

# PURE EDGE LIGHTING

## TEST REPORT

### SCOPE OF WORK

LED Performance Testing

### MODEL NUMBER

SS5C-24V-3-2K4K

### PROJECT NUMBER

G104373788

### REPORT NUMBER

104373788CHI-023

### ISSUE DATE

8/31/2020

### REVISED DATE

None

### TEST DATES

08/20/2020.

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**REPORT NUMBER**

104373788CHI-023

**MODEL NUMBER(s)**

SS5C-24V-3-2K4K

**REPORT RENDERED TO:**

PURE EDGE LIGHTING  
1718 W. FULLERTON AVE.  
CHICAGO, IL 60614

**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-01087644-1.

**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

In Charge of Testing:



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Reviewer:



Jeff Davis  
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## SAMPLE INFORMATION

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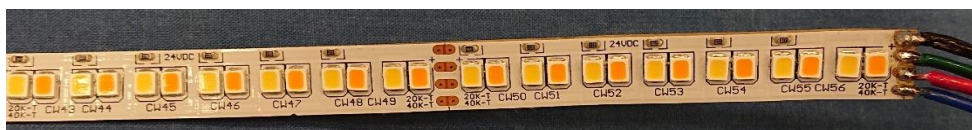
### ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH08112020115319	SS5C-24V-3-2K4K	Led strip both 2K & 4K leads connected.	Production	8/11/2020

### TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	SS5C-24V-3-2K4K	1

### SAMPLE PHOTOS - TESTED CONFIGURATIONS



## SUMMARY

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### PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	SS5C-24V-3-2K4K
Product Description:	Led strip both 2K & 4K leads connected.
LED Model No.:	LIANGAN/ LA-D2835P927M-3E2-00301
Driver Model No.:	HUARUI/DR-24V-2000-60D
Light Source:	LED

Criteria	Results	
	Goniophotometer	Integrating Sphere
Light Output (lumens)	1422.2	1473.7
Input Power (W) @ 120VAC (Vac)	15.35	15.41
Lumen Efficacy (lm/W)	92.7	95.7
Input Power Factor (I) @ 120VAC (Vac)	0.972	0.974

Criteria	Results
Input ATHD (%) @ 120VAC (Vac)	15.76
Correlated Color Temperature (K)	2888
Color Rendering Index - Ra (I)	94.3
Color Rendering Index - R9 (I)	75.2
Duv (I)	-0.0065
Chromaticity Coordinate (x)	0.435
Chromaticity Coordinate (y)	0.387
Chromaticity Coordinate (u')	0.257
Chromaticity Coordinate (v')	0.514

## 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	SS5C-24V-3-2K4K	NA

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

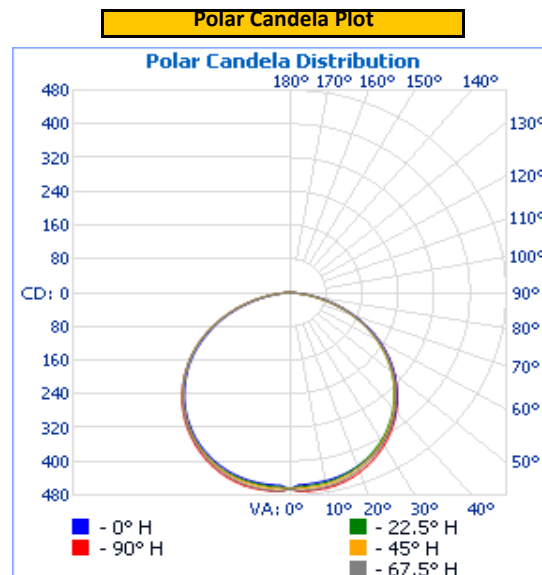
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ( )
Up	120.1	131.6	15.35	0.972

