

## Student light award winner

An ingenious low voltage light cube designed by Tom Lloyd, a Nottingham Polytechnic student, has won the top prize in the Decorative Lighting Association's annual award for young lighting designers.

The cube uses a brushed stainless steel base plate as a negative contact and an isolated metal pole for the positive. The light cube is then placed on the plate, leaning against the pole and its brushed metal surfaces transmit the power to a 20W sealed beam lamp. The rest of the cube is injection moulded plastic.

Runner-up, Steve Hanson, from Newcastle-upon-Tyne Polytechnic, received the second prize for an elegant low voltage assembly designed to illuminate a desirable object or work of art. The object display lamp and elegantly designed stand utilise a 12V 35mm, 35W, dichroic source, powered through a gracefully curving copper strip which has been chemically treated to give an attractive, unusual patterned finish. The transformer and dimmer are housed in its base.

Third prize went to Ed Cruckshank, Ravensbourne College student who created a desk task light using a compact fluorescent fitting.

## In brief . . .

● **Lights-On Ltd** is a new company of lighting suppliers and design consultants which aims to provide a high standard of technical advice and delivery. Further information from 34 South Street, Ponders End, Enfield, Middx EN3 4JZ (tel 081-443 0272).

● **Clipsal (UK) Ltd**'s electrical accessories, industrial range and security products are now covered by BS5750 Part 2, following an audit of parent company Gerard Industries' manufacturing plants in Australia.

● **Edwards Electronics** is now distributor for a wide range of photo-electric beam sensors by Abcon.

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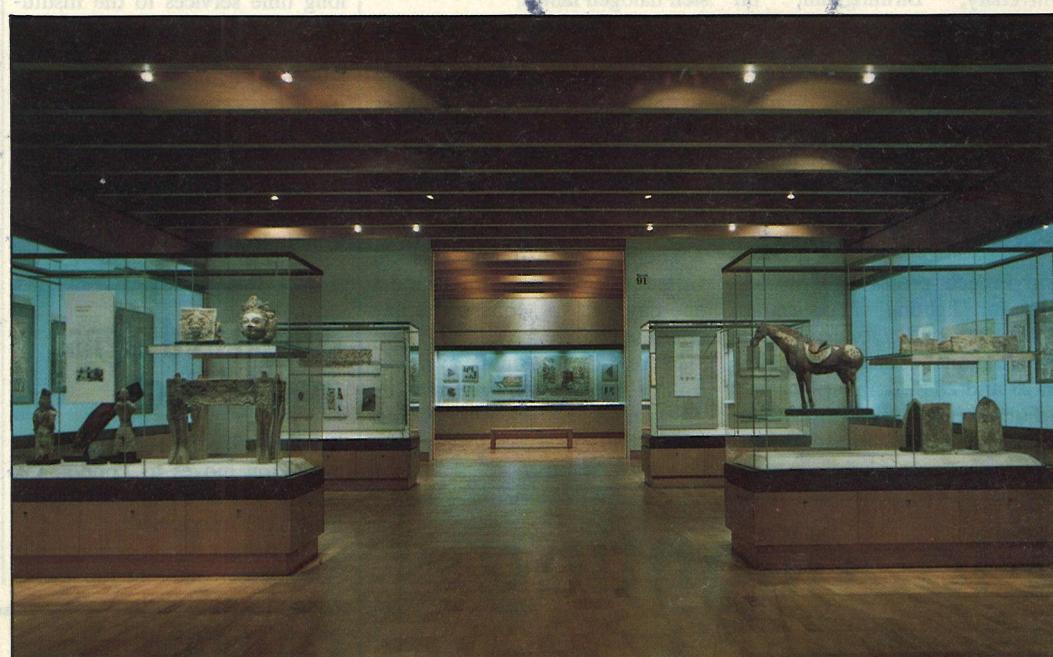
## GTE takeover of Thorn Lighting under discussion

Thorn EMI and the GTE Corporation are currently holding discussions with a view to GTE acquiring Thorn Lighting. A final agreement is expected in 60-90 days. In a statement issued on 24 May, both companies announced that the world market for lamps and fittings required increasingly high levels of research and development expenditure, and there was a growing pressure to achieve cost competitiveness through economies of scale. With this in mind they felt that the "joining of lighting businesses with a commitment to global growth in lighting will be in the best long-term interests of their customers and employees".

The reason behind this move is that although Thorn is very strong in the fittings field — and currently in number two position in Europe — the lamp position is relatively weak and the business has

insufficient critical mass to meet the investment levels of the international companies. In comparison with the four major world lamp companies — with Philips as the world leader and Osram occupying fourth position — Thorn is only one quarter the size of the fourth player in the market. Adding the strength of GTE's Sylvania subsidiary and Thorn's lamp capacity together will give the combined company second place in the world rating.

It is anticipated that all current activities of Thorn Lighting will be included in the deal. Although the luminaire side of the company would be capable of functioning on its own, Thorn EMI is determined that all its activities should be achieved on a global scale. The companies already have a joint venture in Italy with Thorn holding the major share.



## Lighting Japan's treasures

Four new Japanese galleries, housing 24 000 artefacts, have been created in the roof void at the British Museum by Oscar Faber. The delicate organic nature of the exhibits dictated fine environmental control.

Daylight has been excluded to facilitate control of ultra-violet radiation which could damage the objects. In addition, display cases are fitted with special ultra-violet filtering glass panels between the luminaires and the items being displayed.

There are different kinds of

showcases to accept different exhibits. One type of free-standing case is lit from outside by Thorn low voltage spotlights with integral transformers on ceiling mounted track.

Another island case has fluorescent luminaires by Davis Lighting concealed in the top, together with low voltage dichroic spotlights supplied by the German manufacturer of the showcase.

A third type of display uses Davis fluorescent fittings at top and bottom, supplemented by Concord low voltage spotlights with integral transformers on track

for highlighting.

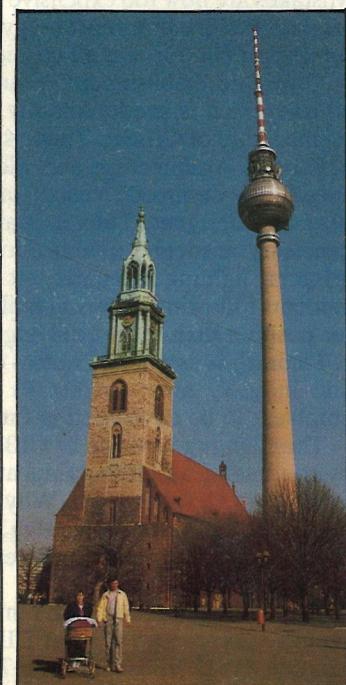
General lighting in the galleries is by 150W PAR38 downlights from Illuma.

All the lighting is dimmable, on separate circuits. Controls are by Quantran Systems Ltd. In the showcases, the illuminance can be varied from around 20 lux to 400 lux according to the exhibition and the particular object in the case.

There is a local control in each showcase and a central controller in the switchroom for each gallery.

Architects for the project were Gordon Bowyer and Partners.

## Energy-saving lamps help East German pollution problem



Osram GmbH is to deliver a production line for Dulux S lamps to VEB Narva in East Berlin at a cost of nearly £7 million. From its foundation in 1919 until 1945 the head office of Osram was sited in what is today East Berlin, where the company also had its largest works. VEB Narva took over the former peaceful revolution in East Germany, coupled with this historical link made it natural for Osram to wish to renew contacts with the former Soviet zone.

The new production line will enable Narva to manufacture 6 million energy-saving lamps annually producing a power saving equivalent to 1 million tonnes of lignite, the brown coal largely responsible for East Germany's horrific atmospheric pollution problem. This is equal to a coal mountain the height and size of the radio tower building in East Berlin's Alexanderplatz.

## Retailer training course in decorative lighting

The Decorative Lighting Association is launching a special course to improve retailers' knowledge of lighting and to help them sell more products. It is the first time such training has been available.

The DLA is gearing the course to suit specialist lighting retailers and staff in department stores and other outlets such as electrical shops and garden centres, which sell lighting to the public. Success-

ful participants will gain a certificate of proficiency in lighting knowledge and sales techniques.

The course will be practical, enabling sales staff to assist customers on lighting a room correctly and imaginatively and helping them to turn customer enquiries into sales. It will also explain legal requirements and identification of safe fittings.

The correspondence course will

last six months, and study and practical exercises will take about three hours a week. "Much of this can be done in the sales area during the quiet periods since it involves participants looking at their own stocks of lighting," explained DLA director, John Tengwall.

The course will cost £100.00 per participant but the DLA is planning to refund 50% of the fee to successful students.

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# NEWS

## Developments in lamp technology

As part of the lighting education programme of the Lighting Industry Federation, a seminar called *Lamp update* will be held at Aston University, Birmingham, on Thursday 19 July.

Recent developments in lamp technology and application will be discussed.

Vic Neal (lighting consultant) will speak on fluorescent lamps;

Bob Page (Thorn Lighting) will take as his subject high pressure discharge lamps, while Dale Kitching (Sylvania) will talk about tungsten halogen lamps.

Early registration is advised. The fee is £95 plus VAT, inclusive of lunch and wine. Further information from the LIF, 207 Balham High Road, London SW17 7BQ (tel 081-675 5432).

ing for work — VDT's and microsurgery, and lighting for plants.

There is a programme of local visits for delegates' partners and a one-day visit to Monaco the day after the conference.

More information is available from *l'Association Française de l'Eclairage*, 52 Bd Malesherbes 75008 Paris. Last date for registration is 16 August.

## Conference in Nice

The French professional institution for lighting, *l'Association Française de l'Eclairage*, is holding a national conference in Nice on 27 and 28 September.

Four themes have been chosen: tungsten halogen lamps and their application; urban lighting; light-

## Silver medal for Peter Bryce

Peter Boyce, known internationally for his research work in the field of lighting, has been awarded the CIBSE Silver Medal for his long time services to the Institution's Lighting Division.

Until recently he worked at the Electricity Council Research Centre at Capenhurst, but earlier this year he accepted an appointment as professor in the Lighting Research Centre at the School of Architecture at Rensselaer Polytechnic Institute, New York.

## Illuminated signs are high-tech

Signtech '90, the sign technology exhibition moves to London this year. It will take place at Olympia from 11-13 September.

For further details contact John Brownbridge on 0603 700598

## DIARY

### JUNE

6

**Crime and lighting.** A one-day conference at the Crest Hotel, Leeds, organised by Leeds City Council and Leading Edge. Details from John Pratt 043-871 7095.

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**Retail lighting seminar** arranged by Wotan Lamps. One-day event, with exhibition, at the National Motorcycle Museum, Solihull. Information from Barry Grossmith, Wotan Lamps Ltd, Wotan House, Gresham Way, Durnsford Road, London SW19 8HU (telephone 081-947 1261).

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**European Lighting Council's awards luncheon and presentation** at Copthorne, West Sussex, hosted

## New standard for road lighting

British Standards Institution has published BS5489 *Road lighting: Part 5: 1989 Code of practice for lighting for grade-separated junctions. It supersedes BS5489: Part 5: 1974.*

Copies are available price £5.20 (£2.60 to BSI members) from BSI Sales, Linford Wood, Milton Keynes MK14 6LE.

## Compact lamps for tenants

The report about Leicester City Council's environmental protection strategy in *LEN* April inferred that the Council was to purchase compact fluorescent lamps direct from Wotan.

Wotan has asked us to state that it does not supply direct to users, but sells exclusively through wholesalers. In the event, this order was handled by its sister company, Osram, who supplied via a distributor.

# CIBSE



The Chartered Institution of Building Services Engineers

## Better courses for better lighting

While there continues to be a worrying shortage of good courses in lighting, a recent CIBSE Lighting Division survey of colleges and courses suggests that the situation may be improving slightly.

A questionnaire aimed at identifying which colleges offered what courses and to what level was sent to over 40 colleges known to have an interest in teaching lighting and 21 have replied so far.

Of these, only two, South Bank Polytechnic and the Bartlett School of Architecture and Planning, both in London, run courses tailored specifically for lighting engineers and/or lighting designers. Only the South Bank course is recognised as satisfying the academic requirements for any grade of membership of CIBSE. Lighting is taught within other courses at 19 establishments surveyed, and the level of attainment varies between BTEC level II and degree standard. Some colleges are prepared to allow students to study only the lighting elements of their course.

Ten colleges allow students to attend the lighting sections of their courses and their entry requirements range from no previous experience to normal entry for a degree. Thus, while course topics are available, no formal recognition by CIBSE is obtained and previous study is often required, even for the lower level courses.

The survey was directed towards recognised academic courses in general, but a number of colleges and other bodies offer short courses and seminars on specific aspects. There has been a steady growth in the number of students on these courses and the Lighting Industry Federation, which offers two levels of course (basic and advanced) has had 600 students in the last five years. South Bank Polytechnic also offers two levels of short course (fundamentals and intermediate) and has had 350 students over the same period. The LIF courses involve formal lectures plus distance learning packages; the lectures are held in different regions of the country, for different courses. The Institution of Lighting Engineers also runs short courses, of a similar standard to LIF's.

Some colleges offer, or are prepared to offer, short courses but only when a demand is identified.

## Where is the complete lighting person?

Results of the survey to date show that opportunities for education in lighting still exist and are slowly improving. Educational establishments and industry have begun to realise the need, and more lighting is taught than ever before.

The problem is that "complete" lighting engineers and designers are not being produced. Industry seems to be training only to the level that will suffice, rather than for the well being of the profession and the individual; there is no clear route to CIBSE membership for lighting people.

If lighting is to play its proper role in the development of an integrated environment, then the persons responsible for the design of this environment should understand all the problems — scientific, psychological and physiological — that the design must satisfy. This can only be done by the correct education. Mistakes are now too expensive to rectify; we must create a better world to live in where energy conservation, aesthetics, economics and comfort are all considered.

Only one establishment (South Bank Polytechnic) offers a course which is predominantly a lighting course and leads to membership of CIBSE. There is only one other course (Bartlett School of Architecture and Planning's MSc course) which is specifically designed to cater for the needs of the lighting engineer and designer. Thus it is almost impossible to obtain the necessary academic qualifications for CIBSE membership by adopting lighting as a career. It is evident from this survey that students following electrical building services are in a much better position than those studying lighting.

Planning is essential: courses cannot be established overnight and industry must predict its needs to enable the correct emphasis to be developed in future courses.

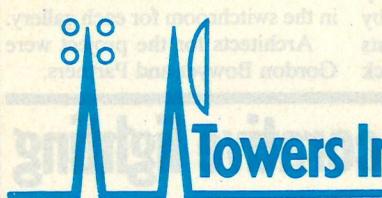
The Lighting Division of CIBSE is aiming to act as a catalyst by conducting a Lighting Education Forum at its London headquarters in October 1990. Why not come along and state your needs and opinions on lighting education? It is important that each area of our profession is represented, so please attend and don't just leave it to others!

