PRODUCT DATASHEET
LED TUBE T8 16 EM 720 mm 7W 865

LED TUBE T8 EM | Economic LED tubes for 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 69 % 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
- T8 LED tube made of glass with G13 base
- Low flicker according to EU 2019-2020 (SVM ≤ 0.4 / PstLM ≤ 1)
- Mercury-free and RoHS compliant
- Single and tandem operation on conventional control gear (≤0.9m versions)
- Type of protection: IP20

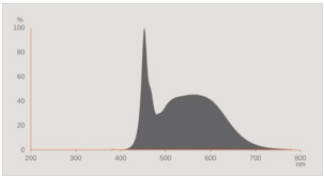
TECHNICAL DATA

Electrical data

Nominal wattage	7 W
Construction wattage	7.00 W
Nominal voltage	220…240 V
Operating mode	Conventional control gear (CCG), AC Mains
Nominal current	33 mA
Type of current	AC
Inrush current	9.2 A
Input voltage DC	186…260 V
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	68
Max. lamp number on MCB B10 A - CCG without compensation	65
Max. lamp number on MCB B10 A - CCG with compensation	24
Max. lamp number on MCB B16 A	85
Max. lamp number on MCB B16 A - CCG without compensation	81
Max. lamp number on MCB B16 A - CCG with compensation	30
Total harmonic distortion	< 30 %
Power factor λ	0.90

Photometrical data

Luminous flux	850 lm
Luminous efficacy	121 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 sdcm
Rated LLMF at 6,000 h	0.80
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0.4



EPREL data spectral diagram PROF LEDr 6500K

Light technical data

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

Dimensions & Weight

Overall length	734.00 mm
Length with base excl. base pins/connection	720.00 mm
Diameter	26.80 mm
Tube diameter	25.8 mm
Maximum diameter	28 mm
Product weight	110.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+45 °C [1)]
Maximum temperature at tc test point	70 °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

Capabilities

Dimmable	No

Certificates & Standards

Energy efficiency class	E [1)]
Energy consumption	7.00 kWh/1000h
Type of protection	IP20
Standards	CE / EAC / UKCA
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 16 E

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
Standby power	<0.5 W
Claim of equivalent power	No

Length	734.00 mm
Height	26.80 mm
Width	26.80 mm
Chromaticity coordinate x	0.313
Chromaticity coordinate y	0.337
R9 Colour rendering index	1
Beam angle correspondence	SPHERE_360
Survival factor	0.9
Displacement factor	0.9
LED light source replaces a fluorescent light source	No
EPREL ID	1334007,1529770
Model number	AC45414,AC51426,AC51426

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.
– Not suitable for emergency lighting.
– All electrical connections must be made by a qualified person.
– Disconnect mains before installation.

DOWNLOAD DATA

	Documents and certificates	Document name
PDF	User instruction / safety instructions	LEDTUBE T8 EM OSRAM
PDF	Legal information	Informationstext 18 Abs 4 ElektroG
PDF	Declarations of conformity	LEDTUBE T8 EM
PDF	Declarations of conformity	LED TUBE T8 EM
PDF	Declarations of conformity UKCA	LED TUBE T8 EM

	Documents and certificates	Document name
PDF	Declarations of conformity UKCA	LEDTUBE T8 EM

	Photometric and lighting design files	Document name
	IES file (IES)	LEDTUBE T8 16 EM 720 7W 865 OSRAM
	LDT file (Eulumdat)	LEDTUBE T8 16 EM 720 7W 865 OSRAM
	UGR file (UGR table)	LEDTUBE T8 16 EM 720 7W 865 OSRAM
	Light distribution curve type polar	LEDTUBE T8 16 EM 720 7W 865 OSRAM
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 6500K

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854038648	Sleeve 1	27 mm x 29 mm x 830 mm	162.00 g	0.65 dm^3
4099854038655	Shipping box 8	865 mm x 143 mm x 100 mm	1730.00 g	12.37 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/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.