

PRODUCT DATASHEET

ST9-EM 22 123 ° 12 W/4000 K 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	12 W
Nominal voltage	220...240 V
Operating mode	AC, Conventional control gear (CCG)
Nominal current	60 mA
Type of current	AC
Operating frequency	50...60 Hz
Mains frequency	50...60 Hz
Max. lamp number on MCB B10 A	80
Max. lamp number on MCB B10 A - CCG without compensation	80
Max. lamp number on MCB B16 A	140
Max. lamp number on MCB B16 A - CCG without compensation	140
Power factor λ	> 0.90

Photometrical data

Luminous flux	1200 lm
Luminous efficacy	100 lm/W
Lumen main.fact.at end of nom.life time	0.70
Light color (designation)	Cool White
Color temperature	4000 K
Color rendering index Ra	≥80
Light color	840
Standard deviation of color matching	≤6 sdcn
Flickering metric (Pst LM)	1
Stroboscope effect metric (SVM)	0,9

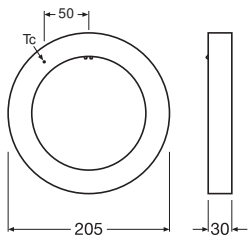


EPREL data spectral diagram PROF
LEDr 4000K

Light technical data

Beam angle	123 °
Warm-up time (60 %)	< 0.50 s
Starting time	< 0.5 s

Dimensions & Weight



Overall length	205.00 mm
Diameter	30.00 mm
Product weight	143.00 g

Temperatures & operating conditions

Ambient temperature range	-20...+45 °C
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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)	G10q
Mercury content	0.0 mg
Mercury-free	Yes
Design / version	Frosted

Capabilities

Dimmable	No
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Certificates & Standards

Energy efficiency class	F 1)
Energy consumption	12.00 kWh/1000h
Type of protection	IP20
Standards	CE
Photobiological safety group acc. to EN62778	RG0

1) Energy efficiency class (EEC) on a scale of A++ (highest efficiency) to E (lowest efficiency)

Country-specific categorizations

Order reference	ST9-22 12W/840
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LOGISTICAL DATA

Temperature range at storage	-20...+65 °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	0 W
Networked standby power for CLS	0 W
Claim of equivalent power	No
Length	205.00 mm
Height	30.00 mm
Width	30.00 mm
Chromaticity coordinate x	0,3818
Chromaticity coordinate y	0,3797
R9 Colour rendering index	0.00
Beam angle correspondence	SPHERE_360
Survival factor	0,5
Displacement factor	0,5

LED light source replaces a fluorescent light source	Yes
EPREL ID	1402926
Model number	AC11636

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	SubstiTUBE T9
Photometric and lighting design files		Document name
	IES file (IES)	AC11636_ST9-22 12W 840 220-240V EM
	LDT file (Eulumdat)	AC11636_ST9-22 12W 840 220-240V EM
	Light distribution curve type polar	AC11636_ST9-22 12W 840 220-240V EM
	Light distribution curve type polar	AC11636 ST9-22 12W 840 220-240V EM
	Spectral power distribution	EPREL data spectral diagram PROF LEDr 4000K

LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075135444	Folding box 1	38 mm x 214 mm x 245 mm	194.00 g	1.99 dm ³
4058075135451	Shipping box 10	385 mm x 232 mm x 237 mm	2608.00 g	21.17 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
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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.