

Aura Protector Long Life

Fluorescent lamps for protective requirements



- Safe lighting in industries and food processing areas.
- Avoid production stop in case of lamp breakage.
- Long Life reduces maintenance with two thirds.

Ideal for:

- Food processing industry
- Industrial production plant (e.g. chemical, paper manufacturing)
- Laboratories
- Sports facilities
- Museums

Aura Protector Long Life is a tri-phosphor lamp with a very good colour rendering covered in a plastic protector film. The lamp is developed for areas that are subject to special safety requirements to protect sensitive products. Aura Protector Long Life is available in two different protective films, FEP and PET. Both types are suitable for use in open and enclosed luminaires.

The Aura Protector Long Life is available for T8 (26 mm) in Aura Ultimate Protector Long Life (FEP), Aura Universal Protector Long Life (PET) and Aura Eco Saver Protector Long Life (FEP) and for T5 (16 mm) in Aura Eco Saver Protector Long Life (FEP) and Aura Supreme Protector Long Life (FEP).

This group of lamps are designed for applications such as food processing industry, other industrial productions plants (e.g. chemical, paper manufacturing), laboratories, sports facilities and museums.

Overview

Aura Protector Long Life lamps are developed for areas that are subject to specific safety requirements for protection of production of sensitive products, such as HACCP and ISO 22000. In these areas a breakage of a fluorescent lamp could cause a production stop and a very costly interruption. Group replacement of fluorescent lamps provides an optimal control of operational costs and gives a uniform level of light. For economical and environmental reasons Aura Light recommends group replacement of Long Life fluorescent lamps.

Long Life technology

Aura Protector Long Life is developed based on our patented cathode shield construction. This design provides a unique fluorescent lamp with an exceptional long service life combined with an improved end-of-life protection against overheating. The lumen depreciation process is minimized with a protection layer inside the glass tube.

Lifetime

A lamp's service life is defined as the elapsed time when the amount of light in an installation reaches 80% of its initial 100 hour value. According to IEC/EN 60081, the service life of the lamp failure rate and the lumen depreciation is calculated based on the lamp being operated with a switching cycle of three hours.

The three hour switching cycle is defined as having the lamp switched on for two hours and 45 minutes and then switched off for 15 minutes.

A switching cycle that is more close to common use is the 12 hour switching cycle, this is defined as having the lamp switched on for 11 hours and then switched off for one hour. The lifetime shown is accounted for 10% mortality rate.

Technical information

Both Aura Ultimate Protector Long Life and Aura T8 Eco Saver Protector Long Life are available with FEP plastic film. These lamps are designed for luminaires developed and assembled for T8 (26 mm) fluorescent lamps, as is Aura Universal Protector Long Life which only is available with PET plastic film. These lamps are operated with electronic ballast (preferably warm start) and magnetic ballast with starter. With Aura T8 Eco Saver Protector Long Life you will have additional energy savings up to 12%.

Aura T5 Eco Saver Protector Long Life and Aura Supreme Protector Long Life are available with FEP plastic film. The lamps are designed for luminaires developed and assembled

for T5 (16 mm) fluorescent lamps. Aura T5 Eco Saver Long Life and Aura Supreme Protector Long Life are designed for operation with electronic ballast (preferably warm start). To be able to cash in on up to 10% lower energy consumption compared to ordinary T5-types the electronic ballast used need to be current-controlled. With power-controlled electronic ballasts the lamps instead increase their light level, up to 10%.

FEP is a transparent plastic film that does not affect the luminous flux and offers an optimal protection in the temperature range of use from -40°C to +150°C with a lifetime at least equal to the lamp.

PET is an upgraded plastic film with the extra advantage of UV-radiation absorption of 97% UV-A and 99% UV-B. This plastic film has a more limited lifetime of 30,000 hours and the temperature range of use from -30°C to +120°C.

Long Life guarantee

Aura Light guarantees 48,000 hours service life (Electronic ballast, warm start) for Aura T5 Eco Saver HE/HO Protector Long Life and Aura Supreme HE/HO Protector Long Life for installations that comply with the relevant standards.

