

LONG LIFE LIGHTS The Long Life Lights concept comprises light sources with extra long service life. The concept is the result of innovative product development and rigorous quality control. For our customers, the unique service life means that light sources do not need to be changed so often, which reduces their maintenance costs. The products in the concept are therefore an investment for our customers and for the environment. Products such as fluorescent tubes and light bulbs are developed, manufactured and sold within the framework of the Long Life Lights concept.

Aura *SODINETTE*

LONG LIFE

High Pressure Sodium lamps
with the longest lifetime

Aura *SODINETTE* Long Life lamps are the result of intensive research and continuous development efforts. These lamps have the longest lifetime and an extremely low failure rate. This unique high pressure sodium lamp sets the standard for products with an extended lifetime.

Aura *SODINETTE* Long Life has a lifetime of 48,000 hours based on a 12h switching cycle operating with magnetic ballast and separate ignitor. Operation of high pressure sodium lamps with specific designed electronic ballasts is also possible.

Aura *SODINETTE* Long Life gives you the optimal operating cost for your lighting installation. The very high light output and the long lifetime enables you to achieve big savings. In areas with high poles or where it is difficult to access the luminaries, or where a stop to replace lamps is expensive, this is a beneficial choice. Aura *SODINETTE* Long Life puts you in better control of your maintenance costs and makes it easier to schedule group replacement of lamps.



Street Lighting

Tunnel Lighting

Public Lighting

Car Parks

Industrial Lighting

Sport Facilities

Specifications

Aura HPS Long Life lamps are designed for operation in existing installation infrastructures. They comply with the relevant standard IEC/EN 60662. The geometric data is comparable.

HPS Long Life lamps are available with a colour temperature of 2100 K. The colour rendering index (CRI) is $Ra \geq 25$ based on the components to create the required lighting appearance.

The outer bulb of the Aura *SODINETTE* is made of a special hard glass. This protects the components inside from damage and secures the functionality over the long lifetime. The hard glass is lead free and is used for all wattages from 50 W up to 1000 W.

A high level super burner inside the glass cover, either tubular transparent or ellipsoid coated, is filled with high quality components. By constructing two of these excellent burners as one lamp it is possible to extend the lifetime significantly. They are positioned exactly in the length axis and fixed in a stable holding system. This holding system provides a robust construction which resists vibrations and leads to improved reliability.

The super burners offer an app. 20 % increase of the lumen output (up to 147 lm/W) compared to standard HPS lamps. This results in higher light output and more economical efficiency.



SODIGUARD, an additional ceramic tube, is placed close to the two burners.

Diffusion of sodium from the burners has an important influence on the lifetime behaviour of HPS lamps. Further developments have led to an improved ceramic material to reduce substantially this process. SODIGUARD, an additional ceramic tube, is placed close to the two burners, decelerating the sodium diffusion.

The newly developed technical solution to achieving an extended lifetime has resulted in an application for a patent.

Due to the high pressure inside the burner the ignition of HPS lamps requires high power. A specific integrated support functions as a starting aid and improves the starting characteristics.

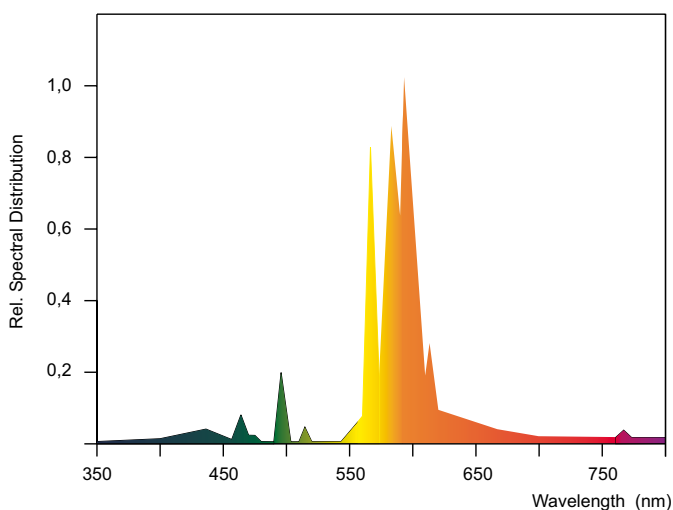
In case of net power disturbances, the Aura Long Life restrikes directly based on the two burner technology. No specific cooling down time is needed.

High quality absorption getter material inside the outer glass bulb is an important component for a complete and proper function and light distribution. It removes impurities in the vacuum of the outer bulb.

High Pressure Sodium lamps can operate in any burning position.

High Pressure Sodium lamps contain a small defined amount of mercury, necessary for proper operation. The Aura Long Life lamps comply with the requirements of the RoHS Directive ("Restriction of the use of certain Hazardous Substances"). They have to be collected and disposed at end-of-life according to the EC WEEE directive.

