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Report No: L101605115

Date: 12/1/2016



NVLAP LAB CODE 200927-0

**Report No:** L101605115

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

**Model Number:** 803/J2-HI-25-XX/DIM1-8-1000 /FS-P-1-WH

**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-P-1-WH . 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:** 12/1/16 - 12/1/16

**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**

<b>Manufacturer:</b>	Number Eight Lighting Company
<b>Model Number:</b>	803/J2-HI-25-XX/DIM1-8-1000 /FS-P-1-WH
<b>Driver Model Number:</b>	INTUITIVE SYSTEMS ISD-601-1050-15-D
<b>Total Lumens:</b>	734.00
<b>Input Voltage (VAC/60Hz):</b>	120.00
<b>Input Current (Amp):</b>	0.13
<b>Input Power (W):</b>	15.00
<b>Input Power Factor:</b>	0.98
<b>Current ATHD @ 120V(%):</b>	8%
<b>Current ATHD @ 277V(%):</b>	N/A
<b>Efficacy:</b>	49
<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	0:30
<b>Total Operating Time (Hours):</b>	1:15
<b>Off State Power(W):</b>	0.00

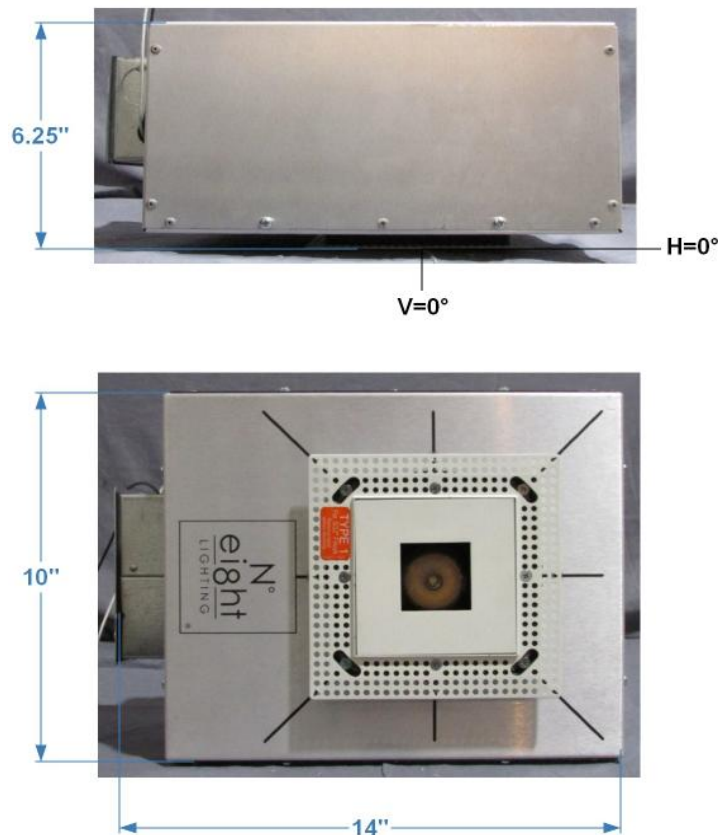


FIG.1 LUMINAIRE

\*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 : L101605115.IES**

## DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] L101605115  
 [TESTLAB] LIGHT LABORATORY, INC.  
 [ISSUEDATE] 12/1/2016  
 [MANUFAC] Number Eight Lighting Company  
 [LUMCAT] 803/J2-HI-25-XX/DIM1-8-1000/FS-P-1-WH  
 [LUMINAIRE] LED Recessed Adjustable 25° Beam Spread, 0°Aiming Angle, 1.75" x 1.75" 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, 15.00  
 [TEST PROCEDURE] IESNA:LM-79-08

## CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	734
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	49
Total Luminaire Watts	15
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.48
Spacing Criterion (90-270)	0.48
Spacing Criterion (Diagonal)	0.50
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.15 ft
Luminous Width (90-270)	0.15 ft
Luminous Height	0.00 ft

## LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3042	4056	3042
55	833	1667	833
65	1131	1131	1131
75	1847	1847	1847
85	5484	5484	5484

