

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

L27L-19W-FL-WZ-TC-SAWW

PROJECT NUMBER

G105870896

REPORT NUMBER

105870896CHI-004

ISSUE DATE

7/15/2024

REVISED DATE

None

TEST DATES

2024-07-08 through 2024-07-12.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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PAGES

10

REPORT NUMBER

105870896CHI-004

MODEL NUMBER(s)

L27L-19W-FL-WZ-TC-SAWW

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
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Reviewer:



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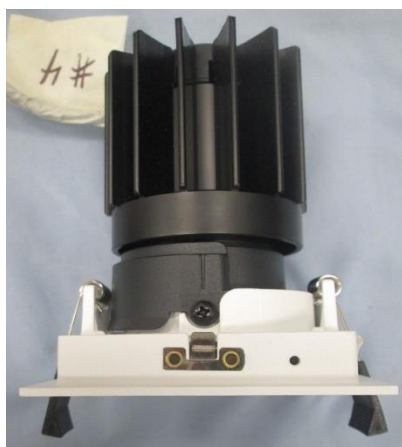
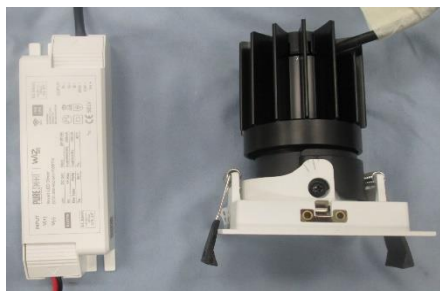
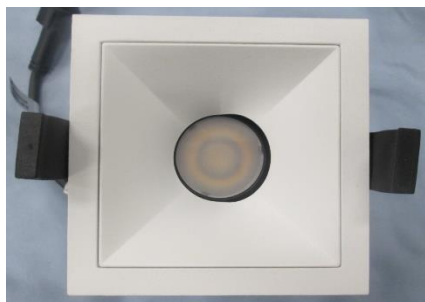
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH06212024013032-004	L27L-19W-FL-WZ-TC-SAWW	Downlight	Production	6/21/2024

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	L27L-19W-FL-WZ-TC-SAWW	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	L27L-19W-FL-WZ-TC-SAWW
Product Description:	Downlight
LED Model No.:	TYF/ TB 1814D-058-RGBCW
Driver Model No.:	BERNSN/DCC-450WZ24VRGBTW
Light Source:	LED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	665.2	689.9
Driver Output Power (W) @ 24 (Vdc)	14.13	
Calculated Efficacy (lm/W)	48.8	

Criteria	Results
Correlated Color Temperature (K)	2940
Color Rendering Index - Ra (I)	95.5
Color Rendering Index - R9 (I)	96.4
Duv (I)	-0.0021
Chromaticity Coordinate (x)	0.438
Chromaticity Coordinate (y)	0.399
Chromaticity Coordinate (u')	0.253
Chromaticity Coordinate (v')	0.520

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	L27L-19W-FL-WZ-TC-SAWW	NA

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

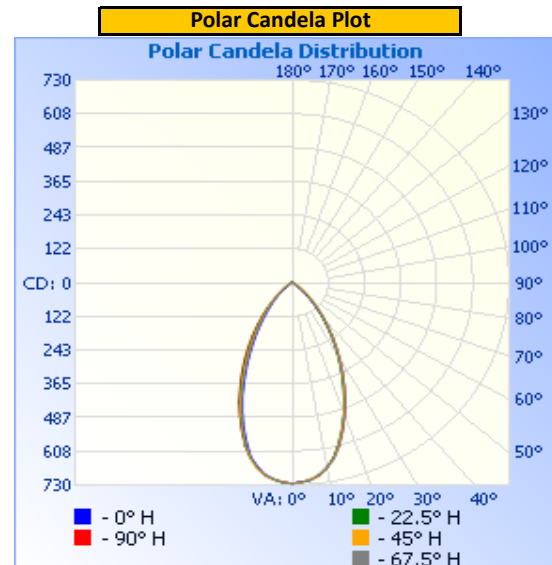
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Up	120.00	192.6	20.12	0.870

