

# SONNEMAN - A Way of Light

## TEST REPORT

### SCOPE OF WORK

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

### MODEL NUMBER

2790

### PROJECT NUMBER

G103703321

### REPORT NUMBER

103703321CRT-057

### ISSUE DATE

December 3, 2018

### REVISION DATE

None

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**TEST REPORT**

**REPORT NO.: 103703321CRT-057**  
**REPORT DATE: December 3, 2018**

TEST OF (1) STIX PLUS 48" LED WALL BAR

MODEL NO. 2790

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
CRT18111261103-002	2790	Stix Plus 48" LED Wall Bar	Production	11/19/2018

**DATE OF TESTS**

November 30, 2018.

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REPORT DATE: December 3, 2018

SUMMARY

<b>MODEL NO:</b>	2790
<b>DESCRIPTION:</b>	Stix Plus 48" LED Wall Bar
<b>LED MODEL NO:</b>	Not Provided
<b>DRIVER MODEL NO:</b>	LTF TA60WA12LED

CRITERIA	RESULTS
Lumen Output (lumens)	1355.6
Input Power (W) @ 120 (VAC)	38.25
Lumen Efficacy (lm/W)	35.4
Input Power Factor ( ) @ 120 (VAC)	0.954

EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	12/6/2018	11/30/2018
Elgar AC Power Supply	CW1251	---	VBU	11/30/2018
Sorenson DC Power Supply	XG 150-10	---	VBU	11/30/2018
Yokogawa Power Analyzer	WT210	E464	5/3/2019	11/30/2018
Omega Thermometer	DPi8-C24	M263	5/3/2019	11/30/2018
M-D Building Products Digital Level	Smart Tool	L112	4/21/2019	11/30/2018
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2019	11/30/2018
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2019	11/30/2018
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2019	11/30/2018
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2019	11/30/2018

**TEST REPORT****REPORT NO.: 103703321CRT-057****REPORT DATE: December 3, 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 (candela) 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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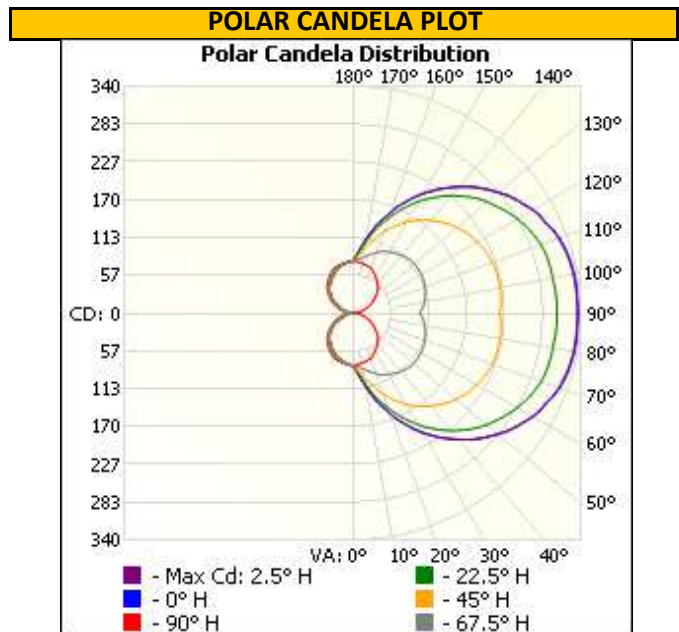
RESULTS OF TESTS

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)
CRT18111261103-002	Base Up	120.00	334.2	38.25	0.954	1355.6	35.4

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	79	79	79	79	79
5	91	89	85	81	77
10	112	107	97	85	76
15	136	128	112	90	75
20	158	150	127	96	73
25	183	172	143	102	71
30	207	192	158	106	66
35	228	212	170	110	62
40	248	230	182	113	58
45	266	246	192	116	54
50	282	261	201	118	48
55	298	272	209	118	41
60	310	283	214	118	35
65	319	292	219	117	29
70	328	299	222	115	23
75	333	302	223	112	17
80	336	303	223	109	12
85	336	304	222	106	6
90	335	304	219	100	0
95	336	304	222	106	6
100	336	303	223	109	12
105	333	302	223	112	17
110	328	299	222	115	23
115	319	292	219	117	29
120	310	283	214	118	35
125	298	272	209	118	41
130	282	261	201	118	48
135	266	246	192	116	54
140	248	230	182	113	58
145	228	212	170	110	62
150	207	192	158	106	66
155	183	172	143	102	71
160	158	150	127	96	73
165	136	128	112	90	75
170	112	107	97	85	76
175	91	89	85	81	77
180	78	78	78	78	78



