

LIGHTING EQUIPMENT NEWS

JUNE 1991

Thorn factory to close

Plans are being made to close Thorn Lighting's factory at Merthyr Tydfil following a decision by GE Thorn Lamps to alternatively source incandescent lamps and filaments currently manufactured there. The South Wales plant employs 506 people.

Production is scheduled to be phased out over the next 12 months. This will give employees time to plan for their futures, will provide for an orderly close down of manufacturing operations, and will allow GE Thorn Lamps to make alternative arrangements to satisfy customer needs.

Commented Steve Hayes, Merthyr Tydfil factory manager, "The problem is that the plant has been unable to generate the economies of scale required in an ever increasing cost competitive global marketplace."

Wiring regs to become national standard

The Institution of Electrical Engineers and the British Standards Institution have been looking at the possibility of formally recognising the wiring regulations as the UK national standard for electrical installations.

The IEE has undertaken the publication of the regulations for over one hundred years now and they have effectively become the UK national standard. With the impending creation of the single European market it is felt that recognition would enhance the standing of the document. The discussions have generally been supported by the electrical trade.

It was impossible to reach an agreement in time for the publication of the sixteenth edition, but arrangements should be in place in time for its implementation in the first amendments to this edition, scheduled for early 1992.

INSIDE THIS ISSUE

News	1,2,3,4,24
New products	5,6,8
German lighting industry:	
The market	10,11
Facts and figures	12,13
Hanover Fair review	16,17
Air handling luminaires	18,19
Electronics in lighting	20,21
Daylighting	22
Where to buy directory	23,24,25,26
Classified advertising	26,27
Catalogue directory	27



Centre of excellence

To mark its centenary, Philips Lighting in Eindhoven has opened a new, just under £5 million, demonstration centre for professional products and systems: the

Lighting Application Centre. The 3300 square metres of floorspace offer an opportunity to experience examples of modern lighting technology in real-life situations. The

entire installation comprises 2620 luminaires – and a total length of 96.5km of cabling.

The centre is intended to inform the lighting market about the application of new products to publicise Philips as a developer and supplier of lighting systems.

The aim is to create an awareness of lighting needs in people and to allow them to experience possible lighting solutions – all in the space of two hours, the average duration of a visit to the centre.

A half-hour introductory programme in the 'Basics Theatre', explains the nature of lighting and how the eye works, and establishes the link between visual requirements and lighting requirements.

The visitor then moves through a variety of everyday lighting environments. These include lighting in the office, industry and commerce; lighting for relaxation in the home or hotel, and sports lighting. The principles underlying decorative floodlighting and motor vehicle headlamps are also explained.

All demonstration rooms have variable lighting. A great many lighting systems have been pre-programmed in the central com-



Philips acquires Narva factory

Philips Lighting took over the Narva lamp factory in Plauen in Germany, on 1 May, 1991, following agreement between Philips Light GmbH (Philips' German subsidiary), and the Treuhandanstalt, assigned by the German government to manage

the privatisation of former East German companies.

The acquisition of Narva Plauen will strengthen Philips Lighting's position in Europe in the field of automotive and special lamps. The factory, which will maintain its Narva brand name for its interna-

tional activities, has annual sales of about 40 million DM.

Given the long term lack of investments in the East German industry, Philips will need to modernise Narva Plauen's factory, thereby giving continued employment to its workforce of 500.

Metamec buys Courtney Pope

Metamec have just purchased Courtney Pope Lighting and Lighting Workshop as a going concern; they acquired all the products and rights that had formed the companies from the receivers. Metamec, a company known for its clocks, will concentrate on the manufacture of the products and the Lighting Group will concentrate on sales and marketing.

Manufacturing of the products will be transferred from the Courtney Pope's manufacturing plant at Manchester to Metamec's Dereham premises over the next three months.

Metamec had been looking to purchase a large lighting company for some time, as it would fit in well with the existing factory production.

Lighting Group Chairman, Brian Norris, declared himself delighted with the new trading relationship, given his company's experience of Courtney Pope products.

Osram to make redundancies

One-third of the workforce at Osram's lamp factory at Shaw near Oldham is to be made redundant over the next six months. The company will cease making fluorescent tubes and some incandescent lamps there.

The remaining 540 employees will be rehoused in one building on the site which is currently being refurbished at a cost of £1 million. The Shaw plant will in future concentrate on the production of discharge lamps and some specialist incandescent lines.

HELVAR
QUALITY
ALWAYS
SHINES
THROUGH
081-568 6205

ELECTRONIC BALLASTS FOR ALL APPLICATIONS

Reader Service No. 1

DIARY

JUNE

6

Lighting basics 3: lighting design principles. One-day seminar in London. Details from Mid Career College 0223 880016.

7

Exterior lighting. One-day seminar in London. Details from Mid

Career College 0223 880016.

11

Lighting basics 3: lighting design principles. One-day seminar in Manchester. Details from Mid Career College 0223 880016.

14

Interior lighting design practice. One-day seminar in London.

Career College 0223 880016.

17

16th Edition Wiring Regulations. One-day symposium in London for college lecturers. Details from IEEIE 071-836 3357.

18-19

Safety in live entertainment.

Details from Mid Career College 0223 880016.

Conference in London arranged by CIBSE, 081-675 5211.

JULY

15-19

Interior lighting course arranged by the Institution of Lighting Engineers at Trinity and All Saints College, Leeds. Details from ILE 0788 576492.

NEWS

Lightex '91 to be held at international centre

Lightex, the Institution of Lighting Engineers' annual conference and exhibition, will be one of the first conferences to be held at the new International Convention Centre in Birmingham.

Both events open on 24 September and continue until 26 September. Roy Hattersley, MP, will open the conference.

Subjects for discussion include *An evaluation of public lighting*

as a community crime prevention strategy; *QL: a commercial induction lamp*; and *The practical use of compact fluorescent lamps in public lighting*. A further topic to be considered is 1992.

The exhibition will cover exterior and interior lighting, and associated products and services.

For further details contact Mrs D Barnes at the ILE on 0788 576492.

BS on lampholders

BSI has just published BS 6702: 1991 *Specification for lampholders for tubular fluorescent lamps and starterholders*. It is the English language version of EN 60 400: 1989 and supersedes BS 6702: 1986.

Copies, price £59, are available from BSI Sales, Linford Wood, Milton Keynes MK14 6LE.



GE HIGH PERFORMANCE PRECISE™ DISPLAY LAMPS. 33% LONGER LASTING. UP TO 15% BRIGHTER. AND 100% ATTENTION GETTING.

Command attention with GE High Performance Precise™ display lamps, the industry leader for longevity and brightness.

With a life of 4,000 hours, GE High Performance Precise display lamps last up to 1,000 hours longer than our previous display lamp.

And GE High Performance Precise is the efficient alternative to standard incandescent and par lamps. Its Multi-Mirror® reflector, new filament design and precision filament alignment produce a focused, yet low-wattage beam that provides up to 15 percent more light.

This new family of lamps provides light the way you want it: bright and white. For displays of any kind, from fine furs and jewelry to foods and flowers. With a level of performance that lives up to its name.

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



GE Lighting

GE Lighting
Shortlands, Hammersmith,
London, W6 8BX
Tel: 081-846 8727
Fax: 081-846 8770

CIBSE



The Chartered Institution of Building Services Engineers

Taking stock

Like any other organisation, CIBSE Lighting Division does its annual stocktaking. The only difference, perhaps, is that the 'stock' in question consists of our resources, our membership and our achievements, plus a look into the year ahead.

The ideal time for this self-assessment is at the handover from one divisional chairman to another – something that took place on 8 May when Alan Wilson, of EDP, Stockport, took over from Lou Bedoes, of Thorn Lighting.

Lou's year was one of great activity, and not a little innovation on many fronts.

In spite of the recession, Lighting Division's membership, in line with CIBSE's as a whole, continued to rise. Particularly welcome is the number of young people joining the Division, which bodes well for our future health. We like to think that the CIBSE Young Lighter of the Year Scheme may have something to do with their interest in joining.

This Lighting Division initiative, with the active support of Marlin Lighting as patron of the scheme, has been particularly well received in the colleges and polytechnics where lighting is taught. The 1991 scheme will be launched shortly.

Mention of education raises the subject of the CIBSE Lighting Diploma and Certificate. An important announcement, due later this year, will make it even more important that those members who qualify for the Diploma – or Certificate – should apply for it.

In the opinion of many, the greatest public evidence of the professional activities of the Lighting Division lies in its publications, and there has been no let-up in this department over the past year, nor will there be in the future.

The *Code for Interior Lighting*, the standard reference work on good lighting practice, is under extensive review and will be published in a new edition next year. Other lighting guides currently on the stocks deal with the outdoor environment, office lighting, building and civil engineering sites, and several older guides are being updated. Due for imminent publication is the *Guide to the visual environment in lecture, teaching and conference rooms*.

The Division can scarcely have been busier in the matter of coming events than it is now. In chronological order, we have:

- Lighting Seminars at Light Fair '91 (to be held at the Wembley Conference Centre from 22-24 October, 1991).
- The Waldrum Lecture, (organised jointly with the ILE and sponsored by Osram to be given in Bradford on 2 December).
- National Lighting Conference (5-8 April 1992, in Manchester)
- Lux Europa (to be held from 4-7 April 1993 at the Heriot-Watt University, Edinburgh).

And that's mentioning only those with a national or international scope!

The new Divisional Chairman, Alan Wilson, will doubtless cover all these matters at his Chairman's Address given to initiate the 1991/92 session at the Institution of Structural Engineers in London, on 8 October.

Karl Pike
Secretary, CIBSE Lighting Division

NEWS

Lighting up London's fires

London Fire Brigade has equipped its fleet of fire appliances with the latest high-technology floodlighting. The first contract worth about £500 000 has been awarded to Woodway Engineering for their Hy-light system.

The 96 vehicles initially involved are mainly Volvos and Dodges; about half this number are new machines and the remainder are retrofits.

Two years of development in association with the brigade's technical section ensured that the final product met the exacting specification of the operational fleets.

Lighting can provide up to 3500W from the vehicle's existing standard alternator which does not need to be modified significantly. A vital requirement is that when the floodlights are operating the vehicle can still receive its full normal charge. The configuration provides 2200W of floodlighting at 110V and 40 amps of vehicle charge at 24V at one and the same time.

The main unit for lighting the fireground is a pair of 500W fully-enclosed halogen fittings mounted on a 3-stage telescopic mast which is power erected in under 30 seconds by means of a 24V air-compressor module. The mast can be rotated from ground level to aim the lights.

In addition there are two portable light-units each carrying a pair of 300W fully enclosed fittings. These can be deployed



remote from the vehicle and at long range without noticeable reduction in brightness, using extension cable reels.

The total power is thus 2200 at 110V dc and the supply is centre-tapped with respect to earth (chassis) which restricts the earth-fault voltage to a maximum of 55V to ensure operator safety. The system is continuously rated and the vehicle's standard alterna-

tor is not overstressed in any way. An ac supply at 50 Hz is also made available for the operation of power tools.

Interlocks and safety controls prevent such hazards as moving the vehicle with the mast erected, and energising the floodlights with the mast retracted, and these are supported by audible warning devices, signal lamps, and strobe alarm beacons.

DLA to change name

The Decorative Lighting Association is looking to change its name to The Lighting Association. The annual general meeting endorsed a recommendation from the council of management to this effect, and the membership will shortly be balloted to approve the change.

Immediate past president Maurice Green pointed out that although members' interest "are, and will remain, deeply involved with the retail market sector, there are a growing number of companies who require Association support to successfully address the contracts market."

LIGS braves the elements

The first Lighting Industry Golf Society meeting of the 1991 season was played at Addington Golf Club on 30 April. Despite atrocious weather and the difficult course the 34 members playing managed to return good scores.

In the morning they played for the KSM trophy with supporting prizes, sponsored by Bill Green of Existalite. Barry Ship of AEG, captain for this year, presented the trophy to the winner I Neale.

Second place went to D Caspell and third place to T Smith (honorary secretary). All competitors were presented with golf balls by David Proctor of GE Thorn Lamps.

Prizes for the Greensomes Stapleford competition were sponsored by Gordon Sugden of Airedale Springs. First prize went to S Haggis and B Green, with second prize to M Bailey and B Ramsay.

The next meeting will be held at Richmond on 11 June.

COMMENT

Light at the end of the tunnel?

There seems to be a new air of confidence in certain sectors of the lighting industry, in spite of a spate of gloomy stories on the front page of this month's issue.

A number of companies with across-the-board product ranges report increased demand from their wholesalers. This may well be interpreted as an attempt to bring stock back to more normal levels after comprehensive destocking over the past year; but it does show a certain confidence in the future. Curiously, the consumer side of the industry was the first to pick up, with a noticeable increase in demand over the past couple of months. This almost anticipated falling interest rates, and with a backlog of people ready and eager to move home, this trend looks set to continue.

Within the past four weeks or so a similar trend can be detected on the professional front, although here the situation is still very confused.

Enquiries seem to be mostly about refurbishment projects. The buoyancy of supermarket and food chains is reflected in new branches, but the spin-off even appears to be extending to high street multiples on the fashion front. Hotel groups are also seeking to update their existing properties. In the specialist fields, bullish sectors include energy-saving installations and certain types of display lighting.

Of course, a more pessimistic interpretation of this whole situation may well be that as so many companies have recently gone out of business a larger share of an existing cake boosts the confidence of the survivors.

There is no evidence yet of an increase in new-build work: the construction industry has yet to move ahead. Much of this is due to political uncertainty – for the first time in over a decade we are moving into the run-up to an election whose results are not altogether predictable.

Other market contacts report that the situation is also patchy in geographical terms. The south and east regions of the country continue to be weak; they are also suffering a considerable surfeit of office and commercial space, keeping rentals depressed, so that is little incentive to redevelop. Areas such as the midlands and the north on the other hand are experiencing far higher levels of demand.

One fact is, however, true: it's very definitely a buyer's market still, and specifiers have been learning to shop around. So, although the level of activity has been grown, the market has become far more price sensitive. In an effort to keep the industry ticking over price margins have been severely cut, so less revenue is generated from an increased turnover – and this is going to be a difficult problem to sort out as things start to move ahead.

LIGHTING EQUIPMENT NEWS

Editor: Judy Sewell

Associate Editor: Barbara Trigg

Art Editor: Lorna Francis

Advertisement Manager: Jim Hughes

Northern Area Manager: Robert Ditchfield

Classified Sales: Alastair Moyes

Production Manager: Mark Sevel

Circulation: Kirtee Parmar

Publisher: John Bull

Group Publisher: Nigel Foster

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

Published monthly by Maclean Hunter Ltd, Maclean Hunter House, Chalk Lane, Cockfosters Road, Barnet, Hertfordshire EN4 0BU.

Telephone: 081-975 9759. Facsimile: 081-975 9753

Telex: 299072 MACHUN G. Northern Area Office,

Tel: Cannock (05435) 72771.

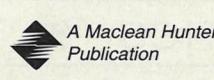
Origination by Facsimile Graphics Ltd, Coggeshall, Essex.

Printed by E. T. Heron & Co. Ltd, Heybridge, Maldon, Essex.

Annual subscription £50 (£4.50 per copy including postage) but free to executives in the UK and Ireland meeting the terms of control.



MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS



Member — British Business Press

© 1991 ISSN 0024-3418

More efficient down-under

People in brief...

Architect Harry Seidler's majestic new QV1 building in Perth, Australia includes almost 14 000 customised Thorn ALI light fittings incorporating low brightness Edison Price louvres.

Lighting to the 38 floors of office space features low loss control equipment and high efficiency triphosphor fluorescent lamps. Each floor covers a minimum of 1600 square metres of rentable office space.

As a typical tenant is expected to use VDUs and computer terminals, the design brief required the architects to specify low brightness light fittings to reduce glare and other visual difficulties.

Apart from the use of energy efficient lighting, the power consumption of QV1 will be significantly lower than comparable buildings in Perth because of integrated energy management systems and structural fea-



tures including automatically controlled air conditioning, double glazing and external sunshades.

nia. Based in Geneva, he is responsible for marketing and sales.

● **Bob Matthews** has been appointed sales director of Crompton Lighting.

● **Colin Nash** has become product manager, chargers and central battery systems, at Chloride Bardic. **David Morgan** has the

new position of special projects sales manager.

● **Mark Levett** has been promoted regional director, UK and Ireland, for Thorn Lighting.

● **Gary Davidson** has joined Luna Lighting and is working on lighting scheme design. **Paul Binstead** is to work on product development.

NEWS

Lighting off-grid

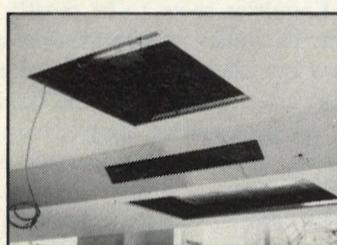
Locating luminaires symmetrically to give correct light distribution within office areas with exposed ceiling beams was a problem posed during refurbishment of Fanum House, the former Automobile Association HQ in Leicester Square, London. It was solved by a computer-aided lighting scheme produced by RADA Lighting.

The beams project some 400mm below the original ceiling of the 1930s building, which made it impossible to create a uniform grid for services throughout the building.

The floor-to-ceiling height was already reduced by the installation of a raised access floor for telephone and data communications services, so the new suspended ceiling could not be set flush to the soffit of the beams without giving aggressively low floor to ceiling heights.

The result is a ceiling still very much in character with the original style of the building, but it demanded precise plotting to meet both the interior design and the lighting requirements.

The resulting ceiling void was particularly shallow, and RADA produced low profile, 600mm x 600mm luminaires to suit. These are three-lamp, air-handling fittings with high-efficiency, low-energy louvres suitable for VDT and general areas.



They are recessed into a suspended plasterboard ceiling – the option chosen to harmonise best with the exposed beams.

All the beams around the perimeter of the building had to

be diamond-drilled with pipework apertures up to 150mm in diameter – painstaking work done mostly outside office hours to avoid noise disrupting the people in occupied offices.

Angled bulkheads were also built to maintain the style of the interior, while concealing air conditioning units.

Overall, the project put a premium on the co-ordination of electrical and mechanical services – which account for more than 50% of the total refurbishment cost.

Systems on display in Kingston

A showroom has been opened at its Kingston upon Thames office by Electrak International. It is fully equipped for demonstrations and seminars.

Modular linear lighting and power supply systems such as service poles and wall trunking are on show, together with a wide range of accessories.

Included in the lighting options is a module with running text.

Service poles are available with built-in uplights.

The showroom is designed to demonstrate how office systems can be interrelated. Display boards illustrate the ease of installation and special features of each system.



The Lyceum, Liverpool, is a listed building dating from 1802. It was constructed as a library and later used as a gentlemen's club. After refurbishment it retains many of the original features, and is divided into three retail units.

The hall behind the main entrance of the portico is used by the Post Office, and is lit by LB400 luminaires, built into the mountings and counter screens, used as uplights. The lamps used are 400W metal halide HPI/Ts which give a crisp white light with excellent colour rendering.

Sixty-five luminaires give an illumination level of 350-400 lux with a total installed load of only 27.75kW.

Trade Literature in brief...

Erco in Birmingham

LEN regrets that it was misinformed about some of the downlights used in the Birmingham International Convention Centre, described in the April issue.

In the main conference hall one-third of the downlights are by Erco. In the Symphony Hall, 114 small downlights giving a wall washing effect are also by Erco, as are some of the downlights providing tier lighting. The remainder are, as stated, by Concord.

● **Home Automation** has introduced an A5 buyers' guide of its controls and electrical accessories. Tel: 0249 443515.

● **Thousand and One Lamps** has a brochure describing its matching floor standing and wall mounted uplights. Tel: 081-698 7238.

● **Andrew Chalmers and Mitchell's** 24-page brochure gives a guide to the specification of products for hazardous areas as well as details about the company's luminaires. Tel: 041-882 5555.

● **Erco's** brochure Program

1991/92 is now available. It features many new lighting fittings. Tel: 071-408 0320.

● **Camelot**, Sweden, has a leaflet on its range of Rainbow colour changers and accessories for stage lighting. Tel: 071-580 6334.

● **CIBSE** has published the Spring edition of Hawkwatch, a termly newsletter for teachers and pupils, on building services engineering. Tel: 081-675 5211.

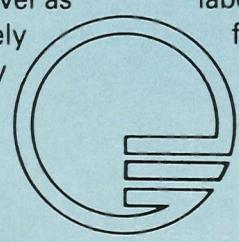
● **Merlin Gerin's** 1991 catalogue of electrical equipment, Final distribution products, is now available. Tel: 0952 290029.

● **GTE Sylvania's** 1991 catalogue of lighting fittings for commercial, industrial and exterior use has been published. Tel: 0274 595921.



Light years ahead

The Gallex task lighting system consists of an economical range of high intensity cold light sources with a choice of flexible fibre optic light guides. Together they can deliver as much light as you need, precisely where you need it with virtually no heat. The accessories that complete the system allow you to control the intensity, colour



and spread of light to match your needs exactly. Whatever your activity, from industrial inspection and assembly to laboratory microscopy, Gallex fibre optic lighting will help make your work more efficient, more productive and more comfortable.

GALLEX LIMITED

FIBRE-OPTICS & OPTO-ELECTRONICS

For further details contact Gallex by post or telephone:
Vale of Leven Industrial Estate, Dumbarton, Scotland, G82 3PD. Tel: 0389 55421

Reader Service No. 3

NEW FROM IMI REEVES

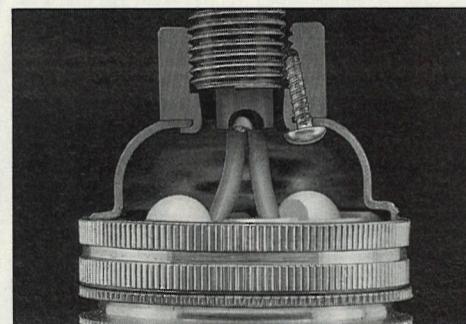
Three lampholders made to order!

It's always been IMI Reeves policy to listen and respond to the special needs of lighting manufacturers. That's why we've introduced these three new lampholders to our already extensive range. All three have been developed to meet the exacting high standards you expect of IMI Reeves Lampholders.

*1510/RTS & PTS

SPECIALLY DEVELOPED FOR CHILD-APPEAL LUMINAIRES

Approved by the Technical Consultant of Decorative Lighting Association. Available in brass B15 size, 12 volts supply with or without Shade Ring. Includes specially developed interior.



THE PUSH-BAR WITH GREATER GRIP

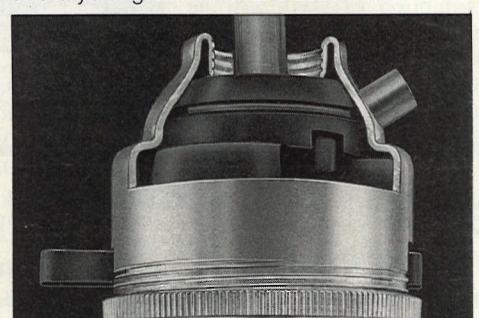
A bayonet cap, push-bar holder incorporating a unique cord grip within the lampholder for extra safety. Grip tested to 50 Newtons.

For details of these three new products and the complete range of IMI Reeves Lampholders write, phone, fax or telex today.



FOR A BETTER LOCKING LAMPHOLDER

Incorporates a solid brass ferrule and integral pummel which locks the lampholder firmly to metal tube preventing rotation. Ideal for hotel and crystal glass luminaire assemblies.



IMI

IMI Reeves Lampholders

Holdford Road, Witton, Birmingham, B5 7ES
Tel: 021-356 7369 Telex: 335959 IMICOM G Fax: 021-356 7987

NEW PRODUCTS

Spotlight is compact and cool

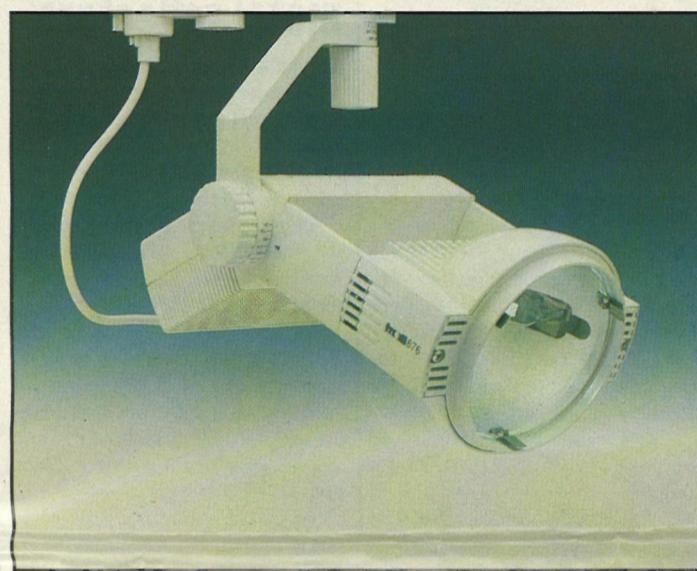
Coolspot, launched by Concord Lighting, is a low voltage spotlight in a neat, compact shape. It features a specially designed, integral toroidal transformer with thermal cut-out which allows the luminaire to operate at a maximum ambient temperature of 40°C.

It can be rotated both horizontally and obliquely. A floating endstop eliminates any blind spots.

Dichroic 50W lamps with GU 5.3 or GX 5.3 caps are accepted and the lampholder has retaining springs to guard against vibration.

Versions are available for single track, multi-track or individual mounting. Coolspot is particularly suitable for retail displays of perishable goods.

Reader Service No 160



Metal halide projectors

Vector is a range of metal halide projectors from Troll Lighting. They are designed to operate on Troll's track system. Electrical connection is through twin-circuit track and pendant adaptors.

Either 150W linear or 70/150W single ended lamps are used. Control gear, including a thermal fuse, is integral with the luminaire.

An ultra-violet filter and barn doors are optional accessories. There is a choice of white, black or metallic grey finish.

Reader Service No 161

Linear lighting has matching wall lights

Ovalo is an oval-shaped linear lighting system (140mm x 65mm) suitable for either ceiling suspension or wall mounting.

It can be used with twin lamps and an upward-facing diffuser in areas where VDUs are employed to minimise reflected glare.

Ovalo is available from Menvier Linear Lighting in 18W, 36W and 58W modules. There is a choice of opal polycarbonate louvres or clear, reeded acrylic diffusers. High frequency ballasts and emergency lighting facilities can be fitted.

Menvier has developed a range of couplers, connectors and infill modules which allow interior designers to create stylish lighting schemes.

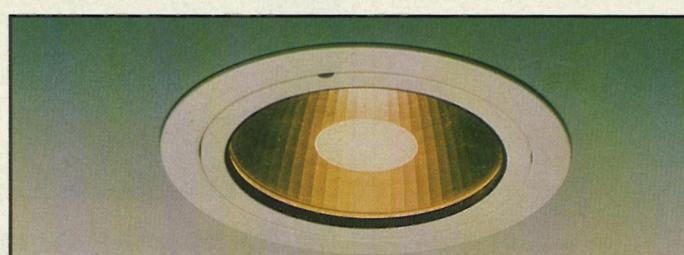
In addition, there are matching tungsten halogen wall fittings for local uplighting and wall washing. Supplied to order, this additional facility enables the designer to carry the Ovalo concept throughout a building.

The system is produced in a



range of RAL colours, however, if existing colour schemes or corporate colours need to be matched, customised colours can be produced.

Reader Service No. 162



former is remotely mounted.

A safety glass protects users from the possibility of an exploding lamp and prevents dust from

reaching the lamp and reflector. The safety glass is also etched in the centre to prevent glare.

Reader Service No. 163

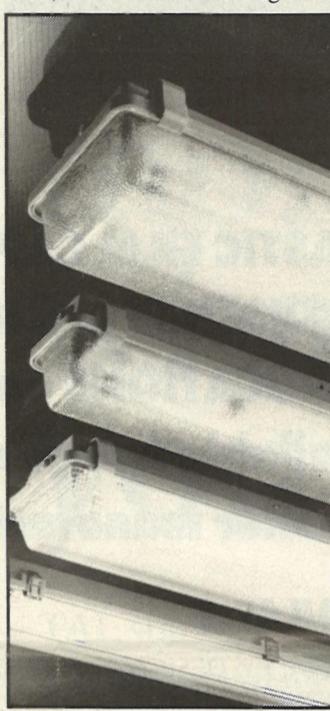
Weatherproof luminaires

Crompton has replaced its Tufflite fluorescent range with the Tufflite 65 range which is ingress protection rated IP65 and has more options than the previous fittings.

These corrosion resistant, weatherproof luminaires are available in single and twin lamp versions in 600mm, 1200mm, 1500mm and 1800mm lengths.

There is a choice of prismatic or stippled enclosure in either acrylic or polycarbonate with smooth exterior surface to prevent dust build-up and for easy cleaning.

Optional extras include emergency lighting facilities, switch-start, electronic start or high fre-



quency ballast, and for cold stores a low-temperature start version.

Reader Service No 164

Controls for lighting

For ease of use in overseas installations, Hamilton's Mercury Litestat controls now have a voltage selection option.

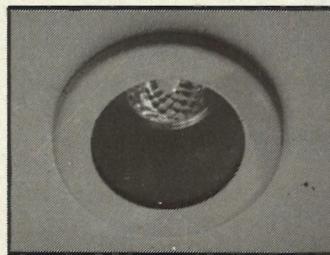
Extra low voltage switching is now standard, enhancing safety and allowing a choice of momentary type of controller.

For the first time, a panic facility has been incorporated in the momentary control version.

Reader Service No 165

Downlight for humid areas

An adjustable, low voltage downlight suitable for interiors and some exterior locations, such as



under canopies, is available from Light Projects. There is also an optional watertight seal which provides extra protection in kitchens, bathrooms and other areas of high humidity.

Dichroic lamps up to 50W are used. Black, white and metallic finishes are available, as well as BS and RAL colours.

Reader Service No 166

LIF LINE

BS 5750 – the reality behind the misconception

Of the many myths floating around the industry at the present time, those surrounding BS 5750 – the question of quality assurance – need to be put to bed once and for all.

The first all-important fact is that BS 5750 does not relate to the approval of products. The assessment relates to a registered company's ability to manufacture products of consistent quality.

The second point which needs reiteration is that BS 5750 is not about consistency without quality. The two must go together. With a BS 5750 approved quality management system as an integral part of a product certification scheme, quality is built into every product. As a result, waste, reworking and call-outs to the site are reduced.

Thirdly, BS 5750 is not expensive to operate. While the setting-up costs can be substantial, the subsequent operation of the system will cut costs through a more efficient operation of manufacturing facilities. With Britain's present recessionary trend such efficiency in operations and an assurance of customer satisfaction are key elements to a firm's continued success.

International action

A fourth and final point is that BS 5750 is not just a British phenomenon. Our continental counterparts are now getting to grips with its international equivalent EN 29000. This means that to compete profitably in the ever widening market place it is essential that British companies are alert to the international climate with regard to quality and safety and BS 5750 and certification are integral to demonstrating the quality of British products and services.

Having rebutted the myths surrounding BS 5750, it may be worth restating the other advantages, mainly that:

1. BS 5750 demonstrates to government departments and other major purchasers that a manufacturer has a structured approach to quality assurance.

2. Better management of product quality and reduction of defects reduces the risk of product liability suits, particularly relevant in view of the Consumer Protection Act 1987 and the EEC Product Liability Directive.

All the above leads one to ask whether any manufacturer can afford now not to be involved in this quality assurance/certification activity. The Lighting Industry Federation for its part requires all its members to operate a quality assurance system which conforms to BS 5750 and one wonders why any purchaser would wish to deal with non-registered firms. For a list of LIF members and their products, contact LIF: tel: 081-675 5432.

NEW PRODUCTS

LV range offers 18 designs

Ultracool is a range of low voltage spotlights and downlights designed and made by Beta Lighting.

An independent, dichroic, optical glass reflector is used in conjunction with M32 50W or M28 100W tungsten halogen capsule lamps.

There are 18 different designs in various materials, including the use of metal and polycarbonate discs.

The Monical fitting incorporates a frosted diffuser, suspended below the lamp by two arms, which reduces glare and creates a



halo effect.

D-Ring has a small D-shaped handle near the swivelling joint,

to facilitate adjustment.

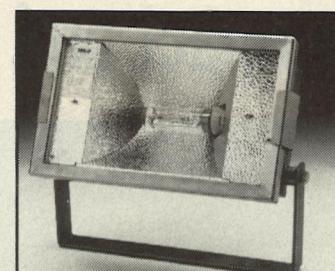
Fin range has an Art Deco feel.

Reader Service No. 151

Floodlight for zone 2 areas

Andrew Chalmers and Mitchell has a floodlight suitable for use in zone 2 hazardous areas. It uses a 70W tubular high pressure sodium lamp and has integral control gear.

This ExN floodlight is made from marine grade 316 stainless



steel and is highly corrosion resistant.

Reader Service No. 152

Extra long life GLS lamps

Luna Lighting has a range of SuperService GLS lamps with an average life of 16 000 hours. They have a special tungsten filament which withstands rough handling by stretching when the lamp is knocked or dropped.

This reduces maintenance problems and makes them particularly

suitable for applications such as hotels and hospitals. The lamps have a one-year guarantee.

They are available in 40W, 60W, 75W and 100W ratings with pearl or clear finish, BC or ES cap. Trade price is £1.95 each, all sizes.

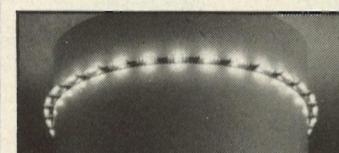
In addition, there are candle lamps and the range will be extended further. The filaments are made in the USA and the lamps in Finland.

Reader Service No. 153

Miniature xenon lighting system

A 12V lighting system using long life xenon lamps is available from Crescent Lighting.

It can be used to outline architectural features, such as the tops of columns, for lighting bookshelves, as cornice lighting, or in



an aluminium cylindrical profile to provide mirror lighting.

Reader Service No. 157

Sealed lens for LV lamps with metal reflectors

Sylvania has launched a range of low voltage tungsten halogen metal reflector lamps with a sealed front lens for safer, more reliable performance in display and task lighting applications.

The sealed lens also protects the interior from dust and dirt and from possible damage caused through handling.

Called Professional Metal Reflector, the lamp uses an axial filament capsule, which in conjunction with the front lens gives an even light distribution and symmetrical beam with no "black hole" effect.

The sealed lamp is available in a 48mm diameter version with G4 base, in 20W and 35W spot (10°) and flood (15°) beam angles. There is also a 70mm diameter type with BA 15d base in 20W and 50W spot (10°) and flood (30°) beam angles.

Reader Service No. 158

Track adaptor transforms voltage

Edison Halo has introduced a plug-in adaptor for its mains voltage lighting track that also steps down the voltage. This enables low voltage spotlights from the Logoline range to be plugged into the adaptor.

The adaptor is electronic and weighs only 250g. It is 170mm long.

Reader Service No. 154

Twinlamp HF ballasts

Active Lighting Controls has a range of electronic ballasts capable of operating one or two fluorescent lamps of 36W, 58W or 70W rating.

The ALC Twinlamp is stated to use technology that gives flicker-free operation with lumen output unaffected by mains voltage fluctuations. It is economical in use, with energy savings of up to 30% compared with inductive ballasts, plus savings on lamp replacements due to the extended lamp life produced by soft starting.

In addition, the ballasts can operate single lamps economically and without adverse effect on lamp performance.

Further, because solid state power factor corrected circuitry is employed, the power factor of 0.98 is substantially unchanged when operating as a single lamp ballast.

Reader Service No. 155

Reader Service No. 158

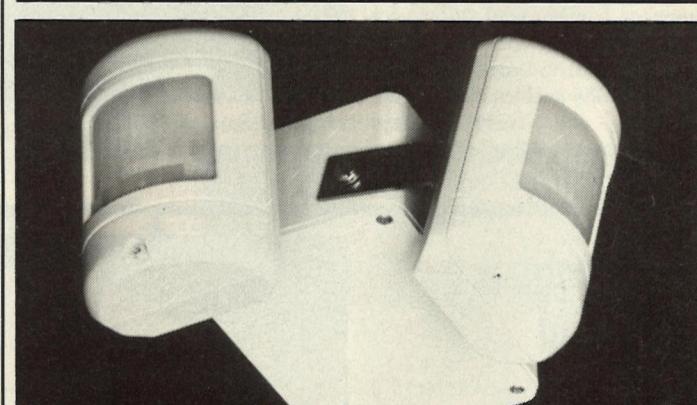
Easy disposal of lamps

Simister Engineering Services has an automatic lamp disposal machine which is stated to be capable of dealing with all types of lamp without risk of explosion, fire or flying glass.

Lampcracker Ultimate has been designed to filter heavy metals, cadmium, lead, mercury and phosphates.

Safety features include interlocked switches which stop the machine operating if there is insufficient water, or the skip is removed, or the filter needs replacing. An automatic water heater prevents frost damage.

Reader Service No. 159



Multi-headed occupancy sensor

For controlling lighting by occupancy sensor in locations where two- or three-way sensing is required, or where there are

detection difficulties such as blind spots, DEM Controls has introduced the P4 multi-head system.

Reader Service No. 156

STANDARD TERMINALS

TER PUSH-WIRE TERMINALS WITH DISCHARGE RESISTOR
CA-200 200 mm. 0.5 mm.² STRANDED OR SOLID LEADS
FA 2.8 FASTON 2.8 mm. SOLDER TAGS
FA 6.355 SINGLE FASTON 6.35 mm. TERMINALS
FA 6.355 DOUBLE FASTON 6.35 mm. TERMINALS

FIXING

M8 BOTTOM SCREW WITH NUT AND WASHER IS STANDARD. OTHER SPECIAL FIXING SYSTEMS ARE AVAILABLE OR CAN BE DEVELOPED.

APPROVALS

BS 5750-4017, UNE, DEMKO and KEMA
NORME FRANCAISE applied for

For specifications, price and delivery contact Alan C. Runnette

DNA CAPACITORS (UK) LTD

(A member of the Alexander Boxall S.A. group of companies)
125 HIGH STREET, BERKHAMSTED, HERTFORDSHIRE, HP4 2DJ
Tel: 0442 877340 Fax: 0442 877449



What you get is more than what you see

TAL stands for Twist-And-Lock, the simple and safe way to install a lamp: simple because the lamp's circular base is guided into the lampholder and the pillars into their keyholes; safe because the heads of the pillars retain the lamp and their large contact area offers improved electrical reliability.

A 50mm Ø TAL 50, with its lampholder, is dimensionally identical to a GX5.3 or GU5.3 equivalent therefore a luminaire designed for the latter may be easily converted to TAL.

So with TAL you get economies of time with security and safety and without frayed tempers; that is the friendliest lamp for effective display light.

Light is our business.
It has been since we invented
the first lamp in 1879.



GE Thorn
A genius for light

NEW PRODUCTS

Control system is bus-based

Merlin Gerin has launched a building control system for lighting, electric heating, ventilation and other loads in small to medium sized buildings. It also has load shedding and alarm facilities.

Called Isis, it is compatible with the BatiBUS communication system developed specifically for building control.

Isis 8G consists of an eight-channel control unit, sensors, push buttons and interface modules. A single, twisted-pair control cable means that installation and set-up is very easy. Merlin Gerin states that a typical system costs less than £2500 on an installed basis, making it affordable for schools, clinics, leisure centres and even certain residential applications.

The programmable central con-



trol can be set up either by using a built-in keypad with question and answer display, or by inserting a cartridge that gives 14 standard configurations. It has a timetable that can be programmed for each day of the week, for holidays and for 10 special days (eg stocktaking). The system is automatically monitored for faults.

Lighting channels can be configured to include, for example, photo-electric cells. Local override of lighting switching can be provided.

The BatiBUS cable linking the

various elements of the system has a working voltage of only 15V and can be run around a building in grooves or conduits without concern for the proximity of 240V cabling.

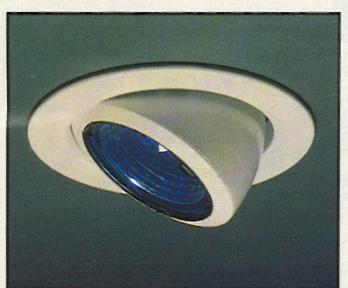
Merlin Gerin will be introducing a range of BatiBUS-compatible products in the UK. Other manufacturers are also being encouraged to design products to operate on the system. Philips Lighting, Nokia and Pillar Electrical are among those who have already joined the BatiBUS Club.

Reader Service No. 167

White SON and metal halide. Luminaires using metal halide lamps are supplied complete with an ultra-violet filter. Transformers and control gear, where required, are housed remotely.

Accessories include barndoors, wallwasher attachments, Fresnel lenses, decorative glasses, suspended discs and colour filters.

Reader Service No. 168



Wide choice of downlights

Pixel is a range of directionally adjustable, recessed downlights in two sizes from Forma Lighting.

They are designed to use a wide range of lamps, including low voltage tungsten halogen,

Transformer is digital

GTE Sylvania has launched a digital electronic controller which it claims is the safest and most reliable method of stepping down mains supply for low voltage lighting.

It offers original equipment manufacturers a method of transforming any European mains supply voltage into a stabilised 12V output in one compact unit. It is available in 100/130V and 210/260V versions, each capable of controlling loads from 20W-65W.

Reader Service No. 169

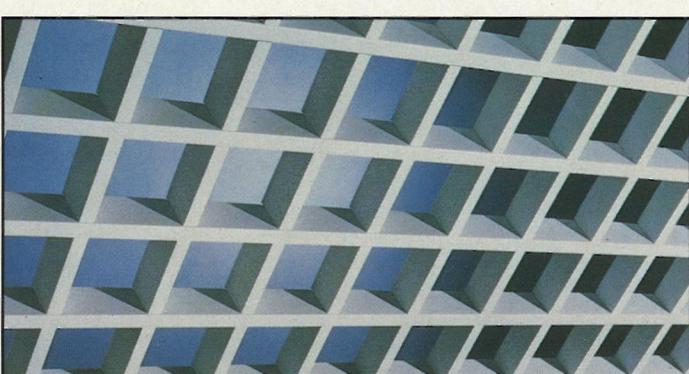


Fluorescent modules

A series of surface mounted fluorescent modules is available from Tenby Lighting. Aluminium louvres are fitted to the shallow profile luminaires.

Either three or four, 18W or 36W lamps are used. Emergency lighting facilities can be incorporated.

Reader Service No. 170



Aluminium cellular ceiling

Alutex, launched by Interlux, is a British made, square cell, aluminium ceiling system designed to be supported by exposed narrow Tee table systems.

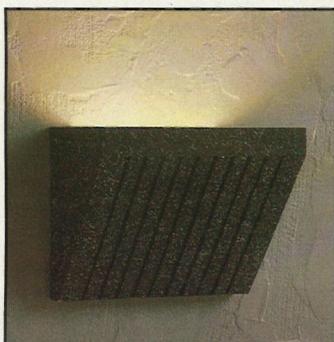
Its 39mm high and 15mm thick double-walled blades create a monolithic appearance. The system is available in white and other standard colours; RAL and

BS colours, and anodised and metallic finishes, are available on request.

Alutex is supplied in lay-in grid tiles of modular sizes: 600 x 600mm, 1200 x 600mm and 1800 x 600mm; and cell sizes: 100 x 100mm, 120 x 120mm and 150 x 150mm.

The company's low voltage spotlights and downlights, and recessed modular fluorescent luminaires can be easily incorporated into the system.

Reader Service No. 171



Architectural wall sconces

Millford is a range of wall sconces introduced by Designplan Lighting for commercial interiors. They are made from a special plaster based material and form architectural features.

Different finishes are available such as marble, sandstone and plaster, and there is a choice of four designs called Ledge (illustrated), Slice, Segment and Ripple.

The luminaires can be supplied

for compact fluorescent, discharge or incandescent light sources.

Reader Service No. 172

HYBEC

HIGH TECHNOLOGY LAMPS



The continuing success of Hybec branded products in the UK has led us to change our trading name to Hybec Ltd.

This successful brand name will continue to be synonymous with a wide range of competitively priced, high quality lamps, combined with a level of service the lighting industry has been looking for.

For further details or quotation contact us now.

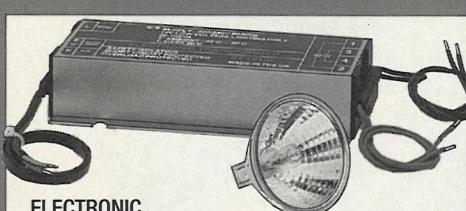
HYBEC LTD UNIT 9, BARRINGTON INDUSTRIAL ESTATE LEYCROFT ROAD BEAUMONT LEYS LEICESTER LE4 1ET TEL: 0533 358818 FAX: 0533 358810



A wholly owned subsidiary of the Miyakawa Corporation - Japan

RAM

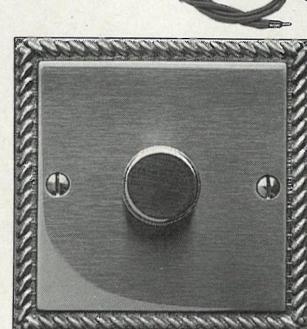
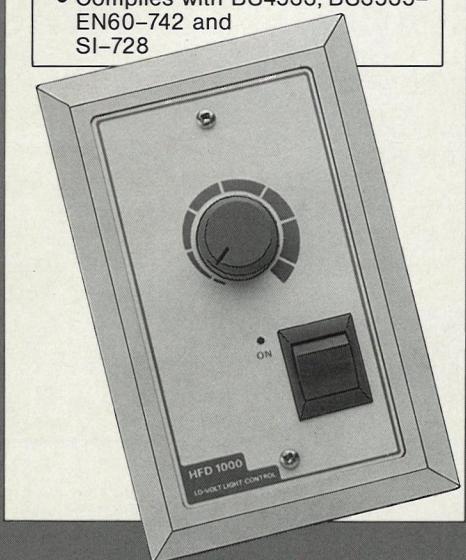
ADVANCED DESIGN
TRANSFORMERS & DIMMERS
FOR LOW VOLTAGE LIGHTING



ELECTRONIC TRANSFORMERS 20-150VA (PATENT PENDING)

TRANSFORMER FEATURES

- Compact size
- Cool running
- Light weight
- Energy efficient
- Soft start
- Overload protected
- Short circuit protected
- Suppressed to BS800-VDE 0875
- Fully Safety isolated
- Anodised extruded Aluminium case
- Complies with BS4533, BS3535-EN60-742 and SI-728



HARD FIRED DIMMER CONTROLS FOR ELECTRONIC & CONVENTIONAL INDUCTIVE TRANSFORMERS

DIMMER FEATURES

- 50 to 1000VA
- Flush or surface mounting
- Hard fired
- Separate rocker switch
- Internally fused
- 16A Accessible Terminals
- Auxiliary output
- Mains 'on' indication
- Enclosed electronics
- Optically coupled output stage
- BS800-VDE 0875

RAM ELECTRONICS
THE PROFESSIONALS IN POWER CONTROL

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

A MEMBER OF THE AIR MOVEMENT GROUP

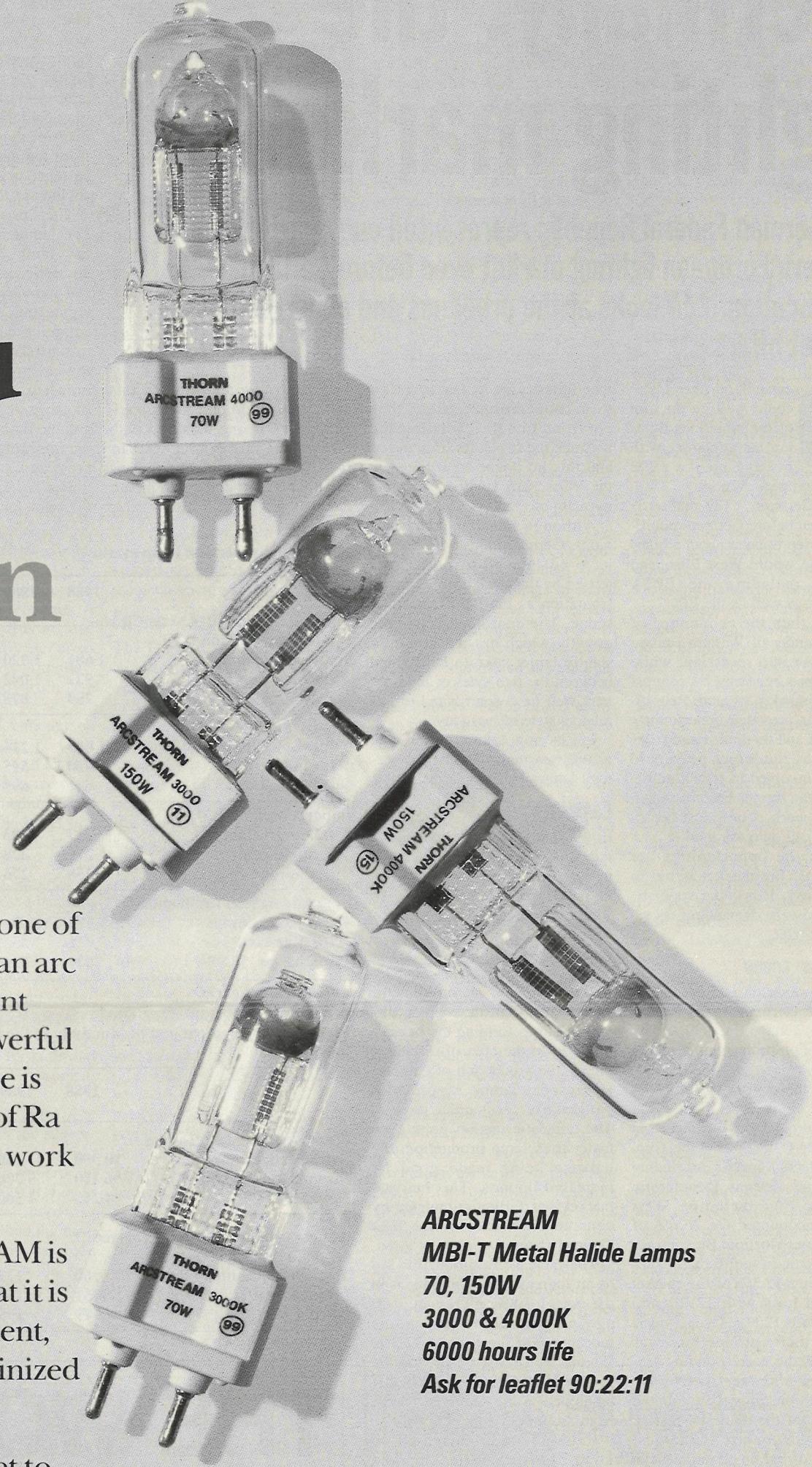
What you get is more than what you see

Take an ARCSTREAM and you'll see one of the smallest Metal Halide lamps with an arc gap of between 4 or 6mm, that is a point source that can be converted into powerful and precise beams. What you won't see is that it has a Colour Rendering Index of Ra 80 or 85, perfect for lighting people at work or merchandise on sale.

