

LIGHTING EQUIPMENT NEWS

MARCH 1989

CIBSE joins Joint Board

The Chartered Institution of Building Services Engineers has joined the Joint Board of Moderators formed by ICE and the ISE to modernise and accredit civil and structural engineering degree courses. The Board influences the content of civil and structural engineering courses and is now changing its composition to embrace CIBSE which accredits degrees in building services engineering.

The Board has increased numerically from 18 to 26 members and consists of the Chairman, ten joint ICE/IStructE nominees and five nominees each from ICE, IStructE and CIBSE. Teams visiting academic organisations will be composed of two academics and two practising engineers, in line with Engineering Council policies.

"Joining the new Joint Board will enable the Institution to widen its influence in this most important area of accreditation of honours degree courses in Building Services Engineering," stressed Doug Balfour, CIBSE's Head of Qualifications and Membership.

Wanted — new products

The Design Museum is opening at Butlers Wharf in London in July. It will include a review of new products which will be a showcase for stylistic and technical innovation.

Manufacturers and designers interested in displaying new work should contact Paul Thompson, the museum's design review manager, at Butlers Wharf, Shad Thames, London SE1 2YD, telephone 01-403 6933.

The purpose of the review is to provide designers, manufacturers and the public with an up-to-the-minute view of new trends in product design.

Information sheets will be provided for visitors and an annual publication will be produced.

If products have been launched on the UK market they should be no more than three months old. Those that have already been launched overseas and are not intended for the UK market will also feature in the review.

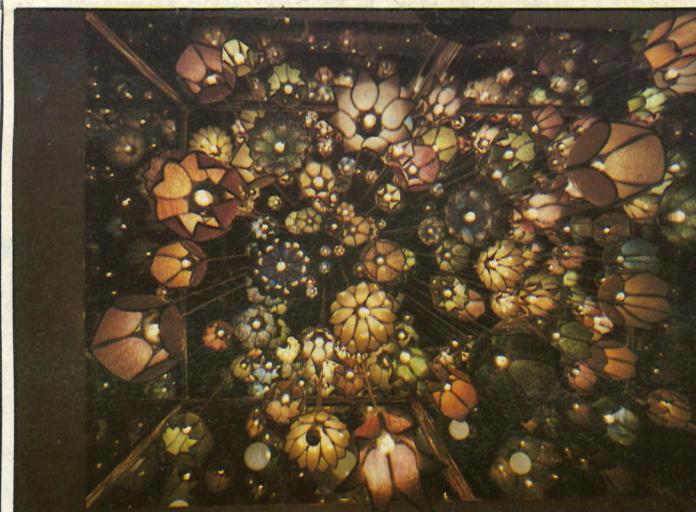
INSIDE THIS ISSUE

News	1,3,19, 20
Diary	3
New products	4,5
Retail lighting	6,7
Profile:	
Ralph Altmann, Reggiani UK	8
Tridonic supplement	9,10,11,12
Lighting design update	13,14
Where to buy directory	15,16,17
Catalogue directory	17
Classified advertising	18,19



Chandeliers over the grand staircase.

Where big is beautiful



Stained glass pendants in a well between floors.

To the right of the harps and the cascade of water, a huge lighting showroom was recently declared open. The occasion also had plenty of light and colour from the thousands of lighting fittings on show.

Christopher Wray's refurbished Lighting Emporium in London's Chelsea was the scene of this splendid event.

The range of lighting on show has been extended and now covers styles from Regency to the present day. To simplify selection, the showroom has been divided into areas, each featuring a particular lighting type.

Among the collections on the ground floor are Tiffany lights, low voltage tungsten halogen spotlights on track, downlights, traditional style lighting in carved pickled pine, and crystal chandeliers.

A contract lighting section, on the upper mezzanine floor, offers ideas for restaurants, clubs, hotels and pubs.

There is also an area where customers can experiment with the effect of different spotlights and other fittings.

A sweeping staircase — originally from Bentalls department

store — leads down through the centre of the showroom. At the point where the staircase divides, the visitor sees a waterfall which tumbles into a pool below the stairs. This provides the opportunity to display underwater, sealed lighting.

The lower sales floor includes areas devoted to garden lighting, table lamps made from huge converted tobacco canisters, blue and white Chinese vase table lamps, and a display of coloured glass lights made of paté de verre.

A corner of this floor holds stocks of many different light sources, including unusual types such as E10 lamps. Period-style decorative finishing plates made from original moulds are also on sale here.

Christopher Wray's lamp workshop is now located in this building with an extensive supply of glass chimneys, burners, wicks etc. for oil lamps.

The enthusiasm of the staff and their knowledge of the style of lighting they are selling is particularly noticeable in what must be the largest decorative lighting showroom in Britain.

Emess bid for JSB Electrical

Emess plc is to take over JSB Electrical, manufacturers of battery powered emergency lighting systems and fire detection equipment, subject to the approval of Emess shareholders to be sought at an extraordinary general meeting.

Emess has made an offer which values each JSB share at 404.2 pence, a premium of 34% over the market price on 2 February, the last trading day before the announcement, and the directors of JSB will unanimously recommend shareholders to accept the offer.

To date, Emess has received irrevocable undertakings from the chairman and three other directors to accept the offer in respect of

approximately 53% of JSB's issued share capital.

In lieu of some or all of the Emess ordinary shares due under the offer JSB shareholders may opt to receive either cash or Emess guaranteed variable rate loan notes dated 1990/93.

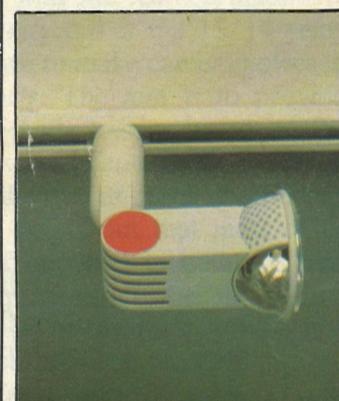
Emess is the parent of a group of companies which aims to become a leading world supplier of lighting and associated electrical equipment. Shares first obtained a Stock Exchange listing in 1980, since when the group has expanded significantly both as a result of organic growth and by acquisition.

Commercial lighting activities in the UK and Denmark are centred on the Marlin Lighting subsidiary;

and decorative lighting activities include five UK based companies and a US company, the Alsby Corporation, acquired in 1988 which manufactures lampshades and table lamps. Emess also has a controlling stake in Brilliantleuchten AG of West Germany which manufactures quality decorative lighting for the European market.

The purpose of the acquisition is to provide Emess with an opportunity to expand its range of commercial lighting and electrical products, which will complement Emess's own growing range of emergency lighting.

Thorn wins German award



Track mounted version of Aria, Thorn's new generation range of low voltage tungsten halogen luminaires.

Thorn's new Aria range of low voltage tungsten halogen luminaires has won a 1988 Die Gute Industrieform award.

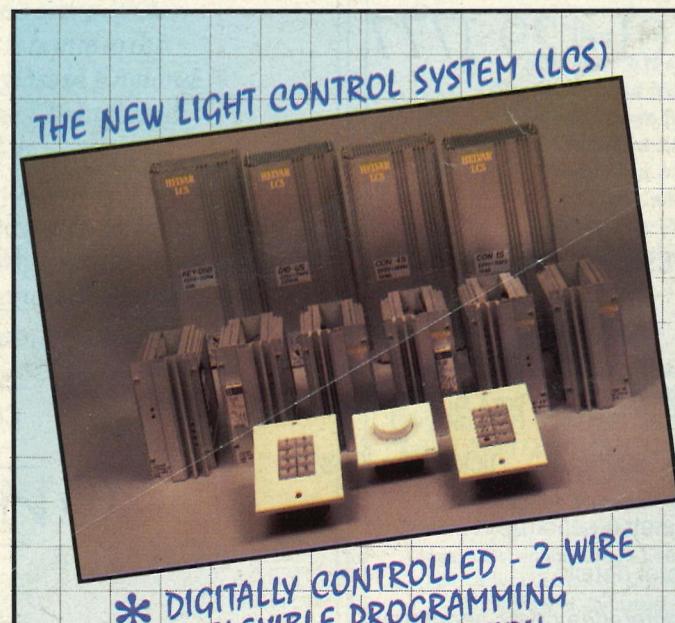
The luminaires, designed by Kenneth Grange of Pentagram, accept the latest sealed beam 50mm and 35mm Lightstream lamps. The new luminaires will be on display at Hanover in both surface and track mounted versions, and as luminaires operating with integral electronic transformers.



Some 1200 special extruded aluminium lanterns light the tunnel linking Devon and Cornwall on the A38 bypass at Saltash.

The 409 metre long tunnel has a single three lane carriageway 13 metres wide with tidal traffic flow controlled by a microcomputer installed in the Tamar Bridge Administration building.

The tunnel lanterns, supplied by GEC streetlighting, house either Osram 58W 1.5 krypton filled energy-saving fluorescent tubes 180W SOX or 131W SOX-E lamps which operate automatically in six stages depending upon external lighting levels.



HELVAR
PRODUCTS
THAT SOLVE
PROBLEMS

01-568 6205

GET THIS CHART FOR A QUALITY START

Manufacturers of quality products rightly demand top quality lampholders to complement their products. Reeves Lampholders consistently meet these requirements with range, quality and safety.

The full colour selector chart is a complete guide for specifying and it's also a compelling sales aid.

It lists and illustrates the Reeves range of Brass, Porcelain and Phenolic holders and accessories.

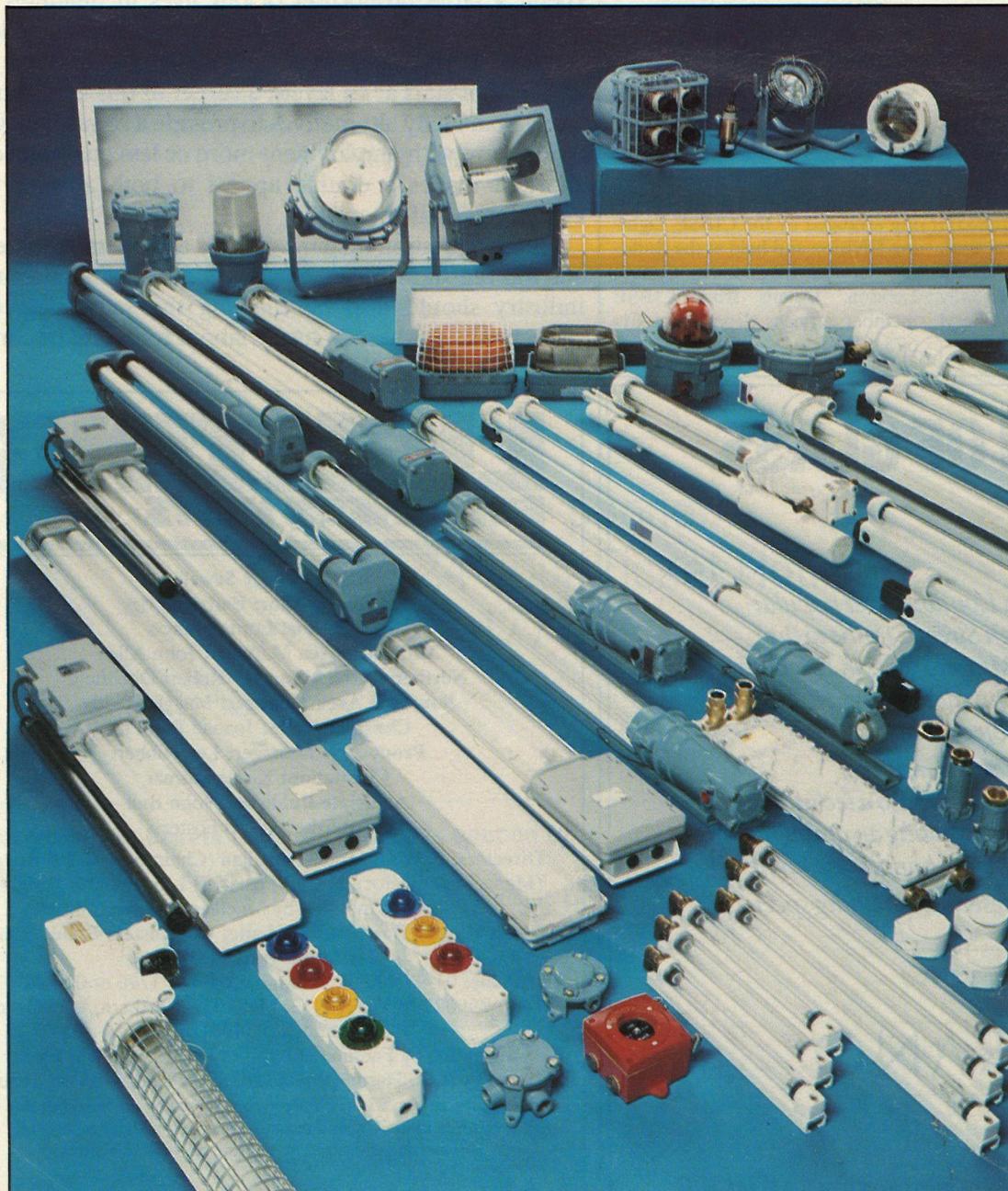
Faultless duty and, for the discerning, functional beauty.

Give your customers the quality they want. Send for your copy of the Reeves Lampholders Product Selector Chart.

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

IMI

Reader Service No. 4



Reader Service No. 5

NEW PRODUCTS



Gold trimmed lamps

New Traditionalism is one of the ranges of table lamps recently introduced by ETD Lighting Ltd under its Cresswell Elite brand name.

The richly coloured ceramic

bases are in four shapes decorated with stems of bamboo in gold leaf.

They are teamed with a choice of lampshades in different shapes, plain or pleated.

Reader Service No. 151

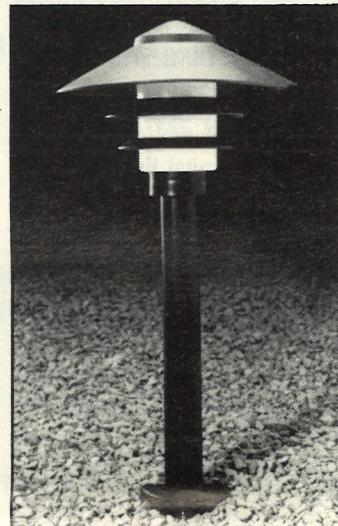
Decorative garden lighting

A low voltage garden lighting system called Malibu is available from Besa Lighting Ltd.

There are two styles of Tier lights (illustrated) for drives, patios and around pools; the standard Malibu floodlight, shrouded to prevent glare, for adding decorative light to trees, shrubbery or garden features, and a rectangular, more powerful floodlight.

Transformers, cable and coloured lenses are also available.

Reader Service No. 152



Fluorescent range offers a choice

Modulux MX series of recessed fluorescent luminaires from Crompton Parkinson Ltd is designed to provide high performance lighting.

The series offers a choice of three prismatic controllers, a diffuser and three high efficiency louvred metal reflectors.

These meet the lighting requirements of many general and private offices, computer suites, reception areas, restaurants and other commercial interiors.

The luminaires are available in draw-up or lay-in format, with alternative trim arrangements for exposed or concealed track suspended ceiling systems.

Housings can be selected to suit 300mm or 600mm ceiling modules, in lengths of 600, 1200, 1500 or 1800mm. Combined side and end bearer brackets are built into all housings.

Electronic start is standard, with the option of either switch start or high frequency ballast. Selective switching can be provided for three- and four-lamp versions, to allow reduced illuminance on an overall installation or on selected luminaires, to save energy.

A built-in emergency lighting option is available throughout the range. Reader Service No. 153

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

THE DEFINITIVE RANGE

NEI/Victor offer to the Oil, Gas and Petrochemical Industries onshore or offshore, an extremely wide range of quality Luminaires for all types, applications and environments. NEI/Victor Luminaires are UK manufactured to current British Standards and conform to European norms Ex and embody much of the latest in lighting technology.

NEI/Victor Luminaires are price competitive and available through distributor outlets throughout the UK or direct from NEI/Victor at their Wallsend Factory.

The NEI/Victor Sales Team covers the whole of Europe as well as the United Kingdom.

NEI MINING EQUIPMENT LTD.



Victor, PO Box, Wallsend,
Tyne & Wear NE28 6PP, England.
Telephone (091) 262 8331
Telex: 53374
Fax No: (091) 234 4550



Bathroom lights



Marlin Lighting's hand blown glass fittings in the Limburg range enable a luminaire to be selected for any bathroom without having to compromise on either safety or design.

The range includes a wide choice of glassware, shapes and finishes ranging from simple wall or ceiling mounted products to multiple

fittings for lighting mirrors.

