

SONNEMAN - A WAY OF LIGHT TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

2735

PROJECT NUMBER

G104119984

REPORT NUMBER

104119984CRT-030

ISSUE DATE

5/11/2020

REVISED DATE

None

TEST DATES

5/7/2020

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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REPORT NUMBER

104119984CRT-030

MODEL NUMBER(s)

2735

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

In Charge of Testing:



Gerald Gray
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Reviewer:



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SAMPLE INFORMATION

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ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	CRT2004291221-011	2735	Offset 24" Racetrack LED Surface Mount	Production	4/29/2020

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	2735	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



SUMMARY

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PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	2735
Product Description:	Offset 24" Racetrack LED Surface Mount
LED Model No.:	Not Provided
Driver Model No.:	ERP ESPT050W-1050-42-Z1
Light Source:	LED

Criteria	Results
Light Output (lumens)	3305.7
Input Power (W) @ 120 (Vac)	43.19
Lumen Efficacy (lm/W)	76.5
Input Power Factor () @ 120 (Vac)	0.985

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	2735	NA

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

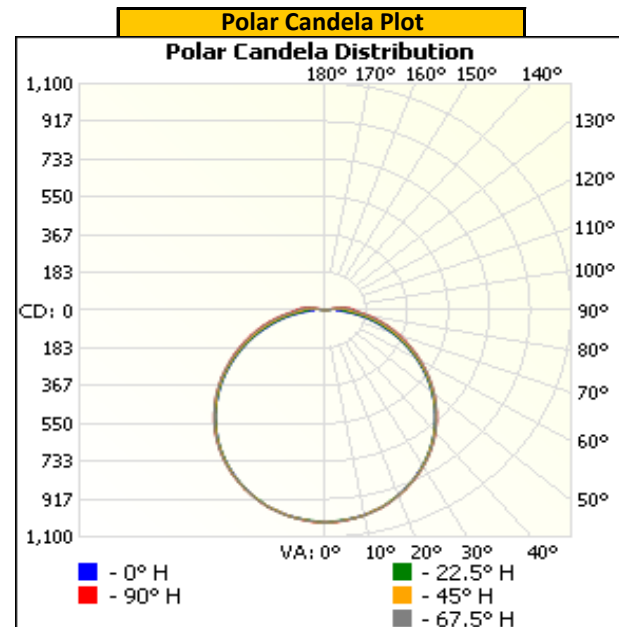
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (f)
Up	120.00	365.6	43.19	0.985

