

# PURE EDGE LIGHTING

## TEST REPORT

### SCOPE OF WORK

LED Performance Testing

### MODEL NUMBER

TCIR1-5W5-WZ-3FT-TC

### PROJECT NUMBER

G105870896

### REPORT NUMBER

105870896CHI-010

### 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

10

**REPORT NUMBER**

105870896CHI-010

**MODEL NUMBER(s)**

TCIR1-5W5-WZ-3FT-TC

**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  
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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	AH06212024013032-010	TCIR1-5W5-WZ-3FT-TC	LINEAR CURVE	Production	6/21/2024

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	TCIR1-5W5-WZ-3FT-TC	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



# PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	TCIR1-5W5-WZ-3FT-TC
Product Description:	LINEAR CURVE
LED Model No.:	LEDWISE/ SS5-12MM-24VDC-C-RGBCW
Driver Model No.:	PURE EDGE/PSBB-96W-WZ-TC5W7-24VDC-RL
Light Source:	LED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	830.9	850.1
Driver Output Power (W) @ 24 (Vdc)	26.05	
Calculated Efficacy (lm/W)	32.6	

Criteria	Results
Correlated Color Temperature (K)	2703
Color Rendering Index - Ra	96.4
Color Rendering Index - R9	85.0
Duv	-0.0043
Chromaticity Coordinate (x)	0.452
Chromaticity Coordinate (y)	0.397
Chromaticity Coordinate (u')	0.264
Chromaticity Coordinate (v')	0.521

# 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	TCIR1-5W5-WZ-3FT-TC	NA

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

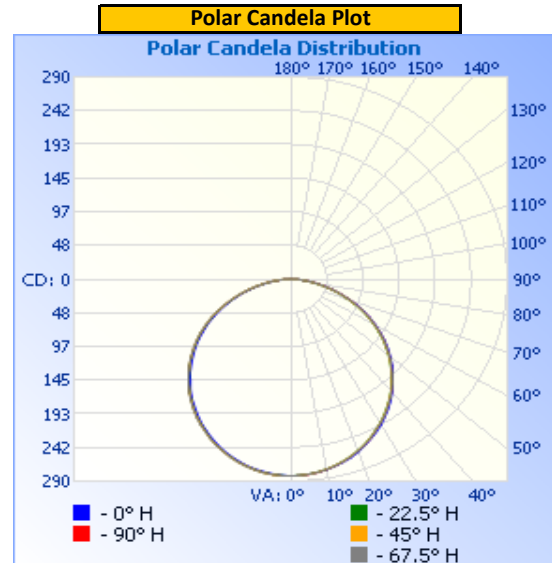
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ( )
Up	120.06	339.0	37.79	0.929

