

Datasheet

LuxaLight LED-strip Red Indoor (24 Volt, 140 LEDs, 2835, IP20)

LS24R140X2835ILX

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Product description

The **LuxaLight Professional LED Strip** is designed for lighting purposes where bright red lighting is required. The strip produces light with a wavelength of 625 nm, resulting in a powerful red glow that gives the space a robust and functional appearance. This professional LED strip is equipped with a **silicone sleeve**, making it suitable for use in indoor environments.

With a **light intensity of 284.4 $\mu\text{mol}/\text{m}^2$ at 5 cm distance**, this LED strip is perfect for **horticulture** (plant cultivation). The red light promotes photosynthesis and is ideal for use in greenhouses, vertical gardens, and other cultivation environments where plants require specific light wavelengths for optimal growth.

Key Features:

- **Red Lighting (625 nm):** The strip delivers a powerful red glow with a wavelength of 625 nm, ideal for industrial and horticultural applications that require specific light wavelengths.
- **Light Intensity of 284.4 $\mu\text{mol}/\text{m}^2$ at 5 cm distance:** This light intensity makes the LED strip ideal for promoting photosynthesis in plants, making it perfect for horticultural and cultivation environments.
- **140 2835 LEDs per Meter:** The strip contains 140 2835 LEDs per meter, ensuring high light density and even light distribution across the surface.
- **24V Connection:** The LED strip operates on a standard 24V power supply for stable and reliable performance.
- **Flexible Design:** The flexible design makes the LED strip suitable for installation in various configurations, such as profiles, fixtures, or as a direct lighting source for custom systems.
- **PCB Thickness:** The PCB has a thickness of 3 oz/ft², providing robust support and efficient heat dissipation, extending the lifespan of the LED strip and maintaining consistent performance.
- **Passive Cooling Required:** As the LED strip requires passive cooling, it should be integrated into a suitable system that efficiently dissipates heat to ensure optimal performance and longer lifespan.
- **3M 4905 VHB Tape:** The LED strip is equipped with 3M 4905 VHB tape, ensuring strong and durable adhesion to various surfaces. This makes it easy to install in various applications.

Applications:

- **Horticulture (Plant Cultivation):** The LED strip with a light intensity of 284.4 $\mu\text{mol}/\text{m}^2$ at 5 cm distance is ideal for promoting photosynthesis in plants. It is suitable for use in greenhouses, vertical gardens, and other cultivation environments where plants benefit from specific light wavelengths for optimal growth.
- **Industrial Lighting:** The LED strip is perfect for industrial applications where a robust, flexible, and reliable light source is required. It can be used in workshops, warehouses, factories, or production environments that need to withstand harsh conditions such as dust, but no exposure to water.
- **Outdoor Applications (only under dry conditions):** The strip is suitable for use in outdoor environments where there is no direct exposure to water, such as under canopies or in dry industrial environments.

Benefits:

- **Excellent Color Rendering:** The bright red lighting provides accurate color rendering, making it ideal for applications where color perception is crucial.
- **Efficient for Photosynthesis:** The LED strip promotes photosynthesis in plants, making it essential for horticultural applications such as greenhouses and cultivation environments.
- **Flexible and Customizable:** Thanks to its flexible design, the strip can easily be integrated into various industrial lighting systems or cultivation systems.
- **Even Light Distribution:** With 140 2835 LEDs per meter, the strip offers consistent and even light distribution, ensuring pleasant and efficient illumination without harsh shadows.
- **Reliable Performance:** The LED strip operates on a standard 24V power supply, providing efficient, stable performance, making it an ideal choice for long-term use in industrial and commercial environments.
- **Durable and Energy-efficient:** The LED technology is energy-efficient, making the strip cost-effective and contributing to a more sustainable lighting solution.
- **Strong Adhesion:** The 3M 4905 VHB tape offers reliable adhesion for easy and durable installation on various surfaces.