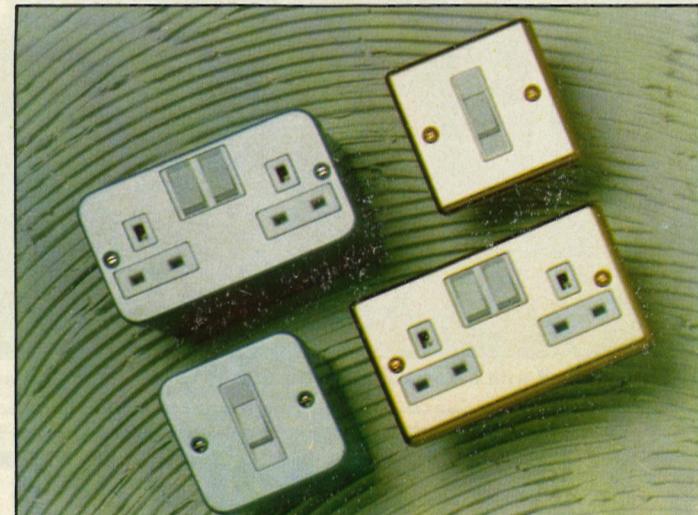
Fixing brackets are of synthetic resin for maximum electrical safety and are available in matching bronze or matt white, or in contrasting chromium or 24-carat gold plate. The luminaires are double insulated and ingress protection rated IP44.

Reader Service No. 159

Electrical accessories for industry

A new generation of metal clad lighting switches, control switches, sockets, blanking plates and steel boxes has been introduced by Tenby Electrical. They are stated to be even more robust, scratch resistant and proof against damp than their predecessors. They also lend themselves to a neater terminal layout.

The phosphate-coated steel bodies of the accessories are given a very tough epoxy resin coating which provides exceptional protection against the knocks and scratches that are unavoidable in an industrial environment.



At the same time, the trim, compact design of the units makes them suitable for domestic settings such as garages, barbecue and patio areas.

The switches can be mounted in configurations of one to six gangs, offering a cost effective multi-switch facility.

Reader Service No. 160

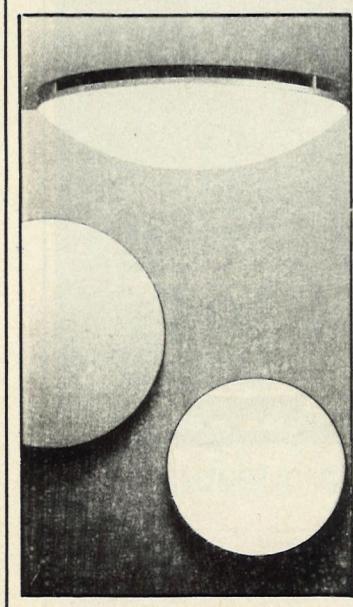
Luminaires give diffused light

A circular luminaire for ceiling or wall mounting is available in two sizes from Artemide GB Ltd. Made by Luceplan, Italy, it gives diffused general lighting.

Called Trama, the 640mm diameter model accepts either three compact fluorescent, three GLS or three tungsten halogen lamps, while the 500mm diameter version uses three spherical incandescent lamps.

The housing is aluminium, either natural colour or finished black.

Reader Service No. 161



Slender LV task light

Another low voltage model has been added to the range of task lights by Anglepoise Lighting Ltd.

Based on the company's model 98, this version uses a 20W 12V tungsten halogen lamp with an axial filament which gives a concentrated light just where it is needed.

The adjustable task light can be desk or partition mounted and there is a choice of brackets.

Reader Service No. 162

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



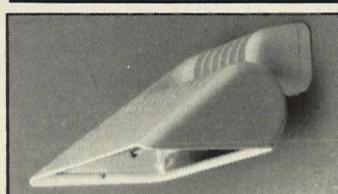
Floor standard is ribbon of light

A low voltage, floor standing light made of glass reinforced plastic has copper ribbon embedded in it to carry the current from the transformer in the base to the two 20W M32 tungsten halogen lamps.

Height of the luminaire, which is called Nastro (Italian for ribbon), is 1800mm.

Made by Memphis, Milan, it was designed by British designer Gary Morgia and is available in the UK from Artemide GB Ltd.

Reader Service No. 163



Versatile spotlight

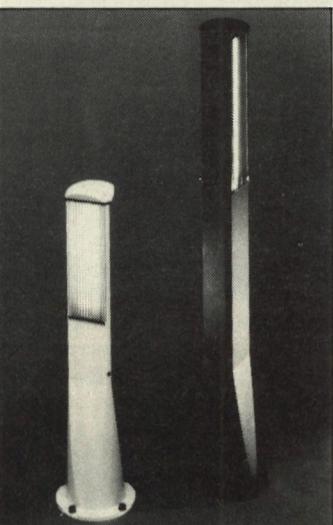
Puma is a competitively priced spotlight that uses either a 300W or 500W mains voltage, linear tungsten halogen lamp. It has been launched by Crompton Parkinson Ltd for indoor display work.

This spotlight can be either ceiling or wall mounted, or used in conjunction with lighting track.

Reader Service No. 164

Range of bollard lights

Path is a series of lighting bollards made of diecast aluminium and polycarbonate. They are available in two heights, 810mm and 1210mm, in either black or white.



One version gives light in one direction only, while another projects light in three directions. They use linear compact fluorescent lamps.

Made by Guzzini, these bollards are distributed in the UK by Forma Lighting Ltd.

Reader Service No. 165

Low voltage outdoor floodlight



A new shape in outdoor floodlights is a low voltage model called Jaguar. Introduced by Crompton Parkinson Ltd it is particularly suitable for precinct, garden, sign and security lighting.

It uses either a 50W 12V tungsten halogen dichroic lamp, or an M32 tungsten halogen lamp. A transformer is either incorporated in the base or remotely mounted.

Reader Service No. 166

LIF LINE

Public lighting — onus on whom?

Within our own companies, we know that somebody has to be made responsible for each area of operation. If not, important matters fall between stools, perhaps quality suffers, and systems maintenance can come a cropper.

It is not surprising, therefore, that since 1966, when the Local Government Act was passed, 'public lighting' seems to have been neglected in certain areas. Look around in almost any part of the country and you'll find footpaths which are totally unlit, and 30-year-old lighting columns crumbling with age. The reason for this sorry state of affairs seems to be that everybody and nobody is financially responsible for the maintenance and repair of public lighting. This appears to be particularly the case in rural areas where, not surprisingly, night-time crime is as much on the increase as in the cities.

The lines of responsibility are so complex, one can never be absolutely sure of understanding them. Most district councils have responsibility for providing and maintaining a level of lighting known as roadway lighting, whilst parish councils provide a level of lighting known as footway lighting. The terms 'roadway' and 'footway' are used to describe the type of lighting, not the route that is being lit. Therefore, the main highways through a district may have lighting to 'footway' standard, and the small estates may have lighting to 'roadway' standard.

Let an instance raised at the launch of the British Parliamentary Lighting Group video 'Out of Darkness' last May serve as an example: "A roadway scheme, belonging to the Highway Authority, exists on a class B road within the built-up area of a town. Further development, including a swimming pool, has taken place beyond the limits of the lighting scheme. Following demands from residents, the district council proposed to extend the lighting to cover the development, but the highway authority was unable to give permission because, firstly, a footway scheme was not up to the standard needed for this class of road, particularly because it was already partly lit to roadway standard, and secondly, a roadway standard scheme could not be permitted because it would have to be adopted by the highway authority and their maintenance budget could not accept additional expenditure."

The position is further complicated by the fact that the local authority has to go cap-in-hand to a higher authority for the money to spend on its public lighting, and the higher authority will almost always say no.

The problem highlighted by this example was recognised by David Trippier, Parliamentary Under Secretary of State for the Environment, when it was brought to his attention at the video launch and, to give him his due, he did agree to look into the matter, while pointing out that it would take a Cabinet decision to bring some sense into this crazy aspect of local authority administration.

Whilst this may be so, the Department of the Environment could help matters by making it clear that if a parish council appealed to the minister to override a district council's rejection of its application to install or upgrade its public lighting, then the minister would support the parish council. This would then doubtless encourage the parish councils to use more public lighting as a crime deterrent; but ideally the parish councils should be free of the bonds imposed upon them by the district councils so that they might provide and maintain the standard of public lighting on everything, other than trunk roads, that their ratepayers want.

Good lighting of footpaths and B roads could then be as effective a weapon against night-time crime in the shires as it is increasingly seen to be in the inner cities.

INSTITUTION OF LIGHTING ENGINEERS

Residential Course in Interior Lighting

10-14 July 1989

at Trinity & All

Saints College,

Leeds at a cost of

£450 plus VAT



Further information available from

ILE

Lennox House, 9 Lawford Road, Rugby CV21 2DZ

Telephone: 0788 76492

Fax: 0788 540145



A view of Canute's Pavilion shopping centre, Southampton.

Lighting for shopping

In this issue, we consider the question of retail lighting from two angles, firstly shopping centres and then display lighting in shop windows.

Separating vehicular traffic from shoppers has been a distinct trend since the 1960s when high streets in a number of Britain's towns and cities were closed to normal traffic, the roadways were embellished with tubs of flowers and shrubs, often some decorative street lighting was added, and pedestrians had the strange experience of being able to wander in safety down the middle of their main shopping thoroughfare.

By the 1970s, the idea of converted pedestrian shopping streets, and even specially designed, open air shopping plazas, was giving way to purpose-built covered shopping centres with completely different lighting requirements for the general circulation areas.

Brent Cross in London was one of the first of these centres, using high quality materials and finishes and aiming to set a standard that would discourage vandalism.

There is still an extensive building programme of shopping centres in Britain. Derek Phillips, a lighting designer who has been involved in such centres in the UK and abroad, estimates that 30 to 40 are under construction or planned at the present time.

Moreover, some of the early ones are now being refurbished, not only to give a change of decor but often to enlarge them.

The latest centres all have themes, often linked to local history or geography, and a lively atmosphere is an important part of the formula, which, of course, is where lighting can make a major contribution.

Glasgow

One recently completed shopping centre is Princes Square, Buchanan Street, Glasgow, which was designed to provide entertainment as well as shopping and eating facilities.

The aim was to create a building of architectural merit to attract the best specialist retailers in the UK and provide maximum attraction to shoppers.

It was essential not only to make the centre attractive during daylight hours, but also in the late afternoons and evenings when shops would continue to trade and performances would be staged to entertain customers in wine bars, pubs and restaurants.

The lighting system was to be sufficiently flexible to meet the needs not only of the centre management but of those who would hire the building for award ceremonies, conventions, parties and fashion shows.

In addition, the lighting was to reflect and integrate with the design theme: an interpretation of the Art Nouveau, Vienna secession and Glasgow style of the 1890s with its emphasis on arts and crafts.



General view of the atrium, Princes Square centre, Glasgow.

HILDENNAN, SIMON & REPPEN & SCHMITZ/SMS

3.16 GB

Much of the general lighting is from theatre projectors by CCT Theatre Lighting. These tungsten halogen luminaires are suspended at high level in decorative metal-work orbs between the structural arches of the fully glazed atrium and provide lighting at ground level four storeys below. Gobos are used in some of these luminaires.

Similar projectors are used at the west end of the building to illuminate a Palladian facade.

A number of small tungsten halogen floodlights by Thorn Lighting are used to emphasise the arched steel, cathedral-like structure of the building.

To give an inviting, warm atmosphere, much use has been made of GLS lighting, its inefficiency being partly offset by the use of a central dimming system.

Two styles of spherical luminaires and one quarter sphere were specially designed for the project by the lighting consultants and produced by Designed Architectural Lighting and Shepley Dawson.

Using 40W to 100W pearl and amber lamps, these luminaires provide decorative, ambient lighting in the atrium space, which includes two scenic lifts.

Circulation lighting in the retail balconies is by recessed low voltage downlights by Erco Lighting.

To give maximum flexibility there is a programmable control system by Electrosonic using dimmers, photo-cells and a time clock. This allows fully automated,



Night-time view of the Surrey Quays shopping centre.

seven-day control for normal use and pre-set facilities for special functions.

Architects for the project were Hugh Martin and Partners; the lighting scheme was by Lighting Design Partnership.

London dockland

Surrey Quays is a £35 million shopping development at Rotherhithe in London's Docklands. It

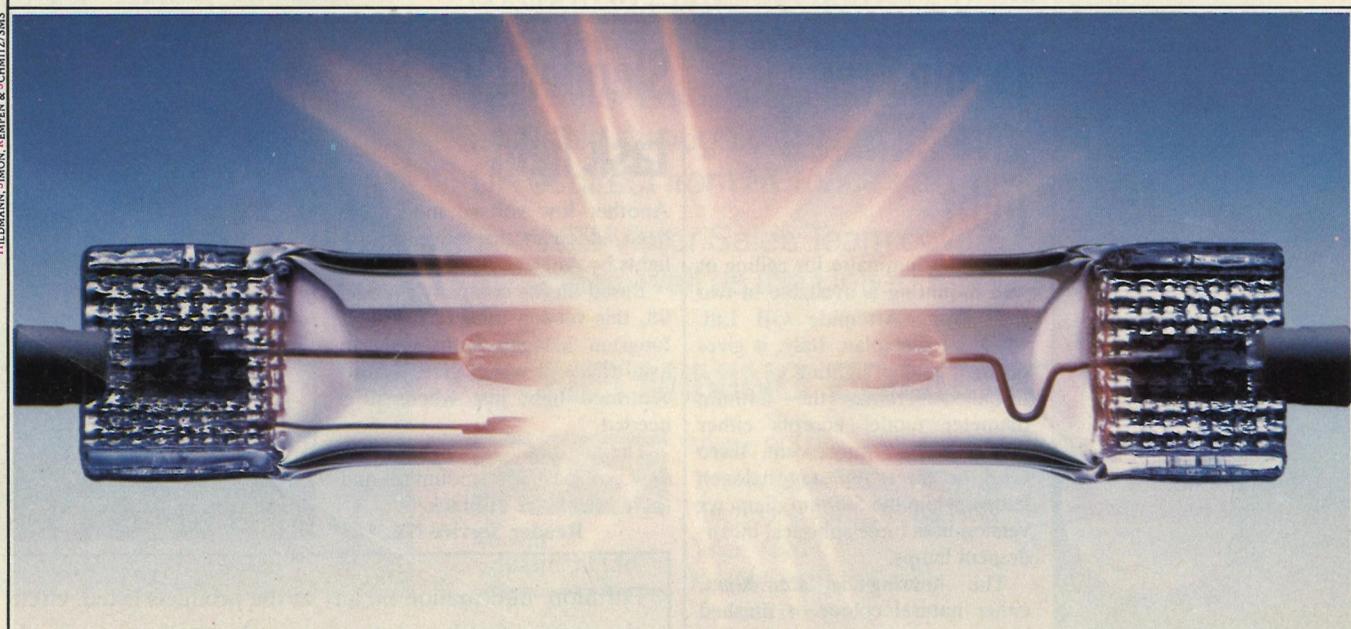
consists of 36 retail outlets and a food court.

Derek Phillips Associates were called in to design the lighting for the public areas, which have a nautical theme. Working to a brief from architects The Fitzroy Robinson Partnership, they designed an energy saving scheme which enhances the architecture and creates an exciting environment for shoppers and tourists.



A shopping mall with a nautical air at the Surrey Quays centre in London.

THE GREAT POWER SHOW



The choice of a nautical theme is reflected in the specification of Wotan's NDL metal halide lamps which, compared with the WDL version, cast a cool light in the double height mall areas and central atrium. The total effect is warmed by the mainly tungsten lighting of individual shopfronts.

The metal halide lamps are in luminaires by Franz Sill, supplied through LDMS. To make them as unobtrusive as possible they are concealed in cowls below the air conditioning ducts.

Specially made porthole style luminaires are mounted on the balcony edges. These use 16W 2D compact fluorescent lamps and were made by Exterior Lite Services.

In the malls, the artificial lighting is intended to balance the high level of natural light and provide an interesting environment at night with a fairly even illuminance (150 to 250 lux). This is enlivened by the addition of more of the porthole luminaires mounted in a false balcony which gives the impression of a ship's deck.

In the 4m high, single storey areas, sparkle is added to the ceilings by low voltage tungsten halogen downlights. These recessed fittings are by Baulmann, Germany, again supplied through LDMS.

To enhance the nautical flavour in the malls, lighthouse style fittings were specially designed and made by Exterior Lite Services. They use 50W high pressure sodium lamps and although they add little to the lighting level, the 4.75m high fittings with their top lanterns create an outdoor atmosphere.

In the atrium at night, 70W high pressure sodium floodlights by Harvey Hubbell uplight the glazed roof to prevent a black hole effect. This warm coloured light was chosen to contrast with the cool downlighting below.

Murals commissioned from local artists are painted on the gable-end walls at the two main entrances. These are lit from below with 70W and 150W metal halide lamps in surface mounted Tangent spotlights by Concord Lighting, making an eye-catching scenario at night when they are visible through the glass walls.

Southampton

Another centre with a nautical theme is Canute's Pavilion at Southampton's dockland. Here, a main mall connects two shopping



Above: windows lit by Lita's high pressure sodium luminaires at Marks & Spencer, Gateshead. Above right: a small, exclusive window at Jean Patou, Paris, lit by Erco's Oseris low voltage spotlights.

areas, each with an atrium.

