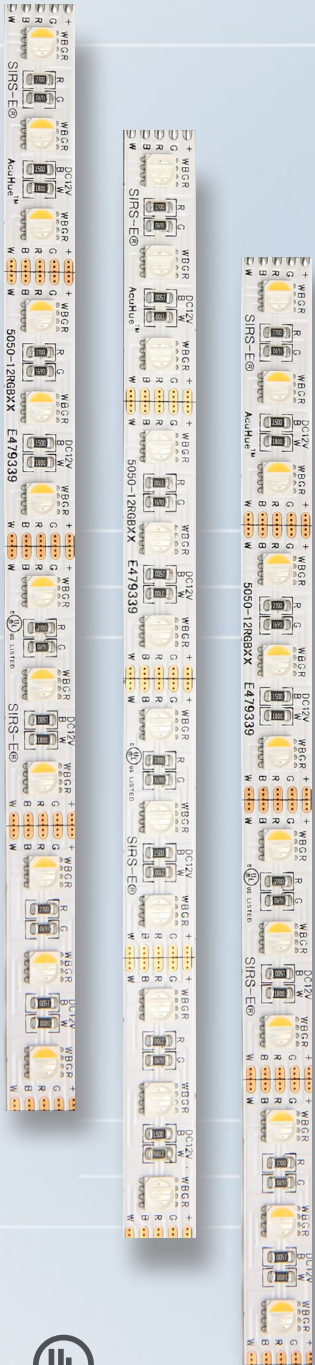


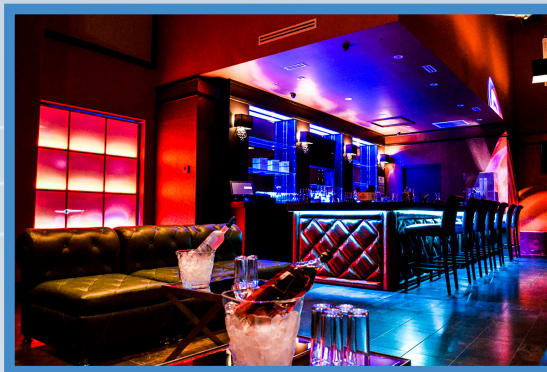
Flexible RGBW LED Strips

The SIRS-E® AcuHue™ CV RGBW LED strip series, consists of High Quality Constant Voltage variants with the ability to create billions of color rich rendering options offered by the addition of a fourth color diode to the RGB equation, including 2700 K, 5500 K white diodes or Amber. With optimal luminosity and superior efficacy, **AcuHue™** provides for limitless applications while complying with all safety requirements as defined by UL standards.



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

- Increased Luminous Flux **+420 lm/ft**
- Improved Luminous Efficacy **+60 lm/W avg**
- Minimal Power Consumption **5.75 W/ft**
- UL Listed, Class 2 - **E479339**



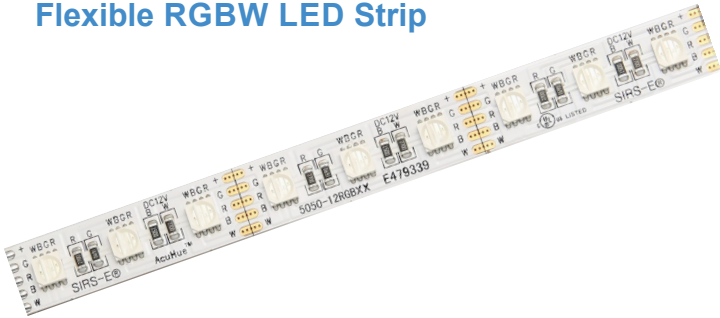
The **AcuHue™** series provides solutions for an endless set of applications including commercial, residential, stage & TV studio, theatrical, film sets, cove lighting and specialized lighting designs.



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

RGBW LED strip lights let you create billions of colors by just mixing red, green, and blue colors with a 4th color diode. Our new AcuHue™ series of CV RGBW strips include a 4oz density PCB that minimizes voltage drop and a 3M VHB adhesive tape for a more secure installation. AcuHue™ RGBW LED strips are offered in many variations such as 12V and 24V and varying IP ratings such as IP40 (indoor, dry locations) or IP68 (damp, wet locations). These strips are free of UV radiation, fully dimmable, and DMX addressable using our SIRS-E® line of DMX-CON decoders.

Product Specifications

Input Voltage	12 V DC / 24 V DC ²	Cuttable Segments	1.6 in (42 mm) for 12V / 3.3 in (83 mm) for 24V
Limiting Control Method	CV - Constant Voltage	Reel Length	16.4 ft / 5 m
Power Consumption	6.62 W/ft	Max Run Length	5 meters, 10% luminous flux loss
LED Chip Type	High Quality SMD 5050 4-Diode	Segment Width	0.47 in (12 mm) for IP40 / 0.56 in (14 mm) for IP68
LED Density	22 LEDs/ft / 72 LEDs/m	Luminous Flux Maintenance	75,000 hrs ³
Board Type/Color	4 oz Density Copper, White PCB	Dimming	DMX PWM, RF PWM, 0-10V, MLV, Incandescent
Beam Angle	120°	Environmental	IP 40 - Indoor, Dry / IP 68 - Damp, Wet
Operating Temperature	-20°F to 120°F	Warranty	5 Years Limited
Mounting	Non-Porous: 3M VHB Adhesive Mounting Tape	Certifications	 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	631.5	621.1	(0.6927, 0.3063)	61	30.4
Green	516.5	521.8	(0.1419, 0.7237)	161	87.3
Blue	462.2	466.4	(0.1375, 0.0509)	34	17.0
Amber	595.1	591.7	(0.5846, 0.4142)	58	27.6

Product Photometrics - All Four Colors at Full Intensity

Nominal CCT (K)	Luminous Flux (lm/ft)	Luminous Efficacy (lm/W)	CIE (x,y)	Duv ₁	CRI	TM-30-15 Fidelity (Rf) Gamut (Rg)	
22000 K	266	32.2	(0.2451, 0.2498)	+0.0042	54.8	NA	NA

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

2 - AcuHue™ 24V RGBW LED Strips are Special Order only.

3 - After 75,000 hrs: 30% Luminous Flux loss, 10% Chromaticity change, as per LM-80-15

Ordering Guide

Series	Voltage	Control	CCT / λ ^{2,3*}	IP	Run Length
AcuHue™	XX	CV	590	XX	16
	12	CV	27	40	
	24 ¹	CC	55	68	
			590		

¹ Voltage - AcuHue™ 24V RGBW LED Strips are Special Order only.

² CCT - Correlated Color Temperature, represented by the first 2 digits of the nominal CCT.

