

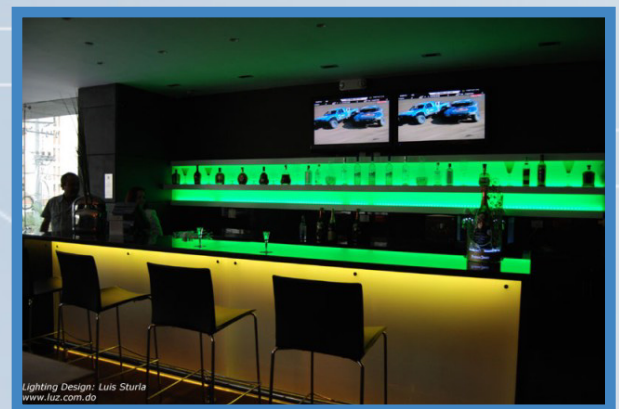
Flexible RGB LED Strips

The SIRS-E® **AcuVibrant™** CV RGB LED strip series, consists of High Quality Constant Voltage variants with the ability to create millions of color "vibrant" rendering options offered by color mixing diodes. **AcuVibrant™** provides consistent, color rich illuminations with optimal efficacy 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 230 lm/ft
- Improved Luminous Efficacy +50 lm/W avg
- Minimal Power Consumption 3.6 W/ft
- UL Listed, Class 2 - E479339
- 25% more lumen output than our previous RGB series



Lighting Design: Luis Sturle
www.luz.com.do



The **AcuVibrant™** series provides solutions for an endless set of applications including commercial, residential, stage & studio, theatrical, bars 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 RGB LED Strip



Description

RGB LED strip lights let you create millions of colors by just mixing red, green, and blue colors. Our new AcuVibrant™ series of CV RGB strips include a 4oz density PCB that minimizes voltage drop and a 3M VHB adhesive tape for a more secure installation.

AcuVibrant™ RGB 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	2 in (50 mm) for 12V / 4 in (100 mm) for 24V
Limiting Control Method	CV - Constant Voltage	Reel Length	16.4 ft / 5 m
Power Consumption	4.28 W/ft	Max Run Length	5 meters, 10% luminous flux loss
LED Chip Type	High Quality SMD 5050 3-Diode	Segment Width	0.39 in (10 mm) for IP40 / 0.50 in (12.7 mm) for IP68
LED Density	18 LEDs/ft / 60 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	628.6	621.6	(0.6940, 0.3052)	45	30.2
Green	517.3	523.6	(0.1528, 0.7224)	161	97.6
Blue	464.7	469.0	(0.1327, 0.0609)	35	23.3

Product Photometrics - All Three 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)	TM-30-15 Gamut (Rg)
22000 K	231	49.5	(0.2196, 0.2549)	+0.0250	64.0	NA	NA

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

² - AcuVibrant™ 24V RGB 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
AcuVibrant™	XX	CV	XX	XX	16
	12	CV		40	
	24 ¹	CC		68	

¹ Voltage - AcuVibrant™ 24V RGB LED Strips are Special Order only.

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

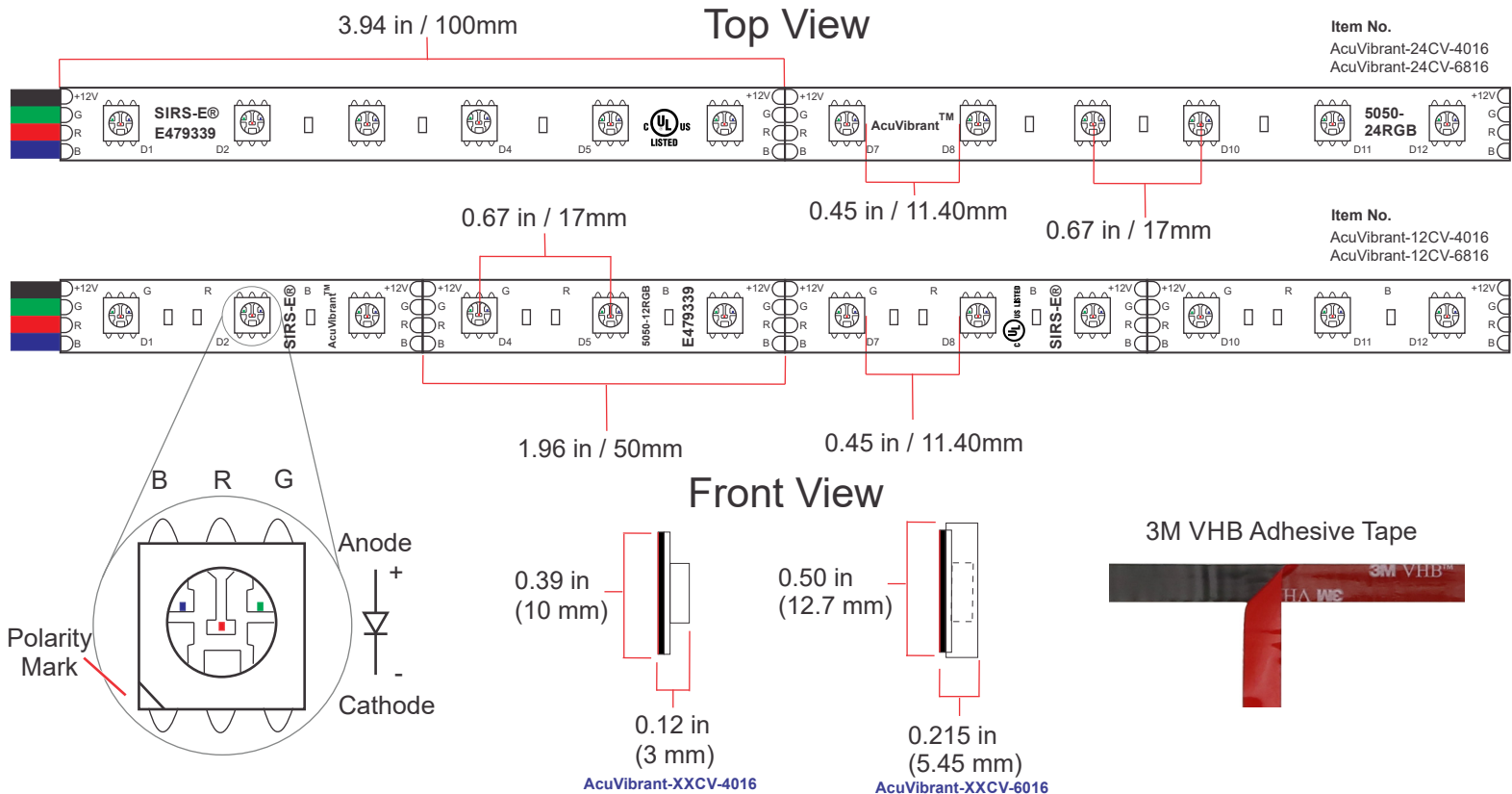
³ λ - Peak Wavelength, represented by the 3 digits of the color wavelength.