The second atrium is part of a new phase of development. Lighting Design Ltd was responsible for the lighting scheme for phase two and is now going on to plan lighting for the refurbishment of phase one.

To create a sense of movement in the second phase atrium, theatrical projectors on a gantry above the mezzanine floor are switched on as darkness falls and cross fade with a series of patterns projected onto the mezzanine floor.

These luminaires by Strand Lighting use 500W tungsten halogen M40 lamps with a long life. Controls for the projectors, and other lighting throughout the scheme, are by Electrosonic.

The edge of the mezzanine floor is defined by lines of blue neon lighting by Neolec.

Under the mezzanine floor, recessed in a Formwood suspended ceiling, there are miniature tungsten halogen, low voltage 20W Starpoint fittings by Electroelite.

Narrow beam 100W 12V spotlights by Erco Lighting are mounted at the base of the sup-

porting columns to uplight the roof structure. Colour filters can be added to give a change of atmosphere to suit varying occasions.

Similar narrow beam spotlights are used in the food court over the tables. They are mounted on Hitrac lighting track which also carries tungsten halogen uplights to light the ceiling.

Shop facias on the first floor are lit by low voltage spotlights from Light Projects, mounted on long arms.

In the ground floor malls, low voltage, adjustable downlights by Guzzini light the shop facias. Columns dividing the shopfronts are lit by low voltage downlights by Reggiani.

To guide people through the mall which links the two atria, downlights by Designed Architectural Lighting are used. These each contain a 150W metal halide lamp by Wotan and have an etched, sand blasted glass plate suspended below the fitting. An alternative version without the decorative plate and using a 70W lamp provides infill lighting in the mall.

Architects for this project are Covell Matthews Histon.



Windows with pulling power

Shop window lighting has to work hard for its living. A shop window display should be an irresistible invitation to go into the shop to have a closer look at the merchandise, and eventually to buy it of course. In about 95% of cases, lighting is an indispensable ingredient in a successful window.

Most stores and shops now realise that it takes more than just a lot of light to catch the attention of passersby. Designing shop window lighting is an artistic, creative process with a wider choice of lamps and luminaires available than ever before to bring out the individual characteristics and desirable features of the goods on display.

The image the shop wishes to project also plays a part in the choice of lighting equipment. Does it, for instance, wish to appear exclusive and expensive, or inexpensive and friendly?

Low voltage, miniature spot-

lights continue to dominate the field, sometimes with multiple lamps on one long stem that reaches right down into the display area. They are produced for track, mono point, individual ceiling plate mounting and sometimes for suspending on bare wires or rods that carry the current. Most ranges offer a choice of accessories to manipulate the beam.

With their small size, minimum heat output and ability to add sparkle they are eminently suitable for a wide range of goods from watches, jewellery and silverware to confectionery and fish.

They are also useful, of course, for very small display windows which would be dwarfed by conventional mains voltage spotlights.

The sparkle and convenient size of low voltage tungsten halogen lighting should not blind window designers to the properties of other light sources however. There is a

place, for example, for the powerful blue-white light of metal halide and some shoe shops use this to great effect.

Philips' White SON lamp is the most recent light source to be introduced for shop windows and there are now completed installations using this high pressure sodium lamp.

Marks and Spencer's store in the Metro shopping centre in Gateshead uses White SON lighting for its window display. These lamps succeed where PAR38 lamps with low voltage halogen spotlights could not provide the right solution.

The high level of illumination visible in the store interior through the open-backed windows made it difficult for the PAR lamps, mounted high above the display, to attract the attention of people in the street to the results of the window dresser's efforts. Additional halogen spotlights mounted at floor level still left the displays vainly longing for attention. Even worse, they created unattractive shadows.

The 50W White SON lamps have greatly increased the lighting level while maintenance has been reduced because of the long life of the lamps. The pleasant warm light (colour temperature 2500K) creates a welcoming atmosphere in the displays and the good colour rendering ensures that nobody will be mistaken about the fashion colours of the season.

Both the 8° and 12° spotlight versions of Lita's projectors are used with the lamps.

A selection of other successful shop windows is shown on this page, each with different goods to promote and therefore different lighting problems to solve.



China displayed on glass shelving in a prime shopping site: Waterford/Wedgwood window at Oxford Circus, London, lit by Concord's low voltage Tiller spotlights on track and using 28° and 13° lamps.

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;

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



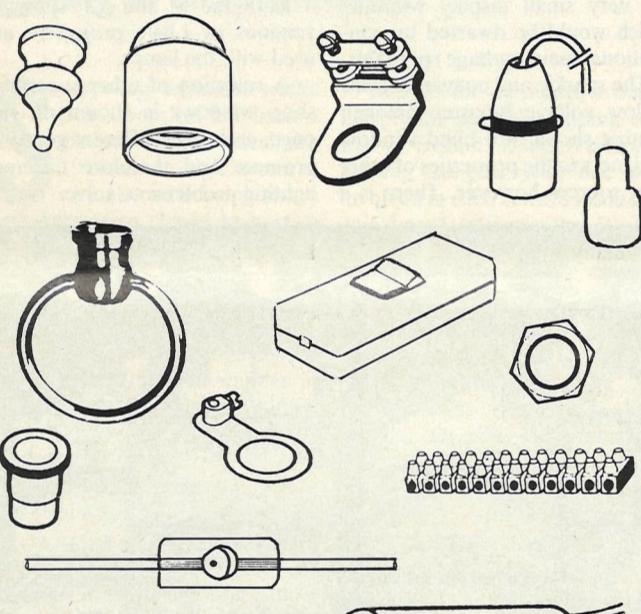
Vertical and horizontal lighting track is used to light a window by Esprit, London. It carries Eclipse low voltage spotlights by Erco.

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

Leading the way into an open Europe

With only three years to go before the single European market is a reality, Reggiani has become the first Italian lighting company to open a British factory. *LEN* discussed with Ralph Altmann, managing director of Reggiani UK, the directions in which he sees the company developing and the advantages of a UK manufacturing base.

LAMPHOLDERS AND ACCESSORIES



AVAILABLE FROM:

LIGHTING AND ELECTRICAL COMPONENTS LTD
Unit 1, Ground Floor, 60 Great Hampton Street,
Birmingham B18 6EN Tel: 021-554 9924

Ralph Altmann, managing director of Reggiani UK which came on stream a year ago, is typical of the new breed of European businessman. Altmann — slim, bespectacled, multi-lingual, and with a degree in law — effectively commutes between the UK and Italy.

What had prompted Reggiani to open a UK factory, the only one of the major Italian lighting companies so far to do so? "Frankly, Reggiani of Italy were a bit short on options," he conceded. "The UK specifying market for lighting has been growing at such a rate that it actually accounted for about half of Reggiani then found itself faced with an upsurge of sales in France and Germany. Something had to be done, and that 'something' was the setting up of a spacious purpose-equipped factory over here with its own fully computerised offices."

For six years before the opening of Reggiani UK in Borehamwood, the products had been successfully marketed in the UK by Prima Lighting. How did Prima feel about being so summarily jettisoned? "It wasn't like that," he smiled. "In fact, Prima completely agreed with the decision. I should

For UK specifiers to have their say, to have a real influence on what we produce, we need UK designers who can adapt Italian flair to our needs?

Turning to design, he said that no-one could deny that the Italians had a flair; it was evident in most spheres of product, including lighting. "But for UK specifiers to have their say, to have a real influence on what we produce, we need UK designers who can adapt Italian flair to our needs, and they are precisely what we are seeking at the moment."

But were such designers hard to come by? He paused briefly to consider the question. "Let's put it this way. Last year, Reggiani UK produced 350 000 fittings. This

year, our target is 450 000 and I expect us to pass it. In four years' time, you can look to 800 000. Now this is high volume, but at the same time we are committed to high design. That calls for people not only with proven skills in original design but with a sound grasp of modern production techniques. Brilliant design is nothing unless it can be interpreted in terms of volume. However, I'm confident we shall find the right people and ultimately we shall set up our own design unit."

He discusses the ramifications of volume production, taking up a fitting to make his point. "Now this is only a simple downlighter but it has nine different parts", identifying each with a tap of the finger, "and each of those items requires a tool costing anything up to £20,000."

Now, Ralph Altmann has very decided views about the role of the lighting scheme designers, the consultants, against the UK's fast-developing lighting scene. "They

It is reassuring to specifiers to know that a company actually manufactures over here; that they can make direct contact, influence design, discuss projects not just around a drawing board but against the scene in which the fittings will be created?

are increasingly important and it is time a proper qualification was established for them. We enjoy working with technically proficient lighting designers and they deserve a recognisable qualification of their own. With good lighting designers, whether they are independent or working in a design group, one can properly discuss all aspects of a scheme: colour, textiles, ceiling heights, angles, the lot. We all talk the same lighting language and the client benefits. In fact, not only the client but the

whole industry benefits because every successful lighting scheme is a splendid advertisement for us all."

A question of confidence

So what does the future hold for Reggiani UK? "Now there's a question. It almost forces a managing director into making optimistic noises so I shall go the other way.

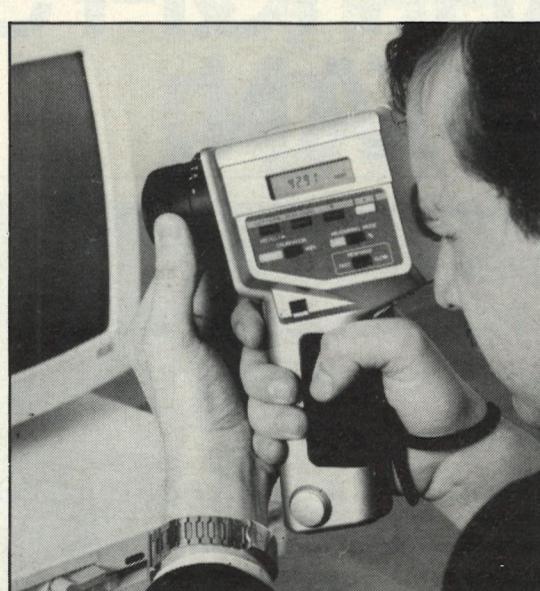
We are investing a further £250 000 into the factory this year to make it one of the most advanced luminaire manufacturing plants in the country!

I'll give you that facts and let other people be the jurors. Obviously we have all the excitement of setting up a new company with a young and strongly-motivated team. That's point one, and straightforward. Point two is that we have a rare advantage: our name is already famous, plus we have an established market already over here, and that market has a fast developing potential.

"I'll add two further facts to show our confidence not only in the future of Reggiani UK but in British commercial lighting in general. We are investing a further £250 000 into the factory this year to make it one of the most advanced luminaire-manufacturing plants in the country. And in a few months, we'll be taking the wraps off a lighting display-and-demonstration area that will make ordinary lighting showrooms a thing of the past.

"I think an open Europe will make a far bigger difference to the UK lighting industry than most people believe. I know that Reggiani UK, by being the first Italian company to open its factory doors here, will be well placed to benefit from the change in '92".

Overseas lighting companies are likely to show increased interest in launching production units in the UK as the time gets nearer for a truly European market. Where Italy is concerned, Reggiani UK has a head start. It will be interesting to see what they make of it.

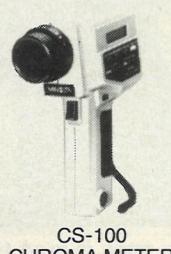


LUMINANCE METER



MINOLTA

For full details of all Minolta Light Meters, or a "no strings" demonstration contact:
**The Industrial Department at Minolta (UK) Limited
1-3 Tanners Drive, Blakelands North, Milton Keynes,
Bucks MK14 5BU. Telephone: (0908) 211211**



ILLUMINANCE METER

CS-100 CHROMA METER



Tridonic
• From Concept • TO COMPLETION •

Tridonic

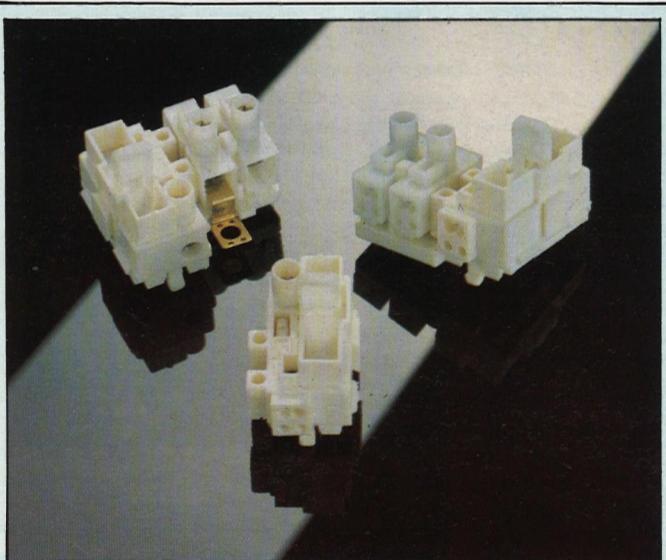
The name of Tridonic, well known throughout the UK lighting industry, is set to become equally well known around the world. In a major new move, Austrian parent company Zumtobel AG has renamed its electrical components division Tridonic, and the Tridonic brand will be used worldwide.

The division's products include control gear for fluorescent and HID lamps, wound and electronic transformers and electronic ballasts for fluorescent lamps.

Manufacturing started 35 years ago in Austria and now takes place around the world, forming the world's largest producer of control gear. The production techniques used were undreamt of in the early 1950s — techniques which are vital for keeping costs low and quality high. Automated production lines are designed and manufactured in-house and CAD/CAM systems are used to ensure the company reacts quickly to market needs.

Product development continues at a fast pace, fuelled from two sources — lamp manufacturers and Tridonic customers.

Over the years there has been a constant stream of new products from lamp manufacturers. Liaison takes place at the highest technical level to ensure that control gear is not only technically correct but is available in time for the introduction.



Fused terminal block

A new family of fused terminal blocks and in-line fuse holders has been introduced. All designers' requirements vary and a number of new features have been built in to ensure those needs are met.

Snap-in feet ensure speed and ease of assembly. There are two versions of the fused terminal block, one includes an earth tag which is screwed down from above.

There are four push wire terminals for 0.5-1.00mm² cable on each pole on the luminaire side and screw terminals for up to 3 x 2.5mm² cable on the input side.

The fuse holder takes standard 25mm x 6.3mm cartridge fuses from 1A to 13A, which can be inserted from above or below. A spare fuse may be mounted on top of the fuse holder.

The fused terminal blocks and in-line fuse holders are made from white nylon 6.6 with a maximum working temperature of 120°C.



Delivery is normally by Tridonic's own transport.

tion of a new lamp. This liaison continues throughout the product's lifetime. An example of this is metal halide 70W and 150W control gear, developed to meet lamp manufacturers' requirements for 230V, 240V and 250V tappings and, more recently, thermal cut-outs.

Likewise there is liaison with Tridonic customers. It would be impossible for an electrical engineer to design a choke or ignitor in isolation. He needs to know such requirements as size, mounting methods and thermal characteristics. There might be a need for built-in fuses, tappings or lower Δt . In this way the product evolves as, for example, the slimline chokes for HQI lamps.

Cooperation

This cooperation with both lamp and luminaire manufacturer takes place on an international scale and ensures that the products are precisely what the market place requires.

While a strong market for traditional wound products will still remain for many years the main current areas of research and development are in electronics. It is here where huge investments have been made in production and testing equipment.

And it is in the area of electronic ballasts for fluorescent and HID

lamps, and electronic transformers where the great changes will be seen in the next few years.

Tridonic UK naturally benefits from the world wide activities of its parent company. The scale of operations offers tremendous economies in production and raw material costs and generates a vast pool of knowledge.

Close liaison

In the UK, Tridonic liaises closely with lamp manufacturers and luminaire designers to ensure products are correct for the home market.

The UK company, based at Basingstoke, Hampshire, is essentially a sales and stocking operation. Tridonic's secret of success is based on a simple principle — minimum overheads and maximum service.

An essential tool to provide the

level of service required is a computer system using software written specifically for Tridonic's requirements — vital with a product range covering thousands of components. The company's stocking policy has contributed significantly to the sustained high growth achieved over recent years.

It is accepted as a matter of principle that customers should be supplied from stock rather than wait for their requirements to be produced to order. Unless the item is extremely special or very rarely required it will be held in stock.

Delivery is normally by Tridonic's own transport, thereby extending the element of control.

Customer contact is maintained through expanding external and internal sales teams.

Technical back-up is of paramount importance and a vast array of literature is available including

the comprehensive Design Manual. Experienced personnel are also on hand to answer queries, to assist and advise.

Although Tridonic is associated primarily with control gear and transformers, there is the belief that luminaire manufacturers like to buy a package of products.

Distribution

Therefore the range has been expanded, under careful control, by making agreements for distribution with other major names in the European lighting industry.