Light Output (lm)	Lumen Efficacy (lm/W)
1422.2	92.7

## INTENSITY SUMMARY - CANDELA

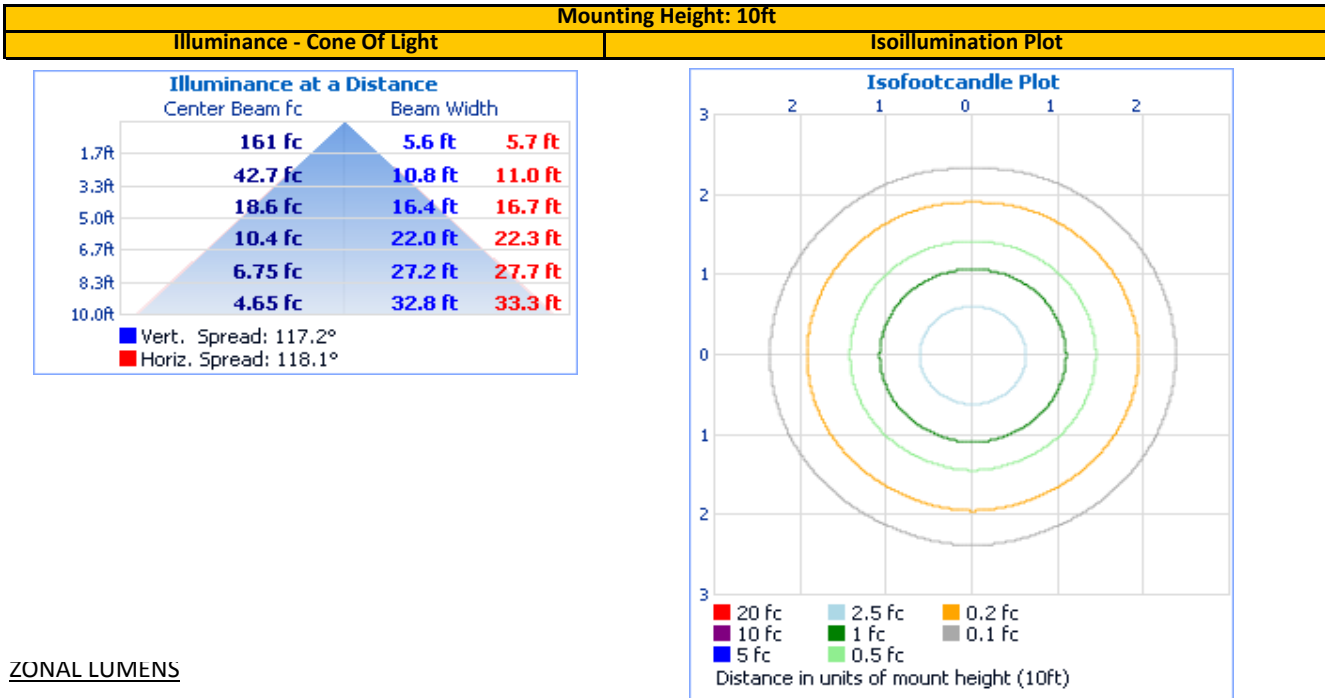
Angle	0	22.5	45	67.5	90
0	465	465	465	465	465
5	456	460	464	470	472
10	453	457	462	467	470
15	448	450	454	460	464
20	438	439	443	447	453
25	426	424	428	432	437
30	409	406	409	412	418
35	389	383	386	390	394
40	365	357	360	363	367
45	335	328	330	333	337
50	303	296	297	300	304
55	268	261	262	264	267
60	230	223	224	226	228
65	189	182	183	185	187
70	146	139	140	142	144
75	104	96	97	99	100
80	62	55	56	58	58
85	26	21	22	23	23
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	371.2	26.1%	90-100	0.0	0.0%
0-40	614.4	43.2%	100-110	0.0	0.0%
0-60	1,107.7	77.9%	110-120	0.0	0.0%
60-90	314.6	22.1%	120-130	0.0	0.0%
70-100	131.5	9.2%	130-140	0.0	0.0%
90-120	0.0	0.0%	140-150	0.0	0.0%
0-90	1,422.2	100.0%	150-160	0.0	0.0%
90-180	0.0	0.0%	160-170	0.0	0.0%
0-180	1,422.2	100.0%	170-180	0.0	0.0%

