



8165 E Kaiser Blvd. Anaheim, CA 92808
 p. 714.282.2270
 f. 714.676.5558

Report No: L101605103

Date: 11/7/2016



NVLAP LAB CODE 200927-0

Report No: L101605103

Prepared For: Number Eight Lighting Company
 526 Portal Street, Cotati, CA 94931

Model Number: 803/J2-HI-15-XX/DIM1-8-1000/FS-LG-P-1-WH/NL

Test: Photometric/Electrical Test

Standards Used: Appropriate part or all test guidelines were used for test performed:
IESNA LM79: 2008 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI NEMA ANSLG C78.377: 2008 Specification of the Chromaticity of Solid State Lighting Products
ANSI C82.77:2002: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Catalog number is 803/J2-HI-15-XX/DIM1-8-1000/FS-LG-P-1-WH/NL . Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 10/31/16

Date of Tests: 11/7/16 - 11/7/16

Seasoning of Sample: No seasoning was performed in accordance with IESNA LM-79.

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S1	11/18/16
Xitron Power Analyzer	2503AH	MT-EL01	11/30/16
ITECH DC Power Supply	IT6122	PSDC-03-S1	11/17/16
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/24/16
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

Test Summary

Manufacturer:	Number Eight Lighting Company
Model Number:	803/J2-HI-15-XX/DIM1-8-1000/FS-LG-P-1-WH/NL
Driver Model Number:	INTUITIVE SYSTEMS ISD-601-1050-15-D
Total Lumens:	946.00
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.13
Input Power (W):	15.01
Input Power Factor:	0.98
Current ATHD @ 120V(%):	9%
Current ATHD @ 277V(%):	N/A
Efficacy:	63
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	1:30
Off State Power(W):	0.00

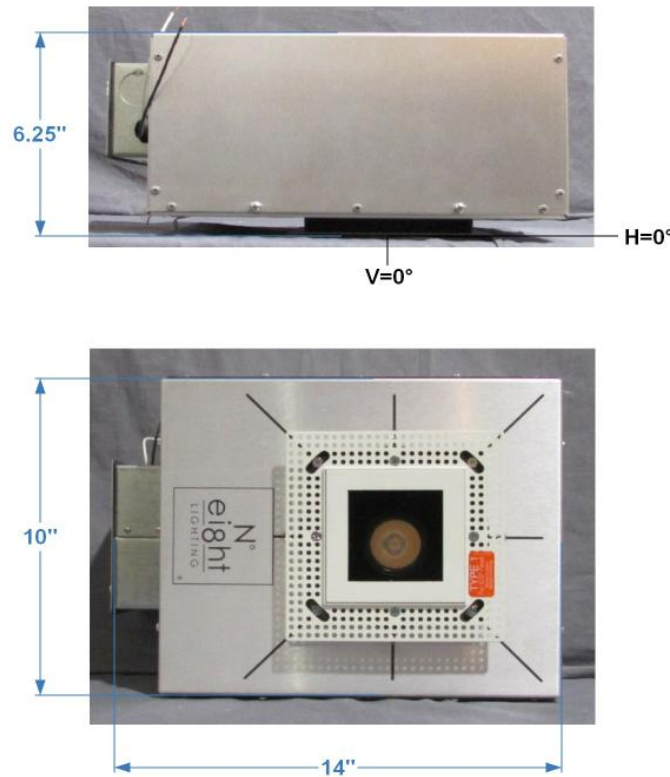


FIG.1 LUMINAIRE

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

Test Methods

Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

Report Prepared by : Dennis Malonzo

Test Report Released by:



Jeff Ahn
Engineering Manager

Test Report Reviewed by:



Steve Kang
Quality Assurance

**Attached are photometric data reports. Total number of pages: 9*



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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605103.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L101605103
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 11/03/2016
 [MANUFAC] Number Eight Lighting Company
 [LUMCAT] 803/J2-HI-15-XX/DIM1-8-1000/FS-LG-P-1-WH/NL
 [LUMINAIRE] LED Recessed Adjustable Downlight,40° Beam Spread,2.75" x 2.75" Aperture Trim
 [BALLASTCAT] INTUITIVE SYSTEMS ISD-601-1050-15-D
 [LAMPPOSITION] 0,0
 [LAMPCAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 15.01W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	946
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	63
Total Luminaire Watts	15.01
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.32
Spacing Criterion (90-270)	0.32
Spacing Criterion (Diagonal)	0.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.23 ft
Luminous Width (90-270)	0.23 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2444	5319	2587
55	709	1063	709
65	962	962	962
75	1571	785	1571
85	2332	2332	4665

