

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

VECE-5W-3FT-27K

PROJECT NUMBER

G104430061

REPORT NUMBER

104430061CHI-009

ISSUE DATE

3/10/2021

REVISED DATE

None

TEST DATES

02/26/2021 through 03/02/2021.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104430061CHI-009

MODEL NUMBER(s)

VECE-5W-3FT-27K

REPORT RENDERED TO:

PURE EDGE LIGHTING
1718 WEST FULLERTON AVE
CHICAGO
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:



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Reviewer:



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SAMPLE INFORMATION

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ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH02182021102128	VECE-5W-3FT-27K	LINEAR PLASTER IN	Production	2/18/2021

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	VECE-5W-3FT-27K	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	VECE-5W-3FT-27K
Product Description:	LINEAR PLASTER IN
LED Model No.:	LUMILED/ L128-2780CB3500001
Driver Model No.:	HUARI/DR-24V-1100-33D
Light Source:	LED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	1027.7	1073.8
Input Power (W) @ 120 (Vac)	32.92	33.28
Lumen Efficacy (lm/W)	31.2	32.3
Input Power Factor () @ 120 (Vac)	0.989	0.988

Criteria	Results
Input ATHD (%) @ 120 (Vac)	15.16
Correlated Color Temperature (K)	2599
Color Rendering Index - Ra ()	93.3
Color Rendering Index - R9 ()	59.2
Duv ()	-0.0018
Chromaticity Coordinate (x)	0.465
Chromaticity Coordinate (y)	0.407
Chromaticity Coordinate (u')	0.268
Chromaticity Coordinate (v')	0.527

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

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Test Configuration	Tested Model No.	Pass/Fail/NA
1	VECE-5W-3FT-27K	NA

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

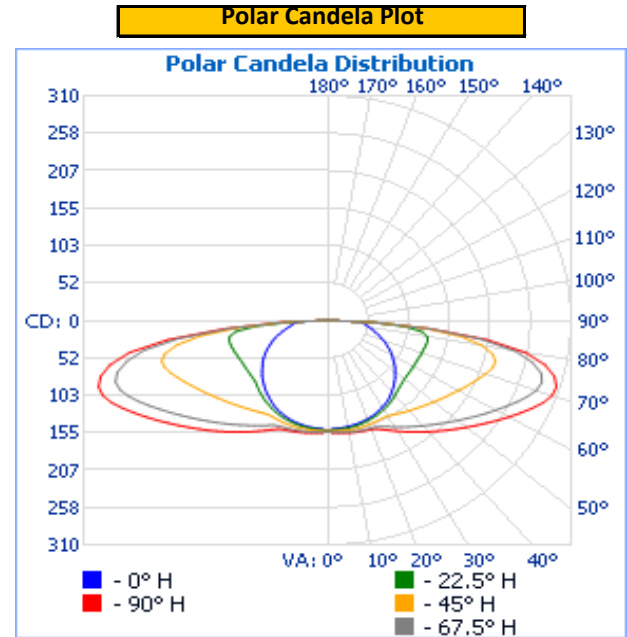
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)
Up	120.08	277.2	32.92	0.989

