

# Datasheet

## **LuxaLight LED-strip Full-color RGB + Warm White 2800K + White 8000K, RGBWW High Power Protected (24 Volt, 84 LEDs, 5050, IP64)**

**LS24RGBWWW84X5050PLX**

**Version: 2025-03-10.1**

## Product description

The **LuxaLight Professional RGB - Tunable White LED Strip** is designed for lighting purposes where both colorful lighting and the ability to adjust the white color temperature (tunable white) are required. This LED strip offers the versatility of **RGB colors** for dynamic lighting effects and the ability to adjust the white color temperature from **warm white (2700 ~ 2900 K)** to **cool white (7900 ~ 8100 K)**, allowing you to tailor the lighting to the desired ambiance or functionality.

The LED strip uses **84 5050 LEDs per meter**, ensuring high light density and even light distribution for optimal performance. The strip is equipped with a **silicone coating**, providing **IP64 protection**, making the strip dustproof and resistant to water spray from all directions. This makes it suitable for both indoor and outdoor applications, as long as the strip is not submerged in water.

### Key Features:

- **RGB Colors and Tunable White (2700 ~ 2900 K and 7900 ~ 8100 K):** The strip offers full RGB color rendering and the ability to adjust the white light temperature (tunable white), from warm white to cool white, ideal for creating the desired ambiance.
- **Silicone Coating with IP64 Protection:** The LED strip is coated with silicone, providing **IP64 protection**, making the strip dustproof and resistant to water spray from all directions, ideal for both indoor and outdoor use.
- **84 5050 LEDs per Meter:** The strip contains 84 5050 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/ft<sup>2</sup>, providing robust support and efficient heat dissipation, extending the lifespan of the LED strip and maintaining consistent performance.
- **Passive Cooling Required:** Since the LED strip requires passive cooling, it should be integrated into a suitable system that effectively dissipates heat to ensure optimal performance and a longer lifespan.
- **3M 4905 VHB Tape:** The LED strip is equipped with 3M 4905 VHB tape, ensuring reliable adhesion for easy and durable installation on various surfaces.

### Applications:

- **Color Lighting for Events and Presentations:** The RGB color rendering makes the LED strip perfect for visual effects, events, exhibitions, and presentations requiring dynamic lighting.
- **Retail and Showrooms:** The RGB colors and tunable white functionality make the LED strip ideal for **retail environments**, where products need to be lit in various ways.
- **Commercial Lighting:** The tunable white feature makes the strip suitable for various commercial spaces, from meeting rooms to workstations, where lighting needs to be flexible depending on the task.

### Benefits:

- **Robust Protection (IP64):** The silicone coating provides **IP64 protection**, making the strip dustproof and resistant to water spray from all directions, ideal for indoor and outdoor applications.
- **Flexible and Customizable:** Thanks to the flexible design, the strip can be easily integrated into various lighting systems, making it a versatile solution for different applications.
- **Even Light Distribution:** With 84 5050 LEDs per meter, the strip provides consistent and even light distribution without harsh shadows.
- **Reliable Performance:** The LED strip operates on a standard 24V power supply and delivers reliable performance for long-term use in industrial and commercial environments.
- **Energy-efficient:** The LED technology is energy-efficient, making the strip cost-effective and contributing to a more sustainable lighting solution.
- **Easy Installation:** The 3M 4905 VHB tape ensures strong and reliable adhesion for easy installation on various surfaces.

## Technical specifications

### General

Brand	LuxaLight
LEDs / meter	84
LED type	5050
Length per reel	10 m
Length per segment	83.33 mm
LED strip width	12.00 mm
LED strip thickness	4.00 mm
PCB color	White
Mantle material	Silicon
Warranty	5 years
Lifetime	70000 hours

### Lighting

Color temperature white	7900 ~ 8100 K
Color temperature warm white	2700 ~ 2900 K
CRI	≥ 80
Luminous Flux	2163 lm
Luminous flux red	280 lm
Luminous flux green	406 lm
Luminous flux blue	259 lm
Luminous flux white	684 lm
Luminous flux warm white	534 lm
Wave length Red	620~630 nm
Wave length Green	510~525 nm
Wave length Blue	455~470 nm
BIN	3 SDCM
Beam angle	120 °
LB waarde	L80B50

