

LIGHTING

EQUIPMENT NEWS

1-2 DEC 1988

DECEMBER 1988

Europe holds opportunities

Top management from the building industry attended a conference called *Building now for 1992* held in London in November.

The audience was told that the unified European market of 1992 was irreversible, and in some respects was already here. A rise of 5-6% in the Community's GDP was forecast, with an increase of 1.8 million jobs.

John Drew, head of the UK offices of the European Commission, described it as a challenge and enormous wealth creating opportunity.

From 1992 there will be freedom of movement of goods, services, personnel and capital. It will be possible to put in bids for projects in other European countries and, for example, take part in joint venture activities with companies in other parts of Europe.

There was a need for Britain to export skills and services as well as goods. Jean Paul Maroy, general manager of Ginger (Engineering), said the professionalism of British consultants was respected throughout Europe, but there were operating differences on the Continent, the main one being the division of responsibilities between client, consultant and contractor.

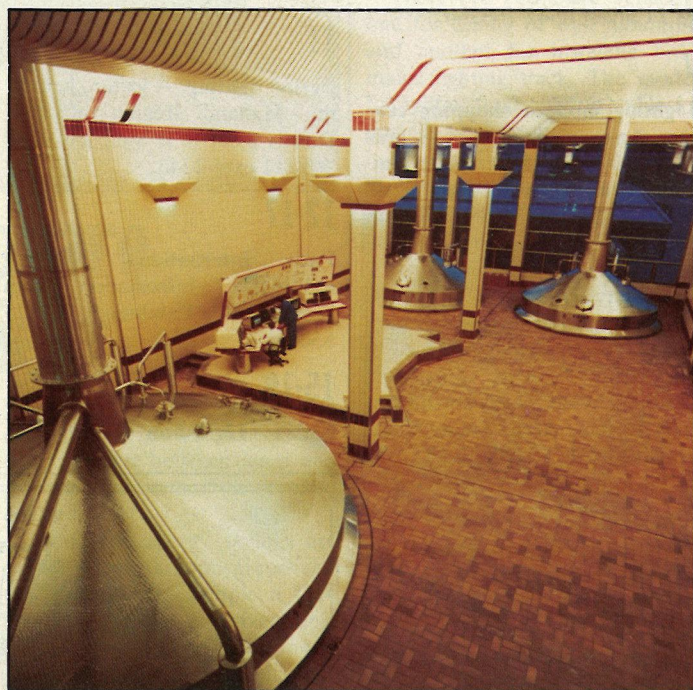
Several speakers emphasised that a reappraisal was necessary of the basic education and training requirements of professionals in the UK and also of continuing professional development.

Compact fluorescents last longer

Philips Lighting is now claiming a lamp life of 8000 hours for compact fluorescent lamps. The company initially guaranteed an operational lamp life of 6000 hours for the SL, SL-D PL and PL-C lamps, and for the SL-D and PLC electronic lamps. But, following an extensive trial period on the market, the lamps have been found to have an average life of 8000 hours. Philips claims that the additional lamp life leads to a reduction in maintenance costs of one third, as lamps need to be replaced less frequently.

INSIDE THIS ISSUE

News	1,16
Diary	2
New products	3,5
National Lighting Awards	6, 7
Lighting technology	10,11
Classified advertising	12
Where to buy directory	13,14,15
Catalogue directory	15



New lamps for old buildings

Modernisation and conversion schemes swept the board in the National Lighting Awards. Three of the four sections were won by refurbishment projects in historic buildings. Even the fourth prize winner, the Victoria Centre in Nottingham, is a scheme for the modernisation and upgrading of a 1960s shopping mall rather than a new building.

The first ever 'double' award has been gained by the main hall of the Royal Museum of Scotland — a winner of one of the EMILAS awards earlier this year. The other three winners, announced by HRH the Duke of Edinburgh on 18 November, are the Courage Brewery Bristol, winner of the industrial section, the Victoria

Centre Bristol, adjudged the winner of the commercial section, and the Missenden Abbey Management Centre, Buckinghamshire awarded first prize in the civic category.

The competition, run by the Lighting Industry Federation to promote a greater appreciation of the benefits of modern lighting, attracted a total entry of over 100 schemes.

For full story see pages 6 and 7.

Top left: Courage's computer-controlled brew hall at Bristol.
Top right: The Royal Museum, Edinburgh, best leisure building.
Right: Commercial section winner, the Victoria Centre, Nottingham.

Top lighting student

Student of the year on LIF's Certificate Course is David Lord of Moorlite Electrical Ltd. His award, sponsored by STC Distributors comprises a Wilkinson sword of which he keeps a replica, a cheque for £250 and a further £250 to be spent in furthering his lighting studies.

David Lord was one of the top six students among the 70 who took the LIF Certificate Course in 1988. Each of the finalists underwent an assessment interview before a panel consisting of LIF President, John Terry, Director Ernest Magog, and course director, David Pritchard, and Jim Bamforth, Managing Director of STC. The students had to discuss what had led them to take the course, its relevance to their pro-

fessional work and how they would put what they had learned to practical use.

Although the bulk of the students come from the manufacturing sector the finalists this year included an independent interior designer and a representative from the wholesale trade.

New ELC secretariat

The European Lighting Council's increasing involvement with the EEC in Brussels has led the Council to appoint a company specialising in liaison work to act as its administrative headquarters, assisting the Secretary General Dr J C Ramaer.

In future the official contact will be Linda Buysse, EVRKA, sa, 5 rue de la Science, B-1040 Brussels, tel: 010 322 2310332/2310252.



Lighting in the year 2000

Benefits of the electronic lighting revolution was the title of the first Philips Lecture held at University College London on 22 November. It was presented by Professor S H A Begemann, senior vice-president of Philips Lighting BV.

Visual requirements said Professor Begemann, varied from one person to another and called for dynamic and flexible lighting.

Electronic circuits made it possible to control lamp performance and output, while sophisticated lighting controls brought flexibility and intelligence to an installation.

Looking to the year 2000, he foresaw a universal electronic ballast with an integrated control interface as standard, and luminaires with standard control connector plugs. As a result, lighting standards will have to be re-defined.

People in brief...

- Robert Walker has been promoted to the board of Ashley and Rock Ltd as marketing director.
- K-S-H Plastics (UK) Ltd has appointed Ken Newick as southern area representative for the company's lighting division.
- John N Wright, managing director of the Electro Lighting Group, has additionally been made a main board director of Electrocomponents plc.
- ECS Energy Conservation Systems Ltd has appointed Mark Atkinson as system sales executive in south west London and the southern home counties.
- Deborah Rowe is the new secretary to the Lighting Division of The Chartered Institution of Building Services Engineers. Ken Butcher has taken over as publications secretary at CIBSE and Peter Scurry is now technical secretary.

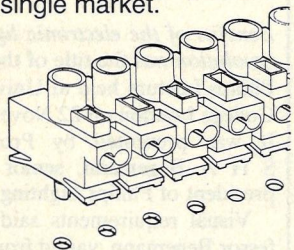
Season's Greetings

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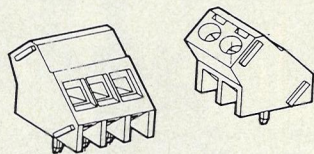
WE'RE ON THE WAY TO 1992

The recent association between **Hylec Components**, one of Britain's fastest growing specialist component distributors, and **Elettro Gibi S.P.A.** of Italy, already established as one of Europe's leading manufacturers of **connectors and cable accessories**, provides us with the resources and expertise to meet the demands of the single market.



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For further details contact:

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Reader Service No. 2

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Reader Service No. 3
Page 2

DIARY

DECEMBER

6

In the morning light. Address by new chairman of CIBSE Lighting Division. An evening meeting at the Trinity Maritime Centre, Newcastle upon Tyne, arranged by the North East Region of The Chartered Institution of Building Services Engineers. Details from M J Calvert 0642 766266.

7

Lighting modern shopping centres. An evening talk at the School of Architecture, Manchester University, arranged by the North West Region of CIBSE. Details from J H Troughear 061-449 0276.

Electricity generation — what else matters apart from the environment? A one-day conference at Imperial College, London, arranged by the Royal Town Planning Institute. Details from Linda Durnall 01-323 1582.

8

Lighting for sports centres. An evening meeting at Cleckheaton held by Northern Region of the Institution of Lighting Engineers. Details from J Brewis 0484 22133.

14

Festive decorations. Paper and visit, Leicester. Event arranged by the Midland Region of the ILE. Details from R B Simpson 0602 269711 extn 2243.

Lectures and visit to the Tate Gallery, London, organised jointly by the Lighting Division and Electrical Services Group of CIBSE. Details from CIBSE 01-675 5211.

JANUARY

6

Industrial lighting seminar and exhibition at UMIST, Manchester, organised by the Lighting Division of CIBSE. Details from member

Closing date for interior design awards

Entries are now being accepted for the 1989 Interior Design International Awards. Outstanding interior design projects completed worldwide between 1 January 1988 and 1 January 1989 are eligible for consideration.

The awards are presented biennially. In 1989 there will be four categories, including the Retail Interiors Award sponsored by Philips Lighting. The other categories are offices, public interiors and leisure interiors.

Philips' aim is to heighten awareness of the increasing scope new lighting technology is offering designers. The retail environment, says Philips, requires particular discipline from the designer to match form and function.

Each category winner will receive a trophy plus £1000. In addition, the best overall winner will receive £10 000.

Closing date for entries is 13 January. Full details are available from the organisers, AGB Exhibitions Ltd, Audit House, Field End Road, Eastcote, Ruislip, Middx HA4 9LT (telephone 01-868 4499).

Winning projects will be featured at the Interior Design International exhibition at Earls Court from 14-18 May.

services department CIBSE 01-675 5211.

9

High frequency lighting — the way forward. An evening meeting at the Drumkeen Hotel, Belfast, arranged by the Northern Ireland Region of CIBSE. Details from J Patton, 20 Glebe Manor, Glebe Road, Ballycrune, Hillsborough BT26 6NS.

11

Period lighting. A lecture held by the Midland Region of ILE. Details from R B Simpson 0602 269711 extn 2243.

12-17

Paris International Lighting Exhibition. Information from French Trade Exhibitions 01-225 5566.

