

Report No: L121706404 **Issue Date:** 1/8/2018

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

Model Number: 803/J2-HI-25/DIM1-8-700 with FS-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 - 1/8/18

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

Manufacturer:	Number Eight Lighting Company
Model Number:	803/J2-HI-25/DIM1-8-700 with FS-P-1-WH trim (35° Aiming Angle)
Driver Model Number:	IntuitiveSystems ISD-701-1000-15-D
Total Lumens:	481.69
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.081
Input Power (W):	9.50
Input Power Factor:	0.98
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	51
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	1:25

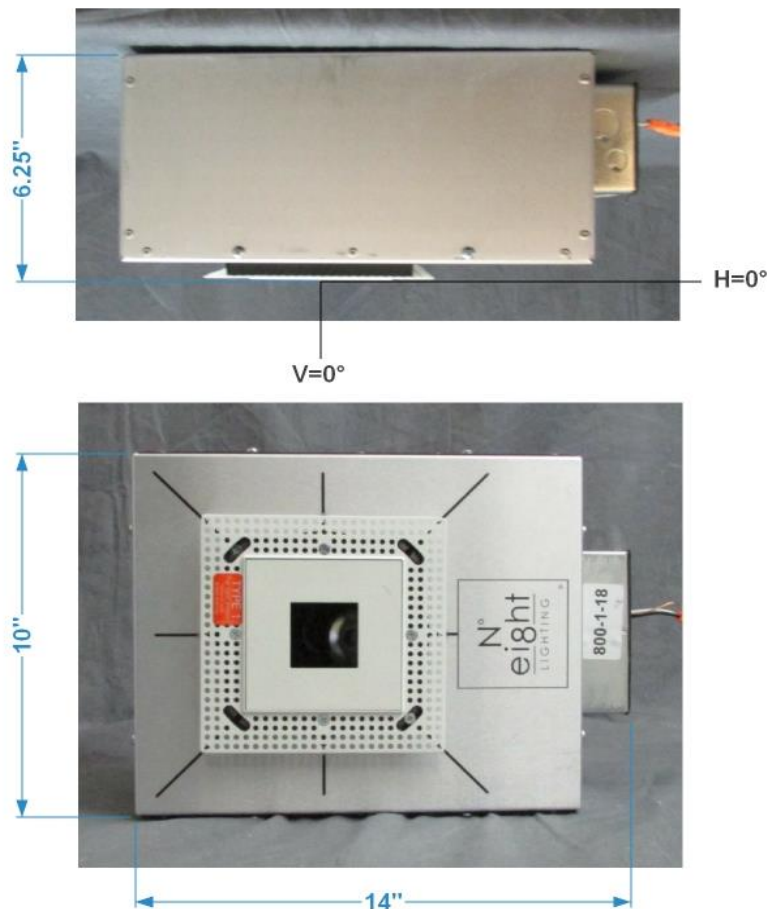


FIG. 1 LUMINAIRE

*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*



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

Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706404.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L121706404
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUE DATE] 1/8/2018
[MANUFAC] Number Eight Lighting Company
[LUMCAT] 803/J2-HI-25/DIM1-8-700 with FS-P-1-WH trim (35° Aiming Angle)
[LUMINAIRE] LED Recessed Downlight, 25° Beam Spread, 35° Aiming Angle,
[MORE] 1.75" x 1.75" 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	482
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	51
Total Luminaire Watts	9.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.16
Spacing Criterion (90-270)	0.72
Spacing Criterion (Diagonal)	1.50
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	0	0	676
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>
0	31	31	31	31	31	31	31	31	31	31
5	13	13	13	13	14	14	15	15	16	17
10	5	5	6	6	6	6	7	7	8	8
15	2	2	2	2	3	3	3	3	4	4
17	2	2	2	2	2	2	2	3	3	3
19	1	1	1	1	1	1	2	2	2	3
21	1	1	1	1	1	1	1	2	2	2
23	1	1	1	1	1	1	1	1	1	2
25	0	1	1	1	1	1	1	1	1	1
27	0	0	0	0	0	0	1	1	1	1
29	0	0	0	0	0	0	0	0	1	1
31	0	0	0	0	0	0	0	0	1	1
33	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0
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>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>
0	31	31	31	31	31	31	31	31	31	31
5	18	19	20	21	23	25	27	29	31	33
10	9	11	12	14	15	18	21	24	28	32
15	5	6	7	8	10	12	15	18	23	28
17	4	5	6	7	9	11	13	16	21	26
19	3	4	5	6	7	9	12	15	19	25
21	2	3	4	5	6	8	10	13	17	23
23	2	2	3	4	5	6	9	11	16	22
25	2	2	3	3	4	5	7	10	14	21
27	1	2	2	3	3	5	6	8	12	17
29	1	1	2	2	3	3	5	7	10	16
31	1	1	1	2	2	3	4	5	7	12
33	1	1	1	1	2	2	3	4	5	8
34	1	1	1	1	2	2	3	3	5	8
35	0	1	1	1	2	2	2	3	4	7
36	0	1	1	1	1	2	2	3	4	6
37	0	1	1	1	1	2	2	2	3	5

