

Product Specifications

SubstiTUBE® Advanced DC T8 Tube



Key product features:

- High efficiency of up to 116 lm/W
- Up to 50% energy savings compared to conventional 36 W fluorescent lamps
- Instant 100% light without flickering, Flicker percentage <5% combining with LVED VAL20W driver
- Dimmable with dimmable LED driver LVED PRO 20/220-240/550 CS 1-10V

Electrical and photometric data (with driver: EAN4058075080539, LVED VAL20W/220-240/500)

	Voltage [V]	Driving Current [mA]	Power [W]	Lumen Flux [lm]	CRI (Ra)	CCT [K]	Base
ST8A-1.2M 18W/865 38V DC	38V DC	500	18	2100	≥80	6500	G13
ST8A-1.2M 18W/840 38V DC	38V DC	500	18	2100	≥80	4000	G13
ST8A-1.2M 18W/857 38V DC	38V DC	500	18	2100	≥80	5700	G13
ST8A-0.6M 9.5W/840 28V DC	28V DC	350	9.5	1100	≥80	4000	G13
ST8A-0.6M 9.5W/865 28V DC	28V DC	350	9.5	1100	≥80	6500	G13

Common Characteristics

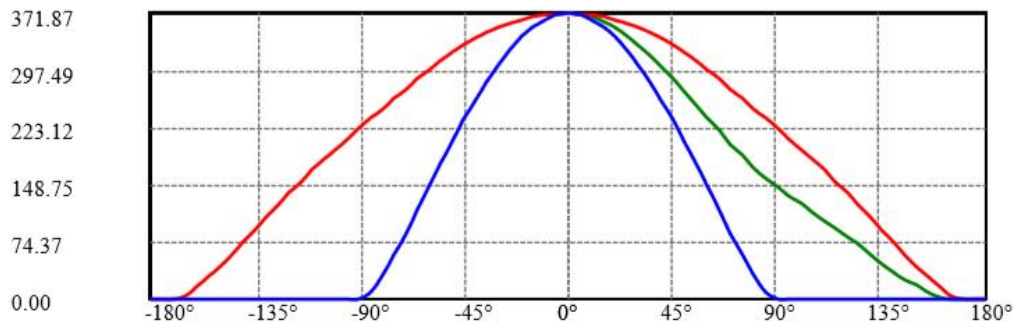
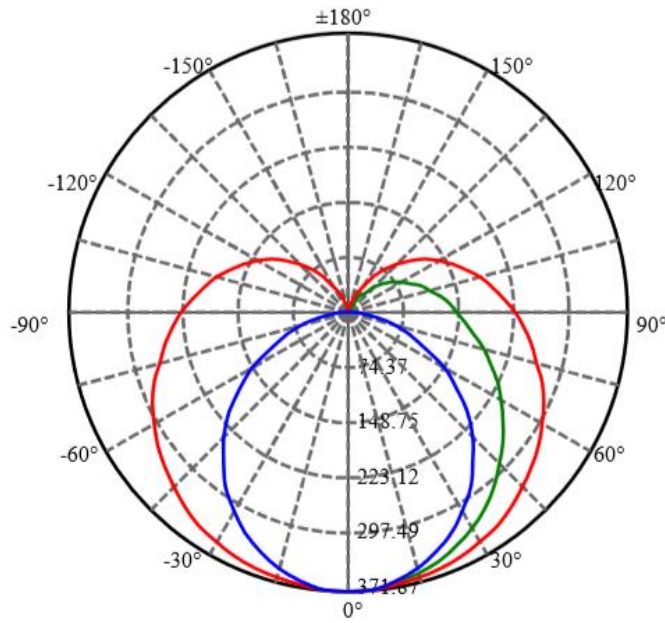
Lifetime @L70B50 (hrs) ²	Color Rendering Index	SDCM	Beam Angle (50% light intensity)	Operating Temp.(°C)
50,000	≥80	≤6	>160°	-10 ~ +45
Start up time (s)	Tube material	Weight (g)	PF	Dimming
<05	Plastic	<500	>0.9	Yes, with dimmable driver

