers of the development, located in premises previously occupied by the National Liberal Club, Richmond Design, called in Preferred Electrical to advise on a lighting scheme.

Preferred Electrical used Lee Environmental Lighting HI-75/LO range low voltage downlights to complement the hotel suites.

In keeping with the Victorian



and soft gold pastels theme adopted throughout, gold fittings were chosen to illuminate all bedrooms in the extension.



Lighting up-Texas style

The brief was a challenging one: to light a research and development facility for Texas Instruments' Bedford headquarters where visual display units are used for research and development into advanced technology. To further complicate matters, the office features an unusual raked ceiling rising some 5.5 m from four sides of central columns. This made the ceiling the dominant element in the interior — and also ruled out the use of fluorescent lighting.

The solution finally adopted

was to use a combination of column, wall and furniture mounted uplights. These could easily be moved to suit changes in office layout and provided suitable lighting for VDU users. Finally, they were found to model the architectural features of the interior effectively.

Two different lamps were chosen: some areas were lit with high pressure sodium deluxe lamps; in other areas, where a whiter light was preferred, mercury discharge super deluxe lamps

were chosen. With the addition of some localised lighting, 400W lamps provided the necessary illuminance of 300 lux on the horizontal work task.

Lighting was controlled by a computerised switching system developed by Texas. The system is programmed to provide lighting during normal working hours. A manual override enables light to be provided outside these hours, and an alarm sounds shortly before the lights are due to be switched off.

Seaside savings

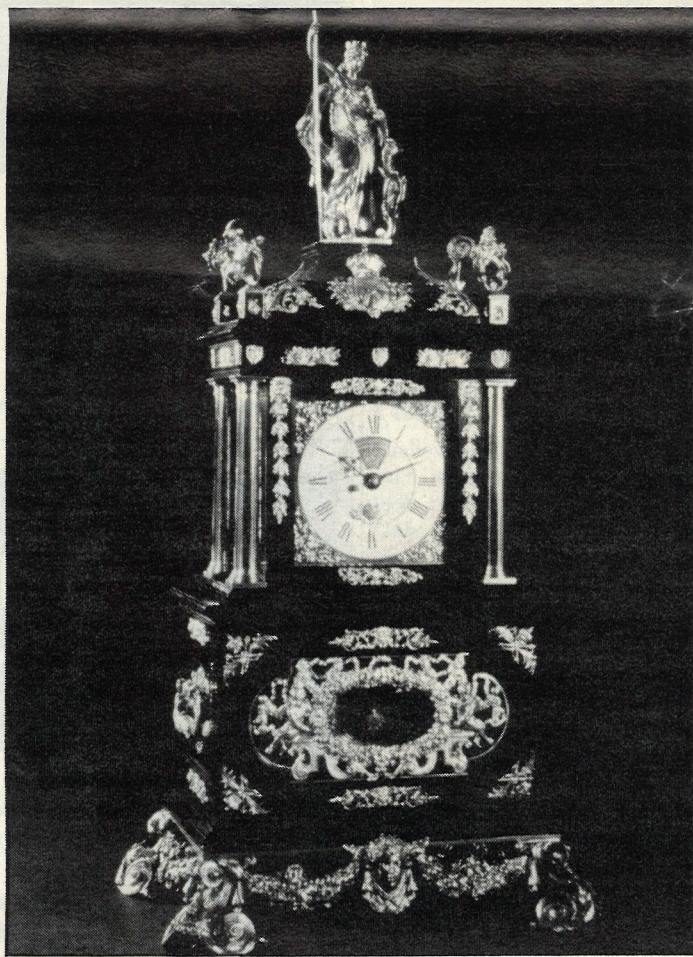
A new low voltage festoon decorative lighting system with running costs only 25% those of an equivalent incandescent system has been installed along the seafront at Jersey's St Aubin's Bay and stretches for some five kilometres.

The system, produced by Luminaire Developments Ltd of St Helier, uses 4,600 12V 5W Wotan Halo Star tungsten halogen lamps, housed in 60mm diameter coloured translucent plastic globes, instead of the conventional 240V 25W incandescent lamps with which they are comparable in terms of luminance. Step-down transformers are housed within the existing lamp poles.

The low voltage system replaces a conventional mains voltage system in which high winds and salt spray led to premature lamp failure and the breakdown of lamp holders and cable due to electrical tracking. It was also necessary to take down, re-lamp and renovate the whole system at the end of each summer season, so mains voltage system was labour intensive and costly to maintain.

The replacement low voltage system is watertight and manufactured from non-corrosive PVC and will remain in place permanently. Expected life of the Wotan Halo Star lamps with the system working at an average of 11V is over 3000 hours and so lamps need only be replaced at three-yearly intervals.

WHY NOT make use of our POST-FREE enquiry card



LV units light treasure

The *Treasures for the Nation* exhibition at the British Museum displayed some remarkable and priceless exhibits, all of which had been saved from export, damage or decay through the vigilance of the National Heritage Memorial Fund.

Low voltage spotlighting, by Light Projects Ltd, showed the items to best advantage.

Works of art such as the Port-

Mostyn Tompion clock in ebony veneered oak with silver and gilt mounts. (Picture loaned by Trustees of the British Museum.)

land font, the Mostyn Tompion clock and the Duke of Marlborough's golden ice-pails were lit with M16 units using either 20W or 50W tungsten halogen lamps. More than 100 of these spotlights were supplied.

Illuminances varied from 50 lux on delicate water colours, which must be protected from over exposure to ultra-violet light, to 250 lux on less sensitive objects.

New president for CIBSE

Colin Izzard took over from Deryck Thornley as CIBSE President at the institution's AGM on 17 April, 1989.

Emphasising the need to prepare now to take advantage of the single European market. Mr Izzard estimated that the potential building services market was worth £69bn. He went on to refer to the growth in both non-residential and residential building throughout Europe, including large projects such as facilities for the 1990 World Cup in Italy and the 1992 Olympics in Spain.

As an Institution, CIBSE had to become more aware of its role in Europe he stressed, and pointed out the scope for recruiting members throughout Europe to add to the 286 Euro members in 11 countries that CIBSE already had. He also encouraged members to take part in discussions on the CEN and CENELEC standards in order to ensure that British standards played their part in influencing European standards.

Other officers inaugurated at the AGM were Derek Gillingham as Senior Vice President and Tom Smith as Junior Vice President.

People in brief . . .

● **Jim Barlow** has taken over as divisional director of JEL, the building management systems division of Thorn Security Ltd. He has been with them for 13 years.

● **Wotan**, which for seven years has had two managing directors, has reverted to one: **Uve Starcke**. His colleague, **Rudi Urban**, has taken up an Osram GmbH vice-presidential post in America.

● **David and Betty Barnett-Hunt** have retired from daily responsibility for David Hunt Lighting Ltd. Their elder son Peter is now managing director. David remains as chairman.

● **Arthur Elliott**, master mind behind Blackpool Illuminations until his retirement, has joined George Turnock Ltd as a consultant. This enables the company to offer spectacular, individually designed public lighting displays in the UK and abroad.

● **Barrie Hurst** has been appointed managing director of Menvier (Electronic Engineers) Ltd. He joins the company from Victor Products Ltd. **Roger Fletcher** continues as managing director of the Menvier-Swain Group.

● **Omega Lighting Ltd** has announced several sales appointments. **Eddie Coupland** has become northern sales manager, **David Nicholas** has been promoted to southern sales manager, **Jan Gaunt** has been promoted to southern divisional manager and **David Hannam** is now midlands divisional manager.

More After Dark

Ex Habitat managing director, Chris Turner, and lighting buyer John Phillips have set up two retail and contract lighting shops in London, one in Fulham and the other in Kensington High Street.

This is the beginning of a chain of shops called After Dark. A further 12 are planned over the next two years, four of them in the home counties during 1989.

COMMENT

Light's colourful pageant

Europe's lighting industry, as seen through the perspective of the Hanover Fair, at first impression appears to be a young and lively sector, aware of the challenges facing it. But is this true of the industry as a whole, or just of those companies likely to be interested in exhibiting there — by definition those looking beyond their national borders and, hence, the most enterprising?

Perhaps not Many go to Hanover as much to see what others — the lamp manufacturers, in particular — are up to as much as to be seen by their wider market. This is most certainly true of certain Far Eastern exhibitors to whom press requests for photographs and details of new products on display appeared to be a calculated insult, to be met only with demands to write to the managing director at the company's head office in Tokyo, or wherever, enclosing a copy of the periodical and stating a purpose for wishing to know the information. Needless to say such exhibitors, when themselves off stand, were always to be seen bulging with the photographic equipment for which their country is famous. Fair does gentlemen please!

A compliment, no doubt, albeit a somewhat dubious one. Still, there is no doubt that the lighting industry in Europe is well in advance of that of many other areas in the world — a technologically sophisticated industry with lamp manufacturers setting the pace.

But this serves only to underline the point made recently at the LIF annual luncheon by ELC president Dr Ramaer, that only in two ways can we secure the European lighting industry's future in a world in which the balance of population is rapidly changing in favour of the Pacific basin:

Firstly, by building a united Europe by 1992, with all that presupposes in terms of common legislation and industrial standards.

Secondly, by cooperating on a European scale on research and development to keep ourselves where we are today, in the vanguard of technological advance in the lighting field and, more particularly, in the application of electronics to lighting.

LIGHTING EQUIPMENT NEWS

Editor: Judy Sewell

Associate Editor: Barbara Trigg

Art Editor: Lorna Francis

Midlands Area Manager: Jim Hughes

Northern Area Manager: Robert Ditchfield

Southern Area Manager: Jim Hughes

Classified Sales: Joanne Barker

Production Manager: Lee Hibbert

Circulation: Kirtie Parmar

Associate Publisher: John Bull

Publisher: Nigel Foster

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

Published monthly by Maclean Hunter Ltd,

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

Telephone: 01-975 9759. Facsimile: 01-975 9753

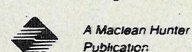
Telex: 299072 MACHUN G. Northern Area Office,

Tel: Cannock (05435) 72771.

Origination by Facsimile Graphics Ltd, Coggeshall, Essex.

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

Annual subscription £36 (£3.00 per copy including postage) but free to executives in the UK and Ireland concerned with all aspects of commercial, industrial, public and decorative lighting.



© 1989 ISSN 0024-3418

NEW PRODUCTS

Downlights accept colour filters

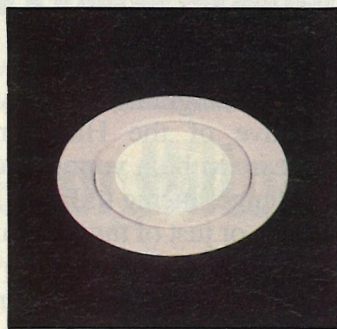
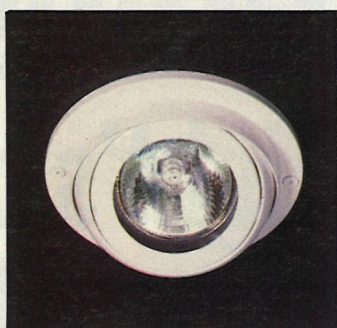
Two low voltage, recessed luminaires — one downlight and one eyeball fitting — have been introduced by SIS Ltd, broadening its range of equipment for the discotheque industry.

The units use dichroic lamps and have been fitted with filter rings to accept colour filters.

Five standard finishes are produced, black, white, polished aluminium, brass plated and chromium plated, though other colours can be quickly supplied to special order.

A range of transformers is available, individually cased.

Reader Service No. 172



Electronic time lag light switch

C P Electronics Ltd has developed the Lite-On electronic time lag switch which can switch fluorescent lamps (including 2D and PL types) as well as incandescent lamps, and yet does not require a neutral connection. Total capacity is 6A of fluorescent or 10A of incandescent lighting.

Timing is easily adjustable between about 10 seconds and 10 minutes, with a repeat accuracy of

better than 1%. It will reset if the button is pushed during the timing period.

The unit fits a standard plaster depth box and can be used as a direct replacement for pneumatic timers. It can also be wired as a master and slave system.

A tamperproof feature is that if the push-button is deliberately wedged down the unit will still switch off after the timing period and all other time lag switches in the circuit will continue to function normally.

There is a choice of plain white or clear neon illuminated push button.

Reader Service No. 173

Hook-on lighting decorations

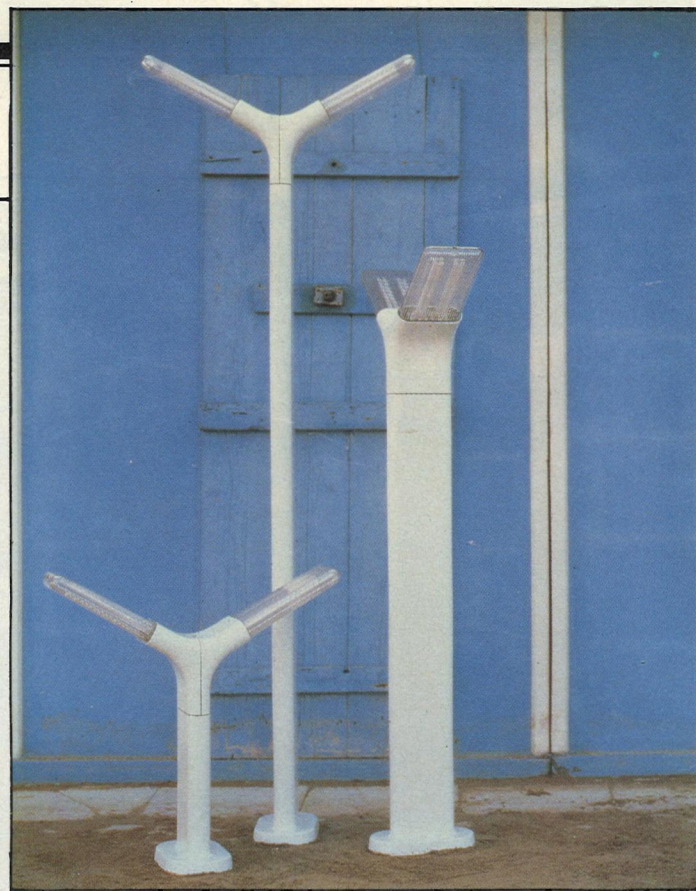
Latest decoration for Capiz shell lighting from Philipinalia Ltd is the rose design — tiny sprays of

flowers made of seashells.

These hook onto lampshades, or using self-adhesive strips can be attached to matching giftware.

Hook-on bows and butterflies continue to be available.

Reader Service No. 174



Stylish outdoor lighting

Albatross, a collection of streamlined exterior lighting, is available from Prima Lighting Ltd.

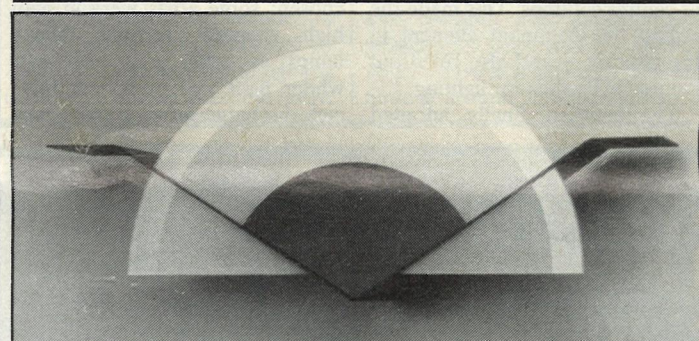
Wall mounted and free standing fittings in heights ranging from 590mm to 1850mm are made of cast aluminium with rectangular polycarbonate diffusers held in place with anti-vandal Allen Key screws.

The Albatross collection uses two 11W compact fluorescent lamps per diffuser. Although the

wall lights have a single diffuser, the free standing versions are available with either one or two diffusers.

Finished in black or white weatherproof crackle paint, with other colours to order, this versatile range can be used for shopping malls, office precincts and housing developments or wherever specifiers want low energy stylish exterior lighting.

Reader Service No. 175

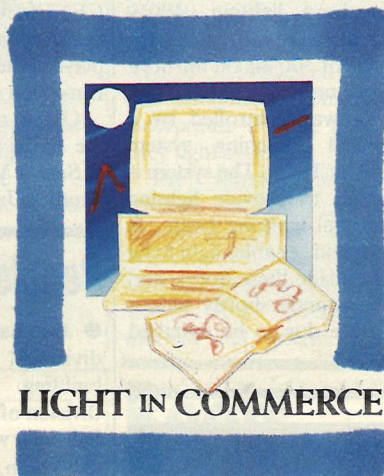


Decorative glass wall light

Clair de Lune is a 300W tungsten halogen wall light with a semi-circular frosted glass diffuser and steel body. It is made by Lumi-

nares Roland Jamois of Paris and is available in the UK through Opus Lighting Ltd.

Finished in either black or white, it has a span of 520mm, height of 200mm and projects only 120mm from the wall. It is suitable for hotel foyers, banking halls and offices. Reader Service No. 176



Trying to envisage a world of commerce without lighting defeats the imagination. Lighting aids productivity and extends the working day. Lighting is critical to the wellbeing of staff and their security. Lighting is vital to ergonomics and supports communications.

In general and task lighting, in amenity and security lighting, wherever the production interests of the employer meet the visual needs of the employee, then Crompton can help. We provide the product, the experience and the manufacturing ability. We add that assurance of quality which is the hallmark of Crompton Lighting — the manufacturing and inspection systems at our Luminaires Factory in Doncaster are registered to British Standard 5750 Part 2/ISO 9002:1987.

Then we offer a wealth of professional guidance to ensure the integrity of your specification and the effectiveness of your installation.

So if you can't imagine commerce without lighting, you can't imagine it without Crompton. CONTACT US NOW FOR YOUR FREE CROMPTON GUIDE TO LIGHT IN COMMERCE.



CROMPTON PARKINSON LTD.
Woodlands House, The Avenue, Cliftonville,
Northampton NN1 5BS.
Telephone: 0604 30201 Telex: 31364

Lightplan TRANSFORMERS

A New Concept
Lightplan Mini-Series

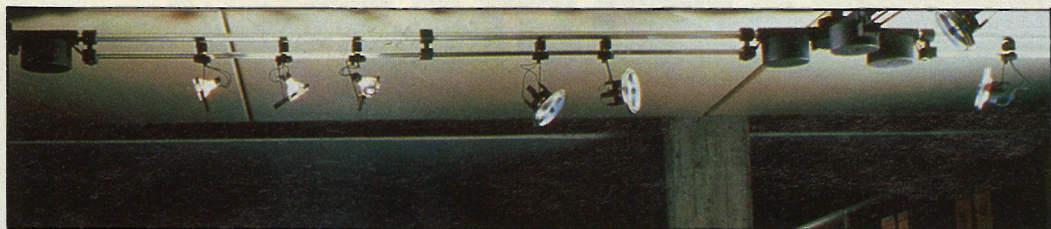
A conventional transformer small enough to fit through a 65mm hole, complete with terminals, thermal cutout, and fuse, installation is safe, easy and economical.

One of a range of robust, high specification transformers from Lightplan

LION HOUSE DURHAM ROAD BIRTLEY
CO. DURHAM DH3 1LS

TEL: (091) 410-9919 FAX: (091) 410-0056

NEW PRODUCTS



Versatile LV tracks

Atrium Ltd has the Z series of three low voltage lighting tracks manufactured in Italy by Martinelli Luce.

The simplest of these, the B type, consists of twin solid rods which carry the current and can be mounted either horizontally or vertically. Options include spotlights suspended on telescopic arms of three lengths, giving a range of arm lengths adjustable

from 400mm to 2000mm, which together with the choice of beam widths offered by miniature tungsten halogen lamps allows precise focusing of light on objects to be illuminated.

ZC3 system is similar technically, but instead of being linear the track forms a circle 1600mm in diameter, making it more suitable for commercial display areas.

The ZL system (illustrated) has

three linear elements: twin low voltage rods and a tube which gives additional structural support to the system and acts as a conduit carrying mains voltage cable. This enables mains voltage luminaires, such as fluorescent fittings for background lighting, to be used with the system. T and X shaped couplers are available with this version, allowing more complex patterns to be formed on wall or ceiling.

Spotlights on individual mounting plates match all three versions.

Reader Service No. 151



Lighting track uses solid rods

A low voltage lighting track system using solid rods is available through Panorama Lighting Ltd.

It includes mounting brackets of different heights and a choice of spotlights, each with two arm lengths.

The current carrying rods are chromium plated and there are

several different corner joining pieces.

Only 20W lamps can be used in the luminaires and a maximum of three fittings per meter, or 10 fittings per 6m. A range of transformers is available.

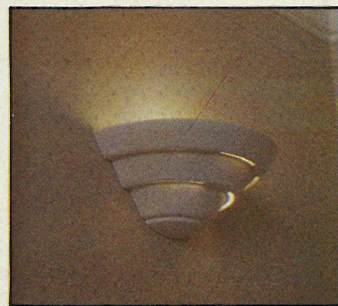
There is also a light pole which is spring loaded for fixing between floor and ceiling and carries up to five luminaires.

