

Datasheet

LuxaLight LED-strip Neutral White 4100K Indoor (24 Volt, 140 LEDs, 2835, IP20)

LS24NW140X2835ILX

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Product description

The **LuxaLight Professional LED strip** is designed for lighting applications where high color rendering and a neutral, pleasant light temperature are required. With a color temperature of **4100K** and a Color Rendering Index (CRI) of over 95, this professional LED strip provides excellent light quality, which is essential for applications where accurate color representation and true-to-life color accuracy are important.

Key Features:

- **4100K Color Temperature:** The **4100K color temperature** provides neutral white lighting, ideal for residential and office environments that require bright, balanced lighting with a natural appearance.
- **High CRI (Color Rendering Index) of over 95:** The professional LED strip features a CRI of over 95, meaning that the light from this strip renders colors as naturally and accurately as natural sunlight. This is crucial for environments where color interpretation is important, such as in retail, museums, and galleries.
- **140 pcs 2835 LEDs per Meter:** The strip contains 140 pcs **2835 LEDs** per meter, ensuring high light density and uniform light distribution across the surface, providing consistent lighting at all times.
- **24V Connection:** The professional LED strip operates on a standard **24V power supply** for stable and reliable performance.
- **Flexible Design:** The flexible design allows the LED strip to be easily installed in various configurations, such as in profiles, fixtures, or as direct lighting 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 a longer lifespan.
- **3M 4905 VHB Tape:** The LED strip is equipped with **3M 4905 VHB tape**, which ensures strong and durable adhesion to a variety of surfaces. This makes the strip easy to install in various applications, including wall and ceiling mounting, profiles, and other lighting systems.

Applications:

- **Residential and Office Spaces:** The neutral **4100K color temperature** and high CRI value make this professional LED strip ideal for creating pleasant, true-to-life lighting in homes, offices, and other commercial spaces.
- **Retail and Display Windows:** The excellent color rendering (CRI >95) ensures that products in stores and display windows are showcased at their best, contributing to an enjoyable shopping experience for customers.
- **Museums and Galleries:** The neutral lighting and high color rendering are perfect for illuminating artworks and objects in museums, galleries, and exhibitions, where color integrity is of the utmost importance.
- **Healthcare and Medical Settings:** The neutral, true-to-life lighting is also ideal for healthcare settings, where lighting plays a crucial role in the well-being of patients and staff.
- **Home Decoration:** Perfect for illuminating decorative and ambiance-setting elements in homes, such as in living room lighting, kitchens, and bedrooms, where a bright and natural atmosphere is desired.

Benefits:

- **Excellent Color Rendering:** With a CRI of over 95, the professional LED strip provides accurate and natural color rendering, making it ideal for applications where color perception is crucial.
- **Neutral Lighting:** The **4100K color temperature** delivers a neutral white glow, ideal for creating a comfortable and bright atmosphere in various environments.
- **Flexible and Customizable:** Thanks to the flexible design, the strip can be easily integrated into various lighting setups and fixtures, making it a versatile solution for diverse applications.
- **Uniform Light Distribution:** With **140 pcs 2835 LEDs** per meter, the strip offers consistent and uniform light distribution, ensuring pleasant and comfortable lighting without harsh shadows.
- **Reliable Performance:** The LED strip operates on a standard **24V power supply** and provides efficient, stable performance, making it an ideal choice for long-term use in both residential and commercial environments.
- **Durable and Energy-Efficient:** LED technology is energy-efficient, meaning the strip is not only cost-effective but also contributes to a more sustainable lighting solution.
- **Strong Adhesion:** The **3M 4905 VHB tape** provides 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 | | |
| Color temperature | 4000 ~ 4200 K | |
| CRI | ≥ 95 | |
| Luminous Flux | ≈ 3000 lm | |
| BIN | 3 SDCM | |
| Beam angle | 120 ° | |
| LB waarde | L90B50 | |
| Measurement results | | |
| CRI (Object size: 1 piece) | 93 | |
| CCT (Object size: 1 piece) | 5750 K | |
| Illuminance (Lux) (Object size: 1 piece) | | 24V |
| | 5cm | 38160 lx |
| | 10cm | 15180 lx |
| | 15cm | 7882 lx |
| | 20cm | 4886 lx |
| | 25cm | 3288 lx |
| | 30cm | 2458 lx |
| Total PPFD umol/m2 (PAR 400-700nm) (Object size: 1 piece) | | 24V |
| | 5cm | 616.46 umol/m2 |
| | 10cm | 245.568 umol/m2 |
| | 15cm | 127.698 umol/m2 |
| | 20cm | 79.1603 umol/m2 |
| | 25cm | 53.312 umol/m2 |
| | 30cm | 39.809 umol/m2 |
| Peak wavelength (Object size: 1 piece) | 451 nm | |

| Peak irradiance (Object size: 1 piece) | | 24V |
|---|--|-----------------|
| 5cm | | 1.22232 W/sqm |
| 10cm | | 0.506786 W/sqm |
| 15cm | | 0.264462 W/sqm |
| 20cm | | 0.163972 W/sqm |
| 25cm | | 0.110773 W/sqm |
| 30cm | | 0.0829006 W/sqm |

| Total irradiance (Object size: 1 piece) | | 24V |
|--|--|-------------|
| 5cm | | 141.9 W/sqm |
| 10cm | | 56.29 W/sqm |
| 15cm | | 29.27 W/sqm |
| 20cm | | 18.13 W/sqm |
| 25cm | | 12.22 W/sqm |
| 30cm | | 9.11 W/sqm |

