

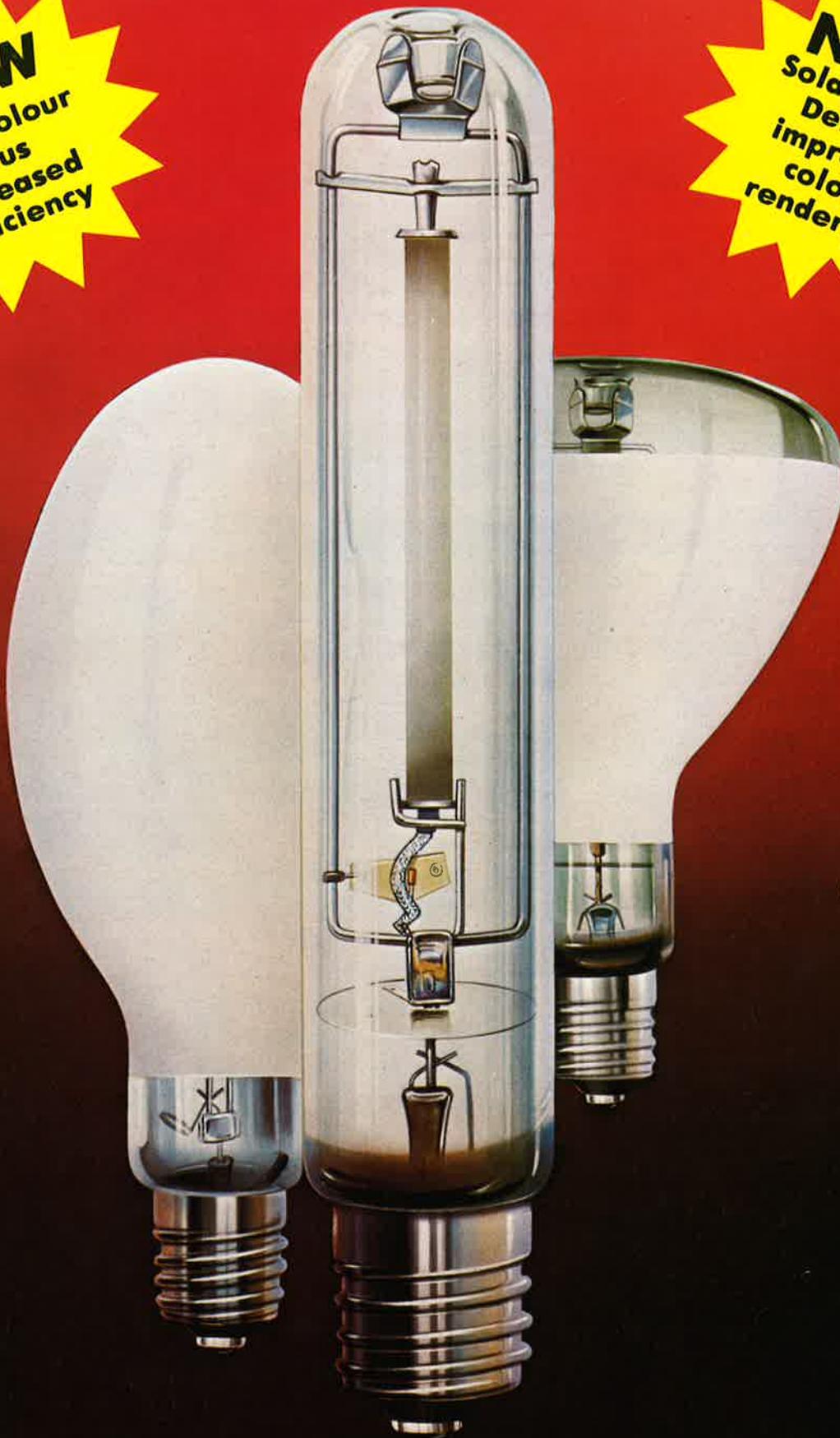
Solarcolour (SON)

HIGH PRESSURE SODIUM LAMPS

NEW

Solarcolour
Plus
increased
efficiency

NEW
Solarcolour
Deluxe
improved
colour
rendering



Osram-S&C

Osram-GEC have one of the largest ranges of high pressure sodium lamps in the world, with a Solarcolour type to suit virtually every situation.