Light Output (lm)	Lumen Efficacy (lm/W)
1027.7	31.2

INTENSITY SUMMARY - CANDELA

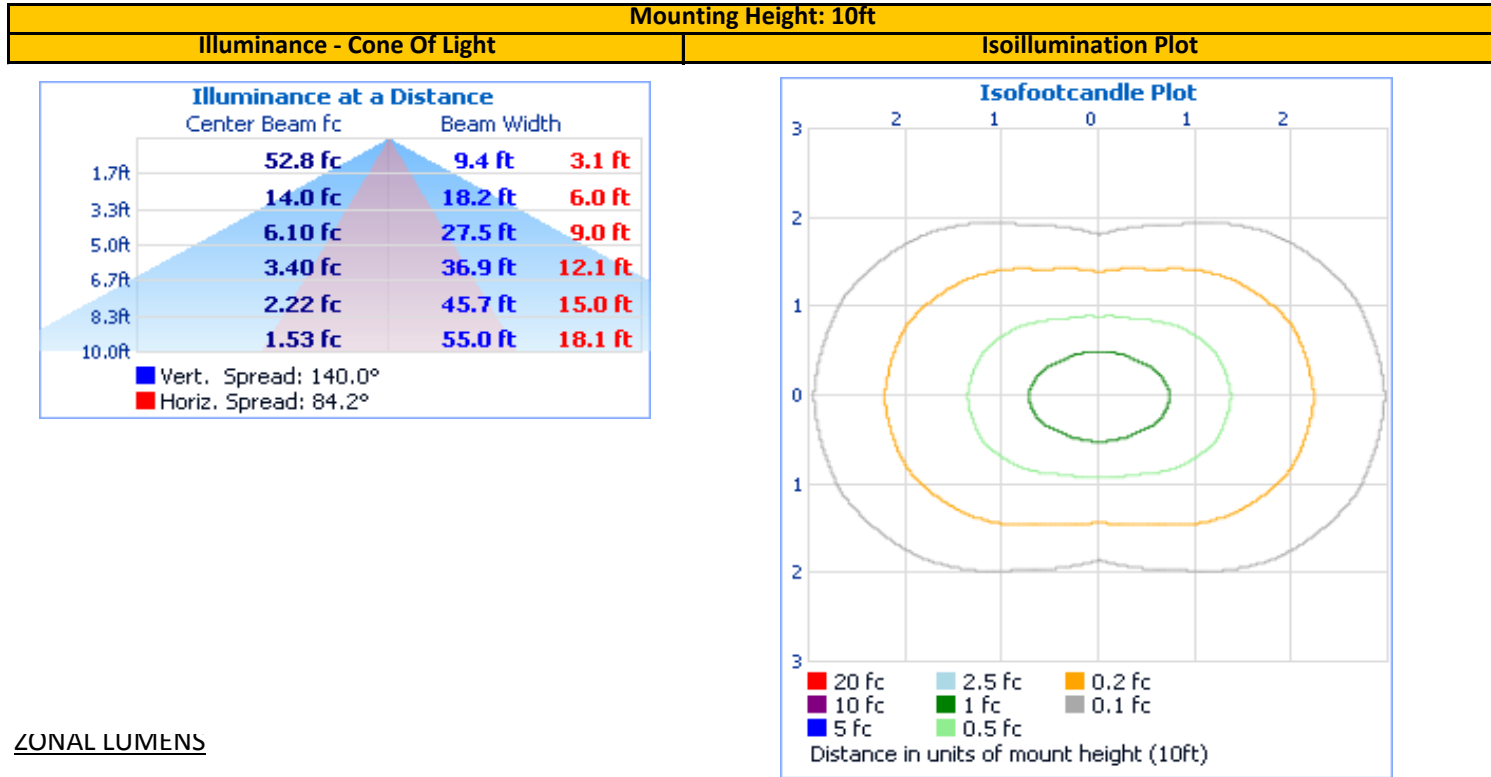
Angle	0	22.5	45	67.5	90
0	153	153	153	153	153
5	150	151	153	155	156
10	149	151	154	156	158
15	148	150	154	158	159
20	146	148	153	158	161
25	143	145	152	162	166
30	139	142	153	170	177
35	134	139	157	179	188
40	128	134	162	190	201
45	120	130	169	202	214
50	112	127	176	215	230
55	104	126	184	231	247
60	95	126	193	248	267
65	84	127	203	266	287
70	73	128	215	283	304
75	63	130	221	281	299
80	53	129	200	242	256
85	46	100	125	130	131
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



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ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	128.9	12.5%	0-10	14.6	1.4%
0-40	228.2	22.2%	10-20	43.4	4.2%
0-60	516.4	50.2%	20-30	70.9	6.9%
60-90	511.3	49.8%	30-40	99.3	9.7%
70-100	318.3	31.0%	40-50	128.5	12.5%
90-120	0.0	0.0%	50-60	159.7	15.5%
0-90	1,027.7	100.0%	60-70	193.0	18.8%
90-180	0.0	0.0%	70-80	209.2	20.4%
0-180	1,027.7	100.0%	80-90	109.2	10.6%
			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-009

