High Pressure Sodium lamps

Tubular Clear & Elliptical Diffuse

70W, 100W, 150W, 250W, 400W, 600W and 1000W

Product information

With efficiencies approaching 130 lumens per watt, Standard lamps are the most efficient light source available with acceptable color rendering. High efficiency results in lower operating costs and thus a lower electricity bill. Most lamps have an average rated life of up to 28,000 hours. Long life means lower replacement and maintenance costs.

Applications areas

- Road and Tunnel
- Car Park
- Street and Pedestrian
- Commercial areas/city beautification/architectural
- Industrial
- Horticulture/Planting

Basic data

Standard tubular

Type	Base	Bulb	M.O.L. (mm)	Lamp voltage (V)	Lamp current (A)	Lumens output	Rated life (hrs)	Color temperature	CRI	Std.Pkg. Qty.
SON-70W-T	E27	T38	156	90	0.98	6000	18000	2000K	≤40	50
SON-100W-T	E27	T38	170	100	1.20	9000	18000	2000K	≤40	50
SON-150W-T-S	E27	T38	170	100	1.80	16000	24000	2000K	≤40	50
SON-150W-T-L	E40	T46	210	100	1.80	16000	24000	2000K	≤40	25
SON-250W-T	E40	T46	257	100	3.00	28000	24000	2000K	≤40	25
SON-400W-T	E40	T46	285	100	4.60	48000	24000	2000K	≤40	25
SON-600W-T	E40	T52	320	105	6.20	75000	24000	2000K	≤40	20
SON-1000W-TT	E40	TT65	380	110	10.30	130000	15000	2000K	≤40	20

All the lamp description in this brochure is intended as a general guide, and we may change specification time to time without prior notification

bh-sales@asasledlights.com

www.asasledlights.com

Standard Elliptical

Model	ANSI Code	Base	Bulb	M.O.L. (Inch)	Lamp voltage (V)	Lamp current (A)	Lumens output	Rated life (hrs)	Color Temp.	CRI	Std.Pkg. Qty.
LU 35W/MED	S76	E26	ED17	5.43	52	0.83	2250	16000	2000K	≤40	50
LU 50W/MED	S68	E26	ED17	5.43	52	1.18	3600	16000	2000K	≤40	50
LU 50W/MOG	S68	E39	ED23	7.75	52	1.18	3600	16000	2000K	≤40	25
LU 70W/MED	S62	E26	ED17	5.43	90	0.98	5800	24000	2000K	≤40	50
LU 70W/MOG	S62	E39	ED23	7.75	90	0.98	5800	24000	2000K	≤40	25
LU 100W/MED	S54	E26	ED17	5.50	90	1.20	9200	24000	2000K	≤40	50
LU 100W/MOG	S54	E39	ED23	7.75	90	1.20	9200	24000	2000K	≤40	25
LU 150W/MED	S55	E26	ED17	5.75	100	1.80	15000	24000	2000K	≤40	50
LU 150W/MOG	S55	E39	ED23	7.75	100	1.80	15000	24000	2000K	≤40	25
LU 250W/MOG	S50	E39	ED18	9.75	100	3.00	26000	24000	2000K	≤40	25
LU 400W/MOG	S51	E39	ED18	9.75	100	4.60	47000	24000	2000K	≤40	25
LU 600W/MOG	S106	E39	T15	11.06	105	6.20	90000	24000	2000K	≤40	25
LU 1000W/MOG	S52	E39	ED25	15.06	100	10.30	120000	15000	2000K	≤40	25

Survival rate and lumen maintenance

Average lamp life & lumen maintenance is based on laboratory tests of a large number of representative lamps under controlled conditions, including operation at 11 hours per start on ballasts having specified electrical characteristics.

The following conditions can reduce average lamp life and lumen maintenance:

- Frequent on/off switching
- High line voltage
- Vibration
- High ambient temperature within the fixture
- Ballast and ignitor characteristics

Average rated life

The survival of individual lamps or particular groups of lamps depends on these system conditions, and actual data may fall dependent upon the lamp operating conditions even below the lower limit (see Lamp survival graphs).

For cost-of-light calculations involving these lamps, the following estimated operating times are suggested for 50% survival.

