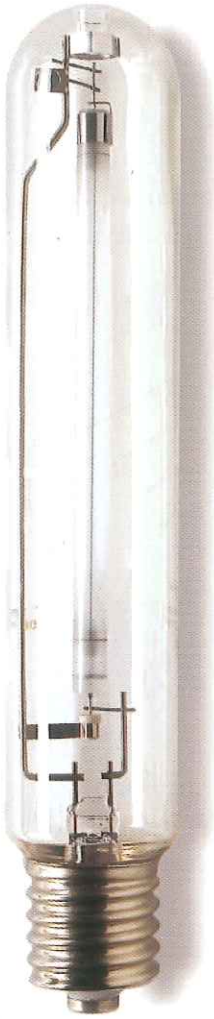
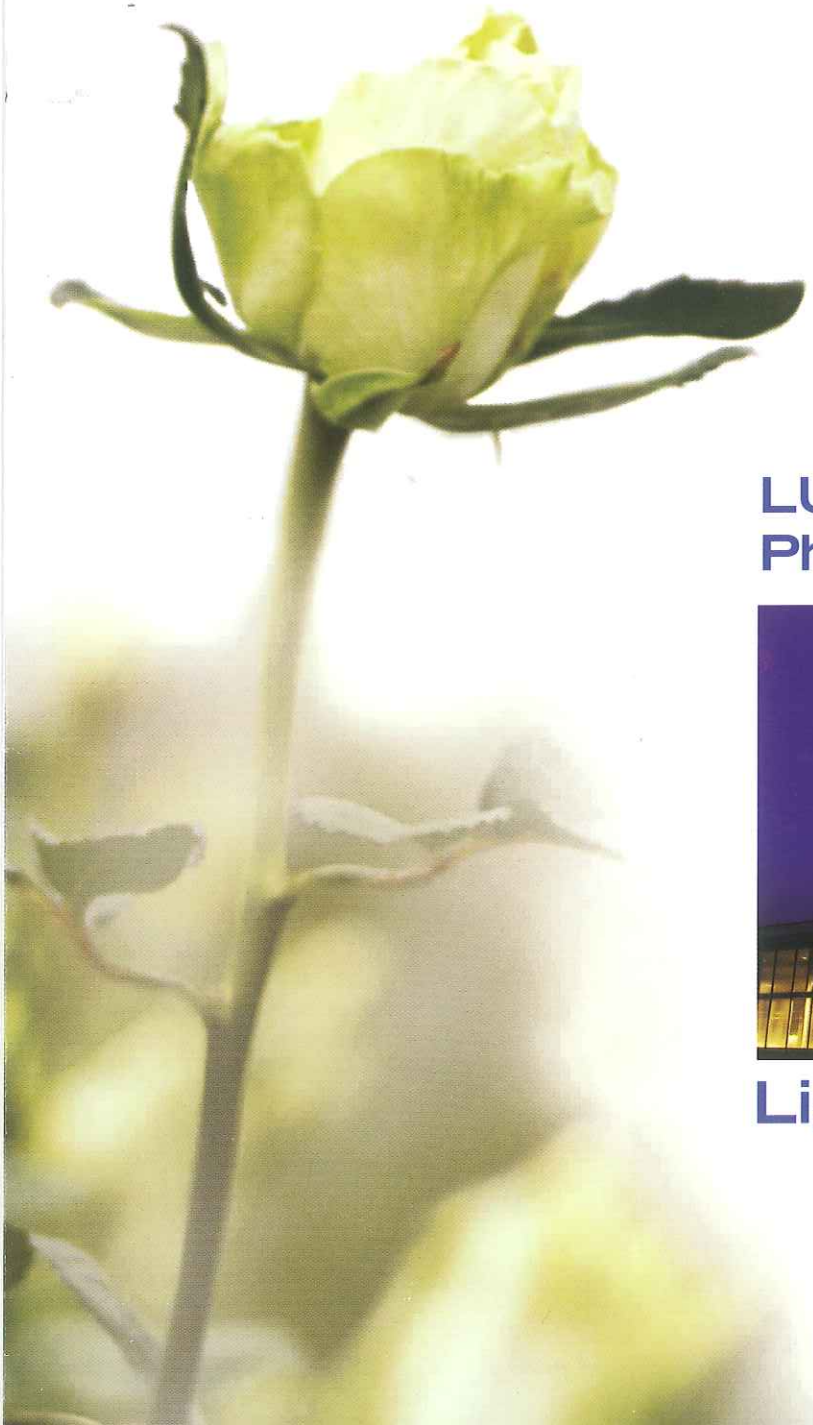
GE Consumer Products
Lighting