Nor will you see that each ARCSTREAM is dosed with complex metal halides, that it is produced in a Clean Room environment, or that each lamp is individually scrutinized under demanding quality standards.

So look who is behind the lamp you get to be sure that you'll see and be seen in the best light.

**Light is our business.
It has been since we invented
the first lamp in 1879.**



ARCSTREAM
MBI-T Metal Halide Lamps
70, 150W
3000 & 4000K
6000 hours life
Ask for leaflet 90:22:11



GE Thorn
A genius for light

Germany: the lighting market

The German Federal Republic represented one quarter of the Western European lighting market even before German reunification. *LEN* looks at the problems and opportunities this market offers.

Deutschland über alles' could well be the aim of the ambitious lighting manufacturer with his eye on the 1992 Single European Market.

Why Germany? The market is vast. Even before German reunification it represented about a quarter of the whole West European market, including the EFTA countries as well as the EC.

Since then the economies of the remainder of Western Europe have gone into recession, while the German economy by contrast has continued to expand. Reunification has provided opportunities for small and medium-sized firms as well as the larger players to become involved in rehabilitation work in the former Eastern sector, and this work is only just beginning to feed onto the market.

While the opportunities are enormous, the market is by no means easy. It is most sophisticated and very demanding, as we shall see later.

European scene

First, however, just a few figures to fit the German market into a European context. In 1989, 90.7% of West European lighting equipment originated within the EC, the balance coming from EFTA member countries. Of this total lighting production – estimated at some £2447 million – the German Federal Republic (excluding the former German Democratic Republic, but including West Berlin) accounted for 26.6% of European production. By contrast, Britain came in fourth place, supplying only 12.3% of the market – behind Italy with 22.7% and France with 12.8%. Over a quarter of their production was exported (the corresponding figure for the UK was only 6.6%).

In addition, imports amounted to 48.9% of the domestic market making the country the largest importer of lighting equipment in Europe. This makes Germany by far the largest consumer of lighting in Western Europe with 24.9% of the total West European market, compared with the British share of 14.1%.

German employers normally belong to their trade association, and the lamp and luminaire industries are no exception to this. They form two independent specialist groups (Fachverbände) within the Zentralverband Elektrotechnik- und Electronikindustrie eV (the ZVEI for short), which is the employers' federation for the electrical and electronic industries. The figures and information which follow on the state of the domestic market were, in fact, supplied by the relevant sectors of the ZVEI.

Trade unions cover the whole branch of an industry so there are no demarcation disputes. Negotiations are concluded on an annual basis between the employers and the unions which are regarded as partners in the economy (Sozialpartner).

The postwar need to get Ger-

man industry on its feet again led to a cooperative rather than confrontational relationship between the two sides of industry, and this no doubt contributed to the Wirtschaftswunder (economic miracle) of the 1960s.

Although not always harmonious, German industrial relations have not tended to be characterised by the same degree of confrontation as the British postwar scene. The continued economic growth, which has meant a constantly larger cake to be divided between the two sides of industry, may well have contributed to this relative state of harmony.

Let us now take a closer look at the two major industrial sectors: lamps and luminaires.

Lamps

In 1990 the West German lamp industry experienced a continued growth in both national and international markets (see Figure 1). The production of lamps increased by more than 3% to nearly 2000 million DM. Of this figure incandescent lamps, at 53% of production, accounted for slightly over half the market, discharge lamps forming the balance of 47%. In the area of discharge lamps, the production of compact fluorescent lamps experienced particularly spectacular growth. The domestic market grew even faster than lamp production, the balance being made good by increased imports. This buoyant market was further stimulated by demand from the former East German states.

The increase in production led to an increase of employment in the range of 8%, giving an average number employed in the industry over the year of 12 100 (Figure 2). During this period the proportion of professional staff employed in the sector increased from around 25% to 27%.

External trade increased to 1990. Imports, after marked growth in 1989, experienced a more modest expansion of some 4% to 625 million DM, while exports grew by over 10% to 1330 million DM. The lamp industry has a particularly high export level of around 56%, compared with an average of one-third for the electrotechnical industries as a whole. This partly reflects the international division of labour in lamp manufacture, but also indicates the degree of success of German industry with its innovative light sources on the fiercely competitive international lamp market. Exports, as we have seen, are concentrated on the Western European market, followed by Asia and North America.

On the lamps front, European integration is already effectively a reality because of economies of scale. However, one burning national issue in connection with the single European market is the Leuchtmittelsteuer – tax payable on light sources – which dates from the turn of the century.

The German lamp industry is

products but also on their exports, leaving them in a position of disadvantage vis-à-vis their EC competitors who are not subject to such taxation. This is seen as particularly serious in view of the highly competitive nature of the lamps industry worldwide. There is considerable concern that no reaction has yet been received from the authorities in Bonn, in spite of urgent appeals for the abolition of this tax.

The principle behind the Leuchtmittelsteuer seems to be to tax lamps used primarily in domestic, industrial or commercial illumination. Lamps used for signalling, in photocopying or enlarging equipment, those used to start chemical physical or biological processes in science or industry are exempted as are those used in medicine, photographic flash equipment or in cinematographic or photographic projectors.

The tax levied varies from 13 Pfennigs for incandescent under

150mm long to a hefty 30DM for discharge lamps over 1kW.

The amounts of money collected were not negligible. Over the years 1988 to 1990 the amounts collected per annum were 142 million DM, 154 million DM and 163 million DM respectively.

As may be expected, in a country which has always forged closer links between industry and universities and other research institutions than any other technological development has been a major stimulus to market growth in Germany. Halogen lamps and the compact fluorescent head the growth in turnover, their expansion rates being in double figures.

Halogen lamps are developing as low output point sources, which have proved to be an economical and long lasting light source in accent lighting. In a miniaturised form, high technology lamps are now entering the motor vehicle lighting sector. German motor manufacturers with their concentration on high performance, quality models, have been among those pioneering the use of the new D1 gas discharge lamp which permits the use of very compact motor vehicle headlamps.

In addition to new installations, innovation and rehabilitation work has been a major source of orders on the market. Standard incandescent, fluorescent and high pressure sodium lamps have experienced growth, albeit of a less spectacular nature, as a result of the increased demand for better basic lighting in public, commercial and private sectors. This emphasis on the quality of light can also be seen in the greater demand for high pressure mercury for street lighting, although high pressure sodium is twice as economical.

Latest figures suggest that the domestic market will continue with steady growth for the foreseeable future, the increasing consciousness of light and enhanced demand for renovation acting as a spur. Above all, demand can be expected to come from the former East German states.

Taken as a whole, these trends are expected to give an annual growth in the market of some 4%.

Luminaires

The German luminaire market also grew rapidly in 1990 (see Figures 3-7). An increase in production of 10.4% concealed a growth in export levels of only

2.1%; this figure, coupled with a 9% growth in imports, means that the domestic market grew by a substantial 13.6%.

A notable point is that this high level of internal growth was a characteristic of the home lighting market as much as the original equipment manufacturer sector of the professional lighting market. This growth rate – well into double figures – continues a series of good years for luminaire manufacturers. Even allowing for inflation, the market experienced a real increase in production of 6.7%.

A multitude of factors have been responsible for this expansion of the domestic market. Lighting spaces – private, or in hotels and institutions – are increasingly being equipped with light sources such as low voltage halogen and compact fluorescents. This has increased demand for associated electrical and electronic control gear such as transformers, all of which boosts added value in the components field. The use of these new light sources has naturally influenced the design of luminaires.

But lighting is also tied to changing tastes in interior design, and the decision to purchase new lighting for the home is closely linked to decisions on upgrading furnishings. This sector has remained buoyant in stark contrast to the unsatisfactory state of the new housing market.

The decorative lighting market has also been very favourably affected by the lively new hotels market and, in the retail sector, by the large number of new gift shops.

In the professional sector, a growth of some 17% was recorded in the use of luminaires for discharge lamps. These lamps are mainly employed in the renovation of old, uneconomical installations and in redevelopment projects, so the building statistics are no guide to the importance of this sector.

In the area of commercial lighting, installations with low loss levels and electronic controls have been introduced for reasons of economy, but have at the same time led to an improvement in visual comfort. Above all, lamps for compact fluorescents have experienced a fast growing market.

This lamp type has largely displaced the incandescent in downlighting in commercial and public buildings where long service lighting is required, because

Figure 1. The German lamp market

	1988	1989	1990*	% change 1990/89
Production, (million DM)				
Total electric lamps	1 681	1 920	1 982	+3
Incandescent	922	1 042	1 054	+1
Discharge	759	878	928	+6
Exports (million DM)				
Total electric lamps	1 041	1 214	1 330	+10
Incandescent	430	515	608	+18
Discharge	611	699	722	+3
Imports (million DM)				
Total electric lamps	537	603	625	+4
Incandescent	279	328	327	0
Discharge	258	275	298	+8
Domestic market (million DM)				
Total electric lamps	1 177	1 309	1 277	+2.5
Incandescent	771	855	773	-9.5
Discharge	406	454	504	+11

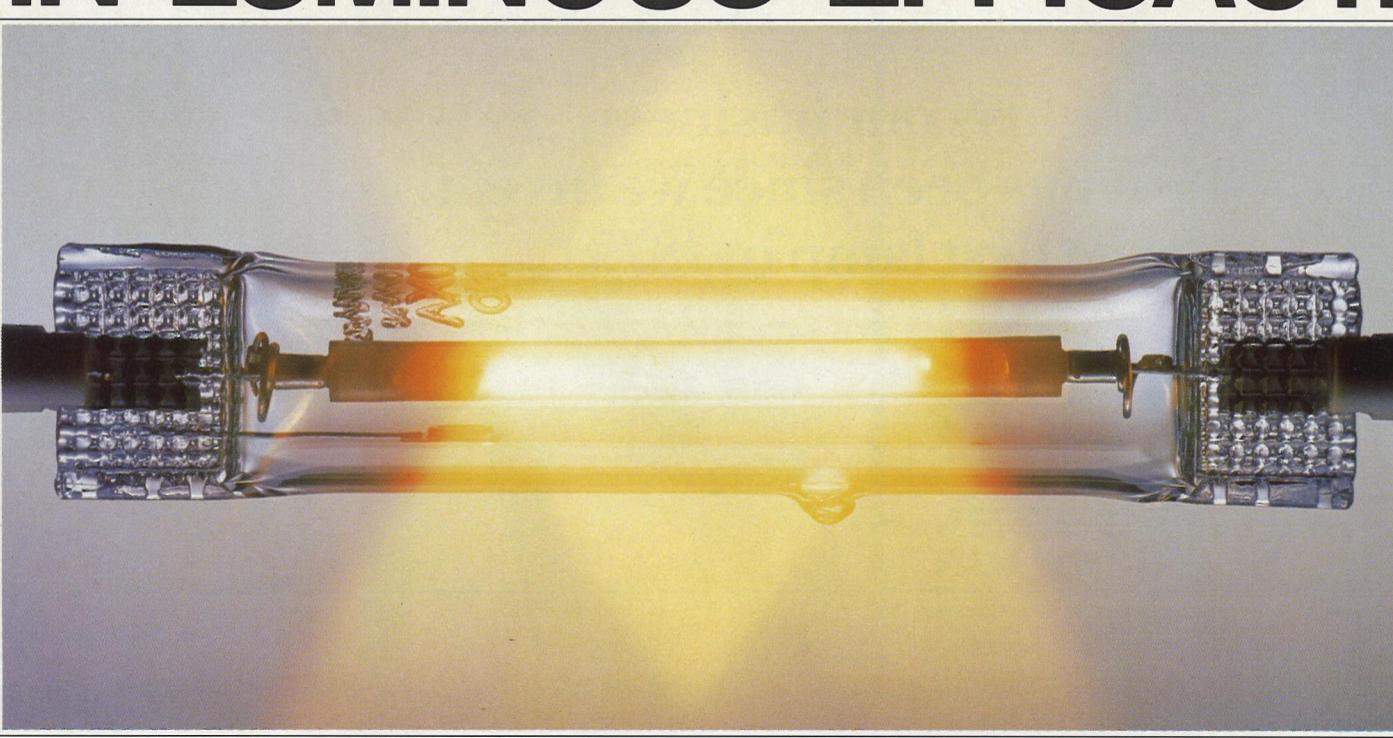
*preliminary figures

Figure 2. Employment and productivity in the German lamp industry

	1988	1989	1990*	% change 1990/89
Employees (monthly average)				
Total electric lamps	10 350	11 200	12 100	+8
Incandescent	6 110	6 700	7 300	+9
Discharge	4 240	4 500	4 800	+7
Annual productivity/per employee (in thousand DM)				
Total electric lamps	160	172	164	-5
Incandescent	151	156	144	-8
Discharge	179	195	193	-1

*preliminary figures

THE WORLD CHAMPION IN LUMINOUS EFFICACY:



315 GB

Figure 3. All luminaires (million DM)

	1987	1988	1989	1990*
Production	3236	3509	3797	4194
Exports	(1263)	(1248)	(1510)	(1542)
Imports	710	881	1091	1187
Total domestic market	2683	3142	3378	3839
Price index (1985=100)	105.9	108.7	112.0	115.9

*provisional figures

Figure 4. Decorative lighting and spotlights (million DM)

	1987	1988	1989	1990*
Production	900	971	1082	1181
Exports	(312)	(265)	(294)	(306)
Imports	287	292	330	388
Total domestic market	875	998	1118	1263
Price index (1985=100)	106.1	109.1	112.5	116.7

*provisional figures

Figure 5. Professional lighting (million DM)

	1987	1988	1989	1990*
Production	1697	1850	1961	2216
Exports	(587)	(644)	(727)	(799)
Imports	188	278	354	428
Total domestic market	1302	1484	1588	1845
Price index (1985=100)	105.9	108.2	111.5	115.4

*provisional figures

Figure 6. Professional lighting by sector (million DM)

	1987	1988	1989	1990*
Interior luminaires	1023	1118	1223	1433
Exterior luminaires	338	389	418	456
Lamps with increased protection, (ie vandal resistant, or for hostile environments)	336	343	320	327
Total value of production	1697	1850	1961	2216

*provisional figures

Figure 7. Other luminaires components and accessories (million DM)

	1987	1988	1989	1990*
Production	632	688	754	797
Exports	(368)	(339)	(489)	(437)
Imports	235	311	407	372

*provisional figures

of its lower operating costs.

Compact fluorescents are also beginning to compete in the field of architectural lighting, as their use in conjunction with specially designed reflectors opens a whole range of new design possibilities.

Bridging the gap between economy lighting on the one hand and theatrical lighting on the other, is a growing field for decorative lighting with components including downlights, tube and track systems and spotlights.

An average growth in rate of around 20% has occurred in the demand for exterior fittings for discharge lamps. This product group mostly comprises street lighting. Demand has been stimulated through the creation of pedestrianised areas and the replacing of installations formerly designed overwhelmingly for cars rather than people. This has led to the differentiation of areas by the use of distinct forms and styles of lighting.

The new states
As in past years, statistics continue to give a figure for intra-Germany trade between the territories which historically formed part of the Federal Republic and the former East German sector. This former intra-sector trade was never very important in the luminaires market. The expansion of the Federal Republic in the past year first of all presented the domestic lighting industry with a good increase in turnover of luminaires up to the middle price range. However, expectations of the extension of the designed lighting market throughout the new states are still premature. A marked increase in this area of the country will only occur as current obstacles to both new buildings and renovation are overcome.

By a similar token, although no details are available for the GDR luminaire industry, the fact that in all sectors of the industry work was undertaken by medium-sized companies leads to the belief that small and medium-sized enterprise with branches in the former GDR territories and in Greater Berlin will find excellent business opportunities there in the future.

Deficiencies in market and in technical standards in the former GDR states must rapidly be made good by the opening up of the market. The luminaire sector of the ZVEI is urging its member firms to place orders for parts and semi-finished goods with companies in these states.

On the negative side, the expansionist nature of the domestic industry is attracting an increasing volume of imports up by a massive 21% in 1990. Lower production costs in all countries outside the Federal Republic have been closing the gap between imports and exports. On the one hand, the long delivery periods for some professional lighting products for instance has stimulated demand for foreign goods;

on the other, the weakness of Germany's traditional export markets in Europe and overseas has encouraged the inflow of goods from foreign suppliers into Germany. The below average growth rate of imports – only 2.1% in 1990 – only emphasises the weakness in many other countries' economies.

The development of single European standards by means of harmonisation work within the ambit of the CEN is encouraging the adoption of lighting systems requiring more initial capital but with lower running costs in all EC countries. More efficient products and systems will be installed in commercial and public spaces. Higher light output from the separate lamp families giving a higher degree of efficiency in light utilisation because of the use of mirror reflectors and electronic controls is laying the foundations for future high efficiency installations.

A varied supply and range of types from the lamp and luminaire industries permits consumers to take individual decisions on energy saving.

Future prospects

The German luminaire industry is confident that the previous year's average growth of 5.6% and 24 700 employees will be maintained or even increased.

Average productivity reached a level of nearly 170 000 DM per employee in 1990 although figures varied considerably depending on finish and production schedules. The first months of 1991 saw this growth continue. A notable feature of the economic situation is the continuing trend towards the formation of new businesses both on the designer front and among suppliers of components and parts. The unknown figure in this respect is the large number of small firms which do not appear in the market statistics.

The considerable potential for innovation has been shown by the results of recent competitions, while the over 400 exhibitors present at the 1991 World Light Show at Hannover show the immense range of products available on the market.

Business environment

There are qualitative as well as quantitative differences between the German and British markets. In fact, the whole business environment is rather different.

This starts with something as basic as company ownership. Germany has a relatively large number of medium-sized and even fairly large companies which are still in private ownership. As a result, the family firm is still quite a noticeable feature – and can exert a considerable amount of political influence, especially at state level. For instance, in the lighting field companies of the size of Trilux and Hoffmeister are still family concerns.

Company finance has also evolved along somewhat different lines. When self-financing proved impossible companies tended to go to the banks rather than to the stock exchange. As a result, investment decisions are taken on a medium time-scale – say five years or more – there has been less need to respond to stock market pressure in the short term. Consequently management has probably been freer to look to long term development rather than more immediate concerns.

There is also a respect of order as exemplified in the law. Thus, the majority of members of board of general companies tend to have a legal background, whereas in the UK an exaggerated respect for financial control and the continuing need to be answerable to shareholders makes board members far more likely to be accountants by profession.

The need for high performance has also been built into business culture. Employees are expected to work hard and conscientiously during business hours. Equally, the German business executive is increasingly less willing to sacrifice leisure time for money. Thus, it is not seen as being particularly conscientious to take work home and neglect to take holidays. This, on the contrary, rather suggests that you are not working properly in the first place.

Turning to the sale of goods, pricing policy is a matter for serious consideration, needing extensive market research. Generally speaking, British goods are not perceived as offering exceptional design flair or any other advantage attracting a premium price. Any premium features should be emphasised in sales material.

On the other hand, it is not advisable to underprice. The market is more quality and less price sensitive than the UK. Underpricing will leave you at the risk of being dismissed as a low quality

supplier, and the money available in terms of corporate investment and consumer disposable income means that neither are looking for low quality products.

Equally sensitive is the attitude towards inflation. The Deutsche Bundesbank has shown a major preoccupation with its control. Memories stretch back a long way and there is a continuing fear of the type of hyperinflation experienced in the interwar period. As a result of this policy inflation has been kept down to around 2% over the past few years (see price indexes in the tables). Consequently, your German business contacts will not expect to accept rising prices due to higher UK levels of inflation or falling values of sterling, even if this means you must temporarily trim your profits.

Technical barriers to trade still form a considerable though – in the light of the forthcoming single market – a rapidly diminishing obstacle. So, before even trying to launch a product on the German market, ensure it conforms to Deutsche Industrie Normen (DIN standards). In a feature of this length it is impossible to go into the multiplicity of German standards. But up-to-date advice is always available from the British Standards Institution's Technical Help to Exporter section at Milton Keynes.

Finally, the German market is not only demanding in terms of products, it is equally demanding on the services and skills of personnel. Industrial training here is the best in Europe, and not only will your opposite number have an appropriate degree or other qualification, he will almost certainly also have been trained on the job.

An equally high degree of professionalism will be expected of a business partner. In other words, you have to do your homework. Business trips, meetings and appointments must be thoroughly planned to be effective; you can expect negotiations to be both tough and professionally conducted.

However, much of the excitement of approaching the German market is knowing that you are being forced to measure yourself up to the highest challenge the European market can offer.

If after reading these words of advice you decided to go ahead with that German venture then I can only wish you "Viel Glück".

VIALOX NAV-TS 70 W SUPER.

Sodium lamps are amongst the most efficient under the sun and amongst those with the longest life span.

With high pressure technology we can also make use of a physical phenomenon: under pressure, the light from a sodium lamp loses much of its otherwise yellow colour. This results in better colour rendering of all other colours.

We have a comprehensive range of high pressure sodium lamps from 50 up to 1000 watt. There are three basic types: NAV DELUXE, NAV SUPER and NAV STANDARD including

the new World Champion in the 70 watt class the VIALOX NAV-TS SUPER.

As small as it is, it has the highest efficacy of 100 lumen per watt. In comparison the incandescent lamp achieves only 12.

Apart from the floodlighting of facades this lamp is especially suitable for bringing light and safety to roads, pedestrian precincts, building sites and production areas.

So it looks as though this World Champion is here to stay.

TECHNOLOGY
BROUGHT TO LIGHT

OSRAM

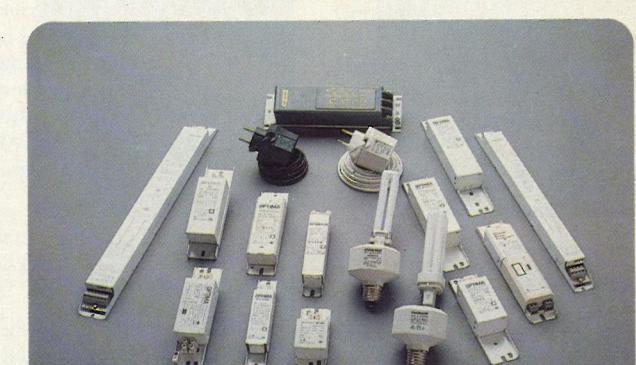
OSRAM Ltd., PO Box 17, East Lane, Wembley, Middlesex HA9 7PG

Reader Service No. 11

MAY & CHRISTE

Presents

OPTIMA



MAY & CHRISTE

- a leading European manufacturer of lighting control gear.
- the widest range of ballasts, chokes, ignitors and transformers available.
- production BS 5750 part 2 approved.

MAY & CHRISTE LTD
Unit 22, Mead Park, River Way, Harlow Essex CM20 2SE
Tel: 0279 422540 Fax: 0279 421570

Reader Service No. 12

Page 11

These pages give information about the larger German lighting companies, including how they are operating in Germany and in the British market.

One thing is certain, German lighting companies have been growing in power and influence in the UK.

According to Gordon Poernig of Generalux, German companies worked for long term profit. "When they needed substantial investment in tooling to produce high quality products, they made that investment. Those small companies in Germany have now become giants. Any product that requires hi-tech tooling now comes from the continent."

He adds that German companies are present in all countries of the world now, even those where the British used to be the strongest.

Osram

Osram produces lamps of all types, including specialist lines such as photographic lamps. Its worldwide sales amount to some DM 2400 million.

It has 8345 employees in Germany where turnover is DM 785 million. In the UK, there are currently 1400 employees and turnover is DM 203 million.

The transfer of the luminaire business from Osram Ltd to Siemens Lighting Ltd restructures the company along German lines.

Osram Ltd is a wholly-owned UK subsidiary of Osram GmbH of Munich, a Siemens company which ranks third in size in the world for lamp production.

Until 1986, Osram Ltd (then Osram-GEC Ltd) was the wholly-owned lighting subsidiary of GEC with a history which started in 1893 when GEC invested in the manufacture of carbon lamps by acquiring the Incandescent Electric Lamp Company.

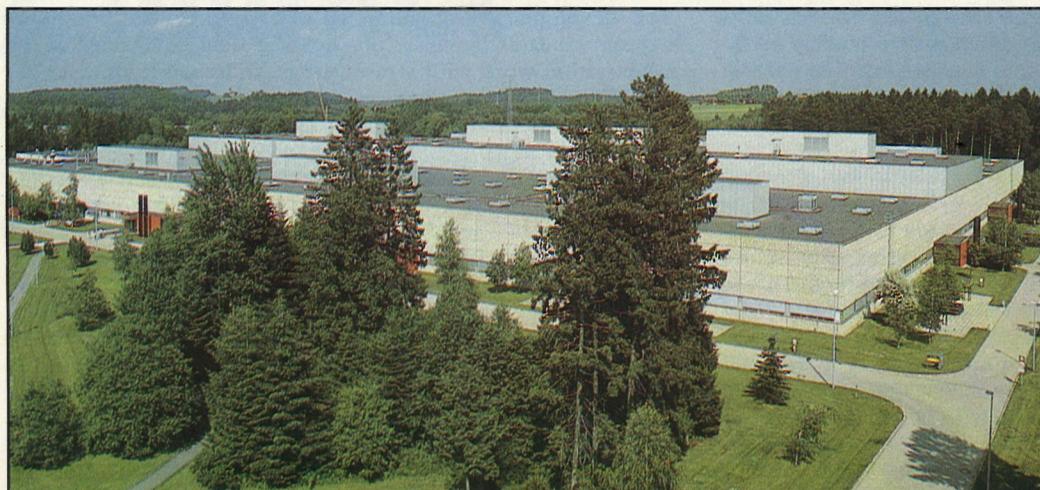
In Germany, Osram as a brand was started quite independently by the forebears of the present-day Osram GmbH who registered the Osram brand name in 1906 in Berlin.

Shortly after the First World War, GEC acquired the right to use the name Osram in the UK, as well as in British colonies.

Brand ownership was therefore dependent on country and the two companies, Osram-GEC and Osram GmbH, developed and operated independently of each other. In those countries where

The German lighting industry:

A brief outline of lamp and luminaire companies and sources of information



Left: Siemens' luminaire factory at Traunreut.

Its products emphasise the use of high technology and the main plan for the future is to diversify into markets where this can be best applied, such as display and accent lighting. It also intends to step up its export activities.

Siemens recently launched a new company, Siemens Lighting Ltd, to sell luminaires in the UK. Its product range will be derived from those made and sold previously by Osram in the UK, and those designed and manufactured in Germany.

Siemens is no newcomer to the UK. Back in 1843 William Siemens came to England and

founded the British arm of the business.

The formation of the new company follows a restructuring of the UK business after Osram GmbH, itself a Siemens company, took full ownership of Osram-GEC in January 1990 and renamed it Osram Ltd.

Emphasis will be placed on the ability to respond quickly to the special requirements of lighting specifiers. Modernisation and expansion of the Birmingham factory is, therefore, one of the company's first goals. On-line facilities will be installed for the transfer of CAD/CAM information to and from the Lighting Systems Division's factory in Traunreut.

The Birmingham site will also house the head office of Siemens Lighting, while sales and enquiries will be handled by the distribution centre in St Helens.

GEC held the franchise, Osram GmbH traded under the Wotan brand name. This was the case in 1967 when the UK subsidiary was established.

In 1986, Osram GmbH acquired a 49% interest in Osram-GEC with a future option to buy the controlling interest. Under this joint-ownership arrangement Osram-GEC traded in the UK alongside Osram GmbH's wholly-owned subsidiary, Wotan Lamps Ltd.

On 2 January 1990, Osram GmbH purchased the remaining 51% of the company and Osram-GEC became Osram Ltd. In October 1990, Osram Ltd and Wotan Lamps Ltd merged to form one new force in the UK, retaining the one brand name and company name, Osram Ltd, with headquarters at Wembley.

Siemens

To understand the future of Siemens Lighting Ltd, it is useful to look at its big brother, the Lighting Systems Division of Siemens AG, known within the group as ASI4.

ASI4 is active in the whole of Europe, with manufacturing plants in Eskilstuna in Sweden, Regensburg and Traunreut in Germany, Vienna and more recently, Birmingham. Sales are worldwide.

Projected turnover for 1990/91 is £200 million, of which the UK company's contribution will be

ELEGANT MINIMALIST STYLING, INNOVATIVE ELECTRICAL DESIGN AND ROBUST ENGINEERING.

Double-sided Track enables luminaires to be mounted up or down. Straight and curved track sections offer almost limitless configuration possibilities.

SPECIALLY DESIGNED ELECTRICAL CONNECTIONS VIRTUALLY ELIMINATE WIRING.

LUMINAIRES ROTATE 360° IN ANY PLANE FOR PRECISE POSITIONING. RANGE OF LIGHT SOURCES TO SUIT A VARIETY OF APPLICATIONS.

CATALOGUE AVAILABLE.

INFINITE

MEWW LTD
EMERGENCY LIGHTING AND ENERGY SAVING SYSTEM

A comprehensive range of emergency lighting available

POWER PACK & LIGHT

STYLISH & POWERFUL

INVERTOR

EMERGENCY CIRCUIT

INVERTORS - 4 - 6 - 12 - 24 VDC/10-85 W

CHARGERS UP TO 3 AH CONSTANT VOLT & CURRENT

CUSTOM MADE TO SUIT YOUR NEED

Unit 6, 118/120 Garratt Lane, Wandsworth, London SW18 4DL, United Kingdom
Tel: 081-877 9904 Fax: 081-788 4206 Telex: 261768 MEWIRE G

facts and figures



Erco's factory at Lüdenscheid.

Erco

Erco was founded in Lüdenscheid in 1934 and now employs 800 people in Germany. It had a turnover of 200 million DM in 1990.

Today it claims to be the recog-

nised market leader in architectural and commercial lighting systems.

Its technical department, employing 50 people, uses the latest computer aided design and technology to ensure product quality is to the highest interna-

tional standards. It is the only German lighting manufacturer to have approval to use the British Standard Kitemark under the BS5750 system.

The company now has seven wholly-owned subsidiaries across Europe, including one in the UK opened in 1979, which employs 62 people and has a turnover of £10.8 million.

Erco Lighting has undertaken lighting projects at art galleries, shopping centres and concert halls in the UK. Its most recent work has been at Stansted Airport's new terminal and the Birmingham International Convention Centre.

Trilux

Trilux-Lenze GmbH has three main areas of operation - ceiling louvred fittings, outdoor amenity lighting and sophisticated nurse call systems.

The company, based in Arnsberg and owned by the Lenze family, has a turnover in excess of £100 million. It has a manufacturing plant in France and subsidiary companies in Spain and Italy.

Trilux Lighting in the UK is based in Walton. Managing director, Ken Hale, believes that 'because of the changes to quality in the UK office environment, Trilux can achieve a 5% market share within the next 2½ years.'

Thorn Licht

Less than ten years ago, prospects for Thorn's German operation were bleak. Now, sweeping changes and a major modernisation programme have brought Thorn Licht to the threshold of a new era.

Manufacturing in Germany was started in 1979, but prospects were poor. But Thorn's drive towards Europe changed all that.

Product emphasis was directed towards higher-tier, sophisticated, low brightness fluorescent fittings. Recently the factory at Neheim has been extended and modernised with a major invest-

ment in CAD/CAM production.

The risks taken in the 1980s are paying off. Profit has returned and turnover has been doubled.

Today, Thorn Licht has a 5% market share in interior lighting fittings, including hospital bed-head systems. It is fast adding to its range. Many exterior fittings were added to the catalogue recently and the 1991 Hanover Fair saw the launch of many more.

A large part of Thorn Licht's output now goes to other countries.

Brilliant

Brilliant AG claims to be Germany's leading manufacturer of light fittings for the residential and soft commercial lighting market.

Founded over 30 years ago in Gnarrenburg to manufacture hand-blown glass, the company soon expanded to include spotlights. It now has almost 700 employees and a turnover of more than £42 million.

Today Brilliant, a subsidiary of Emess plc, produces quality modern decorative fittings for the home and office. Its range includes designer desk lamps, domestic pendants, uplighters and an array of stylish spotlights, bathroom lights and recessed lighting, as well as outdoor lighting and lighting accessories.

Brilliant is committed to a comprehensive R & D programme to offer the most advanced product designs, using the latest materials and manufacturing techniques. At this year's Hanover Fair it introduced a series of new lighting fittings and, last month, introduced an environmentally friendly packaging concept to meet new German legislation.

At home, Brilliant supplies all major German store groups while 25% of its products are sold elsewhere in Europe, South East Asia and Australia. Future expansion plans include operations in the USA, Singapore and the UK.

Waldmann

Waldmann Lighting of Schwen-

ningen, Germany, was founded in 1928, installing electrical equipment, repairing and replacing appliances and motors. The company changed direction in 1958 when it switched to the manufacture of multi-purpose and special workplace lights.

Heavy investment in research and development enabled the company to expand rapidly and new divisions were established to encompass industrial, office and medical requirements throughout the world.

Company policy has always been one of customer commitment, continually improving manufacturing capabilities, together with a service department that can supply any component from any of its products made within the last 25 years.

Midland Machinery Services in Northampton, was formed by Glyn Lake in 1976 and became involved with Waldmann Lighting in 1981, offering a basic range of luminaires to industrial users.

Although limited, the range proved a success in industry due to manufacture to the highest possible standard, with fittings sealed up to and including IP67.

Staff

Staff GmbH has its headquarters in Lemgo, south-west of Hanover and employs about 600 people. It pursues a policy of worldwide distribution with separate companies in 12 countries and agents in 28 others.

Staff Lighting, the UK company, was set up in 1985 with three people. By setting out to provide excellent delivery, service and quality to its customers the company has achieved significant growth. It now employs 33 people, including sales, showroom and technical staff.

The company's worldwide policy has been to position itself at the quality end of the lighting market, with internal and external ranges suitable for all display and commercial applications.

In the UK, its blue chip client list includes Barclays Bank, Marks & Spencer and Bang & Olufsen.

Further sources of information

Trade and professional organisations

Zentral Verband Elektrotechnik- und Elektronikindustrie eV:
Luminaire Section
Stresemannallee 19
Postfach 70 12 61
6000 Frankfurt am Main 70
Germany.

Zentral Verband Elektrotechnik- und Elektronikindustrie eV:
Electric Lamp Section
Schumannstr. 15
5300 Bonn 1
Germany.

Verband Deutscher Architekten
Ippendorfer Allee 14B
5300 Bonn
Germany.

Lichttechnischen Gesellschaft eV
c/o DIN
Postfach 1107
1000 Berlin 30
Germany.

Trade fairs

Weltlichtschau
Deutsche Messe AG
Messegeleände
3000 Hannover 82
Germany.

Hanover Fair
PO Box 283
240 Sanderstead Road
Sanderstead
South Croydon
CR2 0AJ.

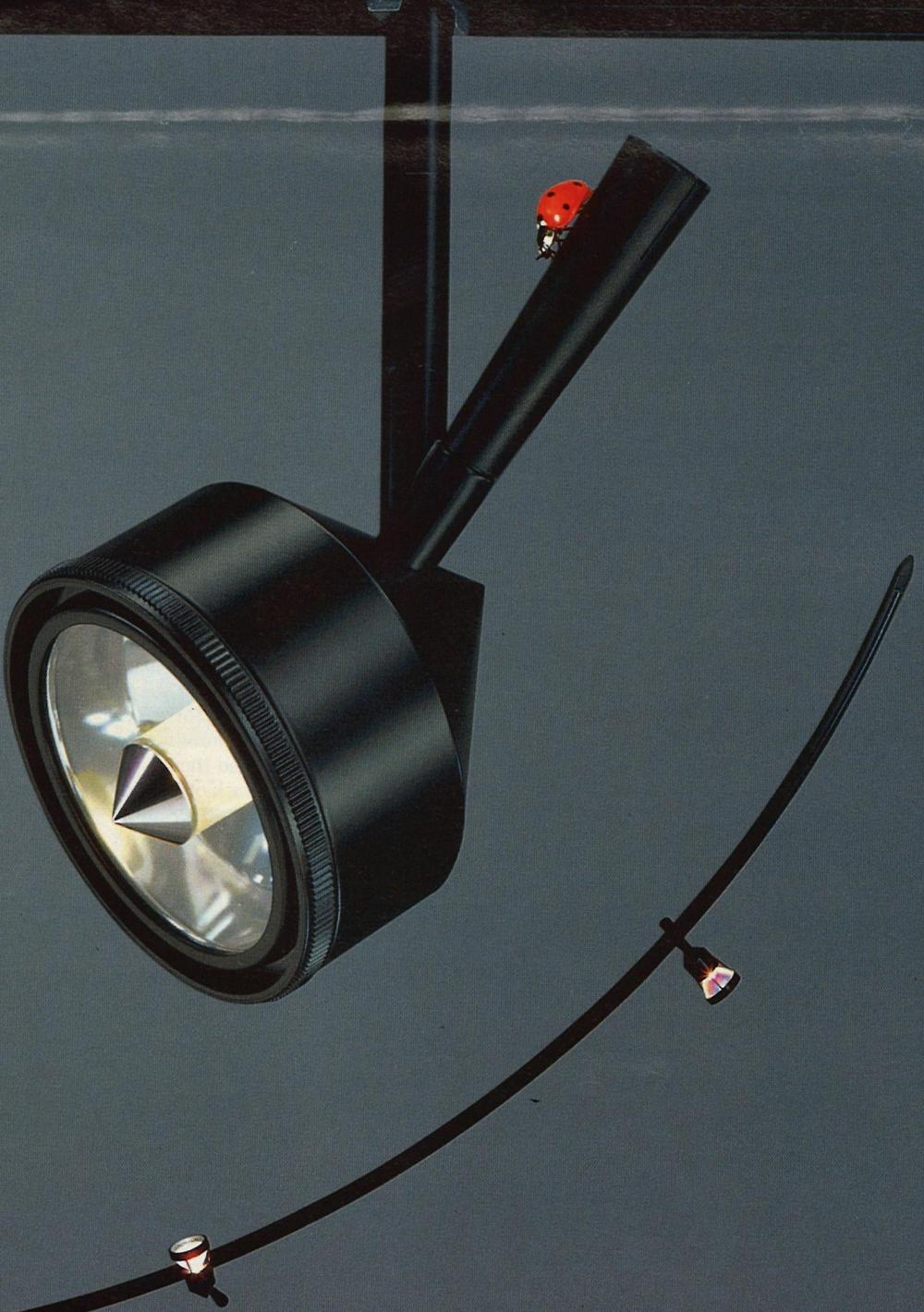
UK sources of information

Dept of Trade and Industry,
through regional offices
(addresses and tel. numbers
available from Exports to Europe
Branch 071-215 4794).

German Chamber of Industry and
Commerce
16 Buckingham Gate
London SW1E 6LB.

British Standards Institution
Technical Help to Exporters
Linford Wood
Milton Keynes MK14 6LE

NEW DIMENSIONS IN LOW VOLTAGE LIGHTING.



FAX: 071 497 1404

Concord GTE

TEL: 071 497 1400

IBL - Lighting the way ahead in the 90s

"Our transformers quite simply sold themselves." When demand is so high that the only restriction on selling a product is the speed at which it can be manufactured, then you know the company must be doing something right!

This was just the case in the mid 1980's when IBL (Intram Barwell) was set-up to design and manufacture low voltage lighting transformers. Now, although times have changed and the industry has grown at a tremendous pace, IBL has established itself as a consistent market leader in this highly specialised field.

With a reputation for design innovation and uncompromising quality, IBL has recently launched itself into a new phase of growth that is guaranteed to push the market forward and extend the possibilities of low voltage lighting.

And yet the very words 'transformer manufacturer' can still strike terror into the hearts of some users. Unfortunately, the reasons are quite clear: the industry has suffered from more than its fair share of poor quality products for far too long. There is little policing to protect users from this and naturally many manufacturers have been 'tarred with the same brush.'

Determined

IBL is determined to set itself apart from this trend. And, knowing this, one of the company's main priorities is to give users a guarantee of high product quality. At its new purpose-built premises in Chessington, Surrey, where

R & D, manufacturing, administration and sales are combined under one roof, IBL has been able to expand its demanding new product development and quality control programme. This is now supported by the latest testing facilities, sophisticated C.A.D back-up and fully-automated production lines. It is also complemented by the expertise of highly experienced research and development engineers whose sole function is to design, create and test new transformers and related product prototypes.

High frequency innovation

Recent developments which are about to come on line include the new Maintenance Free transformer (patent pending) and the Boxed & Fused sub-plate mounted range. These will soon be followed by a range of high frequency ballast units. The ballasts have been developed at a time when high frequency remains one of the least explored



IBL now houses production, sales and administration under one roof in purpose-built premises in Chessington, Surrey

but potentially most efficient means of lighting for the 21st century. IBL's H.F. ballast units will put an end to fluorescent flicker, improve energy efficiency and have a much extended lifespan over current lighting alternatives.

Since the mid 1980's all IBL product have been manufactured to the strictest possible British standards. Now that 1992 is just around the corner, the company already tests to UK and European standards because it knows that - apart from personal recommendation - this is one of the few

'marks of quality' that means something to a purchaser when they buy or specify the product.

Bespoke design

Although IBL sells a wide range of own-branded products 'off the shelf', an important part of the business, and one for which it has an excellent reputation is Bespoke Design. IBL has worked for many years with leading U.K. Luminaire manufacturers to develop and refine electronic transformers that are small enough and efficient enough to become an integral part of the fitting. In fact IBL

was the first to pioneer the 32mm transformer when the smallest possible aperture for lighting fittings was 33mm.

Moreover, as commercial lighting systems have become more complex, the market for low cost, reliable electronic lighting transformers that can be tailored to these individual needs has expanded. After all, sophisticated lighting displays are ineffective without a dependable power supply and opting for the cheapest, standard transformer can impair lighting quality and efficiency in the longer-term.



IBL's production lines

Cost-effective option

A bespoke product is often more cost-effective because it can be made to an exact specification, designing-out potential problems before it even goes into production.

IBL's Bespoke Design Service therefore gives O.E.M's access to a wealth of technical expertise and special manufacturing equipment which can be geared exclusively to their needs and, as this usually only occurs on larger orders, tailor-made products can still prove a most cost-effective option.

Lights up on new ET transformer

IBL has celebrated the production of its 500,000th electronic transformer with a complete specification upgrade on its ET range.

Users of the most popular transformers, the ET075 and ET105 will now benefit from the launch of the 'D' versions of these units which give them full dimmable characteristics with conventional conforming domestic dimmers as well as commercial hard-fired dimmers.

Additional benefits, such as low audible noise and high stability even when dimmed, mean that this upgrade will dramatically increase the flexibility and application of these transformers.

The upgraded 'D' range transformers have already attracted considerable interest from many existing customers well-ahead of the official product launch, proving that you just can't keep a

good idea down. And IBL hopes that this new, built-in dimming flexibility will extend the application potential of electronic transformers to some new users - especially those who might have avoided them in the past because of instability when dimmed.

Along with the upgrade, important enhancements have been made to the thermal running characteristics of both units by further improvements to their circuitry.

The construction of both units now includes the use of double sided PTH (plated through hole) PCB technology to improve long-term reliability and to overcome the high levels of thermal stress associated with this type of product.

This will enable the ET105/D, in particular, to be run without the addition of the aluminium heatsink extrusion which will reduce the price of the



The newly upgraded ET range, now with full dimmability

unit to the end user.

Also included in the new design is further transient suppression to overcome the high level of mains spikes found on many sites which can cause catastrophic failure to many types of electronic devices. This additional suppression gives each unit a very high degree of resilience against an ever-increasing problem.

A leap and a bound for new catalogue

IBL's now familiar product information sheets are to be made available in a fully bound, single catalogue. This new format is intended to make sourcing information a lot easier and should also help users to keep track of it better.

The format for product information remains the same with colour photographs and full

specification, including line drawings, capacities, and standards compliance in each case. This layout has been designed to be equally useful to the wholesaler who requires an over-the-counter sales aid and order reference as to the architect and specifier. As before, the catalogue is available free of charge.



IBL's literature will soon be available as an all-in-one catalogue



The new Maintenance Free transformer - a breath of fresh air for installers and users alike

Boxing clever with new sub-plate mounted transformers

Always trying to develop new products with the installer's needs in mind, IBL's new Boxed and Fused range is no exception.

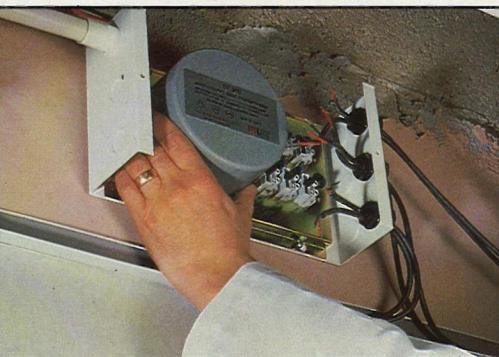
In this low profile transformer, the main assembly is mounted onto a separate sub-plate which

first with the sub-plate being fixed onto the 'key' hole slots later. This simple two step task makes the professional electrician

or maintenance manager's job a lot easier than it has ever been before. The initial fitting is both simpler and quicker because the



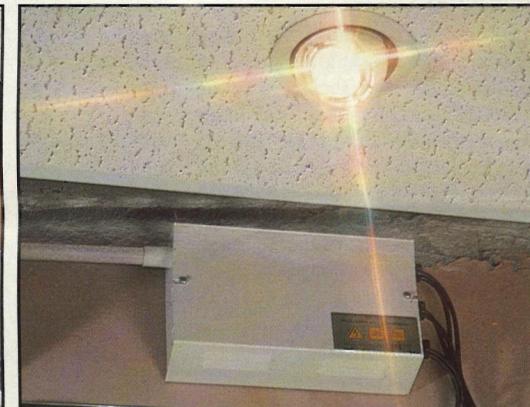
Fitting the sub-plate



Mounting the main assembly



Fitting the cover



Nothing could be simpler!

installer does not have to struggle to hold the full weight of the transformer whilst he's also trying to fix it to the wall or ceiling. When traditional assemblies can weigh up to 10kg or more, fitting them in overhead positions can be particularly perilous.

