



8165 E Kaiser Blvd. Anaheim, CA 92808
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Report No: L101605102

Date: 11/7/2016



NVLAP LAB CODE 200927-0

Report No: L101605102

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

Model Number: 803/J2-HI-25-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-25-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-25-XX/DIM1-8-1000/FS-LG-P-1-WH/NL
Driver Model Number:	INTUITIVE SYSTEMS ISD-601-1050-15-D
Total Lumens:	820.00
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.13
Input Power (W):	15.01
Input Power Factor:	0.98
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	55
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:30
Total Operating Time (Hours):	1:15
Off State Power(W):	0.00

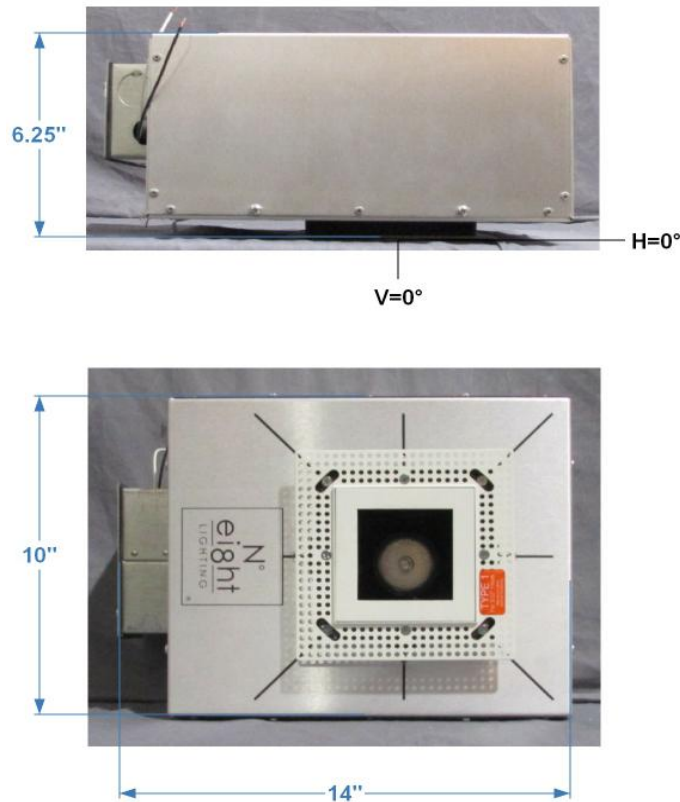


FIG.1 LUMINAIRE

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



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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:

Test Report Reviewed by:

Jeff Ahn
 Engineering Manager

Steve Kang
 Quality Assurance

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

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



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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605102.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L101605102
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 11/03/2016
 [MANUFAC] Number Eight Lighting Company
 [LUMCAT] 803/J2-HI-25-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	820
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	55
Total Luminaire Watts	15.01
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.48
Spacing Criterion (90-270)	0.50
Spacing Criterion (Diagonal)	0.50
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	4312	9775	4456
55	1063	1772	1063
65	481	962	481
75	785	785	785
85	2332	2332	2332

