

SONNEMAN - A WAY OF LIGHT

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

2560

PROJECT NUMBER

G103703321

REPORT NUMBER

103703321CRT-069

ISSUE DATE

March 4, 2019

REVISION DATE

None

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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TEST REPORT

REPORT NO.: 103703321CRT-069

REPORT DATE: March 4, 2019

TEST OF (1) DAZZLE 18" LED BATH BAR

MODEL NO. 2560

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.

STANDARDS USED

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

SAMPLE INFORMATION

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1902250955-003	2560	Dazzle 18" LED Bath Bar	Production	2/25/2019

DATE OF TESTS

February 28, 2019.

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SUMMARY

MODEL NO:	2560
DESCRIPTION:	Dazzle 18" LED Bath Bar
DRIVER MODEL NO:	LTF TA60WA12LED

CRITERIA	RESULTS
Lumen Output (lumens)	865.6
Input Power (W) @ 120 (VAC)	28.35
Lumen Efficacy (lm/W)	30.5
Input Power Factor () @ 120 (VAC)	0.954

EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	3/11/2019	2/28/2019
Elgar AC Power Supply	CW1251	---	VBU	2/28/2019
Sorenson DC Power Supply	XG 150-10	---	VBU	2/28/2019
Yokogawa Power Analyzer	WT210	E464	5/3/2019	2/28/2019
Omega Thermometer	DPi8-C24	M263	5/3/2019	2/28/2019
M-D Building Products Digital Level	Smart Tool	L112	4/21/2019	2/28/2019
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2019	2/28/2019
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2019	2/28/2019
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2019	2/28/2019
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2019	2/28/2019

*Note: Calibration of goniometer system was completed before the calibration due date of the lamps. The calibration file created from these NIST traceable lamps was used on 2/28/19

TEST REPORT**REPORT NO.: 103703321CRT-069****REPORT DATE: March 4, 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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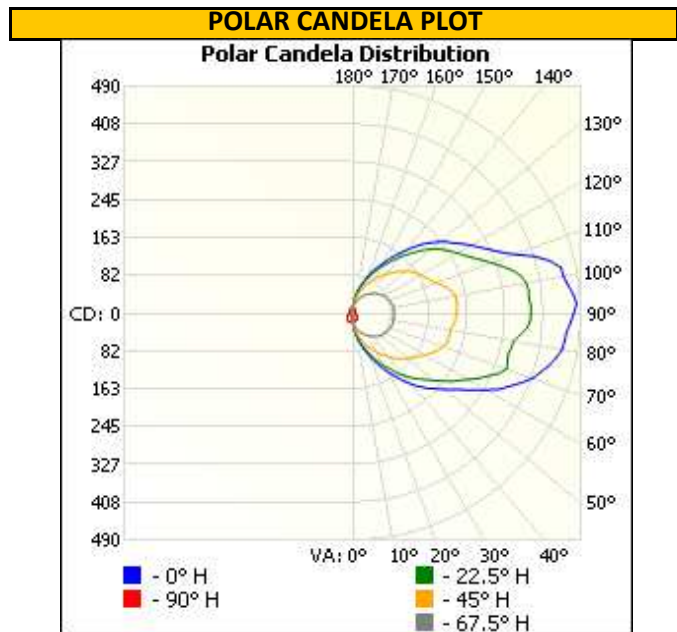
RESULTS OF TESTS

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)
CRT1902250955-003	Horizontal	120.05	247.6	28.35	0.954	865.6	30.5

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	19	19	19	19	19
5	33	32	29	24	18
10	51	48	41	30	18
15	71	66	53	36	18
20	93	86	66	42	17
25	117	106	80	48	17
30	144	130	94	54	16
35	172	152	109	60	16
40	202	177	124	65	15
45	230	200	138	71	14
50	256	226	152	75	13
55	288	257	166	79	11
60	332	286	181	82	10
65	373	321	196	86	9
70	411	352	208	88	8
75	437	345	212	89	6
80	456	351	213	90	5
85	462	376	221	89	3
90	475	383	223	88	2
95	476	380	225	89	3
100	460	378	224	88	4
105	438	356	210	85	4
110	371	318	192	83	5
115	326	284	178	80	6
120	293	260	167	76	7
125	264	239	156	71	7
130	239	215	140	66	8
135	210	185	124	60	8
140	176	158	109	55	9
145	147	132	95	48	9
150	120	111	80	42	10
155	98	89	66	36	10
160	75	70	52	30	10
165	56	52	40	24	10
170	38	36	29	19	11
175	22	22	19	14	10
180	11	11	11	11	11