Higher power to weight ratio

IBL's new unit takes this weight factor into account with a higher power to weight ratio (up to 50% compared with traditional Boxed and Fused transformers) and smaller outer dimensions to present a lower profile. Each weighs

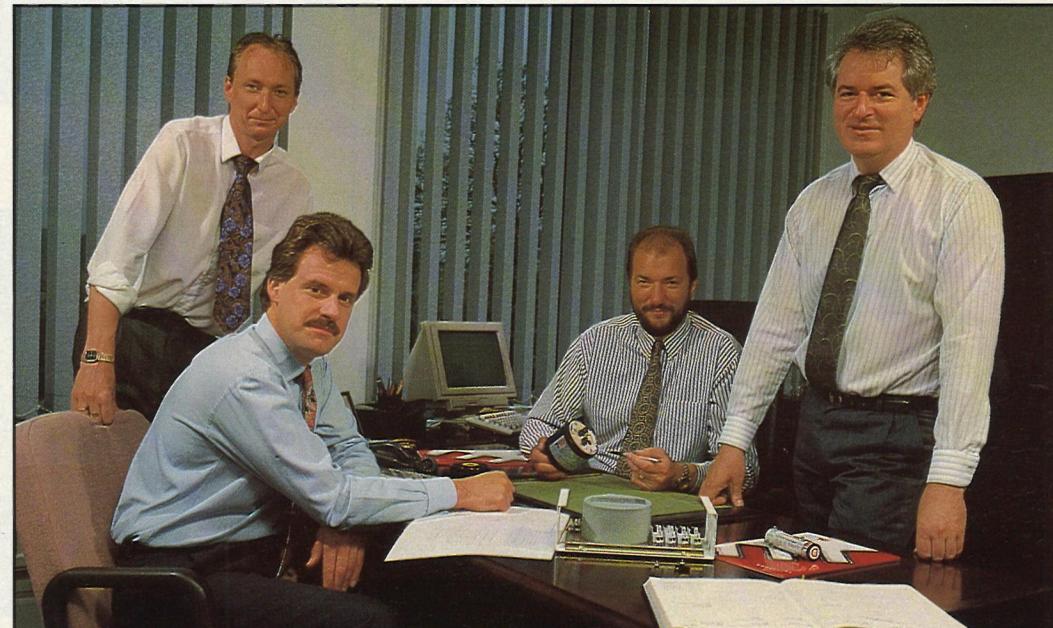
between 5 and 5.7 kg, with approximate dimensions of 282mm length x 174mm width x 87mm high. For added convenience when wiring-in, the end panels have a number of punch out conduit holes which can be selected according to the needs of the job plus good-sized vents to give effective ventilation.

Extended capacity

Because the transformers are multi-output fused with individual secondary windings, should one bulb fail, the supply to the others remains unaffected. Although

50W is the most common low voltage unit, the transformers can also take 20W or 35W. The capacity of the range, currently 200, 300 and 400 watts, is soon to be enlarged with the introduction of further 500 and 600 watt transformers in the near future.

The Boxed & Fused toroidal range is built to conform to BS3535 (1990) and IEC742. Designed to take input supply of 240VAC ± 6% 50Hz, each unit has a thermal auto-reset cut-out (110°C). Output voltage is 11.60V Nominal and they are categorised as Insulation Class 1.



The IBL management team. From left: Mick Manning, Ed Henderson (seated), Andrew Penfold (seated) and Peter Osborne

Freedom from fusing - the electrician's dream come true

The maintenance free, multiple output LV lighting transformer has at last become a reality with the launch of IBL's new range of Maintenance Free transformers which incorporate auto-reset mini circuit breakers instead of traditional fuses.

The Maintenance Free units can be installed on a 'fit and forget' basis, making the location and replacement of fuses a thing of the past and allowing transformers to be used in previously unsuitable areas: deep within ceiling voids for instance, where previously good access has always prevented their use.

This saves the architect or specifier from having to design-in service hatches or access points and frees the electrician from the time-consuming task of tracking down the transformer and then testing and replacing individual fuses in order to redress the fault - a task seen as an unnecessary evil with transformer maintenance.

Wiring is easy

The range also allows multiple luminaire, low voltage lighting installations to be supplied from just one transformer. Easy access terminal blocks make wiring-in particularly easy and capacities range from 100 VA - 2 output to 400 VA - 8 output.

Prevents overheating

Dedicated circuit breakers not only provide short circuit protection for both primary and secondary windings (as stipulated by British and European standards), but prevent the transformer from overheating and guard against the hazards of overload.

IBL's advanced toroidal

technology means that transformers are compact with high power-to-weight ratios and are capable of supplying lamps between 20 - 50 VA, giving exceptional flexibility of use.

Patent pending

The range has been designed to conform to British Standard 3535 (1990) and European Standard 60742 (1989). IBL believes that the Maintenance Free range is likely to spearhead a new generation of high performance toroidal transformers, and because of its innovative nature and considerable potential, the design has already been logged with the patent office.

The faces behind IBL

Heading up the management team at IBL is Managing Director and co-owner Andrew Penfold. He joined IBL from Penfold Electronics, a company which manufactured dimmer switches and lighting control systems.

Andrew's involvement with electronics goes back a long way - to his childhood in fact, when he designed and constructed printed circuit boards and, more particularly, designed and manufactured some of the first touch-plate dimmer switches. Much of the practical impetus behind IBL's new product development comes from Andrew's experience of 'doing it himself'. 'IBL has no interest in

design for its own sake,' he says, 'any product that we bring out must have real, hard benefits for the user. We want to drive the market forward with genuine innovations - not keep it in the dark ages!'

The man in control of the finances, with more than 20 years' experience in accounting, administration and computerised data processing is Peter Osborne. As the other co-owner, Peter has also helped oversee IBL's recent expansion and as the company grows his guardianship of the purse strings means better deals for customers as well as a sound financial footing for the company.

Charged with the responsibility for Research and Product Development is Ed Henderson. Also previously with Penfold Electronics, Ed has pioneered many of IBL's most innovative developments. If you want to know about standards testing or the intricacies of printed circuit boards then Ed is the man to ask.

When the orders are streaming in through the door it is Mick Manning, as Production Controller, who must make sure that the products go out the door with equal speed. He has specific responsibility for overseeing Toroidal Transformer production and staff training in that area.

Hanover highlights

A review of some of the more interesting products on display at this year's World Light Show.

Although the major drama at Hanover this year was provided by the lamps sector (see LEN May issue, page 1), there has been a steady increase in fittings designed especially with for use with new light sources. Display lighting showed more restraint than in the past, but this probably had more to do with the decline in the retail market. Office lighting, particularly that suitable for computer intensive environments, still appeared to be a growth area. And the luxury end of the decorative lighting market - the classic and pricey designer luminaires - were also conspicuously present.

High design luminaires from Dutch company **Atomis** come from an ongoing relationship with designer Philip Feenstra. Among the company's range is the Suburb 12V track system. It is claimed that this track can be bent to any angle, its unique PVC and aluminium construction giving a combination of flexibility and excellent electrical conductivity. The track can be shortened or individual sections connected in tandem.

Glarefree

Luminaires available include a 50W halogen spotlight adjustable to 45° about the track and rotatable about its own axis. The lamp has a glarefree reflector and its back is finished in cobalt blue glass. A 50W halogen floodlight has a ceramic glass diffuser to give a soft light. Also available is a 35W dichroic lamp, and a halogen floodlight with a matt glass diffuser for general and decorative lighting. Finally a spotlight with a 50W lamp is joined to the track by two flexible connections which allow total freedom of movement.

The track is supplied by a 400W transformer which either may be integral or remotely positioned, by means of a flexible lead or fixed mounting. A standard range of connectors, mounts and wire suspension systems provides for most applications.

From the same stable, the Torp range of fittings, comprises a floor standing luminaire and pendant floor or wall fittings. The floor lamp comes equipped with a handle for 350° adjustment of the light source. All luminaires take a 200W linear tungsten halogen lamp.

Finally, Electron is a range of decorative floorstanding, pendant and spotlights in low voltage tungsten halogen taking 50W lamps. The body of the lamps is



Bofill's classic luminaire from Light.

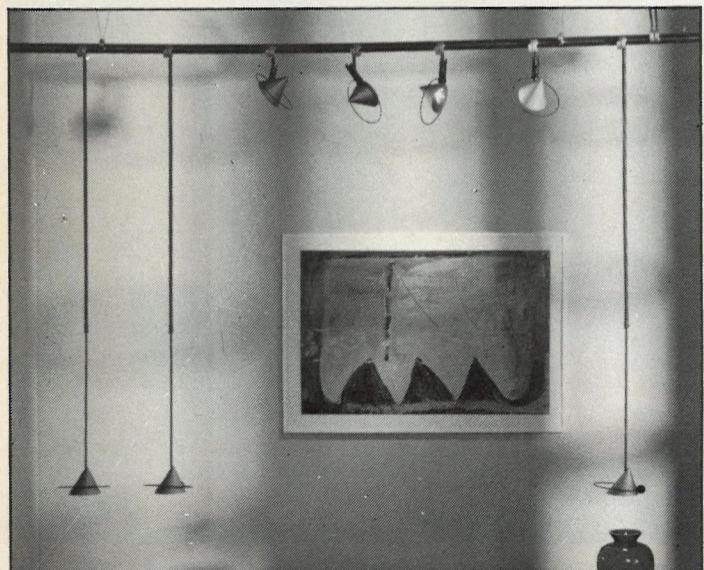
adjustable in all directions. Pendant Electron lamps are also available for the Suburb track system described above.

At the luxury end of the market **Light**, of Belgium, have a range of classic luminaires, originally designed by the French trained, Catalan architect Ricardo Bofill for the Swift building in Brussels. The basic wall mounted luminaire comprises an upper triangular section housing a 26W Dulux compact fluorescent lamp to give uplighting and a partly built-in vertical element with a 36W linear fluorescent lamp. The latter is concealed by an opal glass diffuser. Two vertical metal tubes emphasise the verticality of the direct element of this luminaire.

A 700mm wall mounted luminaire with low voltage uplighter in a semicircular lamp housing uses a 100W halogen lamp. The body, a borosilicate semi-circular tube, sanded internally, diffuses the light of two 20W dichroic lamps. Finally, a floor-standing fitting with a circular head houses a 150W halogen lamp and is internally sanded. The body of the luminaire is formed by four metal rods fixed to a cruciform base. The fitting stands just under 2 metres high.

Three dimensional

Filigrano from **Staff** gives new three-dimensional design possibilities in low voltage lighting. The basis of the system is a range of transparent glass rods in different modular lengths. A pin joint between glass elements permits the flexible positioning of the rods which may also be at varying heights. The glass rods serve at one and the same time to supply power and to support a row of



The Suburb system from Atomis.

decorative light fittings which have been specially developed for the system.

Standard luminaires come in a satin finish or in blue glass; but by means of a special adaptor Uno and Pico spotlights from Staff's low voltage range may also be utilised on this system. The attraction of Filigrano lies in the high degree of transparency and lightness of this system, coupled with the brilliant light produced by low voltage halogen lamps.

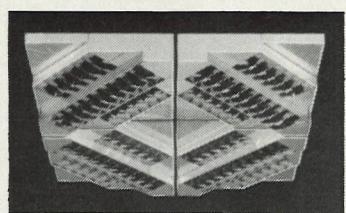
Diagonal

New from **Schaer-Lüderitz** is Selekt, a diagonally orientated surface-mounted lamp with highly polished parabolic mirror blades of varying depths and plain surfaces. The luminaire, 625mm square, takes four compact fluorescents each of 24W. Light is emitted from different levels from the central housing of the luminaire. At the same time two diagonally opposite corners can be used for low voltage lamps or to build in loudspeakers. These luminaires can be used singly but are more effective when used as a

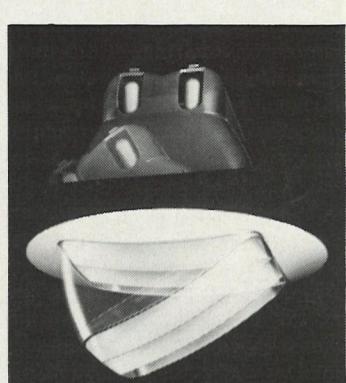


Filigrano low voltage system from Staff.

group because of the wide range of patterns they can produce. Similar to this, but without the diagonal corners for squaring up, is the Prisma model from the same company.

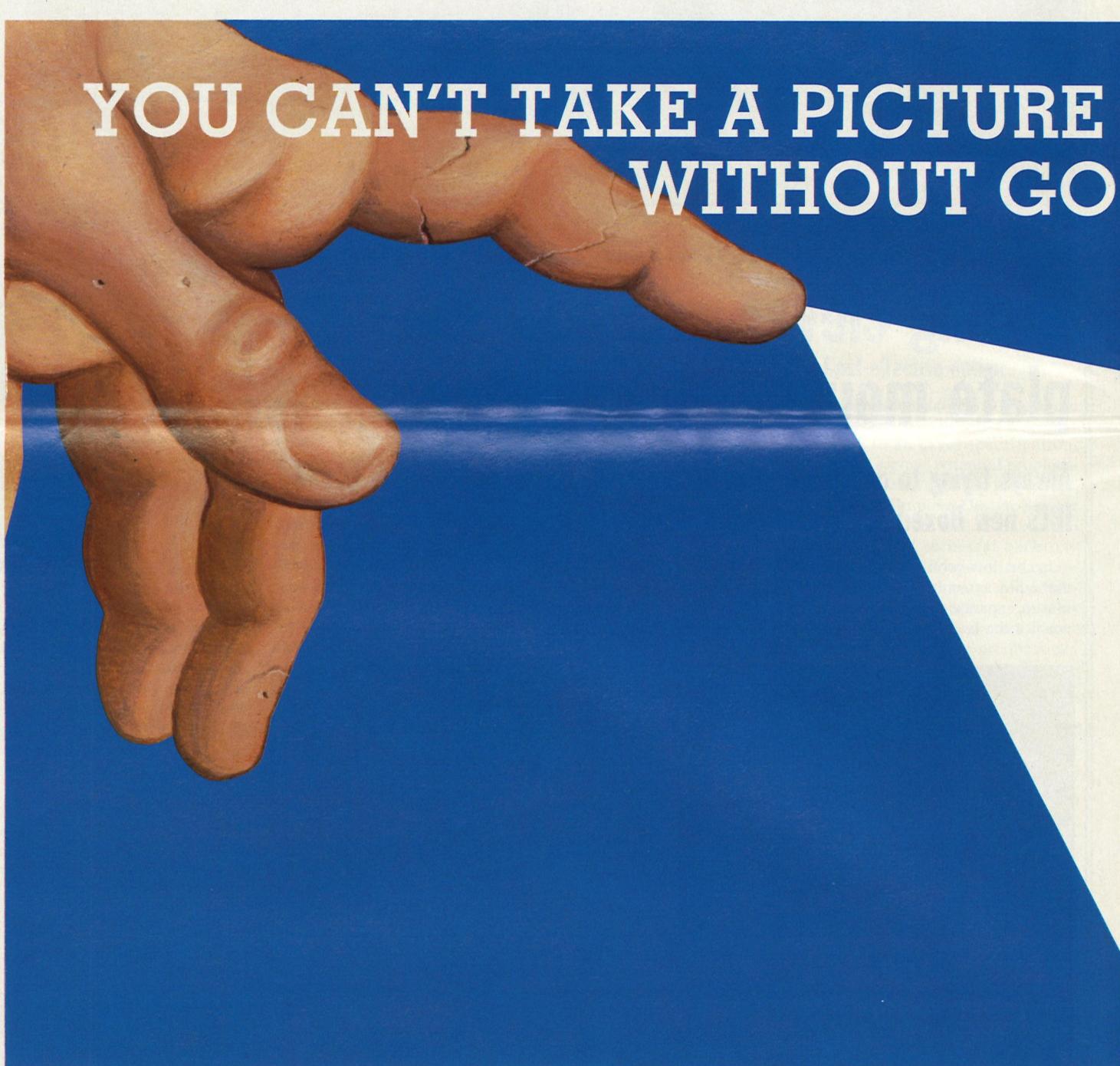


Selekt surface mounted fittings.



Trilux pivotal downlight with louvres.

Also from Schaer-Lüderitz and with decorative possibilities is Skada, a 450mm square luminaire on three different levels taking three 36W compact fluorescent lamps.



It's surprising what a difference lighting can make in the way people feel at work.

Good quality lighting can improve efficiency, reduce absenteeism and generally lead to a happier workforce.

And for quality daylight lighting, you can't beat GE Multi-Vapor™ lamps. They offer a combination of high efficacy and consistency of colour output along with reliability.

Trilux has introduced a 360° rotatable, pivotal downlight for two compact fluorescent lamps, available with white louvre for uniform luminous intensity distribution. Versions are also available for metal halide lamps (HIT-DE) with incorporated temperature resistant safety glass.

The circular bezel ring is available in white or chrome finish. Both bezel and louvre can be rotated 360° and reflector and louvre can pivot through 30°.

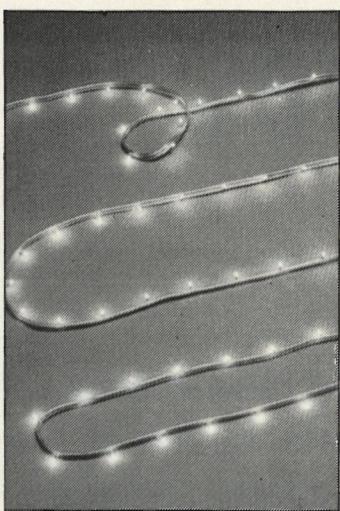
Adjustable reflector

A further version has a top reflector adjustable to give wide and narrow angle distribution. The reflector is closed by a clear conical lens with a frosted cone made from silicate glass for decorative effect. A similar downlighter is also available with a frosted fresnel lens. Both are available as one or two fluorescent lamp fittings. The former incorporates a low loss ballast, in the latter version the ballast is remotely located.

On the display front Zumtobel has launched the new Artos range of spotlights and wall washers,



The Artos spotlight from Zumtobel.



RW's cable lighting system can even be tied in knots.

designed to accommodate the full range of modern light sources from low and mains-voltage tungsten halogen lamps to high pressure discharge lamps and compact fluorescents.

All luminaires share a common hemispherical shape. The basic range comprises two spotlights: an 80mm diameter model for tungsten halogen lamps, dichroics

and reflector lamps for mains voltage circuits; a 120mm diameter model for tungsten halogen lamps of up to 100W and dichroic lamps for up to 75W, for halogen reflector lamps and the 35W and 70W HIT metal halide lamps.

A wall washer version will shortly be coming onto the market to accommodate tubular

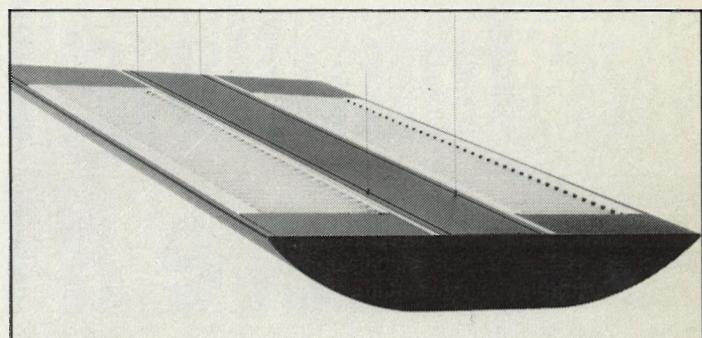
lamps like linear metal halide, high pressure sodium, mains voltage tungsten halogen, and a range of compact fluorescent lamps.

The light unit and control gear are separately housed. This reduces the thermal load on the control gear, particularly important for the transformers for low voltage circuits. The lamps are compatible with most types of track.

More unusual is a modern interpretation of festoon lighting, from RW, the company that manufactures the flexible Cliplight system for interior use, comes All Weather Cable Lighting which can be used to pick out trees, building facades and signposts. The transparently insulated, silver-coloured cable contains small waterproof 24W lamps. Highly flexible stranded wire adjusts to any building contour or plant and can even be safely knotted.

Minilamps

Lengths of up to 300 lamps in either direction from the feed-in points for the current are possible. The minilamps have an average



The Albatros system gives maximum flexibility.

lifespan of 5 000 hours but can be changed easily in case of damage.

The double cable can be separated if required, and a narrow path is provided between the two sections for nailing. The cabling is available in four different lamp spacings: 3, 5, 10 and 20 lamps per metre.

For more down-to-earth applications Waldmann have produced a handlamp using 7, 9 or 11W compact fluorescent lamps in a fitting which is DIN class 2 protected for added protection. A built-in reflector prevents direct glare.

Offices and their ancillary spaces attracted a large number of new lighting systems. Almost any combination of light sources can be incorporated into the Albatros system by Multiline.

Core of the system is the central profile piece, 150mm wide, to which one or two wings 235mm wide may be attached. This central core can itself be used as a lighting element, taking a linear fluorescent lamp, built-in or surface mounted spotlights. Possibilities are almost endless. Two side wings can be used to give downlighting, for instance, with the central spine providing an element of uplighting. One wing element alone can be fixed to a wall; equally, a combination of one wing element and the core unit fixed to a wall provides both light and telephone services or power. Side wings can be used in uplighter mode with a single direct light centrally placed.

Colourful

Albatros is available in a wide range of colours. The central spine may be in the same colour as, or can contrast with the side wings. A clear glass diffuser or aluminium louvres with a painted finish direct fluorescent light. In addition to light, communications systems and power, the central profiles can also take a

Perspex sign system.

Also primarily in the office lighting field, AEG have developed a new uplighting system, Ambilux, in conjunction with designer Max Ottenwälder. Ambilux can also be used in entrance halls, foyers and museums. Keynote of the system is variability to cope with a wide range of office conditions and flexibility to handle changes in working practice.

The head of the lamp can be used with a range of compact light sources, giving a variety of ambient lighting levels. The indirect nature of the illumination gives a pleasant working environment.

The electrical supply may be taken either from the wall or the floor. Luminaires take either one or two HID lamps, and come in black or white versions. Wall mounted lamps are easily installed using the wall plate provided.

Sculptured form

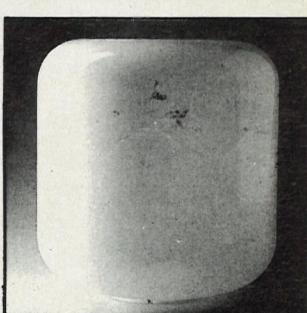
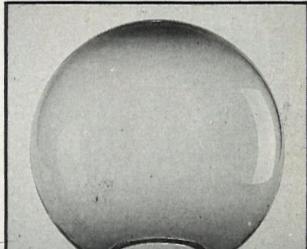
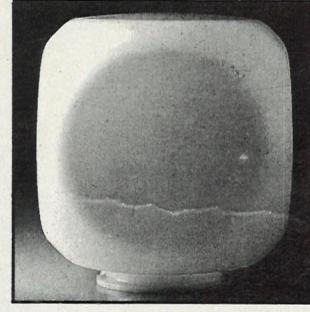
Finally, Guapa, a new luminaire from Spectral, provides direct and indirect lighting in a soft, organically sculptured form, which sets it apart from the more severely geometrical shapes usually found in this type of fitting.

Used as a secondary pendant light, the luminaire enables the light source to be brought a metre closer to the work surface or conference table, giving an even level of illumination from 600 lux to 800 lux without danger of glare. At the same time it provides a considerable amount of uplighting to brighten the ceiling. Electronic control gear gives maximum visual comfort.

Mechanical suspension is by steel cables and electrical connections are independent, allowing the suspension height to be freely chosen and preventing strain on the electrical connection.

ACRILUX
THE GLOBE SPECIALIST
TO THE INDUSTRY

POLYCARBONATE
ACRYLIC
KAMAX



VERALUX-LTD
TEL. 071-4021997
FAX 071-4021998

OF A HAPPY WORKFORCE OD LIGHTING



and long life. And all this at a very economical price.

The unique GE design ensures colour uniformity not just initially, but throughout life. While high quality arc tubes virtually eliminate swirl flicker. And with up to 100 lumens per watt, you can also count on high efficacy. Combine that with careful quality control and you can see why our lamps have such an

excellent record for reliability.

GE Multi-Vapor™ lamps. They're just what you need to develop a happier workforce.

THE NEW FORCE IN LIGHTING



U.S.A.

GE-Tungsten Lighting

Air handling luminaires – is there a limit?

Using the luminaire system as a conduit for the exhausted air from commercial interiors is a long-established practice.

In the UK it is common to use the negative plenum system, in which the air that has been ducted to the working areas is returned to the air conditioning plant by using the suspended ceiling void as a duct instead of having individually ducted grilles fitted in the ceiling.

The installed luminaires are used as the air transfer device from room to void.

This arrangement can be more economical for air conditioning installation, and it allows the

Tests carried out by RADA Lighting suggest that compact lamp luminaires can now be designed to handle greater volumes of extract air than previously thought possible – offering aesthetic and practical advantages in modern office lighting. *Robin Davies* explains why.

architect to avoid a ceiling cluttered with air extract grilles.

It is an approach that is convenient for everybody, but can it meet the new demands that are being presented to it?

Recent developments in lamp design, particularly the argon/krypton lamps and the new compact fluorescents, plus the revolution in office technology, are all combining to present a greater challenge to luminaire manufacturers – and it requires a new approach to luminaire design.

This hinges on the fact that the modern office requires more air changes, with greater volumes of air passing through the luminaires, while at the same time the lamps must not be over-cooled.

Lamp implications

The correlation between light output and the operating temperature of fluorescent lamps (Figure 1) is the crucial factor in designing an

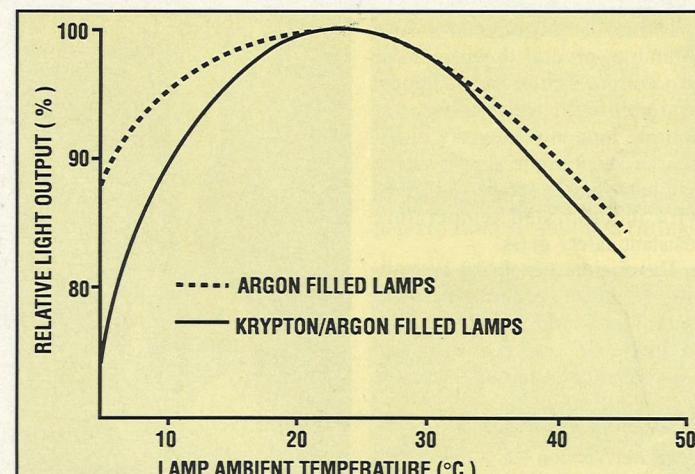


Figure 1. Correlation between light output and operating temperature.

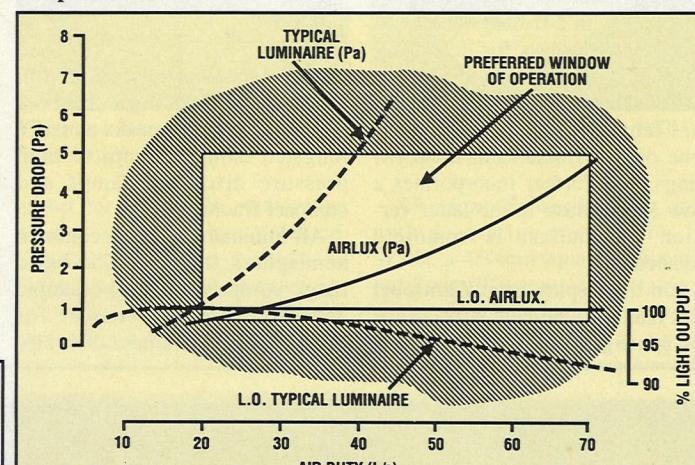


Figure 2. Effect of air handling on lamp performance.

air handling luminaire.

This is what we have been working on at RADA, using a calorimeter that we installed late last year to produce data on the performance of fluorescent lamps under a wide range of air flow conditions.

The traditional argon-filled fluorescent lamp has a cool spot, an area that runs cooler than any other part along its length.

To achieve the maximum light output we must maintain the temperature of this cool spot at its optimum.

Consequently, the amount of return air flowing over the cool spot has to be closely controlled to avoid diminished lighting performance.

The more recently introduced argon/krypton filled lamps have similar characteristics but, crucially, the light output is more sensitive to over-cooling and, therefore, the scope for air handling appears even more limited.

The new compact fluorescents have added another element to the equation. Traditionally, the cool spot has been found midway

between the lamp caps, but this is not necessarily so with the compact lamps.

In fact, the position of the cool spot on these lamps will vary according to the lamp manufacturer, the burning position, and, significantly, with the design of the luminaire.

I say 'significantly' because, contrary to being a limiting factor in air handling, it now appears from our tests that it can be an advantage if the position of the cool spot is away from the midpoint of the lamp. It may allow us to manage the air flow so that it avoids the cool spot.

This opens up the possibility of designing compact lamp luminaires capable of handling greater air volumes than previously envisaged – so keeping pace with the requirements of the modern electronic office.

The hotter office

As we all know, significant changes have taken place in the commercial environment in the past five to ten years.

THE LIGHT IS RIGHT. THE LAMP IS GE.



GE GOES TO GREATER LENGTHS TO GIVE YOU BETTER LIGHT.

Introducing the world's first 267mm and 540mm Biax™ compact fluorescent lamps.

They are designed specifically for 300mm x 300mm and 600mm x 600mm fittings to deliver better brightness control and light distribution.

They work with existing switch-start ballasts to lower system costs.

They cost less to operate because they use less energy.

And they're available now.



GE- Lighting

GE-Lighting
Shortlands, Hammersmith,
London, W6 8BX
Tel: 081-846 8727
Fax: 081-846 8770

The most comprehensive range of technical and amenity lighting to suit all your requirements.

TECHNICAL CATALOGUE

- Nokia track systems
- Metal halide, PL, mercury
- Superflat modular luminaires
- Tubular lighting systems
- Highbay & lowbay

OUTDOOR LIGHTING

- Bosisio design bollards and bulkheads
- Recessed & surface accent lighting
- Floodlighting
- Garden lighting

RZB

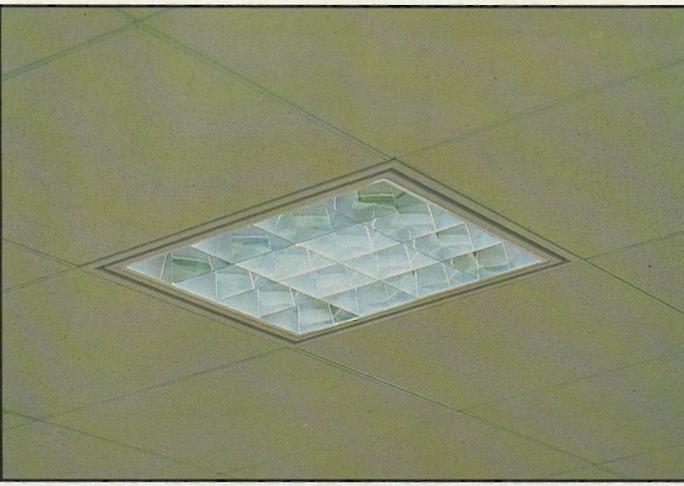
FROM

SES
LIGHTING

WALL & CEILING FITTINGS

- Bulkheads and drum fittings
- Polycarbonate and glass wall fittings
- Downlighters
- Murano crystal fittings

Unit 2, Britannia Industrial Estate,
Poole Road, Colnbrook, Berks. SL3 0BH.
Tel (0753) 680611 Fax (0753) 680418



Adjustable air bypass slots in the 600mm x 600mm Airlux make the luminaire look as though it is floating in the ceiling.

The HVAC engineer now has to content with the enormous growth of computer hardware that represents a large incidental heat gain in the office.

To extract and dispose of this heat requires higher air duty rates. Values of 60 to 80 litres per second are not uncommon. Against this is the increasing popularity of the exposed grid suspended ceiling systems, which are difficult to seal against cross leakage of air. Negative pressures must, therefore, be kept to a minimum.

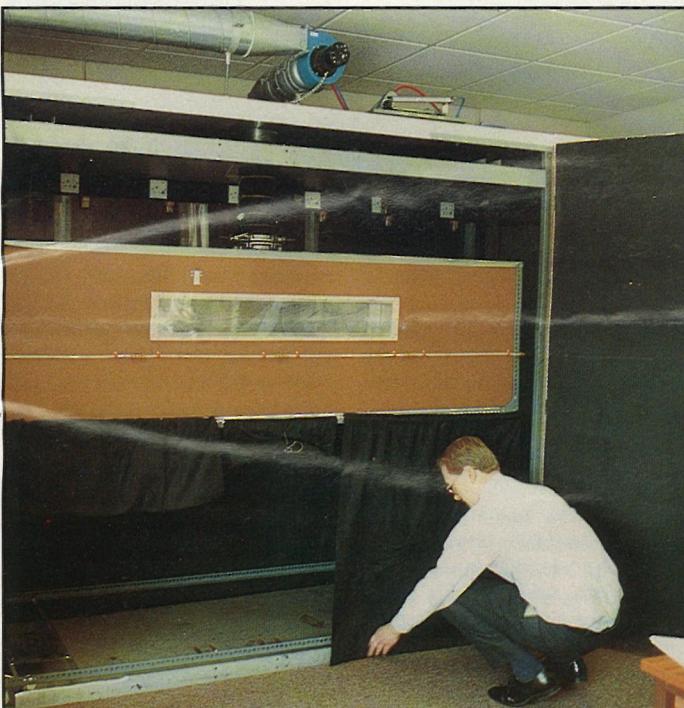
All this presents the manufacturer with the challenge of developing a luminaire that will be able to transfer large volumes of air at low pressure, maintain the optimum lamp temperature and deliver

the desired light distribution.

Typically, this might be a luminaire that conforms to **CIBSE LG3: Areas for visual display terminals** while handling 60-80 litres of air a second at a plenum pressure drop of only 4-5 Pa, and with the lamp operating at approximately 40 °C.

To be certain of fulfilling these and similar specifications, the luminaire manufacturer must have the means at his disposal to determine the actual performance of the luminaire.

The client knows what his air flow rates need to be and he knows what his light output and distribution must be. What he now needs are reliable data to show that the proposed luminaire

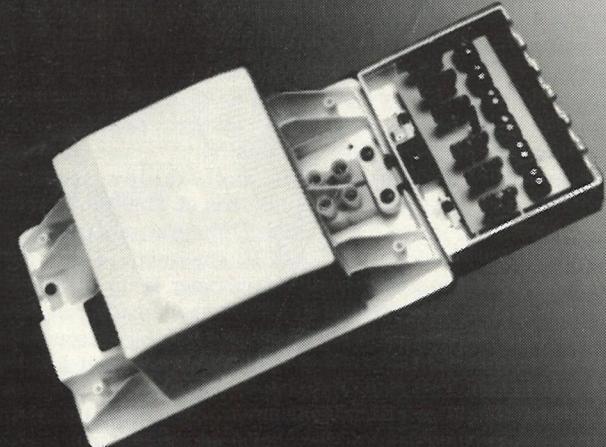


The calorimeter gives data on the performance of fluorescent lamps under a wide range of air flow conditions.



Emilo Low Voltage Transformers

- The safety isolating transformer
- Attractive Modular Styling
- Combination Splitter box for simplified installation
- Primary and secondary fusing with thermal overload protection



Tel: (0753) 37811 Fax: (0753) 73275

Enterprise House, 370/386 Farnham Road,
Slough, Berks SL2 1JD

will satisfy these criteria.

This is why we built and installed our calorimeter. It enables us to measure air flow rates, the developed pressures and relative light output ratios. Performance specifications can be offered to clients with confidence.

A prototype of this equipment enabled RADA to develop the Airlux range of 600mm x 600mm air handling luminaires.

These luminaires utilise the latest compact lamps within VDT-compatible optical systems, and maintain optimum lamp performance while transferring volumes of 20-72 litres per second at pressure differences of only 4-5Pa (see Figure 2).

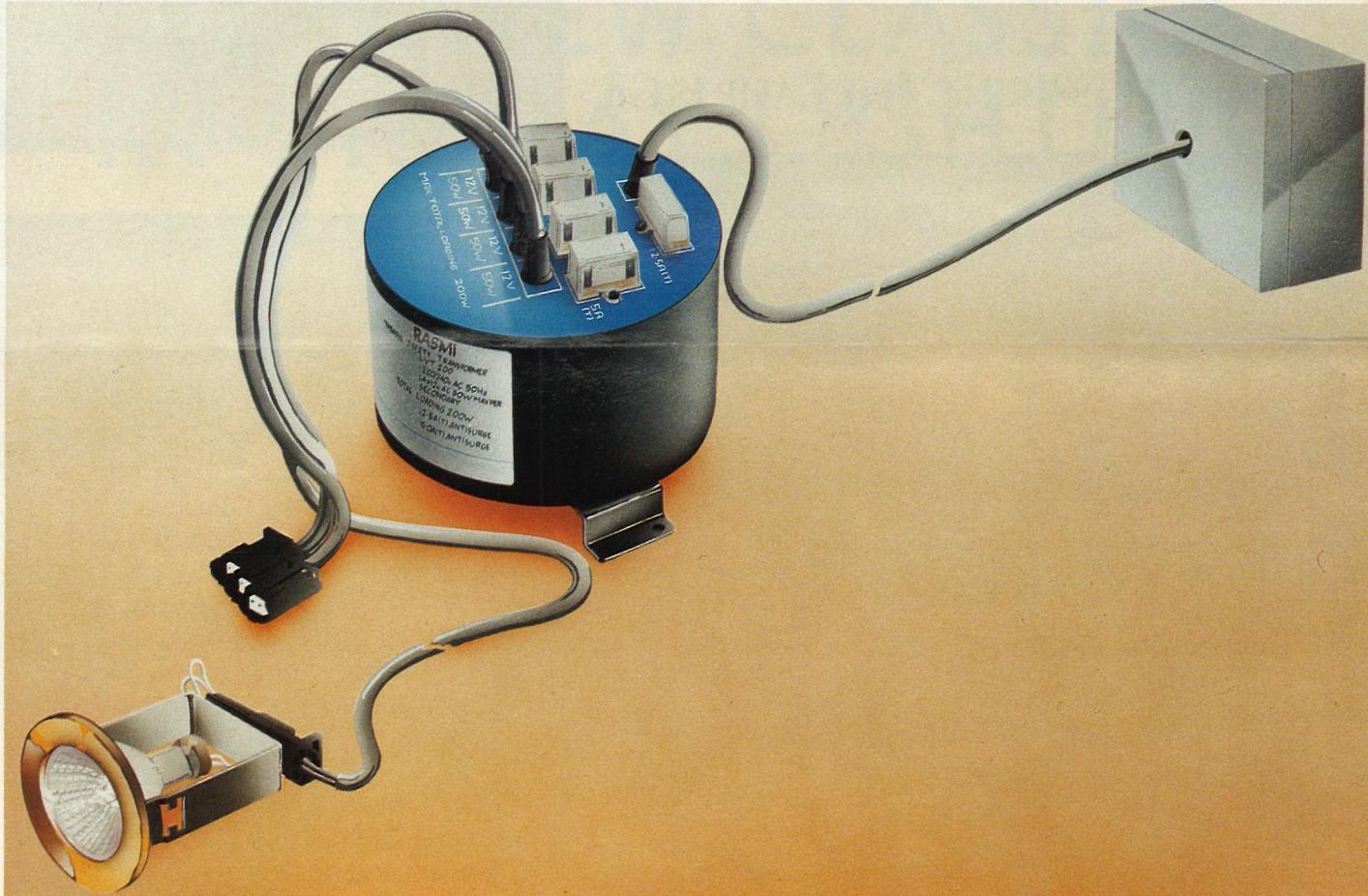
Conclusions

Recent results using the calorimeter are now indicating that this may be somewhat conservative. It now seems likely that further, quite dramatic developments in air-handling luminaires are possible. We foresee yet more sophisticated lamp/gear/optical designs that will cope satisfactorily with greater air volumes that may be required now or in the future.



Airlux luminaires installed in a new office development at Hanover Way, Sheffield.

LOW VOLTAGE MODULAR LIGHTING SYSTEM



- Complete system with transformer, cables, luminaires and lamps
- Quick "Mate & Lok" connections reduces installation time
- Transformer meets ALL British and European Standards
- All Inputs and Outputs individually fused
- Bi-metallic thermal cut-out and surge protection
- High quality luminaires with hard metal or powder coat finish

The Modular Low Voltage Lighting System has been developed as a kit to make life simple. The system is available using from 1 to 6 luminaires and comes complete with all the items required – transformer, cables, connectors and luminaires of your choice from our list plus a 50W G.E.Thorn, Philips or Osram lamp. This system eliminates the problems that can occur when products supplied from various sources are linked together and by using the wiring connectors fitted precise connections are achieved. A further advantage is that the overall costs of this system are less than when purchasing the items separately and installation time is greatly reduced. The high quality luminaires

come in various colours and should a non-standard luminaire be used a short lead with the correct connectors can be fitted before installation.

Rasmi Electronics Limited, Unit 14A, Tanfield Lea Industrial Estate, Stanley, Co Durham DH9 9UU Tel: 0207 232159.

Please forward further information on the Low Voltage Lighting System to:

NAME

COMPANY

POSITION

ADDRESS

.....

.....

Post Code Tel

Reader Service No. 20



Rasmi Electronics Limited, Unit 14A, Tanfield Lea Industrial Estate, Stanley, County Durham DH9 9UU.
Telephone: 0207 232159
Fax: 0207 232016

Making the most of lighting

Electronics can bring out the best in high technology lighting. However, its introduction into the lighting scene has not been without difficulties, largely due to poor quality products. Alan Clough, of Philips, looks at the growing importance of electronic products and the opportunities these create.

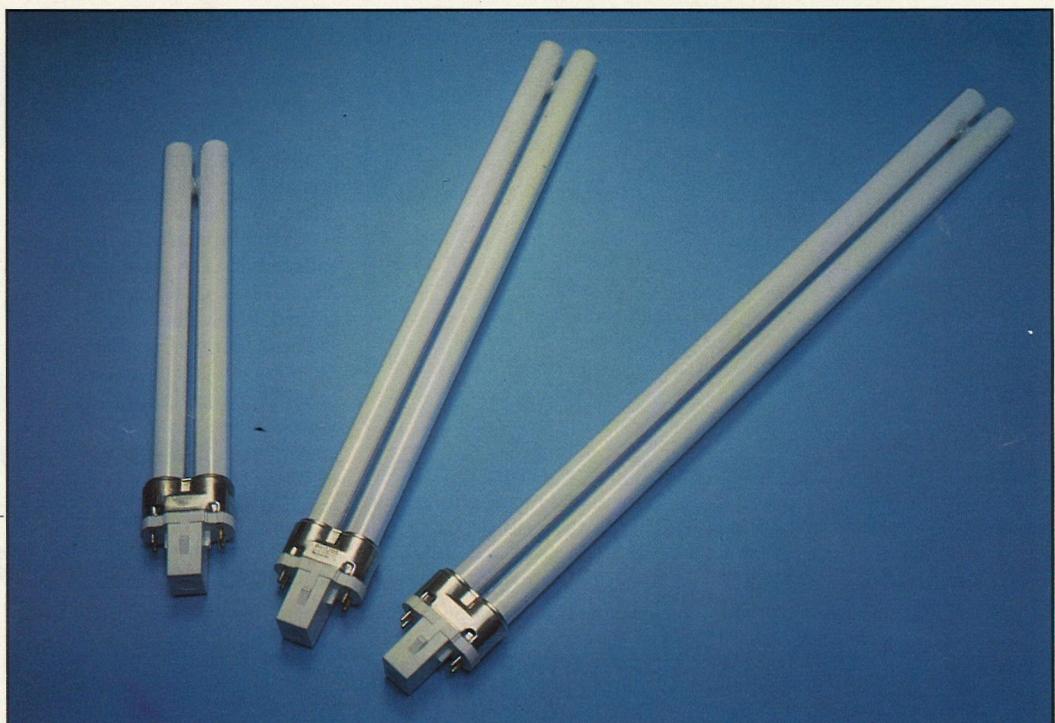
In the last decade, electronics in lighting has proliferated from discrete components in starters and ignitors, to the latest SMD technology for mounting dedicated chips and components onto PCBs in a range of control devices. This development could only have taken place

through economies of scale and, hence, represents volume acceptance in the UK market.

However, while volume acceptance is exciting, it has created commercial opportunities for those with less than perfect knowledge of lamp properties and production tolerances. Thus, on

too many occasions, lamp manufacturers have been forced to defend a good quality lamp against poor electronics.

This has manifested itself mainly in short lamp lives and premature and ugly black endings in TL and PLL lamps, and in short lamp lives and early compo-



PLL fluorescent lamps.

nent failure in low voltage transformers. Despite this, the UK market has been buoyant and will continue to develop along an even

THE LIGHT IS RIGHT. THE LAMP IS GE.



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.



GE- Lighting

GE-Lighting
Shortlands, Hammersmith,
London, W6 8BX
Tel: 081-846 8727
Fax: 081-846 8770



IFS hand-held controller

are undoubtedly the most efficacious system and should be the first choice. However, all options will operate all lamps to a greater or lesser efficacy. For dimming, it is wisest to use the optimum ballast for the lamp chosen, more particularly at the lowest levels of light regulation.

Examining products rather than markets, TL and, more recently, PLL lamps represent the highest user acceptance penetration. The obvious benefits are energy avoidance costs, due to the lower circuit watts. Added to this is the potential for simple and complex control systems to avoid wasting energy. These include simple on/off switching regimes as well as infinitely variable dimming to prescribed levels.

In general terms, high frequency electronics has also generated a user who is more conscious of colour rendering, so triphosphor lamps have been to the fore. A largely unrecognised benefit of high frequency systems is increased productivity, not only because increased lighting levels have been the order of the day, but also because 'flickerless' lighting is less tiring on the eyes.

The case for improved productivity is always difficult to assess in advance, but case history is on the side of the original equipment manufacturer when talking to clients. It should always be remembered that marginal improvements in productivity can make energy savings fall into insignificance and are rightly part of the dash flow benefits for the user.

Confusion

Looking at the products available for TL lamps there has been some user confusion. Basically, there are three systems – one optimised for dedicated HF argon lamps, one for standard krypton lamps and the newest which provides equal light output for both argon and krypton lamps. The argon lamps are only available in triphosphor options and, when used with their optimised ballasts,

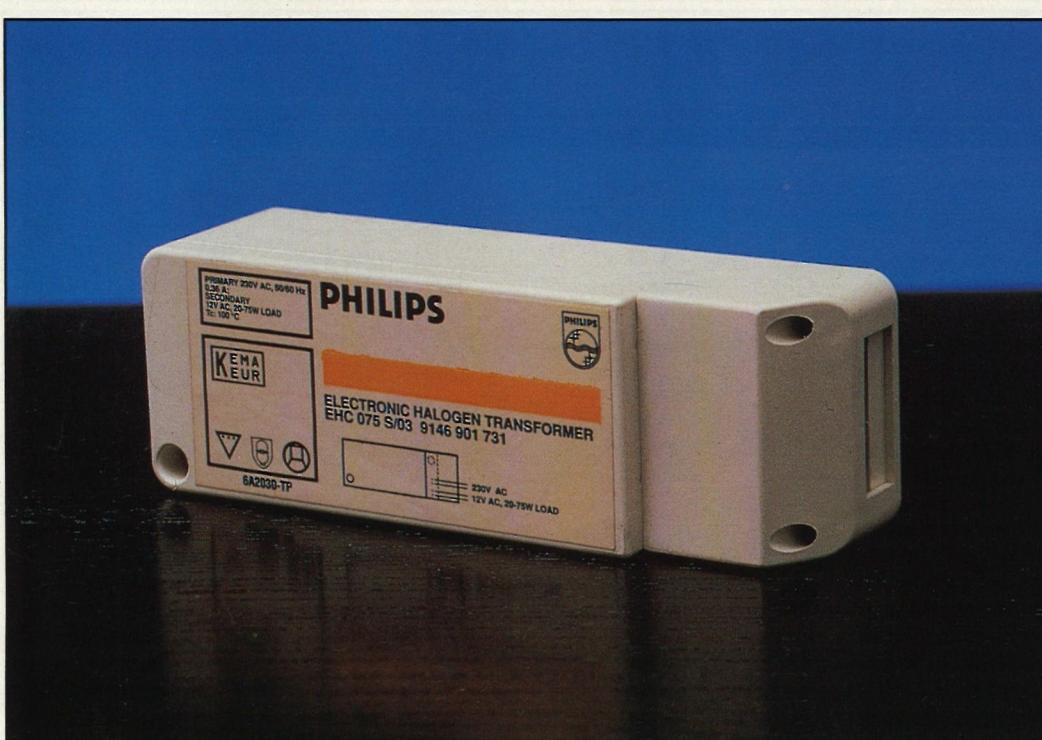
In determining the choice for PLL lamps, which are argon types, no confusion exists. Interestingly, for PLL 40W and 50W lamps, electronics was the first choice control system, indeed it remains the only viable option.

