# PRODUCT DATASHEET
# LED TUBE T5 HF HE28 1149 mm 16W 840

LED TUBE T5 HF | LED replacement for T5 FL G5 bases


## Areas of application

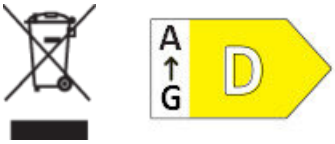
- General illumination within ambient temperatures from -20…+45 °C
- Offices, public buildings
- Supermarkets and department stores
- Industry

## Product benefits

- No bending thanks to glass technology
- Quick, simple and safe replacement without rewiring
- High luminous flux for sophisticated lighting tasks
- Also suitable for operation at low temperatures

## Product features

- Retrofit replacement of existing T5 lamps on HF ballast installations
- Lamp tube made of glass with splinter protection e.g. for food industry applications
- High color consistency: ≤ 5 sdcm
- Lifetime up to 30,000 h
- Low flicker according to EU 2019-2020 (SVM ≤ 0.4 / PstLM ≤ 1)
- Type of protection: IP20



– Compatible with many common electronic control gears (see also compatibility list)

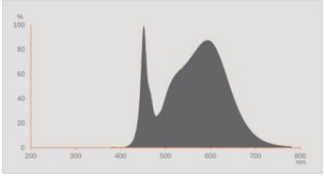
## TECHNICAL DATA

### Electrical data

| | |
|---|---|
| Nominal wattage | 16 W |
| Construction wattage | 16.00 W |
| Nominal voltage | 110…160 V |
| Operating mode | Electronic control gear (ECG) |
| Nominal current | 210 mA |
| Type of current | AC |
| Inrush current | 12 A |
| Operating frequency | 25…75 kHz |
| Mains frequency | 25…75 kHz |
| Max. lamp number on MCB B10 A | 17 |
| Max. lamp number on MCB B16 A | 28 |
| Total harmonic distortion | 15 % |
| Power factor λ | > 0.90 |

### Photometrical data

| | |
|---|---|
| Luminous flux | 2400 lm |
| Luminous efficacy | 150 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 | ≤5 sdcm |
| Rated LLMF at 6,000 h | 0.90 |
| 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 %) | ‹ 2.00 s |
| Starting time | < 0.5 s |

## Dimensions & Weight

| | |
|---|---|
| Overall length | 1163.00 mm |
| Length with base excl. base pins/connection | 1149.00 mm |
| Diameter | 18.50 mm |
| Tube diameter | 16 mm |
| Maximum diameter | 19 mm |
| Product weight | 147.00 g |

## Temperatures & operating conditions

| | |
|---|---|
| Ambient temperature range | -20…+45 °C [1)] |
| Maximum temperature at tc test point | 75 °C |
| Performance temp. acc. to IEC 62717 | 60 °C [2)] |

1) Temperature surrounding the lamp - for enclosed luminaires: temperature inside of the luminaire

2) Tp rated. Tp point coincides with Tc point - marked on device

## 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) | G5 |
| Mercury content | 0.0 mg |

| | |
|---|---|
| Mercury-free | Yes |
| Design / version | Frosted |

## Capabilities

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

## Certificates & Standards

| | |
|---|---|
| Energy efficiency class | D [1)] |
| Energy consumption | 16.00 kWh/1000h |
| Type of protection | IP20 |
| Standards | CE / UKCA / EAC |
| Photobiological safety group acc. to EN62778 | RG0 |

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

## Country-specific categorizations

| | |
|---|---|
| Order reference | LEDTUBE T5 HF H |

## 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 | NMLS |
| Light source cap-type (or other electric interface) | G5 |
| 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 | 1163.00 mm |
| Height | 18.50 mm |
| Width | 18.50 mm |

| | |
|---|---|
| Chromaticity coordinate x | 0.382 |
| Chromaticity coordinate y | 0.38 |
| R9 Colour rendering index | 1 |
| Beam angle correspondence | SPHERE_360 |
| Survival factor | 0.9 |
| Displacement factor | 0.9 |
| LED light source replaces a fluorescent light source | No |
| EPREL ID | 1407634,1317795 |
| Model number | AC44157,AC38762,AC38762 |

## Safety advice

- Operation in outdoor applications in suitable damp-proof luminaires possible according to data sheet and installation instruction.
- The operating temperature range of LED tube is restricted. In case of doubt regarding suitability of the application please measure Tc temperature on the product prior to installation.
- Not suitable for emergency lighting.

## DOWNLOAD DATA

| | Documents and certificates | Document name |
|---|---|---|
| PDF | User instruction / safety instructions | |
| PDF | Extended installation guide | Installation instructions LED TUBE T8, T5 und DULUX LED 2024 10 EN |
| PDF | Legal information | Informationstext 18 Abs 4 ElektroG |
| PDF | Declarations of conformity | LED TUBE T5 HF |
| PDF | Declarations of conformity UKCA | LED TUBE T5 HF |
| PDF | ECG compatibility list | LED TUBE T8 UNIVERSAL T8 HF T5 HF Gen 11 ballast compatibility 2023 |
| PDF | ECG compatibility list | Ballast compatibility LEDVANCE LED TUBE T5 HF_T8 HF_T8 UNIVERSAL 2025 |

| | Photometric and lighting design files | Document name |
|---|---|---|
| IES | IES file (IES) | LEDTUBE T5 HF HE28 1149 16W 840 OSRAM |

| | Photometric and lighting design files | Document name |
|---|---|---|
| | LDT file (Eulumdat) | LEDTUBE T5 HF HE28 1149 16W 840 OSRAM |
| | UGR file (UGR table) | LEDTUBE T5 HF HE28 1149 16W 840 OSRAM |
| | Light distribution curve type polar | LEDTUBE T5 HF HE28 1149 16W 840 OSRAM |
| | 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 |
|---|---|---|---|---|
| 4058075823839 | Sleeve<br>1 | 1,210 mm x 23 mm x 47 mm | 193.00 g | 1.31 $dm^3$ |
| 4058075823846 | Shipping box<br>10 | 1,233 mm x 232 mm x 46 mm | 2353.00 g | 13.16 $dm^3$ |

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

## Legal advice

– When used to replace a T5 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.