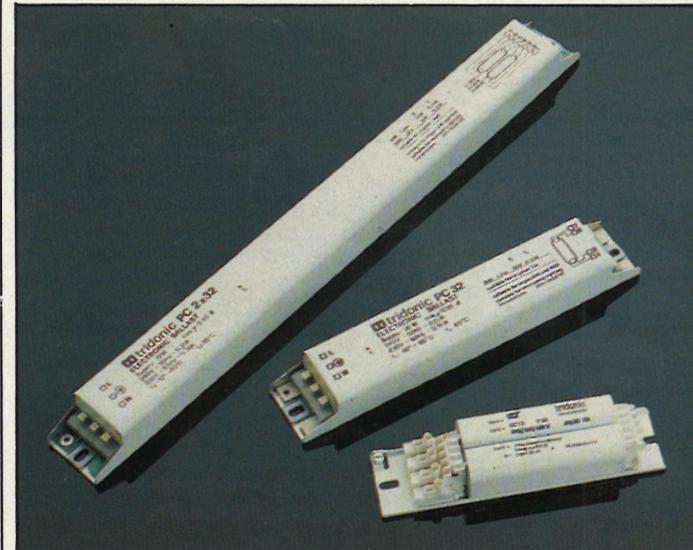
Examples include:

- full range of capacitors in plastic and metal cans approved by all the major test houses including BSI;
- connector system from Wieland Bamberg in Germany;

- range of standard reflectors and a design service for reflectors and louvres;
- terminal blocks manufactured by a sister company in the group;
- complete range of lamp-holders;
- selection of accessories;
- components for weather-proof fittings which can be supplied in kit form.

During 1989 there will be further developments.

Tridonic has clearly defined requirements not only for its products, but for the types of company with which it wishes to be associated. For instance, companies should be approved to BS5750: Part 2 wherever possible. Tridonic, itself, has been assessed in accordance with the BSI Registered Stockists Scheme.



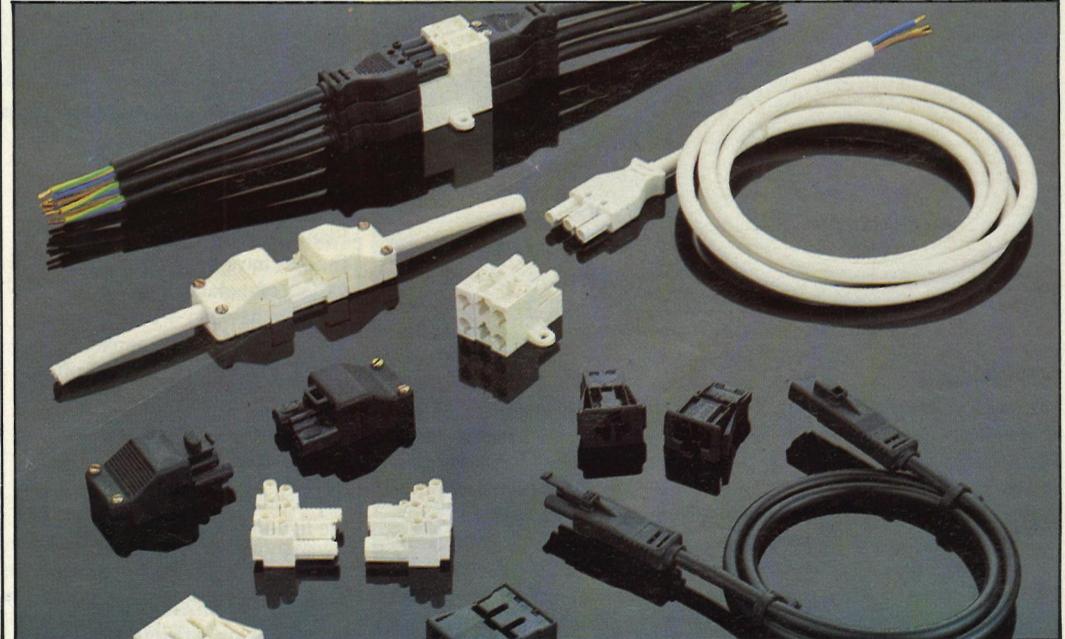
PC Electronic ballasts

Few people need convincing about the advantages of electronic ballasts: energy saving, longer lamp life, flicker free instant start, no cathode flicker, no stroboscopic effect and so on. However, the PC has additional features. It is, for instance, totally compatible with both argon and krypton filled lamps.

With twin lamp units, a defective lamp is shut down automatically while the other continues to operate. Standard, single lamp units can be dimmed down to 30% using standard fluorescent dimming equipment.

By using a simple tapped transformer, PCs are suitable for stepped dimming, typically 50%, 75% or 100%, although this can be varied to customer requirements. This is particularly useful in shops where it can be used either alone or with other light sources such as low voltage tungsten

halogen.



Connector system

The system is manufactured by Wieland Bamberg in Germany and distributed to the UK lighting industry by Tridonic under an exclusive agreement.

Developed for both mains and low voltages, the ST17 and ST18 systems can cater for the requirements of luminaire manufacturer, installer and end user.

For the *luminaire manufacturer* the benefits are simple assembly and wiring.

The *installer* will find the correct size and length of leads will connect simply and securely.

The *end user* can be confident he has secure, tidy and safe wiring which will allow him the flexibility to change or relocate luminaires quickly and simply.

ST18 3 pole connectors

Connectors can either be moulded onto leads of the specified size and length or, alternatively, can be assembled from three simple snap-together components and wired by the luminaire manufacturers or installer.

A range of snap-in recessed connectors is also available.

ST18 components are available in 3-pole format as standard, but are available up to 7-pole format.

ST17 2 pole connectors

Connectors are moulded to the specified size and length of lead. Snap-in recessed connectors are also available.

Tridonic

•From Concept • TO COMPLETION •

Transformers

The range of transformers comprises four elements:

- wound transformers as components 25-500VA;
- transformers in sheet metal enclosures with optional secondary fusing and thermal cut-outs;
- low voltage system with a fully protected transformer module complete with a connector system;
- electronic transformers.

Transformers as components

Wound transformers for low voltage lighting need to be designed specifically for that purpose. Voltage regulation is of prime importance as the lamp life can be reduced by 50% with just 5% overvoltage. Windings should cater for fluctuations in supply

voltage.

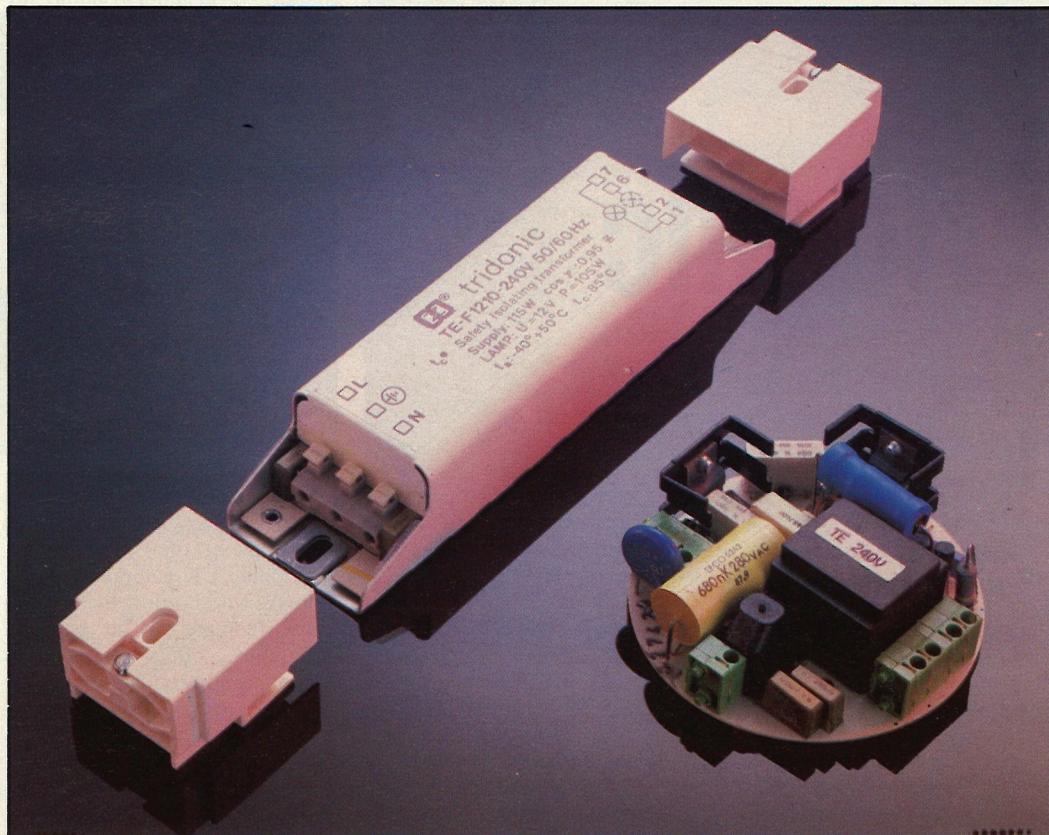
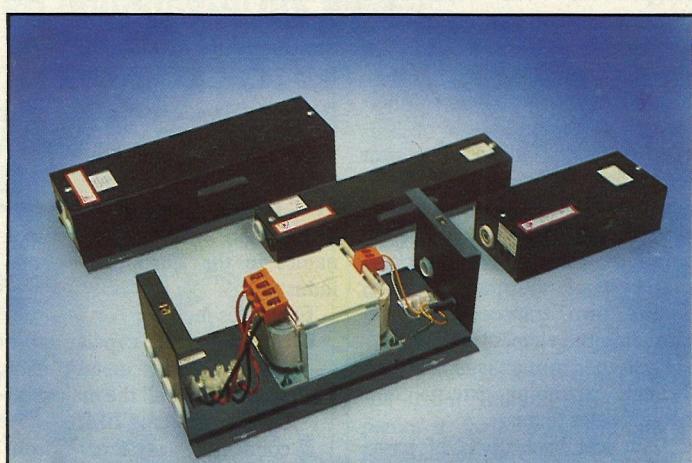
For additional safety, Tridonic transformers are insulation class H for which IEC 742 gives a maximum running temperature at 165°C. However, to maximise transformer life and to protect against possible overload an auto-reset thermal cut-out, set at 140°C, can be supplied.

Transformers as components can be supplied from 25VA to 500VA.

Boxed transformers

The same transformers are available in sheet metal enclosures which comply with 'F' mark regulations. Each unit has an anti-surge primary fuse and connection is made using large capacity terminal blocks.

Secondary fusing, either single or per lampway, and thermal cut-outs are optional.



Electronic transformers

The main disadvantage of wound transformers is that as one lamp fails voltage increases on those remaining. This is eliminated with

the Tridonic 105VA electronic transformer. It is designed to keep secondary voltage constant, regardless of load, between 10W and 105W. The unit will run 5 × 20W, 2 × 50W, 3 × 35W, 1 × 75W or 1 × 100W lamps.

In addition, it has short circuit and overload protection so no

additional fuses are required. Harmonic filters and RFI suppressors are built in.

The unit may be used with approved dimming equipment.

Two formats are available — the TE-F1210 which has a metal case for which end caps are available, and the open round TE-E1210.

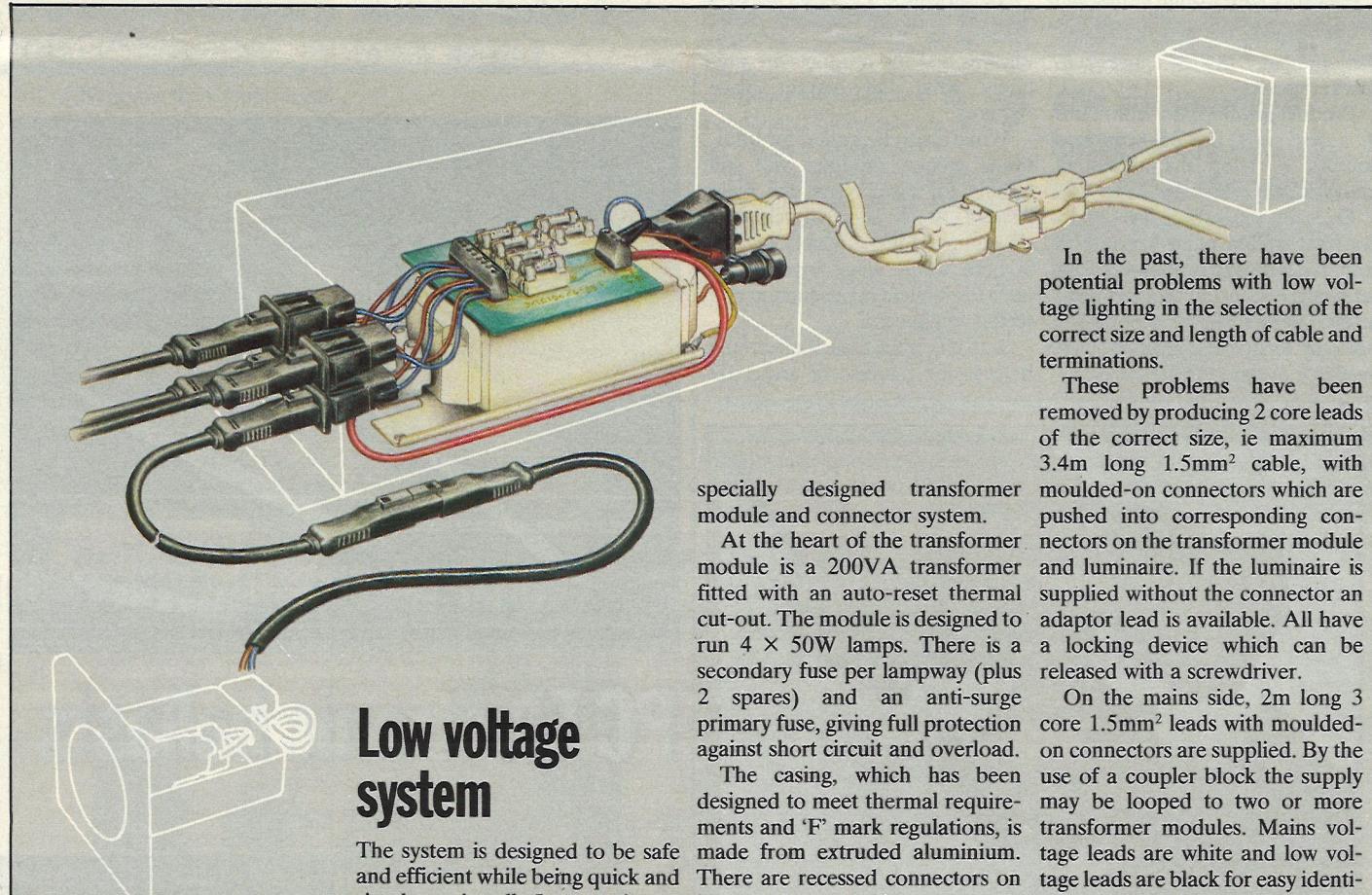
Reflectors and louvres

Louvres

Specialised louvres can also be produced to customers' individual requirements. The critical factor is flexibility of tooling which allows specially designed louvres to be produced economically in a range of high quality finishes.

Length, breadth, height, distance between cross blades, horizontal reflector lip, design of the parabolic side or axial reflectors, design of transverse reflector, fixing methods and finish can all be specified to order.

The options are detailed in the Tridonic Louvre System catalogue.



Low voltage system

The system is designed to be safe and efficient while being quick and simple to install. It comprises a

specially designed transformer module and connector system.

At the heart of the transformer module is a 200VA transformer fitted with an auto-reset thermal cut-out. The module is designed to run 4 × 50W lamps. There is a secondary fuse per lampway (plus 2 spares) and an anti-surge primary fuse, giving full protection against short circuit and overload.

The casing, which has been designed to meet thermal requirements and 'F' mark regulations, is made from extruded aluminium. There are recessed connectors on input and output sides.

In the past, there have been potential problems with low voltage lighting in the selection of the correct size and length of cable and terminations.

These problems have been removed by producing 2 core leads of the correct size, ie maximum 3.4m long 1.5mm² cable, with moulded-on connectors which are pushed into corresponding connectors on the transformer module and luminaire. If the luminaire is supplied without the connector an adaptor lead is available. All have a locking device which can be released with a screwdriver.

On the mains side, 2m long 3 core 1.5mm² leads with moulded-on connectors are supplied. By the use of a coupler block the supply may be looped to two or more transformer modules. Mains voltage leads are white and low voltage leads are black for easy identification.

Reflectors

Standard reflectors with a range of finishes have been developed for a variety of metal halide, white SON, tungsten halogen — both mains and low voltage — and compact lamps.

For each reflector full photometric data can be supplied for use in catalogues or data sheets.

Manufactured from highest quality materials and finished to impeccable standards, they offer the lighting designer a short-cut to perfect reflector design.

Alternatively, reflectors can be made to customers' specifications by modifying existing designs or

producing a custom product.

Introduced recently is a totally new concept in reflector design for low voltage lighting. The reflectors are meant for use in luminaires which have hitherto used dichroic lamps. There has been concern amongst end-users about the high cost of relamping. With this new system capsule lamps are used, reducing costs dramatically. By releasing two screws on the face of the specially designed lampholder the reflector can be removed by rotating it through 30°. It can then be cleaned or changed for a different type. This system is available in 50mm and 71mm diameter spot and flood.

