

## Flexible RGBW LED Strip

The SIRS-E® AcuHue™ CC RGBW LED strip series, utilizes Constant Current Control to provide for ideal color consistency with no brightness loss or voltage drop through the use of high quality integrated circuits embedded directly on the flexible strip. AcuHue™ CC has the ability to produce billions of color variations.



Easily mountable utilizing 3M VHB Aero-Grade tape, engineered to dissipate heat and reduce voltage drop via 4 oz flexible PCB.

- **Max run of 32ft /10m** with no brightness loss, **powered only from one end**
- Increased Luminous Flux **443 lm/ft**
- Improved Luminous Efficacy **+125 lm/W**
- Minimal Power Consumption **6.5 W/ft**



The AcuHue™ series provides solutions for an endless set of applications including commercial, residential, stage & studio, theatrical, and specialized lighting designs.

Delivering superior LED strip lighting with a proven record spanning more than a decade without electrical, chromatic, or color rendering issues. SIRS-E® continues to lead the market place in stability, reliability, and efficiency of LED lighting and lighting control systems.

Customer Name  Project Name  Part Number


### Flexible RGBW LED Strip



### Description

AcuHue™ RGBW LED strip lights allow you to create billions of colors by mixing red, green, blue and a 4th color variant LED diode. Utilizing IC regulators embedded directly on to the high quality flexible LED strip, this new line is able to provide ideal color consistency with no luminous flux loss throughout its run. AcuHue™ consists of 14mm wide, 4 oz density copper PCB, fitted with 3M VHB adhesive tape for secure installation. Voltage dimmable and compatible with SIRS-E®'s line of constant voltage DMX-CON decoders and drivers.

### Product Specifications

<b>Input Voltage</b>	24 V DC	<b>Cutttable Segments</b>	3.3 in (83 mm) for 24V
<b>Limiting Control Method</b>	CC - Current Control	<b>Reel Length</b>	16.4 ft / 5m
<b>Power Consumption</b>	6.62 W/ft	<b>Max Run Length</b>	32 ft / 10m, no luminous flux loss <sup>3</sup>
<b>LED Chip Type</b>	High Quality SMD 5050 4-Diode	<b>Segment Width</b>	0.56 in (14 mm) for IP40 / 0.68 in (17.33 mm) for IP68
<b>LED Density</b>	22 LEDs/ft / 72 LEDs/m	<b>Luminous Flux Maintenance</b>	75,000 hrs <sup>2</sup>
<b>Board Type/Color</b>	4 oz Density Copper, White PCB	<b>Dimming</b>	DMX PWM, RF PWM, 0-10V, MLV, Incandescent
<b>Beam Angle</b>	120°	<b>Environmental</b>	IP 40 - Indoor, Dry / IP 68 - Damp, Wet
<b>Operating Temperature</b>	-20°F to 120°F	<b>Warranty</b>	5 Years Limited
<b>Mounting</b>	Non-Porous: 3M VHB Adhesive Mounting Tape	<b>Certifications</b>	 UL Listed, E479339

### Product Photometrics - Red, Green and Blue Diodes

Color Diode	Peak Wavelength (nm)	Dominant Wavelength (nm)	CIE (x,y)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)
Red	632.0	621.5	(0.6936, 0.3054)	63	31.1
Green	516.6	521.9	(0.1429, 0.7237)	170	91.4
Blue	462.2	466.4	(0.1379, 0.0515)	36	18.0

### Product Photometrics - White Diode Only

Nominal CCT (K)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)	CIE (x,y)	Duv <sub>1</sub>	CRI	TM-30-15 Fidelity (Rf)	TM-30-15 Gamut (Rg)
2700 K	182	94.5	(0.4637, 0.4159)	+0.0012	82.3	84.3	93.7

### Product Photometrics - All Four Colors at Full Intensity

Nominal CCT (K)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)	CIE (x,y)	Duv <sub>1</sub>	CRI	TM-30-15 Fidelity (Rf)	TM-30-15 Gamut (Rg)
8200 K	428	56.1	(0.2974, 0.2907)	-0.0094	58.3	NA	NA

1 - Duv Chromaticity Consistency is throughout the run length. Typically below 1-step MacAdam Ellipse.