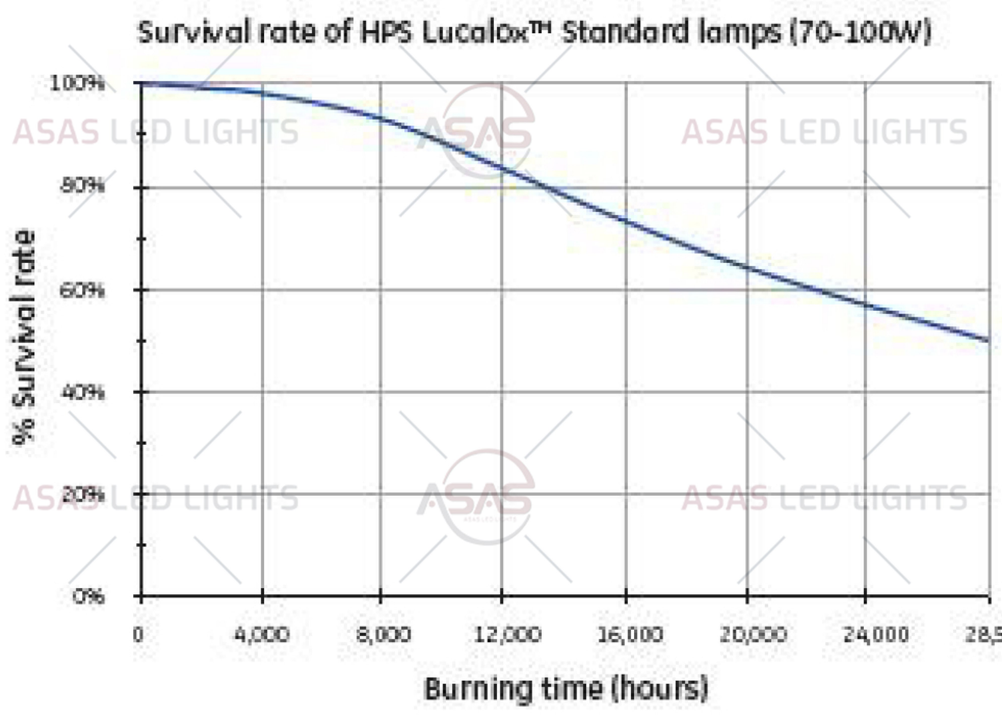
Lumen maintenance

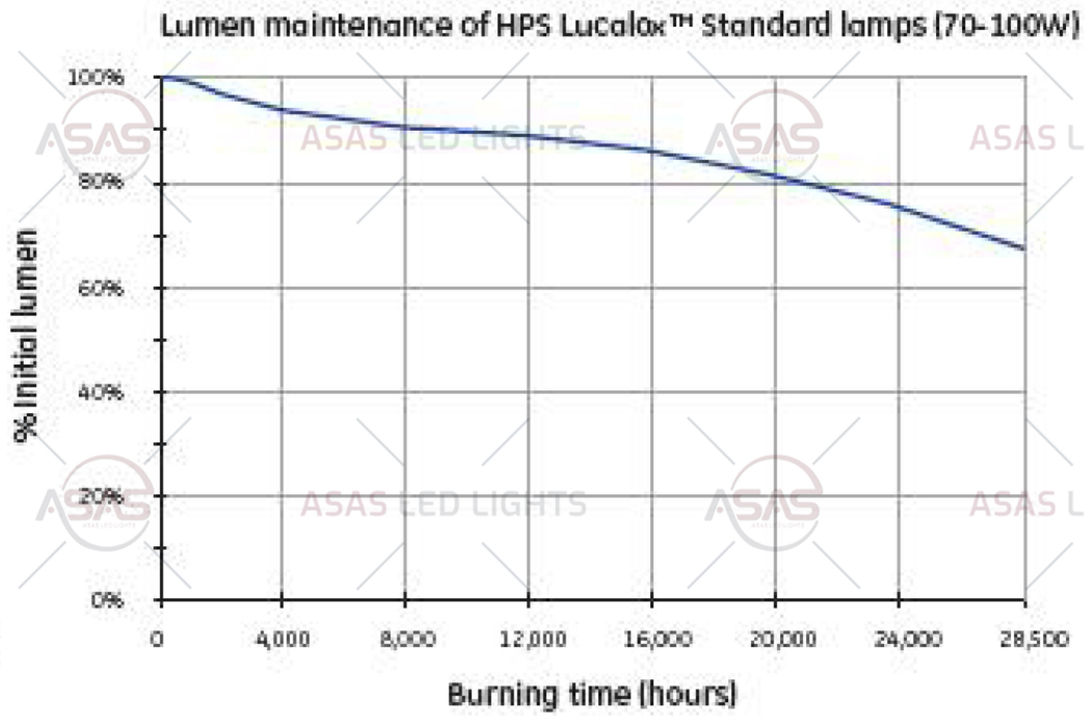
Under the same controlled conditions, initial reference lumens refer to the lamp lumen output after 100-hours burning. Due to variations in systems and service conditions (in particular the burning cycle), actual lamp performance can vary from the reference lumen ratings. The lumen maintenance (light output during life) of individual lamps or particular groups of lamps may fall dependent upon the lamp operating conditions even below the line (see lumen maintenance graphs).

