

# PURE EDGE LIGHTING

## TEST REPORT

### SCOPE OF WORK

LED Performance Testing

### MODEL NUMBER

DK-12R-18W-WZ-120V-TC-WH

### PROJECT NUMBER

G105870896

### REPORT NUMBER

105870896CHI-021

### ISSUE DATE

7/15/2024

### REVISED DATE

None

### TEST DATES

2024-06-24 through 2024-06-27.

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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### PAGES

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**REPORT NUMBER**

105870896CHI-021

**MODEL NUMBER(s)**

DK-12R-18W-WZ-120V-TC-WH

**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:



Jeff Davis  
NA Technical Lead  
Lighting Division

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ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH06212024013032-021	DK-12R-18W-WZ-120V-TC-WH	CEILING FLUSH MOUNT	Production	6/21/2024

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	DK-12R-18W-WZ-120V-TC-WH	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



# PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	DK-12R-18W-WZ-120V-TC-WH
Product Description:	CEILING FLUSH MOUNT
LED Model No.:	N/A
Driver Model No.:	N/A
Light Source:	LED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	1438.4	1444.0
Input Power (W) @ 120 (Vac)	18.74	18.77
Lumen Efficacy (lm/W)	76.8	76.9
Input Power Factor (I) @ 120 (Vac)	0.544	0.543

Criteria	Results
Input ATHD (%) @ 120 (Vac)	130.70
Correlated Color Temperature (K)	2942
Color Rendering Index - Ra (I)	91.8
Color Rendering Index - R9 (I)	48.1
Duv (I)	-0.0035
Chromaticity Coordinate (x)	0.436
Chromaticity Coordinate (y)	0.395
Chromaticity Coordinate (u')	0.254
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-021

Test Configuration	Tested Model No.	Pass/Fail/NA
1	DK-12R-18W-WZ-120V-TC-WH	NA

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

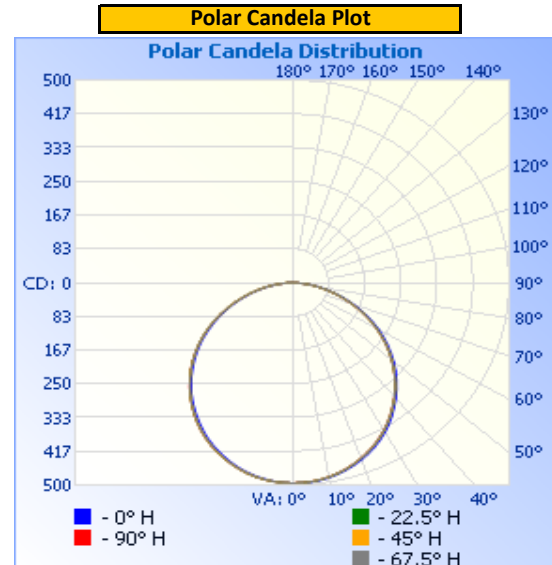
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ( )
Up	120.08	287.0	18.74	0.544