LUCALOX™ XO PSL
PhotoSynthesis Light Lamp

Lighting for Horticulture

GE imagination at work

The importance of artificial lighting

Artificial lighting now plays a significant role within the horticultural industry, where it enables producers to extend and control the periods of plant growth. New lighting technology has allowed growers to be less reliant on daylight and has improved their productivity.

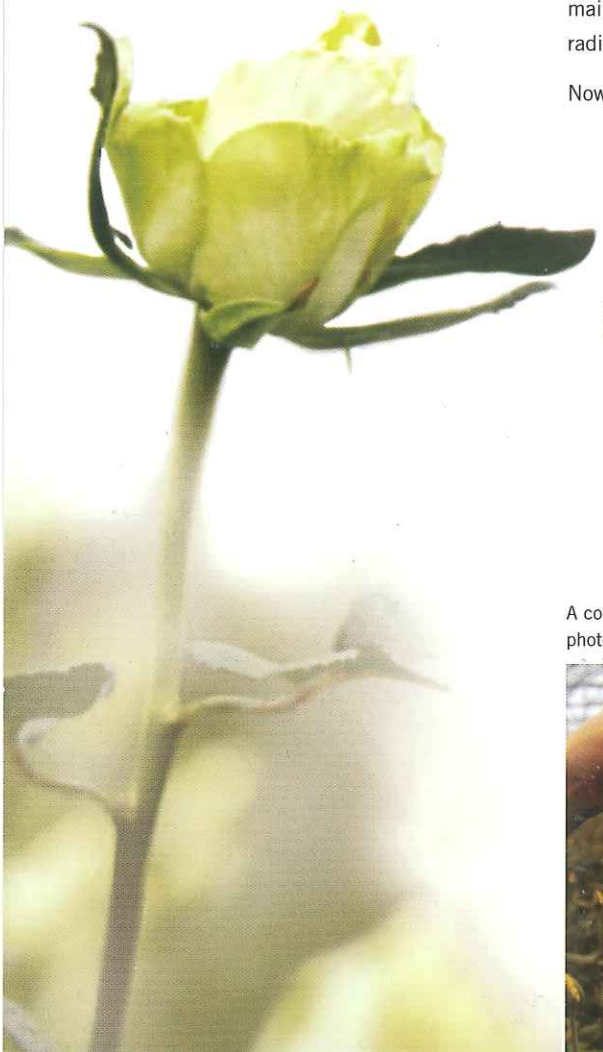
Artificial lighting can be used:

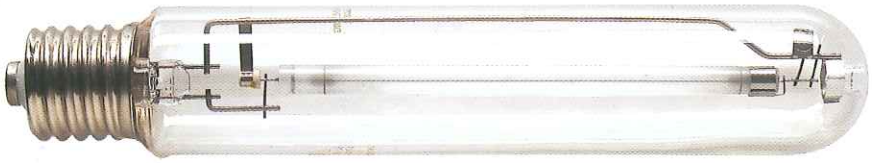
- As an additional daytime source of light, boosting existing light levels and aiding photosynthesis.
- As a means of extending the growth time per day. Lights can be switched on at dusk or other non daylight hours.
- As an extension to the growing season through usage during the winter months.
- As a complete natural light substitute for total environmental control in growing rooms and biological research establishments.

