

SONNEMAN - A WAY OF LIGHT

TEST REPORT

SCOPE OF WORK

Electrical and Photometric tests as required to the IESNA test standard.

MODEL NUMBER

2810-4

PROJECT NUMBER

G103703321

REPORT NUMBER

103703321CRT-012

ISSUE DATE

November 2, 2018

REVISION DATE

None

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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TEST REPORT**REPORT NO.: 103703321CRT-012****REPORT DATE: November 2, 2018**

TEST OF (1) 4' ONE-SIDED LED WALL BAR

MODEL NO. 2810-4

RENDERED TO:

SONNEMAN - A WAY OF LIGHT
151 AIRPORT DRIVE
WAPPINGERS FALLS, NY 12590**STATEMENT OF LIMITATION**

NVLAP Lab Code 100402-0. 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-00924150.

STANDARDS USED

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

SAMPLE INFORMATION

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1810261105-001	2810-4	4' One-Sided LED Wall Bar	Production	10/26/2018

DATE OF TESTS

November 1, 2018.

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TEST REPORT

REPORT NO.: 103703321CRT-012

REPORT DATE: November 2, 2018

SUMMARY

MODEL NO:	2810-4
DESCRIPTION:	4' One-Sided LED Wall Bar
LED MODEL NO:	Not Provided
DRIVER MODEL NO:	LTF LDA25W24VRE

CRITERIA	RESULTS
Lumen Output (lumens)	1271.1
Input Power (W) @ 120 (VAC)	22.21
Lumen Efficacy (lm/W)	57.2
Input Power Factor () @ 120 (VAC)	0.972

EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	11/5/2018	11/1/2018
Elgar AC Power Supply	CW1251	---	VBU	11/1/2018
Sorenson DC Power Supply	XG 150-10	---	VBU	11/1/2018
Yokogawa Power Analyzer	WT210	E464	5/3/2019	11/1/2018
Omega Thermometer	DPi8-C24	M263	5/3/2019	11/1/2018
M-D Building Products Digital Level	Smart Tool	L112	4/21/2019	11/1/2018
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2019	11/1/2018
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2019	11/1/2018
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2019	11/1/2018
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2019	11/1/2018

TEST REPORT**REPORT NO.: 103703321CRT-012****REPORT DATE: November 2, 2018****TEST METHODS****SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS**

No seasoning was performed in accordance with IESNA LM-79.

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD

A Type C Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for the SSL sample.

Ambient temperature was measured equal to the height of the sample mounted on the goniometer equipment. The SSL sample was operated on the client provided driver at rated input volts in its designated orientation. The SSL sample was allowed to stabilize for at least thirty minutes before measurements were made. Stabilization procedures to LM-79 were followed. Electrical measurements including voltage, current, and power were measured using a power analyzer.

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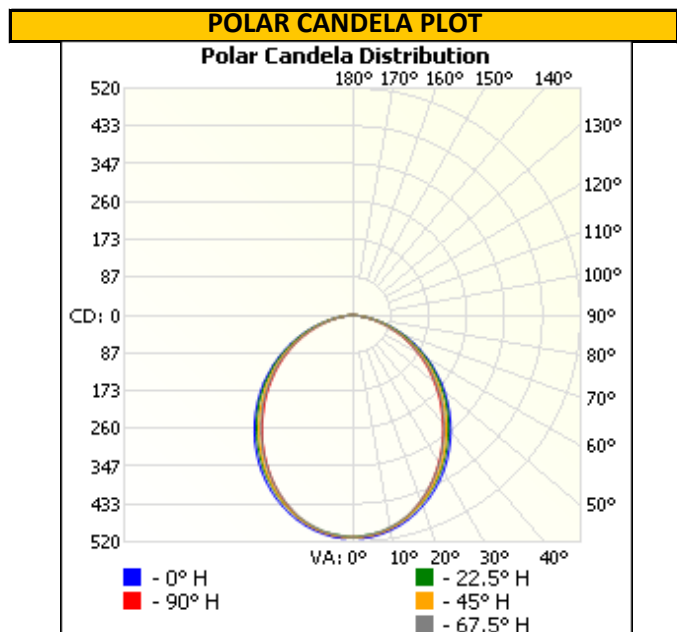
RESULTS OF TESTS

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

INTERTEK CONTROL NO.	BASE POSITION	INPUT VOLTAGE (VAC)	INPUT CURRENT (mA)	INPUT POWER (W)	INPUT POWER FACTOR ()	LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)
CRT1810261105-001	Base Down	120.04	190.5	22.21	0.972	1271.1	57.2

