

# SONNEMAN - A WAY OF LIGHT

## TEST REPORT

### SCOPE OF WORK

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

### MODEL NUMBER

2650

### PROJECT NUMBER

G103590523

### REPORT NUMBER

103590523CRT-039

### ISSUE DATE

September 13, 2018

### REVISION DATE

None

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**TEST REPORT****REPORT NO.: 103590523CRT-039**  
**REPORT DATE: September 13, 2018**

## TEST OF (1) LIGHT GUIDE RING LED SCONCE

MODEL NO. 2650

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-00895529.

**STANDARDS USED**

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

**SAMPLE INFORMATION**

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1808270948-001	2650	Light Guide Ring LED Sconce	Production	8/27/2018

**DATE OF TESTS**

September 13, 2018.

**TEST REPORT**

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**SUMMARY**

<b>MODEL NO:</b>	2650
<b>DESCRIPTION:</b>	Light Guide Ring LED Sconce
<b>LED MODEL NO:</b>	Proprietary-Not Reported
<b>DRIVER MODEL NO:</b>	ERP EBR015U-0300-42

CRITERIA	RESULTS
Lumen Output (lumens)	931.4
Input Power (W) @ 120 (VAC)	12.24
Lumen Efficacy (lm/W)	76.1
Input Power Factor ( ) @ 120 (VAC)	0.989

**EQUIPMENT LIST**

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	10/7/2018	9/13/2018
Elgar AC Power Supply	CW1251	---	VBU	9/13/2018
Sorenson DC Power Supply	XG 150-10	---	VBU	9/13/2018
Yokogawa Power Analyzer	WT210	E464	5/3/2019	9/13/2018
Omega Thermometer	DPi8-C24	M263	5/3/2019	9/13/2018
M-D Building Products Digital Level	Smart Tool	L112	4/21/2019	9/13/2018
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2019	9/13/2018
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2019	9/13/2018
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2019	9/13/2018
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2019	9/13/2018

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**REPORT DATE: September 13, 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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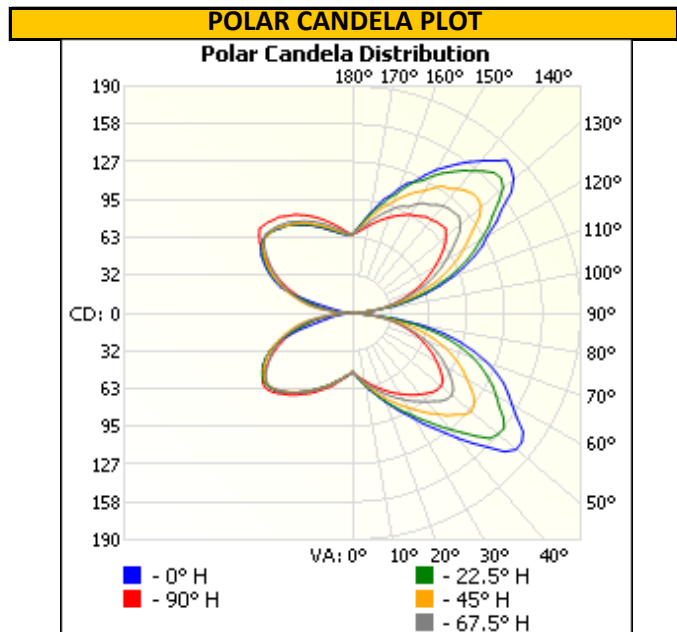
**RESULTS OF TESTS**

**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)
CRT1808270948-001	Base Up	120.05	103.0	12.24	0.989	931.4	76.1

**INTENSITY SUMMARY - CANDELAS**

Angle	0	22.5	45	67.5	90
0	49	49	49	49	49
5	55	55	54	54	53
10	62	62	60	59	57
15	69	69	67	65	63
20	79	78	75	71	67
25	90	88	82	77	73
30	102	98	91	83	78
35	118	112	101	90	84
40	137	127	110	97	89
45	159	146	120	104	94
50	178	158	129	108	96
55	173	153	124	101	91
60	153	138	110	90	81
65	139	123	96	78	70
70	118	105	80	63	58
75	93	82	60	47	45
80	59	51	35	29	30
85	8	9	10	11	12
90	0	0	0	0	0
95	6	7	8	9	11
100	36	33	27	25	27
105	63	59	50	42	40
110	88	83	71	60	54
115	111	105	90	76	68
120	129	123	107	90	80
125	151	142	123	105	92
130	175	164	140	117	101
135	181	167	142	119	104
140	166	156	136	117	102
145	153	144	130	111	99
150	138	133	118	105	95
155	122	121	110	99	90
160	110	106	100	92	85
165	98	94	91	84	80
170	85	84	81	77	74
175	74	74	72	71	69
180	66	66	66	66	66

