



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

Report No: L121706422



Report No: L121706422 **Issue Date:** 1/10/2018

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

Model Number: 804/J2-HI-25/DIM1-8-1400 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: 1/5/18 - 1/10/18

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:	804/J2-HI-25/DIM1-8-1400 with FS-P-1-WH trim (35° Aiming Angle)
Driver Model Number:	IntuitiveSystems ISD-701-1400-20-D
Total Lumens:	811.55
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.17
Input Power (W):	20.43
Input Power Factor:	0.99
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	40
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:40
Total Operating Time (Hours):	1:15

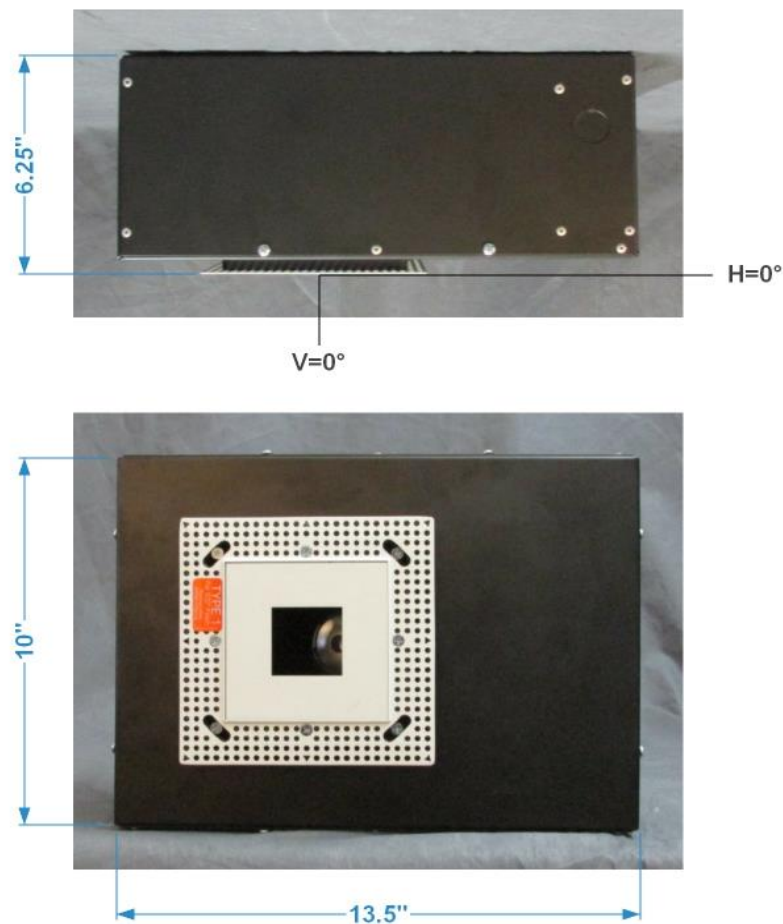


FIG. 1 LUMINAIRE

*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 : L121706422.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L121706422
 [TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
 [ISSUEDATE] 1/10/2018
 [MANUFAC] Number Eight Lighting Company
 [LUMCAT] 804/J2-HI-25/DIM1-8-1400 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-701-1400-20-D
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 20.43W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	812
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	40
Total Luminaire Watts	20.43
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.16
Spacing Criterion (90-270)	0.70
Spacing Criterion (Diagonal)	1.52
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	1352
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	46	46	46	46	46	46	46	46	46	46
5	18	18	18	18	19	19	20	21	22	24
10	7	7	7	8	8	8	9	10	11	12
15	3	3	3	3	3	4	4	5	5	6
17	2	2	2	2	3	3	3	3	4	5
19	2	2	2	2	2	2	2	3	3	4
21	1	1	1	1	2	2	2	2	2	3
23	1	1	1	1	1	1	1	2	2	2
25	1	1	1	1	1	1	1	1	2	2
27	0	0	0	0	0	1	1	1	2	2
29	0	0	0	0	0	0	0	1	1	2
31	0	0	0	0	0	0	0	0	1	1
33	0	0	0	0	0	0	0	0	0	1
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	46	46	46	46	46	46	46	46	46	46
5	25	27	29	31	33	36	38	41	45	49
10	13	15	17	19	22	26	30	34	39	46
15	7	8	10	12	14	18	22	26	33	41
17	5	7	8	10	12	15	19	24	30	39
19	4	5	6	8	10	13	16	21	27	35
21	3	4	5	7	8	11	14	19	25	32
23	3	3	4	5	7	9	12	16	22	31
25	2	3	3	4	6	8	10	14	19	28
27	2	2	3	4	5	6	8	12	17	24
29	2	2	2	3	4	5	7	9	13	20
31	2	2	2	3	3	4	5	7	9	14
33	1	2	2	2	3	3	4	6	8	11
34	1	1	2	2	3	3	4	5	7	10
35	1	1	2	2	2	3	4	5	6	9
36	0	1	2	2	2	3	3	4	5	8
37	0	1	1	2	2	2	3	4	5	7

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CANDELA TABULATION - (Cont.)