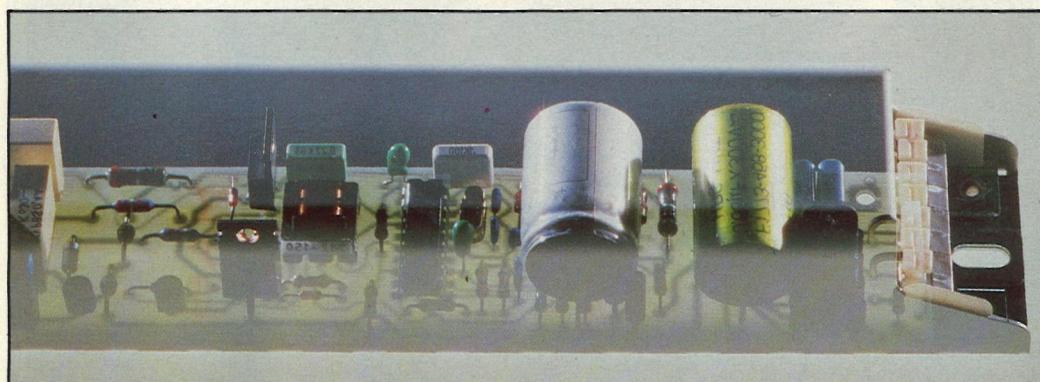


Tridonic
•From Concept• TO COMPLETION•

Hanover Fair 1989

Hall 9, Stand D17

It is not only the Tridonic name that will be new at the 1989 Hanover Fair. The stand will feature other significant developments including an extension to the already comprehensive product range.



PC-A Electronic ballasts

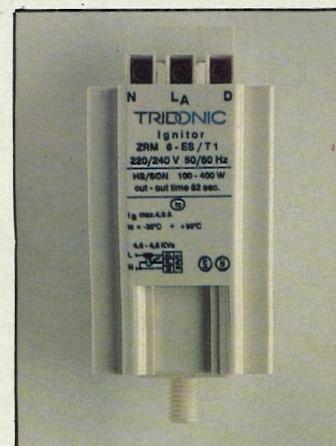
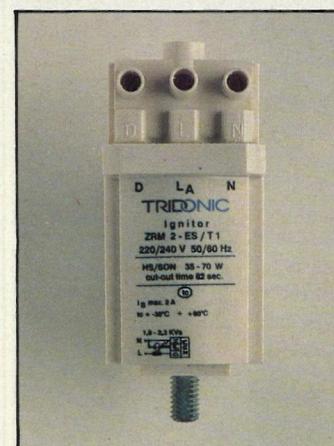
The PC-A is a second generation product which follows the successful PC electronic ballast. Tridonic engineers have developed a special electronic chip to control the main functions of the ballast. It is the first time advanced chip technology has been used in a product of this type.

Immediately after Hanover the PC50A ballast, for single 58W lamps, will go into production with other versions following during the course of the year. Two special features include its ability to function in an ambient temperature range of -25°C to 60°C and its use with a nominal supply voltage of 220V up to 240V.



Tridonic low voltage system

The system is designed to be safe and efficient while being quick and simple to install. It comprises a specially designed, fully protected transformer module and connector system for 4 x 50W lamps.



Ignitors with built in timers

At the end of their life SON and metal halide lamps are likely to extinguish and re-ignite in a continuous cycle. Two ignitors have been developed to counteract this problem. Both work on the principle that once the power is turned on the ignitor will only function for a specific time and, hence, number of ignition cycles until the power is switched off. The ignitor will then reset. The ZRM 2ES/T1 and

ZRM 6ES/T1 for SON lamps function for 80 seconds and the ZRM 6ES/T1, for metal halide, operates for 11 minutes.

Not only will the maintenance engineer be able to identify defective lamps but the annoyance of cycling lamps is also removed. In addition, for metal halide lamps one possible cause of rectification is removed as the risk of electrodes being damaged is eliminated.

Electronic ballasts for TC-D lamps

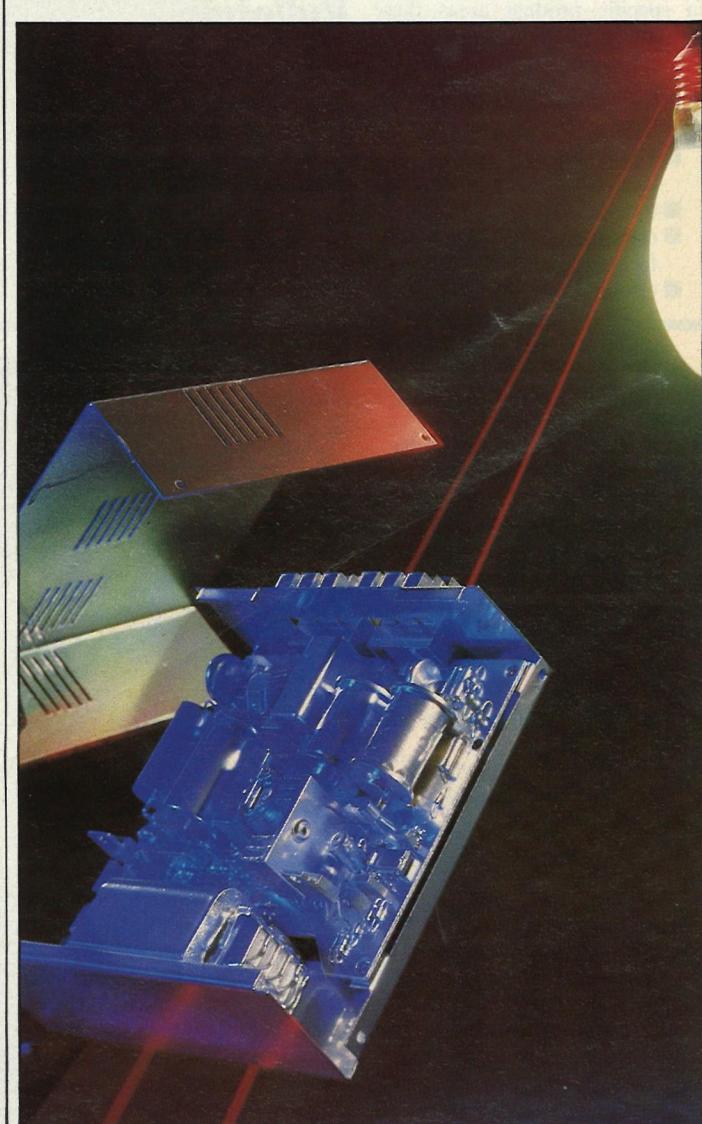
PC electronic ballasts are already available for linear fluorescent and TC-L, compact lamps. The introduction of 4-pin versions of the Dulux D and PLC, for instance, means these lamps have the benefit of use with electronic control gear. The main point of interest for companies involved in public house and hotel lighting is that they can be dimmed to 30% using conventional dimming equipment.

Electronic control gear for HID lamps

The PCI 32A is a major development as it is Tridonic's first electronic ballast for HID lamps. Exact lamp current, no flickering, stable colour during service life, and long life endurance are some of the

benefits.

The first unit is designed to run the GE MXR 32W lamp, operating with DC. So an absolutely flicker-free light output is achieved.



Transformers with thermal protection

Three different types of thermal protection are offered on 50VA and 100VA type ECT safety isolating transformers:

- A one-time only thermal fuse on the primary side which will act if the temperature exceeds specification.
- A PTC fuse which protects the transformer in the same way as a thermal fuse but resets once the power is turned off.
- A thermal cut-out, already used extensively on HQI control gear, which resets automatically once the windings are within the correct temperature range.

All three versions are designed to protect the transformers both from abnormal thermal conditions and from overload.

Tridonic

• From Concept • TO COMPLETION •



Tridonic Information Service

Design manuals

As part of its service to luminaire designers Tridonic has produced a comprehensive design manual containing electrical and dimensional information.

For those whose interest is only in specific product areas there is a range of short form design manuals, including:

- fluorescent chokes and capacitors;
- HID chokes, ignitors and capacitors;
- transformers;
- electronic ballasts and transformers;
- terminal connectors;

Technical Bulletins

Technical Bulletins are mailed to all customers giving information about important changes to the product range, including the introduction of new products and other major developments. These bulletins are numbered for designers to check they have received all the facts.

Brochures

New products are publicised by a four-page leaflet which is mailed out or inserted in the technical press.

Recent leaflets include:

- HID update 3;
- capacitors;
- low voltage system;
- kite marked capacitors;
- connector system;
- fused terminal blocks;
- reflectors.

Videos

Two videos are currently available on loan.

- A 20 minute programme covering compact fluorescent and electronic control gear, HQI control gear wound and electronic transformers.
- A 10 minute programme covering wound and electronic transformers.

Other programmes will become available during the next 12 months.

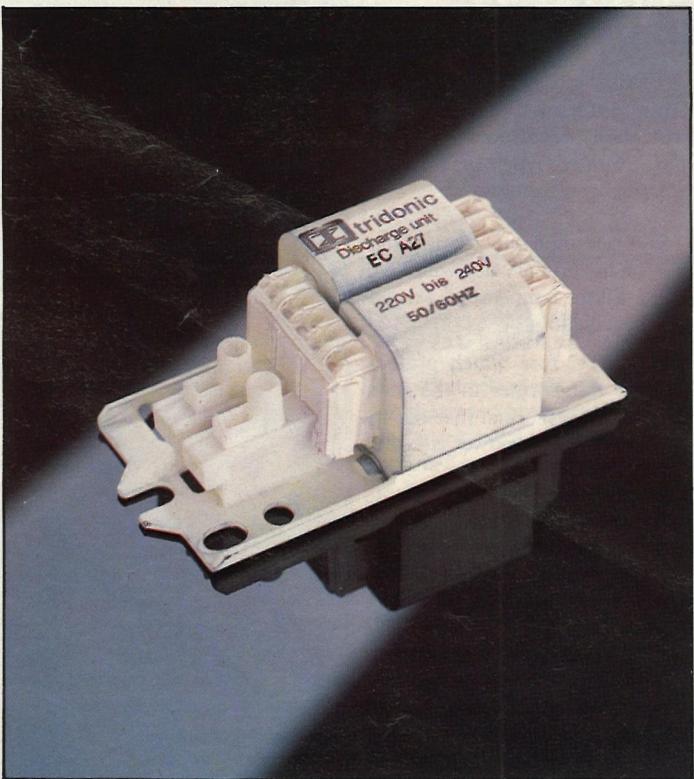
Discharge unit

It is not uncommon to find HID lamps used in fittings which are connected by means of a normal 3 pin plug.

This is perfectly acceptable provided the fitting does not include a power factor correction capacitor.

If the fitting is hard-wired, then BS4533: Section 8: 8.2.7 states that after 80 seconds the capacitor must have discharged to a level of 50V, and if a plug is used then it must have discharged to 34V after 1 second.

The greater rate of discharge is achieved by wiring the discharge unit in parallel with the power factor correction capacitor.



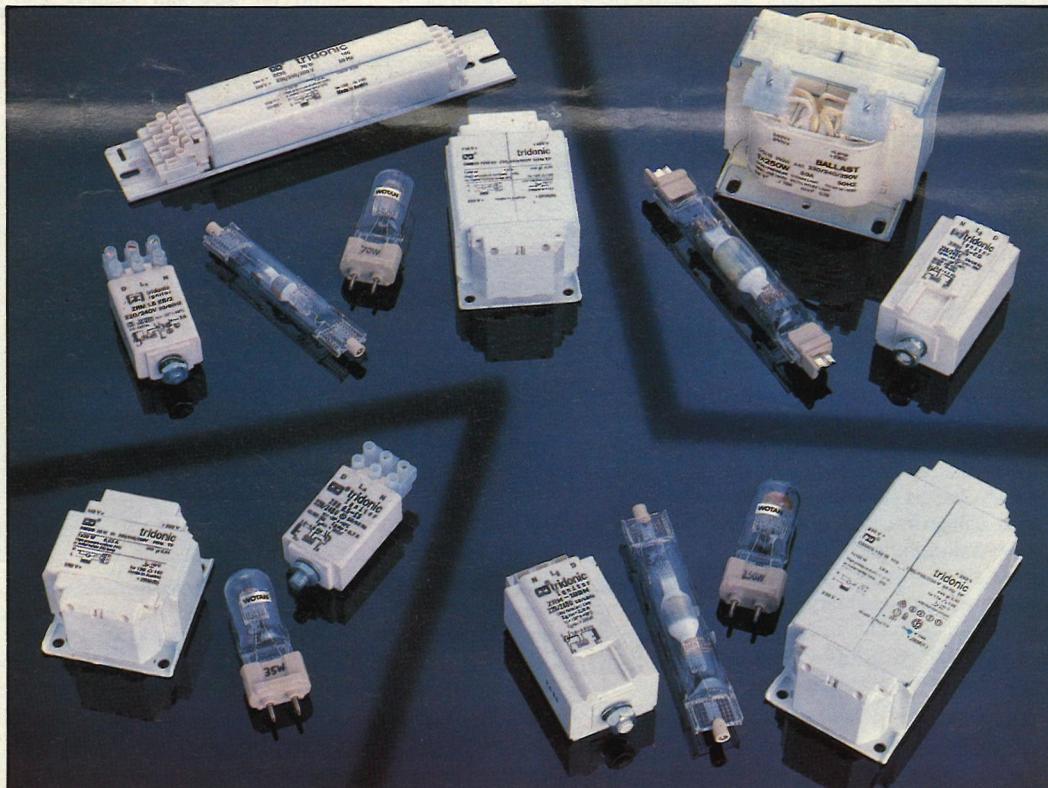
Capacitors

Tridonic are the exclusive agents for lighting capacitors produced by SEL (Standard Electric Lorenz).

Two types are offered: PMP with plastic cans, push-wire terminations and metallised polypropylene dielectric; MP with metal cans, push-wire terminations and metallised paper dielectric.

In both cases dimensions are kept to an absolute minimum, to be compatible with today's compact luminaires. PMPs have a minimum diameter of 30mm, and MPs 26mm.

Both types are approved by BSI, SEMKO, NEMKO, DEMKO and FI; MPs are also approved by VDE, OVE, CEBC and SEV.



Metal halide control gear

The newer generation of 35W-150W lamps such as HQI-TS, HQI-T and Arcstream require a superimposed pulse ignitor and a tapped choke fitted with a thermal cut-out.

The specification has been defined from field experience and ongoing consultation with the lamp manufacturers. It has been accepted for some time that the choke should be tapped 230V/240V/250V as the lamps are extremely sensitive to overvoltage. The luminaire manufacturer should use the 250V tapping which may be changed on site as necessary.

A new development over the last 12 months has been the use of thermal cut-outs which were introduced as an added safety measure

to cover the unlikely occurrence of the lamp acting as a rectifier at the end of its life. The choke is not designed for DC operation and immediately overheats. The thermal cut-out not only protects the choke but also the luminaire itself from damage.

All Tridonic chokes for metal halide lamps up to 150W are now fitted with a thermal cut-out as standard. The device is also offered as an option on other chokes for HID and fluorescent lamps and transformers.

The market requirements for this range of products are constantly changing and becoming more sophisticated. This has resulted in chokes with a lower temperature rise (Δt) and now a

new ignitor, with a built-in timer, known as the ZRM-6ES/T11. The timer allows it to function for a total of 11 minutes unless the power is switched off, at which point it resets. With this system cycling lamps are automatically shut down.

Remote gear packages are becoming increasingly popular. Not only are they simpler, but some luminaires provide insufficient space to mount the gear. The units contain all that is required to run the lamp: choke with built in thermal cut-out (up to 150W), superimposed pulse ignitor, capacitor and fuse. The enclosure is made from black-painted sheet steel and conforms with 'F' mark regulations.

Updating lighting design techniques

Experts in different areas of lighting talked about their approach to their work at an RIBA conference held late in 1988. *LEN* reports.

Lighting for effect, safety, efficiency and conservation were among topics discussed at a conference called *Lighting design update* held in London recently. Architects, interior designers and others involved in lighting design attended this event organised by the Royal Institute of British Architects and chaired by Owen Luder, a past president of the RIBA.

Speaking on *Lighting for effect: the visual designer's needs*, Sally Storey of Lighting Design Ltd defined the basic job of a lighting designer. It was, she said, to bring out the best in a space — occasionally to hide the worst — taking into account the tasks to be carried out within that space.

In this context, spaces often had to fulfil a number of functions and therefore required the facility to provide different atmospheres at different times.

A restaurant populated by hard-headed business people at lunchtime, for instance, could also attract romantically minded couples in the evening if it had a lighting installation sufficiently flexible to allow complete changes of atmosphere.