### 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

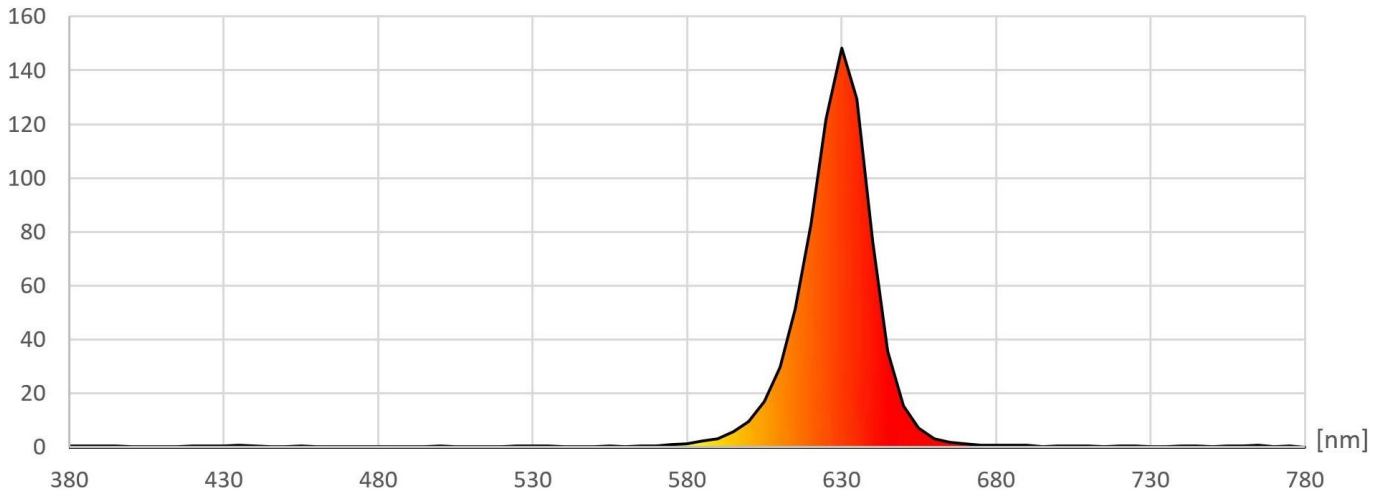
**Directives - standards - certificates**

Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471

## Measurement results

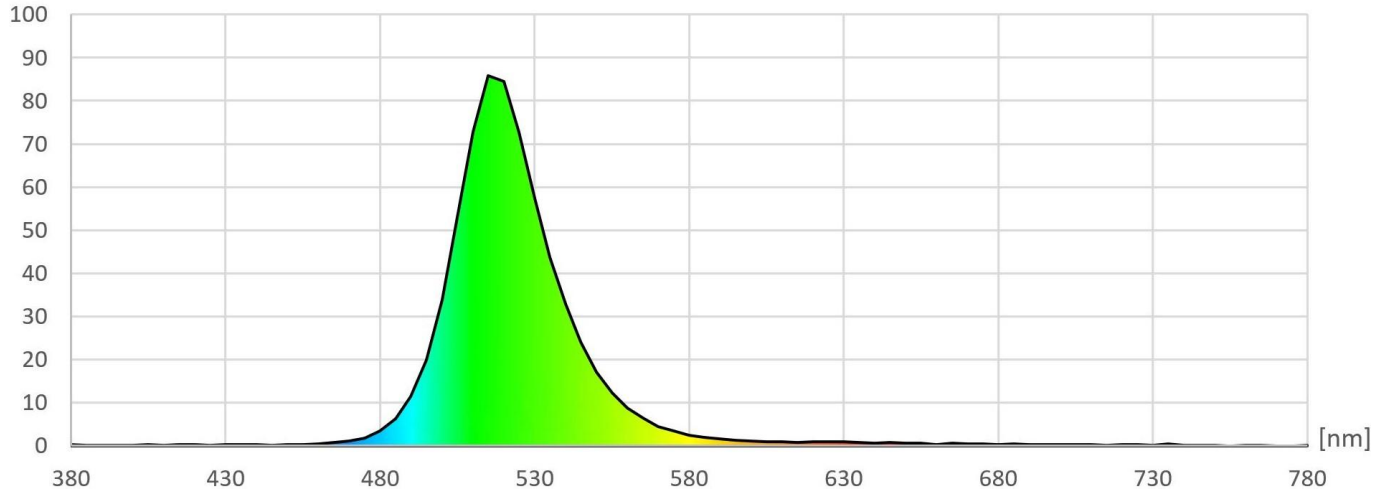
### Wave Length RED

mW/m<sup>2</sup>/nm



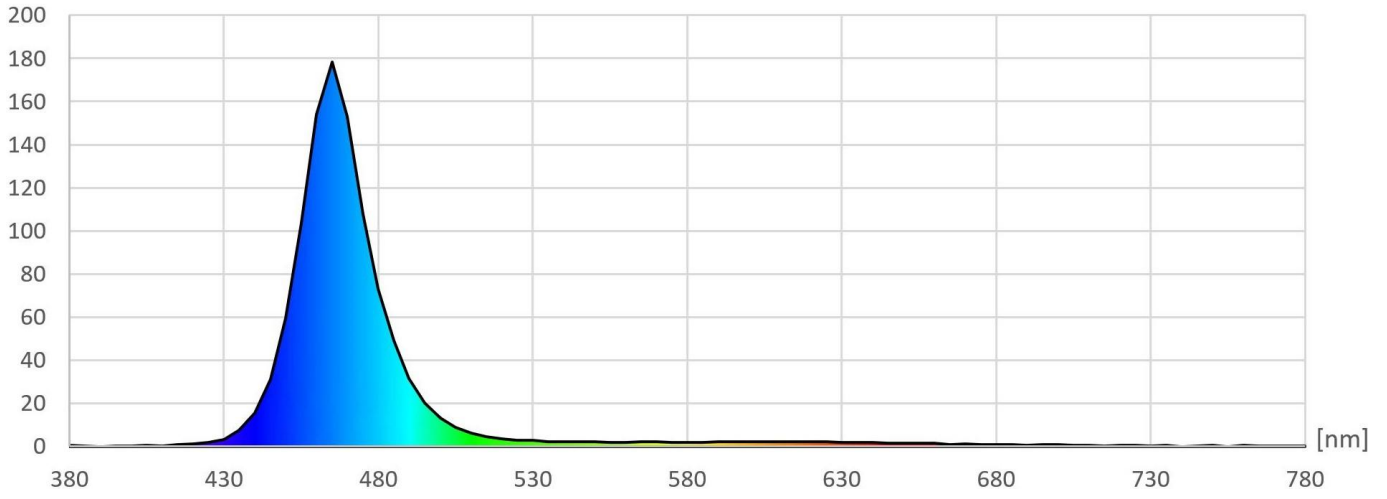
### Wave Length GREEN

mW/m<sup>2</sup>/nm



