## PRODUCT DATASHEET <br> ST8E-AC 16 W/6500 K 1200 mm

## SubstiTUBE ENTRY AC I LED tubes

## 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 | $220 \ldots 240 \mathrm{~V}$ |
| Type of current | AC |
| Operating frequency | $50 \ldots 60 \mathrm{~Hz}$ |
| Mains frequency | $50 \ldots 60 \mathrm{~Hz}$ |
| Power factor $\lambda$ | $>0.70$ |

Photometrical data

| Luminous flux | 1800 lm |
| :--- | :--- |
| Nominal useful luminous flux $90^{\circ}$ | 1800 lm |
| Luminous efficacy | $112 \mathrm{~lm} / \mathrm{W}$ |
| Lumen main.fact.at end of nom.life time | 0.70 |
| Light color (designation) | Cool Daylight |
| Color temperature | 6500 K |
| Color rendering index Ra | $\geq 80$ |
| Light color | 865 |
| Standard deviation of color matching | $\leq 6 \mathrm{sdcm}$ |
| Flickering metric (Pst LM) | 1 |
| Stroboscope effect metric (SVM) | 0.4 |



Light technical data

| Beam angle | $360^{\circ}$ |
| :--- | :--- |
| Warm-up time (60\%) | $<0.50 \mathrm{~s}$ |
| Starting time | $<0.5 \mathrm{~s}$ |

Dimensions \& Weight

| Overall length | 1212.00 mm |
| :--- | :--- |
| Length with base excl. base pins/connection | 1200 mm |
| Diameter | 25.6 mm |
| Base diameter | $25,5 \mathrm{~mm}$ |
| Maximum diameter | 27 mm |
| Product weight | 190.00 g |

Temperatures \& operating conditions
Ambient temperature range $-20 \ldots+45{ }^{\circ} \mathrm{C}$

Lifespan

| Lifespan L70/B50 at $25{ }^{\circ} \mathrm{C}$ | 30000 h |
| :--- | :--- |
| Number of switching cycles | 50000 |
| Lumen maintenance at end of service lifetime | 0.70 |
| Rated lamp survival factor at $6,000 \mathrm{~h}$ | $\geq 0.90$ |

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 | $16.00 \mathrm{kWh} / 1000 \mathrm{~h}$ |
| Type of protection | IP20 |
| Standards | CE / CB |
| Photobiological safety group acc. to EN62778 | RGO |

1) 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 | $-20 \ldots+80^{\circ} \mathrm{C}$ |
| :--- | :--- |

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) | No |
| Connected light source (CLS) | No |
| Color-tuneable light source | No |
| Envelope | No |
| High luminance light source | No |
| Anti-glare shield | SINGLE_VALUE |
| Correlated colour temperature type | 0.00 W |
| Standby power | 0.00 W |
| Networked standby power for CLS | Yes |
| Claim of equivalent power | 1212.00 mm |
| Length | 25.6 mm |
| Height | 25.6 mm |
| Width | 0.3123 |
| Chromaticity coordinate x | 0.3282 |
| Chromaticity coordinate y | $>=0.00$ |
| R9 Colour rendering index | SPHERE_360 |
| Beam angle correspondence | 0.9 |
| Survival factor | Yes |
| Displacement factor | 686642 |
| LED light source replaces a fluorescent light source |  |
| EPREL ID | AC32681 |
| Model number |  |
|  |  |

## 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.


## Documents and certificates

PDF Declarations Of Conformity CE

## Photometric and lighting design files



Spectral power distribution

## LOGISTICAL DATA

| Product code | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume |
| :--- | :--- | :--- | :--- | :---: |
| 4058075817876 | Sleeve <br> 1 | $29 \mathrm{~mm} \times 29 \mathrm{~mm} \times 1,335 \mathrm{~mm}$ | 209.00 g | $1.12 \mathrm{dm}^{3}$ |
| 4058075817883 | Shipping box <br> 25 | $1,270 \mathrm{~mm} \times 155 \mathrm{~mm} \times 165 \mathrm{~mm}$ | 6147.00 g | $32.48 \mathrm{dm}^{3}$ |

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/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

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

