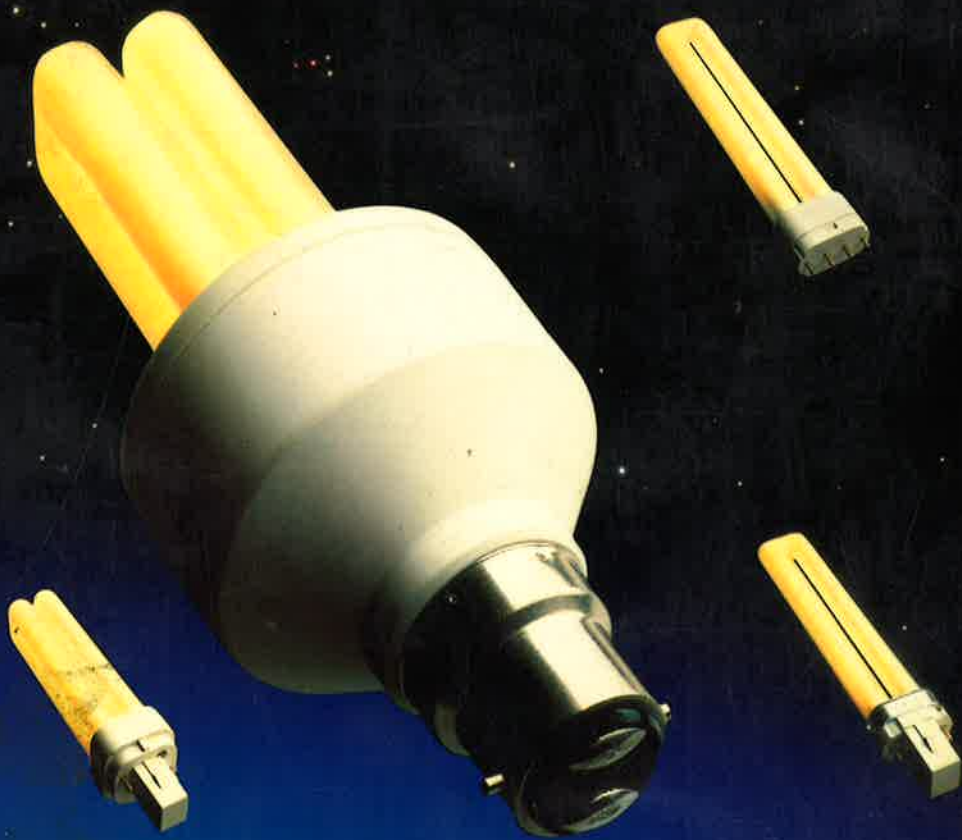


CI/Sfb
(63) X

NOVEMBER 1987

OSRAM

O P U S



0701 359487



COMPACT FLUORESCENT LAMP RANGE

OSRAM



TECHNOLOGY'S LEADIN

O P U S

OSRAM have always been at the forefront of technological advances in lighting.

The company were the inventors of the high pressure mercury lamp and the first to install it.

The very first fluorescent lamp was also an OSRAM invention.

So was the first European SON lamp followed by its ultimate refinement and development, SON PLUS – the world's most advanced SON lamp.

It is against this background of technological achievement that OSRAM introduce OPUS.

OPUS is a new range of compact fluorescent lighting that is designed to save both energy and maintenance costs.

Like every OSRAM lamp, it is a quality product backed by all the resources of a major world-wide manufacturer.

The introduction of OPUS is the result of a continual development policy.

Which means that yet more innovations and inventions will emerge from OSRAM in the future in the same way as they have in the past.

Just as you'd expect from technology's leading light.



G LIGHT



Eric Chapman, independent lighting consultant, says:

“ *The deceptively simple appearance of the ‘OPUS EL’ lamp from OSRAM-GEC conceals the brilliant engineering it embodies. It has been created by combining several new technologies, and offers the user significant technical and economic benefits.*

This compact fluorescent lamp has a built-in electronic ballast and needs no external control gear. Thus it can directly replace filament lamps of much higher wattage without reduction in lighting effect. Indeed, on changing to ‘OPUS EL’ lamps, it may be possible to achieve a substantial saving in energy coupled with an increased lighting level.

The phosphors used produce light of a pleasant warm colour that is aesthetically acceptable for practically all locations where filament lamps would otherwise be used.

