

# PRODUCTINFORMATIEBLAD

## LS PFM -2000/865/5/IP66

LED STRIP PERFORMANCE-2000 PROTECTED | Hoogwaardige IP66 LED strips met 2000 lm/m voor veeleisende toepassingen



### Toepassingsgebieden

- Algemene binnenverlichting
- Algemene buitenverlichting
- Industrie
- Kantoren, winkels en vergaderruimten
- Architecturale verlichting

### Productvoordelen

- Vele ontwerpmogelijkheden dankzij lange en flexibele LED strips
- Eenvoudige installatie, geen gereedschap vereist voor aansluiting
- Eenvoudige montage op vele gladde oppervlakken dankzij zelfklevende tape
- Geschikt voor gebruik in vochtige omstandigheden dankzij hoge bescherming
- Maximale flexibiliteit dankzij het grote aanbod van accessoires
- Eenvoudige aansluiting dankzij geïntegreerde kabels aan beide zijden

### Productkenmerken

- Flexibele en afsnijdbare LED-strip
- Kleinste deelbare eenheid: 100 mm
- Levensduur (L70/B50): tot 35.000 uur bij Tc max.: 75°C
- Lichtstroom: 2000 lm/m
- Kleurweergave-index  $R_a$ : 80
- Kleurconsistentie begin:  $\leq 4$  SDCM



- Groot aanbod van kleurtemperaturen: van warm wit tot koel daglicht
- IP-code: IP66
- Dimbaar met geschikte stuurprogramma's, zie ook [www.benelux.ledvance.com/dim](http://www.benelux.ledvance.com/dim)
- UV-bestendigheid (acc. IEC 60068-2-5)
- Zoutnevelbestendigheid (acc. 60068-2-52)

TECHNISCHE GEGEVENS

ELEKTRISCHE GEGEVENS

|                            |                         |
|----------------------------|-------------------------|
| Nominale vermogen          | 72,00 W                 |
| Nominaal vermogen          | 72.00 W                 |
| Nominaal wattage per meter | 14,4 W                  |
| Nominale spanning          | 24 V <sup>1)</sup>      |
| Ingangsspanning            | 23...25 V <sup>1)</sup> |
| Omgekeerde spanning        | 25 V <sup>1)</sup>      |
| Type stroom                | DC                      |
| Nominale stroom            | 3000,000 mA             |

1) V<sub>DC</sub>

Fotometrische gegevens

|                                     |                     |
|-------------------------------------|---------------------|
| Lichtstroom efficiëntie             | 131,9 lm/W          |
| Lichtstroom                         | 9500 lm             |
| Lichtstroom per meter               | 1900 lm             |
| Lichtstroom per moduleketting       | 9500 lm             |
| Kleurtemperatuur                    | 6500 K              |
| Kleurweergave-index Ra              | > 80                |
| Lichtkleur LED                      | daglicht            |
| Lichtkleur                          | Koel daglicht       |
| Standaardafwijking van kleurproeven | ≤4 sdc <sub>m</sub> |

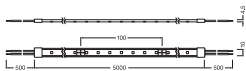
Lichttechnische gegevens

|                                  |          |
|----------------------------------|----------|
| Stralingshoek                    | 105 °    |
| Nominale uitstr hoek (halfwaarde | 105.00 ° |

Informatie over LED-modules

|                                  |     |
|----------------------------------|-----|
| Aantal LED's per meter           | 70  |
| Aantal LEDs per module           | 350 |
| Aantal LEDs per kleinste eenheid | 7   |

AFMETINGEN & GEWICHT



|                                 |                     |
|---------------------------------|---------------------|
| Lengte                          | 5000,00 mm          |
| Lengte – kleinste eenheid       | 100 mm              |
| Kabellengte                     | 500.000             |
| Breedte                         | 10,00 mm            |
| Breedte (incl. ronde armaturen) | 10.00 mm            |
| Hoogte                          | 4,50 mm             |
| Hoogte (incl. cylin. armaturen) | 4.50 mm             |
| Voorbedraad                     | Ja                  |
| Dwarsdoorsnede conductor        | 0.5 mm <sup>2</sup> |
| LED pitch                       | 14,3 mm             |
| Short pitch                     | Nee                 |
| Product gewicht                 | 285,00 g            |