Any reader wishing to be involved in this important event should contact Karl Pike at CIBSE, 222 Balham High Road, London SW12 9BS, tel: 081-675 5211

John Frost

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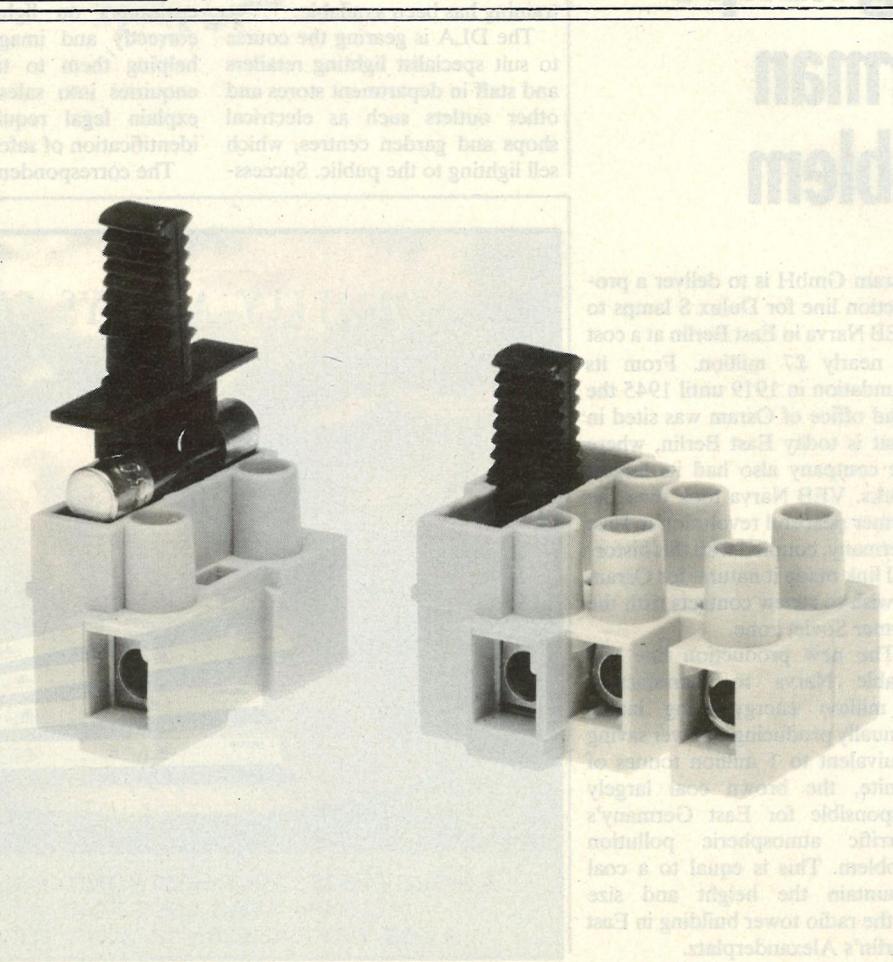
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Reader Service No. 3

# NEWS

## Engineers should take the lead

Building methodology has developed to offer opportunities to engineers as facilities managers, project managers, construction managers and contractors, stressed CIBSE president Derek Gillingham in his inaugural address. He then went on to urge building services engineers to take the initiative in preparation for the emerging European market.

In tracing the origins of building services engineering to the present day, Gillingham demonstrated that the building services engineer held the keys to successful modern

buildings through these four roles. However, the education of building services engineers should recognise the importance of training for management.

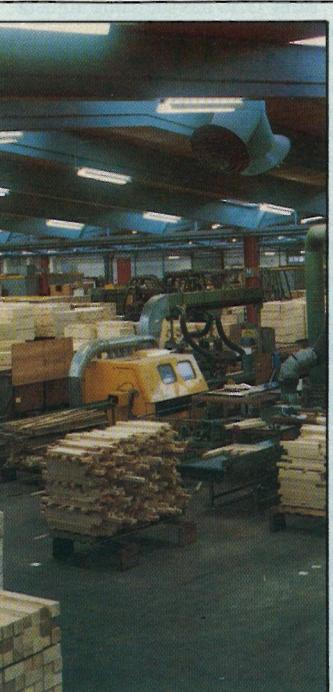
The UK system of placing contracts led to a basic conflict between the search for quality and contract tenders selected for their low cost. The need to adapt buildings constantly to accommodate new technology and to make them "future proof" underpinned his theme that the building services engineer had become the natural leader of the construction process.

to select the correct line as their view of the bridge is restricted by a bend in the river.

In an attempt to reduce the risk of collisions, British Rail is flood-lighting both ends of the main central jetty and two jetties either side of the river navigation channels, with 150W high pressure sodium lamps.

The power supply to the lights is backed up by Erskine uninterrupted power supplies to ensure they continue to operate if the mains supply fails.

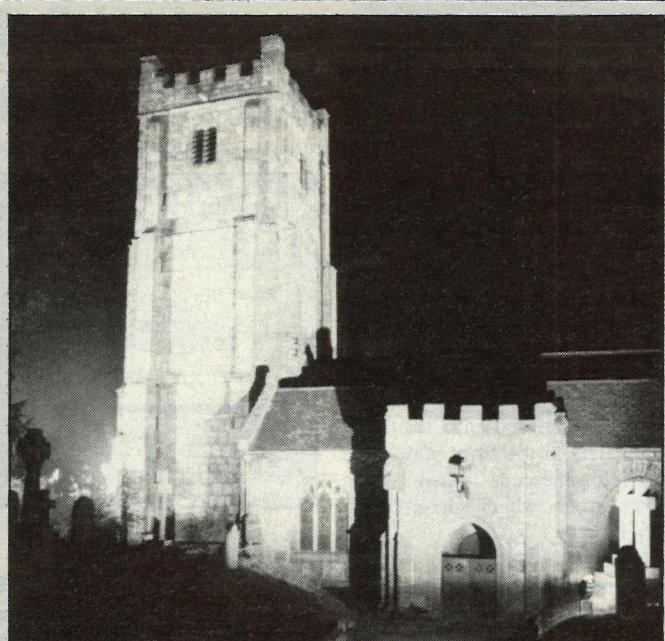
Three 5kVA Gem 500 systems complete with three-hour, maintenance free, recombination lead acid batteries supply the flood-lights while two 24V dc systems protect the navigation lights on the bridge.



A simple one-for-one replacement of the fluorescent lighting in Boulton and Paul's Lowestoft factory has increased lighting levels by 20%, from 250 lux to 300 lux — and reduced the lighting bill by 40%. In addition, the quality of the lighting and the environment provided to staff have been immeasurably improved. The installation uses high-frequency fluorescent luminaires manufactured by Philips Lighting Ltd.

The factory, which makes doors, window frames, staircases and cabinets for the building industry, was originally lit by 480 twin-lamp 2400mm, trough reflector luminaires fitted with 100W Colour 35 halophosphate lamps. This is quite a modern installation, as the TLD 100W/35 lamp was introduced only a few years ago as part of Powerslimmer krypton-filled energy-saving range. These were replaced with twin-lamp 1500mm 60W P260HF Streamlite high-frequency battens fitted with R5N trough reflectors and TLD 60W/84HF high-efficiency triphosphor lamps with deluxe colour rendering.

Employees now enjoy the amenity of deluxe colour rendering (standard on HF luminaires), as well as increased safety due to the total elimination of stroboscopic effects with rotating machinery — at the high operating frequency, the light from the lamps is flicker-free.



Historic Chagford Parish Church, near Oakhampton in Devon, has been transformed by floodlighting. Outside the church, four metal halide Powerlite CPW70 Metafloods throw light up onto the church tower, while 12 CPS70 Powerson high pressure sodium fittings uplight the inside of the church.

The Rev Dr Derek W Goodwin, lighting consultant to Westminster Abbey, was responsible for the design. The floodlights are by Powerlite Electrical Products Ltd.

The new lighting of this rural church is attracting tourists throughout the evening in addition to the people who visit it during the day.

## Electrical safety in schools

A revised version of a guidance note on electrical safety in schools has been published today by the Health and Safety Executive (HSE). This takes into account the Electricity at Work Regulations 1989, which came into force on 1 April, and which apply directly to schools.

The guidance note concentrates on the safety precautions to take to guard against, electric shock or burn to primary and secondary school children. More advanced

students using specialised apparatus are outside its scope, while extra precautions may be required in schools catering for children with special needs.

The guidance recommends that fixed electrical installations should be properly inspected and tested at least every five years; and more frequently if subject to damage and abuse. Equipment such as socket outlets, light fittings and radiant heaters should be chosen and located with the risk of abuse in mind.

Schools are advised to prepare an inventory of electrical apparatus and to keep it up to date. Older equipment does not have to be brought up to modern standards, but it must be made safe.

The guidance note also gives advice on installations and equipment in science laboratories and other practical areas. It pays attention to proximity of sockets to water, and to protection through the use of residual current devices, isolating transformers or earth free areas.

Sources of other advice and guidance, including the Department of Education's safety series booklets, are listed in a reference section.

Copies of Electrical Safety in Schools (Electricity at Work Regulations 1989), Guidance Note GS23, are available from HMSO price £2.25.

## Industry shows consistent growth

The building services industry grew by 12% in 1988 and is making an increasing contribution to the UK economy, in 1988 the industry accounted for 2.1% of the GDP. With a market worth £8400M to contractors, £7000M to manufacturers and £200M to consultants, building services contracting has a 21% share of total construction output.

These figures are given in a report on the building services industry compiled by the Building Services Research and Information Association for the Chartered Institution of Building Services Engineers.

Between 1975 and 1988 the total value of mechanical and electrical work undertaken increased by more than five times and is estimated to have been £6264M in 1988. Up to 1981 H and V work was the dominant sector but this has now been overtaken by the electrical sector at 46%.

BSRIA estimates that 403 000 people are employed in the building services industry, 59% in contracting, 38% in manufacturing and 3% in consulting.

Despite the slower growth of the construction industry in general building services output is expected to be particularly strong in the commercial and industrial sectors.

# COMMENT

## A technologically backward future?

So, Thorn EMI is to sell off Thorn Lighting — a memorandum of understanding to this effect was apparently signed on the night of Wednesday 23 May and the Stock Exchange informed the following day.

In yet another about-turn, the group which until only a year or so ago was buying new lighting companies worldwide has apparently decided it is not large enough to invest on the global scale determined by its four larger lighting competitors in the lamp market — Philips (Netherlands), General Electric of America, GTE corporation (USA) and Osram (Germany). Although fifth largest in world ratings, Thorn Lighting's turnover only amounted to a quarter of that of the next largest company, Osram.

This conclusion was apparently reached as a result of the recent restructuring of the world lamps market. Here one must cite the deal concluded between Tungsram of Hungary and GE at the end of 1989, which Thorn certainly saw as being potentially very price disruptive. Other major players have also been aligning themselves recently to take advantage of new opportunities presented by Eastern Europe — witness Philips Lighting's recent takeover of Polam Pila in Poland and Osram's deepening links with its former sister company, East Germany's VEB Narva.

Ironically, Thorn Lighting under Hamish Bryce, has recently won a business press award for its first class business strategy in Europe. What price excellence?

Apart from the immediate prospect of job loss in the sector — and reductions in staff numbers at Thorn are certainly on the way — the most worrying factor as far as the UK industry as a whole is concerned is that in any multi-national concern research and development is invariably seen as a head-office function. Thus, by losing the independence of its largest lighting company, the UK is excluded from the forefront of advance in lighting technology. And it is the quality, rather than the quantity of job loss that should give rise to concern.

Even the luminaires sector cannot help but be affected by having less convenient access to developments in lamp technology. After all, it makes far more sense to try out a new product on the home market first. Moreover, in this business, certain key new products have proved notoriously difficult to obtain for long periods after their launch, leaving specifiers in an embarrassing situation vis-à-vis their clients — British specifiers now look set to be even further back in the queue when it comes to access.

In all, then, the move represents a considerable loss to the British lighting industry, and one sincerely to be regretted.

## LIGHTING EQUIPMENT NEWS

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# NEW PRODUCTS



## Unit gives coloured lighting effects

It operates low voltage tungsten halogen lamps with coloured filters attached. There are four channels and maximum loading per channel is 200W, i.e. up to ten 20W spotlights.

The unit cycles automatically from channel to channel; there is a choice of gradual crossfade or a chase effect and the timing of the cycle can be speeded up or slowed down.

Trade price is £376.20 plus VAT. **Reader Service No. 151**

An easy-to-use, electronic lighting control unit for coloured lighting effects in shop windows, in-store displays, hotel lounges, bars, exhibition stands and even outdoor applications has been developed by CCS UK.

## Low level arrows light the way in smoke

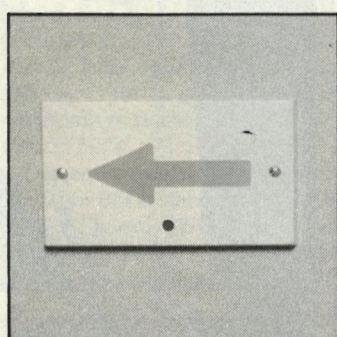
Safex is a device to improve the means of escape from smoke filled rooms by a series of arrows at skirting board level in public areas.

Introduced by G T Lighting Ltd, the unit fits into the back box of a twin 13A socket outlet. A Perspex arrow is moulded into the front plate. Behind the front plate is an electroluminescent panel which glows green when energised by batteries.

It is cabled in the normal manner to the mains, lighting or fire alarm circuits. Three-hour non-maintained and maintained units are available for either self-contained or central battery operation.

Because smoke rises, it can

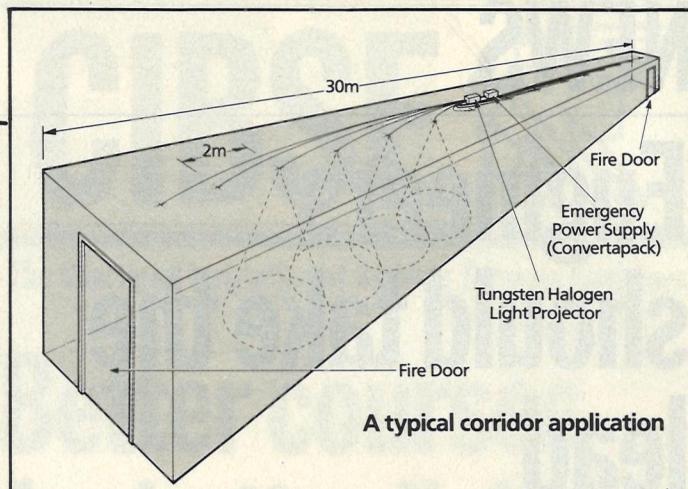
reduce the effectiveness of ceiling mounted or even wall mounted emergency luminaires in the event of a fire. Being at low level, Safex arrows pointing to the emergency



exit will remain effective for a longer period.

**Reader Service No. 152**

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



A typical corridor application

## Emergency fibre optics

A new concept in emergency lighting, Fibre-Lite, has been developed by Menvier (Electronic Engineers) Ltd.

The versatility and miniaturisation that are possible with fibre optics, means that Fibre-Lite can provide emergency lighting over a 30m span from one light source.

Each Fibre-Lite consists of three elements: light source, fibre optic harness and tails, and an emergency battery and charger pack.

The light source used is a 12V 50W tungsten halogen lamp illuminating the face of the fibre optic harness. The harness has 15 tails each terminated with a ferrule. These are positioned at 2m spacings over the area to be lit. They provide up to 30m of linear coverage to 0.2 lux when mounted at up to 3m above floor level.

When installed as part of a

suspended ceiling system each tail is fitted into a 3mm diameter hole drilled in the ceiling tile. A range of ceiling mounting bezels is available if required.

