

# PURE EDGE LIGHTING

## TEST REPORT

### SCOPE OF WORK

LED Performance Testing

### MODEL NUMBER

VCL-10W10-6FT3L-SP-TC30K

### PROJECT NUMBER

G105870896

### REPORT NUMBER

105870896CHI-019

### ISSUE DATE

7/15/2024

### REVISED DATE

None

### TEST DATES

2024-07-10 through 2024-07-11.

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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### PAGES

10

**REPORT NUMBER**

105870896CHI-019

**MODEL NUMBER(s)**

VCL-10W10-6FT3L-SP-TC30K

**REPORT RENDERED TO:**

PURE EDGE LIGHTING  
1718 WEST FULLERTON  
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-01461581-0.

**TEST STANDARDS**

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

ANSI/IES LM-79-19 Optical and Electrical Measurements of Solid-State Lighting Products

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

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

In Charge of Testing:



David Dalo  
Engineer  
Lighting Division

Reviewer:



Jeff Davis  
NA Technical Lead  
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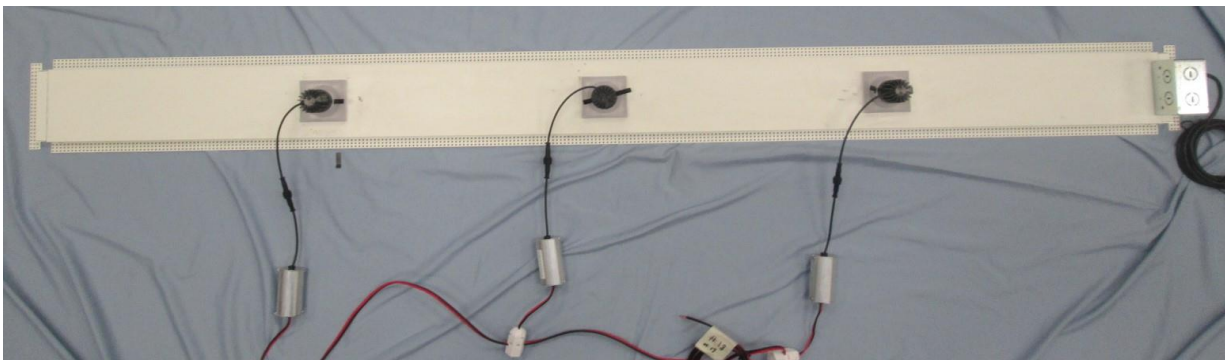
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH06212024013032-017	VCL-10W10-6FT3L-SP-TC30K	ALL ON	Production	6/21/2024

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
3	VCL-10W10-6FT3L-SP-TC30K	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



# PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	VCL-10W10-6FT3L-SP-TC30K
Product Description:	ALL ON
LED Model No.:	LEDWISE/ SS5-12MM-24VDC-C-RGBCW, LUMINUS/CXM-4-30-90-36-AC40
Driver Model No.:	PURE EDGE/PSBB-96W-WZ-TC5W7-24VDC-RL, LTF/DL29W200C2436R2-3001
Light Source:	LED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	2339.7	2347.8
Driver Output Power (W) @ 24 (Vdc)	70.49	
Calculated Efficacy (lm/W)	33.3	

Criteria	Results
Correlated Color Temperature (K)	2983
Color Rendering Index - Ra	96.4
Color Rendering Index - R9	79.0
Duv	-0.0024
Chromaticity Coordinate (x)	0.435
Chromaticity Coordinate (y)	0.397
Chromaticity Coordinate (u')	0.252
Chromaticity Coordinate (v')	0.518