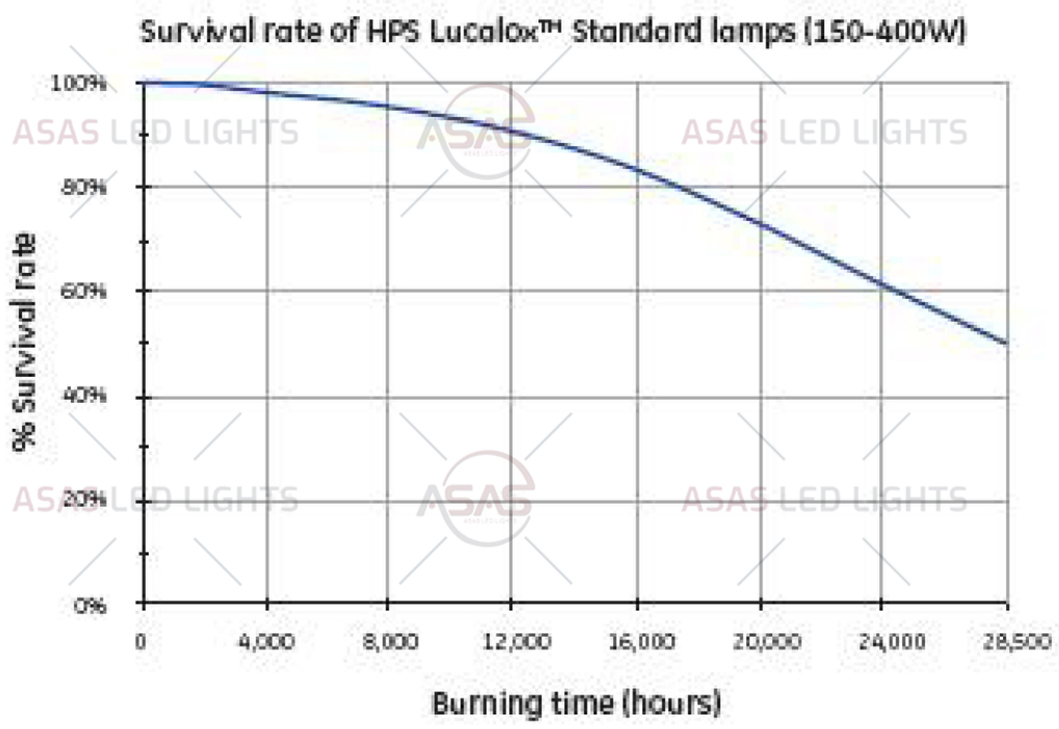
All the lamp description in this brochure is intended as a general guide, and we may change specification time to time without prior notification