An advantage of this German made system is the ease of fixing and changing the pattern of the layout. Reader Service No. 152

A choice of mounted uplights

Omega Lighting Ltd has added four wall mounted uplights to its range of Mazda home lighting. Their white plaster finish can either be left plain or painted using a variety of techniques such as sponging and stippling to co-ordinate with other furnishings.

For modern interiors, Vogue (illustrated) is a graduated, three-tier design and Jazz has a distinctive triangular shape with a contrasting gold band. For more



traditional tastes, Regency features an ornate moulding, whilst Oyster is a softer, dish shape.

Each uplight is supplied complete with a 60W opal candle lamp. Prices start at about £18.

Reader Service No. 153

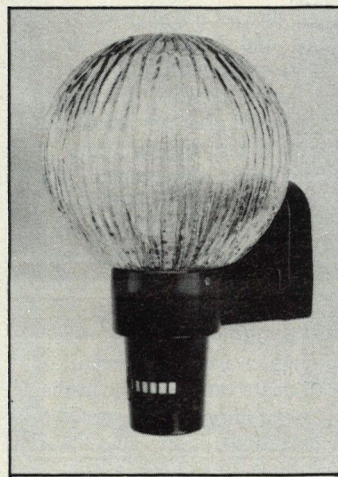
Wall light that detects people

Globelight is an outdoor wall light by Tasley Systems Ltd which incorporates a passive infra-red sensor switch.

The sensor can be adjusted vertically and horizontally to align it so that it detects people approaching at distances of up to 10m.

Alternatives to the clear reeded globe illustrated are opal glass, smoked glass and polycarbonate. A GLS lamp is used.

Reader Service No. 154



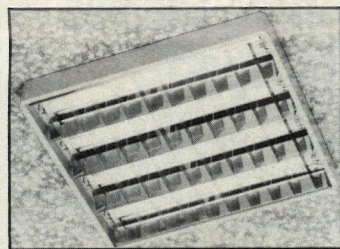
Non-corrosive fluorescent luminaires

Ring Electronics Ltd has launched a range of non-corrosive, weather resistant fluorescent fittings.

The single and twin lamp HPF fluorescent range is suitable for applications where excessive humidity, corrosive elements or dust are present and for ambient temperatures up to 100°C.

The high density polystyrene housings will not yellow with age and are non-electrostatic. Acrylic, injection moulded, prismatic controllers complete the luminaires.

Reader Service No. 155



Shallow fluorescent range

Shallow, surface mounted fluorescent luminaires called Sumolux have been launched by Interlux. Only 80mm deep, the luminaire body is enhanced by rounded corners.

Lamp options range from 2 x 18W to 4 x 36W, with twin 58W and 70W versions.

There is a wide choice of lighting controllers and accessories available including a factory fitted emergency lighting pack.

Reader Service No. 156

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

SON luminaires for indoor use

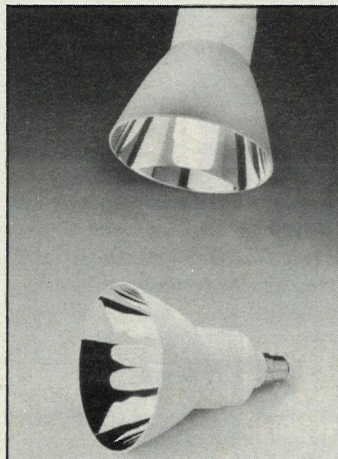
Osram-GEC Ltd has introduced two luminaires which use high pressure sodium SON Plus lamps.

Harrier Plus gives a wide spread of light for low bay lighting in commercial and industrial applications. Harrier Rack is designed for high bay areas; it throws light downwards and forwards for uniform illumination of racking.

Reader Service No. 157

Compact fluorescent spotlamp

Opus EL Reflector is a compact fluorescent lamp with integral reflector. Launched by Osram-GEC Ltd, it is available in two ratings and beam widths. The 11W version gives a beam angle of 70°



while the 15W type gives an angle of 80°.

It can be used as a direct replacement for PAR lamps and incandescent reflector lamps. BC and ES cap versions are produced and it has an integral electronic ballast for instant start.

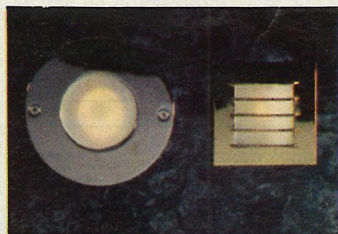
Reader Service No. 158

Special lighting for steps

Electrolite Ltd has designed two low voltage luminaires for lighting steps: Grill and Tread.

Grill fitting uses a 12V 20W tungsten halogen lamp. It is 80mm square with a sand blasted glass diffuser protected by five ribs. A soft wash of light is provided on stair treads, or, because of its modern, bold design, Grill can be used in other areas as a feature light.

Tread has a 116mm diameter bezel and uses a lamp rated at up to 50W mounted at an angle of 30° to the sand blasted diffuser. As



well as throwing light across steps, it can be mounted at low level in corridors.

A wide range of colours and metal finishes is available.

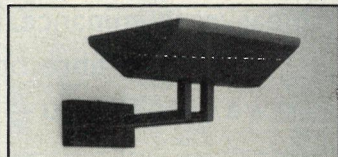
Reader Service No. 159

Matching range of uplights

Vigo is an uplight from Knight Design in free standing and wall mounted versions. The head is trough shaped.

Standard colours are charcoal and white, both in a textured finish.

Vigo is designed for use with



mains voltage, linear tungsten halogen lamps. Maximum ratings are 500W for the free standing version and 300W for Vigo Wall. The free standing unit comes complete with a foot-operated dimmer switch. Reader Service No. 160

LIF LINE

Managed motorway lighting back on the table

Have you ever wondered why the Department of Transport has not grasped the nettle and made all arterial motorways, in particular the M25, wider. The potential savings that could be made on relieving congestion and frustrated motorists would surely be substantial. Well, wonder no more

It seems, at least according to the Sunday Times of the 23 April, that Paul Channon has been beaver away in Cabinet arguing with the Treasury for a massive injection of cash to improve the motorways between Britain's leading industrial centres.

A White Paper is due out within two months containing proposals to widen existing motorways, primarily the M1, M6, and parts of the M25 and M11 into eight-lane super highways with a target date for completion set for the mid 1990s.

This news is of particular interest to the lighting community. According to the Department of Transport Highways and Traffic Advice Note TA49/86 Appendix B:

"lighting may be provided on new trunk roads and new trunk road motorways when any one of the following conditions apply:

5. A section of dual carriageway has a total running lane width greater than 3 lanes on either carriageway,"

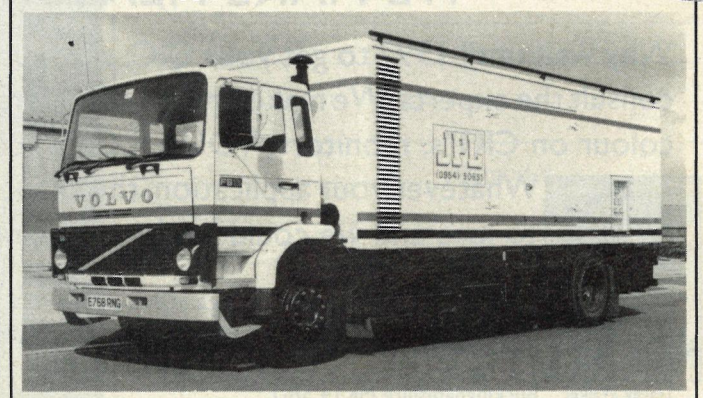
In other words, it is the Department of Transport's policy to light four-lane motorways as they have already done in parts of the south-west section of the M25 and at the bottom of the M1 with catenary lighting.

According to the Sunday Times, in addition to the big increase in government spending, the roads programme is expected to open the way for greater private sector involvement; Channon evidently is an enthusiastic supporter of private enterprise in infrastructure projects. This has been mentioned before, at the Conservative Party Conference in October last year, and has since been the subject of discussion between the industry and Peter Bottomley, but with no fruitful conclusion. The offer made during the talks to provide managed lighting on Britain's motorways will be presented again should the White Paper, when published, confirm Channon's enthusiastic support for private sector involvement of the sort we would be able to offer.

FIRM GOES SILENT

Cambridge based JPL Services, the specialist power and lighting people, have recently added a 160kW silent mobile power unit to their generator fleet. The unit can produce three or single phase power via BS4343 outlets or BAC connectors and has electronic governing with a quartz Synclock device to precisely lock the frequency at 48, 50 or 60Hz. The acoustic container, mounted on a 16 tonne Volvo chassis, houses a Volvo Penta turbo diesel driving a MeccAlte alternator. Storage for cables, switch gear etc is provided within the rear of the unit.

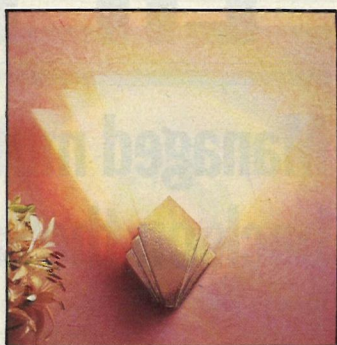
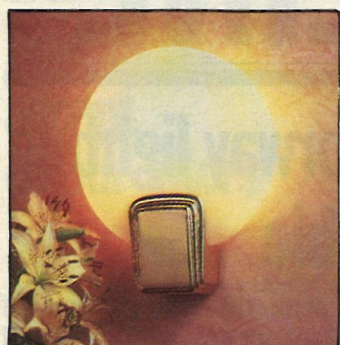
JPL who specialise in all types of temporary power and lighting ranging from film and tv location work, corporate promotions and product launches to marquee services and country house functions, have many years experience within these fields and have already found the new unit to be essential to themselves and popular with many clients, supplying reliable silent power.



Reader Service No. 5

Page 5

NEW PRODUCTS



Low energy wall lights

Among the range of lighting introduced by Philips for the consumer market are two wall lights.

One has a circular diffuser and the other a fan shaped, Art Deco style diffuser. Both use 9W PL compact fluorescent lamps which

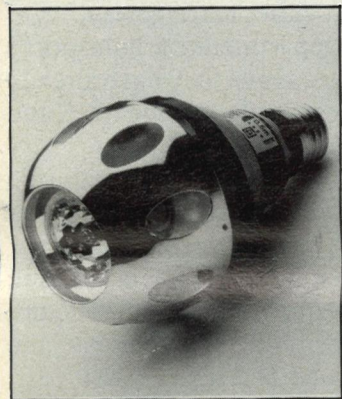
are included in the packaging, as are fixing screws.

The diffusers are made of moulded acrylic; wall brackets are in aluminised ABS with a choice of either chromium or brass finish.

Reader Service No. 161

Low energy replacement for display lamps

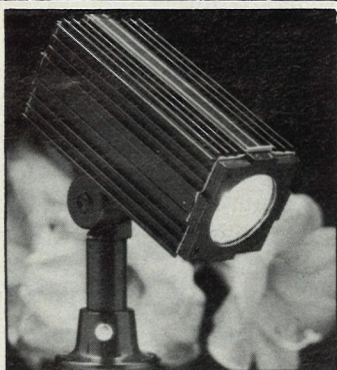
Modern Light Electronic Adaptor is a direct replacement for PAR38 and Ro80 lamps for display lighting. Available through Bernlite Ltd, the unit incorporates an electronic transformer and uses a 35W 12V tungsten halogen lamp.



As well as reducing running costs, it gives a cooler beam by using a lamp with a dichroic reflector which is ventilated by large apertures in the chromium reflector head. This head is easily removable to replace the lamp.

Other advantages are longer life and a choice of beam widths.

Reader Service No. 162



Low voltage garden lighting

Latest addition to the Night-scaping range of low voltage outdoor lighting, available through The Garden Lighting Co, is the Pro-Liter series, designed to take 12V M16 lamps up to 50W.

This range of small luminaires includes earthspike, wall mounted and suspended downlight fittings, weatherproofed and manufactured from extruded aluminium with fins for improved heat dissipation. Coloured lenses are available as an option.

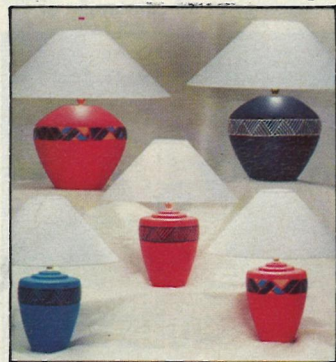
Celebrity (illustrated) is 178mm long and is mounted on a ground spike.

The new range is well suited for exterior applications where a small fixture with good beam control and colour rendering is required.

Reader Service No. 163

Bright and modern table lamps

Among the new ranges of table lamps launched by ETD Lighting Ltd is Bright Lights. This collection combines bold primary colours with modern shapes



decorated in ethnic patterns to create a striking appearance.

There is a choice of two sizes and all the basis are co-ordinated with coolie shades.

Reader Service No. 164

Low voltage spotlights

Quest Lighting has launched a range of low voltage spotlights.

This GX5 range is available in

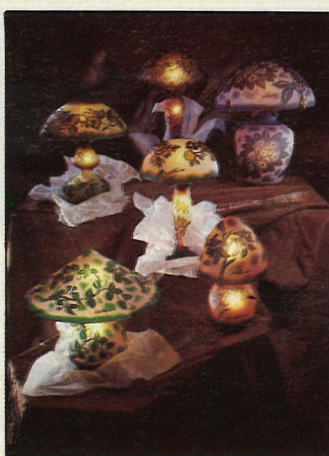


four colours and can be either track or individually surface mounted with integral or remote transformer.

All fittings use dichroic reflector, 12V tungsten halogen lamps.

Reader Service No. 165

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



Art nouveau mushrooms

Christopher Wray Lighting is offering a range of Art nouveau mushroom shaped table lamps. These are made by Cristalleries de Vienne, France, using the same method and with the same fastidious attention to detail as those created by the *Ecole de Nancy* under Emile Gallé at the close of the 19th century.

Both shade and base are illuminated and are made from highly coloured glass. The colour is mixed into the glass while it is still molten. When blown, the yellows, reds, oranges or blues of the glass are flecked or delicately veined with secondary hues, giving each light a texture and depth of colour unlike any other.

The glass is then decorated with an overlay of cut and engraved motifs in forms such as dragonflies, lilies, birds, or vine leaves.

Prices are from £125.

Reader Service No. 166

Three choices for sport

A three-lamp luminaire for sports halls has been introduced by Simplex Lighting Ltd. It has multiple circuit connections to enable either one, two or three lamps to be illuminated.

This luminaire is part of the Versaline 5 range and is made of rugged, heavy gauge steel. A close-mesh wire guard protects it from the rigours of the sports hall.

Reader Service No. 167

Modular fitting uses 2L lamps

Thorn Lighting Ltd has introduced 2L Quattro, a modular 600mm square recessed fluorescent luminaire which uses the 2L linear compact fluorescent lamp.

Two housings are offered, depending on whether the unit is to be installed in an exposed-T or concealed fix/spring-T ceiling. There is also a choice of 16-cell louvre, one for use where VDU operation is constant, the other for general offices and retail interiors.

2L Quattro is supplied with either two 2L 40W lamps operating off a high frequency electronic ballast, or two 2L 36W lamps running off a switch start circuit.

The longer 40W lamps take optimum advantage of the entire reflector area, giving a 7000 lumen output.



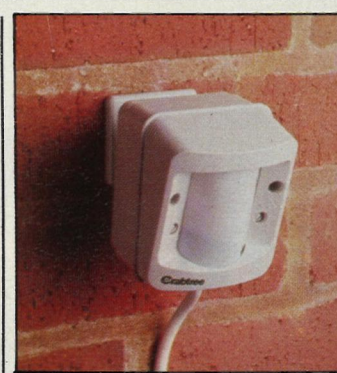
Other advantages are that the back of the luminaire body has elongated slots to cater for air handling, and the model for exposed-T ceilings can be supplied with emergency lighting facilities.

Reader Service No. 168

Miniature spotlight range

Recently launched by Lee Environmental Lighting is the Collesque series of six low voltage spotlights with cylindrical styling.

The range consists of Collesque Electronic, a 50W fitting with lightweight integral electronic transformer; Collesque Micro, a small 20/50W fitting with remote



Security sensor has three lenses

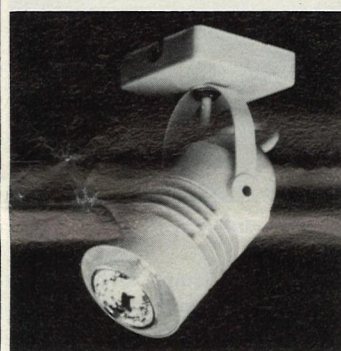
Minder is a passive infra-red sensor from Crabtree Electrical Industries Ltd. Designed to detect heat emitted by persons or vehicles, it deters intruders by automatically switching on a light when there is movement in the detection zone.

Minder is supplied with three interchangeable lenses to give 6m, 12m and 30m detection ranges, making it suitable for many domestic, commercial and industrial applications.

The 6m lens gives enhanced concentration over a small area, while the 12m lens is suited to the majority of applications. For long range monitoring, for example in alleys and driveways, the 30m lens is most effective.

A wall mounting bracket incorporating a ball and socket joint enables the detection angle to be set to the desired alignment. A time adjustment allows the Minder to operate from one second to 11 minutes.

Reader Service No. 171



transformer; Collesque Mini, a larger 20/50/70W fitting with remote transformer; Collesque Flair, a 20/50W spotlight with flared cowl; Collesque Minnette, a tiny 20/50W spotlight, and Collesque Lightbar with three 20W spotlights and integral electronic transformer.

All except the lightbar are available in versions for mounting on track.

All fittings are supplied as standard in a new tough quality, polyester paint finish in white, black, chromium or gold.

Options available on some models include straight and flared cowls and barn doors.

Reader Service No. 169

Luminaire that resists dust and corrosion

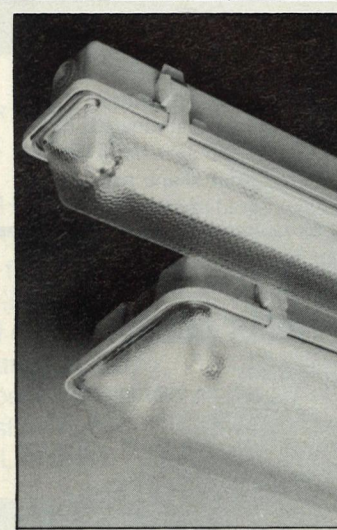
Osram-GEC Ltd has launched a corrosion resistant fluorescent luminaire for use in adverse conditions and areas prone to dust, grease and humidity.

Named Duralite II, the luminaire has a glass reinforced plastic body, is easy to clean, and has a streamlined appearance. Ingress protection rating is IP65.

Suitable applications include multi-storey car parks, shopping precincts, industrial environments and catering areas.

The diffuser is made of acrylic, though a vandal resistant polycarbonate version is also available.

In addition to the model with conventional gear, Duralite II is available with high frequency elec-



tronic control gear, giving instant start, increased energy saving and higher light output.

Accessories include a conduit mounting kit and anti-vandal clips for the diffuser.

Reader Service No. 170

1992

WE MAKE MEASURING LIGHT WORK!

Why wait until 1992 to get your Q.C. sewn up? When it comes to measuring light or colour, consult the experts. We make a range of meters to measure Illuminance, Luminance, Kelvin and colour on CRT's, monitors, VDU's, LCD's, LED'S, luminaires, fibre optics and much more.



Tracey Walker

Whatever your application, the chances are we can help you — try us, you've nothing to lose and we could save you pounds!

"Call me now, for a free literature pack or a no-strings demonstration, on 0908 211211, extension 216, or write to: The Industrial Department, Minolta (UK) Limited, 1-3 Tanners Drive, Blakelands North, Milton Keynes, Buckinghamshire MK14 5BU



MINOLTA

Only Thorn go to such Lengths!

2L

The new 2L 40W close parallel compact tube is unique. In four ways.

The *only* compact fluorescent that fits perfectly into a 600 x 600mm luminaire. No gaps. No end boxes. No shadows.

The *only* 40W available in the ever popular polylux phosphor 3500K (plus 3000K and 4000K).

The first and *only* 40W to work on the economical 50Hz standard control gear.

The *only* close parallel compact 40W with a smooth, rounded end-profile that offers attractive design opportunities.

This extraordinary tube joins with its 36, 24 and 18 Watt companions to provide an exciting new dimension in commercial lighting.

Send the coupon for full-colour leaflet and a detailed data sheet.

**NOW OPERATES ON
STANDARD 50Hz
CONTROL GEAR
AS WELL AS ON
HIGH FREQUENCY**

**WINS OUTRIGHT OVER
600 x 600mm**
Designed specifically for the modern luminaire, the 2L 40W fills the space edge-to-edge in two, three or four tube configurations to give the most efficient light output.