Recommend driver list	EAN	IC
LVED VAL20W/220-240/500	4058075080539	AC048110055
LVED PRO 20/220-240/550 CS 1-10V	4058075199880	AC127990055
LVED SUP 26/220-240/700 DIM (DALI)	4058075425699	AC240000055

1. Typical values. All the technical parameters apply to the entire lamp. In view of the complex manufacturing process for light emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual product may vary from the typical values. For parameter of Lumen and Watt, production control tolerance with ±10% in delivery.
2. L70B50 is the average operating life of the LED Lamp during which the luminous flux is greater than or equal to 70% of the initial luminous flux, for 50% of the population. The lifetime is estimated at room temperature (25deg C), free air burning, base up position.
3. The Tc is defined as the highest permissible temperature which may occur on the outer surface of the LED lamp (in the indicated position) under normal operating conditions and at the rated voltage/current/power or the maximum of the rated voltage/current/power range (DIN EN 62031: 2009-01)



Light Distribution



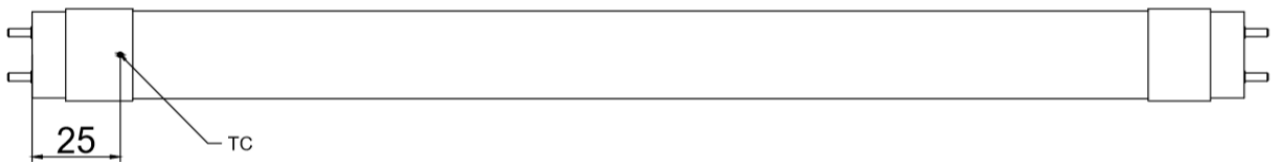
- C45(Max): —
- C0/C180: —
- C90/C270: —





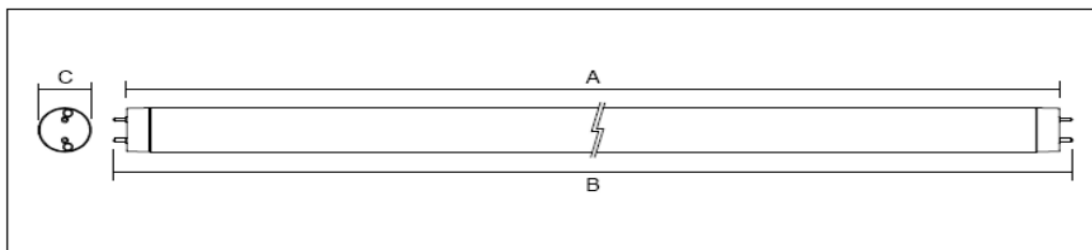
Minimum/Maximum rating

Models	Ambient temp. T_a	Storage temp. T_s	Maximum temp. T_c
ST8A-1.2M 18W	-20 ... 45° C	-20° ... 80° C	<75° C
ST8A-0.6M 9.5W	-20 ... 45° C	-20° ... 80° C	<75° C



Mechanical Specifications

Models	Ambient temperature T_a	B (mm)	C (mm)	Net Weight (g)
ST8A-1.2M 18W	-10~+45° C	<1213.6	<28	<500
ST8A-0.6M 9.5W	-10~+45° C	<604	<28	<500





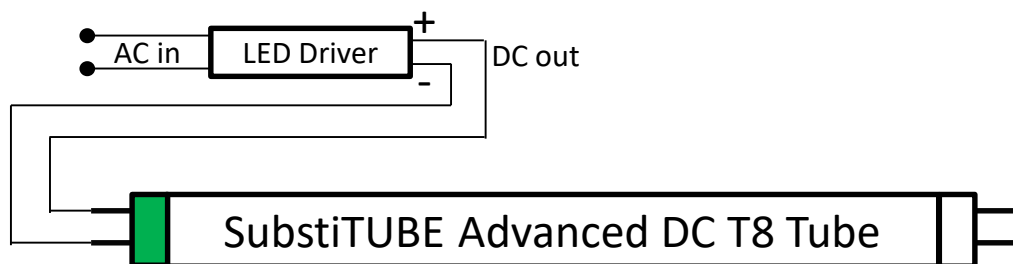
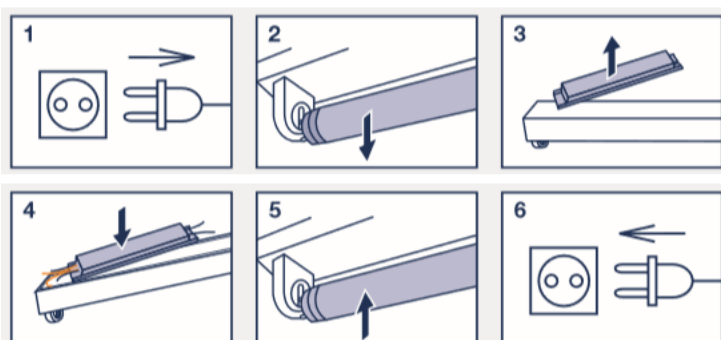
Safety and Application notes

