

SONNEMAN - A WAY OF LIGHT TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

2566

PROJECT NUMBER

G104119984

REPORT NUMBER

104119984CRT-012

REPORT ISSUE DATE

February 24, 2020

REPORT REVISION DATE

None

PAGES

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REPORT NUMBER
104119984CRT-012

TEST OF (1) DAZZLE 8" ROUND LED SURFACE MOUNT

MODEL NUMBER
2566

REPORT RENDERED TO:
SONNEMAN - A WAY OF LIGHT
151 AIRPORT DRIVE
WAPPINGERS FALLS, NY 12590
ATTN: BRYAN CROWTHER

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

TEST DATES

February 10, 2020

In Charge of Testing:



Gerald Gray
Associate Engineer
Lighting Division

Reviewer:



Melanie Brittain
Senior Associate Engineer
Lighting Division

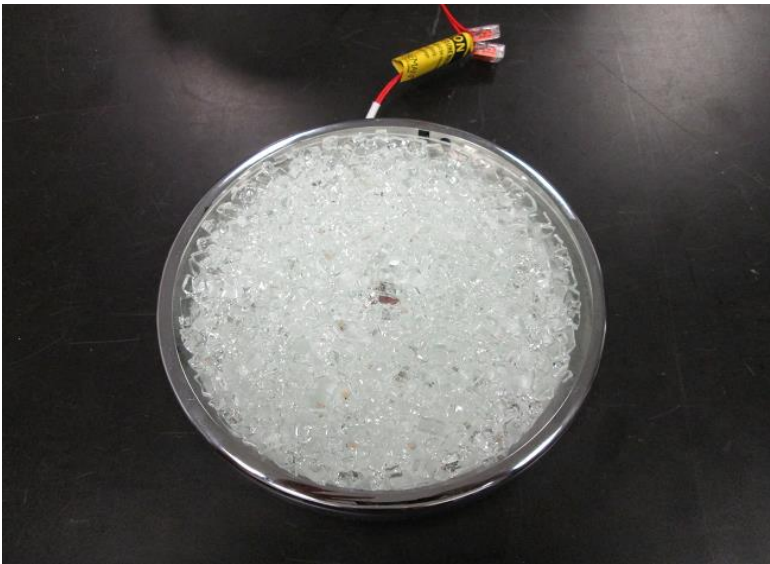
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SAMPLE INFORMATION

Control No.	Model No.	Description	Type	Received
CRT2002050800-002	2566	Dazzle 8" Round LED Surface Mount	Production	2/5/2020

SAMPLE PHOTOS



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SUMMARY OF DATA

Product Model No.:	2566
Product Description:	Dazzle 8" Round LED Surface Mount
LED Model No.:	Not Provided
Driver Model No.:	LTF TA60WA12LED
Light Source:	LED

Criteria	Results
Light Output (lumens)	574.3
Input Power (W) @ 120 (Vac)	19.16
Lumen Efficacy (lm/W)	30.0
Input Power Factor () @ 120 (Vac)	0.950

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

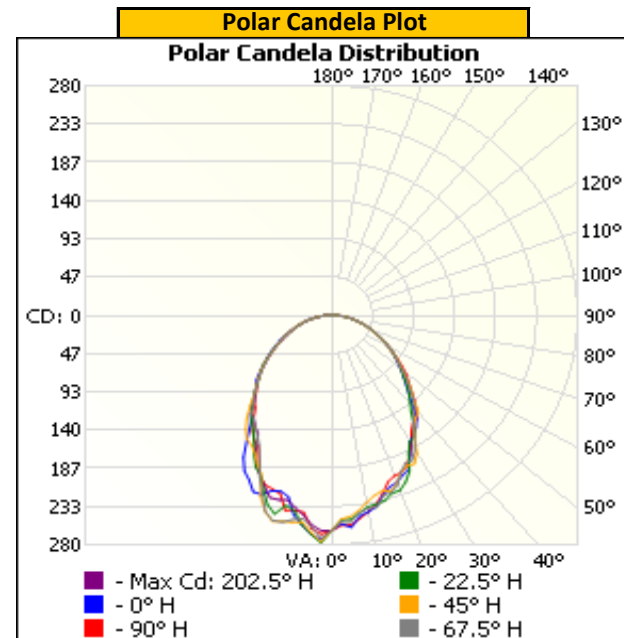
Fixture Model No.	2566	Fixture Control No.	CRT2002050800-002
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Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Up	120.00	168.0	19.16	0.950