 **THORN LIGHTING**
TRUST THORN TO MAKE IT RIGHT.

Please send me the colour brochure and data sheet on The 2L Linear Compact Fluorescent range.

Name: _____

Company: _____

Address: _____

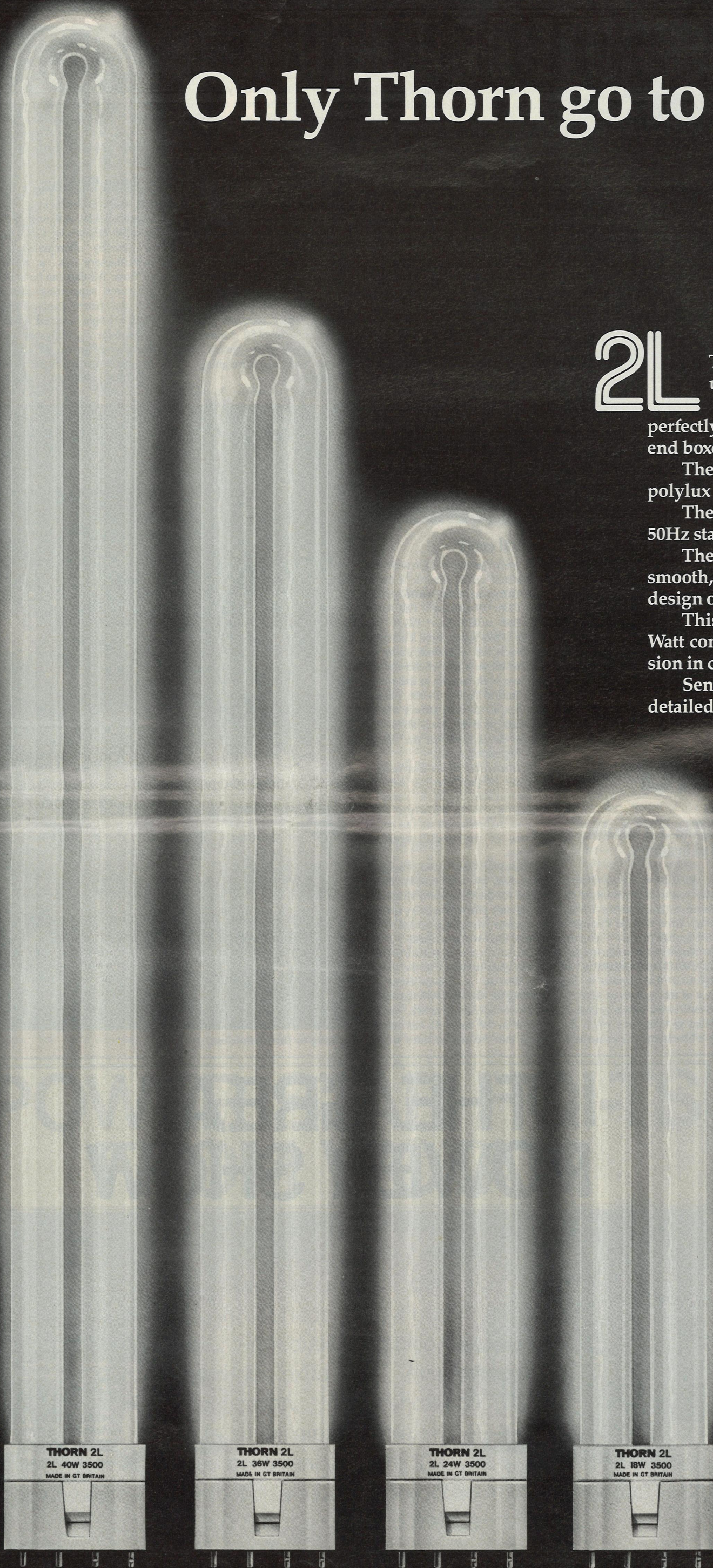
Postcode: _____

Position: _____

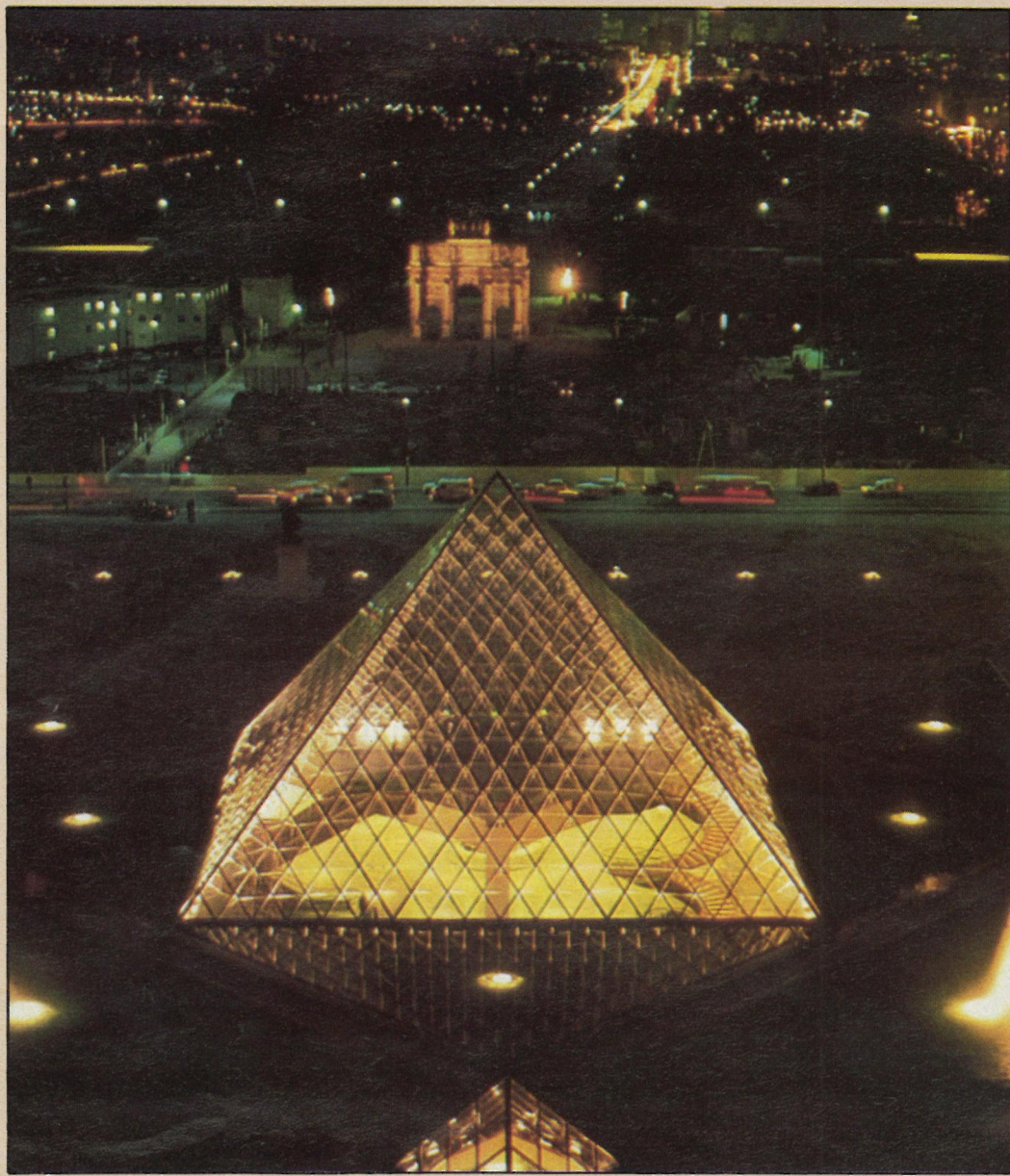
Tel. No: _____

To: Filiz Azim (Dept. LEN.1.)
Thorn EMI Lamps & Components, Miles Road,
Mitcham, Surrey CR4 3YX.
Tel: 01-640 1221 (ext. 267)

 **THORN LIGHTING**
Reader Service No. 7



2L. THE ULTIMATE IN LINEAR COMPACT FLUORESCENTS.



View from the Louvre of the Arc de Triomphe and along the Champs-Élysées.

Parisian pyramid

Is the new extension to the Louvre just a pimple on the Paris skyline or a valuable addition to the cityscape? *LEN* looks at this most controversial of buildings.

Buildings by foreign architects tend to make news in France. The new entrance and public facilities building for the Louvre by American architect I M Pei is no exception, having recently created as much of a furore as the Pompidou Centre before it. Whether, given time, it will become as much part of the cultural scene in Paris remains to be seen.

The glass pyramid, however, is only the first visible sign of a refurbishment of the Louvre, one of the world's greatest art galleries — but one of the most run down

and uninviting. The Louvre owns a quarter of a million works of art, some 30 000 of which are on permanent display.

Visiting the gallery can involve a 13 kilometre trek through 250 rooms, a feat seldom attempted by Parisians according to a recent opinion poll which suggested that 80% of them have seldom, and 40% have never been to the Louvre. In all, it attracts only 3 million visitors a year — a low figure compared with the Eiffel Tower (4 million) and the Pompidou Centre (a staggering 8 million).

The situation is set to change. The plan was to commemorate the two hundredth centenary of the storming of the Bastille through a series of 'grands projets' — and the Louvre conversion with its new entrance and extra 60 000m² of underground floor space is the grandest of the 'grands projets'.

The entire renovation project is scheduled to take until 1993, the gallery's bicentenary as a museum.

The first milestone was reached in 1988 with the opening of the redesigned central court with its centrally located glass pyramid and seven surrounding fountains. Some 2.8 ha in area, the Cour Napoleon is Europe's largest public square — about twice the size of the Piazza San Marco in Venice.

The inauguration of Pei's building in March 1989 marked the second step in the project. This now provides a central entrance to the Louvre and facilities for the general public.

The architectural problem here was not to provide a contemporary symbol for France's most famous art gallery — the requirement was to create a building to join the three wings of the gallery providing facilities for the museum as a whole, such as a ticket office, guidebook sales, and tour organisation. In addition, it was necessary to house facilities that have come to be expected in modern museums, and that the original palace spaces could not accommodate. These include an auditorium which can also be used as a cinema, a large public restaurant, a large museum store, and a speciality restaurant.

Central court

The only junction between the wings that could provide a common entry was in the central court, the Cour Napoleon. The area required would have filled the whole of this space, even if stacked double. It was, of course, unthinkable to fill in whole of the square and lose both facades to the wings and natural light into the palace galleries, so the only answer was to excavate to river level, about 11 metres down, and put the whole building underground.

This solution, in itself created a new set of problems. A subterranean space, seems to carry a special stigma in Paris and was seen as inappropriate as the entry to one of the world's greatest galleries.

Moreover, the ceiling heights permitted by the 6.09m clear height for the two-storey structure would only give satisfactory spaces for people over a large area if some natural light was provided.

The solution was to incorporate a clear glass pyramid, as the shape provides the maximum areas of opening for daylight with the minimum volume and, hence, visual impact in the court. It was anticipated that the angled sides would

also reflect the sky to the viewer, creating a feeling of lightness by day and giving no significant reflection at night to reduce the illusion of transparency.

Once Pei had been selected as architect in 1983, a series of tests had to be conducted on materials and processes. Pei wanted total translucence, to ensure the maximum levels of sunlight into the building below the Cour Napoleon. The glass body of the pyramid needed to be smooth, gleaming and yet not reflective; necessitating glass completely free of ferrous oxide.

A supporting structure of light and elegant appearance was devised using cast steel nodes and girders. This accounts for 95 tonnes of the 180 tonne total weight; 666 glass panels make up the rest, each weighing 150 kilograms.

When President Mitterand

awarded the contract to I M Pei, he added that the lighting should be even more striking than in the Washington National Gallery, whose east wing was also designed and built by Pei. So Pei went back to the lighting designer he had worked with on that project, Claude Engle of Washington, and enlisted his services.

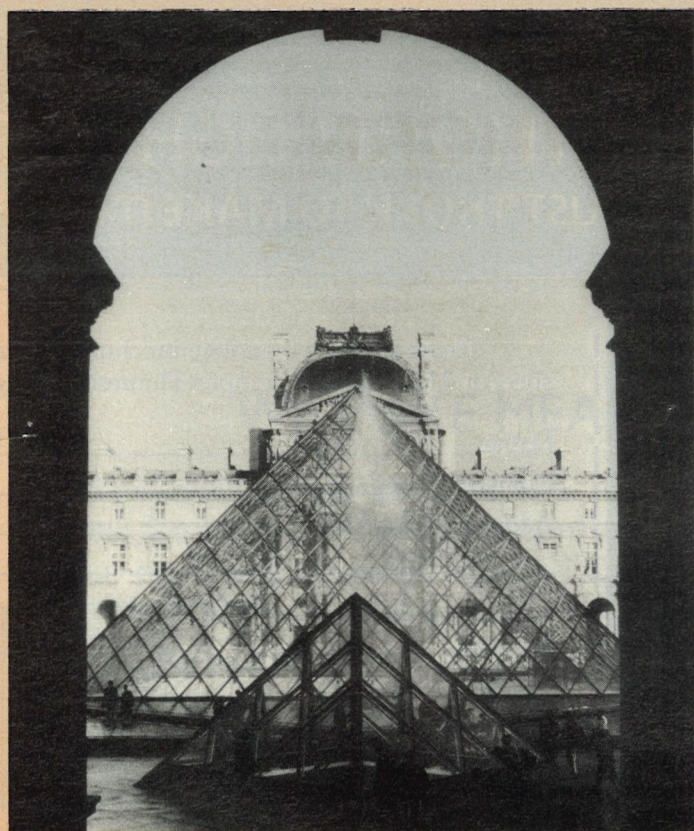
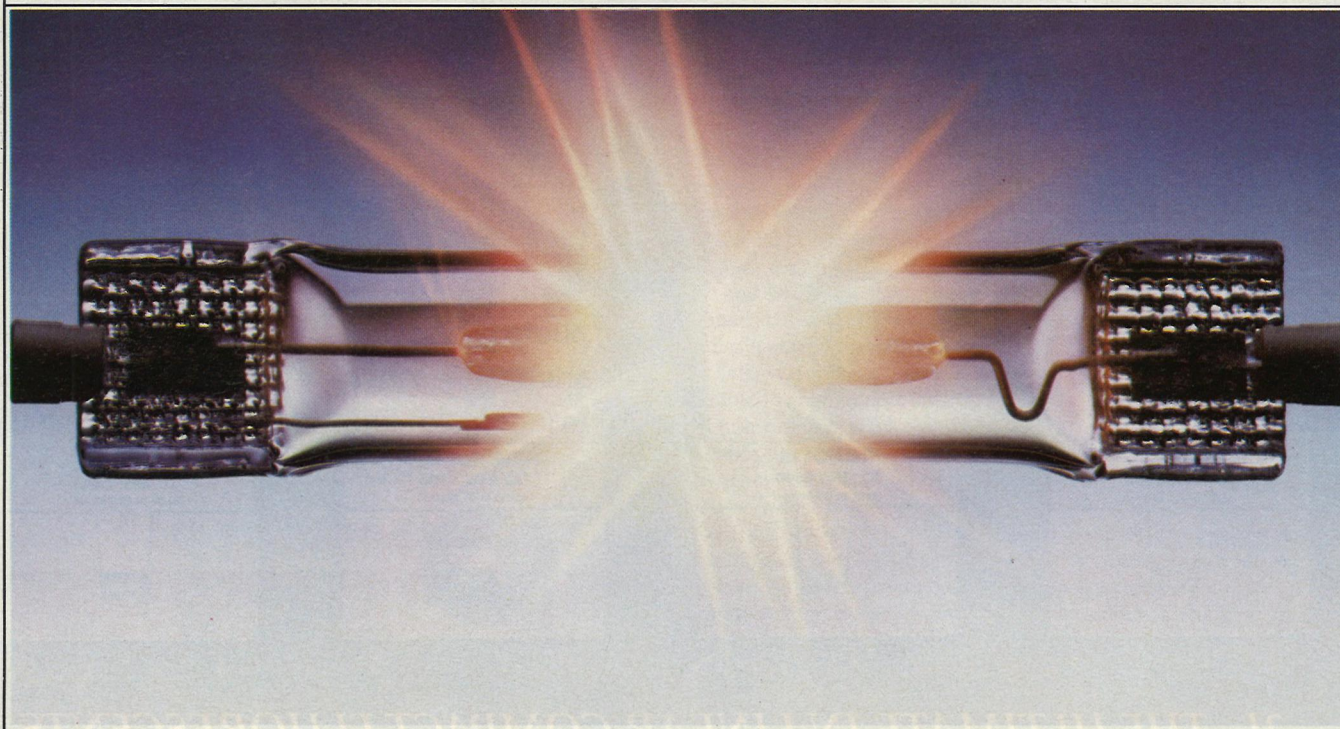
Lighting the glass

The main problem in a complex commission lay in lighting the glass pyramid effectively. Glass cannot be directly illuminated, being unsatisfactory as a reflective medium. All that can be lit are the structures supporting the glass, and the panel joints. For this, Claude Engle selected adjustable low-voltage tungsten-halogen directional spots (100W/12V) that light up the entire structure uniformly without generating glare.



Lighting to the auditorium.

THE GREAT POWER SHOW



The pyramid, framed by one of the pavilions of the palace.



The reconstructed Cour Napoleon by night.

Lighting the Louvre

LEN presents a shortened version of a paper presented by Claude Eagle on the lighting of the Pei building.

Our task was to create the daytime illusion that the daylight penetrates much farther into the space than it really does and to provide a smooth transition to an elegant artificially lighted space. The task at night was to extend this elegant quality of light into the central hall, including bringing its presence in the area under the skylight, while leaving the skylight transparent enough that a visitor below is aware that he is, ultimately, enclosed by the three wings of the palace.

The human eye decides what it thinks the amount of light in a room is, not by a real measurement of lux, but by evaluating the

brightness of the surfaces of the room, principally the walls. Clearly, extending the feeling of light away from the pyramid meant lighting the walls of these spaces. This is not enough, however. The eye is highly conditioned to the natural way in which light performs. For instance, it is not uncomfortable with variations in brightness from the top to the bottom of a wall because this is found everywhere in nature. The most obvious example is the sky to the water, to the surf, to the sand. It is extremely uncomfortable with unnatural transitions such as variations from left to right on a wall.

In the case of our illusion in the Louvre, if the daylight were mak-

ing it to a wall 20m away from the edge of the skylight, the value of the ceiling, which is the area seen between the sky and the wall, would be brighter than the reflected natural light will make it. It is, therefore, necessary to devise a lighting system to enlighten the ceiling.

The evening problem at first appears more difficult, if not impossible. To have a feeling of 'room' in the Hall Napoleon rather than the feeling of being of the bottom of an excavation, one must have a sense of enclosure, a ceiling. To see out to the pavilions at the Louvre, one must have unlighted glass to look through.

Focal form

The desire to make people approaching it on the surface see the pyramid as a focal form (which means that silhouette against the palace is not sufficient) and yet see the palace through it seems equally contradictory.

The solution lies in lighting the three-dimensional network of cables just beneath the glass. From a great distance, the eye integrates these lines into a surface, closer up the eye reads the pyramid as a tex-

ture. The glass areas in between the cables which are, in fact, the majority of the surface are completely transparent permitting one to see the pavilions from within.

The first step in developing the design was analysing the space, which included some model studies, to decide how light should render the space. Were the notches in the diagonal walls focal points requiring highlighting, relief points requiring lower lighting or folds in a plane of equal value. In the latter case the trick would be to reveal the corners and to maintain the sculpture of the space. There were many hours of discussions with the architects about their reasons, for choosing the configurations.

Having defined where light is required, the next step was to develop the lighting plans. We believe strongly that, not only must the light reinforce the space, but the lighting systems must also. Lighting fixtures are objects and they must be exactly the right size and be placed at exactly the right place.

The final lighting studies were all done in large scale. Although plans, every element on the wall to

which the lights could relate such as stone joints, air outlets, concealed doors are noted. Within the limits of the optics, geometries were found that permitted the relationship with each of the other objects to be correct. In one case optics did not exist to meet one condition and we had to develop them.

It is interesting to note that the size, spacing, and distance from the wall is different on the level where the ceiling is lower and the system is closer to the visitor than it is on the upper level where spaces tend to be more grand. Since each is appropriate to the space, the viewer is not aware of any change.

Luminaires

Most of the wallwashers use optics which have proven themselves over the years. The major technical development for these fixtures is the ability to cast the basic housings into structural concrete with the required precision and to be able to adjust them and insert the critical optics two years later.

In many areas, future flexibility dictated false ceilings but the limiting height dimension of the structure allowed a space of only 150mm. An entire series of wallwashers, wide angle downlights, narrow angle downlights, and adjustable accent lights were developed for this depth including transformers that can be installed into the shallow void through the small fixture apertures.