Light Output (lm)	Lumen Efficacy (lm/W)
1438.4	76.8

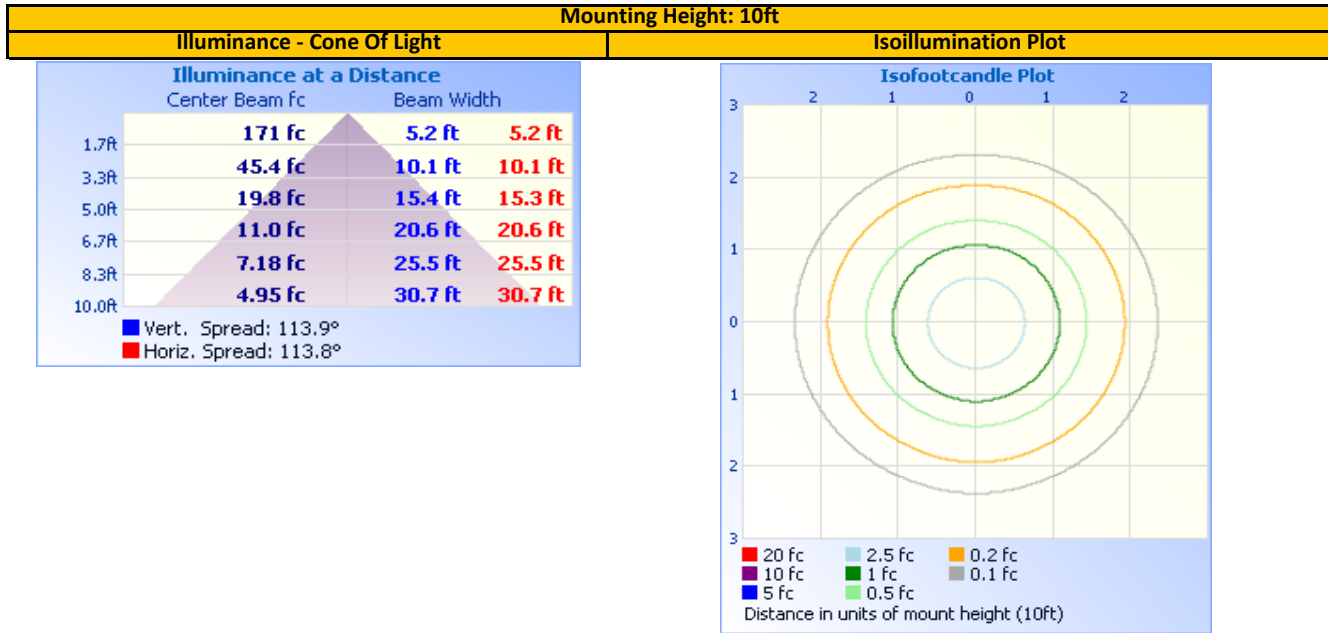
### INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	495	495	495	495	495
5	494	493	493	493	493
10	489	487	487	487	487
15	479	477	477	476	476
20	466	462	462	462	461
25	449	444	444	444	443
30	427	422	422	421	421
35	401	396	396	395	395
40	372	367	367	367	366
45	340	335	335	335	334
50	306	300	300	300	299
55	269	263	263	263	262
60	230	223	223	223	223
65	187	182	182	181	181
70	145	140	140	139	139
75	104	100	99	99	99
80	65	61	61	61	61
85	30	27	27	27	26
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	385.4	26.8%	90-100	0.0	0.0%
0-40	632.4	44.0%	100-110	0.0	0.0%
0-60	1,124.1	78.1%	110-120	0.0	0.0%
60-90	314.3	21.9%	120-130	0.0	0.0%
70-100	135.1	9.4%	130-140	0.0	0.0%
90-120	0.0	0.0%	140-150	0.0	0.0%
0-90	1,438.4	100.0%	150-160	0.0	0.0%
90-180	0.0	0.0%	160-170	0.0	0.0%
0-180	1,438.4	100.0%	170-180	0.0	0.0%

