

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

SS5C-24V-3-2K4K

PROJECT NUMBER

G104373788

REPORT NUMBER

104373788CHI-021

ISSUE DATE

8/31/2020

REVISED DATE

None

TEST DATES

08/20/2020 through 08/24/2020.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104373788CHI-021

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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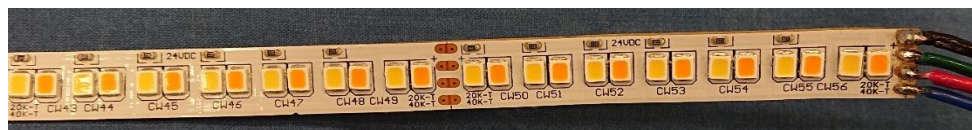
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH08112020115319	SS5C-24V-3-2K4K	Led strip only 2K lead 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 only 2K lead 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)	1135.0	1167.4
Input Power (W) @ 120VAC (Vac)	14.58	14.62
Lumen Efficacy (lm/W)	77.8	79.9
Input Power Factor (I) @ 120VAC (Vac)	0.969	0.971

Criteria	Results
Input ATHD (%) @ 120VAC (Vac)	15.97
Correlated Color Temperature (K)	2021
Color Rendering Index - Ra (I)	91.4
Color Rendering Index - R9 (I)	54.1
Duv (I)	-0.0012
Chromaticity Coordinate (x)	0.522
Chromaticity Coordinate (y)	0.410
Chromaticity Coordinate (u')	0.303
Chromaticity Coordinate (v')	0.537

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)

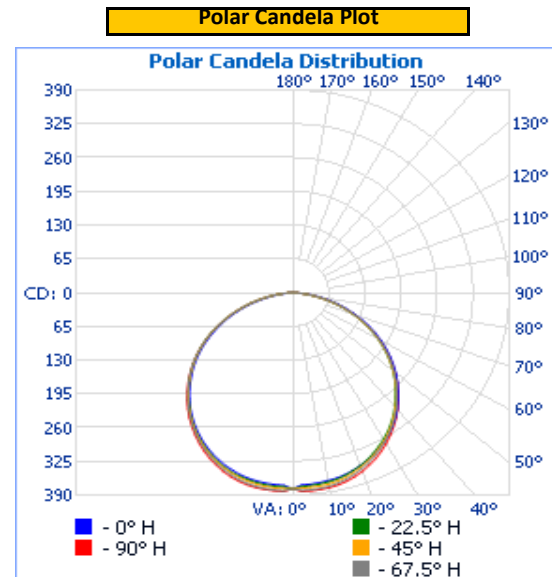
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Up	120.1	125.3	14.58	0.969