39	0	0	1	2	2	2	3	3	4	5
41	0	0	0	1	2	2	2	3	3	4
43	0	0	0	1	1	2	2	2	3	3
45	0	0	0	0	1	1	1	2	2	3
47	0	0	0	0	0	1	1	1	2	2
49	0	0	0	0	0	0	1	1	1	1
51	0	0	0	0	0	0	0	0	1	1
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	46	46	46	46	46	46	46	46	46	46
5	53	57	61	66	71	76	82	87	92	97
10	54	63	74	87	102	119	139	160	182	205
15	51	65	86	111	143	184	231	283	339	406
17	49	65	90	121	159	207	266	324	394	482
19	47	67	95	129	173	226	294	365	454	559
21	45	64	96	136	181	241	309	394	501	634
23	44	66	99	138	183	240	318	407	534	695
25	43	65	95	131	175	236	317	424	573	769
27	38	61	92	126	168	230	310	413	569	804
29	33	54	81	112	154	216	298	413	651	823
31	26	43	65	93	132	189	271	406	658	844
33	19	30	47	70	107	163	247	367	634	800
34	16	27	39	59	89	145	227	349	617	803
35	14	22	32	49	79	126	204	324	630	757
36	12	20	28	41	64	105	180	297	528	750
37	11	17	25	36	55	93	158	268	495	718
39	8	13	19	27	42	67	115	220	379	699
41	6	10	14	22	33	54	94	160	284	623
43	5	7	10	16	25	40	68	123	222	476
45	4	5	8	12	19	30	51	99	176	309
47	3	4	5	8	13	22	38	70	130	237
49	2	3	4	6	10	16	28	51	94	175
51	1	2	2	4	6	11	19	36	67	124
53	1	1	2	2	4	7	13	24	46	85
55	0	1	1	2	2	4	9	16	30	55
60	0	0	0	1	1	2	3	5	9	18
65	0	0	0	0	0	1	1	2	2	4
70	0	0	0	0	0	0	0	0	1	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	46	46	46	46	46	46	46
5	102	107	110	113	116	117	118
10	229	253	275	295	307	315	317
15	473	541	608	663	705	733	742
17	577	671	761	839	900	942	958
19	679	809	932	1056	1142	1196	1215
21	805	973	1147	1291	1405	1479	1504
23	908	1118	1324	1521	1677	1780	1817
25	1007	1258	1545	1782	1981	2112	2161
27	1094	1391	1704	2008	2262	2435	2505
29	1122	1458	1850	2243	2554	2710	2832
31	1163	1536	1954	2385	2711	3050	3127
33	1126	1515	2002	2491	2803	3250	3355
34	1135	1536	2006	2515	2818	3305	3434
35	1110	1547	2033	2558	2830	3354	3469
36	1078	1485	1968	2498	2817	3328	3460
37	1014	1411	1925	2491	2803	3301	3414
39	946	1336	1792	2298	2704	3127	3220
41	827	1180	1596	2071	2530	2724	2916
43	744	1048	1432	1837	2218	2483	2575
45	551	848	1190	1539	1897	2133	2215
47	419	704	984	1284	1592	1795	1868
49	306	562	806	1061	1291	1451	1507
51	221	400	593	780	961	1085	1126
53	149	253	398	517	650	755	795
55	98	163	253	344	439	509	539
60	28	45	71	100	126	144	150
65	7	10	14	16	18	20	20
70	2	2	2	3	3	4	4
75	0	0	0	0	1	1	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
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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	49.44	N.A.	6.10
0-30	210.84	N.A.	26.00
0-40	497.58	N.A.	61.30
0-60	805.53	N.A.	99.30
0-80	811.55	N.A.	100.00
0-90	811.55	N.A.	100.00
10-90	804.99	N.A.	99.20
20-40	448.14	N.A.	55.20
20-50	677.94	N.A.	83.50
40-70	313.78	N.A.	38.70
60-80	6.01	N.A.	0.70
70-80	0.18	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	811.55	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	6.55
10-20	42.88
20-30	161.40
30-40	286.74
40-50	229.80
50-60	78.16
60-70	5.83
70-80	0.18
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