Test Configuration	Tested Model No.	Pass/Fail/NA
1	DK-12R-18W-WZ-120V-TC-WH	NA

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

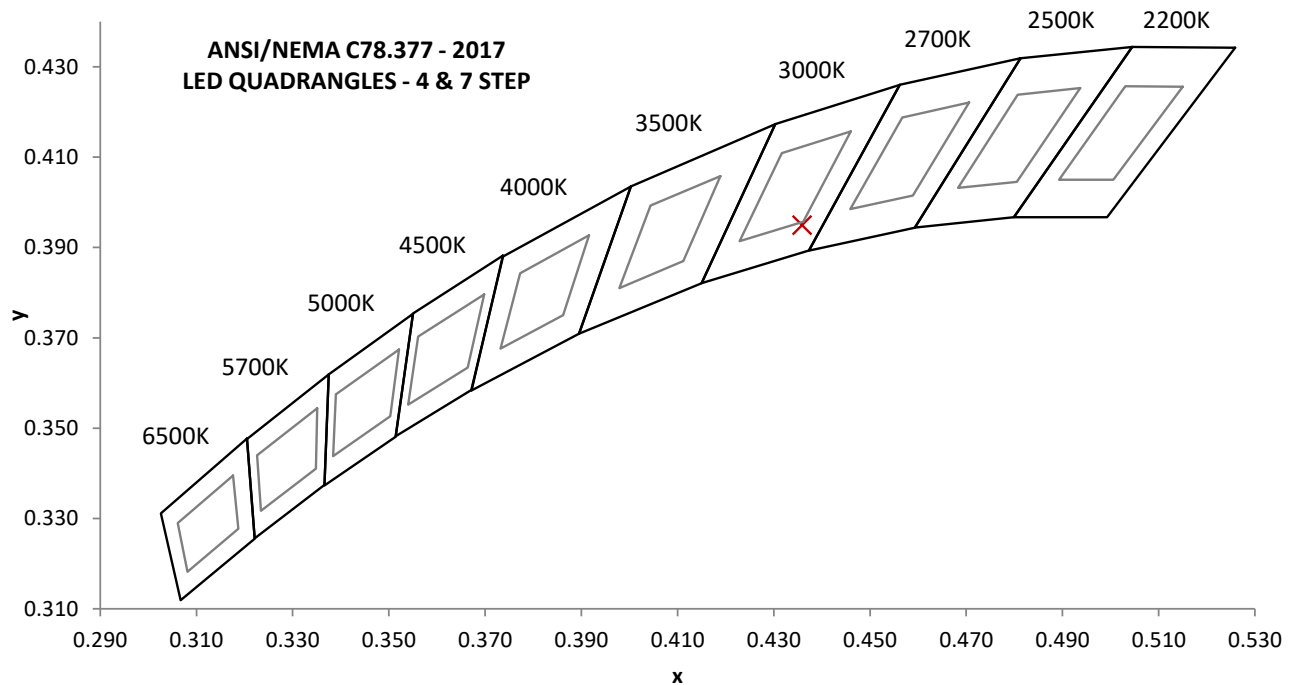
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (l)	Input ATHD (%)
120.00	288.2	18.77	0.543	130.70

Measured at 120(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra (l)	CRI - R9 (l)
1444.0	76.9	2942	91.8	48.1

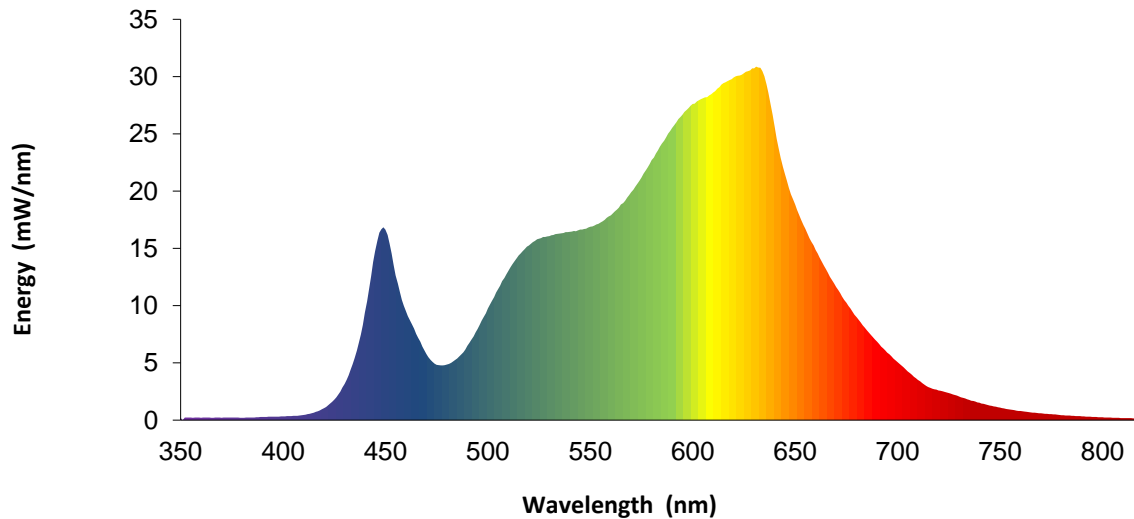
Duv (l)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0035	0.436	0.395	0.254	0.518



SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.2		460	9.5		570	19.9		680	9.0
355	0.2		465	7.5		575	21.2		685	7.8
360	0.2		470	5.8		580	22.7		690	6.8
365	0.2		475	4.8		585	24.1		695	5.9
370	0.2		480	4.9		590	25.5		700	5.1
375	0.2		485	5.4		595	26.7		705	4.3
380	0.2		490	6.5		600	27.6		710	3.5
385	0.2		495	8.0		605	28.1		715	2.9
390	0.3		500	9.8		610	28.6		720	2.6
395	0.3		505	11.4		615	29.4		725	2.4
400	0.3		510	13.0		620	29.9		730	2.1
405	0.4		515	14.4		625	30.3		735	1.8
410	0.5		520	15.2		630	30.7		740	1.5
415	0.6		525	15.8		635	30.0		745	1.3
420	1.0		530	16.1		640	25.6		750	1.1
425	1.8		535	16.3		645	21.5		755	0.9
430	3.2		540	16.4		650	18.8		760	0.8
435	5.4		545	16.6		655	16.7		765	0.7
440	9.4		550	16.9		660	14.8		770	0.6
445	14.8		555	17.3		665	13.2		775	0.5
450	16.6		560	17.9		670	11.6		780	0.4
455	12.6		565	18.8		675	10.2		---	---

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	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**

