



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

Report No: L121706410



**Report No:** L121706410 **Issue Date:** 1/5/2018

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

**Model Number:** 803/J2-HI-25/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-25/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>	446.52
<b>Input Voltage (VAC/60Hz):</b>	120.00
<b>Input Current (Amp):</b>	0.081
<b>Input Power (W):</b>	9.52
<b>Input Power Factor:</b>	0.97
<b>Current ATHD @ 120V(%):</b>	8%
<b>Current ATHD @ 277V(%):</b>	N/A
<b>Efficacy:</b>	47
<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	0:45
<b>Total Operating Time (Hours):</b>	1:20

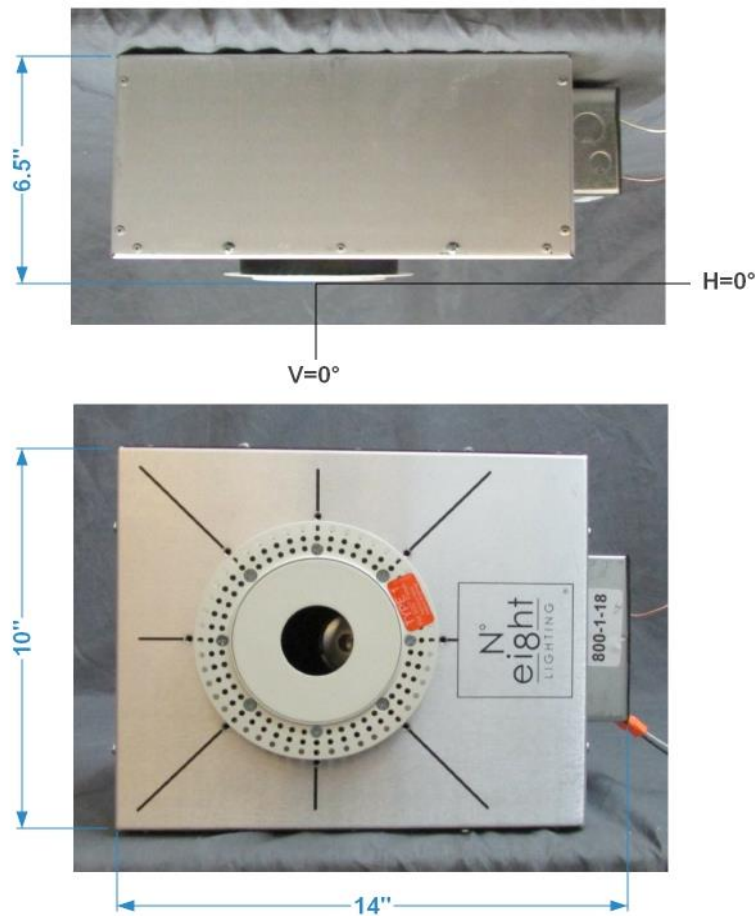


FIG. 1 LUMINAIRE

\*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 : L121706410.IES**

## DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L121706410  
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
[ISSUE DATE] 1/5/2018  
[MANUFAC] Number Eight Lighting Company  
[LUMCAT] 803/J2-HI-25/DIM1-8-700 with FR-P-1-WH trim (35° Aiming Angle)  
[LUMINAIRE] LED Recessed Downlight, 25° 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, 9.52W  
[TEST PROCEDURE] IESNA:LM-79-08

## CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	447
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	47
Total Luminaire Watts	9.52
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.14
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	1.48
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	861
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>	26	26	26	26	26	26	26	26	26	26
<b>5</b>	9	9	9	9	10	10	10	11	11	12
<b>10</b>	3	3	4	4	4	4	4	5	5	6
<b>15</b>	1	1	2	2	2	2	2	2	2	3
<b>17</b>	1	1	1	1	1	1	1	1	2	2
<b>19</b>	1	1	1	1	1	1	1	1	1	1
<b>21</b>	0	0	0	1	1	1	1	1	1	1
<b>23</b>	0	0	0	0	0	0	0	0	1	1
<b>25</b>	0	0	0	0	0	0	0	1	1	1
<b>27</b>	0	0	0	0	0	0	0	0	0	1
<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. 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>	<u>95</u>
<b>0</b>	26	26	26	26	26	26	26	26	26	26
<b>5</b>	13	14	15	16	17	19	21	23	25	27
<b>10</b>	6	7	8	9	11	12	15	17	20	24
<b>15</b>	3	4	4	5	6	7	9	12	15	19
<b>17</b>	2	3	3	4	5	6	8	10	13	17
<b>19</b>	2	2	3	3	4	5	6	8	11	15
<b>21</b>	1	2	2	2	3	4	5	7	9	12
<b>23</b>	1	1	2	2	3	3	4	6	7	10
<b>25</b>	1	1	1	2	2	3	3	5	6	9
<b>27</b>	1	1	1	1	2	2	3	4	5	7
<b>29</b>	0	1	1	1	1	2	2	3	4	6
<b>31</b>	0	1	1	1	1	1	2	2	3	5
<b>33</b>	0	0	1	1	1	1	1	2	3	4
<b>34</b>	0	0	1	1	1	1	1	2	2	3
<b>35</b>	0	0	0	1	1	1	1	2	2	3
<b>36</b>	0	0	0	0	1	1	1	1	2	3
<b>37</b>	0	0	0	0	1	1	1	1	2	2

