



8165 E Kaiser Blvd. Anaheim, CA 92808  
www.lightlaboratory.com

Report No: L121706408



**Report No:** L121706408 **Issue Date:** 1/5/2018

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

**Model Number:** 803/J2-HI-15/DIM1-8-700 with FR-P-1-WH trim (35° Aiming Angle)

**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. Received in working and undamaged condition. No modifications were necessary.

**Testing Condition:** Fixture is tested with no special conditions.

**Sample Arrival Date:** 1/2/18

**Date of Tests:** 1/3/18 - 1/5/18

**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-S4	1/9/19
BK PRECISION	1747	PS-DC04	1/10/19
Fluke Digital Thermometer	52K/J	MT-TP05	1/10/19
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-15/DIM1-8-700 with FR-P-1-WH trim (35° Aiming Angle)
<b>Driver Model Number:</b>	IntuitiveSystems ISD-701-1000-15-D
<b>Total Lumens:</b>	563.99
<b>Input Voltage (VAC/60Hz):</b>	120.00
<b>Input Current (Amp):</b>	0.081
<b>Input Power (W):</b>	9.50
<b>Input Power Factor:</b>	0.97
<b>Current ATHD @ 120V(%):</b>	8%
<b>Current ATHD @ 277V(%):</b>	N/A
<b>Efficacy:</b>	59
<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	0:45
<b>Total Operating Time (Hours):</b>	1:20

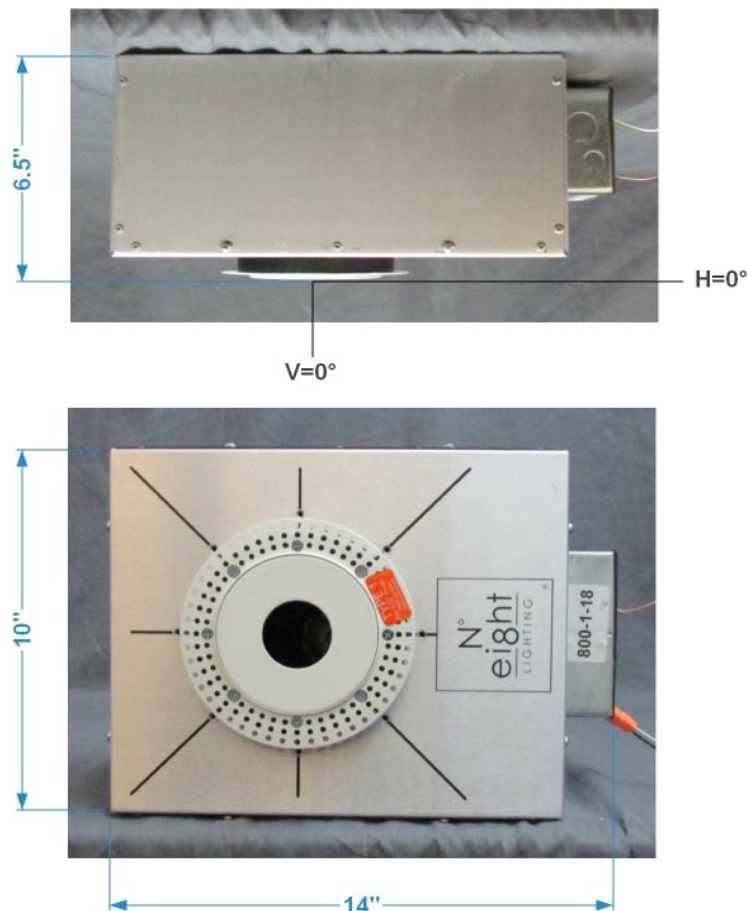


FIG. 1 LUMINAIRE

\*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 :                     Joseph Shin                    

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: 10*



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# Photometric Test Report

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L121706408.IES**

## DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] L121706408  
 [TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
 [ISSUE DATE] 1/5/2018  
 [MANUFAC] Number Eight Lighting Company  
 [LUMCAT] 803/J2-HI-15/DIM1-8-700 with FR-P-1-WH trim (35° Aiming Angle)  
 [LUMINAIRE] LED Recessed Downlight, 15° Beam Spread, 35° Aiming Angle,  
 [MORE] 1.75" Dia. Aperture Trim  
 [BALLASTCAT] IntuitiveSystems ISD-701-1000-15-D  
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
 [INPUT] 120VAC, 9.50W  
 [TEST PROCEDURE] IESNA:LM-79-08

## CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	564
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	59
Total Luminaire Watts	9.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.14
Spacing Criterion (90-270)	0.52
Spacing Criterion (Diagonal)	1.54
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.15 ft (Diameter)
Luminous Width (90-270)	0.15 ft (Diameter)
Luminous Height	0.00 ft

## LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	0	0	0
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

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</b>	19	19	19	19	19	19	19	19	19	19
<b>5</b>	6	6	6	6	6	6	7	7	7	8
<b>10</b>	2	2	2	2	2	2	3	3	3	3
<b>15</b>	1	1	1	1	1	1	1	1	1	2
<b>17</b>	1	1	1	1	1	1	1	1	1	1
<b>19</b>	1	1	1	1	1	1	1	1	1	1
<b>21</b>	1	1	1	1	1	1	0	1	1	1
<b>23</b>	0	0	0	0	0	0	0	0	0	1
<b>25</b>	0	0	0	0	0	0	0	0	0	1
<b>27</b>	0	0	0	0	0	0	0	0	0	0
<b>29</b>	0	0	0	0	0	0	0	0	0	0
<b>31</b>	0	0	0	0	0	0	0	0	0	0
<b>33</b>	0	0	0	0	0	0	0	0	0	0
<b>34</b>	0	0	0	0	0	0	0	0	0	0
<b>35</b>	0	0	0	0	0	0	0	0	0	0
<b>36</b>	0	0	0	0	0	0	0	0	0	0
<b>37</b>	0	0	0	0	0	0	0	0	0	0
<b>39</b>	0	0	0	0	0	0	0	0	0	0
<b>41</b>	0	0	0	0	0	0	0	0	0	0
<b>43</b>	0	0	0	0	0	0	0	0	0	0
<b>45</b>	0	0	0	0	0	0	0	0	0	0
<b>47</b>	0	0	0	0	0	0	0	0	0	0
<b>49</b>	0	0	0	0	0	0	0	0	0	0
<b>51</b>	0	0	0	0	0	0	0	0	0	0
<b>53</b>	0	0	0	0	0	0	0	0	0	0
<b>55</b>	0	0	0	0	0	0	0	0	0	0
<b>60</b>	0	0	0	0	0	0	0	0	0	0
<b>65</b>	0	0	0	0	0	0	0	0	0	0
<b>70</b>	0	0	0	0	0	0	0	0	0	0
<b>75</b>	0	0	0	0	0	0	0	0	0	0
<b>80</b>	0	0	0	0	0	0	0	0	0	0
<b>85</b>	0	0	0	0	0	0	0	0	0	0
<b>90</b>	0	0	0	0	0	0	0	0	0	0

Vert. 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>	<u>95</u>
<b>0</b>	19	19	19	19	19	19	19	19	19	19
<b>5</b>	8	9	10	11	12	13	15	16	18	21
<b>10</b>	4	4	5	6	7	8	10	12	14	18
<b>15</b>	2	2	3	3	4	5	6	7	10	13
<b>17</b>	1	2	2	2	3	4	5	6	8	11
<b>19</b>	1	1	1	2	2	3	4	5	7	10
<b>21</b>	1	1	1	1	2	2	3	4	6	8
<b>23</b>	1	1	1	1	1	2	3	3	5	7
<b>25</b>	1	1	1	1	1	2	2	3	4	5
<b>27</b>	0	0	1	1	1	1	1	2	3	4
<b>29</b>	0	0	0	1	1	1	1	2	2	3
<b>31</b>	0	0	0	0	0	1	1	1	2	3
<b>33</b>	0	0	0	0	0	0	1	1	1	2
<b>34</b>	0	0	0	0	0	0	1	1	1	2
<b>35</b>	0	0	0	0	0	0	1	1	1	2
<b>36</b>	0	0	0	0	0	0	0	1	1	1
<b>37</b>	0	0	0	0	0	0	0	1	1	1

