



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

Report No: L121706412



Report No: L121706412 **Issue Date:** 1/5/2018

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

Model Number: 803/J2-HI-40/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

Manufacturer:	Number Eight Lighting Company
Model Number:	803/J2-HI-40/DIM1-8-700 with FR-P-1-WH trim (35° Aiming Angle)
Driver Model Number:	IntuitiveSystems ISD-701-1000-15-D
Total Lumens:	527.47
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:	56
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	1:20

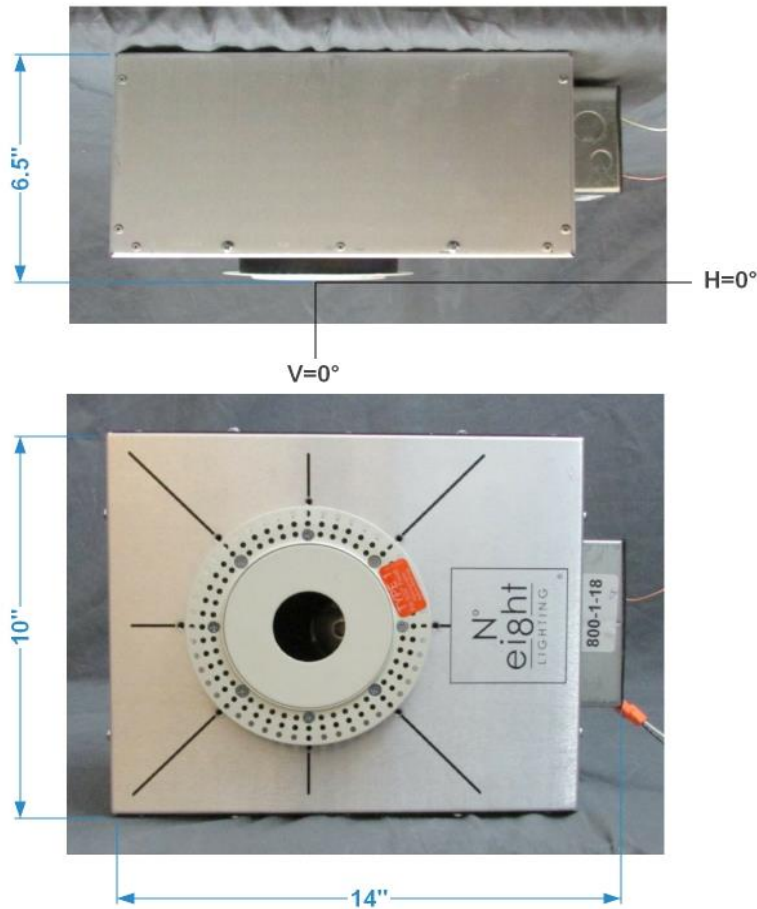


FIG. 1 LUMINAIRE

*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*



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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706412.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L121706412
 [TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
 [ISSUEDATE] 1/5/2018
 [MANUFAC] Number Eight Lighting Company
 [LUMCAT] 803/J2-HI-40/DIM1-8-700 with FR-P-1-WH trim (35° Aiming Angle)
 [LUMINAIRE] LED Recessed Downlight, 40° 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, 9.50W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	527
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	56
Total Luminaire Watts	9.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.20
Spacing Criterion (90-270)	0.68
Spacing Criterion (Diagonal)	1.46
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	112	112	112	112	112	112	112	112	112	112
5	61	61	62	62	63	65	66	68	70	73
10	30	30	31	31	32	34	36	37	40	43
15	13	14	14	14	15	16	17	19	21	23
17	9	9	9	10	10	11	13	14	16	18
19	5	5	6	6	7	7	8	10	11	13
21	3	3	3	3	3	4	5	6	7	9
23	1	1	1	1	2	2	3	3	4	6
25	0	0	0	0	0	1	1	1	2	3
27	0	0	0	0	0	0	0	1	1	2
29	0	0	0	0	0	0	0	0	0	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	112	112	112	112	112	112	112	112	112	112
5	75	78	82	85	89	94	98	103	108	114
10	46	50	54	59	65	71	79	87	96	106
15	26	29	34	38	44	51	59	68	78	92
17	21	24	27	31	37	43	51	60	71	84
19	16	18	22	26	31	36	44	54	65	78
21	11	14	17	21	25	31	38	46	57	70
23	8	10	13	16	20	25	32	41	51	65
25	5	7	9	12	16	21	27	35	45	57
27	3	4	6	8	12	17	22	29	38	50
29	1	2	3	6	9	12	18	24	33	43
31	0	1	2	3	6	9	14	19	27	37
33	0	0	1	2	3	6	10	15	22	31
34	0	0	1	1	2	4	8	14	20	28
35	0	0	0	1	2	4	7	11	17	26
36	0	0	0	0	1	3	5	9	15	23
37	0	0	0	0	1	2	4	7	13	20

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CANDELA TABULATION - (Cont.)