The rated life of this remarkable lamp is 6000 hours. It combines efficient use of electrical energy (consuming only about one-fifth of the energy which would be taken by a filament lamp of equal light output), with a life six times longer than that of filament lamps, leading to savings in labour for lamp replacements with the major bonus of greater reliability.

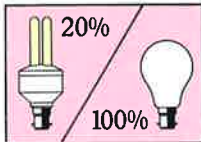
This is truly a lamp of our time, fit for use in a world that becomes increasingly aware that our natural resources are not limitless. ”

Eric G Chapman FCIBSE, FILE, IIC, FInstSMM

O P U S

O P U S

The ultimate solution to lower lighting costs

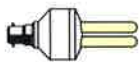
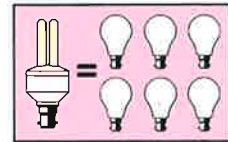


The OPUS range has been developed by OSRAM to reduce costs in all aspects of lighting. With today's high electricity prices, there is a major demand for energy-saving products.

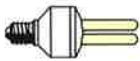
So with up to 80% less power consumed than conventional light bulbs for the same output of light, electricity bills will be cut substantially.

Even in small locations, changing light bulbs is expensive and a chore. With more than 6000 hours service life, OPUS lamps save maintenance and replacement costs.

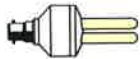
To see why OPUS is the ultimate solution to lower lighting costs, consider these advantages.



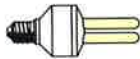
Up to 80% less power consumed *The new OPUS compact fluorescent range offers large savings on energy bills. It uses only a fraction of the electricity for the same output of light.*



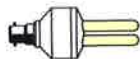
Over 6000 hours service life *OPUS has been developed to reduce costly maintenance to a minimum. As a direct replacement for ordinary bulbs, the OPUS EL lasts six times longer. While the OPUS L lasts an amazing 7500 hours.*



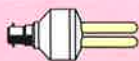
Comparable colour rendering qualities *Though OPUS is a fluorescent lighting range, the lamps give the warm light of conventional light bulbs.*



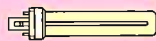
Cool running *The OPUS range is ideal for those situations where temperature is a deciding factor. Due to its low energy consumption, OPUS is particularly cool running.*



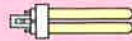
A range to suit all needs *There are no less than four different types of OPUS lamps, each with a wide choice of sizes and power. There's a cost-saving OPUS lamp to suit your needs.*



OPUS EL



OPUS S



OPUS D



OPUS L

O P U S - E L

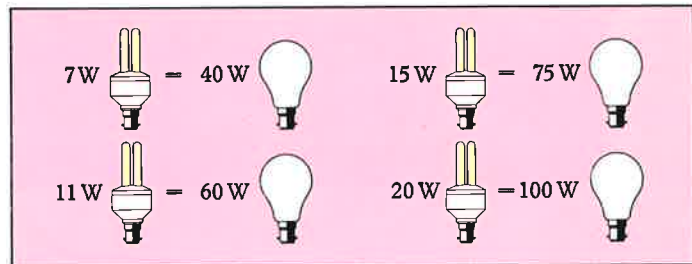


The immediate cost-saving alter

Just remove your conventional light bulbs and replace them with the OPUS EL.

There's no new wiring, fittings or lamp-holders required, the OPUS EL is a plug-in replacement with the same bayonet connection or Edison screw.

With absolutely no installation costs you can then reduce your lighting energy consumption by an enormous 80%.



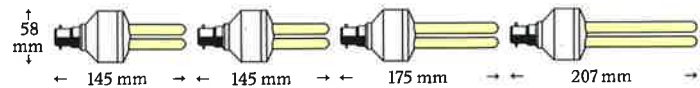
Maintenance costs too are cut dramatically because OPUS EL needs changing six times less often than ordinary bulbs.

Through its electronic ballast the OPUS EL represents a major technological breakthrough.

Because this ballast operates at a higher frequency (35kHz as opposed to 50Hz) the lamp is flicker-free and lights instantly.

Another benefit is that the components of the ballast are more compact and much lighter than conventional types so putting no strain on light fittings.

Further savings are made through the ballast's electronic construction. Less power is dissipated than with conventional wire-wound ballasts, increasing the circuit efficiency.