* 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:	4.4 oz, 16.4 ft Reel IP40, Without Packaging.
	13.3 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



Klus Aluminum Extrusions
B5554



SIRS-E RF Controllers
RF-MZRX-RGB



SIRS-E DMX Controllers
DMX-CON3-C2



SIRS-E Waterproof
Accessories



SIRS-E RGB 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

ACUVIBRANT-12CV-4016 - ALL COLORS



Electrical Test Conditions

Temp	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	12.00 VDC	0.3953 A	4.745 W	N/A	N/A	N/A

Summary of Results

Total Lumen Output	230.7 Lumens
Luminaire Efficacy	49.5 lm/w
Maximum Candela	65 Candela
CCT	22000 K
CRI	64.0
Duv	0.0250
TM-30 Rf	0.0
TM-30 Rg	0.0

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	51	23.7%
0-40	86	39.8%
0-60	163	75.1%
0-90	217	100.0%
40-90	131	60.2%
60-90	54	24.9%
90-180	0	0.0%
0-180	217	100.0%

Spacing Criteria

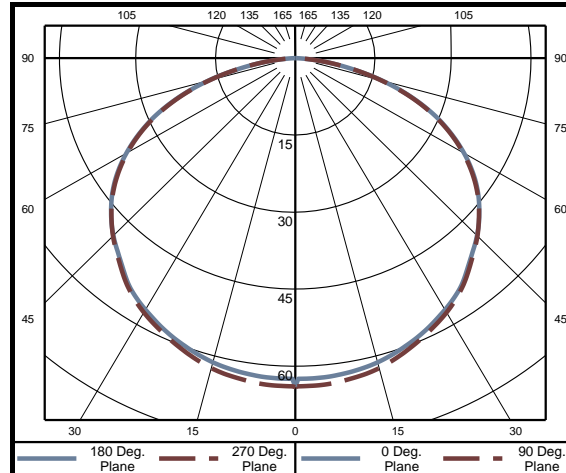
0-180	1.33
90-270	1.33

Average Luminance cd/m²

Vertical Angle	Horizontal Angle 0°
0	16900
45	18280
55	19320
65	19720
75	17710
85	8276

Cone of Light Tabulation

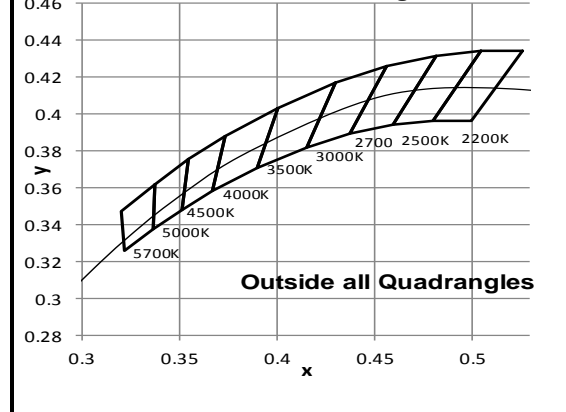
Mounting Height (Ft)	Footcandles at Nadir	Diameter (Ft)
4.00	4.00	5.39
6.00	1.78	8.09
8.00	1.00	10.8
10.0	0.641	13.5
12.0	0.445	16.2
14.0	0.327	18.9
16.0	0.250	21.6



Intensity (Candlepower) Summary

Angle	Mean CP	Lumens
0	64	
5	64	6
10	64	
15	63	18
20	61	
25	60	28
30	58	
35	56	35
40	53	
45	50	38
50	47	
55	43	38
60	38	
65	32	32
70	25	
75	18	19
80	10	
85	3	4
90	0	

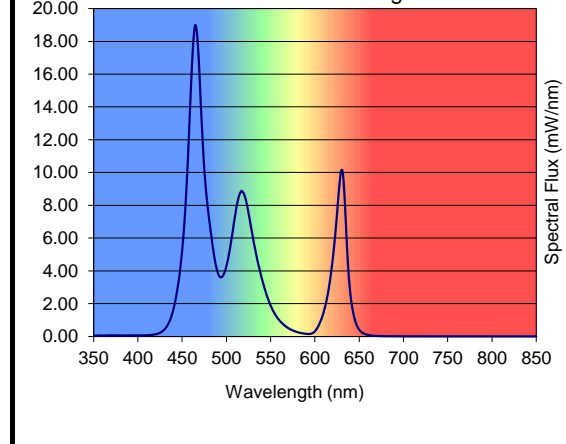
Nominal CCT Quadrangles



Color Rendering Index Details

Ra (CRI)	64.0
R1	62.9
R2	64.8
R3	67.1
R4	81.1
R5	79.2
R6	60.5
R7	60.5
R8	36.0
R9	-114.5
R10	15.1
R11	75.2
R12	67.4
R13	54.9
R14	79.4

Flux vs Wavelength



Chromaticity Coordinates

Chromaticity (x)	0.2196
Chromaticity (y)	0.2549
Chromaticity (u)	0.1563
Chromaticity (v)	0.2722
Chromaticity (u')	0.1563
Chromaticity (v')	0.4082
Duv	0.0250

Testing was performed in accordance with LM-79-08
The results contained in this summary pertain only to report #11714176.04



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

ACUVIBRANT-12CV-4016 - RED

Order Number

11714176

Test Number

11714176.01

Test Date

2017-04-13

Prepared By

Kevin Rodriguez, Technician

Approved By

Justin Benner, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Formed aluminum backing plate, LED strip with no lens enclosure - 1' length (304.8mm)
Lamp: 18 RGB LEDs
Mounting: Surface – Ceiling
Ballast/Driver: None

Luminaire



Summary of Results

Radiant Flux:	209.6 mW
Luminous Flux:	45.07 lm
Luminaire Efficacy:	30.2 lm/W
Chromaticity (x):	0.6940
Chromaticity (y):	0.3052
Chromaticity (u):	0.5263
Chromaticity (v):	0.3472
Duv:	0.0064

