

## PRODUCT DATASHEET

### ST8-EM 20 W/3000 K 1500 mm

SubstiTUBE Advanced Wide Voltage | High performance LED tubes for electromagnetic control gears



#### Areas of application

- General illumination within ambient temperatures from -20...+45 °C
- Illumination of production areas
- Traffic zones and corridors
- Supermarkets and department stores
- Industry

#### Product benefits

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 60 % (compared to T8 fluorescent lamp on CCG)
- Instant-on light, therefore ideally suitable in combination with sensor technology
- Also suitable for operation at low temperatures

#### Product features

- LED alternative to classic T8 fluorescent lamps in CCG luminaires
- Bright, robust and durable
- Uniform illumination
- Tube made of glass
- Mercury-free and RoHS compliant
- Type of protection: IP20
- Integrated ECG with high power factor



## TECHNICAL DATA

### Electrical data

Nominal wattage	20 W
Construction wattage	20.00 W
Nominal voltage	100...240 V
Nominal current	235 mA
Type of current	AC
Operating frequency	50/60 Hz
Mains frequency	50/60 Hz
Power factor $\lambda$	> 0.90

### Photometrical data

Luminous flux	2160 lm
Nominal useful luminous flux 90°	2160 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 sdcn

### Light technical data

Beam angle	160 °
Starting time	< 0.5 s

### Dimensions & Weight

Overall length	1513.00 mm
Diameter	28.00 mm
Product weight	235.00 g

### Temperatures & operating conditions

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

### Lifespan

Number of switching cycles	100000
Lumen maintenance at end of service lifetime	0.70

#### Additional product data

Base (standard designation)	G13
Mercury content	0.0 mg

#### Capabilities

Dimmable	No
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#### Certificates & Standards

Standards	CB / ROHS / SASO2902
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#### Country-specific categorizations

Order reference	ST8A-1.5M 20W/8
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#### Energy labelling regulation data acc EU 2019/2015

Light source cap-type (or other electric interface)	G13
Correlated colour temperature type	SINGLE_VALUE
Length	1513.00 mm
Height	28.00 mm
Width	28.00 mm

#### 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.

#### LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075690912	Sleeve 1	1,585 mm x 28 mm x 28 mm	254.00 g	1.27 dm <sup>3</sup>
4058075690929	Shipping box 25	1,640 mm x 167 mm x 185 mm	7578.00 g	50.67 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/substitute](http://www.ledvance.com/substitute)
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### 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.
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