Four additional fibre optic tails are provided to illuminate safety or directional edge-lit signs.

The fibre optic tails can be routed to virtually any position and are maintenance free.

As Fibre-Lite is almost invisible when unlit it is very suitable for stately homes and historic buildings where conventional emergency luminaires may be unacceptable. This factor equally applies to areas such as night clubs, theatres and TV studios.

On grounds of safety, Fibre-Lite is expected to be used in applications such as paint spray booths and where any electrical spark would be a hazard.

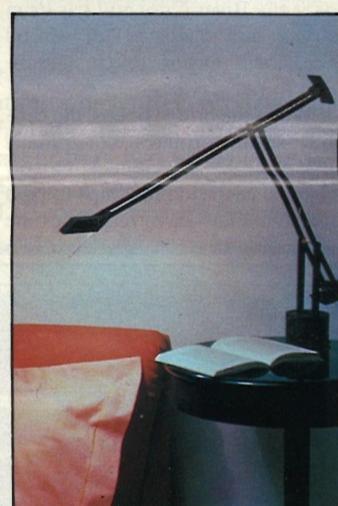
**Reader Service No. 153**

## Mini Tizio takes a bow

The well known Tizio, low voltage desk light by Artemide, has been produced in a smaller more versatile size.

Mini Tizio has the same adjustability and stability as the original model designed by Richard Sapper. It can also be switched to give a choice of two light levels. Produced in black, it is made of metal and plastic.

It is available from London Lighting at around £109 plus VAT. **Reader Service No. 154**

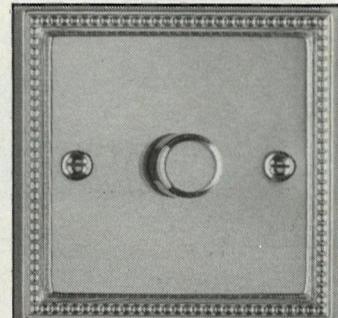


## Electrical accessories

Sussex Brassware Ltd has introduced two further ranges of electrical accessories.

The Salisbury range has a bead trimmed front plate, while the Canterbury style has a stepped frame.

Items include light switches, dimmer switches, two-way switches, 13A socket outlets and cord outlets.



There is a variety of finishes including brass, satin chrome, gold plated and silver plated.

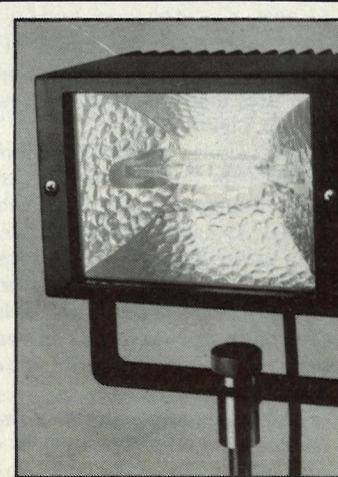
**Reader Service No. 155**

## High power portable floodlight

A high intensity portable floodlight, Super Nova, from Technical Light Services Ltd is intended for emergency and rescue services, offshore and other marine lighting, video filming and security lighting.

It uses a 70W metal halide lamp and operates off either a 12V or 24V supply from a vehicle, or a remote battery based system.

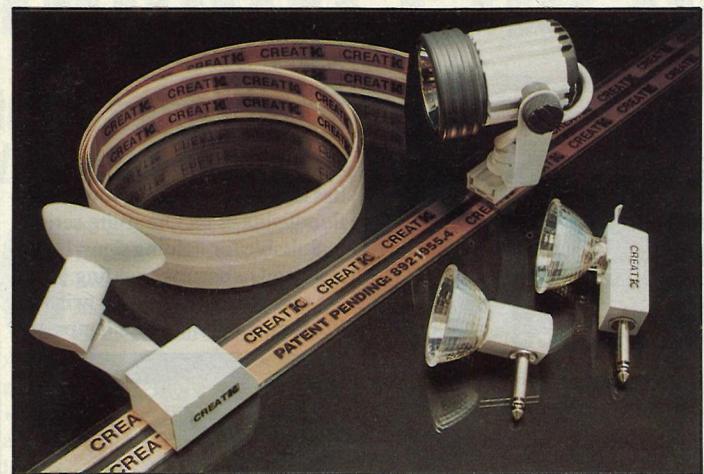
The lamp gives a wide beam of "daylight" quality light and has a similar light output to a 300W



tungsten halogen lamp.

**Reader Service No. 156**

# NEW PRODUCTS



## Creative tape lighting

Creatic is a low voltage tape lighting system being manufactured in Britain by Ideal Concepts International Ltd.

The self-adhesive copper tape is no thicker than a post card and attaches to solid surfaces, including glass. It can change direction without the need for couplers and can be painted or wallpapered over.

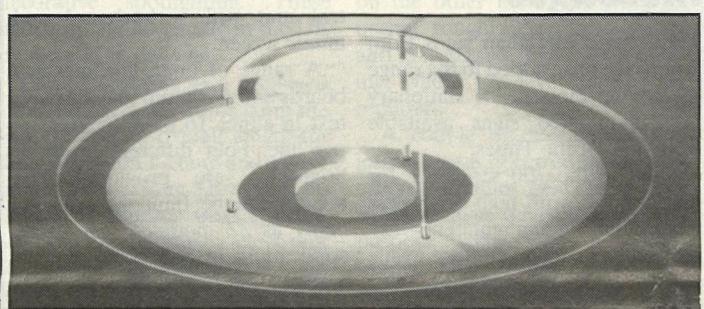
Supplied in rolls of 5, 10, 20 and 50m for ease of carrying and dispensing, it dramatically reduces installation costs.

The adaptors are held in place

by special self-adhesive industrial tape that makes both electrical and mechanical connection. Spotlights are then attached by either jack plug or a slide-in fixing.

At present there are four styles of spotlight using 5, 10, 20 and 50W tungsten halogen lamps, but this range is being increased. Ideal Concept is also supplying the transformers. A starter kit is available for the tape light system.

Applications include shops, hotels, restaurants, wine bars, art galleries, offices and historic buildings. **Reader Service No. 165**



## Varied range of downlights

A range of downlights from Designed Architectural Lighting Co Ltd consists of 14 designs spanning low voltage, discharge and compact fluorescent lamps.

It offers a choice of functional,

decorative or two-in-one designs, as well as external luminaires and optional emergency lighting facilities. A feature of the range is advanced optical designs combining low glare with high efficiency and good colour rendering.

Metro Disk, illustrated, has a "floating" glass disc and a cone which reflects light onto the ceiling.

**Reader Service No. 166**

cent lamps.

Housings are zinc coated steel, finished with a high gloss, white polyester powder coating.

Attachments include low brightness aluminium louvre, silvered parabolic closed-cell and low glare louvred panel for situations where direct glare control is needed and indirect or reflected glare must be avoided. Prismatic controllers and diffusers are also available.

Options such as emergency lighting facilities, electronic start and alternative voltages can be supplied. **Reader Service No. 167**

## Recessed modular luminaires

The range of Tamlite recessed troffer luminaires has been enlarged by the introduction of the TREM versions for the majority of exposed tee ceiling systems.

They are available in two nominal sizes: 600 x 600mm and 1200 x 600mm for use with either two, three or four 18W or 36W fluores-

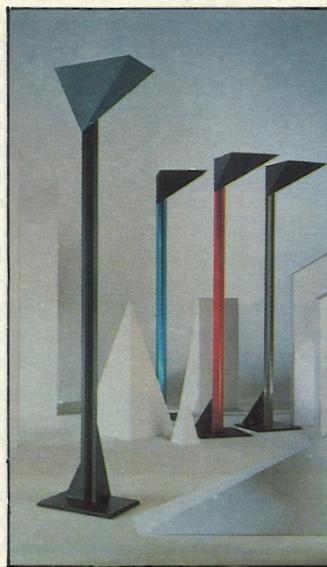
## Uplights for offices

Matching floor standing and wall mounted uplights called Ramsete are available from Thousand and One Lamps Ltd.

They use either 150W or 250W metal halide lamps plus an auxiliary 300W tungsten halogen lamp which gives illumination until the main lamp has reached full light output.

The head, described as an oblique pyramid, contains an asymmetric reflector which is equipped with a protective, shatterproof, ultra-violet absorbing glass.

**Reader Service No. 169**



## High technology for insects

Ultra-violet compact fluorescent lamps are used in the latest luminaire from Eastmead Electronics Ltd to destroy flying insects.

The EME60 model incorporates two 28W 2D lamps in the slim, wall mounting fitting. The ultra-violet light from these special lamps attracts insects which are then electrocuted on a high voltage grid.

It is easy to keep clean, with a pull-out tray to dispose of insects, which when removed automatically switches off the mains supply.

**Reader Service No. 170**

## Floodlight for small areas

Microflood is a compact projector floodlight from Hitech Commercial Lighting Ltd. It is specially suitable for illuminating limited areas such as signs and the front of small buildings.

It uses either 50W or 70W high pressure sodium; 50W, 80W or



125W mercury, or 70W or 150W metal halide lamps. A toughened glass lens seals the front.

Optional accessories include a photo cell, wire guard and polycarbonate lens.

**Reader Service No. 171**



## Replacement for PAR38s

GTE Sylvania Ltd has a new display lamp, Halogen PAR30 De Luxe, a mains voltage tungsten halogen capsule housed in a conventional PAR envelope.

By simply replacing a PAR38 lamp with a Halogen PAR 30 De

Luxe, users can obtain better light quality, better lumen maintenance throughout life, and a 25% increase in lamp life.

It is designed to provide upgraded lighting in display situations where the investment required for a complete low voltage system cannot be justified.

Two wattages are available and a choice of beam widths.

**Reader Service No. 172**

## Lamp ignitor

A lamp ignitor stated to give rapid, reliable starting to all correctly matched discharge ballast and lamp combinations is available from Lighting Components Ltd.

A major feature of the design is the elimination of the use of a tapping on the ballast, making the ignitors more suitable for all brands of ballasts within the specified voltage and wattage ratings.

They operate effectively on a wide range of lamp types and wattages from 70W to 2000W metal halide and 50W to 1000W sodium at 240V ac.

They only supply to the required strike voltage to suit the lamp, provided the correct ballast is being used. Another advantage is that they generally extend lamp life.

**Reader Service No. 173**

ing version which uses 20W dichroic tungsten halogen lamps.

**Reader Service No. 168**

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



## Emergency lighting

Ring Electronics Ltd has an additional range of emergency lighting with brass fittings. It is specifically aimed at the hotel market.

The range includes brass exit signs, decorative crystal units and semi-recessed trims for Ring's H and C series.

**Reader Service No. 174**

# LIF LINE

## BS 5750 — The undeniable need for quality assurance

Complacency is the enemy of safety and attracts disaster. This was recently brought to light in an enquiry from a worried distributor against whom legal action was pending after a fitting exploded causing injury to a child. Calmly wishing to know of his legal rights, he was surprised to learn that unquestionably in his situation — having imported fittings with no known guarantee of safety — he had none.

The disturbing element in this case was the ignorance of a company which imports luminaires, seemingly regardless of quality assurance. The consequences for the supplier are frightening, let alone the more serious implications for the consumer. And such cases as this are not uncommon.

With trade barriers diminishing as 1992 rapidly approaches, the question of fundamental quality assurance must be addressed as opportunities for increased UK imports as well as exports arise.

To this end, many lighting manufacturers are already BSI, ICEL or BASEEFA licensees, BSI registered firms or have equivalent approval from quality assurance bodies such as major purchasers or government departments who insist upon rigorous levels of quality assurance.

The LIF likewise recognises this to be of prime importance and stipulates that membership requires quality systems operating in members' factories to conform to BS 5750.

Thus, the quality of LIF members' products is a recognised fact and such stipulation serves to underline LIF's premise that membership of the Federation is synonymous with quality and safety.

Added to this, as the climate changes with the adoption of safety regulations in all sectors, associated promotion by LIF, BSI, and the EEC Commission has further strengthened the need for suppliers to conform and be assessed according to BS 5750 and to certification in general.

BS 5750 quality assurance is an integral part of the BSI's product certification activities and, thus, distinguishes itself from the certification systems in other countries. This all adds extra weight in promoting the quality of British products. It will subsequently secure our hold over the home market and hopefully serve to increase our standing abroad to improve our share of the single European Market.

The Lighting Industry Federation serves as the touchstone for the UK lighting industry and, as such, wishes to convey the need for all lighting manufacturers to be alert to the changing international climate with regard to product quality.

With the Consumer Protection Act 1987 and the EEC Product Liability Directive, which became effective in March 1988, certain duties have been imposed on the manufacturer. As a result, quality assurance and the importance of certification is not only essential to compete profitably in the growing market, but also to obtain the reassurance that those legal and safety standards have been met.

Had this inquirer sourced his products from an LIF member operating a QA system independently assessed as conforming to BS 5750 he could have avoided this product liability suit.

This can only reiterate the point that quality assurance and certification activity must become intrinsic to our operations in the home market and abroad if we hope to stay safely ahead in the years to come.

# NEW PRODUCTS

## Prestige uplights

An unusual and decorative uplight called Apollo is available from Kern Light (UK). It is suspended from the ceiling and uses a mains voltage tungsten halogen lamp.

The lamp throws light up onto a tent shaped reflector made of pressed steel.

Applications include prestige reception areas and foyers. There is also a recessed version.

Reader Service No. 157



## New louvre for linear system

The series 120 modular linear lighting system made by Radius

Lighting has a new design of louvre.

This mirror louvre has been designed for maximum light output. A high efficiency mirror finish in conjunction with profiled cross vanes in matt anodised aluminium

results in well controlled, high light output from the fluorescent lamps.

The scale of the system, with its 120mm diameter modules and twin lamps, is particularly suited to higher ceiling voids.

Reader Service No. 158

## Outdoor lanterns

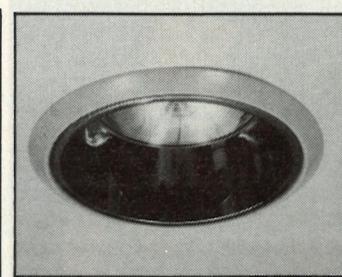
Provence is one of three lanterns from Noral with either clear, smoked or opalescent polycarbonate glazing.

They have ingress protection



rating IP44 with a 20 year guarantee against corrosion.

Reader Service No. 159



## Recessed downlights

Inset 150 Maxi is an addition to Lumiance's range of fully recessed downlights. Developed for use with 100W reflector lamps, it gives general diffused lighting.

To prevent glare, Inset 150 Maxi has a carefully designed cone available in either polished aluminium or brass colour.

The range also offers a "Super" version which uses a more powerful 120W PAR38 flood or spot lamp. This is available in white with a black baffle to minimise glare. All Inset downlights are designed for quick and easy installation.

Reader Service No. 160

## Low energy floodlights

Starlowe Lighting and Design Ltd has launched a range of low energy floodlights in its Omni-lite series.

Suitable for lighting signs, buildings, and as security lighting, there are two models. One uses twin 9W PL compact fluorescent lamps, the



other uses four 9W PLs.

The floodlights have vandal resistant polycarbonate bodies and lenses, polished aluminium reflectors, and integral control gear. Options include 130mm or 400mm arm for wall mounting and adjustable ground spike.