Light Output (lm)	Lumen Efficacy (lm/W)
830.9	22.0

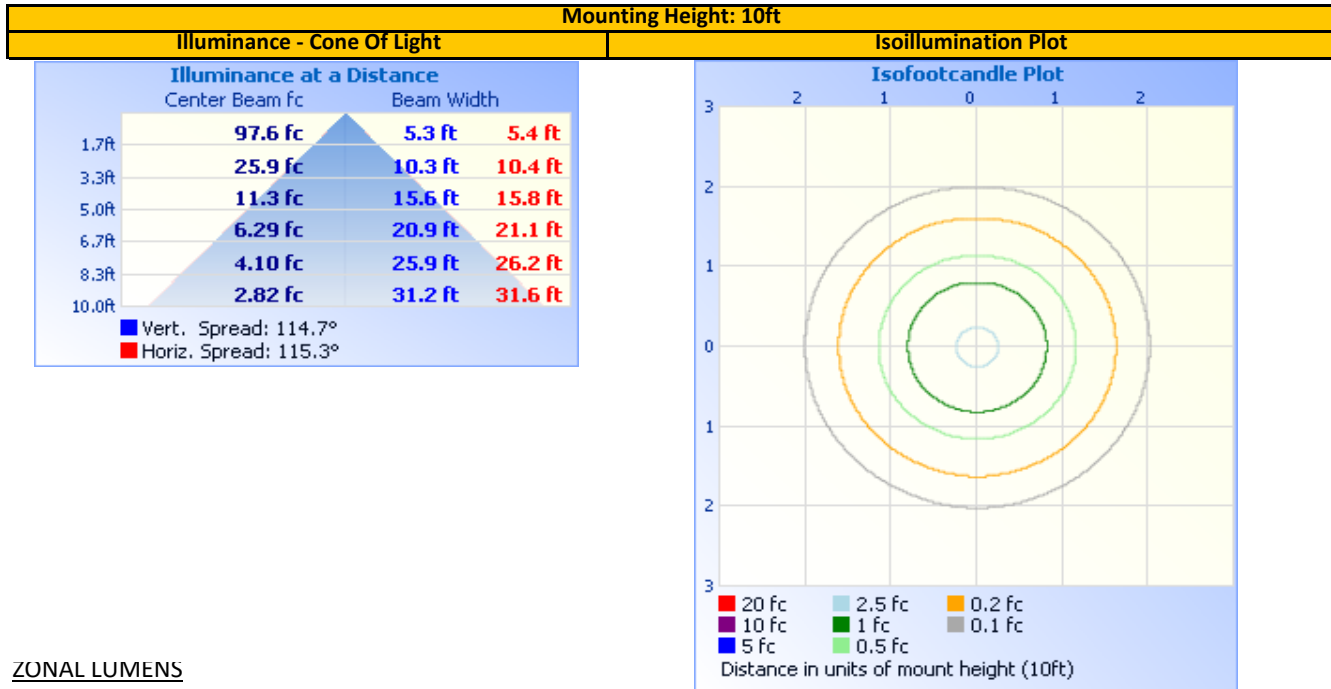
INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	282	282	282	282	282
5	281	281	281	281	281
10	277	277	277	277	277
15	272	270	271	271	271
20	264	262	262	262	263
25	253	251	252	252	253
30	241	239	239	239	240
35	227	224	225	226	226
40	211	209	209	210	211
45	193	191	191	191	192
50	174	171	172	173	173
55	153	151	151	152	153
60	131	128	128	129	130
65	107	104	105	105	107
70	82	80	80	81	82
75	58	56	56	57	58
80	36	34	34	35	36
85	17	16	16	17	18
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	219.5	26.4%	90-100	0.0	0.0%
0-40	360.8	43.4%	100-110	0.0	0.0%
0-60	645.2	77.6%	110-120	0.0	0.0%
60-90	185.7	22.4%	120-130	0.0	0.0%
70-100	80.7	9.7%	130-140	0.0	0.0%
90-120	0.0	0.0%	140-150	0.0	0.0%
0-90	830.9	100.0%	150-160	0.0	0.0%
90-180	0.0	0.0%	160-170	0.0	0.0%
0-180	830.9	100.0%	170-180	0.0	0.0%