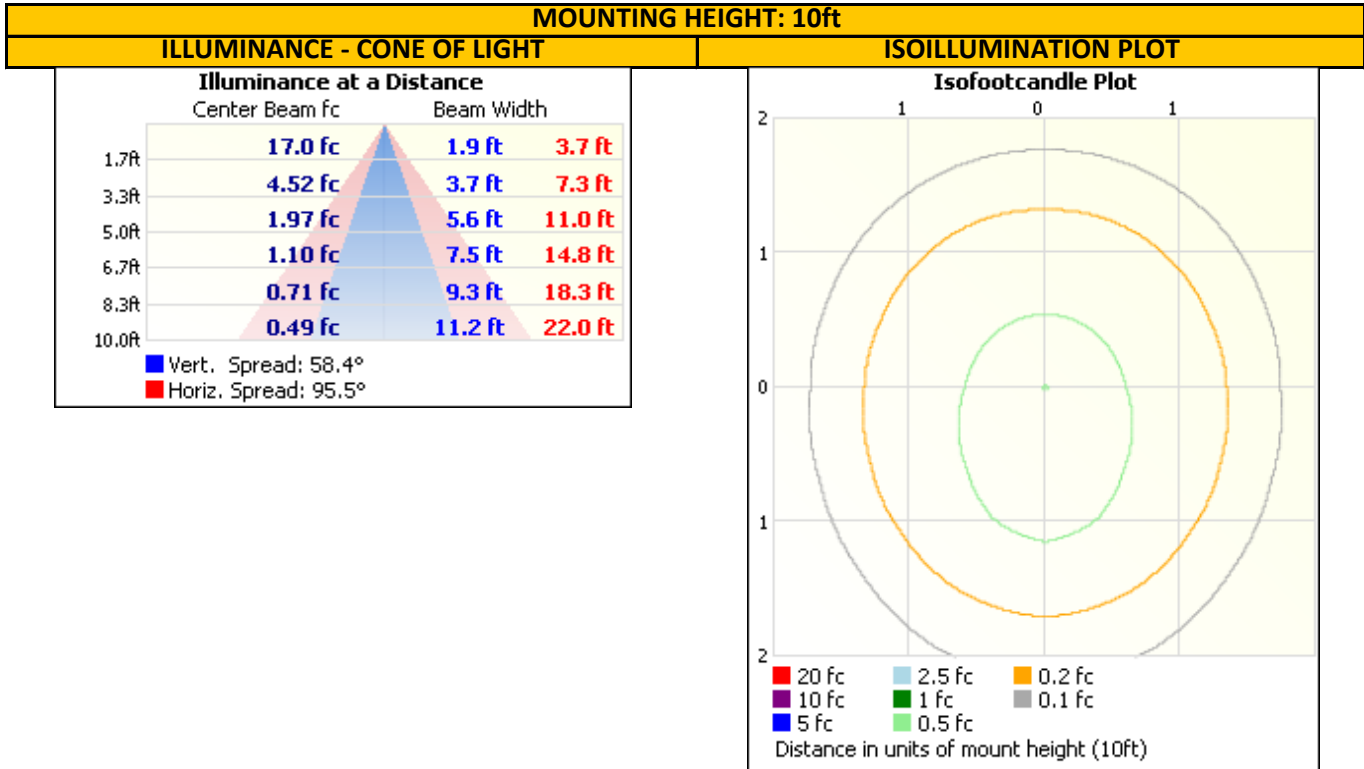


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RESULTS OF TESTS

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



**ZONAL LUMEN SUMMARY AND PERCENTAGES**

ZONE	LUMENS	% LUMINAIRE
0-30	59.2	6.4
0-40	116.6	12.5
0-60	296.2	31.8
60-90	160.6	17.2
0-90	456.8	49.0
90-180	474.6	51.0
0-180	931.4	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	5.3	0.6
10-20	18.3	2.0
20-30	35.6	3.8
30-40	57.5	6.2
40-50	83.1	8.9
50-60	96.5	10.4
60-70	86.1	9.2
70-80	58.2	6.2
80-90	16.3	1.7
90-100	13.5	1.4
100-110	49.8	5.3
110-120	79.7	8.6
120-130	95.6	10.3
130-140	92.1	9.9
140-150	69.1	7.4
150-160	44.7	4.8
160-170	23.5	2.5
170-180	6.8	0.7

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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				