

SONNEMAN - A WAY OF LIGHT

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

2369

PROJECT NUMBER

G104119984

REPORT NUMBER

104119984CRT-007

REPORT ISSUE DATE

October 16, 2019

REPORT REVISION DATE

None



REPORT NUMBER

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TEST OF (1) CORNER ECLIPSE LED SCONCE

MODEL NUMBER

2369

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

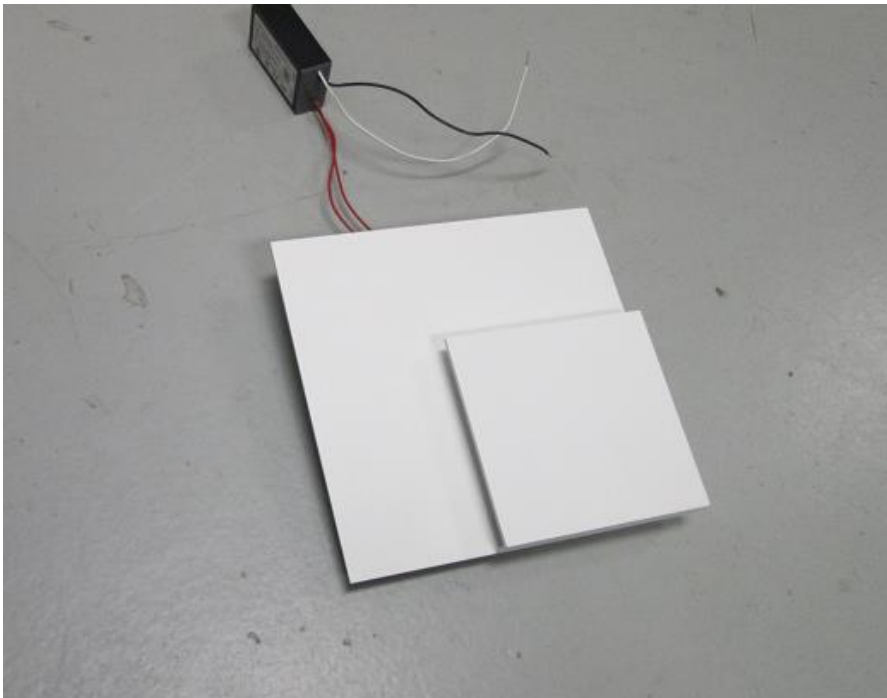
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SAMPLE INFORMATION

Control No.	Model No.	Description	Type	Received
CRT1909091006-002	2369	Corner Eclipse LED Sconce	Production	8/27/2019

SAMPLE PHOTOS



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SUMMARY OF DATA

Product Model No.:	2369
Product Description:	Corner Eclipse LED Sconce
LED Model No.:	Not Provided
Driver Model No.:	LTF TA60WA12LED
Light Source:	LED

Criteria	Results
Light Output (lumens)	361.8
Input Power (W) @ 120 (Vac)	13.50
Lumen Efficacy (lm/W)	26.8
Input Power Factor (PF) @ 120 (Vac)	0.947

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.	2369	Fixture Control No.	CRT1909091006-002
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Test Notes:	N/A
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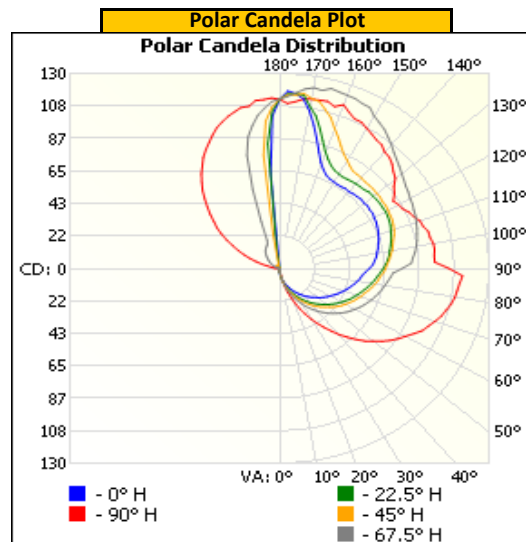
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
120.05	118.8	13.50	0.947

