

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

L27-FL-30K-RDWW

PROJECT NUMBER

G105870896

REPORT NUMBER

105870896CHI-022

ISSUE DATE

7/15/2024

REVISED DATE

None

TEST DATES

2024-06-27 through 2024-07-03.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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PAGES

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REPORT NUMBER

105870896CHI-022

MODEL NUMBER(s)

L27-FL-30K-RDWW

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	AH06212023013032-022	L27-FL-30K-RDWW	DOWNLIGHTS	Production	6/21/2023

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	L27-FL-30K-RDWW	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	L27-FL-30K-RDWW
Product Description:	DOWNLIGHTS
LED Model No.:	BXRE-30G1000-C-83
Driver Model No.:	PUP40T-1LMC-850
Light Source:	LED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	1507.0	1496.4
Input Power (W) @ 120 (Vac)	23.05	23.10
Lumen Efficacy (lm/W)	65.4	64.8
Input Power Factor (I) @ 120 (Vac)	0.967	0.966

Criteria	Results
Input ATHD (%) @ 120 (Vac)	12.06
Correlated Color Temperature (K)	3063
Color Rendering Index - Ra	91.5
Color Rendering Index - R9	67.4
Duv	-0.0013
Chromaticity Coordinate (x)	0.431
Chromaticity Coordinate (y)	0.399
Chromaticity Coordinate (u')	0.249
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

TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING
REPORT NO. 105870896CHI-022

Test Configuration	Tested Model No.	Pass/Fail/NA
1	L27-FL-30K-RDWW	NA

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

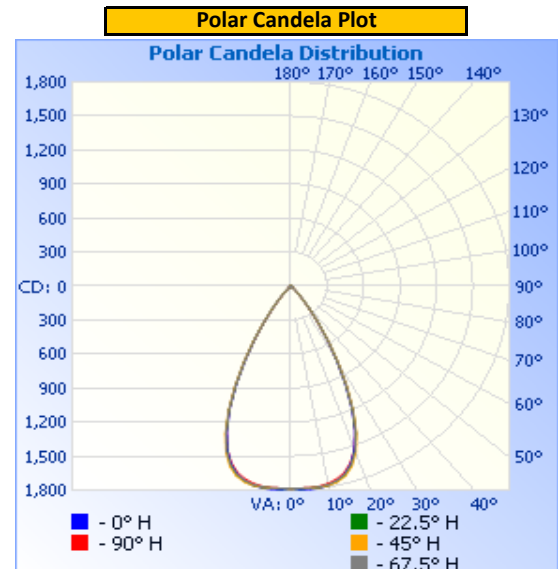
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Up	120.08	198.5	23.05	0.967

