

Datasheet

LuxaLight LED-strip Deep Red 660nm Protected 2835 (24 Volt, 140 LEDs, 2835, IP64)

LS24DR2140X2835PLX

Version: 2025-02-26.1

Product description

The LuxaLight Industrial LED Strip is designed for intensive industrial and commercial applications that require high radiation intensity and precise light distribution. With a 660nm wavelength, this LED strip provides a powerful solution for processes that benefit from deep red light, such as plant growth stimulation, biological research, and more.

The LED strip features 140 LEDs per meter, ensuring high light density and uniform coverage for maximum performance. This strip is ideal for applications that require a flexible, space-saving light source, such as greenhouses, medical therapies, research environments, and other specialized industries. The strip can easily be integrated into custom fixtures or housing systems to meet specific application needs.

Key Features:

- **660nm Wavelength:** The 660nm wavelength is ideal for applications that require deep red light, such as horticulture, biological research, and specific industrial processes.
- **140 LEDs per Meter:** With 140 LEDs per meter, the strip delivers high light density, ensuring even light distribution across the surface for effective coverage and maximum performance.
- **24V Power Supply:** The LED strip operates on a reliable 24V power supply, ensuring stable and consistent performance, perfect for demanding environments and applications.
- **Flexible Design:** The LED strip is flexible and can be easily adjusted or bent to fit into custom systems or enclosures, making it highly versatile for various configurations and applications.
- **High Radiation Intensity:** The LED strip provides high radiation intensity, ideal for applications requiring significant light output, such as plant growth and biological processes.
- **Passive Cooling Required:** The LED strip is designed to be passively cooled, meaning it must be integrated into a suitable enclosure or system that efficiently dissipates heat. Ensure the product does not overheat to maintain optimal performance and extend its lifespan.
- **Semi-Finished Product for Customization:** The LED strip is designed to be integrated into custom fixtures, housings, or systems depending on your specific needs. As a semi-finished product, it offers flexibility for a wide range of applications.

Applications:

- **Horticulture & Agriculture:** The 660nm wavelength is highly effective for stimulating plant growth, making it ideal for use in greenhouses, vertical farming, and other agricultural applications where plant health is crucial.
- **Biological Research:** This LED strip is effective in scientific and medical applications requiring deep red light, such as promoting tissue regeneration, cell cultivation, and photobiomodulation (PBM) therapy, which helps with pain relief and wound healing.
- **Medical Therapy:** 660nm light is used in phototherapy treatments, such as skin healing, anti-aging treatments, and muscle recovery, where red light stimulates cells and tissues.
- **Food Industry:** The LED strip can be used to stimulate growth in food production environments or in the pasteurization of certain food items that require exposure to red light.
- **Industrial Material Curing (Non-UV):** The deep red light can be used to cure coatings and materials that react to red wavelengths, ensuring effective curing processes in industrial environments.
- **Cosmetic Industry:** The LED strip is ideal for use in the cosmetic industry for skin treatments such as wrinkle reduction, skin tone improvement, and collagen production stimulation.

Benefits:

- **High Radiation Intensity:** The LED strip provides high radiation intensity, helping to accelerate processes that require deep red light, improving productivity and performance.
- **Flexible and Customizable:** The flexible design of the strip allows easy integration into custom systems or housings, making it a versatile solution for a wide range of industrial, research, and medical applications.
- **Even Light Distribution:** With 140 LEDs per meter, the strip provides uniform and consistent light distribution, ensuring the light intensity is spread evenly across the surface for optimal results.
- **Efficient Performance:** The LED strip operates on a 24V power supply and delivers efficient, stable performance, making it ideal for environments requiring continuous and reliable light delivery.
- **Passive Cooling for Reliable Performance:** As the LED strip requires passive cooling, it's essential to ensure proper ventilation and heat dissipation to prevent overheating and extend the lifespan of the product.

Technical specifications

General															
Brand	LuxaLight														
LEDs / meter	140														
LED type	2835														
Length per reel	5 m														
Length per segment	50 mm														
LED strip width	10.00 mm														
LED strip thickness	4.00 mm														
PCB color	White														
Mantle material	Silicon														
Mounting	3M tape VHB4905														
Warranty	5 years														
Lifetime	70000 hours														
Lighting															
Wave length	660 nm														
BIN	3 SDCM														
Beam angle	120 °														
LB waarde	L90B50														
Measurement results															
PPFD	<i>Product length: 200 mm</i>														
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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