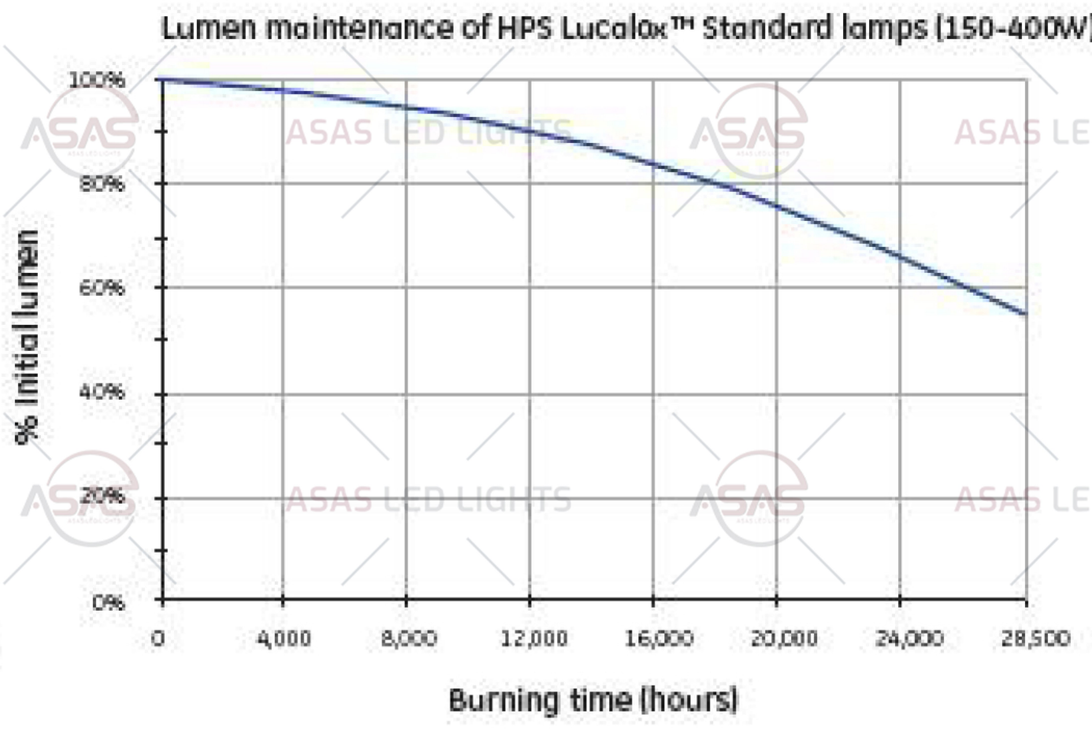
HI MAX
LET THE LIGHT SPREAD — LED

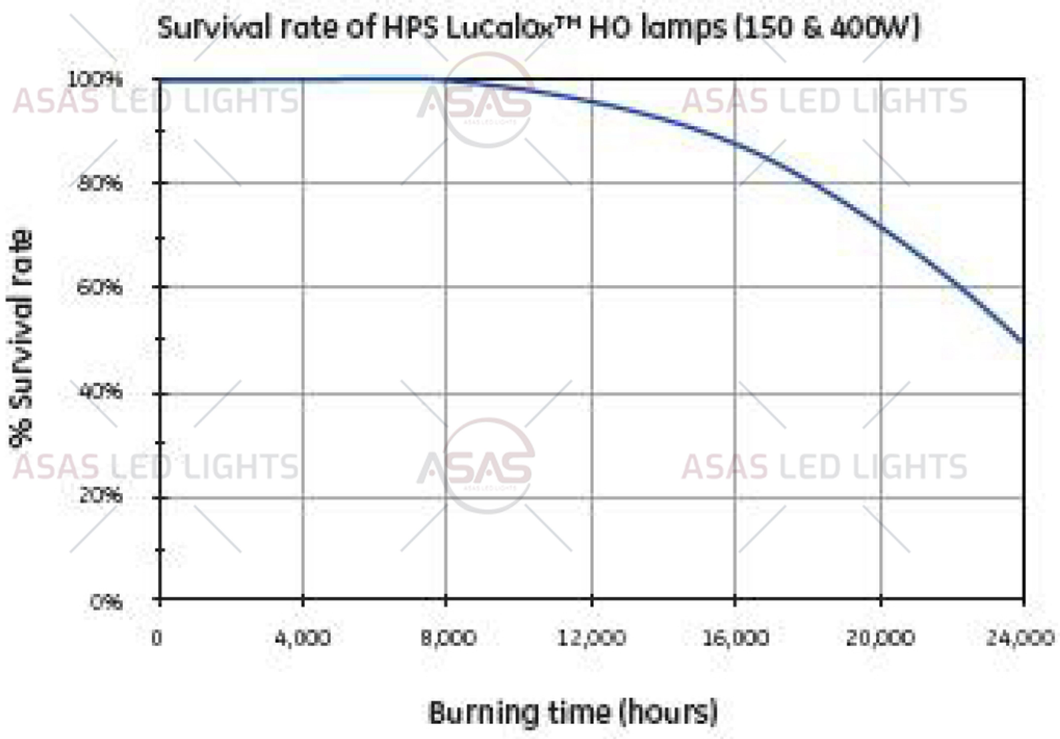
ASAS
ASAS LED LIGHTS

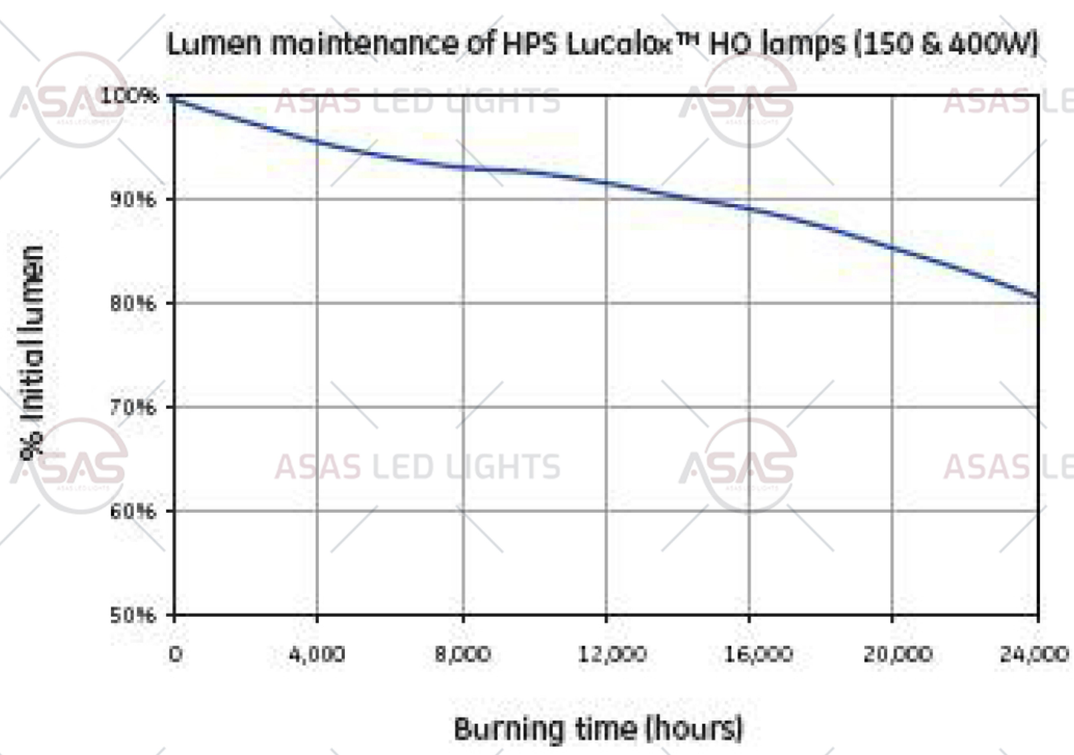


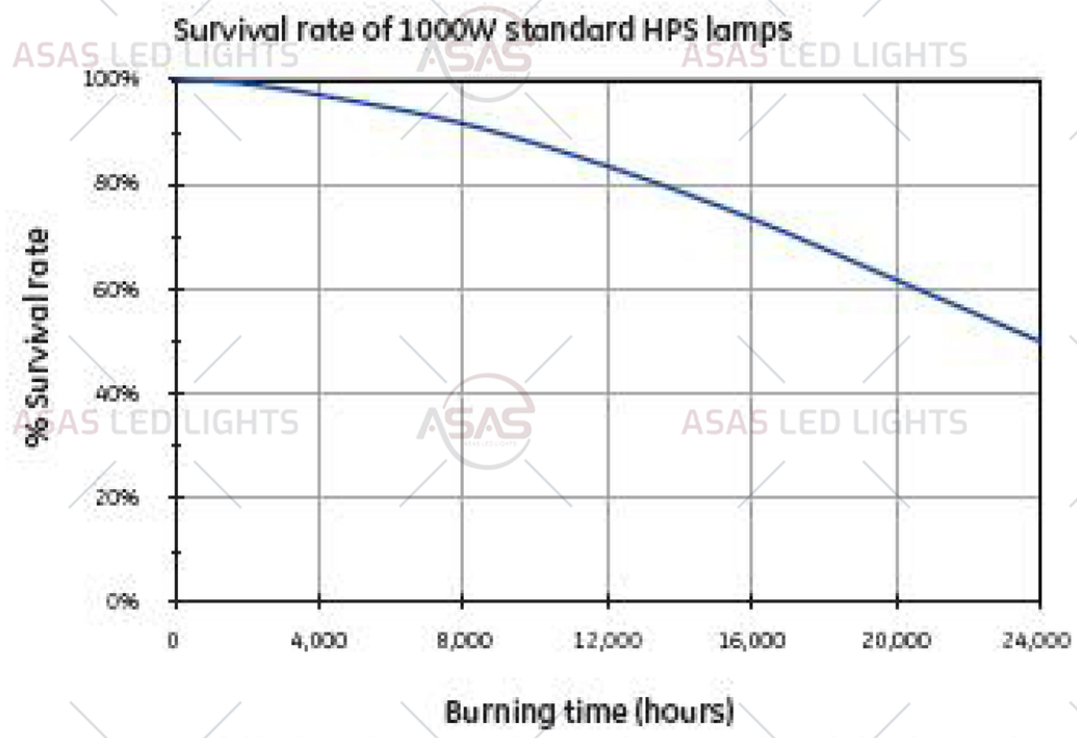