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	510	510	510	510	510
5	510	504	507	504	508
10	501	495	497	494	496
15	486	480	481	477	478
20	466	460	459	453	454
25	442	434	432	425	425
30	414	406	402	394	392
35	382	374	368	360	357
40	348	340	332	324	321
45	311	305	296	288	284
50	274	267	259	250	246
55	235	229	220	213	209
60	195	190	182	175	172
65	156	151	144	138	135
70	115	112	106	101	99
75	76	75	70	66	65
80	40	40	37	35	35
85	11	13	13	13	14
90	0	0	0	0	0



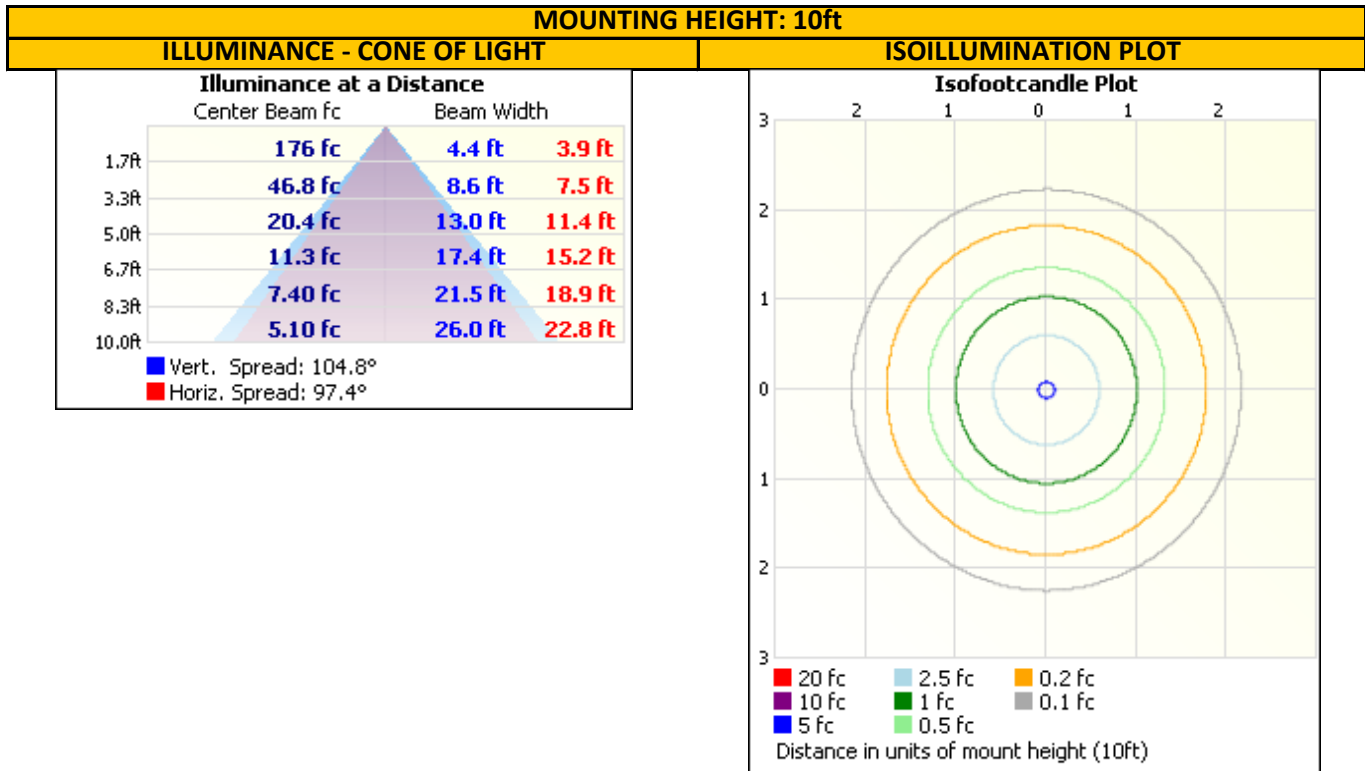
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RESULTS OF TESTS

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



ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	381.5	30.0
0-40	611.4	48.1
0-60	1037.4	81.6
60-90	233.6	18.4
0-90	1271.1	100.0
90-180	0.0	0.0
0-180	1271.1	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	48.0	3.8
10-20	135.1	10.6
20-30	198.5	15.6
30-40	229.9	18.1
40-50	228.5	18.0
50-60	197.5	15.5
60-70	142.9	11.2
70-80	74.9	5.9
80-90	15.8	1.2

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PICTURES



CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:

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Report Reviewed By:

Ryan Siddon
Project Engineer
Lighting Division

Attachments: IES File

REVISION HISTORY

JOB NUMBER	DATE OF REVISION	PROJECT HANDLER	REVIEWED BY	REVISION NOTE
None				