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605102.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	2690	2690	2690	2690	2690	2690	2690	2690	2690	2690
1.0	2683	2683	2683	2683	2683	2683	2684	2684	2684	2684
3.0	2612	2612	2612	2613	2613	2613	2613	2613	2613	2614
5.0	2466	2465	2467	2467	2468	2468	2469	2469	2469	2470
7.0	2272	2273	2274	2274	2275	2276	2277	2278	2280	2280
9.0	2039	2038	2039	2040	2041	2042	2044	2047	2048	2049
11.0	1778	1778	1779	1781	1783	1785	1788	1791	1792	1794
13.0	1518	1517	1519	1521	1524	1527	1530	1534	1537	1539
15.0	1263	1263	1264	1266	1269	1273	1277	1281	1284	1287
17.0	1021	1021	1022	1024	1026	1029	1033	1037	1040	1043
19.5	751	751	751	752	753	755	757	759	762	763
22.5	489	489	489	489	489	489	490	490	491	492
25.5	312	313	313	314	314	315	317	317	318	318
29.0	185	185	186	187	188	189	189	192	192	193
33.0	110	110	110	110	111	112	113	113	114	114
37.5	57	57	59	62	66	68	69	70	71	71
42.5	23	24	24	26	28	31	36	42	44	45
47.5	7	7	7	8	10	12	15	18	21	23
55.0	3	3	3	3	3	3	4	4	4	5
65.0	1	1	1	1	1	1	1	2	2	2
75.0	1	1	1	1	1	1	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	2690	2690	2690	2690	2690	2690	2690	2690	2690
1.0	2684	2685	2685	2685	2686	2686	2686	2686	2686
3.0	2614	2615	2615	2616	2616	2616	2616	2616	2616
5.0	2471	2470	2471	2472	2472	2472	2473	2473	2473
7.0	2281	2283	2283	2284	2284	2285	2285	2286	2285
9.0	2050	2052	2054	2055	2056	2056	2058	2057	2057
11.0	1796	1797	1798	1800	1801	1802	1802	1802	1802
13.0	1541	1543	1543	1545	1545	1546	1547	1546	1547
15.0	1289	1290	1291	1291	1291	1292	1292	1292	1291
17.0	1045	1045	1045	1045	1045	1044	1044	1044	1044
19.5	765	765	766	766	766	766	766	766	766
22.5	493	494	495	496	496	498	498	500	501
25.5	318	319	319	319	319	318	318	318	318
29.0	193	193	192	192	191	190	189	189	188
33.0	114	114	113	113	112	111	110	109	109
37.5	71	70	69	66	62	57	54	53	53
42.5	43	39	34	30	28	26	25	24	24
47.5	21	18	16	13	11	9	8	7	7
55.0	5	4	4	3	3	3	3	3	3
65.0	2	2	2	1	1	1	1	1	1
75.0	1	1	1	1	1	1	1	1	1
85.0	1	1	1	1	1	1	1	1	1
90.0	0	0	0	0	0	0	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605102.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	553.19	N.A.	67.40
0-30	725.74	N.A.	88.50
0-40	784.82	N.A.	95.70
0-60	815.56	N.A.	99.40
0-80	819.05	N.A.	99.80
0-90	820.41	N.A.	100.00
10-90	638.17	N.A.	77.80
20-40	231.63	N.A.	28.20
20-50	257.14	N.A.	31.30
40-70	33.04	N.A.	4.00
60-80	3.49	N.A.	0.40
70-80	1.20	N.A.	0.10
80-90	1.35	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	820.41	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	182.23
10-20	370.96
20-30	172.55
30-40	59.08
40-50	25.51
50-60	5.23
60-70	2.29
70-80	1.20
80-90	1.35
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

