

# PRODUCT DATASHEET ST8E-EM 16 W/4000 K 1200 mm

SubstiTUBE Entry EM | LED tubes for electromagnetic control gears



#### Product benefits

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- Energy savings of up to 65 % (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**

- T8 LED tube made of glass with G13 base
- Mercury-free and RoHS compliant
- Type of protection: IP20





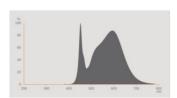
## TECHNICAL DATA

## Electrical data

| Nominal wattage        | 16 W     |
|------------------------|----------|
| Construction wattage   | 16.00 W  |
| Nominal voltage        | 220240 V |
| Type of current        | AC       |
| Operating frequency    | 5060 Hz  |
| Mains frequency        | 5060 Hz  |
| Power factor $\lambda$ | > 0.70   |

#### Photometrical data

| Luminous flux                           | 1800 lm    |
|---|------------|
| Nominal useful luminous flux 90°        | 1800 lm    |
| Luminous efficacy                       | 112 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 sdcm    |
| Flickering metric (Pst LM)              | 1          |
| Stroboscope effect metric (SVM)         | 0.4        |



EPREL data spectral diagram PROF LEDr 4000K

## Light technical data

| Beam angle          | 190 °    |
|---------------------|----------|
| Warm-up time (60 %) | < 0.50 s |
| Starting time       | < 0.5 s  |

## Dimensions & Weight

| Overall length                              | 1212.00 mm |
|---|------------|
| Length with base excl. base pins/connection | 1200 mm    |
| Diameter                                    | 25.6 mm    |
| Base diameter                               | 25,5 mm    |
| Product weight                              | 190.00 g   |

## Temperatures & operating conditions

#### Lifespan

| Lifespan L70/B50 at 25 °C                    | 30000 h |
|--|---------|
| Number of switching cycles                   | 50000   |
| 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     |
|-----------------------------|---------|
| Mercury content             | 0.0 mg  |
| Mercury-free                | Yes     |
| Design / version            | Frosted |

## Capabilities

| Dimmable | No |
|----------|----|
|----------|----|

# Certificates & Standards

| Energy efficiency class                      | E 1)            |
|--|-----------------|
| Energy consumption                           | 16.00 kWh/1000h |
| Type of protection                           | IP20            |
| Standards                                    | CE / CB         |
| Photobiological safety group acc. to EN62778 | RG0             |

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

## Country-specific categorizations

| Order reference | ST8E-1.2M 16W/8 |
|-----------------|-----------------|
|-----------------|-----------------|

#### LOGISTICAL DATA

| Temperature range at storage                         | -20+80 °C       |
|--|-----------------|
| 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)  | 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  | 0.00 W          |
| Networked standby power for CLS                      | 0.00 W          |
| Claim of equivalent power                            | Yes             |
| Length   | 1212.00 mm      |
| Height   | 25.6 mm         |
| Width  | 25.6 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                                  | >=0.7           |
| LED light source replaces a fluorescent light source | Yes             |
| EPREL ID   | 686635,2076147  |
| Model number   | AC32674,AC66702 |

## 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 | Document name       |
|-----|----------------------------|---------------------|
| PDF | Declarations of conformity | SubstiTUBE Entry EM |

| Photometric and lighting design files | Document name                               |
|---------------------------------------|---|
| 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                |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4058075817975 | Sleeve<br>1                  | 29 mm x 29 mm x 1,335 mm             | 209.00 g     | 1.12 dm <sup>3</sup>  |
| 4058075817982 | Shipping box<br>25           | 1,310 mm x 155 mm x 165 mm           | 6240.00 g    | 33.50 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/substitube

#### 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**

 $\hbox{Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.}$