15-19

25th Lightshow. Olympia,

London. Details from the Decorative Lighting Association 058 84658.

17

Floodlighting of Tower Bridge, London. Evening meeting and boat trip arranged jointly by CIBSE, ILE and the Institution of Electrical Engineers. Details from Deborah Rowe, CIBSE 01-675 5211.

LIF award paper: Are you feeling shady? An evening meeting at MANWEB offices, Seaload Road, Chester, organised by Merseyside and North Wales Region of CIBSE. Details from K R Roughley 051-530 1148.

18

Celebrity evening with Rod Hackney, RIBA president, at the School of Architecture, Manchester University. Arranged by North West Region of CIBSE. Details from J H Troughear 061-449 0276.



The 25th LIGHTSHOW SILVER ANNIVERSARY EXHIBITION

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Reader Service No. 6

NEW PRODUCTS



Airfield lights are energy efficient

Two ranges of airfield lights have been introduced by Thorn Lighting.

One is a range of inset airfield lighting fittings with improved optical control.

All the necessary versions of inset runway and taxiway lights are included: uni-directional, bi-directional approach threshold, touchdown zone, centreline and runway edge curves, straight taxiway and stop bars. A low intensity omni-directional type is also offered.

The fittings have an extremely low projection, a mere 12mm, and a smooth profile to minimise the effect on aircraft landing gear.

Each has three components — protective cover, lighting unit and base — and is ruggedly constructed in cast aluminium.

A specially developed, dichroic coated, tungsten halogen reflector lamp is mounted vertically in each lamp unit. Above this, a special

prism arrangement ensures the desired light distribution and a dichroic filter between lamp and prism gives a beam of the required colour.

Significant energy savings are obtained from this optical concept. On taxiways, for example, a 45W unit can replace a conventional 100W fitting and a 75W runway luminaire gives equivalent performance to a traditional 200W version. Furthermore, the typical 1200-hour lamp life at full intensity reduces maintenance.

All Thorn's inset fittings allow the entire lamp unit to be removed for relamping.

In addition, a separate range of 208mm diameter inset taxiway units is offered using 36W dichroic tungsten halogen lamps.

Included are bi-directional fittings for straight runs and curves, and a uni-directional stop-bar luminaire.

Reader Service No. 151

Hazardous area lighting

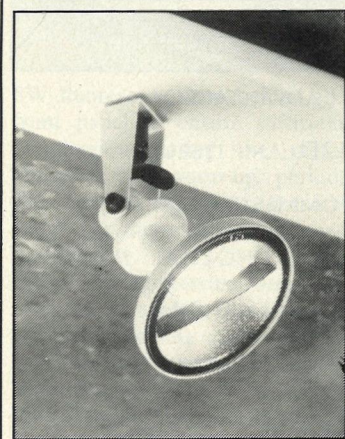
A range of Exd luminaires made in West Germany is available in the UK through the Normalec Division of ABB Power Ltd.

These fluorescent fittings use polyester and polycarbonate housings and bowls, making them

lighter and more compact than their existing metal counterparts.

For example, the new 11W fitting weighs only 2.8kg compared with 5.5kg for a metal unit of the same rating.

The housing gives environmental protection to IP67. The luminaires are available for use on 220V, 240V and 254V at 50/60Hz, and 24V and 110V a.c. or d.c. Reader Service No. 152



Pre-wired spot element

KP Spot is a pre-wired modular element that has been added to the Kingsprofile display lighting system available from Futimis Ltd.

It is supplied in either 300 or 600mm lengths.

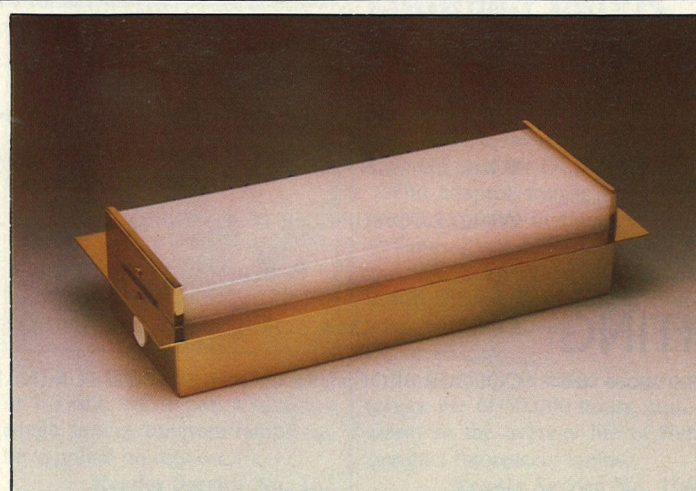
The low voltage spotlight can be adjusted through 359°. It uses either spot or flood distribution lamps that are capped to minimise glare. Reader Service No. 153

Brass finish for emergency luminaires

The complete range of emergency lighting fittings by Bradley Lomas (Electrical) Ltd is now available with a brass trim.

While this highly polished brass finish complements any interior decor, it has been designed with Victorian and Edwardian style pubs and restaurants particularly in mind.

Reader Service No. 154



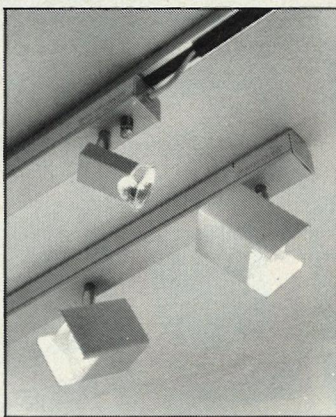
LV spotlight bars

A selection of low voltage spotlight bars has been launched by Transform Lighting Systems Ltd.

Because the bar has an in-built electronic transformer it is installed as a normal mains fitting, which avoids potential problems of cable size and length to transformer.

There are two basic versions, one for ceiling or wall mounting and another for installing onto mains lighting track. The model for lighting track clips on and locks into the track profile.

The spotlights all use low voltage tungsten halogen lamps and



are available in five styles: wings and micro (both illustrated), wedge, mini and maxi. They are adjustable both vertically and horizontally.

There is a choice of bars with either two, three or four spotlights.

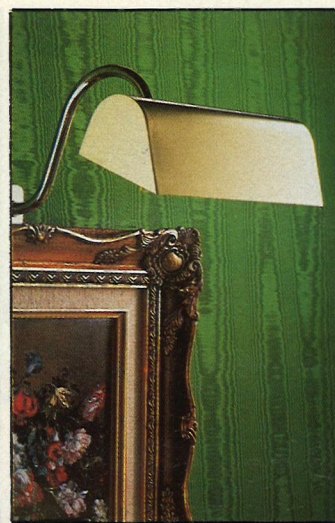
Reader Service No. 155

Security lantern with photo cell

Nite Lantern is the latest addition to Applied Security Design's range of exterior, security and courtesy luminaires.

It is a modern, vandal resistant luminaire with either black or white mounting arm, integral photo cell and a choice of three globes: opal, clear or smoke.

The luminaire is designed for both corner and flat wall mounting, uses a 100W GLS lamp and is capable of switching a further



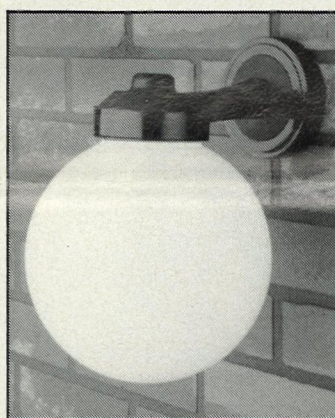
Choice of brass picture lights

A collection of polished brass picture lights from Chelsom has either brass wall-fixing backplates or optional picture-fixing bars. Swivel joints adjust the angle of light.

There are three designs of reflector: a tubular design with arched arms and flush-soldered ends, a cylindrical style with brass cap ends, and a trough-shaped reflector with flush ends and optional garland motif. All have white enamelled interiors.

The largest light with optional garland motif can be converted to use a compact fluorescent lamp.

Reader Service No. 156



900W of lighting. Reader Service No. 157

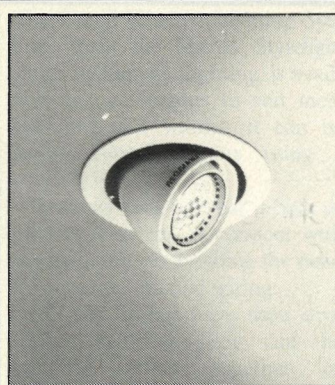
Identifier kit for cables

An identifier kit from the Electrical Products Group of 3M United Kingdom plc makes it possible for one person to identify up to 16 wires at a time in any size or type of cable up to a length of some 1.6km.

This hand-held electronic device is helpful in both installation and maintenance work and is quick and easy to use.

Reader Service No. 158

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



Recessed spotlight

A recessed adjustable spotlight is the forerunner of a new generation of lighting fittings to be launched by Reggiani.

Ventilation for lowering the surface temperature of the fitting to below 70°C was a critical factor in the luminaire design and is setting a precedent for the company's new ranges of recessed fittings.

The TE3721 fitting can be used as a fully recessed downlight, although the lamp housing can be pulled down and adjusted up to 60° from the vertical.

The fitting takes either a 20W or 50W low voltage tungsten halogen lamp with dichroic reflector and is available in three finishes: gold-plated, white or black.

Reader Service No. 159

COMMENT

Setting a shining example

The second National Lighting Awards continue the same high standards set when the scheme was launched in 1986/87. So, what can be learned from the winning schemes?

The major winners share one obvious feature: they are all refurbishments or modernisation schemes, albeit of buildings of widely differing types and dating from very different architectural periods. Thus, the constraints posed by an existing building rather than the greater flexibility permitted by a new-build solution seem to act as a valuable spur to the imagination of the designer.

Lighting can be seen to be particularly effective where it emphasises the architectural form of the building or enhances detail. In the Royal Museum, Edinburgh, for instance, the cast iron and steel structure of the columns and roof are shown off to good effect, whereas at the Missenden Abbey Management Centre, ornate plaster ceilings are highlighted. A twentieth century example, the Lloyds Building, uses colour to distinguish between different elements of the building, the main building being uplit in blue while the atrium and its barrel vault glow a warm amber shade.

