# PRODUCT DATASHEET LED TUBE T8 EM V 900 mm 10W 830

LED TUBE T8 EM V | Economic LED tubes for electromagnetic control gear (CCG) and AC mains



#### Areas of application

- General illumination within ambient temperatures from -20...+45  $^{\circ}\text{C}$
- Corridors, stairways, parking garages
- Industry
- Warehouses
- Cooling and storage rooms
- Domestic applications
- Supermarkets and department stores

#### **Product benefits**

- No bending thanks to glass tube
- Energy savings of up to 69 % (compared to T8 fluorescent lamp)
- Quick, simple and safe replacement without rewiring
- Instant-on light, therefore ideally suitable in combination with sensor technology
- Very high resistance to switching loads
- 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  $\leq$ 0,4 / PstLM  $\leq$  1)
- Single and tandem operation on conventional control gear (≤0.9 m versions)
- Tube made of glass
- Mercury-free and RoHS compliant
- Uniform illumination
- Type of protection: IP20





## TECHNICAL DATA

## Electrical data

Nominal wattage	10 W
Construction wattage	10.00 W
Nominal voltage	220240 V
Operating mode	CCG, AC Mains
Nominal current	47 mA
Type of current	AC
Inrush current	10 A
Suitable for DC input	Yes
Input voltage DC	186260 V
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	65
Max. lamp no. on circuit break. B10 A - CCG without compensation	60
Max. lamp no. on circuit break. B10 A - CCG with compensation	21
Max. lamp no. on circuit break. 16 A (B)	82
Max. lamp no. on circuit break. B16 A - CCG without compensation	75
Max. lamp no. on circuit break. B16 A - CCG with compensation	27
Total harmonic distortion	< 30 %
Power factor $\lambda$	0.90

## Photometrical data

Luminous flux	1080 lm
Luminous efficacy	108 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	≤6 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

# Dimensions & Weight



Overall length	908.00 mm
Length with base excl. base pins/connection	900.00 mm
Diameter	26.80 mm
Tube diameter	25.8 mm
Maximum diameter	28 mm
Product weight	143.00 g

# Temperatures & operating conditions

Ambient temperature range	-20+45 °C
Maximum temperature at tc test point	70 °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

March 13, 2024, 09:57:31 LED TUBE T8 EM V 900 mm 10W 830

Mercury content	0.0 mg
Mercury-free	Yes

# Capabilities

Dimmable	No

#### Certificates & Standards

Energy efficiency class	F 1)
Energy consumption	10.00 kWh/1000h
Type of protection	IP20
Standards	CE / EAC / UKCA
Photobiological safety group acc. to EN62778	RG0

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

# Country-specific categorizations

Order reference	LEDTUBE T8 EM V

## LOGISTICAL DATA

Temperature range at storage	-20+80 °C
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# Energy labelling regulation data acc EU 2019/2015

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         908.00 mm           Height         26.80 mm           Width         26.80 mm           Chromaticity coordinate x         0.44	Lighting technology used	LED
Light source cap-type (or other electric interface)  Connected light source (CLS)  No  Color-tuneable light source  No  Envelope  No  High luminance light source  No  Anti-glare shield  Correlated colour temperature type  SINGLE_VALUE  Standby power  Claim of equivalent power  No  Length  Height  Width  Width  G13  No  Ro  Ro  Ro  Ro  Ro  Ro  Ro  Ro  Ro	Non-directional or directional	NDLS
Connected light source (CLS)  Color-tuneable light source  Envelope  No  High luminance light source  No  Anti-glare shield  Correlated colour temperature type  Standby power  Claim of equivalent power  Length  Height  Width  No  Connected light source  No  No  SINGLE_VALUE  Vo.5 W  Po8.00 mm  Width	Mains or non-mains	MLS
Color-tuneable light source  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  Height  26.80 mm  Width	Light source cap-type (or other electric interface)	G13
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 908.00 mm Height 26.80 mm Width	Connected light source (CLS)	No
High luminance light source  Anti-glare shield  No  Correlated colour temperature type  SINGLE_VALUE  Standby power  <0.5 W  Claim of equivalent power  No  Length  Height  908.00 mm  Width  26.80 mm	Color-tuneable light source	No
Anti-glare shield No  Correlated colour temperature type SINGLE_VALUE  Standby power <0.5 W  Claim of equivalent power No  Length 908.00 mm  Height 26.80 mm  Width 26.80 mm	Envelope	No
Correlated colour temperature type SINGLE_VALUE  Standby power <ul> <li>&lt;0.5 W</li> </ul> Claim of equivalent power No Length 908.00 mm Height 26.80 mm  Width 26.80 mm  26.80 mm  Vidth V	High luminance light source	No
Standby power < <0.5 W  Claim of equivalent power No  Length 908.00 mm  Height 26.80 mm  Width 26.80 mm	Anti-glare shield	No
Claim of equivalent power  Length  908.00 mm  Height  26.80 mm  Width	Correlated colour temperature type	SINGLE_VALUE
Length       908.00 mm         Height       26.80 mm         Width       26.80 mm	Standby power	<0.5 W
Height         26.80 mm           Width         26.80 mm	Claim of equivalent power	No
Width 26.80 mm	Length	908.00 mm
	Height	26.80 mm
Chromaticity coordinate x 0.44	Width	26.80 mm
	Chromaticity coordinate x	0.44

March 13, 2024, 09:57:31 LED TUBE T8 EM V 900 mm 10W 830

Chromaticity coordinate y	0.403
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	1333981,1529827
Model number	AC45388,AC51400

#### **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
PDF	Declarations Of Conformity UKCA
	Photometric and lighting design files
<b>(3)</b>	IES file (IES)
	LDT file (Eulumdat)
<u></u>	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
4099854039102	Sleeve 1	955 mm x 28 mm x 28 mm	171.00 g	0.75 dm <sup>3</sup>
4099854039119	Shipping box 10	990 mm x 170 mm x 100 mm	2213.00 g	16.83 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.

#### 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.