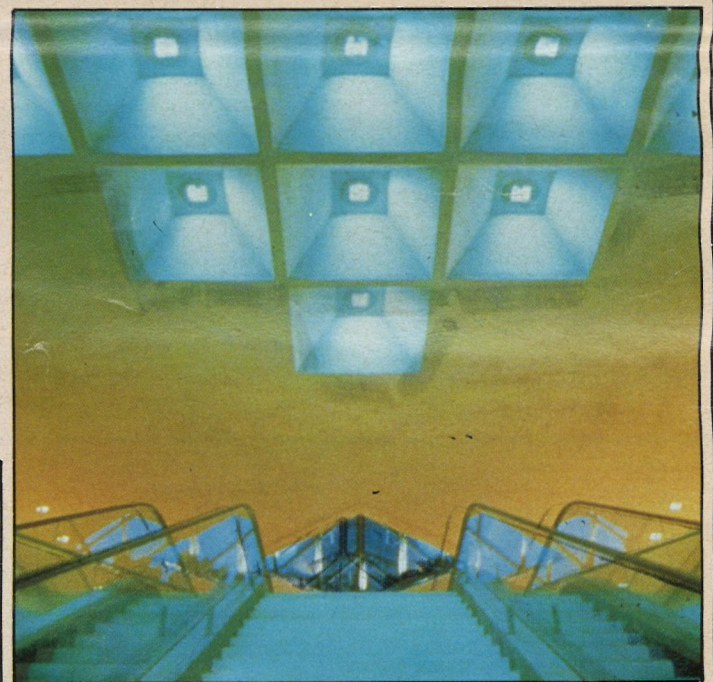
The ceiling coffer lights were a special problem. They are intended to be on in daytime to increase the value of the plane. It would seem absurd, however, to have a ceiling full of artificial lights that appeared to be on immediately surrounding a skylight. In the simplest description, we needed recessed downlights which lighted the angled sides of the coffer with a

hole in the middle of the beam so that no light came directly out of the coffer. In fact, to maintain the shape of the coffer, they had to light only two sides of it. In addition, they had to have a free area to extract smoke in case of fire and, in some cases, have an actual hole in the middle for punctual spotlights to provide highlights.

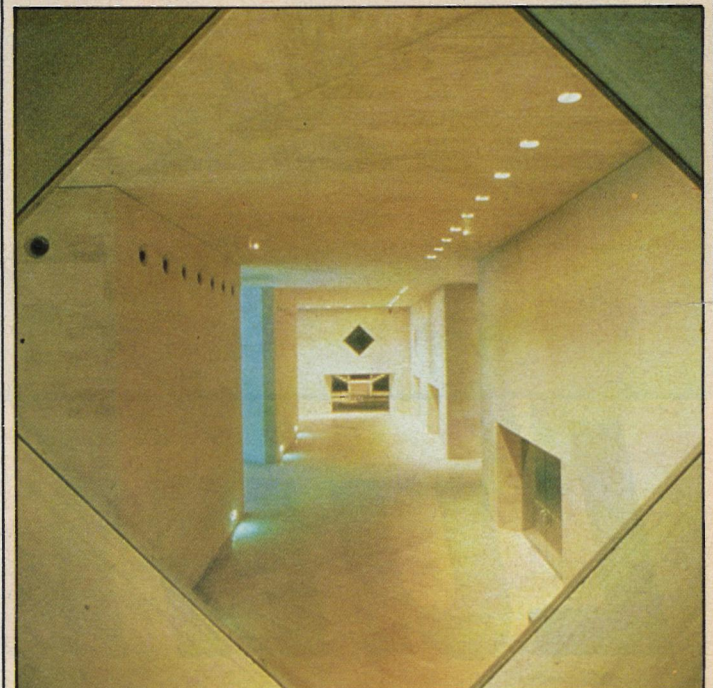
An interesting optical problem evolved on the exterior. While everything was being done to make the actual pyramid transparent, to achieve the effect of transparency there must be something outside to see. How would we light the palace? At the Louvre, the only location for floodlighting was the pavilions themselves. The floodlighting for Denon would ruin Richelieu, and so forth. I had always been intrigued by the lighting in Place de la Concorde where spotlights had been concealed in the tops of the period lamp posts to light the statues and facades. The lampadaires at the Louvre were about half the size and, to compound the problem, the city requested that every attempt be made to utilize discharge sources so that they could assure that there were no burn outs to interrupt the effect. All experts agreed that lighting from the lampadaires would not work.

Position is critical

We are stubborn and I love reflector design. In lighting a facade it is not important *how much* light one puts on it as *where* one puts it. If the outlines of an area are bright, the mind tends to fill in the middle. If the building is bright at its lower portion, producing strong silhouettes, it will appear bright. The lampadaires themselves would accomplish that. If the upper cornice is bright, strengthening the contrast between building and sky and the features of the building are bright, the effect is that the entire



Ceiling coffers seen from the bank of escalators.



Looking from the upper level to down to the lower level.

POWER STAR HQI-TS FROM WOTAN.

Produced by a lamp only 114 mm long and 20 mm wide, yet with a light output and colour brilliance that puts many larger lamps in the shade.

Its warm white or intermediate colour appearance provides extraordinary flexibility of application.

Whether for surface or area lighting, for use in offices, conference halls, museums or production areas;

Type	Lamp wattage	Length mm	Diameter mm
HQI-TS 70	75	114,2	20
HQI-TS 150	150	132	23
HQI-TS 250	250	163	25

or in parks, pedestrian precincts and for floodlighting façades.

Plus eye-catching displays in showrooms, shop windows and exhibitions.

And, for sheer economy it steals the show from other lamp types. One single HQI-TS 150 watt can replace eight 120 watt tungsten PAR lamps. It uses 80% less energy and lasts three times as long.

WOTAN

Reader Service No. 8



The spacious exhibition hall with ceiling lighting designed to resemble daylighting.

building is bright. The optics which I developed relied on the direct lamp light to extend the effect of the lampadaire upward but it would grade out.

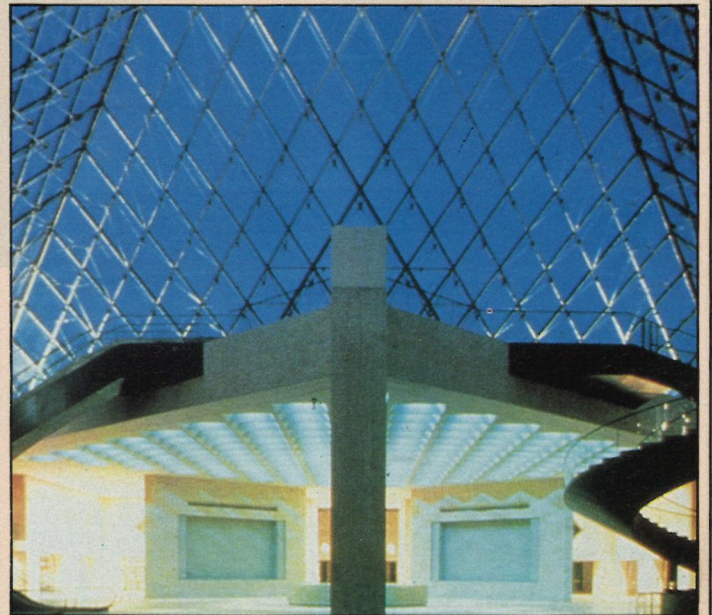
A static parabola picks out the lower cornice and statue bond. An adjustable parabola picks out the upper cornice which is actually in a different location on the different facades. Knowing that for these parabolas to work the source had to be small, we designed it around either a linear double jacketed quartz source or the Philips white SON lamp, praying that it would be available in time. It was and it worked, so naturally in fact, that few people realize that it is not just the result of the simple lampadaire.

Lighting the cables

Last, the lighting of the pyramid. The concept was to illuminate the network of cables. These are actually stainless steel cables so that it is not so much illuminating them as revealing them by highlights, like a spider's web covered with dew. The source, then, needed to be linear and made up of many point sources. This developed into 640



The main staircase takes visitors 9m beneath the Cour Napoleon.



The glazed pyramid seen from below.

shielded filament 100W extra narrow beam units at the base of the pyramid. This narrow beam of light renders the cables equally from bottom to top. While these special spotlights have so little brightness outside of their beam that one cannot tell that they are on in a lighted room, the eye adaptation levels within the lighted pyramid are so low (enabling you to see the palace outside) that they appeared bright.

Most disturbing in the original mock-up was the reflection of the lights in the glass which blocked your ability to see people outside. As was predictable, louvres and flat black baffles appeared just as bright. Digging deep into the bag of technical tricks, we designed

two linear parabolic reflectors. One redirects the image over the viewer's head, the other directs the image onto the glass at a position where this reflection goes over the viewer's head. Although the axes are different to suit this specific problem, the principle of reflecting light into areas where it is harmless are not unlike the principles upon which low brightness office lighting fixture is based.

The final effect does, indeed, create the illusion of a transparent solid but permits the amazing view of the pyramid as a focal point and the lighted Arc du Carrousel through and beyond it.

Photographs and information by courtesy of Erco Lighting, who supplied the luminaires.

GIOTTO DESIGNED FOR YOUR CLIENTS. ENGINEERED FOR YOU.

GIOTTO LUMINAIRES.
CLEAN DESIGN.
CLASSIC STYLING FOR THE
COMMERCIAL SETTING.

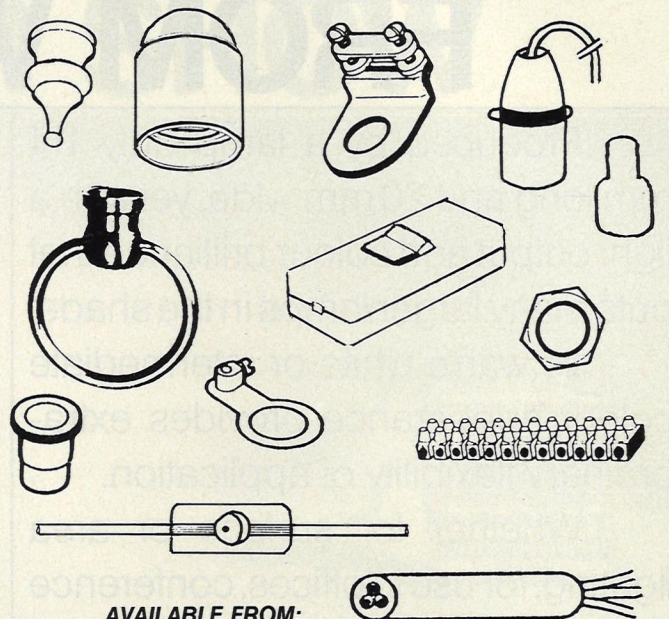
GIOTTO CIRCO, QUATTRO, FORTE.
IP44 RATED.
SAFE INDOORS AND OUT.
ENERGY EFFICIENT.

GIOTTO LINEA. DUSTPROOF.
IP65 RATED. ENERGY-SAVING.
VANDAL-RESISTANT.
SAFE FOR SHOWERS OR HEAVY-
DUTY OUTDOOR USE.

GIOTTO QUALITY.
TOUGH POLYCARBONATE BODIES.
UV-STABILISED OPAL DIFFUSERS.
GLS, LYNX AND 2D LAMP OPTIONS.
SNAP-FIT DIFFUSER.
HORIZONTAL, VERTICAL,
SEMI-RECESSED OR
SURFACE MOUNTED.

LUMIANCE.
DESIGNED TO APPEAL.
ENGINEERED FOR PERFECTION.
WE UNDERSTAND THE ART OF
MAKING LIGHT WORK - FOR YOUR
CLIENTS AND FOR YOU.
WRITE FOR A FULL
INFORMATION PACK.

LAMP HOLDERS AND ACCESSORIES



AVAILABLE FROM:
**LIGHTING AND ELECTRICAL
COMPONENTS LTD**

Unit 1A, Ailflow House, 222 Soho Hill, (Entrance off Villa Road)
Hockley, Birmingham B19 1AP. Tel: 021-554 9924

Lumiance

A GTE Company

Marketing Dept (RL14), Lumiance Malmesbury, Wiltshire, SN16 9JX.

A new light on art

In the course of Museums Year, *LEN* takes the opportunity to review three recent refurbishment projects in the art gallery world.

This year Britain's museums and art galleries are having their biggest ever promotion to tell the public about its cultural heritage. The aim is to enhance the public's perception of museums and galleries by making people more aware of the interesting exhibits and imaginative, contemporary approach to displays.

A target has been set of 100 million visitors in 1989; last year the figure was 73 million.

The Duchess of York is patron of Museums Year 1989 and is visiting museums wherever possible when she travels.

The Museums Association, which is organising the year as part of its centenary celebrations, has also been encouraging individual museums to promote themselves more positively.

As lighting plays such a vital part in display, it is an appropriate time to take a look at some recently refurbished museums and art galleries.

Liverpool's Tate Gallery

The Tate Gallery in Liverpool forms the pinnacle of the Albert Dock restoration programme. From being a disused warehouse it has provided the citizens of Liverpool with a large gallery for the display of modern art.

Architects James Stirling, Michael Wilford and Associates aimed to retain the basic character of the building, even down to the red brick vaulted ceilings and tiled floors.

The Tate's lighting brief was that flexible artificial lighting be provided to give 50-300 lux over the varying height/hanging surfaces, with a vertical uniformity better than 2:1 from top to bottom

of the hanging zone.

Colour rendering was to be not less than Ra85, and preferably better than Ra90, with less than 75mW per lumen ultra-violet component below 400nm.

Flicker-free dimming, remote control and eventually exposure monitoring was required, together with multi-circuit track lighting facilities for exhibitions and sculpture.

Facilities for monitoring illuminance on hanging surfaces on a lux/hours basis were requested, as were user-selectable patrol and escape lighting.

Exposure control

The low height galleries were to have a hanging height of approximately 2.6m with the high galleries rising to 4m, flexible partitions were required, and glazed works would be exhibited. Some paintings were known to be virtually full height and therefore lighting levels over the whole of the vertical surface should be as uniform as possible.

Veiling and obscuring reflections on oil paintings and glazed paintings were to be avoided if at all possible.

Earlier experience at the Tate had established the practice of exposure control as a method of conservation. This technique requires precise control of lighting installations, but has the benefit of extending the period for which art may be exhibited at illuminance levels previously thought to be excessive. It also enables the logging of lux/hours.

Subsequent developments in the brief led to the requirement for remote control and monitoring of the whole lighting installation from the Tate Gallery's main site in London.

The decision to exploit the brick vaults conflicted with the need to accommodate extensive air conditioning ductwork and further restricted locations for luminaires.

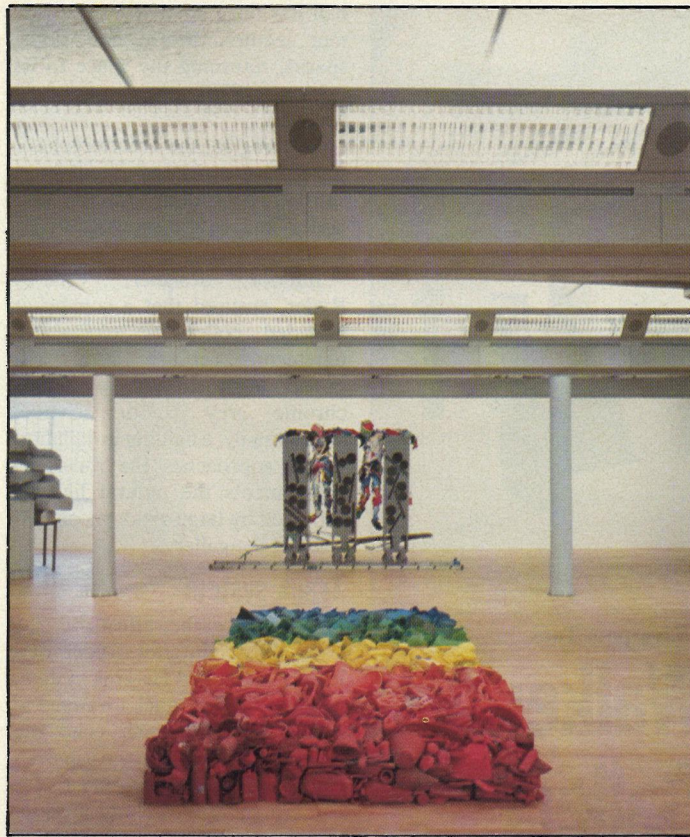
This led to the use of a central services "boom" to accommodate lighting for pictures, lighting track, air conditioning supply ducting, air diffusion grilles, smoke detectors

and loud speakers.

To test the feasibility of using "off the shelf" fluorescent luminaires to achieve the 2:1 uniformity over the whole of the hanging zone, a full size mock-up was constructed of a section through one of the galleries. The tests confirmed initial doubts.

Following investigations by the consulting engineers, Steensen Varming Mulcahy Partnership, it was decided to design a special luminaire. This was done in co-operation with Philips' lighting laboratories in Eindhoven, who first made a prototype for testing in the mock-up.

The core of the solution is a **Liverpool Tate Gallery, showing louvred fluorescent lighting.**



fluorescent luminaire with 22-facet reflector and deeply contoured, mirrored cross louvres to screen the lateral view. Tri-phosphor TL83 and TL84 lamps are used to harmonise with the colour of the brickwork and with tungsten halogen light sources. Control gear is of the high frequency, electronic type. The luminaires are mounted at an angle of 45° to light the picture hanging surfaces.

Uplighting

An element of fluorescent uplighting was added to light the vaulting and provide amenity lighting.

Three-circuit 240V lighting track and 12V lighting track are installed to give flexibility when lighting temporary exhibitions and displays of sculpture.

The cladding for the services boom forms part of the surround for the fluorescent luminaires and is removable for access to duct-work.

Dimming and switching control of the whole installation, including restaurant and corridors, is by Philips' Integrated Function Sys-

METAFLOOD
METAL HALIDE FLOODLIGHTS

The Powerlite range of Metaflood luminaires offer the cost effective lighting solution to today's lighting designers, where colour rendition and economy are paramount.

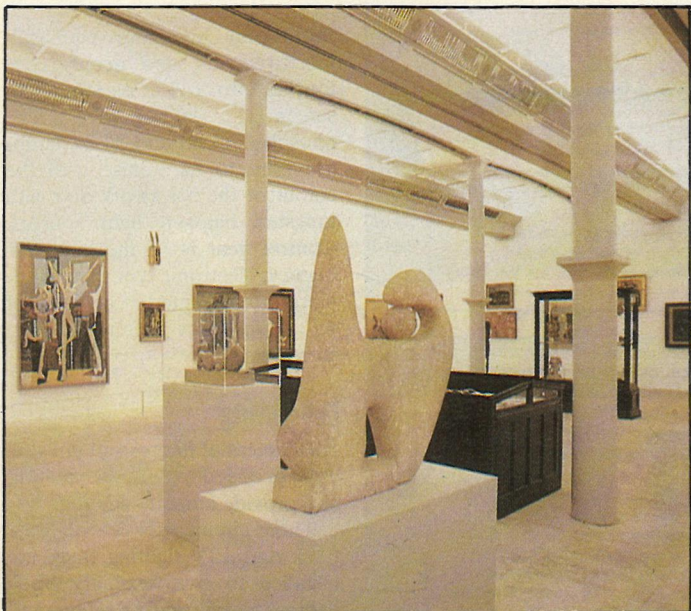
The high luminous efficiency and long life of the Metal Halide lamp, along with accurate colour rendering, make them ideal for the lighting of parks, buildings, monuments, sports grounds and road traffic installations.

The Powerlite Metaflood range includes four fittings, from 70 watts to 400 watts. You can choose from CPW 70, CPW 100, CPW 250, CPW 400 and a range of accessories to suit all floodlighting applications.

Available from electrical wholesalers throughout the UK.



A view of one of the services booms carrying lighting, air conditioning, smoke detectors and loud speakers on the first floor of the Liverpool Tate.



A riverside entry level gallery in the Liverpool Tate.

tem. This computerised system can be programmed and controlled either locally or via modems and therefore permits remote control from the Tate in London. It also automatically logs lux/hours to enable ultra-violet radiation on pictures to be monitored.

Variable switching needs for security and patrol lighting are met by the incorporation of infra-red sensors at strategic points in the lower section of the boom cladding. These allow the use of pre-set lighting programmes.

This lighting scheme not only met the Tate's brief, including the difficult to achieve 2:1 vertical uniformity on picture walls, it was also highly commended in the National Lighting Awards.

Walker Art Gallery Liverpool

Behind its 1877 portico, the Walker Art Gallery in Liverpool has been undergoing extensive refurbishment under the care of architects Edmund King. In addition to renovating the art galleries, the entrance hall has been redecorated and given a new lighting installation. Finally, a sculpture

hall has been created from a former lecture theatre and office spaces, returning the space to its original 1870s appearance and function.

In doing so, the architects have restored the original mouldings, skirting and door frames and added shelves and showcases with a classical feel.