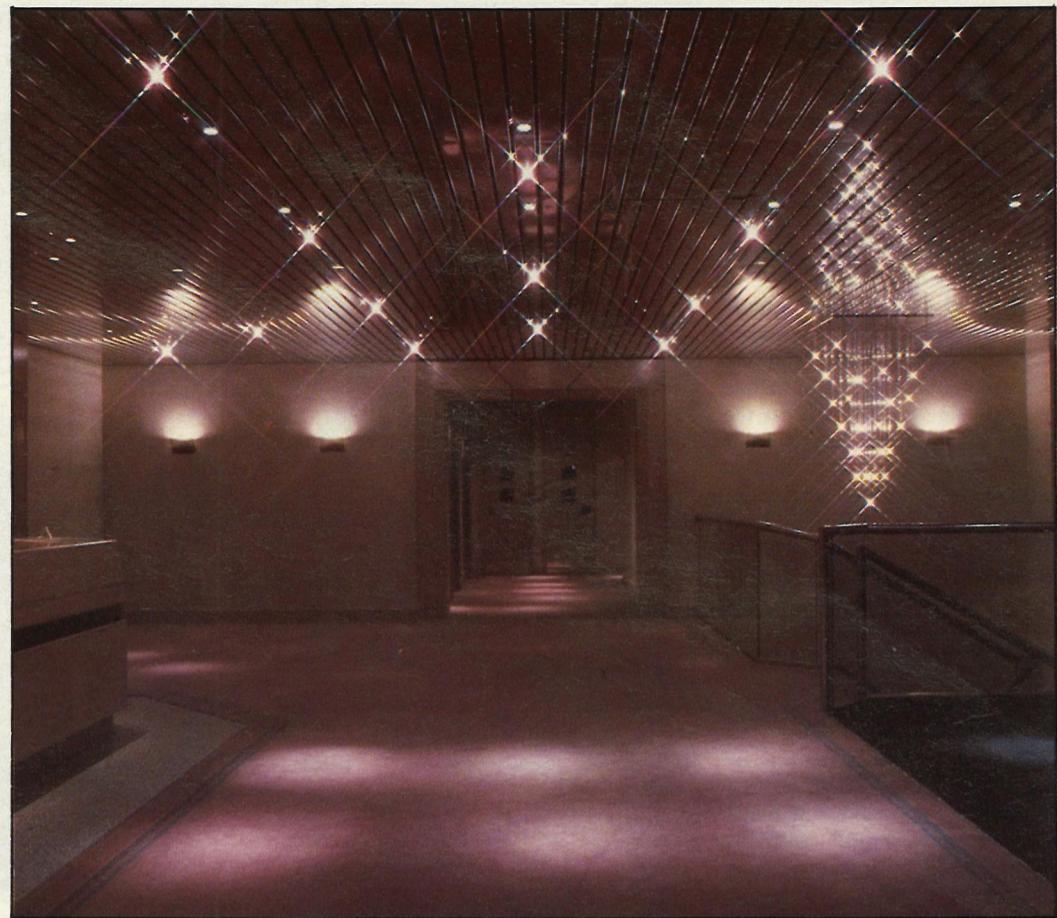
The major techniques available were basically downlighting, uplighting, wall washing, feature lighting, and the use of colour and controls. Each of these had advantages and drawbacks.

To summarise, downlighting could be an energy-efficient way of using light, but could also be dull and unimaginative. Uplighting, on the other hand, was diffuse and could produce a feeling of spaciousness but was inherently less energy efficient. Unless it was well designed, wall washing could



Left: entrance to a building on the Guildford Business Park, Surrey, lit by 150W metal halide projectors that give a punchy light on the floor.

Right: the reception area at Hines Meadow office development, Maidenhead, has a chromium ceiling. The lighting was designed to play on the reflections from this ceiling and create a starlight effect.

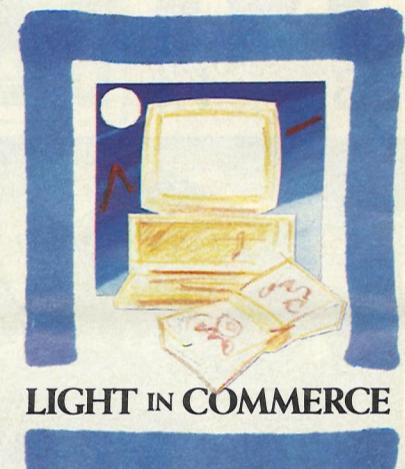
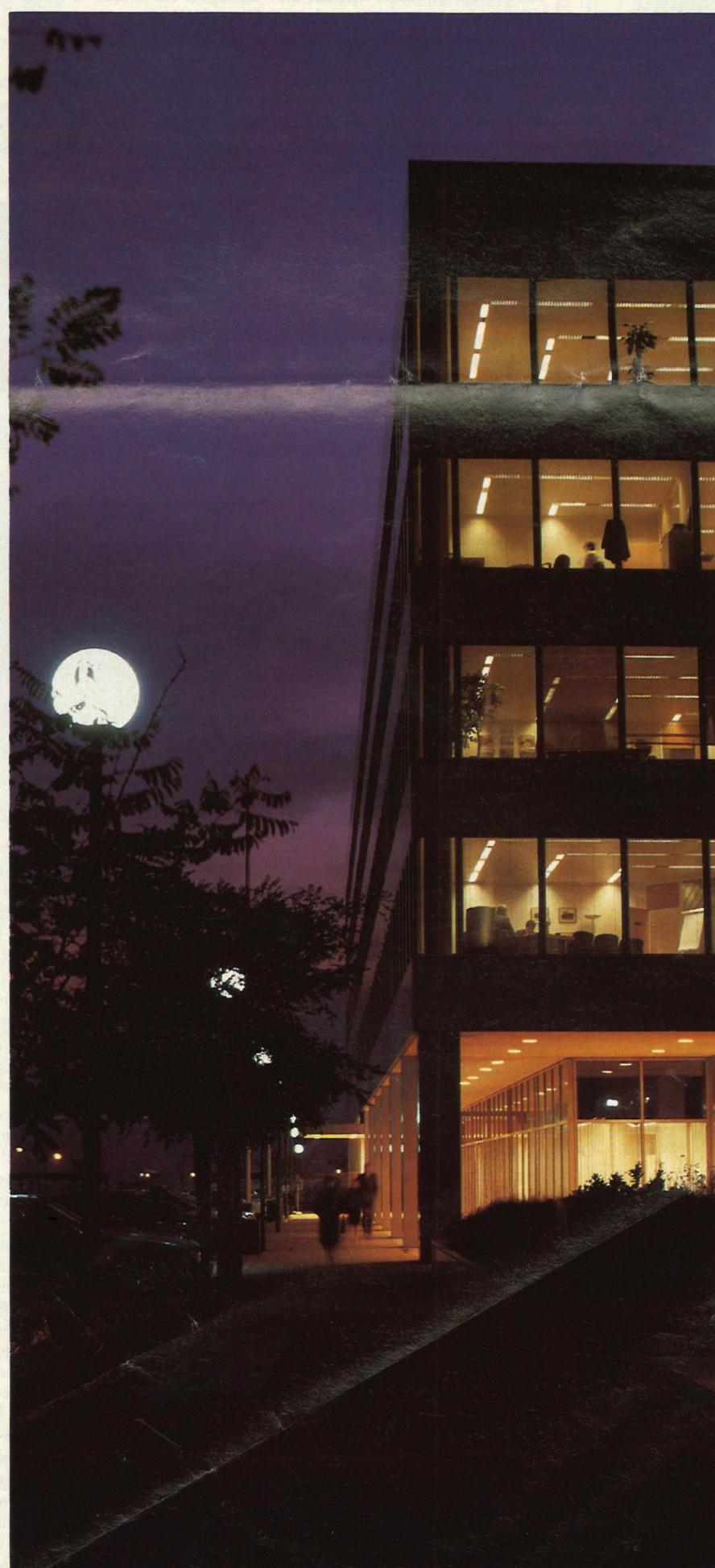


make a room rather gloomy. Feature lighting could be used to emphasise what the client wanted, but at the cost of playing down the architecture.

Colour options, said Ms Storey, were wider than the use of filters or coloured lamps. More subtle effects could be achieved by mixing light sources that had different colour temperatures and by thoughtful selection of reflectors when a colour choice was provided.

Finally, lighting controls included the use of pre-set panels and other switching arrangements to create mood. An example of the effective use of this was in shopping centres where the nature of the general lighting was altered as the sun went down.

The tools available changed with technical developments, but in most cases, Ms Storey said, a combination scheme using a number of lighting techniques would be found to provide the most appropriate and most exciting solution.



LIGHT IN COMMERCE

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.

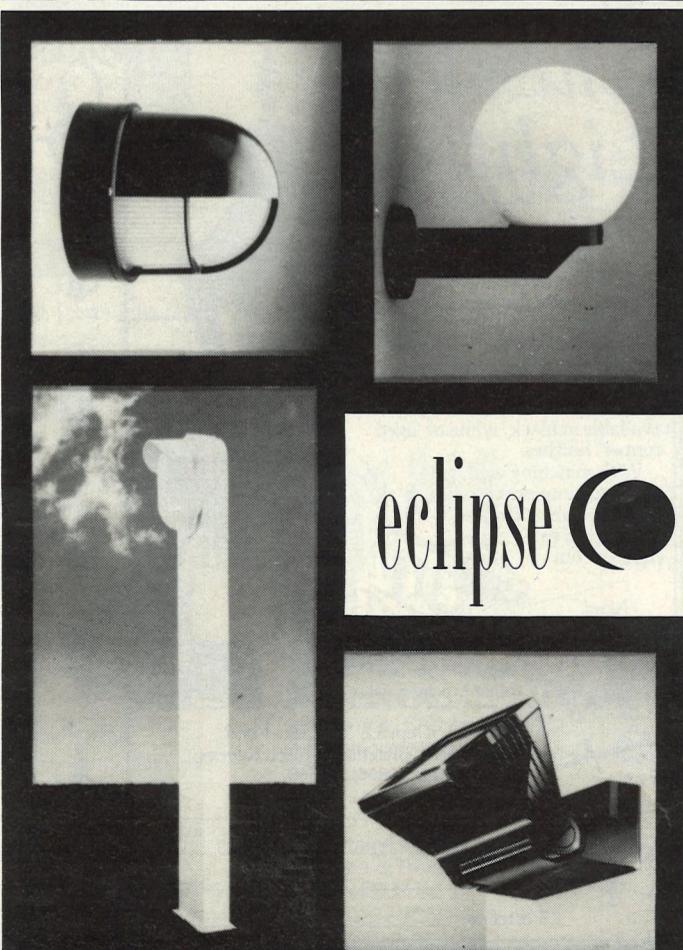
So if you can't imagine commerce without lighting, you can't imagine it without Crompton. CONTACT US NOW FOR YOUR FREE CROMPTON GUIDE TO LIGHT IN COMMERCE.



FM1681



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



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

In the following lecture, a standard procedure for designing an emergency lighting scheme was outlined by Chris Watts of Menier (Electronic Engineers) Ltd.

Initially it was necessary to establish the fire authority's requirements concerning the method of operation of the emergency luminaires and the lighting duration for the premises involved, he said.

Plans of the building should then be marked up to show escape routes. Where these passed through open areas, a decision had to be made whether to treat the route as a defined escape or to cover the whole area, treating it as an undefined escape route under BSS266 : 1988.

The location of luminaires was then marked on the plan, so that they would illuminate both hazards and fire safety equipment. Hazards included changes of direction or of floor level. All exit doors, including the final exit, must be lit.

Exit and safety signs required by the fire authority should also be incorporated, as should additional luminaires for spaces such as covered car parks, plant rooms and larger toilets.



Mains lighting should then be considered, to decide whether the existing luminaires were suitable for conversion or, if not, whether separate emergency luminaires were compatible with the normal lighting.

Following this step, emergency luminaires should be selected and photometric data obtained from the manufacturer. Light output from these should be checked to ensure that it met the standard 0.2 lux on defined and 0.1 lux on undefined escape routes.

At this stage it might be found necessary to add further luminaires to obtain the required lighting levels.

Finally, after installation, appropriate test and maintenance instructions and a completion certificate (for inspection by the fire authority) had to be given to the client.

Efficiency

In the next talk the theme of lighting for efficiency was taken up by John Boud, of Kingston Polytechnic. He compared the traditional approach to illuminating engineering, which considered how much light was desirable for specific visual tasks, with the more recent attitude that there was more to lighting than illuminance.

The primary measure of the efficiency of a lamp was the number of lumens it gave per watt, but this could not be considered in isolation from other lamp characteristics such as life, cost, noise and flicker. In particular, when a lamp of better colour rendering was introduced, visual clarity could be high even though illuminance was reduced.

Future practice was likely to show greater appreciation of the effect on overall efficiency of this sort of visual quality.

The finish of room surfaces had a greater effect than was often realised. For the same average illuminance, a room with a dark surface would need twice as many installed lumens, and hence double the wattage, as one with white walls and ceiling.

Changes

Other practices too had changed, said Mr Boud. In the early days of lighting engineering a high level of uniformity was seen as desirable. However, more recently diversity of illuminance in an interior had become valued.

Flexibility, or the ability to respond to change in time, was a part of the lighting field in which the speaker believed there were

Above: dramatic floodlighting highlights the facade of Longleat House.

Below: lighting techniques can be used to add interest and intrigue to a garden. Here, a row of spherical lights on columns lead visitors up a drive.

ent, there should be few lights on. When there were many people present, however, they should each be able to choose their local lighting conditions conveniently.

The views of the most important people in any organisation — all the employees — should be respected. Mr Aston said that involvement beat pure automation



likely to be developments in the closing years of the century.

Other criteria which had an effect on the overall efficiency of a scheme included: glare, brightness, balance, colour, modelling and variety.

In conclusion, Mr Boud said that lighting for efficiency and lighting for effect were not incompatible. It was, at most, a question of degree.

Conservation

Energy conservation in practice was the subject of John Aston, Energy Conservation Systems Ltd. He examined the progress made by lighting controls and the impact on lighting installations.

When designing a lighting scheme it was necessary to think of three things, he said: the electrical supply, the luminaires and the controls. All three must be considered together to achieve the optimum solution, it was no use specifying a favourite type of luminaire and just adding controls.

As well as saving energy, controls gave flexibility of operation. For the best results, the lighting designer should understand how both the building and the people in it worked.

If there were few people pres-

hands down every time, as well as ensuring that energy conservation was practised properly.

Lighting control had become an established technique and he felt that the product range available, which included mains switching and high frequency regulation, could meet any requirements.

Outdoors

External lighting provided an amenity and improved the environment, said Janet Turner, Concord Lighting Ltd. The use of carefully thought out lighting could add spatial qualities to an outdoor scene and even "make a third rate building look like a pretty good building".

She proved her point by showing slides of a variety of outdoor scenes, ranging from a marina to a stately home.

When planning a garden lighting scheme from scratch, she said, the lighting designer should work closely with the landscape designer or gardener. There was a need to conceal the luminaires, perhaps by putting a plant in front of a floodlight, for example.

It was not advisable to aim for high illuminances, as too much light bleached out delicate detail.

Coloured light could be a magic ingredient on water, perhaps by the use of submersible luminaires. It was also very effective on snow.

Saturated colour should not be used on planting, however, as a Walt Disney effect could result. Metal halide luminaires were recommended for lighting trees.

Another way of using light in a garden was to have a row of decorative outdoor lights to lead people, up a driveway or along a path to another part of the garden for example.

A point to watch here was that globe shaped luminaires cast light in every direction and might illuminate objects or areas the designer did not wish to light. There was a wider selection of fittings available these days, including a number of angular designs.

To achieve a successful result, Ms Turner emphasised that lighting must be planned early in the landscaping process, not overlaid afterwards. It could then add fun, excitement and stimulation.

The final lecturer of the day was David Stone, of The Lighting Practice Ltd, who reviewed some of the latest lamps and luminaires available, with the accent on high technology.

Classical Lighting

by NORAL

Guaranteed for 20 years

A unique combination — traditional craftsmanship and high technology in an exclusive range of quality outdoor lighting to bring elegance to your home.

Architect-designed in cast aluminium, these stylish lanterns are totally weather resistant and available in black, white or 'aged copper' finishes.

With matching wall, gatepost and lamp post models, there are over 100 styles and fittings to choose from.



Send for your free colour brochure today.

Noral Ltd., Dept 12, 38 Clarke Road, Mount Farm, Bletchley, Milton Keynes, MK11 1LG. Tel: (0908) 270560.

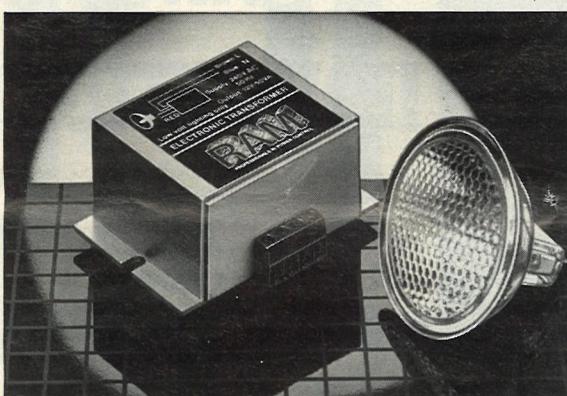
Name: _____

Address: _____

Postcode: _____ Tel: _____

NORAL

MIN SIZE



MAX EFFICIENCY

The advanced design of the RAM low voltage 12 volt electronic transformer is the result of an extensive 3 year development programme.