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605103.IES**

CANDELA TABULATION

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0.0	5781	5781	5781	5781	5781	5781	5781	5781	5781	5781
1.0	5756	5756	5757	5757	5757	5757	5757	5757	5757	5758
3.0	5406	5406	5405	5405	5404	5404	5403	5404	5403	5402
5.0	4732	4733	4732	4730	4729	4726	4724	4723	4721	4717
7.0	3853	3852	3853	3853	3852	3852	3852	3851	3849	3849
9.0	2971	2971	2974	2976	2977	2978	2981	2983	2985	2985
11.0	2211	2213	2216	2223	2228	2233	2240	2243	2247	2247
13.0	1640	1642	1650	1659	1670	1680	1691	1697	1698	1696
15.0	1222	1225	1234	1247	1258	1270	1279	1285	1286	1285
17.0	922	924	933	942	952	962	971	976	977	978
19.5	644	644	647	651	655	662	672	676	682	683
22.5	402	401	403	406	410	416	423	428	433	435
25.5	251	250	251	254	257	260	267	270	274	275
29.0	147	148	150	151	154	155	157	162	163	163
33.0	83	83	84	85	87	89	89	91	92	92
37.5	38	38	39	40	43	45	47	50	50	51
42.5	12	12	13	14	15	18	20	23	25	26
47.5	5	5	5	5	6	6	7	9	10	11
55.0	2	2	2	3	3	3	3	3	3	3
65.0	2	2	2	2	2	2	2	2	2	2
75.0	2	2	2	2	2	2	1	1	1	1
85.0	1	1	1	1	1	1	1	1	1	1
90.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles Horizontal Angles

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>
0.0	5781	5781	5781	5781	5781	5781	5781	5781	5781
1.0	5757	5757	5757	5758	5757	5758	5758	5759	5759
3.0	5403	5402	5401	5401	5401	5401	5400	5401	5403
5.0	4716	4713	4710	4708	4707	4705	4703	4702	4699
7.0	3846	3842	3838	3833	3825	3819	3816	3813	3813
9.0	2982	2980	2972	2961	2950	2941	2932	2926	2924
11.0	2245	2238	2229	2216	2204	2193	2182	2174	2172
13.0	1691	1683	1672	1661	1648	1635	1625	1618	1617
15.0	1279	1270	1261	1252	1244	1234	1226	1222	1221
17.0	975	968	960	952	946	939	933	929	929
19.5	684	681	677	670	663	658	650	644	644
22.5	434	431	429	422	417	414	410	408	410
25.5	274	272	269	264	262	260	258	256	258
29.0	164	162	160	159	158	155	156	155	154
33.0	93	92	92	91	90	87	85	85	83
37.5	51	50	47	44	42	40	39	38	37
42.5	24	22	20	17	16	14	13	13	13
47.5	11	9	8	7	6	5	5	5	5
55.0	3	3	3	3	3	3	2	2	2
65.0	2	2	2	2	2	2	2	2	2
75.0	1	1	2	2	2	2	2	2	2
85.0	1	1	1	2	2	2	2	2	2
90.0	0	0	0	0	0	0	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605103.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	728.40	N.A.	77.00
0-30	874.55	N.A.	92.50
0-40	921.07	N.A.	97.40
0-60	939.78	N.A.	99.40
0-80	943.91	N.A.	99.80
0-90	945.87	N.A.	100.00
10-90	618.25	N.A.	65.40
20-40	192.67	N.A.	20.40
20-50	208.28	N.A.	22.00
40-70	20.96	N.A.	2.20
60-80	4.13	N.A.	0.40
70-80	1.89	N.A.	0.20
80-90	1.96	N.A.	0.20
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	945.87	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	327.62
10-20	400.78
20-30	146.14
30-40	46.52
40-50	15.62
50-60	3.10
60-70	2.24
70-80	1.89
80-90	1.96
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