Equally, control systems are increasing in sophistication and importance and are becoming more diverse in nature. The system in use at the commended scheme for the Liverpool Tate Gallery, for example, provides a log of the cumulative time each individual luminaire is in use, thus enabling the gallery to keep a record of exposure to light of works of art. In the Royal Museum, Edinburgh, the control system synchronises the room lighting with the natural light from the glazed roof and with the display lighting used in the galleries.

The shortlisted entries show a high standard of lighting expertise and aesthetic appreciation. In all cases, designers have gone beyond the mere satisfaction of practical needs and technical requirements and have enhanced the interiors — but not at the expense of a prima donna approach which gives undue prominence to lighting.

This, rather than a search for ever greater economy, is the direction in which lighting should be going and the Lighting Industry Federation is to be congratulated on its efforts.

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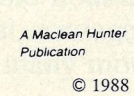
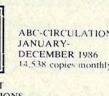
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Popular Art



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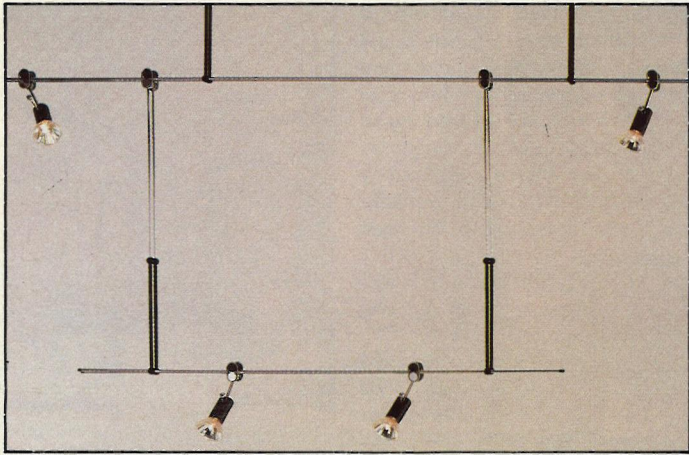
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NEW PRODUCTS



LV lighting system hung on rods

A low voltage system suspended on rods is available through Project Line. It enables lighting installation designers to provide solutions tailored to a variety of interior lighting requirements using a design co-ordinated range.

The 12V system carries the current through the rods, which are suspended horizontally or vertically from either ceiling or wall. There is a range of transformers.

A key element of the system is the clamp-on roll adaptor which attaches luminaires to the rods and makes the electrical connection.

It consists of two tubular components and allows the luminaires to be easily repositioned along the rods.

Tungsten halogen spotlights in two styles can be directionally adjusted at the point where their supporting arm joins the adaptor and also where the spotlight housing joins the arm.

In addition, there is a choice of pendants and matching floor and table lamps.

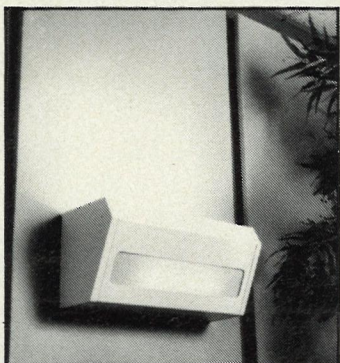
System HT100 is made by Simon and Schelle of Germany.

Reader Service No. 160

Uplight with emergency and auxiliary lighting

Existalite has produced a wall mounted uplight unit which is available with three-hour duration emergency lighting plus auxiliary lighting.

Main light source is a double ended 150W metal halide lamp. In addition, Uplite is fitted with an



8W fluorescent lamp behind the front panel to ensure sufficient illumination during the metal halide lamp's warm-up period. This lamp extinguishes automatically when the main lamp reaches full intensity.

The 8W fluorescent lamp can also be connected to integral emergency lighting equipment.

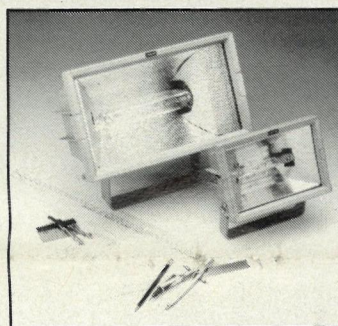
Future developments from Existalite will include matching floor-standing versions.

Reader Service No. 161

Festoon cable for lighting

Crompton Cables has introduced a range of maintenance-free, weatherproof festoon lighting cable for temporary service on building sites, in tunnels and for scaffold lighting.

Coloured yellow for 110V site supplies, the Crompton pvc insulated, arctic grade flexible cable is supplied in 100m lengths and incorporates yellow Woodside festoon lampholders, spaced at either 3m or 5m intervals, as required.



Compact HID floodlights

Andrew Chalmers and Mitchell has introduced a range of small floodlights for use where size must be kept to a minimum, for instance, for architectural floodlighting, sign lighting, and hotel and restaurant fascias.

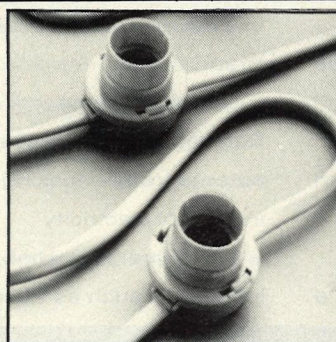
The smallest model is only 152mm high and accommodates a 70W metal halide, 70W high pressure sodium or 80W mercury lamp.

The larger unit is 228mm high and uses high pressure sodium lamps up to 250W.

Made from aluminium alloy, the Compact range is lightweight, highly resistant to corrosion and weatherproof to IP 6S standard.

Reader Service No. 163

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



The lampholders are available in ES and BC types. Crompton rough service tungsten lamps can be supplied on request.

Reader Service No. 162

Downlights are relamped from below

Toplite, a range of fixed and directional, recessed downlights from the Lighting Workshop is designed to be both attractive and practical.

Made of aluminium, the luminaires are all-in-one units which are easy to install. They are relamped and directionally adjusted from below.

Toplite fittings use MR16 low



voltage tungsten halogen dichroic lamps rated at 20W or 50W.

Ceiling plates are either round or square and come in white, black, gold or chromium finishes.

Reader Service No. 164

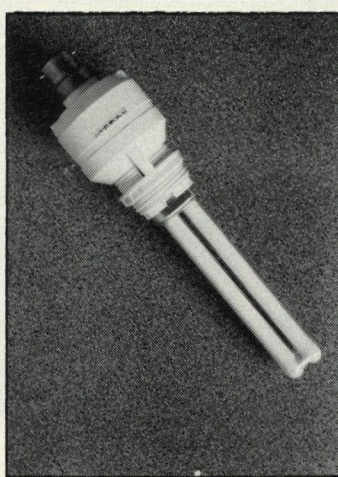
Choice of three torches

Micromark has three new torches. The Super Power Beam three-cell torch uses a halogen lamp which produces an exceptionally bright light. It is waterproof (tested to a depth of 10m) and has a robust black plastic housing which is ribbed for a good grip. Power is from three HP2 (MN1300) D-size batteries.

Micromark Flashlight is a simple, sturdy torch with a push button for flash operation. Finished in black, it is powered by three HP11 (MN1400) C-size batteries.

The miniature pocket torch is easily carried in jacket pocket or handbag. Housed in a black plastic case, it has a sliding on/off switch two HP7 (MN1500) AA-size batteries are used.

Reader Service No. 165



Adaptor for PL compact lamps

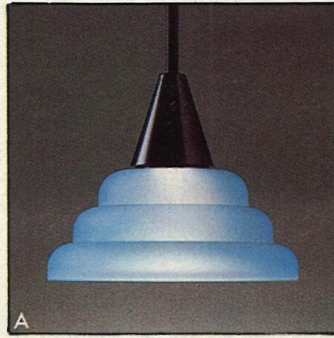
Tungsramp Lighting has launched Tungsradapt, an adaptor which enables PL type compact fluorescent lamps to be used in lampholders designed for GLS lamps.

The adaptor weighs 380g and measures 60mm in diameter.

Tungsradapt FD is for 5, 7, 9 and 11W lamps; the FDO version is for 10 and 13W lamps. Both adaptors are available with either BC or ES caps.

Tungsradapt is stated to have a service life of 50,000 hours, equivalent to the average life of five compact fluorescent lamps.

Reader Service No. 166



Low voltage glass pendants

Nelly is a range of low voltage pendants in satin finished glass in different colours.

There are two ceiling roses to choose from, one incorporates a transformer. The pendants use 12V 50W dichroic lamps.

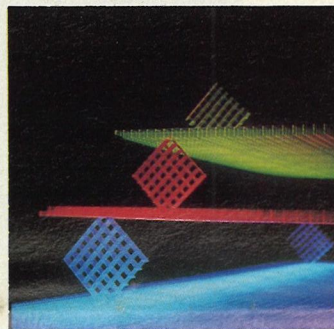
Made by Leucos, Italy, and available in the UK through Forma Lighting, the range includes wall and floor lights.

Reader Service No. 167

Fluorescent louvres

Egg crate louvres made from fluorescent acrylic have been introduced by K-S-H Plastics UK Ltd.

Particularly suitable for use in



leisure areas such as discos, night-clubs and bars, these louvres are available in red, blue or yellow. Panel sizes are 600 x 1200mm.

Reader Service No. 168

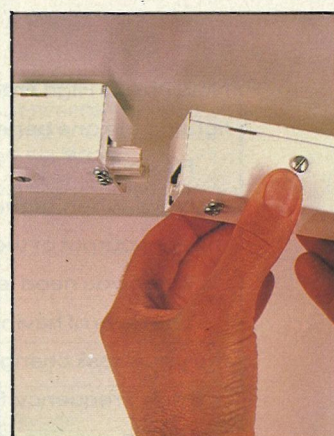
Lighting units clip together

The Fitted Kitchen Lighting System, from the Mazda Stylelight range by Omega Lighting, is available in two lengths to suit most standard unit widths. It can be linked round corners using a connector set.

Each lighting unit has a built-in plug and socket to connect with the next unit, so avoiding the need for separate manual wiring.

As the fittings have their own rocker switches they can be switched either together or independently.

The system is displayed in blister packaging and each pack



comes complete with lamp and fitting instructions to encourage "off the shelf" selling.

Trade price of the 305mm version is £19.95 and of the 533mm model £20.45.