Designed mainly for tungsten lighting, its small aluminium case contains a host of features not found in conventional transformers.

Just look at the benefits:

- COMPACT — ONLY 56 x 50 x 28mm
- LIGHTWEIGHT — JUST 100 grams
- RUNS 40% COOLER
- MORE ECONOMICAL — USES 15% LESS ENERGY
- SOFT START EXTENDS LAMP LIFE
- FULLY AUTOMATIC FAILSAFE
- IMPROVED SCREENING
- MORE RELIABLE
- DIMMING VERSION AVAILABLE

RAM ELECTRONICS

THE PROFESSIONALS IN POWER CONTROL
Ram Electronics (UK) Limited, Wharfdale House, Iron Row, Burley-in-Wharfdale, West Yorkshire LS29 7DB
Tel: (0943) 863884 Telex: 578285 RAM(G) Fax: (0943) 862630



A MEMBER OF THE AIR MOVEMENT GROUP

To advertise
in this Directory
contact Joanne Barker.

WHERE TO BUY DIRECTORY

Telephone:
01-441 6644 Ext.1154

ACCESSORIES — BRASS PRESSED AND TURNED

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

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



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

HYLEC
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



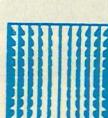
Albury Laboratories Ltd.,
Albury, Guildford,
Surrey GU5 9AZ
Tel: (048641) Shere
2041/4
Telex: 859336 Albury G

SGS laboratories

SGS Quality Control Int.
Alperton 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.



MBM Plastics Ltd
Aluminium Division



204 Oldbury Road,
West Bromwich,
West Midlands B70 9DE
Tel: 021-553 7551

High quality louvres for the
lighting industry.
Also — a wide range of
plastic light controllers.

ANODISED ALUMINIUM COIL AND SHEET



alanod®

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

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

An-Coil Ltd.,
Bilton Road, Bletchley,
Milton Keynes MK1 1HT
Tel: 0908 75642
Telex: 825031

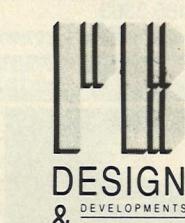
Pre-anodised aluminium for
reflectors, louvres and
decorative uses.

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

BEGA

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

BULKHEAD LUMINAIRES — TUNGSTEN AND ENERGY SAVING

BG

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!

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

“COPRAP”

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

COMBINED MAINS AND EMERGENCY LUMINAIRES

existalite
The Brightest Solution

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

DECORATIVE OUTDOOR LIGHTING

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

DECORATIVE WIRE

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

DIMMERS



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

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

OXTRON Digital Systems

“Environmental Control”
2 Severn Way
Watford WD2 6DJ
Tel: (0923) 672058
Fax: 09236 71592
Strand Lighting (Environ),
Grant Way (off Syon Lane)
Isleworth
Middlesex TW7 5QD
Tel: 01-560 3171
Telex: 27976
Fax: 01-568 2103

HELVAR

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

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,
Watford, Herts WD1 8XG
Tel: 0923 40272/5
Telex: 934191

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

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

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

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
The Brightest Solution

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

MATTALEX

Mattalex
West Side Old Stables,
Birlingham,
Pershore, Worcs.
WR10 3AA.

Tel: 0386 750900
Telex: 334066

Menvier (Electronic
Engineers) Ltd
Southam Road, Banbury
Oxon. OX16 7RX

Tel: 0295 56363/273939
Telex: 837829 MENVIG G

Plasmold Safety Systems,
Bruntcliffe Lane,
Morley,
Leeds,
West Yorkshire,
LS27 0LZ

Tel: (0532) 521220
Telex: 556322

Ring Electronics Ltd.,
Croydon House,
17 Domestic Street,
Leeds, LS11 9RT

Tel: 0532 421666
Telex: 556101

Secundulax Emergency Lighting

Ltd.,
Gratrix Works, Gratrix Lane
Sowerby Bridge
West Yorkshire HX6 2PH

Reader Service No. 50

Ring Electronics Ltd.,
Croydon House,
17 Domestic Street,
Leeds, LS11 9RT

Tel: 0532 421666
Telex: 556101

Secundulax Emergency Lighting

Ltd.,
Gratrix Works, Gratrix Lane
Sowerby Bridge
West Yorkshire HX6 2PH

Reader Service No. 50

Selite

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

ENERGY MANAGEMENT LIGHTING CONTROL

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

ripul limited

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

FLUORESCENT COMPONENTS AND ACCESORIES

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

To advertise
in this Directory
contact Joanne Barker.

WHERE TO BUY DIRECTORY

Telephone:
01-441 6644 Ext.1154



EFA Ltd.,
Arlen House,
808 Oxford Avenue,
Slough, Berks.
Tel: 0753 37921
Telex: 847194
Golden Peacock
A-143 New Friends Colony
New Delhi — 110065
India
Tel: (91-11) 635322, 529545
Telex: (031) 62324 LITE IN
Cable: Lightwest
All items meet BS 5042
Part 1: 1981.

A G H

A. G. Hackney & Co. Ltd.,
Westport Road, Burslem,
Stoke-on-Trent ST6 4AP
Tel: 0782 577575
Telex: 36674
Fax: 0782 575230
IMI Reeves Lampholders
Holdford Road, Witton,
Birmingham B6 7ES
Tel: 021-356 7369
Telex: 335959

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 01-960 2188
Telex: 915506
Fax: 01-960 8901
S. Lilley & Son Ltd.,
80 Alcester Street,
Birmingham B12 0QE
Tel: 021-622 2385
Fax: 021 6666 148

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

BENDER + WIRTH

C. Quitman Ltd.,
Sole Agent and Stockist for
Bender and Wirth
Ullswater Crescent,
Marlpit Lane, Coulsdon,
Surrey CR3 2HR
Tel: 01-668 5295/6
Telex: 945809
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
Tridonic Ltd.,
Unit D1, Grafton Way,
West Ham Industrial Estate,
Basingstoke, Hampshire
RG22 5HY
Tel: 0256 843232
Telex: 858137
Fax: 0256 840113

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



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

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

LAMP SHADE FRAMES

A & J Lampshade Frames
Ringsets and Materials
42 Church Road
Mitcham
Surrey
Tel: 01-648 6776 or
01-540 6145

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

LIGHTING ACCESSORIES/
CONNECTORS

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

LIGHTING COMPONENTS/ LAMPHOLDERS/SWITCHES CABLE/BRASS/GLASS

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

LIGHTING CONSULTANTS

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

LIGHTING CONTROLS

ECS
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

Glaziette Ltd.,
Drake Mill,
Bloomfield Road,
Farnworth,
Lancashire BL4 9LP
Tel: 0204 791185/791387

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-Dearne,
Rotherham, S63 7DY
Tel: 0709 878721
Telex: 547455

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

**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, Optronic Labs,
LMT, Berlin)
15 Riverside Park,
Wimborne Minster,
Dorset BH21 1QU
Tel: 0202 841261
Fax: 0202 884353
Telex: 417204 MICRON G

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

**LIGHT SOURCES &
COMPONENTS TO OEM
MANUFACTURERS**

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

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

**LOW BRIGHTNESS
VDU LOUVRES**

ALC CELLITE LIMITED
AMERICAN LOUVER COMPANY
A.L.C. Cellite Ltd.,
Unit 16 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,
Caine, Wiltshire SN11 9PU.
Tel: 0249 814548
Telex: 445966 TEKCON G

SYMONDS

Symonds Engineering plc,
High Street, Cheshunt,
Herts EN8 0BU
Tel: 0992 262222
Telex: 28725
Luminaires/louvres, major
trade suppliers.
BS5750 part 2.
Contact: Lee Freeman.

METAL FINISHERS

Shield your metal products
with



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

Regency Line Ltd.

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

METAL PRESSWORK AND POWDER COATING

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

METAL SPINNERS

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

Anglia Spinners,
Spinners, presswork,
spraying & finishing,
Unit 11a,
Little Staughton Airfield,
Little Staughton, Beds
Tel: Colmworth
0230 62 398

H.D. Collins Ltd.,
Delaware 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

Nock Lane Business Centre
Nock Lane, St. Albans
Herts AL2 3NY
Tel: 0727 46038

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

PLASTIC POLYCARBONATE SHEET



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

PRE-HEAT ELECTRONIC STARTER SWITCHES

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

PRESSWORK

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

SELF ADHESIVE LABELS AND BASE COVERS

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

SHEET METAL WORKERS/ PRESSWORKERS AND ASSEMBLERS TO THE LIGHTING INDUSTRY

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

SPECIAL GLASS

WHERE TO BUY DIRECTORY

SPRINGS & WIRE SHAPES FOR DIFFUSERS AND LOUVRES

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

STANDARD & SPECIAL LUMINAIRES & FLUORESCENT LIGHTING DESIGN SERVICE

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

STEEL LIGHTING COLUMNS

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

SWITCHES



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

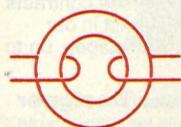
TERMINAL BLOCKS



Hylec-Eletro Gibi (UK) Limited
Unit 4, Trinity Centre,
Park Farm Industrial Estate
Wellington, 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

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 GL5 19N
Tel: 0242 513882
Telex: 43428

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

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

TRANSFORMER MANUFACTURERS

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.

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

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



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

TRANSFORMERS

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

TRANSFORMERS

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.



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

TUBES — ALUMINIUM

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

TUBES — BRASS LENGTHS AND BENDS

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

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

WOOD FLOOR STANDARD LAMPS

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

ZONES 1 & 2 BASEEFA APPROVED LIGHTING FITTINGS

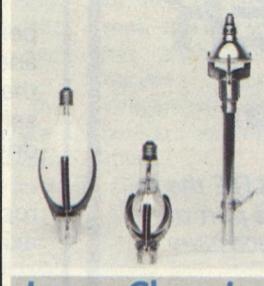
B.V. Industria,
2 Duke Street,
Liverpool L1 5AS
Tel: 051-709 7041 ~
Telex: 629135
Fax: 051 709 1981

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

CATALOGUE DIRECTORY

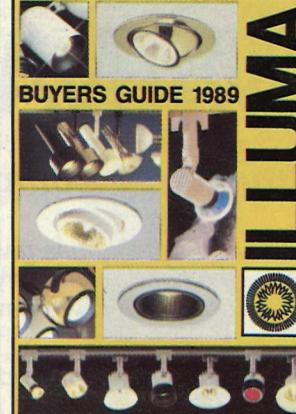
NO CLIMB PRODUCTS LTD

Formerly Cable Snappies 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



This concise publication lists
all Illuma Lighting products
in numerical order. Each
product is illustrated and
described with dimensions,
lamp wattage and finish
applicable. This new Guide
includes all the latest
Marktrack additions and the
new 240v Topspot: circle 91

Victor LIGHTING



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

ZONE 1

LASER-PACK® LOW VOLTAGE CONVERSION KIT



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



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



ELECTRONICS LTD

One of the leading
manufacturers of light
control and associated
accessories have registered
the trade name of
"TWYLLITE" and have
produced a multi-page
catalogue listing their
products, which include low
voltage and special controls
as well as their range of
standard controls: circle 97

Victor LIGHTING



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

ZONE 2

WHERE TO BUY DIRECTORY

To advertise
your Catalogue in this directory
contact Joanne Barker on 01-441 6644 ext 1154.

Linolite

EXPORT MANAGER

£15-17K + Bonus Structure + Company Car

Creative design and total commitment to quality has given LINOLITE the enviable position as market leader in the lighting industry. And, as part of the highly successful GTE Group of Companies, we have the necessary resources to stay at the top.

As Export Manager, heading up the Export Function and reporting to the Sales Director, you will ensure the company's sales and profits objectives are met.

Responsible for a substantial sales turnover, you'll be initiating and administering the export business and working closely with Group Companies and Agents. A vital component of the role is your availability to travel overseas, sell to customers, attend exhibitions and undertake product launches.

You will be aged mid 20's to early 30's and well educated with above average communication skills and preferably an additional language, either French or German. A recent background of at least 2 years standing in international field sales and familiarity with overseas agents and export documentation is essential. Some experience in the light fittings/lamps field would be a distinct advantage for this position.

In return we offer the normal benefits of a substantial group of companies including an excellent salary, 25 days holiday per annum, subsidised canteen facility, contributory pension scheme, excellent working conditions, and relocation assistance if necessary.

Please submit a detailed career history and reasons why you can become an integral part of the Sales team, to: Maggie Turner, Personnel Officer.

Linolite
Lumiance

Linolite Limited, Malmesbury,
Wiltshire SN16 9JX. Tel: (0666) 822001
A GTE Company

Sales Manager

Lighting Products

Salary negotiable to £25,000
plus car and benefits

We are a leading European lighting manufacturer with a worldwide reputation and customer base.

For the UK market we require a Discharge Lighting Sales Manager with the necessary technical experience, to develop our sales to OEMs and electrical wholesalers.

The successful applicant will be able to demonstrate experience in conducting negotiations at senior management level. He/she will have already held a senior position responsible for sales to OEMs, the public sector and in particular electrical wholesalers.

Salary will be negotiable up to £25,000 depending on experience. A company car and private health care are also provided.

Write in the first instance with detailed CV to our consultants, Sweetman-Grant Ltd, Glen House, 200/208 Tottenham Court Road, London W1P 9AL. All applications will be treated in strictest confidence.

sweetman-grant

ELECTROLITE are a young, rapidly expanding company who specialise in the design and manufacture of custom light fittings. We require a **PRODUCT DESIGNER**, specialising, or with a strong interest, in lighting.

The appointed person will be required to work in a busy, fast moving environment, and will need to be able to prioritise his/her work constantly, whilst maintaining the Company's extremely high product finish and rapid turnover of work. Ideally, the successful candidate will have experience of the lighting industry, although this will not be essential. Applicants should live within easy travelling distance of our Watford premises.

In the first instance, please send a full curriculum vitae, including details of your current salary, for the confidential attention of:

Mr T Henderson, ELECTROLITE LIMITED, Ent. C. Rembrandt. House, Whippendell Road, Watford, Herts WD1 7PN

**TO RESERVE
SPACE CALL
JOANNE BARKER
ON
01-975 9759**

TAMLITE LIGHTING

Due to a continuous expansion programme the following professional staff are required.

LUMINAIRE PRODUCT DEVELOPMENT MANAGER

This new position will suit a candidate who has thorough understanding of luminaire design, costing and innovation to bring new products through to business success. Shop floor experience of sheet metal/injection moulding would be an advantage. Company car provided.

PRODUCTION LUMINAIRE MANAGER

The candidate preferred will have a knowledge of luminaire Batten Production from base coil steel through to press punching form, rolling, powder coating and flow track assembly to final quality inspection. Motivation of production to achieve targets is of utmost importance. Company car provided to suitable applicant.

LIGHTING DESIGN ENGINEER

We require an experienced Design Engineer the successful candidate will have a good lighting background and able to work on own initiative.

Salaries negotiable depending on experience. Applicants should write in confidence with full C.V. to:

**Commercial Manager, Tamlite Lighting,
Pipers Road, Park Farm Industrial Estate,
Redditch, Worcs B97 0HU.**

AGENT REQUIRED

To represent U.S. manufacturer selling exclusive range of 16,000 hour rated lamps. This range of lamps is specifically designed for the commercial/industrial market and comes complete with warranty against premature failure. Must have contacts/distribution throughout U.K.

Please apply in writing to:

**Lite-Tronics International
5317 West 123 RD Street
Alsip Illinois 60658 U.S.A.
Attn: Jim Chase**

Sales - MIDLANDS/NORTH Our business is growing fast -

To support this growth we need a home based sales person with some knowledge of the lighting industry and/or the electrical component market. It is expected that you will be aged between 25 and 35 years, bright, self motivating, a fluent communicator and have a driving licence.

You will be expected to maintain and develop our reputation in the Midlands and North, managing existing customers and developing new contacts.

We will supply you with a full back-up, product knowledge, health insurance, usual expenses and a car. Your salary will be negotiable according to your proven experience.

Please apply in writing with full c.v. to:-

Mr.G.Paknadel, UK Product Manager,
Helvar Limited, 1 Ealing Road Trading Estate,
Ealing Road, Brentford, Middlesex TW8 0QY.
Telephone: 01-568 6205. Fax: 01-568 6473.
Telex: 291439 HELVARG

Helvar is one of the principal companies in Europe developing and manufacturing control gear and lighting electronics.

HELVAR
PRODUCTS
THAT SOLVE
PROBLEMS
01-568 6205

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 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.

PHILIPS
Lighting

PHILIPS

LIGHTING ENGINEERS

Hitech

Due to expansion and staff reorganisation, Hitech Commercial Lighting Limited wish to appoint three dynamic individuals, two Lighting Sales Engineers and one Chief Lighting Engineer/Designer.