Test Configuration	Tested Model No.	Pass/Fail/NA
1	VECE-5W-3FT-27K	NA

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

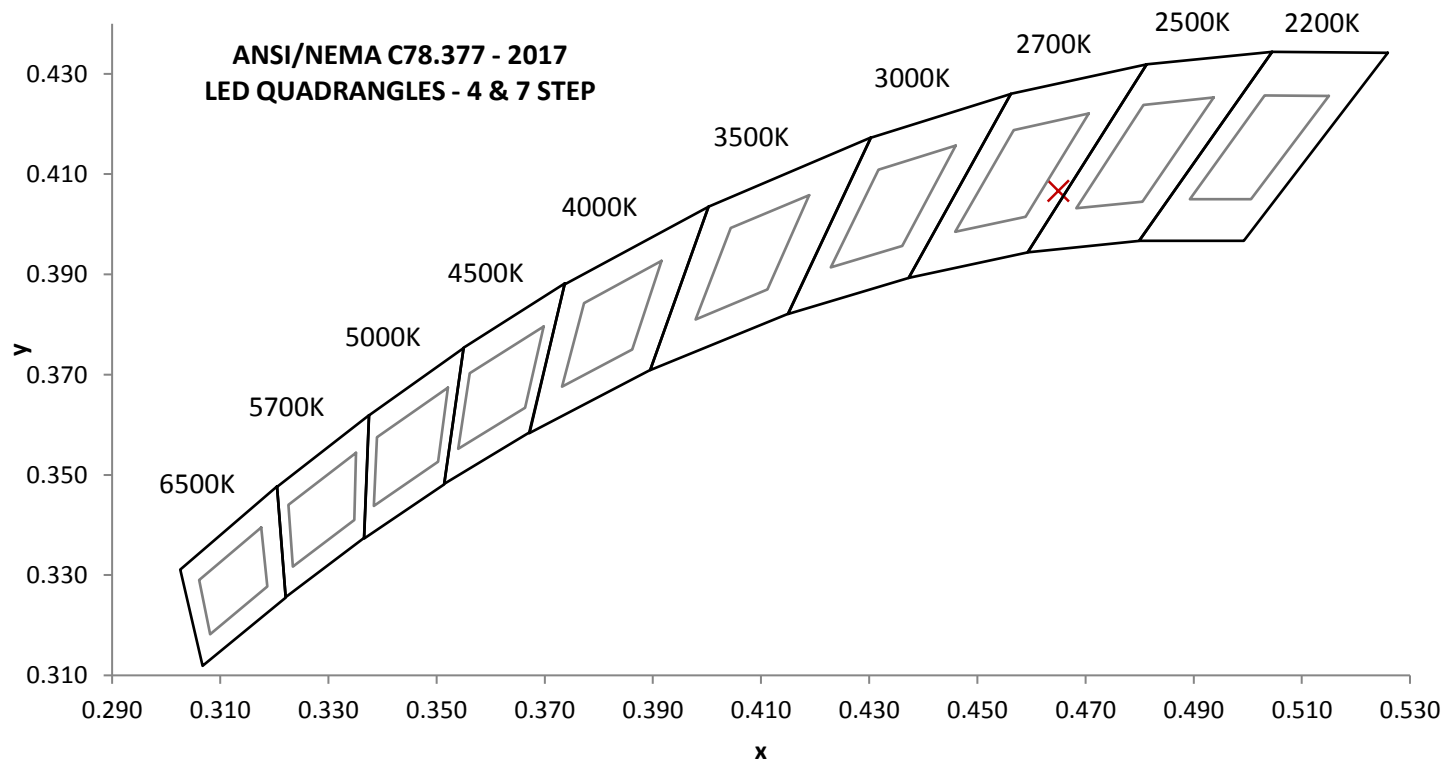
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)	Input ATHD (%)
119.96	280.7	33.28	0.988	15.16

Measured at 119.96(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra (I)	CRI - R9 (I)
1073.8	32.3	2599	93.3	59.2

Duv (I)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0018	0.465	0.407	0.268	0.527

