

SONNEMAN - A WAY OF LIGHT

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

2303

PROJECT NUMBER

G103590523

REPORT NUMBER

103590523CRT-011

ISSUE DATE

August 10, 2018

REVISION DATE

None

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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TEST REPORT**REPORT NO.: 103590523CRT-011****REPORT DATE: August 10, 2018**

TEST OF (1) DOUBLE CORONA 24" LED RING PENDANT

MODEL NO. 2303

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-00895529.

STANDARDS USED

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

SAMPLE INFORMATION

CONTROL NO.	MODEL/SERIAL NO.	DESCRIPTION	TYPE	RECEIVED
CRT1808021341-001	2303	Luminaire	Production	8/2/2018

DATE OF TESTS

August 8, 2018.

TEST REPORT

REPORT NO.: 103590523CRT-011

REPORT DATE: August 10, 2018

SUMMARY

MODEL NO:	2303
DESCRIPTION:	Double Corona 24" LED Ring Pendant
LED MODEL NO:	Proprietary-Not Reported
DRIVER MODEL NO:	ERP ESS030W-0900-32

CRITERIA	RESULTS
Lumen Output (lumens)	3481.2
Input Power (W) @ 120 (VAC)	57.50
Lumen Efficacy (lm/W)	60.5
Input Power Factor () @ 120 (VAC)	0.982

EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	CAL DUE DATE	DATE USED
LSI High Speed Mirror Goniometer	6440	---	9/7/2018	8/8/2018
Elgar AC Power Supply	CW1251	---	VBU	8/8/2018
Sorenson DC Power Supply	XG 150-10	---	VBU	8/8/2018
Yokogawa Power Analyzer	WT210	E464	5/3/2019	8/8/2018
Omega Thermometer	DPi8-C24	M263	5/3/2019	8/8/2018
M-D Building Products Digital Level	Smart Tool	L112	4/21/2019	8/8/2018
NIST Luminous Intensity Standard Source	NBS10322	N1427	1/9/2019	8/8/2018
NIST Luminous Intensity Standard Source	NBS10332	N1435	1/9/2019	8/8/2018
NIST Luminous Intensity Standard Source	NBS10265	N1437	1/9/2019	8/8/2018
NIST Luminous Flux Standard Source	NBS10428	N1424	1/11/2019	8/8/2018

TEST REPORT**REPORT NO.: 103590523CRT-011****REPORT DATE: August 10, 2018****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 (candelas) 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.

TEST REPORT

REPORT NO.: 103590523CRT-011

REPORT DATE: August 10, 2018

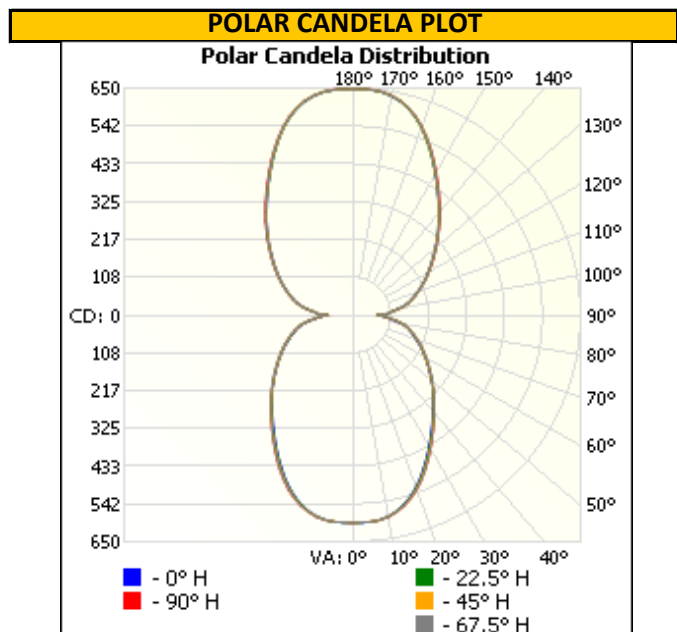
RESULTS OF TESTS

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)
CRT1808021341-001	Base Up	120.05	487.7	57.50	0.982	3481.2	60.5

