

# PRODUCT DATASHEET

## LED TUBE T5 EXTERNAL HE21 849 mm

### 10.5W 840

LED TUBE T5 EXTERNAL | LED TUBE T5 EXTERNAL for LED DRIVER EXTERNAL



#### Areas of application

- Industrial lighting (e.g. manufacturing plants, logistic centers, warehouses)
- Linear lighting for office, education, storage areas and retail
- Shops, supermarkets

#### Product benefits

- Simple upgrade to dimmable LED system
- Shatter protection thanks to special PET coating
- No bending thanks to glass tube
- 5 years guarantee

#### Product features

- Designed to power only with LED DRIVER LED TUBE EXTERNAL DALI
- Lamp tube made of glass with splinter protection
- Quality dimming of 1...100 %
- High resistance to switching loads
- Suitable for ambient temperatures from -20...+50 °C



TECHNICAL DATA

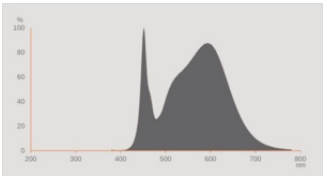
Electrical data

|                           |                   |
|---------------------------|-------------------|
| Nominal wattage           | 10.5 W            |
| Nominal voltage           | 21 V              |
| Operating mode            | EXT <sup>1)</sup> |
| Nominal current           | 500 mA            |
| Type of current           | DC                |
| Operating frequency       | 0 Hz              |
| Mains frequency           | 0 Hz              |
| Total harmonic distortion | < 20 %            |
| Power factor $\lambda$    | 0.90              |

1) Designed to power with LEDVANCE LED DRIVER LED TUBE EXTERNAL DALI P

Photometrical data

|                                         |                     |
|-----------------------------------------|---------------------|
| Luminous flux                           | 1600 lm             |
| Luminous efficacy                       | 152 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 sdc <sub>m</sub> |
| Rated LLMF at 6,000 h                   | 0.80                |
| Flickering metric (Pst LM)              | <1                  |
| Stroboscope effect metric (SVM)         | <0,4                |



EPREL data spectral diagram PROF  
LEDr 4000K

Light technical data

|                     |          |
|---------------------|----------|
| Beam angle          | 180 °    |
| Warm-up time (60 %) | < 2.00 s |
| Starting time       | < 1.0 s  |

Dimensions & Weight



|                                             |           |
|---------------------------------------------|-----------|
| Overall length                              | 863.00 mm |
| Length with base excl. base pins/connection | 849.00 mm |
| Diameter                                    | 17.00 mm  |
| Product weight                              | 180.00 g  |

Temperatures & operating conditions

|                                      |                 |
|--------------------------------------|-----------------|
| Ambient temperature range            | -20...+50 °C 1) |
| Maximum temperature at tc test point | 70 °C           |

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

Lifespan

|                                              |         |
|----------------------------------------------|---------|
| Lifespan L70/B50 at 25 °C                    | 75000 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                                                                                                                                                                                |
| Product remark              | Single sided LED TUBE (one-sided DC input ) complying with safety requirement acc. IEC 62776:2014. Safety protection against electrical shock in misuse (ECG/CCG/Mains operation). |

Capabilities

|          |     |
|----------|-----|
| Dimmable | Yes |
|----------|-----|

Certificates & Standards

|                                              |                 |
|----------------------------------------------|-----------------|
| Energy efficiency class                      | D <sup>1)</sup> |
| Energy consumption                           | 11.00 kWh/1000h |
| Type of protection                           | IP20            |
| Standards                                    | CE / UKCA       |
| 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 EXT |
|-----------------|----------------|

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          |
| Claim of equivalent power                           | No           |
| Length                                              | 863.00 mm    |
| Height                                              | 17.00 mm     |
| Width                                               | 17.00 mm     |
| Chromaticity coordinate x                           | 0,381        |
| Chromaticity coordinate y                           | 0,379        |
| R9 Colour rendering index                           | 1            |
| Beam angle correspondence                           | SPHERE_360   |
| Survival factor                                     | 0,90         |
| Displacement factor                                 | 0,90         |

|                                                      |                 |
|------------------------------------------------------|-----------------|
| LED light source replaces a fluorescent light source | No              |
| EPREL ID                                             | 1939320         |
| Model number                                         | AC59114,AC59114 |

### Accessories Mandatory

| Product image                                                                     | Product name                       | EAN           |
|-----------------------------------------------------------------------------------|------------------------------------|---------------|
|  | DR EXTERNAL DALI -1X15-37W 220-240 | 4058075730632 |
|  | DR EXTERNAL DALI -1X7-37W 220-240  | 4099854295157 |
|  | DR EXTERNAL DALI -2X7-26W 220-240  | 4099854295171 |

### 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 T<sub>c</sub> temperature on the product prior to installation.
- LED TUBE T5 EXTERNAL HO80 cannot be operated with 2-channel driver.
- All electrical connections must be made by a qualified person.
- Disconnect mains before installation.

### DOWNLOAD DATA

|                                                                                    | Documents and certificates             | Document name                           |
|------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------|
|  | User instruction / safety instructions | LEDTUBE EXT P User instruction LEDV     |
|  | Extended installation guide            | LEDVANCE Luminaire conversion checklist |
|  | Legal information                      | Informationstext 18 Abs 4 ElektroG      |
|  | Declarations of conformity             | LEDTUBE T5-T8 EXT                       |
|  | Declarations of conformity UKCA        | LEDTUBE T5_T8 EXT                       |

| Photometric and lighting design files                                            |                                     | Document name                               |
|----------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------|
|  | IES file (IES)                      | LEDTUBE T5 EXT HE21 P 849 10.5W 840 LEDV    |
|  | LDT file (Eulumdat)                 | LEDTUBE T5 EXT HE21 P 849 10.5W 840 LEDV    |
|  | UGR file (UGR table)                | LEDTUBE T5 EXT HE21 P 849 10.5W 840 LEDV    |
|  | Light distribution curve type polar | LEDTUBE T5 EXT HE21 P 849 10.5W 840 LEDV    |
|  | Spectral power distribution         | EPREL data spectral diagram PROF LEDr 4000K |
| Tender texts                                                                     |                                     | Document name                               |
|  | Tender documents                    | LED TUBE T5 EXTERNAL P 849 mm 10.5W 840-EN  |

## LOGISTICAL DATA

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume                |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4099854294181 | Sleeve<br>1                  | 849 mm x 22 mm x 22 mm               | 205.00 g     | 0.41 dm <sup>3</sup>  |
| 4099854294198 | Shipping box<br>25           | 904 mm x 159 mm x 178 mm             | 6433.00 g    | 25.59 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/ledtube](http://www.ledvance.com/ledtube)

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