

Aura Thermo Long Life

Lighting in low temperature application areas



- Extremely high light output at low temperatures.
- Very good colour rendering.
- Reduces maintenance with two thirds.
- Excellent starting characteristics at low temperatures.

Ideal for:

- Sign lighting
- Tunnel lighting
- Street lighting
- Car parks
- Refrigerated counters
- Cool cabinets
- Frozen storages

Aura Thermo Long Life is a tri-phosphor lamp with a very good colour rendering designed especially for environments where the temperature is low.

The unique construction contains a Long Life fluorescent lamp cased in an outer glass tube, there are four types available; Aura Ultimate Thermo Long Life (T8) with an outer glass tube of Ø 38 mm or Ø 32 mm, Aura Universal Thermo Long Life (T8) with an outer glass tube of Ø 38 mm and Aura Supreme Long Life with an outer glass tube of Ø 26 mm.

This group of lamps are designed for applications such as sign lighting, tunnel lighting, car parks, refrigerated counters, cooling cabinets and frozen storages.

Overview

The outer glass tube of Aura Thermo Long Life provides a thermal insulation which results in excellent high light output at low temperatures. At -20°C Aura Thermo Long Life lamps produce up to five times more light than standard lamps under the same ambient temperature conditions.

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 a group replacement of Long Life fluorescent lamps.

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.

Long Life Technology

Aura Thermo 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.

Long Life Guarantee

Aura Light guarantees 48,000 (Aura Ultimate Long Life), 36,000 (Aura Universal Long Life) hours service life (Magnetic ballast + Starter) and 70,000 hours (Aura Ultimate Long Life) 50,000 hours (Aura Universal Long Life) and 48,000 hours (Aura Supreme Long Life) (Electronic ballast, warm start) for Aura Thermo Long Life for installations that comply with the relevant standards.

Aura Thermo Long Life is developed and manufactured in accordance with the IEC/EN 60081-standard. Continuous strict quality control processes ensure that fluorescent lamps are of top quality.

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

Technical Information

Both Aura Ultimate Thermo Long Life (T8) and Aura Universal Thermo Long Life (T8) have a basic fluorescent diameter 26 mm lamp inside the outer glass tube with connection pins as G13. Operation of these lamps is possible with electronic ballast (preferably warm start) and with magnetic ballast and starter.

The Aura Ultimate Thermo Long Life (T8) and the Aura Universal Thermo Long Life (T8) have an outer diameter 38 mm and are very well utilised in luminaires developed for low temperature areas which also result in the best light efficacy at low temperatures compared to an ordinary diameter 26 mm lamp, up to five times as high.

The Aura Ultimate Thermo Long Life (T8) with an outer diameter 32 mm is predominantly offered in case the diameter 38 mm does not fit. At low temperatures Aura Thermo Long Life lamp produces up to three times more light than an ordinary diameter 26 mm lamp.

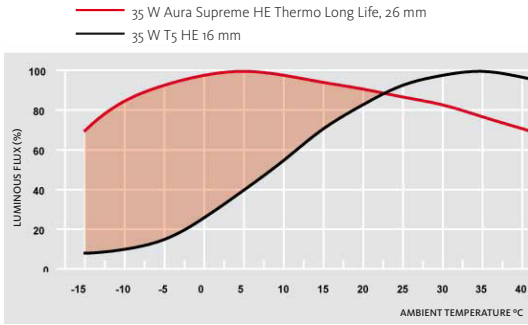
The Aura Supreme Thermo Long Life has a fluorescent diameter 16 mm lamp with a special design inside the outer glass tube with connection pins as G5. Operation of the lamp is possible with electronic ballast (preferably warm start). The Aura Supreme Thermo Long Life has an outer diameter of 26 mm and is well utilised in luminaires for low temperature and outdoor areas if dimensions are not too minimised. The special design of the integrated T5 Long Life lamp makes it possible to almost reach the same high level of light as the Thermo lamp with diameter 38 mm.

