

SONNEMAN - A WAY OF LIGHT TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

2690

PROJECT NUMBER

G104119984

REPORT NUMBER

104119984CRT-009

REPORT ISSUE DATE

October 21, 2019

REPORT REVISION DATE

None



REPORT NUMBER
104119984CRT-009

TEST OF (1) ABSTRACT PANELS SMALL 2-PLATE LED SCONCE

MODEL NUMBER
2690

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.

TEST STANDARDS

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

TEST DATES

October 18, 2019

In Charge Of Tests:



Gerald Gray
Associate Engineer
Lighting Division

Report Reviewed By:



Melanie Brittain
Associate Engineer
Lighting Division

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SAMPLE INFORMATION

Control No.	Model No.	Description	Type	Received
CRT19101609-001	2690	Abstract Panels Small 2-Plate LED Sconce	Production	10/16/2019

SAMPLE PHOTOS



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SUMMARY OF DATA

Product Model No.:	2690
Product Description:	Abstract Panels Small 2-Plate LED Sconce
LED Model No.:	Not Provided
Driver Model No.:	ERP EBR015U-0350-42
Light Source:	LED

Criteria	Results
Light Output (lumens)	276.7
Input Power (W) @ 120 (Vac)	13.76
Lumen Efficacy (lm/W)	20.1
Input Power Factor () @ 120 (Vac)	0.987

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.	2690	Fixture Control No.	CRT19101609-001
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Test Notes:	N/A
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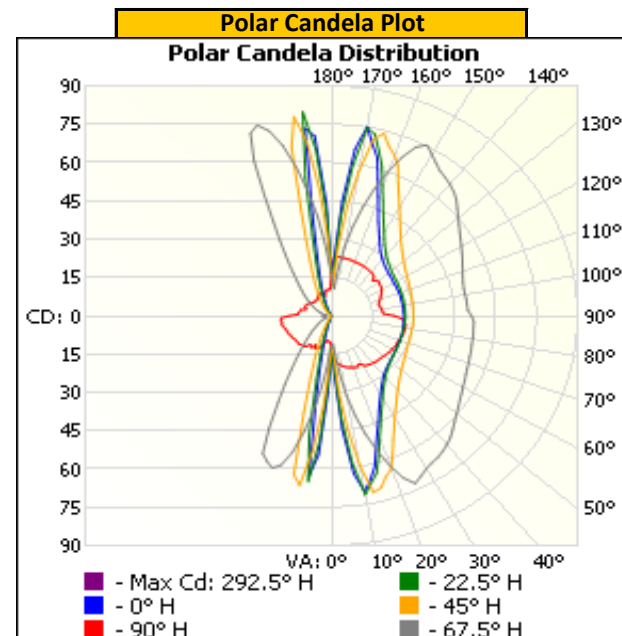
Base Orientation
Horizontal