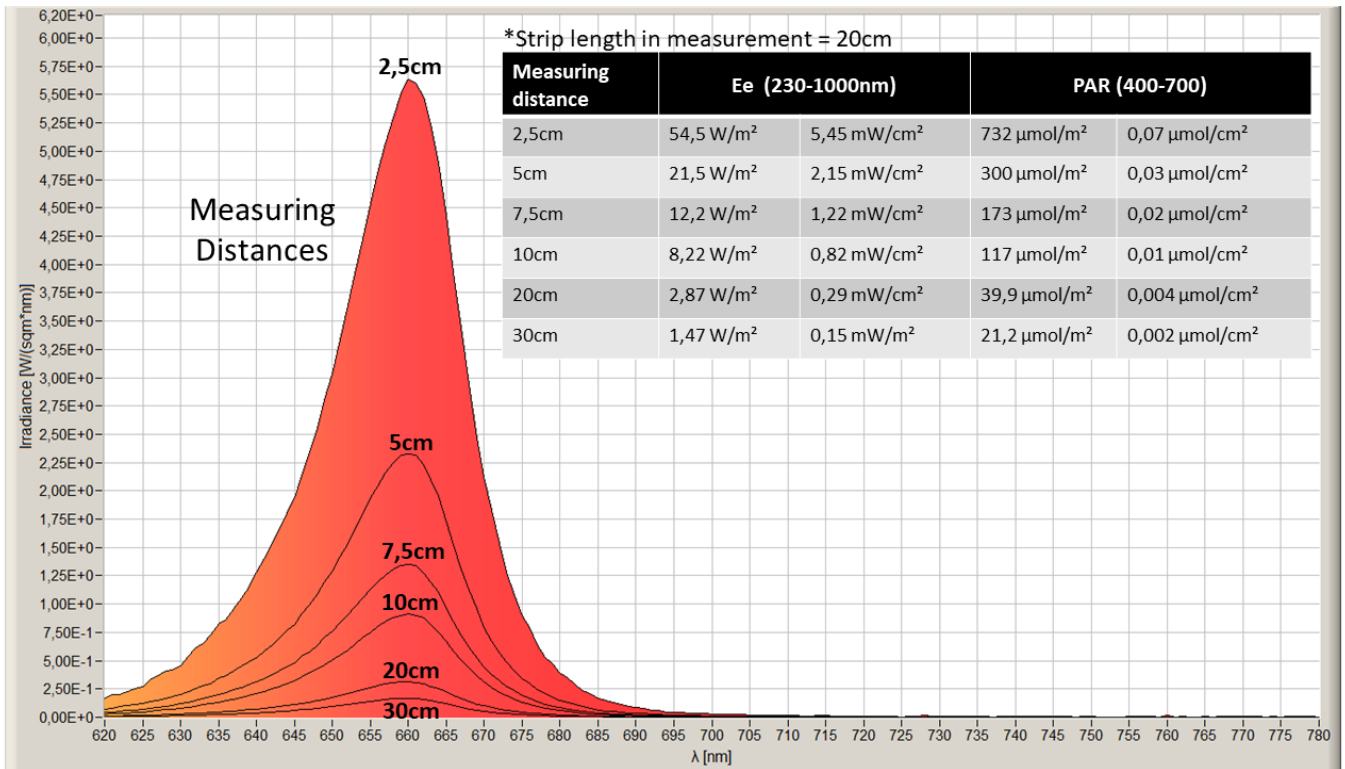
IP class IP 64

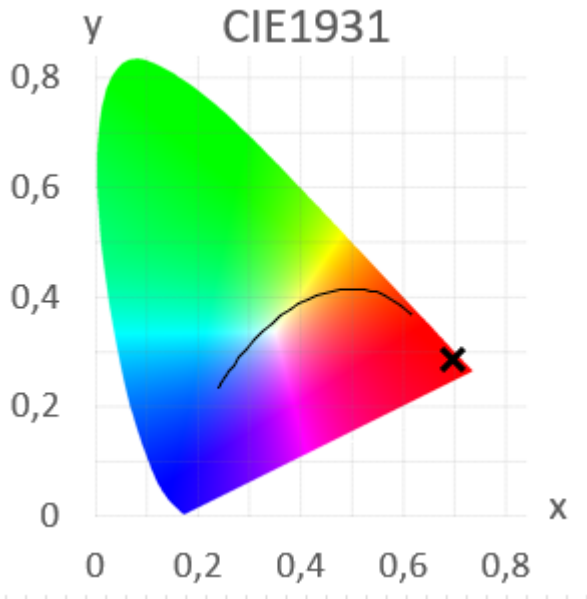
Directives - standards - certificates

Directives RoHS
CE

Safety standards EN60598-1
EN62031
IEC62471

Measurement results





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