

# PURE EDGE LIGHTING

## TEST REPORT

### SCOPE OF WORK

LED Performance Testing

### MODEL NUMBER

SSXC-12MM-24VDC-36-30K

### PROJECT NUMBER

G104430061

### REPORT NUMBER

104430061CHI-016

### ISSUE DATE

4/27/2021

### REVISED DATE

None

### TEST DATES

04/21/2021 through 04/26/2021.

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**REPORT NUMBER**

104430061CHI-016

**MODEL NUMBER(s)**

SSXC-12MM-24VDC-36-30K

**REPORT RENDERED TO:**

PURE EDGE LIGHTING  
1718 W FULLERTON AVE  
CHICAGO, IL 60614  
USA

**STATEMENT OF LIMITATION**

NVLAP Lab Code 600186-0. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

**AUTHORIZATION**

The testing performed was authorized by signed quote number Qu-01100816-1.

**TEST STANDARDS**

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

ANSI NEMA ANSLG C78.377: 2017: Specifications for the Chromaticity of Solid State Lighting (SSL) Products

IES TM-30-18: IES Method for Evaluating Light Source Color Rendition

In Charge of Testing:



Ian Smith  
Engineer  
Lighting Division

Reviewer:



Jeff Davis  
NA Technical Lead  
Lighting Division

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## SAMPLE INFORMATION

REPORT NO. 104430061CHI-016

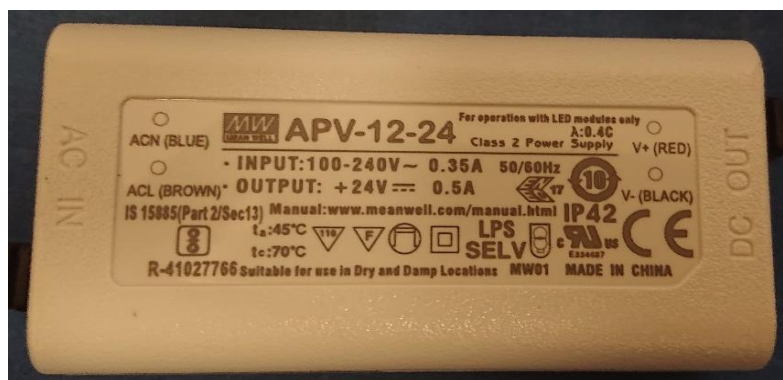
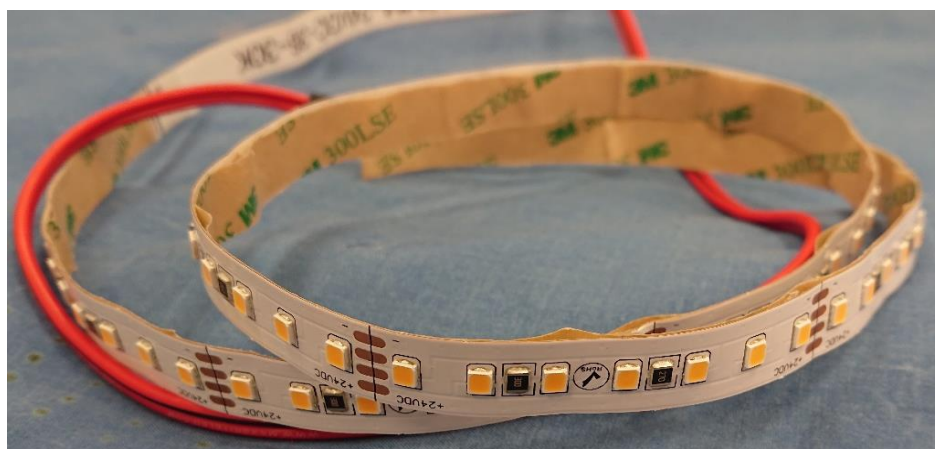
### ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH04192021124650	SSXC-12MM-24VDC-36-30K	flexible LED strip	Prototype	4/19/2021

### TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	SSXC-12MM-24VDC-36-30K	1

### SAMPLE PHOTOS - TESTED CONFIGURATIONS



## SUMMARY

REPORT NO. 104430061CHI-016

### PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	SSXC-12MM-24VDC-36-30K
Product Description:	flexible LED strip
LED Model No.:	lumiLED/2835
Driver Model No.:	Meanwell / AVP 12-24
Light Source:	LED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	1885.3	1973.4
Input Power (W) @ 120 (Vac)	16.77	17.31
Lumen Efficacy (lm/W)	112.4	114.0
Input Power Factor ( ) @ 120 (Vac)	0.485	0.481

Criteria	Results
Input ATHD (%) @ 120 (Vac)	85.81
Correlated Color Temperature (K)	3049
Color Rendering Index - Ra ( )	93.5
Color Rendering Index - R9 ( )	61.7
Duv ( )	0.0029
Chromaticity Coordinate (x)	0.429
Chromaticity Coordinate (y)	0.395
Chromaticity Coordinate (u')	0.250
Chromaticity Coordinate (v')	0.516

## TEST METHODS

### SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS

No seasoning was performed in accordance with IESNA LM-79.

### INTEGRATING SPHERE TESTING

A spectroradiometer and integrating sphere were used to measure the spectral distribution for each EUT resulting in photometric and colorimetric data. Electrical measurements of the unit were measured using a power analyzer. Each EUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature was measured at a position inside the sphere and stabilization procedures to LM-79 were followed.

### TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

A Type C Mirror Goniophotometer system was used to measure the luminous intensity (candela) at each angle of distribution for the EUT. Electrical measurements of the unit were measured using a power analyzer. Each EUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature was measured at a position near the EUT at equal height and stabilization procedures to LM-79 were followed.

**TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING**

**REPORT NO. 104430061CHI-016**

Test Configuration	Tested Model No.	Pass/Fail/NA
1	SSXC-12MM-24VDC-36-30K	NA

**PHOTOMETRIC AND ELECTRICAL MEASUREMENTS (25°C +/- 1°C)**

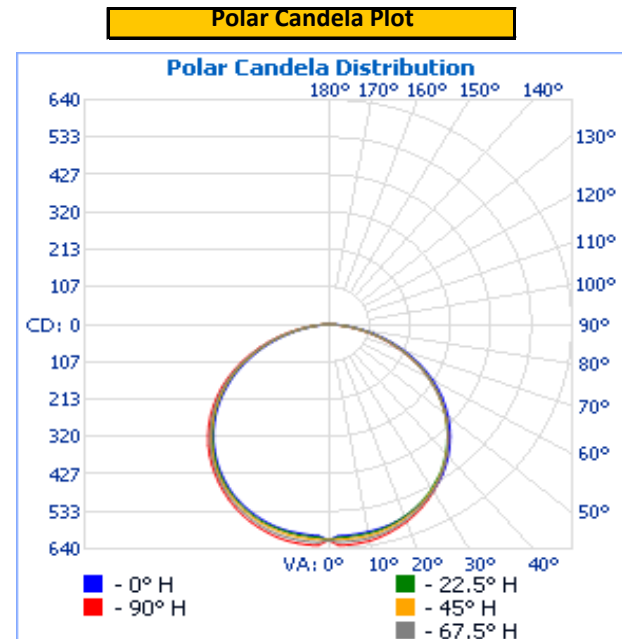
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)
Up	120.03	288.3	16.77	0.485

