

# PRODUCT DATASHEET

## LS PFM -300/827/5/IP66

LED STRIP PERFORMANCE-300 PROTECTED | High performance IP66 protected LED strips with 300 lm/m for high requirements



### Areas of application

- General indoor illumination
- General outdoor illumination
- Industry
- Offices, retail outlets and conference rooms
- Architecture lighting
- Decorative illumination

### Product benefits

- Great scope of design options due to long and flexible LED strips
- Easy installation, no tools required for connection
- Easy mounting on many smooth surfaces thanks to self-adhesive tape
- Suitable for use in damp conditions thanks to high type of protection
- Maximum flexibility due to large range of accessories
- Simple connection thanks to integrated cables on both sides

### Product features

- Flexible and cuttable LED strip
- Smallest cuttable unit: 100 mm
- Lifetime (L70/B50): up to 35,000 h at Tc max.: 75°C
- Luminous flux: 300 lm/m
- Color rendering index  $R_a$ : > 80
- Initial color consistency:  $\leq 4$  SDCM



- Large range of color temperatures: from warm white to cool daylight
- Type of protection: IP66
- Dimmable with suitable drivers, see also [www.ledvance.com/dim](http://www.ledvance.com/dim)
- UV resistance (acc. IEC 60068-2-5)
- Salt mist resistance (acc. IEC 60068-2-52)

## TECHNICAL DATA

### Electrical data

|                           |                         |
|---------------------------|-------------------------|
| Nominal wattage           | 13.50 W                 |
| Construction wattage      | 13.50 W                 |
| Nominal wattage per meter | 2.7 W                   |
| Nominal voltage           | 24 V <sup>1)</sup>      |
| Input voltage range       | 23...25 V <sup>1)</sup> |
| Reverse Voltage           | 25 V <sup>1)</sup>      |
| Type of current           | DC                      |
| Nominal current           | 562.000 mA              |

<sup>1)</sup> V<sub>DC</sub>

### Photometrical data

|                                      |                     |
|--------------------------------------|---------------------|
| Luminous efficacy                    | 111.1 lm/W          |
| Luminous flux                        | 1500 lm             |
| Luminous flux per meter              | 300 lm              |
| Luminous flux per module chain       | 1500 lm             |
| Color temperature                    | 2700 K              |
| Color rendering index Ra             | > 80                |
| Light color LED                      | Warm white          |
| Light color (designation)            | Warm White          |
| Standard deviation of color matching | ≤4 sdc <sub>m</sub> |

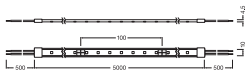
### Light technical data

|                                    |          |
|------------------------------------|----------|
| Beam angle                         | 105 °    |
| Rated beam angle (half peak value) | 105.00 ° |

### LED MODULE INFORMATION

|                                  |     |
|----------------------------------|-----|
| Number of LEDs per meter         | 70  |
| Number of LEDs per module        | 350 |
| Number of LEDs per smallest unit | 7   |

### Dimensions & Weight



|                         |                     |
|-------------------------|---------------------|
| Length                  | 5000.00 mm          |
| Length – smallest unit  | 100 mm              |
| Cable length            | 500.000             |
| Width                   | 10.00 mm            |
| Height                  | 4.50 mm             |
| Prewired                | Yes                 |
| Conductor cross section | 0.5 mm <sup>2</sup> |
| LED pitch               | 14.3 mm             |
| Short pitch             | No                  |
| Product weight          | 285.00 g            |

Colors & materials

|                |          |
|----------------|----------|
| Cover material | Silicone |
|----------------|----------|

Temperatures & operating conditions

|                                      |                            |
|--------------------------------------|----------------------------|
| Ambient temperature range            | -15...+45 °C <sup>1)</sup> |
| Maximum temperature at tc test point | 75 °C <sup>2)</sup>        |
| Temperature range in operation       | -15...+75 °C <sup>3)</sup> |

- 1) Providing that temperature at T<sub>c</sub> point is below max value during operation
- 2) Exceeding the maximum specified ratings can reduce expected life time or destroy the LED strip
- 3) At the T<sub>c</sub> point

Lifespan

|                            |         |
|----------------------------|---------|
| Nominal lamp life time     | 35000 h |
| Number of switching cycles | 100000  |

Capabilities

|                             |                                  |
|-----------------------------|----------------------------------|
| Dimmable                    | Yes <sup>1)</sup>                |
| Lowest bending radius       | 25 mm                            |
| Self-adhesive               | Yes                              |
| Reverse polarity protection | Up to maximum 25 V <sub>DC</sub> |

1) Dimmable with suitable drivers, see also [www.ledvance.com/dim](http://www.ledvance.com/dim)

