

# SONNEMAN - A WAY OF LIGHT

## TEST REPORT

### SCOPE OF WORK

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

### MODEL NUMBER

2862

### PROJECT NUMBER

G103703321

### REPORT NUMBER

103703321CRT-091

### ISSUE DATE

July 12, 2019

### REVISION DATE

None

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**TEST REPORT**

**REPORT NO.: 103703321CRT-091**

**REPORT DATE: July 12, 2019**

TEST OF (1) 18" SHORT LED PENDANT

MODEL NO. 2862

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-00932265-0.

**STANDARDS USED**

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

**SAMPLE INFORMATION**

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1906241047-001	2862	18" Short LED Pendant	Production	6/24/2019

**DATE OF TESTS**

July 11, 2019.

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SUMMARY

<b>MODEL NO:</b>	2862
<b>DESCRIPTION:</b>	18" Short LED Pendant
<b>LED MODEL NO:</b>	Not Provided
<b>DRIVER MODEL NO:</b>	ERP EBR020U-0700-30

CRITERIA	RESULTS
Lumen Output (lumens)	1139.3
Input Power (W) @ 120 (VAC)	20.39
Lumen Efficacy (lm/W)	55.9
Input Power Factor ( ) @ 120 (VAC)	0.983

EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	8/8/2019	7/11/2019
Elgar AC Power Supply	CW1251	---	VBU	7/11/2019
Sorenson DC Power Supply	XG 150-10	---	VBU	7/11/2019
Yokogawa Power Analyzer	WT210	E464	5/7/2020	7/11/2019
Omega Thermometer	DPi8-C24	M263	5/7/2020	7/11/2019
M-D Building Products Digital Level	Smart Tool	L112	5/1/2020	7/11/2019
NIST Luminous Intensity Standard Source	NBS10322	N1427	2/11/2021	7/11/2019
NIST Luminous Intensity Standard Source	NBS10332	N1435	2/11/2021	7/11/2019
NIST Luminous Intensity Standard Source	NBS10265	N1437	2/11/2021	7/11/2019
NIST Luminous Flux Standard Source	NBS10428	N1424	1/3/2021	7/11/2019

**TEST REPORT****REPORT NO.: 103703321CRT-091****REPORT DATE: July 12, 2019****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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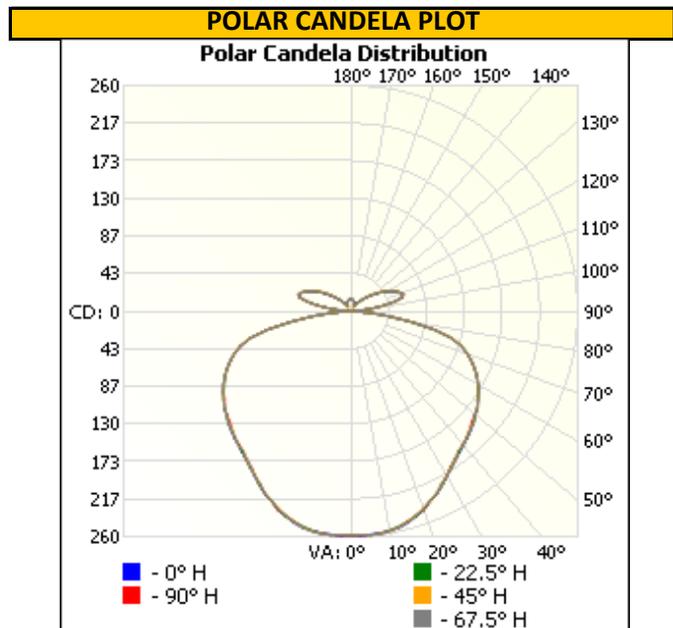
**RESULTS OF TESTS**

**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)
CRT1906241047-091	Base Up	120.06	172.8	20.39	0.983	1139.3	55.9

**INTENSITY SUMMARY - CANDELA**

Angle	0	22.5	45	67.5	90
0	258	258	258	258	258
5	258	259	258	258	259
10	257	256	257	258	257
15	252	251	251	252	250
20	243	243	241	243	244
25	232	232	232	232	232
30	220	219	219	220	219
35	208	209	208	209	210
40	201	200	201	201	200
45	194	193	193	194	192
50	186	186	186	186	186
55	178	178	178	178	177
60	168	167	168	169	168
65	157	156	157	156	156
70	142	142	142	142	142
75	119	120	120	119	120
80	70	69	70	70	70
85	24	23	24	24	24
90	0	0	0	0	0
95	10	10	10	10	10
100	38	39	39	39	40
105	60	60	60	60	61
110	61	62	62	62	62
115	54	55	55	55	55
120	46	46	47	46	46
125	35	37	38	37	36
130	26	28	29	28	27
135	20	19	20	20	20
140	14	12	12	13	14
145	10	7	6	7	10
150	10	7	5	7	9
155	10	9	8	8	10
160	11	11	10	10	11
165	12	12	12	12	12
170	13	14	14	14	13
175	14	14	14	14	14
180	14	14	14	14	14