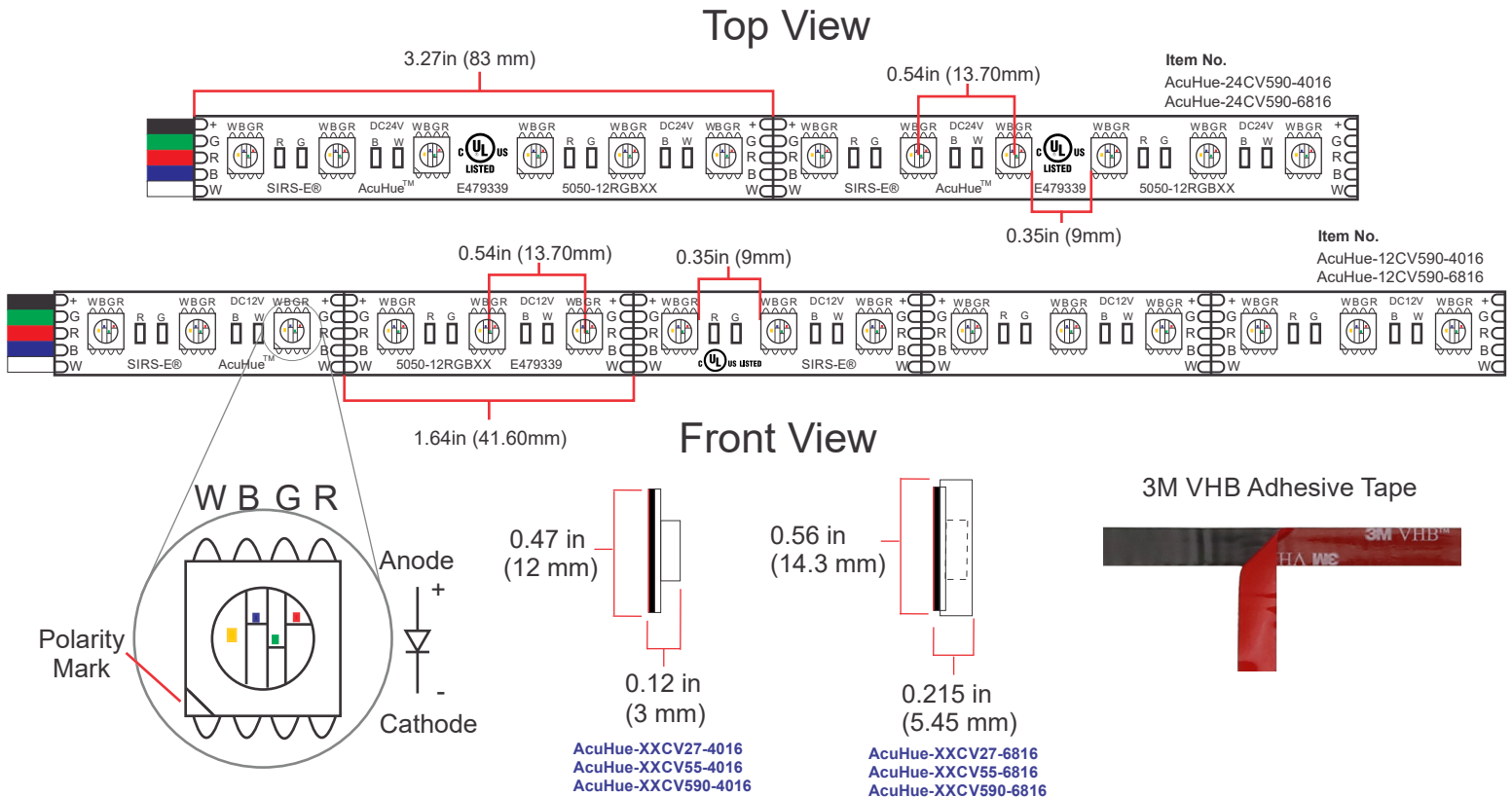
³ λ - Peak Wavelength, represented by the 3 digits of the color wavelength.

* 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

Mechanical Dimensions



Weight

Product Weight:	5.3 oz, 16.4 ft Reel
	IP40, Without Packaging.
	18.4 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



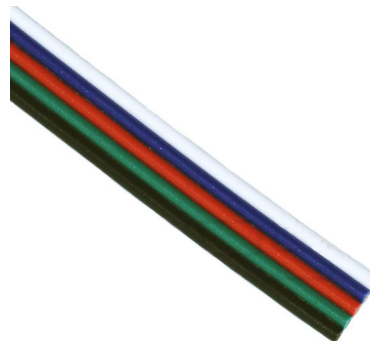
SIRS-E RF Controllers
RF-MZRX-RGBW



SIRS-E DMX Controllers
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.

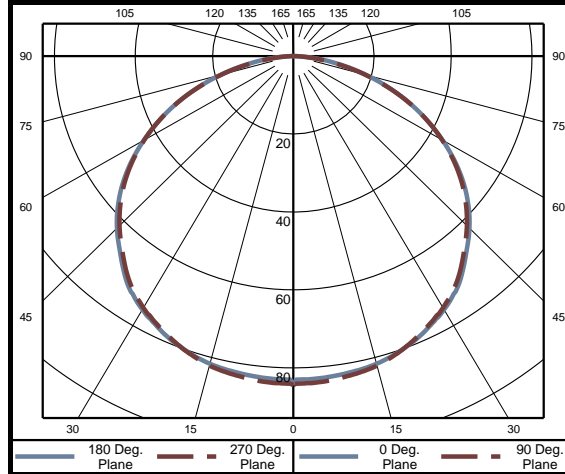


SIRS Electronics Inc
 Catalog Number
ACUHUE-12CV590-4016 - ALL COLORS



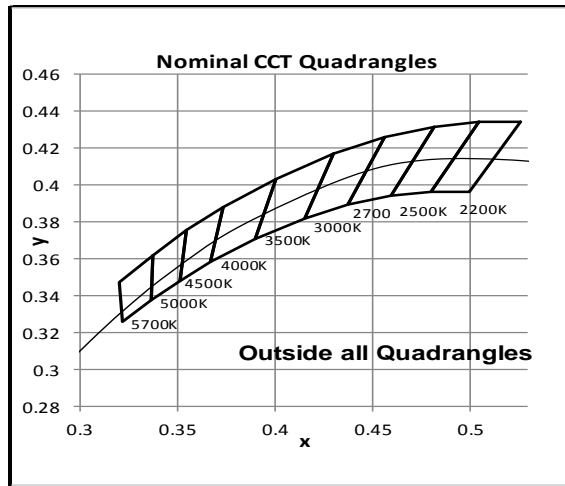
Electrical Test Conditions						
Temp	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.1 °C	11.98 VDC	0.6840 A	8.197 W	N/A	N/A	N/A

Summary of Results	
Total Lumen Output	266.3 Lumens
Luminaire Efficacy	32.2 lm/w
Maximum Candela	85 Candela
CCT	22000 K
CRI	54.8
Duv	0.0042
TM-30 Rf	0.0
TM-30 Rg	0.0



Intensity (Candlepower) Summary		
Angle	Mean CP	Lumens
0	84	
5	84	8
10	84	
15	83	23
20	81	
25	79	36
30	76	
35	73	45
40	68	
45	63	49
50	58	
55	52	46
60	44	
65	37	36
70	28	
75	20	21
80	11	
85	4	5
90	0	

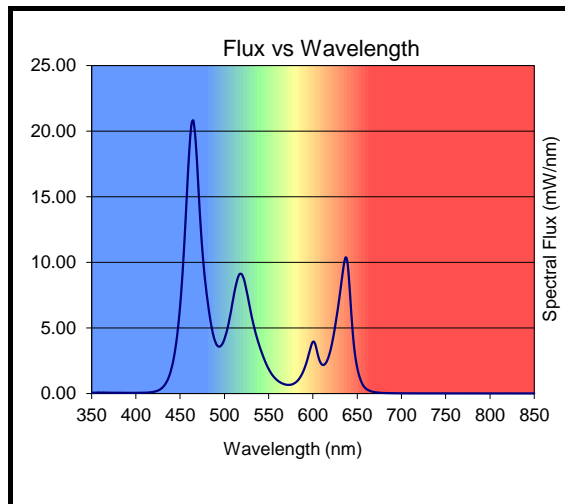
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	68	25.0%
0-40	113	41.8%
0-60	208	76.9%
0-90	271	100.0%
40-90	157	58.2%
60-90	62	23.1%
90-180	0	0.0%
0-180	271	100.0%



Spacing Criteria	
0-180	1.33
90-270	1.33

Color Rendering Index Details	
Ra (CRI)	54.8
R1	42.5
R2	57.1
R3	68.6
R4	60.4
R5	59.5
R6	55.7
R7	63.3
R8	31.2
R9	-130.5
R10	-2.5
R11	54.2
R12	57.9
R13	40.5
R14	79.4

Average Luminance cd/m ²	
Vertical Angle	Horizontal Angle 0°
0	20130
45	21130
55	21120
65	20190
75	17790
85	13090



Cone of Light Tabulation		
Mounting Height (Ft)	Footcandles at Nadir	Diameter (Ft)
4.00	5.28	5.36
6.00	2.34	8.05
8.00	1.32	10.7
10.0	0.844	13.4
12.0	0.586	16.1
14.0	0.431	18.8
16.0	0.330	21.5

Chromaticity Coordinates	
Chromaticity (x)	0.2451
Chromaticity (y)	0.2498
Chromaticity (u)	0.1780
Chromaticity (v)	0.2721
Chromaticity (u')	0.1780
Chromaticity (v')	0.4082
Duv	0.0042

Testing was performed in accordance with LM-79-08
 The results contained in this summary pertain only to report #11714176.09



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Integrating Sphere Test Report

Relevant Standards

IES LM-79-2008, ANSI C82.77-2002, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2015, IES TM-30-2015