Light Output (lm)	Lumen Efficacy (lm/W)
1507.0	65.4

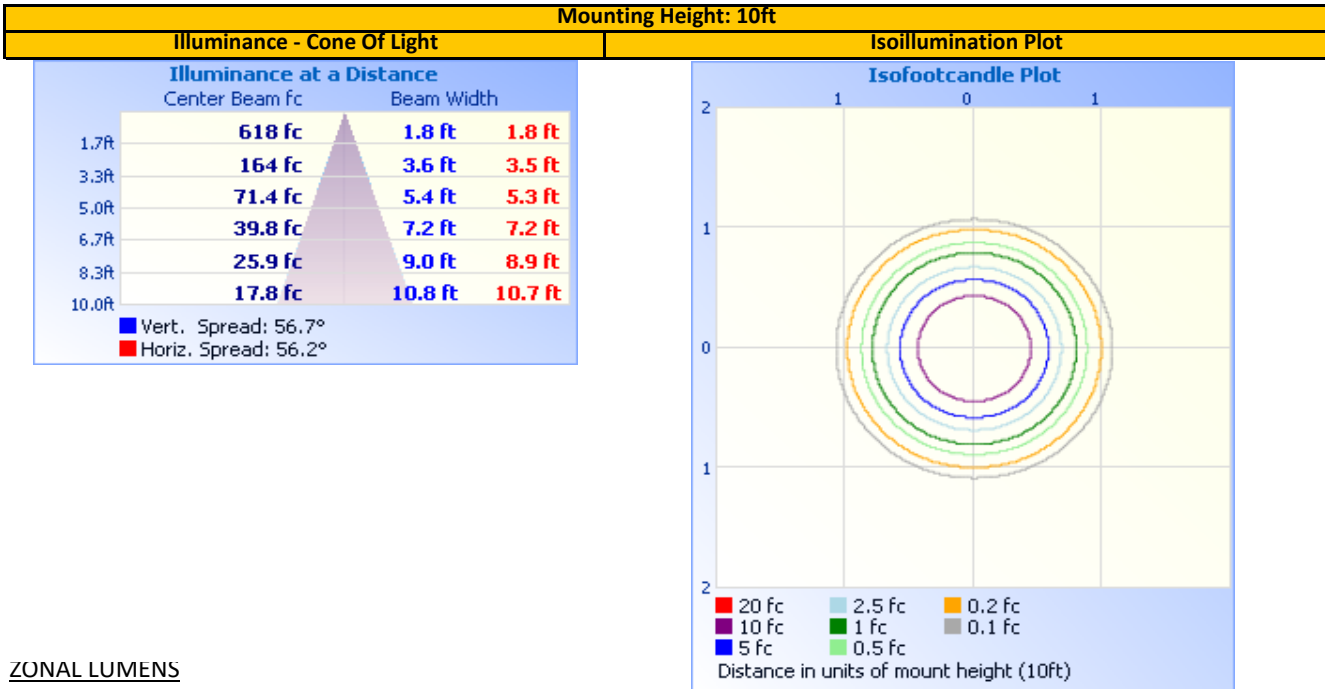
INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	1785	1785	1785	1785	1785
5	1797	1789	1787	1785	1785
10	1784	1783	1785	1776	1768
15	1714	1726	1735	1716	1701
20	1532	1548	1562	1548	1532
25	1193	1207	1220	1211	1203
30	751	768	777	772	766
35	381	392	393	386	378
40	152	157	154	150	149
45	52	54	52	51	51
50	19	20	19	19	19
55	10	11	10	10	10
60	7	7	7	7	7
65	5	5	5	5	5
70	4	4	4	4	4
75	3	3	3	2	2
80	2	2	2	2	2
85	1	1	1	1	1
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	1,187.1	78.8%	90-100	0.0	0.0%
0-40	1,439.9	95.5%	100-110	0.0	0.0%
0-60	1,498.4	99.4%	110-120	0.0	0.0%
60-90	8.7	0.6%	120-130	0.0	0.0%
70-100	3.5	0.2%	130-140	0.0	0.0%
90-120	0.0	0.0%	140-150	0.0	0.0%
0-90	1,507.0	100.0%	150-160	0.0	0.0%
90-180	0.0	0.0%	160-170	0.0	0.0%
0-180	1,507.0	100.0%	170-180	0.0	0.0%

