

SON EXTRA



The revolutionary
SON Extra.
Less of a change than you think.

SYLVANIA **GTE**
Efficient Lighting Solutions

Discharge Lamp Product Information

Description: SON EXTRA/EXTENDED LIFE. TUBULAR OR ELLIPTICAL



SON Extra from Sylvania is the first high pressure sodium lamp you can fit and forget about.

Because SON Extra offers a remarkable 28,000 hours average rated life, at least 60% longer than standard SON, maintenance costs and spot changes are dramatically reduced. It also has a guaranteed survival rate of an astonishing 95% after 12,000 hours of burning.

Not only is SON Extra longer lasting but it's also unique in another vitally important way. For unlike other high pressure sodium lamps which take 60 seconds to restrike after a power failure, SON Extra ignites immediately. Inside each SON Extra there's not only one, but two, identical arc tubes. When one is on, it is also warming the

second, which is off. So in the event of a momentary power failure, when one tube goes out the second will, once power returns, light immediately. This means areas crucial to safety or security need never be left in the dark again.

And because two arc tubes are sharing the workload, the lumen maintenance of each tube is greatly enhanced. After 3 years of operation SON Extra will provide approximately 10% more light than a standard high pressure sodium lamp of the same age.

Available with elliptical or tubular envelope, clear or coated, SON Extra can be readily used in any existing high pressure sodium installation because it operates on exactly the same type of control gear. And, as the light output is the same, your lighting scheme will not need redesigning.

NOTES:

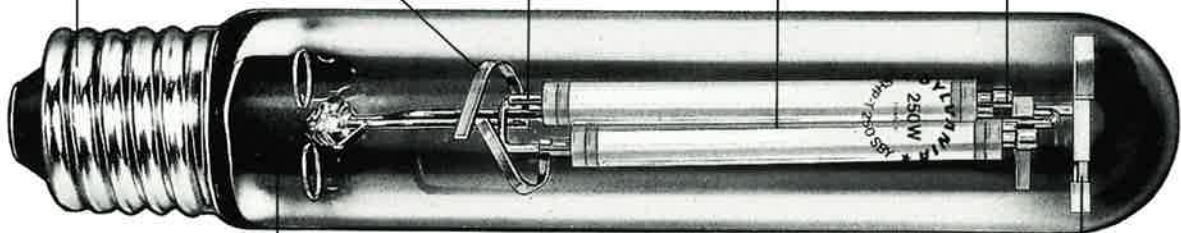
Nickel plated cap to ensure easy removal even after years of use.

Dual arc tube sliding support to allow expansion of the arc tubes.

Monolithic seal and longlife electrodes - the key to excellent through-life performance.

Twin arc tubes made from translucent ceramic with precise Xenon gasfill and Mercury/Sodium amalgam.

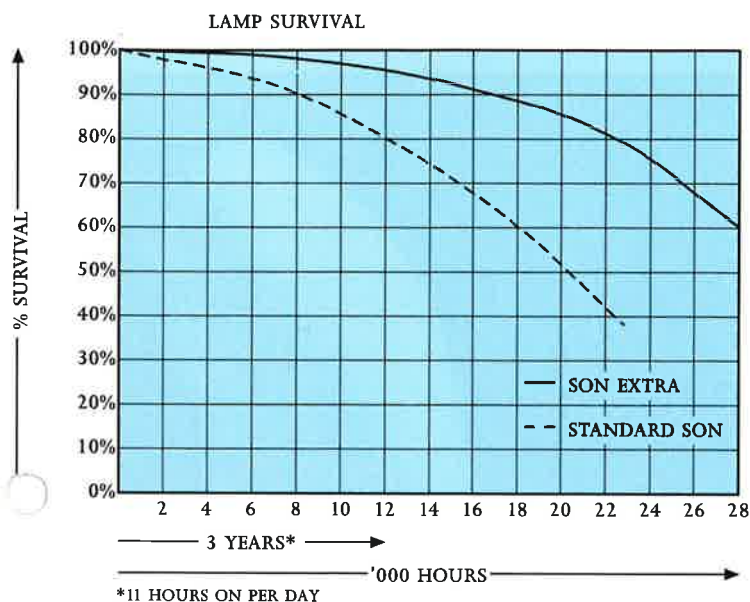
Tough nickel steel arc tube support.




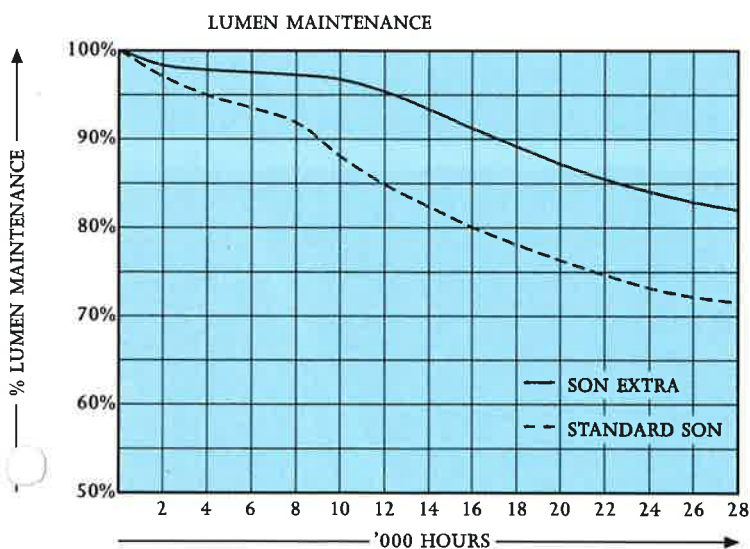
Getter ring to ensure a clean, hard vacuum.