Prepared For

SIRS Electronics Inc

4705 Hwy 36 S
STE 5
Rosenberg, TX 77471
United States

Catalog Number

ACUHUE-12CV590-4016 - RED

Order Number

11714176

Test Number

11714176.05

Test Date

2017-04-12

Prepared By

Kevin Rodriguez, Technician

Approved By

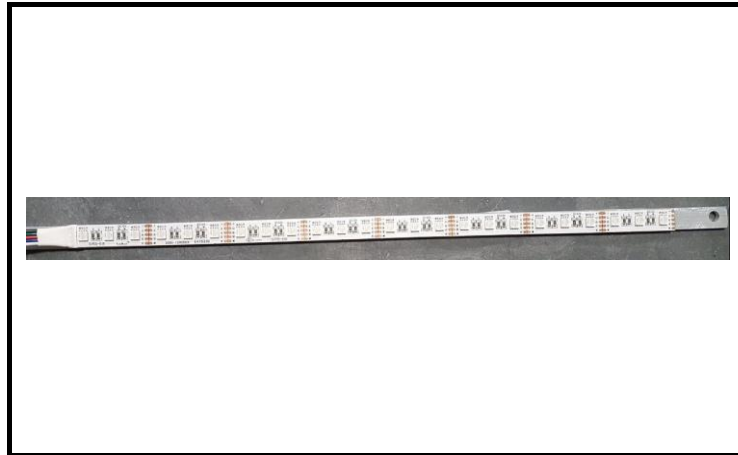
Justin Benner, Project Handler

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Luminaire Description: Formed aluminum backing plate, LED strip with no lens enclosure - 1' length (304.8mm)
Lamp: 24 RGB LEDs
Mounting: Surface – Ceiling
Ballast/Driver: None

Luminaire



Summary of Results

Radiant Flux:	296.4 mW
Luminous Flux:	60.5 lm
Luminaire Efficacy:	30.4 lm/W
Chromaticity (x):	0.6927
Chromaticity (y):	0.3063
Chromaticity (u):	0.5238
Chromaticity (v):	0.3474
Duv:	0.0063

Test Conditions

Test Temperature:	25.0 °C
Voltage:	11.99 VDC
Current:	0.1659 A
Power:	1.989 W

Testing was performed in a 2-meter integrating sphere using the 4 π geometry method.
Absorption correction was employed for this measurement.



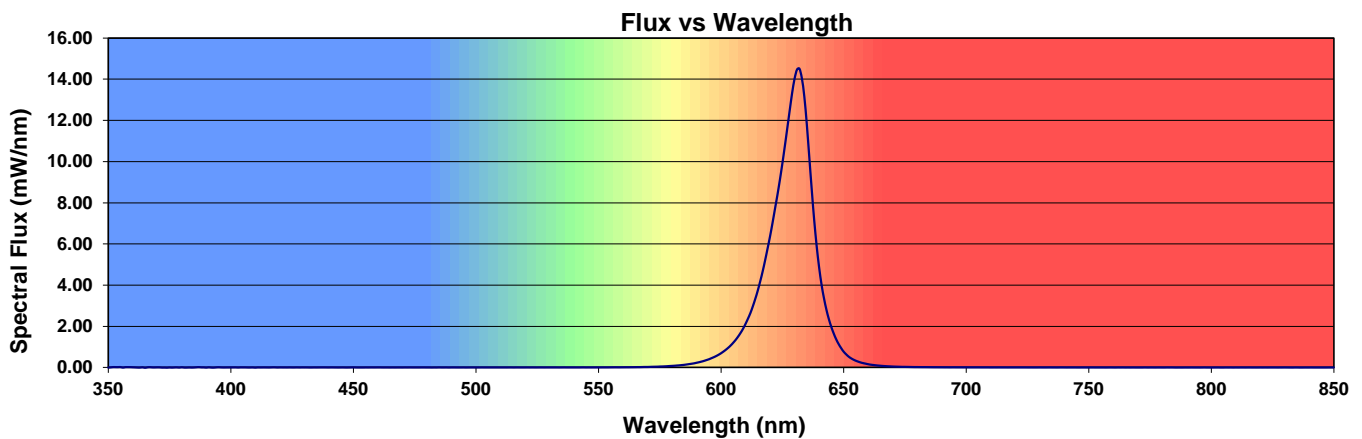
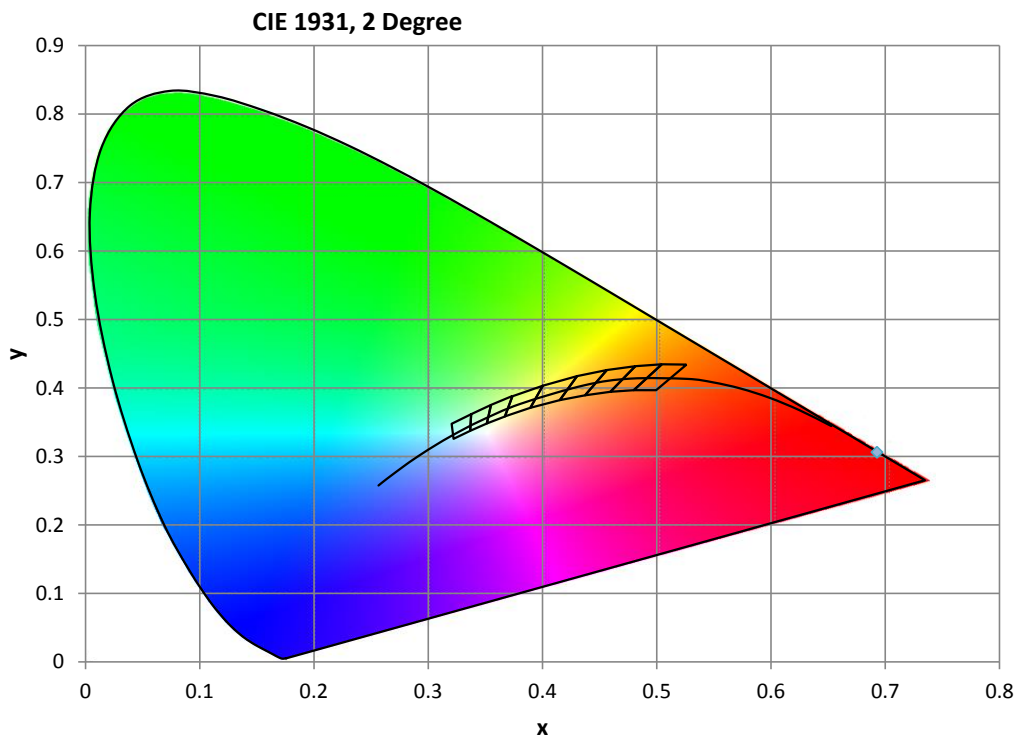
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.0 °C	11.99 VDC	0.1659 A	1.989 W	N/A	N/A	N/A

Summary of Results

Total Output:	61 Lumens	Chromaticity (x):	0.6927
Efficacy:	30.4 lm/w	Chromaticity (y):	0.3063
CCT:	1000 K	Chromaticity (u'):	0.5238
Peak Wavelength:	631.5 nm	Chromaticity (v'):	0.5211
Dominant Wavelength:	621.1 nm	Duv:	0.0063
S/P Ratio:	0.061		





UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Integrating Sphere Test Report

Relevant Standards

IES LM-79-2008, ANSI C82.77-2002, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2015, IES TM-30-2015

Prepared For

SIRS Electronics Inc

4705 Hwy 36 S
STE 5
Rosenberg, TX 77471
United States

Catalog Number

ACUHUE-12CV590-4016 - GREEN

Order Number

11714176

Test Number

11714176.06

Test Date

2017-04-12

Prepared By

Kevin Rodriguez, Technician

Approved By

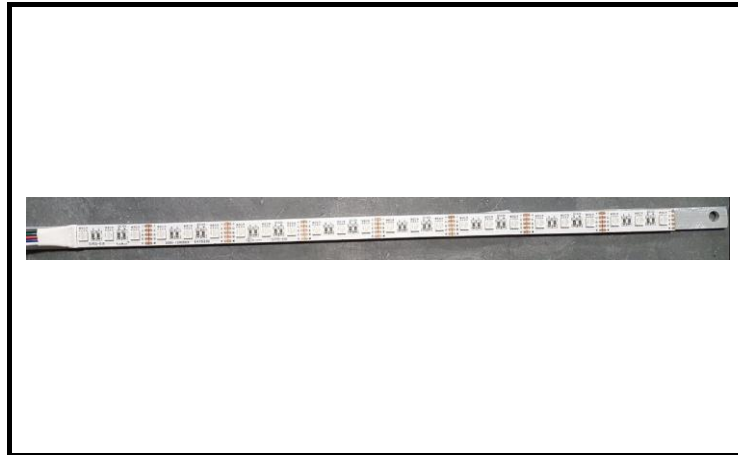
Justin Benner, Project Handler

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Luminaire Description: Formed aluminum backing plate, LED strip with no lens enclosure - 1' length (304.8mm)
Lamp: 24 RGB LEDs
Mounting: Surface – Ceiling
Ballast/Driver: None