SOLARCOLOUR (SON-T) CLEAR TUBULAR

The largest variety of Solarcolour lamps are made in clear tubular form. The clear outer envelope ensures maximum light output and the compact light source enables precise optical control in

specially designed fittings. The GEC Hi-Saver fitting is an ideal partner to Solarcolour SON-T for use in industrial lighting.



SOLARCOLOUR (SON-E) ELLIPTICAL DIFFUSED

Diffused Solarcolour lamps have similar optical characteristics to mercury lamps, enabling them to be used with a common range of fittings. The increased apparent size of the light source makes them eminently suitable

for use with low mounting height and wider than average spacings, in fittings such as the GEC Champion range.



SOLARCOLOUR (SON-R) REFLECTOR

The reflector version of Solarcolour is available in three wattages. The bulb has an internal white reflector which is unaffected by dust and dirt settling on the back of the lamp. Reflector lamps are particularly

suitable for use in dirty working conditions or where regular cleaning of fittings is difficult. They make ideal replacements for mercury reflector lamps, giving increased light output and/or reduced consumption.



SOLARCOLOUR (SON-L) LINEAR (SOLARSTREAM)

The Solarstream lamp is a relatively new development, utilising a slim quartz outer jacket with an electrical connection at each end. This design has led to the development of compact fittings with low windage, such as the superb GEC Solarbeam

floodlight. Solarstream lamps, when used with control gear in place of tungsten halogen lamps, offer large savings in electricity and maintenance costs.



SOLARCOLOUR HIGH PRESSURE SODIUM LAMPS

Solarcolour with its warm golden light is the nearest man has come to re-creating natural sunlight with high efficiency discharge lamps.



Osram-GEC introduced the first high pressure sodium lamp into Europe in 1966, under the name of Solarcolour. Continuous research and development since then has resulted in a very long life (comparable with high pressure mercury lamps), but with higher lumen maintenance.

The latest increased efficiency Solarcolour Plus lamps have lumen outputs more than 50% higher than their early counterparts, while the lamp cost allowing for inflation has effectively halved.

The new types shown in this publication, and other introductions over past years, have ensured Osram's leadership as manufacturers of high pressure sodium lamps, with a range unparalleled by any other manufacturer in the world.

As rising costs make industrial and commercial consumers ever more aware of the need for high efficiency, long life lamps, the future for Solarcolour becomes even brighter.

SOLARCOLOUR PLUS (SONP) INCREASED EFFICIENCY

Recent breakthroughs in arc tube design by Osram-GEC research staff have enabled increased in light output of up to 33% to be achieved for certain types of Solarcolour lamps.

These new high efficiency lamps are known as Solarcolour Plus, and are initially available in 250w Clear Tubular (SONP-T) and Elliptical Diffusing (SONP-E) versions, with other sizes and types to follow.

Unlike other Solarcolour lamps (except SON-L) these lamps do not have internal starters and so any circuit must be fitted with an electronic ignitor.

SOLARCOLOUR DELUXE (SONDL) IMPROVED COLOUR RENDERING

A recent introduction by Osram-GEC, Solarcolour Deluxe lamps are suitable for situations where accurate colour rendition is as important as high efficiency.

They have the effect of making colours appear deeper, richer, and more true to life than with standard high pressure sodium lamps.

Available initially in 250w Clear Tubular (SONDL-T) and Elliptical Diffusing (SONDL-E) versions, other sizes and types will follow. These lamps are completely interchangeable with their Solarcolour counterparts.