- The SubstiTUBE® Advanced DC T8 Tube must not be damaged or operated in a damaged condition.
- The SubstiTUBE® Advanced DC T8 Tube only can be guaranteed under operation of the specified external driver
- **Do not use SubstiTUBE® Advanced DC T8 Tube in traditional CCG or ECG luminaire !**
- In order to grant a safe operation mode please refer to the installation instructions for further information
- The SubstiTUBE® Advanced DC T8 Tube emits light only with a limited angle, not like a fluorescent tube with 360° output.
- Due to the characteristic light distribution of the SubstiTUBE® Advanced DC T8 Tube , the resulting luminaire light characteristic is likely to change. It is not guaranteed that e.g. standards for lighting at working places will be complied to after replacement. A photometric check of the installation is recommended.
- The effective energy savings depend on the efficiency of the luminaire setup to be replaced and should be considered individually in each case.
- The SubstiTUBE® Advanced DC T8 Tube is protected according to IP20. Applications with external risk of moisture and dust can be served with an adequately protected luminaire.
- SubstiTUBE® Advanced DC T8 Tube products differ in their diameters and geometries from fluorescent lamps. Their use in open batten luminaires with gaskets is possible if no excessive force is expended during the fixing. Obtaining the necessary IP protection in open batten luminaires with gaskets cannot be ensured.
- Photobiological Safety of lamps and lamp systems according to IEC 62471. Risk Group: Exempt



Installation Instructions for SubstiTUBE® Advanced DC T8 Tube

- Always switch off the power supply prior to installation
- Turn the conventional lamp 90° and take it out of the socket carefully
- Take out of the traditional ballast
- Install the compatible ballast
- Insert SubstiTUBE® Advanced DC T8 Tube into socket and locate into position by turning 90°
- Switch on the power supply
- Check light emission direction



SubstiTUBE® Advanced DC T8 Tube Wiring

- SubstiTUBE® Advanced DC Tube only can be guaranteed under operation of the specified external driver (EAN4058075071704, LVED VAL20W/220-240/500)
- SubstiTUBE® Advanced DC T8 Tube is polarity neutral
- SubstiTUBE® Advanced DC T8 Tube's end-cap in input (driver) terminal in green color
- SubstiTUBE® Advanced DC T8 Tube's end-cap in non-driver terminal in white color and plastic PIN to ensure product safety



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Ordering Guide

Product	Ordering code*	S-Unit***
ST8A-1.2M 18W/865 38V DC 25X1 APM OSRAM	4058075208155	25X1
ST8A-1.2M 18W/840 38V DC 25X1 APM OSRAM	4058075208179	25X1
ST8A-1.2M 18W/857 38V DC 25X1 APM OSRAM	4058075208193	25X1
ST8A-0.6M 9.5W/840 28V DC 25X1 APM OSRAM	AC27535001T	25X1
ST8A-0.6M 9.5W/865 28V DC 25X1 APM OSRAM	AC27529001T	25X1

* Ordering code: ordering code for single unit

*** S-Unit: Lamps per shipping unit

Sales and Technical Support

Sales and technical support is given by the local LEDVANCE subsidiaries.

On our worldwide homepage all LEDVANCE subsidiaries are listed with complete address and phone numbers.

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