



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

Report No: L121706406



Report No: L121706406 **Issue Date:** 1/8/2018

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

Model Number: 803/J2-HI-40/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-40/DIM1-8-700 with FS-P-1-WH trim (35° Aiming Angle)
Driver Model Number:	IntuitiveSystems ISD-701-1000-15-D
Total Lumens:	557.14
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.081
Input Power (W):	9.52
Input Power Factor:	0.97
Current ATHD @ 120V(%):	7%
Current ATHD @ 277V(%):	N/A
Efficacy:	59
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	1:20

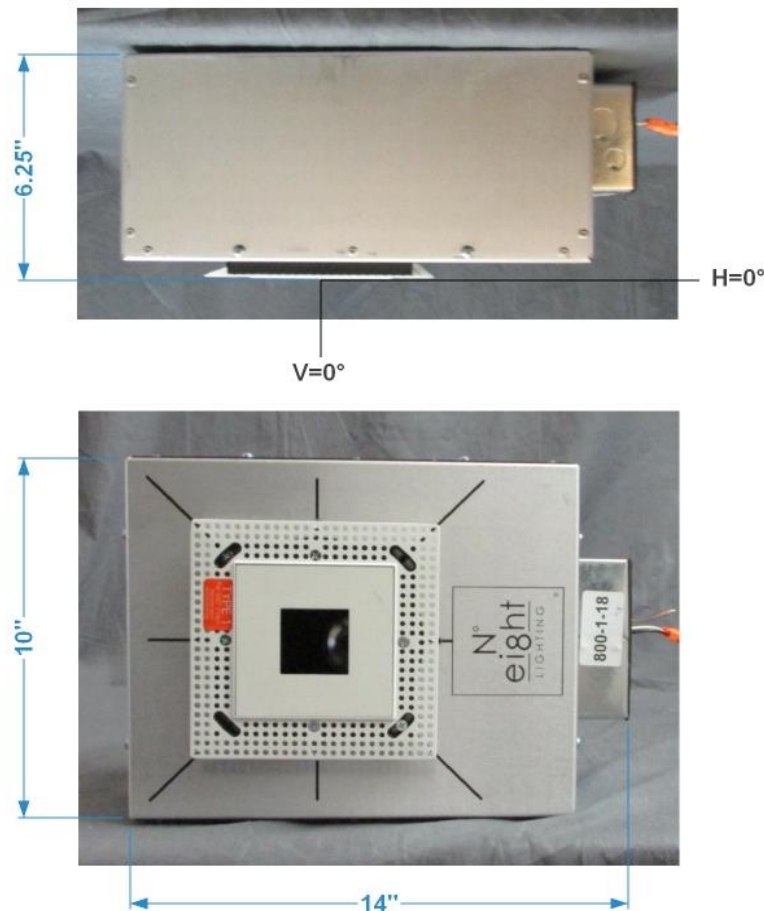


FIG. 1 LUMINAIRE

*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*



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

Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706406.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L121706406
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 1/8/2018
[MANUFAC] Number Eight Lighting Company
[LUMCAT] 803/J2-HI-40/DIM1-8-700 with FS-P-1-WH trim (35° Aiming Angle)
[LUMINAIRE] LED Recessed Downlight, 40° 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, 9.52W
[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	557
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	59
Total Luminaire Watts	9.52
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.20
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	3380
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	116	116	116	116	116	116	116	116	116	116
5	63	64	64	65	66	67	69	71	73	76
10	32	32	33	34	35	36	38	40	42	45
15	15	15	16	16	17	18	19	21	23	25
17	10	11	11	11	12	13	14	16	18	20
19	7	7	7	7	8	9	10	12	13	15
21	4	4	4	4	5	6	7	8	9	11
23	2	2	2	2	2	3	4	5	7	8
25	1	1	1	1	1	2	2	3	4	5
27	0	0	0	0	0	1	1	1	2	3
29	0	0	0	0	0	0	0	1	1	2
31	0	0	0	0	0	0	0	0	0	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	116	116	116	116	116	116	116	116	116	116
5	78	82	85	89	93	97	102	107	113	120
10	49	53	57	62	68	75	83	91	101	112
15	28	32	36	41	47	54	62	72	84	99
17	22	26	30	34	40	47	55	64	76	92
19	17	21	24	28	33	40	48	58	71	84
21	13	16	19	23	28	34	42	51	62	77
23	10	12	15	18	23	28	35	44	57	72
25	7	9	12	15	19	23	30	39	50	65
27	5	7	9	11	15	19	25	33	43	56
29	3	5	6	9	11	15	21	27	37	49
31	1	3	4	6	9	12	16	22	30	42
33	1	2	3	4	6	9	13	18	26	36
34	1	1	2	4	5	8	11	16	22	31
35	0	1	2	3	4	7	10	14	20	29
36	0	0	1	2	4	6	9	13	18	27
37	0	0	1	2	3	5	7	11	16	23

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706406.IES

CANDELA TABULATION - (Cont.)

