

# Datasheet

## LuxaLight Pixel LED-strip LC8816E 12V Digital RGBW Protected High Power Black PCB (12 Volt, 96 LEDs, 5050, IP64)

**LS12RGB96BLCKLC8816EVPLX**

**Version: 2025-02-28.2**

## Product description

This professional **LuxaLight** 12V digital LED strip is designed for applications where flexible, custom lighting is required, offering high control over each individual LED pixel. The strip features 96 RGBW LEDs, each controlled independently through the advanced **LC8816E IC**, enabling precise adjustments of color and brightness. The LED strip is equipped with a white PCB and an **IP64 Silicon Layer**, providing dust protection and additional protection against humid environments, making it suitable for both indoor and outdoor applications.

### LED Strip Configuration

- **Voltage:** 12V
- **PCB Color:** White
- **Number of LEDs:** 96 RGBW LEDs
- **LED Pitch:** 10mm
- **IC Type:** LC8816E IC
- **IP Rating:** **IP64 Silicon Layer:** The strip is covered with a protective **IP64-rated silicon layer**, which enhances its durability and provides additional protection against dust and humid environments.
- **PCB Thickness:** The PCB has a thickness of **3 oz/ft<sup>2</sup>**, providing robust support and efficient heat dissipation.
- **Mounting Tape:** 4905 VHB adhesive for secure attachment

### Key Features of the LC8816E IC:

- **Individual Addressing:** Each of the 96 **RGBW LEDs** can be controlled separately for precise color and brightness settings.
- **Color Management:** Supports **RGBW LEDs** for enhanced color accuracy and optimized color reproduction.
- **PWM Dimming (4000Hz):** Provides a PWM rate of **4000Hz**, allowing for smooth dimming and pixel transitions, ensuring smooth lighting effects even at low brightness levels.
- **High Frame Rate Filming:** The PWM rate allows for smooth pixel filming with cameras up to **40fps**, offering clear and precise video recording of the LED strip.
- **Communication:** The **LC8816E IC** uses a serial data interface with a **transmission rate of 800Kbps**, enabling easy integration of long chains of LED strips without signal degradation.
- **Versatile Control:** Supports advanced digital control, enabling precise, independent control of each pixel for dynamic lighting effects, animations, and color changes.

## Technical specifications

### General

Brand	LuxaLight
LEDs / meter	96
Length per reel	10 m
Length per segment	10.416 mm
LED strip width	12.00 mm
LED strip thickness	4.00 mm
PCB color	Black
Mounting	3M tape VHB4905
Warranty	5 years
Lifetime	50000 hours

### Lighting

Color temperature	2300 K
Color temperature warm white	2300 K
CRI	≥ 80
Luminous Flux	1080 lm
Luminous flux red	320 lm
Luminous flux green	464 lm
Luminous flux blue	296 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 °

### Electronics

Working voltage	12V
Current / meter	1.91 A / meter
Power consumption per meter	23.00 W / meter
PCB material	Copper

### Control

Number of channels	4
IC type	LC8816E

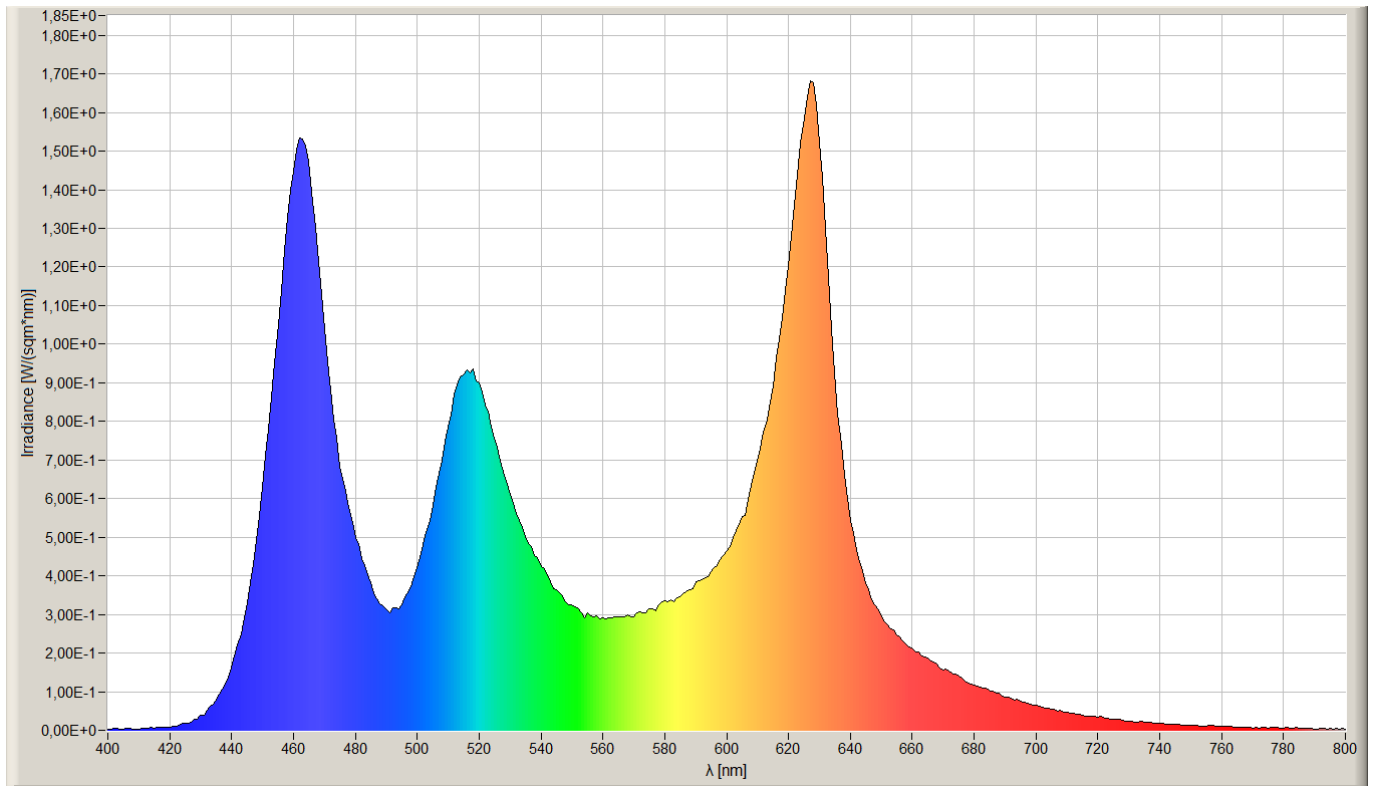
### Environmental

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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