Reader Service No. 169

LIF LINE

New government focus on private funding

A number of statements made at the October Conservative Party Conference could augur well for the lighting industry. They were made by Paul Channon, Secretary of State for Transport. No, he hasn't agreed to light all motorways, but he has declared his intention on the one hand to enable privately funded extensions to Britain's road network, and on the other to give developers a better deal by cutting red tape.

Channon's broad hint at Brighton that he is to seek relaxation of treasury rules would, if he is successful, enable and encourage construction companies and banks to put up private infrastructure projects. The Euro-Tunnel and Dartford Bridge have provided ample evidence of what can be achieved, and there is evidently now keen interest in the scope which changes in the rules might allow. There is a large amount of money in the banking sector, and with institutions no longer putting it into gilts market, all that is needed is a green light from the Treasury and detailed guidelines on how to put proposals together.

So the scene is set, and several projects are already lining up:

1. A 60 mile London motorway from Chiswick to Docklands, laid in a pipe on the bed of the Thames, costing £4 billion.
2. A second Severn crossing with new motorway links to the M4 and M5, costing £2m.
3. A new motorway to relieve the M6 in Lancashire.

All, one imagines, with a lighting content and most probably leading to further development, which in turn will lead to greater demand for lighting.

Channon's right-hand man, Michael Portillo, says the list of suitable projects will be drawn up in the next few months with the emphasis slightly to shift from new river crossings to existing bottlenecks, and grandiose schemes. He is, he says, "Talking about areas where it is not the planning gain that makes is worthwhile, but the relief of congestion. It is in places like this that people would be willing to pay avoid the congestion."

Some of the congestion on motorways is caused by the clearing away of debris during the day, a highly dangerous practice. If all motorways were lit, this could be done at night when the traffic flows ease considerably to lessen the day-time congestion.

This one statement by Portillo offers the industry a ray of hope that the Department of Transport may be thinking more imaginatively than it has ever done. If it is willing to allow the private sector to build new roads it may be that now it will give favourable consideration to leased lighting for the whole motorway network, more of which must surely be lit as a result of the Department's subsequent announcement that it has increased its estimated cost of a fatal accident to £500,000. This re-evaluation must add greater weight to the clamour from all sides to light unlit sections of motorways.

The cutting of red tape could open the way to a number of additional developments currently on the shelf, for example, a new 1800 acre village north of London including office and housing developments and a new five mile dual carriageway relief road costing up to £10m, and many more thereafter, all having a lighting element.

National Lighting Award winners

Refurbishment schemes carried off the major awards — only four of the shortlisted schemes were new-build projects. *LEN* reports.

The results of the second National Lighting Awards were announced on 18 November 1988. The National Lighting Awards, organised by the Lighting Industry Federation, commend excellence and innovation in the design of lighting for all types of installation except for road and home illumination. The four key sections are industrial, leisure, commercial and civic lighting schemes.

Criteria used to assess the entries include functional considerations such as the quality of the design and its compliance with accepted standards and good lighting practice, the originality of the scheme and the lighting techniques adopted coupled with the choice of appropriate equipment.

Financial factors including cost effectiveness and the appropriate use of control systems are also taken into account. The human and subjective aspects of the scheme are evaluated including the way the installation has been accepted by both users of the building and the staff employed in it, and the extent to which staff satisfaction with the scheme has been reflected in increased productivity.

Finally, the aesthetic element is taken into account. The effect of colour and atmosphere and the sympathetic treatment of the architectural environment are all reflected in the assessment of the schemes.

The Royal Museum of Scotland in Edinburgh, winner of the leisure section, was opened in 1866 and is Scotland's largest Grade 1 listed building. A leaking roof and the presence of dry rot necessitated a major renovation programme, during which the opportunity was taken to install a new lighting scheme based on the latest technology.

The Royal Museum embraces column-mounted up and down lighting, backed by a photocell control system synchronised to natural daylight from the large glass roof, and direct and indirect lighting on the balconies.

Double winner

Earlier this year the same lighting scheme won an EMILAS award for energy efficient lighting and was described in detail on page 9 of the May issue of *Lighting Equipment News*.

The enormous success of this lighting scheme is largely attribut-

able to two factors — firstly that the lighting scheme had to be a unique and vital element of the interior design and to respect the nature of the listed building. Secondly, the scheme also had to serve the purpose for which it was designed: to provide effective lighting for the display of the museum's exhibits. In both these respects, the Royal Museum succeeds admirably.

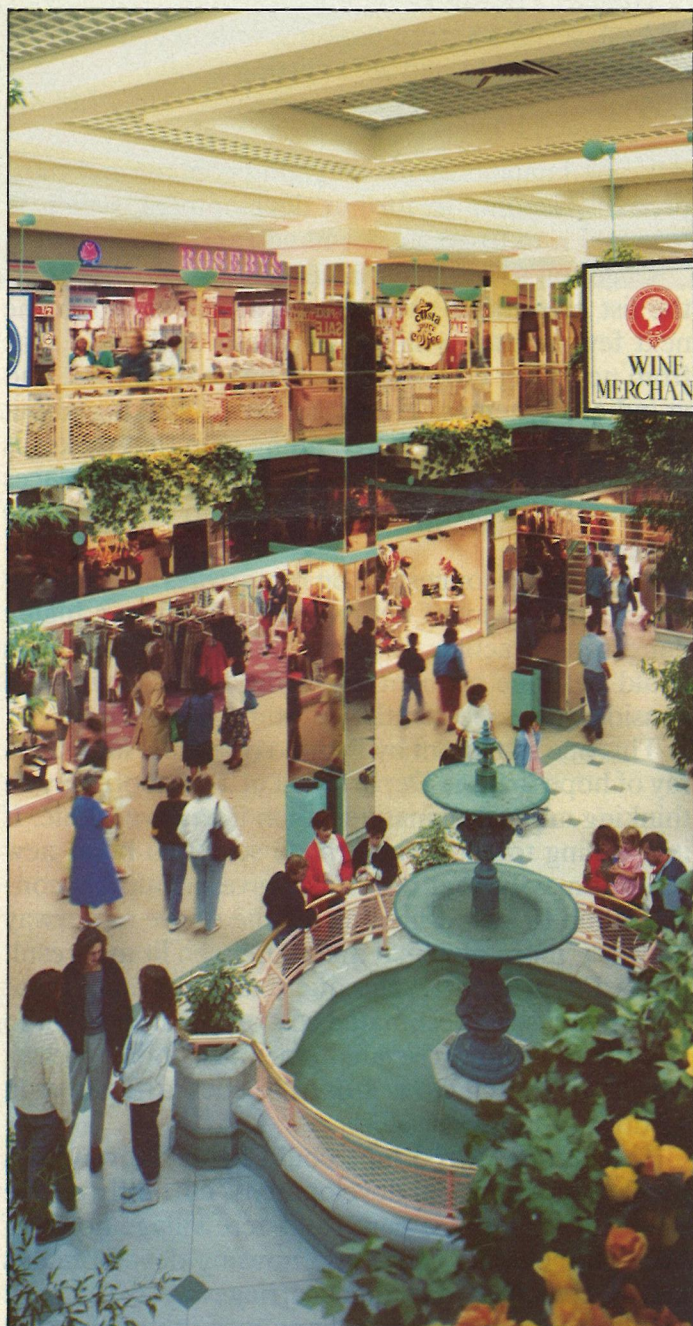
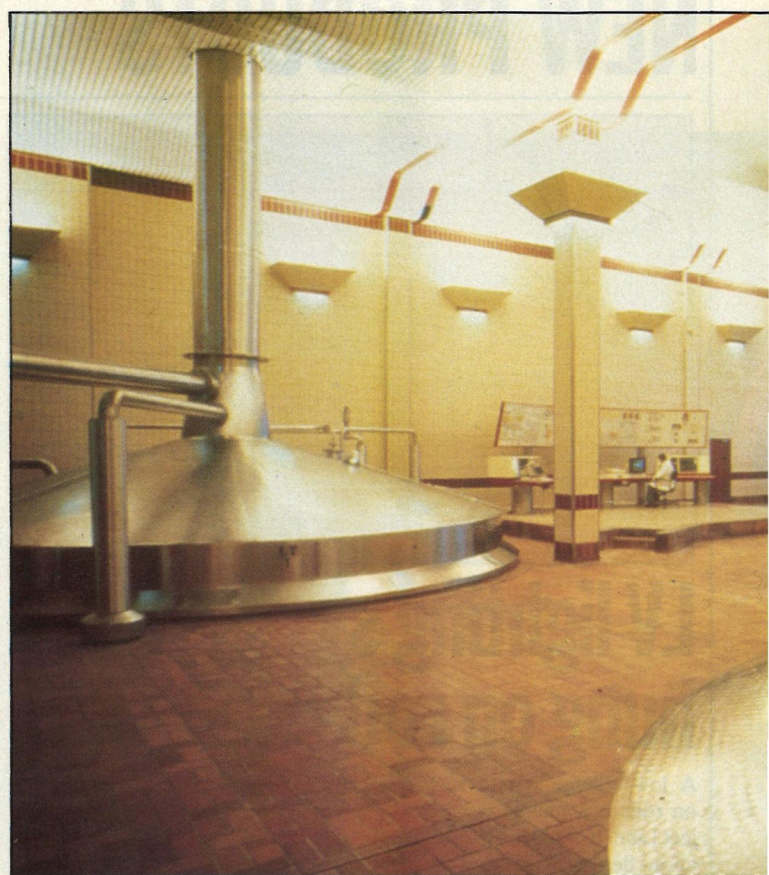
Uplighting makes a spacious interior of the Courage brew hall.

Architects, the Law and Dunbar-Nasmith Partnership, brought a detailed knowledge of the building to bear on the refurbishment scheme and lighting expertise was provided by Hector Fernandez, Head of Design of the National Museums of Scotland, and Derek Wilkinson of Thorn Lighting. Equipment was supplied by Thorn.

The Victoria Centre, Nottingham, winner of the commercial lighting category, was originally designed in 1972 as one of the first two-level enclosed shopping centres in Britain.

Great expectations

When the development was first opened it was the height of fashion. Since then styles and, more particularly, public expectations of standards to be provided in shopping centres, have changed considerably and the owners, Capital and Counties, decided to refurbish the centre to maintain its position as prime shopping pitch in Nottingham into the 1990s.