Test Conditions

Test Temperature:	25.0 °C
Voltage:	12.00 VDC
Current:	0.1246 A
Power:	1.494 W

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



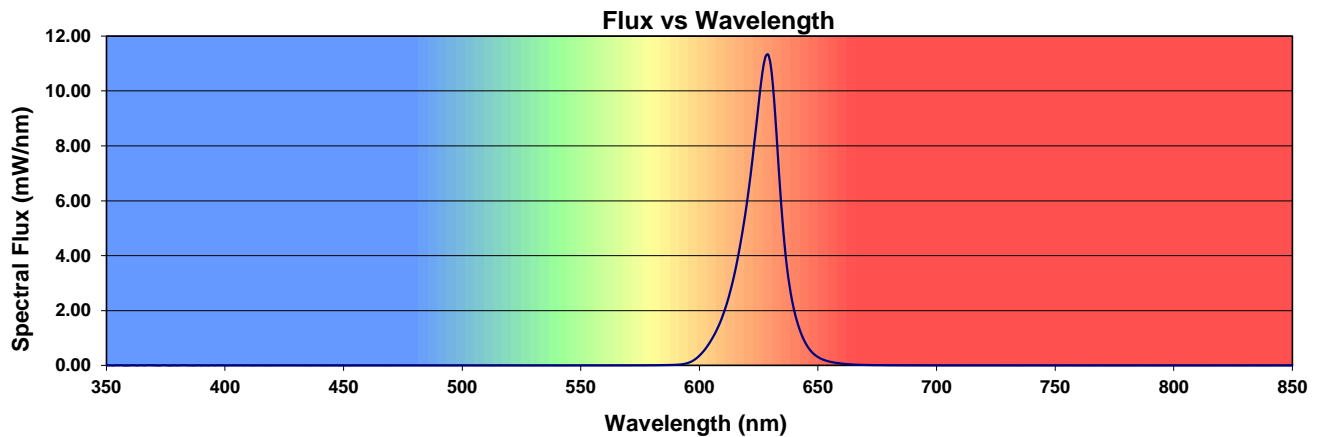
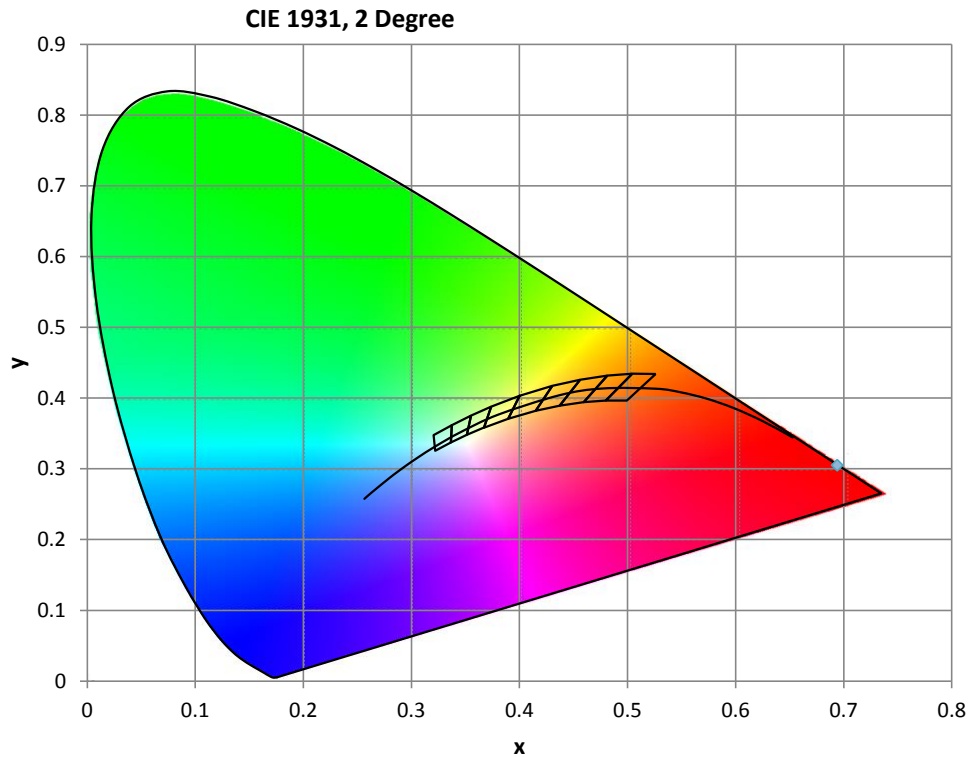
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.0 °C	12 VDC	0.1246 A	1.494 W	N/A	N/A	N/A

Summary of Results

Total Output:	45 Lumens	Chromaticity (x):	0.6940
Efficacy:	30.2 lm/w	Chromaticity (y):	0.3052
Peak Wavelength:	628.6 nm	Chromaticity (u'):	0.5263
Dominant Wavelength:	621.6 nm	Chromaticity (v'):	0.5208
S/P Ratio:	0.054	Duv:	0.0064





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

ACUVIBRANT-12CV-4016 - GREEN

Order Number

11714176

Test Number

11714176.02

Test Date

2017-04-13

Prepared By

Kevin Rodriguez, Technician

Approved By

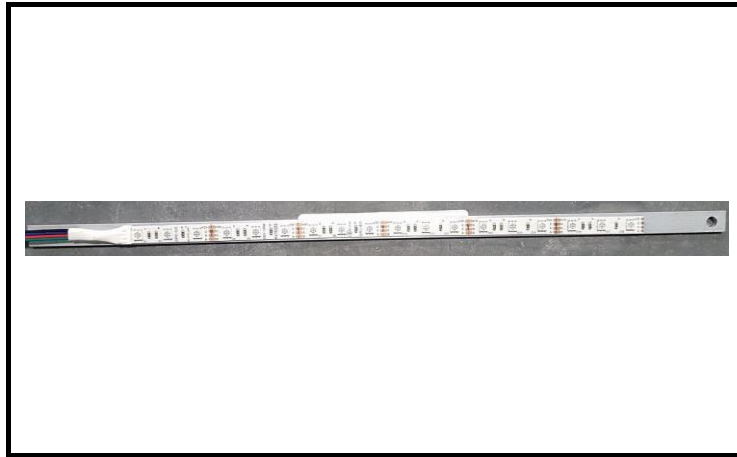
Justin Benner, Project Handler

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Luminaire Description: Formed aluminum backing plate, LED strip with no lens enclosure - 1' length (304.8mm)
Lamp: 18 RGB LEDs
Mounting: Surface – Ceiling
Ballast/Driver: None