## Certificates & Standards

|                                          |                                                                                                                     |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Approval marks – approval                | TUV / RoHS / CE / REACH                                                                                             |
| Standards                                | Acc. to IEC 62471 / Acc. to IEC 60598-1 / Acc. to EN 60529 / Acc. to EN 62031 / Acc. to EN 55015 / Acc. to EN 61547 |
| Type of protection                       | IP66                                                                                                                |
| Energy consumption                       | 14.85 kWh/1000h                                                                                                     |
| Energy efficiency class                  | A+                                                                                                                  |
| Salt mist resistance acc. IEC 60068-2-52 | Yes                                                                                                                 |
| UV resistance acc. IEC 60068-2-5         | Yes                                                                                                                 |

## LOGISTICAL DATA

|                              |              |
|------------------------------|--------------|
| Temperature range at storage | -35...+85 °C |
|------------------------------|--------------|

## EQUIPMENT / ACCESSORIES

- Connectors, profiles and covers for several mounting options available
- Endcaps have to be ordered separately

## ADDITIONAL PRODUCT INFORMATION

- All the technical parameters apply to the entire LED module. In view of the complex manufacturing process for light emitting diodes, the typical values given above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technical parameters of an individual product; individual products may vary from the typical values.
- All LED strips have a self-adhesive tape on the reverse side. LED strips can be attached to suitable materials, e.g. aluminum profiles. The surface of the material must be free of grease, oil, silicone and dirt particles. The adhesive tape can be used only one time, if the LED strip will be removed from the mounting surface, there could be a damage of the LED strips and the mounting material. The surface temperature of the mounting material should be in the temperature range of 18°C...35°C. Complete adhesion takes up to 72 h.
- According IPC 6013C – Use A the LED strips are designed for static installation. Vibrations, respective torsion and elongation/compression must be considered.
- In a wide temperature range operation field (e.g. outdoor installation) and a LED strip length with more than 2m suitable mounting surface is required. To avoid stress due to mismatch in expansion of the different materials, there should be an extra thicker adhesive tape between LED strip and mounting surface. Additionally, the LED strip should have enough space for thermal expansion at higher temperatures.
- Compensation due to chemical corrosion is excluded. A suitable protection against corrosive agents such as moisture, condensation etc. must be provided. Hydrogen sulfide (H<sub>2</sub>S) will cause an accelerated corrosion which leads to shortened lifetime or premature failure.
- IP00 LED strips have not surface coating. Consequently, they have no protection against contact and corrosion.
- Installation of the LED strip has to be done by a qualified electrician.
- Handle with care to avoid mechanical product damage
- If the maximum operating and storage temperature ratings will be exceeded, the expected lifetime will be reduced or even the LED strip will be destroyed. It is not allowed to operate the LED strip over the specified T<sub>c</sub> temperature (acc. EN 60598-1 under steady state conditions)
- It is not allowed to exceed the maximum operation voltage. This could cause a hazardous overload and will destroy the LED strip.
- The applicable electrical and safety standards have to be maintained for a LED strip installations
- Pay attention on correct polarity. Incorrect polarity or wrong wiring can cause unpredictable permanent damage or even failure of the product.
- Galvanic Insulation between LED strip and mounting surface must be ensured. This Insulation is needed especially in the area of connections or cut ends.
- In installations of LED strips ESD safety must be taken in account. Adequate precautions during installation and operation for the products are

required.

- LED strip can be operated only by a SELV LED driver, which comply with the applicable lighting standards and fits to LED strips rating. A safety operation of the LED strips require a SELV LED driver with an electronically stabilized power supply protection against short circuits, overload and overheating.
- To avoid a damage of the LED strip, the unmounted LED strip should be handled and stored only in the original LEDVANCE packaging (wheel / ESD bag). Repacking is not allowed. Cutted IP 6x LED strips can be stored only with mounted endcaps.

## DOWNLOAD DATA

| Documents and certificates                                                         |                                  |
|------------------------------------------------------------------------------------|----------------------------------|
|    | User instruction                 |
|    | Declarations Of Conformity CE    |
| Photometric and lighting design files                                              |                                  |
|    | IES file (IES)                   |
|    | IES files (IES, additional)      |
|  | LDT file (Eulumdat)              |
|  | LDT files (Eulumdat, additional) |

## LOGISTICAL DATA

| Product code  | Packaging unit (Pieces/Unit) | Dimensions (length x width x height) | Gross weight | Volume                |
|---------------|------------------------------|--------------------------------------|--------------|-----------------------|
| 4058075236622 | Folding box<br>1             | 262 mm x 262 mm x 30 mm              | 525.00 g     | 2.06 dm <sup>3</sup>  |
| 4058075236639 | Shipping box<br>10           | 300 mm x 280 mm x 285 mm             | 5721.00 g    | 23.94 dm <sup>3</sup> |
| 4058075253551 | Shipping box<br>20           | 585 mm x 320 mm x 310 mm             | 13100.00 g   | 58.03 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.

## DISCLAIMER

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