**IES INDOOR REPORT  
PHOTOMETRIC FILENAME : L101605115.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>
<b>0.0</b>	2654	2654	2654	2654	2654	2654	2654	2654	2654	2654
<b>1.0</b>	2648	2648	2648	2648	2648	2648	2648	2648	2648	2648
<b>3.0</b>	2569	2569	2569	2570	2570	2570	2569	2568	2568	2568
<b>5.0</b>	2425	2425	2425	2426	2426	2426	2426	2425	2425	2424
<b>7.0</b>	2224	2225	2225	2226	2226	2226	2225	2225	2224	2223
<b>9.0</b>	1984	1985	1986	1986	1987	1987	1987	1986	1986	1985
<b>11.0</b>	1721	1722	1722	1723	1724	1725	1725	1727	1727	1726
<b>13.0</b>	1464	1464	1465	1466	1467	1469	1470	1472	1473	1473
<b>15.0</b>	1220	1220	1220	1221	1222	1224	1225	1226	1228	1227
<b>17.0</b>	987	986	987	988	989	990	991	992	993	992
<b>19.5</b>	727	726	726	726	726	726	726	725	724	723
<b>22.5</b>	470	470	470	471	470	470	469	468	466	465
<b>25.5</b>	266	267	270	275	283	291	297	300	299	299
<b>29.0</b>	122	122	124	127	133	142	154	166	174	175
<b>33.0</b>	46	47	47	48	50	53	59	69	79	81
<b>37.5</b>	16	17	17	18	19	20	21	22	23	26
<b>42.5</b>	6	6	7	7	7	8	8	8	8	8
<b>47.5</b>	3	3	3	3	3	3	4	4	4	4
<b>55.0</b>	1	1	1	1	2	2	2	2	2	2
<b>65.0</b>	1	1	1	1	1	1	1	1	1	1
<b>75.0</b>	1	1	1	1	1	1	1	1	1	1
<b>85.0</b>	1	1	1	1	1	1	1	1	1	1
<b>90.0</b>	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>
<b>0.0</b>	2654	2654	2654	2654	2654	2654	2654	2654	2654
<b>1.0</b>	2648	2648	2647	2647	2647	2647	2647	2648	2647
<b>3.0</b>	2568	2567	2566	2566	2566	2566	2565	2565	2565
<b>5.0</b>	2423	2422	2420	2419	2418	2417	2416	2415	2415
<b>7.0</b>	2222	2220	2219	2217	2215	2212	2210	2209	2208
<b>9.0</b>	1982	1981	1978	1976	1973	1970	1968	1967	1967
<b>11.0</b>	1725	1723	1721	1717	1713	1710	1708	1705	1705
<b>13.0</b>	1472	1469	1465	1461	1458	1454	1451	1449	1448
<b>15.0</b>	1226	1223	1220	1216	1212	1208	1205	1203	1203
<b>17.0</b>	990	987	984	981	977	974	971	970	969
<b>19.5</b>	721	719	718	716	715	713	711	710	710
<b>22.5</b>	464	464	463	461	457	452	449	448	447
<b>25.5</b>	298	294	286	276	271	265	262	260	258
<b>29.0</b>	167	157	147	138	130	123	118	116	115
<b>33.0</b>	77	68	59	52	48	45	44	43	43
<b>37.5</b>	26	23	21	19	18	17	16	16	16
<b>42.5</b>	8	8	8	8	7	7	6	6	6
<b>47.5</b>	4	4	4	3	3	3	3	3	3
<b>55.0</b>	2	2	2	2	2	1	1	1	1
<b>65.0</b>	1	1	1	1	1	1	1	1	1
<b>75.0</b>	1	1	1	1	1	1	1	1	1
<b>85.0</b>	1	1	1	1	1	1	1	1	1
<b>90.0</b>	0	0	0	0	0	0	0	0	0

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**PHOTOMETRIC FILENAME : L101605115.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	531.98	N.A.	72.50
0-30	688.54	N.A.	93.90
0-40	721.60	N.A.	98.40
0-60	730.03	N.A.	99.50
0-80	732.30	N.A.	99.80
0-90	733.65	N.A.	100.00
10-90	555.67	N.A.	75.70
20-40	189.63	N.A.	25.80
20-50	196.45	N.A.	26.80
40-70	9.66	N.A.	1.30
60-80	2.27	N.A.	0.30
70-80	1.03	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	733.65	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	177.98
10-20	353.99
20-30	156.56
30-40	33.07
40-50	6.82
50-60	1.60
60-70	1.24
70-80	1.03
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