Lamp envelope in weather-resistant hard glass.

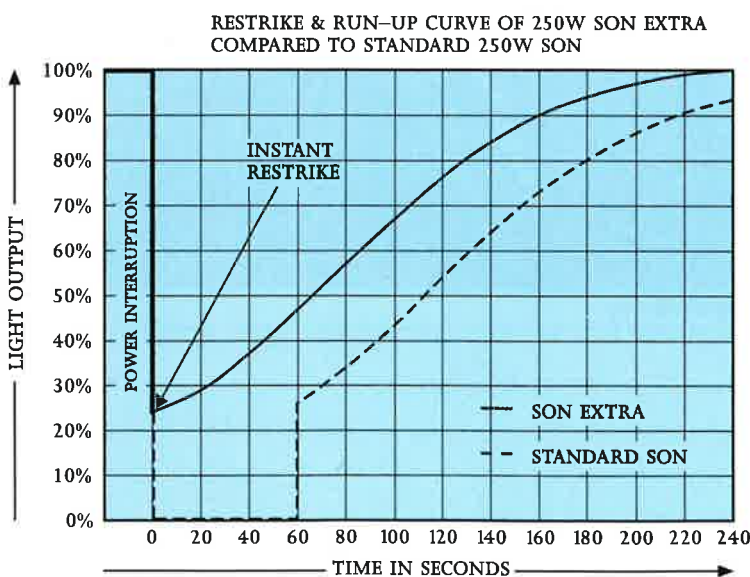
Rigid top support system to absorb shock and vibration.




 SON Extra has a guaranteed 95% survival rate after 12,000 hours burning compared to 80% for standard SON. So, on a 3 year planned relamping cycle, spot changes are virtually a thing of the past. And even if you were happy with the 20% failure rate of standard SON lamps, wouldn't you prefer 22,000 hours life of SON Extra? Whichever way you look at it, SON Extra offers big savings on maintenance costs.



 The two identical arc tubes in the SON Extra share the workload, resulting in greatly improved lumen maintenance. Even after 3 years (12,000 hours) of operation, SON Extra provides 10% higher lumen output than a standard SON of the same age.




 As can be seen from the table below the illumination level immediately following a power interruption will be approximately 20-25% of designed illumination.


	LUMEN OUTPUT DURING RUN-UP PERIOD			
	SON EXTRA 280W	STD 280W	SONEXTRA 400W	STD 400W
2000 HOUR LUMENS	24000	24000	45000	48000
LMNS POWER INTERRUPT	8760	0	10800	0
20 SECONDS LATER	7200	0	13500	0
40 SECONDS LATER	9120	0	17100	0
60 SECONDS LATER	11040	6480	20700	12180
2 MINUTES LATER	18000	12960	33780	24300
3 MINUTES LATER	22860	19200	42300	36000
4 MINUTES LATER	24000	22860	45000	42300
8 MINUTES LATER	24000	24000	48000	48000

Mechanical Data and Illumination Characteristics.

FEATURES

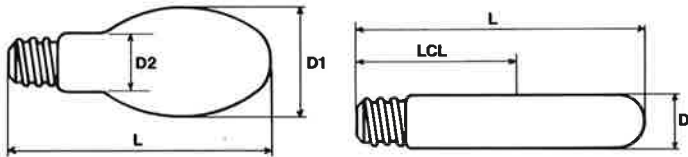
 Unique double arc tube provides immediate restrike safety feature.

 Operates on standard high pressure sodium control gear.

 High lumen output with excellent lumen maintenance, universal operating position.

 Guaranteed 95% survival after 12,000 hours operating.

 Average rated life of 28,000 hours.



DIMENSIONS/ORDERING DATA

		70W	100W	150W	250W	400W
SON EXTRA-E						
Lamp Length, max. L	mm	188	182	227	227	292
Lamp Diameter, max. D1	mm	72	77	91	91	122
Collar Diameter, max. D2	mm	40	42.5	53	53	58
ORDER CODE		20700	20696	20654	20653	20652
SON EXTRA-T						
Lamp Length, max. L	mm	186	211	211	260	280
Lamp Diameter, max. D	mm	38	47	47	48	48
Max. LCL	mm	104	127	127	158	178
ORDER CODE		20698	20699	20670	20559	20596

ELECTRICAL DATA

		70	100	150	250	400
Lamp Wattage	W	70	100	150	250	400
Lamp Voltage	V	92	100	95	95	100
Lamp Current	A	1.0	1.2	1.8	3.1	4.65
Wattage with Ballast	appr. W	80	110	170	280	436
Compensation Capacitor	μ F	10	12	20	40	45

OPERATING MODE

Bulb Shape/Finish	tubular clear and ellipsoidal coated				
	any				
Burning Position	any				
Base Type	E27	E40/45	E40/45	E40/45	E40/45
	Operation with ignitor	Operation with ignitor	Operation with ignitor	Operation with ignitor	Operation with ignitor

PHOTOMETRIC DATA

		6,000	10,000	14,500	28,000	48,000
Initial Lumens	- clear lm	6,000	10,000	14,500	28,000	48,000
	- coated lm	5,800	9,800	14,000	26,000	47,000
Luminous Efficacy	- clear lm/W	86	100	97	112	120
	- coated lm/W	83	95	93	104	118
Warm-up Time	COLD Min.	7	7	7	7	8
	(to 80% output) HOT	2	2	2	2	2

Sylvania reserves the right to change data and specifications without notice. Data for guidance only.

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