

SONNEMAN - A WAY OF LIGHT

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

2675W

PROJECT NUMBER

G103703321

REPORT NUMBER

103703321CRT-002

ISSUE DATE

October 29, 2018

REVISION DATE

None

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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TEST REPORT**REPORT NO.: 103703321CRT-002****REPORT DATE: October 29, 2018**

TEST OF (1) WAVEFORMS SMALL BELL LED PENDANT

MODEL NO. 2675W

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-00924150.

STANDARDS USED

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

SAMPLE INFORMATION

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1810171526-001	2675W	Waveforms Small Bell LED Pendant	Production	10/12/2018

DATE OF TESTS

October 26, 2018.

TEST REPORT

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REPORT DATE: October 29, 2018

SUMMARY

MODEL NO:	2675W
DESCRIPTION:	Waveforms Small Bell LED Pendant
LED MODEL NO:	Not Provided
DRIVER MODEL NO:	ERP EBR015U-0350-42

CRITERIA	RESULTS
Lumen Output (lumens)	398.1
Input Power (W) @ 120 (VAC)	23.05
Lumen Efficacy (lm/W)	17.3
Input Power Factor () @ 120 (VAC)	0.992

EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	11/5/2018	10/26/2018
Elgar AC Power Supply	CW1251	---	VBU	10/26/2018
Sorenson DC Power Supply	XG 150-10	---	VBU	10/26/2018
Yokogawa Power Analyzer	WT210	E464	5/3/2019	10/26/2018
Omega Thermometer	DPi8-C24	M263	5/3/2019	10/26/2018
M-D Building Products Digital Level	Smart Tool	L112	4/21/2019	10/26/2018
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2019	10/26/2018
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2019	10/26/2018
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2019	10/26/2018
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2019	10/26/2018

TEST REPORT**REPORT NO.: 103703321CRT-002****REPORT DATE: October 29, 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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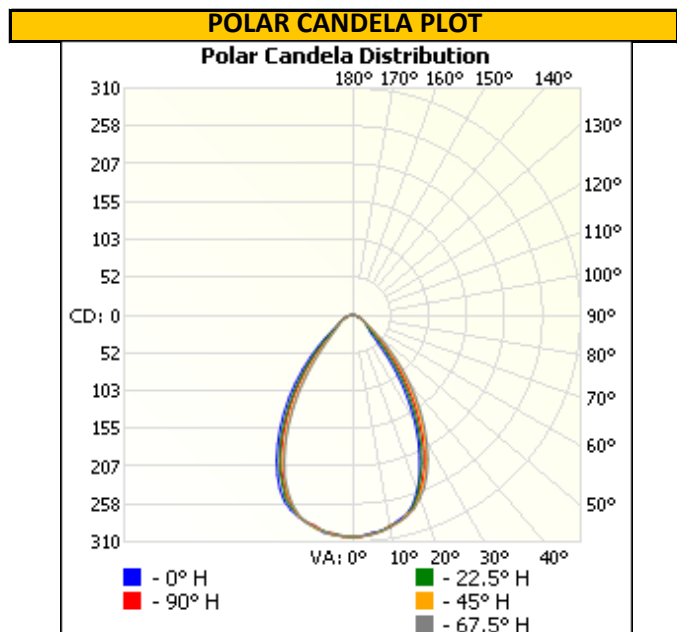
RESULTS OF TESTS

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)
CRT1810171526-001	Base Up	120.02	193.5	23.05	0.992	398.1	17.3

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	303	303	303	303	303
5	299	300	301	301	300
10	294	293	294	295	292
15	282	283	282	285	284
20	256	260	264	266	262
25	216	223	236	239	230
30	170	179	197	202	189
35	120	133	155	161	144
40	72	88	113	120	102
45	37	52	75	82	65
50	29	30	45	50	39
55	23	24	27	30	25
60	18	18	20	20	19
65	14	14	15	15	14
70	10	10	11	12	10
75	7	7	8	8	7
80	4	4	5	6	4
85	3	2	3	4	2
90	2	0	1	2	0
95	1	0	0	0	0