Improved lighting makes for a better shopping environment at the Victoria Centre, Nottingham.



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New Philips High Frequency Regulation gives fluorescent lighting the one benefit it's always lacked.

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VDU operator, and still less for the cleaners.

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Combine new High Frequency Regulation with luminaires such as Philips TCS 660 on the right of our

Philips Lighting





The original lighting gave a low level of illumination in the malls, designed to concentrate the eye on the merchandise in the brighter shop windows. There was no differentiation of areas in the long malls and the internal cladding was in a uniform sombre shade. The heavy column line, lift shafts and escalators had no treatment to conceal their weight and intrusive qualities. The ceilings, typical of their time, were low and dark.

The brief for the new lighting included achieving higher lighting levels and enhancing the theatricality of the scheme, which was based on a 1930s Egyptian cinema style. Lighting also had to be energy efficient with low maintenance levels to fit in with the building energy management system which encompassed every aspect of the building's control and maintenance.

The approach centres on a new building management system, incorporating programmable lighting to match specific tasks and varying lighting levels appropriate to the time of day. Photocells automatically control lighting levels, so that the desired atmosphere can be

maintained at all times.

Key features of the new scheme are the use of white SON for display lighting and high frequency fluorescent lighting elsewhere. The centre is now illuminated to a much higher standard than before but the installation is considerably more economical and has resulted in energy savings approaching 50%.

The refurbishment project was led by architects, Michael Maskoll Associates, and lighting designers were Roberts and Partners, Oxford. Equipment was supplied by Philips Lighting and LB Lighting.

Safer shopping

The finished effect has assisted policing and security at the centre, renewing interest in the mall as a safe and interesting place to shop and making it, once again, Nottingham's foremost shopping complex.

The ability of lighting to highlight the key aspects of an historic building is powerfully illustrated at the Missenden Abbey Management Centre in Bucks, a grade 1 listed building which is in great

demand for residential courses.

A classical lighting scheme was called for, to feature decorative plasterwork and to complement the ceilings, hallways and library. The restraint and style exercised by the interior designers produced a scheme entirely in keeping with its surroundings.

Architects and lighting designers for this scheme were Buckinghamshire County Council's Architects' Department. Concord Lighting and Illumina Designs supplied the lighting equipment.

The industrial section was won by Courage Ltd for the lighting of their brew hall in Bristol. The brewery has been the subject of a £16 million modernisation programme which makes it one of the most advanced breweries in Europe and the lighting solution had to satisfy both the functional requirements of a computer controlled brewing operation and the need to create an almost theatrical atmosphere for the many visitors to the building.

The brewery houses an advanced computer console, and operation of the four VDU screens demands reflection and glare-free



The main hall of the Royal Museum of Scotland.

lighting. As a consequence, an indirect lighting system using wall and column-mounted uplights with asymmetric reflectors was chosen. Uplighting has the added attraction giving an impression of space and light which is appreciated by staff and visitors alike.

The uplights use 400W deluxe high pressure sodium lamps which were chosen for their ideal colour rendering qualities after samples of the burgundy and ivory wall tiles had been tested under various light sources. Uplighting also emphasises the unusual ceiling structure. The uplighters are concealed behind specially designed canopies, fitted with fluorescent tubes which produce a halo around the base of the luminaire and create an unusual floating effect. These lamps also provide standby

lighting during the run-up period for the SONDL lamps and emergency lighting.

Special effect lighting is provided by specially adapted 500W tungsten halogen spotlights recessed into the sloping sections of the ceiling. The luminaires have red filters which enhance the colour and give an attractive sparkle to the coppers. These fittings can be individually dimmed during guided tours as well as normal operating hours.

Lighting designer for this project was Peter Date of Courage, and lighting equipment was supplied by Thorn Lighting.

This is the first time that modern lighting techniques have been used in combination and adapted to meet the very specialised requirements of a brew hall.

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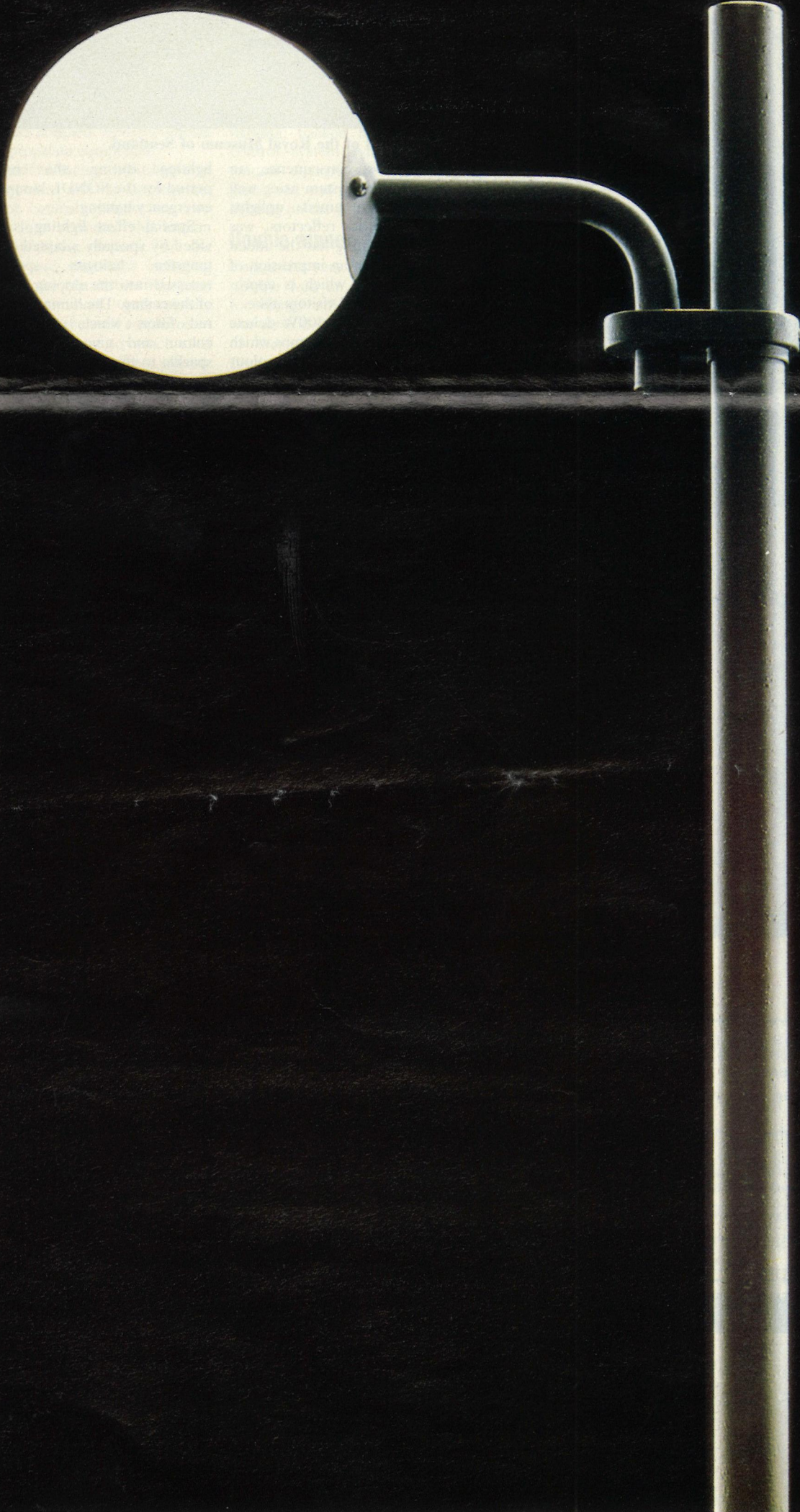
PHILIPS

Reader Service No. 5



Carefully placed lighting picks out decorative plasterwork at the Missenden Abbey Management Centre.

Since 1968 people have been taking to the streets to try and change the system.



The first demo took place exactly 20 years ago, in the old part of Pavia, northern Italy. It was during the XIV Triennale di Milano festival that public opinion was made aware of the need for a new public lighting system. That made the most of important inner-urban areas.

Today, to combat certain shady doings in some parts of the city, iGuzzini have created Public. An out-