Light Output (lm)	Lumen Efficacy (lm/W)
1885.3	112.4

**INTENSITY SUMMARY - CANDELA**

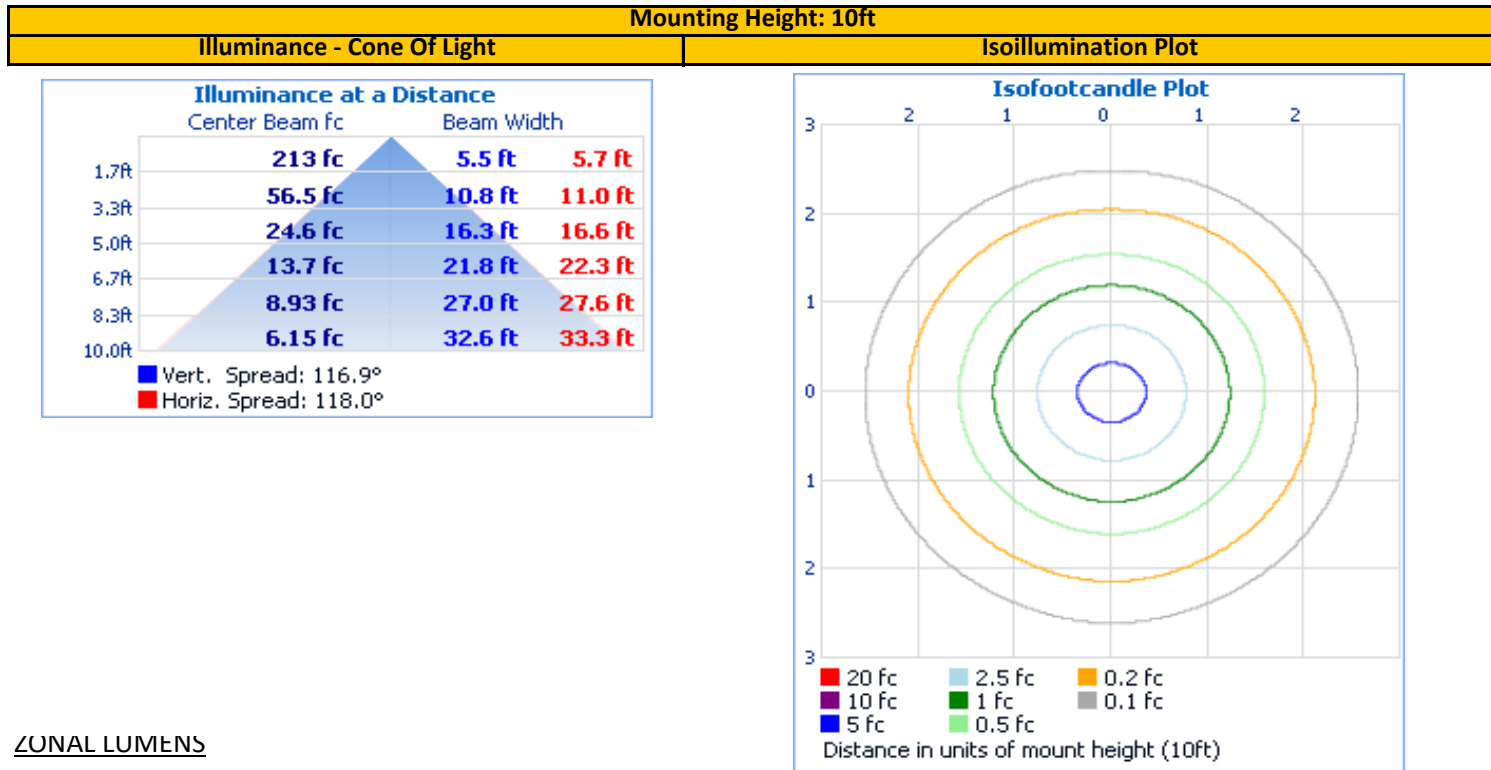
Angle	0	22.5	45	67.5	90
0	615	615	615	615	615
5	603	607	613	621	630
10	600	605	611	618	626
15	595	597	602	609	615
20	584	583	588	594	599
25	567	565	569	573	577
30	547	542	545	548	550
35	522	514	516	519	520
40	489	480	483	484	486
45	452	442	444	445	447
50	410	401	401	402	404
55	365	355	354	355	356
60	316	306	304	303	305
65	262	253	251	249	250
70	206	198	196	194	192
75	148	141	139	136	134
80	93	86	84	82	79
85	43	38	37	35	33
90	0	0	0	0	0
95	0	0	0	0	0
100	0	0	0	0	0
105	0	0	0	0	0
110	0	0	0	0	0
115	0	0	0	0	0
120	0	0	0	0	0
125	0	0	0	0	0
130	0	0	0	0	0
135	0	0	0	0	0
140	0	0	0	0	0
145	0	0	0	0	0
150	0	0	0	0	0
155	0	0	0	0	0
160	0	0	0	0	0
165	0	0	0	0	0
170	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