Light Output (lm)	Lumen Efficacy (lm/W)
665.2	33.1

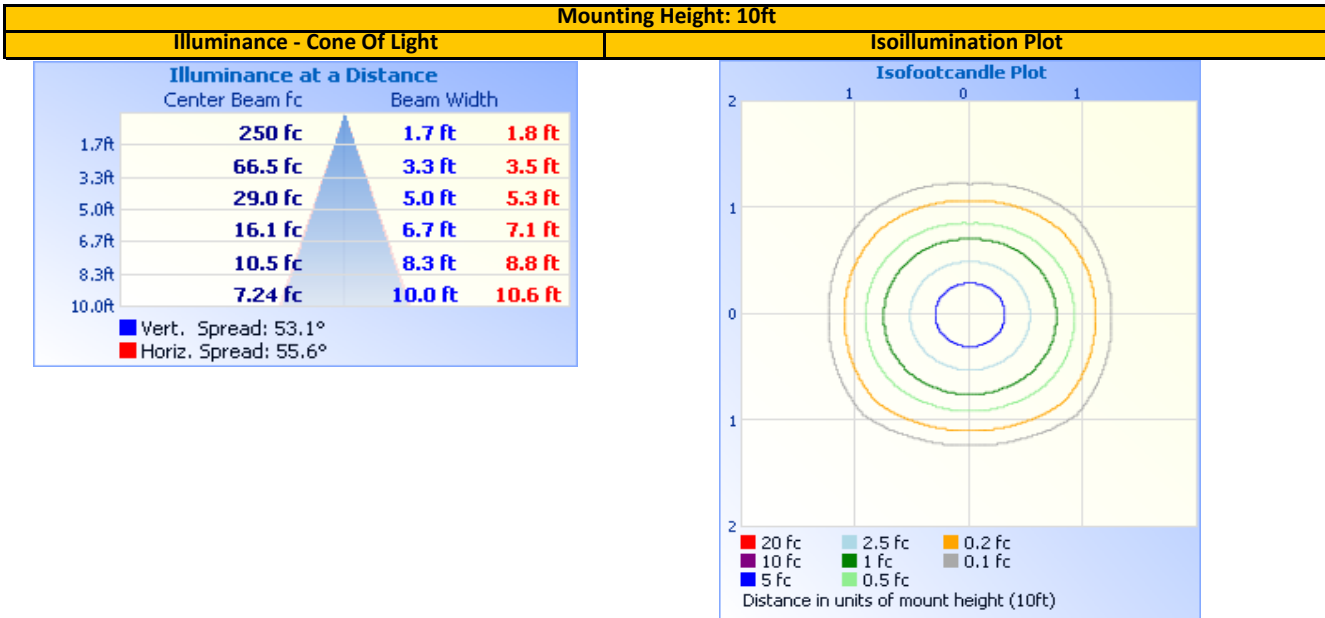
INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	724	724	724	724	724
5	713	714	710	714	712
10	675	678	676	676	675
15	603	600	604	608	609
20	508	505	508	514	514
25	407	403	410	416	416
30	312	310	316	321	321
35	227	225	232	236	235
40	152	152	164	164	157
45	90	95	109	104	94
50	45	51	67	56	47
55	16	21	34	24	19
60	4	5	12	8	7
65	3	3	4	6	6
70	2	3	3	4	4
75	1	1	2	2	2
80	1	1	1	1	1
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	419.2	63.0%	90-100	0.0	0.0%
0-40	558.0	83.9%	100-110	0.0	0.0%
0-60	656.7	98.7%	110-120	0.0	0.0%
60-90	8.5	1.3%	120-130	0.0	0.0%
70-100	2.7	0.4%	130-140	0.0	0.0%
90-120	0.0	0.0%	140-150	0.0	0.0%
0-90	665.2	100.0%	150-160	0.0	0.0%
90-180	0.0	0.0%	160-170	0.0	0.0%
0-180	665.2	100.0%	170-180	0.0	0.0%

