

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

VCL-10W10-6FT3L-SP-TC30K

PROJECT NUMBER

G105870896

REPORT NUMBER

105870896CHI-018

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

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REPORT NUMBER

105870896CHI-018

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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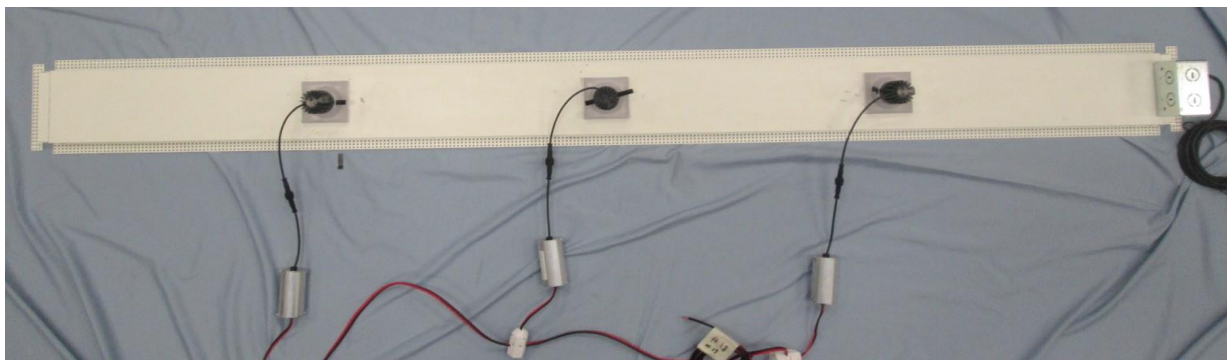
ITEMS RECEIVED

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

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	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:	DOWNLIGHTS ONLY
LED Model No.:	LUMINUS/CXM-4-30-90-36-AC40
Driver Model No.:	LTF/DL29W200C2436R2-3001
Light Source:	LED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	1189.7	1193.5
Driver Output Power (W) @ 24 (Vdc)	25.31	
Calculated Efficacy (lm/W)	47.2	

Criteria	Results
Correlated Color Temperature (K)	3109
Color Rendering Index - Ra	92.5
Color Rendering Index - R9	62.9
Duv	0.0000
Chromaticity Coordinate (x)	0.429
Chromaticity Coordinate (y)	0.401
Chromaticity Coordinate (u')	0.247
Chromaticity Coordinate (v')	0.519

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
1	VCL-10W10-6FT3L-SP-TC30K	NA

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

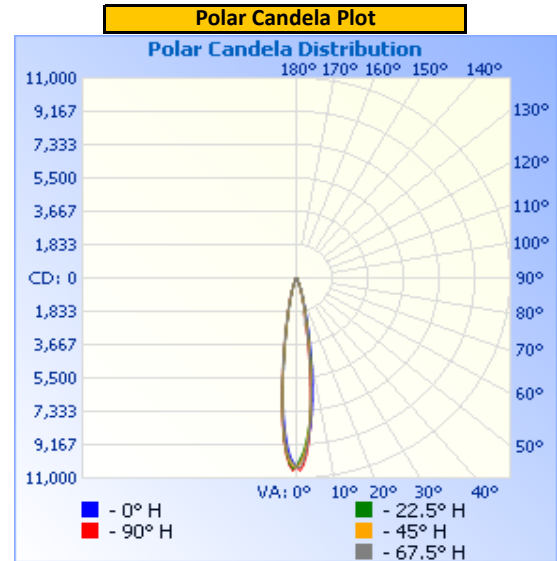
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Up	120.16	291.1	32.03	0.916

