

## PRODUCT DATASHEET

### LED TUBE T9 C 22 EM 11W 840 G10q

SubstiTUBE T9 EM | Circular LED tube 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
Nominal current	51 mA
Type of current	AC
Inrush current	11 A
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Max. lamp no. on circuit break. 10 A (B)	25
Max. lamp no. on circuit break. B10 A - CCG without compensation	94
Max. lamp no. on circuit break. B10 A - CCG with compensation	16
Max. lamp no. on circuit break. 16 A (B)	31
Max. lamp no. on circuit break. B16 A - CCG without compensation	150
Max. lamp no. on circuit break. B16 A - CCG with compensation	20
Total harmonic distortion	< 20 %
Power factor $\lambda$	> 0.90

### Photometrical data

Luminous flux	1320 lm
Luminous efficacy	120 lm/W
Lumen main.fact.at end of nom.life time	0.96
Light color (designation)	Cool White
Color temperature	4000 K
Color rendering index Ra	$\geq 80$
Light color	840
Standard deviation of color matching	$\leq 6$ sdc <sub>m</sub>
Rated LLMF at 6,000 h	0.80
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0.4



### Light technical data

Beam angle	110 °
Warm-up time (60 %)	0.00 s
Starting time	< 0.5 s
Rated beam angle (half peak value)	110.00 °

### Dimensions & Weight

Overall length	212.00 mm
Diameter	312.00 mm
Tube diameter	30 mm
Maximum diameter	312 mm
Product weight	158.00 g

### Temperatures & operating conditions

Ambient temperature range	-20...+45 °C
Maximum temperature at tc test point	75 °C

### Lifespan

Lifespan	30000 h
Number of switching cycles	200000
Lumen maintenance at end of serv	0.96
Rated lamp survival factor at 6,000	≥ 0.90

### Additional product data

Base (standard designation)	G10q
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Mercury content	0.0 mg
Mercury-free	Yes
Product remark	Available from June 2023

### Capabilities

Dimmable	No
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### Certificates & Standards

Energy efficiency class	E <sup>1)</sup>
Energy consumption	11.00 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 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
Standby power	not applicable
Networked standby power for CLS	not applicable
Claim of equivalent power	Yes
Length	212.00 mm
Height	312.00 mm

Width	312.00 mm
Chromaticity coordinate x	0.3818
Chromaticity coordinate y	0.3797
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	1340157
Model number	AC45079

### 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.

### DOWNLOAD DATA

#### Documents and certificates



User instruction



Declarations Of Conformity CE

#### Photometric and lighting design files



IES file (IES)



LDT file (Eulumdat)



Spectral power distribution

### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4099854042621	Folding box 1	38 mm x 220 mm x 260 mm	242.00 g	2.17 dm <sup>3</sup>
4099854042638	Shipping box 10	397 mm x 251 mm x 300 mm	2760.00 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.

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### References / Links

- For current information see [www.ledvance.com/osram-substitute](http://www.ledvance.com/osram-substitute)
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### 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.
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### DISCLAIMER

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.