

# SONNEMAN - A WAY OF LIGHT TEST REPORT

**SCOPE OF WORK**

LED Performance Testing

**MODEL NUMBER**

2368

**PROJECT NUMBER**

G104119984

**REPORT NUMBER**

104119984CRT-006

**REPORT ISSUE DATE**

October 16, 2019

**REPORT REVISION DATE**

None



**REPORT NUMBER**  
104119984CRT-006

TEST OF (1) CENTER ECLIPSE LED SCONCE

**MODEL NUMBER**  
2368

**REPORT RENDERED TO:**  
SONNEMAN - A WAY OF LIGHT  
151 AIRPORT DRIVE  
WAPPINGERS FALLS, NY 12590  
USA

**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-01007713.

**TEST STANDARDS**

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

**TEST DATES**

September 20, 2019

In Charge Of Tests:



Gerald Gray  
Associate Engineer  
Lighting Division

Report Reviewed By:



Kristie Ray  
Engineer  
Lighting Division

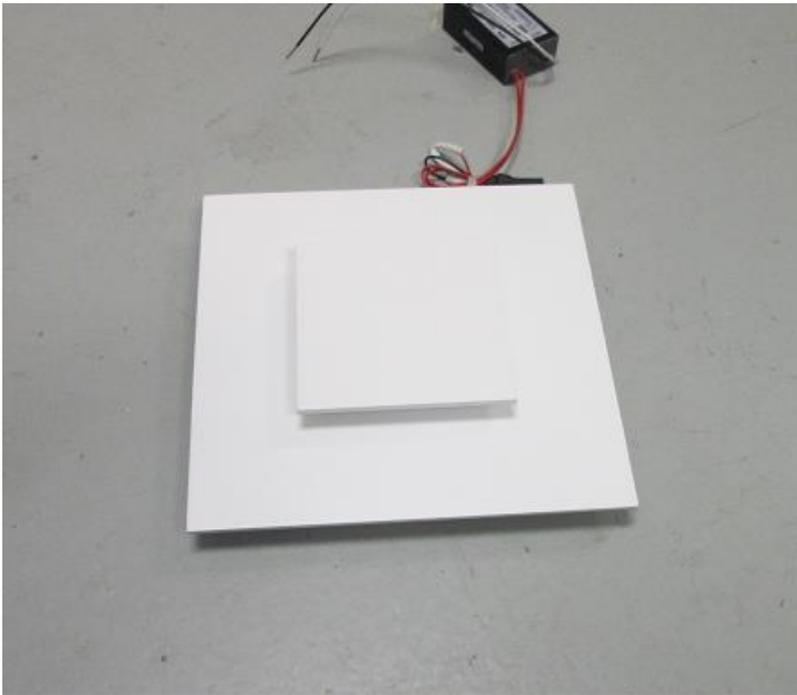
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**SAMPLE INFORMATION**

Control No.	Model No.	Description	Type	Received
CRT1909091006-001	2368	Center Eclipse LED Sconce	Production	8/27/2019

**SAMPLE PHOTOS**



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**SUMMARY OF DATA**

<b>Product Model No.:</b>	2368
<b>Product Description:</b>	Center Eclipse LED Sconce
<b>LED Model No.:</b>	Not Provided
<b>Driver Model No.:</b>	LTF TA60WA12LED
<b>Light Source:</b>	LED

<b>Criteria</b>	<b>Results</b>
Light Output (lumens)	375.5
Input Power (W) @ 120 (Vac)	13.52
Lumen Efficacy (lm/W)	27.8
Input Power Factor (PF) @ 120 (Vac)	0.948

**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.

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

Fixture Model No.	2368	Fixture Control No.	CRT1909091006-001
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Test Notes:	N/A
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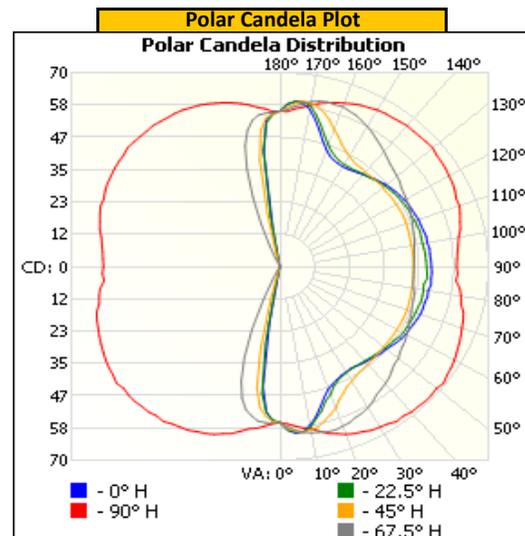
Base Orientation	Up
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Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ( )
120.05	118.9	13.52	0.948