Test Configuration	Tested Model No.	Pass/Fail/NA
1	L27L-19W-FL-WZ-TC-SAWW	NA

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

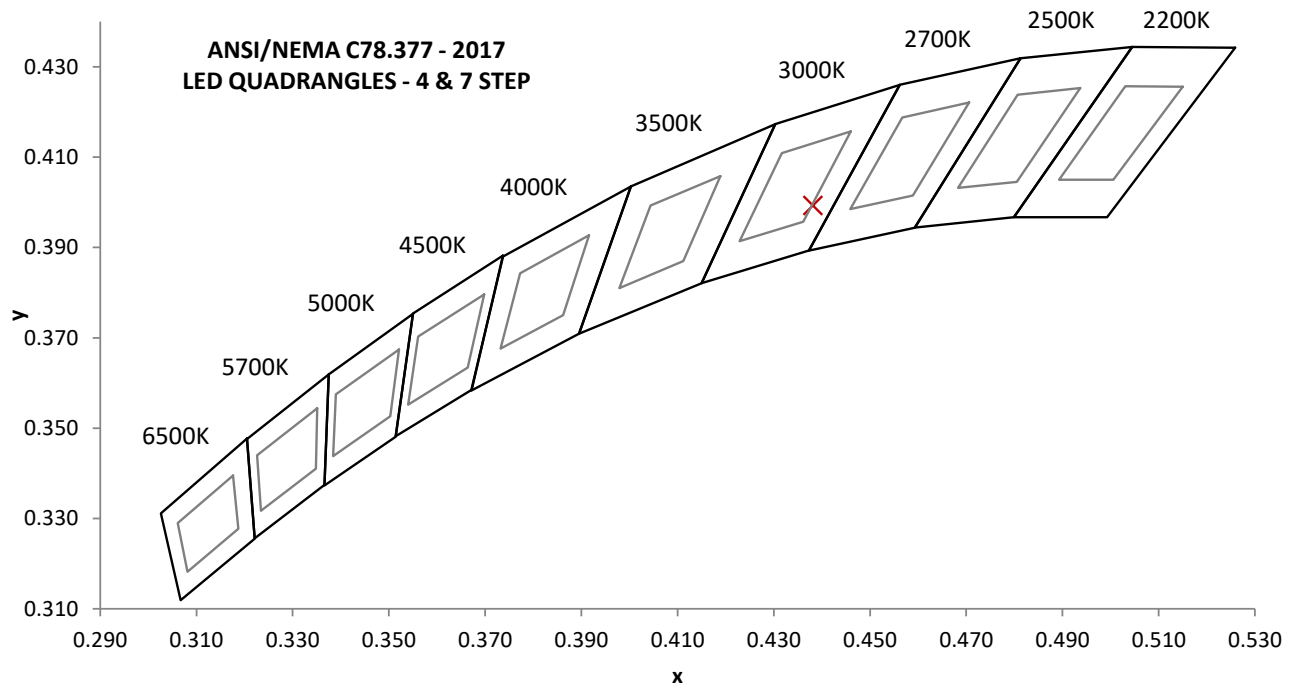
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)	Input ATHD (%)
120.00	192.5	20.17	0.911	29.50

Measured at 120(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra (I)	CRI - R9 (I)
689.9	34.2	2940	95.5	96.4