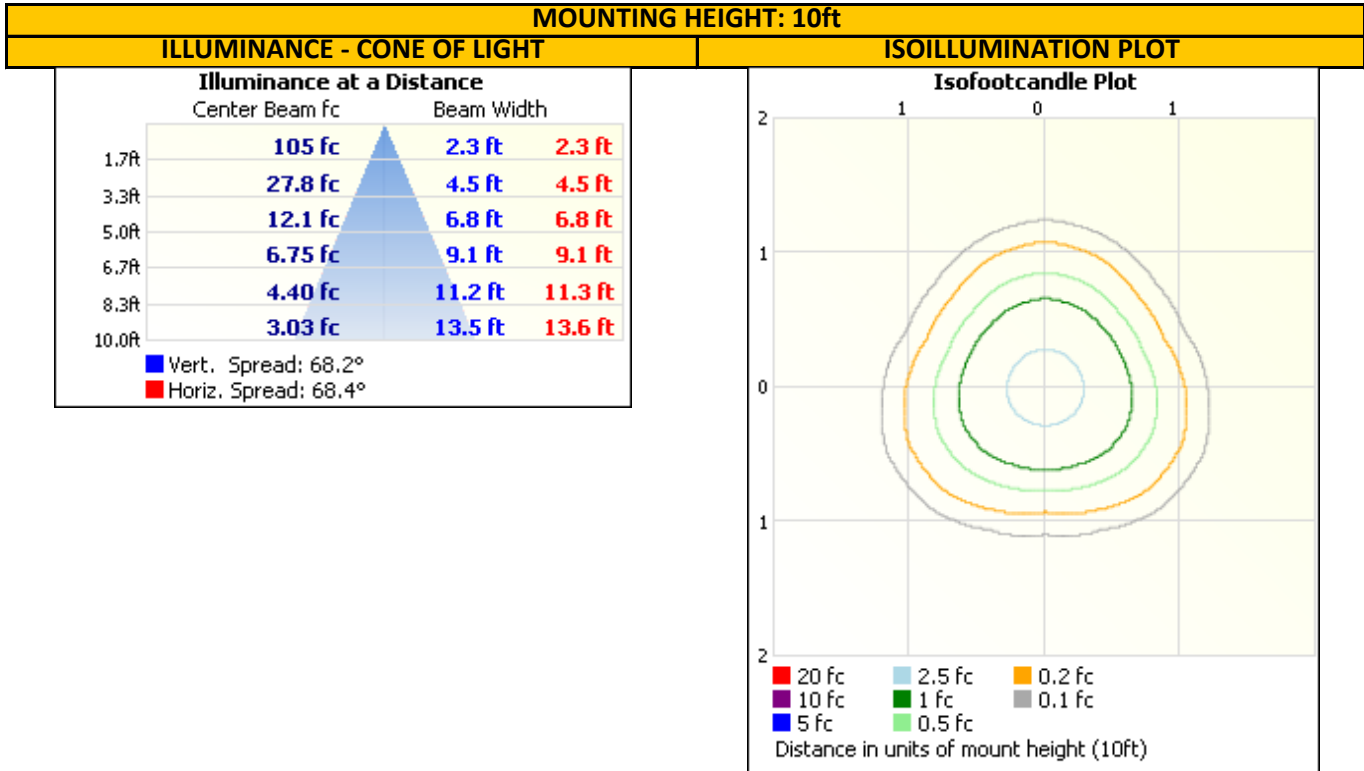
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RESULTS OF TESTS

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



ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	211.9	53.2
0-40	300.4	75.5
0-60	372.9	93.7
60-90	24.8	6.2
0-90	397.7	99.9
90-180	0.4	0.1
0-180	398.1	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	28.5	7.2
10-20	79.3	19.9
20-30	104.1	26.2
30-40	88.5	22.2
40-50	49.1	12.3
50-60	23.4	5.9
60-70	14.3	3.6
70-80	7.8	1.9
80-90	2.8	0.7
90-100	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:



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				