Luminaire



Summary of Results

Radiant Flux:	354 mW
Luminous Flux:	161.1 lm
Luminaire Efficacy:	87.3 lm/W
Chromaticity (x):	0.1419
Chromaticity (y):	0.7237
Chromaticity (u):	0.0498
Chromaticity (v):	0.3809
Duv:	0.1643

Test Conditions

Test Temperature:	25.6 °C
Voltage:	12.01 VDC
Current:	0.1538 A
Power:	1.846 W

Testing was performed in a 2-meter integrating sphere using the 4π geometry method.
Absorption correction was employed for this measurement.



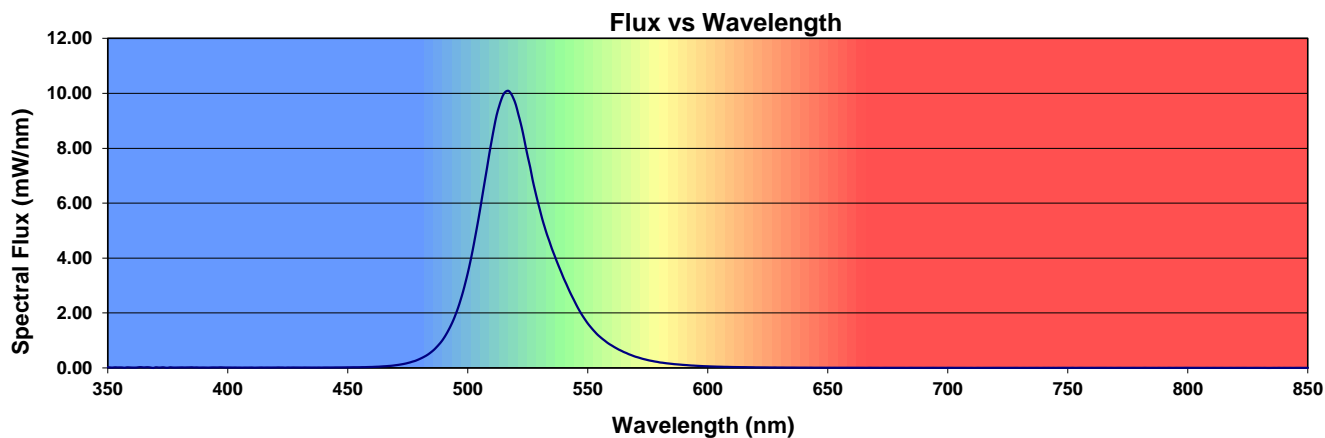
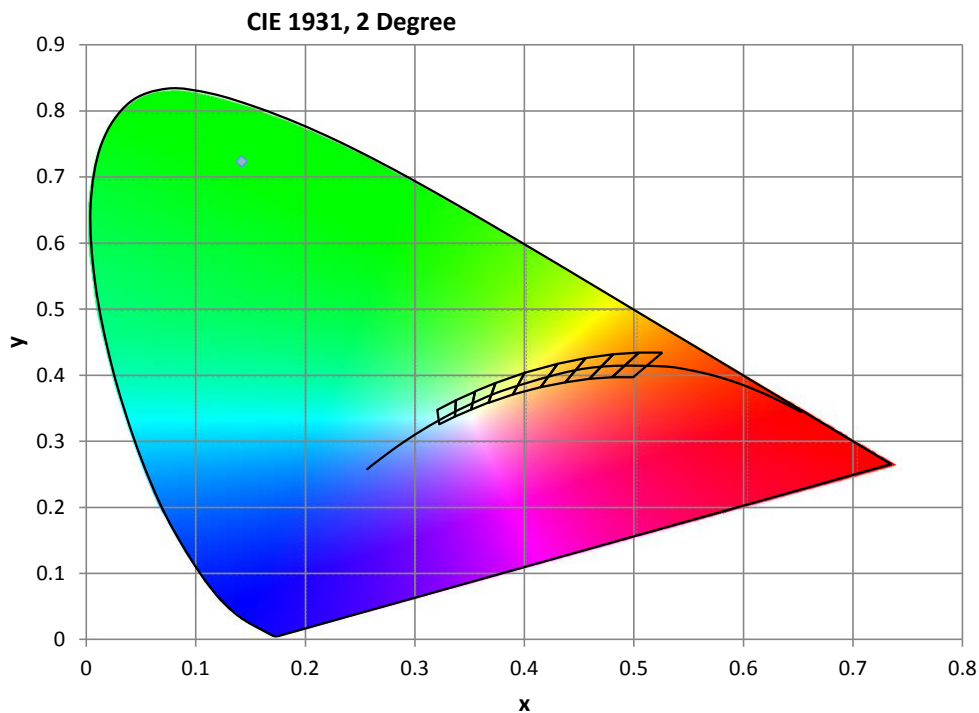
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.6 °C	12.01 VDC	0.1538 A	1.846 W	N/A	N/A	N/A

Summary of Results

Total Output:	161 Lumens	Chromaticity (x):	0.1419
Efficacy:	87.3 lm/w	Chromaticity (y):	0.7237
Peak Wavelength:	516.5 nm	Chromaticity (u'):	0.0498
Dominant Wavelength:	521.8 nm	Chromaticity (v'):	0.5713
S/P Ratio:	3.16	Duv:	0.1643





UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Integrating Sphere Test Report

Relevant Standards

IES LM-79-2008, ANSI C82.77-2002, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2015, IES TM-30-2015

Prepared For

SIRS Electronics Inc

4705 Hwy 36 S
STE 5
Rosenberg, TX 77471
United States

Catalog Number

ACUHUE-12CV590-4016 - BLUE

Order Number

11714176

Test Number

11714176.07

Test Date

2017-04-12

Prepared By

Kevin Rodriguez, Technician

Approved By

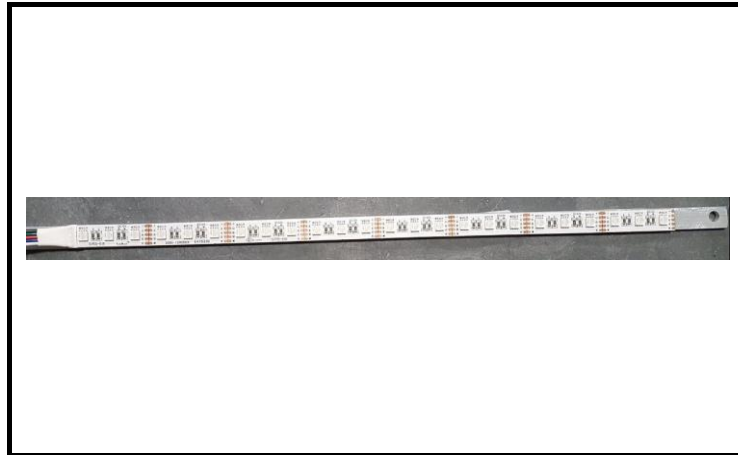
Justin Benner, Project Handler

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Luminaire Description: Formed aluminum backing plate, LED strip with no lens enclosure - 1' length (304.8mm)
Lamp: 24 RGB LEDs
Mounting: Surface – Ceiling
Ballast/Driver: None

Luminaire



Summary of Results

Radiant Flux:	572.5 mW
Luminous Flux:	34.36 lm
Luminaire Efficacy:	17.0 lm/W
Chromaticity (x):	0.1375
Chromaticity (y):	0.0509
Chromaticity (u):	0.1649
Chromaticity (v):	0.0916
Duv:	0.0342

Test Conditions

Test Temperature:	25.1 °C
Voltage:	12.00 VDC
Current:	0.1683 A
Power:	2.021 W

Testing was performed in a 2-meter integrating sphere using the 4π geometry method.
Absorption correction was employed for this measurement.