For Aura T8 Eco Saver Protector Long Life we guarantee 36,000 hours service life (Magnetic ballast + Starter) and 50,000 hours (Electronic ballast, warm start) for installations that comply with the relevant standards.

Aura Ultimate Protector Long Life has a guaranteed service life of 48,000 hours service life (Magnetic ballast + Starter) and 70,000 hours (Electronic ballast, warm start) for installations that comply with the relevant standards.

Finally, Aura Universal Protector Long Life has a guaranteed service life of 30,000 hours service life (Magnetic ballast + Starter and Electronic ballast, warm start) for installations that comply with the relevant standards. The lifetime is limited due to the characteristics of the PET plastic material.

Aura Protector Long Life is developed and manufactured in accordance with the IEC/EN 60081-standard and the covering IEC/EN 61549-810. Continuous strict quality control processes secure fluorescent lamps of top quality.

For more detailed information see our website or contact your Aura Light-representative.



The high-quality transparent FEP plastic film prevents excellent against glass splinters and fluorescent powder when a lamp is broken accidentally.

Aura Protector Long Life | Technical specifications

L I F E T I M E	PRODUCT	SWITCHING CYCLE	MAGNETIC BALLAST + STARTER	ELECTRONIC BALLAST (WARM START)
	Aura Eco Saver HE/HO Protector, T5 Long Life (FEP)	3 h (Service Life) 80% light available 12 h 10% mortality rate	Operation only possible with electronic ballast (HF)	48,000 h 58,000 h
	Aura Supreme HE/HO Protector, T5 Long Life (FEP)	3 h (Service Life) 80% light available 12 h 10% mortality rate	Operation only possible with electronic ballast (HF)	48,000 h 58,000 h
	Aura Eco Saver Protector, T8 Long Life (FEP)	3 h (Service Life) 80% light available 12 h 10% mortality rate	36,000 h 43,000 h	50,000 h 60,000 h
	Aura Ultimate Protector, T8 Long Life (FEP)	3 h (Service Life) 80% light available 12 h 10% mortality rate	48,000 h 60,000 h	70,000 h 80,000 h
	Aura Universal Protector, T8 Long Life (PET)	3 h (Service Life) 80% light available 12 h 10% mortality rate	30,000 h*	30,000 h*

* Lifetime limited due to the characteristics of the PET plastic material

P R O G R A M M E	ARTICLE NO.	TYPE	COLOUR	COLOUR TEMP. (K)	LUMINOUS FLUX (lm/100h at +35 °C)	LUMINOUS EFFICACY (lm/W)	LENGTH WITHOUT PINS (mm)	ENERGY CLASS	UNITS/PACK (pcs)	
	Aura Eco Saver HE Protector Long Life, T5 Ø 16 mm, CAP G5									
	554313	13W (=14W) 830	Warm white	3000	1350	104	549	A+	30	
	554314	13W (=14W) 840	White	4000	1350	104	549	A+	30	
	554323	19W (=21W) 830	Warm white	3000	2100	111	849	A+	30	
	554324	19W (=21W) 840	White	4000	2100	111	849	A+	30	
	554333	25W (=28W) 830	Warm white	3000	2900	116	1149	A+	30	
	554334	25W (=28W) 840	White	4000	2900	116	1149	A+	30	
	554353	32W (=35W) 830	Warm white	3000	3650	114	1449	A+	30	
	554354	32W (=35W) 840	White	4000	3650	114	1449	A+	30	
	Aura Eco Saver HO Protector Long Life, T5 Ø 16 mm, CAP G5									
	557313	20W (=24W) 830	Warm white	3000	2000	91	549	A+	30	
	557314	20W (=24W) 840	White	4000	2000	91	549	A+	30	
	557323	36W (=39W) 830	Warm white	3000	3500	97	849	A+	30	
	557324	36W (=39W) 840	White	4000	3500	97	849	A+	30	
	557343	45W (=49W) 830	Warm white	3000	4900	109	1449	A+	30	
	557344	45W (=49W) 840	White	4000	4900	109	1449	A+	30	
557333	50W (=54W) 830	Warm white	3000	5000	100	1149	A+	30		
557334	50W (=54W) 840	White	4000	5000	100	1149	A+	30		
557353	73W (=80W) 830	Warm white	3000	7000	96	1449	A+	30		
557354	73W (=80W) 840	White	4000	7000	96	1449	A+	30		

Other types on request.