2 - After 75,000 hrs: 30% Luminous Flux loss, 10% Chromaticity change, as per LM-80-2015

3 - Powered only from one end.

### Ordering Guide

Series	Voltage Control	CCT / λ <sup>1, 2*</sup>	IP	Run Length
AcuHue™	24 CC	27	XX	16
		27	40	
		55	68	
		590		

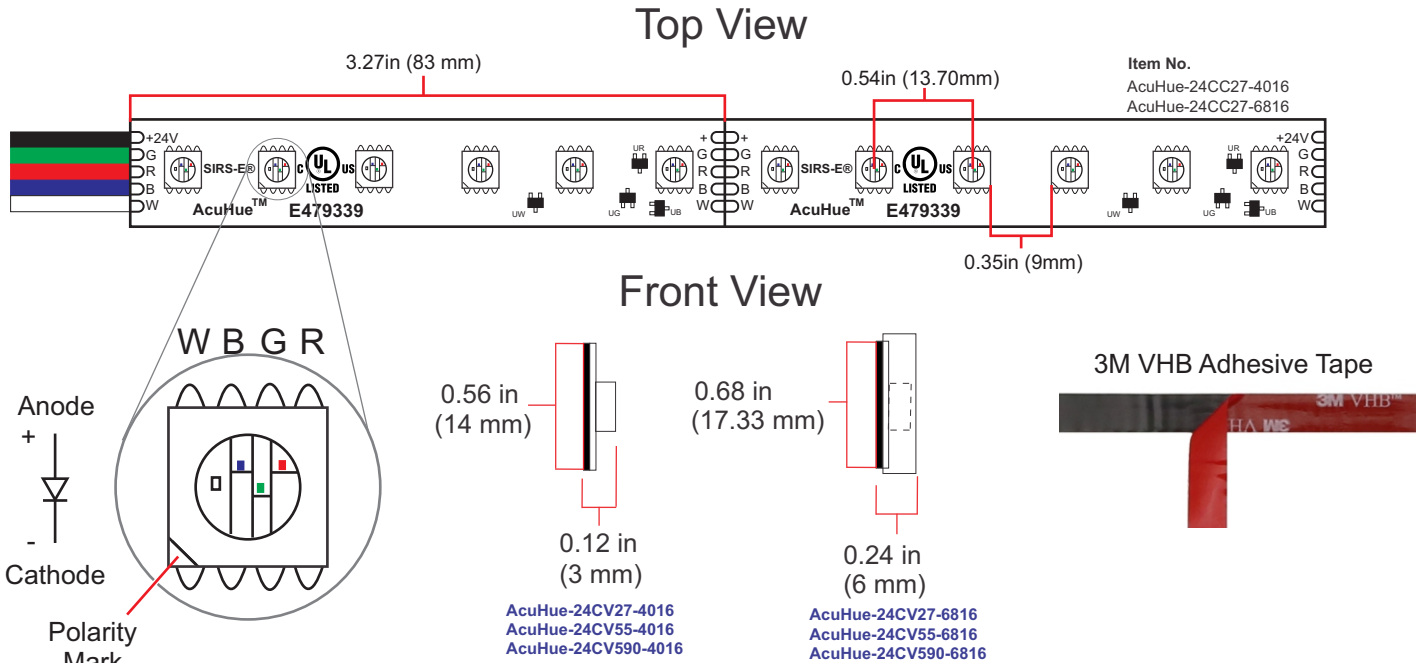
<sup>1</sup> CCT - Correlated Color Temperature, represented by the first 2 digits of the nominal CCT.  
<sup>2</sup> λ - Peak Wavelength, represented by the 3 digits of the color wavelength.  
 \* CCT / λ - applicable on AcuVivid and AcuHue series only.

### Product Country of Origin

Product Engineering & Design		USA
Assembled	China	Preassembled / USA Final Assembly
QC Quality Control		USA
Product Customization		USA
Technical Support		USA

<sup>1</sup> 27 - RGBW 2700 K  
<sup>1</sup> 55 - RGBW 5500 K  
<sup>2</sup> 590 - RGBA Amber 590 nm

### Mechanical Dimensions



### Weight

Product Weight: 6.2 oz, 16.4 ft Reel  
IP40, Without Packaging.