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	595	595	595	595	595
5	594	594	594	595	595
10	585	586	586	587	588
15	562	563	565	566	566
20	526	528	531	532	533
25	481	483	486	489	489
30	436	438	441	443	444
35	394	396	398	400	400
40	357	359	360	361	361
45	325	326	326	328	327
50	294	295	295	297	295
55	264	266	266	268	266
60	238	240	240	242	240
65	214	216	216	218	217
70	190	192	193	195	193
75	168	170	171	172	169
80	143	145	145	149	145
85	105	108	107	109	104
90	70	70	70	71	70
95	111	110	110	112	111
100	146	149	149	150	150
105	173	175	175	177	176
110	197	199	199	200	200
115	223	224	224	226	226
120	249	250	250	251	252
125	277	278	278	280	281
130	309	311	310	312	313
135	344	346	344	347	348
140	382	383	382	384	387
145	424	424	424	426	429
150	471	470	471	474	476
155	522	522	523	526	526
160	573	573	574	576	576
165	613	614	615	616	615
170	637	638	639	640	639
175	648	648	648	648	648
180	649	649	649	649	649



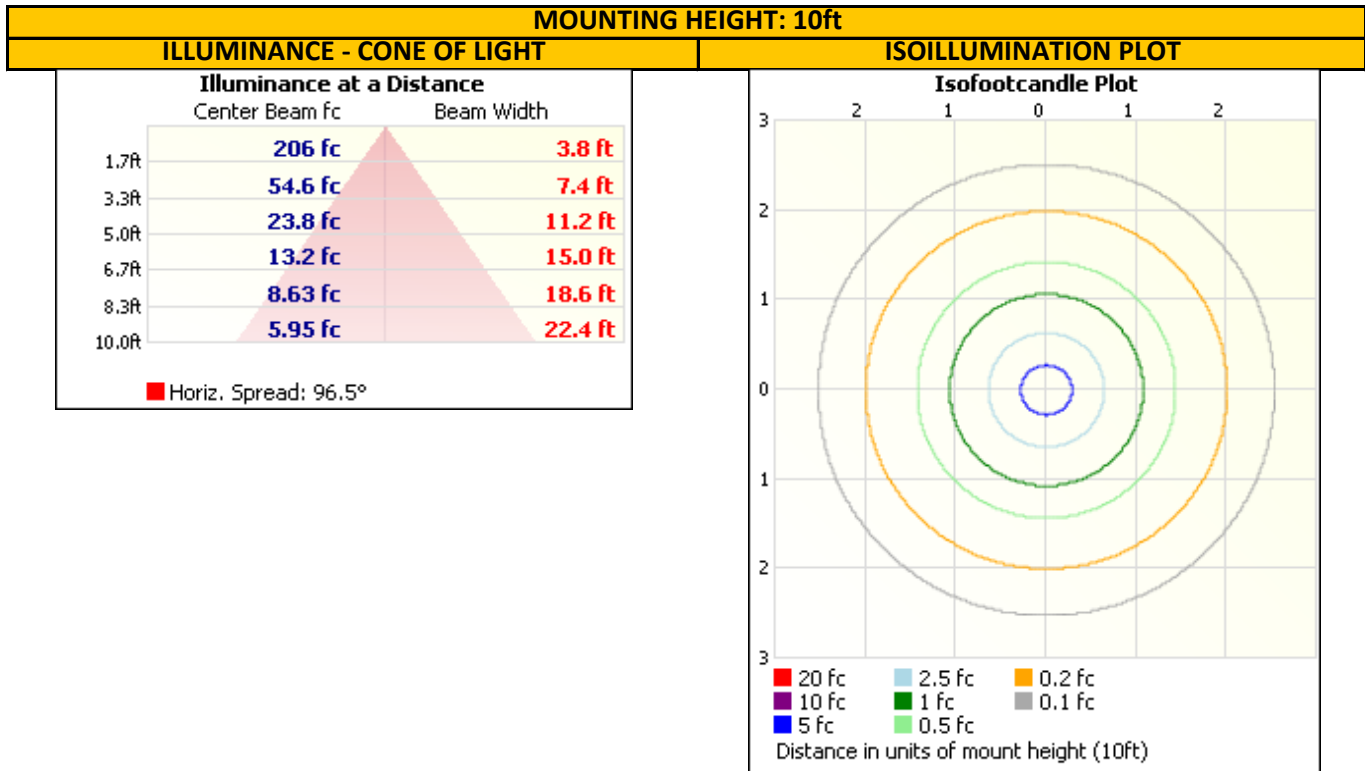
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REPORT NO.: 103590523CRT-011