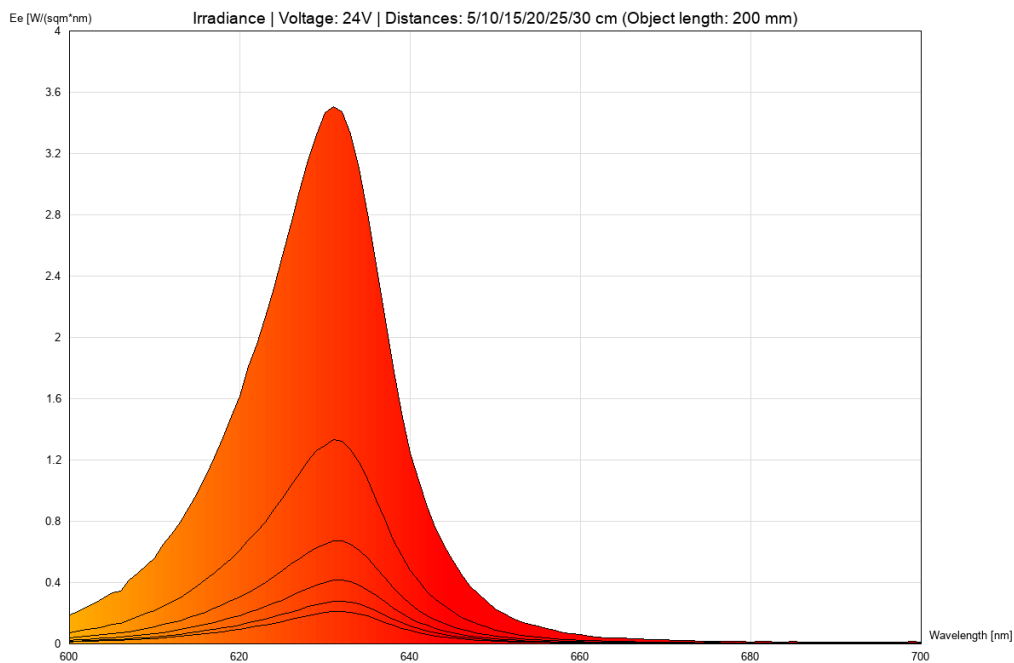
Technical specifications

General	
Brand	LuxaLight
LEDs / meter	140
LED type	2835
Length per reel	10 m
Length per segment	50 mm
LED strip width	10.00 mm
LED strip thickness	3.00 mm
PCB color	White
Warranty	5 years
Lifetime	70000 hours
Lighting	
Luminous Flux	593 lm
Wave length	620~630
BIN	3 SDCM
Beam angle	120 °
LB waarde	L80B10
Measurement results	
Illuminance (Lux) (Object length: 200 mm)	24V
	5cm 15580 lx
	10cm 5883 lx
	15cm 2970 lx
	20cm 1807 lx
	25cm 1211 lx
	30cm 912.4 lx
Total PPFD umol/m2 (PAR 400-700nm) (Object length: 200 mm)	24V
	5cm 397.303 umol/m2
	10cm 150.256 umol/m2
	15cm 76.4999 umol/m2
	20cm 46.9467 umol/m2
	25cm 31.5421 umol/m2
	30cm 23.704 umol/m2
Peak wavelength (Object length: 200 mm)	631 nm
Electronics	
Working voltage	24V
Current / meter	1.00 A / meter
Power consumption per meter	24.00 W / meter
PCB material	Copper

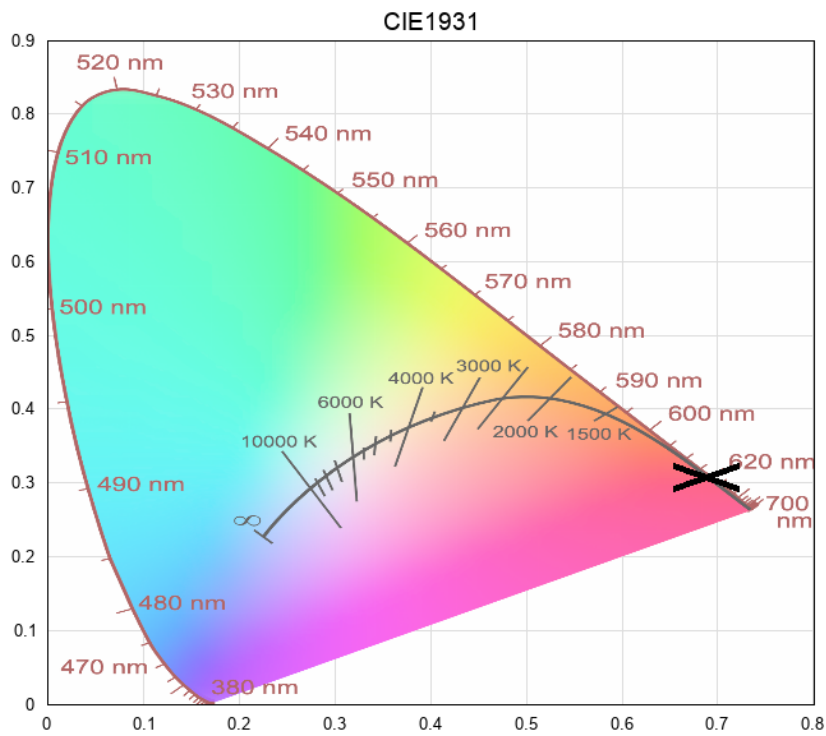
Environmental	
Operating temperature	-20 ~ +60 °C
Storage temperature	-40 ~ +80 °C
IP class	IP 20
Directives - standards - certificates	
Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471

Measurement results

irradiance - 600-700-red (24V)



cie1931



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