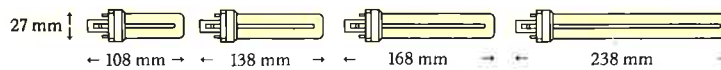
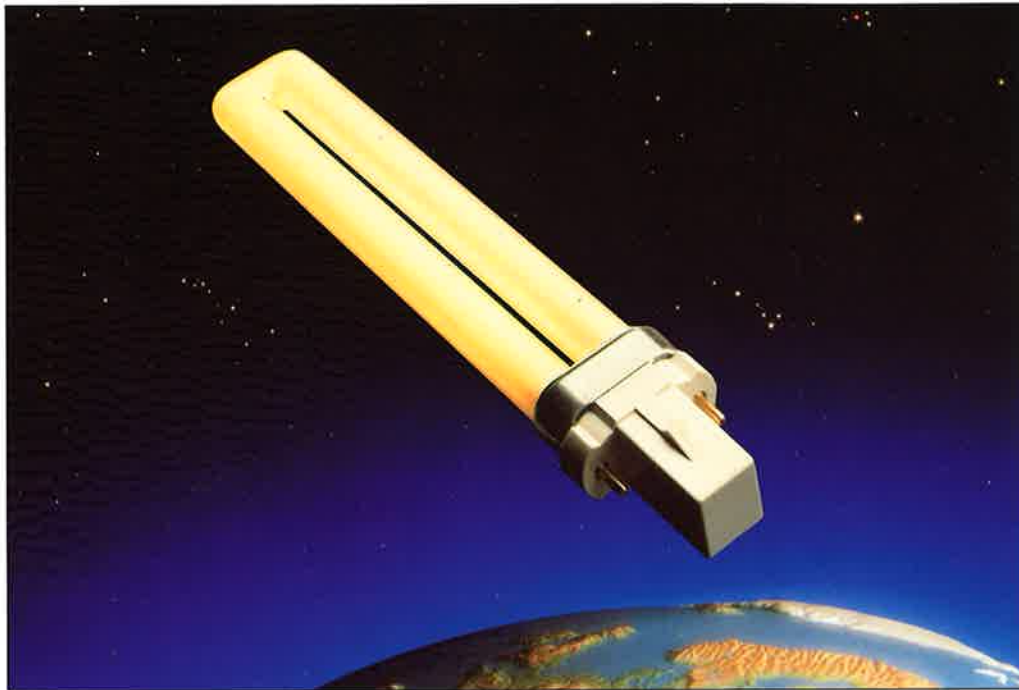
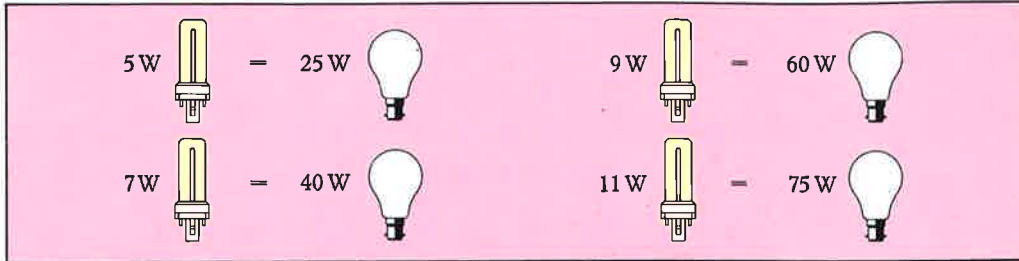


Reference - bayonet or screw cap	OP7BC	OP11BC	OP15BC	OP20BC
	OP7ES	OP11ES	OP15ES	OP20ES
Lamp Watts	7	11	15	20
Circuit Power	7.5W	11.5W	15W	20W
Initial Lumens	400	600	900	1200
Lamp Current	85mA	115mA	145mA	190mA
Weight	115g	115g	130g	140g
Colour Temperature	2700° K			
Service Life	6000 Hours			

OPUS S lamps were the very first examples of compact fluorescent lighting to be introduced to the world.

Complete with an integrated starter they embody the stylish slim appearance that epitomises the OPUS range.

This makes them ideal for use in the most elegant of luminaires.