Test Configuration	Tested Model No.	Pass/Fail/NA
1	L27-FL-30K-RDWW	NA

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

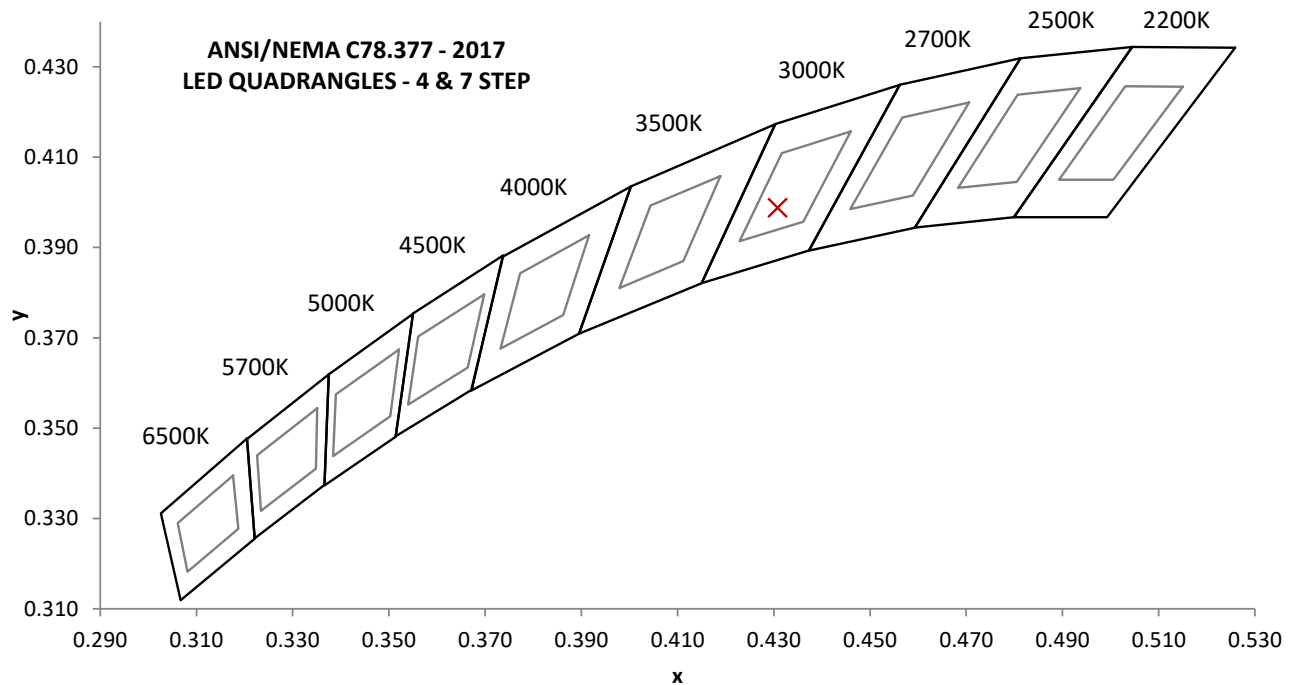
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (l)	Input ATHD (%)
120.02	199.3	23.10	0.966	12.06

Measured at 120.02(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra (l)	CRI - R9 (l)
1496.4	64.8	3063	91.5	67.4

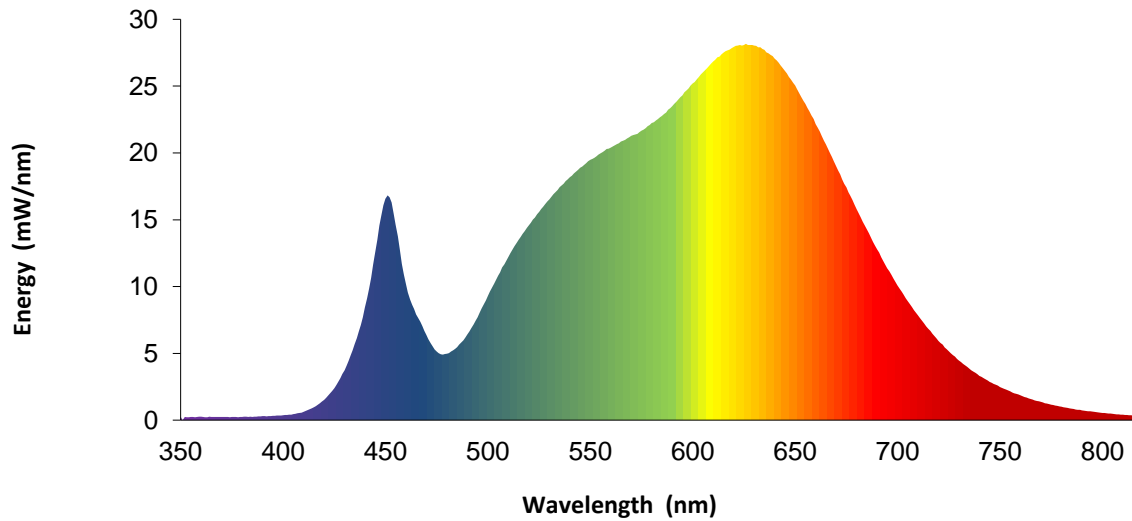
Duv (l)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0013	0.431	0.399	0.249	0.518



SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.3		460	10.2		570	21.3		680	15.8
355	0.2		465	7.9		575	21.7		685	14.3
360	0.3		470	6.4		580	22.2		690	12.8
365	0.2		475	5.1		585	22.8		695	11.4
370	0.2		480	5.0		590	23.5		700	10.1
375	0.2		485	5.5		595	24.3		705	8.9
380	0.2		490	6.4		600	25.2		710	7.8
385	0.2		495	7.7		605	26.0		715	6.8
390	0.3		500	9.3		610	26.8		720	5.9
395	0.3		505	10.8		615	27.5		725	5.2
400	0.4		510	12.2		620	27.9		730	4.5
405	0.4		515	13.5		625	28.1		735	3.9
410	0.6		520	14.6		630	28.0		740	3.3
415	1.0		525	15.6		635	27.7		745	2.9
420	1.5		530	16.5		640	27.1		750	2.5
425	2.4		535	17.4		645	26.1		755	2.1
430	3.7		540	18.2		650	25.1		760	1.8
435	5.7		545	18.9		655	23.7		765	1.6
440	8.4		550	19.5		660	22.2		770	1.4
445	12.5		555	20.0		665	20.6		775	1.2
450	16.6		560	20.4		670	19.0		780	1.0
455	14.6		565	20.8		675	17.4		---	---