Electronics

| | |
|-----------------------------|-----------------|
| Working voltage | 24V |
| Current / meter | 1.00 A / meter |
| Power consumption per meter | 24.00 W / meter |
| PCB material | Copper |

Environmental

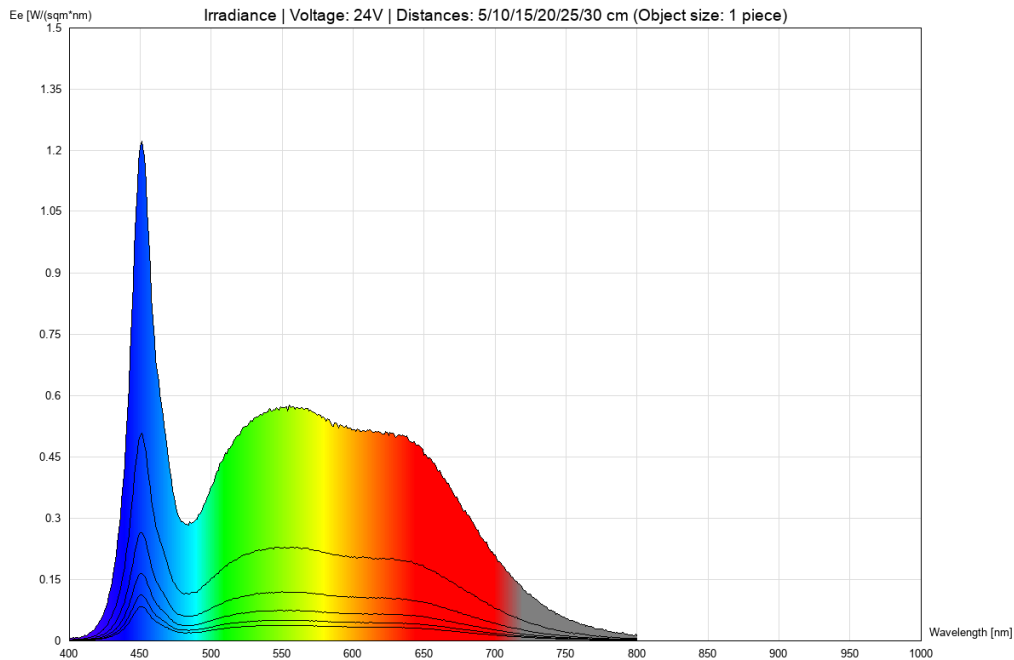
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|-----------------------|--------------|
| Operating temperature | -20 ~ +60 °C |
| Storage temperature | -40 ~ +80 °C |
| IP class | IP 20 |

Directives - standards - certificates

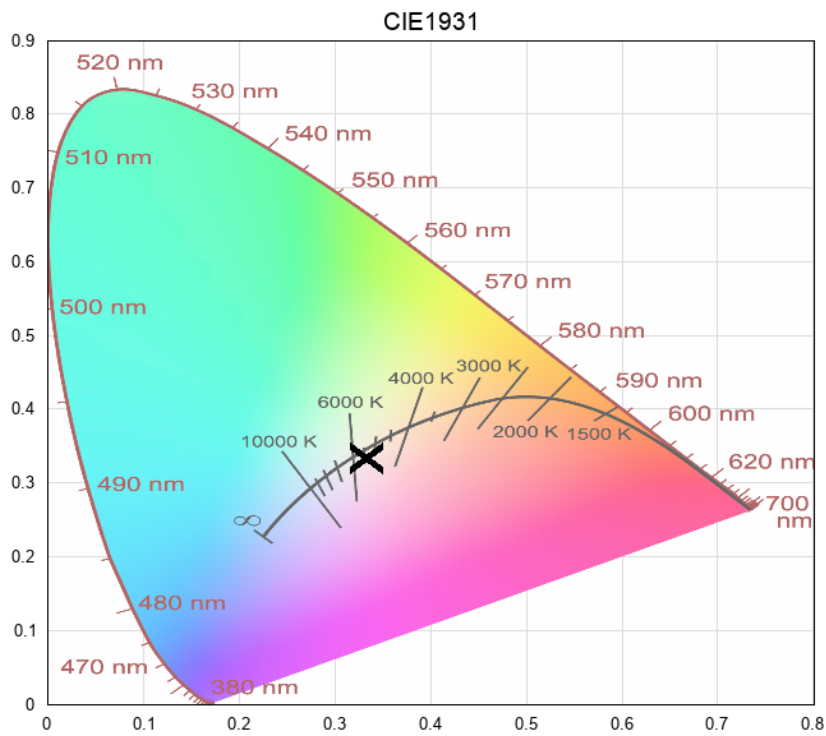
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|------------------|----------------------------------|
| Directives | RoHS CE |
| Safety standards | EN60598-1 EN62031 IEC62471 |

Measurement results

irradiance - full-spectrum (24V)



cie1931



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