

Datasheet

LuxaLight Aluminium PCB RGBWW Indoor (24 Volt, 28 LEDs, 170°, 5050, IP20)

APCB-24-RGBW-28X5050-ILX

Version: 2025-03-28.2

Product description

The LuxaLight Professional RGBW LED Strip is designed for lighting applications where high color rendering and dynamic color effects are required. This strip is equipped with an aluminum PCB and contains 28 RGBW LEDs per meter, providing high light density and excellent light distribution. The special 160-degree optics ensure a wide light spread, making the strip ideal for backlight applications, such as illuminating natural stone (e.g., onyx), decorative plastic panels, light-transmitting textile fabrics, displays, and other applications where even and bright lighting is required without dark spots.

This RGBW LED strip has an IP20 rating, meaning it is suitable for use in environments without exposure to moisture or dust, such as indoor areas.

Key Features:

- **28 RGBW LEDs per Meter:** The strip features 28 RGBW LEDs per meter, ensuring excellent brightness and dynamic color rendering for various lighting applications.
- **Special 160-Degree Optics:** The strip features 160-degree optics, providing a wide light spread, ideal for backlighting applications such as illuminating natural stone (like onyx), decorative plastic panels, and light-transmitting textile fabrics. This ensures uniform lighting that enhances the textures and colors of the material.
- **RGBW LED Light Output:** The RGBW LEDs offer both dynamic color settings and a warm white color temperature of 2400-2600K, perfect for creating a cozy atmosphere, while the RGB color settings provide versatile color effects.
- **IP20 Rating:** The strip is IP20 rated, making it suitable for use in dry indoor environments without exposure to moisture or dust.
- **Aluminum PCB:** The aluminum PCB ensures efficient heat dissipation, improving the strip's performance and extending its lifespan.

Applications:

- **Backlighting for Natural Stone (e.g., Onyx):** The strip is ideal for illuminating natural stone such as onyx, where the light highlights the material's transparency and natural colors, creating a warm glow.
- **Illumination of Plastic Decorative Panels:** The strip is perfect for backlighting decorative plastic panels (e.g., acrylic or polycarbonate), providing even lighting that enhances the materials and gives them a vibrant look.
- **Illumination of Light-Transmitting Textile Fabrics:** The strip is excellent for backlighting light-transmitting textile fabrics, creating a soft, diffused lighting effect that's perfect for creating a cozy ambiance in interior applications like light installations, fabric panels, and screens.
- **Ideal for Shallow Backlight Situations:** Thanks to the special 160-degree optics, the strip provides a homogeneous light image, even in shallow spaces. This makes it particularly suitable for applications where consistent lighting is needed without dark spots, such as illuminating shallow surfaces or displays.
- **Easy Installation with Included Mounting Brackets:** The included mounting brackets make it easy to connect the wiring, making installation quick and efficient, ideal for both professional installers and DIY enthusiasts.

Advantages:

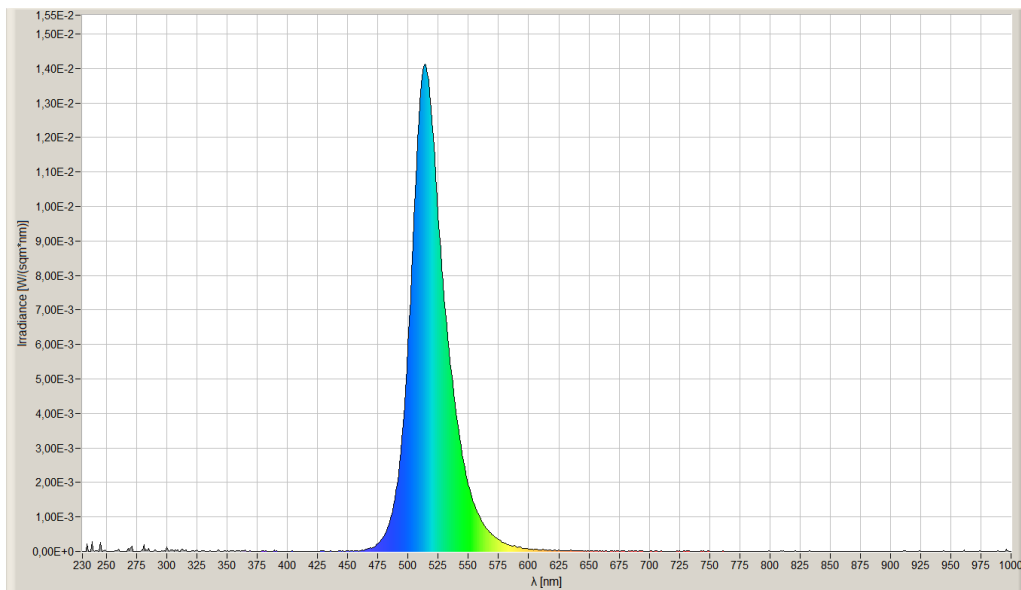
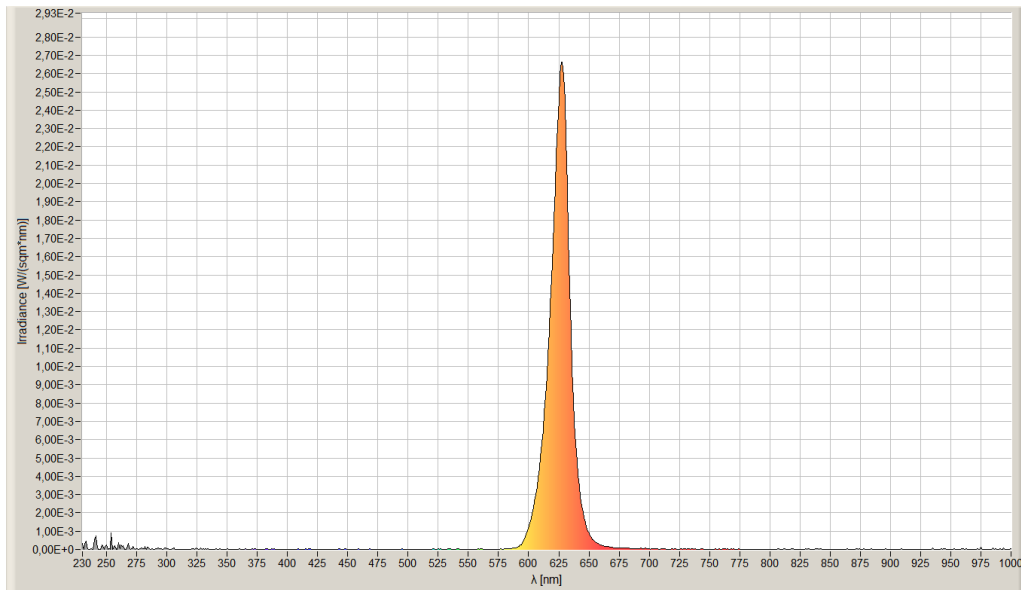
- **Dynamic RGBW Color Options:** The 28 RGBW LEDs per meter offer full color customization, making it ideal for creating adaptable lighting settings and ambiance.
- **Special 160-Degree Optics:** The wide light distribution makes this strip perfect for backlighting applications, such as illuminating natural stone, plastic panels, and light-transmitting textile fabrics, bringing out the unique features of the materials beautifully.
- **Homogeneous Light Distribution in Shallow Spaces:** Thanks to the special optics, the strip provides even lighting, even in shallow spaces, making it perfect for applications that require consistent and clear light distribution.
- **Easy Installation:** The included mounting brackets allow for quick and easy wiring connections, making installation hassle-free and efficient.
- **Even Light Distribution:** The strip ensures consistent and uniform light distribution, providing pleasant lighting without harsh shadows.