Lucalox™ XO PhotoSynthesis Light Lamp

Specially developed for greenhouses, the Lucalox™ XO PSL offers the twin benefits of stable lumen maintenance and a full spectrum content that promotes photosynthesis. Photosynthesis active radiation (measured in micromole/sec) is essential for plant growth.

Now available in three power strengths, 400W, 600W and the new 750W.

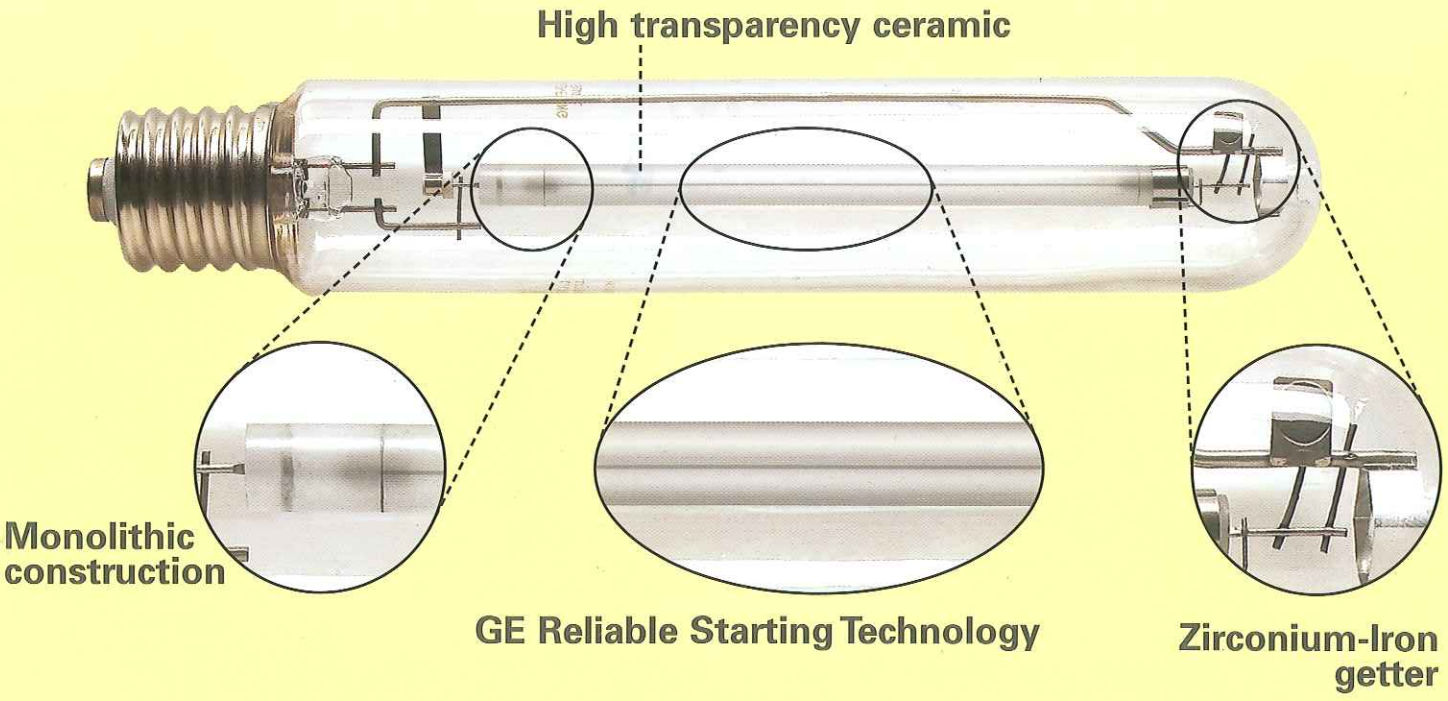




A complete natural light substitute that aids photosynthesis particularly in the winter months.

Use of Lucalox™ XO PSL lamps provides growth control giving regular and beautiful results.

Key Features



Available in:

400W 

600W 

750W 

"Lucalox™ XO PSL lamps provide an average 5% additional PAR (photosynthesis active radiation)"

Controlled growth of plants and blooms enables reliable product delivery all year round.