Reader Service No. 161



## NEW WHITE LUCALOX. THE WHITE LIGHT, HIGH PRESSURE SODIUM LAMP.

Not yellow white. Not bluish white. Not pink white.

White Lucalox, the world's first 2800 Kelvin high pressure sodium lamp system, produces white light. And you can really see the difference.

Its color rendering is unlike any other high intensity discharge light source. And thanks to its electronic control gear, White Lucalox provides good color performance throughout its life.

Initially available as a 95-watt model, GE White Lucalox is designed for use in open fixtures without a cover glass. It doesn't emit ultraviolet (UV) radiation and it can be operated in any position—even upside down.

So you get a unique combination of economy, dependability and color performance to enhance your most imaginative display and directional lighting concepts.

For the right solutions to your lighting challenges, contact your GE representative.



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TLX: (851) 311684

Reader Service No. 5

## Illuminated messages

Two ranges of Italian signs from Apel have been added to the range of moving message or stationary text illuminated signs available from Sign of the Times.

Signs in the 700 series are for outdoor use, with high brightness for visibility in sunlight. They use red indicator lights and are available in single and double line versions in lengths from 1m to 16m.

The units are suitable for networking. A single unit has a 32k memory allowing it to be used

on its own to provide a continuous series of messages for up to two hours without repetition.

Single units can be programmed and monitored from a small control unit with a keyboard and mimic screen.

A range of multi-line message boards 840-2100mm long displays text in either 16 or 32 characters per line. Four different levels of brightness are provided. The boards can be built up using as many as 32 modules. There are applications in hotels, conference centres, sports stadia and any other situation where large areas of lighted signs are needed to display material under computer control.

Reader Service No. 162



## Improved lampholder for LV lamps

Thorn EMI Lamps and Components Ltd has developed a new lampholder for its 35mm low vol-

tage tungsten halogen mirror lamp range.

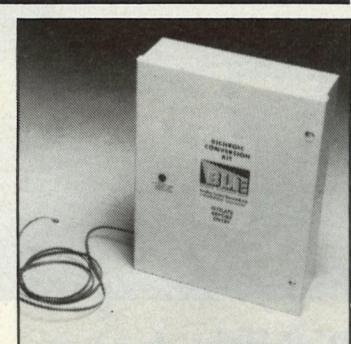
The GL 1241 lampholder has support clips that give greater retention by latching into the slotted lamp base. The support system also helps to guide the lamp into the socket. A spring/contact arrangement gives good contact pressure without undue force on the pinch. Reader Service No. 163

## LV emergency conversion kit

Bradley Lomas Electrolok Ltd has introduced its dichroic conversion kit for low voltage lighting.

This offers architects and designers a simple, cost effective method of converting existing low voltage lights into emergency luminaires with minimum disruption during installation.

The kit is available in three versions, 20W, 35W and 50W. It gives emergency light for three hours in the event of mains failure. A low voltage cut-out prevents batteries going into deep discharge.



The unit includes an indicator light to show satisfactory operation. An electronic transformer stabilises output voltage, which protects the lamps from mains fluctuations.

Reader Service No. 164

# Hanover highlights

In the first of two reports on the world's largest light show, *LEN* looks at new launches in the lamp market.

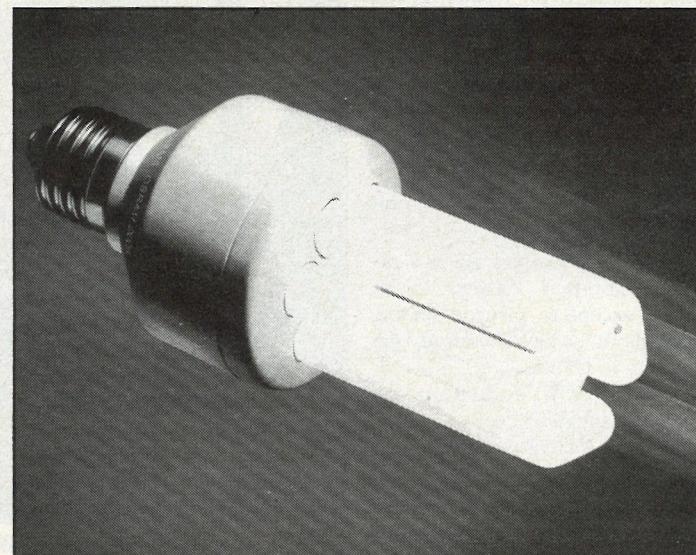
One of the more noticeable features of Hanover 1990 was the trend towards increasing miniaturisation of electronic compact fluorescent lamps in an attempt to make them a more satisfactory replacement for the incandescent lamp in all luminaire types. Osram demonstrated two alternative approaches here. Their double turn design has now been reduced in size so that the 7W version now measures a mere 125mm, and the 11W lamp has been reduced to 139mm in length.

An innovative alternative is the triple turn lamp where three fluorescent tubes are combined in a triangular arrangement on the standard casing of the double turn tube version. The 15W triple-turn lamp is 145mm long and the 23W lamp with an output greater than a 100W incandescent lamp is only 178mm long. The company is also offering a limited range of decorative EL lamps in the triple tube design including 20W opal and 15W clear globes, 11W and 15W silvered globes and a reflector for decorative spotlighting. These lamps should be on sale in the UK by the end of the year.

Philips Lighting also displayed a miniaturised electronic lamp the PLC-E with an overall length for the 9W version 129mm and a 20W model 192mm long. However, it is GTE that features what is probably the most compact electronic fluorescent on the market. The Mini-Lynx tips the scales at a tiny 80g for the 7W and 11W versions and, although these are the same overall length as the Osram 7W lamp at 125mm, its most amazing feature is the degree of miniaturisation of the control gear — 30mm long and only 45mm in diameter. By comparison a conventional incandescent lamp is a hefty 60mm in diameter!

In addition to substantial energy savings — the lamps use up to 80% less energy than the corresponding GLS lamp — a major advantage of these compact fluorescents designed for retrofit applications is that they make it possible to get more light out of luminaires which cannot take high wattage incandescent lamps because of the heat the lamps generate.

A number of manufacturers are now designing compact fluorescent lamps to fit into 600mm modular ceiling systems. Recent examples are the Dulux L 40W Osram and the new PL-L in 40W

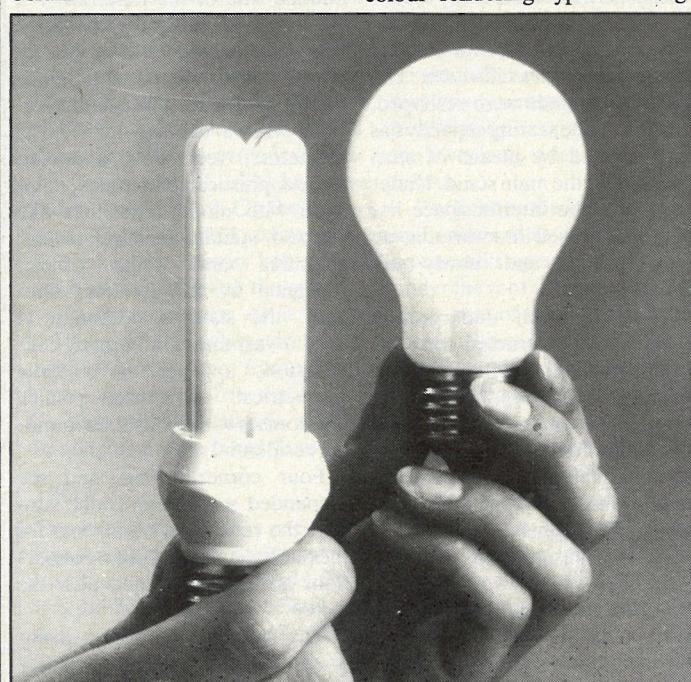


The triple turn compact fluorescent from Osram.

and 55W versions from Philips. Both of the latter lamps are 535mm in length, but otherwise have rather different characteristics. The PL-L 40 has a surface brightness suitable for use in direct lighting. The PL-L 55 or 'Turbo', on the other hand, has a lumen output roughly one third higher and is designed for indirect lighting, where low-level accents are required.

A couple of developments of interest have occurred in the high pressure sodium field. First GTE Sylvania have developed a dual-purpose lamp with a double burner. This enables it to be used either for standby purposes or as an economic long-life lamp. After 12 000 hours the failure rate of the lamp is only 5% in comparison with a 25% failure rate typical of standard lamps of this type. This makes it particularly useful for areas where lamp replacement is costly and difficult. The second burner is always ready to function and will light up immediately after a break in supply of the current. After 1 minute it will again be operating at 80% capacity, whereas a standard lamp of this type will only just be in the position to restrike. The lamp will be available in 70W, 100W, 150W, 250W and 400W versions in tubular or ellipsoid forms.

GE Lamps showed the first high pressure sodium lamp with a colour temperature of 2800K. This yellow-white colour is said to go very well with both incandescent and halogen lamps. White Lucalox shares the excellent colour rendering typical of high

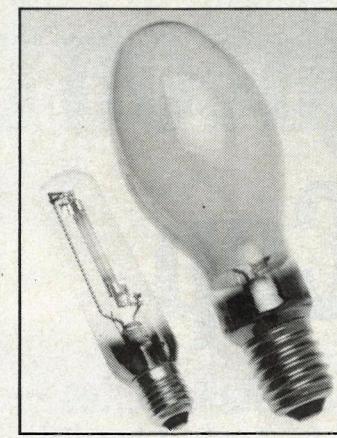


The Mini-Lynx, a lamp about the same length as the GLS lamp.

pressure sodium lamps, and both colour temperatures and colour rendering and colour temperatures are guaranteed for the life of the lamp. The system, which is expected to find a place in the lighting of shops, restaurants and museums and in shop window lighting, can be used without a protective glass or UV filter. The lamp is initially available in a 95W version.

BLV have launched a display lamp which acts as a straight replacement for dichroic lamps in providing a display light of similar quality where cool beams are not required. The new Reflektolamp pushes heat forwards rather than backwards and is designed to prevent heat build-up in retrofit work or where shallow ceiling voids could store heat from recessed fittings, thus overheating transformers and cables. The standard 50mm diameter range comprises 12V 50W spot and flood beam widths and 20W floods, with or without a protective glass.

On the OEM front, Philips has introduced a number of specialist light sources. One is a line in sun tanning lamps, the Cleo range,



GTE Sylvania's high pressure sodium lamp with dual burner.

guaranteed to appeal to salon owners as they are claimed to reduce normal tanning times by some 20%. The lamps come in 40W, 80W and 100W versions, in white or pink. Improvements in quality derived from the use of new fluorescent powders and improved production techniques are said to reduce differences in performance between individual lamps and to retain the effectiveness of a single lamp to a far greater extent across its life span.

Although successful for horticultural uses, Philips found their SON-T lamps produced less than optimum spectral power distribution when it came to stimulating plant growth. So, the company has now introduced a special horticultural version of the lamp, the SON-T AGRO, which suppresses much of the red light which tends to produce over-rapid and, hence, spindly growth. Not only does the new lamp give a 10% overall increase in light output, but 30% extra light is produced at the blue end of the spectrum thereby stimulating healthier plant growth. The new lamp has exactly the same configuration as the SON-T and is designed to be a direct replacement for it in existing installations.

Moving now from plants above water to those in the sub-aqua sphere, Aquastar is a new fluorescent lamp designed by GTE Sylvania for use in fresh and salt water aquaria. A suitable combination of ultra violet and full spectrum lamps encourages the growth of water plants and coral, improving the colour appearance of the tank and keeping the fish themselves healthy.

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# Spotlight on the World Cup

Twelve stadia in as many Italian cities — each with very different cultural and historical traditions. That was the challenge Philips Lighting faced when the company won the contract for lighting the World Soccer Championship. *LEN* reports.

World-class architecture for both newly-built renovated stadia has created a colourful and unique décor for the World Cup, in which lighting design plays a vital role.

Each of the seven stadia for

which Philips is providing the lighting represented a challenging task in providing an appropriate design, meeting the highest standards ever specified. Yet, the physical location of the equipment had to be compatible with the specific architectural demands.

In the area of renovation, the overall impression of the building should not be affected and, for this reason, lighting systems may end up in all sorts of combinations of mast and roof lighting. State-of-the-art solutions, by contrast, should meet all lighting require-

ments in an architecturally clean design, integrated into building structures and elements.

What follows is a short tour of the seven stadia, for which Philips Lighting designed and supplied the lighting facilities.

## Rome

The original stadium, which was built for football in the '30s and had a capacity for 30 000 spectators, is attractively located at the foot of Monte Mario and partly hidden by Aleppo pine trees, many of which are still present. Completely renovated to house the Olympics in 1960, all the necessary facilities for athletics were constructed while its capacity grew to 80 000, including 30 000 standing places.

After the Olympics, no particularly important changes were made, except to provide seating throughout, which reduced the capacity to 65 000.

For the 1990 World Cup, the stadium has again been completely renovated, increasing stand capacity to some 85 000 seats, all of which are under cover.

Apart from the imposing construction, the roof is of particular



Lighting installed in the newly roofed Sao Paulo Stadium at Naples.

interest because it has been clad with translucent material, thus improving daytime conditions by reducing harsh shadows which would otherwise be present during bright sunshine.

With the help of Elektra SpA of Rome, a symmetrical lighting installation is to be fitted, containing more than 500 Arenavision floodlights located in groups grouped under the edge of the roof, evenly divided along the perimeters.

The groups situated at the edge of the roof consist of double rows of six floodlights per half roof segment, while the groups under the roof will comprise six floodlights each. The average vertical illuminance in the direction of the longitudinal sides will be over 1800 lux.

## Bologna

The Dall'Ara stadium in Bologna was built in the mid-1920s and housed an oval playing area suitable for both football and athletic competitions. The stadium's original design is that of a classic, low rising amphitheatre creating an impression of antiquity. The stands surrounding the playing area comprised twenty-two steep tiers, reaching a height of 12.7 metres.

The facades of the building that carry the stands and the Maratona tier are historical elements of architectural value that characterised the stadium for quite a long period. For this reason these buildings will remain as basic elements in the renovation. This new design, prepared by the architect, Enzo Zacchiroli, includes an enlargement of the spectator capacity to approximately 40 000.

This has been realised by means of a steel structure enlarging the stadium's perimeter, but leaving the existing facades still visible. The tiers of the stands were reshaped, and 30% of the seating capacity has been covered by means of steel roofing over the main stand. Under the stands, the interior space has been transformed into warming-up gyms, offices and newly-built changing rooms.

In addition, an underground passage was constructed connecting a nearby athletics field used for warming-up purposes. Great care has been taken to keep renovations in harmony with the existing structure. This also holds good for the 60m masts housing more than half the floodlights.

Specially designed so as to create a light-weight, open impression, the masts comprise four narrow octagonal pylons, which together form a rigid construction that brings the trapezium-shaped headframe in position. Apart from

the floodlights that are located on the mast-frames, floodlights are also positioned on top of the roof and halfway under the roof on the main stand side and on the Maratona tower opposite the main stand. The asymmetrical lighting installation forms a combination of different mast and line arrangements and contains a total of 522 Arenavision floodlights, resulting in an average vertical illuminance in the direction of the main stand of approximately 1700 lux.

## Cagliari

Most of the work for Italia '90 only needed to be done around the outside of the stadium as the Sant'Ella Stadium itself was already well equipped, with a capacity for some 40 900 including those in the main stand, which was given a new roof.

