

# SONNEMAN - A WAY OF LIGHT TEST REPORT

## SCOPE OF WORK

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

## MODEL NUMBER

1XDXXLL01K

## PROJECT NUMBER

G103590523

## REPORT NUMBER

103590523CRT-021

## ISSUE DATE

August 22, 2018

## REVISION DATE

None

## DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**TEST REPORT**

**REPORT NO.: 103590523CRT-021**

**REPORT DATE: August 22, 2018**

TEST OF (1) LADDER LIGHT LUMINAIRE

MODEL NO. 1XDXXLL01K

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-00895529.

**STANDARDS USED**

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

**SAMPLE INFORMATION**

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1808031053-001-9	1XDXXLL01K	Luminaire	Production	8/2/2018

**DATE OF TESTS**

August 21, 2018.

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## SUMMARY

<b>MODEL NO:</b>	1XDXXLL01K
<b>DESCRIPTION:</b>	Ladder Light Luminaire
<b>LED MODEL NO:</b>	Proprietary-Not Reported
<b>DRIVER MODEL NO:</b>	LTF TA60WA24LED

CRITERIA	RESULTS
Lumen Output (lumens)	40.7
Input Power (W) @ 120 (VAC)	2.27
Lumen Efficacy (lm/W)	18.0
Input Power Factor ( ) @ 120 (VAC)	0.876

## EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	9/7/2018	8/21/2018
Elgar AC Power Supply	CW1251	---	VBU	8/21/2018
Sorenson DC Power Supply	XG 150-10	---	VBU	8/21/2018
Yokogawa Power Analyzer	WT210	E464	5/3/2019	8/21/2018
Omega Thermometer	DPi8-C24	M263	5/3/2019	8/21/2018
M-D Building Products Digital Level	Smart Tool	L112	4/21/2019	8/21/2018
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2019	8/21/2018
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2019	8/21/2018
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2019	8/21/2018
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2019	8/21/2018

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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 (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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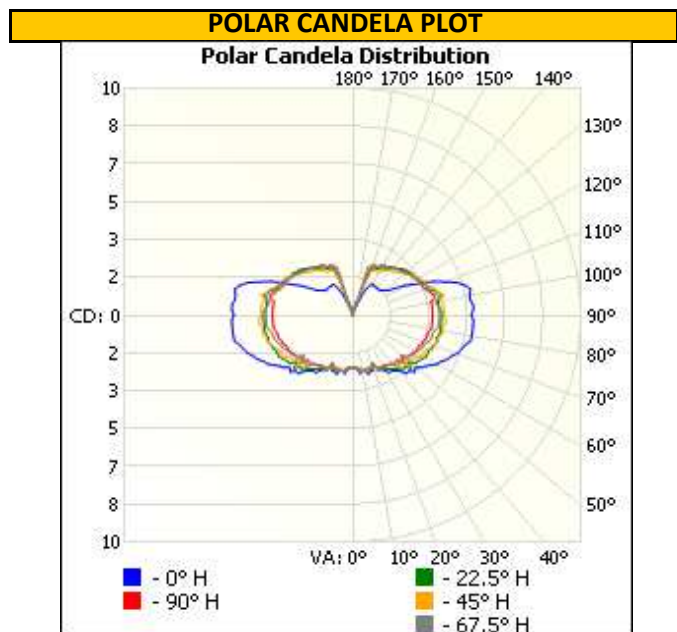
## RESULTS OF TESTS

### 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)
CRT1808031053-001-9	Base Up	120.06	21.5	2.27	0.876	40.7	18.0

## INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	2	2	2	2	2
5	2	2	2	2	2
10	2	2	2	2	2
15	3	2	2	2	2
20	3	3	2	2	2
25	3	3	3	3	3
30	3	3	3	3	3
35	3	3	3	3	3
40	3	3	3	3	3
45	4	3	3	3	3
50	4	3	3	3	3
55	4	4	3	3	3
60	4	4	4	3	3
65	5	4	4	3	3
70	5	4	4	4	3
75	5	4	4	4	3
80	5	4	4	4	4
85	5	4	4	4	4
90	5	4	4	4	4
95	5	4	4	4	4
100	5	4	4	4	4
105	5	4	4	4	4
110	4	4	4	3	3
115	3	3	4	3	3
120	3	3	3	3	3
125	2	3	3	3	3
130	2	3	3	3	3
135	2	3	3	3	3
140	2	3	3	3	3
145	2	2	2	3	3
150	2	2	2	2	2
155	1	2	2	2	2
160	0	2	2	2	2
165	1	0	0	0	0



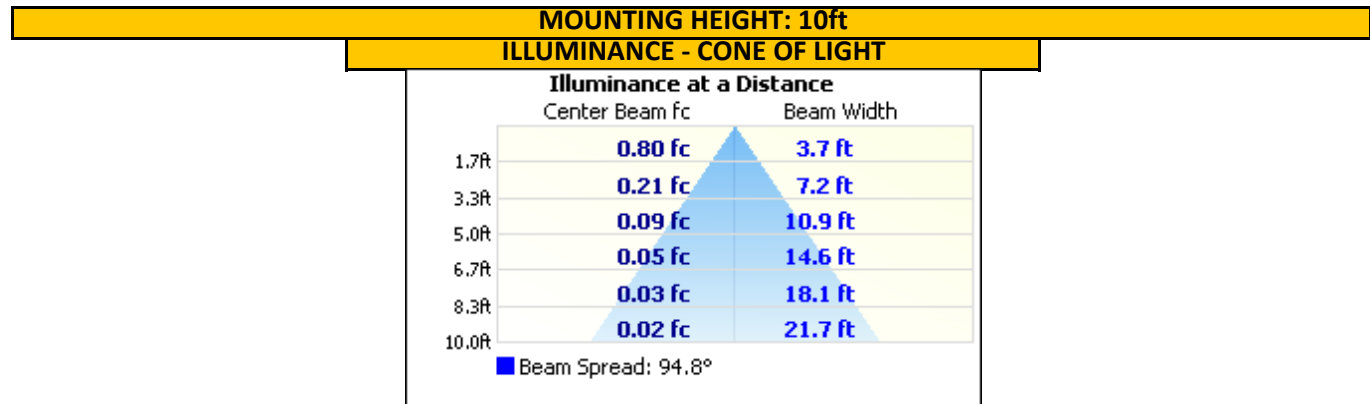
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## RESULTS OF TESTS

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



ZONAL LUMEN SUMMARY AND PERCENTAGES					
ZONE	LUMENS	% LUMINAIRE	ZONE	LUMENS	% LUMINAIRE
0-30	2.1	5.2	0-10	0.2	0.6
0-40	3.9	9.5	10-20	0.7	1.7
0-60	9.3	22.9	20-30	1.2	2.9
60-90	12.2	29.9	30-40	1.8	4.3
0-90	21.5	52.7	40-50	2.4	5.9
90-180	19.2	47.3	50-60	3.0	7.4
0-180	40.7	100.0	60-70	3.6	8.9
			70-80	4.1	10.2
			80-90	4.4	10.8
			90-100	4.4	10.7
			100-110	4.1	10.2
			110-120	3.4	8.3
			120-130	2.7	6.6
			130-140	2.1	5.1
			140-150	1.5	3.7
			150-160	1.0	2.4
			160-170	0.1	0.4

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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:



Jerry Gray  
Associate Engineer  
Lighting Division

Report Reviewed By:



Jeff Davis  
Engineering Supervisor  
Lighting Division

Attachments: IES File

**REVISION HISTORY**

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