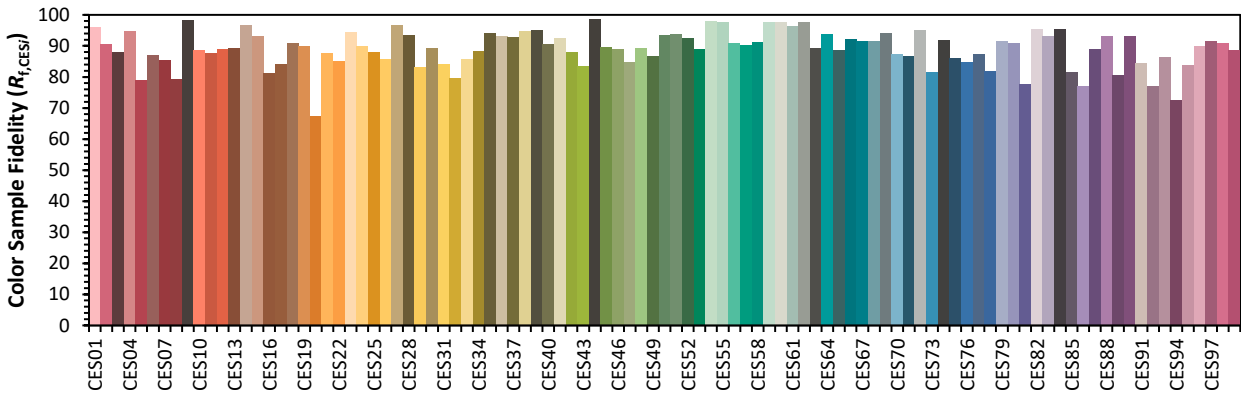
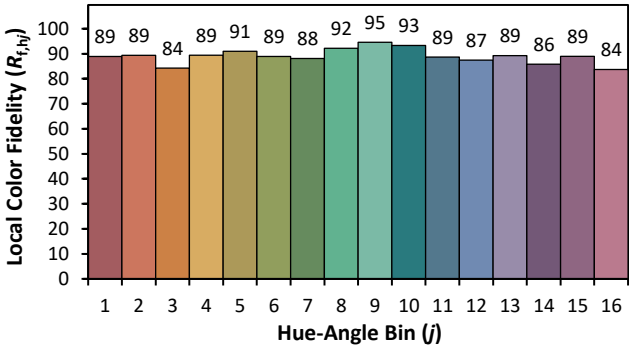
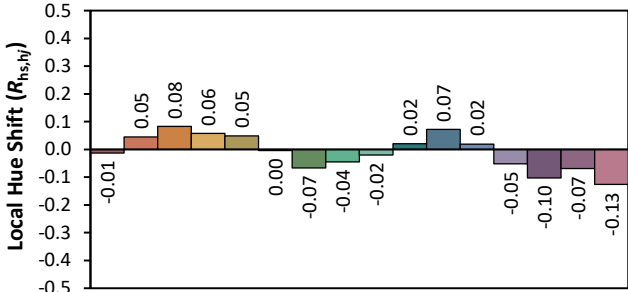
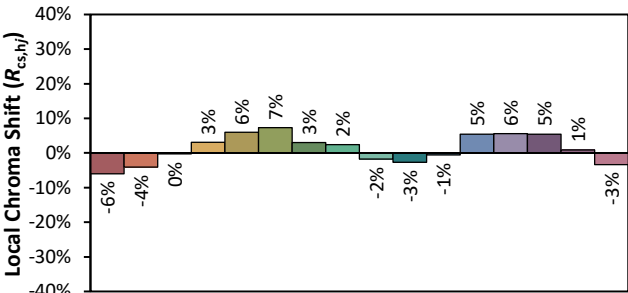
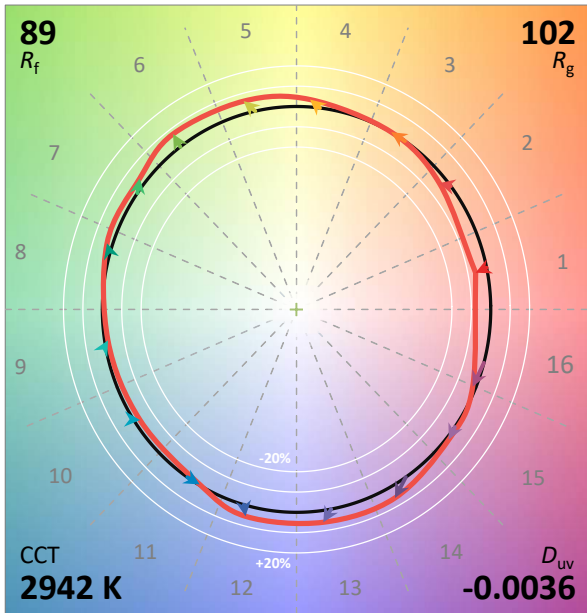
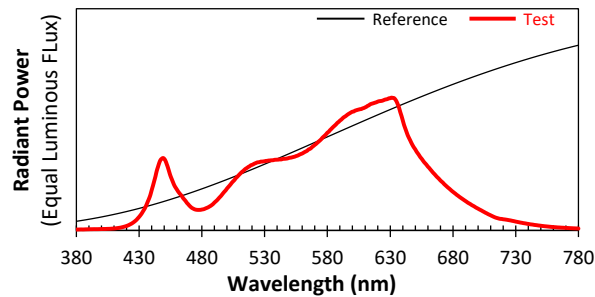
#	Revision Date	Updated By	Reviewed By	Description of Change
---	None	---	---	---
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Test Configuration	Tested Model No.	Pass/Fail/NA
1	DK-12R-18W-WZ-120V-TC-WH	NA

ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD  
Date: 6/24/2024

Manufacturer: Pure Edge Lighting  
Model: DK-12R-18W-WZ-120V-TC-WH



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

x 0.4359  
y 0.3949  
u' 0.2539  
v' 0.5176