The modest lighting system dating from the early seventies consisted of a four corner mast arrangement, each housing 15 floodlights with cylindrical optics.

To adapt the lighting to World Cup requirements not only meant increasing illuminance levels but also creating vertical illuminances in different directions, to the required specifications.

Four extra masts had to be installed behind the goal line, making an eight-mast system in total.

Altogether, 350 floodlights are being installed, of which 300 will have rotational symmetric optics creating a vertical level of over 1500 lux towards the main stand.

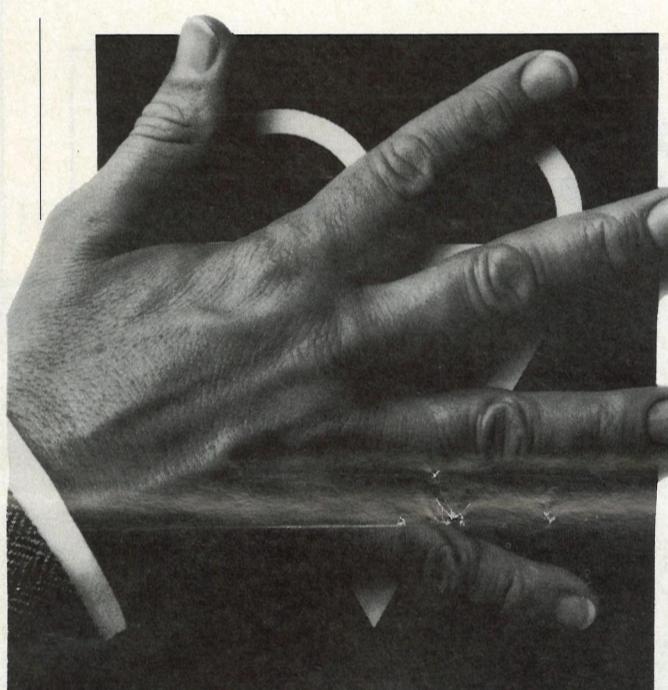
## Genoa

The Ferraris Stadium, completely remodelled for Italia '90, was, in its original form, a football ground with just one stand along the longitudinal side of the field. Later it was enlarged along the two short sides, and then, in the '50s, the rectangle was completed with grandstands all around. The present version, with a capacity of 37 325 spectators, represents a larger, more sophisticated complex, complete with modern facilities like covered stands, meeting rooms, gymnasiums and press offices.

Designed by the architect Greco, the stadium, although in itself a vast and complicated construction, appears as a basic geometrical structure, which harmonises with today's surrounding residential area.

Four corner towers and the suspended scaffolding frame support the roof. Entry and exits for the public, stairs and ramp connections are located in and near the towers.

The lighting installation comprises 316 Arenavision floodlights, providing a vertical illuminance of 1700 lux towards the main



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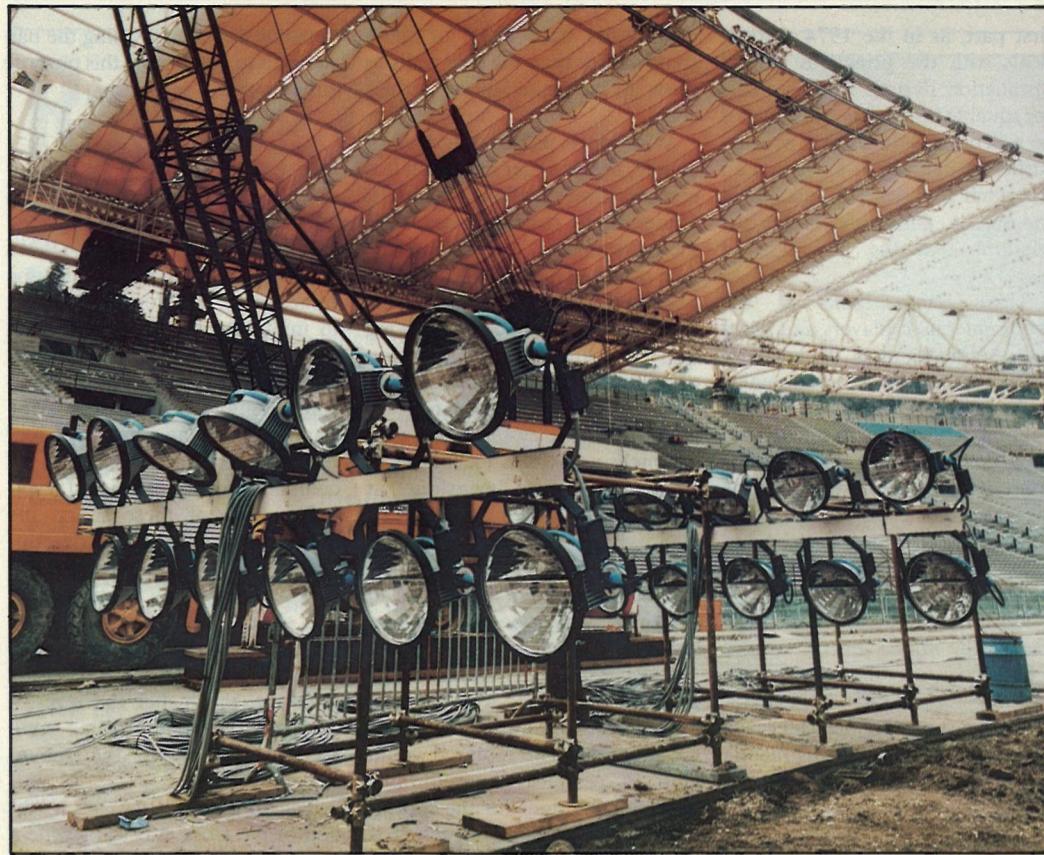
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Banks of lighting fittings ready to be hoisted into position at the renovated stadium at Rome.

stand side. The floodlights are positioned in existing openings in the four corner towers on the edge of the roof and under the roof in so-called technical openings, combining sound and lighting equipment along the longitudinal sides; and so are fully integrated in the stadium's architecture.

#### Naples

Sao Paolo Stadium is in the Fuorigrotta district on the western edge of the city, completely surrounded by busy streets. The stadium, previously open to the sky, has been given a new roof for the Mondiale. Capacity: some 74 000.

#### Udine

Completed in 1976 and renovated for the World Cup the Friuli stadium just outside Udine features a spectacular arch which spans 156m above the grandstand.

The arch made in reinforced concrete, carries the load of a large metal roof covering more than 10 000 seats, the total capacity being 42 000. Underneath the grandstand other facilities can be found, such as fully equipped changing rooms, fencing halls, a large room for film shows and lectures, and a gymnasium.

The architects, Giacomo Parmegiani and Lorenzo Giacommuzzi Moore, were responsible both for the original design and the recent adaptations required for the Championships. This involved building new press and TV facilities behind the grandstand, and installing a new asymmetrical lighting system.

The latter consists of a total 332 Arenavision floodlights, most of which are situated on the same side as the grandstand. These have been installed in a combination of both mast and line arrangements. There are 82 floodlights lined up along the arch, 30 units under the roof and two small masts supporting 32 floodlights each to provide a vertical illuminance of 1500 lux towards the main stand. On the opposite side of the field, two pylons located in the corners behind the open stands complete the system.

These masts are of a special design, in that they are both equipped with two frames, one above the other. The top frames each house 48 floodlights, with 30 floodlights on the lower frames.

#### Turin

The stadium of Turin is one of the two completely new stadia that will host the 1990 Soccer World Cup. It is the first element to be realised in a recently conceived urban park situated on the outskirts of the city.

A distant view of the stadium shows an impressive high-rising

pole arrangement at the perimeter of an oval-shaped cone which rises up out of a low hill. The straight steel poles are angled slightly backwards and between them is stretched a lightweight, cable-suspended covering with a curved roof section at the outer diameter matching the cone.

The structural composition of the building elements gives the stadium a feeling of lightness.

Designed by architects Sergio Hutter and Toni Cordera, the stadium has three stand levels, the lower two being invisible from the outside. By lowering the field approximately 10 m and building a surrounding hill 8 m high, the apparent height of the building was reduced by 18 m.

Service areas located on the west side, and commercial areas and a large foyer along the east side are located behind the sunken stands. Stands on the third level are constructed parallel to the long sides of the field but, to limit viewing from too great a distance, are partly omitted behind the goals. The open spaces thus created are characterised by the three-dimensional saddle-frame with white Teflon covering.

Stands on level three are of metal construction while those on the lower levels are in reinforced concrete. The total height of the stands is 35.5 m above the level of the field with capacity for 70 000 spectators all with covered seating.

The roof — a light, space-frame construction covered with aluminium panels — is partly suspended and partly supported up by a tensioned cable system. Tension cables, anchored in the ground and lifted by the 56 pairs of high rising poles, are connected to the oval at the inside edge of the roof. This oval is made up of six steel wires, of 85 mm diameter, creating a rigid tensioned construction which is stabilised by a connection between the two long sides over the field centre.

For lighting the field, it was originally planned to install equipment on catwalks approximately halfway under the roof. However, to restrict glare, part of the roof edge behind the goal-lines was used.

The floodlights installed are centrally grouped in a double row on prefabricated lightweight aluminium catwalks fixed to the space-frame of the roof. This configuration was chosen to avoid interference of light by structural elements.

The lighting equipment runs parallel to the form of the building. In total, 650 Arenavision floodlights are installed in an asymmetrical system, resulting in an average vertical illuminance towards the main stand of 2500 lux.



A view of the Naples stadium showing the new roof structure.

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# Going by the book

**Sports lighting practice and the tools available for designing and operating installations have changed so much over the past few years that a new code of guidance was clearly needed. The new guide gives much more latitude to the designer, and has been developed in close cooperation with the Sports Council. LEN previews the guide which is due to be published by CIBSE in July.**

**M**ore and more people are actively participating in sport as individuals become increasingly health conscious and convinced of the benefits of regular exercise. At the same time there has been a marked increase in the number and range of minority sports.

The result of these two trends has been an increasing demand for facilities for practising a growing range of sports at higher levels - with a concomitant demand for more sophisticated sports lighting. In fact, in recent years the sports lighting sector has been one of the most buoyant areas in the lighting industry.

Updated guidance on lighting for sports activities, therefore, seemed to be well overdue. The IES Sports Lighting Guide, which had originated as an IES Technical Report in 1965, was out of print, while both scope and range of requirements had in the meantime expanded. The new Guide, launched under the auspices of

CIBSE, is the outcome of three years' work on the part of the review panel.

This new Guide is more authoritative than ever. Not only has it been revised in collaboration with the governing bodies of the sports concerned - the majority of whom have indicated their intention of making this code their standard for lighting.

#### Sports Council

In addition, the Sports Council fully appreciates the value of having one central reference to sports lighting practice in the UK and has announced its intention to use the Code as its benchmark.

A foreword by Sports Council Chairman, Peter Yarrantan, gives some clue to the extent of cooperation between the two organisations.

"The Sports Council has given full support, encouragement and cooperation to the production of the publication and is now delighted to endorse its contents and recommend its use across the



High mast lighting, supplemented by grandstand lighting at PSV Eindhoven's ground, uses the Philips Arenavision system.



Grandstand mounted lighting, parallel to the direction of play at Tottenham Hotspur's White Hart Lane ground, is by Thorn.

first part, as in the 1974 edition, deals with the principles behind installation design. Requirements for suitable brightness and contrast go well beyond the need to provide sufficient lighting to all points on the pitch or track, to encompass the need to ensure its correct distribution and the limitation of glare.

This section looks at the requirements of players and spectators, the lighting of ancillary areas and specialist requirements such as emergency and standby lighting. It also stresses the need to take considerations of planning consent into account when designing the layout, especially where high mast lighting systems in excess of 40 m in height may be employed.

One aspect the Code emphasises is the importance of surface reflectance in games such as badminton, tennis or table tennis, where a fast moving ball can easily be missed because of distracting specular reflections. So, internally, finished surfaces should generally be matt.

But the designer can also usefully consider painting the wall

behind the base lines for these spots darker than the side walls to show up the white ball or shuttlecock.

With sports played outdoors, of course, the designer has much less control over surface materials. Under these circumstances, only the reflectance of the playing surface can normally be controlled.

An addition to this section of the code - and a thought-provoking sign of the times - is the inclusion of a new section on surveillance systems and their demands on lighting. These systems are now routinely used as a technique of observing crowd behaviour at sports grounds and a method of identifying individual troublemakers. Here, the basic need is for the lighting levels adequate to identify individuals - somewhere around 100 lux.

But physical restrictions on the location of cameras usually mean long viewing distances and, hence, the amount of light required would tend to produce uncomfortable viewing conditions for the spectator. The compromise suggested is to maintain a lower level, of say, 10 lux throughout the match, with a

separate system providing the balance up to 100 lux for this purpose on demand.

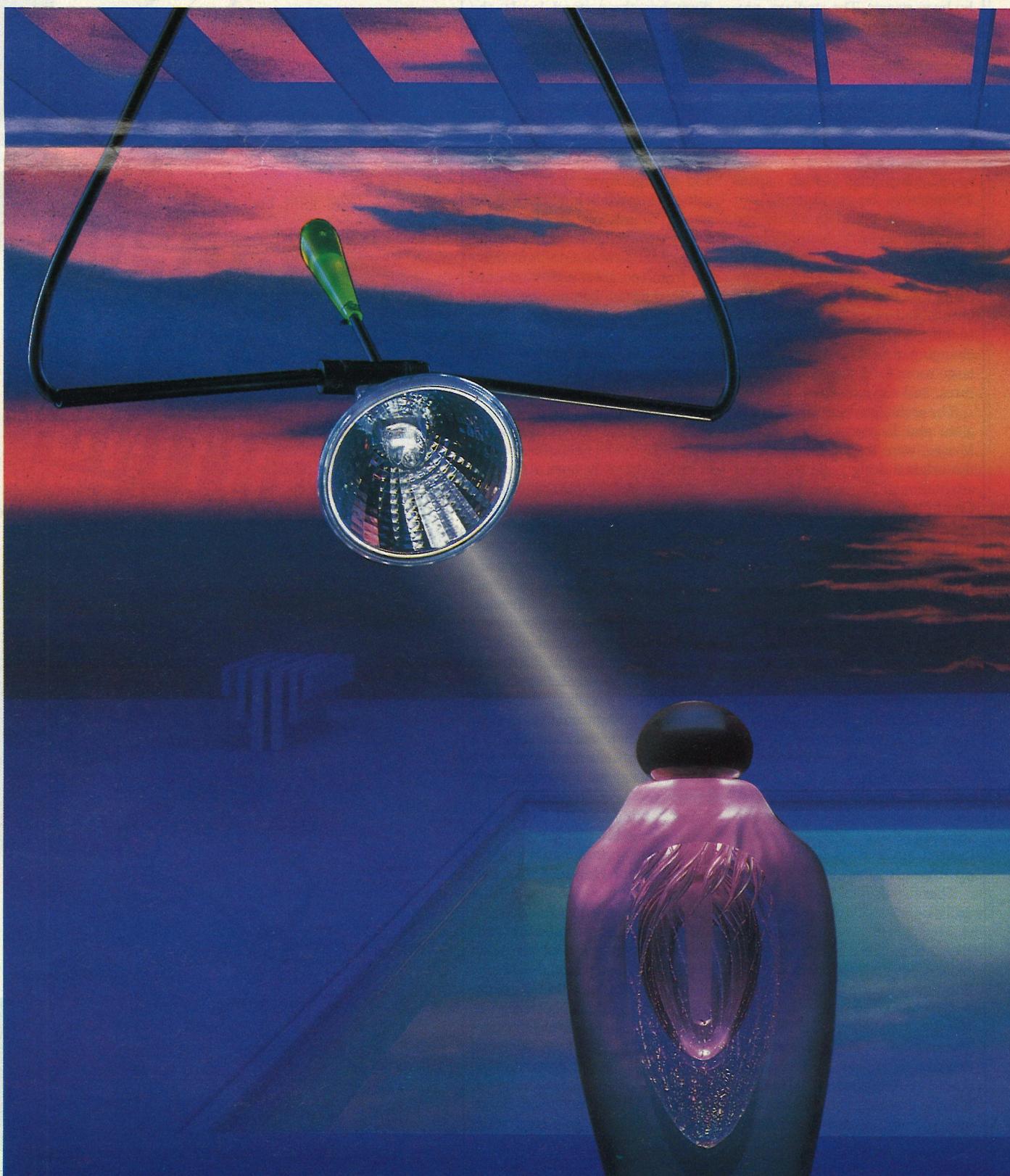
#### Principles applied to individual sports

The second part of the Code looks at the application of these lighting principles to individual sports and to multi-purpose areas both outdoors and under cover. The Code takes some 31 sports into account, considering a range of playing standards varying from basic recreational and training needs to competition at international level.