Entire luminous intensity matrix found in .IES file



REPORT NO. 104430061CHI-016

ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	490.0	26.0%	0-10	58.5	3.1%
0-40	811.2	43.0%	10-20	169.9	9.0%
0-60	1,463.7	77.6%	20-30	261.6	13.9%
60-90	421.6	22.4%	30-40	321.2	17.0%
70-100	178.8	9.5%	40-50	339.5	18.0%
90-120	0.0	0.0%	50-60	313.0	16.6%
0-90	1,885.3	100.0%	60-70	242.8	12.9%
90-180	0.0	0.0%	70-80	140.3	7.4%
0-180	1,885.3	100.0%	80-90	38.6	2.0%
			90-100	0.0	0.0%
			100-110	0.0	0.0%
			110-120	0.0	0.0%
			120-130	0.0	0.0%
			130-140	0.0	0.0%
			140-150	0.0	0.0%
			150-160	0.0	0.0%
			160-170	0.0	0.0%
			170-180	0.0	0.0%

**INTEGRATING SPHERE TESTING**

**REPORT NO. 104430061CHI-016**

Test Configuration	Tested Model No.	Pass/Fail/NA
1	SSXC-12MM-24VDC-36-30K	NA

PHOTOMETRIC, COLORIMETRIC, AND ELECTRICAL MEASUREMENTS (25°C +/- 1°C)

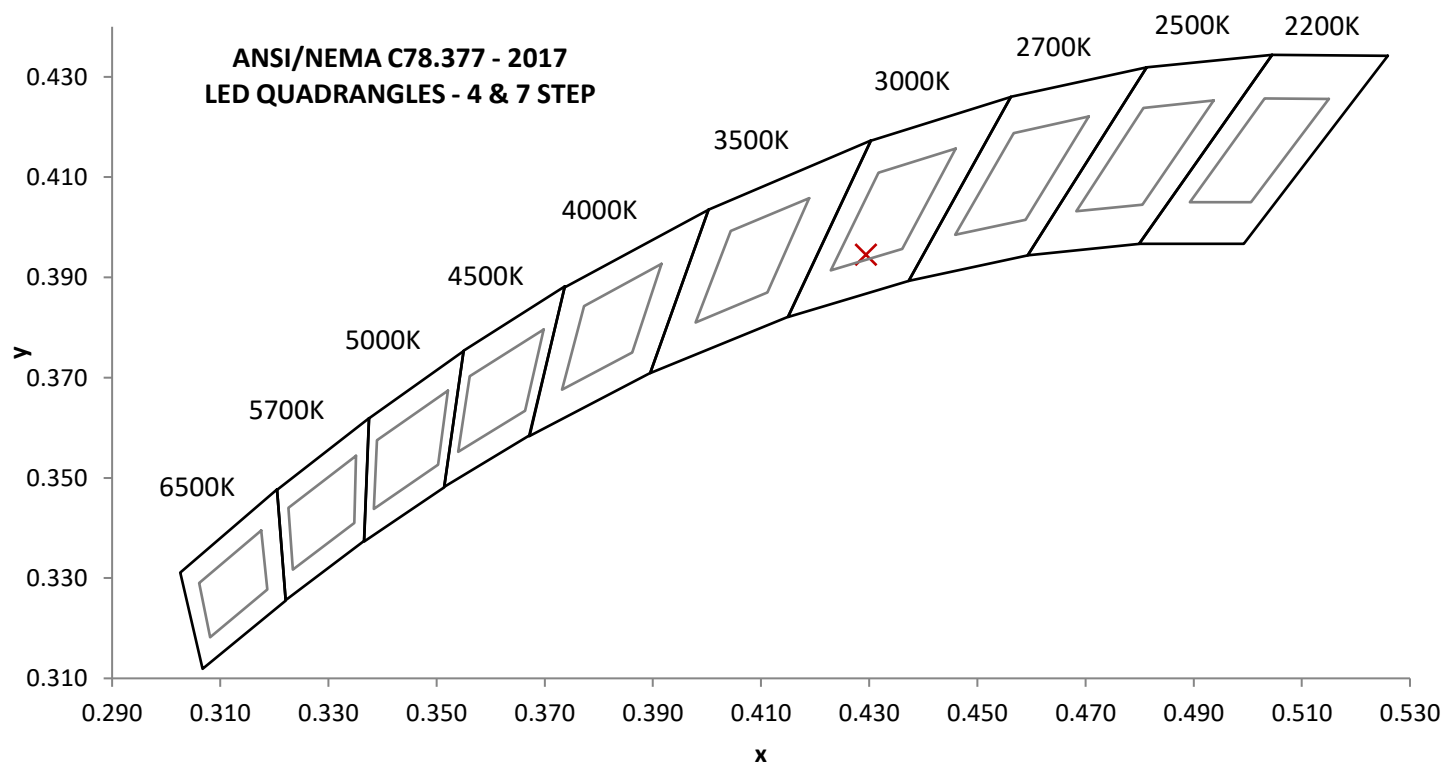
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (l)	Input ATHD (%)
120.00	299.9	17.31	0.481	85.81