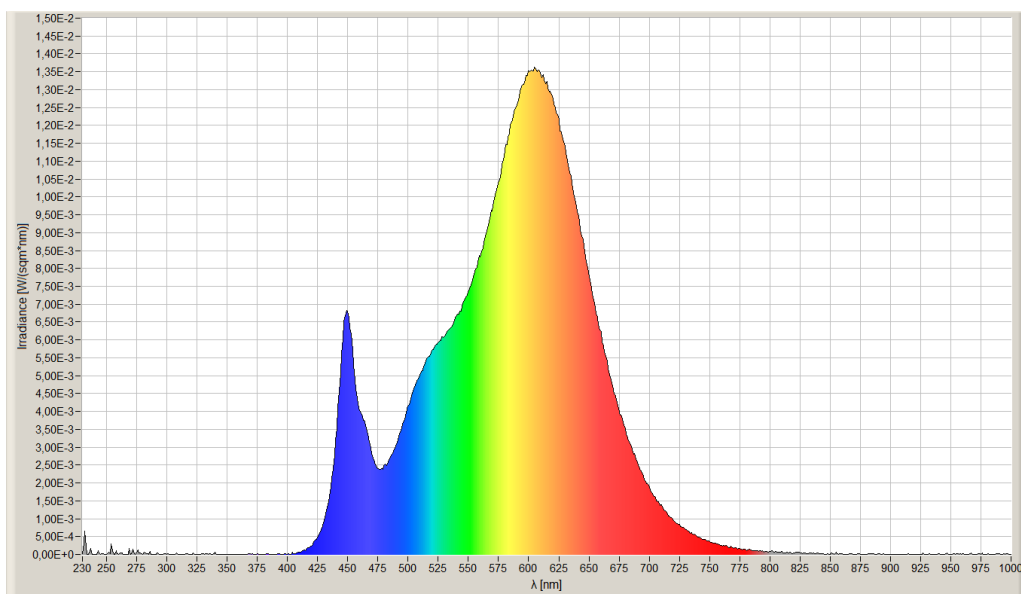
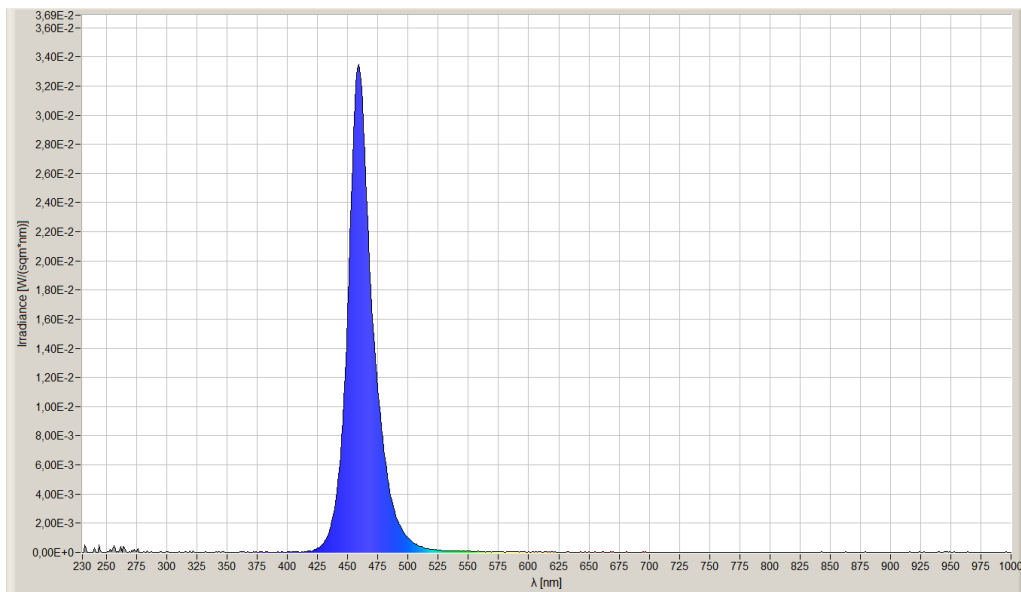
Technical specifications

General														
Brand	LuxaLight													
LEDs / meter	28													
LED type	5050													
Length per segment	245 mm													
LED strip width	20.00 mm													
LED strip thickness	2.00 mm													
Material	Aluminum													
Dimensions	980 × 20 × 2 mm													
Warranty	5 years													
Lifetime	70000 hours													
Lighting														
Color temperature warm white	2700 K													
CRI	≥ 85													
Luminous flux red	64 lm													
Luminous flux green	106 lm													
Luminous flux blue	40 lm													
Luminous flux warm white	300 lm													
Wave length Red	620 ~ 630 nm													
Wave length Green	510 ~ 525 nm													
Wave length Blue	455 ~ 470 nm													
BIN	3 SDCM													
Beam angle	160 °													
LB waarde	L80B50													
Electronics														
Working voltage	24V													
Current per piece	0.30 A / piece													
Power consumption per piece	7.20 W / piece													
PCB material	Aluminium													
Pinout	<table><tr><th>Symbol</th><th>Function</th></tr><tr><td>V+</td><td>V+</td></tr><tr><td>R</td><td>Red channel</td></tr><tr><td>G</td><td>Green channel</td></tr><tr><td>B</td><td>Blue channel</td></tr><tr><td>W</td><td>White channel</td></tr></table>		Symbol	Function	V+	V+	R	Red channel	G	Green channel	B	Blue channel	W	White channel
Symbol	Function													
V+	V+													
R	Red channel													
G	Green channel													
B	Blue channel													
W	White channel													
Environmental														
Operating temperature	-20 ~ +60 °C													

Thermal resistance minimum	-20.00 °C/W
Storage temperature	-40 ~ +80 °C
IP class	IP 20
Directives - standards - certificates	
Directives	RoHS CE
Safety standards	EN60598-1 EN62031 IEC62471

Measurement results





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