



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

Report No: L121706428



Report No: L121706428 **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 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: 1/5/18 - 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 FR-P-1-WH trim (35° Aiming Angle)
Driver Model Number:	IntuitiveSystems ISD-701-1400-20-D
Total Lumens:	760.90
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.17
Input Power (W):	20.46
Input Power Factor:	0.99
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	37
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:40
Total Operating Time (Hours):	0:15

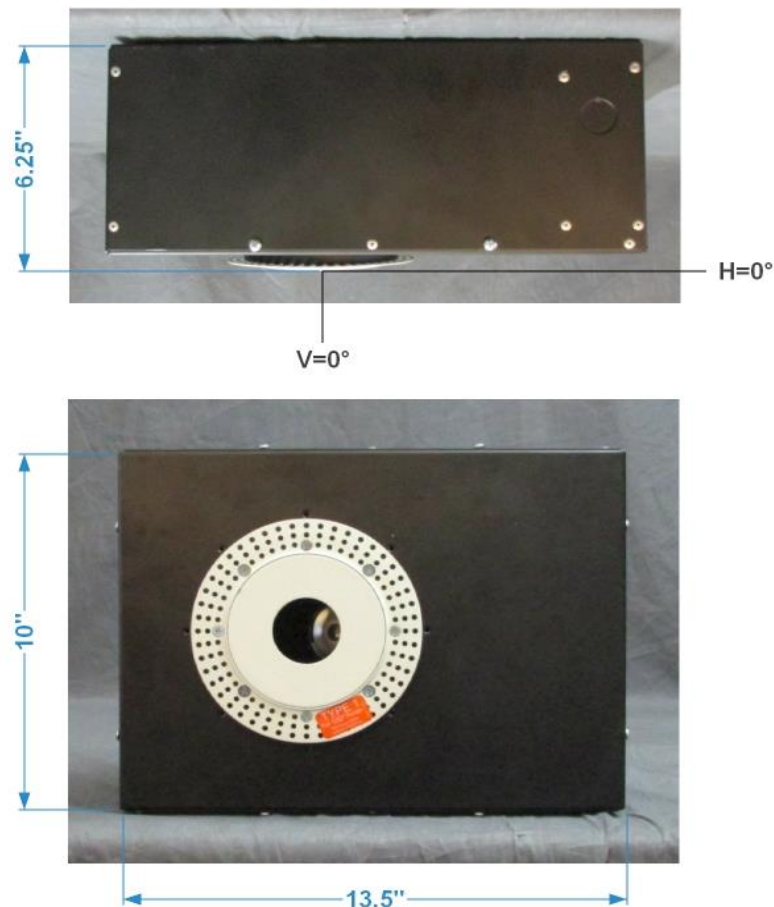


FIG. 1 LUMINAIRE

*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*



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

Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706428.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L121706428
 [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 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-701-1400-20-D
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 20.46W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	761
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	37
Total Luminaire Watts	20.46
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.14
Spacing Criterion (90-270)	0.60
Spacing Criterion (Diagonal)	1.50
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>
0	41	41	41	41	41	41	41	41	41	41
5	15	15	15	16	16	17	17	18	19	20
10	6	6	6	6	7	7	8	8	9	10
15	3	3	3	3	3	3	3	4	4	5
17	2	2	2	2	2	2	2	3	3	4
19	1	1	1	1	2	2	2	2	2	3
21	1	1	1	1	1	1	2	2	2	2
23	1	1	1	1	1	1	1	1	2	2
25	1	0	1	1	1	1	1	1	1	2
27	0	0	0	0	0	1	1	1	1	1
29	0	0	0	0	0	0	0	0	1	1
31	0	0	0	0	0	0	0	0	0	0
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. 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	41	41	41	41	41	41	41	41	41	41
5	21	23	24	26	28	31	33	36	39	43
10	11	12	13	15	18	21	24	28	33	38
15	5	6	7	9	10	13	16	20	25	31
17	4	5	6	7	9	11	13	17	22	28
19	3	4	5	6	7	9	11	14	18	24
21	2	3	4	4	6	7	9	12	15	21
23	2	2	3	4	5	6	7	10	13	18
25	2	2	2	3	4	5	6	8	10	14
27	2	2	2	2	3	4	5	7	9	12
29	1	2	2	2	2	3	4	5	7	10
31	1	1	2	2	2	2	3	4	6	8
33	0	1	1	2	2	2	3	3	5	6
34	0	0	1	1	2	2	2	3	4	6
35	0	0	1	1	2	2	2	3	4	5
36	0	0	0	1	1	2	2	2	3	5
37	0	0	0	1	1	2	2	2	3	4

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706428.IES

CANDELA TABULATION - (Cont.)