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CANDELA TABULATION - (Cont.)

39	0	0	1	1	1	1	2	2	3	4
41	0	0	0	1	1	1	1	2	2	3
43	0	0	0	1	1	1	1	1	2	2
45	0	0	0	0	1	1	1	1	1	2
47	0	0	0	0	0	1	1	1	1	1
49	0	0	0	0	0	0	0	0	1	1
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	31	31	31	31	31	31	31	31	31	31
5	36	39	42	45	48	52	55	59	62	65
10	37	43	51	59	70	81	94	108	124	139
15	36	47	60	77	98	122	149	179	214	249
17	35	47	62	82	105	135	167	205	246	293
19	34	47	64	87	114	145	178	219	271	338
21	33	48	67	88	115	147	185	238	308	387
23	32	46	64	87	113	149	191	247	323	420
25	30	45	62	83	112	146	186	247	339	453
27	28	43	59	79	103	137	183	252	355	486
29	25	37	51	71	95	131	179	247	347	486
31	19	30	42	60	83	117	165	233	340	486
33	14	22	31	44	65	100	148	223	327	476
34	12	19	26	38	58	89	136	207	307	466
35	11	16	22	32	49	78	123	193	295	459
36	9	14	19	27	41	66	113	182	287	441
37	8	12	17	24	36	57	94	158	260	410
39	6	9	13	18	27	44	75	128	223	368
41	4	7	10	14	21	33	55	101	184	321
43	3	5	7	11	16	26	42	75	138	245
45	2	4	5	8	13	20	34	59	108	188
47	2	3	4	6	9	15	24	44	84	151
49	1	2	2	4	6	11	18	33	58	108
51	1	1	2	3	4	7	13	22	41	74
53	0	1	1	2	3	5	9	15	30	53
55	0	0	1	1	2	3	6	11	20	37
60	0	0	0	0	1	1	2	3	6	11
65	0	0	0	0	0	0	1	1	2	3
70	0	0	0	0	0	0	0	0	0	1
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

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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	31	31	31	31	31	31	31
5	68	71	73	75	76	77	77
10	153	169	181	192	199	204	205
15	286	327	365	398	423	439	445
17	345	401	457	504	543	565	573
19	414	490	564	628	679	712	724
21	481	582	678	764	836	879	893
23	537	663	793	903	1000	1057	1076
25	592	753	906	1048	1166	1248	1274
27	644	820	1006	1186	1347	1445	1479
29	658	856	1089	1309	1508	1632	1675
31	670	903	1152	1409	1637	1798	1854
33	669	901	1192	1482	1763	1934	1993
34	658	894	1174	1492	1770	1961	2033
35	654	895	1180	1516	1800	1990	2058
36	619	855	1141	1502	1791	1980	2047
37	612	848	1133	1447	1742	1940	2019
39	560	782	1070	1366	1638	1817	1877
41	483	686	942	1204	1462	1627	1680
43	412	611	821	1049	1264	1423	1474
45	333	530	714	896	1084	1223	1266
47	264	425	585	754	915	1034	1071
49	183	320	472	615	755	843	872
51	142	244	356	464	564	629	653
53	91	155	234	300	374	439	462
55	60	100	148	199	258	299	314
60	18	28	43	62	77	89	93
65	5	7	9	10	11	12	13
70	1	1	1	2	2	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 : L121706404.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	31.07	N.A.	6.50
0-30	127.47	N.A.	26.50
0-40	297.66	N.A.	61.80
0-60	477.98	N.A.	99.20
0-80	481.69	N.A.	100.00
0-90	481.69	N.A.	100.00
10-90	477.27	N.A.	99.10
20-40	266.59	N.A.	55.30
20-50	400.68	N.A.	83.20
40-70	183.95	N.A.	38.20
60-80	3.70	N.A.	0.80
70-80	0.08	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	481.69	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	4.42
10-20	26.66
20-30	96.40
30-40	170.19
40-50	134.09
50-60	46.23
60-70	3.62
70-80	0.08
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