39	0	0	0	0	0	1	2	5	9	15
41	0	0	0	0	0	0	1	2	5	11
43	0	0	0	0	0	0	0	1	3	7
45	0	0	0	0	0	0	0	0	1	4
47	0	0	0	0	0	0	0	0	1	2
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	112	112	112	112	112	112	112	112	112	112
5	121	128	135	142	150	158	165	173	181	187
10	117	132	147	165	183	202	222	243	264	283
15	106	126	149	175	206	239	276	314	354	389
17	100	120	145	174	208	250	293	342	388	435
19	93	115	142	174	212	256	306	359	419	479
21	88	109	136	170	211	260	315	379	447	519
23	81	101	126	163	210	263	324	392	470	553
25	73	95	119	155	199	254	320	393	486	578
27	66	86	111	145	190	246	314	398	493	596
29	58	77	100	133	182	238	309	393	493	606
31	51	70	93	122	165	220	294	375	487	607
33	43	60	81	108	146	203	269	362	473	600
34	39	54	76	105	141	193	257	342	452	592
35	36	52	72	99	133	183	251	330	438	575
36	33	47	66	91	123	175	239	320	427	569
37	29	43	62	86	117	164	226	304	401	541
39	24	35	52	74	103	141	202	276	370	495
41	18	29	43	62	89	123	175	245	336	450
43	13	22	34	52	77	108	150	212	285	386
45	8	16	27	41	63	91	129	175	251	335
47	5	11	20	33	50	73	106	153	216	295
49	2	6	13	25	39	61	90	126	178	241
51	1	3	8	17	29	47	71	103	146	200
53	0	2	4	9	19	34	55	84	122	167
55	0	0	2	5	12	23	39	62	94	133
60	0	0	0	0	2	5	11	22	39	62
65	0	0	0	0	0	0	1	3	6	13
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

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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	112	112	112	112	112	112	112
5	193	199	203	207	211	213	213
10	302	318	333	344	352	358	359
15	427	463	498	525	545	557	562
17	488	535	580	613	637	653	657
19	540	602	653	695	728	749	756
21	591	661	727	780	821	844	851
23	644	731	801	857	897	922	931
25	675	775	853	915	961	992	1002
27	704	804	894	962	1017	1050	1061
29	731	845	934	1005	1059	1094	1106
31	731	855	952	1032	1091	1129	1141
33	732	855	967	1052	1121	1158	1170
34	736	862	968	1056	1124	1164	1178
35	712	843	955	1062	1132	1172	1185
36	708	842	962	1059	1131	1172	1189
37	692	829	943	1042	1120	1166	1181
39	636	780	901	1016	1093	1140	1154
41	589	733	860	970	1048	1098	1113
43	522	659	790	895	977	1029	1051
45	444	579	706	811	890	943	960
47	382	492	620	722	799	846	860
49	322	407	503	607	695	746	764
51	274	351	432	502	557	596	614
53	222	283	356	422	478	510	521
55	180	237	293	347	391	422	431
60	93	129	163	196	225	243	249
65	22	34	49	66	80	92	95
70	0	1	3	7	9	11	11
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 : L121706412.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	55.73	N.A.	10.60
0-30	159.57	N.A.	30.30
0-40	307.14	N.A.	58.20
0-60	512.37	N.A.	97.10
0-80	527.47	N.A.	100.00
0-90	527.47	N.A.	100.00
10-90	515.11	N.A.	97.70
20-40	251.41	N.A.	47.70
20-50	384.04	N.A.	72.80
40-70	220.06	N.A.	41.70
60-80	15.10	N.A.	2.90
70-80	0.27	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	527.47	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	12.35
10-20	43.37
20-30	103.84
30-40	147.57
40-50	132.63
50-60	72.60
60-70	14.83
70-80	0.27
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