Looking ahead

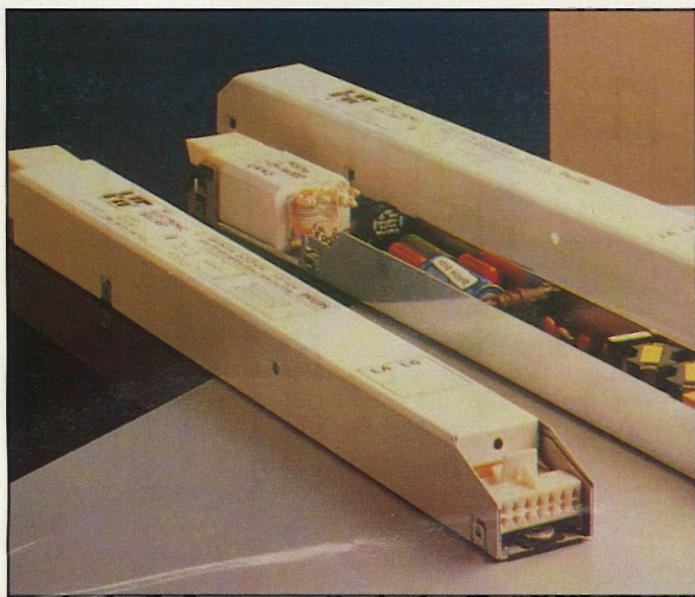
For the future, PLS and PLC lamps will have electronic ballasts available. However, it is doubtful if these will command the same market acceptance as PLL versions. The controlling factor for their penetration will be the first cost considerations. It is unlikely that the highly price-sensitive applications, where PLS and PLC are dominant, will allow high market penetration of electronics.

A more readily acceptable option has already proved to be PLC-E integral electronics ES and BC cap lamps. This will be the consumer lamp of the near future. It has already penetrated government establishments and is being promoted at that level for the national benefit.

An area commanding extreme attention of users, OEMs and electronics suppliers is low voltage halogen transformers. A perceived user benefit of LV lamps is their small size. It follows that integral gear luminaires must also



Electronic ballast for halogen lamps.



Electronic ballast for HFR.

be small. Hence, it is not surprising that OEMs demand electronic transformers, fitting their current designs. Thus, shape is critical and, by definition, demands a proliferation of transformer options. This is not helpful to electronics companies in developing volume and so reducing market price. Nevertheless, we live in a market driven society and so this will continue to happen.

The historical record of poor practical installations, represents an equally sensitive area. hence, the better electronics companies are paying attention to such areas as:

- auto reset overload;
- auto reset short circuits;
- safety conformity with standards such as IEC 34C and SELV (safety extra low voltage);
- 4kV input/output insulation for added safety;
- electromagnetic interference or compatibility (EMI or EMC) for mains pollution and direct radiation.

Many of these features required by the market have an influence on transformer size. Therefore, while safety is always a first demand, electronic ingenuity and luminaire design will need to play a major role before electronic transformers command the major market penetration that they seem to deserve.

Personal control

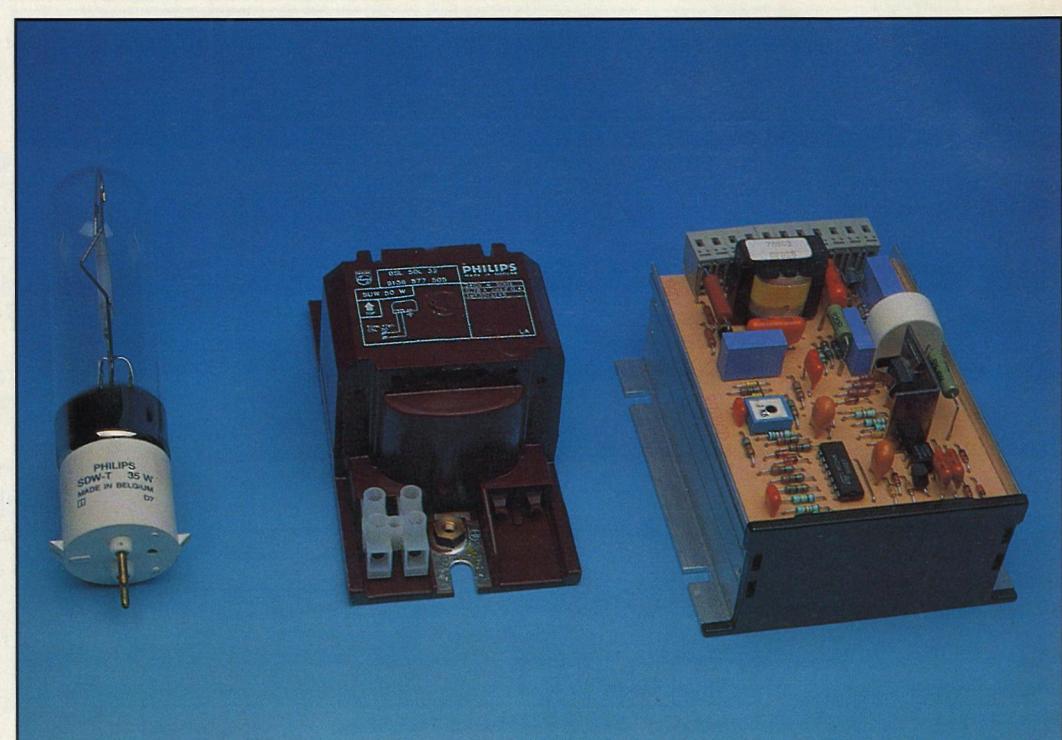
As a development of fluorescent and LV lamps, a degree of personal control is beginning to come about. Initially, this will be in cellular or bespoke offices and in dedicated areas such as display rooms and areas. As little as five years ago, this would not have been true, but with domestic 'in chair' control and programming of HI FIs, CDs, videos and TVs, lighting seems to be a natural progression. With the improved reliability of such hand-held con-

tronics and total compatibility with its lamp environment. This will benefit the whole of the distribution chain, because lamp

companies can be expected to see the system as their territory, which will ensure good electronics.

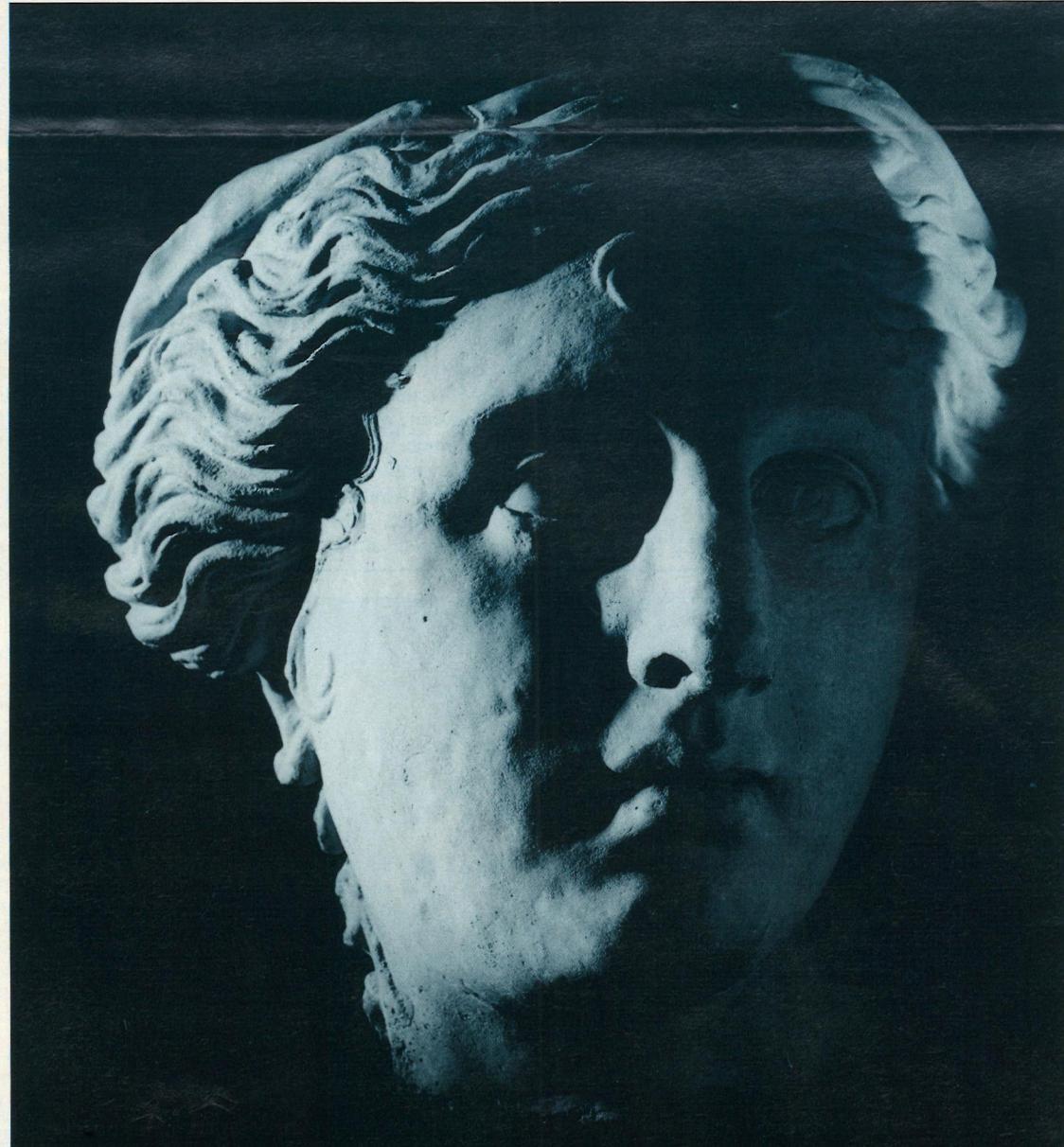
So the days of a lamp maker 'only' being required to manipulate glass and metal are firmly behind us. The modern lamp

maker is also an electronics company – with all that that implies in development of new products and markets.



Electronic ballast for white SON.

THE NEW CLASSICS IN DISPLAY LIGHTING.



Troll's range of display lighting products represents one of the most exciting and innovative choices available to the professional specifier, for retail, hotel and leisure installations.

Troll Lighting are at the forefront of European lighting design and their specialist ranges of track, spot and downlighters – incorporating the latest halogen and metal halide

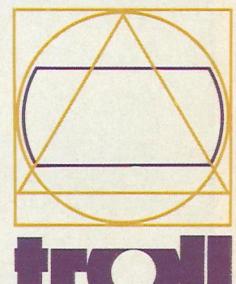
technology – provide architects and designers with greatly enhanced creative opportunities.

Outstanding design, quality manufacture, a wide and varied product range and competitive prices make Troll Lighting a major force to be reckoned with in the display lighting sector.

To find out more about the "new classics" from Troll, send for our new colour catalogue today.

TROLL LIGHTING (UK) LTD.

Unit 1 Abbotsford Farm, Blackberry Lane, Four Marks, Alton, Hampshire GU34 5BN. Tel: 0420 62000. Fax: 0420 62621.



Effect of the Obstructing Building in an Interior



ARUP

How daylight varies with the separation distances between buildings.

Architects and lighting designers use BRE tables and 'pepperpot' diagrams to calculate daylight distribution in an interior. Florence Lee took a closer look at the effect of external obstructions on these calculations in a paper for this year's CIBSE Young Lighter competition.

Outside influences

The calculation of the external effect is mostly based on the assumption that the luminance of an external obstruction is 20% of the CIE overcast sky that it conceals. In general, the effect of surrounding buildings is ignored.

This is fine for a green field site where buildings are far apart. But in city centres like Hong Kong, direct view of the sky is minimal and direct sky illuminance would be very low. The simple factor of 20% would decrease.

Computer modelling

In her paper, Florence Lee called this factor – the ratio of the Externally Reflected Component (ERC) to the Sky Component (SC) concealed, factor m .

Using computer modelling, studies were carried out to illustrate the need for additional

guidelines in daylight factor calculation, especially in city centres where ERCs are to be taken into account. ERC's will vary greatly in different site conditions.

The effect of external obstruction was examined from three points of view:

- the relationship between the composite of the total daylight factor and the separation distances between buildings;
- the relationship between factor m and the angle subtended by the 'rooftop' of the obstructing building, as seen from a reference point in an interior;
- the non-green field site effect.

This phenomenon was modelled by varying θ – the obstructing angle subtended by the 'rooftop' of the obstructing building, as seen from the reference point.

The model used for simulating

the interior was represented by an area 5m x 5m with a ceiling height of 3m. The window head was 2.25m above the reference plane.

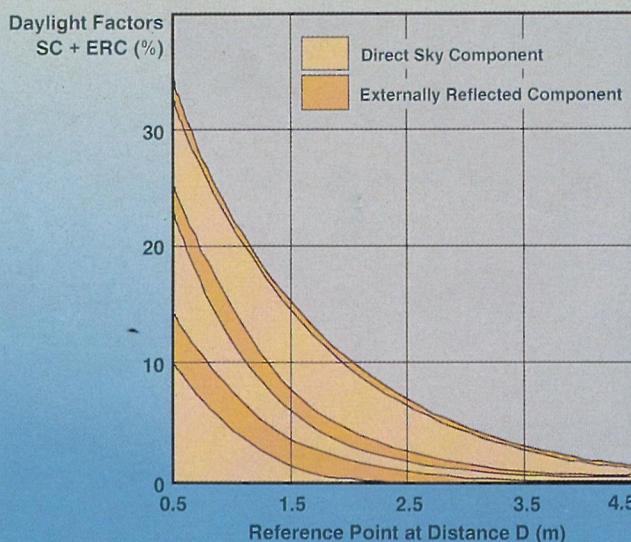
The reference plane and the window sill were at the same height – 0.75m – above the floor. The obstructing building was represented by a rectangular block of 15m x 5m x 15m height. Surface reflectance was 30% and the reference points were taken at 1m intervals along the centre of the room.

Results

Figure 1 shows how the daylight contribution varies with the separation distances between buildings, for different reference points along the centre of the room.

Point A is nearest the window and point E the furthest. The obstruction effect is much more

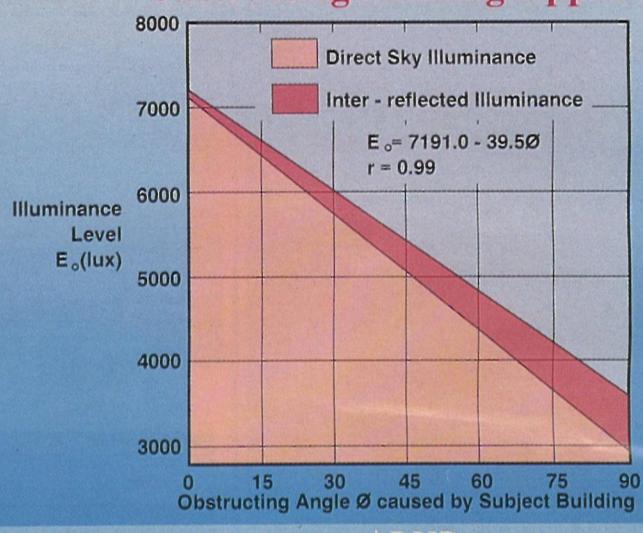
Daylight Distribution in an Interior



ARUP

How daylight is distributed in an interior.

Daylight Obstruction Effects of the Subject Building on the Illuminance Level, E_o , at the Surface of the Obstructing Building Opposite



ADID

distinctive close to the window.

The curves follow the law of diminishing returns and each approaches a maximum value of daylight factor which would occur in a true green field condition.

In Figure 2 the dark shaded area represents the externally reflected component of the total daylight penetration. In general the daylight factor decreases exponentially towards the back of the room.

The study found that the relative proportion of the ERC to the total daylight factor was larger

when the buildings were close together and when the reference point was close to the window.

The effect of the external obstruction becomes less significant towards the back of the room.

Florence Lee proposed two models to describe the relationship between the factor m and the angle θ – the angle of obstruction subtended by the 'rooftop' of the obstructing building as seen from the reference point.

Factor m was expressed in terms of θ and the tangent of θ . Both models indicated a logarithmic relationship between m and the angle of obstruction. This variation can be explained by the way the sky luminance pattern varies across the sky vault.

As θ varies, so does the ratio of ERC to the concealed sky component.

The results of this analysis indicates that factor m varies in a ratio of 3:1 from zenith to horizon, correlating very closely with the 3:1 ratio of sky luminance variation from zenith to horizon across the sky vault of the CIE overcast sky.

In the final analysis, subject buildings of different heights were used.

Figure 3 shows how the illuminance, E_o , of the obstructing building varies with different degrees of obstruction, created by the subject building. With the angle θ exceeding 60°, E_o can reduce by up to 30% when compared with a green field site value.

Factor m should be directly proportional to the luminance of the external obstruction and this luminance, in turn, directly proportional to the illuminance it receives.

We would expect factor m to vary with angle θ in a similar way. Further corrections, therefore, should be made to m if the density of buildings on the site is high.

How the illuminance of the obstructing building varies because of obstruction caused by the subject building.

Conclusions

Florence Lee concluded that we need to consider 'm' as variable rather than as a constant of 0.2, due to the variation of sky luminance pattern across the sky vault.

In addition, a further reduction will be expected in a densely packed city centre.

The author found the ratio of ERC to the sky component concealed would vary from 0.2 when the reference points were close to the window, the site was densely packed with tall buildings, exceeding 30m or 8-storeys, and the separation distance between these buildings was less than 20m.

Further work

In a high density site, factor m will need further corrections due to the lower direct sky illuminance incident on the buildings. Its final value should allow the true ratio of ERC to SC concealed to be used in conjunction with the current Daylight Factor calculation methods.

From what the author has seen in Hong Kong and many other city centres, fully glazed facades will continue to be widely used in the 90s. Where land is scarce and expensive, high rise buildings in close proximity with each other are inevitable.

She suggests that for daylight studies on buildings in high rise city centre areas, a more rigorous method of calculating ERC was required to prevent over-optimistic results.

Florence Lee hopes her paper will be a starting point for further study.

Low Voltage Lighting Products & Toroidal Transformers

Economy Lighting are THE specialists in the manufacture of low voltage lighting products, with a range of low cost, highly reliable lamps and transformers to suit virtually every application.

- Low voltage ES, Par 38 and RO-80 replacements
- Electronic compact fluorescent adaptor
- High quality toroidal transformers with international approvals

HIGH QUALITY RANGE OF LAMPS AT COMPETITIVE PRICES



For more information, please contact
Economy Lighting Ltd, Electron House,
Leeway Close, Hatch End, Middlesex HA5 4SF
Tel: 081-420 1810 Fax: 081-420 1813



To advertise in
this Directory contact
Alastair Moyes

WHERE TO BUY DIRECTORY

Telephone:
081-975 9759

ACCESSORIES — BRASS PRESSED AND TURNED

S. Lilley & Son Ltd.,
80 Alcester Street,
Birmingham B12 0QE
Tel: 021-622 2385
Fax: 021-666 6148

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

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901

ACCREDITED SAFETY TESTS



Albury Laboratories Ltd.,
Albury, Guildford,
Surrey GU5 9AZ
Tel: (04641) Shere
2041/4
Telex: 859336 Albury G



Laboratories Ltd.,
Norman Road
Broadheath, Altrincham
Cheshire WA14 4EP
Tel: 061-928 8924
Telex: 665337 AMTAC G
Fax: 061 927 7359



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

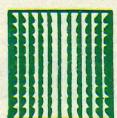


SGS Inspection Services Ltd.
Alperton Lane,
Wembley, HA0 1WU
Tel: 081-998 2171

ALUMINIUM LOW BRIGHTNESS AND VDU LOUVRES



Laindon, Basildon,
Essex SS15 6SL
Tel: 0268 415828
Fax: 0268 410985
The UK's foremost
manufacturers of low
brightness aluminium
louvres.



Avonlux Limited,
Nathan Way, Woolwich
London SE28 0AZ
Tel: 081-854 3388
Telex: 896061 (ALPA G)



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

Precision Louvre Company
Oakfield Farm, Blind Lane
Little Burstead, Billericay
Essex CM12 9SN
Tel: 0277 653817
Fax: 0277 655717

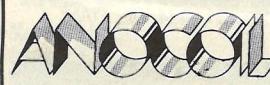
ANODISED ALUMINIUM COIL AND SHEET



alanod & Garfield Lewis
Birmingham B21 0BH.
Pre-anodised strip-blanks
for louvres and reflectors
available from stock to your
precise requirements.
Telephone or fax for more
information. Garfield Lewis
is a quality assured source
to BS5750/1S09002
Tel: 021-554 5242
Fax: 021-551 9315



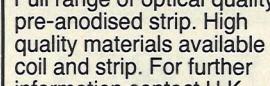
Alcan
Anocoil pre-anodised
aluminium coil, sheet and
blanks available ex-stock
from the following service
centres.
Tipton 0902 880881
Uxbridge 0895 444554
Leeds 0532 450304
Glasgow 041-647 9222
Southampton 0703 611471
Bridgend 0656 55981



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



Bandoal — Satma
38570 Goncelin, France
Tel: 76 71 71 31
Telex: 320666
Fax: 76 71 78 89
Une Societe du Groupe
Pechiney Bandoal —
Satma products for the
lighting and ceiling industry.
Full range of optical quality
pre-anodised strip. High
quality materials available in
coil and strip. For further
information contact U.K.
agents: MG Non-Ferrous
Products Ltd.,
Tel: 0376 502064
Fax: 0376 510611



Pre-anodised and pre-
painted aluminium slit coil
and cut sheet for your
lighting reflector and louvre
requirements available ex
stock. Contact
Non Ferrous and Feralco
Tel: Walsall (0922) 722200.
Fax: Walsall (0922) 722466

ARCHITECTURAL & COMMERCIAL LIGHTING CONSULTANTS & SUPPLIERS

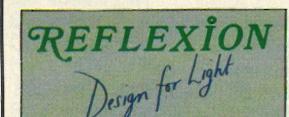


BBI Lighting
23 Parkside
Coventry CV1 2NE
Tel: 0203 551444
Fax: 0203 525862



Lighting & Electrical Distributors (L.E.D.)

109 Wood Street
London E17 3LL
Fax/Tel: 081-521 5485
Importers indoor/outdoor
lighting. LV fittings,
decorative, ceramic and
crystal. Flush fittings. Street
and amenity, security/PIR
commercial light fittings.



The Old Court,
All Saints Road, Newmarket,
Suffolk, CB8 8HH
Tel: 0638 662140
Fax: 0638 662143
Lighting, design,
consultancy, concept
engineering, specification.

ASSEMBLY — COMPLETE MANUFACTURING SERVICE



Unit 5, Bay Works,
Eastbourne BN24 6EG.
Tel: 0323 767904
Fax: 0323 767133
Assemblers of all forms of
lighting. Design and
manufacture undertaken

BATTERY BASED EMERGENCY STANDBY SYSTEMS

Freelance Battery Distribution Ltd
Unit 5, Estate Road No. 5
South Humbershire Ind. Est.
Grimsby
DN31 2TG
Tel: 0472 361213
Fax: 0472 241175

BULKHEAD LUMINAIRES



Geiss UK Limited
Bumpers Way
Chippenham SN14 6LH
Tel: 0249 444734
Fax: 0249 444514
Full range of weather proof
polycarbonate round and
rectangle bulk head
luminaires.

BULKHEAD LUMINAIRES — TUNGSTEN AND ENERGY SAVING



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

CABLE

Kingston Cable Distributors Ltd.,
Amsterdam Rd. Sutton
Fields,
HULL HU8 0XF
Tel: 0482 830367
Fax: 0482 830369

CABLES/SILICONE

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

CEILING AND DESK FANS

Fanfayre Ltd
Gravesend, DA11 0BH
Tel: 0474 535994
Fax: 0474 535224
Full range of "Fantasia"
decorative ceiling and desk
fans.

COLD CATHODE



Cold Cathode,
S.E.L. (S.E.F.T.)
High Output Lighting
Contact: Mick Watts
Tel: 081-771 8318



National Signs Ltd.,
1 Hampshire Street
London NW5 2TE
Tel: 071-485 3363
Fax: 071-284 1700
Cold Cathode & S.E.F.T.,
lighting installations,
servicing nationwide, wide
range of colours.

Oldham Lighting

Oldham Lighting
Fulton Road,
Wembley,
Middlesex HA9 0DF.
Tel: 081 902 3682
Fax: 081 903 7320
Design, manufacture,
installation and maintenance
of long-life, high output,
lighting systems using HI-
SLIM and cold cathode.

S.W.1.

14 Smiths Yard
Summerley Street,
Wandsworth SW18 4HR
Tel: 081-944 0411
We are Specialist
Consultants in Cold Cathode
and S.E.F.T. longlife
lighting. We design, supply
and install. Contact Mr
Beecroft or Mr Watts.

COLOURED SLEEVES FOR FLUORESCENT TUBES

E. C. Hinton & Co. Ltd.,
225 Cannon Hill Lane,
London SW20 9DB
Tel: 081-540 5813
Fax: 081-543 9395

COMBINED MAINS AND EMERGENCY LUMINAIRES



existalite Ltd.,
Project House, 18 Tallon Rd
Hutton, Essex CM13 1TZ
Tel: 0277 263600
Fax: 0277 263592
Uplights with auxiliary and
emergency features.

GEWISS

Gewiss UK Ltd
Bumpers Way
Chippenham SN14 6LH
Tel: 0249 444734
Fax: 0249 444514
Non-corrosive standard and
special configurations from
stock and to order.

CONSERVATION AREA LIGHTING



Birmingham B11 3EY
Tel: 021-707 6936
Also, Cast House Lights and
Hotel Bedroom Lighting etc.

CUSTOM DESIGN LUMINAIRES

Sugg Lighting Ltd
Sussex Manor Business
Park
Gatwick Rd, Crawley
West Sussex RH10 2GD
Tel: 0293 540111

DECORATIVE BRASS TUBING

S. Lilley & Son Ltd.,
80 Alcester Street,
Birmingham B12 0QE
Tel: 021-622 2385
Fax: 021-666 6148

DIMMERS

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

HELVAR

Helvar Ltd.,
1 Ealing Road Trading Est.
Ealing Road, Brentford,
Middlesex TW8 0QY
Tel: 081-568 6205
Fax: 081-568 6473
Telex: 291439 HELVARG

Home Automation Ltd

Bumpers Way
Chippenham, Wilts
SN14 6LF.
Tel: 0249 443515
Fax: 0249 443315
Manufacturers of consumer &
commercial dimmers.
BS5750 Part 1

Lytemode Ltd.

Unit 3, Maple Ind. Est.,
Mapleway, Feltham,
Middx TW13 7AW
Tel: 081-751 5449
Fax: 081-751 3334

Polaron Controls Ltd.,
21 Greenhill Crescent,
Holywell Ind. Estate,
Watford, Herts
WD1 8XG
Tel: 0923 240272/5
Telex: 934191

Quantran
Systems
Limited

Unit 6, Garnett Close,
Greycaine Estate,
North Watford,
Herts. WD2 4JL.
Tel: 0923 52512
Fax: 0923 39559

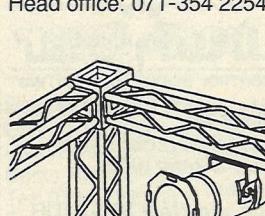
Richmond
LIGHTING
LIMITE

11 Cambridge Trading Est,
Cambridge Road,
Hanwell,
London W7 3UP.
Tel: 081 567 6086

Strand Lighting (Environ),
Grant Way (off Syon Lane)
Isleworth
Middlesex TW7 5QD
Tel: 081-560 3171
Telex: 27976
Fax: 081-568 2103

DISCOTHEQUE & STAGE LIGHTING

MSL
PRO LIGHT & SOUND
MSL Pro Light and Sound
Head office: 071-354 2254



Penn Fabrication Ltd
Unit 26, St John's Estate
St John's Road
Penn, Buckinghamshire
HP10 8HR
Tel: 049 481 6262
Fax: 049 481 6074
Par 64, Par 56 Cans and
Trussing Systems supplied

VALIANT

UK Largest Stockist of film,
television and photographic
lamps.
Tel: 071-736 8115
Fax: 071-731 3339

ELECTRO PLATING SERVICES

Lebron Plating Ltd
Specialist in plating on
aluminium and
electrophoretic coatings to
the lighting industry.
Tel: 021-568 6689
Fax: 021-526 5322

EMERGENCY LIGHTING CONTROL GEAR

SMART &
BROWN
Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625

Tridonic
Tridonic Ltd.,
Hampshire International
Business Park,
Crockford Lane,
Chineham, Basingstoke,
Hampshire RG24 0NA
Tel: 0256 707000
Fax: 0256 707002

SMART &
BROWN
Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221

To advertise in
this Directory contact
Alastair Moyes

WHERE TO BUY DIRECTORY

Telephone:
081-975 9759

EMERGENCY LIGHTING EQUIPMENT

Armeda Lighting and Fire Ltd.,
Unit 1, Huxley Close,
Plympton,
Plymouth PL7 4JN
Tel: 0752 342942
Fax: 0752 342864

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

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

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



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

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



Light Source Supplies
Millars One, Southmill Road
Bishops Stortford,
Herts CM23 3DH
Tel: 0279 652143
Fax: 0279 504318
Wide range of krypton,
xenon, halogen and many
other low voltage bulbs.

Menver (Electronic
Engineers) Ltd
Southam Road, Banbury
Oxon. OX16 7RX
Tel: 0295 256363
Fax: 0295 270102

PLASMOLD
Plasmold Safety Systems Ltd.,
Bruntcliffe Lane,
Morley, Leeds, LS27 0LZ
Tel: 0532 539119
Telex: 556322
Fax: 0532 535665

Selite

Selite Ltd
19 Stafford Road,
Croydon CR0 4NG
Tel: 081-686 9919
Fax: 081-680 9288
Telex: 917759

FLUORESCENT & COMMERCIAL LIGHTING

MANLIGHT
LIGHTING
LIMITED

Wilmore House,
The Mews, Hollybush Lane,
Sevenoaks, Kent TN13 3TH
Tel: 0732 451744
Fax: 0732 456205
The office of Ronald Dury!

FLUORESCENT COMPONENTS AND ACCESSORIES



Advanced Lighting Industries,
Electronic Fluorescent
Starters,
Electronics and Adapters,
Motem House,
Brooker Road,
Waltham Abbey,
Essex EN9 1JW
Tel: 0992 88668



Sole UK Agent and
Distributor
Hylec Eletro Gibi (UK) Ltd
Unit 4, Trinity Centre,
Wellingborough
Northants NN8 3ZB
Tel: 0933-677633
Fax: 0933-675771

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901



Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625



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



Tridonic Ltd.,
Hampshire International
Business Park,
Crockford Lane,
Chineham, Basingstoke,
Hampshire RG24 0NA
Tel: 0256 707000
Fax: 0256 707002

FLUORESCENT/ DISCHARGE CONTROL GEAR



Control Components (EW) Ltd
3 Macadam Road
Corby, Northants NN17 2JN
Tel: 0536 402403
Fax: 0536 402419



Helvar Ltd.,
1 Ealing Road Trading Est.
Ealing Road, Brentford,
Middlesex TW8 0QY
Tel: 081-568 6205
Fax: 081-568 6473
Telex: 291439 HELVAR G



249 Seaside, Eastbourne,
East Sussex, England
BN22 7NT.
Tel: (0323) 410105
Fax: (0323) 410161

FLUORESCENT & COMMERCIAL LIGHTING

MANLIGHT
LIGHTING
LIMITED

Wilmore House,
The Mews, Hollybush Lane,
Sevenoaks, Kent TN13 3TH
Tel: 0732 451744
Fax: 0732 456205
The office of Ronald Dury!

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901



Manufacturers of
OPTIMA control gear
May & Christe Ltd
Unit 22, Mead Park,
River Way, Harlow
Essex CM20 2SE
Tel: 0279 422540
Fax: 0279 421570



Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625



Tridonic Ltd.,
Hampshire International
Business Park,
Crockford Lane,
Chineham, Basingstoke,
Hampshire RG24 0NA
Tel: 0256 707000
Fax: 0256 707002



Vossloh-Schwabe UK Ltd
38 Tanners Drive
Blakelands
Milton Keynes MK14 5BW
Tel: 0908 611060
Fax: 0908 613131

GARDEN LIGHTING

Alectralink Distributing Company
Unit 5, Popin Building,
Southway, Wembley,
Middlesex HA9 0HB
Tel: 081-900 2322
Fax: 081-903 3403
New range low voltage
path and garden lights
only knee high! + five way
garden transformer to suit.
Low voltage sunken
Uplighter with integral
transformer.



Gewiss UK Limited
Bumpers Way
Chippenham SN14 6LH
Tel: 0249 444734
Fax: 0249 444514
Cylindrical and angle
luminaires to IP55

GEAR TRAYS



Unit 5, Bay Works,
Eastbourne BN24 6EG.
Tel: 0323 767904
Fax: 0323 767133
Assemblers of all forms of
lighting. Design and
manufacture undertaken.



Jerrard Bros PLC
Arcadia House
Cairo New Road
Croydon CR0 1XP
Tel: 081-688 8222
Fax: 081-681 3119
Standard and made to
measure fluorescent gear
trays and control boxes.
"BS 5750 approved"

Lighting Components Limited

249 Seaside, Eastbourne
East Sussex, England
BN22 7NT
Tel: (0323) 410105
Fax: (0323) 410161

GENERATING SETS

Brimotor Ltd.,
Tel: 0892 37588
Fax: 0892 27724
Telex: 95446+Floodlighting

GLOBES



Veralux Ltd
Tel: 071-402 1997
Fax: 071-402 1998
Spheres and other
architectural shapes in
Polycarbonate, Acrylic and
Kamax, injection/blow
moulded.

HEAT RESISTANT LAMP COVERS



Tornado Lighting
235 Upper Richmond Road
Putney
London SW5 6SN
Tel: 081-788 2324
Heat resistant glass covers
for Tungsten Halogen lamps
in both clear and opaque
with various clip. For
information contact above.

LAMPHOLDERS



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

IMI Reeves Lampholders

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



Lighting & Electrical Components
Ltd
Unit 1A, Bill House,
222 Soho Hill (off Villa Rd)
Hockley,
Birmingham B19 1AP
Tel: 021-554 9924
Fax: 021-554 5243

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901

S. Lilley & Son Ltd

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

BENDER + WIRTH



Sole Agent and Stockist
C. Quitman Ltd
Ullswater Crescent
Marlpit Lane, Coulsdon
Surrey CR5 2HR
Tel: 081-668 5295/6
Fax: 081-660 2589



Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Tlx: 25534 TELC G
Fax: 081-685 9625

Studen Products Ltd.,
Hedgehog House,
Unit 8,
Caldershaw Centre,
Rooley Moor Road,
Rochdale OL12 7NR
Tel: 0706 45225
Bakelite and brass wired
holders.



Vossloh-Schwabe UK Ltd.,
38 Tanners Drive,
Blakelands,
Milton Keynes MK14 5BW
Tel: 0908 611060
Fax: 0908 613131

LAMP COLOURING

Lampcolors Ltd.,
Wiseman Street,
Burnley,
Lancs BB11 1RU
Tel: 0282 56231/2

The largest independent
lamp spraying company
in Europe, with the fastest
turnround of orders in the
business.

Lampspray (Lampcolourers)
Unit 41/42,
Cromwell Industrial Estate,
Stafford Road, London E10
Tel: 081-539 7785

LAMPSHADE AND BASE MANUFACTURERS

The London Trend Lighting Co. Ltd.,
3/5 Coxtie Green Road
Pilgrims Hatch, Brentwood,
Essex CM14 5PN
Tel: 0277 374247
Fax: 0277 374949

LAMP SHADE FRAMES

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

C and G Weir (Glasgow) Ltd.,
Tel: 041-554 3126
Quality lampshade frames,
ringsets and shade carriers,
nylon coating, U.K. delivery.

LAMPSHADES

Anglian Lighting

Soft Fabric Lampshades
Halesworth
Suffolk IP19 8BZ
Tel: 0986 875250
Fax: 0986 873555

LAMPS AND LIGHTING

AMERICAN Lamps & Lighting

American Lamps and Lighting Ltd.,
Unit 2, Tudor Estate
Abbey Road, Park Royal
London NW10 7UY
Tel: 081-965 6800
Fax: 081-965 0950



Chadwell T.S.M. Ltd.,
Units 1 & 2
Southbrook Mews,
Southbrook Road, Lee,
London SE12 8QL
Tel: 081-318 5071



G. E. Tungsram Lighting Ltd.,
Nene House, Drayton Way
Daventry, NN11 5EA
Tel: 0327 77683
Fax: 0327 76386
Telex: 311684 IGE DAV

GLOW BALL LIGHTING LTD

To advertise in
this Directory contact
Alastair Moyes

WHERE TO BUY DIRECTORY

Telephone:
081-975 9759



Kingfisher Works
Main Road, Langwith
Mansfield NG20 9BH
Tel: 0623 748090
Fax: 0623 746532



Medlock Electric Ltd.,
605-609 Green Lanes
Harringay, London N.8
Tel: 081-340 3242
Fax: 081-341 6791

LIGHT MEASURING INSTRUMENTS



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

Megatron Limited,
165 Marlborough Road,
London N19 4NE
Tel: 071-272 3739
Fax: 071-272 5975

LIGHT SOURCES & COMPONENTS TO OEM MANUFACTURERS



Miles Road
Mitcham
Surrey CR4 3YX
Tel: 081-640 1221
Fax: 25534 TELC G
Fax: 081-685 9625

LOW BRIGHTNESS VDU LOUVRES



A.L.C. Cellite Ltd.,
Unit 16 Adler Ind. Est.,
Betam Road, Hayes,
Middlesex UB3 1ST
Tel: 081-848 1881
Fax: 081-569 1837

LOW VOLTAGE TRACK SYSTEMS



Lamplighter House,
Shropshire Road,
Bognor Regis,
West Sussex PO22 9LL
Tel: 0243 829040
Fax: 0243 829051

MANUFACTURERS OF SPECIAL AND PURPOSE MADE FITTINGS



Unit 29, Mochdre Ind
Estate, Newtown,
Powys, SY16 4LE
Wales. Tel: 0686 625797
Fax: 0686 623084
London. Tel: 081 857 3565
Fax: 081 857 0964
Specialist Fitting, Louvre &
Reflector, Manufacturer.
Write or phone for details.

SONDIA LIGHTING LTD.

45 Portland Place,
Hull, HU2 8QP
Tel: (0482) 223353
Fax: (0482) 26811
Design and manufacture of
special purpose light fittings.
Sub-contract sheet
metalwork and assembly.



Luna Lighting Ltd.,
Swindon SN6 8TZ
Tel: 0793 784400
Fax: 0793 784488
Designers and
manufacturers of luminaires to
architects instructions.



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

SYMONDS

Symonds Engineering plc,
High Street, Cheshunt,
Herts EN8 0BU
Tel: 0992 262222
Telex: 28725
Fax: 0992 37738
Luminaires/louvers, major
trade suppliers.
BS5750 part 2.
Contact: Lee Freeman.

METAL FINISH PLASTIC BASES & FITTINGS

Febus Agencies
75 Jackson Street
Manchester M32 8BA.
For bases, risers, breaks
etc, ring 061-865 4237 or
061-872 3276

METAL PRESSWORK

TRANSTEEL COMPONENTS LTD.
Trinity Road, Richmond
Surrey TW9 2LG
Tel: 081 948 8822
Fax: 081 948 1998
Metal Pressing and Deep
Drawing for the Lighting
Industry.

METAL PRESSWORK AND POWDER COATING

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

METAL SPINNERS

A. L. Munro (B'ham) Ltd.,
46 New Summer Street
Newtown, Aston
Birmingham B19 3TG
Tel: 021-333 3454
Fax: 021-359 6865
Metal Spinning and deep
drawn presswork for the
lighting industry.

Anglia Spinners,
Spinners, Presswork,
Spraying & Finishing,
Unit 115a,
Little Staughton Airfield,
Little Staughton, Beds
Tel: Colmworth 0230 62 398
Fax: 0230 62506

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

E.G. Sheet Metal Works,
Metal spinners and
general sheet metal
workers. A complete
service to the lighting
industry.
Third Way,
Exhibition Grounds,
Wembley, Middlesex
Tel: 081-902 2153
081-903 3171

JACKSONS GENERAL METAL SPINNERS

Prototypes and small
quantities a speciality
Unit 1
Noke Lane Business
Centre
Noke Lane, St. Albans
Herts AL2 3NY
Tel: 0727 46038
Fax: 0727 46658

Aman Metal Spinners
Complete lighting service
capacity includes:
Metal spinning &
presswork, powder
coating, metal polishing,
wet spraying, brassing,
electrical assembly, deep
drawn steel spotlights.
Tel: 0685 811882
Fax: 0686 813861

METAL SPINNING/ASSEMBLY ANODISING/PRESSWORK METAL WORK/SPRAYING

Shaw Metal Spinners Ltd.,
Injection Moulders &
Component suppliers. The
complete Lighting Services.
Tariff Road, London,
N17 0EJ
Tel: 081-808 1271
Telex: 25545

MODULAR LUMINAIRES ENERGY SAVING & EMERGENCY LIGHTING

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

NATURAL LIGHT LAMPS SUNODYM AND SUNGRO LITE



Sungro-Lite Ltd.,
Tel: 081-459 2636
Fax: 081-459 4130
From main elec w/salers.

OPERATING AND MAINTENANCE INSTRUCTION MANUALS

Nash Draughting Services,
Enterprise House,
181-189 Garth Road,
Morden, Surrey SM4 4LL
Tel: 081 330 7566

PETROL FORECOURT UNDER CANOPY LIGHTING UNITS

National Signs Limited,
1 Hampshire Street,
London NW5 2TE
Tel: 071-485 3363
Fax: 071-284 1700

PHOTOMETRY

B.S.I. (reg) Laboratory
Photometry/Reflector
Design and development
Exterior and Interior
luminaires.
Tel: Dr Harold Pfitzman
(0920) 462272
Charles House, Furlong
Way, Gt. Amwell, Ware,
Herts SG12 9TA

PICTURE LIGHTS

JCC
LIGHTING PRODUCTS

JCC Marketing,
Lamplighter House,
Shropshire Road,
Bognor Regis, West Sussex,
PO22 9LL

Tel: 0243 829040
Fax: 0243 829051
A range of traditional picture
lights available in brass,
satin, reeded and gilt.

PLASTER WALL UPLIGHTS



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



Tornado Lighting
235 Upper Richmond Road,
Putney, London SW15 6SN
Tel: 081-788 2324
For top quality wall lights in
T/Halogen GLS and PL.
Phone or write for brochure.

POLYCARBONATE GLOBES



Keylighting Components
Royd Mill, Cowling
N. Yorks, BD22 0BE
Tel: 0353 635922
Fax: 0353 633546
Cube Sphere Amphora
Opal Smoke Clear
Polycarbonate and Acrylic
150mm through to 500mm
Screw and Bayonet neck
fixing. Full range of galleries.
Wall brackets posts.
All Ex-Stock.

POWDER COATING AND STOVE ENAMELLING

TRINITY ENAMELLERS LTD.
Trinity Enamellers Ltd.,
Trinity Road, Richmond,
Surrey TW9 2LG
Tel: 081 948 9152
Fax 081 948 1998
Powder Coating and Stove
Enamelling for the Lighting
Industry.

PROTOTYPES

ARRK EUROPE LTD
Arrk Europe Ltd.,
London NW10 7PA
Tel: 081-961 6366
Manufacturers of models
and prototypes for lighting
companies in all materials.

RECESSED LIGHTING

JCC
LIGHTING PRODUCTS

Lamplighter House,
Shropshire Road,
Bognor Regis,
West Sussex PO22 9LL
Tel: 0243 829040
Fax: 0243 829051
A full range of recessed
lighting in Energy Saving
Low Voltage and 240 Volt
Mains.

REFLECTORS

Tridonic
Tridonic Ltd.,
Hampshire International
Business Park,
Crockford Lane,
Chineham, Basingstoke,
Hampshire RG24 0NA
Tel: 0256 707000
Fax: 0256 707002

SELF ADHESIVE LABELS AND BASE COVERS

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

SPECIAL & PURPOSE MADE FITTINGS

DAVIS CASH

Davis Cash & Co. Ltd.,
Alexandra Road,
Ponders End, Enfield,
Middx EN3 7EN
Tel: 081-804 4028
Fax: 081-805 2896
Quality manufacturing
service to customer
drawings.

PSM

P.S.M. Dunbar & Co.,
Hedley Works
Hedley Road, St Albans
Herts, AL1 5JC
Tel: 0727 45829
Fax: 0727 45830
Manufacturer of specialist
lighting. Full C.N.C.
production, BS5750/AP.

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

SPRINGS AND CLIPS

Simpson Springs & Pressings Ltd
Unit 4 Station Ind Estate,
Oxford Rd, Wokingham,
Berks RG1 2YQ
Tel: 0734-786573
Fax: 0734-894434
Manufacturers of all types of
Springs & Clips for the
Lighting Industry.

STANDARD & SPECIAL LUMINAIRES & FLUORESCENT LIGHTING DESIGN SERVICE

IMP Lighting Ltd.
IMP Lighting Ltd.
Unit 29, Mochdre Ind
Estate, Newtown,
Powys, SY16 4LE
Wales. Tel: 0686 625797
Fax: 0686 623084
London. Tel: 081 857 3565
Fax: 081 857 0964

Toroid Technology Ltd.,
175A Brigstock Road,
Thornton Heath,
Surrey CR7 7JP
Tel: 081-689 8002, 684-4217
Telex: 881327 Gecoms G
Fax: 081-689 0002

SUPPRESSION COMPONENTS

Almag
Almag Ltd.,
17 Broomhills, Rayne Rd.,
Braintree, Essex CM7 7RG
Tel: 0376 45200
Fax: 0376 551917
Manufacturers of Toroidal
chokes for dimmers,
electronic ballasts and
electronic transformers.

TOWER/MASTS FLOODLIGHTING

Strumech Versator Ltd
Portland House,
Coppice Side, Brownhills,
Walsall WS8 7EX
Tel: 0543 452321
Fax: 0543 361050
Static and Portable
Floodlight Units

Apex Inductive Devices
27 Abbey Manufacturing
Estate, Mount Pleasant,
Alperton,
Middlesex HA0 1RD
Tel: 081-903 2944
Telex: 881327
Fax: 081-903 7944
Manufacturers of
Suppression Chokes and
Toroids for Dimmers,
Emergency Lighting and
Low Voltage Systems.

Hhv Components Ltd
11 Prospect Drive, Lichfield
Tel: 0543 416667
Fax: 0543 416140
Thermal Fuses/Cut-Outs/
NTC Range: 5/330C
Loads: 15A/250V

MCB Components Ltd.,
82 Wick Street, Littlehampton
Tel: (0903) 715503
Telex: 877560 BMFBRS G
Fax: (0903) 715431
Full range of thermal cut-
outs. Temps 70C to 150C.
Auto/manual reset options.

Economy Lighting Ltd.,
For fully approved (EN60/
742 & UL) toroidal L/V
transformers, 18 models
20Va-750Va, inbuilt splitters
specials on request
Tel: 081-420 1810
Fax: 081-420 1813

Toroid Technology Ltd.,
175A Brigstock Road,
Thornton Heath,
Surrey CR7 7JP
Tel: 081-689 8002, 684-4217
Telex: 881327 Gecoms G
Fax: 081-689 0002

Lighting Equipment News, June 1991

To advertise in
this Directory contact
Alastair Moyes

WHERE TO BUY DIRECTORY

Telephone:
081-975 9759

TRADITIONAL EXTERIOR &
INTERIOR LANTERNS &
LIGHT FITTINGS



Birmingham B11 3EY
Tel: 021-707 6936
Victorian Lamps, Posts etc.,
Illuminated and Plain
Bollards.

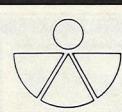
TRADITIONAL WOOD
FITTINGS AND
WALL BRACKETS

S. Smith (E.F.) Ltd.,
85 Abercromby Avenue,
High Wycombe,
Tel: 0494-21667

TRANSFORMER
MANUFACTURERS



Ambience
Hills Street
Halfmoon Lane
Gateshead NE8 2AS
Tel: 091 490 1533
Fax: 091 490 1250



APEX INDUCTIVE DEVICES

27 Abbey Manufacturing
Estate, Mount Pleasant,
Alperton,
Middlesex HA0 1RD
Tel: 081-903 2944
Telex: 8813237
Fax: 081-903 7944
Manufacturers of Inverters
and Switching Transformers.



H. A. Birch & Co Ltd.,
Progress Drive, Cannock,
Staffs WS11 3JE.
Tel: 0543 506226
Fax: 0543 579180

Manufacturer specialising in
toroidal and laminated
transformers ranging from
3VA up to 750VA for
lighting, industrial controls,
medical and leisure industry
applications. Quality
products in accordance with
British and international
standards.