Test Configuration	Tested Model No.	Pass/Fail/NA
1	TCIR1-5W5-WZ-3FT-TC	NA

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

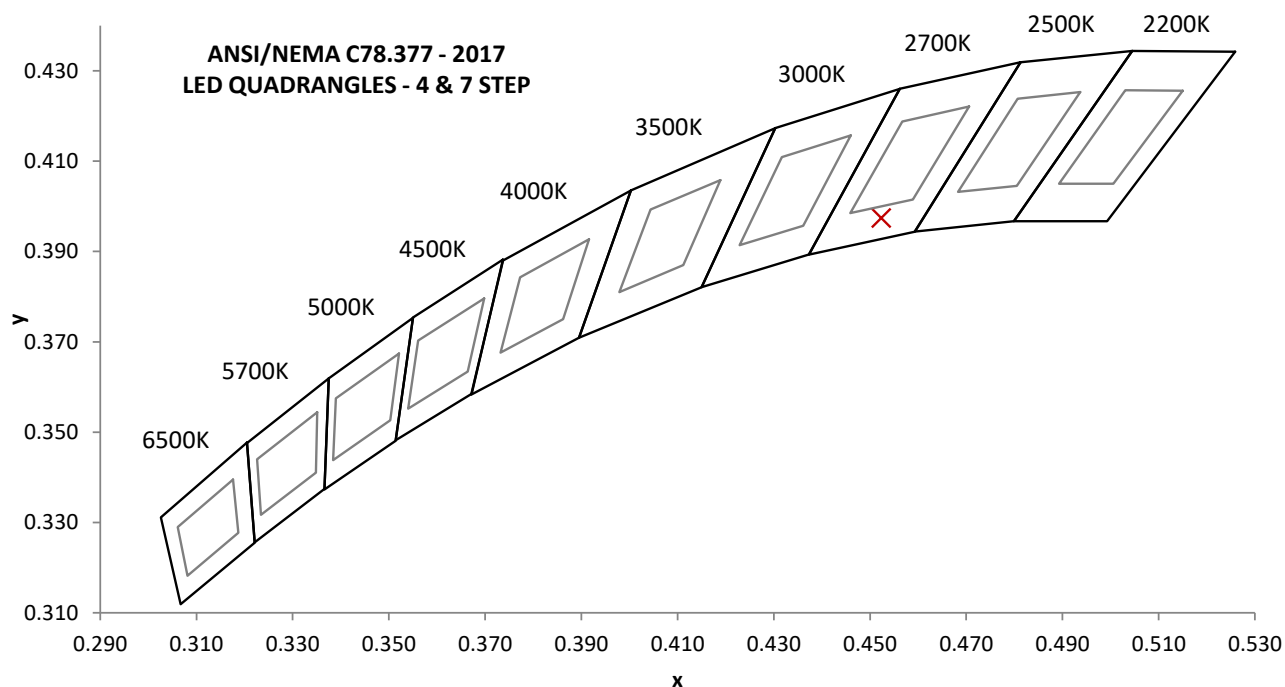
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (l)	Input ATHD (%)
120.02	339.4	37.90	0.964	27.20

Measured at 120.02(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra (l)	CRI - R9 (l)
850.1	22.4	2703	96.4	85.0

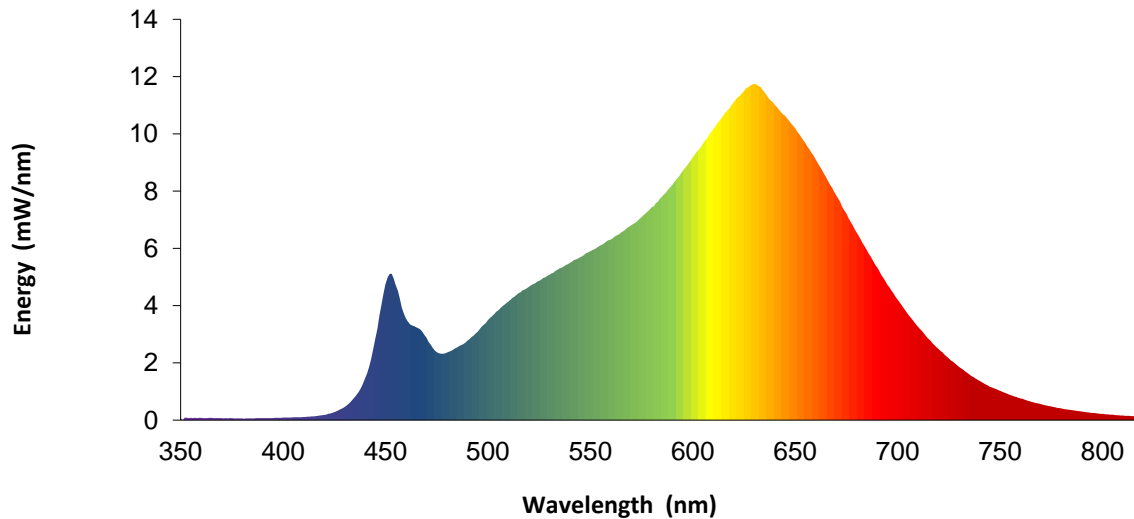
Duv (l)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0043	0.452	0.397	0.264	0.521



SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.1		460	3.6		570	6.8		680	6.5
355	0.1		465	3.2		575	7.1		685	5.9
360	0.1		470	2.9		580	7.4		690	5.3
365	0.1		475	2.4		585	7.8		695	4.7
370	0.1		480	2.4		590	8.2		700	4.2
375	0.1		485	2.5		595	8.7		705	3.7
380	0.1		490	2.8		600	9.2		710	3.3
385	0.1		495	3.1		605	9.7		715	2.9
390	0.1		500	3.5		610	10.2		720	2.5
395	0.1		505	3.8		615	10.6		725	2.2
400	0.1		510	4.1		620	11.1		730	1.9
405	0.1		515	4.4		625	11.5		735	1.6
410	0.1		520	4.7		630	11.7		740	1.4
415	0.1		525	4.9		635	11.5		745	1.2
420	0.2		530	5.1		640	11.0		750	1.0
425	0.3		535	5.3		645	10.6		755	0.9
430	0.5		540	5.5		650	10.2		760	0.8
435	0.8		545	5.7		655	9.7		765	0.7
440	1.4		550	5.9		660	9.1		770	0.6
445	2.8		555	6.1		665	8.5		775	0.5
450	4.7		560	6.3		670	7.9		780	0.4
455	4.7		565	6.6		675	7.2		---	---

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





Total Quality. Assured.