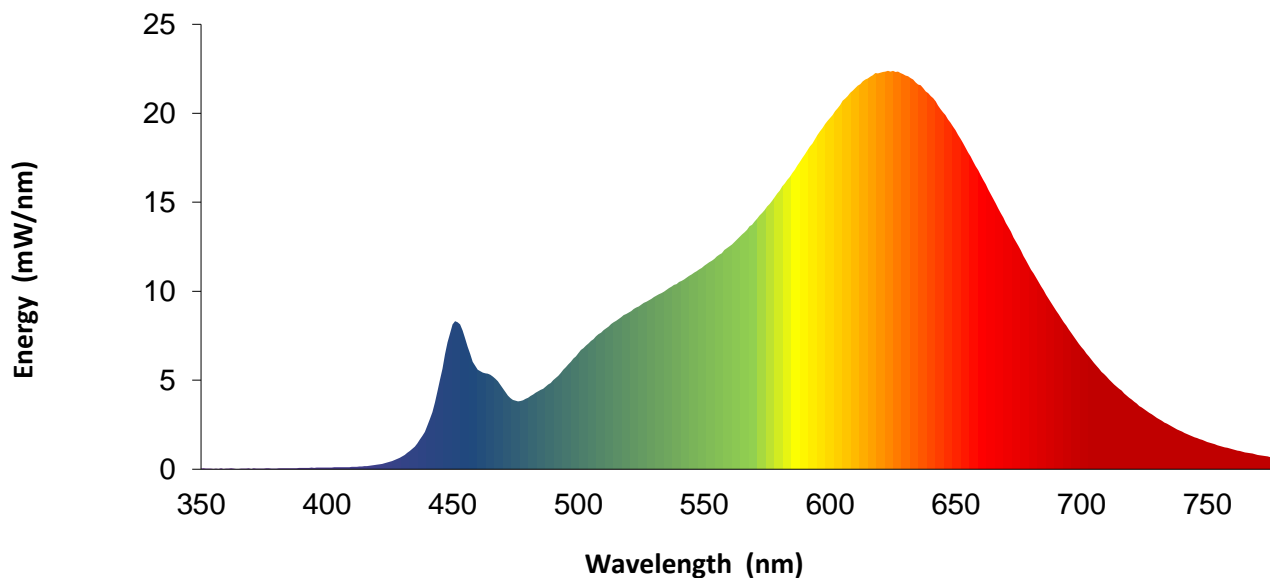


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SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.0		460	5.6		570	13.9		680	11.2
355	0.0		465	5.3		575	14.8		685	10.1
360	0.0		470	4.5		580	15.7		690	8.9
365	0.0		475	3.8		585	16.7		695	7.9
370	0.0		480	4.0		590	17.7		700	6.9
375	0.0		485	4.5		595	18.8		705	6.0
380	0.0		490	5.0		600	19.7		710	5.2
385	0.0		495	5.7		605	20.7		715	4.5
390	0.1		500	6.5		610	21.4		720	3.9
395	0.1		505	7.2		615	22.0		725	3.4
400	0.1		510	7.8		620	22.3		730	2.9
405	0.1		515	8.3		625	22.4		735	2.5
410	0.1		520	8.8		630	22.1		740	2.1
415	0.2		525	9.3		635	21.6		745	1.8
420	0.3		530	9.7		640	21.0		750	1.5
425	0.4		535	10.1		645	20.1		755	1.3
430	0.7		540	10.5		650	19.1		760	1.1
435	1.3		545	10.9		655	17.8		765	1.0
440	2.5		550	11.4		660	16.5		770	0.8
445	5.0		555	11.9		665	15.2		775	0.7
450	8.1		560	12.5		670	13.8		780	0.6
455	7.3		565	13.2		675	12.5		---	---

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

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#	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	VBUE	VBUE
4	Newport Thermohygrometer	iServer	146957	1/29/2021	1/29/2022
5	Pacific AC Power Supply	118-ACX	CHI0153	VBUE	VBUE
6	Newport Humidity Recorder	iServer	146961	9/3/2020	9/3/2021
7	Labsphere 2M Sphere & Spectroradiometer	CDS1100	146137	VBUE	VBUE
8	Elgar AC Power Supply	CW1251	146113	VBUE	VBUE
9	Sorenson DC Power Supply	XFR150-8	146847	VBUE	VBUE
10	Yokogawa Power Meter	WT1600	146767	4/6/2020	4/6/2021
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	VECE-5W-3FT-27K	NA