For each of these sports the designer is given a general description of the features and requirements of play. The lighting levels that should be achieved are then stated, together with limits such as surface reflections. Generally speaking, the higher the level of play the faster the game and, therefore, the greater the amount of light required.

The approach of the earlier edition of the Code was to provide a number of stock solutions. In all but a couple of cases, where the

## THE LIGHT IS RIGHT.



# Raising the standard

One of the biggest stadium floodlighting schemes ever undertaken in the UK — and possibly Europe is being installed at the new Don Valley Stadium in Sheffield.

The scheme comprises more than 600 of Thorn Lighting's 2kW metal halide floodlights. Some 513 of these, mounted on five 50m high towers, were lifted into position with 360 tonne hydraulic cranes in March 1990. The five towers are mounted on a raised embankment so that the highest floodlights are 57m above pitch level. Additional lighting will be provided by 99 floodlights mounted on the underside of the stand roof.

The scheme has been designed to achieve an average vertical illuminance of 1500 lux and actually produces 2000 lux horizontally. Floodlights have been fitted with a variety of asymmetric and specular reflectors to achieve the right distribution. Four switching levels per tower will be introduced to give maximum control over lighting levels.

The lighting brief also covers aircraft warning lighting, car parks, emergency lighting and stand lighting, together with illumination of the World Student Games torch motif.

With an all-seated capacity of 25 000, the Don Valley Stadium is due for completion in early summer. It has been designed and com-



missioned specifically for the World Student Games which are to be held in Sheffield in 1991. Sheffield City Council secured the opportunity to host these games against stiff competition from other major cities around the world and was chosen as a result of the quality and extent of the sports facilities which the city was able to offer the World Student Games Organisation.



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governing body of the sport has strict requirements for a particular lighting layout, these have now been removed. The working party felt that, provided the recommendations were clear and supplemented by warnings such as minimum mounting heights, it was better to leave the designer free to develop his own solutions. It is hoped this greater freedom will increase the range of possible solutions and allow for the introduction of new equipment and techniques.

The illuminances chosen represent good practice. A significant alteration is that the value of the illuminance is now being changed to follow national and international practice. Previous Codes worked on the basis of average performance throughout life, so that initial illuminance was higher and performance immediately before maintenance lower than the design figure. The code now works to maintained illuminance, ie the lowest figure to which performance of the system is permitted to fall. This allows for the fall in light output that occurs as lamps age and dirt is deposited on the luminaires during the intervals between cleaning. Recommended design levels take account of this change in definition.

The report recognises the growing importance of multi-purpose facilities by creating a special section on the lighting of halls and stadia. Any solution here must be something of a compromise. So, the aim should be to provide acceptable conditions for the most visually demanding sport, while checking to ensure that the others can be performed satisfactorily under the same conditions. Providing an adequate mounting height of say 8-10 m within a sports hall should provide a reasonable level of uniformity and help in controlling glare.

Outdoors the problem varies considerably, depending on the mix of sports to be catered for, whether a playing field only is to be provided or if this will be surrounded by an athletics track, and whether a high capacity ground for a single sport such as football is envisaged. This will lead to a solution involving side lighting, corner tower lighting, or a combination solution, which will then dictate the type of floodlight to be employed.

Other constraints that help determine the ultimate solution include the weight and wind loading that floodlights add to the structure, and the restriction on cable lengths between lamps and control gear.

Where a lighting system is to be designed for colour television broadcasting then the needs of the television camera will tend to determine installation design. In this context it is interesting to note that recent improvements in camera design have not resulted in a

reduction in overall lighting requirements as they have led to an increased use of close-up shots.

The Guide consolidates colour television practice into one section and adopts the newly published CIE recommendations for the lighting of sports events for colour broadcasting. Cost limitations ensure that colour television broadcasting is normally only required at national and international levels of play. Lower down the scale it will usually only be necessary to provide for video filming.

Regular maintenance is vital in ensuring the efficient performance of a sports lighting installation. Advice on operation and maintenance has, therefore, been expanded to form a major section in the Code. Equally important is the need to provide easy access for maintenance or — human nature being what it is — the installation will not be maintained regularly.

This section looks at lumen depreciation and lamp survival, the depreciation of luminaires, and their construction to resist atmospheric corrosion. Scheme economics are considered, stressing financial evaluation and the need for energy efficiency. Operational problems are discussed, including flexibility for switching, use of energy management systems, and documentation of installations to allow cost studies to be carried out.

### Equipment

The Guide then moves on to look at hardware — lamps, luminaires, and control gear — available for sports lighting and their suitability for different applications. The choice of lamps will be dictated by considerations of luminous efficacy, the number of hours the installation is expected to operate, and initial and running costs. Colour rendering and colour appearance may be particularly important, especially where colour broadcasting facilities are required.

Typically, incandescent (tungsten halogen) tubular fluorescent and high intensity discharge sources will be found most appropriate. Some discharge lamps may, however, give rise to stroboscopic effects caused by variations in AC voltage, but this can be avoided by using high frequency circuits or connecting adjacent luminaires to different phases of a three-phase power supply.

Luminaires used will depend largely on the mounting height of the lighting installation and whether the application is indoors or outdoors.

Finally, a series of appendices at the back of the Guide gives a wide range of reference information varying from a complete list of all the governing bodies of sports consulted, to practical advice on lighting calculations, and commissioning of the designed installation.



Sports grounds for schools or recreational use have much less stringent requirements. Lighting at Aylwood Lower School, Enfield — an EMILAS commended scheme.

# Designer lighting on show

**LEN** reports on lighting seen at Interior Design International in May, when companies displayed their most modern and innovative luminaires.

Interior Design International celebrated its silver jubilee this year with more stands than ever, a total of 706. It expanded to occupy the whole of Earls Court exhibition halls and presented a diverse display of different facets of interior design. Several countries had group stands.

The number of lighting exhibitors has grown steadily over the years. This time, 75 companies showed lighting. The accent was on display lighting and modern decorative lighting for the contract market, though traditional styles were well represented and one or two stands showed outdoor amenity lighting or office lighting.

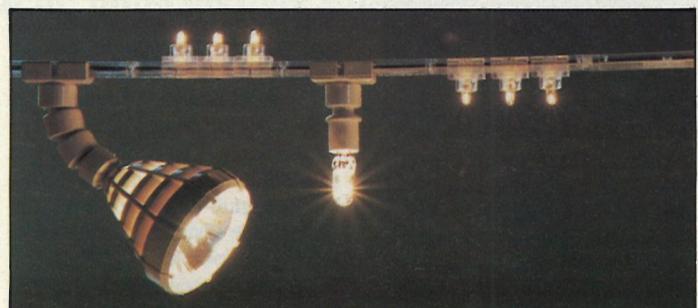
The following review picks out some eye-catching products seen at the exhibition. Further details can be obtained by quoting the appropriate Reader Service Numbers on the Reader Enquiry Card.

## Low voltage

**Moonlight Ltd** (No. 201) made its debut at IDI. It offers a lighting design and supply service for all sectors of lighting, including office, factory and floodlighting schemes, using computer aided design techniques.

One of the products on this stand was a low voltage lighting system from Germany with flexible polycarbonate track containing two metal conductors. The track is only 10mm x 5mm in cross section and there is a choice of three fittings for it.

One is a miniature 20W tungsten halogen spotlight in a louvred, polycarbonate, cone shaped housing. The second is a 10W capsule lamp for discreet lighting under shelves and inside display cabinets. The third option is a 0.7W lamp to give "starlight" feature lighting.



A new low voltage track system from Moonlight.

**Academy Lighting Ltd** (No. 202) showed its Icicle range of recessed, low voltage downlights with decorative glassware. These miniature luminaires use M32 capsule lamps. There are seven shapes of glassware in clear, pearlised or coloured finishes and three shapes of bezel in a choice of four finishes.

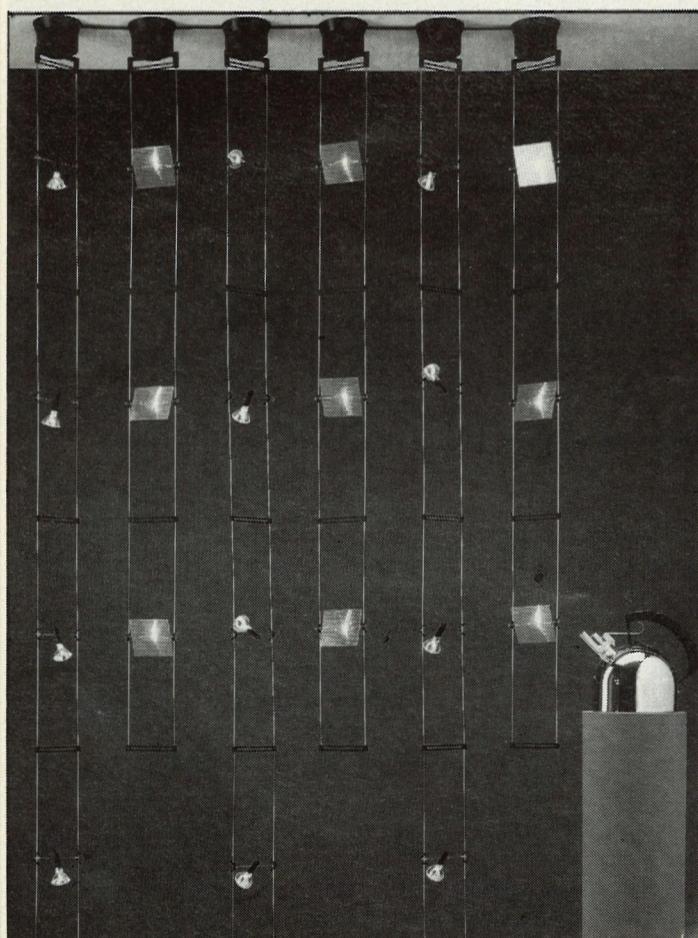
Only a very shallow recessing depth is required and re-lamping is easy because the glasses are held in place by a bayonet type fixing.

From **Lighthouse Interiors Ltd** (No. 203) there was a low voltage, bar rod system in modules that can be connected together to form curtains of light, or used individually as a variety of ceiling, wall or floor-to-ceiling lights.

Two luminaires are available with the system: one uses a 20W capsule lamp which is screened by a square, pivoting, reeded polycarbonate diffuser, the other is a 50W spotlight.

On the stand also was a range of hand stippled wrought iron lighting combined with Murano glass.

**Optelma Lighting Ltd** (No. 204) specialises in low voltage lighting for the contract market. A subsidiary of a Swiss company, it has been trading in the UK since last October.



Part of a low voltage system from Lighthouse.

Xenon, one of several bare rod systems shown, uses a single rod 6mm in diameter that incorporates two concentric conductors. Using screw-in connectors, spotlights and pendants are easily attached.

As well as a 90° corner piece, there is a 45° corner and a curved 135° coupler, making the system unusually versatile.

The Gyps system is a modular plaster cornice that incorporates recessed low voltage downlights and transformers. There are corner pieces and sections without lighting. It is particularly useful where the building fabric must not be damaged.

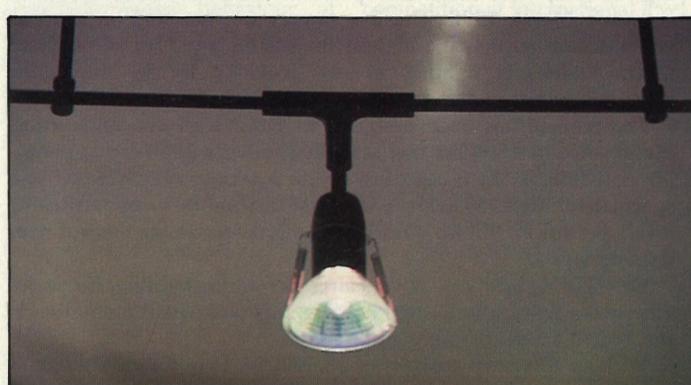
**Light FX** (No. 205) included a variety of downlights on its first IDI stand. Galileo attracted attention because of its focusing facility which enables the width of the light beam to be adjusted. There are 11 options in this range.

A preview was given of Metro, a series of metal halide and compact fluorescent downlights to be introduced shortly.