The Aura Thermo Long Life is a high colour rendering tri-phosphor lamp (Ra 85) and is available in several colours.

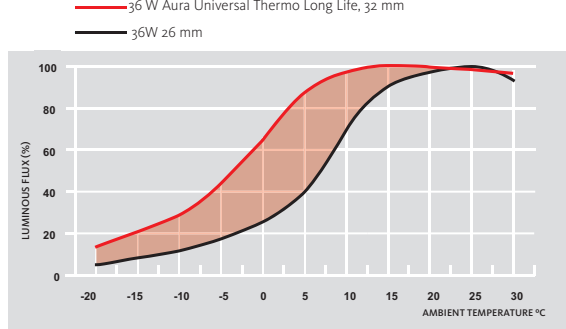
	TYPE	SWITCHING CYCLE	MAGNETIC BALLAST + STARTER	ELECTRONIC BALLAST (WARM START)
L I F E T I M E	Aura Ultimate Thermo Long Life	3 h (Service Life) 80% light available 12 h 10% lamp failure rate	48,000 h 60,000 h	70,000 h 80,000 h
	Aura Universal Thermo Long Life	3 h (Service Life) 80% light available 12 h 10% lamp failure rate	36,000 h 43,000 h	50,000 h 60,000 h
	Aura Supreme Thermo Long Life	3 h (Service Life) 80% light available 12 h 10% lamp failure rate	Operation only possible with electronic ballast	48,000 h 58,000 h

36 W Aura Universal Thermo Long Life, 32 mm

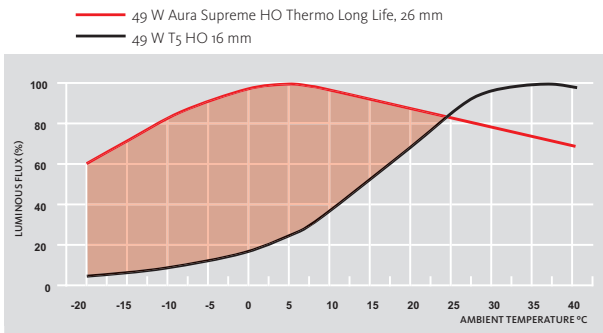
Luminous flux in relation to ambient temperature
Aura Supreme HE Thermo Long Life, 35W



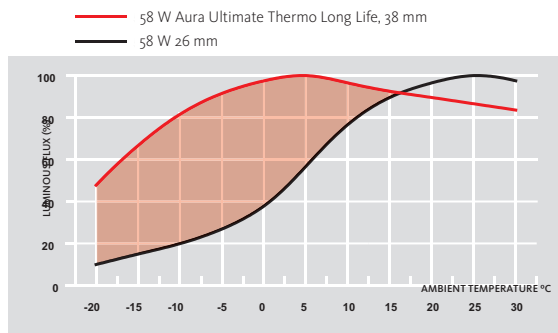
Luminous flux in relation to ambient temperature
Aura Universal Thermo Long Life, 36W



Luminous flux in relation to ambient temperature
Aura Supreme HO Thermo Long Life, 49W



Luminous flux in relation to ambient temperature
Aura Ultimate Thermo Long Life, 58W