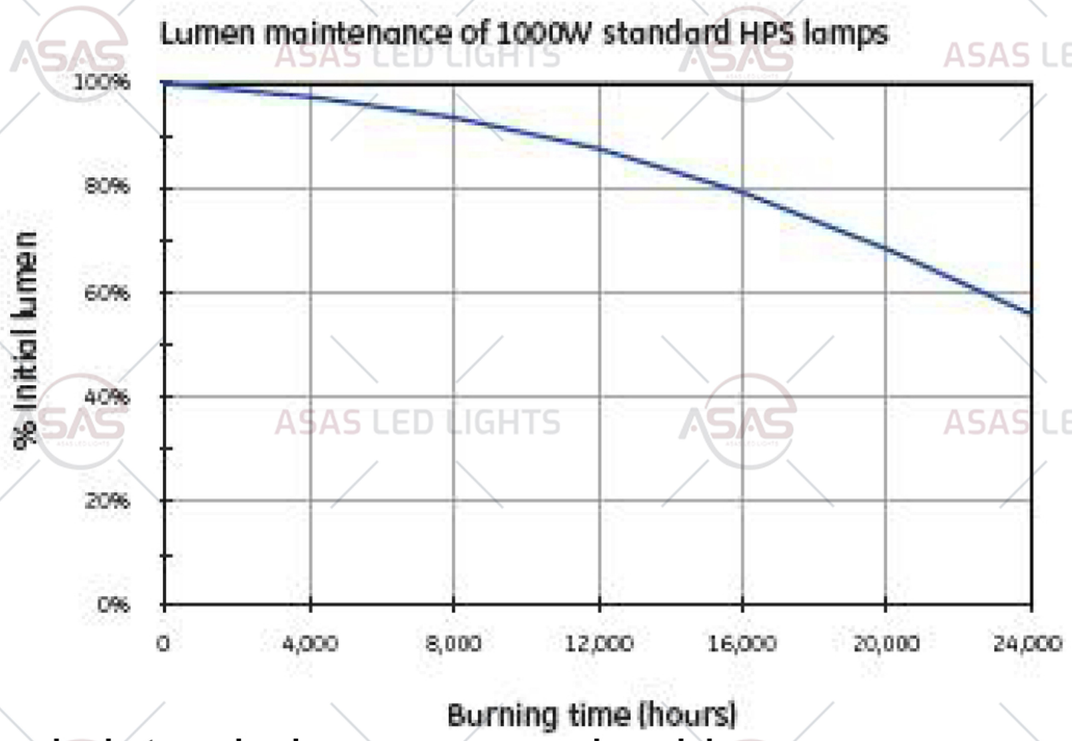












All the lamp description in this brochure is intended as a general guide, and we may change specification time to time without prior notification