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L121706410.IES**

**CANDELA TABULATION - (Cont.)**

39	0	0	0	0	0	1	1	1	1	2
41	0	0	0	0	0	0	1	1	1	1
43	0	0	0	0	0	0	0	1	1	1
45	0	0	0	0	0	0	0	0	1	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	26	26	26	26	26	26	26	26	26	26
5	29	32	35	38	41	45	49	52	56	59
10	29	34	41	49	58	68	81	94	109	127
15	25	32	42	56	71	94	124	159	194	233
17	22	29	41	56	74	100	138	182	232	288
19	20	27	38	54	75	105	153	206	265	330
21	18	25	35	51	73	108	158	228	299	380
23	15	22	32	47	71	106	162	231	316	413
25	12	18	27	41	68	105	166	242	332	445
27	11	16	24	37	59	94	155	249	348	478
29	9	13	20	32	52	85	144	229	340	477
31	7	10	16	26	45	77	133	222	332	477
33	6	9	14	21	35	64	111	202	318	465
34	5	7	12	19	32	59	103	189	307	454
35	4	6	10	18	30	53	93	167	283	440
36	4	6	10	15	26	47	84	158	272	417
37	4	5	8	14	23	41	75	141	261	409
39	3	4	6	10	19	34	62	112	204	352
41	2	3	5	8	14	25	45	84	160	289
43	1	2	4	6	11	19	35	67	122	231
45	1	1	3	5	8	14	27	49	92	169
47	1	1	2	3	6	10	19	34	66	120
49	0	1	1	2	4	7	14	26	46	85
51	0	0	1	1	3	5	9	18	33	59
53	0	0	1	1	2	3	6	12	22	40
55	0	0	0	1	1	2	4	7	14	25
60	0	0	0	0	0	1	1	2	3	6
65	0	0	0	0	0	0	0	1	1	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 : L121706410.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	26	26	26	26	26	26	26
5	62	65	67	69	70	71	72
10	143	158	174	185	193	198	200
15	278	318	357	393	421	437	444
17	343	400	454	506	543	567	575
19	402	479	556	632	685	719	731
21	474	569	676	765	841	887	904
23	531	666	790	907	1003	1073	1095
25	585	758	913	1052	1179	1269	1299
27	637	798	1000	1188	1360	1470	1508
29	649	860	1080	1307	1510	1661	1711
31	658	904	1132	1397	1647	1829	1888
33	652	875	1156	1440	1726	1944	2010
34	641	866	1129	1426	1744	1963	2041
35	640	867	1125	1422	1719	1943	2027
36	598	819	1097	1391	1706	1918	1995
37	588	807	1061	1347	1630	1860	1934
39	521	756	991	1228	1476	1672	1739
41	462	664	875	1095	1302	1458	1512
43	392	581	759	980	1147	1264	1306
45	299	470	661	848	990	1088	1122
47	213	358	529	692	829	925	957
49	150	249	380	534	663	751	777
51	108	179	271	375	469	547	573
53	70	117	183	266	342	399	418
55	46	77	123	174	225	264	279
60	11	20	32	48	65	77	83
65	2	3	4	6	8	9	10
70	0	1	1	1	2	2	2
75	0	0	0	0	0	0	1
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 : L121706410.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	28.63	N.A.	6.40
0-30	121.69	N.A.	27.30
0-40	284.27	N.A.	63.70
0-60	443.77	N.A.	99.40
0-80	446.52	N.A.	100.00
0-90	446.52	N.A.	100.00
10-90	442.68	N.A.	99.10
20-40	255.65	N.A.	57.30
20-50	376.34	N.A.	84.30
40-70	162.19	N.A.	36.30
60-80	2.75	N.A.	0.60
70-80	0.07	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	446.52	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	3.85
10-20	24.78
20-30	93.06
30-40	162.58
40-50	120.70
50-60	38.81
60-70	2.68
70-80	0.07
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