Color Quality - Integrating Sphere

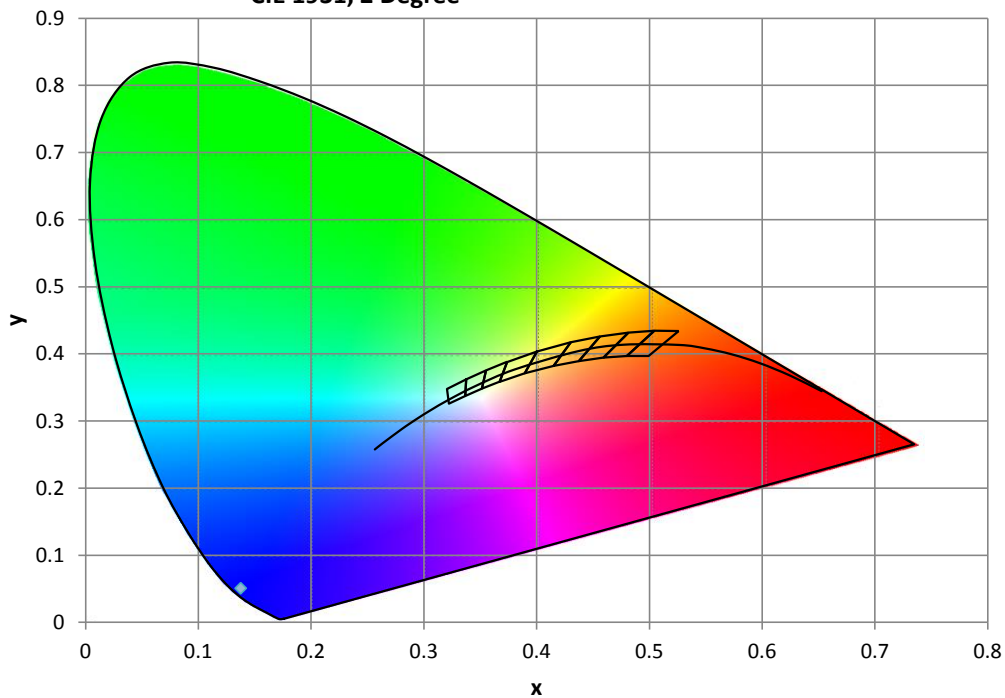
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	12.00 VDC	0.1683 A	2.021 W	N/A	N/A	N/A

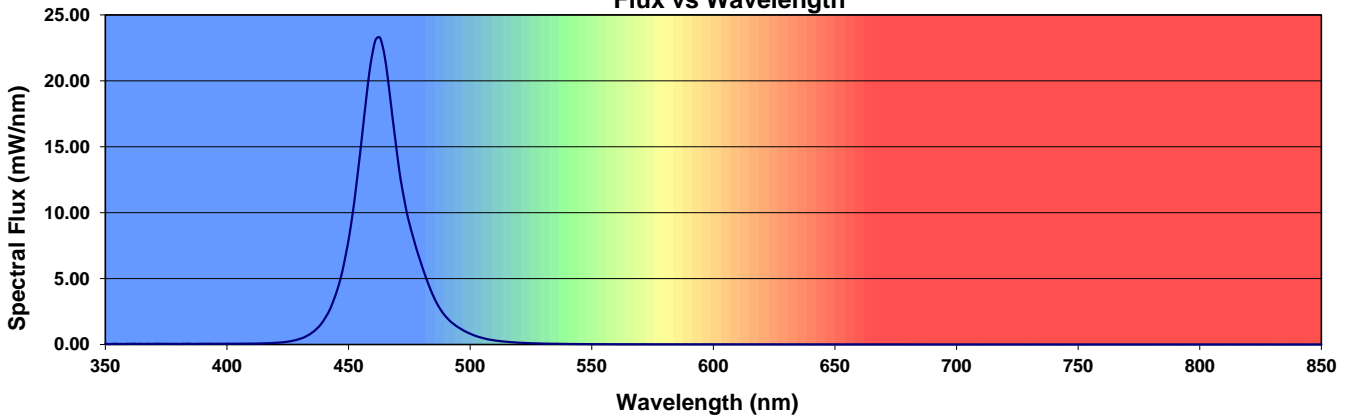
Summary of Results

Total Output:	34 Lumens	Chromaticity (x):	0.1375
Efficacy:	17.0 lm/w	Chromaticity (y):	0.0509
Peak Wavelength:	462.2 nm	Chromaticity (u'):	0.1649
Dominant Wavelength:	466.4 nm	Chromaticity (v'):	0.1374
S/P Ratio:	17.24	Duv:	0.0342

CIE 1931, 2 Degree



Flux vs Wavelength





UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Integrating Sphere Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-2002, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2015, IES TM-30-2015

Prepared For
SIRS Electronics Inc

4705 Hwy 36 S
STE 5
Rosenberg, TX 77471
United States

Catalog Number
ACUHUE-12CV590-4016 - WHITE

Order Number
11714176
Test Number
11714176.08

Test Date

2017-04-13

Prepared By

Kevin Rodriguez, Technician

Approved By

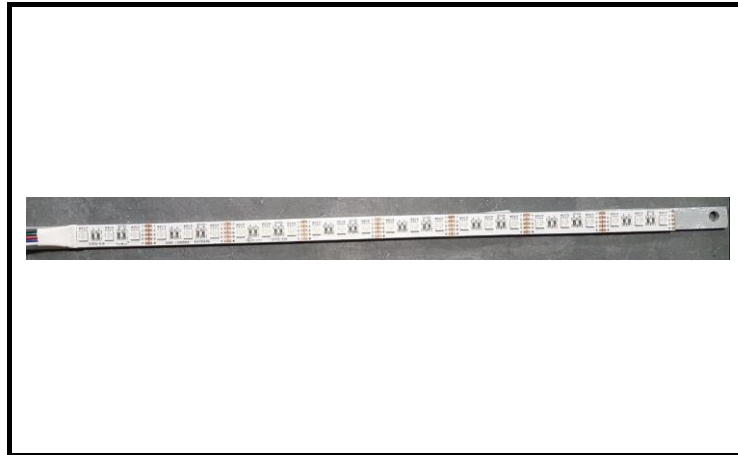
Justin Benner, Project Handler

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Luminaire Description: Formed aluminum backing plate, LED strip with no lens enclosure - 1' length (304.8mm)
Lamp: 24 RGB LEDs
Mounting: Surface – Ceiling
Ballast/Driver: None

Luminaire



Summary of Results

Radiant Flux:	119.2 mW
Luminous Flux:	58.05 lm
Luminaire Efficacy:	27.6 lm/W
CCT:	1610 K
CRI (Ra):	-26.5
Chromaticity (x):	0.5846
Chromaticity (y):	0.4142
Chromaticity (u):	0.3438
Chromaticity (v):	0.3654
Duv:	0.0048

Test Conditions

Test Temperature:	24.4 °C
Voltage:	11.99 VDC
Current:	0.1753 A
Power:	2.102 W

Testing was performed in a 2-meter integrating sphere using the 4π geometry method.
Absorption correction was employed for this measurement.