**INTEGRATING SPHERE TESTING**

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Test Configuration	Tested Model No.	Pass/Fail/NA
1	SS5C-24V-3-2K4K	NA

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

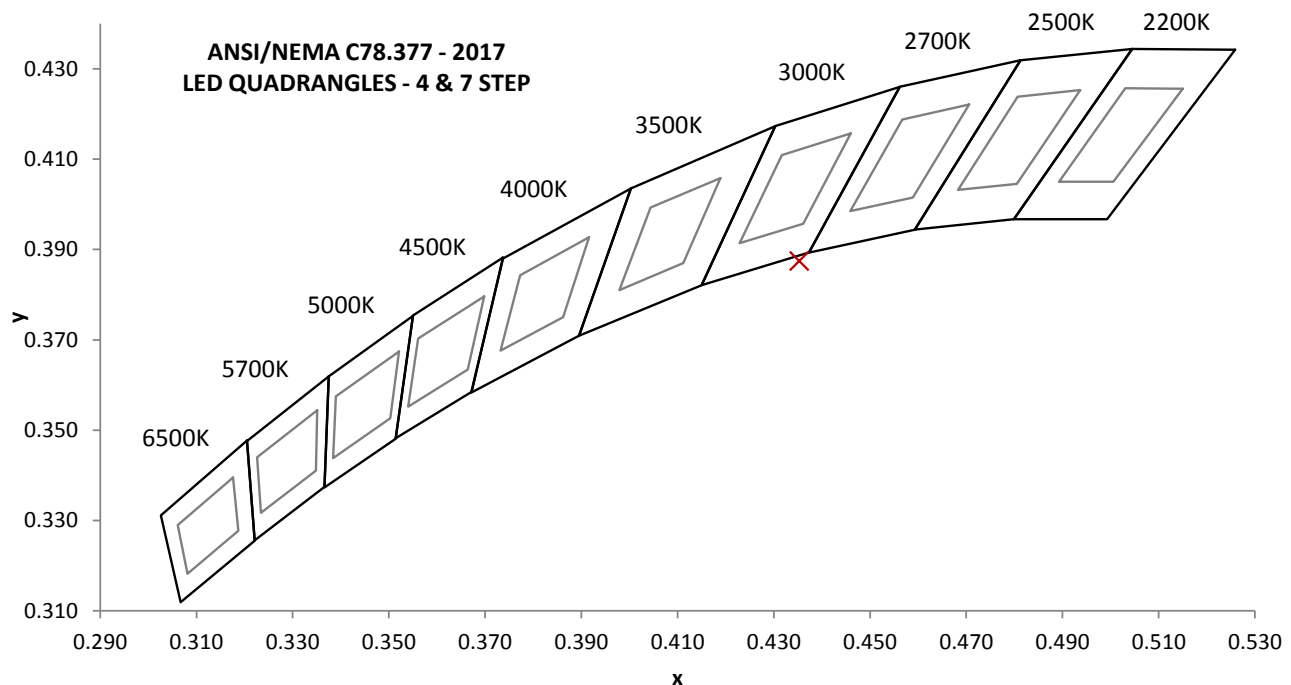
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ( )	Input ATHD (%)
119.95	131.9	15.41	0.974	15.76

Measured at 119.95(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra ( )	CRI - R9 ( )
1473.7	95.7	2888	94.3	75.2

Duv ( )	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0065	0.435	0.387	0.257	0.514

