

# SONNEMAN - A Way of Light

## TEST REPORT

### SCOPE OF WORK

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

### MODEL NUMBER

7110

### PROJECT NUMBER

G103703321

### REPORT NUMBER

103703321CRT-065

### ISSUE DATE

February 18, 2019

### REVISION DATE

None

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**TEST REPORT****REPORT NO.: 103703321CRT-065****REPORT DATE: February 18, 2019**

TEST OF (1) OFFSET PANELS LED SCONCE

MODEL NO. 7110

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-00932265.

**STANDARDS USED**

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

**SAMPLE INFORMATION**

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1902070934-001	7110	Offset Panels LED Sconce	Production	2/5/2019

**DATE OF TESTS**

February 12, 2019.

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**TEST REPORT**

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**REPORT DATE: February 18, 2019**

**SUMMARY**

<b>MODEL NO:</b>	7110
<b>DESCRIPTION:</b>	Offset Panels LED Sconce
<b>DRIVER MODEL NO:</b>	ERP EBR020U-0700-30

<b>CRITERIA</b>	<b>RESULTS</b>
Lumen Output (lumens)	957.2
Input Power (W) @ 120 (VAC)	19.32
Lumen Efficacy (lm/W)	49.5
Input Power Factor ( ) @ 120 (VAC)	0.983

**EQUIPMENT LIST**

<b>EQUIPMENT USED</b>	<b>MODEL NO.</b>	<b>CONTROL NO.</b>	<b>CAL DUE DATE</b>	<b>DATE USED</b>
LSI High Speed Mirror Goniometer	6440	---	3/11/2019	2/12/2019
Elgar AC Power Supply	CW1251	---	VBU	2/12/2019
Sorenson DC Power Supply	XG 150-10	---	VBU	2/12/2019
Yokogawa Power Analyzer	WT210	E464	5/3/2019	2/12/2019
Omega Thermometer	DPI8-C24	M263	5/3/2019	2/12/2019
M-D Building Products Digital Level	Smart Tool	L112	4/21/2019	2/12/2019
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2019	2/12/2019
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2019	2/12/2019
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2019	2/12/2019
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2019	2/12/2019

\*Note: Calibration of goniometer system was completed before the calibration due date of the lamps. The calibration file created from these NIST traceable lamps was used on 2/12/19

**TEST REPORT****REPORT NO.: 103703321CRT-065****REPORT DATE: February 18, 2019****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.

The calibration of the goniometer-photometer system is traceable to the National Institute of Standards and Technology.

**TEST REPORT**

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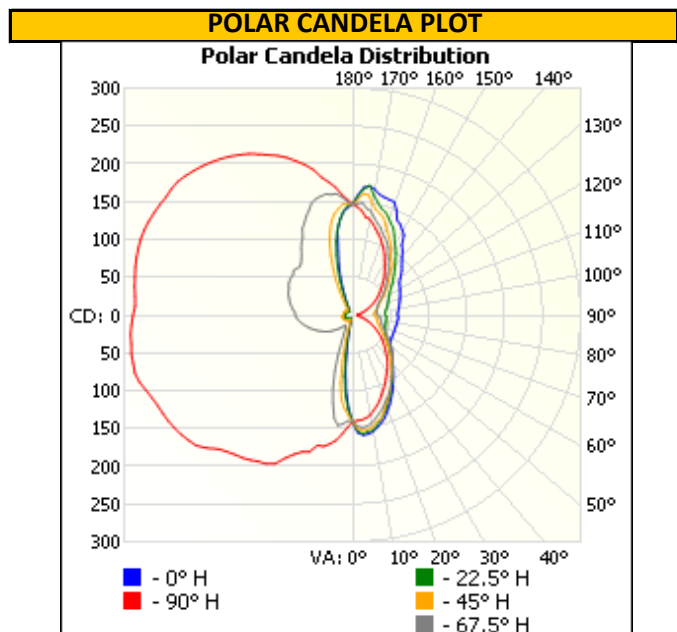
**RESULTS OF TESTS**

**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)
CRT1902070934-001	Horizontal	120.04	163.8	19.32	0.983	957.2	49.5

**INTENSITY SUMMARY - CANDELA**

Angle	0	22.5	45	67.5	90
0	141	141	141	141	141
5	159	158	153	149	139
10	156	155	150	145	134
15	147	143	142	135	124
20	134	131	127	124	112
25	120	117	114	114	100
30	106	103	102	102	90
35	94	91	90	92	80
40	82	79	79	83	70
45	74	69	69	75	60
50	66	61	60	67	51
55	61	54	52	59	42
60	60	50	46	52	34
65	59	48	40	46	27
70	59	46	36	42	20
75	59	45	34	39	14
80	59	45	32	38	9
85	60	45	31	36	7
90	60	43	29	34	7
95	60	43	28	32	7
100	62	45	30	32	9
105	64	47	33	34	14
110	66	50	36	35	18
115	69	53	40	38	24
120	72	56	46	43	32
125	75	62	52	49	39
130	83	69	60	56	47
135	92	77	68	64	55
140	101	87	78	73	65
145	113	99	89	82	73
150	130	111	101	93	84
155	139	127	114	106	97
160	160	138	127	115	108
165	162	146	139	126	118
170	169	161	150	140	129
175	170	168	161	149	139
180	147	147	147	147	147