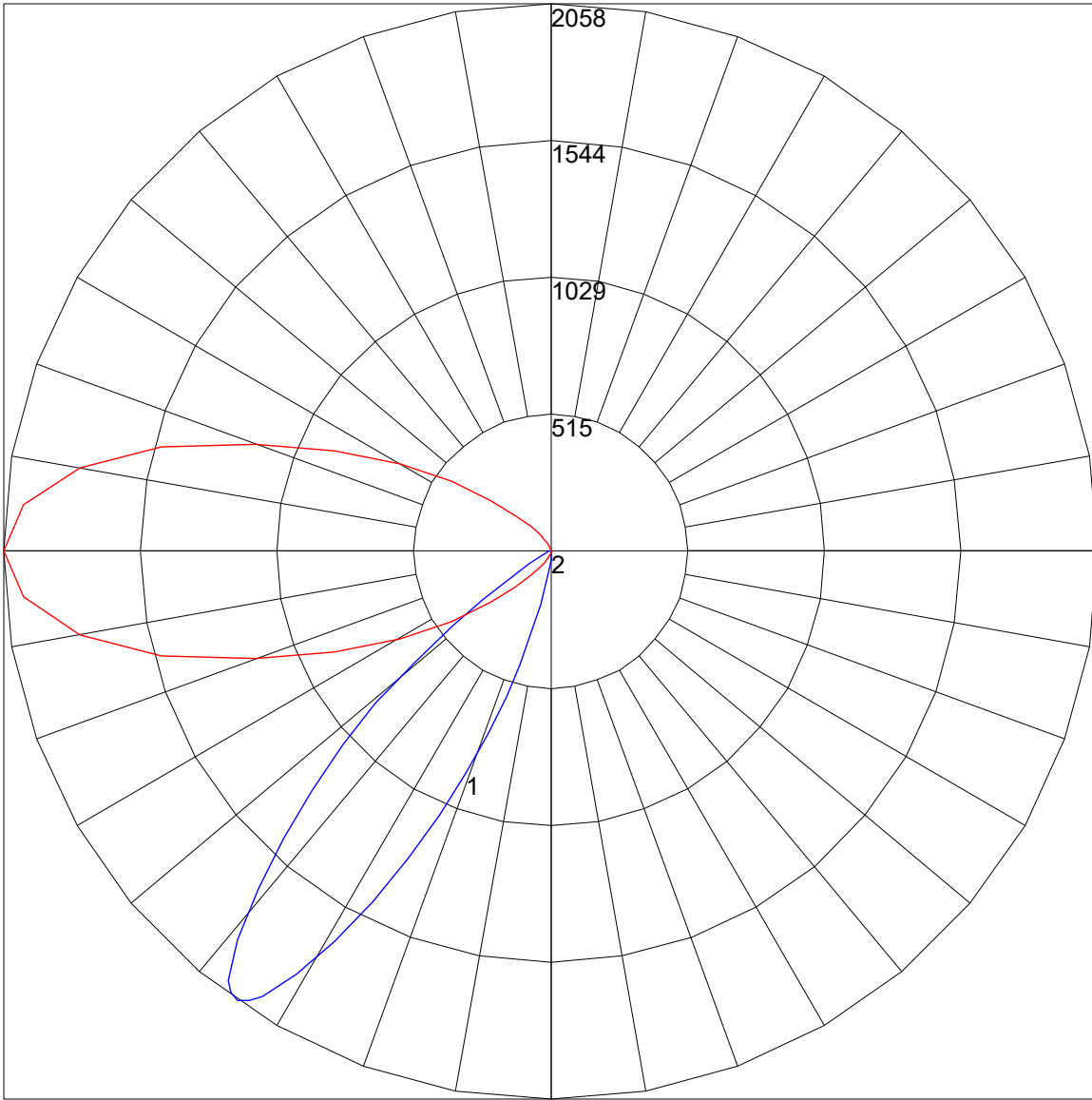
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PHOTOMETRIC FILENAME : L121706404.IES

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
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	96	87	80	75	93	86	79	74	83	77	73	80	76	72	78	74	71	69
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	66	62	60
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46
7	69	57	49	43	68	56	48	43	54	48	42	53	47	42	52	46	42	40
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35
9	59	47	39	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	55	42	35	30	54	42	34	30	41	34	29	40	34	29	39	33	29	27

POLAR GRAPH



Maximum Candela = 2058 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.)