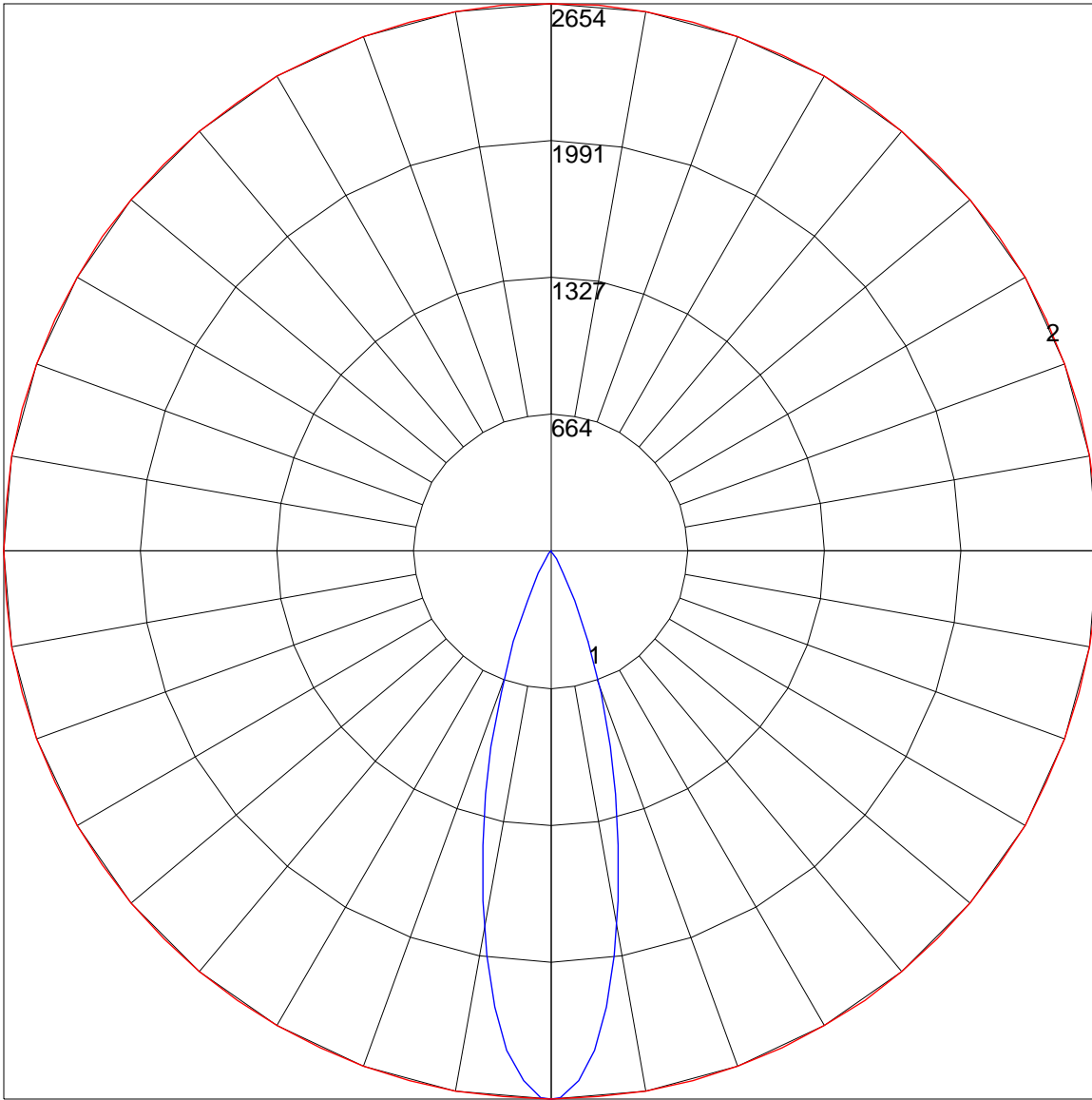
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	0
1	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	96	0
2	110	106	103	101	108	105	102	99	102	99	97	99	97	95	96	95	93	92	0
3	106	101	97	94	105	100	96	94	98	95	92	95	93	91	93	91	89	88	0
4	103	97	93	89	101	96	92	89	94	90	88	92	89	87	90	88	86	85	0
5	99	93	88	85	98	92	88	85	90	87	84	89	86	83	87	85	82	81	0
6	96	89	84	81	95	88	84	81	87	83	80	86	82	80	85	82	79	78	0
7	93	86	81	78	92	85	81	78	84	80	77	83	79	77	82	79	77	75	0
8	90	82	78	75	89	82	78	75	81	77	74	80	77	74	79	76	74	73	0
9	87	80	75	72	86	79	75	72	78	74	72	78	74	71	77	74	71	70	0
10	84	77	72	69	83	76	72	69	76	72	69	75	72	69	74	71	69	68	0

POLAR GRAPH



Maximum Candela = 2654 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.