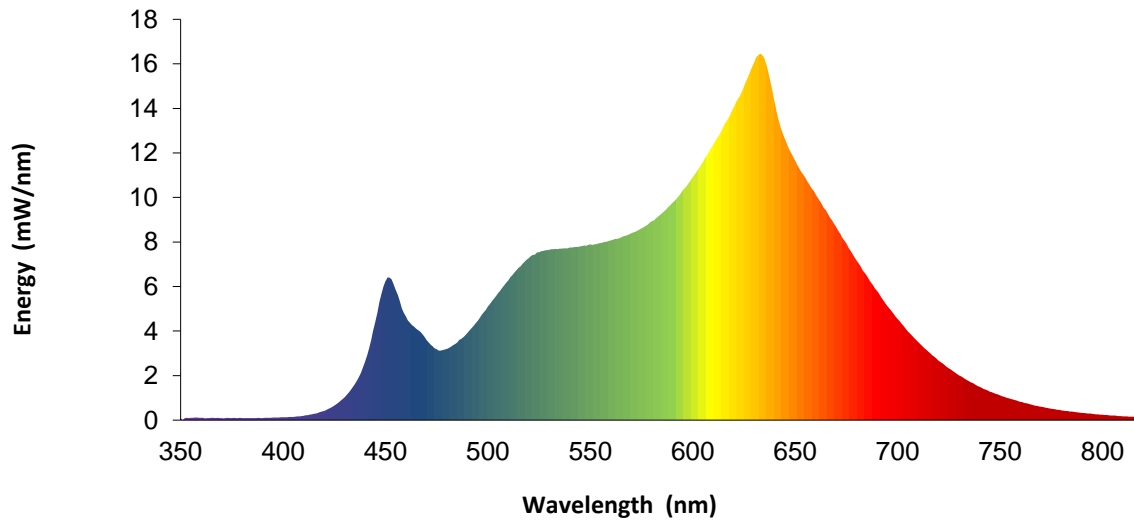
Duv (I)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0021	0.438	0.399	0.253	0.520



SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.1		460	4.7		570	8.4		680	7.2
355	0.1		465	4.1		575	8.6		685	6.5
360	0.1		470	3.6		580	8.9		690	5.8
365	0.1		475	3.2		585	9.3		695	5.1
370	0.1		480	3.2		590	9.7		700	4.6
375	0.1		485	3.5		595	10.3		705	4.0
380	0.1		490	3.9		600	10.9		710	3.5
385	0.1		495	4.5		605	11.6		715	3.1
390	0.1		500	5.1		610	12.4		720	2.7
395	0.1		505	5.7		615	13.2		725	2.3
400	0.1		510	6.3		620	14.0		730	2.0
405	0.1		515	6.8		625	15.0		735	1.7
410	0.2		520	7.3		630	16.1		740	1.5
415	0.3		525	7.5		635	16.2		745	1.3
420	0.4		530	7.7		640	14.3		750	1.1
425	0.7		535	7.7		645	12.6		755	1.0
430	1.0		540	7.8		650	11.7		760	0.8
435	1.6		545	7.8		655	10.9		765	0.7
440	2.6		550	7.9		660	10.1		770	0.6
445	4.4		555	8.0		665	9.4		775	0.5
450	6.2		560	8.1		670	8.7		780	0.4
455	5.9		565	8.2		675	7.9		---	---