Cumbernauld Transformers Ltd.,
18-20 West Lenziemill
Industrial Estate,
Cumbernauld,
Glasgow G67 2XT

Tel: 023-67 25914
Telex: 777350
Full range of low-voltage
transformers available.



Sole Agent and
Distributor

Hylec Elettrico Gibi (UK) Ltd
Unit 4, Trinity Centre,
Wellingborough
Northants NN8 3ZB
Tel: 0933-677633
Fax: 0933-675771

Lighting
Components
Limited

249 Seaside, Eastbourne
East Sussex,
England BN22 7NT
Tel: (0323) 410105
Fax: (0323) 410161

LIGHT SOURCE

Light Source Electrical
Equipment Ltd.,
Lightsource House,
24 Scrubs Lane,
London NW10 6RD
Tel: 081-960 2188
Telex: 915506
Fax: 081-960 8901

MAY &
CHRISTE

Electronic and
wound transformers
May & Christe Ltd
Unit 22,
Mead Park,
River Way,
Harlow,
Essex CM20 2SE
Tel: (0279) 422540
Fax: (0279) 421570

ORBIK

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

RAM

Ram Electronics (UK) Ltd.,
Iron Row,
Burley in Wharfedale,
West Yorks LS29 7DB.
Tel: 0943 863884
Telex: 518285 RAM G
Fax: 0943 862630
Electronic Transformers for
low voltage lighting and hard
fired dimmers for electronic
and conventional lighting
transformers.

UNIVERSAL
TRANSFORMERS

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

UNDERWATER LIGHTING

BEGA

Exterior-Lite Services Ltd.,
Unit 4, The Empire Centre,
Imperial Way, Watford,
Herts, WD2 4YH
Tel: 0923 247254
Fax: 0923 226772

ULTRA VIOLET/SPECIALIST
LAMPS & EQUIPMENT

Starna Ltd.,
33 Station Road,
Chadwell Heath, Romford,
Essex RM6 4BL
Tel: 081-599 5115
Fax: 081-599 5415

U.V. Systems Ltd.,
PO Box 797, Sudbury,
Suffolk CO10 6PL
Tel: (0787) 76259

VICTORIAN REPRODUCTION
GAS AND ELECTRIC
LIGHT FITTINGS

The Copper Lamp Co Ltd.,
Nuths Lane, Hinckley
Leics LE10 3EJ
Tel: 0455 633140
Fax: 0455 632664

D. W. Windsor Ltd
Marsh Lane,
Ware, Herts
SG12 9QL
Tel: 0920 466499
Fax: 0920 460327

WOOD FLOOR
STANDARD LAMPS

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

ZONES 1 & 2 BASEEFA
APPROVED LIGHTING
FITTINGS

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

081-975 9759

CLASSIFIED ADVERTISEMENTS

081-975 9759

Divisional Manager (Board Potential)

Contracts Service And Maintenance -
Industrial Products

West Yorkshire, Salary Package c £45,000, Car, Benefits

You will have full day to day responsibility for the performance of an expanding department engaged in providing maintenance services for this forward looking £20m UK based company. Aged mid thirties plus, with proven senior management experience in running a substantial department you will be accountable to the Board for developing a fast growth business of high potential. A background in lighting or electrical contracting and experience in dealing with sub contract labour would be suitable. Since the growth of the maintenance division has been identified as key company strategy, the ideal candidate should be able to demonstrate a successful business development record in a sales/customer service environment. Success in this position, coupled with profitable growth of the division, could lead to a Board appointment.

Male or female candidates should submit in confidence a comprehensive c.v. or telephone for a Personal History Form to,
J.A. Thomas, Hoggett Bowers plc, 7 Lisbon Square, LEEDS, LS1 4LZ,
0532-448661, Fax: 0532-444401, quoting Ref: A40003/LEN.

Hoggett Bowers

BIRMINGHAM, BRISTOL, CAMBRIDGE, EDINBURGH, LEEDS, LEICESTER, LONDON, MANCHESTER,
NEWCASTLE, WINDSOR and EUROPE

bernilight

SALES ENGINEER

Bernilight, an established manufacturer of custom built and standard luminaires, has an opportunity for a Sales Engineer based in the North East.

We offer an unbeatable package with career potential for a true professional.

Contact Bernard Wisniewski, Bernilight, Wansbeck House, 295
Elswick Road, Newcastle-upon-Tyne NE4 8DL. Tel: 091-273 0750.

Top Sales Professionals

London, Home Counties
and Nationwide



SPECIALIST RECRUITMENT SERVICE
FOR THE LIGHTING INDUSTRY

FOR CANDIDATES: Excellent Career/Promotion opportunities with leading Manufacturers and Distributors in the Lighting Industry.
Sales Professionals £16/22K + CAR.
Management Positions £22/30K + CAR.

FOR CLIENTS: Immediate access to high Calibre Candidates, plus tailor-made Advertised Searching and Headhunting Service.

For further information call Dominic Grudzien

James Knight

SALES & EXECUTIVE SEARCH
Knight House, 29-31 East Barnet Road, Barnet,
Herts EN4 8RN (Fax: 081-449 6262)

Tel: 081-449 4111

Technical Lighting Sales

London/Mids/NW

£27K OTE

Technical Sales Engineers are sought by expanding international lighting manufacturer to develop their commercial lighting sales in London, Midlands and the North West.

Candidates must be experienced lighting professionals with a proven track record of sales success with specifiers, architects, consultants and major end-users. Please telephone Steve Andrews on 071-493 7303 or write in strictest confidence to:

Arlington Consultants Ltd.

SEARCH & SELECTION

45-46 New Bond Street, London W1Y 9HB

•SELL•

•SELL • LEND •

•VEND•

•DEAL•

•WEAL•

•IMPORT•

•EXPORT•

•BUYER•

•SPECIFIER•

•ARRANGE•

•EXCHANGE•

•REPRESENTATIVE•

•ALTERNATIVE•

•PROSPEROUS•

•PROFITABLE•

•VENDOR•

•SENDER•

IT'S ALL IN
L.E.N.
CLASSIFIED
TELEPHONE
ALASTAIR
081-975 9759

SALES ENGINEER LIGHTING CONTROLS

EAST ANGLIAN/LONDON BASED

Home Automation have an enviable reputation within the electrical wholesaling industry for innovation, quality and design.

We now seek an enthusiastic and imaginative achiever to introduce our expanding range of lighting control products to contractors, specifiers and consultants, as well as an existing wholesaler base. You will already be working within the lighting industry and need a new challenge.

Please send your CV with covering letter to Alex Cother, UK Sales & Marketing Manager at the address given below.

Home Automation
Home Automation Limited
Bumpers Way, Chippenham, Wiltshire SN14 6LF

DELTA

JCC
LIGHTING
PRODUCTS

SALES REPRESENTATIVE REQUIRED

For progressive lighting company to call on electrical wholesalers in the following areas:
Bucks, Berks, Avon, Hants, Dorset, Wilt, Glos., Somerset and Oxon. Applicants should be of smart appearance and be able to communicate on all aspects of lighting sales. Company car, salary negotiable. Apply in writing, including full C.V. to:

Sales Director, JCC Lighting Products, Lamplighter House, Shropshire Road, Bognor Regis, West Sussex PO22 9LL

081-975 9759

SALES/MARKETING d i r e c t o r

LIGHTING MANUFACTURE
NORTHERN HOME COUNTIES

£37,000 + car and benefits

Medium sized, profitable and expanding Company wishes to strengthen its Management team to ensure continued growth.

Applicants should be aged 32-45, ideally already a director with experience including exporting and definitely in the Lighting Industry.

If you are forward thinking and prepared for hard work then please send a detailed c.v. including salary and benefits to, Sarah Pavay at Christian Davies Advertising Consultants, 3 The Mews, Brickendonbury, Brickendon Lane, Hertford, Herts SG13 8NP; quoting ref. SP1320.

Christian Davies
A D V E R T I S I N G

LIGHTING EQUIPMENT SALES

c. £21,500 + car

Sales to specifiers in London, Home Counties, Midlands, North West etc.

**TELEPHONE (0903) 820446
TODAY!**

K. P. Personnel

SALES AGENTS

required for
**OXON/THAMES VALLEY
& SCOTLAND**

This design lead, expanding company, marketing their **design, supply** and **installation** services, require sales agents for the above areas that already call on all specifiers, contractors and large end users.

Full details to:

Halder House, Peterley Road, Oxford OX4 2TY
Tel: 0865 749196

REDUNDANT/BANKRUPT STOCK WANTED

Surplus stocks of decorative lighting required. Finished product preferred but components considered.

Write in confidence to Richard Martins
Box No. 1500
Lighting Equipment News, Maclean Hunter Ltd.,
Maclean Hunter House
Cockfosters Road, Chalk Lane, Barnet, Herts EN4 0BU

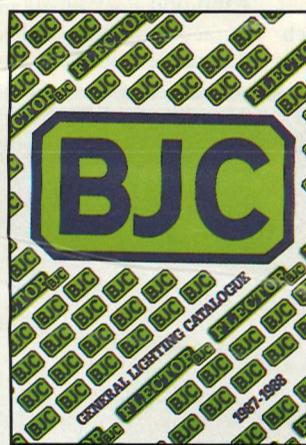
CATALOGUE DIRECTORY

Every year companies spend huge amounts of time developing catalogues and one of the biggest problems they face is publicising and distributing them to specifiers. If you have a catalogue, printed or in production, which is targeted at lighting specifiers then this section can help you.

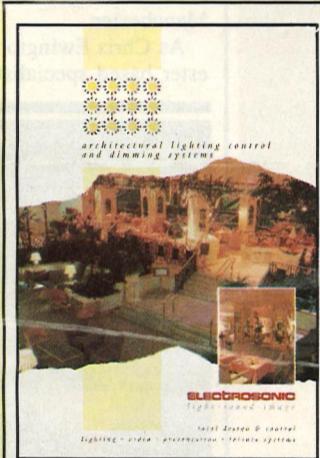
Contact Alastair Moyes on 081-975 9759

CATALOGUE DIRECTORY

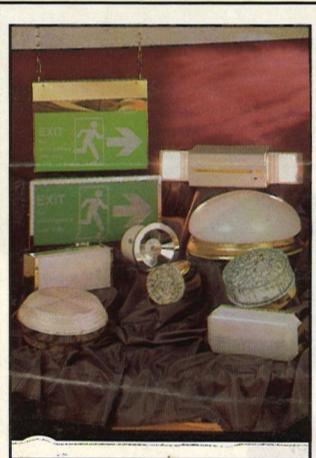
081-975 9759



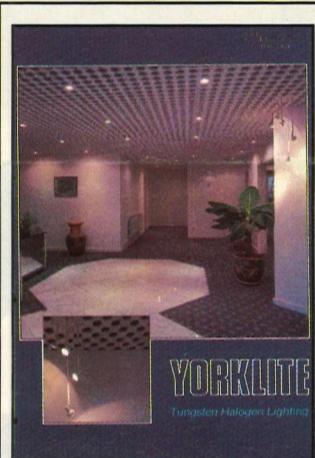
Acorn Lighting are pleased to announce that the BJC product range has been added to their portfolio of products. BJC offer a range that includes street & amenity lighting, industrial lighting, floodlighting & lighting for security. The whole product range is manufactured to the highest quality standards: circle 90



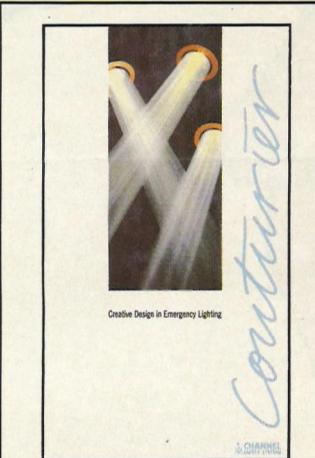
Whatever the application, from hotel to museum, shopping complex to a church, Electrosonic's range of architectural lighting control and dimming systems can meet your requirements. Electrosonic's expertise is world renowned, with over 25 years' experience. From a single channel dimmer up to a custom-built computer controlled network, Electrosonic is there: circle 91



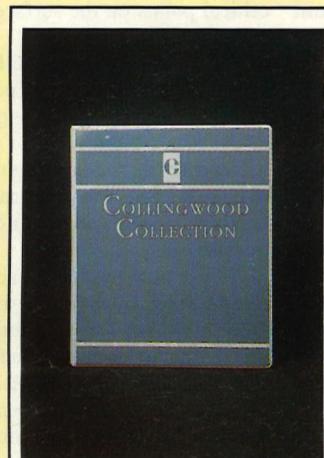
Catalogue Update
Introduced by JSB Electrical is a range of prestige luminaires which includes the new Carina with crystal glass and a brass body. It is available as an emergency luminaire in maintained, non-maintained and slave options with a matching mains version. All are available with a choice of surface or semi-recessed mounting: circle 92



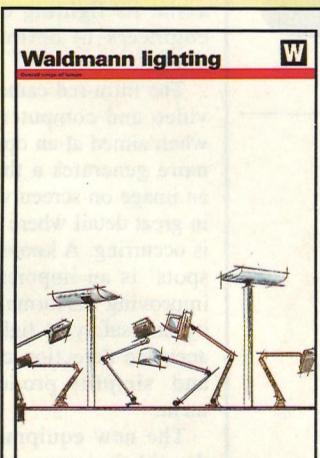
A new brochure from Yorklite illustrating an extensive range of Tungsten Halogen lighting for open cell as well as plain ceilings. Also featured is the unique plug-in Gridline transformer system approved for use with Armstrong 15mm and 24mm Turlok grid suspension systems. Special luminaires also manufactured: circle 93



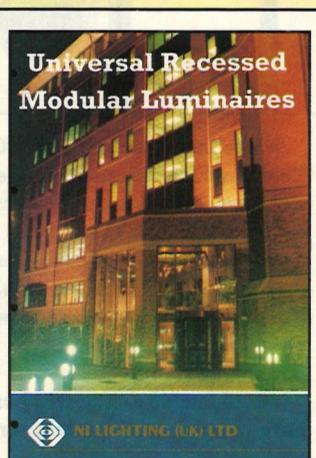
Channel Safety Systems Ltd announce the launch of 'Couturier', a new concept in emergency lighting for the nineties. An innovative range of emergency luminaires designed to present an opportunity to break away from the stolid conventions of the past and apply refreshing creativity to this sector of the market: circle 94



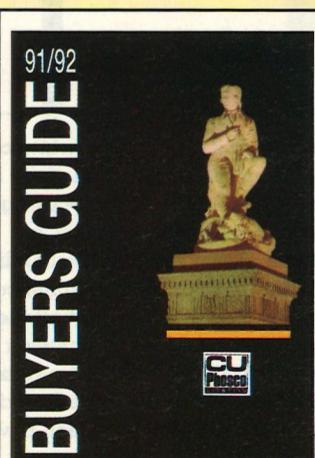
This new detailed and extensive catalogue from Collingwood illustrates many hundreds of components and accessories for use in building decorative luminaires. Product information includes dimensions, materials, temperature, wattage and voltage ratings, approvals, interchangeability and compatibility: circle 95



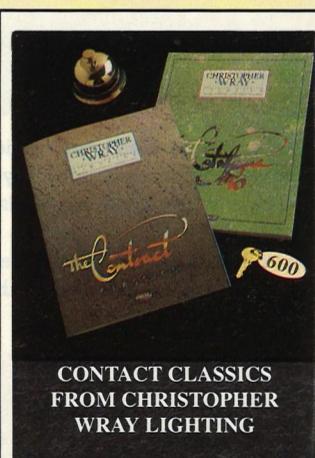
Midland Machinery Services have published a new 68 page catalogue showing the range of Waldmann Industrial Lighting. The catalogue shows the various office and industrial applications, most of which are available in various voltages and frequencies and with sealing up to IP67. A full range of accessories is also shown in the full colour publication: circle 96



N.I. Lighting's new brochure for the Universal Range of recessed modular luminaires. The Universal luminaire can be installed in 95% of ceiling systems, with attachments including parabolic low brightness louvres, Wedge VDU and white louvres, prismatic lens, opal diffusers, and custom built attachments: circle 97



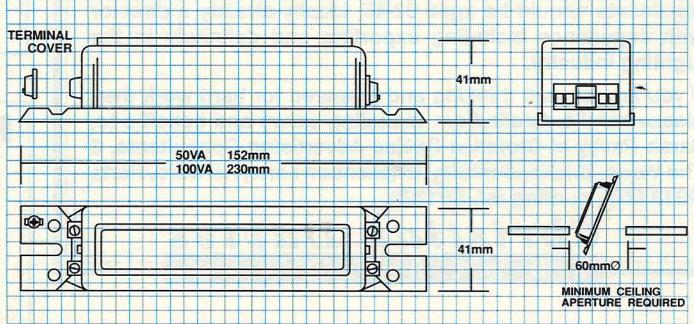
CU Phosco Lighting's new 84 pages of ideas for the outdoor environment including, Lanterns, traditional and modern; Columns in steel, aluminium and concrete; High Masts up to 50m; Floodlights up to 2Kw; Bollards; Benches and Litter Bins (Victor Stanley): circle 98



The Contract Classics from Christopher Wray Lighting is a 64-page full colour supplement to the company's Catalogue Number 10 especially designed for the contract market. With full technical information and advise on energy saving systems, The Contract Classics highlights the enhanced service Christopher Wray Lighting offers from each of thirteen outlets: circle 99

BOXER Low Voltage Transformers

Overload & Short Circuit Protection **Thermal Cut Out/Reset**
Compact Construction **Class H Windings (220°)**
Components Vacuum Impregnated **Segregated Windings**
Complies with CEI Standards **Wire Wound Construction**
Mounts Through Downlighter Hole **50VA & 100VA Versions**



TECNOLUX®

FORMA LIGHTING LIMITED
 Business Design Centre, London N1 0QH.
 Tel: 071 288 6025 Fax: 071 288 6057

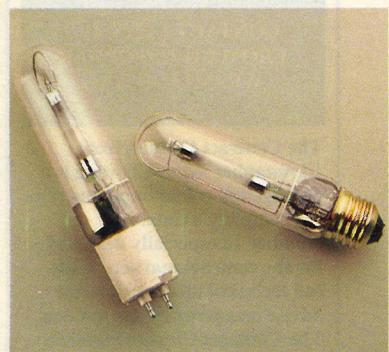
Reader Service No. 24

**FOR BETTER BLUES, GREENER GREENS
 AND BRIGHTER REDS, TRY WHITE.
 WHITE LUCALOX.**



For an unequalled combination of colour brilliance, dependability and economy, White Lucalox stands on its own.

With White Lucalox you get an incandescent like colour with the added benefit of high efficacy.



Because it gives a true white colour, without the slightest shade of blue or green, it's ideal for focusing attention on display areas or highlighting special merchandise. White Lucalox's exceptional colour performance brings out all the richness of detail in whatever you're trying to show - from the intricate texture of woven fabrics to the lush colours of fresh flowers.

White Lucalox comes at 2800° Kelvin, which means it can be easily used with incandescent or halogen sources. It emits no damaging ultraviolet radiation, so there's no need for a UV filter. Nor do you have to worry about damaging fine artwork or perishable items.

White Lucalox - the white light high pressure sodium lamp from...

THE NEW FORCE IN LIGHTING

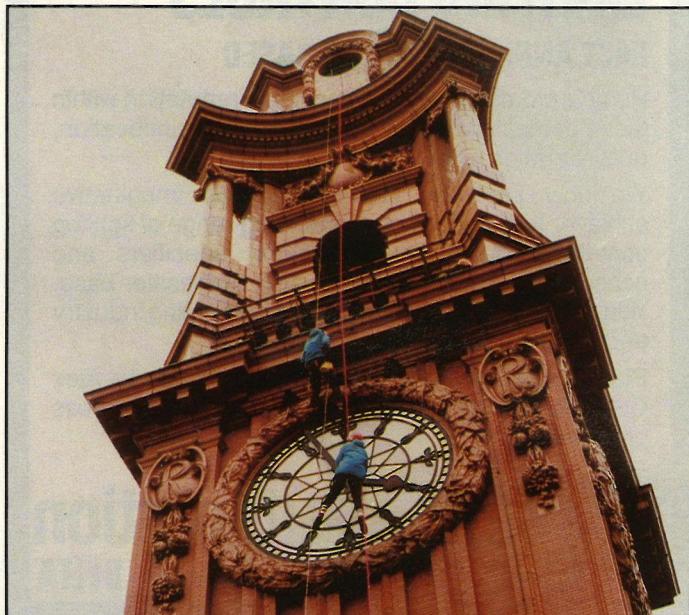


U.S.A.

GE-Tungsram Lighting

GE-Tungsram Lighting Limited, Nene House, Drayton Way, Drayton Fields Industrial Estate, Daventry, Northants. NN11 5EA Tel: (0327) 77683 Telex: 311684 Fax: (0327) 76386

LIGHTING EQUIPMENT NEWS



Northern high lights

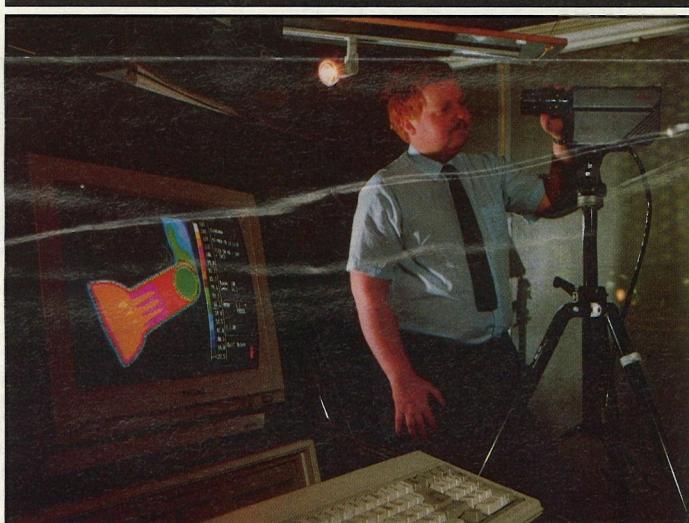
Heard the one about the abseiling lighting specialists? It's not a joke. Seven qualified electricians - who also happen to be experienced rock climbers and abseilers - have been putting the finishing touches to exterior floodlighting of the refurbished Refuge Assurance headquarters buildings in Oxford Street, Manchester.

They have been using their abseiling skills to attach lights in 16 different colours to the building's 66 metre high clock tower, a landmark in city centre Manchester.

As Chris Ewing, of Manchester based specialist contractors

Complete Design Expertise explained: "It is not possible to complete the upper reaches of the tower with scaffolding, hence the need to employ experienced abseilers to install the highest lights. They are all operating under the most stringent of safety measures but nevertheless it is an awesome task."

The floodlighting of this prominent Manchester building is being funded by a £60 000 grant from Central Manchester Development Corporation, which is also paying half of the £200 000 cost of cleaning the terracotta facades and repairing decorative stonework.



Camera acts as design aid

A thermal imaging camera has been commissioned by Thorn to assist its lighting development engineers to optimise product design.

The infra-red camera, linked to video and computer equipment, when aimed at an operating luminaire generates a thermogram - an image on screen which reveals in great detail where heat built up is occurring. A knowledge of 'hot spots' is an important factor in improving performance, reliability and safety of light fittings, so accurate detection can speed up and simplify product development.

The new equipment replaces the old time consuming and trial and error method of testing where

numerous heat detectors, or thermocouples, were placed at critical points on the surfaces of a luminaire.

The trend towards smaller fittings made it difficult to position thermocouples. And siting even the smallest thermocouple within a low profile track system was difficult. So, the accuracy of testing could sometimes be questioned.

As the new system 'reads' the temperature by external means, there is no need to interfere with the fitting to obtain an accurate thermal picture. In addition, it provides important information about heat patterns surrounding luminaires which thermo-couples cannot give.

IN YOUR NEXT ISSUE

Lighting controls can improve the flexibility and convenience of any major lighting installation. Modern controls also make the most of today's high technology light sources. In the July issue of

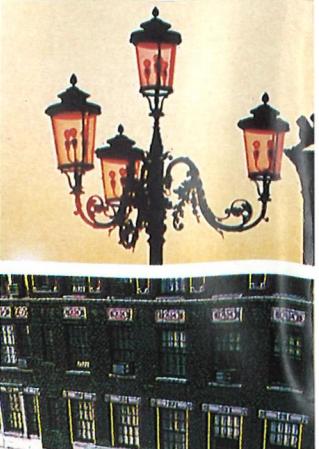
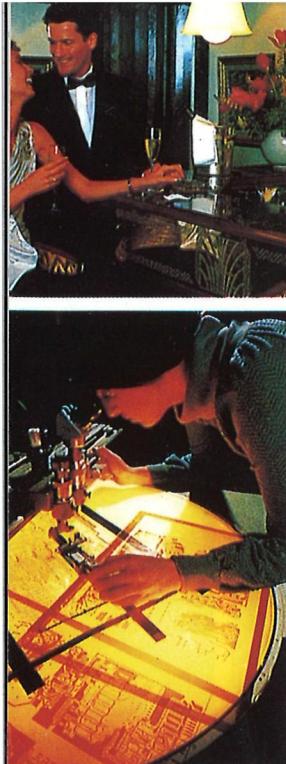
Lighting Equipment News we will be concentrating on this area of the lighting sector and examining some recent schemes which have been adjudged winners of the prestigious EMILAS Awards.

Decorative Lighting



Buyers' Guide 1991/92

- Looking to the future
- Sell by example
- Seeing the light



WHATEVER THE SITUATION WE'RE ALWAYS IN THE SHADE



CAT No.
180

CAT No.
280

The '180' & '280' Series Lampholders are type tested by BSI to BS 5042 : 1987, and are approved for use within the Decorative Lighting Association Code of Practice Quality Assurance Scheme.



DETA ELECTRICAL
TEL: (0582) 842323
DETA HOUSE, LONDON RD, MARKYATE, HERTS AL3 8NR.
FAX: (0582) 842352



Reader Service No. 301

QUALITY ELECTRICAL ACCESSORIES

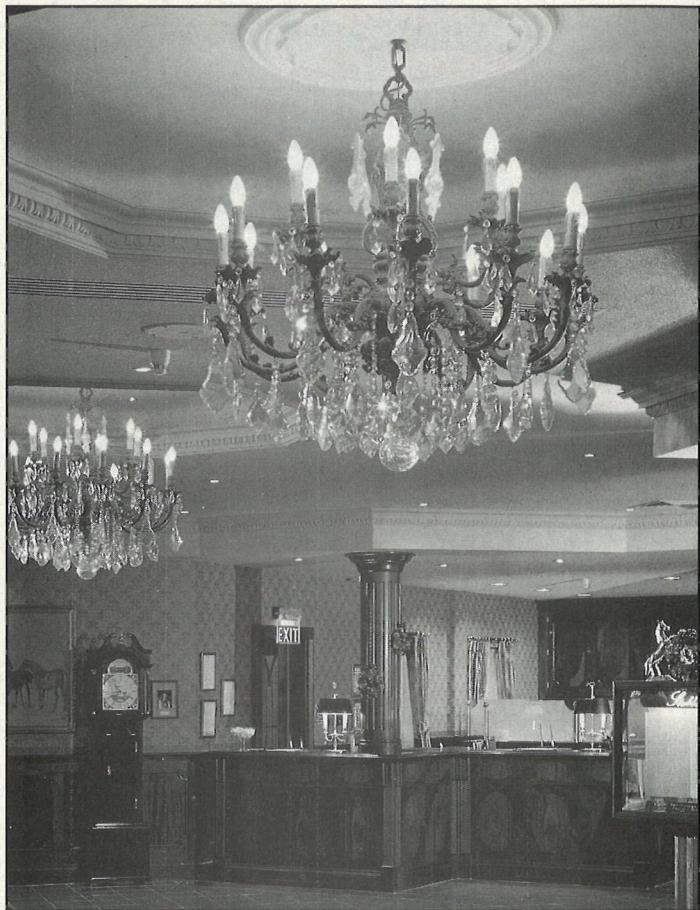
CONTENTS

Decorative Lighting Buyers' Guide 1991/92

Front cover: The Hilton National Hotel at Newbury sets an elegant period interior, featuring a large collection of reproduction paintings by the Regency artist George Stubbs, in a modern open plan setting.

Eighteen-light Louis XV ormolu chandeliers by

Chelsom in weathered bronze finish are set in octagonal ceiling recesses in the reception area and lounge. These are supplemented by low voltage spotlights recessed into the ceiling.



Looking to the future	3
Seeing the light	4, 5
Sell by example	6, 7
DLA list of members	9
Members supplying unlisted products	18
Product classification	19

HOW TO USE THIS GUIDE

First refer to pages 19-28 and locate the type of luminaire in which you are interested under the headings Traditional or Modern. Then in the vertical list of materials on the left hand side of each page find the structural material of the luminaire that you require. By reading down and across the page from these headings you can then locate the key numbers of the manufacturers who produce these fittings. The key numbers are listed in numerical order against the alphabetical list of all members on pages 9-17.

This listing has been compiled on the basis of information supplied to Lighting Equipment News by DLA member companies as at 1 June 1991. For further information on the decorative lighting industry contact the Decorative Lighting Association, Bryn, Bishops Castle, Shropshire SY9 5LE. Telephone: 058 84658.

Editor: Judy Sewell
Associate Editor: Barbara Trigg
Art Editor: Lorna Francis
Advertisement Manager: Jim Hughes
Northern Area Manager: Robert Ditchfield
Classified Sales: Alastair Moyes
Circulation: Kirtee Parmar
Publisher: John Bull
Group Publisher: Nigel Foster

Directors:

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

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

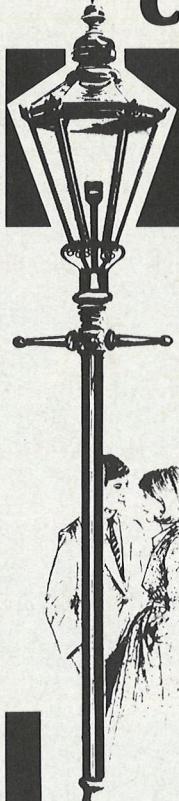
Telephone: 081-975 9759 **Facsimile:** 081-975 9753
Telex: 299072 MACHUN G. Midlands,
Northern Area Office, Tel: Cannock (05435) 72771

Origination by Facsimile Graphics Ltd, Coggeshall, Essex
Printed by E T Heron (Print) Ltd, Heybridge, Maldon, Essex

The 1991-92 Buyers' Guide is published in collaboration with
the Decorative Lighting Association.

© 1991 Maclean Hunter Ltd

The Copper Lamp Company



Manufacturers of
Fine Victorian
Reproduction
Street Lighting

- ★ Lanterns in copper or brass
- ★ Polished, antiqued or black
- ★ Square, round or six-sided
- ★ Range of plain and decorated globes
- ★ Variety of lamp-posts, pedestals and wall brackets
- ★ Discharge gear - factory fitted

Contact:

KEN OAKES
THE COPPER LAMP COMPANY LTD
Unit D, Nutts Lane
Hinckley, Leics LE10 3EJ

Tel: 0455 633140
Fax: 0455 632664

Reader Service No. 302

GET THIS CHART FOR A QUALITY START

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

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

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

Faultless duty and, for the discerning, functional beauty.

Give your customers the quality they want.

Send for your copy of the Reeves Lampholders Product Selector Chart.

IMI Reeves Lampholders

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

B.C.G. SHADES

MANUFACTURERS OF QUALITY LAMSHADES

(0225) 707079

Soft fabric shades lined & unlined
Pleated shades in silk and satin
Laminated P.V.C. shades
Shades can be made to customers own design

FULL COLOUR CATALOGUE AVAILABLE

Specialising in supplying
Retailers, Wholesalers
&
Interior Designers

GOOD AGENTS REQUIRED
TO SELL OUR EXTENSIVE
RANGE OF LAMPSHADES

Unit G11, Avonside Enterprise Park,
Melksham, Wilts. SN12 8BS
Fax: 0225 707926.

Reader Service No. 303

Reader Service No. 304

President's message: Looking to the future

There has never been a time of more importance and opportunity for the Decorative Lighting Association and those connected with it.

Recent months have seen impressive strides in our involvement with other trade bodies throughout Europe, with the end views of strengthening our commitment to single market trading, broadening our membership and improving our overall effectiveness.

We have reached a good level of mutual co-operation with the Lighting Industry Federation, and this is showing a number of benefits already. Most tangibly, LIF and DLA members will receive the same concessions on stand space at the expanded Lightshow '92 which takes place at Earls Court 2 from 26-29 January 1991. LIF are lending their active backing to the exhibition.

This is completely in line with our joint intention to develop Lightshow into an exhibition for the whole of the lighting industry, from component suppliers through to luminaire manufacturers and complete lighting systems houses.

The Lightshow can and will take in decorative, contract and commercial exhibitors, to offer buyers a complete overview of the industry through one event. Indeed, there is already much evidence that the types of lighting traditionally viewed as either completely decorative, or completely contract, are increasingly crossing over. Low energy and low voltage light sources have much to do with this.

The increasingly rich mix of

exhibitors will expose visitors to an ever-broadening range of ideas and products, and this is surely what the best exhibitions are all about. The Decorative Lighting Association believes that Lightshow has the potential to become one of European lighting's most important exhibitions, alongside Hanover, Milan and Paris. We intend to ensure it happens.

Present trading conditions aside, capturing the attentions of Britain's commercial, contract and retail lighting buyers is viewed as an attractive plum by many mainland European lighting suppliers and there will be increasing numbers of them at Lightshow.

While this may be seen as a threat by US-based suppliers, it must be seen as an opportunity to look at new ideas, influences and products by UK-based buyers.

It is unlikely that European firms will affect suppliers who produce the sort of traditional lighting that will only ever sell to retail shops in this country. They are likely to retain this niche market without a fight since, in European terms, it is too specialised for incoming competitors to crack.

As in the rest of Europe, the main battle will be for mass-appeal sales and for the lucrative professional and contract markets. UK companies must defend their patches through technical and design innovation, effective communications with buyers and competitive pricing, and use the same tools to address the wide-open European markets.

A further significant development in European terms has been the prominent role played by the



This year's DLA President, Keven Verdun.

Association within CELMA, the Committee of European Luminaire Manufacturers' Associations. Indeed, the Lighting Industry Federation will hold the presidency of CELMA in 1992, with the Decorative Lighting Association running the secretariat.

Within the European Economic Community, CELMA constitutes a potentially powerful lobby to advance the overall cause of lighting to relevant markets and Government bodies. As the momentum increases to abandon national safety standards and substitute them with EC-wide guidance, it is essential that we play an active role, in the best interests of our members and their buyer customers.

Short of products made by companies with BS5750 quality registration, we believe that suppliers registered under the DLA's own Code of Practice have much to offer buyers both in the UK and in other Community countries in terms of quality standards.

The DLA is constantly seeking to encourage suppliers to take up the Code, since it represents a tremendous assurance of manufac-

turing quality. We have recently introduced a number of new measures and objectives to develop the Code, including:

- supplying Code participants with standardised record-keeping forms;
- appointing a Technical Safety Officer and installing appropriate computer systems to give more support to Code members;
- Increasing the Code's policing through spot checks;
- Speeding type testing approvals through making wider use of NAMAS-approved test houses;
- supplying test equipment to Code members at competitive rates.

CELMA will play a vital role in advising on standards, and in halting the flow of unsafe rogue lighting products into any European country. We want British companies to be in the vanguard of CELMA's safety drive.

Outside the EEC, we believe that CELMA can be of enormous benefit to lighting companies affiliated to any of its member trade bodies. As a pan-European corporate body, it is a uniquely powerful tool to help its members develop overseas markets. Increasingly, the affluent economic world is being viewed as three key trade blocs: Europe, of which we are a part; North America; and the Pacific rim, including Japan.

The job of CELMA and the DLA is to advise and encourage our members to grow more adventurous, mounting trade delegations to allow them to expand from home base by forming trading agreements in the other two key trading areas.

CELMA itself must develop more fully before this can happen, but the DLA sees this as an essential aid to its members. It will also benefit the UK buyer, because our companies are likely to find that the most effective way of plying their goods overseas is to link with a partner company on some sort of reciprocal trading arrangement.

The Decorative Lighting Association is undergoing unprecedented change. In doing so, it will continue to develop its reference base for and services to buyers from the architectural, interior design and retail sectors.

If you require information that you cannot find in this Guide, please do not hesitate to telephone our full-time staff at our head office on 058-84 658.

KEVEN VERDUN
President, DLA

Good lighting is essential to successful electrical retailing, argues lighting consultant *Gerry Brown*. Retailers who sell lighting equipment inspire customer confidence when they use the very products they sell effectively.

Sell by example

Professional retailers know how essential it is to display their merchandise in a visually attractive manner — not only in display windows but also throughout the sales area of the store.

The importance of good lighting in achieving this objective is recognised by Rule No. 7 of the "Visual Merchandising Rules" which states:

Present the merchandise in a good and appropriate light because:

- light provides extra visual impact and observation of the other visual merchandising rules is strengthened;
- light adds that magic ingredient to the presentation;
- good lighting can help to set the style, image and character of the shop;
- good lighting can improve sales and profits;
- customers have 'lazy eyes' — so help them to see what they need to look at.

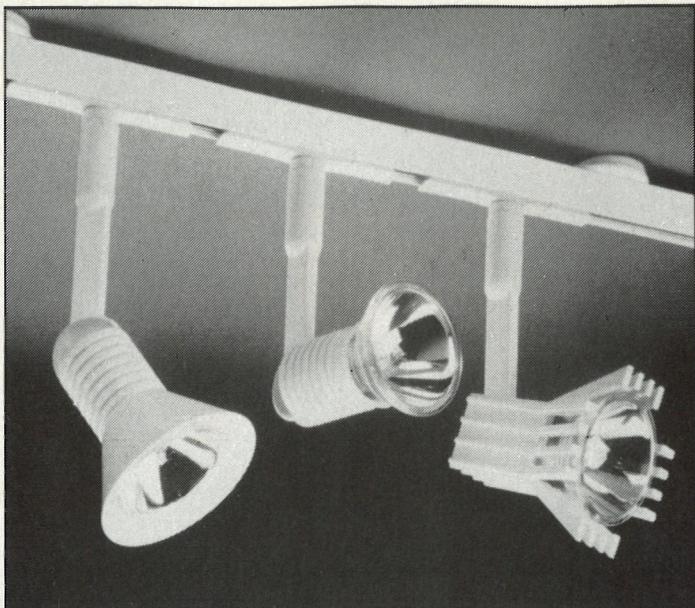
Today's vast range of equipment, suitable for retail store lighting — and who can forecast what new developments will be introduced tomorrow — often causes some confusion which is easily reflected in the effectiveness, or more usually ineffectiveness, of the resultant lighting installation.

The first objective when designing a good lighting scheme for a retail store is to determine the key lighting criteria relating to the type of merchandise, its price/quality, merchandising method and the required store image.

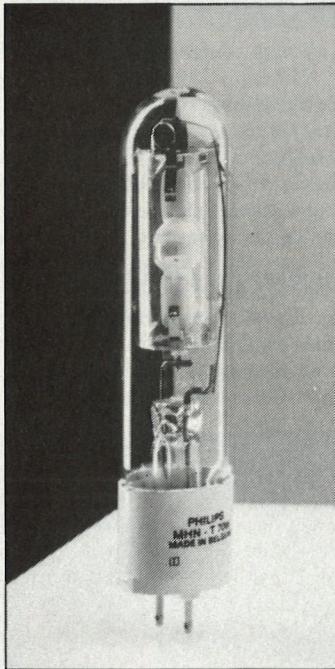
For example, if the method of merchandising is like that of a supermarket, with high density displays of products goods on shelves, then the general lighting level, usually provided by ceiling mounted luminaires, should be of a fairly high value — say 500 to 1000 lux with good uniformity. On the other hand, if the retailer is selling high value, possibly exclusive, merchandise with a high degree of customer service — a high quality jeweller, for instance, or major fashion house — then it is more appropriate to have a very low level of general lighting and apply effective display lighting to create visual interest within the interior generally as well as on low density merchandise displays.

These are the extremes of the types of visual environment in retail stores. The first encourages shoppers to inspect and self-select products with minimal customer service while the latter, with its more relaxed 'social' atmosphere, requires the merchandise to have a high price/profit margin to afford the high level of customer service.

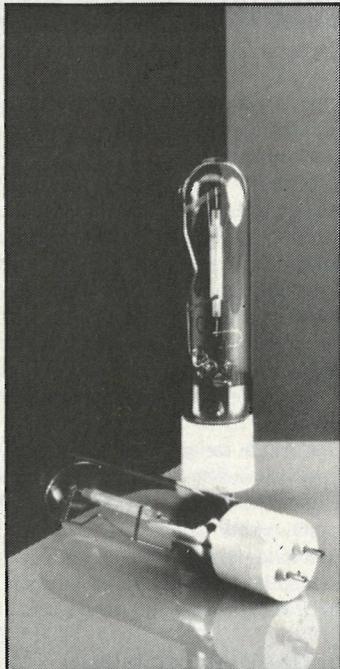
The lighting requirements of the vast majority of electrical retailers and departments occupy the 'middle ground' but problems arise from the wide range of types, sizes and styles of merchandise coupled with the varying degree of customer service required. A customer will happily select a 100W light bulb from a dispenser and pay for it at the cash desk, but is unlikely to adopt such a procedure for the higher priced, more economical, 20W compact fluorescent lamp unless a



Low voltage track with Philips fittings for dichroic reflector lamps.



White SON (SDW-T) comes in 35W, 50W and 100W ratings.



Single ended metal halide lamps (70W and 150W).

combination of point-of-sales material, display lighting and, possibly, some advice from the sales person encourages him to do so. The same comments apply with even greater force to complex purchases such as video recorders.

The visual effectiveness of display lighting is dependent upon:

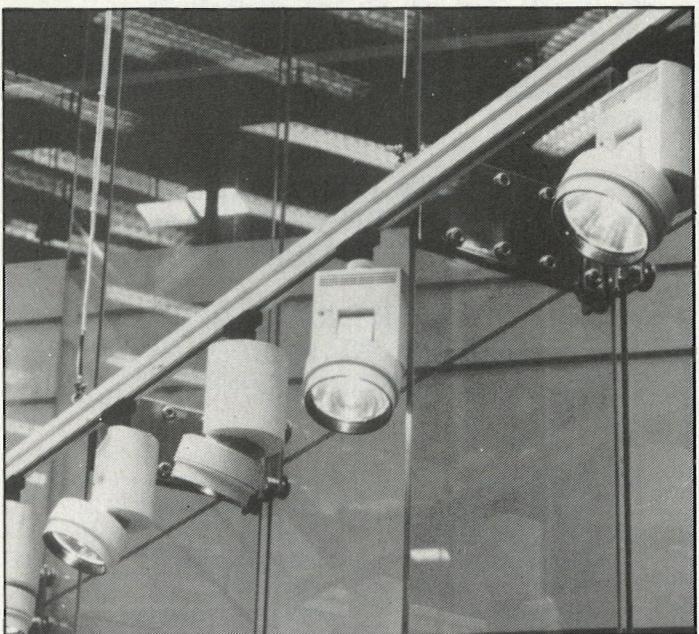
- the amount of general lighting
- the intensities (strength) and beam patterns of the display lamps/luminaires,
- the manner in which the display lighting is applied.

Obviously the degree of visual emphasis created by a given arrangement of display lighting is

greater if the general lighting level is reduced. Similarly, the higher the illuminance provided by the general lighting the greater are the required intensities — and, therefore, wattages — of the display lighting lamp to provide the same degree of visual emphasis. The latter approach significantly increases the electricity cost and it is, therefore, more economical to have a general lighting level of say 300 lux.

There may, of course, be trading periods when a higher or lower general lighting level is desirable, in which case the general lighting installation should be designed to provide 500 lux which can be reduced, by switching or regulation,

SHOP LIGHTING



Philips' track mounted adjustable spotlights, with integral control gear for White SON lamps.



One of the new generation of improved performance low voltage dichroic reflector lamps.

to those lower values which may be required.

In most instances the general illuminance will be provided by fluorescent lighting and the retailer should ensure that the types of lamps used have the right colour characteristics. Electrical retail outlets should use 'warm' colour appearance lamps (correlated colour temperature around 3000K) with good colour rendering. Such requirements are best met by the tri-phosphor lamps, including Philips Colour 83 and Thorn Polylux 3000, which combine good colour characteristics with high efficacy. The older colours of fluorescent lamps — White, Warm

White and Cool White — are not only less efficient, but also relatively poor in terms of their colour rendering.

How many electrical retailers sell fluorescent lamps to the general public and what colours do they stock and sell? Many domestic lighting users have been dissuaded from using fluorescent lighting in their homes because of the colour distortion of food, furnishings and their complexion that results from using unsuitable lamps. It is, therefore, good business practice for the retailer to use the right colour of lamps for store lighting as well as stocking, recommending and selling them to the general public.

The vast majority of compact fluorescent lamps currently available have good colour rendering properties and a 'warm' colour appearance (2700 — 3000K) which is ideal for domestic applications. Here again, the lighting retailer can easily demonstrate their suitability by using them in any downlight luminaire which is part of the store lighting, as well as in some of the lighting fittings on display.

The usual method of displaying lighting merchandise — by using the entire ceiling to suspend single and multi-point pendant fittings and covering the walls with wall mounted fittings of one sort or another — creates problems. When most, or all, of them are lit there is no need for the fixed lighting installation to provide a general lighting component and, arguably, the resultant illuminance will be such that it is difficult to create any significant visual emphasis on unlit merchandise with display lighting.

Displaying lighting fittings in this manner certainly fulfils one of the customers' requirements as they can see the style, colour and so on of the items offered. But it does not help them to appreciate the lighting effect that results from their use, which is at least as important as the appearance of the fitting itself. Admittedly it is difficult for the retailer to arrange a display of lighting fittings that permits the lighting effects to be demonstrated without reducing the number of items on display.

Part of the showroom could be allocated to simulate an interior and fitted with a few representative lighting fittings — pendant, downlight, uplight, spotlight fittings — so that the different lighting effects can be demonstrated to customers.

Spotlights have a significant role in display lighting and the introduction a few years ago of small low-voltage tungsten halogen reflector lamps provided much more scope to achieve dramatic visual effects without having to use bulky display fittings housing lamps such as the PAR 38 range. Initially the small halogen reflector lamps were only available with an aluminium reflector which reflects infra-red radiation (ie heat) as well as light. Subsequent developments led to the use of dichroic reflectors which, by allowing the infra-red to pass through, reduce the amount of heat in the beam. Note that dichroic lamps must only be used in luminaires which are specifically designed to accommodate them.

Improvements in the inherent and optical efficiencies of dichroic

reflector lamps have resulted in a third generation of lamps typified by the Philips Masterline range. Performance of these new lamps is between 20% and 70% better than the previous generation and they provide users with the option of better performance for the same wattage or the same performance for a lower wattage.

A common mistake when lighting for display effects is to use lamps with too low a beam intensity. This may be because the lamp wattage is too low or the beam angle is too wide.

These small dichroic reflector lamps can be used in appropriate low voltage track systems as well as individual luminaires and not just for display lighting but for 'effect' lighting in interiors. What better way of developing sales of such items than by using them in the retail store in ways which demonstrate their potential for home use.

The major problem when lighting display windows is the need to overcome daylight, especially if the windows are north facing and reflect the bright images of the south facing facades immediately opposite. Obviously this situation does not apply when the store is in an enclosed shopping mall. While fluorescent lighting can be used to achieve the high illuminance required in the windows it is difficult to position them so that they project sufficient light on to the vertical surfaces of the displayed merchandise. A better solution is to use some of the newer forms of discharge lamps, such as white SON and metal halide, which have been specifically designed for such applications.

Although such lamps, their associated control gear and luminaires are more costly than tungsten halogen they are more efficient, producing lower electricity costs, and the lamps last longer. They also provide higher lumen packages which means less lamps and luminaires for a given lighting result. A range of luminaires is now available for white SON and metal halide lamps and, in addition to window display lighting, they are also ideal for the display lighting of large items of merchandise or areas within the body of the store.

Retailers who sell lighting equipment should not only ensure that they sell the best lighting solutions to their customers. They also need to exhibit their expertise by using some of the products, especially the new light sources, within the store lighting in a manner which illustrates their effectiveness. In short practice what you preach.