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L121706408.IES**

**CANDELA TABULATION - (Cont.)**

39	0	0	0	0	0	0	0	1	1	1
41	0	0	0	0	0	0	0	1	1	1
43	0	0	0	0	0	0	0	0	1	1
45	0	0	0	0	0	0	0	0	0	1
47	0	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

Vert. Angles	Horizontal Angles									
	<u>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
0	19	19	19	19	19	19	19	19	19	19
5	23	25	28	31	34	36	39	42	45	47
10	22	28	34	40	48	57	65	75	86	97
15	18	25	35	46	59	76	96	120	149	180
17	16	24	33	45	59	81	108	142	179	222
19	14	21	31	44	63	87	117	157	211	268
21	12	19	29	43	61	88	125	177	246	322
23	10	15	25	40	60	90	134	192	268	361
25	8	13	21	35	58	89	132	196	291	399
27	7	11	18	32	52	82	130	203	306	431
29	5	9	14	27	48	78	125	198	299	432
31	4	7	12	22	41	67	111	182	285	431
33	3	6	9	17	32	58	98	172	278	421
34	3	5	9	15	29	54	96	161	264	408
35	3	4	7	13	25	49	90	151	257	403
36	2	4	6	11	22	46	81	137	235	387
37	2	3	6	10	19	38	71	121	218	357
39	2	3	4	8	14	30	59	105	183	326
41	1	2	3	6	11	22	44	83	148	263
43	1	2	2	4	8	15	31	61	119	213
45	1	1	2	3	6	11	23	47	88	166
47	1	1	1	2	4	8	16	33	65	121
49	1	1	1	1	3	5	10	21	44	85
51	0	0	1	1	2	3	7	14	28	60
53	0	0	0	1	1	2	4	9	18	36
55	0	0	0	1	1	1	3	5	11	22
60	0	0	0	0	0	0	1	1	2	4
65	0	0	0	0	0	0	0	0	0	1
70	0	0	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

**IES INDOOR REPORT  
PHOTOMETRIC FILENAME : L121706408.IES**

**CANDELA TABULATION - (Cont.)**

Vert. Angles	Horizontal Angles						
	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
0	19	19	19	19	19	19	19
5	49	52	53	55	56	56	57
10	108	120	130	137	142	145	147
15	214	252	285	313	337	352	358
17	269	320	374	416	452	476	484
19	334	410	480	542	592	630	643
21	409	503	601	692	772	821	839
23	471	607	741	876	998	1073	1101
25	535	710	898	1096	1281	1421	1472
27	596	802	1053	1341	1652	1877	1962
29	613	878	1198	1594	2027	2428	2575
31	722	930	1316	1829	2444	2797	3254
33	709	933	1397	2026	2649	3591	3866
34	697	922	1388	2098	2708	3738	4069
35	711	921	1375	2051	2678	3822	4159
36	689	870	1350	2031	2731	3805	4143
37	678	862	1303	1969	2655	3714	4044
39	636	782	1219	1825	2493	3122	3582
41	452	758	1046	1536	2146	2666	2987
43	380	602	896	1290	1757	2207	2378
45	300	493	753	1091	1437	1731	1845
47	219	363	577	868	1126	1325	1396
49	159	271	432	635	831	983	1032
51	110	199	314	446	576	671	702
53	69	124	207	321	412	473	492
55	42	77	131	199	276	334	352
60	8	14	25	37	51	62	66
65	2	2	4	6	8	10	10
70	0	0	1	1	1	2	2
75	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L121706408.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	22.76	N.A.	4.00
0-30	117.68	N.A.	20.90
0-40	349.46	N.A.	62.00
0-60	561.77	N.A.	99.60
0-80	563.99	N.A.	100.00
0-90	563.99	N.A.	100.00
10-90	561.06	N.A.	99.50
20-40	326.71	N.A.	57.90
20-50	494.26	N.A.	87.60
40-70	214.48	N.A.	38.00
60-80	2.22	N.A.	0.40
70-80	0.04	N.A.	0.00
80-90	0.00	N.A.	0.00
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	563.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	2.92
10-20	19.84
20-30	94.92
30-40	231.78
40-50	167.55
50-60	44.75
60-70	2.17
70-80	0.04
80-90	0.00
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