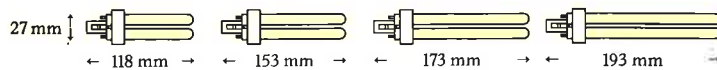
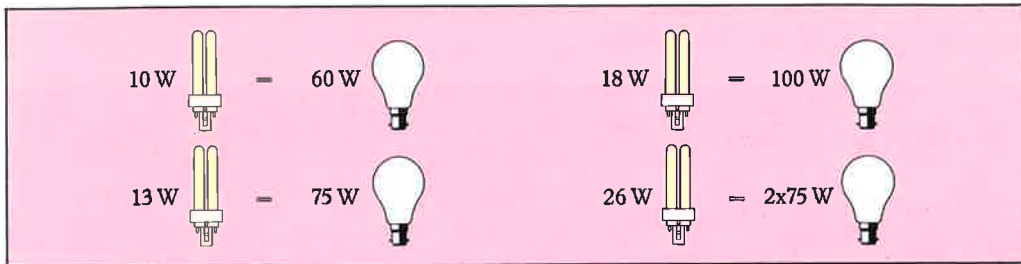
Reference	OP5	OP7	OP9	OP11
Base	G23			
Lamp Watts	5	7	9	11
Initial Lumens	250	400	600	900
Lamp Current – single lamp	180mA	175mA	170mA	155mA
series pair	180mA	160mA	130mA	–
Colour Temperature	2700° K			
Service Life	5000 Hours			

O P U S - S

With its distinctive double turn tube, the OPUS D has been designed to give a high light output from a compact length.

The lamps are available with or without an integral starter.

External starter versions are particularly suitable for emergency lighting or locations where dimming is desirable.



Reference - Internal starter - External starter	OP10D	OP13D	OP18D	OP26D
	OP10D/E	OP13D/E	OP18D/E	OP26D/E
Base with starter	G24d-1	G24d-1	G24d-2	G24d-3
Base without starter	G24q-1	G24q-1	G24q-2	G24q-3
Lamp Watts	10	13	18	26
Initial Lumens	600	900	1200	1800
Lamp Current	190mA	175mA	200mA	315mA
Colour Temperature	2700° K			
Service Life	5000 Hours			

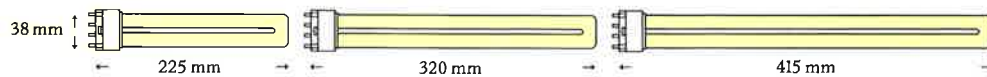
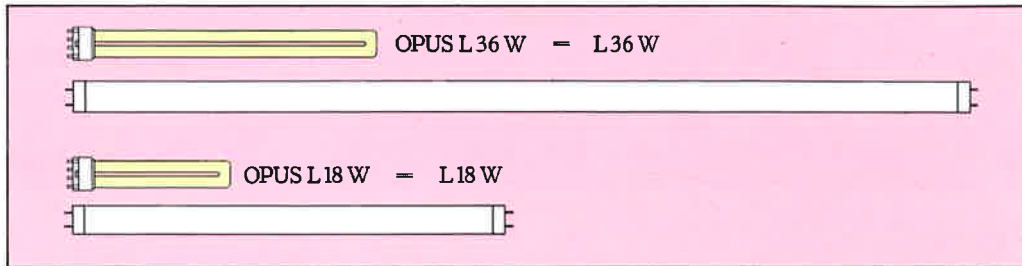
O P U S - D

OPUS L provides a light output comparable to that of conventional fluorescent tubes but occupies a fraction of the space.

This allows much greater freedom in the design of a lighting installation.

The lamps have a four pin cap without starter to permit conventional choke starting or more economical operation with electronic High Frequency ballasts.

OPUS L is available in three colours, warm white 3000°K and cool white 4000°K to match existing triphosphor fluorescent tubes and warm 2700°K to match the rest of the OPUS range.



Reference 2700°K	OP18L4	OP24L4	OP36L4
3000°K	OP18L3	OP24L3	OP36L3
4000°K	OP18L2	OP24L2	OP36L2
Base	2G11		
Lamp Watts	18	24	36
Initial Lumens	1200	1800	2900
Lamp Current – single lamp	370mA	340mA	430mA
series pair	410mA	-	-
Service Life	7500 Hours		

O P U S - L

OPUS APPLICATIONS



INSTITUTE OF LONDON UNDERWRITERS,
22, BILLITER STREET, LONDON EC3

“ OPUS is a cost effective way of illuminating a specific area in place of more traditional lighting.