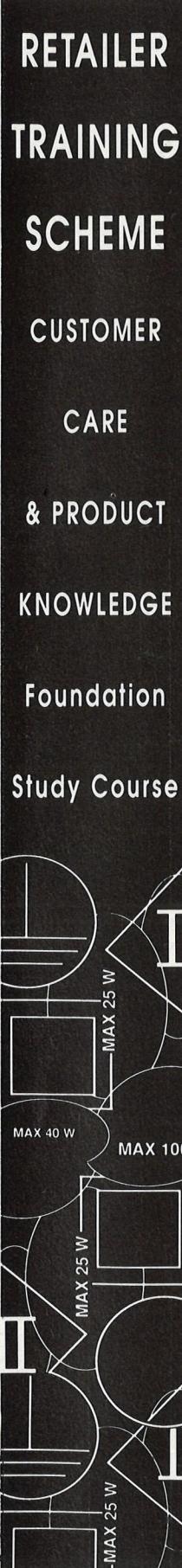
THE DECORATIVE
LIGHTING
ASSOCIATION

Over 70 students have successfully completed the Decorative Lighting Association's first Retailer Training Scheme - a brand new course to help retailers and their staff gain a better all round understanding of lighting.

This comprehensive, and cost effective correspondence course is easy to understand - addresses Sales, Safety and many Technical matters associated with lighting.

Better trained staff - means a better business.

For more information contact:
Carolynn Shaw,
The Decorative
Lighting Association,
Bryn, Bishop's Castle,
Shropshire SY9 5LE.
Or telephone
058 - 84 658.



Reader Service No. 305

THURBER LIGHTING

THE SPECIALIST BRITISH
MANUFACTURER OF
BEAUTIFUL LIGHTING.

EXTENSIVE RANGE OF
MODERN, TRADITIONAL
AND RUSTIC DESIGNS.

- Wall lights
- Ceiling lights
- Standard lamps
- Table lamps
- Pendants
- Glass shades
- Spot lights
- Turned wood
- Choice of four wood finishes
- Interchangeable glass shades
- New colour catalogue
- Prompt delivery

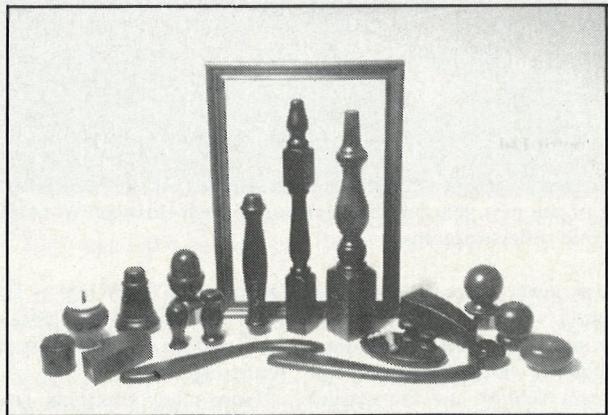


THURBER MANUFACTURING LTD
109 Bordesley Street,
Birmingham B5 5PL
Tel: 021-643 4677
Fax: 021-633 3557

Reader Service No. 306

HBS Manufacturing

Manufacturers of high quality wooden lighting components



- Lamp bases and stems
- Turned wooden components
- Electrical box pattresses
- Pottery lamp plinths
- Electric clock boxes, etc.

Complete finishing and spraying facilities

HBS MANUFACTURING

36 Nineveh Road, Handsworth
Birmingham B21 0TT
Tel: 021-551 6171
Fax: 021-554 1138

Reader Service No. 307

DLA Buyers Guide 1991/92

LIST OF MEMBERS

1 A & D Pottery & Ceramics
Unit 1/2, George Bayliss Road,
Berry Hill Industrial Estate,
Droitwich, Worcestershire
WR9 9AB. Tel: 0905 771974

2 Aagaard Hanley Ltd
230 Stanningley Road, Bramley,
Leeds LS13 3BA. Tel: 0532
568678. Fax: 0532 558438

3 Abstracta Construction Ltd
Abstracta House, 187 Brent
Crescent, London NW10 7XB.
Tel: 081-965 8845. Fax: 081-
965 5120

**4 Academy Lighting Ltd
(Montrose International)**
Unit 3, Wyvern Industrial
Estate, Beverley Way, New
Malden, Surrey KT3 4PH. Tel:
081-949 8888. Fax: 081-942
0937.

5 Action Industries (UK) Ltd
1 Kelvedon Avenue, Burwood
Park, Walton-on-Thames,
Surrey KT12 5EB. Tel: 0932
228539.

6 Aimbry International Ltd
Upper Sunnybank Mill, Red
Lane, Meltham, Huddersfield,
West Yorkshire HB7 3LJ. Tel:
0484 852265. Fax: 0485
850337

**7 Aladdins Lighting Cave (JCC
Marketing)**
Lamplighter House, Shropney
Road, Bognor Regis, West
Sussex PO22 9LL. Tel: 0243
829040. Fax: 0243 829051

8 Walter Allen Ltd
Lagan Mills, Bridge Street,
Lisburn, Co Antrim, BT28 1XX.
Tel: 0846 677111. Fax: 0846
660773

9 Ambril Ltd
23 Union Road, Croydon,
Surrey CR0 2UX. Tel: 0689
39740.

10 Architrade
Unit 6, Parkside Works,
Parkwood Street, Keighley, West
Yorkshire BD21 4PJ. Tel: 0535
681284. Fax: 0535 681256

11 Ardbide Products Ltd
58 Glasgow Street, Ardrossan,
Ayrshire KA22 8EH. Tel: 0294
605441. Fax: 0294 66939.

**12 Arden Manufacturing
(B'ham) Ltd**
47/50 Tenby Street North,
Birmingham B1 3EG. Tel: 021-
200 1147.

13 Ashley & Rock Ltd
Morecambe Road, Ulverston,
Cumbria LA12 9BN. Tel: 0229
53333. Fax: 0229 57659.

**14 Aspley's Antiques &
Reproductions**
Eagle Mill, Shoobridge Street,
Leek, Staffordshire. ST13 5JZ.
Tel: 00538 399577. Fax: 0538
399092.

15 Astbury Lighting Ltd
Elizabeth Mill, Worrall Street,
Congleton, Cheshire CW12
1DT. Tel: 0260 278114. Fax:
0260 280461.

16 Astral International Ltd
The Old Coronation Pottery,
Lonsdale Street, Stoke-on-Trent
ST4 4DS. Tel: 0782 744044.
Fax: 0782 744099.

17 A Attenborough & Co Ltd
Nuart Road, Beeston,
Nottingham NG9 2NH. Tel:
0602 258185. Fax: 0602
227445.

18 Autumn Shades Ltd
Market Hill, Halstead, Essex
CO9 1AR. Tel: 0787 477664.

19 Avon Lighting Ltd
1 & 2 Pullman Trading Estate,
Station Road, Uppingham,
Leicestershire LE15 9TX. Tel:
0572 823598

20 B C Metalcrafts Ltd
69 Tewkesbury Gardens,
London NW9 0QU. Tel: 081-
204 2446.

21 BRP Lighting Ltd
8 Cheetwood Road, Cheetham,
Manchester M8 8AQ. Tel: 061-
832 4178. Fax: 061-832 5358.

22 BSB Metal Spinnings Ltd
Raven Street Works, Queens
Road, Halifax, West Yorkshire
HX1 4NB. Tel: 0422 356356.
Fax: 0422 341230.

23 BSL Contract Lighting Ltd
The Forge, High Street, North
Marston, Buckingham MK18
3PL. Tel: 0296 67422. Fax:
0296 67448.

**24 Bachmann Chandeliers
(Montrose International)**
Unit 3, Wyvern Industrial
Estate, Beverley Way, New
Malden, Surrey KT3 4PH. Tel:
081-949 8888. Fax: 081-942
0937.

**25 Peter Baker Leaded Glass
Lighting**
Unit B, Bakers Boatyard,
Brickyard Lane, Starcross,
Exeter, Devon EX6 8RY. Tel:
0626 891383. Fax: 0626
888224.

26 Base & Shade (Inlite Group)
Hawtin Park, Pontllanfraith,
Blackwood, Gwent NP2 2EU.
Tel: 0443 862121. Fax: 0443
815255.

27 Bayada Bros & Co Ltd
88 Horsenden Lane North,
Greenford, Middlesex UB6
7QH. Tel: 081-903 7151. Fax:
081-903 0961.

28 L M Beasley & Co Ltd
8 Stafford Road, Caterham,
Surrey CR3 6JA. Tel: 0883
343559. Fax: 0883 341502

29 Beaumont Lighting
Miriam Harris Works, Weale
Road, Chingford, London
E4 6JL. Tel: 081-524 1151.

30 Belgravia Arts Ltd
4 Ferrard Cross, Ascot,
Berkshire SL5 8LN. Tel: 0344
882979.

31 Bella Figura
715 Fulham Road, London SW6
5UL. Tel: 071-373 1250. Fax:
071-373 7781.

32 Belvedere
Unit 3, Hartley Business Park,
Selborne, Alton, Hampshire
GU34 3HS. Tel: 0420 50524/5.
Fax: 0420 50491.

33 Besa Bycraft
14-16 Chiswick Avenue,
Mildenhall, Suffolk IP28 7AY.
Tel: 0638 510530. Fax: 0638
510250.

34 Best & Lloyd Ltd
William Street West, Smethwick,
Warley, West Midlands B66
2NX. Tel: 021-558 1191.
Fax: 021-565 3547.

35 Bito (London) Ltd
Rectory Lane, Sidcup, Kent
DA14 4QW. Tel: 081-302
7022. Fax: 081-308 0448.

37 E W Blockley Ltd
353 Upper Balsall Heath Road,
Balsall Heath, Birmingham B12
9DR. Tel: 021-440 3340. Fax:
021-446 4023

38 Boone Systems Ltd
Unit 2/3, The Old Saw Mill,
Pluckley Road, Betherston,
Ashford, Kent TN26 3DD. Tel:
0233 82669. Fax: 0233 82501.

39 Britannia Pottery Co Ltd
Vulcan Works, Canal Street,
Longport, Stoke-on-Trent, ST6
4LU. Tel: 0782 838739.

**40 The British Crystal Lighting
Co Ltd**
Unit 17, Premier Partnership
Estate, The Leys, Brierley Hill,
West Midlands DY5 3UP. Tel:
0384 73143. Fax: 0384 74506.

41 British Electric Lamps Ltd
Spencer Hill Road, Wimbledon,
London SW19 4EN. Tel: 081-
946 5035. Fax: 081-879 0602.

42 Brownhill Ltd
Unit 3C, Chester Road, Pentre,
Deeside, Clwyd CH5 2DT. Tel:
0244 5343561. Fax: 0244
534976.

43 Buchanan Lighting Services
Unit 1, Hanborough Business
Park, Long Hanborough, Oxford
OX7 2LH. Tel: 0993 883074.
Fax: 0993 883191.

44 C A Lighting Ltd
74/77 Magdalen Road, Oxford
OX4 1RE. Tel: 0865 243188.
Fax: 0865 790583.

45 C B Exclusive
Via di S Quiricon 31 Int,
I-50142 Firenze, Italy.
Tel: 010-39 55 717280.
Fax: 010-39 55 717280.

46 C B Lighting & Co
8 Victoria Street, Bristol BS1
6BN. Tel: 0272 262361.

47 CIMC Ltd
3A Winton Place, Tranent, East
Lothian EH33 1AF. Tel: 0875
613185. Fax: 0875 613185.

48 C & M Packing Services
Oats Royd Mill, Luddenden,
Halifax, West Yorkshire. HX2
6TP. Tel: 0422 885018. Fax:
0422 885787.

49 Cameo Shades Ltd
74/77 Magdalen Road, Oxford
OX4 1RE. Tel: 0865 243188.
Fax: 0865 790583.

**50 Candela Traditional Lighting
Ltd**
Victoria Works, 133 Reddings
Lane, Tyseley, Birmingham
B11 3EY. Tel: 021-707 6936.
Fax: 021-707 7425.

**51 Candlejas (Decorative
Lighting)**
40 Princes Street, Perth PH2
8LJ. Tel: 0738 35304.

52 Candlelight Products Ltd
3/4 Parkhouse Lane, Tinsley,
Sheffield S9 1XA. Tel: 0742
447515. Fax: 0742 421943.

53 L J Cannell & Co Ltd
Units A & B, 15 Wintersells
Road, Byfleet, Surrey KT14
7LF. Tel: 0932 336491. Fax:
0932 336491.

**54 Caprani Light
(TFT Distributors Ltd)**
45 High Street, Reigate, Surrey
RH2 9AE. Tel: 0737 249688.
Fax: 0737 224181.

55 Carlsen Lighting
The Old Cider Works, Bell
Lane, Smarden, Kent TN27
8PP. Tel: 0233 77711. Fax:
0233 77738.

LIST OF MEMBERS

56 Carna Lighting
117 Ranelagh, Dublin 6,
Republic of Ireland. Tel: 010-
3531 964288. Fax: 010-3531
964

57 Caroline Shades
134 Grange Road, Gillingham,
Kent ME7 2QS. Tel: 0634
50387.

58 Cascade Electrolite Ltd
Gorse Mill, Gorse Street,
Chadderton, Oldham OL9 9RJ.
Tel: 061-628 6622. Fax: 061-
628 2831.

59 Castle Ceramics
Units 20/22, Trent Lane
Industrial Estate, Castle
Donington, Derby DE7 2NP.
Tel: 0332 850344. Fax: 0332
812419.

60 Cataline Lighting Ltd
Arran House, Arran Road,
North Muirton, Perth PH1 3DZ.
Tel: 0738 30766. Fax: 0738
39020.

61 Chad Lighting Ltd
8A James Road, Tyseley,
Birmingham B11 2BA. Tel:
021-707 7629. Fax: 021-707
9431.

62 Chambers International Ltd
7 Montpellier Villas,
Cheltenham, Gloucestershire.
GL50 2XE. Tel: 0242 525459.
Fax: 0242 222779.

**63 Chandelier Cleaning &
Restoration Services Ltd.**
Gypsy Mead, Fyfield, Essex
CM5 0RB. Tel: 0277 899444.
Fax: 0277 899642.

**64 Chandelier Specialist Lamps
Ltd**
Gypsy Mead, Fyfield, Essex
CM5 0RB. Tel: 0277 899444.
Fax: 0277 899642.

65 Chelsom Ltd
Heritage House, Clifton Road,
Blackpool FY4 4QA. Tel: 0253
791344. Fax: 0253 791341.

66 The Chinese Collection,
Acton Close, Long Eaton,
Nottingham NG10 1FZ. Tel:
0602 462882. Fax: 0602
460070.

67 Chinoiserie Ltd
72/78 Station Road, Shalford,
Guildford, Surrey GU4 8HD.
Tel: 0483 570233. Fax: 0483
505133.

68 Classic Reproductions
Unit 16, The Highams Lodge
Business Centre, Blackhorse
Lane, Walthamstow, London
E17 6SH. Tel: 081-531 8627.
Fax: 081-531 6056.

69 Classical Creamware Ltd
6 Redworth Way, Newton
Aycliffe, Co Durham DL5 6XF.
Tel: 0325 310477. Fax: 0325
311600.

70 A E Clutterbuck Ltd
Cranmore Drive, Shirley
Trading Estate, Solihull, West
Midlands B90 4SD. Tel: 021-
704 3134. Fax: 021-704 3421.

71 Cobham Engineering
1 Upper Conybere Street,
Birmingham B12 0YP.
Tel: 021-446 4759.

72 R C Collin (Lighting) Ltd
Unit 3, Buckley Road,
Rochdale, Lancashire OL12
9EF. Tel: 0706 41245. Fax:
0706 33128.

73 Collingwood VLM Ltd
Deer Park Road, Moulton Park,
Northampton NN3 1NP. Tel:
0604 495151. Fax: 0604
495095.

**74 Contessa Furnishings (London)
Ltd**
4 Lower Sydenham Industrial
Estate, Kangley Bridge Road,
London SE26 5BA. Tel: 081-
778 9166. Fax: 081-659 9527.

75 The Copper Lamp Co Ltd
Unit D, Nutts Lane, Hinckley,
Leicestershire LE10 3EJ.
Tel: 0455 633140. Fax: 0455
632664.

76 Country & Eastern Ltd
8 Redwell Street, Norwich NR2
4SN. Tel: 0603 623107. Fax:
0605 458108.

**77 County Shades Ltd
(Montrose International)**
Unit 3, Wyvern Industrial
Estate, Beverley Way, New
Malden, Surrey KT3 4PH. Tel:
081-949 8888. Fax: 081-942
0937.

78 Harry Cowan (Electrical) Ltd
15 Broughton Street,
Manchester M8 8LZ. Tel: 061-
832 7584. Fax: 061-834 7854.

79 Creative Tableware
PO Box 10, Stoke-on-Trent
ST1 3LN. Tel: 0782 202123.
Fax: 0782 271189

80 Cresswell Lighting Ltd
York Way, Royston,
Hertfordshire SG8 5HJ. Tel:
0763 241166. Fax: 0763
248538.

81 Crestworth Trading Ltd
Stere Avenue, Poole, Dorset
BH15 2BD. Tel: 0202 676633.
Fax: 0202 669440.

82 Crompton Lighting
Woodlands House, The Avenue,
Cliftonville, Northampton
NN1 5BS. Tel: 0604 30201.
Fax: 0604 26982.

83 Danish Lighting Group
EEC Udsigten 9, 8961
Allingbro, Denmark. Tel: 010-
86 480100. Fax: 010-86
481382.

84 Martin Dannell & Co Ltd
Grosvenor Works, Mount
Pleasant Hill, London E5 9NE.
Tel: 081-806 8662. Fax: 081-
806 7180.

85 Där Lighting Ltd
Wildmere Industrial Estate,
Banbury, Oxfordshire OX16
7JZ. Tel: 0295 259391. Fax:
0295 271743.

86 Daveen Manufacturing Co Ltd
Unit 16, Fleetway West Business
Park, Wadsworth Road,
Perivale, Middlesex UB6 7JD.
Tel: 081-997 7200. Fax: 081-
997 0329.

87 Dayclear Lighting Ltd
85A Cromford Road, Langley
Mill, Nottingham NG16 4DP.
Tel: 0773 763787.

88 Dazzle Lighting
Greenhill Mills, Florence Street,
Bradford, West Yorkshire BD3
8EX. Tel: 0274 660915. Fax:
0274 660952.

89 Keith de la Plain Ltd
Milroy House, 19/21 High
Street, Tenterden, Kent TN30
6BW. Tel: 0580 65177. Fax:
0580 65200.

90 Decor Brass Ltd
Unit 5, Thomas Road Industrial
Park, London E14 7BN. Tel:
071-538 8840. Fax: 071-537
4847.

**91 Decor (Lighting Distributors)
Ltd**
Shortcombe Works, Waterleat
Road, Paignton, Devon TQ3
3UQ. Tel: 0803 522424.

92 Decorlight
146 Wellesley Road, Clacton on
Sea, Essex CO15 3QD. Tel:
0255 421818.

93 Dee Cee Lighting Ltd
Harrington Mills, Leopold
Street, Long Eaton, Nottingham
NG10 4QG. Tel: 0602 463632.

94 Deknudt Lighting Ltd
Stationsstraat 63, 8540 Deerlijk,
Belgium. Tel: 010-32 56
713791. Fax: 010-32 56
713178.

95 Dema International
Pottery Lane West, Chesterfield,
Derbyshire S41 9BH. Tel: 0246
274201. Fax: 0246 200285.

96 The Denby Pottery Co Ltd
Denby, Derby DE5 8NX. Tel:
0773 743641. Fax: 0773
570211.

97 Dencon Accessories Ltd
Lyden House, 191 Balaam
Street, London E13 8AA. Tel:
081-471 3411. Fax: 081-552
3857.

**98 Dernier & Hamlyn Ltd
(Montrose International)**
47/48 Berners Street, London
W1P 3AD. Tel: 071-580 5316.
Fax: 071-636 0243.

99 Deta Electrical Co Ltd
Deta House, London Road,
Markyate, St Albans,
Hertfordshire AL3 8NR. Tel:
0582 842323. Fax: 0582
842352.

100 Dibri (UK) Ltd
4 Gosforth Close, Sunderland
Road Industrial Estate, Sandy,
Bedfordshire SG19 1RB. Tel:
0767 680794. Fax: 0767
683250.

**101 Down Street Electrics Ltd
(Mr Resistor)**
261 New Kings Road, London
SW6 4RB. Tel: 071-736 7521.
Fax: 071-731 8463.

102 Drimmer S A
B P No 8, Z I de Cantaranne,
12004 Rodez, France. Tel: 010-
33 65 670021. Fax: 010-33 65
428856.

103 Eastgate Potteries Ltd
Queen Street, Witherness, North
Humber HU19 2HB. Tel:
0964 612550. Fax: 0964
613379.

104 Electro-Replacement Ltd
1 Moor Park Industrial Centre,
Tolpits Lane, Watford,
Hertfordshire WD1 8SP. Tel:
0923 55344. Fax: 0923 55829.

105 Elstead Lighting Ltd
Unit 7, Forge Works, Mill lane,
Alton, Hampshire GU34 2QG.
Tel: 0420 82377. Fax: 0420
89261.

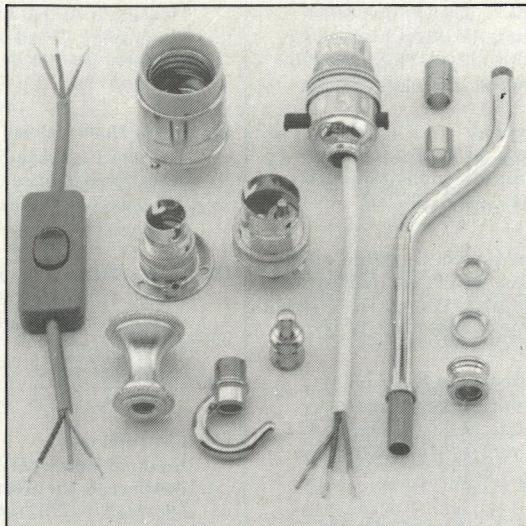
106 Econ Industries Inc UK
Unit 2, Anglesey Business Park,
Littleworth Road, Hednesford,
Cannock, Staffordshire WS12
5NR. Tel: 0543 425253. Fax:
0543 422476.

107 Enlite
16 Petersfield Business Park,
Bedford Road, Petersfield,
Hampshire GU32 3LJ. Tel:
0730 66566. Fax: 0730 66565.

108 Eterna Lighting Ltd
Emily Place, Queensland Road,
London N7 7DQ. Tel: 071-609
9011. Fax: 071-609 9337.

109 Eurolux Lighting Ltd
Eurolux House, Torridge Close,
Telford Way Industrial Estate,
Kettering, Northamptonshire
NN16 8PY. Tel: 0536 85279.
Fax: 0536 510292.

BRASS LAMPHOLDERS AND ACCESSORIES



QUALITY & SERVICE

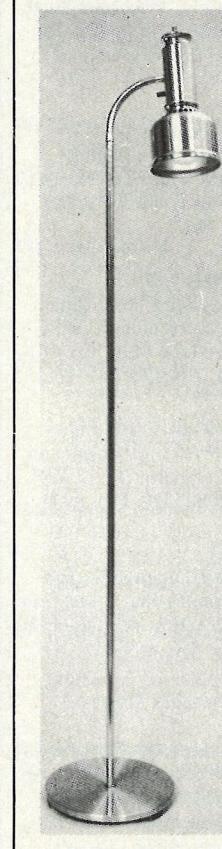
The two most important aspects of our business. We manufacture the largest range of quality brass lampholders and associated accessories for the light fitting industry, including tube bending and ready wired units. Please phone or fax for further information or copies of our comprehensive catalogue.

S. LILLEY & SON LTD

80 Alcester Street, Birmingham B12 0QE, England
Telephone 021-622 2385
Fax 021-666 6148

Reader Service No. 308

Quality Floor Spots

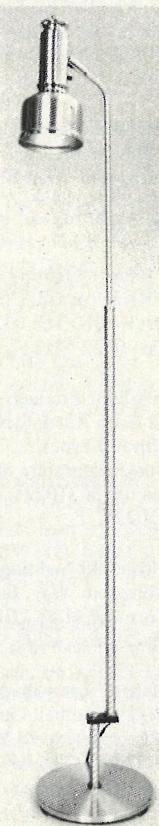


Telescopic
or
With Flex Arm

Also available
Table & Wall
Models

For
further
information
contact

GRiffin LIGHTING
19 HARROW ROAD
LEIGHTON BUZZARD
BEDS. LU7 8UF
TEL: 0525 376305
FAX: 0525 372136



Reader Service No. 309

NORAL THE NAME IN OUTDOOR LIGHTING



Traditional

NORAL offers the widest and most flexible range of outdoor lighting in the UK, from home exteriors to leisure venues, shopping precincts, parks and residential developments. Affinities of lantern design throughout the ranges, in different sizes, colours and configuration, give the lighting designer and specifier maximum options for use.

20-year guarantee

From this September, 13 new models will give extra quality choices for public

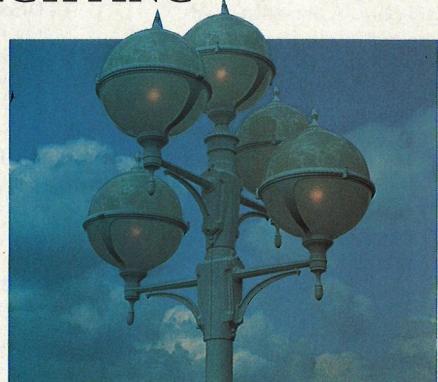


Contemporary
launching in September

and private contemporary lighting designs.

Architect-designed in chromed cast aluminium with a baked-on polyester coating, all Noral lanterns and fittings are IP-rated with a 20-year written guarantee against corrosion.

With energy-efficient light sources, vandal-resistant acrylic or polycarbonate



Park & Precinct

lenses and double insulation, they give high light yield with low maintenance costs.

Quality service

Permanent stocks of 95 per cent of all Noral products ensure delivery anywhere in the UK in top condition in three working days, with a team for onsite calls and customer care.

PLEASE TELEPHONE 0908 568734 FOR 84-PAGE BROCHURE with specifications. Or send your business card to Noral Limited (DLA1), Vincent Avenue, Crownhill, Milton Keynes MK8 0AB, for a copy of the brochure. Lighting trade enquiries are welcome. Lighting design service available.



Reader Service No. 310

LIST OF MEMBERS

110 Fancy Metal Goods Ltd
Famego Works, 12 Commercial Street, Birmingham B1 1RS. Tel: 021-643 7399. Fax: 021-643 1935.

111 Fantasia Ceiling Fans Ltd
5 Station Square, Petts Wood, Orpington, Kent BR5 1LY. Tel: 0689 874044. Fax: 0689 833713.

112 Fantastic Lighting Ltd
4 Kennet Road, Crayford, Kent DA1 4QN. Tel: 0322 558649. Fax: 0322 521117.

113 Firstlight Products Ltd
22 Erica Road, Stacey Bushes, Milton Keynes, Buckinghamshire MK12 6HS. Tel: 0908 310221. Fax: 0908 310229.

114 Fitzgerald Lighting Ltd
Normandy Way, Bodmin, Cornwall PL31 1HH. Tel: 0208 75611. Fax: 0208 74893.

115 Flairlite Lampshades Ltd
27/29 Leadhall Lane, Harrogate, North Yorkshire HG2 9NJ. Tel: 0423 872051. Fax: 0423 871487.

116 Flos Ltd
Sandbeck Way, Wetherby, West Yorkshire LS22 4DN. Tel: 0937 586136. Fax: 0977 685223.

117 Focus Lighting Ltd
49/53 Brunswick Centre, Bloomsbury, London WC1N 1AH. Tel: 071-278 3161. Fax: 071-833 4344.

118 Forma Lighting Ltd
Unit 3, Mitcham Industrial Estate, 85 Streatham Road, Mitcham, Surrey CR4 2AP. Tel: 081-640 6811. Fax: 081-640 6910.

119 Fowler Pottery
20 Mossbury Road, London SW11 2PB. Tel: 071-228 7551.

120 Frandsen Belysning ApS
Danmarksvej 31, DK-8660 Skanderborg, Denmark. Tel: 010-45 86 520411. Fax: 010-45 86 520148.

121 Franklite Ltd
Snowdon Drive, Winterhill, Milton Keynes, Buckinghamshire MK6 1AJ. Tel: 0908 691818. Fax: 0908 691939.

122 Ian Fraser Lighting Ltd
33/37 Jeffrey Street, Edinburgh EH1 1DH. Tel: 031-557 4404. Fax: 031-558 1544.

123 Furniture Industry Research Association
Maxwell Road, Stevenage, Hertfordshire SG1 2EW. Tel: 0438 313433.

124 G B Lighting Ltd
Marco Works, Pembroke Road, Bromley, Kent BR1 1RY. Tel: 081-460 3481. Fax: 081-460 0806.

125 GE Thorn Lamps Ltd
Albany House, Burlington Road, New Malden, Surrey KT3 4NJ. Tel: 081-949 3131. Fax: 081-949 7962.

126 John George Ltd
Unit 1, Carlton Centre, Union Street, Ashton-under-Lyne, Lancashire OL6 8LN. Tel: 061-343 2691. Fax: 061-343 2723.

127 Global Village Crafts Ltd
Sparrow Works, Bower Hinton, Martock, Somerset TA12 6LF. Tel: 0935 823390. Fax: 0935 822615.

128 Gold Crest Lampshades Ltd
61/63 Upton Lane, Forest Gate, London E7 9PB. Tel: 081-472 0166. Fax: 081-470 0898.

129 Golden Peacock Overseas Pvt Ltd
3E/2 Jhandewalan Extn, New Delhi-110 055, India. Tel: 010-9111 529545/520923. Fax: 010-9111 6836613.

130 Goodson Lighting Ltd
Pasturefield Industrial Estate, Church Lane, Hixon, Great Haywood, Stafford ST18 0RB. Tel: 0889 270161. Fax: 0889 271236.

131 J A Green & Sons Ltd
14 Deanshanger Road, Wicken, Milton Keynes, Buckinghamshire MK19 6BS. Tel: 0908 57215. Fax: 0908 57206.

132 Green Tree Lighting
Atlas Road, Clifton, York YO3 8UR. Tel: 0904 691122. Fax: 0904 691123.

133 Gregory's Ltd
119 Gregson Lane, Hoghton, Preston, Lancashire PR5 0LB. Tel: 0772 313799. Fax: 0772 628185.

134 Griffin Lighting
19 Harrow Road, Leighton Buzzard, Bedfordshire LU7 8UF. Tel: 0525 376305. Fax: 0525 372136.

135 H L S Ltd
Clayfields Estate, Tickhill Road, Balby, Doncaster, South Yorkshire DN4 8QG. Tel: 0302 855991. Fax: 0302 310280.

136 James Hackett (Ireland) Ltd
L7 Ballymount Industrial Estate, Walkinstown, Dublin 12, Republic of Ireland. Tel: 0001 500801. Fax: 0001 502172.

138 Hadrian International Ltd
Unit 6, Leadgate Industrial Estate, Leadgate, Consett, Co Durham DH8 7RN. Tel: 0207 590044. Fax: 0207 581248.

139 Hal-Lite
3 Somers Crescent, London W2 2PN. Tel: 071-402 1622. Fax: 071-262 0067.

140 The Halifax Lighting Co Ltd
6 Ackroyd Place, Halifax, West Yorkshire HX1 1XH. Tel: 0422 330061. Fax: 0422 347002.

141 R Hamilton & Co Ltd
Unit G, Quarry Industrial Estate, Mere, Wiltshire BA12 6LA. Tel: 0747 860088. Fax: 0747 861032.

142 Hannah Lampshades Ltd
Unit 1, Hastingwood Road, Hastingwood, Harlow, Essex CM17 9JQ. Tel: 0279 413466.

143 Harlequin Lighting Ltd
49/51 Brunswick Centre, Bloomsbury, London WC1N 1AH. Tel: 071-278 3161. Fax: 071-833 4344.

144 Hartline Products
Dicken House, Orchard Lane, Harrold, Bedford MK43 7BX. Tel: 0234 720991. Fax: 0234 721451.

145 Thomas Haywood & Sons Ltd
33 Avery Hill Road, London SE9 2BW. Tel: 081-850 5558. Fax: 081-850 0793.

146 Helix Lighting Ltd
Helix House, Wellingborough Road, Rushden, Northamptonshire NN10 9AH. Tel: 0933 318522. Fax: 0933 318663.

147 Herald Lighting Ltd (Inlite Group)
Hawtin Park, Pontllanfraith, Blackwood, Gwent NP2 2EU. Tel: 0443 816833. Fax: 0443 816763.

148 Hi Lighting Ltd
Unit 26/27, Nine Mile Point Industrial Estate, Cwmfelinfach, Gwent NP1 7HZ. Tel: 0495 201222.

149 Horrocks Shades Ltd
4B Rhiw Road, Colwyn Bay, Clwyd LL29 7TE. Tel: 0492 533105. Fax: 0492 534888.

150 Chris Howell & Co
PO Box 333, Chesham, Buckinghamshire HP5 2AB. Tel: 0494 771109. Fax: 0494 791554.

151 Hazelock Ltd
Haddenham, Aylesbury, Buckinghamshire HP17 8JD. Tel: 0844 291881. Fax: 0844 290344.

152 E & M Hughes
Mochdre Industrial Estate, Colwyn Bay, Clwyd LL28 5HA. Tel: 0492 547789. Fax: 0492 547789.

153 David Hunt Lighting Ltd
Tilemans Lane, Shipston-on-Stour, Warwickshire CV36 4HP. Tel: 0608 61590. Fax: 0608 62951.

154 Hylec-Elettro Gibi (UK) Ltd
Unit 4, Trinity Centre, Park Farm Industrial Estate, Wellingborough, Northamptonshire NN8 3ZB. Tel: 0933 677633.

155 I M I Reeves
Holdford Road, Witham, Birmingham B6 7ES. Tel: 021-356 7369. Fax: 021-356 7987.

156 Iberian Lighting Ltd
Drury lane, Hastings, East Sussex TN34 1XP. Tel: 0424 428161. Fax: 0424 728405.

158 Impex (Glassware) Ltd
Impex House, 8 Scrubs Lane, London NW10 6QR. Tel: 081-969 6496. Fax: 081-960 5337.

159 Import Development Ltd
Unit 2, Rowntree Road, Twickenham, Middlesex TW2 6RF. Tel: 081-755 0066. Fax: 081-898 2126.

160 Inlite Group
Hawtin Park, Pontllanfraith, Blackwood, Gwent NP2 2EU. Tel: 0443 862121. Fax: 0443 816763.

161 Interiors 1992
22/24 Mill Place, Kingston upon Thames, Surrey KT1 2RJ. Tel: 081-546 6234. Fax: 081-549 2102.

162 InterScene Ltd
Blenheim Way, Northfields Industrial Estate, Market Deeping, Peterborough PE6 8LB. Tel: 0778 344647. Fax: 0778 345539.

163 Ipiris International Ltd
Ipiris House, Pendle Street, Barrowford, Nelson, Lancashire BB9 8PH. Tel: 0282 697777. Fax: 0282 699929.

164 Ismos SpA
Via Torino 5/7/9, I-51011 Borgo & Buggiano, Pistoia, Italy. Tel: 010-39 572 32985. Fax: 010-39 572 32989.

165 Italy Direct Ltd
Unit 8, Bromyard Road Trading Estate, Ledbury, Herefordshire HR8 1NS. Tel: 0531 5005. Fax: 0531 5775.

166 Jackson & King Ltd
The Old Maltings, East Street, Ollney, Buckinghamshire MK46 4DH. Tel: 0234 711269. Fax: 0234 240313.

LIST OF MEMBERS

167 Jeremy & Co (Lampshades) Ltd
Stafford Court, Stafford Road, Fordhouses, Wolverhampton WV10 7EL. Tel: 0902 397201. Fax: 0902 397202.

168 D A Jones Ltd
Brinksby House, Stockport Road, Stockport, Cheshire SK3 0HZ. Tel: 061-474 7071. Fax: 061-477 3351.

169 K & L Designs
9/11 Turnpike Industrial Estate, Semington, Trowbridge, Wiltshire BA14 6LB. Tel: 0380 870822. Fax: 0380 871029.

170 K V T Agencies
46 Horsebrook Lane, Brewood, Stafford ST19 9EF. Tel: 021-326 6094. Fax: 021-327 2816.

171 Kamini Pottery
High Street, Irchester, Northamptonshire NN9 7AB. Tel: 0933 57688. Fax: 0933 57689.

172 Knobs & Knockers
Hathaway House, 7D Woodfield Road, London W9 2EA. Tel: 071-289 4764. Fax: 071-289 0343.

173 Kohinoor Lighting
Shop 8, 14 Birmingham Road, Dickensville, Vereeniging 1939, South Africa. Tel: 010-27 16 514293. Fax: 010-27 16 511429.

174 Konst Smide UK Ltd
Yew Tree Farm, Hardstoft, Pilsley, Chesterfield, Derbyshire S45 8AE. Tel: 0246 852140. Fax: 0246 854297.

175 L & M Lighting Ltd
Unit 2, Aylesbury Business Centre, Chamberlain Road, Aylesbury, Buckinghamshire HP19 3DY. Tel: 0296 392348. Fax: 0296 392360.

176 L R Products
275 Meanwood Road, Leeds LS7 2JD. Tel: 0532 454435. Fax: 0532 454435.

177 Laguna Light Srl
Via Bosca 1/A, I-31050 Badoero, Treviso, Italy. Tel: 010-394 227 39141. Fax: 010-394 227 39514.

178 Lamps & Lighting Ltd
Lighting House, Lomax Street, Great Harwood, Blackburn, Lancashire BB6 7DJ. Tel: 0254 883300. Fax: 0254 889957.

179 Lampshade Designs Ltd
Units 11 & 12, Sapcote Trading Centre, 374 High Road, London NW10 2SS. Tel: 081-459 3682. Fax: 081-451 7907.

180 Lampways Ltd
Allenby House, Knowles Lane, Wakefield Road, Bradford, West Yorkshire BD4 9AB. Tel: 0274 686666. Fax: 0274 651042.

181 Lancraft Ltd
Lionel Works, Arthur Road, Hay Mills, Birmingham B25 8HA. Tel: 021-772 8166. Fax: 021-772 8166.

182 Landalls Ltd
2 Harton Street, Deptford, London SE8 4DQ. Tel: 081-692 5127. Fax: 081-469 0332.

183 Langley Lighting
Unit 1, Clipstone Brook Industrial Park, Cherry Court Way, Leighton Buzzard, Bedfordshire LU7 8TX. Tel: 0525 850563. Fax: 0525 851623.

184 Larbert Potteries Scotland Ltd
28 Winchester Avenue, Denny, Stirlingshire FK6 6QE. Tel: 0324 824888. Fax: 0324 824580.

185 Ledu Ltd
Unit 6, Kennet Road, Crayford, Kent DA1 4QN. Tel: 0322 557529. Fax: 0322 559059.

186 E & H Lewy Ltd
The Lampworks, 201 Hornsey Road, London N7 6RA. Tel: 071-263 9397. Fax: 071-263 2656.

187 Leyris Lighting Ltd
9 Gowlett Road, Peckham, London SE22 4HX. Tel: 071-732 2191. Fax: 071-693 0196.

188 Liberty Plc
210/220 Regent Street, London W1R 6AH. Tel: 071-734 1234. Fax: 071-734 8323.

189 Light Designs (Gifts) Co Ltd
77 Tower Bridge Road, London SE1 4TW. Tel: 071-407 9130. Fax: 071-403 6007.

190 Light Source Electrical Equipment Ltd
24 Scrubs Lane, London NW10 6RD. Tel: 081-960 2188. Fax: 081-960 8901.

191 Light Years Ahead Ltd
Saracens House, St Margaret's Green, Ipswich, Suffolk IP2 4BN. Tel: 0473 225951. Fax: 0473 211508.

192 Lighting & Electrical Components Ltd
Bill House, Unit 1A, 222 Soho Hill, Villa Road, Hockley, Birmingham B19 1AP. Tel: 021-544 9924. Fax: 021-554 5243.

193 Lighting & Electrical Distributors (LED)
71 Somerset Road, London E17 8QN. Tel: 081-521 5485. Fax: 081-521 5485.

194 Lighting Import Agents/Adept Class Ltd
3 Somers Crescent, Hyde Park, London W2 2PN. Tel: 071-402 1622. Fax: 071-262 0067.

195 Lighting Up Ltd
10 Canal Street, Stockport, Cheshire SK1 3BZ. Tel: 061-480 6262. Fax: 061-480 7205.

196 Lightminded
183 Kneller Road, Whitton, Middlesex TW2 7DY. Tel: 081-894 2709. Fax: 081-898 5111.

197 Lightscene Ltd
C House, Riverside Avenue, Lightwater, Surrey GU18 5RU. Tel: 0276 50254. Fax: 0276 52080.

198 S Lilley & Son Ltd
80 Alcester Street, Birmingham B12 0QX. Tel: 021-622 2385. Fax: 021-666 6148.

199 Limelight Lighting
346/348 Oxford Road, Reading, Berkshire RG3 1AQ. Tel: 0734 583829.

200 Litecraft (Glasgow) Ltd
Block 16, Unit 2, Clydesmill Road, Cambuslang Investment Park, Glasgow G32 8RE. Tel: 041-641 9999. Fax: 041-641 9998.

201 The London Trend Lighting Co Ltd
3.5 Coxtie Green Road, Pilgrims Hatch, Brentwood, Essex CM14 5PM. Tel: 0277 374247. Fax: 0277 374949.

202 Loxton Lighting Ltd
Daytona House, Carlisle Road, Pudsey, Leeds LS28 8PL. Tel: 0532 561147. Fax: 0532 393146.

203 Luckswitch Ltd
Unit 4, St Columb Industrial Estate, St Columb, Cornwall TR9 6SF. Tel: 0637 880015. Fax: 0637 881229.

204 Lui's Collection
Unit 14, Sleaford Industrial Estate, Sleaford Street, London SW8 5AB. Tel: 071-978 1095. Fax: 071-498 8191.

205 M D Lighting Ltd
Gorse Mill, Gorse Street, Chadderton, Oldham OL9 9RJ. Tel: 061-724 6031. Fax: 061-724 5712.

206 M D C International Ltd
2 Victoria Industrial Estate, Victoria Road, London W3 6UU. Tel: 081-992 4641. Fax: 081-993 8539.

207 M E M Limited
Whitegate, Broadway, Chadderton, Oldham OL9 9QG. Tel: 061-652 1111. Fax: 061-626 1709.

208 M & F Products (Croydon) Ltd
Wandle Mills, Wandle Road, Beddington, Croydon, Surrey CR9 4NP. Tel: 081-688 1645.

209 M K Electric
Shrubbery Road, Edmonton, London N9 0PB. Tel: 081-803 3355. Fax: 081-803 5733.

210 Maclamp Co Ltd (Inlite Group)
Hawtin Park, Pontllanfraith, Blackwood, Gwent NP2 2EU. Tel: 0443 862121. Fax: 0443 816763.

211 Maestro Lite Ltd
5 Argall Avenue, London E10 7QD. Tel: 081-539 0233. Fax: 081-558 2718.

212 Mahon Furnishings Ltd
Brownhill, Irvinestown, Co Fermanagh, Northern Ireland BT94 1DW. Tel: 03656 21384. Fax: 03656 21945.

213 Major Progress Ltd
15 Dulverton Road, Witton, Birmingham B6 7EQ. Tel: 021-327 2992. Fax: 021-327 2992.

214 David Malik & Son Ltd
5 Metro Centre, Britannia Way, Park Royal, London NW10 7PA. Tel: 081-965 4232. Fax: 081-965 2401.

215 Marbourn Ltd
Oakesway Road, Hartlepool Industrial Estate, Hartlepool, Cleveland TS24 0RE. Tel: 0429 265511. Fax: 0429 861438.

216 Peter Martin Lighting Design Ltd
36A Dashwood Avenue, High Wycombe, Buckinghamshire HP12 3DU. Tel: 0494 464363. Fax: 0494 462413.

217 Masons Ironstone
Broad Street, Hanley, Stoke-on-Trent ST1 4HH. Tel: 0782 264354. Fax: 0782 260888.

218 Massive UK Ltd
Castle Road, Eurolink Commercial Park, Sittingbourne, Kent ME10 3RN. Tel: 0795 424442. Fax: 0795 420779.

219 Metal & Arts (1982) Ltd
26 Newman Street, London W1P 3HA. Tel: 071-580 3642.

220 Metalarte SA
Avda Barcelona 4, 08970 Saint Joan Despi, Barcelona, Spain. Tel: 010-34 3 477 00 69. Fax: 010-34 3 477 00 86.

221 Metamec Clocks & Lighting Ltd
South Green, Dereham, Norfolk NR19 1PP. Tel: 0362 692121. Fax: 0362 693022.

222 Micromark Lighting
550 White Hart Lane, London N17 7RQ. Tel: 081-881 2001. Fax: 081-889 3615.

MATERIALS

FOR

LAMP SHADES

**Fabrics, Laminates, Pleats,
Tapes, Trimmings, Accessories.**



Material of
Natural Beauty

**Martin Dannell & Co. Ltd.
Grosvenor Works,
Mount Pleasant Hill,
LONDON E5 9NE.**

**Telephone: 081-806 8662
Fax: 081-806 7180**

Reader Service No. 311

FOOTBALL LAMP SHADES



These Football Lampshades come ready assembled and are available in any team colours. They make an attractive and novel decoration which can be used either as a ceiling light or as a table lamp (base not supplied).

Display one or two of these shades in your shop window and you'll achieve a steady stream of sales.

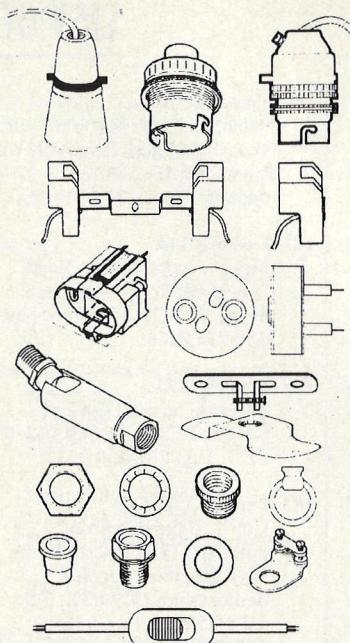
Telephone us for further details

Enlite Ltd.

UNIT 16
PETERSFIELD BUSINESS PARK
BEDFORD ROAD
PETERSFIELD, HAMPSHIRE

Telephone: 0730 66566 Fax: 0730 66565

Reader Service No. 313



Brass & Bakelite
Lampholders With And
Without Flex

R7S Tungsten Halogen
Lampholders

PL Lampholders

Low Voltage
Lampholders

Brass Knuckle Joints:
Natural, Chrome,
Plated, Polished &
Lacquered

Brass And Steel
Lighting Components

Insulation Grommets,
Cord Grips, Pottery
Nipples

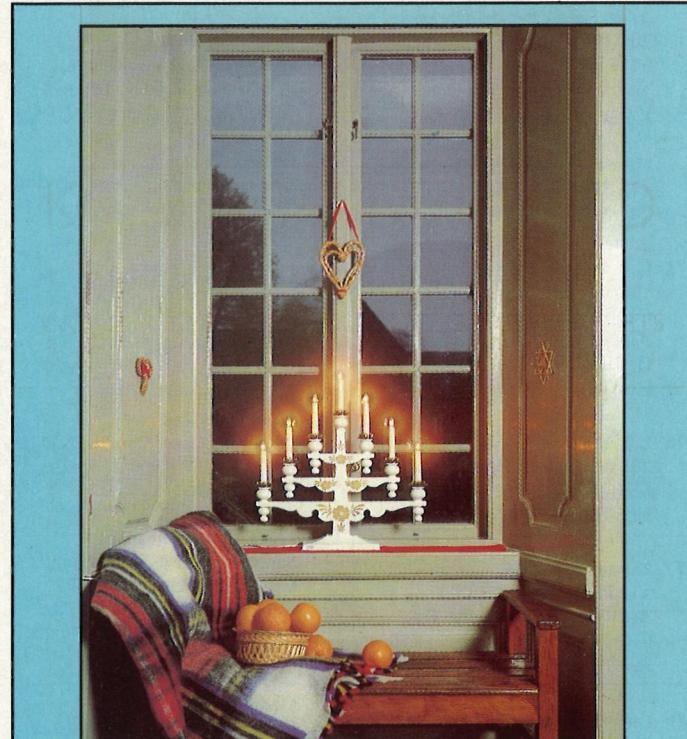
We carry a full range of components for supply ex-stock. Free delivery nationwide.