39	0	0	0	0	1	1	2	2	2	3
41	0	0	0	0	0	1	1	2	2	2
43	0	0	0	0	0	0	1	1	2	2
45	0	0	0	0	0	0	0	1	1	1
47	0	0	0	0	0	0	0	0	1	1
49	0	0	0	0	0	0	0	0	0	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	41	41	41	41	41	41	41	41	41	41
5	47	50	55	60	65	70	76	81	87	92
10	46	55	65	78	92	108	126	147	172	197
15	40	50	66	88	113	147	192	254	315	385
17	36	48	65	88	118	157	223	290	373	468
19	32	45	61	86	119	166	242	336	437	544
21	28	40	56	82	118	175	263	369	487	617
23	25	36	52	77	115	170	273	386	520	677
25	21	30	44	67	104	164	266	407	558	748
27	17	26	39	61	97	152	262	392	556	782
29	14	22	33	52	84	142	241	392	652	802
31	12	18	28	44	72	121	214	379	658	820
33	9	14	22	36	62	107	185	328	634	778
34	8	12	20	33	54	98	171	291	616	778
35	7	11	17	29	51	89	156	279	609	735
36	7	10	16	26	44	76	142	253	509	727
37	6	9	14	23	39	71	128	229	414	716
39	5	7	11	18	31	53	97	194	348	677
41	3	5	9	14	24	42	80	142	257	596
43	2	4	6	11	18	32	57	107	197	372
45	2	3	5	8	13	23	42	81	158	272
47	1	2	3	6	10	17	32	59	108	209
49	1	1	2	4	6	11	22	42	76	140
51	1	1	2	2	4	8	15	28	55	100
53	0	1	1	2	3	5	10	18	34	63
55	0	0	1	1	2	3	6	12	22	41
60	0	0	0	0	1	1	2	3	5	9
65	0	0	0	0	0	0	0	1	1	2
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 : L121706428.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	41	41	41	41	41	41	41
5	97	102	105	108	111	112	113
10	226	252	277	297	311	320	322
15	459	526	593	647	690	716	726
17	562	653	741	819	880	920	935
19	661	786	915	1022	1113	1167	1186
21	783	945	1114	1254	1367	1441	1467
23	881	1083	1290	1473	1629	1735	1775
25	976	1216	1478	1726	1929	2064	2112
27	1058	1340	1639	1940	2205	2390	2462
29	1085	1400	1750	2173	2504	2705	2806
31	1121	1471	1872	2343	2696	3034	3118
33	1085	1477	1910	2397	2775	3243	3361
34	1093	1466	1908	2408	2766	3275	3426
35	1069	1471	1923	2433	2796	3300	3435
36	1038	1411	1854	2358	2759	3242	3395
37	978	1346	1808	2339	2733	3187	3318
39	912	1274	1685	2146	2632	2913	3077
41	796	1134	1535	1953	2378	2649	2760
43	667	1007	1369	1762	2109	2357	2450
45	485	783	1158	1501	1830	2047	2127
47	359	607	921	1235	1519	1721	1801
49	253	414	638	964	1219	1394	1454
51	177	304	468	662	849	1009	1063
53	118	199	325	457	613	721	760
55	73	122	200	290	389	461	489
60	16	27	47	71	98	119	127
65	3	4	6	9	11	13	14
70	1	1	2	2	3	3	3
75	0	0	1	0	0	1	1
80	0	0	0	0	0	1	1
85	0	0	0	0	1	1	1
90	0	0	0	0	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706428.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	46.40	N.A.	6.10
0-30	198.85	N.A.	26.10
0-40	473.03	N.A.	62.20
0-60	756.70	N.A.	99.40
0-80	760.85	N.A.	100.00
0-90	760.90	N.A.	100.00
10-90	754.78	N.A.	99.20
20-40	426.63	N.A.	56.10
20-50	642.63	N.A.	84.50
40-70	287.68	N.A.	37.80
60-80	4.15	N.A.	0.50
70-80	0.15	N.A.	0.00
80-90	0.05	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	760.90	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	6.12
10-20	40.27
20-30	152.46
30-40	274.17
40-50	216.00
50-60	67.67
60-70	4.00
70-80	0.15
80-90	0.05
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