bh-sales@asasledlights.com

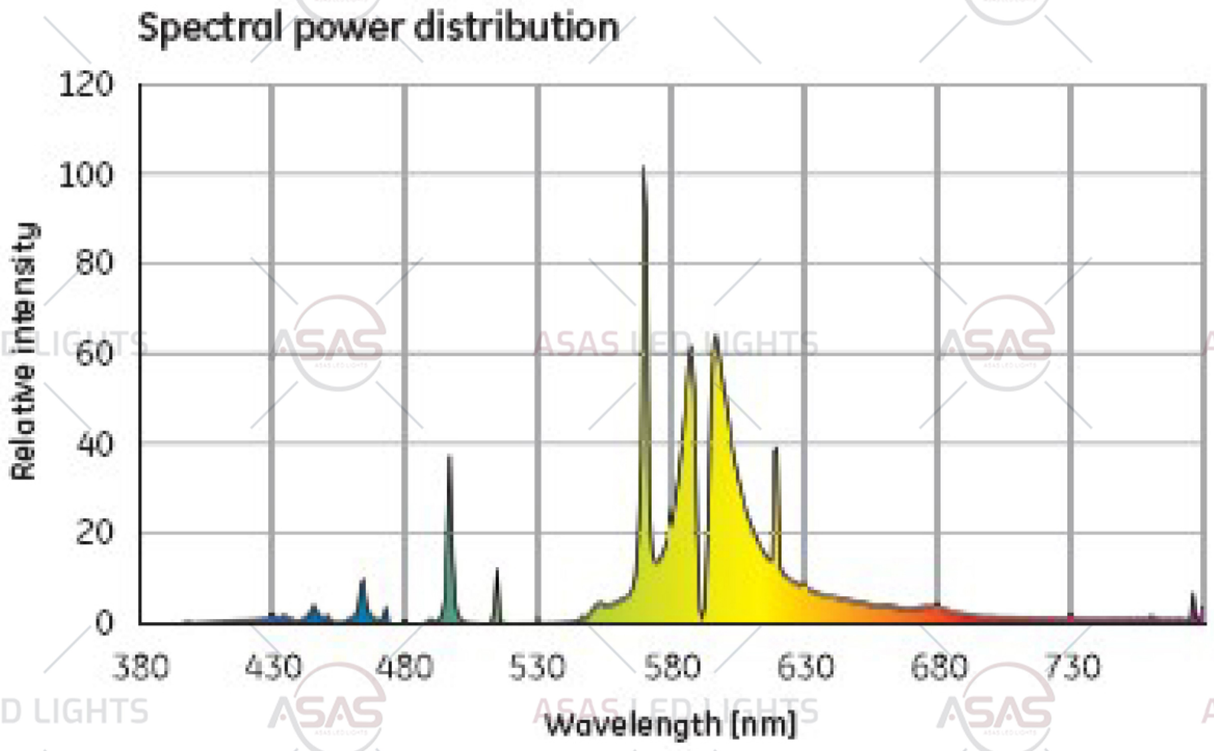
www.asasledlights.com

Electrical data

Data is based on a nominal lamp operating from a nominal choke (reactor) ballast with power factor correction. Supply power is based on a typical commercially available ballast.