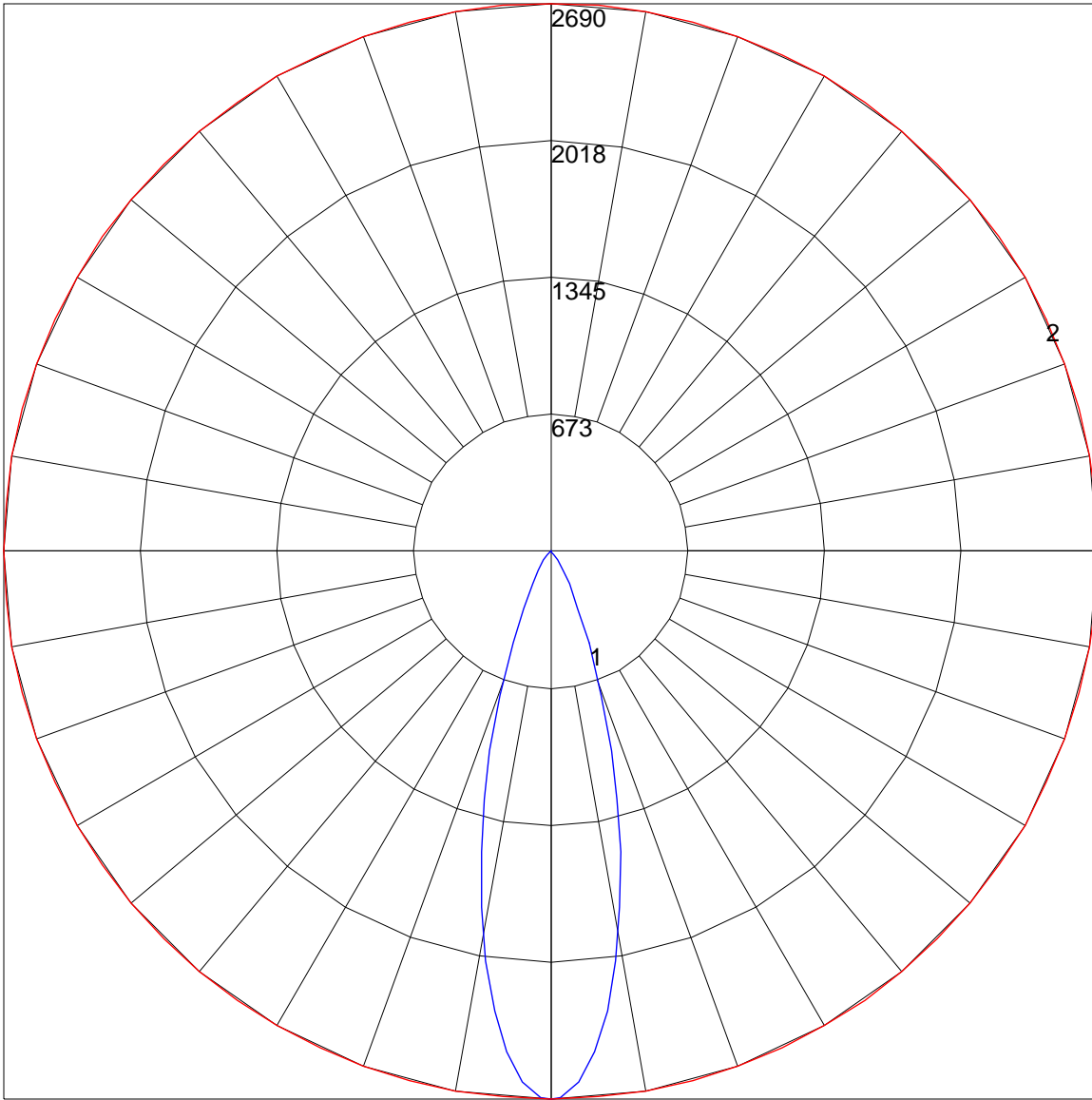
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605102.IES

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
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95	95
2	110	106	102	100	108	104	101	98	101	98	96	98	96	94	95	94	92	91	91
3	106	100	96	93	104	99	95	92	96	93	91	94	92	89	92	90	88	87	87
4	102	95	91	87	100	94	90	87	92	89	86	90	87	85	89	86	84	83	83
5	98	91	86	83	96	90	86	82	89	85	82	87	84	81	85	83	80	79	79
6	94	87	82	79	93	86	82	78	85	81	78	84	80	77	82	79	77	76	76
7	91	83	79	75	90	83	78	75	82	78	75	81	77	74	80	76	74	73	73
8	88	80	75	72	87	80	75	72	79	74	72	78	74	71	77	73	71	70	70
9	85	77	72	69	84	77	72	69	76	72	69	75	71	69	74	71	68	67	67
10	82	74	70	66	81	74	69	66	73	69	66	72	69	66	72	68	66	65	65

POLAR GRAPH



Maximum Candela = 2690 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.