Leading Technology

Simple light or lumen maintenance is not enough to create plant growth. Plants require a certain radiation level to help with photosynthesis. The Lucalox™ XO PhotoSynthesis Light Lamp has been specially developed to provide stable lumen maintenance and increases Photosynthetically Active Radiation (PAR).

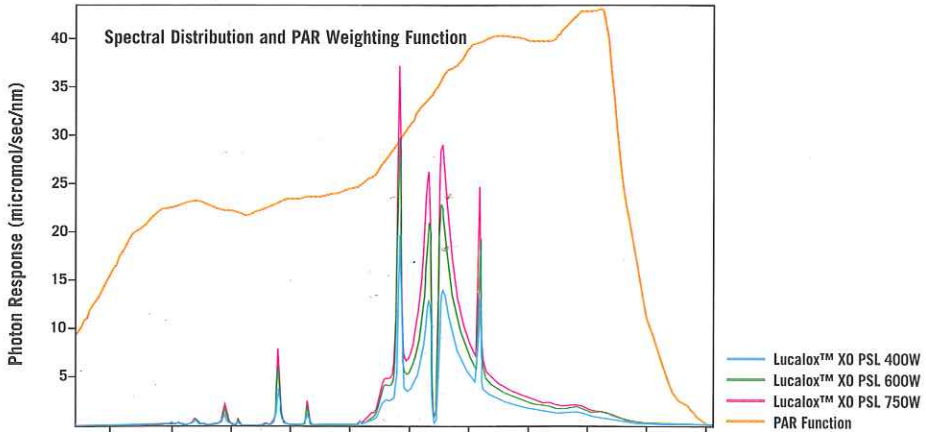
Measured in micromole/sec, the increased PAR output of the Lucalox™ XO PSL lamp best simulates natural daylight to maintain plant growth under artificial lighting conditions.

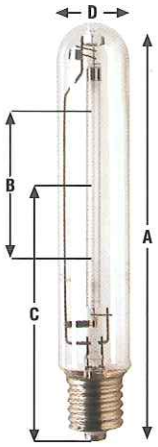
PAR value of 400-750W Lucalox™ XO PSL products is higher by 5% as an average than 400-750W Lucalox™ XO lamps.

Increased Performance

As well as the scientific technology of light output, reliability and performance have also been key factors to the development of the Lucalox™ XO PSL lamp range.

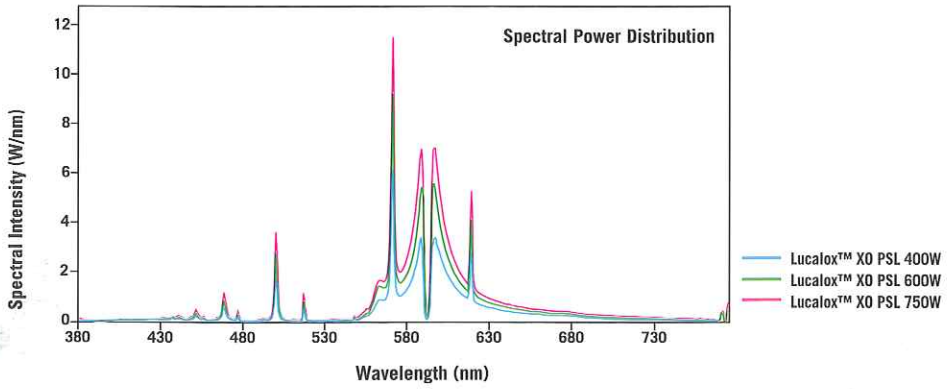
Robust construction, reliable starting technology and improved lumen maintenance ensure peace of mind against early lamp failures and provide the consistency demanded for perfect growing conditions.