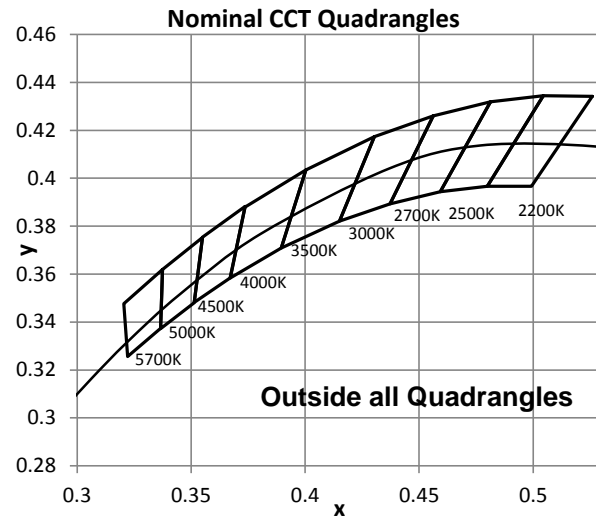
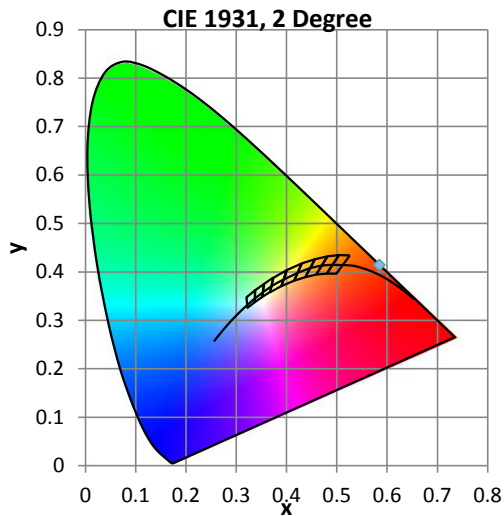
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	11.99 VDC	0.1753 A	2.102 W	N/A	N/A	N/A

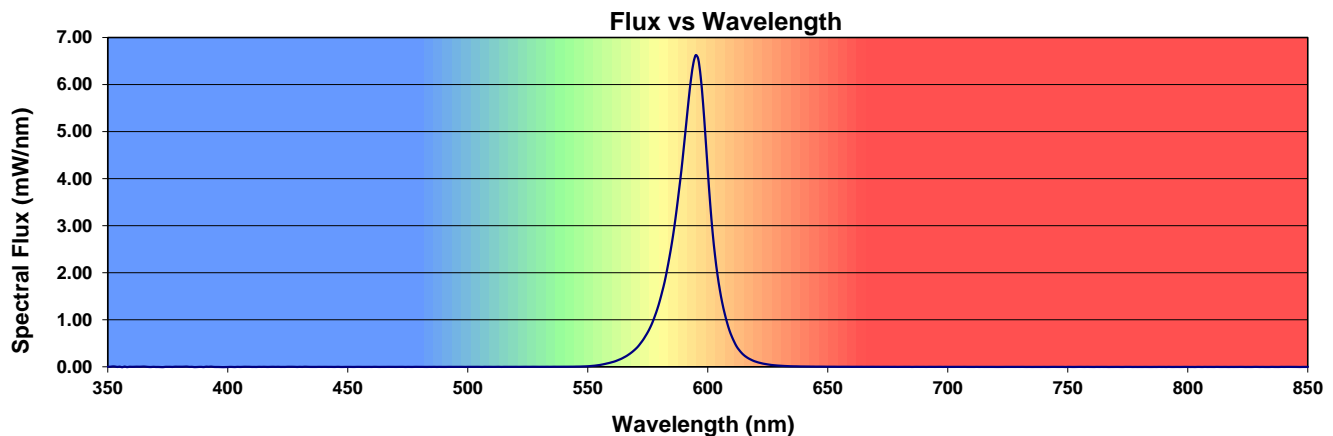
Summary of Results

Total Output:	58 Lumens	Chromaticity (x):	0.5846
Efficacy:	27.6 lm/w	Chromaticity (y):	0.4142
CCT:	1610 K	Chromaticity (u'):	0.3438
CRI (Ra):	-26.5	Chromaticity (v'):	0.5481
CRI (R9):	-409.9	TM-30 R_f:	
Peak Wavelength:	595.1 nm	TM-30 R_g:	
Dominant Wavelength:	591.7 nm	Duv:	0.0048
S/P Ratio:	0.228		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
-26.5	-41.4	49.9	14.3	-75.6	-46.5	37.9	-9.7	-141.0	-409.9	26.4	-104.3	-13.4	-21.4	43.5





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7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Photometric Test Report

Relevant Standards

IES LM-79-2008, ANSI C82.77-2002, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2015, IES TM-30-2015

Prepared For

SIRS Electronics Inc

4705 Hwy 36 S
STE 5
Rosenberg, TX 77471
United States

Catalog Number

ACUHUE-12CV590-4016 - ALL COLORS

Order Number

11714176

Test Number

11714176.09

Test Date

2017-04-11 - 2017-04-19

Prepared By

Kevin Rodriguez, Technician

Approved By

Justin Benner, Project Handler

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Table of Contents

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ISOFootcandle Plot	Page 8

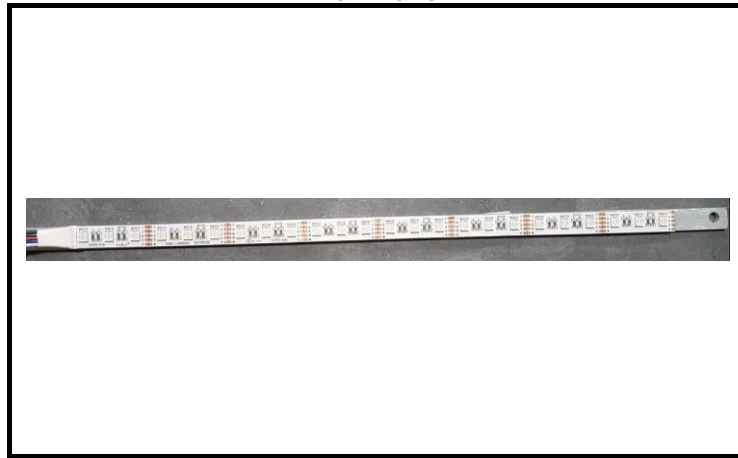
Laboratory results may not be representative of field performance
Ballast factors have not been applied

Testing was performed in a 2-meter integrating sphere using the 4π geometry method.
Absorption correction was employed for Sphere measurement



Luminaire Description: Formed aluminum backing plate, LED strip with no lens enclosure (304.8mm)
Lamp: 24 RGB LEDs
Mounting: Surface – Ceiling
Ballast/Driver: None

Luminaire



Luminaire Characteristics

Luminous Length: 13.00 in.
Luminous Width: 0.5000 in.

Summary of Results

Integrating Sphere

Luminous Flux: 266 Lumens
Efficacy: 32.2 lm/w
CCT: 22000 K
CRI (Ra): 54.8

Distribution

Total Luminaire Output: 270.6 Lumens
Luminaire Efficacy: 33 lm/w
Maximum Candela: 85 Candela

Electrical Data at 12 VDC

Test Temperature: 24.4 °C
Voltage: 11.98 VDC
Current: 0.6908 A
Power: 8.280 W



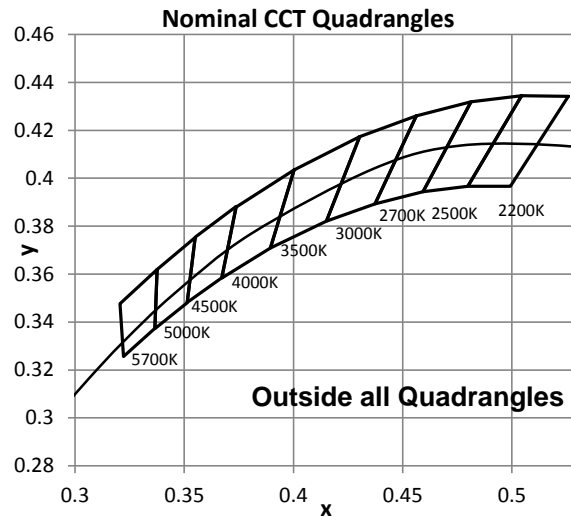
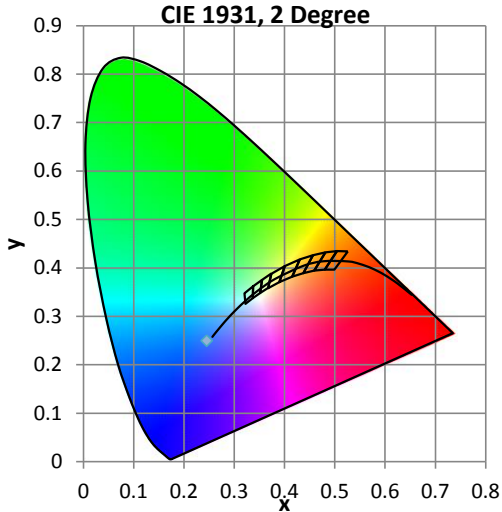
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	11.98 VDC	0.6908 A	8.280 W	N/A	N/A	N/A