# 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.

\*ANSI/IES Technical Memorandums (TM) reported are not NVLAP accredited

Test Configuration	Tested Model No.	Pass/Fail/NA
3	VCL-10W10-6FT3L-SP-TC30K	NA

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

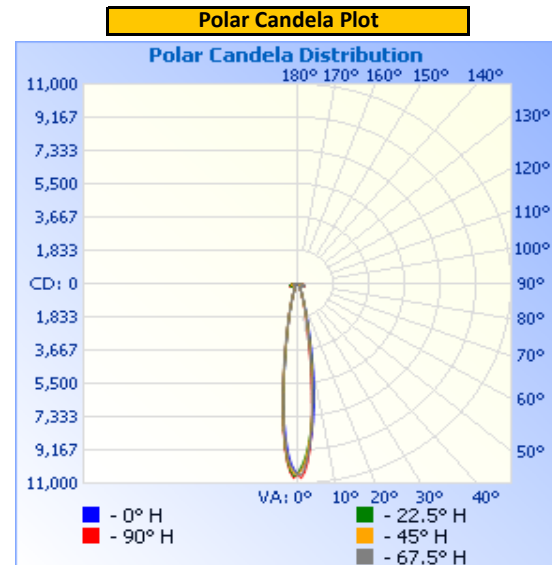
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ( )
Up	120.07	758.0	88.71	0.975

Light Output (lm)	Lumen Efficacy (lm/W)
2339.7	26.4

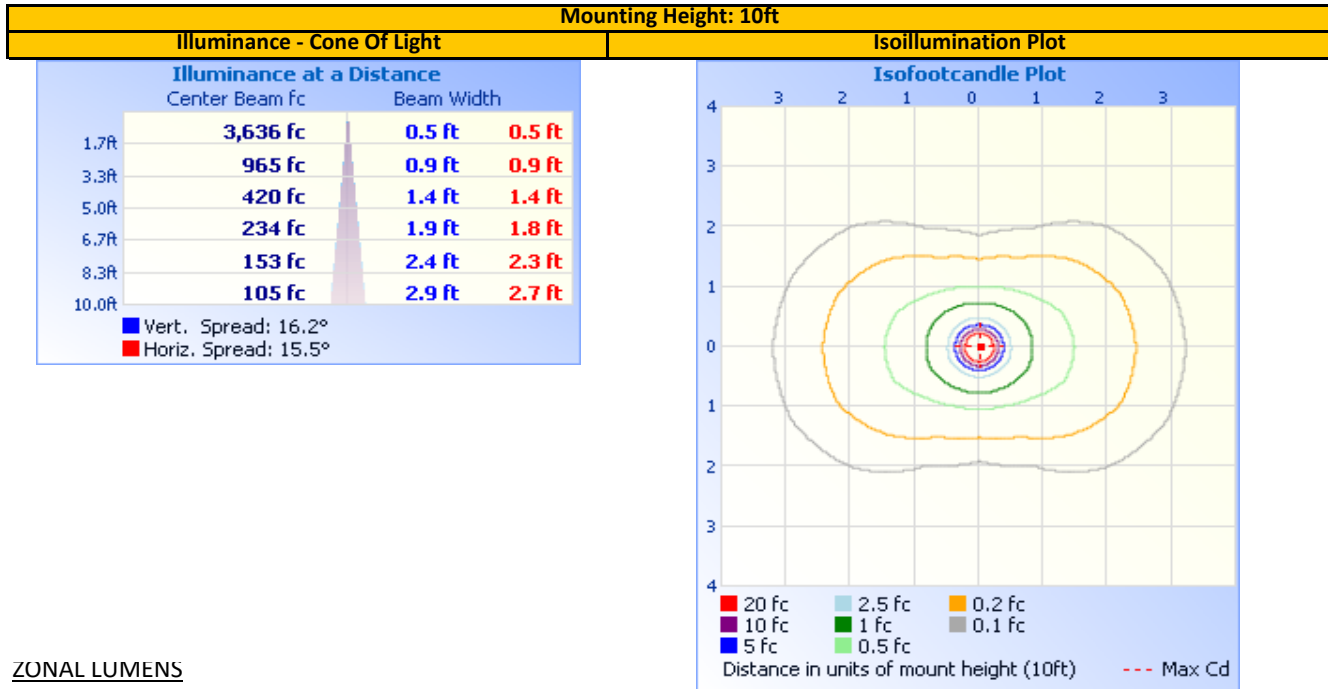
INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	10508	10508	10508	10508	10508
5	8315	8036	8077	8166	8221
10	4456	4007	3837	3590	3437
15	1781	1608	1571	1526	1467
20	786	724	711	687	661
25	412	389	394	395	381
30	273	269	280	289	283
35	216	216	232	247	242
40	177	182	202	223	218
45	149	158	186	218	225
50	134	149	188	240	250
55	121	142	203	268	279
60	107	135	221	299	313
65	91	132	241	334	350
70	74	138	266	361	376
75	59	151	277	363	376
80	45	155	255	323	326
85	32	121	145	146	134
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