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
120.00	116.1	13.76	0.987

Light Output (lm)	Lumen Efficacy (lm/W)
276.7	20.1

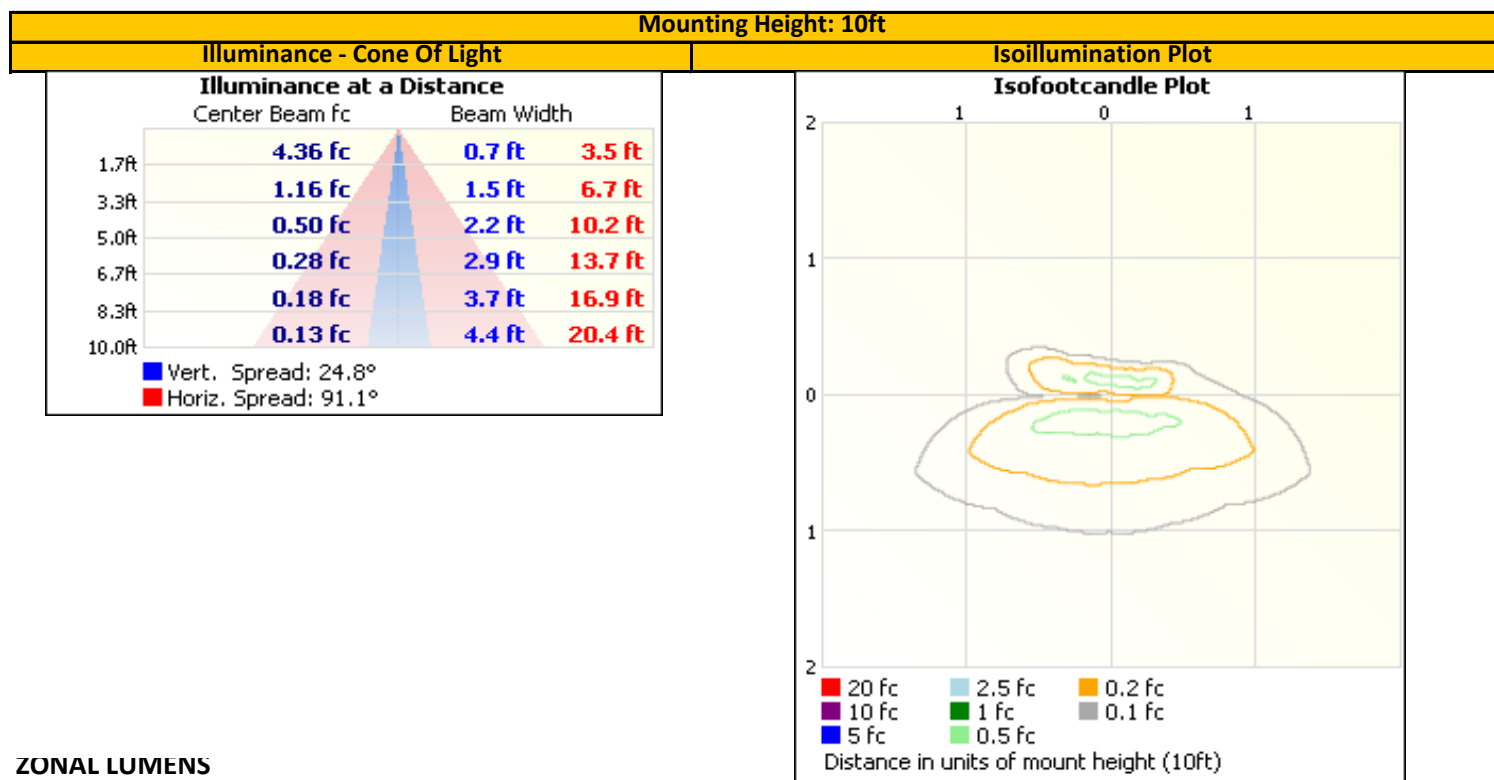
INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	13	13	13	13	13
5	44	40	30	15	18
10	70	71	59	32	20
15	61	64	70	48	21
20	49	51	64	62	22
25	41	43	53	72	22
30	36	37	46	69	22
35	32	33	41	68	23
40	30	31	38	66	24
45	29	29	35	63	24
50	28	28	33	60	25
55	27	28	32	57	25
60	27	27	31	56	26
65	27	27	30	54	26
70	27	27	30	53	27
75	27	27	30	53	27
80	27	27	30	52	27
85	26	27	30	52	27
90	26	27	30	51	23
95	26	27	30	50	19
100	26	27	30	50	18
105	26	27	30	50	18
110	26	27	31	51	19
115	26	27	31	53	20
120	26	27	32	55	21
125	26	28	33	57	22
130	27	28	34	60	22
135	28	29	36	64	22
140	29	31	39	67	22
145	31	34	44	69	23
150	35	38	50	73	23
155	40	45	58	73	23
160	50	54	67	60	23
165	64	67	74	44	23
170	75	75	58	27	23
175	45	39	27	11	23
180	17	17	17	17	17



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ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	30.6	11.1%	90-100	18.9	6.8%
0-40	46.5	16.8%	100-110	18.1	6.6%
0-60	81.4	29.4%	110-120	17.6	6.4%
60-90	58.1	21.0%	120-130	16.9	6.1%
70-100	58.2	21.0%	130-140	16.3	5.9%
90-120	54.6	19.7%	140-150	16.0	5.8%
0-90	139.5	50.4%	150-160	16.1	5.8%
90-180	137.3	49.6%	160-170	13.1	4.7%
0-180	276.7	100.0%	170-180	4.4	1.6%

Test Equipment Used:	1 thru 10				
Ambient Temp (°C):	24.4	Relative Hum (%):	NA	Test Completion Date	10/18/2019

See last page for equipment details

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EQUIPMENT LIST

[illegible]