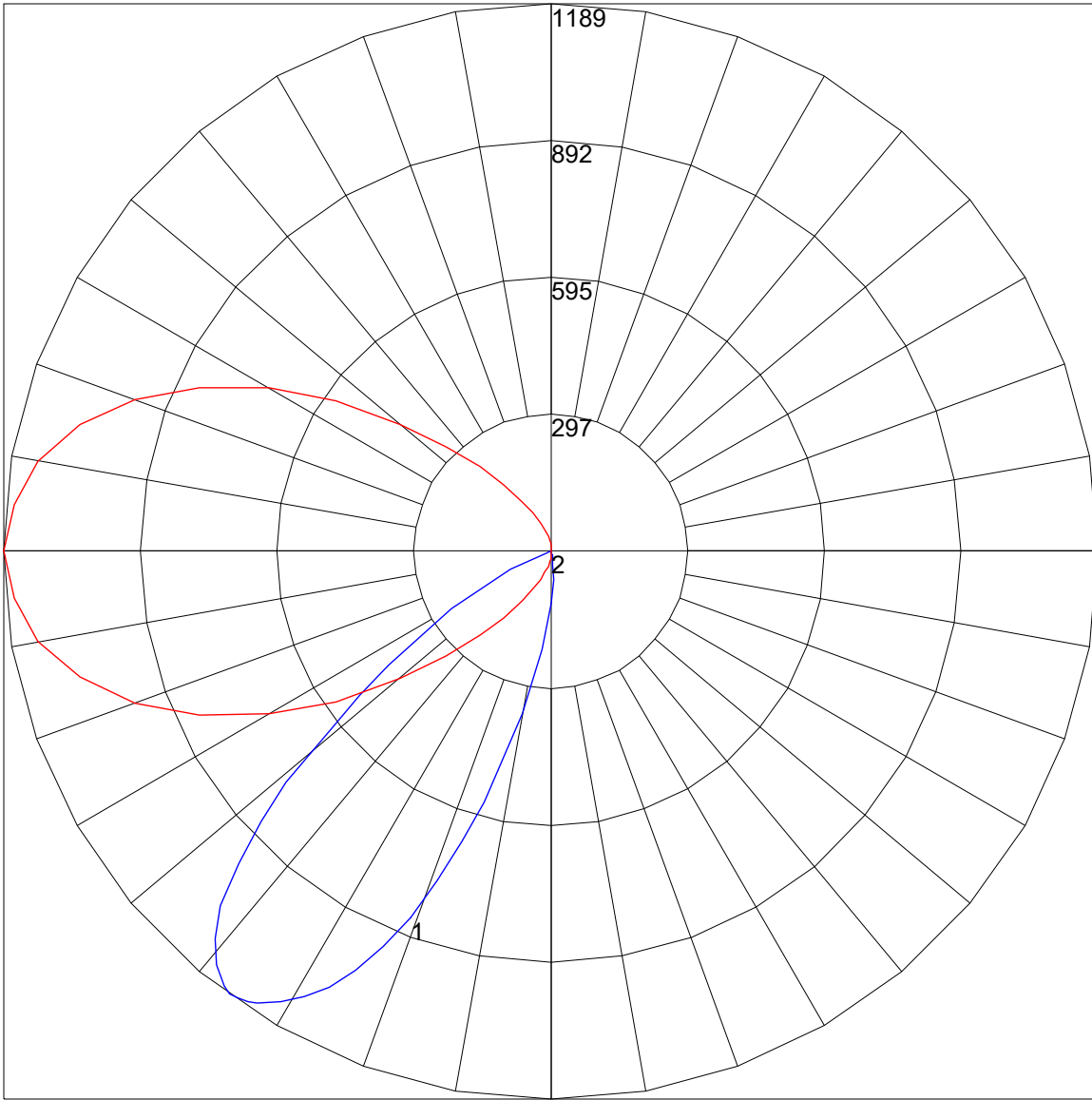
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706412.IES

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	89
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59
5	81	70	62	56	79	69	61	55	67	60	55	65	59	54	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	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40
8	64	52	44	38	63	51	43	38	50	43	38	49	42	38	47	42	37	36
9	60	47	39	34	59	47	39	34	45	39	34	44	38	34	43	38	33	32
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

POLAR GRAPH



Maximum Candela = 1189 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.)