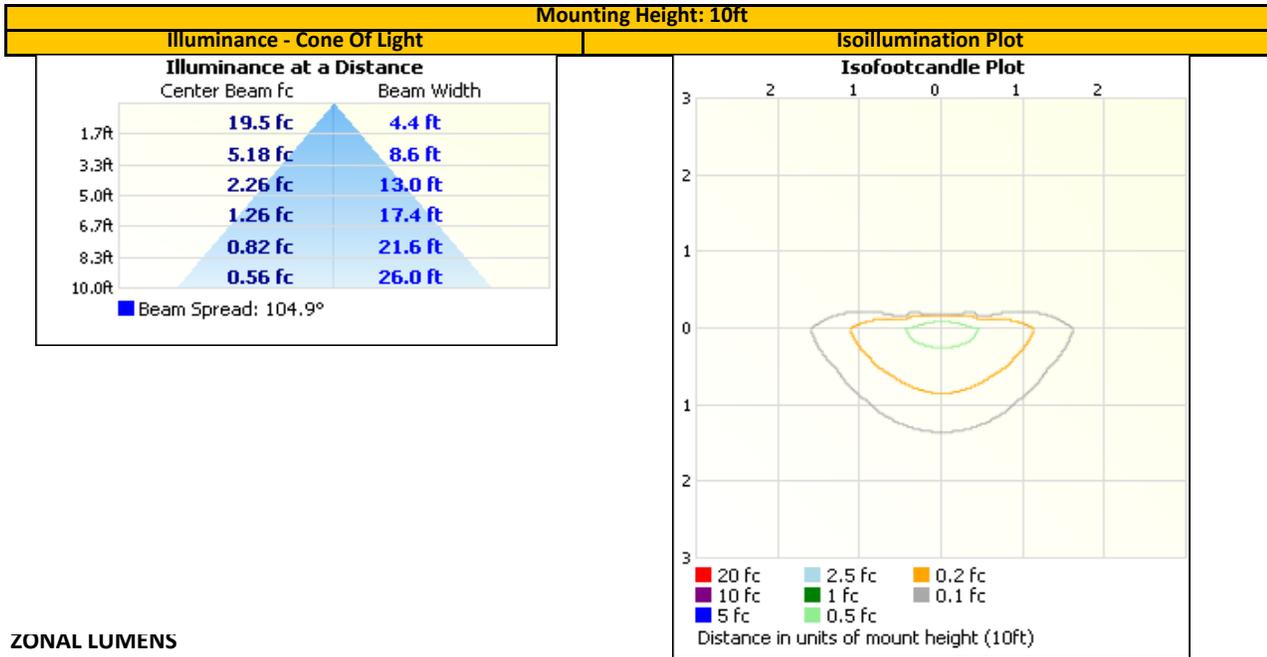
Light Output (lm)	Lumen Efficacy (lm/W)
375.5	27.8

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	56	56	56	56	56
5	60	60	60	59	58
10	58	59	60	61	60
15	52	54	58	62	62
20	47	49	54	61	64
25	45	46	50	60	66
30	44	44	48	59	67
35	44	44	46	56	68
40	45	44	46	55	69
45	46	45	46	53	69
50	46	46	45	52	68
55	48	47	45	50	68
60	49	48	45	49	68
65	49	48	45	48	66
70	50	48	45	47	65
75	50	49	45	46	64
80	50	49	45	46	62
85	51	50	45	45	59
90	51	49	45	45	59
95	50	49	45	45	60
100	50	49	45	46	61
105	50	49	45	46	63
110	50	48	45	47	64
115	49	48	45	48	65
120	48	47	45	49	66
125	47	46	45	50	66
130	46	46	45	51	67
135	45	44	45	52	66
140	43	44	45	54	66
145	42	43	45	56	66
150	42	43	46	58	65
155	42	44	49	60	64
160	45	47	53	62	63
165	51	53	57	62	61
170	58	59	60	60	59
175	60	60	59	58	57
180	56	56	56	56	56



**ILLUMINANCE SUMMARY**



**ZONAL LUMENS**

Zonal Lumen Summary					
Zone	Lumens	% Lum			
0-30	31.8	8.5%			
0-40	50.5	13.4%			
0-60	99.6	26.5%			
60-90	89.8	23.9%			
70-100	91.5	24.4%			
90-120	89.2	23.8%			
0-90	189.4	50.4%			
90-180	186.1	49.6%			
0-180	375.5	100.0%			
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	5.3	1.4%	90-100	30.6	8.1%
10-20	11.5	3.1%	100-110	30.1	8.0%
20-30	15.0	4.0%	110-120	28.5	7.6%
30-40	18.7	5.0%	120-130	25.9	6.9%
40-50	22.8	6.1%	130-140	22.3	5.9%
50-60	26.3	7.0%	140-150	18.2	4.8%
60-70	28.8	7.7%	150-160	14.4	3.8%
70-80	30.3	8.1%	160-170	11.0	2.9%
80-90	30.6	8.2%	170-180	5.1	1.4%

<b>Test Equipment Used:</b>	1 thru 10				
<b>Ambient Temp (°C):</b>	24.8	<b>Relative Hum (%):</b>	NA	<b>Test Completion Date</b>	9/20/2019

See last page for equipment details

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**EQUIPMENT LIST**

#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	LSI High Speed Mirror Goniometer	6440	---	9/9/2019	10/9/2019
2	Elgar AC Power Supply	CW1251	---	VBU	VBU
3	Sorenson DC Power Supply	XG 150-10	---	VBU	VBU
4	Yokogawa Power Analyzer	WT210	E464	5/7/2019	5/7/2020
5	Omega Thermometer	DPI8-C24	M263	5/7/2019	5/7/2020
6	M-D Building Products Digital Level	Smart Tool	L112	5/1/2019	5/1/2020
7	NIST Luminous Intensity Standard Source	NBS10322	N1427	2/11/2019	2/11/2021
8	NIST Luminous Intensity Standard Source	NBS10332	N1435	2/11/2019	2/11/2021
9	NIST Luminous Intensity Standard Source	NBS10265	N1437	2/11/2019	2/11/2021
10	NIST Luminous Flux Standard Source	NBS10428	N1424	1/3/2019	1/3/2021