39	0	0	0	1	2	3	5	8	13	19
41	0	0	0	0	1	2	4	6	9	14
43	0	0	0	0	1	1	2	4	7	11
45	0	0	0	0	0	1	1	3	5	8
47	0	0	0	0	0	0	1	2	3	5
49	0	0	0	0	0	0	0	1	2	3
51	0	0	0	0	0	0	0	0	1	2
53	0	0	0	0	0	0	0	0	0	1
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	116	116	116	116	116	116	116	116	116	116
5	126	133	140	148	156	163	171	178	186	192
10	124	138	155	173	192	211	231	251	269	289
15	116	138	162	190	221	253	290	323	358	394
17	111	133	160	191	225	265	308	351	395	440
19	103	128	159	193	231	273	322	368	421	483
21	98	125	155	191	232	278	328	388	453	522
23	91	116	147	186	230	282	338	401	475	556
25	83	110	141	179	224	276	339	402	484	582
27	75	101	132	170	216	269	330	408	498	600
29	67	89	118	157	203	262	327	404	499	610
31	58	81	108	143	188	243	314	394	485	612
33	50	68	92	124	166	223	294	376	482	606
34	44	62	88	118	159	212	276	358	462	607
35	41	58	81	110	150	201	270	352	450	582
36	38	53	74	100	137	188	255	337	441	579
37	33	48	67	94	129	180	242	321	416	553
39	27	40	58	81	111	157	216	292	388	515
41	22	33	48	68	95	132	190	261	356	477
43	17	25	38	57	83	116	162	229	311	415
45	12	20	30	47	68	99	136	196	275	365
47	9	15	24	37	55	81	117	174	241	326
49	6	10	17	29	46	70	99	142	200	274
51	3	6	12	21	35	54	83	120	172	228
53	2	4	7	13	24	42	69	102	143	188
55	1	2	4	8	16	30	51	79	113	154
60	0	0	0	1	3	8	18	37	62	85
65	0	0	0	0	0	0	2	7	18	32
70	0	0	0	0	0	0	0	0	0	3
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 : L121706406.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	116	116	116	116	116	116	116
5	198	204	208	212	215	217	217
10	307	322	337	348	355	360	361
15	431	466	499	528	546	558	564
17	491	538	582	615	639	654	658
19	547	605	656	698	729	750	756
21	594	664	730	783	824	846	853
23	647	729	804	860	900	924	932
25	686	778	856	917	963	992	1003
27	708	808	898	966	1019	1052	1064
29	735	842	937	1007	1061	1096	1107
31	744	858	955	1034	1093	1130	1143
33	736	860	970	1062	1124	1160	1172
34	741	867	972	1059	1128	1168	1181
35	718	849	961	1067	1137	1175	1187
36	715	849	961	1063	1134	1177	1191
37	701	837	952	1051	1125	1170	1187
39	655	795	922	1022	1103	1150	1164
41	619	762	884	988	1062	1112	1127
43	565	706	831	930	1005	1053	1074
45	491	631	767	862	936	979	993
47	432	563	684	777	848	884	897
49	357	476	587	679	745	789	803
51	300	392	497	582	632	657	667
53	246	313	403	459	510	540	550
55	202	261	323	381	424	452	463
60	113	144	182	219	249	268	274
65	47	63	81	97	110	119	123
70	7	12	15	17	19	20	20
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 : L121706406.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	57.36	N.A.	10.30
0-30	163.74	N.A.	29.40
0-40	314.51	N.A.	56.50
0-60	536.58	N.A.	96.30
0-80	557.14	N.A.	100.00
0-90	557.14	N.A.	100.00
10-90	544.39	N.A.	97.70
20-40	257.15	N.A.	46.20
20-50	397.83	N.A.	71.40
40-70	241.89	N.A.	43.40
60-80	20.57	N.A.	3.70
70-80	0.75	N.A.	0.10
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	557.14	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	12.75
10-20	44.60
20-30	106.39
30-40	150.77
40-50	140.68
50-60	81.39
60-70	19.82
70-80	0.75
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