Sales Engineers

The successful candidates will be required to negotiate at the highest levels, with company directors, consultants, architects, local authorities and electrical wholesale companies, have a positive attitude, be well organised with the ability to oversee contracts and schemes from creating interest in our products through various design stages, up to the final installation.

Chief Lighting Engineer/Designer

The successful candidate will be responsible for major lighting schemes, computer design, fittings, design and sourcing the latest lamp technology.

Experience of lighting is essential although full training will be provided. You will have the ability to absorb technical information and demonstrate the need and ability to succeed.

The company recognises the importance of the above appointments by offering an excellent salary package with bonus scheme and company car.

To apply

Send your written details to:

Mr C E Hollins
Hitech Commercial Lighting Limited
Tower House, Lea Valley Trading Estate
Edmonton LONDON N18 3HR.

SURPLUS TO REQUIREMENTS THORN EMI FLUORESCENT COMPONENTS

1300	FS2	Starter Switches
1600		18" 15 watt Tubes W/W
300		24" 18 watt Tubes W/W
850		2 x 15W Chokes
380		18/20 watt Chokes

Plus selection of high quality lamp holders etc.

CONTACT: MR. J. TRANTER
QUALCAST BATHROOMS LTD. (GARDEX)
TEL: 061 430 5269 FAX: 061 406 6241

NEWS

Bare wire system for library

The British Library's first venture into retailing, its new bookshop within the Grenville Library, was designed by Insight Design Services.

Access still had to be available to the double height perimeter

bookshelves and John Smith, leader of the project team, conceived the idea of a free standing, compact unit occupying 50m² and operated from a single service counter.

The bookshop has over 100m of

shelf space, eight racking panels for cards and other gifts and eight triangular showcases for the promotion of exhibition "tie-ins" and other key products.

To create interest, the showcases are set out in a saw-tooth profile, the triangles between them being filled with low level, glass topped display cases.

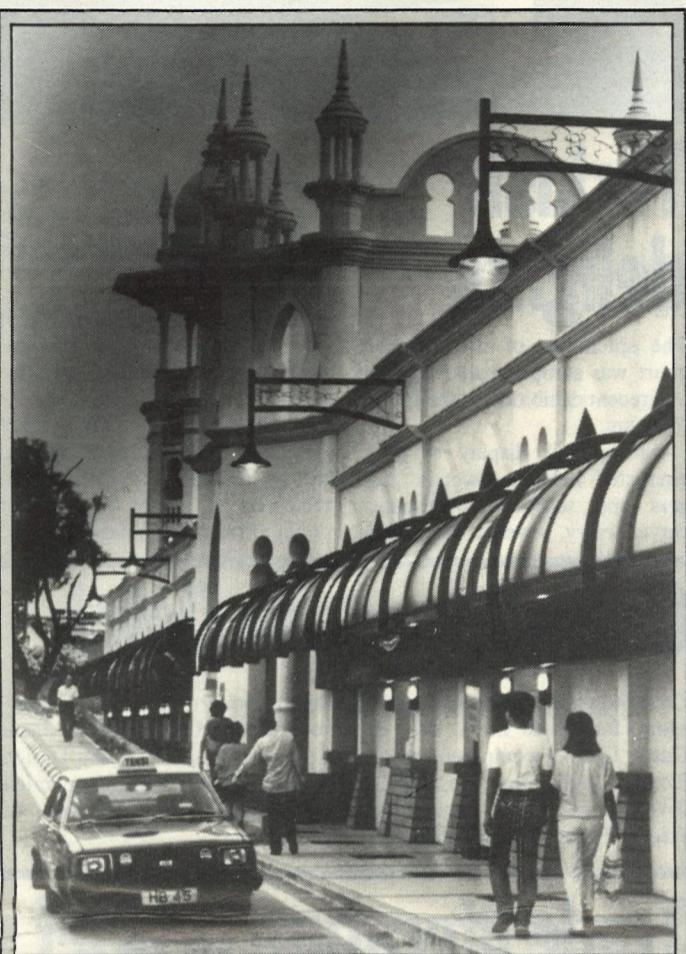
The showcases are simple boxes with cream melamine interiors, into which a variety of adaptable shelves and racks can be fitted to hold books, maps and other displays. As the boxes are modular, the equipment is easily

interchanged, as are the lift-off header panels.

It was decided to build into the top of each showcase two of Concord Lighting's downlights that use PL compact fluorescent lamps. The two level infill display cases each contain two of Concord's Tiller low voltage spotlights with ultra-violet filters. These are controlled by a Lutron dimmer.

General lighting for the bookshop is by Reggiani's Trolli system, which consists of two parallel bare wires with miniature tungsten halogen spotlights resting on them.

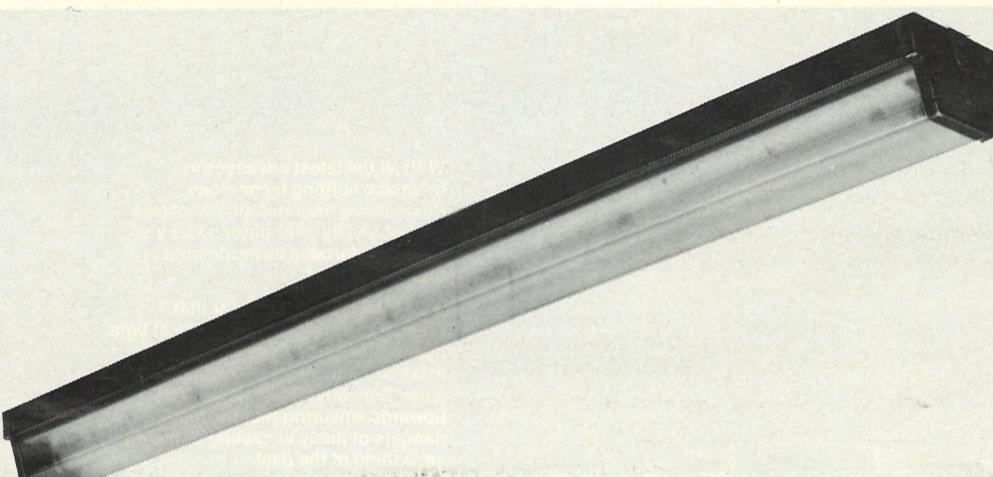
Right: showcase lighting in the British Library bookshop.



Appearances can be deceptive; this building is not a mosque but a railway station. The main station at Kuala Lumpur, Malaysia was built in the Islamic style at the turn of the century and has been renovated and extended over the past year.

Malaysia's railway authorities chose Siemens bell-shaped luminaires for the lighting scheme to blend with the station architecture. The reflector used in conjunction with sodium lamps, provides efficient lighting; while the cast aluminium housing is highly resistant to the Malaysian climate where humidity can reach 100%.

Monitor



Vandal resistant

Range: Twin + single 8w, 18w, 36w, 58w, 70w + 36w PL
also 30w version approved for use within Prison Cells.

designplan LIGHTING

Wealdstone Road, Kimpton Industrial Estate
Sutton, Surrey
SM3 9RW
Tel: 01-641 7070
Fax: 01-644 4253



01-975 9759

CLASSIFIED ADVERTISEMENTS

01-975 9759

ANOCOIL LIMITED



Lighting Sales Executive

Ano-Coil Limited, now part of the world's largest aluminium coil anodising group require a nationwide Lighting Executive. The successful candidate will be responsible for the sale of preanodised aluminium to lighting manufacturers. They will also need to work closely with lighting consultants in an effort to gain approval for Ano-Coil Products.

Candidates should be aged 25-40, have experience in selling, be self-motivated and well organised. Experience of the lighting industry is not essential.

Remuneration includes an attractive salary and bonus scheme, company car, private health scheme and contributory pension plan.

Please send full details of career to date to: Mr Paul A Rowe, Ano-Coil Limited, Bilton Road, Bletchley, Milton Keynes. Tel: 0908 75642

APPLIED SECURITY DESIGN



SALES REPRESENTATIVES

Applied Security Design, a leading European manufacturer of amenity and security luminaires seek to appoint two self motivated sales representatives.

(1) Midlands

(2) South (Home Counties)

The successful applicants will be aged between 22 and 35 with a knowledge of the electrical distributor and electrical contracting markets.

★ Attractive Salary

★ Bonus

★ Company Car

Apply in writing please, with full C.V. to:
Mr. Jon Finelli, Sales Director,
Applied Security Design Ltd., Mangham Road,
Barbot Hall Industrial Estate, Rotherham,
South Yorkshire, S61 4RJ.

SALES REPRESENTATIVE

Eterna Lighting is a long established major lighting manufacturer and distributor based in North London. A Sales Representative is required to cover the London area. Candidate must be well connected with electrical wholesalers and distributors and lighting experience would be an advantage.

Excellent salary and car together with all the usual benefits of a large company are offered to the right person.

Applications with detailed CV to:

Mr Norman Fryer,
Sales Director,
ETERNA LIGHTING
LIMITED
Emily Place,
Queensland Road,
London N7 7DQ



SPECIALIST LIGHTING SALESPERSON REQUIRED

Bennett and Fountain require a specialist lighting salesperson, who, in conjunction with a major lighting manufacturer will promote products throughout the U.K. Negotiable salary, company car and full expenses. Based at St. Albans, Hertfordshire. Interested? then telephone Mr M Hoppins, (Regional Director), for further details — 0234 56394

LIGHTING DESIGNER

Young designer keen to progress as an independent lighting consultant required for international lighting design practice. Contact:

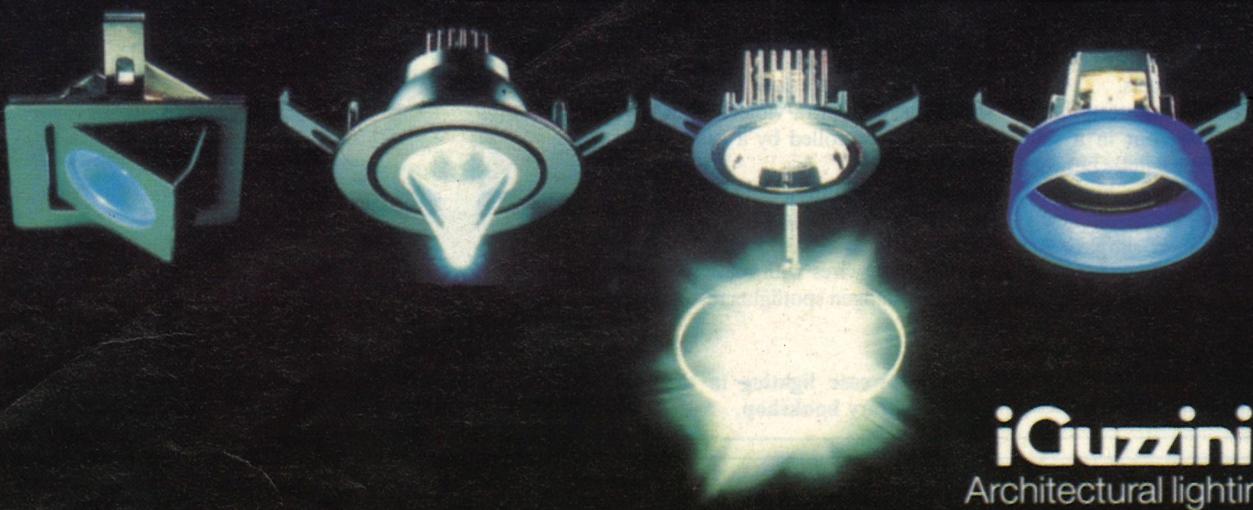
Nick Hoggett of DPA (UK) Lighting Consultants,
24 High Street, Bovingdon,
Herts HP3 0HH (0442) 832021

**GENERATORS &
TOWER LIGHTS
from 1/2 to 80 kW**
BRIMOTOR LTD.
Clarence Works, 30A Church Road,
Tunbridge Wells, TN1 1JP, Kent. Tel: 0892 37588 Telex 95446

Reader Service No. 17

**TO FILL
YOUR JOB
VACANCY
TELEPHONE
01-975 9759**

LASER LIGHT SCENE



A new A4-8 page brochure from Forma Lighting features the range of iGuzzini Laser low-voltage miniature downlights. Laser luminaires are made of diecast aluminium and have heat reducing fins to increase the surface area and dissipate heat away from the fitting and into the ceiling void. A practical feature is the ability to access and remove

fittings, the central circular or square support frame can be entirely removed. These features allow lamps to be changed or safety glasses and accessories to be added at a later date. Laser luminaires come in square or round versions in white, black or brass finishes offering some 30 variations. Fittings use dichroic or the two pin halogen lamps

requiring reflectors — giving a choice of narrow or broad beams of high intensity from 12 volt 20 to 50 watt lamps with appropriate transformers.

FORMA LIGHTING Ltd—SHOWROOM
Units 310-311 Business Design Centre
52 Upper Street,
London N10 9QH
Telephone: 01-288 6025

Reader Service No. 15

iGuzzini
Architectural lighting

NEWS



Turkish delights

The splendour of the Ottoman court was sumptuously displayed at a recent exhibition in the British Museum.

An opulent display of jewel encrusted helmets, swords, daggers and scabbards, intricately carved ivory, jewelled cups, jade

tankards, tiles, tableware, caftans and many other objects d'art was lit by low voltage fittings supplied by Light Projects, who also provided technical advice.

Lighting levels had to be kept low to safeguard the exhibits, many of which are ultra sensitive to light. Luminaires included key-hole downlighters with glare reducing grilles and Par 36 integral fittings. Exhibits were further protected by the use of filters to cut down ultra-violet radiation.

Crompton goes Dutch

Crompton has been appointed UK agent for Raak Licht BV, the Dutch lighting equipment manufacturer. The product range, which covers a variety of interior and exterior lighting fittings with a dis-

tinctly modern feel, will be marketed in the UK under the name Crompton Raak. Lighting Design Service has been appointed UK distributor for the range of luminaires.

Trade literature in brief

● Lee Colortran International has issued four brochures covering its stage lighting. One deals with daylight luminaires, another with

tungsten luminaires; flexikits portable lighting is the subject of a leaflet, and the fourth is about accessories such as stands, suspension equipment and filters.

● Lab-Craft Ltd has published its latest trade catalogue and price list on emergency lighting. It includes information about colour choices for luminaire housings.

● F. Knobel Elektroapparatebau AG, Switzerland, has leaflets on its low voltage transformers and electronic ballasts.

● Building Research Establishment's annual report for 1987-88 is now available.

● The Electrical Wholesalers Federation has launched its 11th edition of the *Installation materials standard wholesale catalogue*.

● ERA Technology has produced *Building energy management systems — a users' guide*, to help those faced with selecting from a variety of systems available from over 50 suppliers.

● Midland Machinery Services has a 58-page catalogue illustrating commercial and industrial luminaires made by Waldmann Lichttechnik, West Germany.

● British Standards Institution has published parts 1, 4, 5 and 6 of *BS3224 Lighting fittings for civil land aerodromes*.

● Philips Lighting has published two specifier guides to the most effective use of security lighting.

Apology

On page 20 of our January issue the two boxed photographs were inadvertently transposed. The lower picture was, of course, of the Richmond Riverside development, the upper one of the Caversham Hotel.

Our apologies for any embarrassment caused to the owners of the Caversham Hotel, their exterior lighting suppliers, Marlin, and to RADA Lighting, who provided the low brightness office lighting for the Richmond scheme.

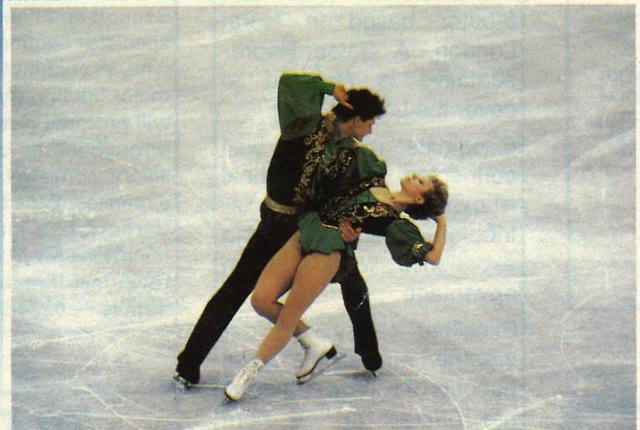
■ IN YOUR NEXT ISSUE ■

Variety is the keynote of the April issue of *Lighting Equipment News*. First, the journal will look at the ways in which lighting can be used to enhance historic buildings and will review some recent projects in this field. Emergency lighting and signage, for instance, can prove a

major problem in rehabilitating a building of architectural merit — they are designed to be intrusive.

Then, by way of a complete contrast, we go on to look at that proto-typical twentieth century tool — the computer — and its role in lighting design.

PRISMALUME BRIGHTEN UP YOUR ENVIRONMENT



Holophane Europe Ltd,
Bond Avenue, Bletchley,
Milton Keynes MK1 1JG,
England.
Telephone: (0908) 649292
Fax: (0908) 367618
Telex: 826429 HOLEUR.G.

Reader Service No. 16

Page 20

Lighting Equipment News, March 1989