Luminaire



Summary of Results

Radiant Flux:	345.4 mW
Luminous Flux:	160.9 lm
Luminaire Efficacy:	97.6 lm/W
Chromaticity (x):	0.1528
Chromaticity (y):	0.7224
Chromaticity (u):	0.0538
Chromaticity (v):	0.3814
Duv:	0.1609

Test Conditions

Test Temperature:	25.3 °C
Voltage:	12.00 VDC
Current:	0.1374 A
Power:	1.649 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

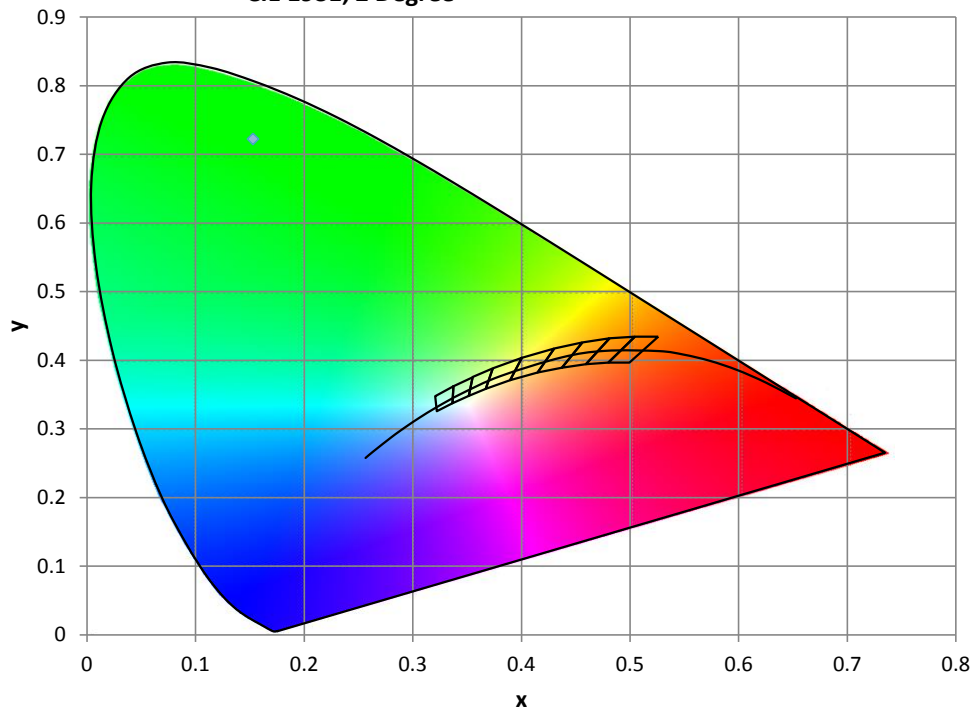
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	12.0 VDC	0.1374 A	1.649 W	N/A	N/A	N/A

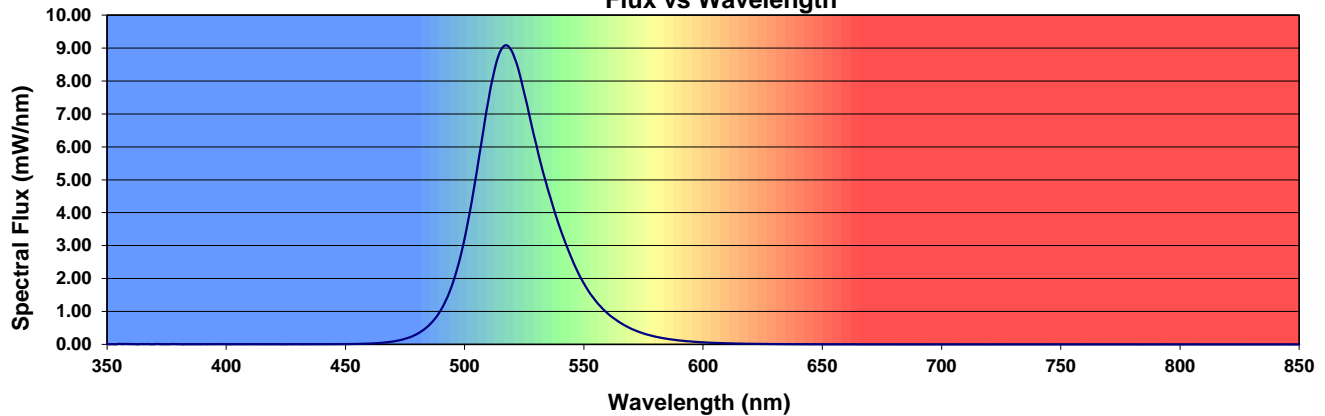
Summary of Results

Total Output:	161 Lumens	Chromaticity (x):	0.1528
Efficacy:	97.6 lm/w	Chromaticity (y):	0.7224
Peak Wavelength:	517.3 nm	Chromaticity (u'):	0.0538
Dominant Wavelength:	523.6 nm	Chromaticity (v'):	0.5722
S/P Ratio:	3.034	Duv:	0.1609

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

ACUVIBRANT-12CV-4016 - BLUE

Order Number

11714176

Test Number

11714176.03

Test Date

2017-04-13

Prepared By

Kevin Rodriguez, Technician

Approved By

Justin Benner, Project Handler

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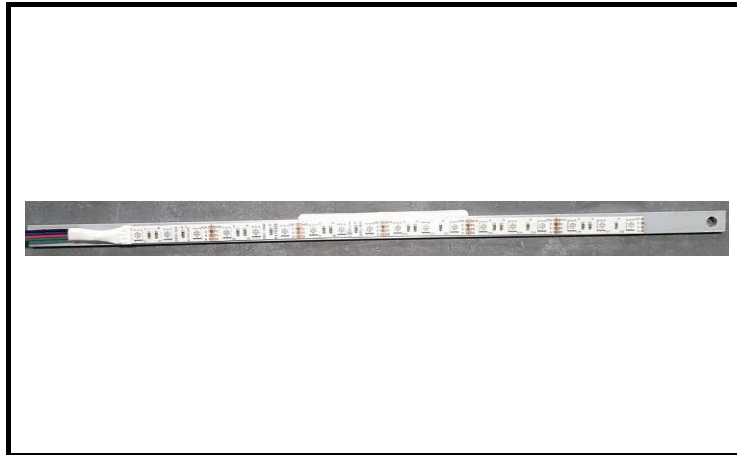
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Luminaire Description: Formed aluminum backing plate, LED strip with no lens enclosure - 1' length (304.8mm)
Lamp: 18 RGB LEDs
Mounting: Surface – Ceiling
Ballast/Driver: None