Light Output (lm)	Lumen Efficacy (lm/W)
1189.7	37.1

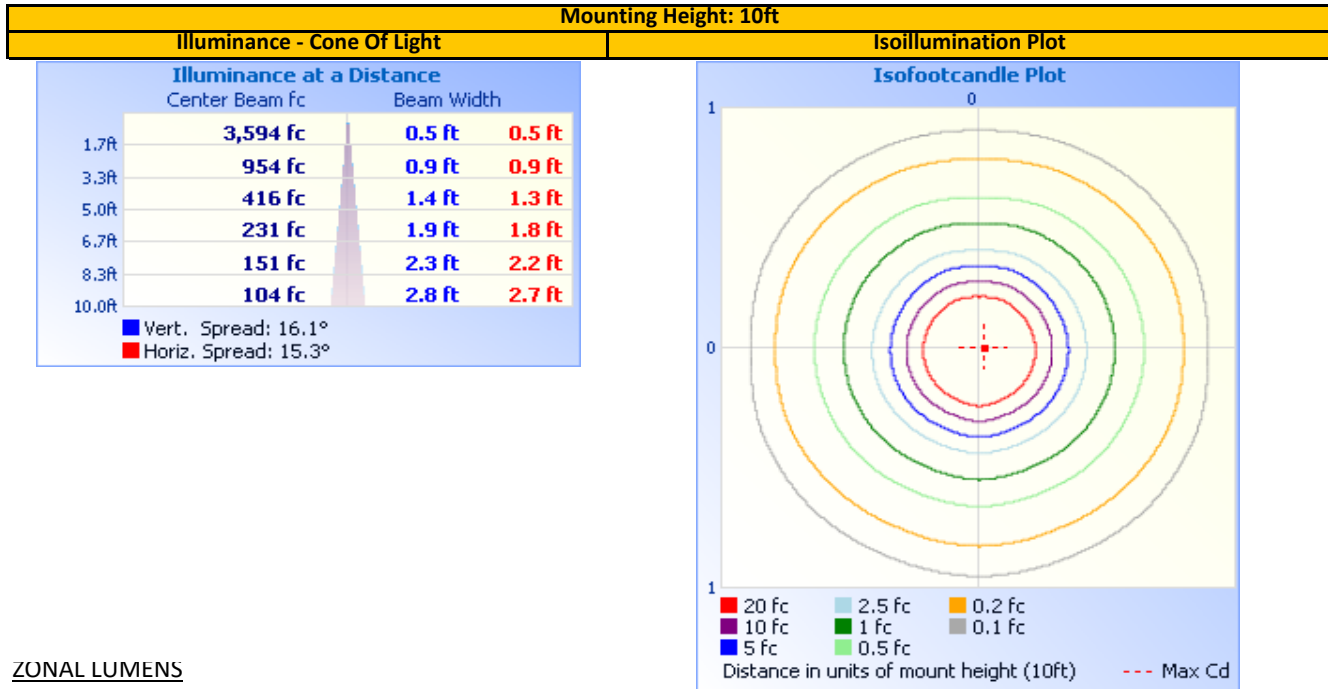
INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	10388	10388	10388	10388	10388
5	8183	7897	7950	8042	8105
10	4303	3851	3655	3433	3290
15	1609	1444	1407	1360	1320
20	631	563	541	518	499
25	256	230	228	222	214
30	122	114	115	112	112
35	72	67	67	66	66
40	41	38	38	36	32
45	22	21	20	18	17
50	16	16	16	14	13
55	15	14	14	10	8
60	12	12	9	4	4
65	8	7	4	2	2
70	4	3	2	1	0
75	2	2	0	0	0
80	2	0	0	0	0
85	0	0	0	0	0
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	1,115.3	93.7%	90-100	0.0	0.0%
0-40	1,157.5	97.3%	100-110	0.0	0.0%
0-60	1,184.2	99.5%	110-120	0.0	0.0%
60-90	5.5	0.5%	120-130	0.0	0.0%
70-100	1.0	0.1%	130-140	0.0	0.0%
90-120	0.0	0.0%	140-150	0.0	0.0%
0-90	1,189.7	100.0%	150-160	0.0	0.0%
90-180	0.0	0.0%	160-170	0.0	0.0%
0-180	1,189.7	100.0%	170-180	0.0	0.0%

