

## PRODUCT DATASHEET

### LED TUBE T9 C 22 EM 11W 830 G10q

LED TUBE T9 EM | Circular 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
- Decorative applications

#### Product benefits

- Quick, simple and safe replacement without rewiring
- Energy savings of up to 50% (compared to T9 fluorescent lamp on CCG)
- Also suitable for operation at low temperatures

#### Product features

- LED alternative to classic T9 fluorescent lamps in CCG luminaires
- Uniform illumination
- Lifetime up to 30,000 h
- Mercury-free and RoHS compliant



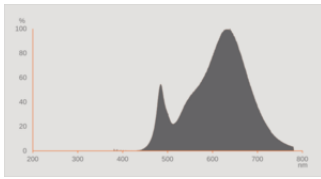
## TECHNICAL DATA

### Electrical data

Nominal wattage	11 W
Construction wattage	11.00 W
Nominal voltage	220...240 V
Operating mode	Conventional control gear (CCG), AC Mains
Nominal current	51 mA
Type of current	AC
Inrush current	11 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp number on MCB B10 A	25
Max. lamp number on MCB B10 A - CCG without compensation	94
Max. lamp number on MCB B10 A - CCG with compensation	16
Max. lamp number on MCB B16 A	31
Max. lamp number on MCB B16 A - CCG without compensation	150
Max. lamp number on MCB B16 A - CCG with compensation	20
Total harmonic distortion	< 20 %
Power factor $\lambda$	> 0.90

### Photometrical data

Luminous flux	1200 lm
Luminous efficacy	109 lm/W
Lumen main.fact.at end of nom.life time	0.96
Light color (designation)	Warm White
Color temperature	3000 K
Color rendering index Ra	≥80
Light color	830
Standard deviation of color matching	≤6 sdcn
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 3000K

Light technical data

Beam angle	110 °
Warm-up time (60 %)	0.00 s
Starting time	< 0.5 s

Dimensions & Weight

Overall length	212.00 mm
Diameter	212.00 mm
Tube diameter	30 mm
Maximum diameter	212 mm
Product weight	158.00 g

Temperatures & operating conditions

Ambient temperature range	-20...+45 °C <sup>1)</sup>
Maximum temperature at tc test point	75 °C

<sup>1)</sup> 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	0.96
Rated lamp survival factor at 6,000 h	≥ 0.90

Additional product data

Base (standard designation)	G10q
Mercury content	0.0 mg
Mercury-free	Yes

### Capabilities

Dimmable	No
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### Certificates & Standards

Energy efficiency class	F 1)
Energy consumption	11.00 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 T9C EM
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### LOGISTICAL DATA

Temperature range at storage	-20...+80 °C
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### 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)	G10q
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	Yes
Length	212.00 mm
Height	212.00 mm
Width	212.00 mm




Chromaticity coordinate x	0.434
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	1340156
Model number	AC45078,AC45078

### 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.
- All electrical connections must be made by a qualified person.
- Disconnect mains before installation.
- Not suitable for emergency lighting.
- Do not touch the lamp if broken.
- Must not be used if outer bulb is defective.

### DOWNLOAD DATA

Documents and certificates		Document name
	User instruction / safety instructions	LEDTUBE T9 C OSRAM
	Legal information	Informationstext 18 Abs 4 ElektroG
	Declarations of conformity	LEDTUBE T9C EM
	Declarations of conformity UKCA	UKCA declaration_LEDTUBE T9C EM

Photometric and lighting design files		Document name
	IES file (IES)	LEDTUBE T9C EM V 22 11W 830 G10Q
	LDT file (Eulumdat)	LEDTUBE T9C EM V 22 11W 830 G10Q LEDV
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 3000K

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854042607	Folding box 1	38 mm x 220 mm x 260 mm	242.00 g	2.17 dm <sup>3</sup>
4099854042614	Shipping box 10	397 mm x 251 mm x 300 mm	2630.00 g	29.89 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/osram-led-tube](http://www.ledvance.com/osram-led-tube)

## Legal advice

– When used to replace a T9 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.