Not only were maintenance and running costs reduced, but initial capital outlay was also minimised as the lower electrical demand reduced the rating of the required switchgear.”

Steve Winkworth
BSc (Hons) DMS CEng MIEE
Consulting Engineer

New and existing locations can all benefit from the warm, pleasing light that OPUS creates.

However, OPUS does not only improve the overall lighting effect.

By saving energy and reducing maintenance, OPUS looks good on balance sheets too.

“ As Senate House is a listed building of great architectural merit, our first requirement was the preservation of the original fittings, whilst still saving in energy costs.

OPUS not only gave us financial benefits, but its compact design allowed us to retain the original appearance of the hall.”

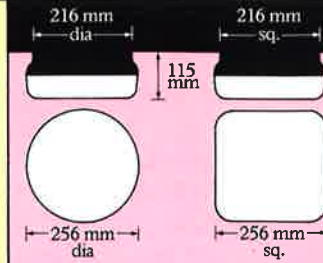
Peter Rance
Senior Assistant Engineer, Electrical



LIFT LOBBY, SENATE HOUSE, MALET STREET,
UNIVERSITY OF LONDON, WC1

Cameo

An attractively styled yet vandal-resistant fitting suitable for interior or exterior use.



Signlight

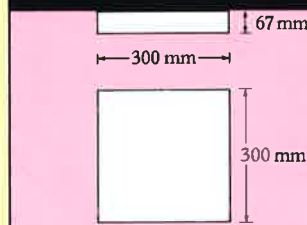


Cat. No.		Circuit Watts	Weight (kg)
OCR 209	Round c/w 2x9W S lamps.	25.5	1.2
OCS 209	Square c/w 2x9W S lamps.	25.5	1.4
OCS 211	Square c/w 2x11W S lamps.	36.0	1.7
OCS 211H	Square c/w 2x11W S lamps. corrected for high powerfactor.	36.0	1.75

Ingress Protection: IP43 rainproof.

Lignum

An attractive surface-mounted fitting in a stylish wood-effect finish with a choice of three diffusing panels. Each fitting is supplied with two 18W OPUS L lamps.



Outline

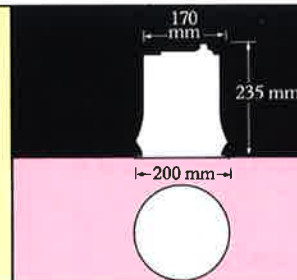


Cat. No.		Circuit Watts	Weight (kg)
OL 218P	Prismatic panel c/w 2x18W L lamps.	49W	2.4
OL 218L	Louvre panel c/w 2x18W L lamps.	49W	2.5
OL 218C	Crushed ice panel c/w 2x18W L lamps.	49W	2.8

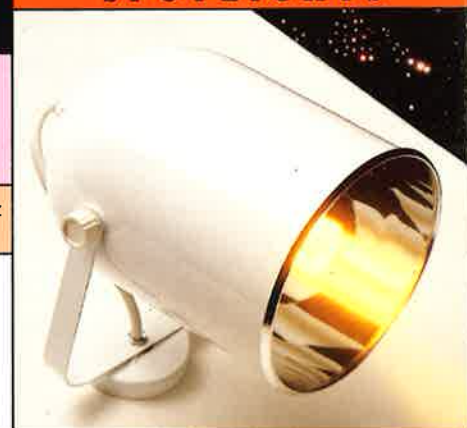
Ingress Protection: IP20 for interior use only.

Stereo DOWNLIGHTERS

Part of the extensive range of Dimension display lighting, the "Bullet" style spotlights are available with either S or D type OPUS lamps and polished reflectors finished in silver or gold.



Stereo SPOTLIGHTS

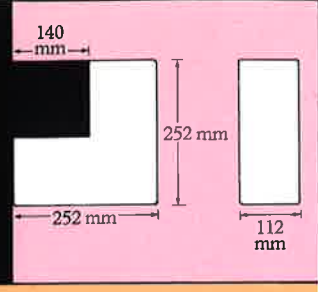


Cat. No.		Circuit Watts	Weight (kg)
ODL 109	Downlight c/w 9W S lamp.	12.5	0.875
ODL 110	Downlight c/w 10W D lamp.	14	0.875
ODL 113	Downlight c/w 13W D lamp.	17	0.875
ODL 118	Downlight c/w 18W D lamp.	26	0.875

Ingress Protection: IP20 for interior use only.