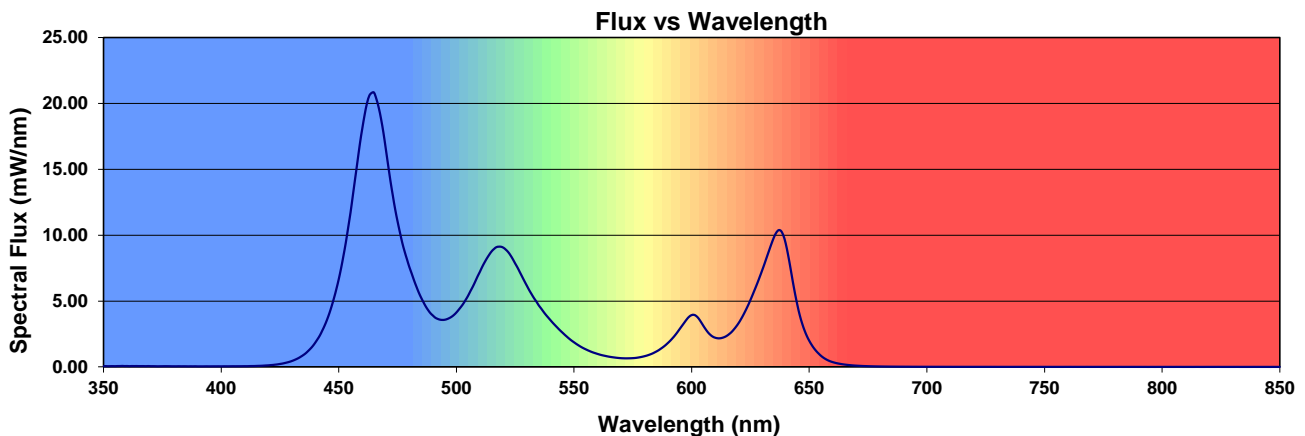
Summary of Results

Total Output:	266 Lumens	Chromaticity (x):	0.2451
Efficacy:	32.2 lm/w	Chromaticity (y):	0.2498
CCT:	22000 K	Chromaticity (u'):	0.1780
CRI (Ra):	54.8	Chromaticity (v'):	0.4082
CRI (R9):	-130.5	TM-30 R_f:	
Peak Wavelength:	464.3 nm	TM-30 R_g:	
Dominant Wavelength:	478 nm	Duv:	0.0042
S/P Ratio:	4.059		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
54.8	42.5	57.1	68.6	60.4	59.5	55.7	63.3	31.2	-130.5	-2.5	54.2	57.9	40.5	79.4





Distribution - Goniophotometer

Distribution Test Conditions

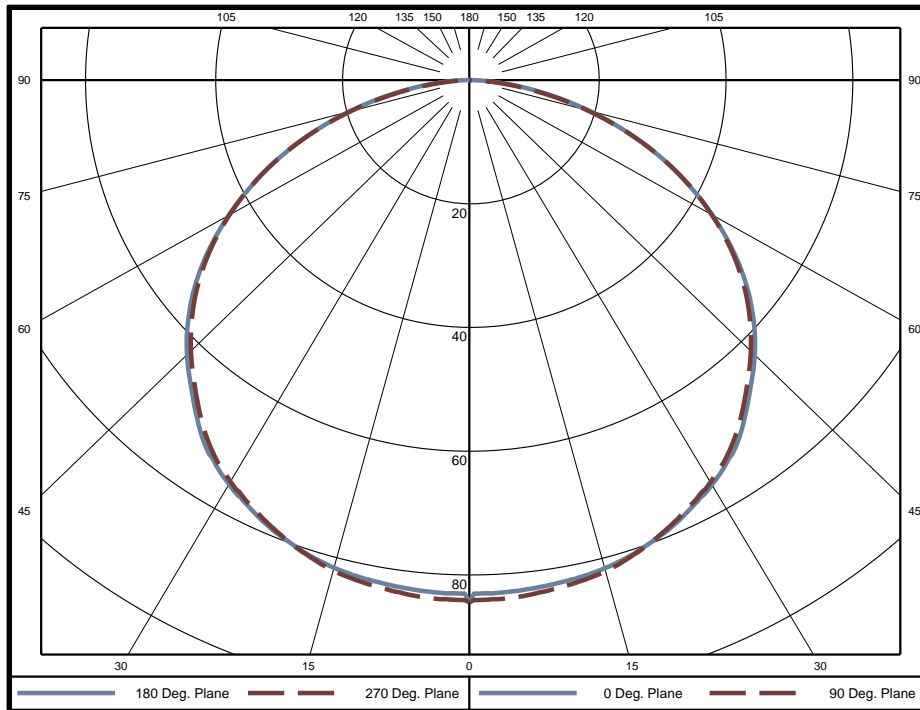
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.1 °C	11.98 VDC	0.6840 A	8.197 W	N/A	N/A	N/A

Summary of Results

Spacing Criteria
 0-180: 1.33
 90-270: 1.33

Total Lumen Output: 270.6 Lumens
Luminaire Efficacy: 33.0 lm/w
Maximum Candela: 85 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	2.02	0.7%	60-65	19.73	7.3%	120-125	0	0.0%
5-10	6.01	2.2%	65-70	16.46	6.1%	125-130	0	0.0%
10-15	9.87	3.6%	70-75	12.53	4.6%	130-135	0	0.0%
15-20	13.50	5.0%	75-80	8.29	3.1%	135-140	0	0.0%
20-25	16.76	6.2%	80-85	4.24	1.6%	140-145	0	0.0%
25-30	19.59	7.2%	85-90	1.15	0.4%	145-150	0	0.0%
30-35	21.93	8.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	23.52	8.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	24.34	9.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	24.55	9.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	23.91	8.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	22.27	8.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	113	41.8%
0-60	208	77.0%
0-90	271	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	84.41	84.41	84.41	84.41	84.41	84.41	84.41	84.41	84.41	84.41	84.41	84.41	84.41	84.41	84.41	84.41
5	82.90	84.11	84.87	84.54	83.89	84.54	84.87	84.11	82.90	84.11	84.87	84.54	83.89	84.54	84.87	84.11
10	82.40	83.65	84.28	83.88	83.18	83.88	84.28	83.65	82.40	83.65	84.28	83.88	83.18	83.88	84.28	83.65
15	81.65	82.86	83.34	82.86	82.10	82.86	83.34	82.86	81.65	82.86	83.34	82.86	82.10	82.86	83.34	82.86
20	80.12	81.25	81.60	81.03	80.22	81.03	81.60	81.25	80.12	81.25	81.60	81.03	80.22	81.03	81.60	81.25
25	78.05	79.14	79.37	78.60	77.68	78.60	79.37	79.14	78.05	79.14	79.37	78.60	77.68	78.60	79.37	79.14
30	75.44	76.57	76.67	75.72	74.97	75.72	76.67	76.57	75.44	76.57	76.67	75.72	74.97	75.72	76.67	76.57
35	72.20	73.46	73.57	72.46	71.41	72.46	73.57	73.46	72.20	73.46	73.57	72.46	71.41	72.46	73.57	73.46
40	67.39	68.88	68.88	67.67	66.66	67.67	68.88	68.88	67.39	68.88	68.88	67.67	66.66	67.67	68.88	68.88
45	62.66	64.21	64.15	62.94	61.82	62.94	64.15	64.21	62.66	64.21	64.15	62.94	61.82	62.94	64.15	64.21
50	57.20	58.84	58.89	57.67	56.48	57.67	58.89	58.84	57.20	58.84	58.89	57.67	56.48	57.67	58.89	58.84
55	50.81	52.39	52.63	51.47	50.35	51.47	52.63	52.39	50.81	52.39	52.63	51.47	50.35	51.47	52.63	52.39
60	43.49	44.95	45.26	44.29	43.43	44.29	45.26	44.95	43.49	44.95	45.26	44.29	43.43	44.29	45.26	44.95
65	35.79	36.95	37.32	36.52	35.87	36.52	37.32	36.95	35.79	36.95	37.32	36.52	35.87	36.52	37.32	36.95
70	27.65	28.57	28.81	28.14	27.64	28.14	28.81	28.57	27.65	28.57	28.81	28.14	27.64	28.14	28.81	28.57
75	19.31	19.94	20.08	19.45	19.10	19.45	20.08	19.94	19.31	19.94	20.08	19.45	19.10	19.45	20.08	19.94
80	11.32	11.66	11.79	11.25	10.86	11.25	11.79	11.66	11.32	11.66	11.79	11.25	10.86	11.25	11.79	11.66
85	4.78	4.80	4.60	4.21	3.79	4.21	4.60	4.80	4.78	4.80	4.60	4.21	3.79	4.21	4.60	4.80
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

