

# SONNEMAN - A WAY OF LIGHT TEST REPORT

## SCOPE OF WORK

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

## MODEL NUMBER

1XDXXRP28K w/1XZ030102K

## PROJECT NUMBER

G103981353

## REPORT NUMBER

103981353CRT-048

## ISSUE DATE

July 31, 2019

## REVISION DATE

None

## DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**TEST REPORT**

**REPORT NO.: 103981353CRT-048**

**REPORT DATE: July 31, 2019**

TEST OF (1) POWER PRECISE CUBE W/15° LENS

MODEL NO. 1XDXXRP28K W/1XZ030102K

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-00975978-1.

**STANDARDS USED**

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

**SAMPLE INFORMATION**

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1906130954-001-21	1XDXXRP28K w/1XZ030102K	Power Precise Cube w/15° Lens	Production	7/12/2019

**DATE OF TESTS**

July 31, 2019.

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## SUMMARY

<b>MODEL NO:</b>	1XDXXRP28K w/1XZ030102K
<b>DESCRIPTION:</b>	Power Precise Cube w/15° Lens
<b>LED MODEL NO:</b>	Not Provided
<b>DRIVER MODEL NO:</b>	LTF TA60WA24LED

CRITERIA	RESULTS
Lumen Output (lumens)	362.3
Input Power (W) @ 120 (VAC)	9.33
Lumen Efficacy (lm/W)	38.8
Input Power Factor ( ) @ 120 (VAC)	0.960

## EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	8/8/2019	7/31/2019
Elgar AC Power Supply	CW1251	---	VBU	7/31/2019
Sorenson DC Power Supply	XG 150-10	---	VBU	7/31/2019
Yokogawa Power Analyzer	WT210	E464	5/7/2020	7/31/2019
Omega Thermometer	DPi8-C24	M263	5/7/2020	7/31/2019
M-D Building Products Digital Level	Smart Tool	L112	5/1/2020	7/31/2019
NIST Luminous Intensity Standard Source	NBS10322	N1427	2/11/2021	7/31/2019
NIST Luminous Intensity Standard Source	NBS10332	N1435	2/11/2021	7/31/2019
NIST Luminous Intensity Standard Source	NBS10265	N1437	2/11/2021	7/31/2019
NIST Luminous Flux Standard Source	NBS10428	N1424	1/3/2021	7/31/2019

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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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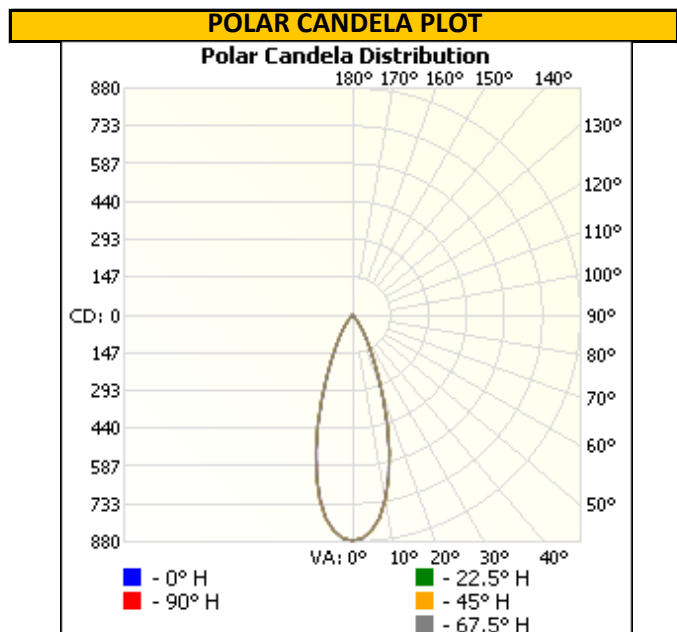
## RESULTS OF TESTS

## 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)
CRT1906130954-001-21	Base Up	120.07	80.9	9.33	0.960	362.3	38.8

## INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	874	874	874	874	874
5	837	842	840	837	837
10	727	728	731	725	723
15	545	549	551	550	546
20	345	349	350	350	349
25	192	196	198	197	197
30	105	109	108	106	107
35	55	57	56	55	55
40	20	20	22	19	19
45	9	10	10	10	9
50	3	4	6	5	2
55	0	1	3	0	0
60	0	0	0	0	0
65	0	0	0	0	0
70	0	0	0	0	0
75	0	0	0	0	0
80	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0