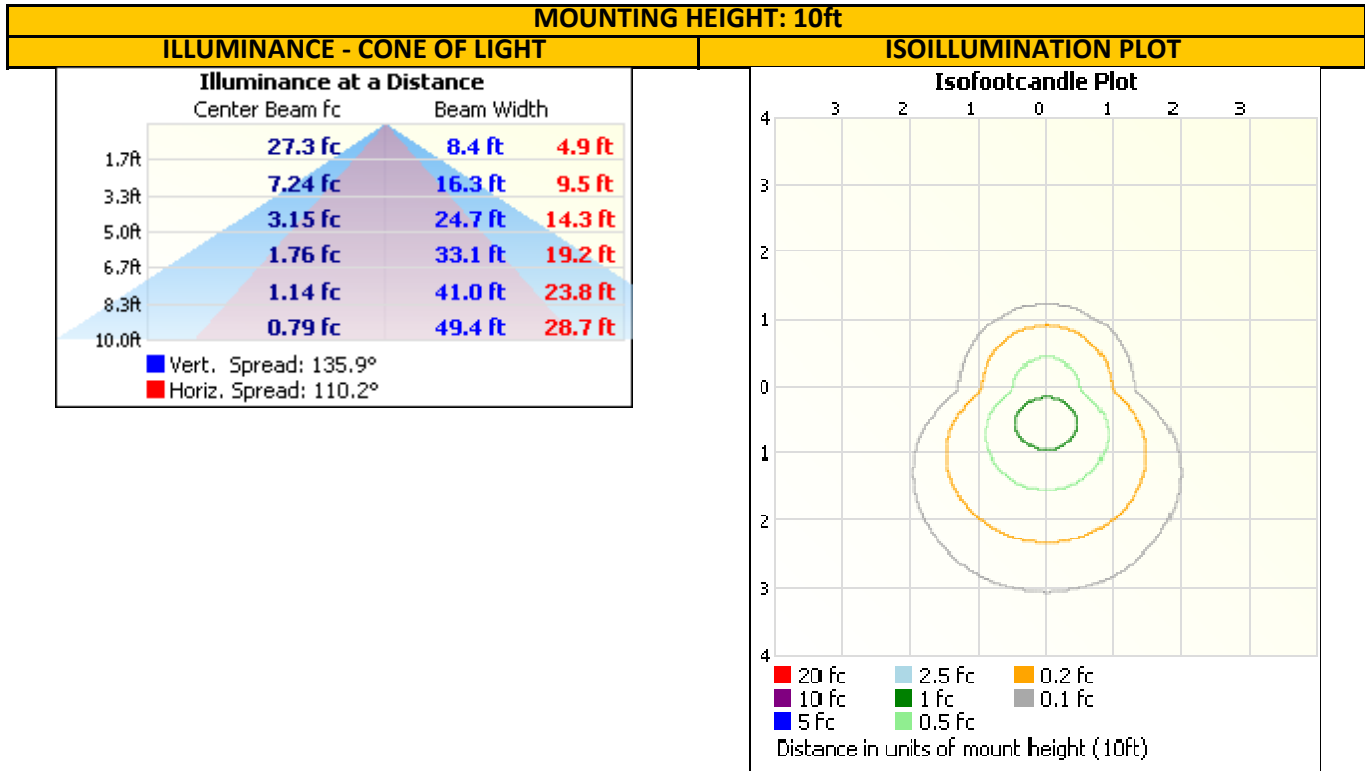
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RESULTS OF TESTS

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



**ZONAL LUMEN SUMMARY AND PERCENTAGES**

ZONE	LUMENS	% LUMINAIRE
0-30	80.6	5.9
0-40	149.1	11.0
0-60	340.7	25.1
60-90	337.2	24.9
0-90	677.8	50.0
90-180	677.8	50.0
0-180	1355.6	100.0

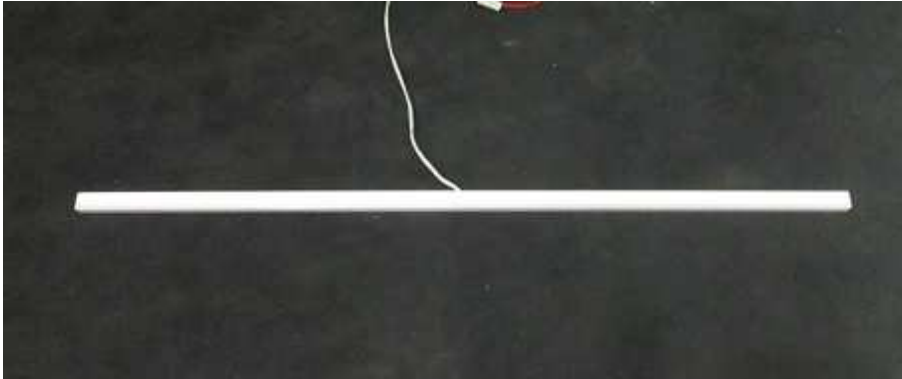
ZONE	LUMENS	% LUMINAIRE
0-10	7.9	0.6
10-20	25.8	1.9
20-30	46.9	3.5
30-40	68.5	5.1
40-50	88.3	6.5
50-60	103.3	7.6
60-70	111.4	8.2
70-80	114.1	8.4
80-90	111.7	8.2
90-100	111.7	8.2
100-110	114.1	8.4
110-120	111.4	8.2
120-130	103.3	7.6
130-140	88.2	6.5
140-150	68.5	5.1
150-160	46.9	3.5
160-170	25.8	1.9
170-180	7.9	0.6

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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:

Report Reviewed By:

Gerald Gray  
Associate Engineer  
Lighting Division

Melanie Brittain  
Associate Engineer  
Lighting Division

Attachments: .IES File

## REVISION HISTORY

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