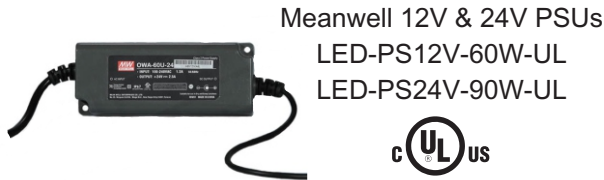
19.3 oz, 16.4 ft Reel  
IP68, Without Packaging.

### Notes

- A good technique to minimize brightness loss and increase lumen output on CV LED Strips is to power the strip on both sides.
- LED electrical and photometric characteristics change with the manufacturing batch/bin date. Approximately 3-Step MacAdam Ellipses between batches.
- We reserve the right to change any data without prior notice.

## Accessories Compatible

This list shows some of our most sellable accessories compatible for this product. For a complete list, please visit our website.



Meanwell 12V & 24V PSUs  
LED-PS12V-60W-UL  
LED-PS24V-90W-UL



SIRS-E DMX Controllers  
DMX-CON4V2-C2



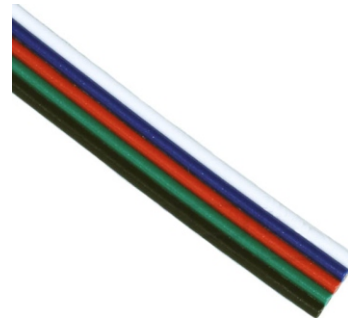
SIRS-E RF Controllers  
RF-MZR-RGBW



DMX-CON4-C2



SIRS-E Waterproof  
Accessories



SIRS-E RGBW Wire Leads



## About Us



SIRS-E /semiconductor • illumination • research • solutions /

In 2004, SIRS-E began research into the use of high powered LED components to be applied in direct lighting fixtures and LED strips.

In 2005, SIRS-E developed the RGB HPL01 – 12 watt (60 lumens per watt efficiency) RGB lighting fixture controlled via DMX using LumiLEDs, one of the first high powered LEDs eventually acquired by Phillips.

Included in early research solutions, was the development and testing of many different LED strips intended to be used for direct RGB lighting and effects applications.

This was the beginning of what we now know as SIRS – Electronics.



# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20190319-E479339  
**Report Reference** E479339-20151029  
**Issue Date** 2019-MARCH-19

**Issued to:** SIRS ELECTRONICS INC  
3307 WEST ST  
ROSENBERG, TX 77471 USA

**This is to certify that representative samples of** LOW-VOLTAGE LIGHTING SYSTEMS, POWER UNITS, LUMINAIRES AND FITTINGS  
See addendum for models.

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** UL 2108, Low Voltage Lighting Systems  
CSA C22.2 NO. 9.0, Luminaires

**Additional Information:** See the UL Online Certifications Directory at [www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20190319-E479339  
**Report Reference** E479339-20151029  
**Issue Date** 2019-MARCH-19

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

## Addendum -

### Products Covered:

USL, CNL - Low voltage luminaires, LED strip lights, models 5050-LED-RGB, 5050-LED-4RGBXX-72 where XX is A, WH or WW, 5050-LED-WH, -WW, -CW; may be followed additional alphanumeric characters.

USL, CNL - Low voltage luminaires, LED strip lights, models 5050-12RGB, 5050-12RGBXX where XX is A, WN or WW, 5050-12WX where X is N, W, or C; may be followed by additional alphanumeric characters.

USL, CNL - Low voltage luminaires, LED strip lights, 5050-24V-RGB, 5050-24V-4RGBXX where XX is A, WH or WW, 5050-24V- WH, -WW, -CW; may be followed additional alphanumeric characters.

USL, CNL - Low voltage luminaires, LED strip lights, models 5050-24RGB, 5050-24RGBXX where XX is A, WN or WW, 5050-24WX where X is N, W or C; may be followed by additional alphanumeric characters.

USL, CNL - Low voltage luminaires, LED strip lights, model series ACUVIBRANT, ACUHUE, ACUVIVID; may be followed by additional alphanumeric characters.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>