**Measured at 120(Vac)**

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra (l)	CRI - R9 (l)
1973.4	114.0	3049	93.5	61.7

Duv (l)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
0.0029	0.429	0.395	0.250	0.516

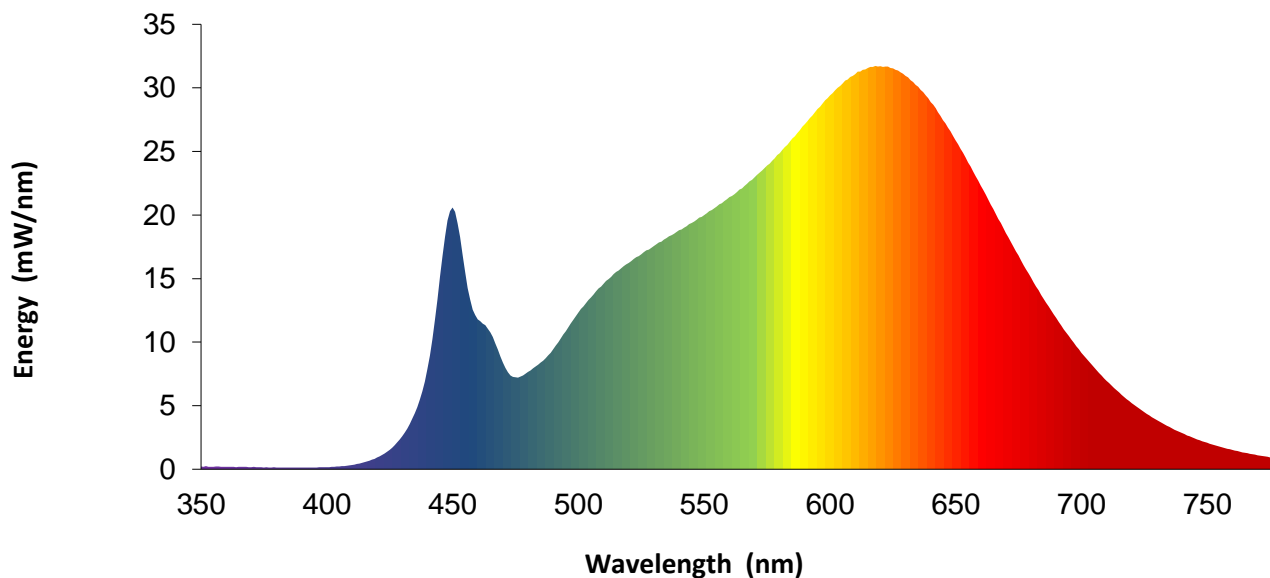


REPORT NO. 104430061CHI-016

SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.2		460	11.8		570	23.0		680	15.1
355	0.2		465	10.8		575	23.9		685	13.4
360	0.2		470	8.4		580	24.9		690	11.9
365	0.2		475	7.2		585	26.0		695	10.5
370	0.2		480	7.7		590	27.1		700	9.2
375	0.1		485	8.4		595	28.3		705	8.0
380	0.1		490	9.4		600	29.4		710	7.0
385	0.1		495	10.9		605	30.4		715	6.0
390	0.1		500	12.3		610	31.1		720	5.2
395	0.1		505	13.5		615	31.6		725	4.5
400	0.2		510	14.6		620	31.7		730	3.9
405	0.2		515	15.5		625	31.5		735	3.3
410	0.3		520	16.2		630	30.9		740	2.8
415	0.6		525	16.9		635	30.1		745	2.4
420	0.9		530	17.6		640	28.9		750	2.1
425	1.5		535	18.2		645	27.5		755	1.8
430	2.6		540	18.8		650	25.9		760	1.5
435	4.4		545	19.4		655	24.1		765	1.3
440	7.9		550	20.0		660	22.3		770	1.1
445	15.1		555	20.7		665	20.5		775	0.9
450	20.6		560	21.4		670	18.6		780	0.8
455	15.5		565	22.1		675	16.8		---	---

Without correction of sample absorption.



Portrayed color in graphic is estimated by wavelength (nm) and may not be exact - it is a visual representation only



## EQUIPMENT LIST

REPORT NO. 104430061CHI-016

#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	Yokogawa Power Meter	WT210	146919	7/1/2020	7/1/2021
2	Omega Thermometer	DPI8-C24	146920	10/1/2020	10/1/2021
3	LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV
4	Newport Thermohygrometer	iServer	146957	1/29/2021	1/29/2022
5	Pacific AC Power Supply	118-ACX	CHI0153	VBV	VBV
6	Newport Humidity Recorder	iServer	146961	9/3/2020	9/3/2021
7	Labsphere 2M Sphere & Spectroradiometer	CDS1100	146137	VBV	VBV
8	Elgar AC Power Supply	CW1251	146113	VBV	VBV
9	Sorenson DC Power Supply	XFR150-8	146847	VBV	VBV
10	Yokogawa Power Meter	WT1600	146768	10/2/2020	10/2/2021
11	Omega Thermometer	MDSi8	146873	7/1/2020	7/1/2021

Note: Standard sources listed above are traceable to NIST: National Institute of Standards and Technology

## REVISION HISTORY

#	Revision Date	Updated By	Reviewed By	Description of Change
---	None	---	---	---
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Test Configuration	Tested Model No.	Pass/Fail/NA
1	SSXC-12MM-24VDC-36-30K	NA