LIGHTING & ELECTRICAL COMPONENTS LTD

Unit 1A, Bill House,
222 Soho Hill (entrance off Villa Road)
Hockley, Birmingham B19 1AP
Tel: 021-554 9924 Fax: 021-554 5243



Reader Service No. 312



KONSTSMIDE UK LTD

QUALITY AND STYLE FOR CHRISTMAS
IN ALL ELECTRICAL DECORATIONS
INCLUDING INDOOR AND OUTDOOR TREE LIGHTS

TEL: 0246 852140 FOR CATALOGUE

Reader Service No. 314

DLA Buyers Guide 1991/92

LIST OF MEMBERS

223 J H Miller & Sons Ltd
Fallons Road, Wardley Industrial Estate, Worsley, Manchester M28 5NJ. Tel: 061-794 6013. Fax: 061-794 2834.

224 Miranda Contracts Ltd
629/631 Roman Road, London E3 2RN. Tel: 081-983 0202. Fax: 081-983 0268.

225 Mitre Marketing
5 The Chase, Long Buckby, Northamptonshire NN6 7PN. Tel: 0327 842533. Fax: 0327 842533.

226 Montrose International
47/48 Berners Street, London W1P 3AD. Tel: 071-580 5316. Fax: 071-636 0243.

227 W Moorcroft Plc
Sandbach road, Burslem, Stoke-on-Trent ST6 2DQ. Tel: 0782 214323. Fax: 0782 283455.

228 E N Morgan Ltd
The Corner House, Coach Lane, Redruth, Cornwall TR15 2TR. Tel: 0209 215965.

229 Moss Lighting Ltd
44/45 Bishopsgate Street, Edgbaston, Birmingham B15 1ES. Tel: 021-643 0529. Fax: 021-533 4576.

230 Mowbray Lighting
PO Box 4, Old Hawne Lane Works, Halesowen, West Midlands B63 3SN. Tel: 021-550 1101. Fax: 021-585 5361.

231 Mr Light
275 Fulham Road, London SW10 9PZ. Tel: 071-352 7525. Fax: 071-581 4399.

232 Murano Studio
103 Marylebone High Street, London W1M 3DB. Tel: 071-487 4560. Fax: 071-486 3836.

233 Neptune Shades
20 Beaconsfield Road, Deal, Kent CT14 7BY. Tel: 0304 362397. Fax: 0304 381635.

234 New Gala Lampshade Manufacturers Ltd
63A Cricklewood Broadway, London NW2 3JR. Tel: 081-452 1430.

235 Noma Lites Ltd
Southey House, Avro Way, Brooklands, Weybridge, Surrey KT13 0YU. Tel: 0932 336433. Fax: 0932 336014.

236 Noral Ltd
Vincent Avenue, Crownhill, Milton Keynes MK8 0AB. Tel: 0908 561818. Fax: 0908 569785.

237 Norden Lights Ltd
44 Roundwell Street, Tunstall, Stoke-on-Trent ST6 5AN. Tel: 0782 835594. Fax: 0782 835608.

238 Nuthall Lighting Ltd
High Holborn Road, Codnor Gate Industrial Estate, Ripley, Derby DE5 3NL. Tel: 0773 570000. Fax: 0773 570508.

239 Novotem Teo
Crolly, Co Donegal, Republic of Ireland. Tel: 010-252 75 21177. Fax: 010-353 75 48139

240 O'Neill's Home Lighting
90 Nottingham Road, Derby DE2 6AQ. Tel: 0332 367369.

241 Opal Lighting
Opal House, 23A Knights Hill, West Norwood, London SE27 0HS. Tel: 081-670 9885. Fax: 081-761 9233.

242 Osram Ltd
PO Box 17, East Lane, Wembley, Middlesex. Tel: 081-904 4321. Fax: 081-904 1178.

243 PLMC Ltd
PLMC House, 8/10 Trading Estate Road, Park Royal Road, London NW10 7LU. Tel: 081-961 2828. Fax: 081-965 7831.

244 P M Lighting
10 Oakhill Road, Beckenham, Kent BR3 2NQ. Tel: 081 650 9330. Fax: 081-650 9330.

245 Palmers Texlite Ltd
Station Road, Facit, Whitworth, Rochdale, Lancashire OL12 8RT. Tel: 0706 852909. Fax: 0706 852960.

246 Panorama Lighting Ltd
Unit 9, Willersey Industrial Estate, Willersey, Broadway, Worcestershire WR12 9PR. Tel: 0386 852171. Fax: 0386 853521.

247 Park Rose Ltd
Carnaby Covert Lane, Carnaby, Bridlington, North Humberside YO15 3QT. Tel: 0262 602823

248 J & M Parker Ltd
9 New Summer Street, Birmingham B19 3QN. Tel: 021-359 8897. Fax: 021-359 4497.

249 Jonathan Perant Lighting
Europa House, Coronation Avenue, Harrogate, North Yorkshire HG2 8BY. Tel: 0423 873201. Fax: 0423 879736.

250 Philipinalia Ltd
72/78 Station Road, Shalford, Guildford, Surrey GU4 8HD. Tel: 0483 570233. Fax: 0483 505133.

251 Philips Lighting
City House, 429 London Road, Croydon, Surrey CR9 3QR. Tel: 081-665 6655. Fax: 081-665 5102.

252 Piggy Pottery
Y Glyn, Llanberis, Gwynedd LL55 4EL. Tel: 0286 872529. Fax: 0286 870961.

253 D J Plaster Ltd
Arragon Lodge, Santon, Isle of Man. Tel: 0624 824650.

254 Poole Lighting Ltd
Cabot Lane, Creekmoor, Poole, Dorset BH17 7BY. Tel: 0202 697344. Fax: 0202 600166.

255 Poole Pottery Ltd
The Quay, Poole, Dorset BH15 1RF. Tel: 0202 666200. Fax: 0202 682894.

256 C & H Powell (Meopham) Ltd
12 Haven Close, Istead Rise, Meopham, Kent DA13 9JR. Tel: 0474 832367. Fax: 0474 812313.

257 J N Preedy Ltd
Unit 12, Camberwell Trading Estate, 117/119 Denmark Road, London SE5 9LB. Tel: 071-737 0351. Fax: 071-737 2787.

258 Premier Decorations Ltd
Sinitron House, 1 South Way, Wembley, Middlesex HA9 0HB. Tel: 081-900 2030. Fax: 081-903 4038.

259 Pressac Ltd
Acton Grove, Long Eaton, Nottingham NG10 1FW. Tel: 0602 461600. Fax: 0602 461648.

260 Prima Lighting Ltd
Giltland House, 12 Chester Road, Borehamwood, Hertfordshire WD6 1LT. Tel: 081-953 0855. Fax: 081-207 3923.

261 W J Purvis
3.4 Gidleys Meadow, Christow, Exeter, Devon EX6 7QB. Tel: 0647 52351.

262 Quest Emess Ltd
Unit 4, City Estate, Corngreaves Road, Cradley Heath, Warley, West Midlands B64 7EP. Tel: 0384 69998. Fax: 0384 69110.

263 R V Lamps Ltd
Victoria Works, Sion Street, Radcliffe, Manchester M26 0SB. Tel: 061-723 5039. Fax: 061-724 9078.

264 Rain Ltd
26 Voltaire Road, London SW4 6DH. Tel: 071-498 7351. Fax: 071-498 0893.

265 Reader's (IOW) Ltd
79 Place Road, West Cowes, Isle of Wight PO31 7AF. Tel: 0983 292131. Fax: 0983 296042.

266 Reeswood Lighting Fittings
Unity Road, Lowmoor Road Industrial Estate, Kirkby-in-Ashfield, Nottinghamshire NG17 7LE. Tel: 0623 754456.

267 Reflective Lighting Ltd
Cape House, Boddington Industrial Estate, Drove Road, Biggleswade, Bedfordshire SG18 8HB. Tel: 0767 314386. Fax: 0767 317946.

268 Reggiani Ltd Lighting
Giltland House, 12 Chester Road, Borehamwood, Hertfordshire WD6 1LT. Tel: 081-953 0855. Fax: 081-207 3923.

269 La Reine (UK) Ltd
7 Brassey Road, Winton, Bournemouth BH8 1PW. Tel: 0202 512411. Fax: 0202 533056.

270 The Carlos Remes Lighting Co
10 New Quebec Street, London W1H 7DD. Tel: 071-262 9963. Fax: 071-262 9227.

271 Renker Ltd
9 Blacklands Way, Abingdon Business Park, Abingdon, Oxfordshire OX14 1DY. Tel: 0235 554100. Fax: 0235 534770.

272 Ring Lighting
Gelder Road, Leeds LS12 6NB. Tel: 0532 791791. Fax: 0532 638708.

273 Ringslade Plastics Ltd
Angel Road Works, Angel Road, Edmonton, London N18 3BE. Tel: 081-807 0665. Fax: 081-884 1161.

274 R & S Robertson Ltd
13/14 Bankhead Industrial Estate, 36 Bankhead Drive, Edinburgh EH11 4EQ. Tel: 031-442 1700. Fax: 031-442 4356.

275 Rochamp Ltd
Unit 5, Shaftesbury Industrial Centre, The Runnings, Cheltenham, Gloucestershire GL51 9NH. Tel: 0242 525385. Fax: 0242 227546.

276 A Rogers & Sons
64 Higham Road, Chesham, Buckinghamshire HP5 2AF. Tel: 0494 785276.

277 Rollo (UK) Ltd
Caxton Way, Thetford, Norfolk IP24 3RY. Tel: 0842 762321. Fax: 0842 762324.

278 Bernard Rooke Pottery
The Old Mill, Swilland, Ipswich IP6 9LW. Tel: 0473 85460.

279 Clive Rowland (Lighting)
The Studio, 4A Hyde Park Place, London W2 2LH. Tel: 071-723 4093. Fax: 071-723 1807.

280 Royal Brierley Crystal Ltd
North Street, Brierley Hill, West Midlands DY5 3SJ. Tel: 0384 70161. Fax: 0384 262521.

LIST OF MEMBERS

281 Royal Winton Ltd
Norfolk Street, Shelton, Stoke-on-Trent ST1 4PA. Tel: 0782 286774. Fax: 0782 287572.

282 P Ruddiman Ltd
Ashbrow Mills, Sheepbridge, Huddersfield HD2 1DT. Tel: 0484 516705. Fax: 0484 547586

283 Russell Electrics Ltd
43/45 Grays Inn Road, London WC1X 8PP. Tel: 071-405 1052. Fax: 071-242 3567.

284 Philip Salter & Son Ltd
Cobden Mill, Gower Street, Farnworth, Lancs BL4 7HD. Tel: 0204 707277. Fax: 0204 861890.

285 C Sandberg & Son Ltd 'Endon'
Felnex Road, Cross Green Industrial Estate, Leeds LS9 0SS. Tel: 0532 492755. Fax: 0532 484519.

286 Saville E S Ltd
24 Longfellow Road, Worcester Park, Surrey KT4 6BB. Tel: 081-337 0874. Fax: 081 337 4107.

287 Saville Pottery Ltd
Unit 7C, Whitebridge Industrial Estate, Whitebridge Lane, Stone, Staffordshire ST15 8LQ. Tel: 0785 818626. Fax: 0785 812114.

288 Scan Decor trading as Scan Lighting (Inlite Group)
Hawtin Park, Pontllanfraith, Blackwood, Gwent NP2 2EU. Tel: 0443 862121. Fax: 0443 816763.

289 Scurrey Shades
51 Market Hill, Maldon, Essex CM9 7QA. Tel: 0621 855519.

290 Searchlight Electric Ltd
Searchlight Trading Estate, Water Street, Manchester M3 4JU. Tel: 061-834 5451. Fax: 061-832 0316.

291 J Segal (Electrical) Co Ltd
Unit F, Harbet Road, Lea Valley Trading Estate, Edmonton London N18 3LD. Tel: 081-884 3458. Fax: 081-884 3634.

292 Stephen Selby Pictures Ltd
53/65 Broadway Market, London E8 4PH. Tel: 071-254 9771.

293 Serva Lighting
Europa House, Coronation Avenue, Harrogate, North Yorkshire HG2 8BY. Tel: 0423 871785. Fax: 0423 879736

294 Shades of Glasgow
91 McPhail Street, Bridgeton, Glasgow G40 1ND. Tel: 041-551 9850. Fax: 041-554 5005.

295 Shelf Pottery Ltd
Denholme Gate Road, Hipperholme, Halifax, West Yorkshire HX3 8JQ. Tel: 0422 205858.

296 Shire Wholesale Furnishings Ltd
65 High Street, Colchester, Essex CO1 1DX. Tel: 0206 47163. Fax: 0206 47163.

297 The Silk-Gate Collection
Foundation Units — No 5, Westfield Road, Slyfield Industrial Estate, Guildford, Surrey GU1 1RR. Tel: 0483 37752. Fax: 0483 31598.

298 Stella Silver
12 Gladstone Road, Sheffield S10 3GT. Tel: 0742 301434.

299 Simon & Simon (Lampshades) Ltd
Fitzwarren Street, Salford M6 5JF. Tel: 061-745 7985. Fax: 061-745 9856.

300 Barry R Skinner Lighting
Unit 3, Clipstone Brook Industrial Park, Cherry Court Way, Leighton Buzzard, Bedfordshire LU7 8TX. Tel: 0525 850562. Fax: 0525 851623.

301 Tony Skinner Oriental Arts
Brightwell Industrial Estate, Ferryfield, Norton Road, Newhaven, East Sussex BN9 0JF. Tel: 0273 517000. Fax: 0273 516134.

302 Arnold Smart Ltd
Gadlys Industrial Estate, Depot Road, Aberdare, Mid Glamorgan CF44 8DL. Tel: 0685 884202. Fax: 0685 811882.

303 S Smith (Electrical Fittings) Ltd
85 Abercromby Avenue, High Wycombe, Buckinghamshire HP12 3BB. Tel: 0494 21667.

304 Smithbrook Ltd
Smithbrook, Cranleigh, Surrey GU6 8LH. Tel: 0483 272744. Fax: 0483 267863.

305 Sophie International Ltd
Chesette Building, Hurst Street, Birmingham B5 6SD. Tel: 021-622 4911. Fax: 021-622 7242.

306 Spearmark International Ltd
Howard Road, Eaton Socon, St Neots, Cambridgeshire PE19 3ET. Tel: 0480 213633. Fax: 0480 217048.

307 Spectrum Luminaires Ltd
2/2 Stanmore Industrial Estate, Bridgnorth, Shropshire WV15 5HP. Tel: 0746 761449. Fax: 0746 766445.

308 Speights Ltd
Classic Works, Mirfield, West Yorkshire WF14 8BJ. Tel: 0924 494176. Fax: 0924 480691.

309 Squire Lighting Ltd
Hartford House, Weston Street, Bolton, Lancashire BL3 2AX. Tel: 0204 380813. Fax: 0204 382355.

310 Starlite (Chandeliers) Ltd
127 Harris Way, Windmill Road, Sunbury-on-Thames, Middlesex TW16 7EL. Tel: 0932 788686. Fax: 0932 780283.

311 Stenda Quality Products Ltd
220 Katherine Street, Ashton-under-Lyne, Lancashire OL6 7AS. Tel: 061-343 1331.

312 Laura Stevens Lighting
Tunwell Mills, Victoria Road Industrial Estate, Eccleshill, Bradford, West Yorkshire BD2 2HE. Tel: 0274 640044.

313 The Straits Trading Co Ltd
Pendle View, Bournes Row, Hoghton, Preston, Lancashire PR5 0DR. Tel: 0254 854363. Fax: 0254 853400.

314 Strathearn Lighting
49 Burrell Street, Crieff, Perthshire PH7 4DG. Tel: 0764 2509. Fax: 0764 3599.

315 Studen Products Ltd
Hedgehog House, Unit 8, Caldershaw Centre, Rooley Moor Road, Rochdale, Lancashire OL12 7NR. Tel: 0706 45225. Fax: 0706 50791.

316 Studio 17 (Lighting) Ltd (Inlite Group)
Hawtin Park, Pontllanfraith, Blackwood, Gwent NP2 2EU. Tel: 0443 862121. Fax: 0443 816763.

317 Sublime Lighting (Inlite Group)
Denaby Lane, Denaby Industrial Estate, Denaby, Doncaster, South Yorkshire DN12 4JJ. Tel: 0709 861553. Fax: 0709 860551.

318 Supashades Ltd
Nelson Way, Nelson Industrial Estate, Cramlington, Northumberland NE23 9BL. Tel: 0670 735218. Fax: 0670 735017.

319 Supertrim Ltd
Harrington Mills, Leopold Street, Long Eaton, Nottingham NG10 4QG. Tel: 0602 727265. Fax: 0602 722022.

320 Sussex Brassware Ltd
Napier Road, Castleham Industrial Estate, St Leonards-on-Sea, East Sussex TN38 9NY. Tel: 0424 440734. Fax: 0424 853862.

321 Bernard S Sutcliffe Ltd
105 Stainbeck Road, Leeds LS7 2PR. Tel: 0532 680409.

322 Swan Lighting
Unit 12, Queens Court, Greets Green Road, West Bromwich, West Midlands B70 9EG. Tel: 021-522 4733.

323 Bernard Szeps Lighting Ltd (Montrose International)
47/48 Berners Street, London W1P 3AB. Tel: 071-580 5316. Fax: 071-636 0243.

324 Take Ltd
75 Prince of Wales Road, London NW5 3LT. Tel: 071-267 3937/4124. Fax: 071-267 3997.

325 Tally Ho Lighting Co Ltd
Unit 31, Cam Centre, Wilbury Way, Hitchin, Hertfordshire SG4 0TW. Tel: 0462 438336. Fax: 0462 436669.

326 Tanner Lighting
Unit 4, Boscomoor Industrial Estate, Boscomoor Lane, Pankridge, Staffordshire ST19 5NU. Tel: 0785 715098. Fax: 0785 840204.

327 Tempus Stet Ltd
Trinity Business Centre, 305/309 Rotherhithe Street, London SE16 1EY. Tel: 071-231 0955. Fax: 071-252 3820.

328 Helen Thomas Ltd
Battle House, School Lane, Naseby, Northamptonshire NN6 8BZ. Tel: 0604 740017. Fax: 0604 740700.

329 Andy Thornton Architectural Antiques
Ainleys Industrial Estate, Elland, West Yorkshire HX5 9JP. Tel: 0422 375595. Fax: 0422 377455.

330 Thousand and One Lamps Ltd
4 Barmston Road, Catford, London SE6 3BN. Tel: 081-698 7238. Fax: 081-698 6134.

331 Thurber Manufacturing Ltd
109 Bordesley Street, Birmingham B5 5PL. Tel: 021-643 4677. Fax: 021-633 3557.

332 Tramar Ltd
South Lane, Bishop Wilton, York YO4 1SE. Tel: 0759 6741. Fax: 0759 6794.

333 Transomnia
Unit 3, Mahatma Gandhi Estate, Milkwood Road, London SE24 0JF. Tel: 071-737 0260. Fax: 071-733 0984.

334 Trident Manufacturing Ltd
95 Greengate, Salford, Manchester M3 7NG. Tel: 061-832 0212. Fax: 061-832 7171.

335 Tridonic Ltd
Thomas House, Hampshire International Business Park, Crockford Lane, Chineham, Basingstoke, Hampshire RG24 0NA. Tel: 0256 707000. Fax: 0256 707002.

LIST OF MEMBERS

336 Tungsram Lighting Ltd
Nene House, Drayton Way,
Drayton Fields Industrial Estate,
Daventry, Northamptonshire
NN11 5EA.
Tel: 0327 77683.
Fax: 0327 76386.

337 Vectase Plc
Gorrels Way, Transpennine
Trading Estate, Rochdale,
Lancashire OL11 9XX. Tel:
0706 341636. Fax: 0706
861332.

**338 Vitrea (Merchants) Ltd
(trading as Glassexport)**
12 Clerkenwell Road, London
EC1M 5PP. Tel: 071-253 1625.
Fax: 071-608 0869.

339 Wade Ceramics Ltd
Lighting Division, Manchester
Pottery, Greenhead Street,
Burslem, Stoke-on-Trent ST6
4AE.
Tel: 0782 575700.
Fax: 0782 813663.

340 D M Walker (Lighting) Ltd
Audby Lane, Wetherby, West
Yorkshire LS22 4FD. Tel: 0937
580158. Fax: 0937 584153.

**341 Walker Picton Manufacturing
Ltd**
Unit 5, Totteridge Works,
Totteridge Avenue, High
Wycombe, Buckinghamshire
HP13 6XG. Tel: 0494 439418.
Fax: 0494 448692.

**342 Warminster Lighting Centre
Ltd**
Factory Lane, Warminster,
Wiltshire BA12 8LT. Tel: 0985
216624. Fax: 0985 215530.

**343 Waterford Crystal (Lighting)
Ltd**
Butlerstown, Waterford,
Republic of Ireland. Tel: 010-
353 517 3311.

344 Webb & Kempf Ltd
Denmans Dairy, Barrington,
Ilminster, Somerset TA19 0JW.
Tel: 0460 57080. Fax: 0460
54335.

345 Josiah Wedgwood & Sons Ltd
Barlaston, Stoke-on-Trent ST12
9ES. Tel: 0782 204141. Fax:
0782 204402.

346 West One Ltd
Hillside House, Avon Dassett,
Leamington Spa, Warwickshire
CV33 0AL. Tel: 0295 89402.
Fax: 0295 89565.

347 Wickshades Lighting Ltd
Unit 5A, St Francis Way,
Shefford Industrial Park,
Shefford, Bedfordshire SG17
5DZ. Tel: 0462 816321. Fax:
0462 815548.

**348 Wilkins & Wilkinson (Elland)
Ltd**
Valley Mills, Park Road, Elland,
West Yorkshire HX5 9HP. Tel:
0422 373783. Fax: 0422
310027.

349 Peter Williams Wood Creations
Unit 3, Grigorhill Industrial
Estate, Granny Barbour's Road,
Nairn, Inverness-shire IV12
5HY. Tel: 0667 62188.

350 Windsor Lighting Ltd
Unit 18, 221/231 High Street,
Slough, Berkshire SL11BY.
Tel: 0753 691681.

**351 George Wood (Woodworkers)
Ltd**
Laundry Street, Pendleton,
Salford, Manchester
M6 6WJ.
Tel: 061-736 6855.
Fax: 061-745 9544.

**352 Christopher Wray's Contract
Lighting**
600 Kings Road, London
SW6 2DX.
Tel: 071-736 8434.
Fax: 071-731 3507.

**353 Yewtree Manufacturing Ltd
(Bayoak Ltd)**
43 Yewtree Lane, Yardley,
Birmingham
B26 1AP.
Tel: 021-706 8153.
Fax: 021-706 1786.

MASSIVE

Manufacturers of a
comprehensive range of
Halogen and Decorative
Home & Garden
Lighting, for the retail
and contract market.

MASSIVE UK LTD
Castle Road,
Eurolink
Commercial Park,
Sittingbourne,
Kent, ME10 3RN

Tel: (0795) 424442

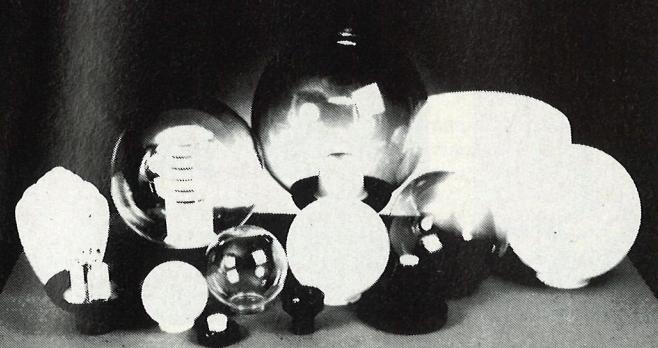
Fax: (0795) 420779



MEMBERS SUPPLYING UNLISTED PRODUCTS

3 Abstracta Construction Ltd Fabric covered display plinths. Slimline display shelving.	90 Decor Brass Ltd Polished brass electrical wiring accessories.	175 L & M Lighting Ltd Lighting components.	242 Osram Ltd Lamps.
13 Ashley & Rock Ltd Luminaire support coupler, lampholders, ceiling roses, batten lampholders — all wiring equipment.	97 Dencon Accessories Ltd Electrical accessories.	176 L R Products Purpose-made chandeliers.	243 PLMC Ltd Shade carriers, gimbals, flicker bulbs and decor bulbs.
17 A Attenborough & Co Ltd Braid and fringes for domestic lampshades.	99 Deta Electrical Co Ltd Festoon lighting, Christmas lights, brass and moulded lampholders, flex.	178 Lamps & Lighting Ltd Modular lighting fans.	251 Philips Lighting Ltd Lamps.
32 Belvedere Carved wood with decorative gilding or paintwork finish.	106 Encon Industries Inc Ltd Track lighting.	179 Lampshade Designs Ltd Silk and laminated lampshades.	255 Poole Pottery Ltd Lamp bases.
40 The British Crystal Lighting Co Ltd Custom made fittings, cleaning and restoration.	108 Eterna Lighting Ltd Striplights for the furniture industry.	186 E & H Lewy Ltd Plastic profiles.	258 Premier Decorations Ltd Christmas indoor and outdoor lights.
43 Buchanan Lighting Services Crystal, glass and brass components, halogen lamps and transformers.	111 Fantasia Ceiling Fans Ltd Decorative ceiling fans with light accessories.	190 Light Source Electrical Equipment Ltd Lampholders, low-voltage transformers and ballasts. Glass and metal components.	271 Renker Ltd Lampshade materials.
48 C & M Packing Services Contract packing and assembly services.	124 G B Lighting Ltd Lampshade frames.	192 Lighting & Electrical Components Ltd Lampholders, brass lighting components.	272 Ringslade Plastics Ltd. Diffusers and louvres.
50 Candela Traditional Lighting Ltd Traditional lamp posts, lanterns, street lighting and illuminated bollards.	125 GE Thorn Lamps Ltd Lamps.	198 S Lilley & Son Ltd Lampholders, brass accessories, tube bends.	277 Rollo (UK) Ltd Electric candle lights
54 Chandelier Cleaning & Restoration Services Ltd Installation, maintenance and restoration of chandeliers.	129 Golden Peacock Overseas Pvt Ltd Lamp holders and accessories. Turned brass parts, brass castings. Ceiling fittings and lanterns.	207 MEM Limited Lamp-and battenholders, ceiling roses and outdoor festoon lighting.	282 P Ruddiman Ltd Silk and fabric shades.
64 Chandelier Specialist Lamps Ltd Lamps for chandeliers and wall-lights.	139 Hal-Lite Lamps.	208 M & F Products (Croydon) Ltd Wire lampshade frames.	283 Russell Electrics Ltd Lighting accessories.
73 Collingwood VLM Ltd Luminaire accessories, glassware, brass and aluminium castings.	144 Hartline Products Brass, glass and marble components.	209 MK Electric Luminaire support couplers.	299 Simon & Simon (Lampshades) Ltd Wire lampshade frames and parts.
82 Crompton Lighting Decorative lamps.	151 Hozelock Ltd Low voltage decorative garden lighting.	211 Maestro Lite Ltd Detachable ceiling roses.	315 Studen Products Ltd Bakelite and brass lampholders.
84 Martin Dannell & Co Ltd Laminated lampshade materials and trimmings, and ceramic lampbases.	151 I M I Reeves Lampholders in aluminium, brass, phenolic and ceramics.	216 Peter Martin Lighting Design Ltd Pleated lampshades.	319 Supertrim Ltd Trimmings.
86 Daveen Manufacturing Co Ltd Beaded shades.	161 Interiors 1900 Bronze fittings.	221 Metamec Clocks & Lighting Ltd Outdoor decorative festoon lighting, garden and pool lighting and strip lights.	331 Thurber Manufacturing Ltd Metal and wood components.
	168 D A James Ltd Acrylic dome manufacturers.	229 Moss Lighting Ltd Lampshades and Tiffany frames.	335 Tridonic Ltd Chokes, transformers, ignitors, electronic ballasts, electronic transformers, terminal blocks, reflectors.
	170 K V T Agencies Crystal and glass chandelier components.	235 Noma Lites Ltd Christmas indoor and outdoor lights.	338 Vitreia (Merchants) Ltd (trading as Glassexport) Glass trimmings.
	174 Konst Smide UK Ltd Christmas lighting for indoor and outdoor use. Illuminated garlands and candle lights.	239 Nuvotem Teo Low voltage lighting transformers	340 D M Walker (Lighting) Ltd Lampholders, chains, rods and other accessories.
			348 Wilkins & Wilkinson (Elland) Ltd Manufacture to customer's specification.

THE GLOBE STOCKIST TO THE INDUSTRY



Y L A
E M P

K E Y L I G H T I N G C O M P O N E N T S

**TEL: (0535) 635922
FAX: (0535) 633546**

**Royd Mills, Cowling, Keighley,
North Yorkshire, BD22 0BE.**

PRODUCT CLASSIFICATION

OUTDOOR LIGHTS

Traditional

Alabaster

200, 290

Aluminium

7, 21, 33, 41, 43, 44, 46, 50, 58, 65, 70, 75, 83, 85, 91, 105, 109, 113, 125, 126, 134, 136, 147, 153, 158, 164, 166, 175, 180, 194, 195, 218, 219, 222, 223, 230, 236, 272, 274, 283, 285, 290, 300, 307, 308, 314, 326, 329, 337, 342

Brass

50, 58, 60, 68, 75, 91, 98, 106, 121, 135, 136, 153, 158, 189, 195, 200, 219, 230, 285, 290, 325, 329, 352

Brass-plated

98, 126, 158

Brass and glass

50, 68, 91, 98, 121, 136, 153, 158, 189, 194, 230, 254, 325, 352

Ceramic and porcelain

158

Chromium/stainless steel

50, 98, 126, 325

Copper

46, 50, 68, 91, 98, 105, 121, 178, 195, 200, 219, 230, 307, 352

Copper and glass

50, 68, 75, 91, 98, 121, 178, 219, 230, 352

Glass, blown

33, 43, 46, 105, 153, 194, 222, 290, 304

Glass, crystal

194, 290

Glass, moulded

20, 33, 41, 43, 82, 194, 222, 258, 268, 290

Gold-plated

98, 113

Iron

51, 83, 98, 135, 194, 219

Plaster

2

Plastic

44, 82, 83, 91, 113, 114, 125, 134, 151, 203, 218, 222, 258, 272

Pottery

194

Silver-plated

98

Steel

82, 83, 98, 194, 195, 200, 222, 348

Wood

113

OUTDOOR LIGHTS

Modern

Aluminium

21, 41, 43, 58, 65, 82, 83, 85, 109, 113, 114, 116, 126, 134, 136, 158, 164, 178, 194, 218, 222, 236, 268, 272, 290, 300, 314, 326, 329, 348

Brass

98, 113, 121, 136, 158, 178, 263, 325, 348

Brass-plated

98, 113, 158, 178, 348

Brass and glass

98, 113, 136, 158, 194, 325

Ceramic and porcelain

158

Chromium/stainless steel

98, 126, 178, 263, 325, 348

Copper

98, 263, 348

Copper and glass

98

Glass, blown

33, 43, 194, 222, 290

Glass, crystal

194, 290

Glass, moulded

20, 33, 41, 43, 82, 194, 222, 258, 268, 290

Gold-plated

98, 113

Iron

51, 83, 98, 135, 194, 219

Plaster

2

Plastic

44, 82, 83, 91, 113, 114, 125, 134, 151, 203, 218, 222, 258, 272

Pottery

194

Silver-plated

98

Steel

82, 83, 98, 194, 195, 200, 222, 348

Wood

113

CHANDELIERS AND MULTI-ARM FITTINGS

Traditional

Alabaster

65, 158, 194, 195, 249, 274, 283, 290, 293

Aluminium

46, 98, 126, 153

Brass

12, 14, 20, 23, 32, 33, 34, 37, 43, 44, 46, 56, 58, 65, 70, 72, 74, 85, 91, 98, 109, 112, 126, 158, 163, 178, 191, 92, 94, 98, 109, 112, 117, 121, 135, 136, 153, 158, 161, 163, 166, 169, 170, 175, 178, 180, 182, 189, 194, 195, 200, 214, 219, 222, 223, 226, 238, 241, 246, 249, 263, 274, 283, 285, 290, 321, 331, 334, 337, 338, 340, 342, 352

Brass-plated

21, 33, 37, 44, 46, 56, 58, 70, 78, 85, 91, 98, 109, 112, 126, 158, 163, 178, 180, 182, 189, 194, 200, 218, 222, 223, 226, 238, 241, 246, 272, 274, 283, 285, 290, 321, 331, 334, 337, 338, 340, 342, 352

Brass and glass

12, 14, 21, 33, 34, 37, 43, 44, 46, 56, 58, 65, 70, 72, 74, 85, 91, 98, 109, 112, 117, 121, 135, 136, 153, 158, 161, 166, 170, 178, 180, 182, 189, 194, 195, 202, 218, 222, 223, 226, 238, 241, 254, 274, 283, 285, 290, 296, 300, 325, 329, 331, 332, 334, 337, 338, 340, 342, 352

Ceramic and porcelain

12, 21, 33, 46, 85, 130, 158, 166, 194, 222, 223, 272, 283, 285, 290, 300, 340

Chromium/stainless steel

14, 65, 98, 126, 169, 170, 194, 226, 263, 325, 338

Copper

98, 226

Copper and glass

91, 98, 226

Fibre or glass optics

98, 226

Glass, blown

12, 40, 65, 117, 153, 158, 170, 188, 194, 195, 226, 232, 238, 274, 283, 285, 290, 329, 337, 338, 352

Glass, crystal

40, 46, 51, 65, 91, 92, 112, 127, 136, 158, 163, 170, 176, 178, 194, 195, 200, 214, 218, 219, 222, 226, 241, 254, 274, 283, 285, 290, 293, 308, 310, 334, 337, 338, 340, 352

Glass, moulded

12, 46, 65, 109, 117, 136, 153, 158, 170, 194, 214, 222, 226, 241, 274, 283, 285, 290, 337, 338

Gold-plated

23, 27, 34, 43, 46, 74, 91, 94, 98, 109, 112, 117, 135, 136, 158, 166, 169, 170, 176, 178, 189, 194, 200, 214, 222, 223, 226, 241, 274, 283, 290, 293, 334

Iron

27, 43, 91, 98, 105, 121, 166, 188, 194, 195, 226, 274, 304, 329, 344, 352

Laminate

158, 327

Marble, stone

46, 153, 158, 166, 226

Onyx

91, 158, 166, 246, 337

Plaster

158, 327

Plastic

21, 153

Pottery

46, 189, 194, 334

Silver-plated

23, 34, 46, 65, 74, 98, 166, 170, 189, 194, 214, 226, 241, 285, 327, 352

Steel

14, 43, 98, 105, 153, 194, 200, 226, 296, 304, 334, 337, 338, 340, 342, 352

Tiffany

25, 43, 158, 219, 329, 352

Wood

10, 21, 32, 43, 46, 60, 65, 85, 92, 100, 131, 135, 136, 163, 167, 181, 194, 195, 200, 219, 222, 223, 228, 238, 261, 266, 270, 274, 290, 296, 303, 304, 308, 309, 321, 326, 327, 331, 334, 337, 349, 352

CHANDELIERS AND MULTI-ARM FITTINGS

Modern

Alabaster

189, 194, 249, 293

Aluminium

43, 46, 50, 75, 83, 98, 153, 158, 194, 220, 223, 329

Brass

12, 14, 21, 33, 34, 37, 43, 46, 50, 53, 56, 65, 68, 72, 74, 75, 83, 85, 91, 92, 94, 98, 112, 117, 135, 136, 153, 158, 161, 166, 169, 170, 175, 178, 180, 187, 189, 194, 195, 200, 202, 214, 219, 220, 222, 223, 226, 241, 246, 263, 274, 283, 285, 290, 293, 296, 301, 314, 325, 329, 332, 338, 340, 342, 352, 353

Brass-plated

33, 37, 56, 58, 70, 85, 91, 98, 109, 112, 126, 158, 180, 189, 194, 218, 222, 223, 226, 238, 248, 272, 283, 285, 290, 331, 334, 337, 342

Brass and glass

12, 14, 21, 33, 34, 37, 43, 46, 50, 53, 56, 58, 65, 70, 72, 74, 85, 91, 92, 98, 109, 112, 136, 153, 158, 161, 166, 170, 180, 188, 189, 194, 195, 200, 218, 222, 223, 226, 238, 241, 248, 254, 268, 274, 283, 285, 290, 296, 308, 310, 327, 334, 337, 342, 352, 353

Ceramic and porcelain

21, 130, 158, 194, 300

Chromium/stainless steel

14, 34, 82, 98, 126, 169, 170, 194, 226, 232, 268, 325, 348

Copper

98, 110, 226, 348

Copper and glass

98, 226

Fibre or glass optics

98, 226

Glass, blown

117, 153, 158, 170, 194, 195, 226, 232, 285, 290

Glass, crystal

40, 46, 51, 65, 91, 92, 117, 136, 158, 166, 170, 194, 195, 214, 222, 232, 241, 285, 290

Glass, moulded

46, 82, 109, 117, 136, 153, 158, 170, 178, 194, 195, 214, 222, 226, 241, 285, 290

Gold, plated

34, 43, 46, 74, 82, 94, 98, 109, 113, 117, 136, 158, 169, 170, 178, 189, 194, 200, 214, 226, 232, 241, 285, 290

Iron

43, 98, 194, 226, 352

Laminate

158

Marble, stone

46, 153, 226

Onyx

46

Plastic

21, 113, 153, 158, 185, 285

Pottery

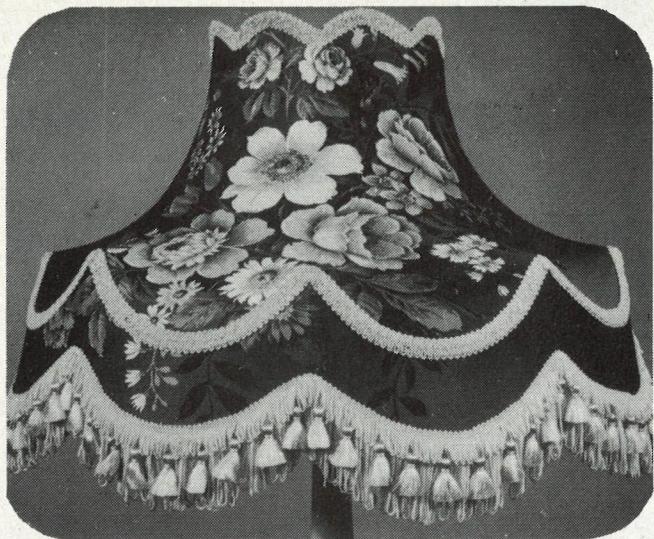
189, 194, 334

Shell

200

Silver-plated

34, 4



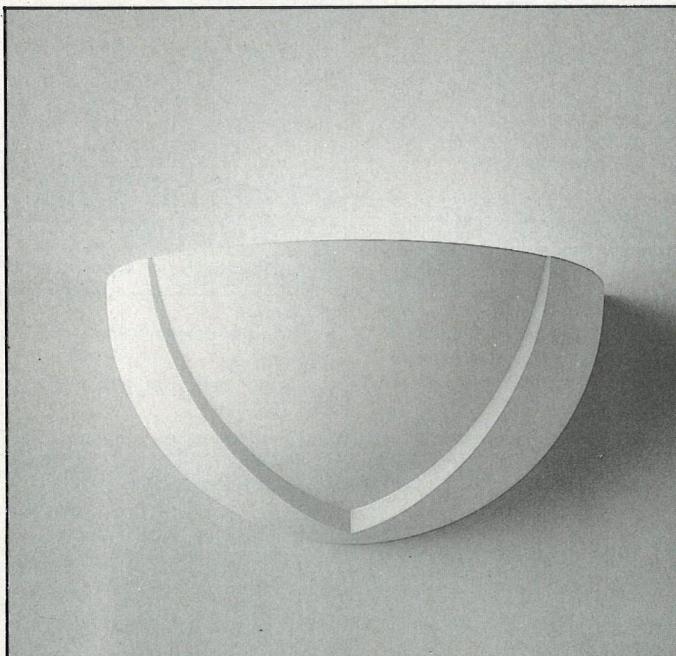
**Manufacturers &
Exporters of
Traditional Lampshades**

JEREMY & Co. (LAMP SHADES) LTD.

STAFFORD COURT, STAFFORD ROAD,
FORDHOUSES, WOLVERHAMPTON, WV10 7EL.
Telephone: 0902 397201 Fax: 0902 397202

Reader Service No. 317

C Y C L O N E



PLASTER WALL UP-LIGHTERS
A range of wall washers offering a choice of finishes and electrics.

OPTIONS

- Tungsten Halogen • Low Energy
- Metal Halide • Emergency

Send for free literature or contact us on-
Tel: 0532 568678 Fax: 0532 558438



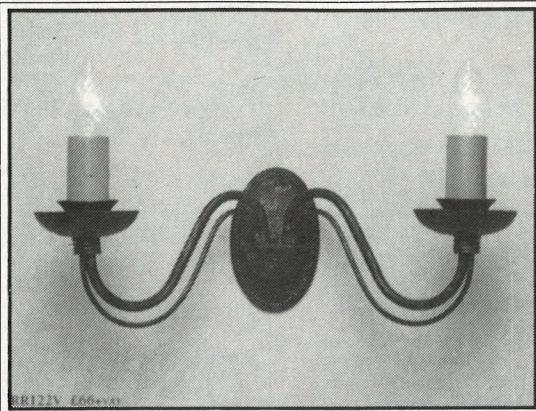
AAGAARD
HANLEY
LIMITED

Reader Service No. 319

SMITHBROOK BESPOKE IRON LIGHTING

HAND MADE
ORIGINAL LIGHTING
OF OUTSTANDING
VISUAL PRESENCE.

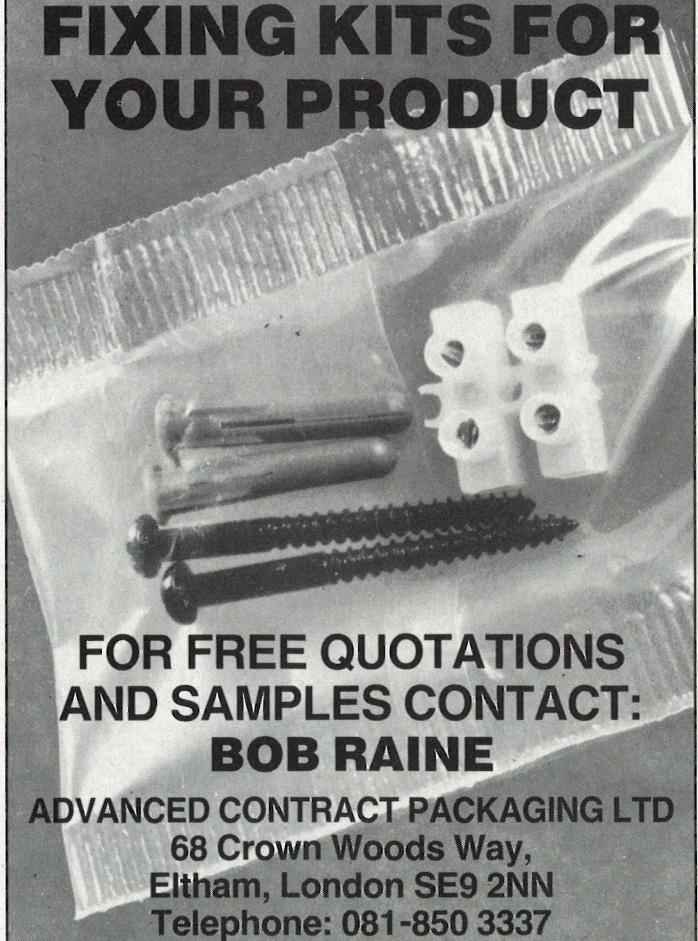
DESIGNED AND MADE IN ENGLAND



NEW COLOUR BROCHURE AVAILABLE FROM
SMITHBROOK LIGHTING
SMITHBROOK NR CRANLEIGH SURREY GU6 8LH
TELEPHONE: (0483) 272744 FAX (0483) 267863

Reader Service No. 318

**FIXING KITS FOR
YOUR PRODUCT**



**FOR FREE QUOTATIONS
AND SAMPLES CONTACT:
BOB RAINIE**

ADVANCED CONTRACT PACKAGING LTD
68 Crown Woods Way,
Eltham, London SE9 2NN
Telephone: 081-850 3337

Reader Service No. 320

PRODUCT CLASSIFICATION

PENDANT AND SINGLE LIGHT FITTINGS Traditional contd.

