

SONNEMAN - A WAY OF LIGHT

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

3740

PROJECT NUMBER

G104119984

REPORT NUMBER

104119984CRT-023

ISSUE DATE

5/11/2020

REVISED DATE

None

TEST DATES

5/6/2020

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104119984CRT-023

MODEL NUMBER(s)

3740

REPORT RENDERED TO:

SONNEMAN - A WAY OF LIGHT
151 AIRPORT DRIVE
WAPPINGERS FALLS, NY 12590
USA

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-01007713-2.

TEST STANDARDS

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

ANSI NEMA ANSLG C78.377: 2017: Specifications for the Chromaticity of Solid State Lighting (SSL) Products

ANSI/UL 1598-2018: Standard for Safety - Luminaires

In Charge of Testing:

Reviewer:



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SAMPLE INFORMATION

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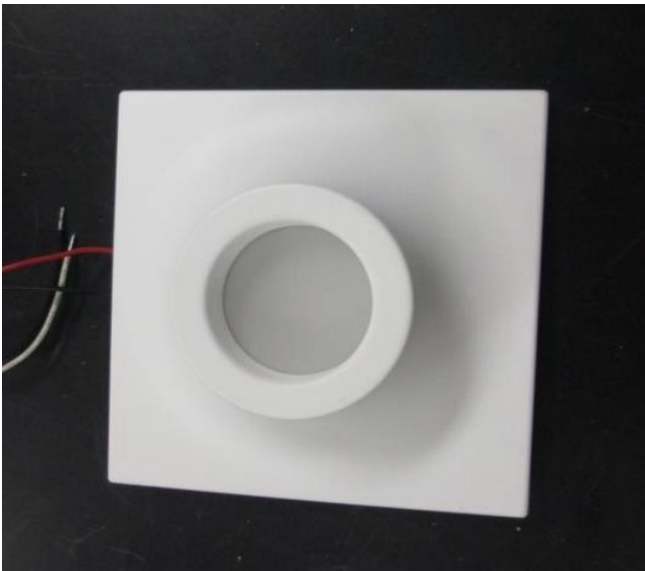
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	CRT2004291221-006	3740	Zoom LED Surface Mount	Production	4/29/2020

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	3740	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY**REPORT NO. 104119984CRT-023****PRODUCT INFORMATION AND SUMMARY OF DATA**

Product Model No.:	3740
Product Description:	Zoom LED Surface Mount
LED Model No.:	Not Provided
Driver Model No.:	ERP EBR010U-0200-42
Light Source:	LED

Criteria	Results
Light Output (lumens)	510.5
Input Power (W) @ 120 (Vac)	7.95
Lumen Efficacy (lm/W)	64.2
Input Power Factor () @ 120 (Vac)	0.989

TEST METHODS**SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS**

No seasoning was performed in accordance with IESNA LM-79.

TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

A Type C Mirror Goniophotometer system was used to measure the luminous intensity at each angle of distribution for the EUT. Electrical measurements of the unit were measured using a power analyzer. Each EUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature was measured at a position near the EUT at equal height and stabilization procedures to LM-79 were followed.

TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

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Test Configuration	Tested Model No.	Pass/Fail/NA
1	3740	NA

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

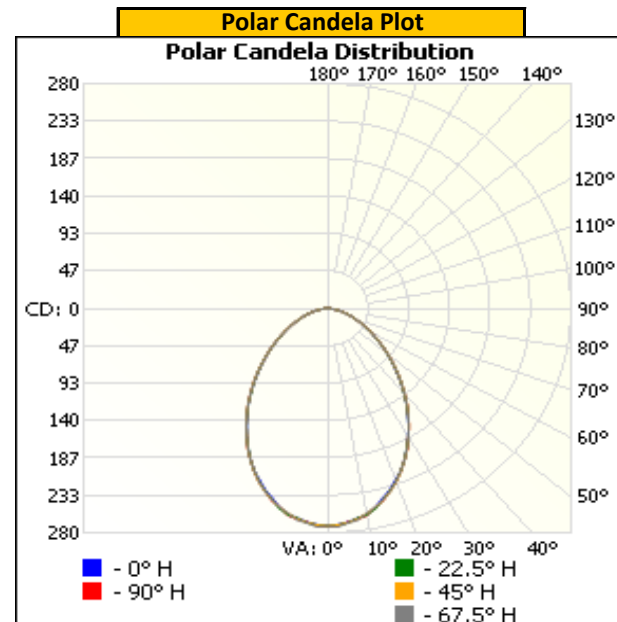
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Up	120.02	67.0	7.95	0.989