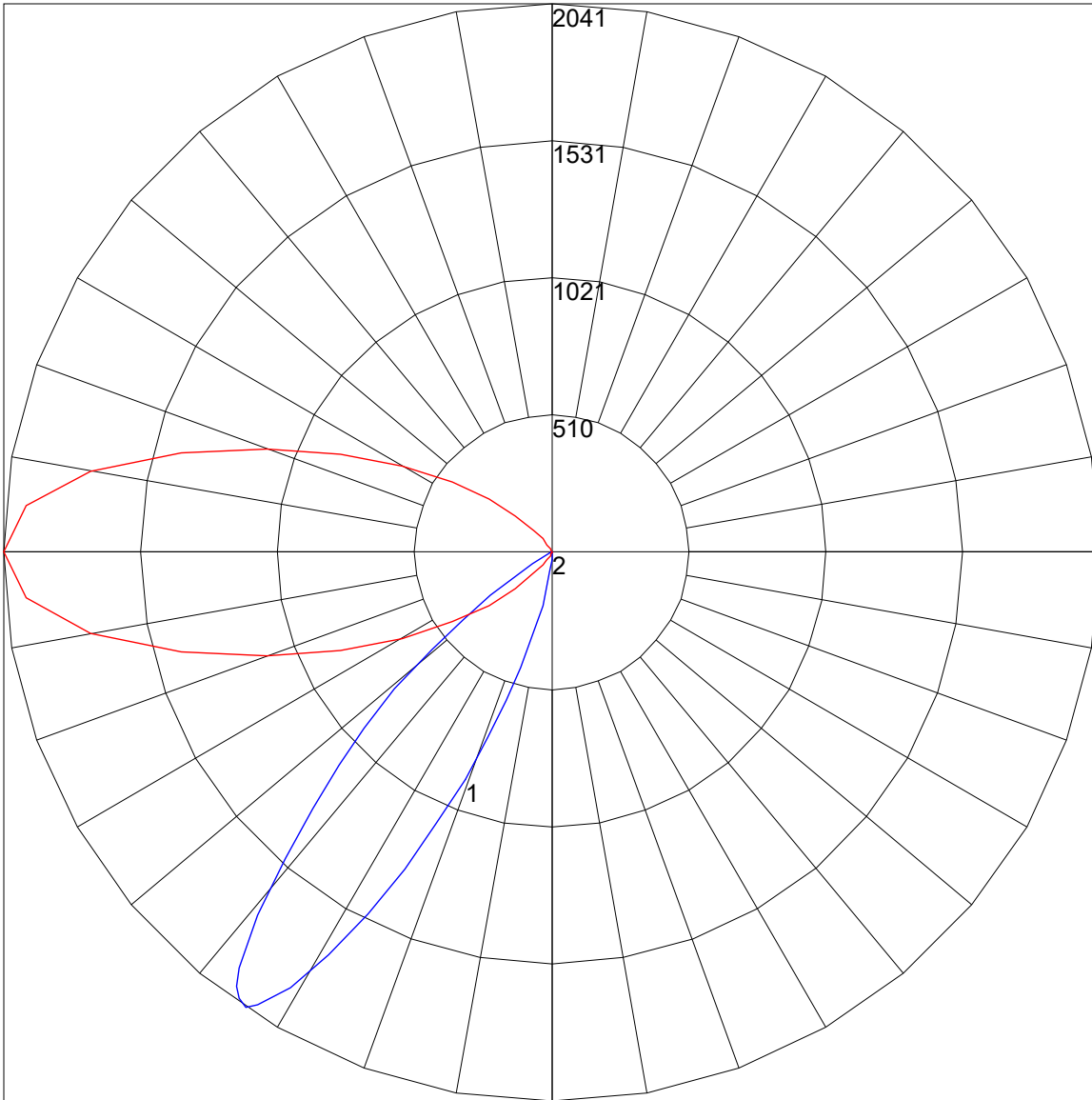


COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	92	90
2	104	97	92	87	101	95	91	86	92	88	85	89	86	83	86	83	81	79
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	70	66	62	60
5	82	70	63	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53
6	75	63	55	50	74	62	55	49	61	54	49	59	53	49	58	52	48	46
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	64	52	44	38	63	51	43	38	50	43	38	49	42	38	47	42	38	36
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	37	33	32
10	55	43	35	30	54	42	35	30	41	35	30	40	34	30	39	34	30	28

POLAR GRAPH



Maximum Candela = 2041 Located At Horizontal Angle = 180, Vertical Angle = 34  
# 1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (34) (Through Max. Cd.)