Luminaire



Summary of Results

Radiant Flux:	518 mW
Luminous Flux:	35.17 lm
Luminaire Efficacy:	23.3 lm/W
Chromaticity (x):	0.1327
Chromaticity (y):	0.0609
Chromaticity (u):	0.1532
Chromaticity (v):	0.1054
Duv:	0.0191

Test Conditions

Test Temperature:	25.7 °C
Voltage:	12.00 VDC
Current:	0.1260 A
Power:	1.512 W

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



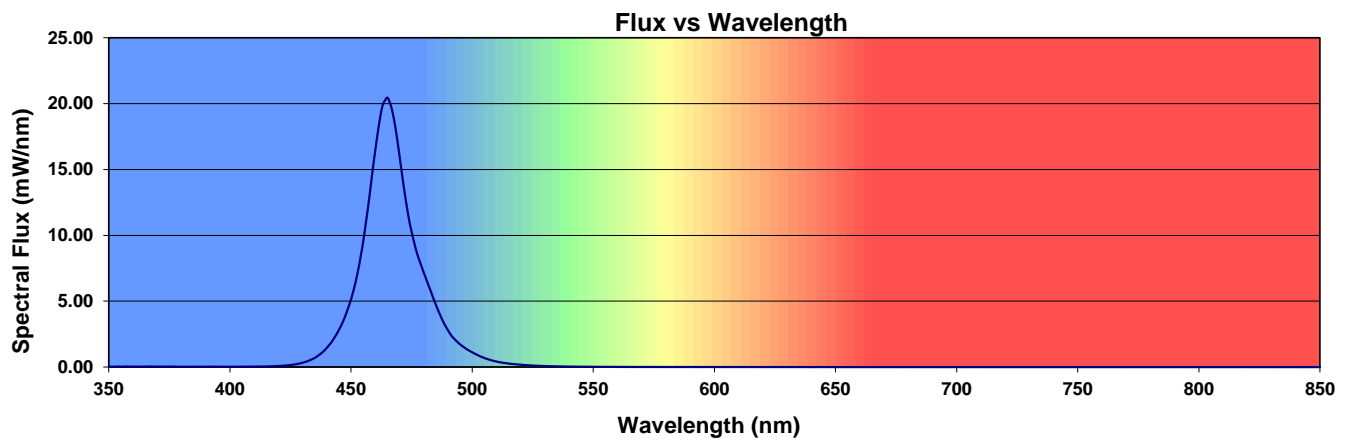
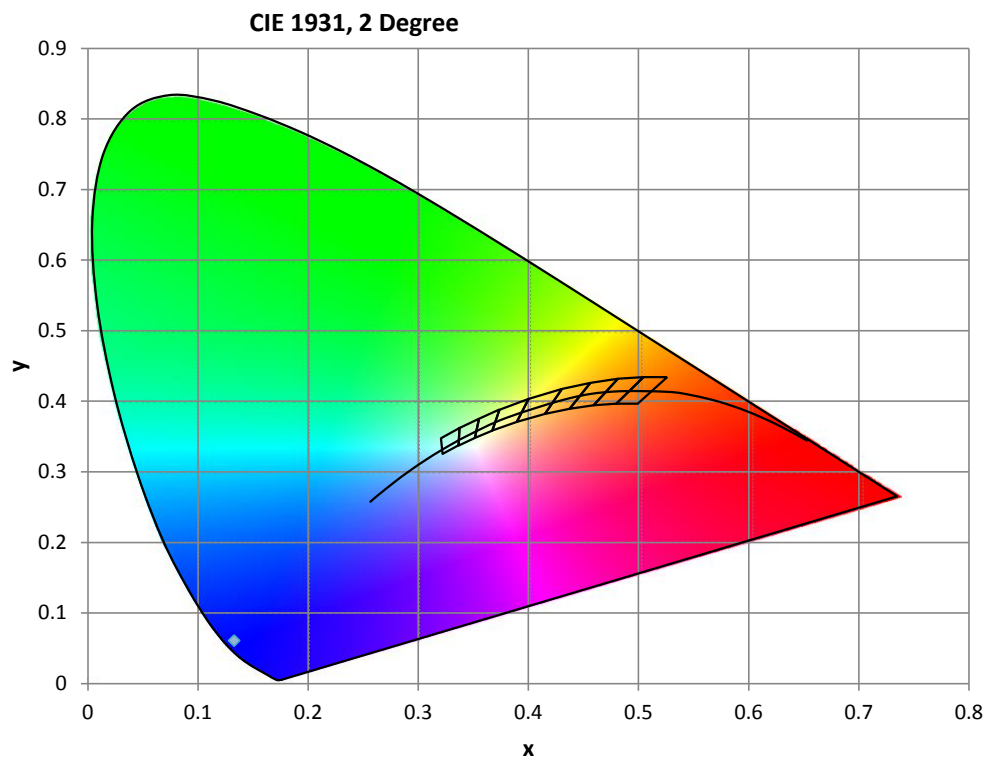
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	12.0 VDC	0.1260 A	1.512 W	N/A	N/A	N/A

Summary of Results

Total Output:	35 Lumens	Chromaticity (x):	0.1327
Efficacy:	23.3 lm/w	Chromaticity (y):	0.0609
Peak Wavelength:	464.7 nm	Chromaticity (u'):	0.1532
Dominant Wavelength:	469 nm	Chromaticity (v'):	0.1581
S/P Ratio:	16	Duv:	0.0191





UL Verification Services Inc.
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
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United States