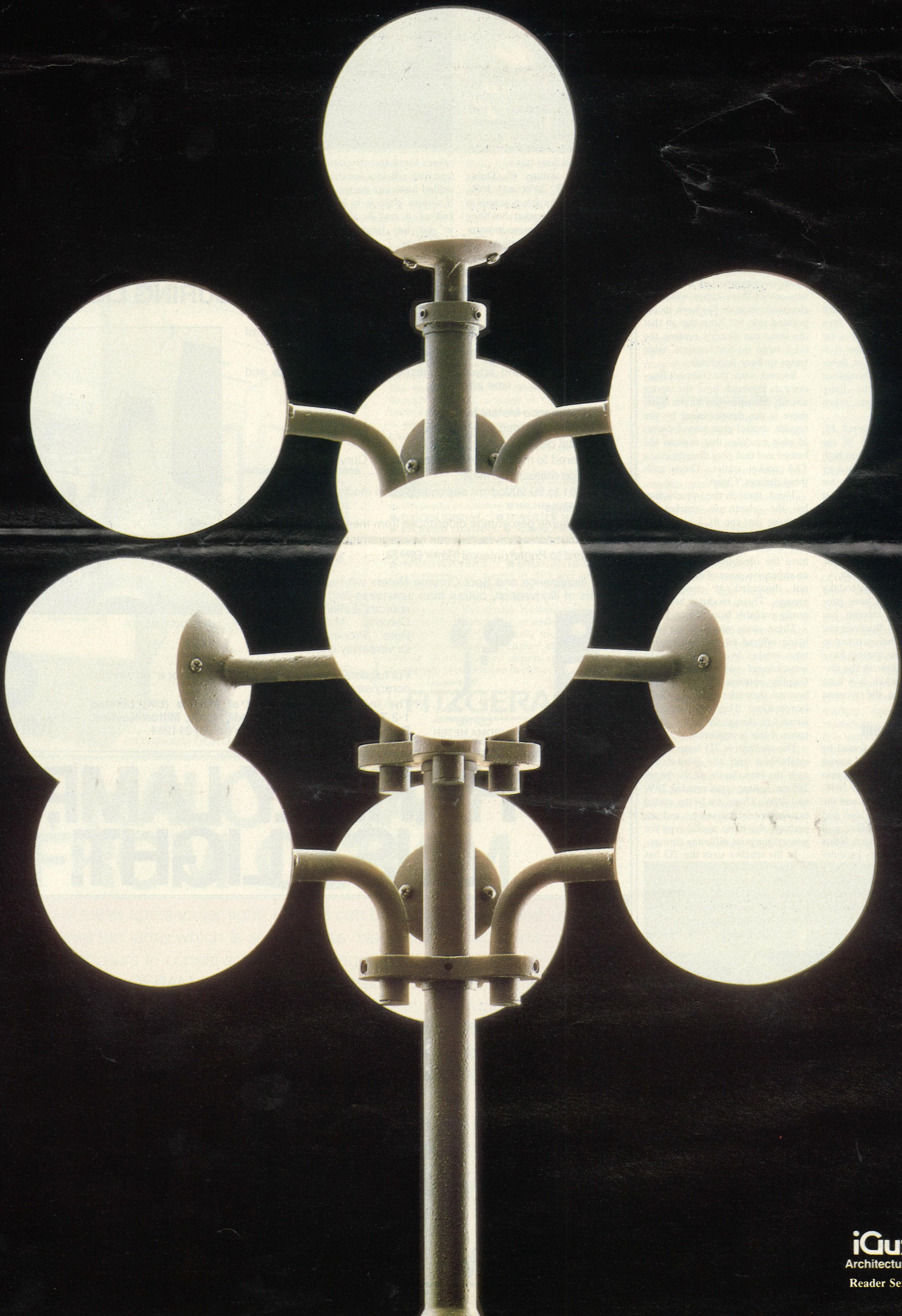
door illumination system for pedestrian and mixed-use zones: crossings, streets, parks and squares.

Public is a new way of managing urban design thanks to poles that allow the mounting of single, or bunches of lamps.

The light sources are fitted with adjustable, optical appliances. And their asymmetrical shades allow the light to be shone in any direction re-

quired. The materials, production technology and dimensions of Public make it all-weather resistant and vandal-proof.

So, if you would like to see some light shed on certain aspects of urban living, write to: Forma Lighting Ltd, Units 310-311, Business Design Centre, 52 Upper Street, London N1 0QH. Tel. 01-2886025. Telex: 8812473.



Lighting the way ahead

Lighting techniques and luminaire design are intimately linked to advances in lamp technology. *Brian Morgan* reviews recent developments in light sources.

Progress in lighting and innovation in luminaire design is very much dependent upon lamp development and the rate at which those developments take place. The past two years have seen quite rapid developments with the emphasis on miniaturisation.

Indeed Robin Aldworth pointed the way ahead at the National Lighting Conference at Cambridge in April when he predicted that by 1990 the process of miniaturisation of the 2D and PL lamps would reduce the size to that of a 50 pence piece!

Of course we will never reach that utopia, but if we did then source brightness would be a far more serious problem than it is today. Source brightness is, however, something that we should not forget in reviewing the lamp developments that have taken place.

In the case of the larger PL lamps at 18, 24 and 35 W the source brightness is really too high for current luminaire technology and there is now perhaps time for the luminaire manufacturers to set limits to source brightness to match the levels of technology in order that the introduction of new lamp types does not represent a step backward in the quest for the better lit interior environment.

For the moment we have to take what the lamp makers have provided. Most of the interest has been in compact fluorescents, miniature tungsten halogen and in HID and, since these sources have their main applications in the display and effect market, it is here that they will have the greatest impact.

Compact fluorescent

The 'tubular' types illustrated by the PL/Dulux/Lynx brand names have been further developed into 'cluster' types from 10W to 26W. Commercially these lamps and the original types have many uses and they are seen in downlighters, wall mounted fittings, task lights, lights for inspection and in precinct lighting.

In the domestic market where these lamps were clearly intended to be direct replacements for the domestic GLS lamp there has not been much success due,

presumably, to the expense and the inconvenience of providing control gear.

The difference between the two markets is one of cost. Unless the cost of electricity dramatically changes from today's prices the GLS lamp is unlikely to disappear from the domestic scene, since the high initial and replacement cost of the compact fluorescents will militate against their use.

However, three approaches have been developed which may conceivably change the situation.

The first is the introduction by the lamp companies of 'electronic' versions of these lamps where an electronic module has been incorporated into the lamp cap so that the lamp can directly replace the GLS lamp in, for instance, table lamps or floor standards.

Second, since the compact fluorescents presently have the starter already incorporated in the base, there is the development by the regular control gear manufacturers of plug modules that contain the ballast and that plug directly into a 13A socket outlet. Thorn calls these devices 'Chugs'.

Third, there is the introduction by the electronic market of modules that the PL lamps plug directly into, the module itself fitting into the lampholder. These have the obvious advantage that an expensive piece of electronics is not discarded at every lamp change. These modules are currently available from 5W to 13W.

These same modules are also being offered to the lighting fittings market as an alternative to conventional control gear. They simplify construction and wiring because they take the place of the lampholder. The unit can be rotated to change the lamp orientation if this is important.

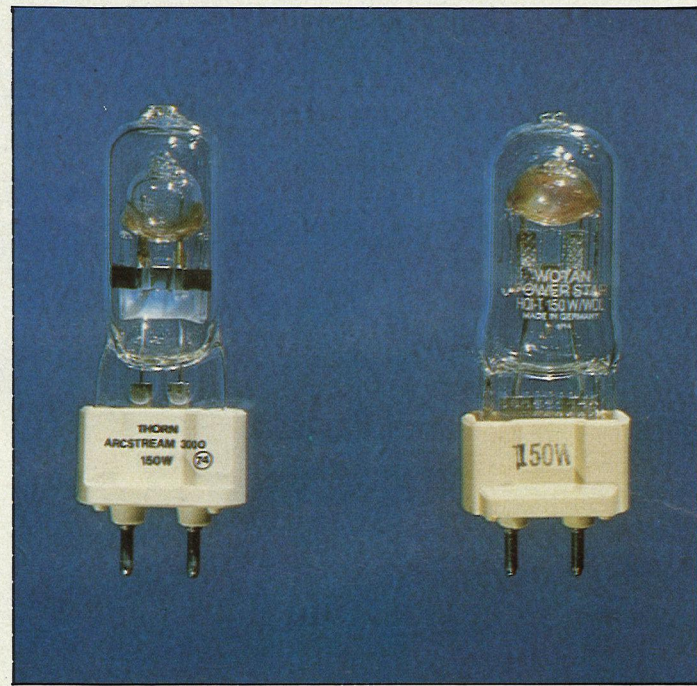
The alternative 2D lamp is well established and the period has seen the introduction of the larger 205mm square types rated at 28W and 38W. These are better suited to commercial luminaires and are perhaps the more useful type for general purpose diffusing fittings.

In the smaller sizes the 2D has become available in a range of colours as have the original PL/Dulux lamps. Both should find a ready use in restaurants, public houses and the leisure market.

PL/Dulux lamps in the smaller

wattages have become available without a starter in the base and this makes them usable for emergency lighting and for use on low-voltage inverters. These types have a four pin base so they are not interchangeable with the more usual two pin base types.

The larger wattage PL/Dulux lamps, at 18W, 24W and 36W, have very considerable potential in the commercial market but they are still rather expensive in comparison with the conventional T8 tubes. However, the very high



Left: metal halide lamps, Thorn's Arcstream (left) and Wotan's HQL.

that they thought they could influence the market so that we in the UK would drop our 600mm module and go to the 500mm overnight!

The alternative European 1250mm module has not found much favour either, in spite of the advantage for the UK luminaire manufacturers because it avoids the use of end boxes on recessed fixtures and allows recessed and surface types to have the same reflector attachment.

In recent times the 1500mm module has become more popular and this allows the use of a 500mm modular luminaire using two or three 36W PL lamps. Maybe this is the direction in which the market will eventually go.

Meanwhile, Thorn has tackled the 600mm module problem and have introduced a 40W 2L lamp. It runs from a new electronic ballast and is really suited to new luminaires. Perhaps this lamp will motivate the Europeans into action.

Low-voltage tungsten halogen is still an area of tremendous activity.

source luminance is quite a problem with reflector luminaires, and skilled luminaire design is needed if serious glare is to be avoided. Indeed, it may be that the lamp is just too bright for current technology.

Strangely, the European lamp

makers who first introduced these lamps restricted the length so that the lamp is practically unusable in the normal UK 600mm ceiling module. The matter was raised with the manufacturers at the outset but to date they have not responded. One can only suppose