PROGRAMME	ARTICLE NO.	TYPE	COLOUR	COLOUR TEMP. (K)	LUMINOUS FLUX* (lm/100h)	LUMINOUS EFFICACY (lm/W)	OUTER GLASS TUBE Ø (mm)	LENGTH WITHOUT PINS (mm)	ENERGY CLASS	UNITS/PACK (pcs)	
	Aura Ultimate Thermo Long Life, T8 Ø 38 mm, Cap G13										
	432313	18W 830	Warm White	3000	1250	69	38	590	A	25	
	432314	18W 840	White	4000	1250	69	38	590	A	25	
	432316	18W 865	Daylight	6500	1200	66	38	590	A	25	
	432324	30W 840	White	4000	2300	77	38	895	A	25	
	432326	30W 865	Daylight	6500	2250	75	38	895	A	25	
	432333	36W 830	Warm White	3000	3200	89	38	1200	A	25	
	432334	36W 840	White	4000	3200	89	38	1200	A	25	
	432336	36W 865	Daylight	6500	3150	87	38	1200	A	25	
	432343	36W 1-M 830	Warm White	3000	3000	83	38	970	A	25	
	432344	36W 1-M 840	White	4000	3000	83	38	970	A	25	
	432353	58W 830	Warm White	3000	5000	86	38	1500	A	25	
	432354	58W 840	White	4000	5000	86	38	1500	A	25	
432356	58W 865	Daylight	6500	4800	82	38	1500	A	25		

Aura Thermo Long Life | Technical specifications

ARTICLE NO.	TYPE	COLOUR	COLOUR TEMP. (K)	LUMINOUS FLUX* (lm/100h)	LUMINOUS EFFICACY (lm/W)	OUTER GLASS TUBE Ø (mm)	LENGTH WITHOUT PINS (mm)	ENERGY CLASS	UNITS/PACK (pcs)
Aura Ultimate Thermo Long Life, T8 Ø 32 mm, Cap G13									
432414	18W 840	White	4000	1250	69	32	590	A	25
432434	36W 840	White	4000	3200	89	32	1200	A	25
432454	58W 840	White	4000	5000	69	32	1500	A	25
Aura Universal Thermo Long Life, T8 Ø 38 mm, Cap G13									
437313	18W 830	Warm White	3000	1250	69	38	590	A	25
437314	18W 840	White	4000	1250	69	38	590	A	25
437333	36W 830	Warm White	3000	3200	89	38	1200	A	25
437334	36W 840	White	4000	3200	89	38	1200	A	25
437353	58W 830	Warm White	3000	5000	86	38	1500	A	25
437354	58W 840	White	4000	5000	86	38	1500	A	25
Aura Supreme HE Thermo Long Life, T5 Ø 26 mm, Cap G5									
454113	14W 830	Warm White	3000	1250	89	26	549	A+	25
454114	14W 840	White	4000	1250	89	26	549	A+	25
454116	14W 865	Daylight	6500	1200	86	26	549	A+	25
454123	21W 830	Warm White	3000	1950	93	26	849	A	25
454124	21W 840	White	4000	1950	93	26	849	A+	25
454133	28W 830	Warm White	3000	2750	98	26	1149	A+	25
454134	28W 840	White	4000	2750	98	26	1149	A+	25
454136	28W 865	Daylight	6500	2650	95	26	1149	A+	25
454153	35W 830	Warm White	3000	3400	97	26	1449	A+	25
454154	35W 840	White	4000	3400	97	26	1449	A+	25
454156	35W 865	Daylight	6500	3250	93	26	1449	A+	25
Aura Supreme HO Thermo Long Life, T5 Ø 26 mm, Cap G5									
457123	39W 830	Warm White	3000	3000	77	26	849	A	25
457124	39W 840	White	4000	3000	77	26	849	A	25
457143	49W 830	Warm White	3000	4200	86	26	1449	A	25
457144	49W 840	White	4000	4200	86	26	1449	A	25
457133	54W 830	Warm White	3000	4300	80	26	1149	A	25
457134	54W 840	White	4000	4300	80	26	1149	A	25
457136	54W 865	Daylight	6500	4100	76	26	1149	A	25
457153	80W 830	Warm White	3000	6000	75	26	1449	A	25
457154	80W 840	White	4000	6000	75	26	1449	A	25

Other types on request.

* At ambient temperature (Ta):

38 mm diameter 18W +15 °C, 36W +10 °C, 58W +5 °C

32 mm diameter 18W +20 °C, 36W +15 °C, 58W +10 °C

26 mm diameter 14W +15 °C, 21W +10 °C, 28W +10 °C, 35W +5 °C

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