

# SONNEMAN - A WAY OF LIGHT

## TEST REPORT

### SCOPE OF WORK

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

### MODEL NUMBER

3730

### PROJECT NUMBER

G103703321

### REPORT NUMBER

103703321CRT-095

### ISSUE DATE

August 2, 2019

### REVISION DATE

None

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**TEST REPORT****REPORT NO.: 103703321CRT-095****REPORT DATE: August 2, 2019**

TEST OF (1) OCULUS 10" LED SURFACE MOUNT

MODEL NO. 3730

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
CRT1907191051-001	3730	Oculus 10" LED Surface Mount	Production	7/19/2019

**DATE OF TESTS**

August 1, 2019.

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**TEST REPORT**

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**REPORT DATE: August 2, 2019**

**SUMMARY**

<b>MODEL NO:</b>	3730
<b>DESCRIPTION:</b>	Oculus 10" LED Surface Mount
<b>LED MODEL NO:</b>	Not Provided
<b>DRIVER MODEL NO:</b>	LTF TA60WA12LED

<b>CRITERIA</b>	<b>RESULTS</b>
Lumen Output (lumens)	724.2
Input Power (W) @ 120 (VAC)	18.77
Lumen Efficacy (lm/W)	38.6
Input Power Factor ( ) @ 120 (VAC)	0.952

**EQUIPMENT LIST**

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

**TEST REPORT****REPORT NO.: 103703321CRT-095****REPORT DATE: August 2, 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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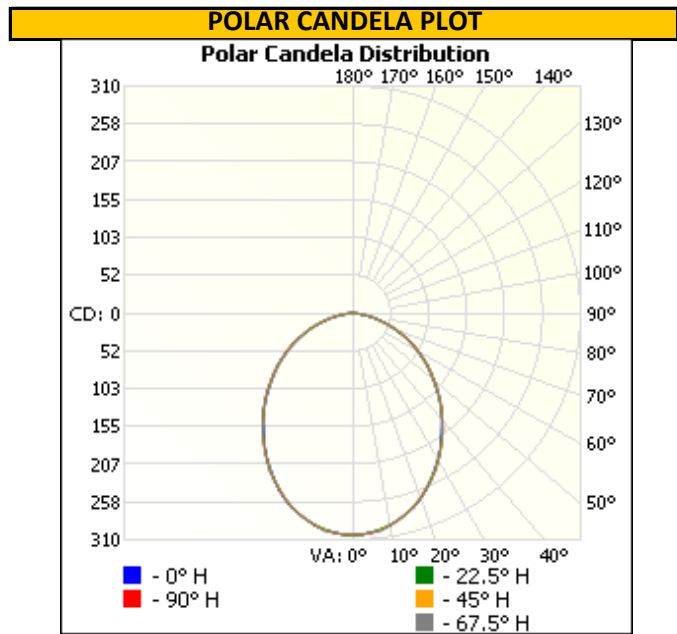
**RESULTS OF TESTS**

**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)
CRT1907191051-001	Base Up	120.07	164.2	18.77	0.952	724.2	38.6

**INTENSITY SUMMARY - CANDELA**

Angle	0	22.5	45	67.5	90
0	303	303	303	303	303
5	301	300	301	300	301
10	294	294	294	294	295
15	283	284	283	284	283
20	269	269	268	269	270
25	252	251	252	252	251
30	232	232	232	233	232
35	210	210	212	211	212
40	189	189	189	189	190
45	168	167	168	168	168
50	144	145	144	144	146
55	123	124	122	123	124
60	101	101	100	102	103
65	80	80	80	81	81
70	61	59	61	59	59
75	39	39	39	39	39
80	20	21	20	21	21
85	6	6	6	6	6
90	0	0	0	0	0



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RESULTS OF TESTS

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

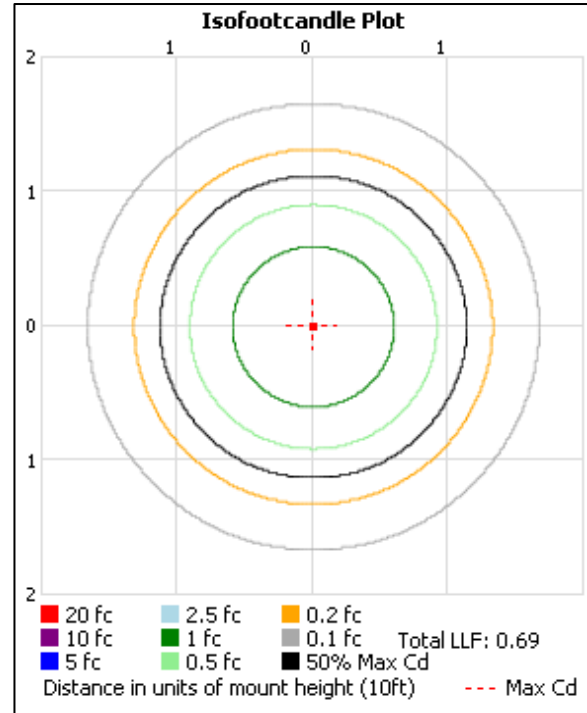
**MOUNTING HEIGHT: 10ft**

**ILLUMINANCE - CONE OF LIGHT      ISOILLUMINATION PLOT**

**Illuminance at a Distance**

	Center Beam fc	Beam Width	
1.7R	105 fc	3.8 ft	3.9 ft
3.3R	27.9 fc	7.4 ft	7.5 ft
5.0R	12.1 fc	11.2 ft	11.4 ft
6.7R	6.76 fc	15.0 ft	15.2 ft
8.3R	4.40 fc	18.6 ft	18.8 ft
10.0R	3.03 fc	22.4 ft	22.7 ft

■ Vert. Spread: 96.6°  
■ Horiz. Spread: 97.2°



**ZONAL LUMEN SUMMARY AND PERCENTAGES**

ZONE	LUMENS	% LUMINAIRE
0-30	224.0	30.9
0-40	356.1	49.2
0-60	595.1	82.2
60-90	129.1	17.8
0-90	724.2	100.0
90-180	0.0	0.0
0-180	724.2	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	28.5	3.9
10-20	79.8	11.0
20-30	115.8	16.0
30-40	132.0	18.2
40-50	129.1	17.8
50-60	110.0	15.2
60-70	79.4	11.0
70-80	41.6	5.8
80-90	8.0	1.1

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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:

A handwritten signature in black ink, appearing to read "Gerald Gray".

Gerald Gray  
Associate Engineer  
Lighting Division

Report Reviewed By:

A handwritten signature in black ink, appearing to read "Kristie Ray".

Kristie Ray  
Engineer  
Lighting Division

Attachments: .IES File

## REVISION HISTORY

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