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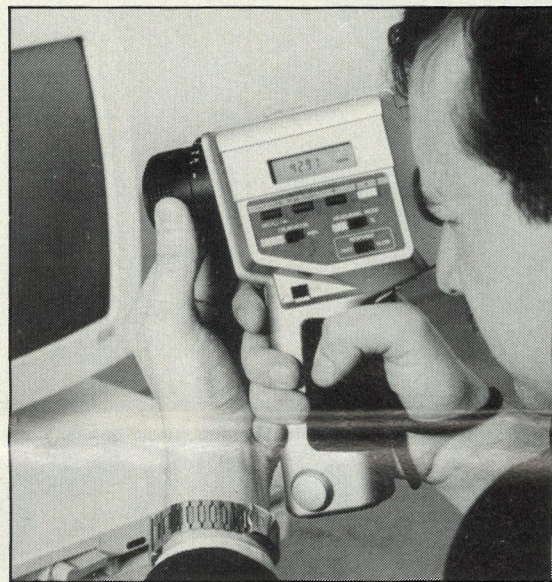
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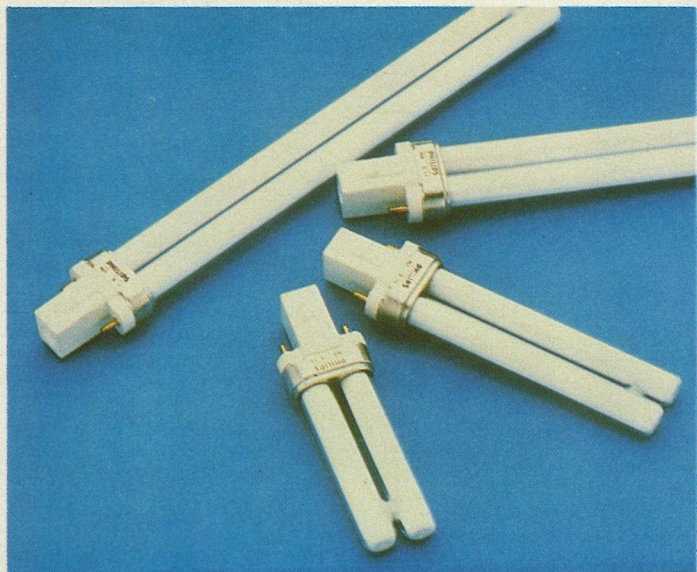
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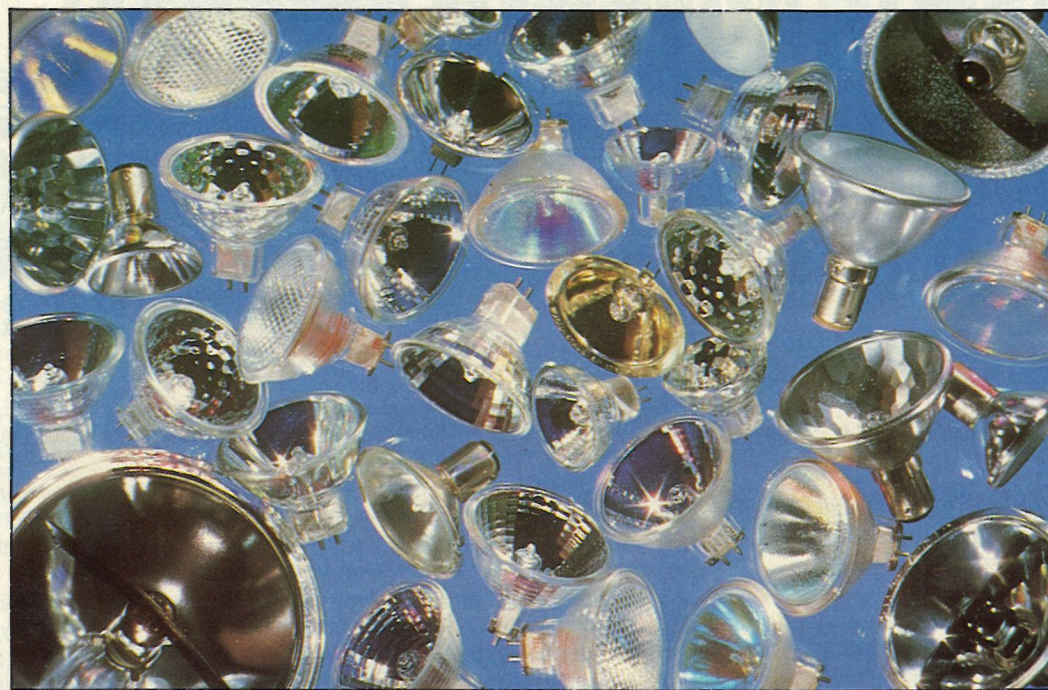
Right: some of the many types of low voltage lamps available.

New lamps and higher wattages are continually expanding the choice available to the luminaire manufacturer and to the user, but these trends are not without their problems.

Perhaps it is not often realised just how wide the choice is, with built-in reflectors of metal or dichroic coated hard glass. Wattages range from 20W to 65W and over. Most have differing distributions which vary from the very narrow angles with high intensities to very broad angles suitable for area downlighting.

This apparently wide selection of distributions is a bit absurd. The lamp makers all claim small differences of beam angle or intensity for what in reality are one and the same lamp. There are some standard American ANSI notations for the different beam angles and it would be easier for all if the manufacturers adhered to this system and adopted similar beam angles and intensities.

One is often left with the impression that low-voltage lighting is a recent development when,



in fact, it is around 30 years old. Perhaps it is fashion that dictates changes in the market place, or maybe it is the small size of the modern light source that is attractive.

Whatever the explanation, the low-voltage lamp is now the

accepted display lighting source in spite of the comparatively higher replacement cost over the earlier mains voltage types it replaced. Today mains voltage is rarely used — and low-voltage is the king.

Unfortunately the popular dichroic types have suffered from short

lamp life due to poorly designed luminaires causing overheating and excessive pinch temperatures. In this situation, the trend towards higher wattages like 75W and 100W must be a mixed blessing. For these higher wattage lamps will easily fit luminaires designed

for the smaller wattages — and poor lamp life and more customer complaints can only be the result.

It is really a case of the lamp makers falling over their own feet and then blaming the luminaire manufacturer or the user for misuse.

Maybe the smaller manufacturer doesn't have the design skills or the knowledge to avoid these problems but, surely, if the lamp is that critical or that sensitive shouldn't the lamp maker take the necessary steps to inform and guide the wayward manufacturer — or better still not introduce the problem at all. In the case of the higher dichroic lamps, should these not have a large diameter or a different base to prevent interchangeability?

A recent development in the 'bud' type tungsten halogen lamps (M32 for instance) is the axial filament which it is claimed gives a better distribution and improved efficiency.

The filament centre is claimed to be the same as the earlier transverse filament type to make the lamps interchangeable. Perhaps what the change does do is to account for the slight differences in the transverse filament that existed between different manufacturers, the axial filament being more forgiving. Certainly one advantage is that the axial type is available in a range of wattages all with the same light centre length, but apart from that the change looks pretty minimal.

High intensity discharge

HID lamp development has progressed rather more slowly, but there are some interesting innovations.

In the high pressure field one manufacturer has introduced a higher output SON while another has introduced a twin arc version to ensure cover should a momentary failure of the supply extinguish one of the arcs — the second arc ignites immediately.

The same company has introduced higher light output metal halide lamps with claimed improvements of 50%. This is achieved by special arc tube design which limits the burning angle. A bowed arc tube is used for the horizontal operation type and a bulbous arc tube for vertical use.

A near white SON has at last been introduced, at 50W and at 100W. The colour rendering is achieved at some expense of life. These new lamps are very well suited to the display and effect lighting market but one must bear in mind that they are not cheap, the lumen package is rather small, and a voltage regulator is essential.

The alternative is the introduction of small wattage single ended

metal halide lamps. These have been talked about for at least two years at 35W, 70W and 150W. They appear to have taken much longer to introduce than the manufacturers perhaps intended: and the 35W version is still not readily available.

This raises the question as to why the manufacturers are so keen to talk about their future developments so early. Could it be that they expect the luminaire manufacturer and the end user to do their field trials for them, or is it simply that they underestimate the time it takes to go from prototype development through to production.

In the case of these single ended metal halides it seems that we are still learning something about their use and application many months after their introduction. This type of approach can only frustrate the luminaire design process and make luminaire manufacturers more cautious the next time new light sources are introduced.

The new metal halide lamps will have a significant impact in the commercial area of lighting, particularly in downlights, shop spots, floodlights and perhaps in general purpose luminaires for the lighting of interiors.

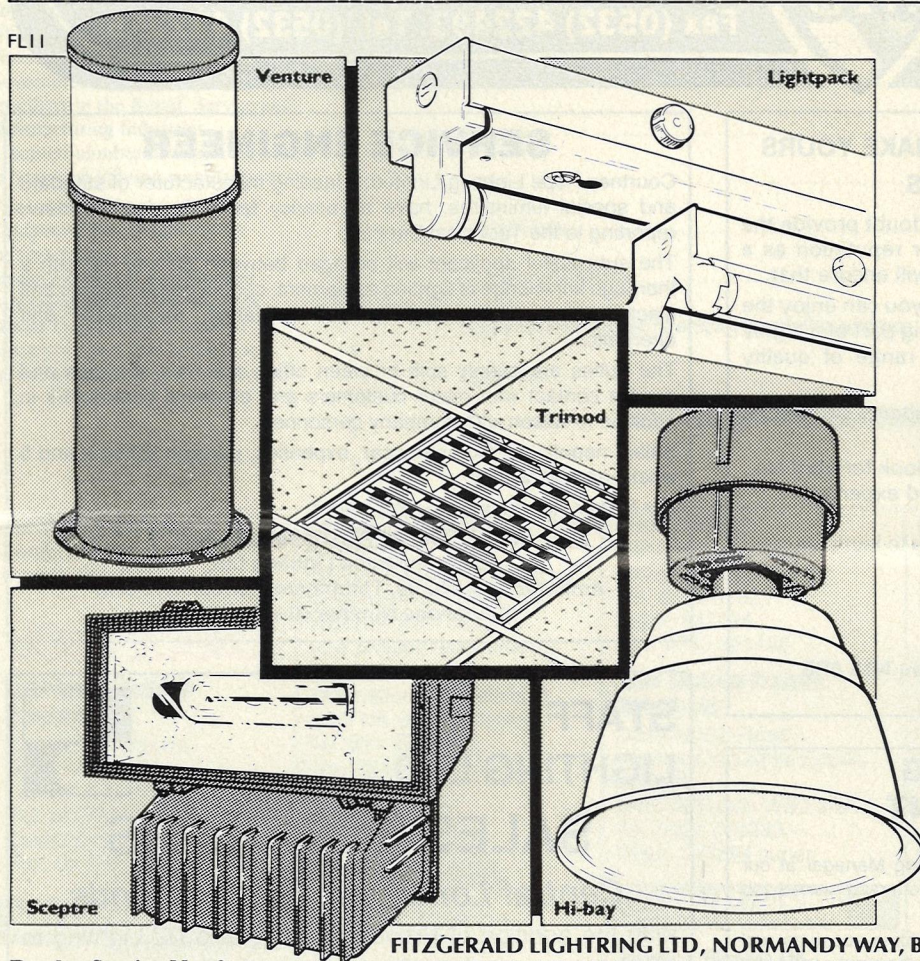
However, these lamps are not intended for the ill-equipped luminaire manufacturer or those who determine everything by price. They have very high source brightnesses and will need very skilled design if serious glare is to be avoided. Optimum performance without colour shifts will only be achieved with proper reflector design and paying due regard to the tight circuit operating conditions. Voltage regulation is a necessity.