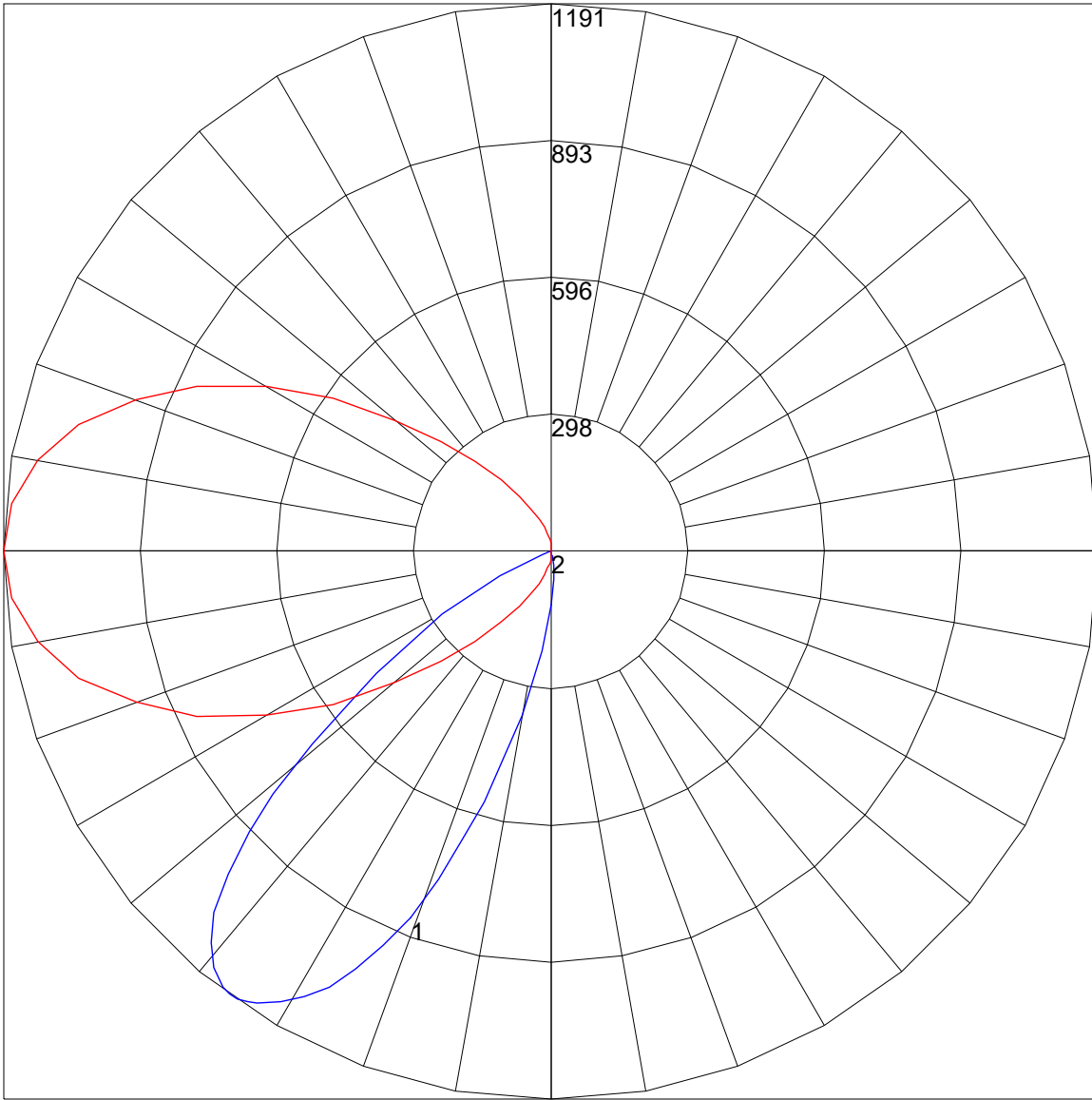
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706406.IES

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	111	108	104	101	109	105	102	100	101	99	97	98	96	94	94	92	91	89
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	80	78
3	95	86	79	74	93	85	78	73	82	76	72	79	74	70	77	73	69	67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	59
5	81	69	61	55	79	68	60	55	66	59	54	64	58	54	62	57	53	51
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	46	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	41	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	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	29	28

POLAR GRAPH



Maximum Candela = 1191 Located At Horizontal Angle = 180, Vertical Angle = 36
1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (36) (Through Max. Cd.)