## ILLUMINANCE SUMMARY



## ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	1,250.4	53.4%	90-100	0.0	0.0%
0-40	1,395.0	59.6%	100-110	0.0	0.0%
0-60	1,723.2	73.6%	110-120	0.0	0.0%
60-90	616.5	26.4%	120-130	0.0	0.0%
70-100	387.1	16.5%	130-140	0.0	0.0%
90-120	0.0	0.0%	140-150	0.0	0.0%
0-90	2,339.7	100.0%	150-160	0.0	0.0%
90-180	0.0	0.0%	160-170	0.0	0.0%
0-180	2,339.7	100.0%	170-180	0.0	0.0%

Test Configuration	Tested Model No.	Pass/Fail/NA
3	VCL-10W10-6FT3L-SP-TC30K	NA

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

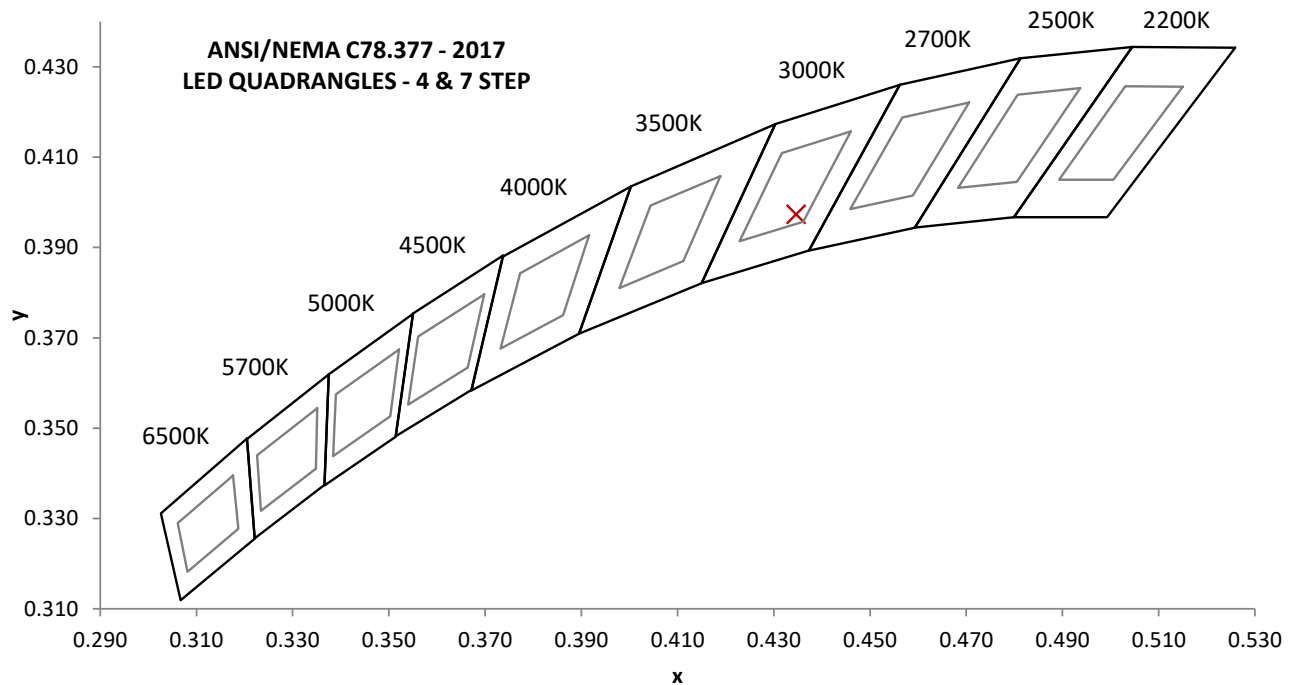
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)	Input ATHD (%)
119.99	756.6	88.43	0.993	19.40