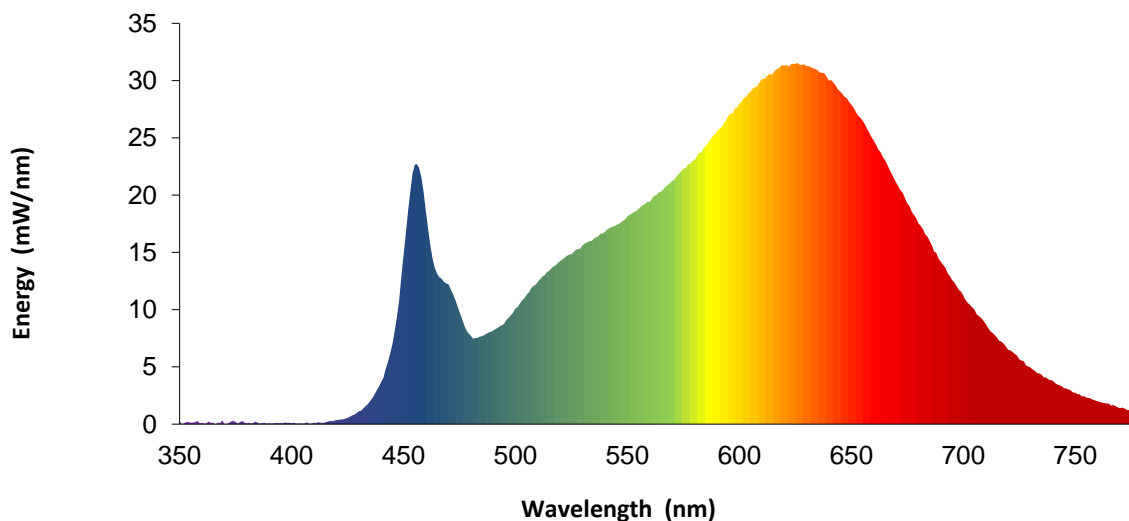


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SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.3		460	18.6		570	21.3		680	17.5
355	0.1		465	13.2		575	22.3		685	16.0
360	0.1		470	12.2		580	23.1		690	14.2
365	0.1		475	9.8		585	24.3		695	12.6
370	0.0		480	7.7		590	25.6		700	11.2
375	0.2		485	7.7		595	26.9		705	10.0
380	0.1		490	8.1		600	28.0		710	8.8
385	0.1		495	8.8		605	29.0		715	7.6
390	0.1		500	10.1		610	30.1		720	6.5
395	0.1		505	11.3		615	30.6		725	5.7
400	0.1		510	12.5		620	31.3		730	5.0
405	0.1		515	13.4		625	31.5		735	4.3
410	0.1		520	14.3		630	31.3		740	3.8
415	0.2		525	14.9		635	30.9		745	3.1
420	0.4		530	15.6		640	30.0		750	2.7
425	0.6		535	16.2		645	29.1		755	2.3
430	1.1		540	16.8		650	27.9		760	2.0
435	2.0		545	17.4		655	26.5		765	1.8
440	3.7		550	18.1		660	24.8		770	1.4
445	6.9		555	18.8		665	23.1		775	1.2
450	14.7		560	19.4		670	21.1		780	1.0
455	22.7		565	20.3		675	19.3		---	---

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	10/3/2019	10/3/2020
3	LSI High Speed Mirror Goniometer	6440T	146928	VBU	VBU
4	Newport Thermohygrometer	iServer	146957	12/2/2019	12/2/2020
5	Pacific AC Power Supply	118-ACX	CHI0153	VBU	VBU
6	Newport Humidity Recorder	iServer	CHI0456	10/11/2019	10/11/2020
7	Labsphere Spectroradiometer	CDS-600	146923	VBU	VBU
8	2M Rotating Sphere	7660-ROT	146923	VBU	VBU
9	Omega thermometer	USB TC08	EQAH002615	4/7/2020	4/7/2021
10	Ametek DC Power Supply	XFR150-8	1468464	VBU	VBU
11	Yokogawa Power Meter	WT210	146880	10/2/2019	10/2/2020
12	Chroma Power Supply	61604	CHI0371	VBU	VBU
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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
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