High Pressure Sodium Lamps	Lucalox™ XO PSL 750W	Lucalox™ XO PSL 600W	Lucalox™ XO PSL 400W
Product Description	**LU750/XO PSL/T/40**	**LU600/XO PSL/T/40**	**LU400/XO PSL/T/40**
Product Code	**17108**	**17107**	**17106**
Physical Characteristics			
Max Overall Length, (A)	293 mm	283 mm	283 mm
Arc Length, (B)	130 mm	117 mm	85 mm
Light Center Length, (C)	178 mm	168 mm	175 mm
Bulb Diameter, (D)	51 mm	48 mm	48 mm
Bulb Designation	T16	T15	T15
Bulb Material	Hard Glass	Hard Glass	Hard Glass
Bulb Finish	Clear	Clear	Clear
Base Type	E40	E40	E40
Operating Conditions			
Burning Position	universal	universal	universal
Luminaire Characteristics	open	open/enclosed	open/enclosed
Max. Bulb Temperature	410 °C	400 °C	400 °C
Max. Base Temperature	250 °C	250 °C	250 °C
Ballast Type	Compatible with IEC 60922 and IEC 60923 - 750W HPS	Compatible with IEC 60922 and IEC 60923 - 600W HPS	Compatible with IEC 60922 and IEC 60923 - 400W HPS
Ballast Impedance for 230V Rated Supply	24.2 V/A @ 7.0 A	29.7 V/A @ 6.0 A	40.9 V/A @ 4.5 A
Minimum Supply Voltage for Starting	198 V	198 V	198 V
Power Factor Correction Capacitor	60 µF	60 µF	50 µF
Electrical Data			
Lamp Watts – nominal	762 W	618 W	420 W
Lamp Volts – nominal	115 V	115 V	110 V
Lamp Volts – min	100 V	100 V	95 V
Lamp Volts – max	130 V	130 V	125 V
Lamp Amps – Starting min	6.5 A	6.0 A	4.3 A
Lamp Amps – Starting max	10.5 A	10.3 A	7.5 A
Lamp Amps – Operating nominal	7.4 A	6.0 A	4.3 A
Current Crest Factor	1.8	1.8	1.8
Starting Pulse Requirements			
Pulse Peak Voltage – min	3,300 V	4,000 V	3,300 V
Pulse Peak Voltage – max	5,000 V	5,000 V	5,000 V
Pulse Width at 90% of min. Pulse Peak Voltage	2 µs	2 µs	2 µs
Pulse Repetition Rate at 60°-90° or 240°-270°	1 per cycle min.	1 per cycle min.	1 per cycle min.
Photometric Data			
Initial Lumens	112,000 lm	90,000 lm	56,500 lm
Average Rated Life 10 Hrs./Start	16,000 Hours	28,500 Hours	28,500 Hours
Correlated Colour Temperature (CCT)	2100 K	2100 K	2100 K
CIE Chromacity Coordinates	X= 0.519, Y= 0.425	X= 0.523, Y= 0.427	X= 0.524, Y= 0.422
Colour Rendering Index (Ra) CRI	20	20	22
Run Up time to 90% Light Output	3 minutes	4 minutes	5 minutes
Hot Restart Time	5 minutes	4 minutes	1.5 minutes
Others			
Standard Packs (pcs)	12	12	12
Case Size (length x height x width)	225 x 350 x 170 mm	220 x 345 x 165 mm	220 x 345 x 165 mm
Mass of Single Packed Lamp	230 g	220 g	210 g
Mass of Case	2.575 kg	2.470 kg	2.470 kg

Important Note
GE's greenhouse lamps (750-600-400) are designed to be used for plant growth lighting in commercial greenhouses.
GE's new 750W lamp is slightly bigger than 400W and 600W lamps. Due to the extremely high lumen output of 112 k lumen, the diameter of the lamp and the length have been increased from Ø48 mm to Ø51 mm and from 283 mm to 293 mm respectively. The increase in size is so minimal that this new lamp will fit in the majority of the existing fittings.*
*750W operates on 750W control gear.



Specification features

- Long life and high reliability under normal conditions, they offer you zero failures during the first 4000 hours or one year of operation.
- High efficiency of 150 lm/W for 750W and 600W Lucalox™ XO,140 lm/W for the 400W Lucalox™ XO.
- High maintained lumens over life.

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www.GElighting.com