

# PRODUCT DATASHEET

## LS PFM -2000/840/5/IP66

LED STRIP PERFORMANCE-2000 PROTECTED | High performance IP66 protected LED strips with 2000 lm/m for high requirements



### Areas of application

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

### 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: 2000 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	72.00 W
Construction wattage	72.00 W
Nominal wattage per meter	14.4 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	3000.000 mA

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

### Photometrical data

Luminous efficacy	131.9 lm/W
Luminous flux	9500 lm
Luminous flux per meter	1900 lm
Luminous flux per module chain	9500 lm
Color temperature	4000 K
Color rendering index Ra	> 80
Light color LED	Cool white
Light color (designation)	Cool White
Standard deviation of color matching	≤4 sdc <sub>m</sub>

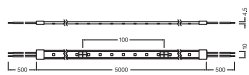
### Light technical data

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 mm²
LED pitch	14.3 mm
Short pitch	No
Product weight	285.00 g

Colors & materials

Cover material	Silicone
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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 Tc 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	100,000

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	79.20 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
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### Accessories Mandatory

Product image	Product name	EAN
	DR DIM-PFM -100/220-240/24/P	4058075240070
	DR-PFM -100/220-240/24/P	4058075239937
	DR-VAL -120/220-240/24	4058075240131
	DR-PFM -250/220-240/24/P	4058075240032
	DR-VAL -150/220-240/24	4058075240179
	DR DIM-PFM -250/220-240/24/P	4058075240155

Product image	Product name	EAN
	DR-PFM -150/220-240/24/P	4058075239975
	DR DIM-PFM -150/220-240/24/P	4058075240117

### Accessories Optional

Product image	Product name	EAN
	LS AY PFM -CP/P2/500/P	4058075272958
	LS AY -PM04/UW/23X15,5/10/1	4058075278400
	LS AY -PM05/U/17,5X14,5/10/2	4058075401778
	LS AY -PM06/E/18X18/12/2	4058075401808
	LS AY -PW02/UW/39X26/14/1	4058075278134
	LS AY -PW01/U/26X8/14/1	4058075278103
	LS AY -PM05/U/17,5X14,5/10/1	4058075279278
	LS AY PFM -10/SE/P SIL-SEAL	4058075275744

Product image	Product name	EAN
	LS AY -PW03/U/26X26/14/1	4058075278165
	LS AY -PM06/E/18X18/12/1	4058075279308
	LS AY PFM -10/SMB	4058075275676
	LS AY -PW03/U/26X26/14/2	4058075401501
	LS AY -PM04/UW/23X15,5/10/2	4058075401747
	LS AY PFM -CSD/P2/P	4058075275485
	LS AY -PW01/U/26X8/14/2	4058075401440
	LS AY PFM -CSW/P2/50/P	4058075273245
	LS AY -PW02/UW/39X26/14/2	4058075401471






## 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		Document name
	User instruction / safety instructions	LED STRIP PERFORMANCE IP66
	Declarations of conformity	EU Declaration of conformity 3563397 LS PFM
Photometric and lighting design files		Document name
	IES file (IES)	LS PFM-2000-840-5-IP66
	IES files (IES, additional)	LS PFM-2000-840-5-IP66-0.1M
	LDT file (Eulumdat)	LS PFM-2000-840-5-IP66



Photometric and lighting design files		Document name
	LDT files (Eulumdat, additional)	LS PFM-2000-840-5-IP66-0.1M

## LOGISTICAL DATA

Product code	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Gross weight	Volume
4058075236561	Folding box 1	262 mm x 262 mm x 30 mm	525.00 g	2.06 dm <sup>3</sup>
4058075236578	Shipping box 10	300 mm x 280 mm x 285 mm	5721.00 g	23.94 dm <sup>3</sup>
4058075253780	Shipping box 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.