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**EQUIPMENT LIST**

**REPORT NO. 105870896CHI-010**

#	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**

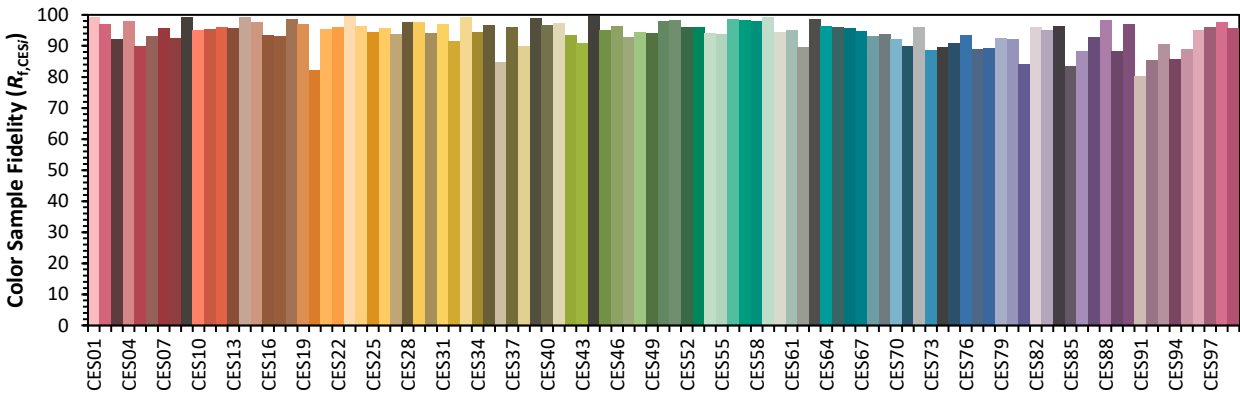
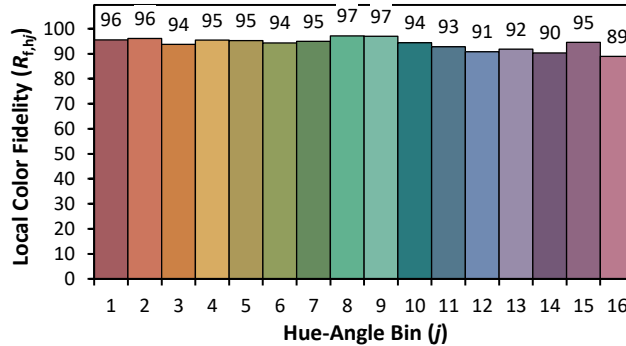
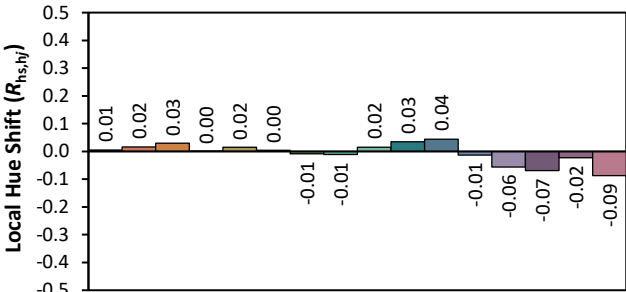
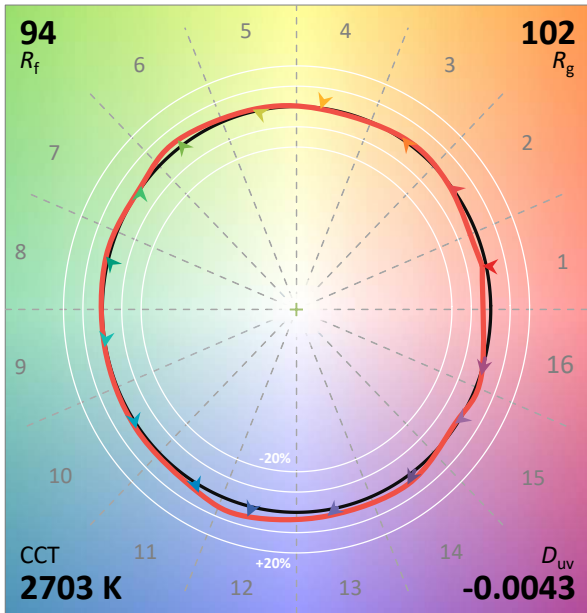
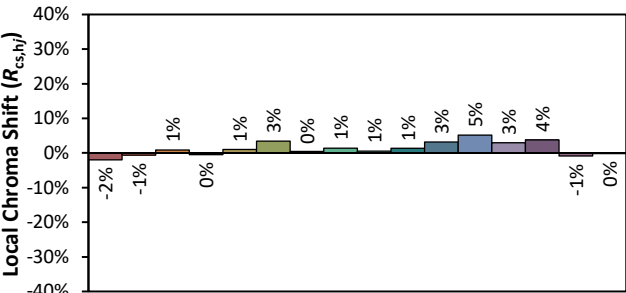
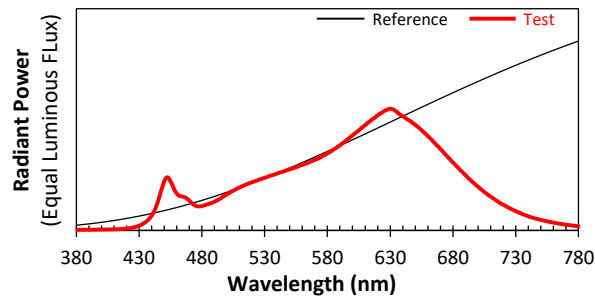
#	Revision Date	Updated By	Reviewed By	Description of Change
---	None	---	---	---
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Test Configuration	Tested Model No.	Pass/Fail/NA
1	TCIR1-5W5-WZ-3FT-TC	NA

ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD  
Date: 7/11/2024

Manufacturer: Pure Edge Lighting  
Model: TCIR1-5W5-WZ-3FT-TC



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

x 0.4523  
y 0.3974  
u' 0.2636  
v' 0.5210