Light Output (lm)	Lumen Efficacy (lm/W)
3305.7	76.5

INTENSITY SUMMARY - CANDELA

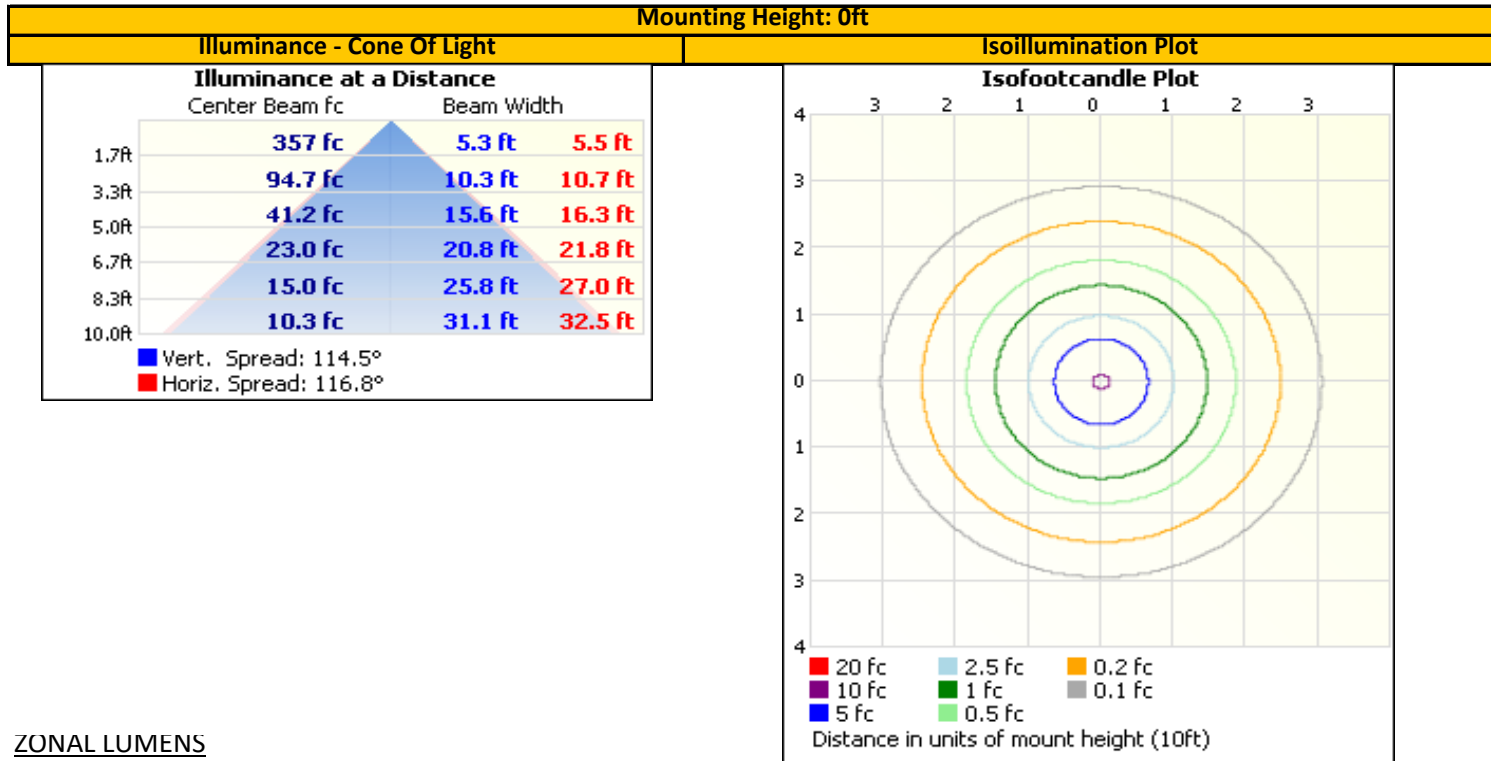
Angle	0	22.5	45	67.5	90
0	1031	1031	1031	1031	1031
5	1021	1020	1021	1023	1025
10	1008	1010	1008	1010	1010
15	986	987	987	988	990
20	954	956	955	958	957
25	916	916	918	918	920
30	871	871	873	876	875
35	819	819	821	824	824
40	760	760	763	767	767
45	695	696	699	704	703
50	625	626	631	637	636
55	551	553	559	565	565
60	473	476	484	492	492
65	394	397	408	419	423
70	315	321	336	350	355
75	240	248	267	284	289
80	169	180	203	221	227
85	104	118	145	164	170
90	53	79	106	125	131
95	50	60	83	103	109
100	30	32	47	67	74
105	9	10	16	25	32
110	2	2	3	9	11
115	0	0	0	1	2
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	798.6	24.2%	0-10	97.1	2.9%
0-40	1,312.5	39.7%	10-20	278.4	8.4%
0-60	2,351.5	71.1%	20-30	423.1	12.8%
60-90	843.2	25.5%	30-40	513.8	15.5%
70-100	524.9	15.9%	40-50	539.6	16.3%
90-120	110.9	3.4%	50-60	499.5	15.1%
0-90	3,194.8	96.6%	60-70	404.6	12.2%
90-180	110.9	3.4%	70-80	281.5	8.5%
0-180	3,305.7	100.0%	80-90	157.1	4.8%
			90-100	86.3	2.6%
			100-110	23.5	0.7%
			110-120	1.2	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	---	VBV	VBV
3	Sorenson DC Power Supply	XG 150-10	---	VBV	VBV
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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