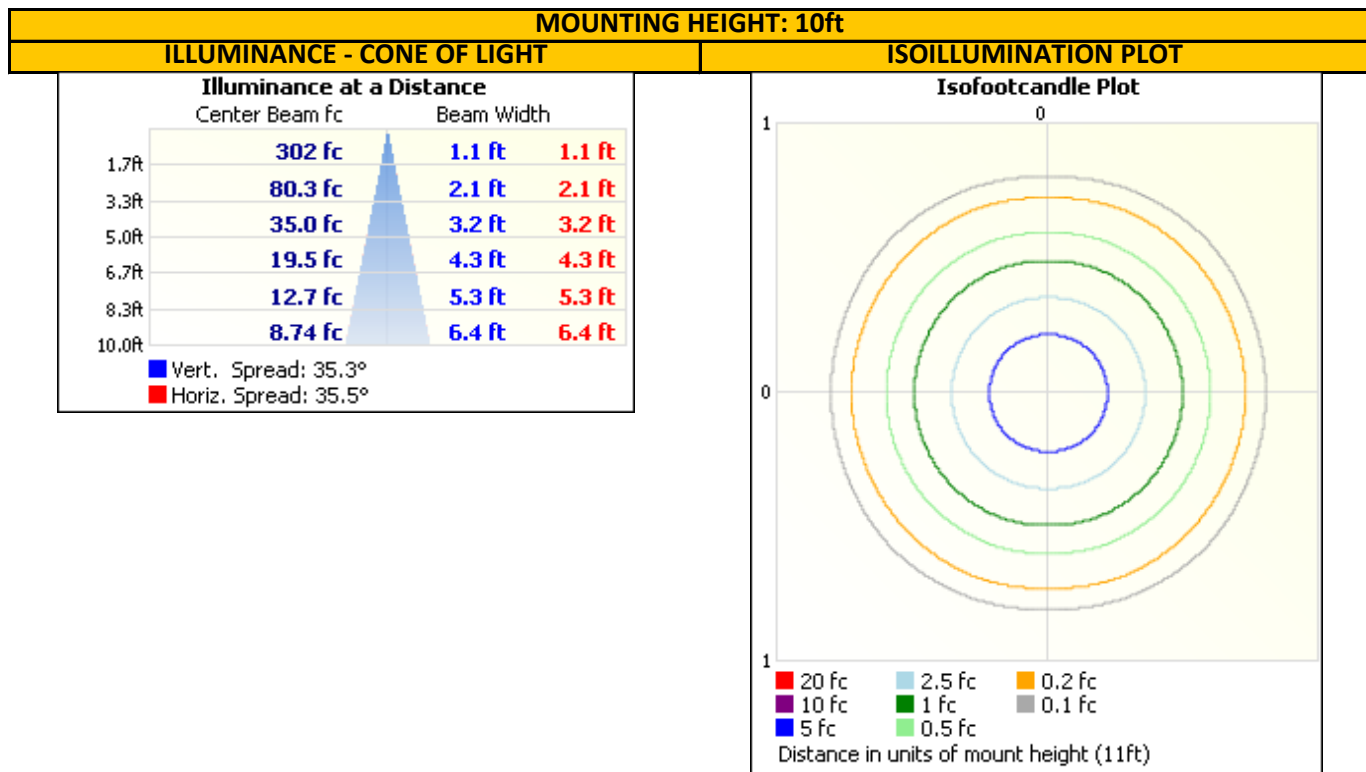
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## RESULTS OF TESTS

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



### ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	317.4	87.6
0-40	352.7	97.4
0-60	362.3	100.0
60-90	0.0	0.0
0-90	362.3	100.0
90-180	0.0	0.0
0-180	362.3	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	76.4	21.1
10-20	148.3	40.9
20-30	92.7	25.6
30-40	35.3	9.8
40-50	8.1	2.2
50-60	1.4	0.4
60-70	0.0	0.0
70-80	0.0	0.0
80-90	0.0	0.0

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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:

Report Reviewed By:



Gerald Gray  
Associate Engineer  
Lighting Division



Kristie Ray  
Engineer  
Lighting Division

Attachments: .IES File

**REVISION HISTORY**

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