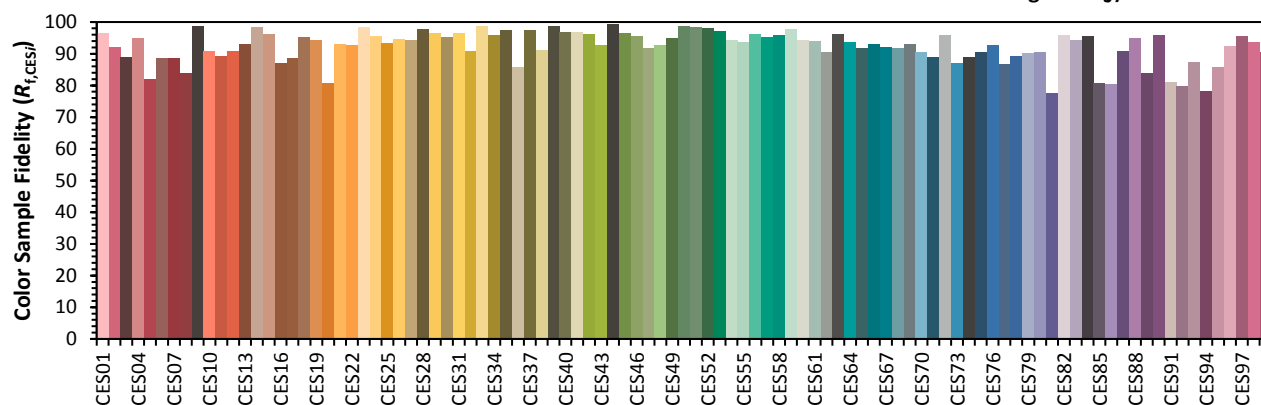
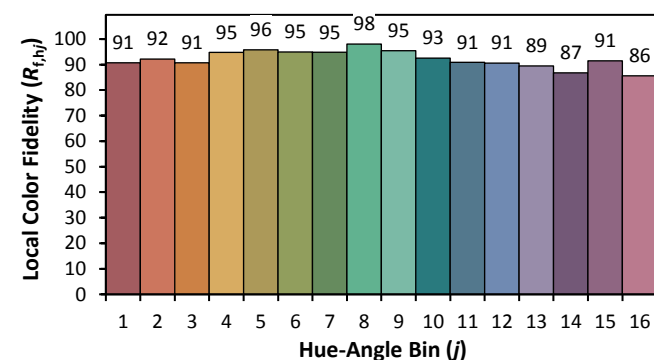
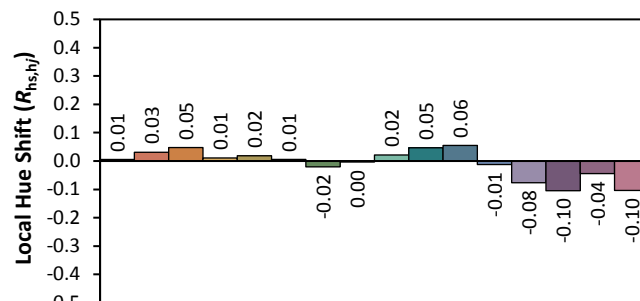
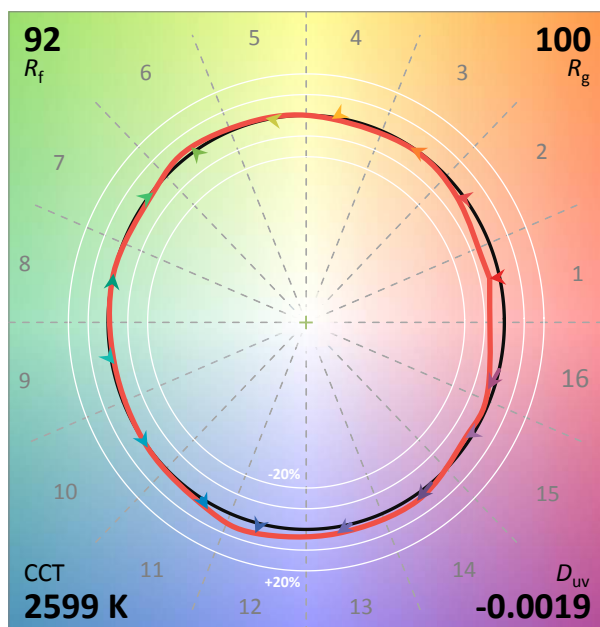
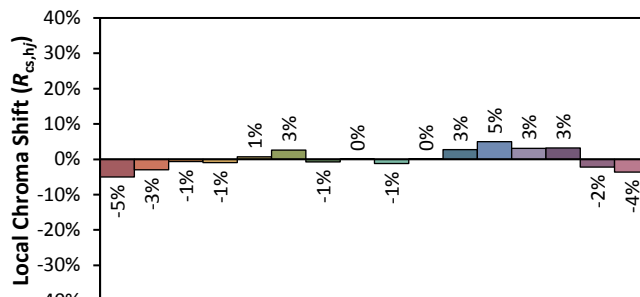
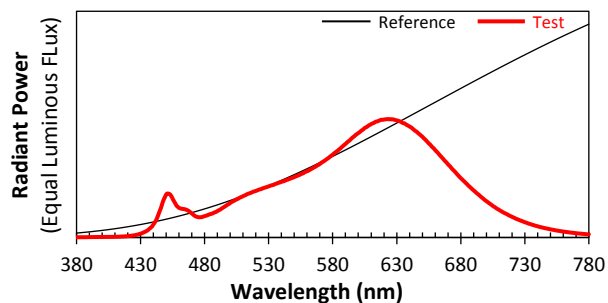
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Pure Edge Lighting

Date: 3/2/2021

Model: VECE-5W-3FT-27K



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

x 0.4650

y 0.4066

u' 0.2677

v' 0.5266