Measured at 119.99(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra (I)	CRI - R9 (I)
2347.8	26.5	2983	96.4	79.0

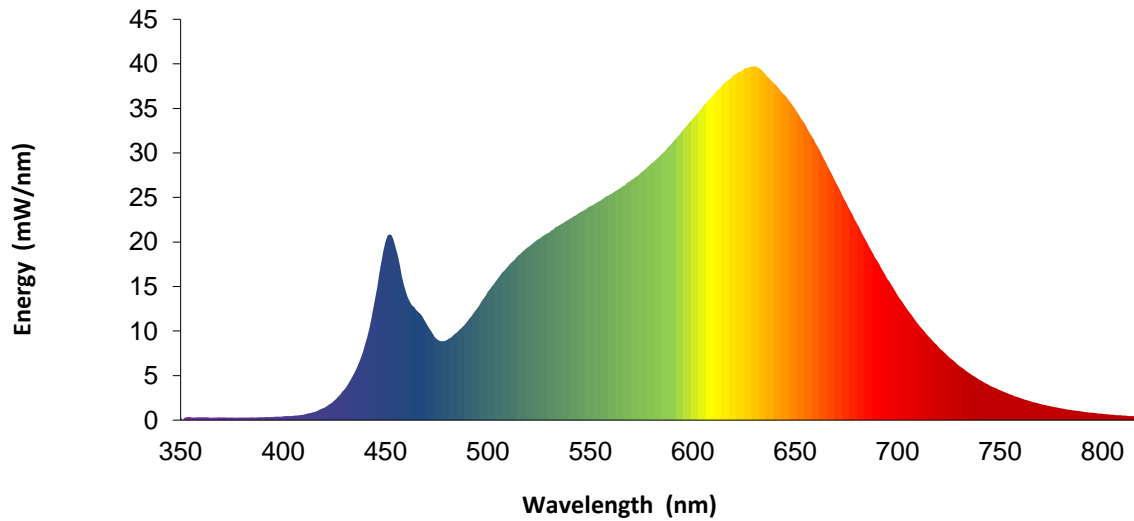
Duv (I)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0024	0.435	0.397	0.252	0.518



SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.3		460	14.4		570	27.0		680	22.1
355	0.3		465	12.4		575	27.8		685	20.0
360	0.3		470	10.8		580	28.9		690	17.9
365	0.3		475	9.1		585	29.9		695	15.9
370	0.3		480	9.0		590	31.1		700	14.0
375	0.3		485	9.9		595	32.5		705	12.4
380	0.3		490	11.1		600	33.8		710	10.8
385	0.3		495	12.6		605	35.2		715	9.5
390	0.3		500	14.4		610	36.5		720	8.2
395	0.4		505	15.9		615	37.8		725	7.1
400	0.4		510	17.3		620	38.7		730	6.1
405	0.5		515	18.5		625	39.4		735	5.3
410	0.6		520	19.5		630	39.7		740	4.5
415	0.9		525	20.3		635	39.0		745	3.9
420	1.4		530	21.1		640	37.8		750	3.4
425	2.2		535	21.9		645	36.5		755	2.9
430	3.5		540	22.6		650	34.9		760	2.5
435	5.4		545	23.3		655	33.1		765	2.1
440	8.4		550	24.0		660	31.0		770	1.8
445	13.6		555	24.7		665	28.9		775	1.5
450	20.0		560	25.4		670	26.6		780	1.3
455	19.4		565	26.1		675	24.4		---	---

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





Total Quality. Assured.