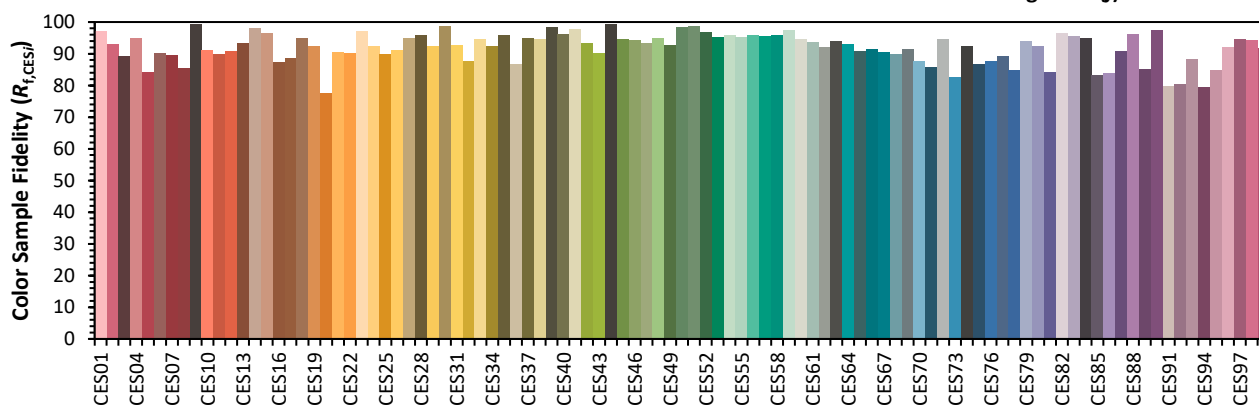
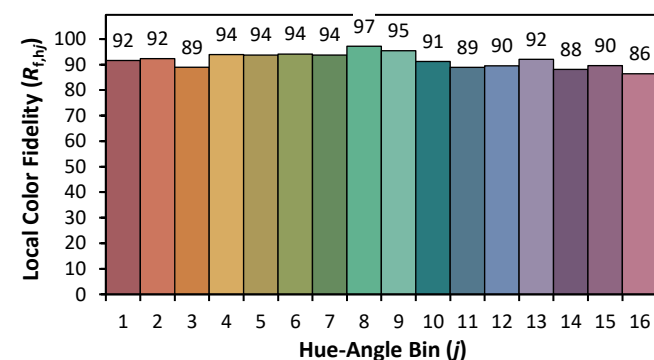
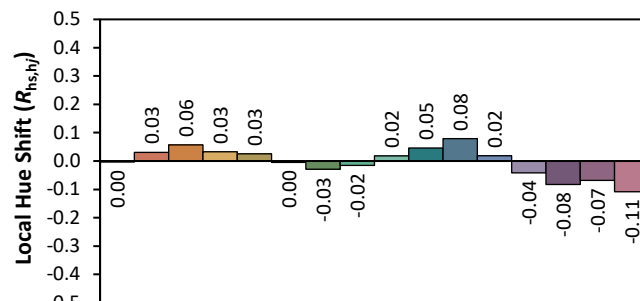
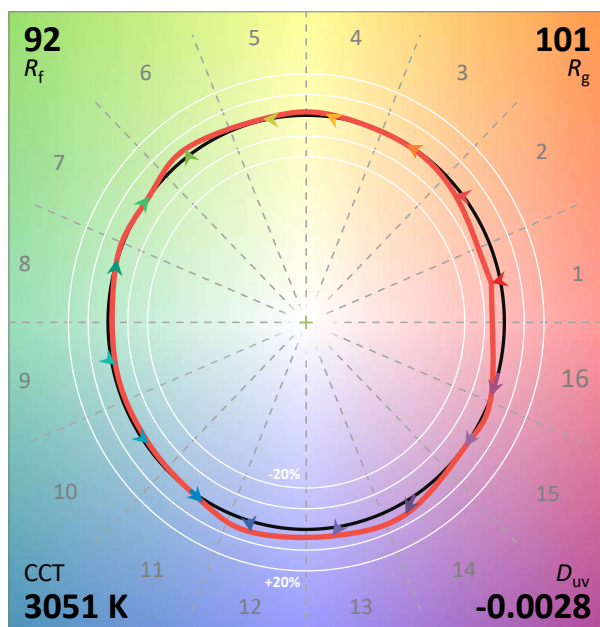
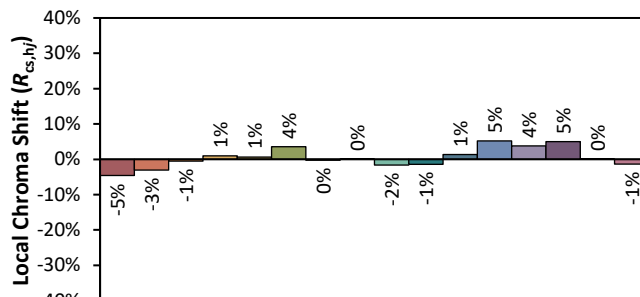
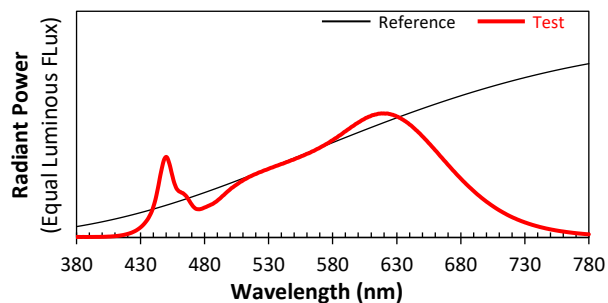
## ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Pure Edge Lighting

Date: 4/26/2021

Model: SSXC-12MM-24VDC-36-30K



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4294

y 0.3945

u' 0.2498

v' 0.5164