KLEUREN & MATERIALEN

|                     |           |
|---------------------|-----------|
| Materiaal afdekking | Siliconen |
|---------------------|-----------|

TEMPERATUREN & BEDRIJFSOMSTANDIGHEDEN

|                                   |                            |
|-----------------------------------|----------------------------|
| Omgevingstemperatuur bereik       | -15...+45 °C <sup>1)</sup> |
| Maximumtemperatuur op Tc-testpunt | 75 °C <sup>2)</sup>        |
| Temperatuursbereik op punt Tc     | -15...+75 °C <sup>3)</sup> |

- 1) Als die temperatuur op het Tc-punt ligt, is deze tijdens bedrijf onder de maximale waarde
- 2) Overschrijding van de maximum waarden kan de verwachte levensduur verkorten of de LED strip vernietigen
- 3) Op het punt T<sub>c</sub>

Levensduur

|                          |         |
|--------------------------|---------|
| Nominale levensduur lamp | 35000 h |
| Aantal schakelcycli      | 100,000 |

MOGELIJKHEDEN

|                    |                  |
|--------------------|------------------|
| Dimbaar            | Ja <sup>1)</sup> |
| Laagste buigradius | 25 mm            |

|                                       |                                 |
|---------------------------------------|---------------------------------|
| Zelfklevend                           | Ja                              |
| Reverse polarity protection [PIM] REM | Tot maximaal 25 V <sub>DC</sub> |

1) Dimbaar met geschikte drivers, zie ook [www.benelux.ledvance.com/dim](http://www.benelux.ledvance.com/dim)

CERTIFICATEN & NORMEN

|                                        |                                                                                                                     |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Keurmerken                             | TUV / RoHS / CE / REACH                                                                                             |
| Normen                                 | Volgens IEC 62471 / Volgens IEC 60598-1 / Volgens EN 60529 / Volgens EN 62031 / Volgens EN 55015 / Volgens EN 61547 |
| Type bescherming                       | IP66                                                                                                                |
| Energieverbruik                        | 79.20 kWh/1000h                                                                                                     |
| Energie-efficiëntieklasse              | A+                                                                                                                  |
| Zoutnevelbestendigheid: IEC 60068-2-52 | Ja                                                                                                                  |
| UV-bestendigheid volgens IEC 60068 2 5 | Ja                                                                                                                  |

LOGISTIEKE GEGEVENS

|                   |              |
|-------------------|--------------|
| Opslagtemperatuur | -35...+85 °C |
|-------------------|--------------|

NOODZAKELIJKE ACCESSOIRES

| Product afbeelding                                                                  | Naam product                 | EAN           |
|-------------------------------------------------------------------------------------|------------------------------|---------------|
|  | DR-PFM -100/220-240/24/P     | 4058075239937 |
|  | DR-VAL -150/220-240/24       | 4058075240179 |
|  | DR DIM-PFM -100/220-240/24/P | 4058075240070 |
|  | DR-PFM -150/220-240/24/P     | 4058075239975 |
|  | DR DIM-PFM -250/220-240/24/P | 4058075240155 |

| Product afbeelding                                                                | Naam product                 | EAN           |
|-----------------------------------------------------------------------------------|------------------------------|---------------|
|  | DR DIM-PFM -150/220-240/24/P | 4058075240117 |
|  | DR-PFM -250/220-240/24/P     | 4058075240032 |
|  | DR-VAL -120/220-240/24       | 4058075240131 |