Brass and Glass contd.
310, 325, 329, 331, 332, 334, 338, 342, 352
Cane and basket
43, 46, 314, 337
Ceramic and porcelain
12, 21, 33, 85, 91, 136, 158, 166, 187, 194, 195, 222, 223, 272, 283, 296
Chromium/stainless steel
14, 43, 65, 98, 126, 169, 170, 187, 194, 226, 263, 283, 325, 338, 352
Copper
75, 91, 98, 121, 226
Copper and glass
91, 98, 121, 188, 195, 226, 283
Fibre or glass optics
98, 226
Glass, blown
40, 43, 65, 74, 78, 92, 109, 117, 134, 153, 158, 161, 170, 194, 195, 200, 223, 226, 232, 283, 285, 290, 337, 352
Glass, crystal
40, 65, 92, 109, 112, 117, 136, 158, 170, 194, 195, 214, 218, 219, 222, 226, 241, 282, 285, 290, 293, 310, 334, 337, 340, 352
Glass, moulded
43, 65, 72, 109, 117, 121, 134, 136, 153, 158, 170, 194, 200, 214, 222, 223, 226, 241, 283, 285, 290, 314, 337
Gold-plated
27, 33, 34, 43, 91, 94, 98, 109, 112, 117, 135, 136, 158, 166, 169, 170, 180, 189, 194, 214, 218, 222, 223, 226, 241, 283, 290, 293, 300, 310, 327, 332, 342, 352
Iron
27, 43, 91, 98, 105, 166, 194, 195, 226, 304, 329, 344, 352
Laminates
120, 244, 327
Marble, stone
153, 158, 226
Paper, card, parchment
223, 229, 337
Plaster
327
Plastic
21, 93, 130, 146, 153, 158, 273, 337
Pottery
194, 334
Shell
434, 91, 243, 337
Silver-plated
34, 98, 170, 194, 214, 226, 241, 327, 352
Soft fabrics
46, 91, 130, 146, 167, 200, 337
Steel
14, 43, 83, 98, 105, 153, 194, 218, 226, 304, 334, 337
Tiffany
25, 37, 43, 91, 121, 130, 158, 167, 178, 195, 219, 243, 329, 352
Wood
43, 65, 91, 92, 100, 135, 194, 195, 219, 222, 223, 228, 266, 276, 285, 290, 303, 304, 309, 327, 331, 334, 352

PENDANT AND SINGLE LIGHT FITTINGS Modern

Alabaster
118, 178, 189, 194, 195
Aluminium
43, 46, 82, 83, 98, 113, 116, 134, 153, 158, 194, 195, 220, 268, 290, 302, 329, 348
Brass
14, 21, 34, 37, 43, 54, 72, 74, 83, 85, 92, 94, 98, 110, 113, 117, 134, 135, 136, 153, 158, 169, 170, 194, 195, 200, 202, 214, 220, 226, 241, 246, 263, 268, 290, 293, 314, 325, 340, 348, 352
Brass-plated
37, 58, 60, 78, 85, 98, 109, 110, 112, 113, 126, 156, 158, 189, 194, 218, 222, 226, 248, 268, 272, 285, 290, 331, 334, 348
Brass and glass
14, 21, 34, 37, 43, 46, 51, 58, 60, 72, 74, 85, 92, 94, 98, 109, 112, 113, 136, 153, 158, 170, 189, 194, 195, 200, 218, 222, 226, 241, 248, 254, 268, 272, 285, 290, 325, 331, 334, 352
Cane and basket
43, 46, 92, 135, 200, 243, 314
Ceramic and porcelain
21, 51, 85, 136, 158, 194, 195, 200
Chromium/stainless steel
14, 34, 43, 54, 82, 98, 126, 169, 170, 194, 195, 226, 263, 268, 325, 348
Copper
98, 110, 226, 302, 348
Copper and glass
98, 226
Fibre or glass optics
85, 98, 226
Glass, blown
12, 43, 74, 92, 109, 117, 134, 153, 158, 170, 194, 195, 200, 226, 232, 285, 290, 352
Glass, crystal
40, 82, 92, 109, 117, 136, 158, 170, 194, 214, 222, 232, 241, 290, 293, 310, 334
Glass, moulded
12, 43, 72, 82, 85, 109, 116, 117, 134, 136, 153, 158, 163, 170, 194, 195, 200, 214, 222, 226, 241, 268, 285, 290, 302
Gold-plated
34, 43, 54, 82, 85, 94, 98, 109, 113, 117, 135, 136, 158, 169, 170, 194, 214, 226, 232, 241, 290, 293, 300, 310, 342
Iron
43, 98, 194, 226, 352
Laminates
54, 130, 168, 200, 244, 294
Marble, stone
153, 226
Paper, card, parchment
51, 168, 200, 229, 238, 243, 306
Plaster
2, 195
Plastic
13, 21, 54, 78, 93, 113, 130, 146, 153, 156, 158, 168, 200, 207, 215, 244, 273, 294
Pottery
194, 334
Shell
43, 91, 200, 243, 270
Silver-plated
34, 98, 170, 194, 214, 226, 241

Soft fabrics

46, 54, 91, 130, 146, 200, 238, 243
Steel
43, 83, 98, 116, 153, 194, 195, 226, 268, 334, 348

Tiffany

25, 37, 443, 130, 158, 178, 195, 200, 219, 340

Wood

43, 45, 54, 60, 92, 100, 113, 194, 261, 266, 276, 331, 334

FLUSH FITTINGS

Traditional

Alabaster

43, 125, 195

Aluminium

43, 50, 75, 98, 105, 134, 158, 194, 219, 230, 236

Brass

12, 21, 23, 37, 43, 44, 46, 50, 65, 68, 72, 75, 98, 108, 117, 136, 158, 166, 170, 175, 178, 180, 187, 189, 194, 195, 200, 214, 219, 223, 226, 230, 241, 246, 274, 283, 285, 290, 293, 300, 310, 325, 329, 337, 352, 353

Brass-plated

37, 43, 44, 46, 58, 65, 70, 85, 91, 98, 108, 109, 112, 158, 160, 166, 180, 189, 194, 195, 222, 223, 226, 238, 241, 246, 283, 285, 290, 331, 334, 337

Brass and glass

2, 12, 21, 23, 43, 44, 46, 58, 65, 68, 70, 72, 85, 91, 92, 98, 108, 109, 112, 117, 121, 135, 136, 158, 166, 170, 178, 180, 189, 194, 195, 222, 223, 226, 230, 238, 241, 254, 274, 283, 285, 290, 300, 310, 325, 326, 329, 331, 334, 342, 353

Ceramic and porcelain

12, 43, 194

Chromium/stainless steel

43, 98, 170, 178, 187, 194, 226, 325, 352

Copper

68, 75, 98, 226, 230

Copper and glass

68, 98, 226, 230

Fibre or glass optics

98, 226

Glass, blown

33, 105, 117, 153, 158, 170, 194, 222, 223, 226, 232, 274, 283, 285, 290, 329, 352

Glass, crystal

46, 108, 112, 117, 121, 136, 158, 170, 178, 194, 195, 200, 214, 222, 226, 274, 285, 290, 334, 337, 352

Glass, moulded

12, 33, 46, 65, 72, 105, 108, 117, 121, 136, 147, 153, 158, 163, 170, 194, 214, 222, 223, 226, 254, 272, 274, 283, 285, 290, 314, 342

Gold-plated

23, 27, 33, 43, 46, 98, 109, 112, 117, 136, 158, 170, 178, 189, 194, 214, 223, 226, 241, 283, 290, 342, 352

Iron

43, 98, 194, 226, 304, 329, 352

Laminates

130

Marble, stone

153

Plastic

21, 41, 108, 130, 153, 158, 230, 272

Pottery

194, 272, 334

Shell

43, 296

Silver-plated

23, 98, 170, 194, 214, 226, 241, 352

Soft fabrics

130

Steel

43, 98, 194, 226, 304, 334

Tiffany

43, 130, 219, 329, 352

Wood

21, 43, 46, 91, 92, 100, 178, 187, 194, 195, 223, 228, 261, 285, 290, 331, 334, 337, 342, 352

FLUSH FITTINGS

Modern

Alabaster

43, 125, 195, 293

Aluminium

43, 55, 82, 98, 113, 158, 194, 236, 268, 348

Brass

21, 37, 43, 44, 46, 55, 65, 72, 98, 110, 113, 117, 136, 158, 170, 178, 194, 195, 200, 214, 226, 241, 246, 268, 274, 290, 300, 325, 348, 352

Brass-plated

37, 43, 58, 65, 82, 85, 91, 98, 109, 110, 112, 113, 158, 160, 194, 195, 222, 226, 241, 268, 290, 331, 334, 340, 348

Brass and glass

21, 43, 46, 58, 65, 72, 85, 91, 92, 98, 109, 112, 113, 117, 121, 135, 136, 158, 163, 170, 178, 194, 195, 218, 222, 241, 254, 268, 274, 290, 300, 326, 331, 334, 342, 352

Ceramic and porcelain

43, 194

Chromium/stainless steel

43, 55, 82, 85, 91, 98, 121, 170, 178, 194, 195, 226, 232, 268, 325, 348

Copper

98, 226, 348

Copper and glass

98, 226

Fibre or glass optics

98, 226

Glass, blown

85, 117, 153, 158, 170, 194, 195, 222, 226, 232, 274, 290, 340, 352

Glass, crystal

46, 82, 117, 125, 136, 158, 170, 194, 200, 203, 214, 222, 232, 274, 290, 334, 340

Glass, moulded

33, 46, 65, 72, 82, 117, 136, 153, 158, 170, 194, 214, 218, 222, 226, 254, 268, 270, 274, 290, 294, 340, 342

Gold-plated

43, 46, 98, 109, 113, 117, 136, 158, 170, 178, 194, 214, 226, 232, 241, 268, 290, 342

Iron

43, 98, 194, 226, 352

Laminates

130

Marble, stone

153

Plastic

21, 41, 43, 46, 54, 78, 93, 113, 130, 146, 153, 156, 158, 168, 200, 207, 215, 244, 273, 294

Pottery

194, 272, 334

Shell

43, 296

THE PLACE TO BE SEEN



DON'T MISS THE ANNUAL LIGHTSHOW

Britain's biggest and brightest lighting exhibition of the year.

The Lightshow '92 (January 26 - 29) will be held at Earls Court 2, the UK's best equipped exhibition centre right in the heart of London.

Run exclusively by The Decorative Lighting Association, and with the full support of The Lighting Industry Federation, this is the show for everyone with a genuine interest in lighting including - Architects, Specifiers, Interior Designers and Retailers.

A full promotions campaign is already underway to attract these key buyers from the UK and Europe.

For further information contact Graham Samuel or Richard Smith, The Lightshow '92 Organiser,

**The Decorative
Lighting Association,
Bryn, Bishop's Castle,
Shropshire SY9 5LE or
Telephone 058 - 84 658.**

THE PLACE
TO
DO BUSINESS

Reader Service No. 321

**HISTORY
REPEATS ITSELF**



Our accurate replicas of Victorian lighting are in great demand today, to give that authentic finishing touch to homes, hotels, pubs and restaurants.

The Sara pendant illustrated — available with matching wall bracket — is just one item in our extensive range of solid brass Victorian and Georgian period lights, for indoor and outdoor use.

We will be delighted to send to you our illustrated brochure by post on request.

Classic Reproductions

HIGHAMS LODGE BUSINESS CENTRE
Blackhorse Lane, Walthamstow, London E17 6SH Tel: 081-531 8627 Fax: 081-531 6056

Reader Service No. 322

YVONNE and DEREK FOWLER
Fowler Pottery
20 Mossbury Road
London SW11 2PB

beautiful handpainted pottery lighting



In close association with the Decorative Lighting Association Technical Advisors, all the lamps on our current price list are approved safe to operate on mains voltage, and are not required to comply with the new E.C. toy regulations.

071 228 7551

Reader Service No. 323

DLA Buyers Guide 1991/92

PRODUCT CLASSIFICATION

FLUSH FITTINGS Modern contd.

Steel
43, 54, 82, 98, 114, 194, 195, 226, 268, 334, 348
Tiffany
43, 130, 178, 219, 340
Wood
21, 43, 60, 85, 92, 100, 113, 194, 218, 222, 261, 266, 331, 334, 340, 342

FLOOR LAMPS Traditional

Alabaster
43, 135, 136
Aluminium
50, 83, 98, 126, 285, 348
Brass
12, 23, 33, 34, 37, 43, 44, 46, 50, 53, 56, 65, 66, 72, 74, 83, 91, 92, 94, 98, 109, 117, 121, 135, 136, 158, 160, 166, 169, 170, 175, 180, 187, 189, 194, 195, 196, 200, 202, 219, 223, 226, 241, 246, 263, 270, 274, 282, 285, 290, 296, 321, 325, 326, 329, 337, 340, 342, 348, 353, 353
Brass-plated
33, 37, 56, 58, 91, 98, 109, 126, 158, 161, 180, 194, 223, 226, 238, 241, 246, 270, 282, 285, 342, 348
Brass and glass
12, 21, 43, 56, 58, 72, 92, 94, 98, 109, 117, 136, 158, 170, 194, 195, 223, 226, 238, 241, 274, 282, 285, 325, 329
Ceramic and porcelain
12, 102, 158, 194, 196, 201, 278, 282
Chromium/stainless steel
14, 43, 40, 65, 126, 169, 170, 194, 226, 263, 274, 282, 325, 348
Copper
98, 226, 348
Copper and glass
98, 226
Fibre of glass optics
98, 226
Glass, blown
40, 170, 194, 226, 232, 352
Glass, crystal
40, 170, 194, 226
Glass, moulded
170, 194, 226
Gold-plated
23, 33, 34, 43, 74, 91, 94, 98, 109, 135, 158, 169, 170, 180, 194, 223, 226, 241, 290, 327, 342
Iron
43, 98, 105, 194, 195, 196, 226, 274, 304, 352
Laminates
244, 327
Marble stone
46, 136, 226, 241, 282
Onyx
46, 51, 91, 92, 135, 136, 175, 200, 229, 241, 246, 263, 282, 296, 314, 321
Paper, card, parchment
238, 243
Plaster
327
Plastic
21, 244
Pottery
46, 194, 201, 278

Silver-plated

23, 34, 74, 98, 170, 194, 226, 241, 327
Soft fabrics
201
Steel
43, 83, 98, 105, 194, 226, 282, 304, 337, 348
Tiffany
25, 37, 43, 161, 352
Wood
10, 43, 46, 65, 78, 91, 92, 100, 131, 135, 136, 160, 163, 166, 167, 175, 181, 187, 194, 195, 201, 219, 223, 228, 229, 238, 246, 261, 263, 274, 276, 282, 284, 285, 290, 296, 303, 309, 321, 322, 326, 331, 332, 337, 342, 349, 351, 352

FLOOR LAMPS Modern

Alabaster

43, 195

Aluminium

55, 61, 82, 83, 98, 113, 116, 118, 126, 134, 178, 185, 220, 263, 268, 282, 290, 302, 348

Brass

34, 37, 43, 46, 54, 55, 65, 72, 74, 83, 92, 94, 98, 109, 110, 113, 117, 118, 121, 134, 135, 158, 160, 169, 170, 178, 183, 194, 195, 200, 202, 219, 220, 226, 241, 246, 263, 268, 270, 274, 282, 300, 325, 326, 340, 348, 352, 353

Brass-plated

37, 56, 58, 85, 98, 102, 109, 110, 113, 118, 126, 134, 158, 194, 218, 222, 241, 268, 282, 290, 342, 348

Brass and glass

21, 34, 43, 56, 58, 72, 91, 92, 94, 98, 109, 117, 158, 170, 178, 194, 195, 200, 222, 226, 241, 268, 274, 282, 300, 325

Ceramic and porcelain

92, 102, 158, 194, 201, 282

Chromium/stainless steel

14, 34, 43, 54, 55, 61, 65, 85, 98, 118, 126, 169, 170, 178, 194, 195, 200, 218, 226, 232, 246, 263, 268, 274, 282, 325, 348

Copper

98, 226, 348

Copper and glass

98, 226

Fibre of glass optics

98, 226

Glass, blown

61, 118, 170, 194, 226, 232

Glass, crystal

170, 194, 232

Glass, moulded

61, 118, 160, 170, 194, 226, 268

Gold-plated

34, 43, 54, 61, 74, 94, 98, 109, 113, 158, 169, 170, 194, 200, 226, 232, 241, 268, 290, 300, 342

Iron

43, 51, 61, 98, 194, 226, 352

Laminates

54, 186, 244

Marble, stone

46, 61, 178, 226, 241, 282

Onyx

46, 110, 241, 282

Plaster

195

Plastic

21, 54, 134, 253

Pottery

46, 92, 116, 194, 201

Silver-plated

34, 98, 170, 194, 226, 241

Soft fabrics

54, 201

Steel

43, 55, 83, 98, 116, 132, 163, 178, 185, 194, 195, 222, 226, 282, 300, 302, 348

Tiffany

25, 37, 43

Wood

10, 43, 46, 54, 61, 78, 91, 92, 100, 113, 131, 132, 136, 178, 181, 194, 195, 201, 229, 238, 243, 270, 276, 282, 284, 285, 290, 309, 321, 326, 331, 332, 351

Gold-plated

23, 27, 33, 34, 43, 46, 74, 91, 94, 98, 109, 112, 135, 136, 158, 166, 169, 170, 178, 180, 189, 194, 214, 222, 223, 226, 241, 283, 285, 290, 293, 300, 308, 310, 327, 332, 338, 342, 352

Iron

43, 91, 98, 105, 163, 166, 188, 194, 195, 226, 230, 274, 304, 329, 344, 352

Laminates

130, 158, 233, 244, 327

Marble, stone

46, 102, 153, 158, 166, 178, 226

Onyx

46, 166

Paper, card, parchment

238

Plaster

2, 91, 158, 162, 327, 337, 352

Plastic

21, 130, 153

Pottery

23, 43, 102, 189, 194, 237, 238, 278, 334

Shell

43

Silver-plated

23, 34, 65, 74, 98, 166, 170, 194, 214, 226, 241, 285, 327

Soft fabrics

130

Steel

43, 98, 105, 153, 194, 226, 230, 304, 334, 348

Tiffany

25, 37, 43, 91, 121, 130, 178, 219, 329, 352

Wood

10, 32, 43, 44, 46, 60, 65, 85, 92, 100, 131, 135, 163, 167, 178, 181, 187, 194, 195, 219, 222, 223, 228, 238, 261, 266, 274, 276, 285, 303, 308, 309, 321, 326, 331, 334, 337, 349, 352

WALL BRACKETS

Traditional

Alabaster

43, 132, 178, 189, 195, 200, 249, 293, 309

Aluminium

43, 55, 82, 83, 98, 113, 116, 118, 126, 153, 158, 185, 194, 220, 236, 268, 290, 348

Brass

14, 41, 34, 37, 43, 44, 46, 54, 55, 56, 65, 70, 72, 74, 85, 91, 98, 102, 109, 112, 126, 158, 163, 178, 180, 182, 189, 194, 218, 222, 223, 226, 238, 241, 246, 272, 283, 285, 290, 321, 331, 334, 337, 342, 348, 352

Brass and glass

12, 14, 21, 33, 34, 43, 44, 45, 56, 58, 65, 68, 70, 72, 74, 85, 91, 92, 94, 98, 109, 112, 117, 121, 136, 153, 158, 161, 163, 166, 170, 178, 180, 182, 189, 194, 200, 218, 222, 223, 226, 238, 241, 254, 274, 283, 285, 290, 296, 300, 310, 325, 329, 331, 332, 334, 338, 340, 342

Ceramic and porcelain

12, 21, 23, 33, 43, 70, 85, 91, 102, 130, 158, 166, 178, 187, 194, 195, 223, 237, 238, 274, 278, 285, 290, 300, 340

Chromium/stainless steel

14, 43, 50, 65, 98, 126, 169, 170, 187, 194, 226, 263, 274, 325, 338, 348, 352

Copper

68, 75, 91, 98, 121, 226, 348

Copper and glass

68, 91, 98, 226

Fibre or glass optics

98, 226

Glass, blown

61, 118, 170, 194, 226, 232

Glass, crystal

40, 46, 51, 65, 91, 112, 117, 136, 158, 170, 194, 195, 214, 218, 219, 220, 226, 241, 246, 249, 263, 268, 270, 274, 293, 300, 314, 325, 326, 331, 340, 348, 352

Glass, moulded

12, 43, 46, 65, 91, 117, 136, 153, 158, 170, 194, 203, 214, 222, 226, 241, 254, 274, 285, 290, 329, 338, 342

Glass, crystal

40, 46, 51, 65, 91, 112, 117, 136, 153, 158, 170, 194, 203, 214, 218, 219, 220, 226, 241, 246, 249, 263, 268, 270, 274, 293, 300, 314, 325, 326, 331, 334, 342

Glass, moulded

12, 43, 46, 65, 91, 117, 136, 153, 158, 170, 194, 203, 214, 218, 219, 220, 226, 241, 246, 249, 263, 268, 270, 274, 293, 300, 314, 325, 326, 331, 334, 342

Ceramic and porcelain

21, 43, 70, 85, 91, 102, 121, 130, 132, 158, 178, 194, 237, 238, 274, 276, 285, 300, 340

SPECTRUM LUMINAIRES LTD.

Cast Aluminum exterior/
porch Lanterns, Lamp Posts and
Copper Lanterns. P.I.R. and
Photocell models available.

20 year guarantee against corrosion. Manufactured
in the UK.

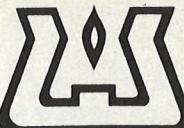
Members of the D.L.A Code of Practice for the
Safety of Luminaires.

SPECTRUM LUMINAIRES LTD.

2/2 STANMORE INDUSTRIAL
ESTATE, BRIDGNORTH,
SHROPSHIRE WV15 5HP

TEL: 0746 761449 FAX: 0746 766445

Reader Service No. 324



Wickshades

LIGHTING LTD.

TAILORED SOFT SHADES

LINED AND UNLINED

PANELLED SHADES

For Wholesale & Central
Buyer Requirements

UNIT 5A ST. FRANCIS WAY, SHEFFORD
INDUSTRIAL PARK, SHEFFORD, BEDS. SG17 5DZ.

Telephone: Hitchin (0462) 816321 Telex: 826717
Fax: (0462) 815548

Reader Service No. 325

if you build luminaires ask for our -

Components Catalogue.....

**COLLINGWOOD
COLLECTION**

Collingwood VLM Limited
Deer Park Road
Moulton Park
Northampton NN3 1NP
Telephone: 0604 495151
Fax: 0604 495095
Telex: 312518

Reader Service No. 326

PRODUCT CLASSIFICATION

WALL BRACKETS

Modern contd.

Chromium/stainless steel
14, 34, 43, 54, 55, 65, 82, 85, 98, 118, 126, 169, 170, 178, 194, 195, 226, 232, 246, 263, 268, 270, 274, 325, 348

Copper

46, 98, 110, 226, 348

Copper and glass
98, 132, 226

Fibre or glass optics

85, 98, 226

Glass, blown

43, 61, 65, 117, 118, 132, 153, 158, 170, 178, 194, 195, 222, 226, 232, 274, 290

Glass, crystal

46, 51, 65, 82, 117, 136, 158, 170, 178, 194, 214, 232, 241, 274, 290, 293, 334

Glass, moulded

43, 65, 82, 117, 118, 136, 153, 158, 170, 178, 194, 195, 203, 214, 222, 226, 241, 268, 274, 290, 342

Gold-plated

34, 43, 46, 54, 74, 94, 98, 109, 113, 135, 136, 158, 169, 170, 178, 189, 194, 214, 226, 232, 241, 268, 290, 293, 300, 342

Iron

43, 98, 194, 195, 226, 352

Laminates

54, 130, 158, 233, 244

Marble, stone

46, 153, 158, 178, 200, 226, 309

Onyx

46

Plaster

2, 132, 135, 158, 162, 178, 180, 195, 200, 342

Plastic

21, 54, 113, 130, 153, 178, 185, 244

Pottery

43, 189, 194, 237, 238, 334

Shell

43, 340

Silver-plated

34, 98, 170, 194, 214, 226, 241

Soft fabrics

54, 130

Steel

43, 55, 82, 98, 116, 153, 185, 194, 195, 226, 268, 334, 348

Tiffany

25, 37, 43, 91, 130, 178, 219, 340

Wood

10, 43, 46, 54, 60, 61, 92, 100, 113, 163, 178, 181, 194, 195, 261, 266, 270, 276, 285, 326, 331, 334

SPOTLIGHTS

Aluminium

41, 46, 55, 58, 82, 83, 85, 91, 98, 113, 147, 158, 194, 222, 268, 290, 302, 348

Brass

34, 43, 46, 53, 55, 82, 92, 94, 98, 109, 113, 117, 121, 134, 135, 136, 158, 170, 175, 178, 180, 183, 194, 200, 203, 219, 226, 246, 263, 268, 290, 314, 325, 326, 342, 348, 352, 353

Brass-plated

43, 58, 91, 98, 106, 113, 134, 158, 163, 178, 180, 189, 194, 200, 218, 222, 226, 238, 268, 272, 290, 331, 334, 337, 342, 348

Brass and glass

43, 94, 98, 136, 158, 170, 189, 194, 226, 254, 268, 290, 325

Ceramic and porcelain

91, 147, 194

Chromium/stainless steel

34, 55, 82, 98, 170, 178, 194, 195, 203, 226, 246, 263, 268, 293, 325, 348

Copper

98, 226, 348

Copper and glass

98, 226

Fibre or glass optics

98, 226

Glass, blown

170, 194

Glass, crystal

170, 194

Glass, moulded

170, 194, 268

Gold-plated

34, 46, 98, 113, 158, 170, 194, 226, 241, 246, 272,

Iron

98, 226

Marble, stone

136

Onyx

136

Plastics

46, 113, 114, 125, 178, 195, 203, 238, 272

Pottery

136, 194, 281

Silver-plated

34, 98, 170, 194, 226

Steel

33, 41, 55, 58, 98, 106, 163, 195, 222, 226, 268, 285, 302, 314, 334, 337, 340, 348

Wood

43, 46, 85, 91, 92, 100, 113, 135, 175, 194, 195, 218, 238, 285, 290, 314, 331, 342

TABLE LAMPS

Traditional

Alabaster

43, 44, 46, 65, 78, 91, 133, 135, 136, 160, 163, 189, 195, 200, 223, 246, 249, 265, 283, 285, 290, 293, 309, 314, 326, 337, 342

Aluminium

43, 50, 83, 98, 126, 220, 282, 285, 348

Brass

11, 12, 20, 21, 23, 33, 34, 37, 43, 44, 46, 50, 53, 56, 60, 52, 65, 66, 68, 70, 72, 74, 85, 90, 91, 92, 94, 98, 109, 112, 117, 121, 127, 133, 135, 136, 137, 153, 158, 159, 160, 161, 166, 169, 170, 175, 178, 180, 187, 189, 194, 196, 198, 200, 219, 220, 223, 226, 241, 243, 246, 248, 249, 263, 270, 274, 282, 285, 290, 293, 296, 300, 308, 313, 314, 317, 321, 325, 326, 328, 329, 332, 338, 340, 342, 346, 348, 352, 353

Brass-plated

33, 37, 43, 44, 46, 56, 58, 85, 91, 98, 109, 112, 126, 158, 160, 178, 180, 189, 194, 218, 223, 226, 238, 241, 243, 246, 270, 282, 283, 284, 285, 314, 334, 337, 342, 348

Brass and glass

12, 33, 37, 43, 44, 46, 56, 58, 66, 72, 74, 85, 91, 92, 94, 98, 109, 112, 121, 127, 136, 153, 161, 170, 178, 189, 194, 195, 200, 218, 22, 223, 226, 238, 241, 243, 246, 248, 254, 274, 280, 282, 283, 285, 325, 328, 329, 332, 333, 334, 337, 342, 348, 352

Cane and basket

127, 159, 313, 333

Ceramic and porcelain

11, 12, 15, 16, 20, 23, 32, 33, 43, 44, 58, 65, 66, 69, 80, 85, 91, 92, 96, 102, 103, 119, 124, 127, 130, 133, 135, 137, 140, 158, 160, 165, 166, 175, 178, 180, 186, 187, 188, 194, 196, 200, 201, 204, 217, 218, 219, 223, 227, 237, 238, 244, 246, 247, 255, 265, 270, 274, 275, 278, 281, 282, 283, 284, 285, 286, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 317, 321, 328, 332, 333, 334, 335, 336, 337, 338, 342, 352

Ceramic and stainless steel

43, 50, 65, 98, 126, 169, 170, 187, 194, 226, 246, 263, 274, 282, 325, 338, 348, 352

Copper

37, 62, 98, 127, 188, 226, 313, 348

Copper and glass

98, 226

Fibre or glass optics

98, 194, 226

Glass, blown

40, 43, 158, 161, 170, 186, 194, 226, 244, 280, 283, 342, 352

Glass, crystal

40, 65, 92, 112, 158, 160, 169, 170, 178, 194, 226, 243, 270, 280, 283, 284, 293, 334, 337, 340, 342

Glass, moulded

12, 43, 158, 170, 194, 226, 280, 283

Gold-plated

37, 43, 46, 54, 61, 74, 94, 98, 109, 113, 135, 158, 169, 170, 178, 194, 226, 241, 248, 254, 268, 270, 274, 280, 282, 325, 334, 342

Iron

11, 21, 34, 37, 43, 44, 46, 54, 55, 56, 65, 72, 74, 85, 90, 91, 92, 94, 98, 109, 110, 113, 117, 118, 121, 134, 136, 137, 158, 160, 169, 170, 178, 183, 194, 195, 200, 220, 226, 241, 248, 254, 268, 270, 274, 280, 282, 325, 334, 342

Iron

313

Ceramic and porcelain

11, 23, 43, 52, 58, 65, 80, 85, 91, 92, 96, 102, 103, 134, 130, 132, 135, 137, 140, 158, 160, 163, 178, 186, 194, 200, 201, 204, 237, 238, 243, 248, 254, 264, 265, 270, 281, 282, 284, 285, 286, 290, 294, 306, 313, 342

Chromium/stainless steel

34, 43, 46, 54, 61, 65, 82, 98, 118, 126, 169, 170, 178, 194, 226, 241, 248, 254, 268, 270, 274, 280, 282, 325, 334, 342

Copper

34, 46, 54, 61, 65, 74, 94, 98, 109, 113, 135, 158, 169, 170, 178, 194, 226, 241, 248, 254, 268, 270, 274, 280, 282, 325, 334, 342

Copper and glass

98, 226

Fibre or glass optics

92, 98, 116, 194, 226, 342

Glass, blown

40, 43, 85, 118, 158, 170, 186, 194, 226, 264, 270, 280, 342, 352

Glass, crystal

40, 65, 158, 170, 178, 194, 243, 280, 293, 334

Glass, moulded

43, 82, 116, 118, 158, 160, 170, 194, 226, 268, 280, 282, 284, 286, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352

Gold-plated

34, 43, 46, 54, 61, 74, 94, 98, 109, 113, 135, 158, 169, 170, 178, 194, 226, 241, 248, 254, 268, 270, 274, 280, 282, 325, 334, 342

Iron

43, 98, 127, 194, 226, 352

Laminates

54, 186, 201

Marble, stone

46, 102, 116, 160, 178, 201, 226, 241, 243, 282, 309

Onyx

46, 78, 110, 178, 241

Paper, card, parchment

306

Plaster

137, 195, 229

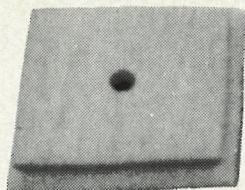
238, 256, 261, 265, 266, 276, 282, 284, 301, 303, 308, 309, 317, 321, 326, 327, 337, 338, 342, 349, 351, 352

TABLE LAMPS

Modern

Alabaster

43, 46, 51, 6

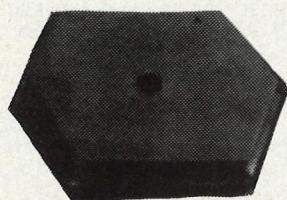


**WOODEN PLINTHS
for
CERAMIC TABLE LAMPS
and
FIGURINES**

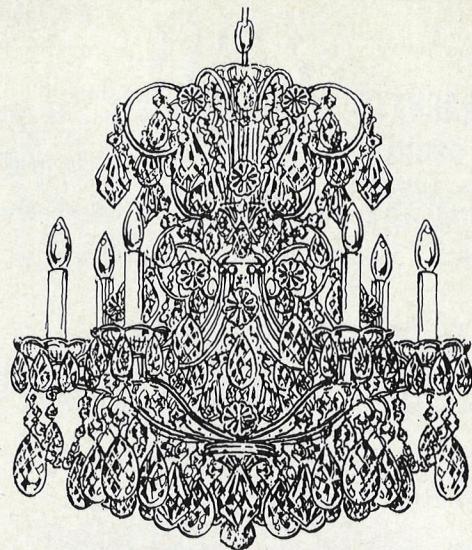
Made to any shape with feet
if required.

**J. A. GREEN & SONS LTD,
14 DEANSHANGER ROAD, WICKEN,
MILTON KEYNES MK19 6BS.**

**TEL: 0908 57215/221
FAX: 0908 57206**



Reader Service No. 327



**We just lowered the
cost of living in
the New Age of Elegance.**

A New Age of Elegance is upon us, and the home is its most personal expression. People of taste have become dynasty-builders, determined to surround themselves and their loved ones with beautiful things. In the New Age of Elegance, no lighting could be more appropriate than a crystal chandelier by Impex.

Impex (Glassware) Limited

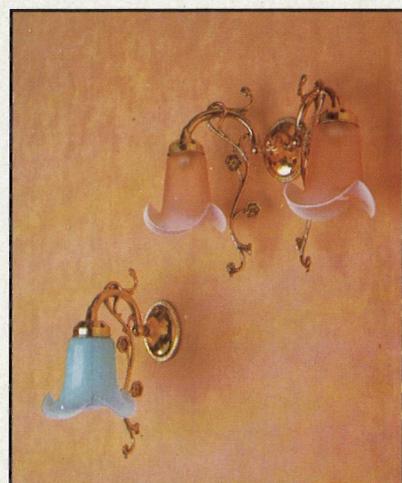
Impex House, 8 Scrubs Lane, London NW10 6QR
Telephone: 081-969 6496 Telex: 922205 Fax: 081-960 5337

Lighting for the New Age of Elegance

Reader Service No. 328



FLORAL NOUVEAU RANGE



'Lighting from Arden' offers a standard range of products manufactured in the United Kingdom, specifically designed for the domestic and contract environment, and available for prompt delivery in standard designs and finishes.

Most of the range is already capable of being converted to take low energy lamps.

For further information on our range of services and products please contact our sales office.



ARDEN MANUFACTURING (Birmingham) Ltd.

SUPPLIERS OF DECORATIVE AND CONTRACT LIGHTING
47-50 TENBY STREET NORTH, BIRMINGHAM B1 3EG
Telephone: 021-233 1776 Fax: 021-200 1147

Reader Service No. 329

DLA Buyers Guide 1991/92

PRODUCT CLASSIFICATION

TABLE LAMPS

Modern contd.

- Plastic** 21, 54, 113, 134, 185, 186, 201, 229, 244, 253
- Pottery** 11, 21, 23, 39, 43, 46, 47, 51, 54, 59, 74, 78, 92, 102, 103, 116, 121, 124, 137, 140, 152, 163, 178, 186, 194, 195, 200, 201, 229, 237, 238, 243, 247, 256, 265, 270, 284, 285, 286, 290, 294, 295, 313, 314, 322, 332, 342
- Shell** 243
- Silver-plated** 34, 98, 170, 194, 226, 241, 270, 298
- Soft fabrics** 54
- Steel** 41, 43, 55, 98, 185, 194, 195, 226, 268, 282, 334, 348
- Tiffany** 25, 37, 43, 147, 178, 270, 282, 340
- Wood** 10, 43, 46, 51, 52, 54, 61, 65, 74, 91, 92, 100, 113, 124, 131, 132, 137, 140, 181, 194, 195, 200, 201, 243, 261, 265, 276, 282, 284, 309, 321, 326, 331, 334, 342, 351

LAMPSHADES

Traditional

- Alabaster** 43
- Aluminium** 282
- Brass** 94, 219, 282, 325, 329, 346, 352
- Brass-plated** 282, 299
- Brass and glass** 94, 282, 325, 352
- Cane and basket** 43, 46, 88, 91, 135, 140, 147, 158, 202, 229, 265, 342
- Ceramic and porcelain** 35, 58, 69, 160, 217, 247, 278, 282, 339
- Chromium/stainless steel** 263, 325
- Copper** 282
- Cork** 201
- Glass, blown** 21, 40, 43, 74, 91, 95, 135, 161, 194, 195, 202, 223, 283, 285, 290, 322, 329, 340, 352
- Glass, crystal** 40, 46, 91, 135, 282, 285, 290
- Glass, moulded** 43, 46, 91, 95, 140, 194, 195, 223, 282, 283, 285, 290, 296, 328, 329, 334, 342
- Laminates** 11, 35, 46, 65, 78, 88, 90, 96, 121, 124, 128, 130, 137, 140, 158, 166, 175, 188, 195, 201, 216, 238, 244, 265, 282, 284, 290, 317, 321, 322, 337
- Onyx** 160
- Paper, card, parchment** 10, 11, 23, 46, 58, 61, 62, 65, 74, 85, 85, 88, 102, 124, 128, 140, 147, 158, 163, 168, 178, 179, 186, 188, 195, 201, 202, 216, 219, 237, 238, 243, 270, 274, 275, 282, 284, 290, 299, 306, 314, 342, 346

- Plastic** 342, 346, 352
- Pottery** 21, 46, 78, 130, 140, 146, 158, 201, 202, 237, 273
- Pottery** 46, 69, 247, 278, 295
- Shell** 21, 46, 91, 135, 140, 147, 202, 243, 342
- Silver-plated** 159
- Soft fabrics** 10, 11, 15, 18, 21, 23, 28, 33, 35, 44, 46, 49, 58, 60, 65, 66, 72, 74, 78, 80, 86, 91, 92, 93, 94, 96, 102, 115, 121, 124, 128, 130, 133, 135, 136, 137, 140, 146, 147, 152, 158, 160, 165, 166, 167, 175, 178, 188, 195, 200, 201, 204, 218, 223, 229, 232, 238, 257, 265, 270, 275, 280, 284, 286, 289, 294, 297, 299, 308, 313, 314, 317, 321, 322, 327, 328, 328, 342, 347
- Steel** 299
- Tiffany** 25, 43, 46, 78, 91, 130, 140, 156, 158, 160, 163, 178, 195, 201, 202, 229, 282, 299, 340, 342
- Wood** 228

LAMPSHADES

Modern

- Alabaster** 51
- Aluminium** 282
- Brass** 94, 263, 282, 325, 346, 352
- Brass-plated** 282, 299
- Brass and glass** 94, 282, 325, 352
- Cane and basket** 18, 19, 43, 46, 88, 91, 135, 140, 147, 158, 202, 229, 243, 265, 290, 340, 342
- Ceramic and porcelain** 35, 58, 160, 247
- Chromium/stainless steel** 263, 325
- Cork** 201
- Glass, blown** 21, 40, 43, 74, 95, 135, 160, 194, 195, 202, 285, 290, 340, 352
- Glass, crystal** 40, 46, 285, 290
- Glass, moulded** 43, 46, 91, 95, 194, 195, 285, 290, 334, 342
- Laminates** 11, 18, 19, 35, 44, 46, 49, 54, 65, 78, 80, 88, 90, 96, 121, 124, 128, 130, 137, 140, 158, 168, 179, 186, 195, 200, 201, 216, 232, 238, 244, 256, 265, 284, 290, 299, 317, 321, 322
- Onyx** 160
- Paper, card, parchment** 10, 11, 23, 46, 58, 61, 62, 65, 74, 85, 85, 88, 102, 124, 128, 140, 147, 158, 163, 168, 178, 179, 186, 188, 195, 201, 202, 216, 219, 237, 238, 243, 270, 274, 275, 282, 284, 290, 299, 306, 314, 342, 346
- Plaster** 160
- Plastic** 21, 46, 54, 78, 85, 130, 140, 146, 158, 163, 168, 201, 202, 237, 273, 282, 342
- Pottery** 46, 247, 295
- Shell** 21, 46, 58, 60, 91, 140, 202, 243, 340, 342
- Silver-plated** 346
- Soft fabrics** 10, 11, 15, 18, 19, 21, 23, 28, 33, 35, 44, 46, 49, 58, 60, 65, 66, 72, 74, 78, 80, 86, 91, 92, 93, 94, 96, 102, 115, 121, 124, 128, 130, 133, 135, 136, 137, 140, 146, 147, 152, 158, 160, 163, 167, 178, 195, 200, 201, 229, 238, 243, 256, 265, 270, 280, 282, 284, 293, 294, 297, 299, 313, 314, 317, 322, 342, 347
- Steel** 282, 299
- Tiffany** 25, 43, 46, 78, 91, 130, 140, 156, 158, 160, 163, 178, 195, 201, 202, 229, 282, 299, 340, 342
- Wood** 35, 54

DECORATIVE FLUORESCENT FITTINGS

- Alabaster** 65
- Aluminium** 41, 43, 55, 82, 98, 116, 153, 185, 268, 272
- Brass** 43, 50, 55, 65, 98, 153, 158, 170, 180, 195, 219, 226, 352
- Brass-plated** 65, 98, 158, 180, 226
- Brass and glass** 43, 65, 98, 153, 170, 226, 268
- Chromium/stainless steel** 50, 55, 65, 98, 170, 195, 226
- Copper** 98, 226
- Copper and glass** 98, 226
- Fibre or glass optics** 65, 153, 170, 178, 226
- Glass, blown** 65, 153, 170, 178, 226
- Glass, crystal** 170, 226
- Glass, moulded** 65, 82, 153, 170, 178, 194, 226, 268
- Gold-plated** 98, 158, 170, 226, 268, 327
- Iron** 98, 226
- Laminates** 327
- Marble, stone** 153
- Plaster** 178, 327
- Plastic** 41, 153, 178, 185, 195, 209, 246, 272
- Silver-plated** 98, 170, 226, 327
- Steel** 55, 82, 98, 104, 125, 153, 185, 195, 226, 290
- Wood** 65, 327

SECURITY LIGHTING

- Aluminium** 41, 44, 55, 91, 98, 113, 114, 125, 158, 178, 180, 194, 218, 222, 236, 272, 307, 337, 342
- Brass** 43, 55, 98, 106, 113, 158, 226, 325, 352
- Brass-plated** 98, 113, 158, 226
- Brass and glass** 98, 158, 226, 325
- Chromium/stainless steel** 55, 98, 226, 325
- Copper** 98, 226
- Copper and glass** 98, 226
- Glass, blown** 226
- Glass, crystal** 226
- Glass, moulded** 226
- Gold-plated** 98, 226

LIGHTING CONTROLS

- Brass** 135, 141, 178, 180, 352
- Brass-plated** 180
- Chromium/stainless steel** 141, 178
- Copper** 178
- Laminates** 54
- Plastic** 54, 135, 141, 178, 334
- Soft fabrics** 54
- Steel** 337

PRODUCT CLASSIFICATION

SECURITY LIGHTING Contd.

- Iron** 194, 195, 200, 203, 214, 219, 220, 226, 242, 246, 263, 268, 274, 285, 296, 325, 352
- Marble, stone** 226
- Plaster** 178
- Plastic** 44, 114, 125, 151, 158, 178, 218, 222, 337
- Silver-plated** 98, 226
- Steel** 55, 98, 106, 158, 178, 222, 226, 337
- Wood** 113

LOW VOLTAGE LIGHTING

- Aluminium** 34, 35, 43, 46, 55, 65, 82, 98, 118, 141, 170, 178, 194, 195, 226, 244, 246, 263, 268, 274, 285, 325
- Brass** 7, 34, 43, 46, 51, 55, 91, 94, 113, 118, 135, 141, 158, 170, 178, 180, 182, 302
- Copper** 98, 226
- Glass, blown** 43, 118, 170, 195, 226, 244
- Glass, crystal** 117, 118, 170, 214, 226
- Glass, moulded** 43, 116, 118, 170, 195, 214, 226, 268

- 194, 195, 200, 203, 214, 219, 220, 226, 242, 246, 263, 268, 274, 285, 296, 325, 352

Brass-plated

- 43, 65, 91, 98, 113, 118, 135, 141, 158, 178, 180, 194, 195, 203, 218, 222, 226, 241, 244, 268, 272, 274, 314, 352

Brass and glass

- 43, 94, 98, 118, 158, 170, 194, 195, 203, 226, 241, 244, 268, 325

Ceramic and porcelain

- 119, 270

Chromium/stainless steel

- 34, 35, 43, 46, 55, 65, 82, 98, 118, 141, 170, 178, 194, 195, 226, 244, 246, 263, 268, 274, 285, 325

Copper

- 98, 226

Copper and glass

- 98, 226

Fibre or glass optics

- 98

Glass, blown

- 43, 118, 170, 195, 226, 244

Glass, crystal

- 117, 118, 170, 214, 226

Glass, moulded

- 43, 116, 118, 170, 195, 214, 226, 268

Gold-plated

- 35, 43, 98, 113, 117, 158, 170, 194, 203, 214, 226, 241, 246, 268, 285, 290

Iron

- 98, 226

Plaster

- 2, 195

Plastic

- 91, 104, 114, 221, 235

Pottery

- 119

Silver-plated

- 98, 170, 214, 226, 241

Steel

- 33, 46, 55, 65, 98, 106, 108, 116, 125, 147, 178, 195, 222, 226, 268, 290

Wood

- 113

Chromium/stainless steel

- 282

Paper, card, parchment

- 140

Plastic

- 146

Pottery

- 92, 103, 119, 135, 147, 252, 295, 342

Soft fabrics

- 117, 135, 140, 143, 146, 222, 305

CHILD APPEAL LIGHTING Modern

Ceramic and porcelain

- 103, 282, 306

Chromium/stainless steel

- 282

Paper, card, parchment

- 140, 306

Plastic

- 107, 146

Pottery

- 92, 103, 147, 295, 342

Soft fabrics

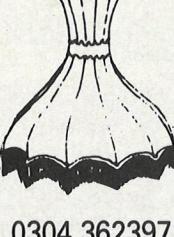
- 18, 117, 140, 143, 146, 238, 305

CHILD-APPEAL LIGHTING Traditional

Ceramic and porcelain

- 103, 119, 135, 282

NEPTUNE SHADES



0304 362397

QUALITY HANDMADE SHADES



FULL COLOUR CATALOGUE AVAILABLE

50- DIFFERENT STYLES

12- RANGES OF MATERIALS

VAST COMBINATION OF TRIMS

WE SPECIALISE IN SERVICE TO
THE INDEPENDENT RETAILER



The sign of superior quality lightfittings
manufactured in Britain

The names...

D.M. Walker (Lighting) Ltd
and
**Walker Picton
(Manufacturing) Ltd**

Manufacturers and Distributors
of Hand Polished Solid Brass Lighting,
Glass Shades, Leaded Tiffany, Capiz Shades
and Spot Lights

Audby Lane, Wetherby, W. Yorkshire LS22 4FD
Telephone (0937) 580158 Fax: (0937) 584153

Factory:
Unit 5, Totteridge Works, Totteridge Avenue, High Wycombe, Bucks.
Telephone (0494) 439418 Fax: (0494) 448692

Reader Service No. 330

Reader Service No. 331

LOOK FOR



Members of The Decorative Lighting Association abide by a Code of Practice designed to ensure that all lighting goods and equipment supplied meet the highest standards of safety and quality.

The Code of Practice is constantly being reviewed, expanded and improved upon to conform to both UK and European safety requirements.

The Decorative Lighting Association's Technical Committee works in very close liaison with the BSI (British Standards Institution) and many other industry leaders to ensure that the Code of Practice is effective and workable.

Remember suppliers of lighting goods are responsible for their safety and quality. UK legislation demands that all goods must carry proper identification and instructions.

A full range of standard Safety and Product Information Labels are available ex-stock from The Decorative Lighting Association. In addition, individual label requirements can be accommodated to special order.

The Decorative Lighting Association's Code of Practice is the mark of safety and quality.

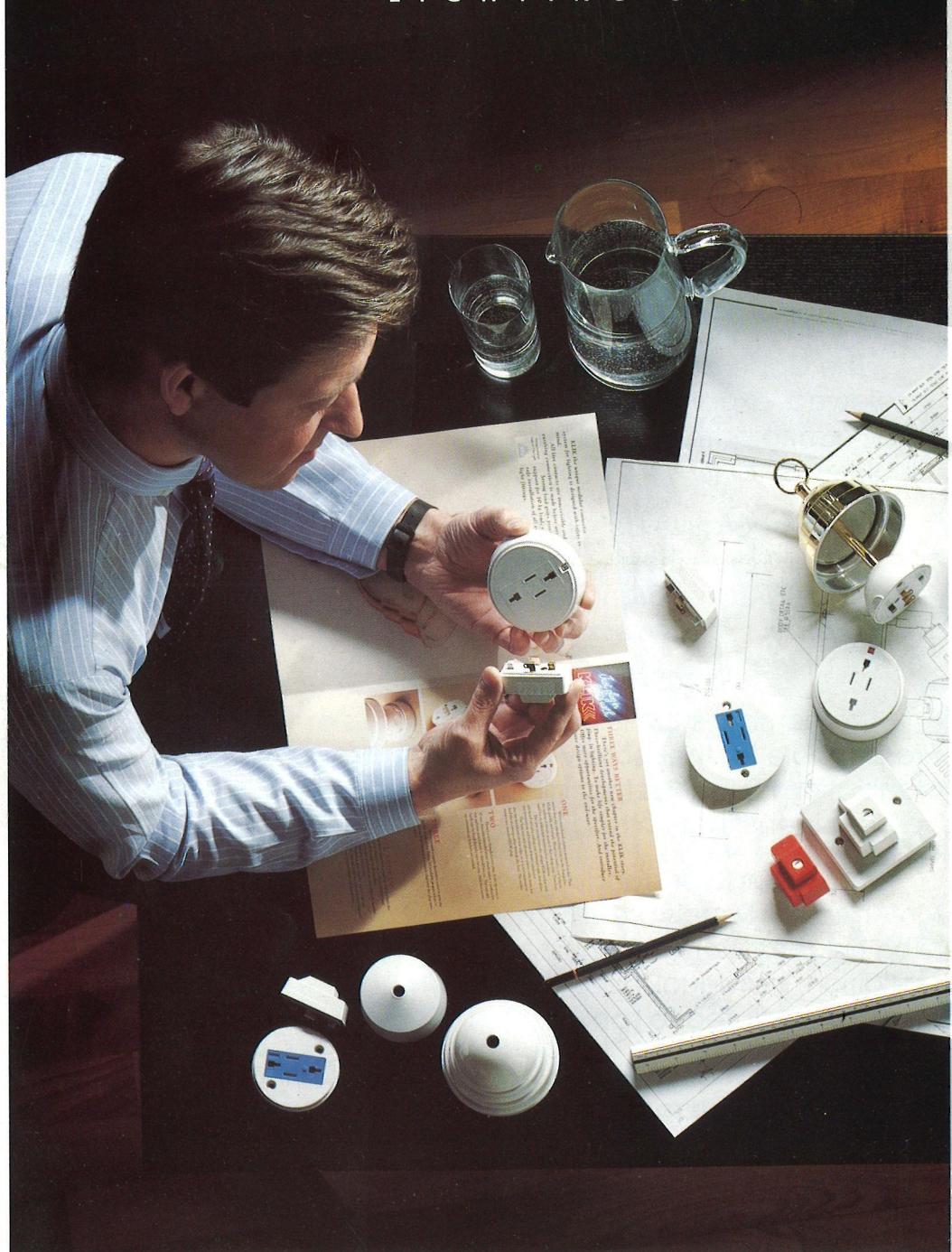
THE DECORATIVE LIGHTING ASSOCIATION

For further information about Product Labels contact Helen Jones or for more technical advice, contact Richard Smith, The Decorative Lighting Association, Bryn, Bishop's Castle, Shropshire SY9 5LE. Or telephone the DLA Technical Services Hotline 058 - 84 658.

Reader Service No. 332

THE DESIGN OF QUALITY

THE MOST VERSATILE
LIGHTING SYSTEM



The demand for KLIK by the professionals is growing at a rapid rate for all types of lighting installations - industrial, commercial and domestic.

KLIK



A three contact interface, proven superior for all standard lighting installations.

KLIK LV



The world's first, three contact, specially keyed and colour coded interface, for Functional Extra Low Voltage applications.

KLIK AX



A clever design four contact interface for special circuit applications, enabling a second supply or special connection to be made.

Send for the new comprehensive KLIK catalogue.



ELECTRICAL CONNECTION, PROTECTION & CONTROL

Ashley & Rock Limited, Morecambe Road, Ulverston, Cumbria LA12 9BN, England.

Contact KLIK Marketing Department, Telephone: 0229 53333.

Reader Service No. 333