

SONNEMAN - A Way of Light

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

2680

PROJECT NUMBER

G103703321

REPORT NUMBER

103703321CRT-062

ISSUE DATE

February 13, 2019

REVISION DATE

None

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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TEST REPORT

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REPORT DATE: February 13, 2019

TEST OF (1) PLANES LED SCNCE

MODEL NO. 2680

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
CRT1902051041-003	2680	Planes LED Sconce	Production	2/5/2019

DATE OF TESTS

February 11, 2019.

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SUMMARY

MODEL NO:	2680
DESCRIPTION:	Planes LED Sconce
DRIVER MODEL NO:	LTF DA8W200C

CRITERIA	RESULTS
Lumen Output (lumens)	358.0
Input Power (W) @ 120 (VAC)	7.35
Lumen Efficacy (lm/W)	48.7
Input Power Factor () @ 120 (VAC)	0.938

EQUIPMENT LIST

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

*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 2/11/19

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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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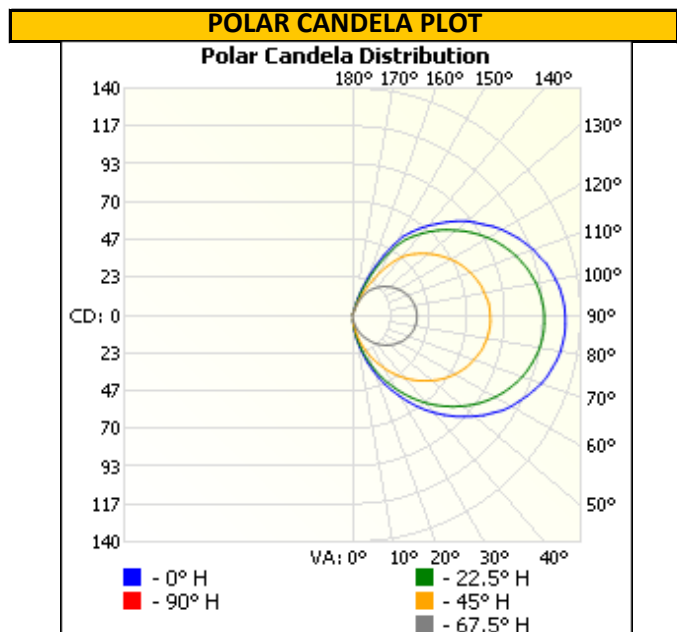
RESULTS OF TESTS

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)
CRT1902051041-003	Horizontal	120.04	65.3	7.35	0.938	358.0	48.7

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	0	0	0	0	0
5	6	6	4	2	0
10	15	13	10	5	0
15	25	22	16	7	0
20	36	32	23	10	0
25	47	42	30	14	0
30	58	52	37	17	0
35	69	62	44	20	0
40	79	71	51	23	0
45	88	79	57	26	0
50	97	87	63	29	0
55	105	95	68	31	0
60	112	101	73	34	0
65	118	106	77	36	0
70	123	111	80	37	0
75	127	114	82	38	0
80	130	117	84	39	0
85	131	118	85	40	0
90	130	118	84	40	0
95	129	116	84	39	0
100	126	114	82	38	0
105	123	111	80	37	0
110	118	107	77	36	0
115	112	102	73	34	0
120	106	96	69	32	0
125	98	89	64	30	0
130	90	82	59	27	0
135	81	74	53	25	0
140	72	66	47	22	0
145	62	57	37	19	0
150	50	44	26	15	0
155	34	29	15	10	0
160	18	15	4	5	0
165	3	2	1	1	0