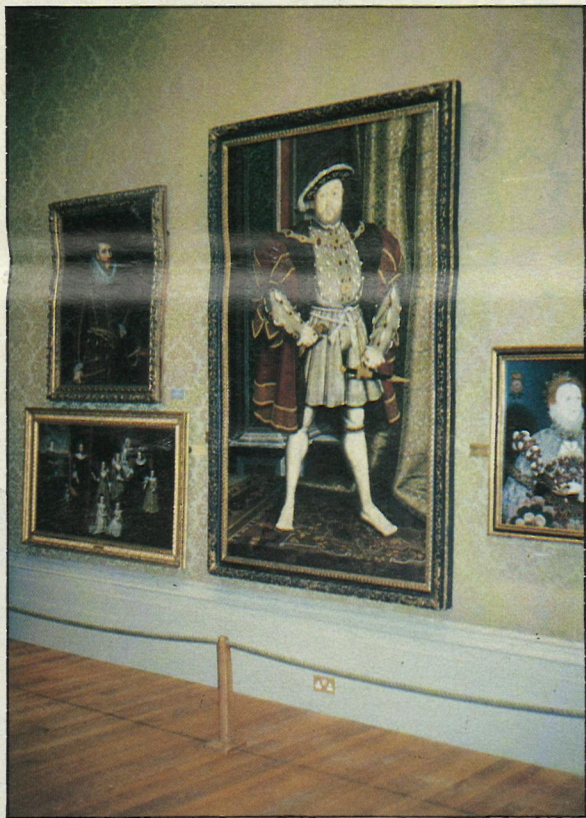
Interior designer, Charles Ryder, ensured that a somewhat crowded collection, typical of nineteenth century taste, was pulled together with a monochrome grey colour scheme. Additionally, a lighting installation which approaches the theatrical supplements the natural lighting provided by large windows on two sides of the gallery.

Track system

To minimise the effect on the Grade I listed interior, Ryder used Erco's suspended Hi-Trak system, with the lighting track arranged in four rectangles which echo the ceiling bays. Low voltage tungsten halogen lamps are ideal for rendering marble without producing coloured shadows, and provide the point source that is more appropriate to illuminating three-



Walker Gallery. Sculptural pieces are lit by point sources to reveal form.

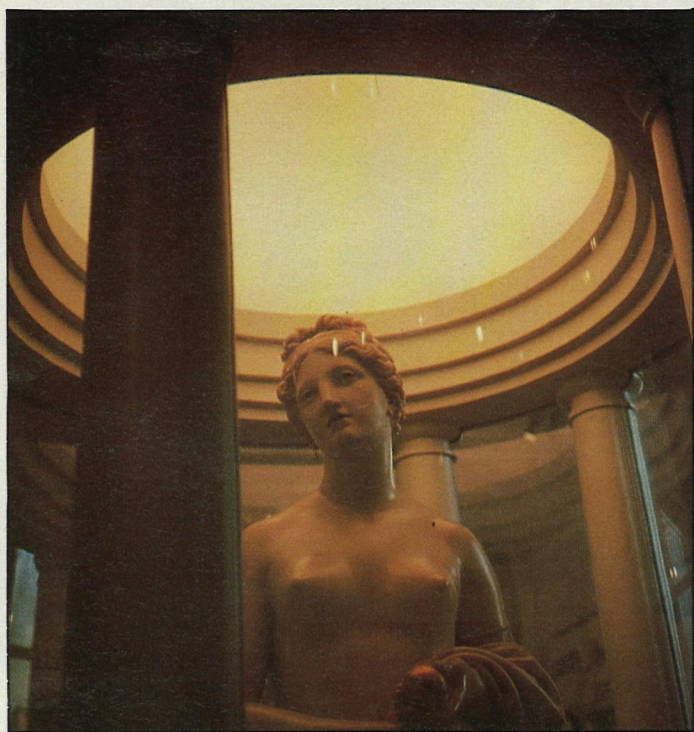


Walker Gallery. Paintings require a wall wash to reveal detail.



Walker Gallery. Erco Hi-Trak used to illuminate the paintings.





using a range of lamps — 50W, 75W or 100W — or by adjusting the transformers manually. Except for the occasional work in bas relief, which is lit with a single fitting, wall mounted sculptures are illuminated by two beams from different directions.

Freestanding sculptures are similarly lit by two fittings, with angles governed by the need to avoid glare to spectators (ie 30° above the line of vision) and aligned to match the angle of the incoming daylight (40°-60°) in addition to the obvious requirement to emphasise the three-dimensional form of the work.

Tinted Venus

Showcases were differently handled, being lit by fittings from the ceiling track or, in the case of the two showcases housing terracotta and bronze, illuminated by concealed 20W Oseris lamps along the top and sides of the case.

The greatest challenge in lighting the gallery was, however, posed by its most valuable piece, Gibson's tinted Venus — so called because the statue itself is painted. This was housed in a classical toplit

dimensional objects than a wash. The Eclipse luminaires chosen for this project come with a range of heads and attachments; in particular, an oval lens was used. This

produces a beam more suitable for illuminating free-standing vertical objects than the conventional round lens.

Lighting levels can be varied by



Walker Gallery. Wall mounted sculptures other than bas reliefs are lit by two luminaires.

rotunda to form the focal point of the gallery. Four Oseris spotlights were used here as uplighters, wiring being routed through four columns to transformers located in the base in order to keep heat away from the sculpture. Light from above is diffused through a milky Perspex dome giving a softer quality of light.

Lighting the painting collection upstairs presented a challenge of a different sort. To limit the fading of pictures illuminance levels had to be contained at 200 lux or less, the UV content of the light had to be minimised, and accurate colour rendering was critical. Erco's suspended Hi-Trak system was again used here to minimise the impact of the lighting system on the visual quality of the listed interior. The solution adopted was to employ the 1.5m Optec wash-light using Wotan 22 fluorescent tubes.

Positioning of suspended lighting track is critical: lighting must be suspended as low as possible and at the maximum distance from the wall. This provides the necessary low lighting levels and prevents shadows obscuring pictures in traditional deep frames. Dimensions for the project were established as 1.6-1.8m from the wall, and 4.5-5.5m above floor level.

In some galleries rooflights provide natural daylight. Automatic control systems adjust artificial lighting levels automatically to compensate for fluctuations in daylight, and also give the facility to adjust lighting levels to enable the galleries to be used to display different types of works of art — some of which have even more demanding lighting requirements.

Finally, a mains signalling system provides for both local and centralised switching without the need for long runs of wiring.



A view of the refurbished gallery 9 at London's Tate Gallery.

New gallery lighting at London's Tate

When the Tate Gallery in London decided to refurbish gallery 9, the exacting lighting specification included an instruction that the design solution must not be based on suspended luminaires, which the gallery felt would not be in keeping with the interior architecture of the room.

The scheme adopted uses two rows of fluorescent luminaires located above and below the glazed areas on either side of the vaulted ceiling. These Philips fittings give an asymmetric light distribution and are positioned to cross light the picture hanging walls. This was necessary to

achieve the required 2:1 uniformity over the whole of the 4.5m high surface.

TL83 lamps are used, with high frequency control gear, but it is intended to replace them with the new Colour 90 lamps in due course.

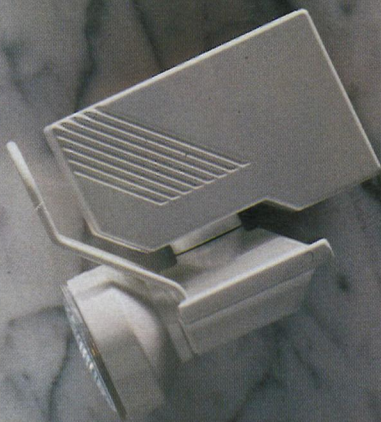
Each row of luminaires, including cornice lighting, can be independently dimmed. The scheme will be eventually controlled by the Tate Gallery's central computer.

Consulting engineers for the project were the Steensen Varming Mulcahy Partnership; architects were Colquhoun, Miller and Partners.

THE BLACK



THE WHITE



THE GREY MATTER



Torch. Clever, capable, classic.

A tiny low voltage spotlight for track or surface connection, that accepts the 20/35/50 watt Tru-Aim Professional dichroic lamp.

A die-cast housing containing fail-safe electronic circuitry — total weight 360 grammes, overall size 107 x 99 x 32 mm.

Torch. Elegant, efficient, effective.

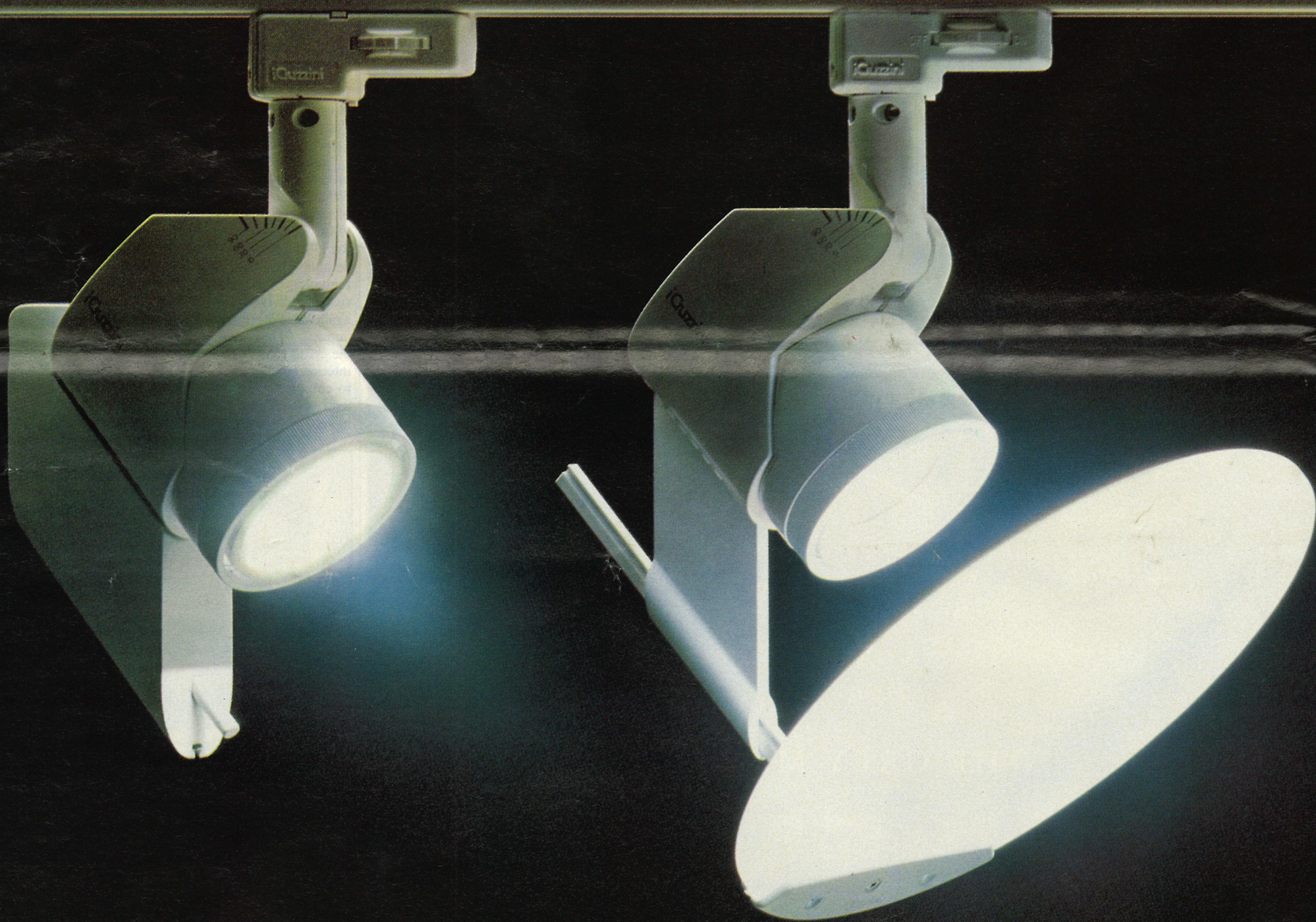
TORCH

CATALOGUE AVAILABLE.

Concord

TELEPHONE 01-563 0486

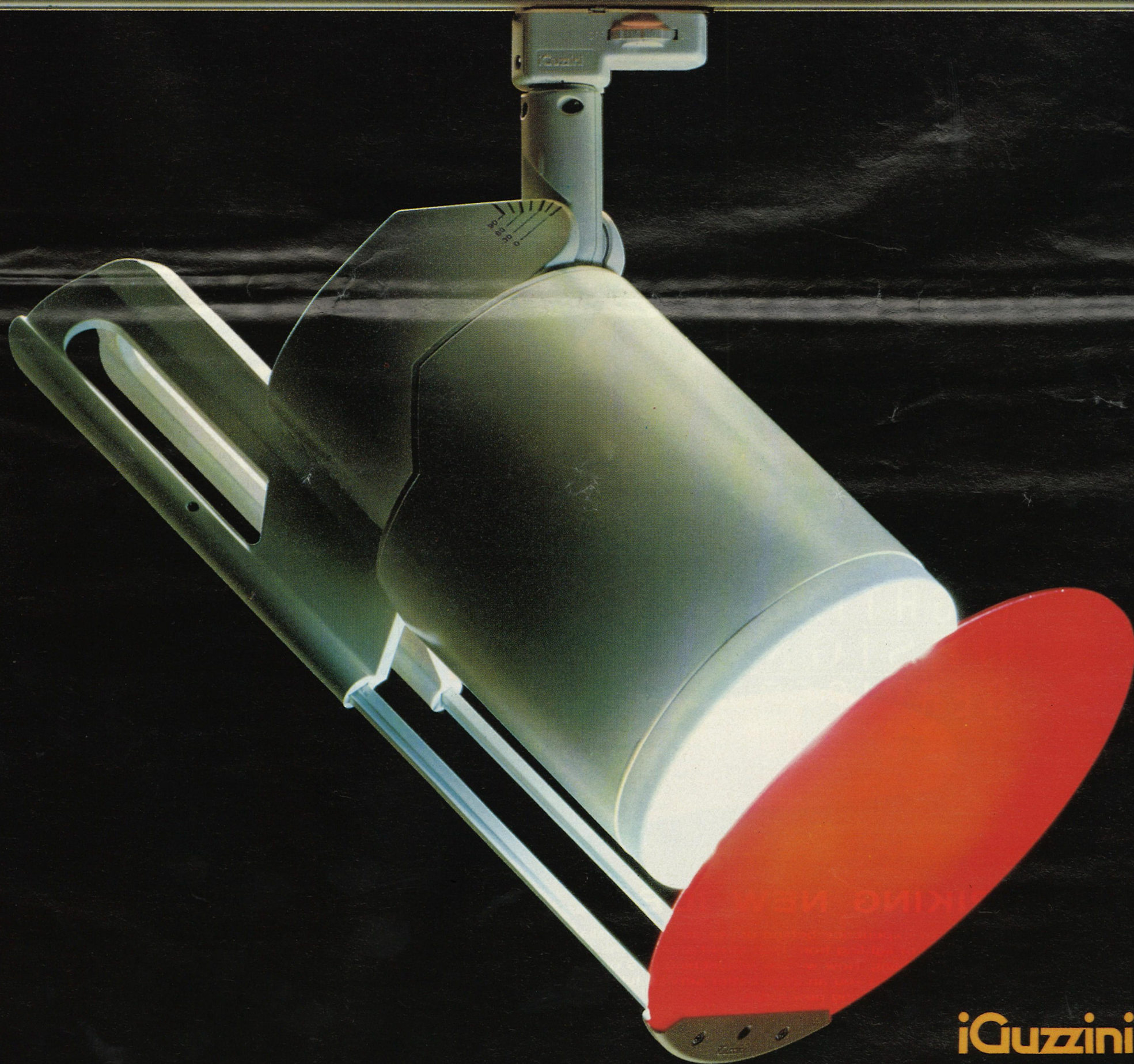
These Luminaires are not for the timid!



They are not ordinary spotlights. The innovative design is by Bruno Gecchelin – having created a consistency of shape to allow groups to be used together with variance in lamp and therefore display. 22 variations are possible. Shuttle allows creativity where the scene can be changed by the selection of the lamps. The widest range of light

sources include the recently introduced 35W metal halide lamp as well as the 70W and 150W; the high pressure sodium "white light" in 35W and 50W. Accessories include lenses, filters, screens, louvres and barn doors. Transformers come in conventional form or electronic and suppressed to eliminate radio interference.

Shuttle projectors may be installed with surface plates or with track adaptors to fit several tracks including Guzzini's new Challenger track. If Lighting interests you write to:
Forma Lighting Ltd,
Units 310-311,
Business Design Centre,
52 Upper Street,
London N1 0QH.
Tel. 01-288 6025.



iGuzzini
Architectural Lighting

Reader Service No. 13

Richard Bennett writes about his experience of low voltage lighting track systems.

On the right tracks

There is now such a vast range of lighting on the market that the skilled designer is able to use light as a medium for creating the precise atmosphere required for each specific environment.

Low voltage systems have expanded the designer's palette in recent years. Originally used for retail applications, they are now being seen anywhere from boardroom to bathroom.

Exciting contrasts of light and shade can be created for a dramatic overall effect, with highlighting on areas of interest.

The quality of light from low voltage tungsten halogen lamps has had a great effect on the designer's use of colour in interi-



Yuma track with spotlights suspended over jewellery, at Oasis.

ors. It is now possible to use subtle differences in tone that will stand out when seen under the clean, white light of a low voltage system.

Richard Bennett, now of Design Et Cetera, previously designed a new concept for the Oasis chain of women's fashion shops.

Oasis Trading was looking for a clean, simple but attractive new image to bring them into the forefront of eighties fashion retailing. The change in the appearance of the shops was accompanied by a complete rethink of the merchandise and display systems. With a new simplified clothing range, the use of the Yuma bare rod lighting track system from After Dark Lighting Ltd enabled a structured and definable look to be achieved. This resulted in distinct, "easy to find" product groups and a pleasing overall level of light in the shops.

Railway track

Yuma track with its Zumo telescopic lights and dichroic lamps formed a continuous suspended "railway track" around the perimeter of the shop. Luminaires were used at spacings of just under



Sparkle added to a shopfront by low voltage lighting.

1m to coincide with the merchandising display units. The reflective granit border on the floor sparkles with bright white light in contrast with the matt finish of the central zone. Yuma lighting track was also used in the shopfront, again with Zumo fittings fully extended to highlight the mannequins and Pris spots for high level general illumination.

In other retail work Design Et Cetera has undertaken Yuma track has been used in various configurations, horizontally, vertically and around corners. There is a wide choice of fittings that can be used as spotlights, uplights and even pendants.

The track itself, with a 300W capacity per circuit, can either be closely mounted on the ceiling or suspended from it at varying distances. When used vertically in the window, Yuma track can appear to be an integral part of the shopfront design, and the black and chrome detailing can produce some interesting effects.

Yuma system is more versatile than the high tension parallel wire type systems. These require very strong fixings at each end of the span which is not always possible, especially in shopwindow situations.

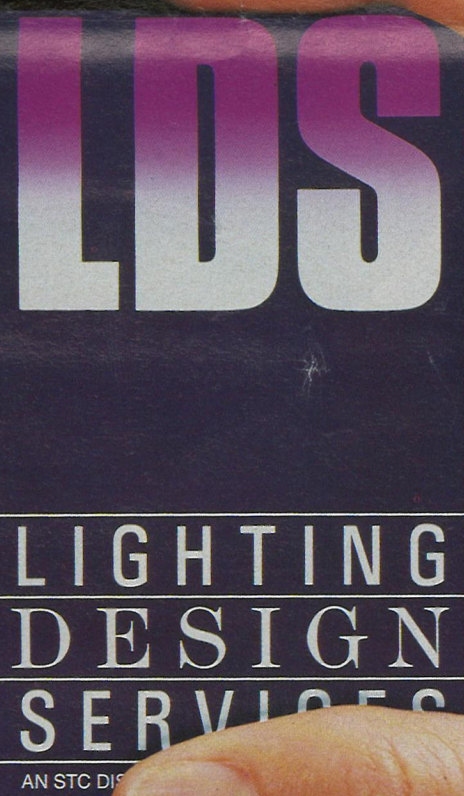
There are a number of tension wire systems on the market, none of which, in our opinion, satisfactorily resolves this problem. Many of the contractors in site during an installation have commented on how easy it is to install Yuma saving both time and aggravation on site.

Interior design is constantly changing and Design Et Cetera is always looking for new and advanced solutions when it comes to lighting. Apart from being ahead of the field aesthetically it is also important to specify functional and durable lighting equipment.

Richard Bennett is design director at Design Et Cetera, 36 West St Helen Street, Abingdon, Oxon OX14 5BL.



Good colour rendering of Oasis fashions using Yuma track.