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**EQUIPMENT LIST**

**REPORT NO. 105870896CHI-019**

#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	Yokogawa Power Meter	WT310E	CHI0664	4/2/2024	4/2/2025
2	Omega Thermometer	DPI8-C24	146920	10/9/2023	10/9/2024
3	LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV
4	Omega Thermohygrometer	OM-CP-RFPRHTEMP2000A	CHI0764	3/14/2024	3/14/2025
5	Chroma Power Supply	61604	CHI0371	VBV	VBV
8	Omega Thermohygrometer	OM-CP-RFPRHTEMP2000A	CHI0727	3/14/2024	3/14/2025
9	Labsphere Spectroradiometer	CDS2600	CHI0539	VBV	VBV
10	3 Meter Sphere	SPR600	CHI0088	VBV	VBV
11	Elgar AC Power Supply	CW1251	146112	VBV	VBV
12	Sorenson DC Power Supply	XFR150-8	146846	VBV	VBV
13	Yokogawa Power Meter	WT1600	146770	10/11/2023	10/11/2024
17	Omega thermometer	USB TC08	EQAH002615	4/5/2024	4/5/2025
26	Xitron Power Analyzer	2801	CHI0763	4/10/2024	4/10/2025

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

**REVISION HISTORY**

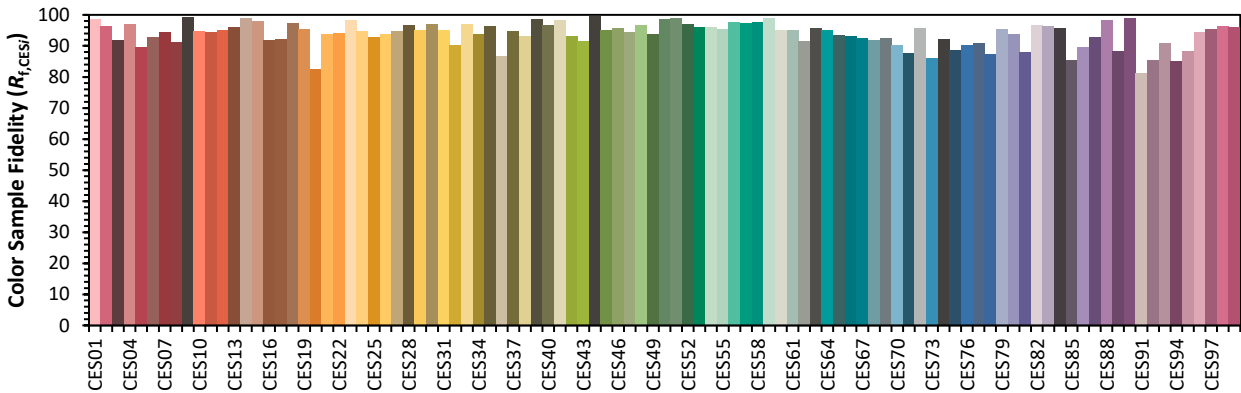
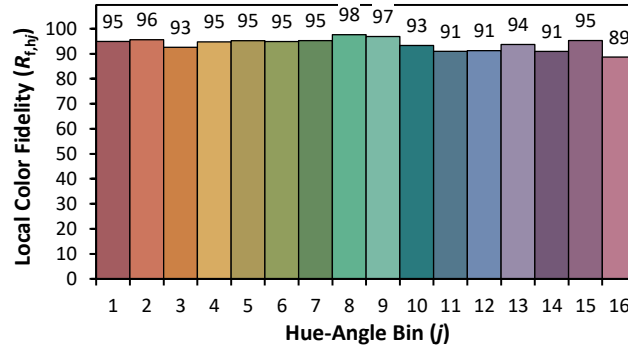
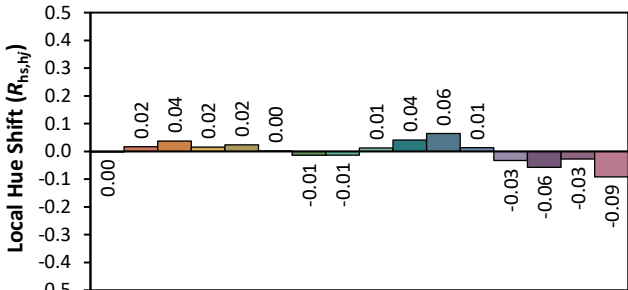
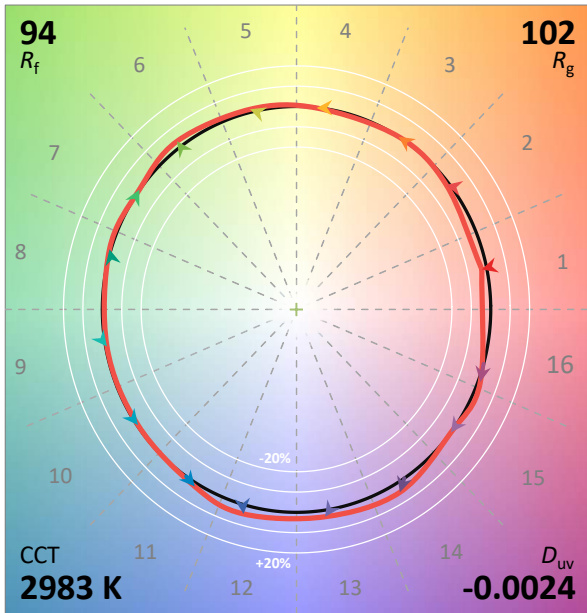
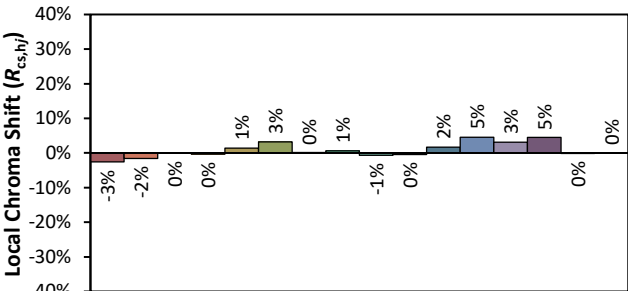
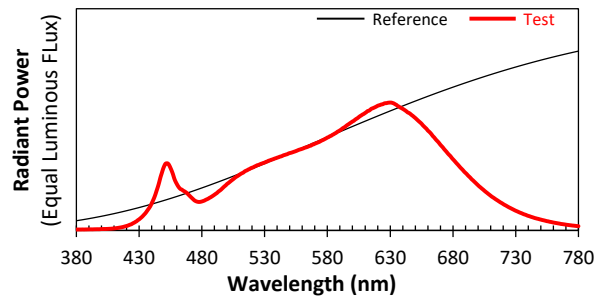
#	Revision Date	Updated By	Reviewed By	Description of Change
---	None	---	---	---
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Test Configuration	Tested Model No.	Pass/Fail/NA
3	VCL-10W10-6FT3L-SP-TC30K	NA

ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD  
Date: 7/11/2024

Manufacturer: Pure Edge Lighting  
Model: VCL-10W10-6FT3L-SP-TC30K



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

x 0.4346  
y 0.3973  
u' 0.2520  
v' 0.5183