REPORT DATE: August 10, 2018

RESULTS OF TESTS

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



ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	438.3	12.6
0-40	687.6	19.8
0-60	1179.0	33.9
60-90	513.2	14.7
0-90	1692.3	48.6
90-180	1788.9	51.4
0-180	3481.2	100.0

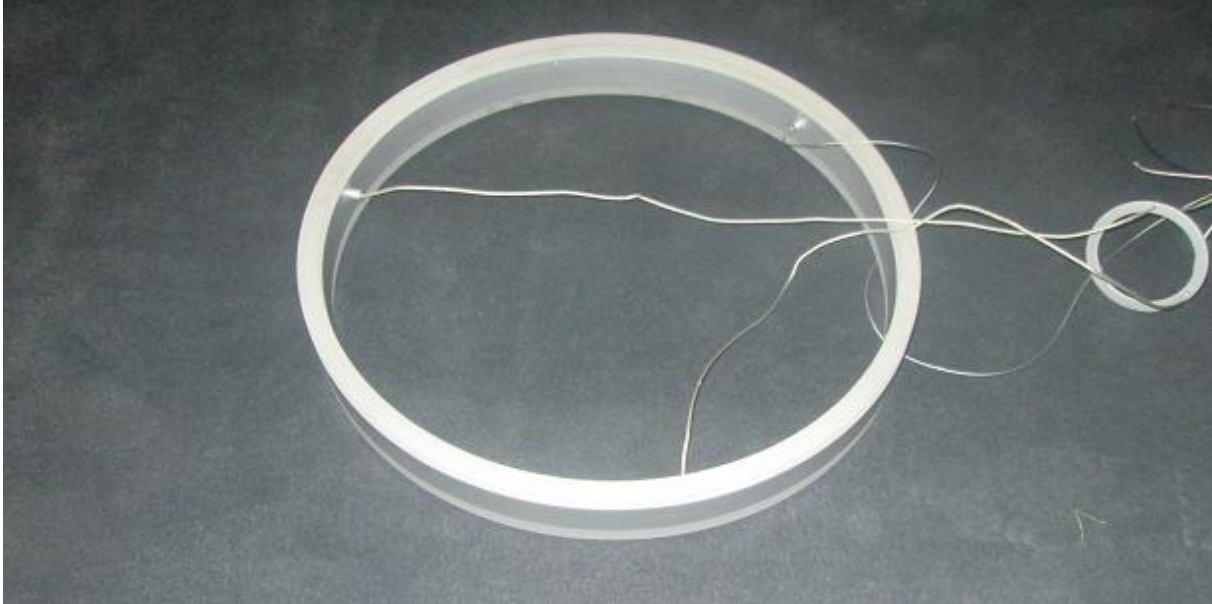
ZONE	LUMENS	% LUMINAIRE
0-10	56.5	1.6
10-20	158.4	4.6
20-30	223.4	6.4
30-40	249.3	7.2
40-50	252.3	7.2
50-60	239.1	6.9
60-70	214.5	6.2
70-80	179.7	5.2
80-90	119.0	3.4
90-100	122.8	3.5
100-110	184.8	5.3
110-120	222.7	6.4
120-130	250.2	7.2
130-140	267.2	7.7
140-150	266.5	7.7
150-160	240.7	6.9
160-170	172.3	4.9
170-180	61.5	1.8

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REPORT NO.: 103590523CRT-011

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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:

Handwritten signature of Jerry Gray in black ink.

Handwritten signature of Ryan Siddon in black ink.

Jerry Gray
Associate Engineer
Lighting Division

Ryan Siddon
Project Engineer
Lighting Division

Attachments: IES File

REVISION HISTORY

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