

PRODUCT DATASHEET

SubstiTUBE T8 EM Star PC 23 W/6500 K 1800 mm

SubstiTUBE T8 EM STAR PC | Economic LED tubes for electromagnetic control gears



Areas of application

- Corridors, stairways, parking garages
- Cooling and storage rooms
- Warehouses
- Domestic applications
- General illumination within ambient temperatures from -20...+45 °C

Product benefits

- Extremely break resistant thanks to cover made of polycarbonate
- High color homogeneity
- Energy savings of up to 68 % compared to conventional T8 fluorescent lamps
- Instant flickerfree starting

Product features

- LED replacement for classic T8 fluorescent lamps with G13 socket for use in CCG luminaires or on AC mains
- T8 LED tube made of plastic with G13 base
- Low flicker according to EU 2019-2020 (SVM $\leq 0,4$ / PstLM ≤ 1)
- Mercury-free and RoHS compliant
- Single and tandem operation on conventional control gear (0.6 m version)
- Type of protection: IP20



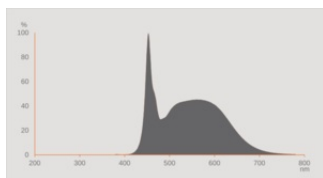
TECHNICAL DATA

Electrical data

Nominal wattage	23 W
Construction wattage	23.00 W
Nominal voltage	220...240 V
Operating mode	Conventional control gear (CCG), AC Mains
Nominal current	120 mA
Type of current	AC
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	5
Max. lamp no. on circuit break. B10 A - CCG without compensation	5
Max. lamp no. on circuit break. B10 A - CCG with compensation	2
Max. lamp no. on circuit break. 16 A (B)	6
Max. lamp no. on circuit break. B16 A - CCG without compensation	7
Max. lamp no. on circuit break. B16 A - CCG with compensation	4
Total harmonic distortion	55 %
Power factor λ	> 0.90

Photometrical data

Luminous flux	2600 lm
Luminous efficacy	113 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Cool Daylight
Color temperature	6500 K
Color rendering index Ra	80
Light color	865
Standard deviation of color matching	≤ 6 sdc _m
Rated LLMF at 6,000 h	0.80
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0.4



Light technical data

Beam angle	190 °
Warm-up time (60 %)	< 0.50 s
Starting time	< 0.5 s

Dimensions & Weight

Overall length	1777.00 mm
Length with base excl. base pins/connection	1800.00 mm
Diameter	26.70 mm
Tube diameter	26,7 mm
Maximum diameter	27 mm
Product weight	170.00 g

Temperatures & operating conditions

Ambient temperature range	-20...+45 °C
Maximum temperature at tc test point	65 °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

Capabilities

Dimmable	No
----------	----

Certificates & Standards

Energy efficiency class	E 1)
Energy consumption	23.00 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 EM S
-----------------	-----------------

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	1777.00 mm
Height	26.70 mm
Width	26.70 mm
Chromaticity coordinate x	0.312
Chromaticity coordinate y	0.328
R9 Colour rendering index	0.00
Beam angle correspondence	SPHERE_360
Survival factor	0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No

EPREL ID	1168769
Model number	AC41280

EQUIPMENT / ACCESSORIES

- Suitable for operation on magnetic control gear

Safety advice

- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- The Tc Point is located underneath the product label on the front side of the lamp.

DOWNLOAD DATA

Documents and certificates



User instruction



Installation guide



Declarations Of Conformity CE



Declarations Of Conformity UKCA

Photometric and lighting design files



Spectral power distribution

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075770744	Sleeve 1	1,865 mm x 29 mm x 29 mm	218.00 g	1.57 dm ³
4058075770751	Shipping box 25	1,918 mm x 163 mm x 175 mm	6490.00 g	54.71 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.