PRODUCT DATASHEET
LED TUBE T8 EM S 438 mm 5.1W 830

LED TUBE T8 EM S | High performance LED tubes for electromagnetic control gears (CCG), shatterproof

Areas of application

- General illumination within ambient temperatures from -20...+50 °C
- Illumination of production areas
- Traffic zones and corridors
- Supermarkets and department stores
- Industry

Product benefits

- No bending thanks to glass technology
- Shatter protection thanks to special PET coating
- Support the implementation of the HACCP concepts from production through to presentation
- Very high resistance to switching loads
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 70 % (compared to T8 fluorescent lamp)
- Instant-on light, therefore ideally suitable in combination with sensor technology
- Also suitable for operation at low temperatures

Product features

- LED replacement for classic T8 fluorescent lamps with G13 socket for use in CCG luminaires or on AC mains
- Low flicker according to EU 2019-2020 (SVM ≤0,4 / PstLM ≤ 1)
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- ENEC 10 VDE mark
- Single and tandem operation on conventional control gear (≤0.9 m versions)

- Lifetime: up to 75,000 h
- Type of protection: IP20
- Mercury-free and RoHS compliant

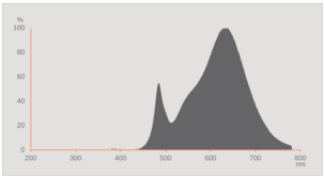
TECHNICAL DATA

Electrical data

Nominal wattage	5.1 W
Construction wattage	5.10 W
Nominal voltage	220…240 V
Nominal current	24 mA
Type of current	AC
Inrush current	3.25 A
Suitable for DC input	Yes
Input voltage DC	186…260 V
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	184
Max. lamp no. on circuit break. B10 A - CCG without compensation	102
Max. lamp no. on circuit break. B10 A - CCG with compensation	40
Max. lamp no. on circuit break. 16 A (B)	231
Max. lamp no. on circuit break. B16 A - CCG without compensation	129
Max. lamp no. on circuit break. B16 A - CCG with compensation	51
Total harmonic distortion	< 20 %
Power factor λ	0.90

Photometrical data

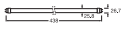
Luminous flux	810 lm
Luminous efficacy	158 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Warm White
Color temperature	3000 K
Color rendering index Ra	80
Light color	830
Standard deviation of color matching	≤5 sdcm
Rated LLMF at 6,000 h	0.80
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0.4



Light technical data

Beam angle	> 190 °
Warm-up time (60 %)	‹ 0.50 s
Starting time	< 0.5 s
Rated beam angle (half peak value)	› 190.00 °

Dimensions & Weight



Overall length	450.00 mm
Diameter	26.70 mm
Tube diameter	25.3 mm
Maximum diameter	27 mm
Product weight	78.00 g

Temperatures & operating conditions

Ambient temperature range	-20…+50 °C
Maximum temperature at tc test point	60 °C

Lifespan

Lifespan	75000 h
Number of switching cycles	200000
Lumen maintenance at end of serv	0.70
Rated lamp survival factor at 6,000	≥ 0.90

Additional product data

Base (standard designation)	G13
Mercury content	0.0 mg
Mercury-free	Yes
Product remark	Available from June 2023

Capabilities

Dimmable	No

Certificates & Standards

Energy efficiency class	D [1)]
Energy consumption	6.00 kWh/1000h
Type of protection	IP20
Standards	CE / UKCA / VDE / ENEC / EAC
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
Standby power	<0.5 W
Claim of equivalent power	No
Length	450.00 mm
Height	26.70 mm

Width	26.70 mm
Chromaticity coordinate x	0.4339
Chromaticity coordinate y	0.4033
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	1334050,1529740
Model number	AC45340,AC51550

EQUIPMENT / ACCESSORIES

- Suitable for operation with low-loss and conventional control gears

Safety advice

- Not suitable for operation with electronic control gear.
- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- Not suitable for emergency lighting

DOWNLOAD DATA

	Documents and certificates
PDF	User instruction
PDF	Declarations Of Conformity CE

	Photometric and lighting design files
	IES file (IES)
	LDT file (Eulumdat)
	UGR file (UGR table)
	LDC typ polar
	Spectral power distribution

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854037337	Sleeve 1	550 mm x 29 mm x 29 mm	95.00 g	0.46 dm^3
4099854037344	Shipping box 10	580 mm x 180 mm x 95 mm	1214.00 g	9.92 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/ledtube

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.