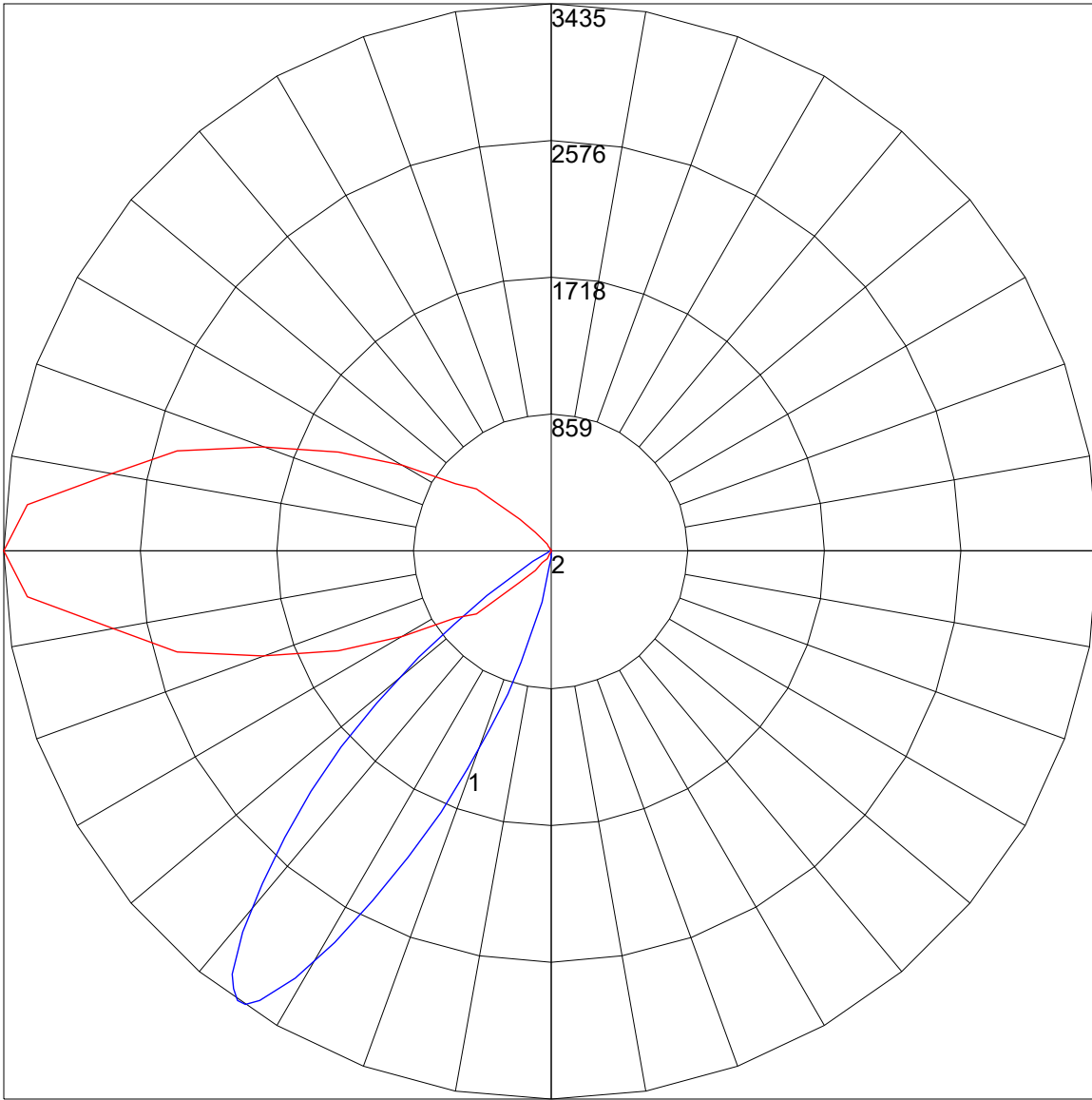
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706428.IES

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	92	90
2	104	97	92	87	101	95	90	86	92	88	84	89	85	83	86	83	81	79
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60
5	81	70	62	56	80	69	62	56	67	61	55	65	59	55	63	58	54	52
6	75	63	55	49	73	62	54	49	60	54	49	59	53	48	57	52	48	46
7	69	57	49	43	68	56	48	43	55	48	43	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 = 3435 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.)