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

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

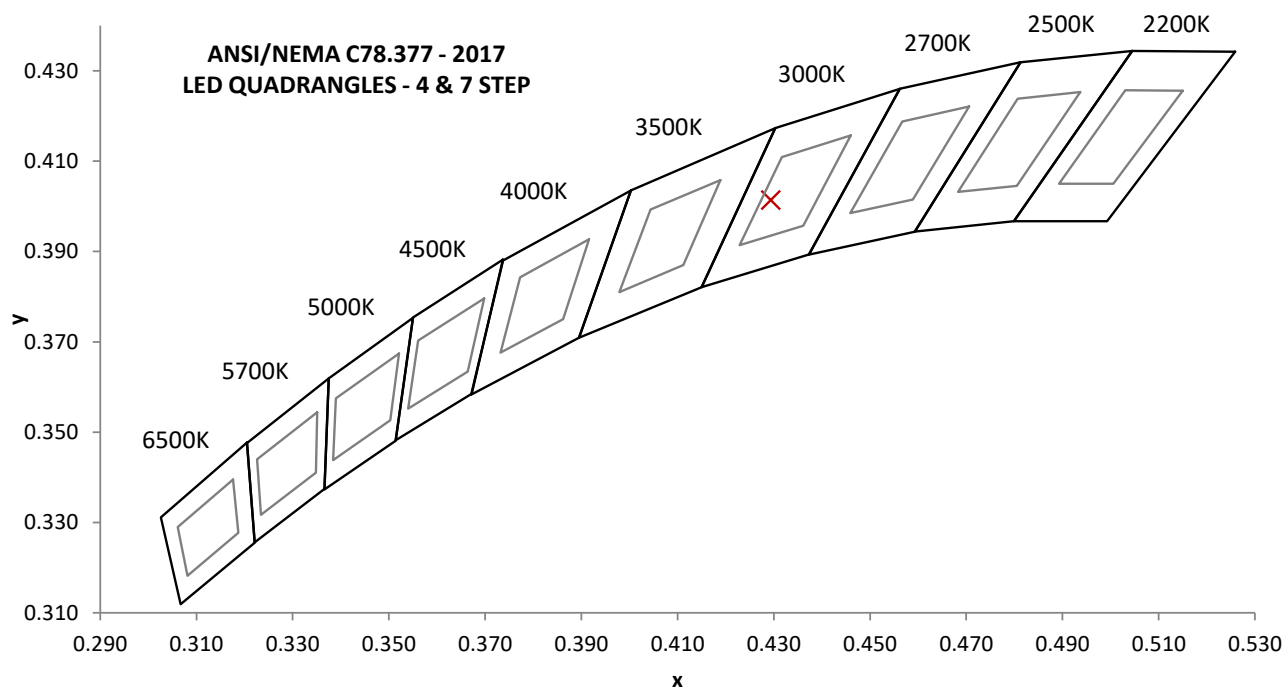
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (l)	Input ATHD (%)
120.00	291.8	32.04	0.959	31.00

Measured at 120(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra (l)	CRI - R9 (l)
1193.5	37.3	3109	92.5	62.9

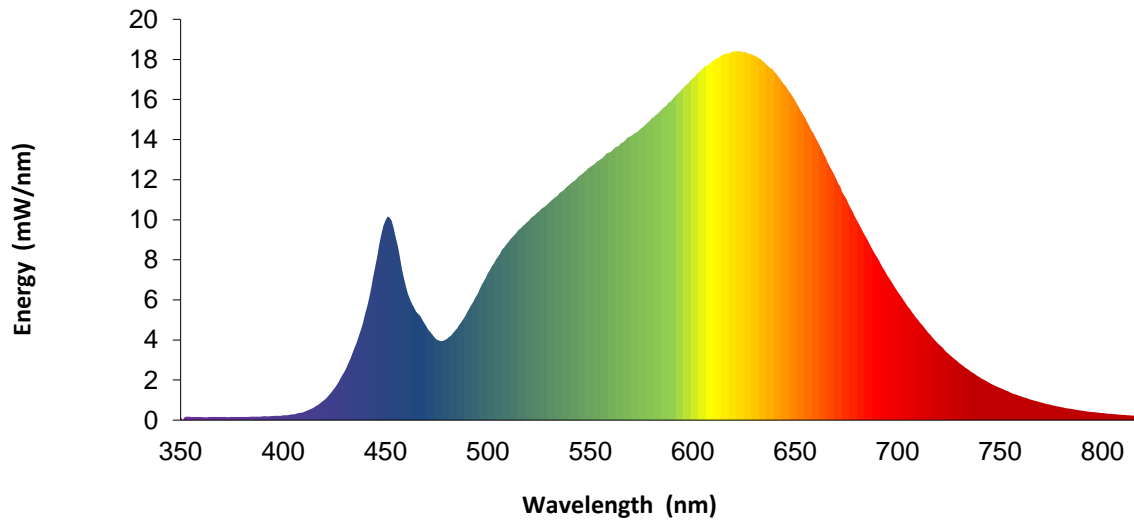
Duv (l)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
0.0000	0.429	0.401	0.247	0.519



SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.2		460	6.7		570	14.2		680	10.0
355	0.2		465	5.4		575	14.6		685	9.0
360	0.2		470	4.7		580	15.1		690	8.1
365	0.2		475	4.0		585	15.5		695	7.2
370	0.2		480	4.1		590	16.0		700	6.4
375	0.2		485	4.6		595	16.5		705	5.7
380	0.2		490	5.4		600	17.1		710	5.0
385	0.2		495	6.3		605	17.5		715	4.4
390	0.2		500	7.3		610	18.0		720	3.8
395	0.2		505	8.2		615	18.2		725	3.3
400	0.2		510	8.9		620	18.4		730	2.9
405	0.3		515	9.5		625	18.4		735	2.5
410	0.4		520	9.9		630	18.2		740	2.1
415	0.6		525	10.4		635	17.9		745	1.8
420	1.0		530	10.9		640	17.4		750	1.6
425	1.6		535	11.3		645	16.7		755	1.4
430	2.4		540	11.8		650	15.9		760	1.2
435	3.6		545	12.2		655	15.1		765	1.0
440	5.2		550	12.6		660	14.1		770	0.9
445	7.6		555	13.0		665	13.1		775	0.8
450	9.9		560	13.4		670	12.0		780	0.6
455	9.1		565	13.8		675	11.0		---	---

