PRODUCT DATASHEET
SubstiTUBE T8 UN Value 18 W/4000 K 1200 mm

SubstiTUBE T8 UNIVERSAL VALUE | LED tubes for electronic control gears (ECG), electromagnetic control gears (CCG) and mains

Areas of application

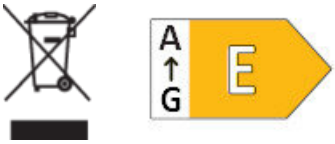
- General illumination within ambient temperatures from -20…+45 °C
- Corridors, stairways, parking garages
- Warehouses

Product benefits

- No bending thanks to glass technology
- Also suitable for operation at low temperatures
- Easy installation

Product features

- T8 LED tube made of glass with G13 base
- Compatible with conventional and many common electronic control gears (see also compatibility list) and line voltage
- Low flicker according to EU 2019/2020
- Uniform illumination
- Lifetime up to 30,000 h
- Mercury-free lamps



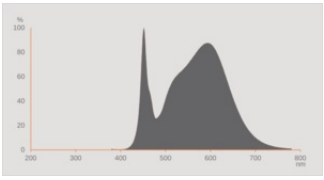
TECHNICAL DATA

Electrical data

Nominal wattage	18 W
Construction wattage	18.00 W
Nominal voltage	220…240 V
Operating mode	ECG, CCG, AC Mains
Nominal current	100 mA
Type of current	AC
Inrush current	15 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	80
Max. lamp number on MCB B10 A - CCG without compensation	80
Max. lamp number on MCB B10 A - CCG with compensation	25
Max. lamp number on MCB B16 A	125
Max. lamp number on MCB B16 A - CCG without compensation	125
Max. lamp number on MCB B16 A - CCG with compensation	40
Total harmonic distortion	< 20 %
Power factor λ	> 0.90

Photometrical data

Luminous flux	2000 lm
Luminous efficacy	111 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Cool White
Color temperature	4000 K
Color rendering index Ra	83
Light color	840
Standard deviation of color matching	≤5 sdcm
Flickering metric (Pst LM)	1.0
Stroboscope effect metric (SVM)	0.4

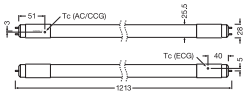


EPREL data spectral diagram PROF LEDr 4000K

Light technical data

Beam angle	190 °
Warm-up time (60 %)	‹ 2.00 s
Starting time	< 0.5 s

Dimensions & Weight



Overall length	1212.50 mm
Length with base excl. base pins/connection	1200.00 mm
Diameter	27.80 mm
Tube diameter	25,5 mm
Maximum diameter	28 mm
Product weight	223.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+45 °C
Maximum temperature at tc test point	66 °C [1)]

1) at CCG+Mains operation, ECG operation: 69°C

Lifespan

Lifespan L70/B50 at 25 °C	30000 h
Number of switching cycles	200000
Lumen maintenance at end of service lifetime	0.70

Rated lamp survival factor at 6,000 h	≥ 0.90

Additional product data

Base (standard designation)	G13
Mercury content	0.0 mg
Mercury-free	Yes

Capabilities

Dimmable	No

Certificates & Standards

Energy efficiency class	E [1)]
Energy consumption	18.00 kWh/1000h
Type of protection	IP20
Standards	CE
Photobiological safety group acc. to EN62778	RG0

1) Energy efficiency class (EEC) on a scale of A (highest efficiency) to G (lowest efficiency)

Country-specific categorizations

Order reference	LEDTUBE T8 UN V

LOGISTICAL DATA

Temperature range at storage	-20…+80 °C

Energy labelling regulation data acc EU 2019/2015

Lighting technology used	LED
Non-directional or directional	NDLS
Mains or non-mains	MLS
Light source cap-type (or other electric interface)	G13
Connected light source (CLS)	No
Color-tuneable light source	No
Envelope	No
High luminance light source	No
Anti-glare shield	No
Correlated colour temperature type	SINGLE_VALUE
Claim of equivalent power	No
Length	1212.50 mm

Height	27.80 mm
Width	27.80 mm
Chromaticity coordinate x	0.381
Chromaticity coordinate y	0.379
R9 Colour rendering index	0.00
Beam angle correspondence	SPHERE_360
Survival factor	0.90
Displacement factor	0.90
LED light source replaces a fluorescent light source	No
EPREL ID	519440
Model number	AC33877

Safety advice

- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- The operating temperature range of LED tube is restricted. In case of doubt regarding suitability of the application please measure Tc temperature on the product prior to installation.
- For operation of LED TUBE T8 UN with a conventional control gear, the existing starter must be exchanged with the including LED starter in the LED tube packaging.
- All electrical connections must be made by a qualified person.
- Not suitable for emergency lighting.

DOWNLOAD DATA

	Documents and certificates	Document name
PDF	User instruction / safety instructions	SubstiTUBE T8 Universal LED tube
PDF	Extended installation guide	SubstiTUBE® T8 T5
PDF	Declarations of conformity	T8 UN tube series
PDF	Declarations of conformity UKCA	LEDTUBE T8 and T5

	Photometric and lighting design files	Document name
IES	IES file (IES)	ST8V 1.2M 18W 840 UN OSRAM
LDT	LDT file (Eulumdat)	ST8V 1.2M 18W 840 UN OSRAM
	Light distribution curve type polar	ST8V 1.2M 18W 840 UN OSRAM

	Photometric and lighting design files	Document name
	Light distribution curve type polar	ST8V 1.2M 18W 840 UN OSRAM
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075546912	Sleeve 1	1,305 mm x 29 mm x 29 mm	252.00 g	1.10 dm^3
4058075546929	Shipping box 10	1,352 mm x 210 mm x 115 mm	3209.00 g	32.65 dm^3

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

References / Links

– For current information see www.ledvance.com/substitube

Legal advice

– When used to replace a T8 fluorescent lamp the total energy efficiency and light distribution depends on the design of the lighting system.

DISCLAIMER

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.