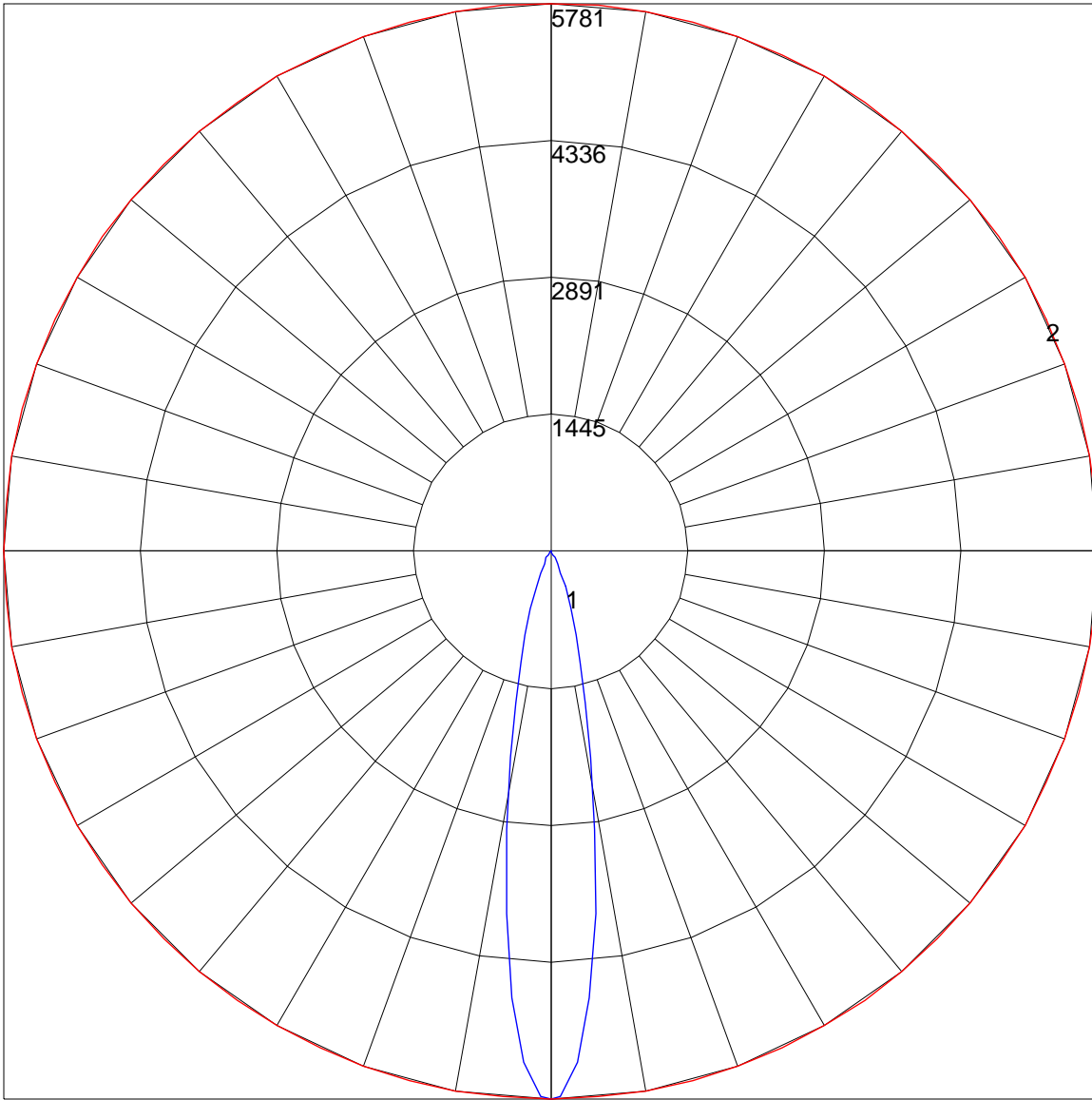
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	115	113	111	109	112	110	109	107	106	105	104	103	102	101	99	99	98	96
2	111	107	104	101	109	105	103	100	102	100	98	99	98	96	97	95	94	93
3	107	102	99	96	105	101	98	95	99	96	93	96	94	92	94	92	91	89
4	104	98	94	91	102	97	93	90	95	92	89	93	91	88	92	89	87	86
5	101	94	90	87	99	94	90	87	92	89	86	90	88	85	89	87	85	83
6	97	91	87	84	96	90	86	83	89	86	83	88	85	82	87	84	82	81
7	95	88	84	81	94	87	83	80	86	83	80	85	82	80	84	81	79	78
8	92	85	81	78	91	85	81	78	84	80	78	83	80	77	82	79	77	76
9	89	83	78	76	89	82	78	75	81	78	75	81	77	75	80	77	75	74
10	87	80	76	73	86	80	76	73	79	76	73	79	75	73	78	75	73	72

POLAR GRAPH



Maximum Candela = 5781 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

SAMPLE Illuminance cone diagram

Mounting Height = 12 ft.