STRIKING NEW IDEAS

With 14 years of experience behind us we are fully familiar with all aspects of lighting from high street showrooms to stadium flood lighting. Now we are relaunching LDS on a larger scale to bring you an even better service full of striking new ideas.

LIGHTING DESIGN SERVICES - AN STC DISTRIBUTORS' COMPANY

Birmingham 021 236 9911 • Bristol 0272 716463 • Dorchester 0305 65955 • Dundee 0382 819595 • Gateshead 091 477 5488
Leeds 0532 432854 • London 01 803 8003 • Manchester 061 865 6474 • Paisley 041 848 1551 • Preston 0772 51577



The Marlin stand: selling light as much as luminaires.

Hanover Highlights

In the first of two reports on the world's largest light show, *LEN* looks at trends in luminaire design.

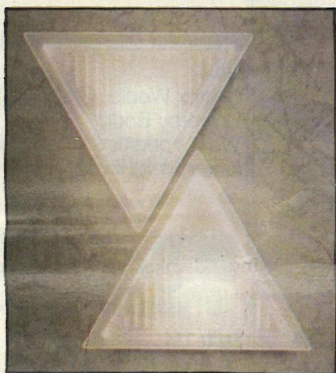
"Gestalten mit Licht" was the motto that fronted publicity issued by German multi-national Siemens. It could equally have passed as the leitmotiv of this, the world's largest light show.

This architectural approach to lighting — which maximises the effect of lighting while minimising the actual luminaire itself — was very apparent in many of the new ranges launched at Hanover. In contrast with previous years, however, it was less obvious when it came to actual stand design. Only two major manufacturers — Staff and Marlin — went all out for this applications approach.

Staff, in fact went on to devote one of its two stands (nearly half of all its display space) to architectural models — a futuristic view of today's architecture by Leon Krier and an environmentalist inspired counter proposal by a group of architectural students from Braunschweig.

The company also stressed the graphic role that lighting can play. A diagonal element for the Alpha lighting and ceiling system takes the form of a square luminaire split diagonally into two triangles giving a ceiling tile and an acrylic diffuser. These 'split' luminaires can be arranged to create different optical effects, producing an interesting and original ceiling.

On a similar triangular theme are Sky-Line luminaires from Tre Ci Luce of Italy. These are equilateral triangles in form, comprising



Sky-Line can generate a composition in light.

a satin glass diffuser on die cast aluminium base. The luminaire comes in versions for halogen, incandescent or fluorescent light sources.

One of the largest ranges of new products came from Britain's Marlin Lighting. The company has produced a comprehensive range of downlights for the current range of light sources. Reflector options giving medium and narrow beams, a choice of five colours and a series of decorative attachments provide the specifier with the answer to almost any lighting problem.

More innovative products from the same stable include a lighting control system, featuring different lighting scenes and programmed lighting control. Most exciting in terms of decorative possibilities, however, is a new application of fibre optics, available shortly. The strands are jacketed together in plastic tubing and reflect coloured light shone down them throughout their length. Unlike neon, the sys-

tem uses no heat and because electricity is not involved can be used safely outdoors to outline buildings, or even the edge of a swimming pool.

The perceived importance of increased leisure has led to a number of major manufacturers launching ranges of decorative luminaires for the home and leisure markets. Among these, Marlin's commercial decorative lighting is concerned less with the high performance of the new lamps than with their inherently decorative qualities. Particularly effective in this range is the Gizeh pendant, an etched glass luminaire housing low voltage lamps and suspended from light steel cables. The fitting, available in two sizes — 280mm and 600mm — houses the transformer for the fitting in the ceiling rose.

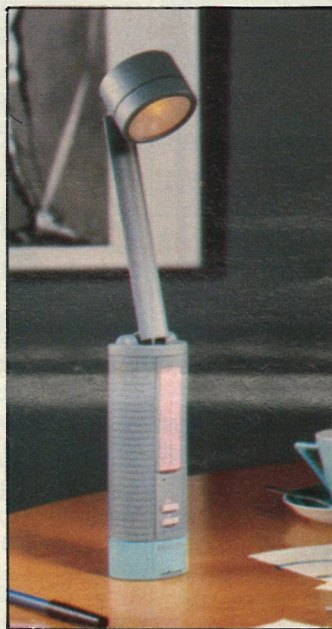
Philips, too, is making a concentrated attack on consumer



Philips' remote control Manhattan desk lamp.

lighting. The world's largest lighting manufacturer was demonstrating a large number of new products, but so wide are their markets that not all of the products displayed will be available in the UK in the near future.

Remote control is gradually being introduced to consumer lighting for the European market. Philips' new Manhattan series using the 12V 50W low voltage halogen dichroic lamp passing through a blue tinted disc is both decorative and practical. In the remote control version, a hand-held controller allows the light to be adjusted between 10% and 100% or switched on and off at the push of a button.

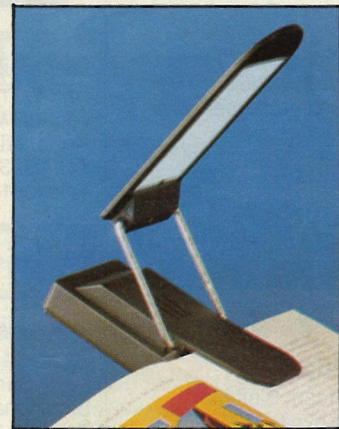


Flexilight from the Le Lamp range by Philips.

Finally, the consumer taste for cordless appliances has percolated through to the lighting market. Philips have come up with Le

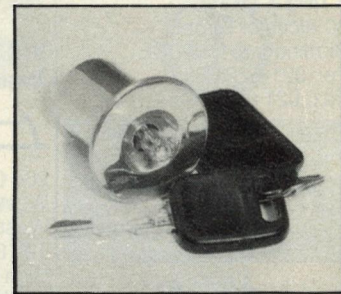
Lamp, styled as the world's first 'personal lamp'. The lamp, available in three versions, is powered by rechargeable batteries which provide up to three hours' use and comes complete with a dedicated recharger. It is estimated that lamps can be recharged up to 1000 times. A particularly attractive version, Flexi-light is a compact halogen mini lamp. In its pack-away state it can be used as a task light while, unfolded, it becomes a multi-purpose table lamp.

In a similar vein, Gammalux of



Furba lamp detached from the base for reading.

Italy, have produced a neat little night light and reading lamp called Furba. This contains an electro-luminescent element just 1mm in size. The lamp can either be left on all night, with minimal energy consumption, or detached from its base feeder and attached to a book.



Miniature downlight: Light Points from Edison Halo.

Miniaturisation is a natural outcome of the architectural approach to lighting. Edison Halo's new range of downlights includes a model, Light Points, which is only 45mm in diameter and needs a depth of only 40mm. Intended for commercial and retail uses, Light Points is available in convex, concave and regular versions, in a gold or silver finish.



The Bilumen range from Crescent Lighting Ltd.
8-10 West Mills, Newbury, Berkshire Tel: 0635 36111 Fax: 0635 38090

IDEAL CONCEPTS INTERNATIONAL 3...2.1. LAUNCH.....!

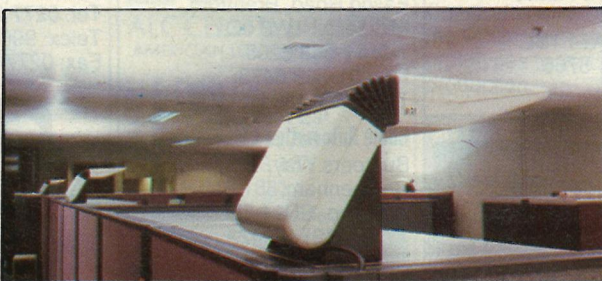


IDEAL CONCEPTS INTERNATIONAL are a new arrival on the commercial and retailing lighting scene.

IDEAL CONCEPTS INTERNATIONAL exclusively market in the United Kingdom the lighting products of such notable companies as DIL Srl and MOOS. Products which are recognised world-wide for their quality of construction and design.

Here are some examples of the lighting systems available exclusively from IDEAL CONCEPTS INTERNATIONAL:

* TUBULAR * INDIRECT * DISPLAY FRAME * INCANDESCENT * LOW VOLTAGE * OUTDOOR * MULTI-CIRCUIT * AND MORE

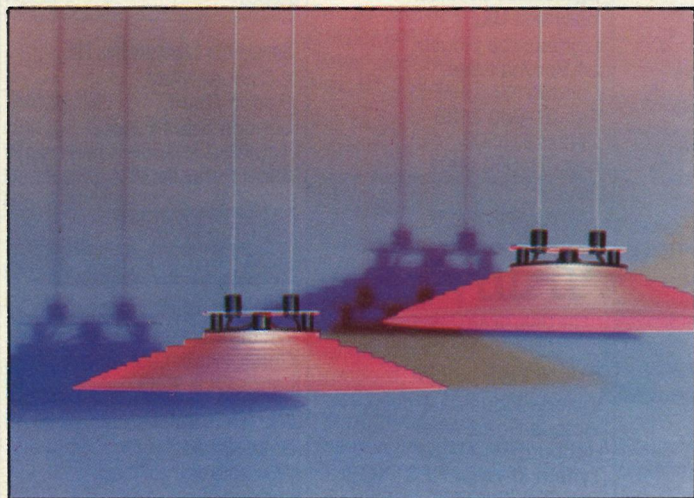


For further information please contact:

IDEAL CONCEPTS INTERNATIONAL
Oakridge House, Wellington Road, Cressex Industrial Estate, High Wycombe, Buckinghamshire HP12 3PR
Tel: 0494 464407/464164 Fax: 0494 464904

To coincide with the launch of IDEAL CONCEPTS INTERNATIONAL, the company recently supplied a substantial quantity of High Intensity Discharge (HID) uplighters to RANK XEROX LTD.

This brand new three-storey office building is predominantly lit with "TORNADO" uplighter fixtures, accommodating the new OSRAM GEC single-ended HQI-T 150 watt metal halide lamp.



Gizeh. A low voltage light source accentuates the texture of the glass.
Lighting Equipment News, May 1989

To advertise
in this Directory
contact Joanne Barker.

WHERE TO BUY DIRECTORY

Telephone:
01-975 9759 Ext.1154

ACCESSORIES — BRASS PRESSED AND TURNED

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

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



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



Hylec-Elettro Gibi (UK) Limited
Unit 4, Trinity Centre
Park Farm Industrial Estate,
Wellingborough,
Northants NN8 3ZB
Tel: (0933) 677633
Telex: 312620 HYLEC G
Fax: (0933) 675771

LIGHT SOURCE

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

ACCREDITED SAFETY TESTS



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



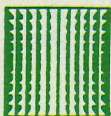
BSI Testing
Maylands Avenue
Hemel Hempstead
Herts HP2 4SQ
Tel: 0442 230442
Contact: David Price
Safety testing and
photometry.



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

ALUMINIUM LOW BRIGHTNESS AND VDU LOUVRES

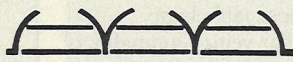
A.D.D. Louvre Sales Ltd.,
8 Seax Way,
Laindon, Basildon,
Essex SS15 6SL
Tel: 0268 415828
Fax: 0268 410985
The UK's foremost
manufacturers of low
brightness aluminium
louvres.



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

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

**MBM Plastics Ltd
Aluminium Division**



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

ANODISED ALUMINIUM COIL AND SHEET



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



Alanod & Garfield Lewis

Middlemore Road,
Birmingham.
Pre-anodised strip-blanks
for louvres and reflectors
available from stock to
your precise requirements
telephone or fax for more
information and details of
our 9 UK service centres.
Tel: 021 554 5242
Fax: 021 551 9315



Alcan

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

BATTENHOLDERS/ CEILING ROSES/ JUNCTION BOXES

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

BATTERY BASED EMERGENCY STANDBY SYSTEMS

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



P. B. Design/Dev
Batteries, Chargers, U.P.S.
Emergency Lighting
Systems, Service and
Sales.
Unit 7
Riverside Business Park
St Annes Road
Bristol BS4 4ED
Tel: 0272 723880 (5 lines)
Fax: 0272 723879
Reader Service No. 53

BEGA LIGHTING STOCKISTS LIGHTING COLUMN SUPPLIERS UNDERWATER LIGHTING



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

BRASS PLATED LAMPS AND FITTINGS

Newtown Manufacturing Co. Ltd.
Rear of 116 Aldridge Road
Perry Barr
Birmingham B42 2TP
Tel: 021-356 8151
Manufacturers of brass
plated and powder coated
metal components for the
lighting industry.
Specialising in traditional
and modern designs. Made
in Birmingham, cast from
our own dies.

BULKHEAD LUMINAIRES — TUNGSTEN AND ENERGY SAVING



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

CABLE ASSEMBLIES

Front Line Cables
Tel: 0483 506433
Fax: 0483 505029
Any type of connector
assembled and wired to any
type of connector — Try Us!



WIRING TECHNOLOGIES
Peel Road, West Pimbo,
Skelmersdale, Lancashire,
WN8 9PT UK
Tel: (0695) 51833
Fax: 0695 50084
Wires, Cables cut to length
Crimp and Solder
Terminations Wire Harness
Assembly.

CABLES/SILICONE

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

COLD CATHODE

National Signs Ltd.,
1 Hampshire Street
London NW5 2TE
Tel: 01-485 3363
Fax: 01-284 1700
Cold Cathode/Lighting
installations * servicing
nationwide. Wide range of
colours.

S.W.1.

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

COLOURED SLEEVES FOR FLUORESCENT TUBES



E.C. Hinton & Co. Ltd.,
225 Cannon Hill Lane,
London SW20 9DB
Tel: 01-540 5813
Fax: 01-543 9395

COMBINED MAINS AND EMERGENCY LUMINAIRES



The Brightest Solution

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

DECORATIVE OUTDOOR LIGHTING

D.R. Illuminations

Whitegate, Broadway,
Chadderton, Oldham
Lancs OL9 9QG



George Turnock Ltd
Green Lane
Walsall, West Midlands
WS2 8HT
Tel: 0922 24966
Fax: 0922 25521

DECORATIVE WIRE

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

DIMMERS



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

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

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



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

Home Automation Ltd.,
Bumpers Way,
Chippenham,
Wiltshire, SN14 6LF
Tel: (0249) 443422
Telex: 444474 (Halco G)

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

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

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

ELECTRONIC CONTROL GEAR



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



Ram Electronics (UK) Ltd.,
Iron Row,
Burley in Wharfedale,
West Yorks LS29 7DB.
Tel: 0943 863884
Telex: 518285 RAM G
Fax: 0943 862630
Transformers. Electronic for
low voltage lighting. High
frequency fluorescent
electronic ballasts. Panel
dimmers.

EMERGENCY LIGHTING CONTROL GEAR



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

EMERGENCY LIGHTING EQUIPMENT

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

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

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



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



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



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

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

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



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

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



Selite Ltd
19 Stafford Road,
Croydon CR0 4NG
Tel: 01-686 9919
Fax: 01-680 9288
Telex: 917759

ENERGY MANAGEMENT LIGHTING CONTROL



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

FLUORESCENT COMPONENTS AND ACCESSORIES

LIGHT SOURCE

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



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



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

FLUORESCENT/ DISCHARGE CONTROL GEAR



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

LIGHT SOURCE

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



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



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

GARDEN LIGHTING

Alectralink Distributing Company
Unit 5, Popin Building,
Southway, Wembley,
Middlesex HA9 0HB
Tel: 01-900 2322
Fax: 01-903 3403

New range low voltage
path and garden lights
only knee high! + five way
garden transformer to suit.
Low voltage sunken
Uplighter
with integral transformer.

GENERATING SETS

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

GOLD PLATING OF LAMPS AND CHANDELIERS

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

INDUSTRIAL OUTDOOR FESTOON LIGHTING

D. R. Illuminations
Whitegate, Broadway,
Chadderton, Oldham
Lancs OL9 9QG
Deta (Electrical) Co. Ltd.,
Deta House,
Westmoreland Road,
London NW9 9RN
Tel: 01-206 0515 (6 lines)

To advertise
in this Directory
contact Joanne Barker.

WHERE TO BUY DIRECTORY

Telephone:
01-975 9759 Ext.1154

LAMPHOLDERS

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



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

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

LIGHT SOURCE

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

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



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

BENDER + WIRTH



C. Quitman Ltd.,
Sole Agent and Stockist for
Bender and Wirth
Ullswater Crescent,
Marlipit Lane, Coulsdon,
Surrey CR3 2HR
Tel: 01-668 5295/6
Telex: 945809
Fax: 01-660 2589

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

Studen Products Ltd.,
Villiers Street,
off Cobden Street,
Pendleton, Salford,
Manchester M6
Tel: 061 736 8855
Bakelite and brass wired
holders.

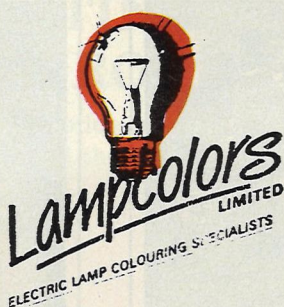


Tridonic Ltd.,
Unit D1, Grafton Way,
West Ham Industrial Estate,
Basingstoke, Hampshire
RG22 5HY
Tel: 0256 843232
Telex: 858137
Fax: 0256 840113



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

LAMP COLOURING



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

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

LAMP SHADE FRAMES

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

Wards Coatings
Sheffield S2 3DA
Tel: 0742 580963
Manufacturers of quality
frames in round or flat wire.
Coated or plain wire.

LAMPS AND LIGHTING

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



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

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

TUNGSRAM

Tungsramp Lighting Ltd.,
35-37 William Road
London NW1 3ER
Tel: 01-388 8889,
01-722 6611
Telex: 266086
Fax: 01-387 4071

LIGHTING ACCESSORIES/ CONNECTORS

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

LIGHTING COMPONENTS/ LAMPHOLDERS/SWITCHES CABLE/BRASS/GLASS



Collingwood VLM Ltd.,
17 Stilebrook Road,
Olney,
Bucks.
Tel: 0234 712121
Telex: 826207
Fax: 713673

LIGHTING CONTROLS



ECS Energy Conserv. Systems Ltd.,
Enterprise House, North
Feltham Trading Estate,
Feltham,
Middlesex TW14 0RX
Tel: 01 751 6514
Fax: 01 890 7438

LIGHTING DIFFUSERS

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

Panelservice Ltd.,
Wycliffe Works,
Wycliffe Road,
Wimbledon SW19 1ER
Tel: 01-540 7172

LIGHTING DIFFUSERS/ PLASTICS

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

MBM Plastics Ltd.,
204 Oldbury Road,
West Bromwich,
West Midlands B70 9DE
Tel: 021-553 7551
Extruded, fabricated and
moulded diffusers for the
lighting industry.
Also — aluminium louvres.

LIGHTING GLASS

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



C. Quitman Ltd.,
Ullswater Crescent,
Marlipit Lane, Coulsdon,
Surrey CR3 2HR
Tel: 01-668 5295/6
Telex: 945809
Fax: 01-660 2589

LIGHTING LOW VOLTAGE FLEXIBLE STRIP

Alectralink Distributing Company
Unit 5, Popin Building,
South Way, Wembley,
Middlesex HA9 0HB
Tel: 01-900 2322
Fax: 01-903 3403

Only 1/2" wide uses new
type of miniature Halogen
lamps, runs bright, white,
cool (low heat emission).
It is new it is amazing.

LIGHT MEASURING INSTRUMENTS

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



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

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

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



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

LIGHT SOURCES & COMPONENTS TO OEM MANUFACTURERS



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

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

LOW BRIGHTNESS VDU LOUVRES



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

MANUFACTURERS OF SPECIAL AND PURPOSE MADE FITTINGS

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



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

SYMONDS

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

METAL FINISHERS

Aspects Polishers
13 Long Lane,
Ickenham, Middx.
Tel: 0895 672515
Brass polishing and
lacquering.

METAL PRESSWORK AND POWDER COATING

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

METAL SPINNERS

A. L. Munro (B'ham) Ltd.,
29 Hunters Road
Birmingham B19 1DP
Tel: 021-554 0424
Fax: 021-523 0617
Metal Spinners for the
Lighting Industry.

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

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

E.G. Sheet Metal Works,
Metal spinners and
general sheet metal
workers. A complete service
to the lighting industry.
Third Way,
Exhibition Grounds,
Wembley, Middlesex
Tel: 01-902 2153
01-903 3171

Jacksons General Metal Spinners
Prototypes and small
quantities a speciality
Unit 1
Noke Lane Business Centre
Noke Lane, St. Albans
Herts AL2 3NY
Tel: 0727 46038
Moore Metal Spinners Ltd
3 Sussex Place
London W6 9EA
Tel: 01-748 6061
Comprehensive service to
the lighting industry from
prototypes to batch
production.