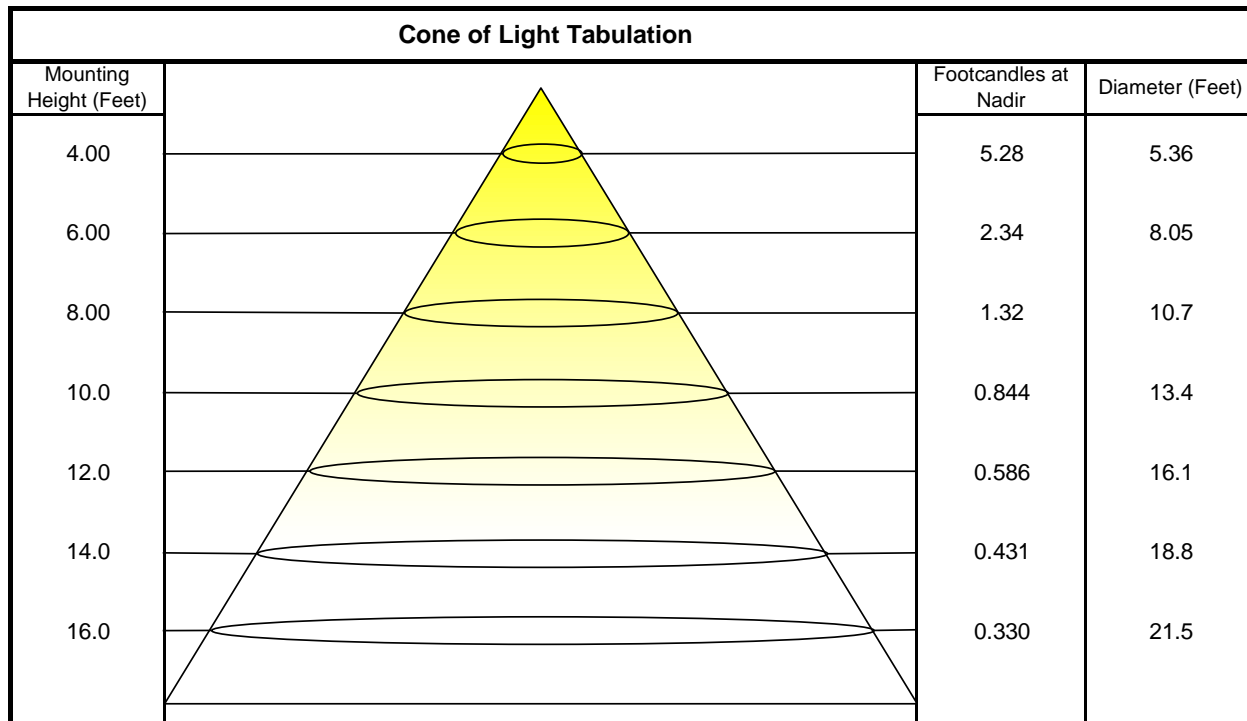
	0	45	90
0	20130	20130	20130
45	21130	21640	20850
55	21120	21880	20930
65	20190	21060	20240
75	17790	18500	17600
85	13090	12570	10380



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	322	322	322	322	315	315	315	315	301	301	301	288	288	288	276	276	276	271
1	293	280	268	257	286	274	263	253	262	253	245	251	244	237	242	236	230	224
2	266	242	223	207	258	237	220	205	228	213	200	219	206	195	210	200	191	185
3	241	212	189	171	234	207	186	169	199	181	166	192	176	163	185	171	160	154
4	220	187	162	143	214	183	160	142	176	156	140	170	152	138	164	149	136	130
5	202	166	141	123	196	163	140	122	157	136	120	152	133	119	147	131	118	112
6	186	149	124	106	181	146	123	106	141	121	105	137	118	104	133	116	103	97
7	172	135	110	93	167	133	109	93	128	107	92	124	106	92	121	104	91	85
8	160	123	99	83	156	121	98	83	117	97	82	114	95	82	110	94	81	76
9	149	112	90	74	146	111	89	74	108	88	74	105	86	73	102	85	73	68
10	140	103	82	67	136	102	81	67	99	80	67	97	79	66	94	78	66	61

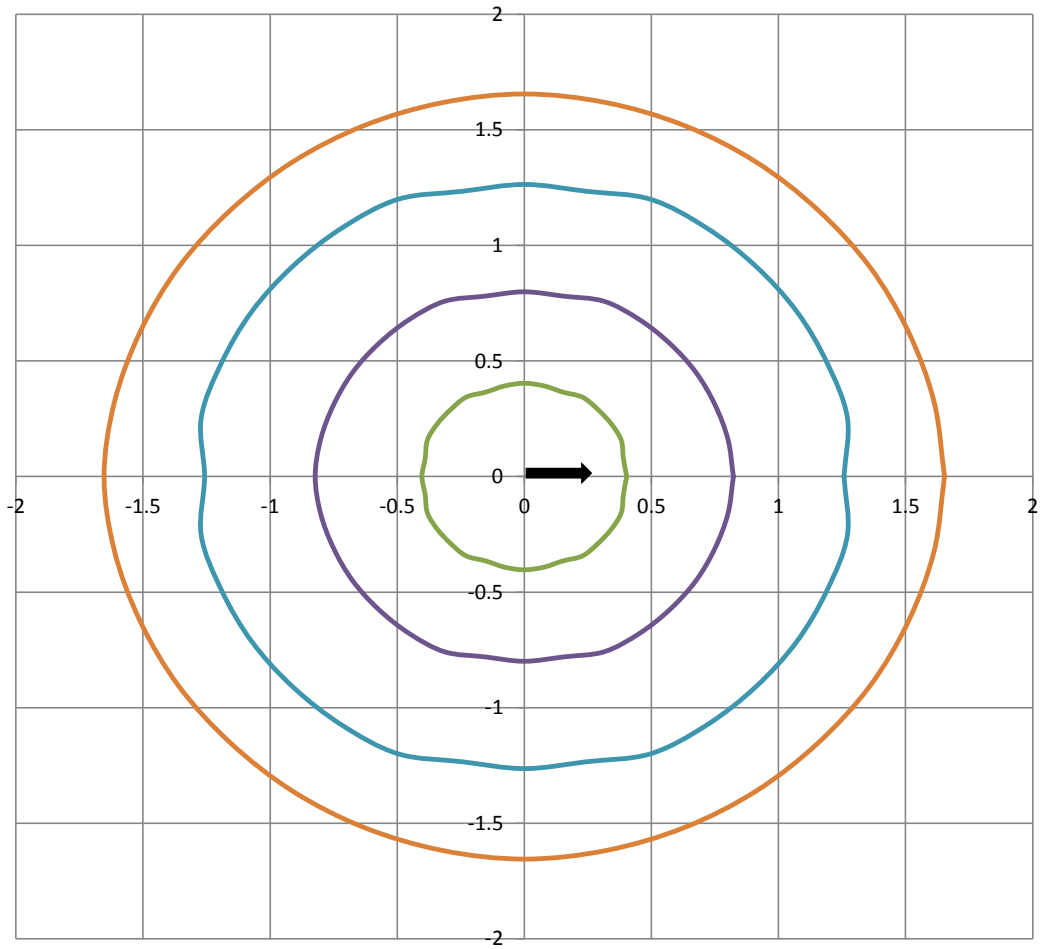
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	84.41 Candela
Central Cone Intensity:	84 Candela
Beam Flux:	214.4 Lumens
Beam Angle (0-180):	121.7 Degrees
Beam Angle (90-270):	121.7 Degrees
Field Angle (0-180):	164.2 Degrees
Field Angle (90-270):	163.2 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height



CERTIFICATE OF COMPLIANCE

Certificate Number 20170427-E479339
Report Reference E479339-20151029
Issue Date 2017-APRIL-27

Issued to: SIRS ELECTRONICS INC
4705 HWY 36 S, SUITE 5
ROSENBERG TX 77471

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 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

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CERTIFICATE OF COMPLIANCE

Certificate Number 20170427-E479339
Report Reference E479339-20151029
Issue Date 2017-APRIL-27

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

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.

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.

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.

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.

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
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