These lamps, along with white SON, will do a superb job in the display and effects market, but they must be used in properly designed luminaires and that does not equate with low price.

Finally, there is the introduction of old lamps in new clothes. Thorn have launched an MBF super deluxe with greatly improved phosphors to give a far better colour rendering and these should give the old MBF/U equipped luminaires a new lease of life.

Several manufacturers have now introduced ranges of 'Soft-glow' GLS lamps for the domestic market, rather like the paint manufacturers' shades of white. It is surprising in view of the well known pop song that somebody hasn't yet branded these lamps as 'whiter shades of pale'.

Brian Morgan is Divisional Development Manager in the Lighting Division of Whitecraft.



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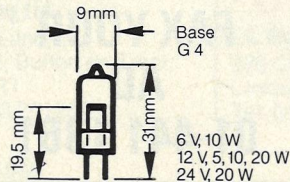
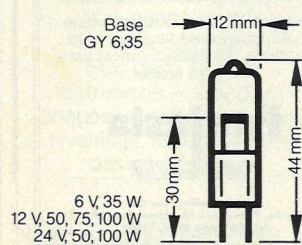
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Reader Service No. 10



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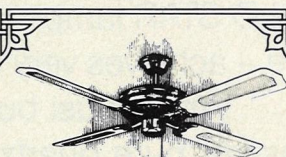
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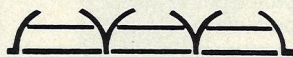
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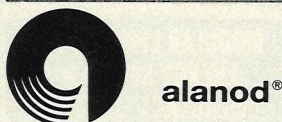
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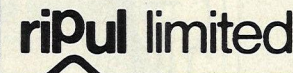


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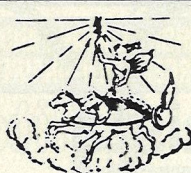
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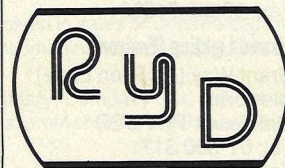
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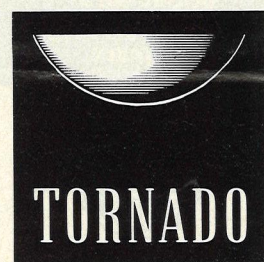
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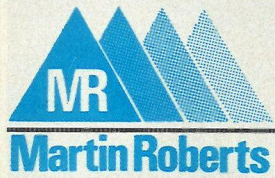
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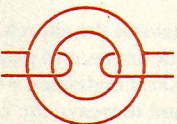


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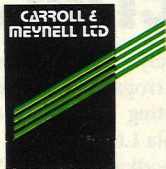
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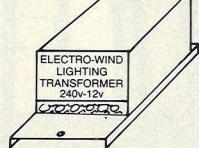


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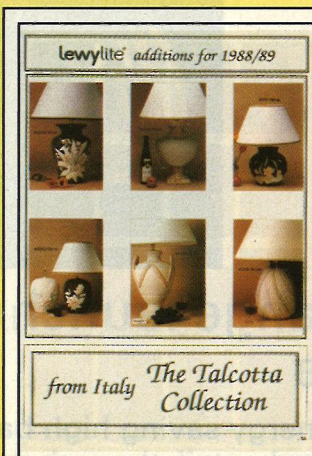
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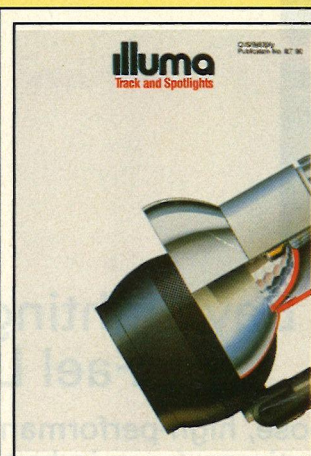
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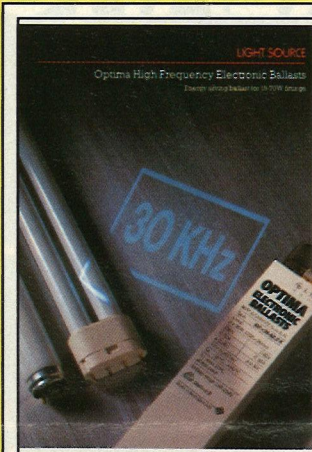
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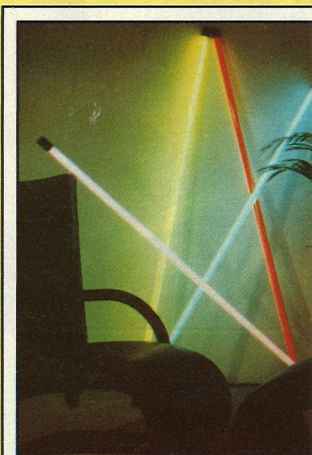
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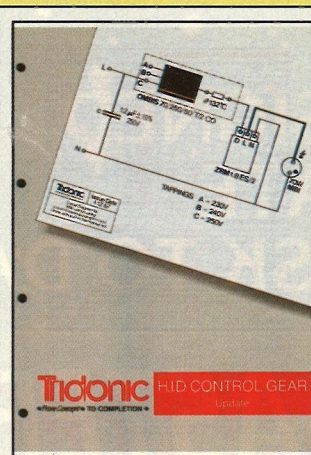
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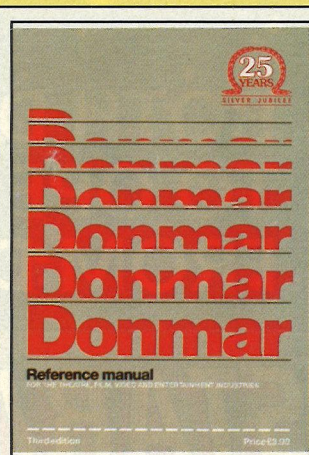
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LIGHTING EQUIPMENT NEWS



Imperial splendour

The immaculately restored Imperial Hotel, Harrogate, has been floodlit by lighting manufactured by GTE Sylvania Ltd.

Sylvania Floodkats with 70W and 150W High Pressure Sodium lamps together with Tungsten Halogen floodlights have been chosen to emphasise the hotel's splendid Georgian features and enliven the facade of the hotel which has been restored at a cost of £2 million.

Sunkats with energy-saver tungsten halogen lamps pick up the

architectural detailing and a graduated wash of high pressure sodium establishes a feeling of height and continues the colour theme up to the roof line.

The roof top restaurant was emphasised by carefully sited Weatherline fittings which incorporate triphosphor 2700K tubes to tone with the cream windows lit by tungsten halogen on the lower floors.

Electrical contractor for the project was David Hudson, and wholesaler was ECS.

TWO GREAT CREATIONS

**BOTH DESIGNED
TO OPERATE
FROM DUSK TO DAWN.**

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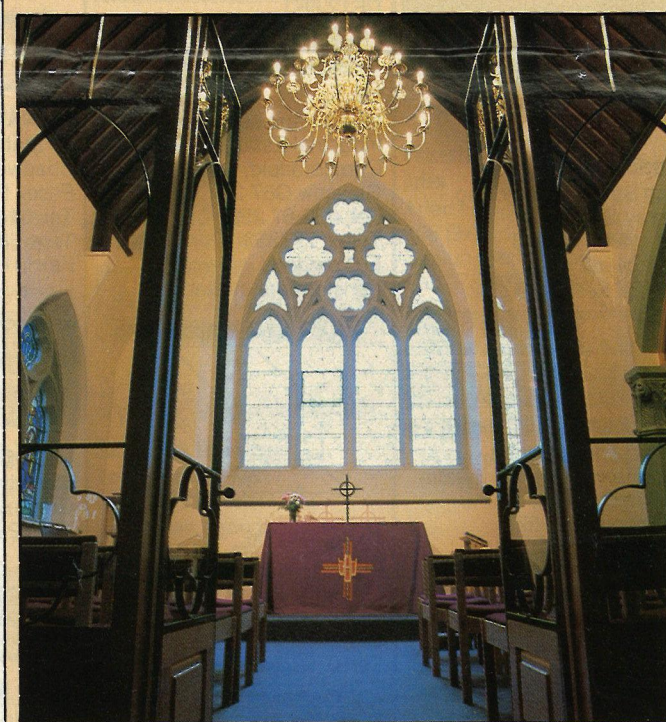
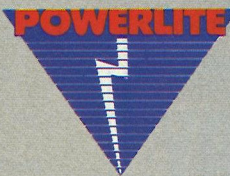
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In the hours of darkness this automatic, Photocell operated luminaire combines low energy consumption with high light output.

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- ▼ Save on buying new lamps - the 70 watt SON lamp lasts 5 times as long as the usual tungsten-halogen lamp.
- ▼ Save on labour charges - longer lamp life means less lamp replacements.
- ▼ Save on electricity charges - the POWERSON 70 is 70% cheaper to run than a 300 watt tungsten-halogen floodlight and gives a better light output.

Available from
leading wholesalers
throughout the U.K.



A new side chapel has been built within the walls of the large 850 seat Seapatrik Parish Church in Banbridge, County Down, as part of the 150th anniversary celebrations of the church's consecration. The chapel, called All Saints, will be used for small communion, marriage and baptismal services. It was designed by Gordon McKnight, a local architect and interior designer, who specified a 48-light Chelsom chandelier from Lighting Design Supplies for the interior.

McKnight closed off part of the columned nave in the church. A wrought iron interior frame, crafted with Gothic arches and glazed for privacy, forms the entrance to the chapel. Local craftsmen were retained to build seats and the reading desk, and to weave the carpet. The designers were seeking a lighting style which would complement the neo-Gothic late Victorian architecture. They chose a cast brass Flemish style chandelier with scroll arms and the characteristic brass ball and ring at the base to provide illumination in the austere chapel interior.

IN YOUR NEXT ISSUE

Lighting Equipment News brings in the New Year with a brief overview of trends in emergency lighting and complementary developments - such as experimental work being carried out on photoluminescent materials.

Two important conferences will be reported in depth; the European Lighting Council session on lighting at work and the RIBA's recent seminar on trends in lighting design for members of the design professions.