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-018

#	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
1	VCL-10W10-6FT3L-SP-TC30K	NA

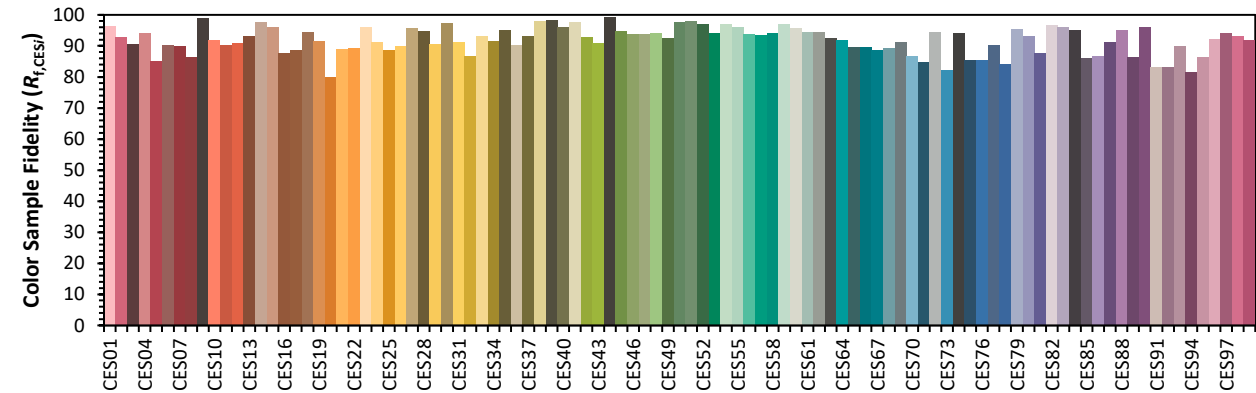
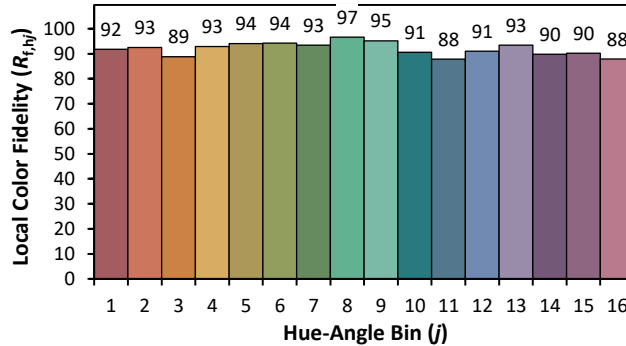
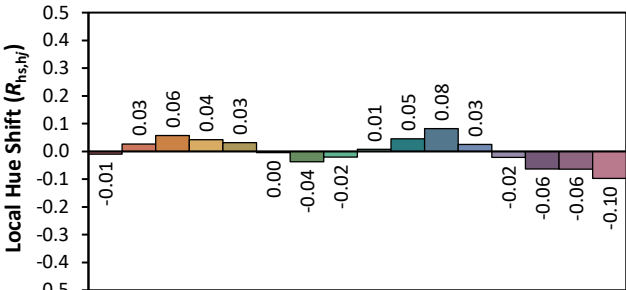
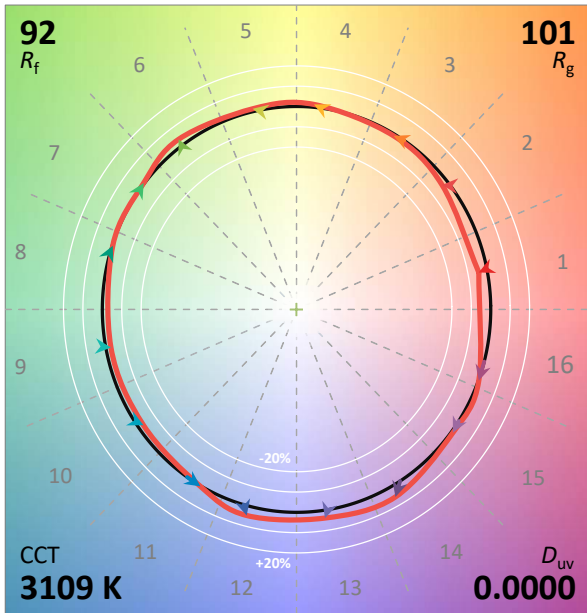
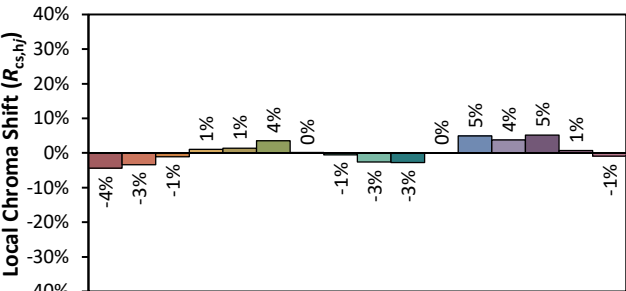
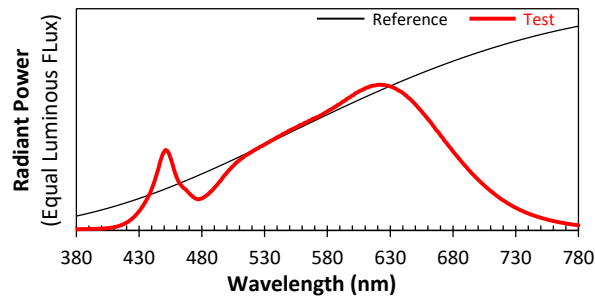
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Pure Edge Lighting

Date: 7/11/2024

Model: VCL-10W10-6FT3L-SP-TC30K



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

x 0.4294
y 0.4013
u' 0.2469
v' 0.5192