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-004

#	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

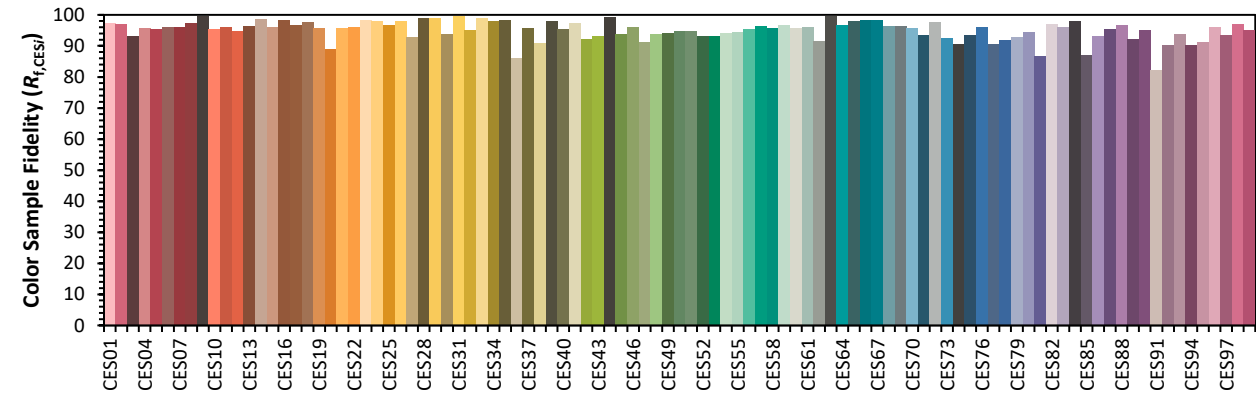
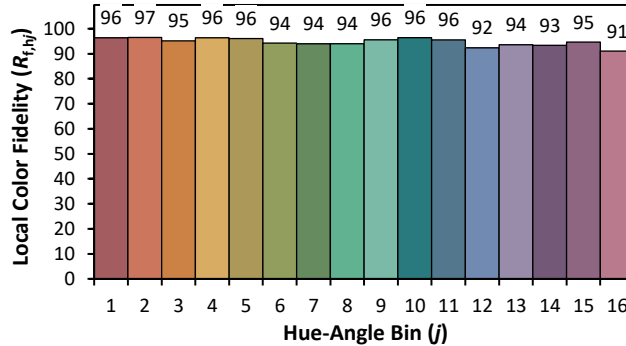
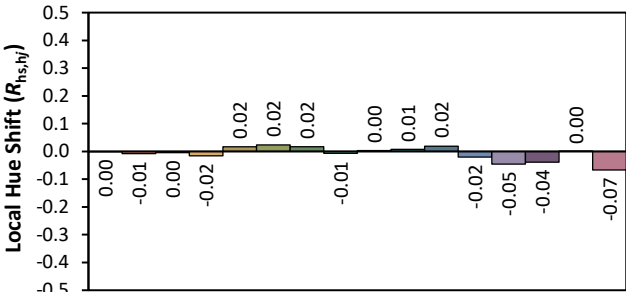
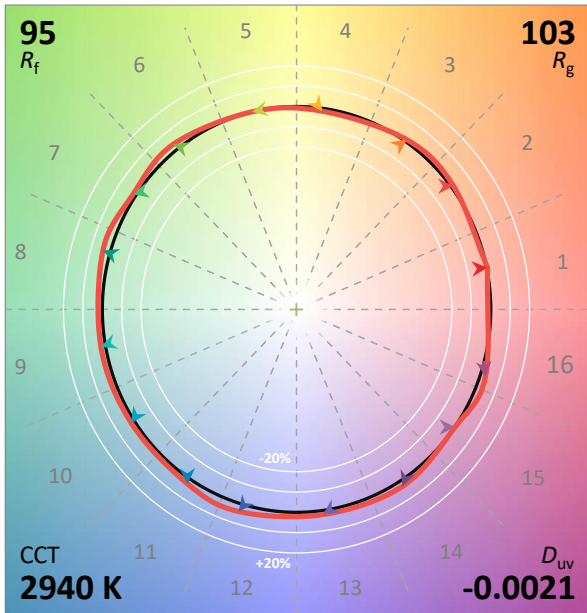
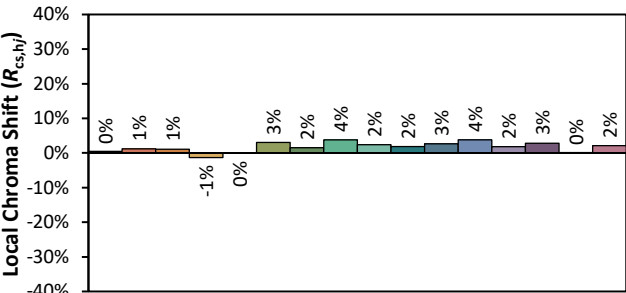
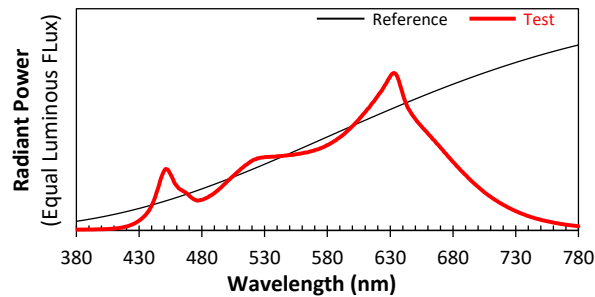
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Test Configuration	Tested Model No.	Pass/Fail/NA
1	L27L-19W-FL-WZ-TC-SAWW	NA

ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD
Date: 7/12/2024

Manufacturer: Pure Edge Lighting
Model: L27L-19W-FL-WZ-TC-SAWW



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

x 0.4381
y 0.3993
u' 0.2535
v' 0.5197