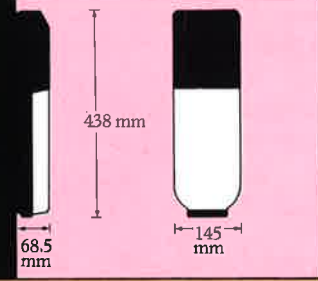
OPUS FITTINGS

An easy to install illuminated sign that is visible from three directions. A wide variety of legends are available.



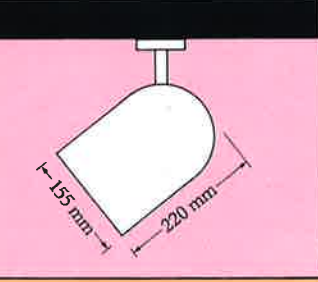
Cat. No.	Circuit Watts	Weight (kg)
OSL 209 Signlight luminaire c/w 2x9WS lamps. Ingress Protection: IP20 for interior use only.	25.5	1.52

A slim-styled bulkhead fitting that's vandal-resistant and ideal for interior or exterior use. Outline is also available with a photo-electric cell for automatic switching.



Cat. No.	Circuit Watts	Weight (kg)
OPO 111 Outline luminaire c/w 1x11W S lamp.	19.0	1.35
OPO 211 Outline luminaire c/w 2x11W S lamps.	37.0	1.65
Ingress Protection: IP54 Dustproof and splashproof.		

Part of the extensive range of Dimension display lighting, the co-ordinated recessed circular downlights are available with either S or D type OPUS lamps and polished reflectors finished in silver or gold.



Cat. No.	Circuit Watts	Weight (kg)
OSP 109 Spotlight c/w 9W S lamp.	12.5	0.900
OSP 110 Spotlight c/w 10W D lamp.	14	0.900
OSP 113 Spotlight c/w 13W D lamp.	17	0.900
OSP 118 Spotlight c/w 18W D lamp.	26	0.900
Ingress Protection: IP20 for interior use only.		

OSRAM have developed a range of quality fittings in styles that fully utilise the compact and slim lines of OPUS lamps.

The fittings shown here have an operating frequency of 240V 50Hz although other voltages and frequencies can be supplied to order.

All fittings shown are designed to comply with BS4533 and IEC 598 and further fittings suitable for OPUS lamps are available on request.

O P U S

The experience you can call on



Our years of lighting experience and commitment to technological innovation can help answer your lighting needs.

Sales Engineers Further information on any of the lamps and fittings shown in this brochure is available from our experienced Sales Engineers.

In fact, they can answer any queries and supply full details on all products from our extensive range.

Two other important services are also available from our Sales Engineers.

Lighting Scheme Design Service An OSRAM Sales Engineer can visit you to discuss your lighting requirements, survey your premises and present the best scheme for your needs.

The presentation will include all drawings and technical information necessary for installation and maintenance.