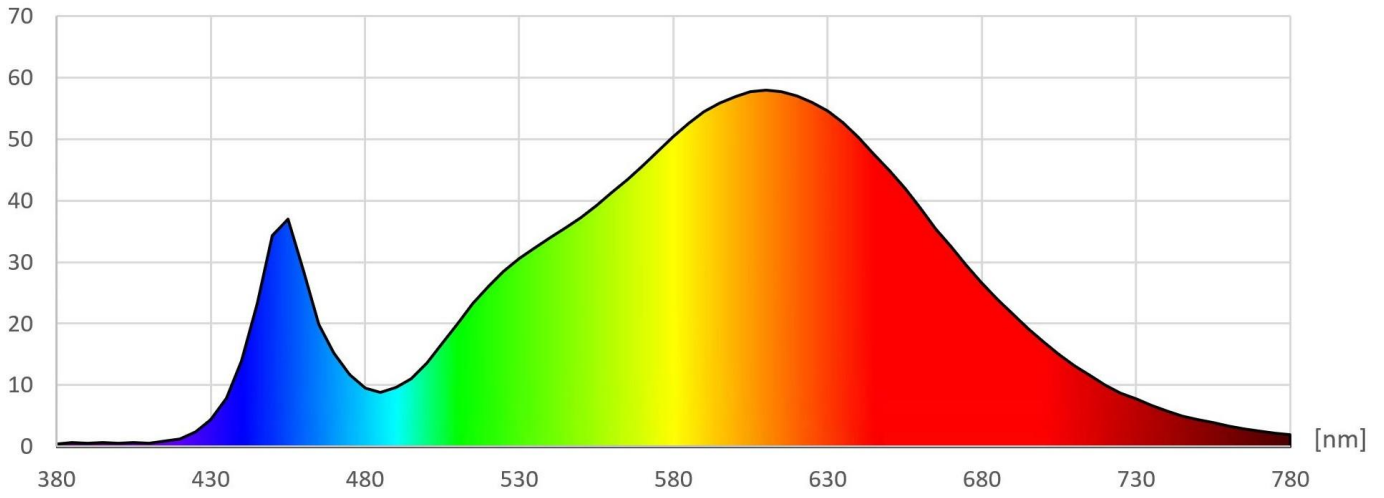
### Wave Length BLUE

mW/m<sup>2</sup>/nm



### Wave Length WARM WHITE

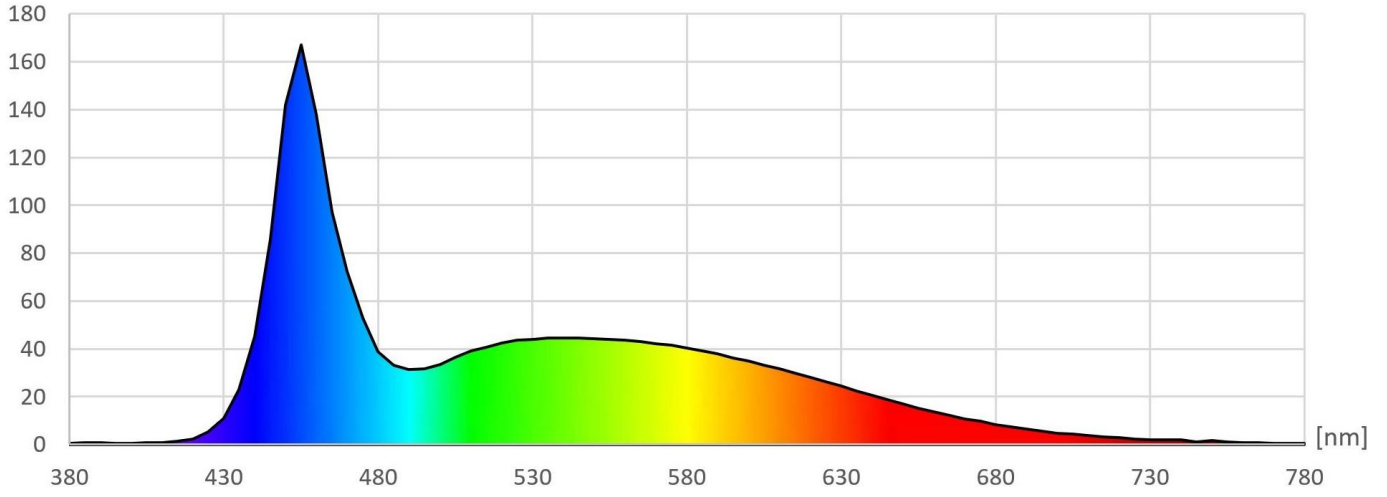
mW/m<sup>2</sup>/nm





### Wave Length WHITE

mW/m<sup>2</sup>/nm



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