Light Output (lm)	Lumen Efficacy (lm/W)
510.5	64.2

INTENSITY SUMMARY - CANDELA

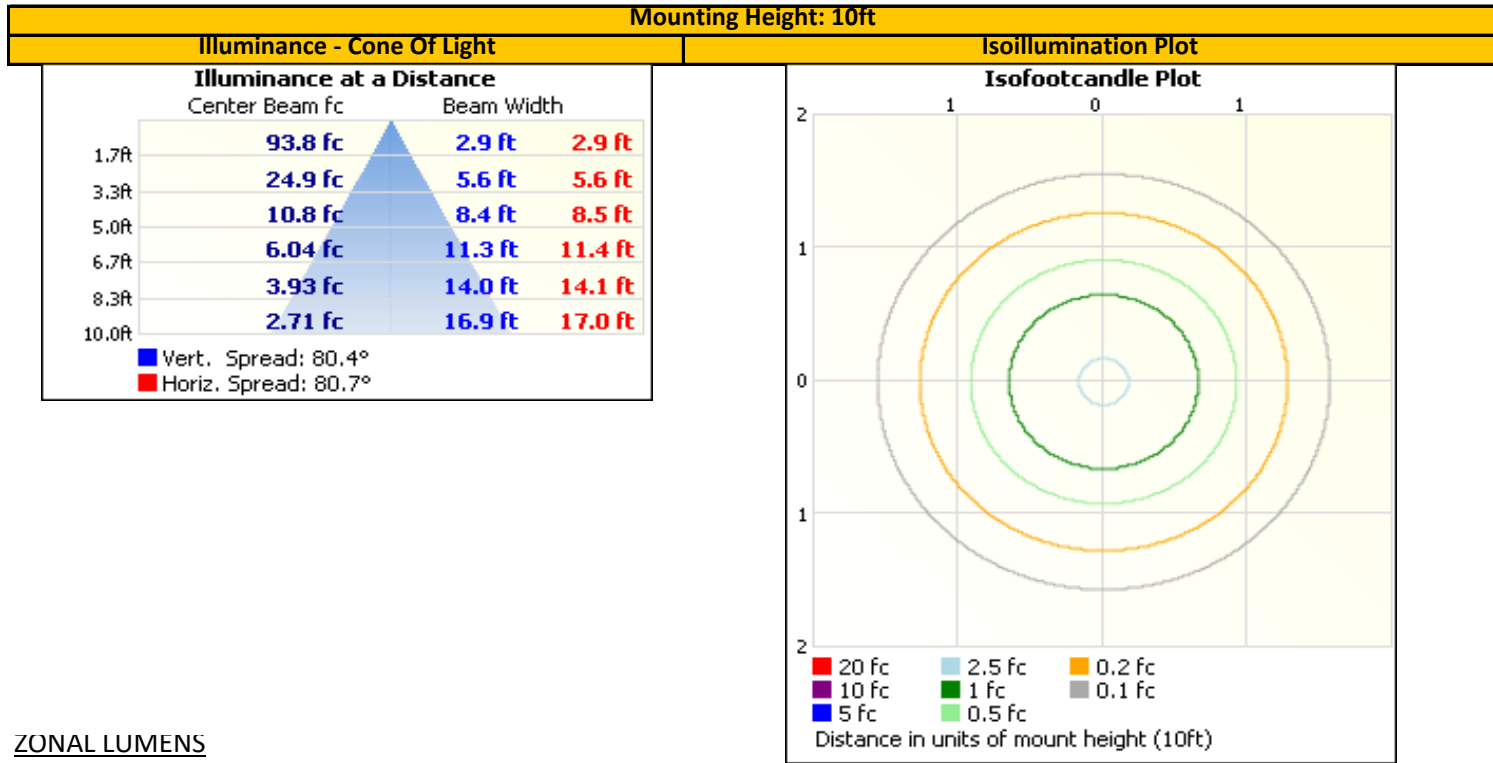
Angle	0	22.5	45	67.5	90
0	271	271	271	271	271
5	268	268	268	269	267
10	261	261	260	259	262
15	245	247	247	247	248
20	228	230	230	230	230
25	209	209	209	209	209
30	186	186	186	186	186
35	161	161	162	162	162
40	137	137	137	137	137
45	113	113	114	114	114
50	92	92	92	92	92
55	72	72	73	73	73
60	55	55	56	56	56
65	41	41	41	41	41
70	29	29	29	29	29
75	19	19	20	19	19
80	11	11	11	11	11
85	3	4	4	3	3
90	0	0	0	0	0
95	0	0	0	0	0
100	0	0	0	0	0
105	0	0	0	0	0
110	0	0	0	0	0
115	0	0	0	0	0
120	0	0	0	0	0
125	0	0	0	0	0
130	0	0	0	0	0
135	0	0	0	0	0
140	0	0	0	0	0
145	0	0	0	0	0
150	0	0	0	0	0
155	0	0	0	0	0
160	0	0	0	0	0
165	0	0	0	0	0
170	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

