

## PRODUCT DATASHEET

### LED TUBE T8 18 UNIVERSAL 600 mm 8W 840

LED TUBE T8 UNIVERSAL | LED tubes for electronic control gear (ECG) and electromagnetic control gear (CCG)



#### Areas of application

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

#### Product benefits

- High color homogeneity
- Energy savings of up to 58 % (compared to T8 fluorescent lamp)
- Instant flickerfree starting

#### Product features

- LED replacement for classic T8 fluorescent lamps with G13 socket for use in CCG luminaires and many common ECG luminaires (see compatibility list) or on AC mains
- T8 LED tube made of glass with G13 base
- Low flicker according to EU 2019-2020 (SVM  $\leq$  0.4 / PstLM  $\leq$  1)
- Mercury-free and RoHS compliant
- Type of protection: IP20



## TECHNICAL DATA

### Electrical data

Nominal wattage	8 W
Construction wattage	8.00 W
Nominal voltage	220...240 V
Operating mode	ECG / CCG / Mains
Nominal current	39 mA
Type of current	AC
Inrush current	7 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	190
Max. lamp number on MCB B10 A - CCG without compensation	190
Max. lamp number on MCB B10 A - CCG with compensation	37
Max. lamp number on MCB B16 A	305
Max. lamp number on MCB B16 A - CCG without compensation	305
Max. lamp number on MCB B16 A - CCG with compensation	62
Total harmonic distortion	< 30 %
Power factor $\lambda$	0.80

### Photometrical data

Luminous flux	900 lm
Luminous efficacy	112 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	80
Light color	840
Standard deviation of color matching	≤5 sdc <sub>m</sub>
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 %)	< 0.50 s
Starting time	< 0.5 s

Dimensions & Weight



Overall length	603.00 mm
Length with base excl. base pins/connection	600.00 mm
Diameter	27.80 mm
Tube diameter	25,5 mm
Maximum diameter	28 mm
Product weight	153.00 g

Temperatures & operating conditions

Ambient temperature range	-20...+45 °C <sup>1)</sup>
Maximum temperature at tc test point	60 °C

1) Temperature surrounding the lamp - for enclosed luminaires: temperature inside of the luminaire

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
Product remark	The declared values in the data sheet refer to the operation of the LED tube on AC mains operation 230VAC 50Hz

### Capabilities

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

### Certificates & Standards

Energy efficiency class	E <sup>1)</sup>
Energy consumption	8.00 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 18 U
-----------------	-----------------

### 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	603.00 mm
Height	27.80 mm
Width	27.80 mm
Chromaticity coordinate x	0.3818
Chromaticity coordinate y	0.3797
R9 Colour rendering index	≥0
Beam angle correspondence	SPHERE_360
Survival factor	≥0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No
EPREL ID	1317773,1407618
Model number	AC42593,AC47853,AC47853

### Safety advice

- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- All electrical connections must be made by a qualified person.
- Disconnect mains before installation.
- Not suitable for emergency lighting.

### DOWNLOAD DATA

Documents and certificates	Document name
 User instruction / safety instructions	SubstiTUBE T8 UNIVERSAL LED tube
 Legal information	Informationstext 18 Abs 4 ElektroG
 Declarations of conformity	LED TUBES T8 HF/UN
 Declarations of conformity UKCA	LED TUBES T8 HF/UN UKCA
Photometric and lighting design files	Document name
 IES file (IES)	LEDTUBE T8 18 UN 600 8W 840 OSRAM
 LDT file (Eulumdat)	LEDTUBE T8 18 UN 600 8W 840 OSRAM

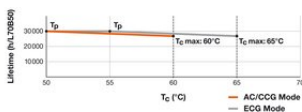
Photometric and lighting design files		Document name
	UGR file (UGR table)	LEDTUBE T8 18 UN 600 8W 840 OSRAM
	Light distribution curve type polar	LEDTUBE T8 18 UN 600 8W 840 OSRAM
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

**LOGISTICAL DATA**

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854033285	Sleeve 1	27 mm x 27 mm x 710 mm	198.00 g	0.52 dm <sup>3</sup>
4099854033292	Shipping box 8	755 mm x 143 mm x 100 mm	1939.00 g	10.80 dm <sup>3</sup>

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.

**ADDITIONAL CATALOG INFORMATION**



**References / Links**

– For current information see [www.ledvance.com/osram-led-tube](http://www.ledvance.com/osram-led-tube)

**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.