PROGRAMME	ARTICLE NO.	TYPE	COLOUR	COLOUR TEMP. (K)	LUMINOUS FLUX (lm/100h at +35 °C)	LUMINOUS EFFICACY (lm/W)	LENGTH WITHOUT PINS (mm)	ENERGY CLASS	UNITS/PACK (pcs)	
	Aura Supreme HE Protector Long Life, T5 Ø 16 mm, Cap G5									
	454313	14W 830	Warm White	3000	1350	96	590	A+	30	
	454314	14W 840	White	4000	1350	96	590	A+	30	
	454323	21W 830	Warm White	3000	2100	100	1200	A+	30	
	454324	21W 840	White	4000	2100	100	1200	A+	30	
	454333	28W 830	Warm White	3000	2900	104	1200	A+	30	
	454334	28W 840	White	4000	2900	104	1200	A+	30	
	454353	35W 830	Warm White	3000	3650	104	1200	A+	30	
	454354	35W 840	White	4000	3650	104	1500	A+	30	
Aura Supreme HO Protector Long Life, T5 Ø 16 mm, Cap G5										
457313	24W 830	Warm White	3000	2000	83	549	A	30		
457314	24W 840	White	4000	2000	83	549	A	30		
457323	39W 830	Warm White	3000	3500	90	849	A+	30		
457324	39W 840	White	4000	3500	90	849	A+	30		
457343	49W 830	Warm White	3000	4900	100	1449	A+	30		
457344	49W 840	White	4000	4900	100	1449	A+	30		
457333	54W 830	Warm White	3000	5000	93	1149	A+	30		
457334	54W 840	White	4000	5000	93	1149	A+	30		
457353	80W 830	Warm White	3000	7000	88	1449	A	30		
457354	80W 840	White	4000	7000	88	1449	A	30		
Aura Eco Saver Protector Long Life, T8 Ø 26 mm, Cap G13										
459014	16W (=18W) 840	White	4000	1100	69	590	A	30		
459034	32W (=36W) 840	White	4000	3000	94	1200	A	30		
459054	51W (=58W) 840	White	4000	4800	94	1500	A+	30		
Aura Ultimate Protector Long Life, T8 Ø 26 mm, Cap G13										
431013	18W 830	Warm White	3000	1300	72	590	A	30		
431014	18W 840	White	4000	1300	72	590	A	30		
431032	36W 827	Interior	2700	3350	93	1200	A	30		
431033	36W 830	Warm White	3000	3350	93	1200	A	30		
431034	36W 840	White	4000	3350	93	1200	A	30		
431036	36W 865	Daylight	6500	3250	90	1200	A	30		
431053	58W 830	Warm White	3000	5200	90	1500	A	30		
431054	58W 840	White	4000	5200	90	1500	A	30		
431056	58W 865	Daylight	6500	5000	86	1500	A	30		
Aura Universal Protector Long Life, T8 Ø 26 mm, Cap G13										
436113	18W 830	Warm White	3000	1250	69	590	A	30		
436114	18W 840	White	4000	1250	69	590	A	30		
436133	36W 830	Warm White	3000	3250	90	1200	A	30		
436134	36W 840	White	4000	3250	90	1200	A	30		
436153	58W 830	Warm White	3000	5000	86	1500	A	30		
436154	58W 840	White	4000	5000	86	1500	A	30		

Other types on request. * Subject for changes. For the latest version of this product leaflet, please visit www.auralight.com/products.