Light Output (lm)	Lumen Efficacy (lm/W)
1135.0	77.8

INTENSITY SUMMARY - CANDELA

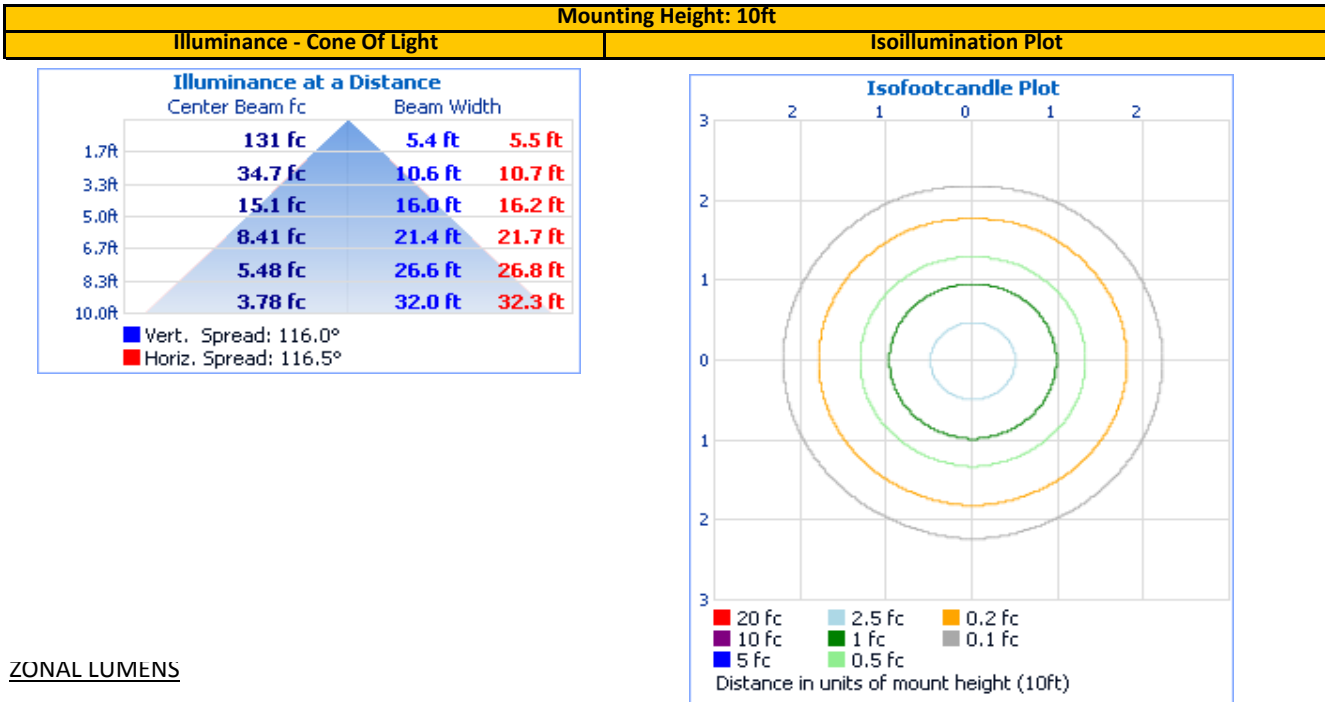
Angle	0	22.5	45	67.5	90
0	378	378	378	378	378
5	370	373	376	381	383
10	368	370	374	379	381
15	363	364	368	372	376
20	355	355	358	362	366
25	344	342	345	348	353
30	330	326	329	332	336
35	313	308	310	313	316
40	293	286	288	290	294
45	268	262	263	265	269
50	243	236	236	239	241
55	214	207	208	210	212
60	183	177	177	179	180
65	151	144	145	146	147
70	117	110	111	112	113
75	83	76	77	78	79
80	50	44	44	45	45
85	21	17	17	18	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



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ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	299.8	26.4%	90-100	0.0	0.0%
0-40	494.8	43.6%	100-110	0.0	0.0%
0-60	887.1	78.2%	110-120	0.0	0.0%
60-90	247.9	21.8%	120-130	0.0	0.0%
70-100	103.4	9.1%	130-140	0.0	0.0%
90-120	0.0	0.0%	140-150	0.0	0.0%
0-90	1,135.0	100.0%	150-160	0.0	0.0%
90-180	0.0	0.0%	160-170	0.0	0.0%
0-180	1,135.0	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)

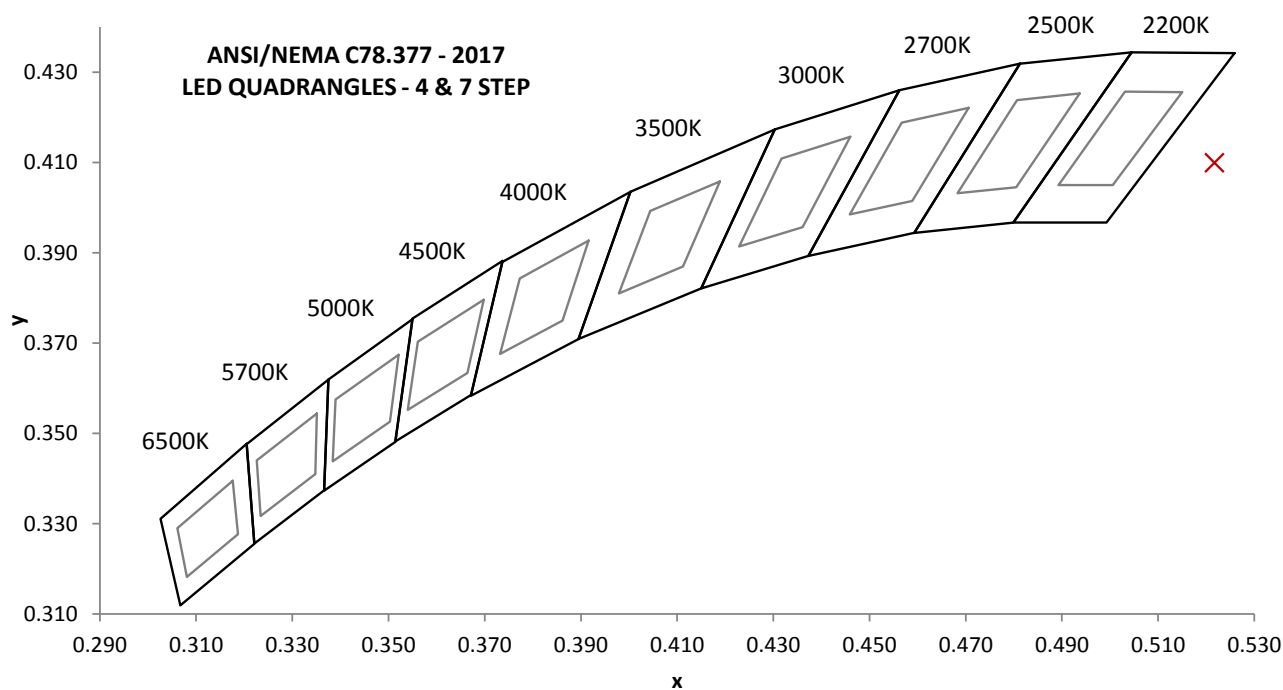
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()	Input ATHD (%)
119.95	125.5	14.62	0.971	15.97