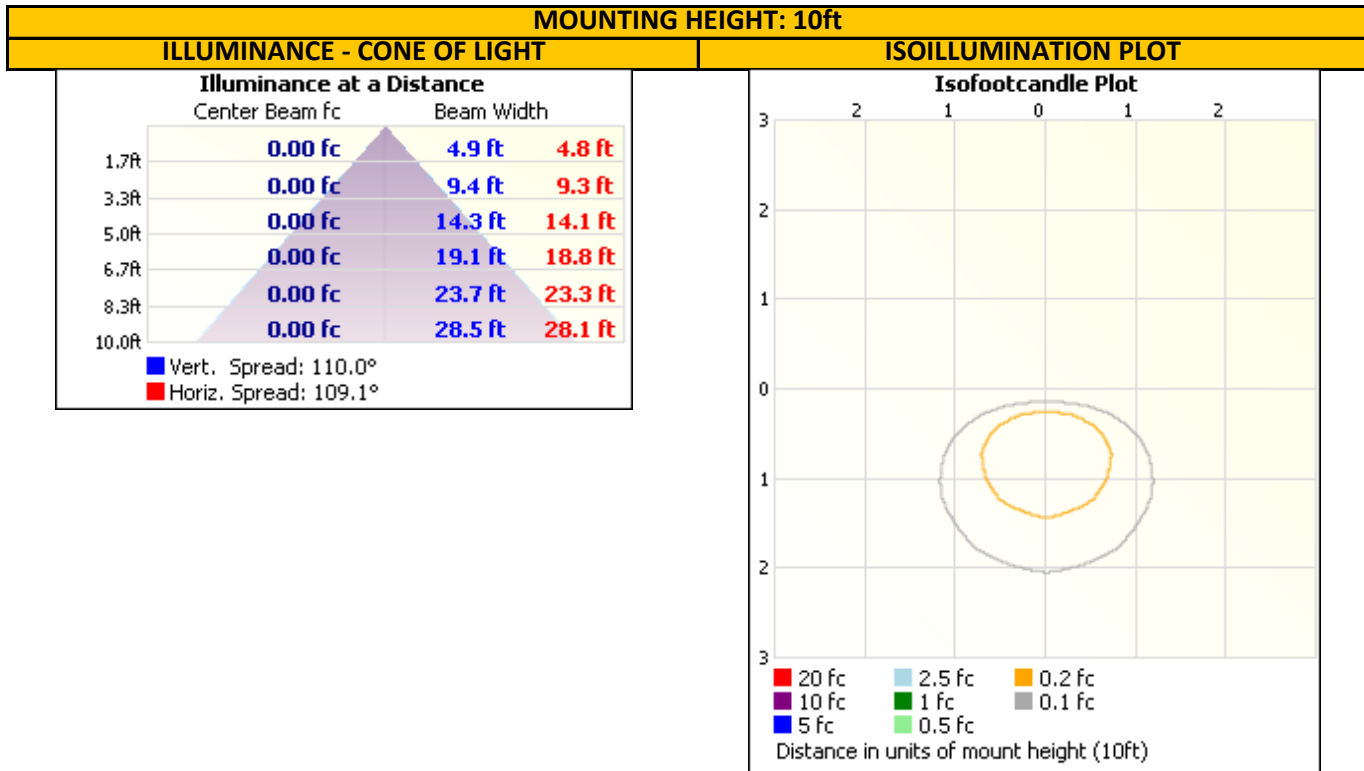
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RESULTS OF TESTS

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



ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	8.9	2.5
0-40	21.5	6.0
0-60	69.2	19.3
60-90	115.5	32.3
0-90	184.7	51.6
90-180	173.3	48.4
0-180	358.0	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	0.3	0.1
10-20	2.2	0.6
20-30	6.4	1.8
30-40	12.6	3.5
40-50	20.0	5.6
50-60	27.7	7.7
60-70	34.4	9.6
70-80	39.3	11.0
80-90	41.8	11.7
90-100	41.4	11.6
100-110	38.2	10.7
110-120	32.9	9.2
120-130	26.1	7.3
130-140	18.7	5.2
140-150	11.3	3.2
150-160	4.2	1.2
160-170	0.4	0.1

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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:

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Report Reviewed By:

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Project Engineer
Lighting Division

Attachments: .IES File

REVISION HISTORY

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