Photometric data

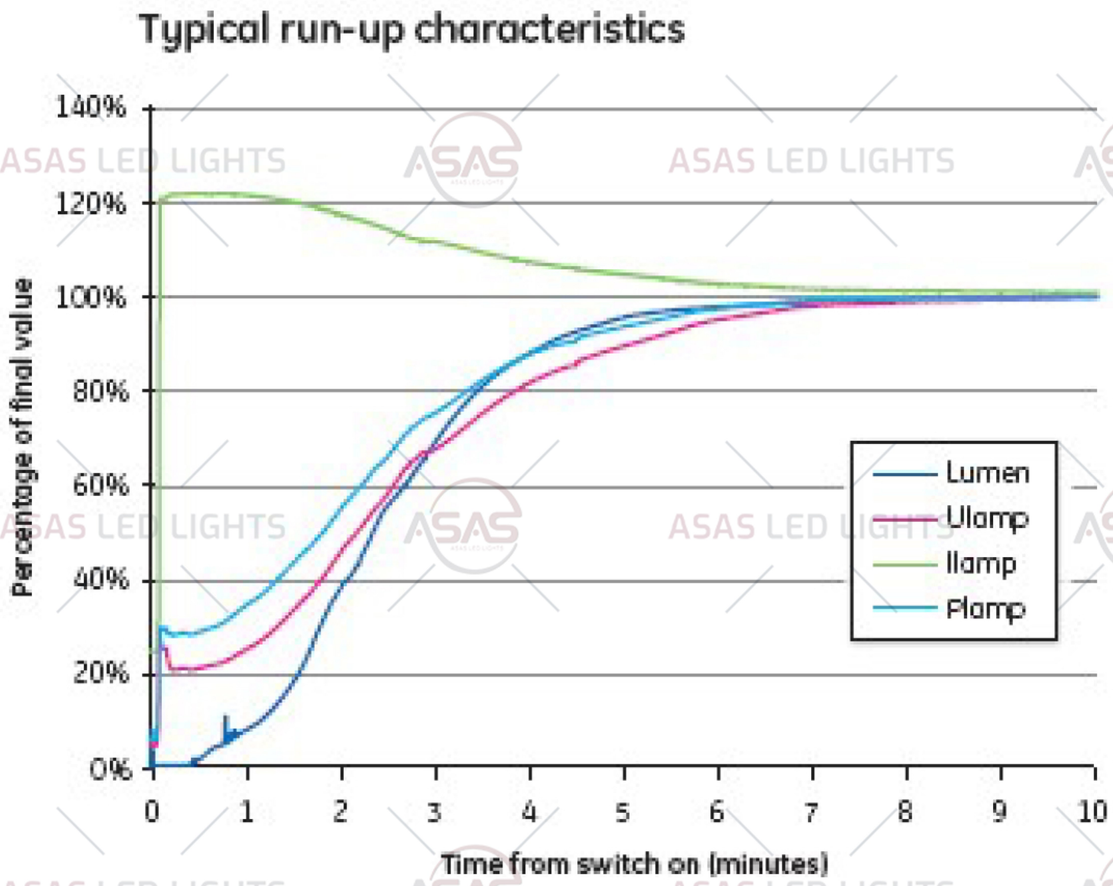
Wattage	100 Hours Lumens	CCT (K)	CRI (Ra)
Clear Tubular			
70	6,000	2,000	25
100	9,600	2,000	25
150	15,000	2,000	25
150 (HO)	17,500	2,000	21
250	27,000	2,000	25
400	48,000	2,000	25
400 (HO)	56,200	2,000	21
1000	130,000	2,000	25
Diffuse Elliptical			
70	5,800	2,000	25
100	9,200	2,000	25
150	14,500	2,000	25
250	26,000	2,000	25
400	48,000	2,000	25



Run-up characteristics

The graph shows typical run-up characteristics for a 250W lamp. Time for the light output to reach 90% of the final value is determined by supply voltage and ballast design. Typical values are:

Wattage	70	100	150	250	400	1000
Run-Up (Mins)	<4	4	4	5	3	6

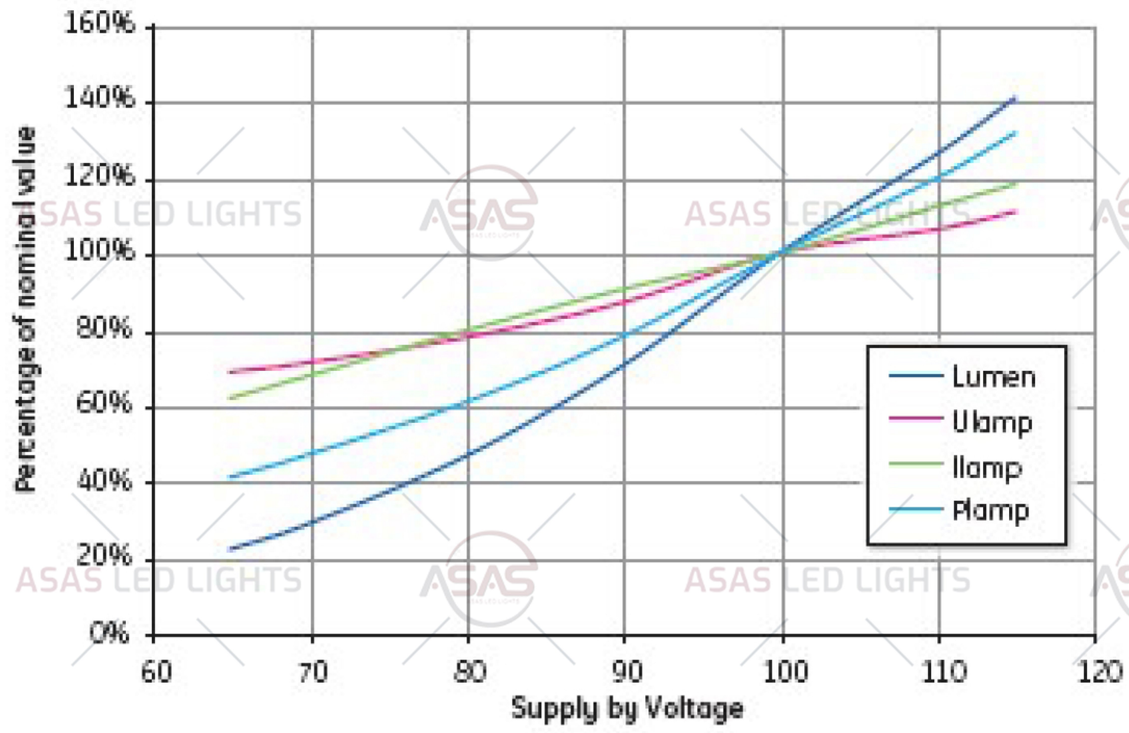


Supply voltage

Lamps are suitable for supplies in the range 220V to 250V50/60Hz for appropriately rated series choke (reactor) ballasts. Supplies outside this range require a transformer (conventional, high reactance or CWA) to ensure correct lamp operation. Lamps start and operate at 10% below the rated supply voltage when the correct control gear is used.
However, in order to maximize lamp survival, lumen maintenance and color uniformity the supply voltage and ballast design voltage should be within ±3%. Supply variations of ±5% are permissible for short periods only. This may be achieved by measuring mean supply voltage at the installation and selecting ballasts with appropriate settings.

All the lamp description in this brochure is intended as a general guide, and we may change specification time to time without prior notification

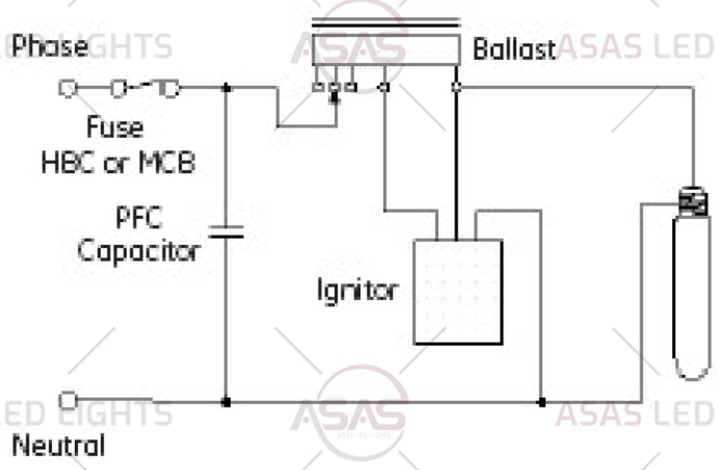
Effect of supply voltage variations on performance



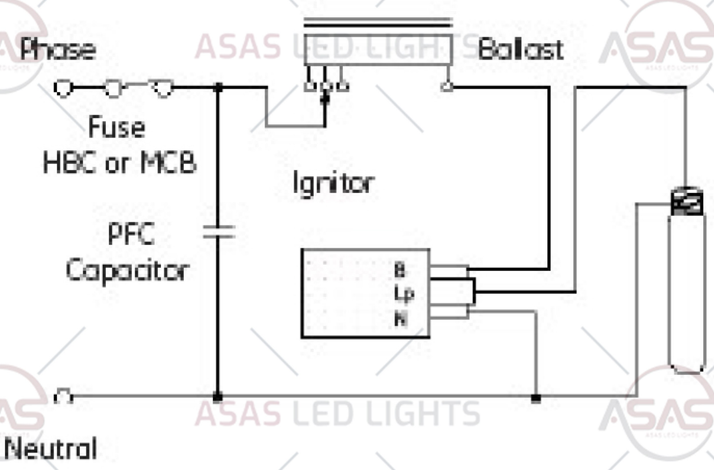
Control gear

It is essential to use a ballast appropriate to the supply voltage at the luminaire. Typical wiring diagrams for control circuits incorporating “superimposed” or “impulser” ignitor and choke (reactor) ballasts are shown. Refer to actual choke and ignitor manufacturers data for terminal identification and wiring information.

Typical impulser ignitor circuit



Typical superimposed ignitor circuit



Safety warnings

The use of these products requires awareness of the following safety issues:

Cable between ignitor and lamp

The cable connected between the lamp and a superimposed ignitor “Lp” terminal, or the ballast when using an impulser ignitor, must be rated at a minimum 50/60Hz voltage of 1000V. Mineral-insulated cables are not suitable for connecting the lamp to the control gear. To achieve good starting superimposed ignitors must be adjacent to the luminaire. Cable capacitance of wiring between the ignitor “Lp” terminal and the lamp should not exceed100pF (<1 metre length) when measured to adjacent earthed metal and/or other cables, unless otherwise stated by the ignitor manufacturer. When using impulser type ignitors, longer cable lengths between ballast and lamp are normally permissible.

PFC capacitors for choke (reactor) circuits

Power Factor Correction is advisable in order to minimise supply current and electricity costs. For 220-250V supplies 250V±10% rated capacitors are recommended as follows:

Wattage	70	100	150	250	400	1000
PFC Capacitor	10µF	12µF	20µF	30µF	40µF	85µF

All the lamp description in this brochure is intended as a general guide, and we may change specification time to time without prior notification