Catalog Number

ACUVIBRANT-12CV-4016 - ALL COLORS

Order Number

11714176

Test Number

11714176.04

Test Date

2017-04-10 - 2017-04-19

Prepared By

Kevin Rodriguez, Technician

Approved By

Justin Benner, Project Handler

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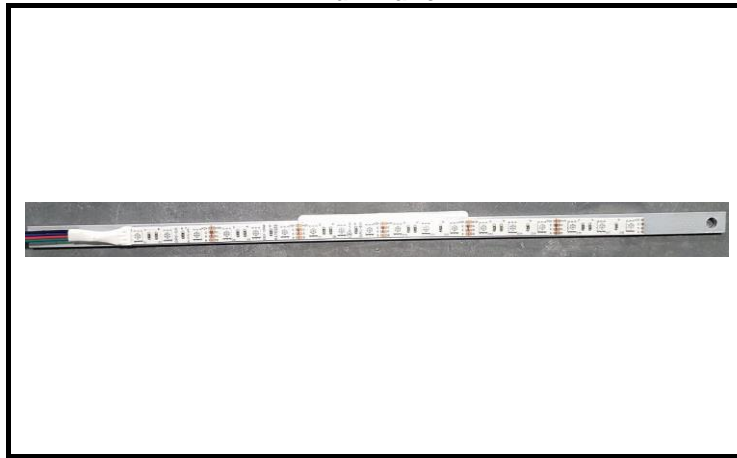
Laboratory results may not be representative of field performance
Ballast factors have not been applied

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 - 1' length (304.8mm)
Lamp: 18 RGB LEDs
Mounting: Surface – Ceiling
Ballast/Driver: None

Luminaire



Luminaire Characteristics

Luminous Length: 11.75 in.
Luminous Width: 0.5000 in.

Summary of Results

Integrating Sphere

Luminous Flux: 231 Lumens
Efficacy: 49.5 lm/w
CCT: 22000 K
CRI (Ra): 64.0

Distribution

Total Luminaire Output: 216.7 Lumens
Luminaire Efficacy: 45.7 lm/w
Maximum Candela: 65 Candela

Electrical Data at 12 VDC

Test Temperature: 24.7 °C
Voltage: 12.00 VDC
Current: 0.3883 A
Power: 4.659 W



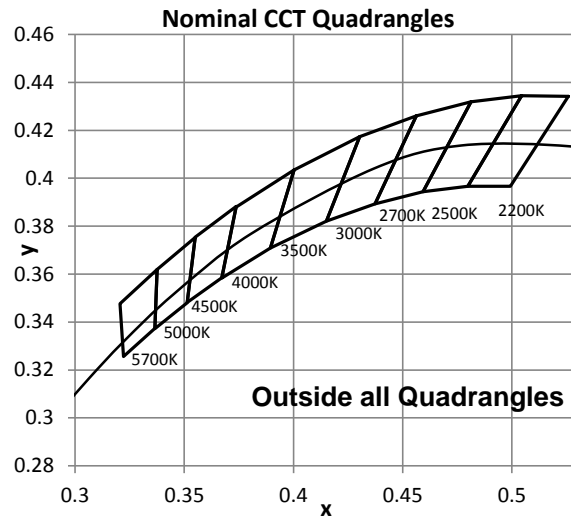
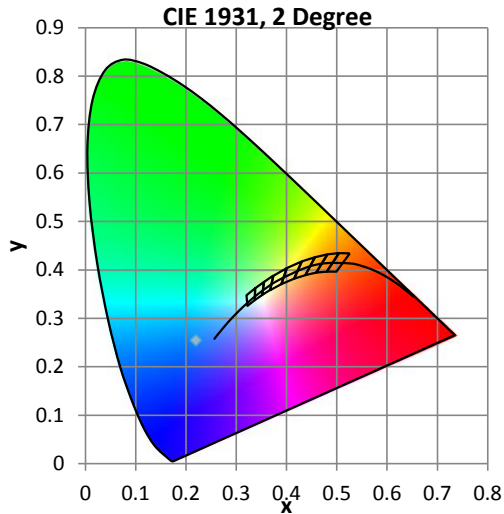
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	12.0 VDC	0.3883 A	4.659 W	N/A	N/A	N/A

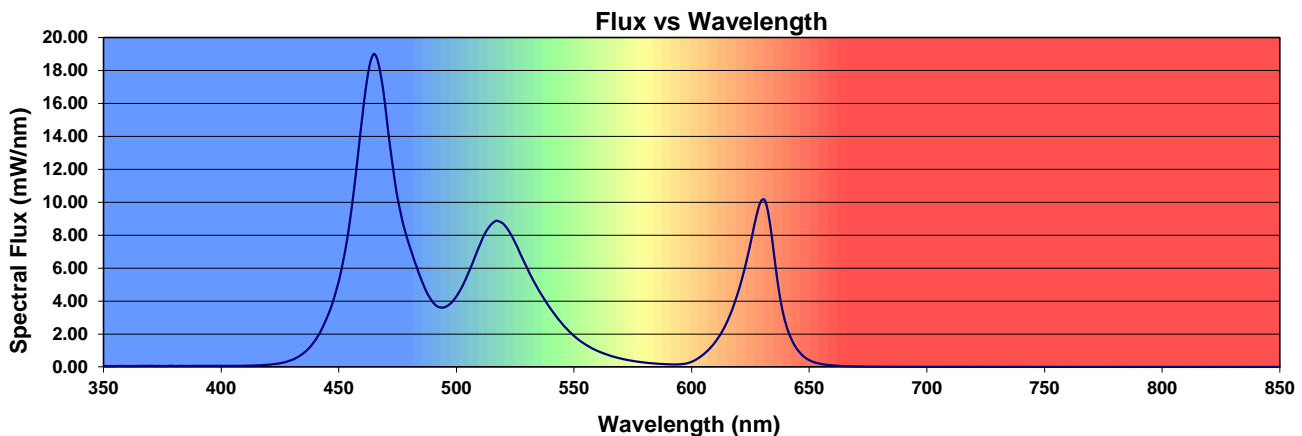
Summary of Results

Total Output:	231 Lumens	Chromaticity (x):	0.2196
Efficacy:	49.5 lm/w	Chromaticity (y):	0.2549
CCT:	22000 K	Chromaticity (u'):	0.1563
CRI (Ra):	64.0	Chromaticity (v'):	0.4082
CRI (R9):	-114.5	TM-30 R _f :	
Peak Wavelength:	465.1 nm	TM-30 R _g :	
Dominant Wavelength:	482.2 nm	Duv:	0.0250
S/P Ratio:	4.417		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
64.0	62.9	64.8	67.1	81.1	79.2	60.5	60.5	36.0	-114.5	15.1	75.2	67.4	54.9	79.4





Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	12.00 VDC	0.3953 A	4.745 W	N/A	N/A	N/A