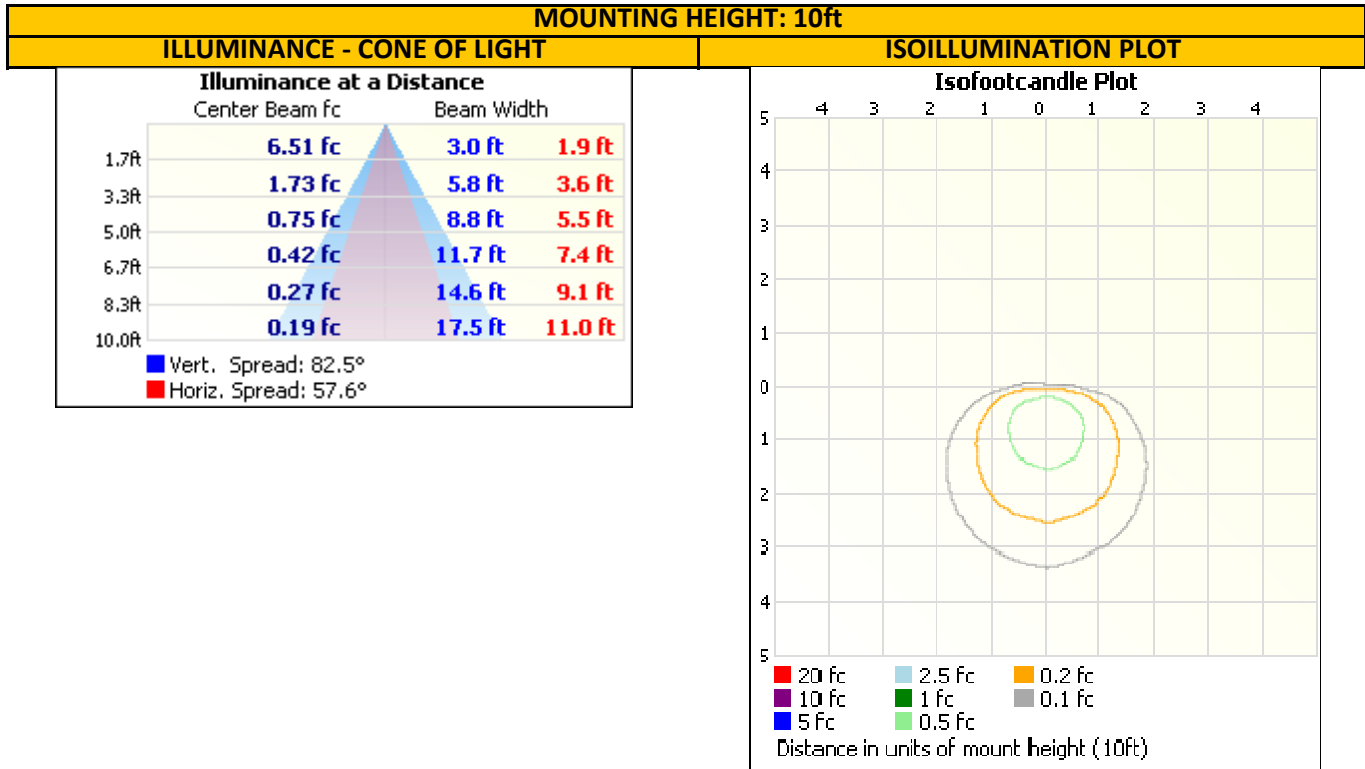
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RESULTS OF TESTS

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



ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	28.8	3.3
0-40	62.6	7.2
0-60	188.9	21.8
60-90	336.6	38.9
0-90	525.4	60.7
90-180	340.2	39.3
0-180	865.6	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	2.0	0.2
10-20	8.2	0.9
20-30	18.6	2.1
30-40	33.8	3.9
40-50	52.5	6.1
50-60	73.7	8.5
60-70	98.9	11.4
70-80	116.6	13.5
80-90	121.0	14.0
90-100	86.7	10.0
100-110	76.1	8.8
110-120	60.3	7.0
120-130	46.8	5.4
130-140	33.0	3.8
140-150	20.5	2.4
150-160	11.0	1.3
160-170	4.7	0.5
170-180	1.1	0.1

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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:

Report Reviewed By:

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Melanie Brittain
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Attachments: .IES File

REVISION HISTORY

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