SOLARCOLOUR TYPES AVAILABLE

| | 70w | 120w | 150w | 220w * | 250w | 310/360w at 310w* | 310/360w at 360w* | 400w | 600w | 1,000w |
|-------------------------|----------------|-------------------|------------------|------------------|------------------|----------------------|----------------------|------------------|------------------|--------------------|
| SON-T Clear | | 10,500† 10,000 | 14,500 14,000 | 22,000 20,000 | 25,000 24,000 | 36,500 34,500 | 40,000 38,000 | 48,000 46,000 | 70,000 65,000 | 130,000 125,000 |
| SON-E Diffused | 5,800 5,300 | 9,500 9,000 | 14,000 13,500 | 19,000 18,000 | 23,000 22,000 | 34,000 33,000 | 38,000 36,000 | 44,500 42,500 | | |
| SON-R Reflector | | | | | 20,500 18,900 | 26,000 24,000 | 30,000 27,000 | 37,000 33,000 | | |
| SON-L Linear | | | | | 25,000 24,000 | 36,500 34,500 | | 48,000 46,000 | | 130,000 125,000 |
| SONP-T Plus Clear | | | | | 32,000 30,500 | | | | | |
| SONP-E Plus Diffused | | | | | 29,000 27,500 | | | | | |
| SONDL-T Deluxe Clear | | | | | 22,000 20,500 | | | | | |
| SONDL-E Deluxe Diffused | | | | | 20,000 18,500 | | | | | |

*Plug-in versions: See notes below.

†Elliptical bulb shape.

Initial lumens (100 hrs). Lighting Design Lumens (2,000 hrs).

"PLUG-IN" SOLARCOLOUR

Osram-GEC have an unequalled range of high pressure sodium lamps designed to replace certain mercury lamps without the need to change the control gear. The benefits to the user are:

- Reduced electricity consumption
- Increased light output
- Negligible capital outlay

To update a suitable existing mercury installation there are four simple steps:

1 Check with Osram-GEC that the present

control gear is suitable. (For 310w operation, set the choke voltage tapplings 10v higher than the supply voltage).

2 Ensure that the wiring between lamp and control gear is PVC or similar approved material and that the lampholder is suitable for the high starting voltage generated.

3 Plug in the appropriate Solarcolour lamp.

4 Switch on, and after a similar warm up period to the old lamp, see the difference!

| Mercury Lamp | Gear | Suitable 'Plug in' Solarcolour | Electricity* Saving | Light Increase |
|--------------|----------|--------------------------------|---------------------|----------------|
| 250W MBFU | | 220W SON-E or SON-T | 6% | 57% |
| 400W MBFU | Tapped | †310/360W SON-E or SON-T | 22% | 57% |
| 400W MBFU | Untapped | †310/360W SON-E or SON-T | 7.5% | 71% |
| 400W MBFU | Tapped | †310/360W SON-R | 22% | 33% |
| 400W MBFU | Untapped | †310/360W SON-R | 7.5% | 50% |

*Including gear losses.

†Dual wattage lamp – will operate at 310w on tapped choke as described, at 360w on untapped choke.

STARTERS

An exclusive feature of most Solarcolour lamps is the simple internal snap starter. This device provides reliable starting with strike and re-strike times similar to those of mercury.

External electronic starters are essential for Solarstream (SON-L), and Solarcolour Plus (SONP) lamps, and can be used with other Solarcolour lamps to provide virtually instant re-strike for some or all of the lamps in an installation.

A feature unique to Osram-GEC electronic starters is their ability to sense a failed lamp and switch off within 5 minutes – other makes will continue to pulse until they are switched off, or indeed, fail. This ability to switch off avoids unnecessary radio interference and high voltage stresses in the control gear and circuit.

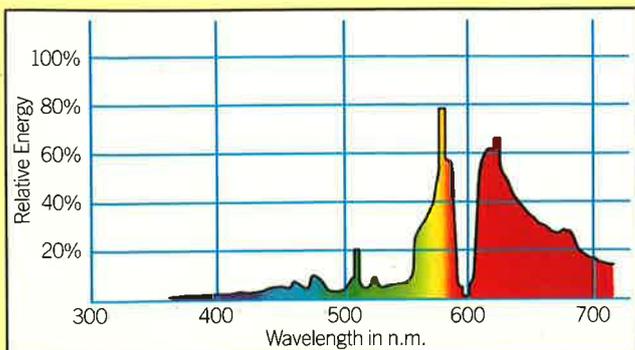
Starter Cat. No. For use on

| | |
|-------|--|
| OS17X | 70-400w SON-E, SON-T, SON-R, SON-L, SONP-E, SONP-T, SONDL-E, SONDL-T |
| OS19X | 600-1000w SON-T, SON-L, on 380/440v Phase to Phase Supply |
| OS23 | 600-1000w SON-T, SON-L, on 240v Phase to Neutral Supply |