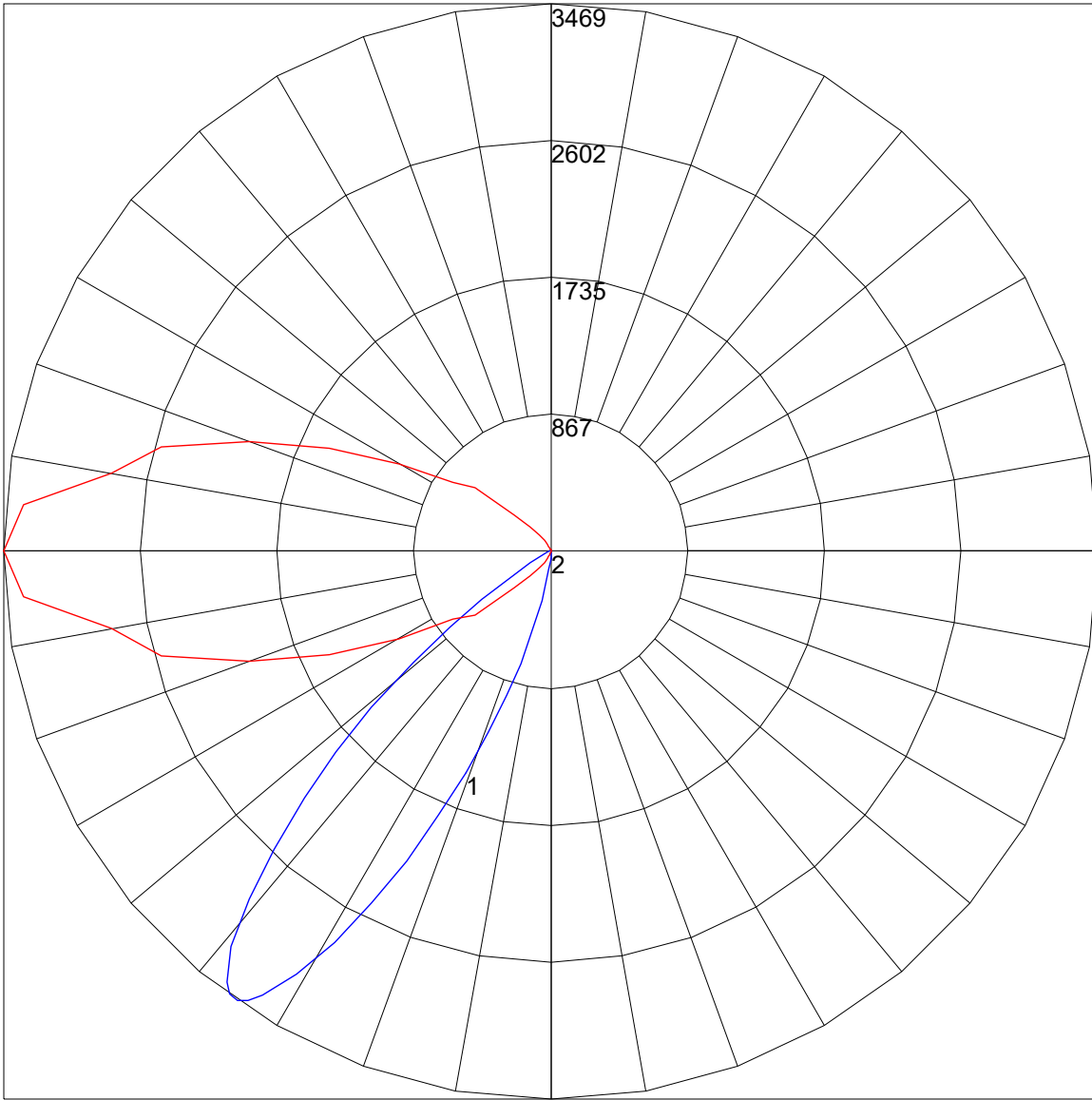
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706422.IES

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	85	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	65	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	52	48	57	52	47	46
7	69	57	48	43	67	56	48	43	54	47	42	53	47	42	52	46	42	40
8	64	51	43	38	62	50	43	37	49	42	37	48	42	37	47	41	37	35
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	55	42	34	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27

POLAR GRAPH



Maximum Candela = 3469 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.)