**Think Inc** (No. 206) showed an unusual floor standard called Newton 12. It has a sliding collar

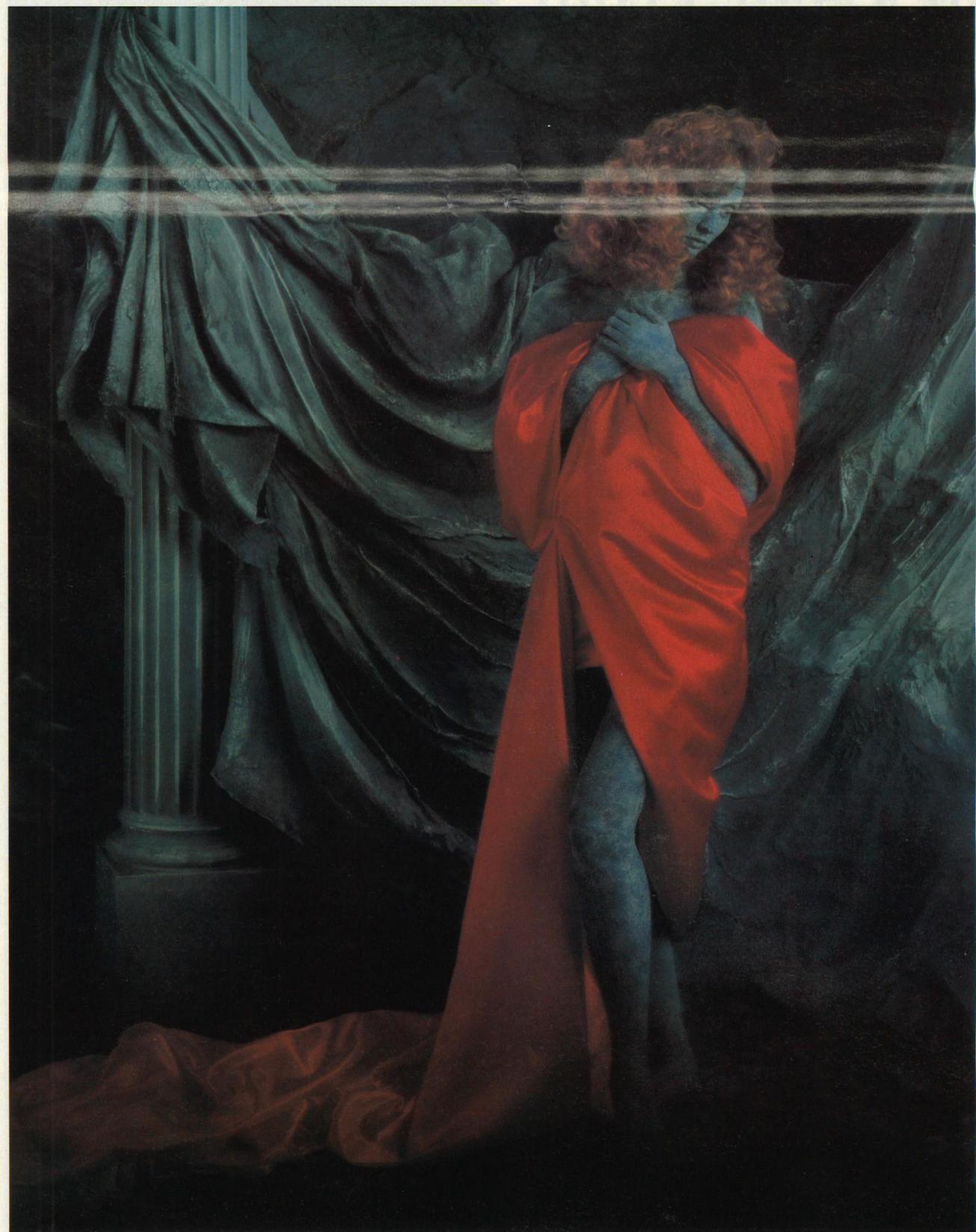


An ingenious, convertible floor standard by Think Inc.



Part of the Xenon, single rod, low voltage system from Optelma.

## You can see why a Professional lamp is so superior.



round the supporting stem which is pushed up to convert the luminaire from an uplight into a fitting that gives downwards and sideways light with a six-leaf "shade" above it.

A 100W 12V lamp is used, screened by semi-opaque glass.

**The Lighting Workshop Ltd** (No. 207) has a miniature linear lighting system called Clikstrip that can be installed on curved and irregular surfaces as well as in display cases, under shelves and in coves.

Concave and convex curves can be achieved with a minimum radius of 200mm without lamp misalignment or displacement, says the company. Clikstrip can be used on either a 12V or 24V supply and being rated at 20A allows long uninterrupted runs of lighting.

Lamps that can be used with Clikstrip include 12V and 24V, 5W and 10W incandescent festoon lamps. Special inserts permit the use of 12V and 24V tungsten halogen capsule lamps of 10W and 20W, and 12V 20W and 35W MR11 dichroic reflector lamps.

Sidekick, plug-in spotlight was



The AAF wall light by Box Products.

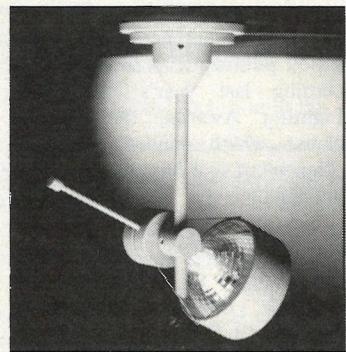
also exhibited. It can be mounted on either vertical or horizontal surfaces and with its plug-jack powering system can be rotated through 360°. Secure mechanical and electrical contact is ensured by a triple clamping spring.

**Form Fittings** (No. 208) had plug-in fluorescent batten fittings for under-cupboard kitchen light-

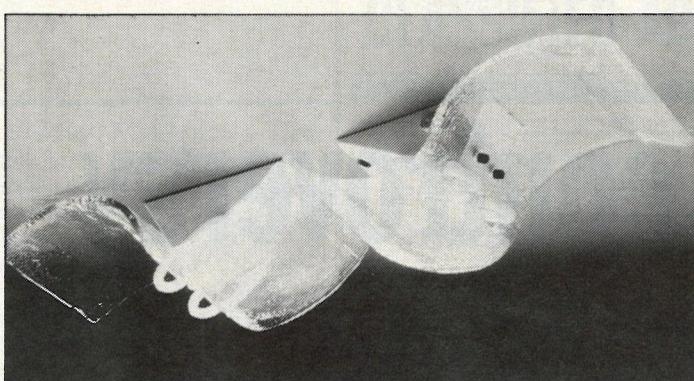
ing. These units are individually switched and are designed for use with the Welfit cable system.

**Box Products** (No. 209) showed new wall lights. The AAF uplight is finished in bead blasted mild steel with brass detailing. It creates a dramatic effect with light filtering through side slots and the perforated spinning in the base, as well as giving a high level of upward light.

**Axis Lighting Ltd** (No. 210) is a new British company formed to provide innovative, high quality lighting. It has been launched with four ranges: the Euclid system,



Sidekick plug-in spotlight from The Lighting Workshop.



Ondilla, compact fluorescent fitting from Prima Lighting.

uplights, desk lights and a multi light source linear lighting system.

Euclid is a low voltage tubular system which allows lamps with integral reflectors, capsule lamps and festoon lamps to rotate around a 16mm diameter profile while maintaining illumination at any angle. Over 30 components mean that it can be used in a variety of applications including in display cases.

**Prima Lighting Ltd** (No. 211) among its exhibits showed a fitting called Ondilla, using 2D compact fluorescent lamps screened by an undulating sheet of either hand

made, frosted glass or perforated metal. These fittings can be grouped together to form illuminated murals, or used singly on wall or ceiling. Applications include restaurants, hotels, banks and reception areas.

**Bella Figura** (No. 212) exhibited table lamps with colourful Murano glass bases.

There was also a variety of traditional metal chandeliers and wall lights. The company can now convert vases and candlesticks into lights and also offers a restoration service.

Other companies showing the currently popular candlestick lamps were **West One Ltd** (No. 213) and **Miranda Contracts** (No. 214).

**R & S Robertson Ltd** (No. 215), in addition to its wide range of traditional lighting, launched the Estiluz modern collection. These wall, pendant and floor lights use mains voltage tungsten halogen lamps with clear glass and metalwork finished in black chrome, gold plate or white. Many have dimmer controls and some are adjustable in height.

#### Offices

**Flos Ltd** (No. 216) featured the Grall range of metal halide uplights for offices, foyers, banking halls and other large public spaces. There is a selection of wall,

floor and ceiling models with parabolic reflectors and internally sanded glass diffusers.

An auxiliary tungsten halogen lamp can be fitted if required.

**Courtney Pope Lighting Ltd** (No. 217) displayed the Widelight parabolic fluorescent luminaire added to this range to meet the requirements of the latest CIBSE guide on lighting for VDT areas in offices. Surface mounted and recessed versions are available and emergency lighting facilities can be incorporated.

**Thorn Lighting Ltd** (No. 218) took as the theme for its stand. The total lighting solution.

There were additions to the Quattro 600mm<sup>2</sup> modular fluorescent range, including louvres specially designed for VDT areas.

Coracle, a new, wall mounted uplight for corridors, lobbies and boardrooms was shown. This quarter-sphere luminaire uses a 21W 2D compact fluorescent lamp.

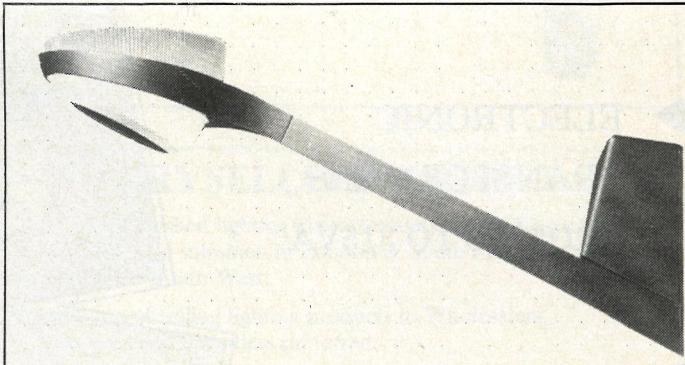
Aria, low voltage spotlight range was on the stand, as was the Cityscape outdoor amenity lighting collection.

#### Outdoor lighting

Zerbetto, Italy, whose products are available in the UK through **Prima Lighting Ltd** (No. 219), had a stand displaying its outdoor lighting.

Drop, modern amenity lighting range uses a variety of high intensity discharge lamps in large, well-glass shaped diffusers. One, two, three or four luminaires on long horizontal arms can be mounted on one column. Matching wall mounted fittings are available.

Zip fluorescent luminaires, which are ingress protection rated IP44, are for use in railway stations, supermarkets and gyms. Metalwork can be either white, red or black. The glass cover hinges down for easy access to the lamps.

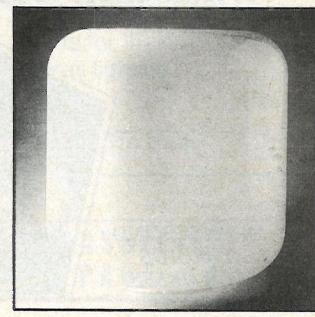
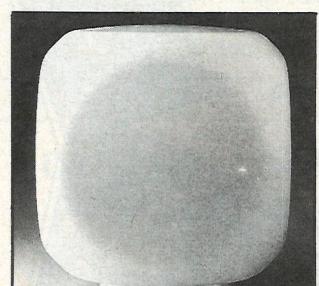
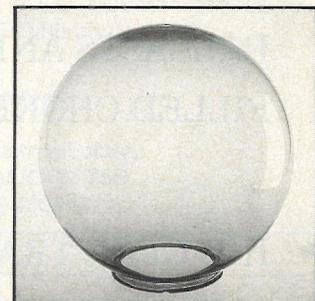


A wall light in the Grall range by Flos.

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# LETTERS

## Awards controversy – and outcome

Readers have written to *LEN* expressing strong feelings about a footnote to the rules of the National Lighting Awards and suggesting alternatives. These letters and a statement from the LIF are published below.

### Drop this note

As an independent lighting designer, I recently obtained entry forms to the National Lighting Awards. On examination of the rules I came across the note,

"Entries should feature substantially lighting equipment manufactured by members of the LIF who wish to see quality in the application of lighting technology recognised and commended".

I find it amazing that the LIF

have the nerve to call this competition "The National Lighting Awards". I would have thought that "The LIF Members' Awards" was a far more suitable name. I hope that the LIF have the good sense to drop this note, or at least

advise the judges to disregard it, so that the competition regains a modicum of credibility.

Olaf Starorypinski,  
Independent lighting designer.

national Association of Lighting Designers) withdrew from the competition last year; it was further made absolutely clear to LIF that they had no right to call this a "National" lighting competition if it was in fact an LIF manufacturers' award.

I believe therefore that these awards have now lost any credibility that they had gained in their first two years when no such clause was included and I am concerned that what started as an excellent idea and had the full support of lighting designers will wither on the vine and disappear.

It is not without significance that on the latest application form no sponsors are listed; in previous years there was a large list of sponsors such as the CIBSE, the Design Council and the Electricity Council. All of these sponsors have now withdrawn and one must conclude that the only sponsors are the manufacturers themselves.

Derek Philips,  
DPA (UK) Lighting Consultants.

products, is not the term "National Lighting Awards" somewhat in contradiction of the Trades Descriptions Act?

Barry Hannaford, IALD,  
Partner,  
Lighting Design Partnership,  
London.

### Is it the cost?

Sadly, the LIF appears to need to stick to its guns with regard to using the vehicle of the National Lighting Awards programme as a promotion of its members' products.

The continued inclusion of the offending note within the project submission form possibly indicates that LIF members have indeed perceived commercial benefit in tying the NLA to the usage of its members' British equipment. If this is the case, the LIF should come clean and retitle the awards programme: "LIFA".

If, however, the problem relates to the high costs of organising and vetting the awards, would it not be better for the LIF to approach the entire British lighting community, including non-LIF members, foreign manufacturers/distributors and lighting specifiers with a view to restructuring the funding of what should be a wholly impartial awards programme designed to distinguish excellence in lighting design without any consideration of the origin of the equipment utilised?

The continuing absence of any impartial British national lighting award can only mean that designers who seek to submit their work for an appraisal of real value must continue to strive for other international accolades such as are provided by the European, IALD and IIDA programmes.

Andre Tammes IALD,  
Partner,  
Lighting Design Partnership,  
Edinburgh.

### Freedom to specify

I am writing to express my disappointment that the entry qualification for the National Lighting Awards still contains the clause restricting schemes to those using LIF members' equipment.

For me, the essence of lighting design is the freedom to specify the best light source and equipment that will provide the required effect, and that is appropriate for the project. To achieve this level of freedom has certainly been a hard-won battle for me, and I feel I must resist any attempt at any level to restrict the exciting palette of equipment that is now available.

If this clause remains, I do not wish to enter the competition.

Mary Beales,  
FHP Lighting Design.

### Concern over restriction

I wish to express my concern over the restriction for entry to the "National" Lighting Awards, i.e. only schemes using LIF equipment being eligible.

This, I feel does not give any justice to the awards, and speaking as a designer, I would not let LIF status influence my choice of manufacturer.

If the award is to remain restricted to schemes using equipment by LIF members only, then call it the "LIF Lighting Awards" and be honest.

Gary Davidson,  
FHP Lighting Design.

### Lighting Forum wants extra awards

I write to you as President of the Lighting Forum and on behalf of its members to voice our condemnation about the lack of professional credibility regarding the Lighting Industry Federation's stand in continuing to call their self-appointed lighting awards "National", especially when they include exclusion clauses limiting the entries to installations using their members' equipment.

We do not dispute the credentials of those companies entering, but wish to make our dissatisfaction very clear as to the way the awards have been presented again, especially as the CIBSE had received an assurance from the LIF that this clause would be omitted.

The lighting industry in this country has expanded by leaps and bounds over the last five years and with many young professional lighting consultancies offering their expertise to the building and design industry, we feel they should also receive recognition for their efforts.