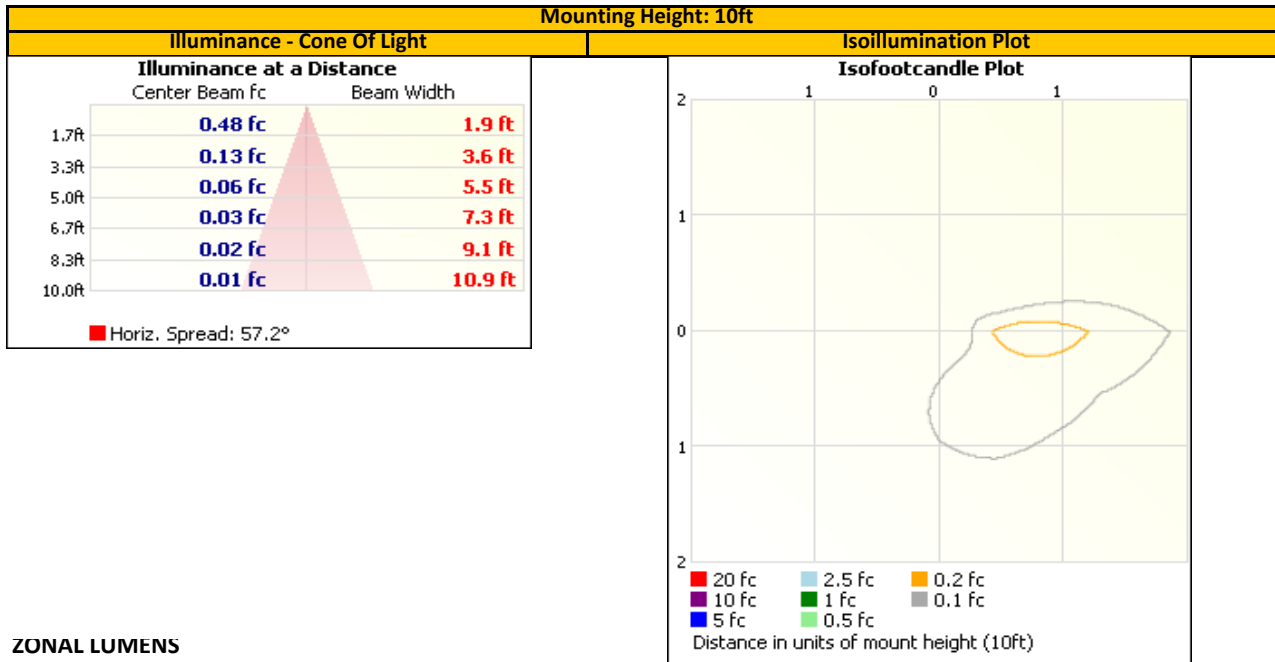
Light Output (lm)	Lumen Efficacy (lm/W)
361.8	26.8

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	1	1	1	1	1
5	4	4	3	2	1
10	7	7	7	6	5
15	9	10	11	11	12
20	12	14	15	16	21
25	14	18	19	22	30
30	17	22	24	27	39
35	21	26	28	32	48
40	24	30	32	37	58
45	27	34	36	42	67
50	30	37	40	46	76
55	34	41	44	51	84
60	36	45	48	54	90
65	40	48	51	58	98
70	43	51	54	61	103
75	46	55	57	64	107
80	49	58	60	66	110
85	52	61	63	69	112
90	56	64	66	76	105
95	59	68	68	83	96
100	62	70	71	86	97
105	63	72	73	88	96
110	65	73	76	90	93
115	67	75	77	92	89
120	68	76	78	94	85
125	68	76	78	96	87
130	68	75	78	99	94
135	68	74	78	103	99
140	67	74	79	108	101
145	66	73	79	113	105
150	67	73	84	117	108
155	69	76	90	121	110
160	75	83	100	123	116
165	89	97	110	124	115
170	107	109	115	122	115
175	117	117	116	118	112
180	113	113	113	113	113



ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	% Lum			
0-30	5.6	1.5%			
0-40	13.1	3.6%			
0-60	41.8	11.5%			
60-90	76.2	21.1%			
70-100	87.1	24.1%			
90-120	101.0	27.9%			
0-90	118.0	32.6%			
90-180	243.9	67.4%			
0-180	361.8	100.0%			
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	0.2	0.1%	90-100	32.3	8.9%
10-20	1.5	0.4%	100-110	34.1	9.4%
20-30	3.9	1.1%	110-120	34.6	9.6%
30-40	7.5	2.1%	120-130	33.7	9.3%
40-50	11.9	3.3%	130-140	31.6	8.7%
50-60	16.7	4.6%	140-150	28.0	7.7%
60-70	21.4	5.9%	150-160	23.2	6.4%
70-80	25.6	7.1%	160-170	17.8	4.9%
80-90	29.2	8.1%	170-180	8.6	2.4%

Test Equipment Used:	1 thru 10				
Ambient Temp (°C):	24.9	Relative Hum (%):	NA	Test Completion Date	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