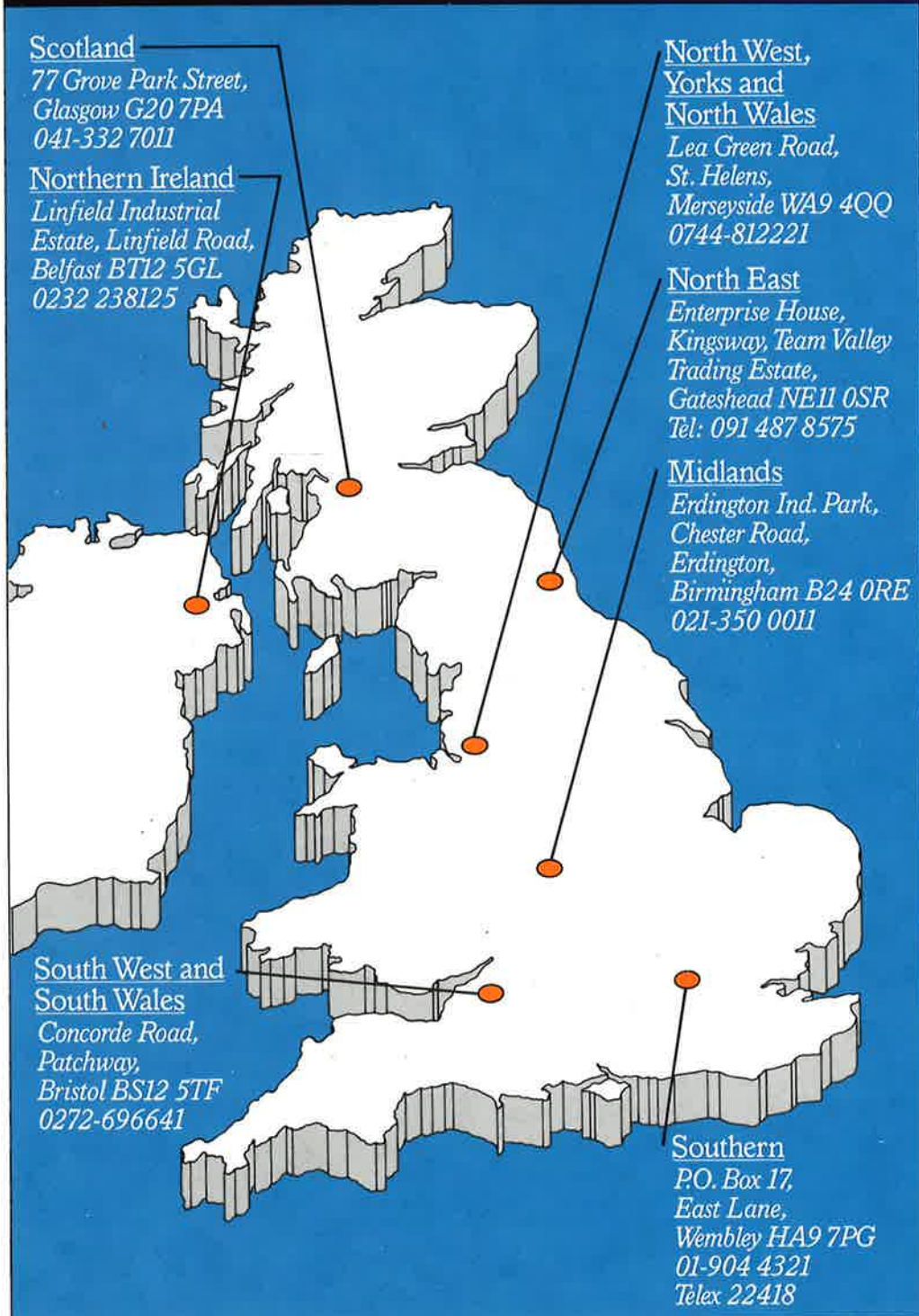
Lighting Economy Service To enable you to maximise lighting levels whilst minimising costs, our Sales Engineers can provide a Lighting Economy Report.

The report details existing lighting costs and compares them with a suggested alternative scheme, identifying cost-saving opportunities and pay-back periods.

Should you require any of these services from our Sales Engineers or a list of local stockists and distributors, please contact your nearest OSRAM Lighting Office shown opposite.



Your nearest lighting office



Scotland
77 Grove Park Street,
Glasgow G20 7PA
041-332 7011

Northern Ireland
Linfield Industrial
Estate, Linfield Road,
Belfast BT12 5GL
0232 238125

North West,
Yorks and
North Wales
Lea Green Road,
St. Helens,
Merseyside WA9 4QQ
0744-812221

North East
Enterprise House,
Kingsway, Team Valley
Trading Estate,
Gateshead NE11 0SR
Tel: 091 487 8575

Midlands
Erdington Ind. Park,
Chester Road,
Erdington,
Birmingham B24 0RE
021-350 0011

South West and
South Wales
Concorde Road,
Patchway,
Bristol BS12 5TF
0272-696641

Southern
P.O. Box 17,
East Lane,
Wembley HA9 7PG
01-904 4321
Telex 22418



OSRAM-GEC Ltd.,
P.O. Box 17, East Lane,
Wembley, Middlesex HA9 7PG.
Telephone: 01-904 4321.
Telex: 22418.
Fax: 01-904 1178.

O P U S

TECHNOLOGY'S LEADING LIGHT