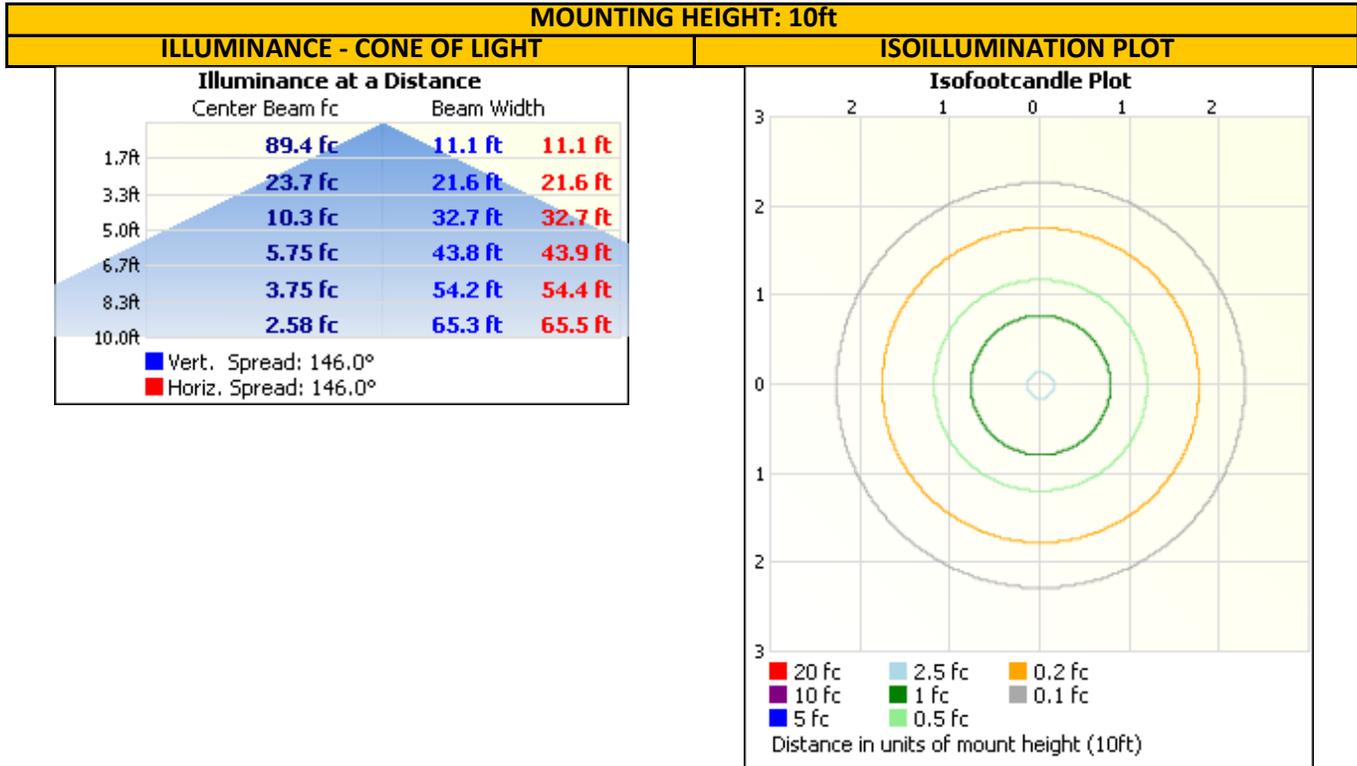
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RESULTS OF TESTS

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



**ZONAL LUMEN SUMMARY AND PERCENTAGES**

ZONE	LUMENS	% LUMINAIRE
0-30	202.2	17.8
0-40	333.2	29.2
0-60	641.8	56.3
60-90	304.7	26.7
0-90	946.5	83.1
90-180	192.8	16.9
0-180	1139.3	100.0

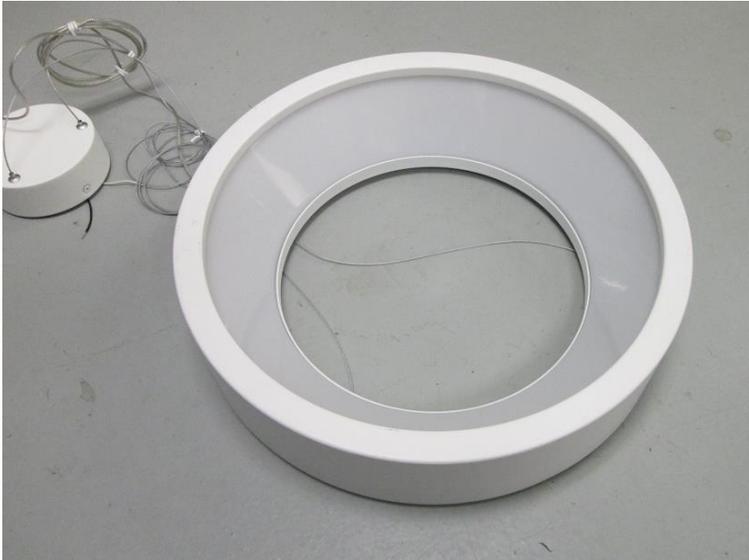
ZONE	LUMENS	% LUMINAIRE
0-10	24.6	2.2
10-20	70.9	6.2
20-30	106.7	9.4
30-40	130.9	11.5
40-50	149.5	13.1
50-60	159.2	14.0
60-70	154.6	13.6
70-80	120.2	10.6
80-90	29.8	2.6
90-100	15.9	1.4
100-110	59.4	5.2
110-120	54.2	4.8
120-130	33.4	2.9
130-140	15.7	1.4
140-150	5.5	0.5
150-160	4.0	0.4
160-170	3.4	0.3
170-180	1.3	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:

Kristie Ray  
Engineer  
Lighting Division

Attachments: .IES File

## REVISION HISTORY

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