METAL SPINNING/ASSEMBLY ANODISING/PRESSWORK METAL WORK/SPRAYING

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

MODULAR LUMINAIRES, ENERGY SAVING & EMERGENCY LIGHTING



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

NATURAL LIGHT LAMPS NULITE AND SUNGRO LITE



Sungro-Lite Limited
Tel: 01-459 2636
City Electrical Factors Ltd.,
(Branches throughout U.K.)

NEON TUBES, ELECTRONIC AND HT TRANSFORMERS AND ACCESSORIES

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

NON-NEON LIGHTING

Saimol Trading Co. Ltd.,
35 St Thomas Drive,
Pinner, Middlesex, HA5
4SX.
Tel: 01 421 3141 or 428
2136
Fax: 01 421 4949

ORIENTAL LAMPS AND SHADES



**50-Steps Lighting International
Ltd.,**
5th Floor
Federal Centre
77 Sheung on Street
ChaiWan, Hong Kong.
Tel: 5 897 1060
Telex: 78049 FIFTY HX
Fax: (852)-5-897-0509

PETROL FORECOURT UNDER CANOPY LIGHTING UNITS

National Signs Limited,
1 Hampshire Street,
London NW5 2TE
Tel: 01-485 3363
Fax: 01-284 1700

PLASTER WALL UPLIGHTS



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



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

PLASTIC POLYCARBONATE SHEET



C. Quitman Ltd.,
Sole Agent and Stockist for
Dansk Kunststof Industri A/S
Ullswater Crescent,
Marlipit Lane, Coulsdon,
Surrey CR3 2HR
Tel: 01-668 5295/6
Telex: 945809
Fax: 01-660 2589

PRESSWORK

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

SELF ADHESIVE LABELS AND BASE COVERS

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

SHEET METAL FABRICATION FINISHING



From design to delivery.
BS 5750: PT:11 1987/
1509002: 1987.
Quality Assurance.
Blacknell Lane Industrial
Estate, Crewkerne,
Somerset TA18 7HF
Tel: 0460 72753
Fax: 0460 76975.

SHEET METAL WORKERS/ PRESSWORKERS AND ASSEMBLERS TO THE LIGHTING INDUSTRY

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

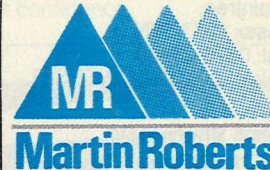
SPECIAL GLASS

Scorpie Lighting for:
Heat Resistant Glass
U.V. Absorbing Glass
Dichroic Filters
Iridescent Glass
Custom made Glass
Tel: 01-446 9072
Fax: 01-445 7033

SPECIAL & PURPOSE MADE FITTINGS

DAVIS CASH

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



Martin Roberts
Grimrod Place
East Gillibrands
Skelmersdale
Lancashire WN8 9UU
Tel: 0695 33068
Telex: 629020
Fax: 0695 50227
Manufacturers of all types of
luminaires and metal louvres
to the Trade.

WHERE TO BUY DIRECTORY

STANDARD & SPECIAL LUMINAIRES & FLUORESCENT LIGHTING DESIGN SERVICE

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

STEEL LIGHTING COLUMNS

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

SWITCHES



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

TERMINAL BLOCKS



Hylec-Elettro Gibi (UK) Limited
Unit 4, Trinity Centre,
Park Farm Industrial Estate
Wellingborough,
Northants NN8 3ZB
Tel: (0933) 677633
Telex: 312620 HYLEC G
Fax: (0933) 675771

TOROIDAL TRANSFORMER MANUFACTURERS

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



Toroid Technology Ltd.,
175a Brigstock Road,
Thornton Heath,
Surrey CR4 7JP
Tel: 01-689 8002
Telex: 8813271 Gecoms G
Fax: 01-689 0002

TOWER/MASTS FLOODLIGHTING

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

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

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

TRANSFORMER MANUFACTURERS

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



Carroll & Meynell Ltd.,
Portrack Grange Road,
Stockton-on-Tees
Cleveland TS18 2PH
Tel: 0642 617406
Telex: 58646
Fax: 0642 614178
Manufacturer of Low
Voltage Transformers.

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



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



Toroid Technology Ltd
175A Brigstock Road,
Thornton Heath,
Surrey CR4 7JP
Tel: 01-689 8002, 684-4217
Telex: 8813271 Gecoms G
Fax: 01-689 0002



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



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

TUBES

Cobham Engineering
Unit 2,
Upper Conybere Street
Birmingham B12 0YP
Brass, Steel and Aluminium
8, 10, 13mm Arms.
Brazing and Spot Welding
Stampings and Luminaire
parts.
Tel: 021 440 1690
Fax: 021 446 4197

F.B. Products
Mill Street Salford
Tel: 061 834 7356
Tube bending, fabrication
work. Polishing and
Lacquering.

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

ULTRA VIOLET FLUORESCENT TUBES

Eastmead Electronics Limited
Lavant
Chichester PO18 QDE
Tel: 0243 527922
Fax: 0243 531537

ULTRA VIOLET/SPECIALIST LAMPS & EQUIPMENT

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

VICTORIAN REPRODUCTION GAS AND ELECTRIC LIGHT FITTINGS

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

WOOD FLOOR STANDARD LAMPS

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

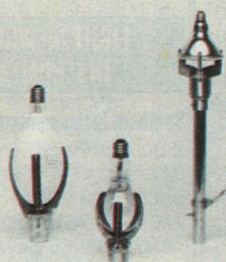
ZONES 1 & 2 BASEEFA APPROVED LIGHTING FITTINGS

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

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

CATALOGUE DIRECTORY

NO CLIMB PRODUCTS LTD SPECIALIST ENGINEERS



Lamp Changing Equipment Range

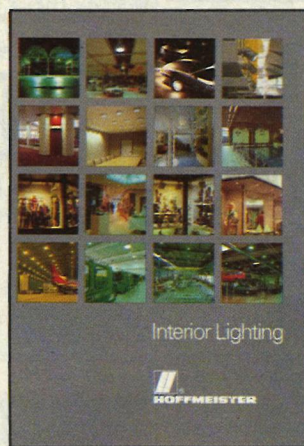
Inter-connecting insulated
poles with trigger-operated
three-fingered grabs for
changing any lamps up to 30
feet high. Saving time and
cost. Avoiding expense and
disruption of scaffolding/
platforms: circle 90



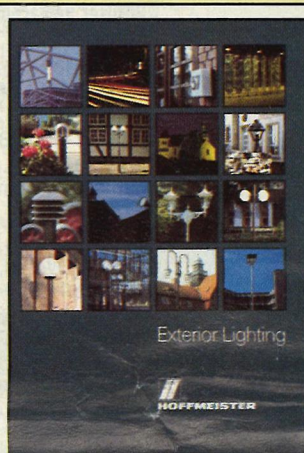
New from Crescent Lighting,
the Weber and Ducré range
of low voltage fittings
includes three "plug in"
systems, downlights, and a
selection of stylish spots on
100mm, 400mm or 800mm
rods: circle 93



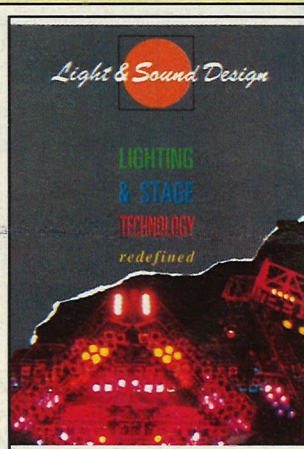
The UDT 70 Dimming
Transformer from Light
Source operates T12 and T8
linear lamps, and compact
fluorescent lamps, in ratings
from 18 to 75W. Lamps may
be dimmed from 100% down
to 5%, with instant restrike
at any point across the range:
circle 96



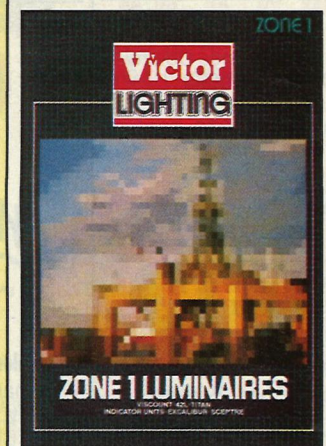
The Hoffmeister Interior
Catalogue of 272 pages
features double page
presentation of luminaire
groups with photographs,
descriptive text, photometric
data and technical drawing
detailing to enable precise
assessment of design and
performance with clarity:
circle 91



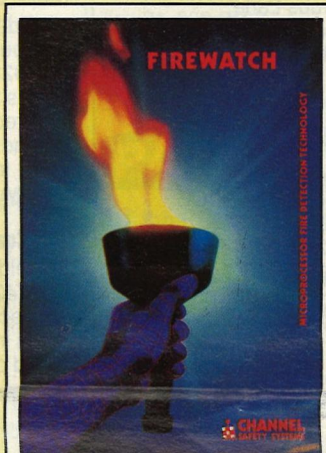
The Hoffmeister Exterior
Catalogue of 250 pages
features Pathway Luminaires,
bollards, 100mm tubular
system, street luminaires etc
which enable illumination of
public, office, church or
private garden lighting, from
this extensive exterior
luminaire programme:
circle 94



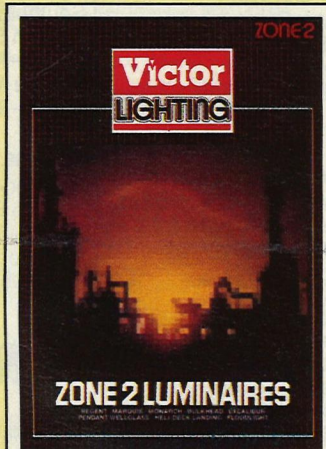
Light and Sound Design have
many years experience in
designing Lights, Trussing,
Electronics and stage sets for
some of the most spectacular
rock shows. Their product
range is now being
distributed by Presentation
Consultants Limited:
circle 97



The NEI/Victor Zone 1
catalogue offers an extensive
range of flameproof
luminaires to BS5501.
NEI/Victor luminaires are
made to the same high
standard for onshore or
offshore applications:
circle 92



'FIREWATCH' is a fully
intelligent fire detection
system capable of monitoring
addressable fire sensors.
Precise locational data is
clearly displayed on all
'alarm' conditions, and the
selected response to each
condition pre-programmed to
meet the requirements of the
site. Channel Safety Systems
Ltd: circle 95



NEI Victor produce a range
of Zone 2 luminaires
featuring floodlight, pendant
bulkhead and tubular
fluorescent designs, as well
as general purpose variants
offering the same quality
manufacturing materials:
circle 98

WHERE TO BUY DIRECTORY

To advertise
your Catalogue in this directory
contact Joanne Barker on 01-975 9759 ext 1154.

LIGHTING ENGINEER ROMFORD

At THORN lighting we pride ourselves in our international standing as a world leader in lighting design and the manufacture of high quality products for every sector of the industrial, commercial and specialist markets.

The expertise of our engineering departments is a vital factor in our continued growth and success. Recent expansion in this area has led to a new quality working environment into which we need to recruit a Lighting Engineer who, backed by considerable Company investment and excellent training, can look forward to reaching the very highest levels of working standards.

Reporting to the Chief Lighting Engineer you will work primarily in preparing and submitting lighting proposals in response to briefs given directly by the customer or via the sales team. You will also be involved in providing costings, technical advice on lighting applications when necessary and responding to customer queries as they arise. Ideally, we are looking for a fully qualified engineer with at least 5 years experience. However, if you have some form of lighting design experience, with either a Consultant, Architect or similar lighting Company, or have 'A' levels in Maths and Physics and are keen to make a career in the lighting field, we would be pleased to hear from you.

The overall package for this post consists of a salary up to £14,500 pa, dependent on experience and qualifications, and a company car once you have passed our in-house assessments. It also incorporates 25 days holiday per annum, subsidised restaurant facilities, life insurance, contributory pension scheme, 37¼ hour week and staff discount facilities.

For further details and an application form please contact Joanna Barratt, Personnel Assistant, Thorn Lighting Limited, 284 Southbury Road, Enfield, Middlesex, EN1 1TJ. Telephone (01) 366 1166 Extension 2925. If you would like to discuss this position on an informal basis please contact John Northcote, Chief Lighting Engineer, on 0708 730888.

Thorn Lighting is an equal opportunities employer



THORN LIGHTING

Lighting Design Engineer Croydon

The successful applicant will join an experienced design team covering all aspects of indoor and outdoor lighting with particular emphasis on energy effectiveness. There are occasional opportunities for site visits and scheme commissioning. This post is suitable for somebody wishing to broaden present lighting design skills.

There are excellent opportunities for career progression within our rapidly expanding organisation, and we offer the first class benefits associated with a leading company.

Please write with comprehensive details of qualifications and experience to Mrs P A Hayden, Personnel Manager, Philips Lighting, City House, 420-430 London Road, Croydon CR9 3QR, or telephone 01-689 2166 ext 2606 for an application form.



Lighting

PHILIPS



We are an expanding company selling lighting products to Architects, Consultants, Designers, Contractors, Specifiers, etc. We require a:

NATIONAL SALES MANAGER

to play an influential role in the progression of our company. Candidates should have a proven track record in the Lighting or Electrical Wholesaling Industry. He or she will be responsible to the General Manager for the planning and expansion of all aspects of our sales activities.

The remuneration package will be consistent with the importance of this position. Please write in the first instance, enclosing a C.V. to:

**Michael A. Money, Director, Centec Lighting Limited,
Times House, Throwley Way, Sutton, Surrey SM1 1LF**



RING ELECTRONICS LTD

Due to expansion we require three additional self-motivated salespersons to spearhead our development in the South of England.

LIGHTING SALES ENGINEER — to cover the London area calling on architects, consultants and major users of commercial lighting to obtain specification business. The ability to design lighting schemes would be an advantage.

SALES ENGINEERS — one to cover the South West of England and one to cover the South East of England excluding London. The successful candidates will call on electrical wholesalers selling our range of commercial lighting and ICEL approved emergency lighting. Experience in selling in this market is paramount. The above appointments are important to the planned growth of the Company and this will be reflected in the salary package with bonus scheme and company car.

Written applications please to:

**Mr K. Taylor, General Manager
Ring Lighting Design
46 The Calls
Leeds LS2 7EY**



Sales Professionals

OTE 18-20K

Parkersell are the market leaders in the management and maintenance of lighting, and due to unrivalled expansion urgently require two Special Account Managers. The successful applicants will have the ability to increase business with existing clients and, most importantly, to develop new business. Your age is not important to us, but you must be able to negotiate contracts at a senior business level.

You will enjoy the support of a busy London Sales Office, plus an excellent salary and the major benefits of a company of our standing.

Please write, enclosing a CV, to Mr Robert J. Neil, Sales Manager, Parkersell, London Sales Office, Hurst House, 157/169 Walton Road, East Molesey, Surrey KT8 0DX, or telephone for an application form on 01-941 5466.

AGENTS REQUIRED

Wanted

— established agent in Scotland in retail lighting.

Offer

— established company for 20 years in high quality traditional lighting. Good reputation.

INFORMATION REQUIRED.
OTHER AGENCIES.
AREA COVER.

**Please apply to Box 1462,
Lighting Equipment News
Maclean Hunter Ltd,
Maclean Hunter House
Chalk Lane, Barnet,
Herts EN4 0BU**

TECHNICAL SALES ENGINEERS

Progressive highly successful International Company offers outstanding career opportunities for ambitious TECHNICAL SALES ENGINEERS to promote to the specifying market our high quality design orientated ranges of commercial uplighters. Glare free lighting is a major growth area and we have an active design programme to maintain our leadership. Knowledge of Lighting or Electrical background would be an advantage but training given.

Excellent salary package with exceptional prospects offered.

Please send C.V. to:

**Mr Peter Day
Valor International Ltd
Orgatech Lighting Division
Pendle Mill, Pendle Road
Clitheroe. Lancs BB7 1JQ**

LIGHTING TECHNICAL SALES PROFESSIONAL

Well established, high quality European manufacturer of tubular, display and low voltage lighting, seeks to employ a well presented technical sales professional, in a position which offers substantial future possibilities.

The ideal candidate will be 30 or over with an extensive knowledge of the U.K. architectural lighting and electrical design marketplace and be able to readily appreciate and interpret technical design requirements.

The successful candidate will be based within the London area and will exploit the Companies existing business along with creating his own client base.

Basic salary will be in excess of £20k plus bonuses, along with a high quality company car and other usual benefits.

Apply in writing along with a full C.V. to

**P.O. Box No. 1461
Lighting Equipment News
Maclean Hunter, Maclean Hunter House, Chalk Lane,
Cockfosters Road, Barnet, Herts EN4 0BU**

All replies will be treated in the strictest confidence.

GENERATORS & TOWER LIGHTS from 1/2 to 80 kW

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

Lighting Project Designer

An outstanding career opening awaits with one of the world's leading names in creative lighting. Reggiani UK opened last year and is expanding fast. Its modern offices in Borehamwood are easily reached by car or rail. Its team is young and highly motivated.

Applicants must show proven skill at co-ordinating all aspects of lighting design from concept to project completion. Experience of designing for different environmental conditions and for advanced lamp technology will be a definite asset.

This is an opening with planned career development for an enthusiastic, creative project designer. The successful applicant will work on a wide range of commercial and display lighting installations. Remuneration package will include generous salary, pension scheme and medical insurance. If you are seeking growth potential in a challenging environment this is an opportunity not to be missed.

Write in confidence outlining experience to:

Peter Saunders, Technical Director
Reggiani Limited, Giltland House
12 Chester Road, Borehamwood
Herts WD6 1LT

REGGIANI

+
C O R B E T T
D E S I G N
a s s o c i a t e s
+

SENIOR LIGHTING DESIGNER/DIRECTOR SINGAPORE

The Company is involved in lighting design extensively in the Asia/Pacific region and is looking for a Senior Designer/Director to run their SINGAPORE office. The Company is mainly involved in Hotels, Banking HQ's and Shopping Centre design work.

Applicant, male or female, must have at least 5 years experience working in a lighting design office and for part in hotel work. Strong character essential with good humorous personality. Salary negotiable US\$40,000.00—US\$45,000.00 + bonus. Please write with resumé, list of projects, photographs etc to:

Tony Corbett, Corbett Design Associates (Pte) Ltd,
360 Orchard Road,
#12-03 International Building, Singapore, 0923.

All applications will be treated in the strictest confidence.

Tel: 7343912 Fax: 7378784

INTERNATIONAL LIGHTING DESIGN CONSULTANTS
LONDON • SINGAPORE • HONGKONG • SYDNEY

Are you seeking increased export opportunities or an overseas expansion?

There has never been a better time for U.K. Lighting and Electrical Companies to look for opportunities overseas. But many small and medium sized companies see a move into new markets as difficult and expensive. This need not be the case.

By concentrating our efforts into this specialised product field we offer a specialist service offering advice and practical support.

Our services include:

- Search and negotiation of acquisitions, joint ventures.
- Establishment of overseas base or operation
- Arrangements for commission sales and distribution
- Technology licensing
- Overseas procurement or manufacture
- Assistance with standards, translation and export documentation
- Overseas companies seeking U.K. partners or bases

Our services cover all areas of the world and suit all sizes of company.

If you would like us to arrange a free initial consultation please send us your letterhead or business card

Trade Technique Ltd.
c/o LEN Box address 1460
Maclean Hunter
Maclean Hunter House, Chalk Lane, Cockfosters Road,
Barnet, Herts EN4 0BU

SALES ENGINEERS-LIGHTING c £15,000 + Commission + Car & Benefits AVON and MIDDLESEX

Moorlite Electrical, a recognised leader in Commercial Fluorescent Lighting is currently enjoying a period of sustained growth. As part of the expansion we seek to recruit Sales Professionals for the **above mentioned areas**. Dealing at a senior level with Contractors, Consultants, Health Authorities and other Specifiers, the role of the Sales Engineer is to increase the profile of the company with energy and professionalism.

The successful candidates are likely to come from a Lighting related background and will certainly be able to provide evidence of strong negotiating skills and a track record of achievement in this type of environment. The continued success of the company will present increased opportunities for career advancement within Whitcroft PLC Lighting Division.

The remuneration package includes a bonus and commission element, enabling "high flyers" to earn well in excess of the quoted figures. In addition, there is a comprehensive benefits package.

For further information and interview details, contact **KEVIN KEATING** on 01-242 4440 (24 hours), quoting **REF NO 1490** or write, enclosing full C.V. to:



Morgan Keating
ASSOCIATES
SALES RECRUITMENT CONSULTANTS

25 Bedford Row · London WC1R 4HE · Tel: 01-242 4440 · Fax: 01-831 3127

Technical Sales Specialists

Reggiani UK seeks first class Technical Sales people to cover South London and the Southern area, the Midlands and the North of England. Reggiani are one of the great names in international lighting and are now manufacturing in the UK.

Our sales team is young and enthusiastic and candidates should be self motivated with established contacts among interior designers and specifiers.

Good salary, substantial performance-related bonuses and car-plus-phone provided.