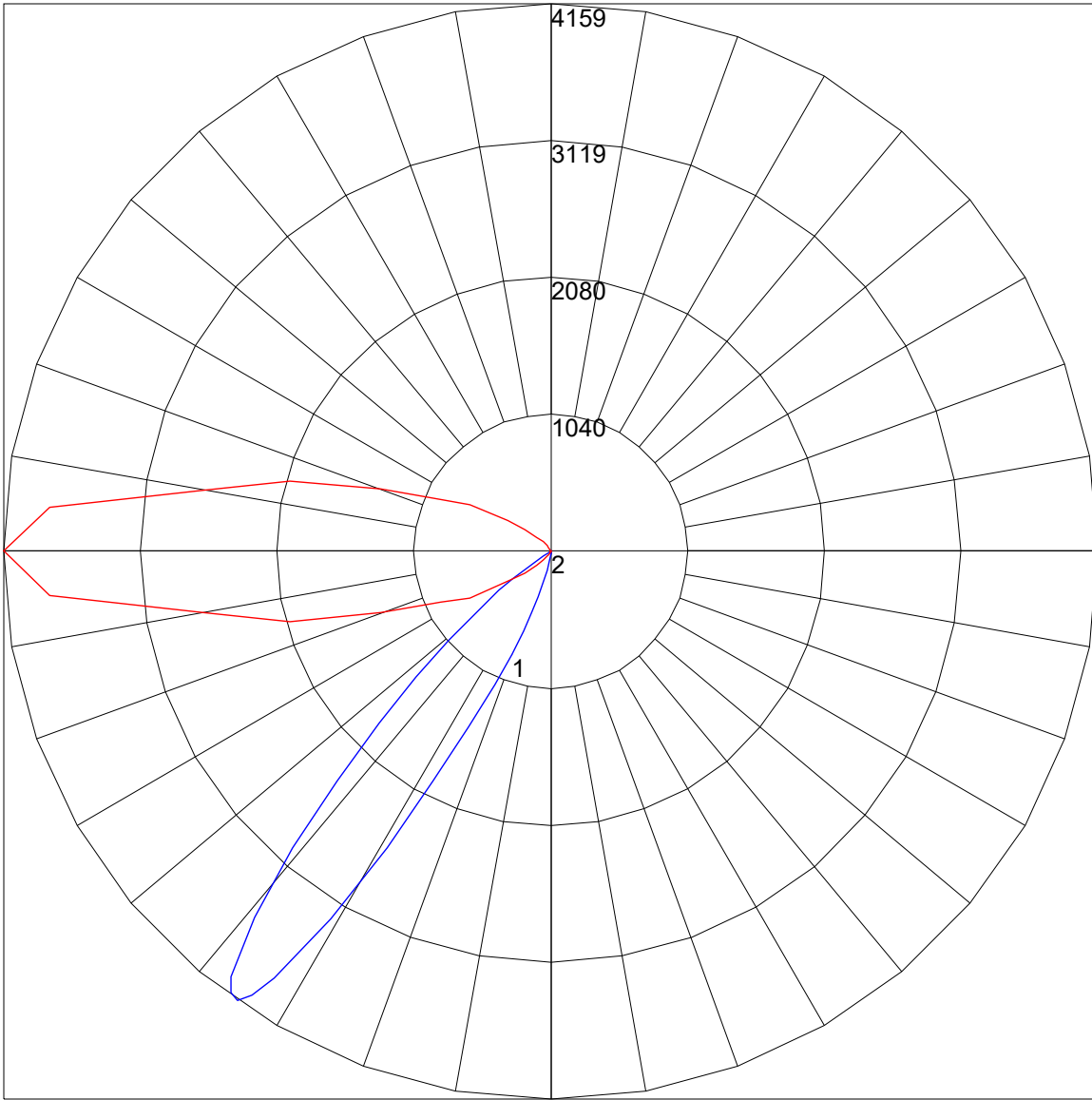


COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90
2	103	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	79
3	96	87	80	75	93	85	79	74	82	77	73	80	75	72	77	74	70	68
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	45
7	69	56	48	42	67	55	47	42	54	47	41	52	46	41	51	45	41	39
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34
9	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	31	30
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

POLAR GRAPH



Maximum Candela = 4159 Located At Horizontal Angle = 180, Vertical Angle = 35  
# 1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (35) (Through Max. Cd.)