Entire luminous intensity matrix found in .IES file



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ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	190.5	37.3%	0-10	25.3	5.0%
0-40	291.4	57.1%	10-20	69.3	13.6%
0-60	444.2	87.0%	20-30	95.9	18.8%
60-90	66.3	13.0%	30-40	100.8	19.8%
70-100	25.1	4.9%	40-50	87.7	17.2%
90-120	0.0	0.0%	50-60	65.1	12.8%
0-90	510.5	100.0%	60-70	41.2	8.1%
90-180	0.0	0.0%	70-80	20.7	4.1%
0-180	510.5	100.0%	80-90	4.4	0.9%
			90-100	0.0	0.0%
			100-110	0.0	0.0%
			110-120	0.0	0.0%
			120-130	0.0	0.0%
			130-140	0.0	0.0%
			140-150	0.0	0.0%
			150-160	0.0	0.0%
			160-170	0.0	0.0%
			170-180	0.0	0.0%

EQUIPMENT LIST

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#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	LSI High Speed Mirror Goniometer	6440	---	4/21/2020	5/21/2020
2	Elgar AC Power Supply	CW1251	---	VBU	VBU
3	Sorenson DC Power Supply	XG 150-10	---	VBU	VBU
4	Yokogawa Power Analyzer	WT210	E464	5/7/2019	5/7/2020
5	Omega Thermometer	DPI8-C24	M263	2/27/2020	2/27/2021
6	M-D Building Products Digital Level	Smart Tool	E499	6/27/2019	6/27/2020
7	NIST Luminous Intensity Standard Source	NBS10322	N1427	2/11/2019	2/11/2021
8	NIST Luminous Intensity Standard Source	NBS10332	N1435	2/11/2019	2/11/2021
9	NIST Luminous Intensity Standard Source	NBS10265	N1437	2/11/2019	2/11/2021
10	NIST Luminous Flux Standard Source	NBS10428	N1424	1/3/2019	1/3/2021

Note: Standard sources listed above are traceable to NIST: National Institute of Standards and Technology

*Validated by calibration on 5/11/20.

REVISION HISTORY

#	Revision Date	Updated By	Reviewed By	Description of Change
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