OPTIONELE ACCESSOIRES

| Product afbeelding                                                                 | Naam product                | EAN           |
|------------------------------------------------------------------------------------|-----------------------------|---------------|
|    | LS AY -PM06/E/18X18/12/2    | 4058075401808 |
|  | LS AY -PW03/U/26X26/14/2    | 4058075401501 |
|  | LS AY -PW02/UW/39X26/14/2   | 4058075401471 |
|  | LS AY PFM -CP/P2/500/P      | 4058075272958 |
|  | LS AY PFM -CSW/P2/50/P      | 4058075273245 |
|  | LS AY PFM -CSD/P2/P         | 4058075275485 |
|  | LS AY -PM04/UW/23X15,5/10/1 | 4058075278400 |

| Product afbeelding                                                                 | Naam product                 | EAN           |
|------------------------------------------------------------------------------------|------------------------------|---------------|
|    | LS AY PFM -10/SE/P SIL-SEAL  | 4058075275744 |
|    | LS AY -PM05/U/17,5X14,5/10/1 | 4058075279278 |
|    | LS AY -PW03/U/26X26/14/1     | 4058075278165 |
|    | LS AY PFM -10/SMB            | 4058075275676 |
|    | LS AY -PM04/UW/23X15,5/10/2  | 4058075401747 |
|  | LS AY -PM05/U/17,5X14,5/10/2 | 4058075401778 |
|  | LS AY -PM06/E/18X18/12/1     | 4058075279308 |
|  | LS AY -PW01/U/26X8/14/2      | 4058075401440 |
|  | LS AY -PW01/U/26X8/14/1      | 4058075278103 |
|  | LS AY -PW02/UW/39X26/14/1    | 4058075278134 |

Technische uitrusting

– Verbindingstukken, profielen en afdekkingen voor verschillende montageopties zijn beschikbaar

- Eindkappen dienen separaat te worden besteld

## AANVULLENDE PRODUCTINFORMATIE

- 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.

## DOWNLOADS

| Documenten en certificaten                                                         |                               | Naam document                               |
|------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------|
|  | User instruction              | LED STRIP PERFORMANCE IP66                  |
|  | Declarations Of Conformity CE | EU Declaration of conformity 3563397 LS PFM |
| Fotometrische- en lichtontwerpbestanden                                            |                               | Naam document                               |
|  | IES file (IES)                | LS PFM-2000-865-5-IP66                      |



| Fotometrische- en lichtontwerpbestanden                                           |                                  | Naam document               |
|-----------------------------------------------------------------------------------|----------------------------------|-----------------------------|
|  | IES files (IES, additional)      | LS PFM-2000-865-5-IP66-0.1M |
|  | LDT file (Eulumdat)              | LS PFM-2000-865-5-IP66      |
|  | LDT files (Eulumdat, additional) | LS PFM-2000-865-5-IP66-0.1M |

LOGISTIEKE GEGEVENS

| Productcode   | Verpakkingseenheid (stuks per verpakking) | Afmetingen (lengte x breedte x hoogte) | Brutogewicht | Volume                |
|---------------|-------------------------------------------|----------------------------------------|--------------|-----------------------|
| 4058075236608 | Vouwdoos<br>1                             | 262 mm x 262 mm x 30 mm                | 525.00 g     | 2.06 dm <sup>3</sup>  |
| 4058075236615 | Verzenddoos<br>10                         | 300 mm x 280 mm x 285 mm               | 5721.00 g    | 23.94 dm <sup>3</sup> |
| 4058075253797 | Verzenddoos<br>20                         | 585 mm x 320 mm x 310 mm               | 13100.00 g   | 58.03 dm <sup>3</sup> |

De genoemde productcodes beschrijven de kleinste hoeveelheid die besteld kan worden. Eén verzendeenheid kan bestaan uit één of meer afzonderlijke producten. Bij het plaatsen van een order enkele of veelvouden van de verpakkingseenheid invoeren.

DISCLAIMER

Onder voorbehoud van verandering zonder kennisgeving. Fouten en drukfouten voorbehouden. Zorg ervoor dat u de meest recente versie gebruikt.