Summary of Results

Spacing Criteria

0-180: 1.33

90-270: 1.33

Total Lumen Output:

216.7 Lumens

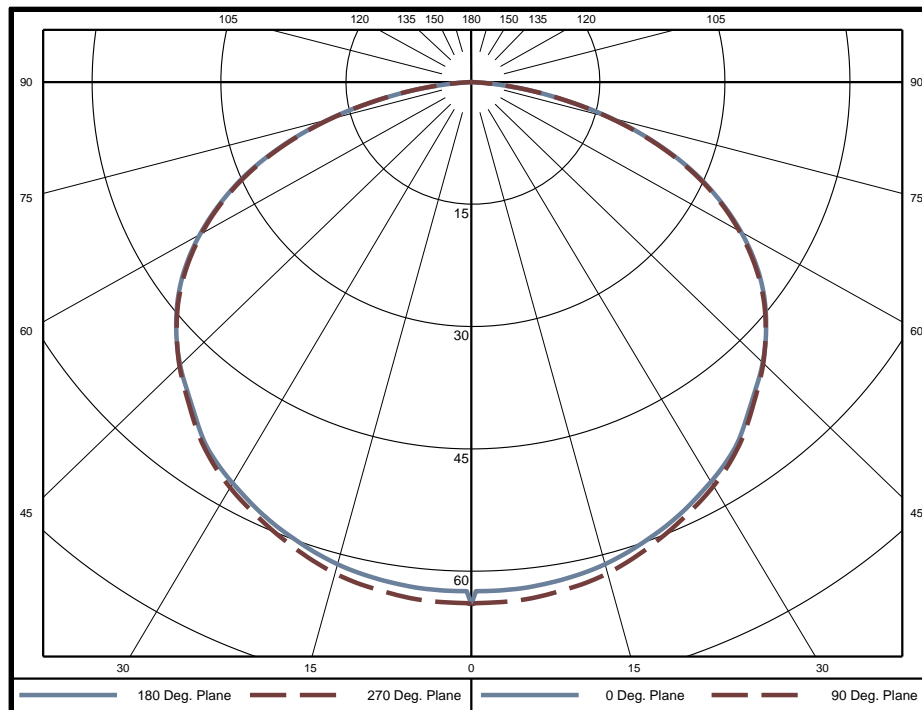
Luminaire Efficacy:

45.7 lm/w

Maximum Candela:

65 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.53	0.7%	60-65	17.03	7.9%	120-125	0	0.0%
5-10	4.56	2.1%	65-70	14.60	6.7%	125-130	0	0.0%
10-15	7.49	3.5%	70-75	11.24	5.2%	130-135	0	0.0%
15-20	10.22	4.7%	75-80	7.27	3.4%	135-140	0	0.0%
20-25	12.69	5.9%	80-85	3.35	1.5%	140-145	0	0.0%
25-30	14.88	6.9%	85-90	0.48	0.2%	145-150	0	0.0%
30-35	16.73	7.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	18.07	8.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	18.97	8.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	19.49	9.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	19.44	9.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	18.64	8.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	86	39.8%
0-60	163	75.1%
0-90	217	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical 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	64.07	64.07	64.07	64.07	64.07	64.07	64.07	64.07	64.07	64.07	64.07	64.07	64.07	64.07	64.07
	5	62.42	63.91	64.65	64.29	63.84	64.29	64.65	63.91	62.42	63.91	64.65	64.29	63.84	64.29	64.65
	10	62.01	63.46	64.15	63.78	63.28	63.78	64.15	63.46	62.01	63.46	64.15	63.78	63.28	63.78	64.15
	15	61.27	62.71	63.32	62.94	62.42	62.94	63.32	62.71	61.27	62.71	63.32	62.94	62.42	62.94	63.32
	20	60.05	61.46	61.89	61.47	60.96	61.47	61.89	61.46	60.05	61.46	61.89	61.47	60.96	61.47	61.89
	25	58.58	59.99	60.15	59.74	59.24	59.74	60.15	59.99	58.58	59.99	60.15	59.74	59.24	59.74	60.15
	30	56.79	58.32	58.27	57.81	57.41	57.81	58.27	58.32	56.79	58.32	58.27	57.81	57.41	57.81	58.27
	35	54.73	56.16	56.07	55.48	55.09	55.48	56.07	56.16	54.73	56.16	56.07	55.48	55.09	55.48	56.07
	40	51.72	53.22	53.13	52.39	52.07	52.39	53.13	53.22	51.72	53.22	53.13	52.39	52.07	52.39	53.13
	45	48.98	50.47	50.35	49.46	49.09	49.46	50.35	50.47	48.98	50.47	50.35	49.46	49.09	49.46	50.35
	50	45.80	47.31	47.21	46.14	45.72	46.14	47.21	47.31	45.80	47.31	47.21	46.14	45.72	46.14	47.21
	55	41.99	43.34	43.33	42.20	41.76	42.20	43.33	43.34	41.99	43.34	43.33	42.20	41.76	42.20	43.33
	60	37.20	38.44	38.49	37.33	36.96	37.33	38.49	38.44	37.20	38.44	38.49	37.33	36.96	37.33	38.49
	65	31.59	32.67	32.76	31.60	31.36	31.60	32.67	32.76	31.59	32.67	32.76	31.60	31.36	31.60	32.67
	70	24.98	25.82	25.87	24.84	24.74	24.84	25.87	25.82	24.98	25.82	25.87	24.84	24.74	24.84	25.87
	75	17.37	17.91	17.92	17.23	17.21	17.23	17.92	17.91	17.37	17.91	17.92	17.23	17.21	17.23	17.92
	80	9.43	9.92	9.93	9.50	9.51	9.50	9.93	9.92	9.43	9.92	9.93	9.50	9.51	9.50	9.93
	85	2.73	3.01	3.01	2.87	2.89	2.87	3.01	3.01	2.73	3.01	3.01	2.87	2.89	2.87	3.01
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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

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

Vertical Angle (Degrees)	0	45	90
	0	16900	16900
	45	18280	18790
	55	19320	19930
	65	19720	20450
	75	17710	18270
	85	8276	9104