Write in confidence outlining experience to:

Peter Saunders,
Technical Director
Reggiani Limited,
Giltland House
12 Chester Road,
Borehamwood
Herts WD6 1LT

REGGIANI

LIGHTING SPECIALIST

YRM ENGINEERS

YRM Engineers — a division of the multi-disciplinary building design group YRM Partnership Limited — is one of the UK's foremost building services engineering consultancies.

As a result of a consistently high workload and the opening of a new regional office, we have a vacancy for a LIGHTING SPECIALIST.

The position will be as assistant/deputy to YRM Engineers' in-house lighting consultant Eric Maddock, whose consultancy service is available not only to colleagues within YRM but also to other practices.

The successful candidate should have a formal qualification, and is likely to come from an environmental engineering or electrical engineering background. Specialist knowledge of illuminating engineering would be a considerable advantage, particularly expertise in daylight, colour and photometry. The applicant should be able to work sympathetically with architects and interior designers as well as with engineers.

The position will be based in our London headquarters just north of the City. Salary is negotiable and there is a clear progression potential.

Please write with cv to:

Eric Maddock, Associate, YRM Engineers, 24 Britton Street, London EC1M 5NQ

SPECIFICATION SALES EXECUTIVE

£16,484 + Bonus Scheme + 1.8 LX Sierra + Car Phone

A respected manufacturer who have developed a close liaison with both consulting engineers and architects. Continuous support allows you to concentrate upon advising on application.

ELECTRICAL SALES ENGINEER

£14,329 + Bonus Scheme + XR3i + BUPA + Pension Scheme

Distribution through wholesalers for a market leaders top quality products will guarantee initial contracts. Excellent training will lead to management within 18 months.

Tel: Ian Owen on 0923 816621

RECRUITMENT
CONSULTANTS

Austin
Benn

Ibex House 62 Exchange Road, Watford, Herts WD1 7EG

OFFICES IN: Birmingham, Bristol, Crawley, Manchester,
Northampton, Nottingham, Slough, Swindon, Watford.

LIGHTING DESIGN ENGINEER

LDMS requires a lighting engineer for the preparation of lighting schemes, quotations, and the day-to-day dealing with customer enquiries, together with the occasional site visit. Familiarity with computer aided design systems would be an advantage.

Whilst an experienced engineer would be preferred, consideration will be given to applicants with electrical and drawing skills, who would be willing to undergo training.

The location of this appointment would either be at the LDMS Design Centre in central London, or at our Head Office in South Benfleet.

Salary by negotiation.

Please write enclosing full c.v. to:

Mr F H Saunders, Managing Director
Lighting Design and Manufacturing
Services (Essex) Ltd
191 High Road,
South Benfleet
Essex SS7 5HY

GROWTH, NEW products and EXCITING market plans mean outstanding OPPORTUNITIES for 3 high calibre

SALES AND MARKETING PROFESSIONALS

in a small DYNAMIC company with a reputation for high QUALITY design and INNOVATIVE products.

FIELD SALES MANAGER to lead our team selling specialist SOUND AND LIGHTING products to the fast growing LEISURE industry throughout the U.K.

PRODUCT MANAGER — LIGHTING CONTROL to manage and support our network of overseas AGENTS distributing our established lighting control products throughout the WORLD.

PRODUCT MANAGER — ARCHITECTURAL LIGHTING to introduce and develop sales of our NEW RANGE of products into the architectural market.

Each will take the sales responsibility within a small dedicated TEAM to develop their product line into multi million pound turnover

Full product TRAINING will be given and technical back up and SUPPORT of a committed management team.

We NEED enthusiastic, energetic, results orientated, motivators with flair and initiative.

We OFFER excellent packages with bonus and car.

If YOU are interested in developing your CAREER in line with our rapid GROWTH, then contact:

Kevin Brown on 01-575 2288, or write to him at
Foundation Group, 11 Fairway Trading Estate,
Greenford, Middlesex UB6 8PW.

TOP SALESMEN London and Home Counties

Well established progressive Lighting Company require Top Salesmen to further expand its wholesaler business.

You will enjoy the benefits of a substantial five figure salary further enhanced by performance related bonus, excellent fringe benefits associated with a PLC company. Executive car.

If you have a proven sales record and are ambitious to do well in a Sales environment.

Please write in confidence to: David Hemming, Sales Director
CROSSLAND LIGHTING PLC
Willenhall Lane, Bloxwich, Walsall WS3 2XR

FOR SALE

Expanding lamp shade frame manufacturers. Profitable company with new machinery, very good long term orders. High quality frames and experienced staff.

Turnover approx £350,000 rising to in excess of £400,000 in coming year. Genuine enquiries from principals only.

Please apply to:

Box 1464
Lighting Equipment News, Maclean Hunter House,
Cockfosters Road, Barnet, Herts EN4 0BU.

BE ONE OF OUR LEADING LIGHTS

At Courtney Pope Lighting Limited we are accustomed to insisting on the best. One of the most respected Designers and Manufacturers in the Commercial Lighting Industry, we are now looking for individuals who share this commitment to excellence to fill the following key positions:

LIGHTING SALES ENGINEER SOUTH WEST ENGLAND

With our reputation and quality product range, we can provide more than enough scope for your talents. If you can sell to Consultants, Architects, Contractors and Interior Designers, we can offer excellent on-target earnings plus car, on-going training and good prospects for career development.

LUMINAIRE DESIGNER

If you are an experienced Luminaire Designer, you could join our Design Team to develop standard and special project luminaires. Previous experience in CAD/CAM would be an advantage but training will be given. Attractive salary with very good prospects for the right person.

To apply for one of these vacancies please write or telephone the Personnel Manager, Courtney Pope Lighting Limited, Amhurst Park Works, Tottenham, London N15 6RB.
Telephone 01-800 7671.

A REAL OPPORTUNITY

High commission. Good agent(s) sought. Well connected and calling on wholesalers, local authorities and other end users.

Good product, excellent company, support and service to customer. Reply in first instance with details to:

Box No. 1465
Lighting Equipment News
Maclean Hunter House
Chalk Lane
Cockfosters Road
Barnet
Herts EN4 0BU

LOOKING
FOR
AGENTS
TO ADVERTISE
TEL: 01 975-9759
ext. 1154

Sales Professionals

Home Counties
and
North West

Artemide GB is looking for sales professionals to implement a challenging sales growth plan centred around the Artemide Litech technical lighting product range.

Litech combines the flair of Italian design with technical performance that will meet precise standards of clients.

The sales professionals will be required to stimulate both existing and new contacts with architects, designers and consulting engineers. Salary and commission will satisfy the best candidate attracted by this challenge.

Applications to
Jilla Bond

Artemide GB Ltd
17-19 Neal Street
London WC2H 9PU
01-836 6753

Artemide

AGENTS REQUIRED

Must have contacts with distribution network within the U.K.
All territories available low voltage lighting components.

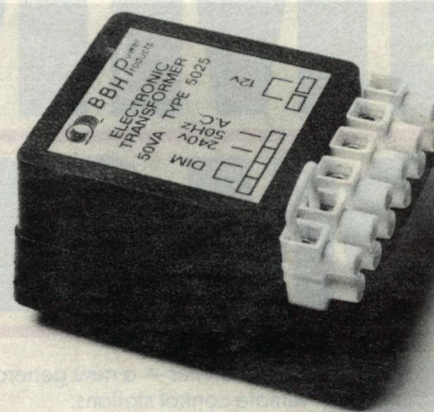
Please apply in writing with history of business background to:

Box 1463
Lighting Equipment News
Maclean Hunter House, Chalk Lane,
Cockfosters Road, Barnet, Herts EN4 0BU

ELECTRONIC TRANSFORMERS FOR LOW VOLTAGE LIGHTING

CONSTRUCTED TO IEC 742* BY THE ONLY BS3535 KITEMARKED
SAFETY TRANSFORMER MANUFACTURERS IN THE U.K.

A COMPACT HIGH QUALITY 12V ELECTRONIC TRANSFORMER
DESIGNED TO PROLONG LAMP LIFE AT MAXIMUM LUMEN OUTPUT
FEATURING SHORT CIRCUIT AND OVERLOAD PROTECTION



ALSO AVAILABLE

A RANGE OF HIGH QUALITY 12V LIGHTING TRANSFORMERS
DESIGNED TO PROLONG LAMP LIFE AT MAXIMUM LUMEN OUTPUT
9 UNITS AVAILABLE FROM 50 WATTS to 500 WATTS
HOUSED IN STURDY CORROSION RESISTANT EPOXY PAINTED
VENTILATED METAL ENCLOSURES

SPECIAL SAFETY FEATURES

MAINS TOTALLY ISOLATED FROM OUTPUT — PROTECTED BY
FUSE AND MANUALLY RESETTABLE THERMAL CUT-OUT
OUTPUT FUSING EVERY 50 VA

B.B.H. COIL & TRANSFORMER MANUFACTURING COMPANY LIMITED
SOUTH CHURCH ROAD, BISHOP AUCKLAND, CO. DURHAM DL14 7LB
TELEPHONE/S (0388) 602265 & 604201. TELEX: 587160 BBH G.
FACSIMILE: (0388) 608774.



* WHERE APPLICABLE

DIARY

MAY

10-12

Lighting World International, New York. Exhibition and conference on architectural lighting. Details from Jacqueline Illonardo, National Expositions Co Inc, 15 West 39th Street, New York NY 10018.

14-18

IDI '89 Interior Design International exhibition at Earls Court and Olympia 2, London. Details from AGB Exhibitions Ltd 01-429 1777.

15-17

Showlight '89. International television, theatre and film lighting colloquium in The Netherlands. Details from Maureen van Woudenberg, NOB PR Department, P O Box 10, 1200 JB Hilversum, The

Netherlands. Reduced fee applies before 1 May.

17

Services in airport buildings. A discussion session held at Gatwick Airport. There will be three speakers from British Airports Authority. Details from the Chartered Institution of Building Services Engineers, member services department 01-675 5211.

17-21

British Science and Technology Exhibition, Alexandra Palace, London. A display of practical opportunities, achievements, and developments in British science, engineering and technology. Details from British Science and Technology Trust 01-992 9011.

24

Human response to lighting. An all-day workshop at the Building Research Establishment. Organised

jointly by BRE, AVA and CIBSE. Details from CIBSE Lighting Division 01-675 5211.

LOOKING AHEAD

21 June: One-day seminar in London on security lighting, organised by the Lighting Division of CIBSE. Details from member services department CIBSE 01-675 5211.

11-13 July: Signtech '89. The sign trade's exhibition at the London Novotel. Details from exhibition manager John Brownbridge 0603 700598.

10-14 July: Interior lighting course at Trinity and All Saints' College, Leeds. Details from the Institution of Lighting Engineers 0788 76492

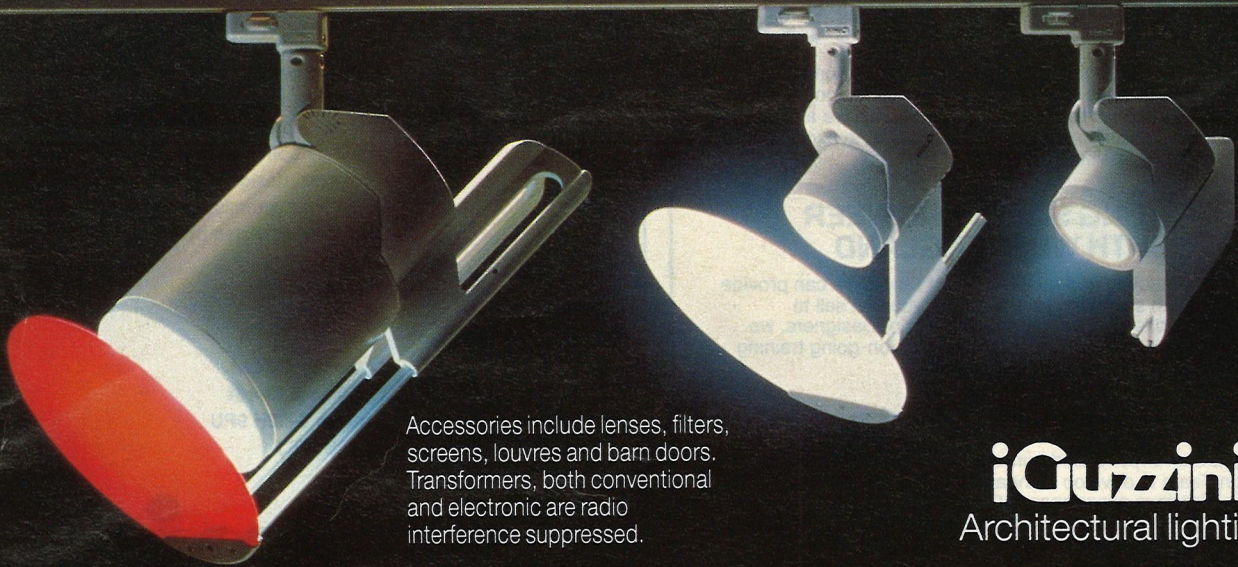
17-21 September: Lightex '89. Annual conference and exhibition of the ILE at Bournemouth. Details from ILE 0788 76492.

SHUTTLE LIGHT SCENE

The innovative Shuttle design by Bruno Gecchelin creates a consistency of shape throughout the range. 22 lamp variations are possible using many of the most popular light

sources including tungsten halogen. Shuttle is available with ceiling plates or iGuzzini track adaptors which fit several systems including the new iGuzzini Challenger track.

If lighting interests you please write to:
Forma Lighting Ltd
Units 310-311, Business Design Centre
52 Upper Street,
London N1 0QH
Telephone: 01-288 6025

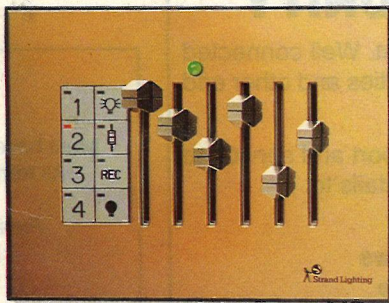


Accessories include lenses, filters, screens, louvres and barn doors. Transformers, both conventional and electronic are radio interference suppressed.

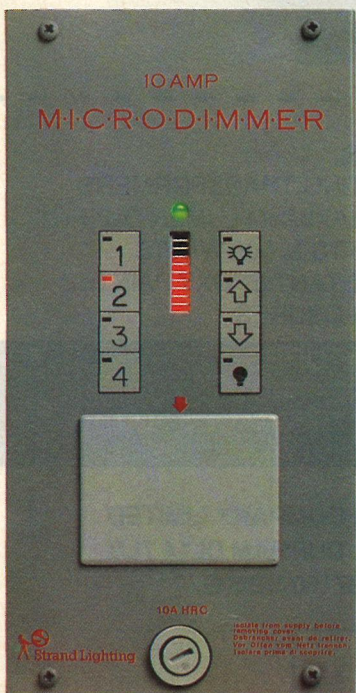
iGuzzini
Architectural lighting

Reader Service No. 18

THE BRIGHTER DIMMER FROM STRAND



Sophisticated Remote Control Stations for 'scene-setting' with multiple Microdimmers.
● Records lighting scenes direct from sliders into a Preset.
● Interchangeable fascia plates are available in a wide range of finishes and concealed fixings give a clean appearance.



Microdimmer — a new generation of microprocessor based unit dimmers and remote control stations.

Each dimmer has a sophisticated inbuilt memory which records preset lighting states and fade rates.

Microdimmers can be grouped together to create a number of effective lighting scenes in many different environments — from hotels and restaurants to hospitals and churches.

If you want to know more about Strand Microdimmers as well as the complete range of Strand lighting control systems, simply complete and return the coupon today.

- Microdimmers can operate alone or with Remote Control Stations ● Available in 5, 10 and 20 Amp ratings ● Microdimmers can be linked together for effective 'scene-setting'
- Microdimmers are suitable for fluorescent, low voltage, tungsten, cold cathode and neon lighting loads.



Strand Lighting

Strand Lighting Limited,
Architectural Lighting Division,
Grant Way, Isleworth, Middx. TW7 5QD
Telephone: 01-560 3171 Extn. 421
Telex: 27976. Fax: 01-568 2103

I'd like to know more. Please send literature on: ☐ Microdimmers.
☐ The Strand range of dimmers and lighting control systems.

Name Position

Company

Address

Postcode

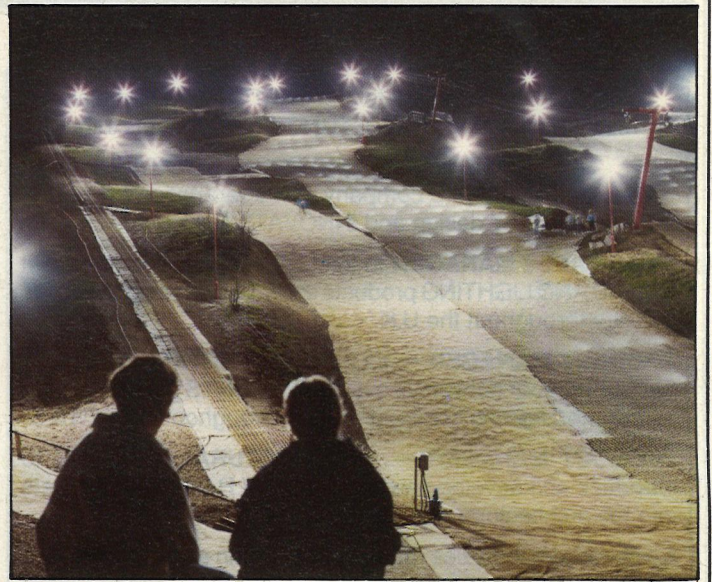
Telephone:



LEN/5/89

Reader Service No. 19

LIGHTING EQUIPMENT NEWS



Solving a slippery problem

The Sheffield Ski village at Parkwood Springs — originally a quarry surrounded by workers' cottages, a public house and some shops — now provides facilities for serious ski training or simply for skiing as a recreation.

The quarry, unused for many years, had become an eyesore. So when the new owners purchased the land a major land clearance programme was necessary followed by carefully planned and controlled land fill designed to create the contours necessary for the slopes. The village now has six ski slopes catering for all levels of competence.

Holophane Europe were responsible for the lighting design and supply of luminaires on this unique venture, and they designed a lighting scheme capable of satisfying the needs of even the most demanding skiers.

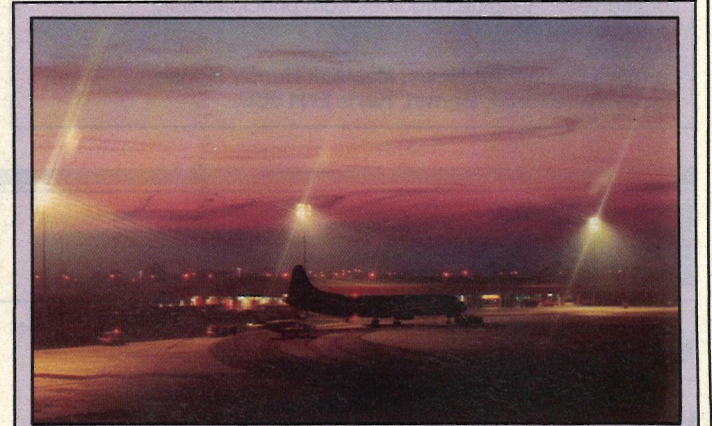
In addition to their performance characteristics, the luminaires had to be vandal-proof and visually attractive. Above all a completely priced installation was required. The Module 600 range provided an excellent solution. The luminaires utilise a 400W high pressure sodium lamp and were mounted on Holophane standard lighting columns.

Delta Crompton merger

The cables business of Delta plc is to merge with that of the Hawker Siddley Group plc now that approvals and legal agreements have been completed. The joint company, Delta Crompton Cables Ltd, 64% owned by Delta and 36% by Hawker Siddley, becomes operational immediately.

The intention to merge the two business was first announced in December 1988.

The new company, with sales of about £200 million, will be the major UK producer of power and general wiring cables and strong in communication cables.



Apron floodlighting at the newly opened Norwich Airport is provided by Abacus raising and lowering masts. These have been fitted with 400W SON-T standby lamps from GTE Sylvania — one of the first applications for these lamps.

The 20m high masts incorporate a patented raising and lowering mechanism which allows the columns to be lifted from the locked position and rotated through 90 degrees. As a result, all maintenance can be carried out at ground level.

Officially opened in April 1988, Norwich Airport's new £5 million terminal takes internal and European scheduled, charter and training flights.

IN YOUR NEXT ISSUE

In June, *Lighting Equipment News* will consider the lighting of sports facilities, concentrating in particular on indoor sports courts and multi-purpose halls. It is in the floodlighting of national and international standard arenas that the sophisticated lamp/luminaire

systems come into their own. We hope to feature a number of recently completed projects of this type. Erco has recently constructed a "state-of-the art" technical centre at its Ludenscheid headquarters, and we shall take a look at the building.