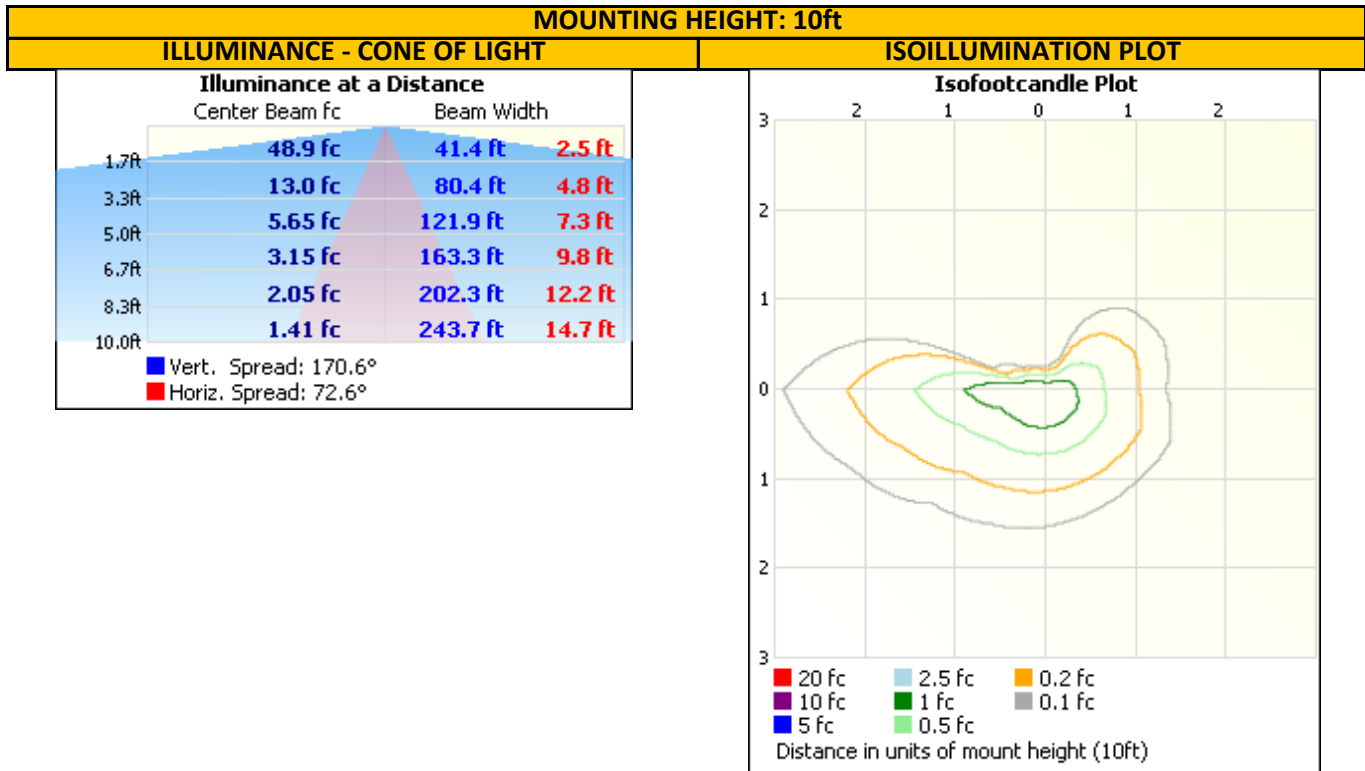
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RESULTS OF TESTS

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



**ZONAL LUMEN SUMMARY AND PERCENTAGES**

ZONE	LUMENS	% LUMINAIRE
0-30	83.1	8.7
0-40	130.9	13.7
0-60	241.8	25.3
60-90	198.9	20.8
0-90	440.7	46.0
90-180	516.5	54.0
0-180	957.2	100.0

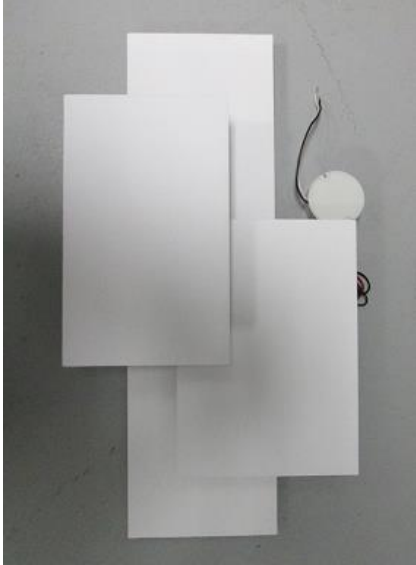
ZONE	LUMENS	% LUMINAIRE
0-10	12.8	1.3
10-20	30.0	3.1
20-30	40.2	4.2
30-40	47.8	5.0
40-50	53.1	5.6
50-60	57.7	6.0
60-70	62.1	6.5
70-80	66.8	7.0
80-90	69.9	7.3
90-100	70.5	7.4
100-110	72.1	7.5
110-120	71.7	7.5
120-130	70.0	7.3
130-140	66.7	7.0
140-150	61.0	6.4
150-160	52.3	5.5
160-170	38.0	4.0
170-180	14.3	1.5

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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:

Gerald Gray  
Associate Engineer  
Lighting Division

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				