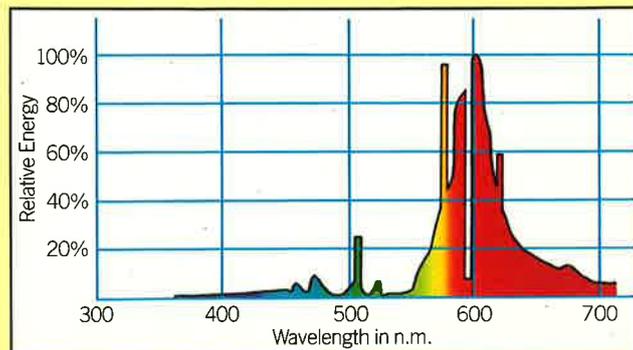
CIRCUITS

For details of circuits and fusing please refer to the booklet: "GUIDE TO THE INSTALLATION AND MAINTENANCE OF SOLARCOLOUR LAMPS" This booklet is available from your local Osram-GEC sales office.

Typical Spectral Energy Distribution Curves



SOLARCOLOUR DELUXE



SOLARCOLOUR & SOLARCOLOUR PLUS

SOLARCOLOUR HIGH PRESSURE SODIUM LAMPS

The warm golden light of high pressure sodium is the most efficient available for a wide variety of lighting schemes.

For interiors: ranging from swimming pools to heavy industry.

For Streetlighting: City centres, conservation areas and high mast area lighting.

For floodlighting: buildings or open cast mining.

Solarcolour should be used wherever good colour combined with low running costs are required.



British Steel Corporation's Clydesdale Works in Bellshill near Glasgow are one of the most up to date steel producing plants in the world.

Nearly 400 600w Solarcolour (SON-T) tubular lamps provide good lighting essential for efficiency and safety in round the clock working.

The management are well pleased with the warm appearance of the lighting and the lower running costs compared to other light sources.



Clarke Chapman Ltd, Bellshill, Lanarkshire are major crane and bridge manufacturers who have used Solarcolour to help them fight back against rising costs.

In the massive machine shop and assembly area 72 400w Mercury lamps were simply replaced with 72 310w

'Plug in' elliptical Solarcolour (SON) which gave 45% more light and reduced running costs by over 20%.

Mr. Hamilton, the Chief Electrical Engineer says "Everyone appreciated the improved lighting levels and more pleasant working conditions and this must be good for our Company."



Transfesa Terminals Ltd. wanted pleasant working conditions and low running costs for their new ¼ mile long, covered rail head at Paddock Wood, Kent. Solarcolour (SON-R) reflector lamps provided the answer and over 300 are used to light the building which receives imported goods for onward distribution to all parts of the country.

Minimal maintenance is a feature of the installation which uses 250w lamps giving a light output equal to 400w Mercury lamps. The building was designed by Robert Sutton Assoc., electrical work by Ashland Electrics Ltd, project management by Guy Ward, services consultant Ellmore & Avis, structural engineers K.A. Lock and Partners.



Osram GEC Solarstream (SON-L) lamps were used with 8 Osram GEC floodlights to light the exterior elevations of the Old Course Hotel at St. Andrews.

The warmth and texture of the modern architectural style of the building using natural stone is attractively revealed by the soft warm

colour of Solarstream (SON-L) at a fraction of the cost of using more conventional floodlighting.

Each 400w flood has been carefully positioned to show the detail of the building which stands in a prominent position and can be seen from great distances.

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Fight Back!

against rising costs

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Osram-S&C can maintain or even improve your lighting and still save you money.



Lighting the way