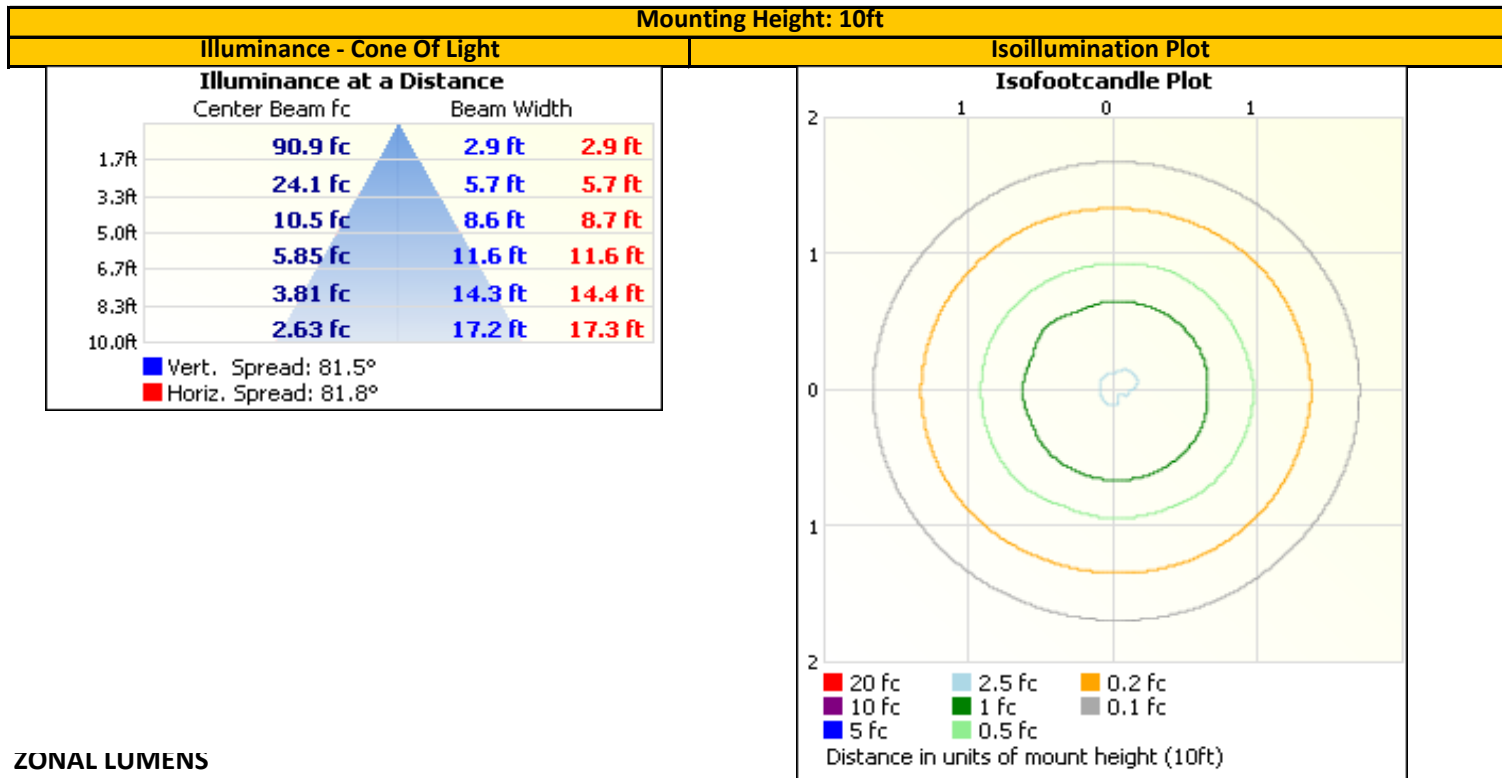
Light Output (lm)	Lumen Efficacy (lm/W)
574.3	30.0

INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	263	263	263	263	263
5	260	250	246	253	256
10	243	237	231	239	243
15	227	234	222	227	225
20	217	227	218	220	208
25	207	210	203	199	203
30	178	178	194	190	182
35	168	163	164	162	161
40	144	139	153	147	151
45	120	121	128	126	128
50	103	104	106	107	110
55	88	89	89	88	91
60	73	74	73	74	74
65	60	59	59	59	59
70	46	46	46	46	46
75	34	34	34	34	34
80	23	23	23	23	23
85	13	14	14	14	14
90	5	5	5	5	6
95	3	3	3	3	2
100	2	2	2	1	1
105	1	1	1	1	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



ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire			
0-30	185.4	32.3%			
0-40	286.9	50.0%			
0-60	461.2	80.3%			
60-90	108.5	18.9%			
70-100	54.2	9.4%			
90-120	4.6	0.8%			
0-90	569.7	99.2%			
90-180	4.6	0.8%			
0-180	574.3	100.0%			
Zone	Lumens	Total	Zone	Lumens	Total
0-10	24.3	4.2%	90-100	3.5	0.6%
10-20	66.5	11.6%	100-110	1.0	0.2%
20-30	94.6	16.5%	110-120	0.1	0.0%
30-40	101.5	17.7%	120-130	0.0	0.0%
40-50	95.1	16.6%	130-140	0.0	0.0%
50-60	79.1	13.8%	140-150	0.0	0.0%
60-70	57.9	10.1%	150-160	0.0	0.0%
70-80	35.7	6.2%	160-170	0.0	0.0%
80-90	15.0	2.6%	170-180	0.0	0.0%

Test Equipment Used:	1 through 10				
Ambient Temp (°C):	24.3	Relative Hum (%):	NA	Test Completion Date	2/10/2020

See last page for equipment details

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EQUIPMENT LIST

#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	LSI High Speed Mirror Goniometer	6440	---	1/14/2020	2/14/2020
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	5/7/2019	5/7/2020
6	M-D Building Products Digital Level	Smart Tool	L112	5/1/2019	5/1/2020
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
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