Utilization of Lumens - Zonal Cavity Method

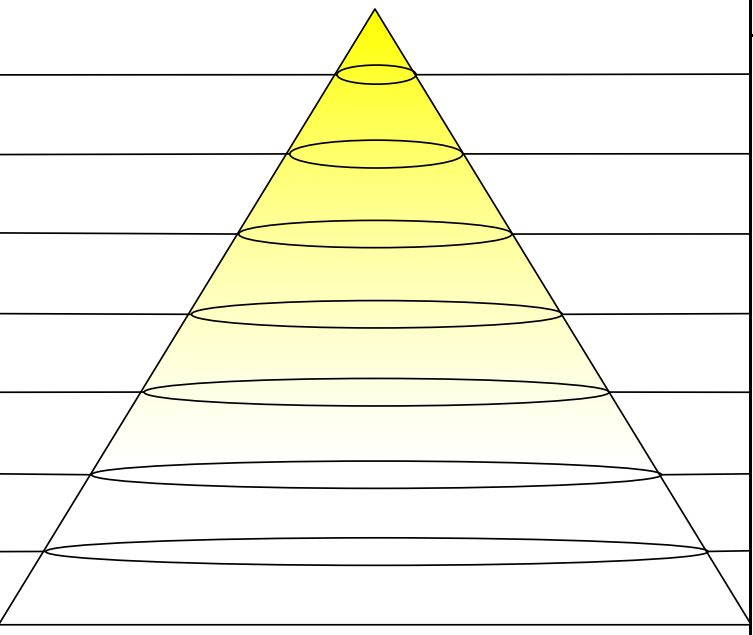
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	258	258	258	258	252	252	252	252	241	241	241	231	231	231	221	221	221	217
1	234	223	214	205	228	218	209	201	209	202	195	201	195	189	193	188	183	179
2	212	193	177	164	206	189	174	162	181	169	158	173	163	154	167	158	151	146
3	192	168	149	134	186	164	147	133	158	143	130	151	139	128	146	135	126	121
4	175	147	127	112	170	144	126	111	139	123	110	134	120	108	129	117	107	102
5	160	131	110	95	155	128	109	95	124	107	94	119	104	93	115	102	92	87
6	147	117	97	82	143	115	96	82	111	94	81	107	92	80	104	90	80	75
7	136	106	86	72	132	104	85	72	101	84	71	97	82	71	94	81	70	66
8	127	96	77	64	123	95	76	64	92	75	63	89	74	63	86	73	62	58
9	118	88	70	57	115	87	69	57	84	68	57	82	67	56	79	66	56	52
10	110	81	63	52	108	80	63	51	78	62	51	76	61	51	74	60	51	47

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	64.07 Candela
Central Cone Intensity:	64 Candela
Beam Flux:	180.0 Lumens
Beam Angle (0-180):	129.2 Degrees
Beam Angle (90-270):	128.9 Degrees
Field Angle (0-180):	164.3 Degrees
Field Angle (90-270):	164.4 Degrees

Cone of Light Tabulation

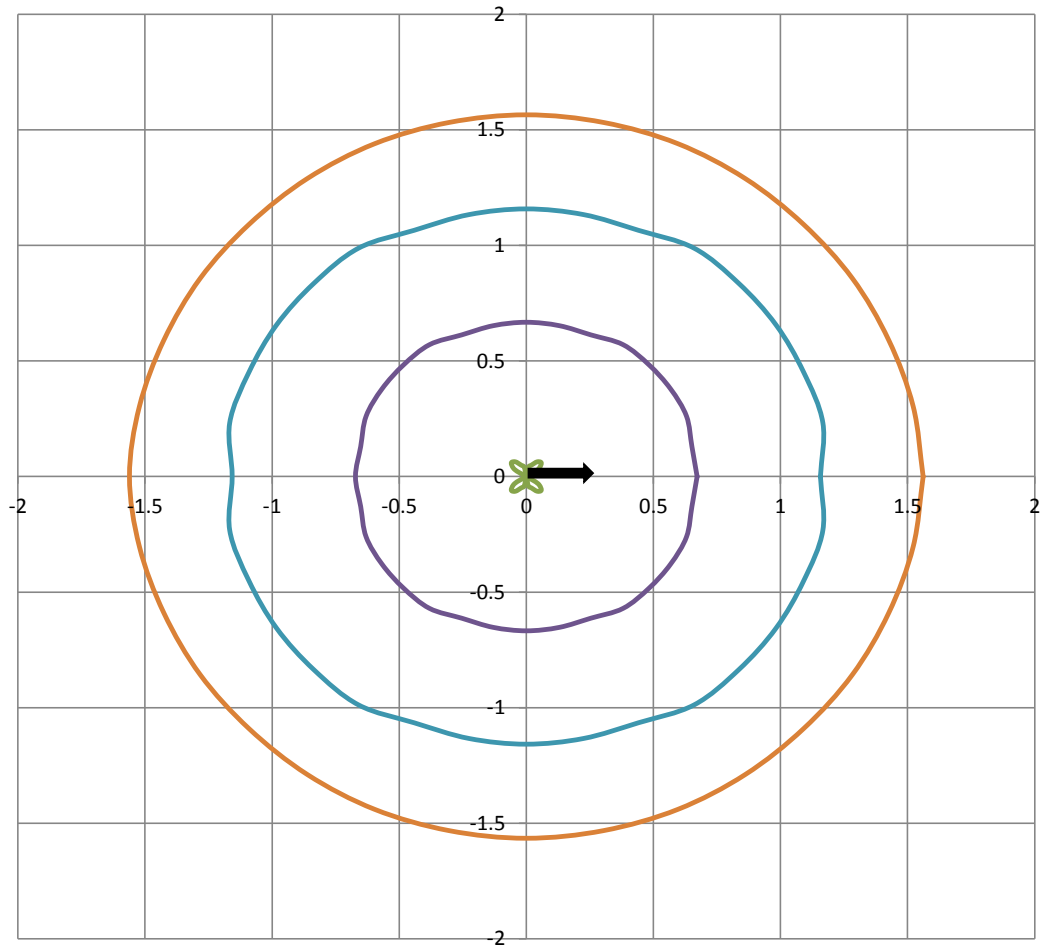
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		4.00	5.39
6.00		1.78	8.09
8.00		1.00	10.8
10.0		0.641	13.5
12.0		0.445	16.2
14.0		0.327	18.9
16.0		0.250	21.6





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

1 fc

0.5 fc

0.2 fc

0.1 fc

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

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contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



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.

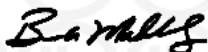
Low voltage luminaires, LED strip lights, models 5050-LED-RGB, 5050-LED-4RGBXX-72 where XX is A, WH or WW, 5050-LED-WH, -WW, -CW; may be followed additional alphanumeric characters.

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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