Measured at 119.95(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra ()	CRI - R9 ()
1167.4	79.9	2021	91.4	54.1

Duv ()	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0012	0.522	0.410	0.303	0.537

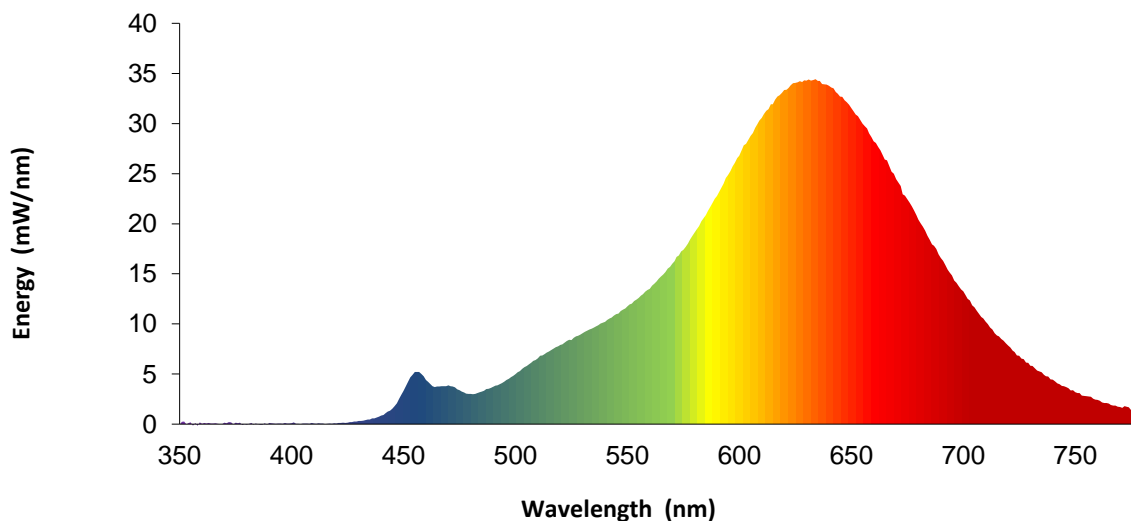


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SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	-0.1		460	4.4		570	16.0		680	20.4
355	0.2		465	3.8		575	17.4		685	18.4
360	0.0		470	3.9		580	19.1		690	16.6
365	0.1		475	3.4		585	20.9		695	14.8
370	0.2		480	3.0		590	22.8		700	13.2
375	0.2		485	3.3		595	24.9		705	11.7
380	-0.1		490	3.7		600	26.8		710	10.2
385	0.0		495	4.2		605	28.8		715	8.9
390	0.1		500	5.0		610	30.6		720	7.9
395	0.1		505	5.8		615	31.9		725	6.8
400	0.1		510	6.6		620	33.3		730	5.8
405	0.1		515	7.2		625	34.1		735	5.2
410	0.1		520	7.9		630	34.3		740	4.4
415	0.0		525	8.4		635	34.2		745	3.8
420	0.1		530	9.1		640	33.8		750	3.2
425	0.1		535	9.6		645	32.7		755	2.8
430	0.3		540	10.2		650	31.5		760	2.4
435	0.5		545	11.0		655	30.0		765	2.0
440	0.8		550	11.7		660	28.2		770	1.7
445	1.5		555	12.6		665	26.4		775	1.4
450	3.3		560	13.5		670	24.5		780	1.2
455	5.2		565	14.7		675	22.5		---	---

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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