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

EQUIPMENT LIST

REPORT NO. 105870896CHI-022

#	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	XT2640	CHI0611	7/7/2023	7/7/2024

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	L27-FL-30K-RDWW	NA

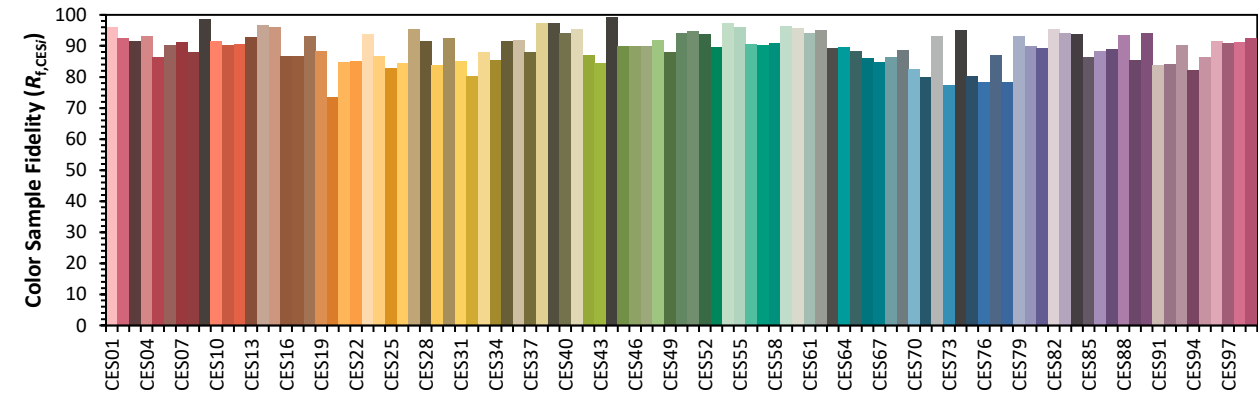
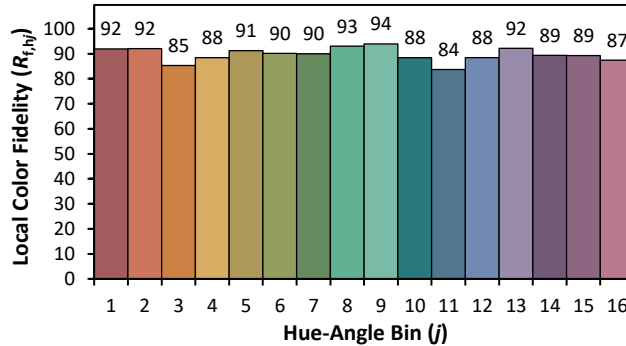
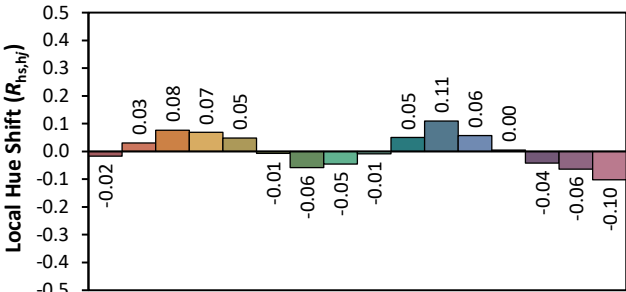
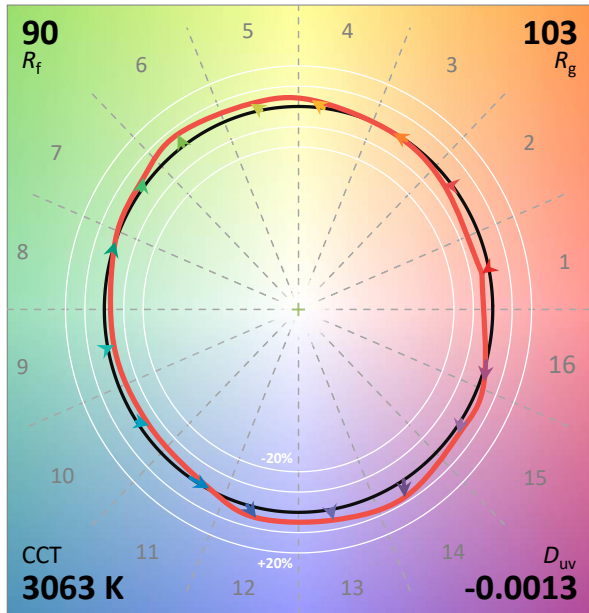
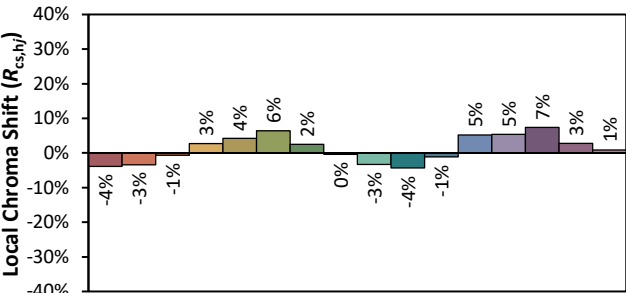
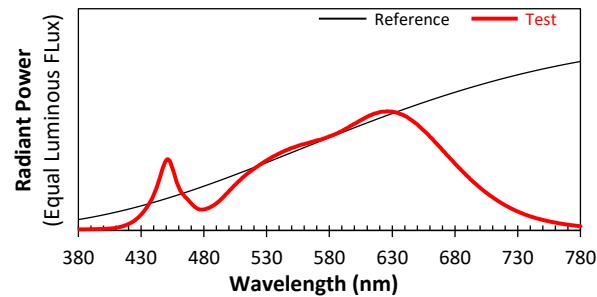
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Pure Edge Lighting

Date: 7/3/2024

Model: L27-FL-30K-RDWW



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

x 0.4308
y 0.3988
u' 0.2489
v' 0.5183