Spectral distribution of Aura *SODINETTE* - Long Life



Lifetime

The lifetime of 48,000 hours is based on a 12 h operation switching cycle (11 hours on, 1 hour off) according to IEC/EN 60662. In this time the maximum failure rate is 10 % and the lumen depreciation is 15 %.

The long lifetime and the extremely low failure rate is possible thanks to the two burner technology. This extends the necessary maintenance intervals to a long time of stable operation.

In installations where lamp replacement is difficult and cost intensive, the long burning time of Aura Long Life lamps enables more cost effective lighting maintenance and improved long term planning for group replacement. Group replacement of lamps provides an optimal control of the operational costs and a uniform level of light.

For economical and environmental reasons Aura Light recommends group replacement.

Long Life guarantee

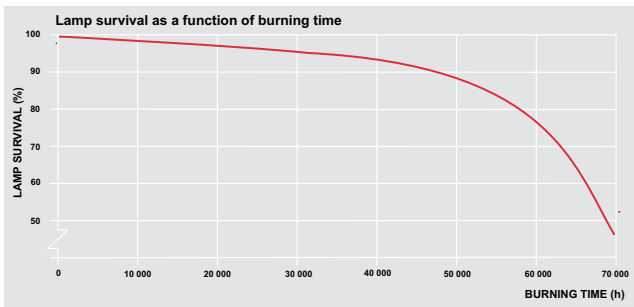
The Aura Long Life high pressure sodium lamps are developed and manufactured in accordance with the IEC/EN 60662 standard. A strict and continuous quality control ensures high intensity discharge lamps of top quality.

Aura guarantees the published lifetime data of the SODINETTE lamps for installations complying with the relevant standards.

LIFETIME	Switching Cycle (11 h on, 1 h off) Magnetic Ballast + Starter	
	hours of operation	failure rate
	16,000 h	2%
	20,000 h	4%
	32,000 h	7%
	48,000 h	10%
70,000 h	50% (Average life)	

LIFETIME OF AURA SODINETTE LONG LIFE

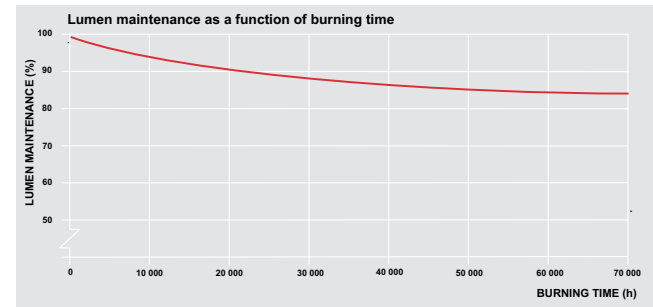
- based on 12h-switching cycle (11h on, 1h off).
- operation by magnetic ballast and external ignitor.
- 50 W - 1000 W, tubular, transparent and ellipsoid, coated.



The 12h-switching cycle is defined as the time when 10 % of the lamps in an installation are failed.

LUMEN MAINTENANCE OF AURA SODINETTE LONG LIFE

- based on 12h-switching cycle (11h on, 1h off).
- operation by magnetic ballast and external ignitor.
- 50 W - 1000 W, tubular, transparent and ellipsoid, coated.



The lumen maintenance over the Long Life burning hours is on high stability. This creates the high economical and environment advantage during the operation.

PROGRAMME	Type	Colour temperature (K)	Luminous flux (lm)	Luminous efficacy (lm/W)	Ø (mm)	Length (max) (mm)	Light Centre Length (mm)	Cap	Pack unit (pcs.)	Article no.	
	<i>Tubular, transparent</i>										
	ST 50 W	2100	4200	84	38	156	102	E27	12	500111	
	ST 70 W	2100	6400	91	38	156	102	E27	12	500121	
	ST 100 W	2100	10000	100	46	211	132	E40	12	500131	
	ST 150 W	2100	16500	110	46	211	132	E40	12	500141	
	ST 250 W	2100	32000	128	46	247	158	E40	12	500151	
	ST 400 W	2100	55000	138	46	271	175	E40	12	500161	
	ST 600 W	2100	88000	147	46	283	175	E40	12	500171	
	ST 1000 W	2100	134000	134	65	360	235	E40	12	500191	
<i>Ellipsoid, coated</i>											
SE 50 W	2100	4000	80	70	156	-	E27	12	500211		
SE 70 W	2100	6000	86	70	156	-	E27	12	500221		
SE 100 W	2100	9500	95	75	186	-	E40	12	500231		
SE 150 W	2100	15000	100	90	227	-	E40	6	500241		
SE 250 W	2100	30500	122	90	227	-	E40	6	500251		
SE 400 W	2100	52000	130	120	279	-	E40	6	500261		
SE 600 W	2100	84000	140	120	279	-	E40	6	500271		
SE 1000 W	2100	131000	131	165	360	-	E40	6	500291		