I therefore suggest that to clarify this issue regarding the use of "National" Lighting Awards as the chosen title, it should be changed to the LIF Manufacturers' Lighting Awards and a separate competition be introduced for lighting design professionals called the "National Lighting Design Awards" with sponsorship coming perhaps from the IALD, the Lighting Forum, The Design Council, The Chartered Society of Designers

## "OUR SUPERB RANGE OF TRANSFORMERS ARE ALSO AVAILABLE IN WHITE . . . . TO MATCH OUR COMPETITIORS FACES!"

► TOROIDAL  
TRANSFORMERS  
FROM 20 TO 750VA

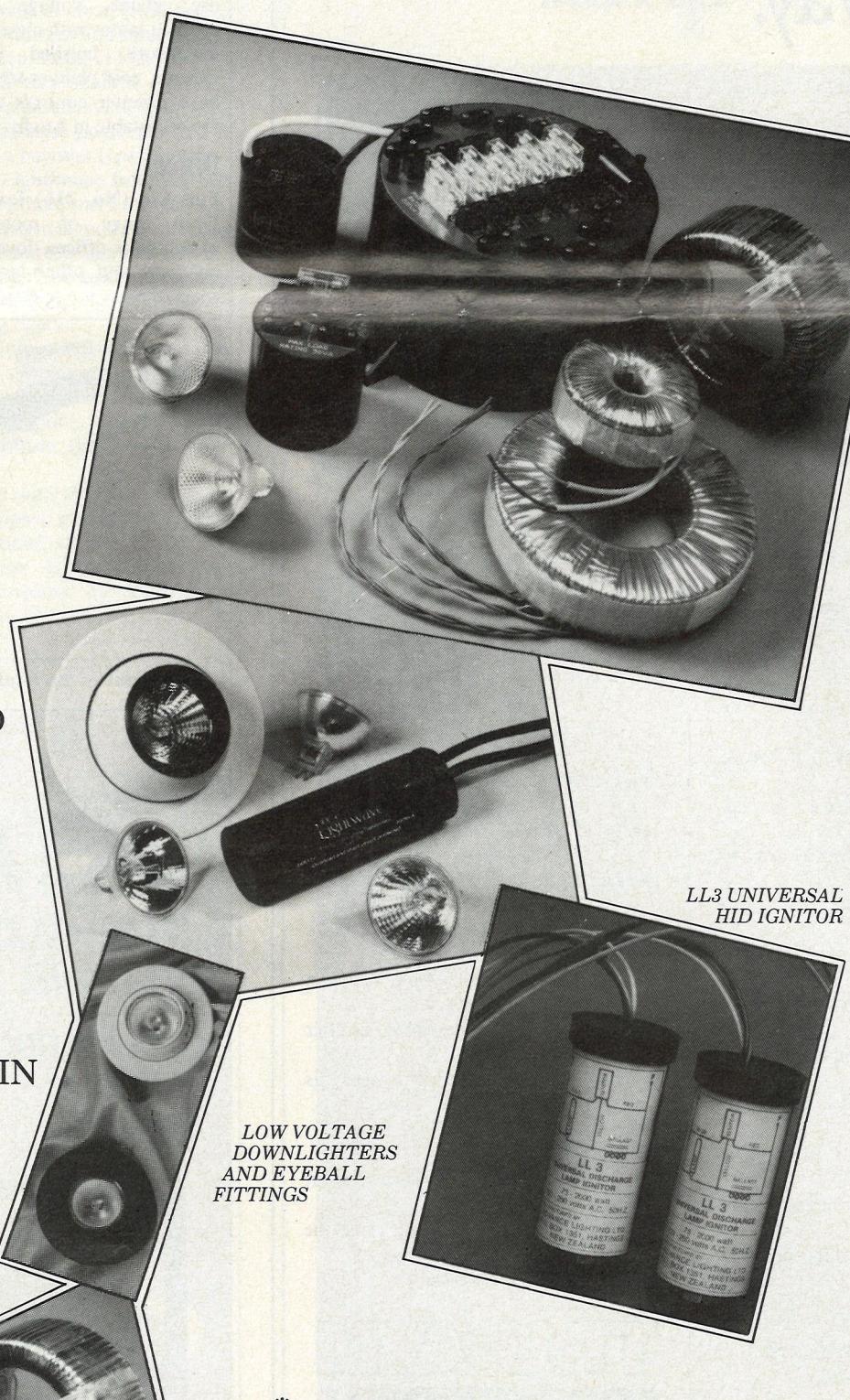
► ELECTRONIC  
TRANSFORMERS  
FROM 20 TO 315VA

► SEMI-RESONANT,  
SWITCH-START AND  
STARTERLESS  
BALLASTS

► FLUORESCENT  
DIMMING  
BALLASTS AND RESIN  
FILLED CHOKES

► HID GEAR TRAYS  
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## CLASSIFIED ADVERTISEMENTS

ers and CIBSE. This would offer entry to a much larger group of professionals.

So, in closing, I trust we as an association of fellow professional lighting designers have made our views known and request that the LIF rescind this clause within their competition rules.

**Peter Hucks,**  
President,  
Lighting Forum.

### Shooting themselves in the foot

I am writing to voice my total dismay upon reading that the LIF "National" Lighting Awards rules still include the clause which limits lighting schemes to those companies using LIF equipment.

As a lighting consultant working in the industry for a number of years, I voice my concern at the total lack of understanding with which the LIF have addressed this issue. One would have thought that by the mistaken assumption they had made last year, the LIF would have learnt their lesson, but it seems they wish to shoot themselves in the foot yet again!!

**Peter Hucks,**  
Senior Designer,  
Lighting Design Ltd.

### It can't be both

As an independent lighting consultant I was amazed to hear that the "National" Lighting Awards are only open to schemes that use LIF equipment, which must by definition exclude many lighting designs in which designers have spent many weary hours creating schemes of both aesthetic and technical excellence. Yet because LIF equipment may not have been specified they do not receive the just recognition they deserve.

If a "National" lighting award scheme is being promoted it should also promote the pure application of light by *all* and not be restricted to LIF equipment specifiers. It is clear to me that it should be declared either a "National" Lighting Award or LIF Equipment Award, it most definitely cannot be both, come on LIF let's make a decision!

**Mark Ingram,**  
Managing Director,  
Insight Lighting Design.

### Do not enter!

It is with great regret I find myself writing to you regarding the NLA.

Following last year's debate over the note, "Entries should feature substantially lighting equipment manufactured by members of the LIF", it is with astonishment we opened this year's document to find the same note.

It was clearly stated at the CIBSE review meeting of last year's awards that this note would not reappear. The LIF obviously did not consider the event important as they had no representative

present, we now understand why.

This note in our opinion totally devalues the awards, it is not a National Lighting Award, it is the LIF manufacturers' award now.

We recommend professionals do not enter, judge, or support these awards in any way, unless this note is removed.

**Nick Hoggett,**  
Chairman, European Committee,  
International Association of  
Lighting Designers.

### Sponsors withdraw

CIBSE regrets the inclusion in the

LIF's 1990 NLA brochure of the note to the rules that effectively eliminates from the competition any lighting scheme that does not feature a high proportion of LIF members' equipment.

Because of this, CIBSE has withdrawn from co-sponsorship of this year's NLA, and at the same time is urging LIF to reconsider the offending note with a view to the competition re-establishing itself in future years as a truly *national* award, open to allcomers.

**Karl Pike,**  
Secretary, Lighting Division,  
The Chartered Institution of  
Building Services Engineers.

### Footnote is withdrawn

As LEN was about to go to press the following statement was received from the Lighting Industry Federation:

The controversial footnote in the National Lighting Awards brochure which asks that entries should feature substantially lighting equipment manufactured by members of the LIF has been withdrawn.

The announcement comes at the beginning of Tony Armstrong's term as president of the Lighting Industry Federation. Commenting on the decision, Mr. Armstrong stated that the LIF could not help but be moved by the strength of representations it had received, in particular from the Electricity Association, whom he was pleased to welcome as a co-sponsor.

It was gratifying, he said, to see so many people concerned for the NLA and he hoped that this, together with the change of heart on the part of the LIF would augur well for the 1989/90 awards.



Winner of the commercial section in last year's National Lighting Awards: the atrium at BP Oil's headquarters.

### REMINDER

Closing date for receipt of entries in the 1989/90 competition is 11 July 1990.

### Contrary to professional impartiality

I write with reference to this year's LIF National Lighting Awards and the continued inclusion of the clause associating entries with LIF members' products.

The current awareness of lighting within the professional, commercial and private sectors, and its relevance to our working environment, perception and enlightenment are such that to demean the "National Lighting Awards" in this manner is scurrilous to all, professional and commercial, who participate in this field.

The awards were previously considered to be "National", representative of good lighting practice within the UK, judged from a totally unbiased position, and of merit.

The inclusion of the aforementioned clause is contrary to this and the professional impartiality offered by independent lighting consultants, and as such must preclude their participation. Within the "implied" national context that these awards are held, the current notion of "National" is surely fraudulent.

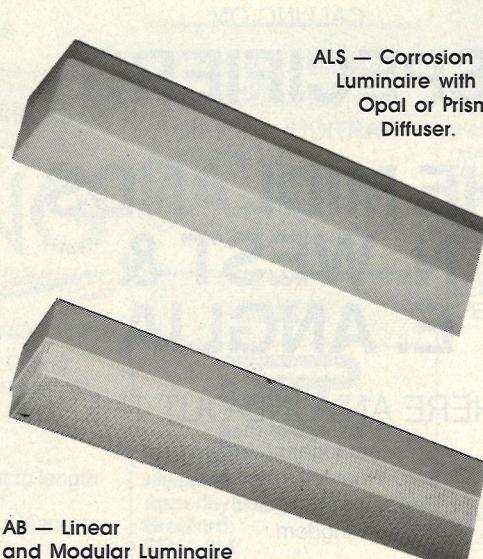
Obviously the time has come for the LIF and all other participants within the UK lighting field to re-appraise the logistics and aims of a "National Lighting Awards Programme".

**Douglas Brennan,**  
Partner,  
Lighting Design Partnership,  
London.

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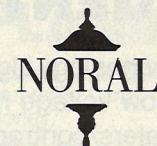


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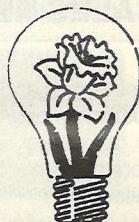
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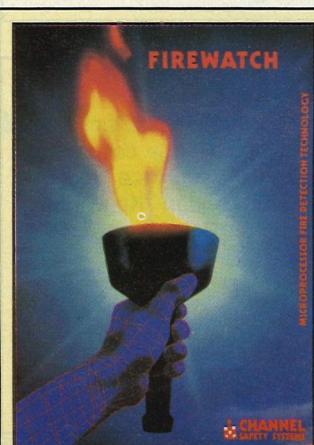
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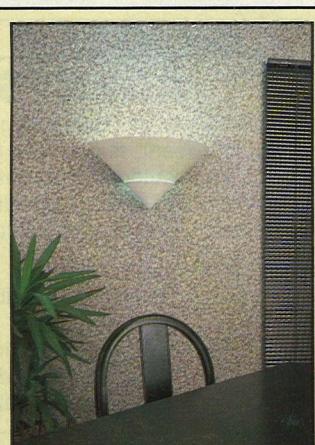
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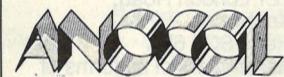
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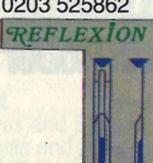


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## Designs on Eastern Europe

West Germany designers are queuing up to be the first over the fast-crumbling Berlin Wall and many are already talking to the East Germans about consultancy arrangements.

But the traffic has now become a two-way flow and a, previously impossible, three day visit to the West for East German designers and design students was recently organised by Erco, and one of the country's most important design institutions, the Haus Industrie Form in Essen. Erco paid for the



trip which included two days at its technical centre, and meetings with business people, design professionals and government officials in the Federal Republic.

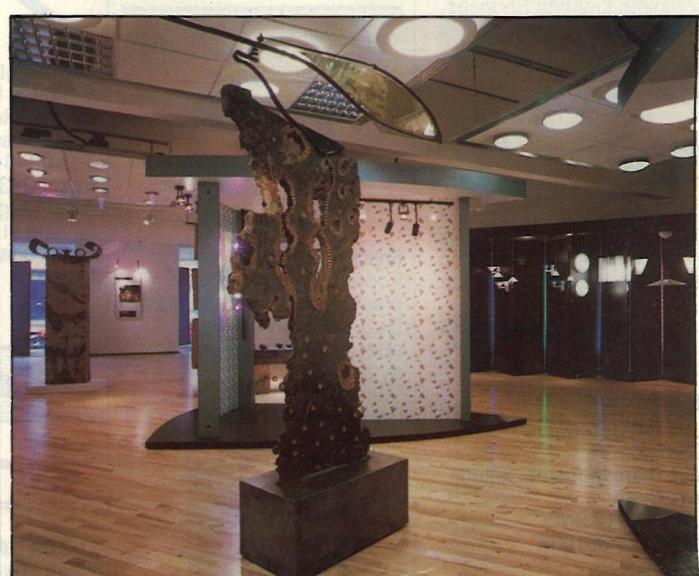
Erco already has a track record of contacts with the GDR. It was the first West German company to exhibit in East Berlin, at the

request of the authorities two years ago, and, since then, designers from the company have visited East Germany's Givchenstein design school. Until recently, however, it has been impossible for visits to be returned because of East German restrictions. Now all that has changed.

## Marlin opens new lighting centre

Marlin opened its refurbished Lighting Centre in Glasgow at the end of April. In the field of commercial lighting, rapid technological change produces a constant need to design new products incorporating the latest lighting sources.

This can make lighting a difficult field to understand, so there was a need for the company to have a regional base it could use to further an understanding of the technicalities of lighting among



architects, designers and other lighting specifiers. A key requirement of this aim is to show the effects of lighting sources as well as the products themselves. There is also a need to provide space to discuss new lighting schemes and an over the counter service for the lighting products themselves.

A curved wall of stippled glass separates the showroom from a demonstration area and 30-seat lecture theatre designed for presentation, seminars and discussions. Marlin intends to implement a full programme of events here.

Both areas enable the specifier to see the effects of lighting on tone, colour and texture — both with and without the effects of daylight.

A major policy of the company is to use the work of local artists for demonstrating the effects of lighting. In this respect an opening exhibition by architect Adam Zy whole

sculptures was particularly successful as the texture, grain and enormous range of colours in these pieces provided an exciting focal point for lighting displays.

## A tough test!

The first meeting in 1990 of the Lighting Industry Golf Society was held at Coombe Hill Golf Club. Thirty-five members and guests attended and the scores indicated that everyone found the course a tough test of golf. New sponsor, Smart and Brown, presented every golfer with golf balls and an umbrella — a pleasant surprise appreciated by everyone.

The Stableford competition was won by David Caspall; Frank Canadas and Trevor Oram took second and third places. The guest prize was won by Adrian Bell. Prizes were presented by Albert Keep of Annixter UK. In the afternoon the Stableford foursome was won by Barry Ship and Trevor Oram. Runners up were Tom Cartledge (captain) and Frank Canadas. Prizes were provided by I Cartledge.

## Lou now heads the lighting profession

Lou Bedocs is the new chairman of the Lighting Division of CIBSE. He is manager of the lighting development at Thorn Lighting where his responsibilities include product development and innovation of techniques. He has worked for Thorn for over 30 years.

For the last three years he has

chaired the CIBSE lighting technical committee which produces lighting guides and codes of practice.

He is a member of a number of national and international committees. One of his current responsibilities is the technical committee of the *Commission Internationale de l'Eclairage* on maintenance of lighting systems.

Mr Bedocs has lectured in many countries on his favourite subjects of emergency lighting, energy saving techniques, lighting electronics, integrated environmental systems and uplighting.

## IN YOUR NEXT ISSUE

The July issue of LEN will look at lighting controls and energy management.

Next month's Hanover review continues this theme with a survey of new control equipment and

goes on to discuss luminaires. The report on the Cambridge Lighting conference will also be concluded.

In addition, we hope to reveal the winners of 1989-90 European lighting contest.

# WHO ARE YOU GOING TO SPECIFY...?



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