



8165 E Kaiser Blvd. Anaheim, CA 92808
 p. 714.282.2270
 f. 714.676.5558

Report No: L101605101

Date: 11/7/2016



NVLAP LAB CODE 200927-0

Report No: L101605101

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

Model Number: 803/J2-HI-40-XX/DIM1-8-1000/FS-LG-P-1-WH/NL

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. Catalog number is 803/J2-HI-40-XX/DIM1-8-1000/FS-LG-P-1-WH/NL . Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 10/31/16

Date of Tests: 11/7/16 - 11/7/16

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-S1	11/18/16
Xitron Power Analyzer	2503AH	MT-EL01	11/30/16
ITECH DC Power Supply	IT6122	PSDC-03-S1	11/17/16
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/24/16
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-XX/DIM1-8-1000/FS-LG-P-1-WH/NL
Driver Model Number:	INTUITIVE SYSTEMS ISD-601-1050-15-D
Total Lumens:	853.00
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.13
Input Power (W):	15.02
Input Power Factor:	0.98
Current ATHD @ 120V(%):	9%
Current ATHD @ 277V(%):	N/A
Efficacy:	57
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	1:15
Total Operating Time (Hours):	2:00
Off State Power(W):	0.00

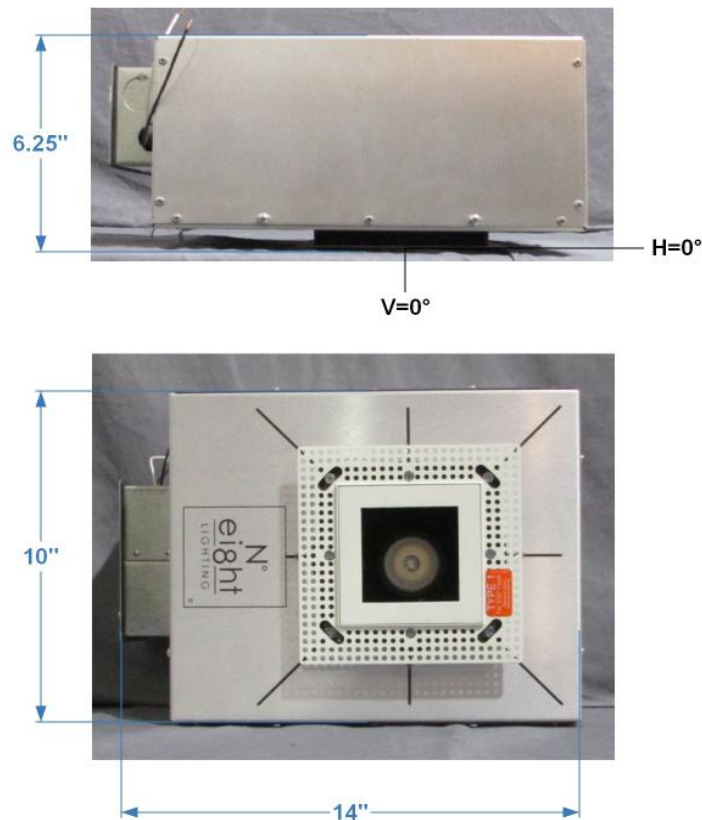


FIG.1 LUMINAIRE

*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 : Dennis Malonzo

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: 9*



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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605101.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L101605101
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUE DATE] 11/03/2016
 [MANUFAC] Number Eight Lighting Company
 [LUMCAT] 803/J2-HI-40-XX/DIM1-8-1000/FS-LG-P-1-WH/NL
 [LUMINAIRE] LED Recessed Adjustable Downlight,40° Beam Spread,2.75" x 2.75" Aperture Trim
 [BALLASTCAT] INTUITIVE SYSTEMS ISD-601-1050-15-D
 [LAMPPOSITION] 0,0
 [LAMPCAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 15.02W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	853
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	57
Total Luminaire Watts	15.02
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.68
Spacing Criterion (90-270)	0.68
Spacing Criterion (Diagonal)	0.66
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.23 ft
Luminous Width (90-270)	0.23 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	15237	18112	15524
55	2835	3899	2835
65	481	962	481
75	785	785	785
85	2332	2332	2332

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605101.IES**

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>
0.0	1514	1514	1514	1514	1514	1514	1514	1514	1514	1514
1.0	1512	1512	1511	1512	1512	1512	1512	1512	1512	1512
3.0	1496	1496	1496	1497	1496	1497	1497	1497	1497	1497
5.0	1465	1465	1465	1465	1465	1465	1466	1466	1466	1466
7.0	1420	1420	1419	1419	1419	1418	1418	1418	1418	1419
9.0	1355	1355	1354	1354	1353	1353	1352	1351	1352	1352
11.0	1273	1273	1273	1272	1272	1272	1271	1270	1270	1271
13.0	1180	1180	1180	1180	1179	1179	1179	1179	1179	1180
15.0	1081	1081	1080	1080	1079	1078	1077	1078	1078	1078
17.0	964	964	964	965	965	966	966	967	967	967
19.5	809	809	809	810	810	811	811	812	813	813
22.5	629	630	630	631	631	631	632	632	633	632
25.5	481	481	482	483	483	483	483	483	485	485
29.0	353	353	354	355	355	355	354	355	355	356
33.0	237	236	236	237	237	237	238	238	239	239
37.5	139	139	139	139	140	141	142	143	143	144
42.5	72	72	72	73	75	77	79	81	82	82
47.5	34	34	34	35	35	37	39	41	43	44
55.0	8	8	9	9	10	10	11	11	11	11
65.0	1	1	1	1	1	1	1	1	2	2
75.0	1	1	1	1	1	1	1	1	1	1
85.0	1	1	1	1	1	1	1	1	1	1
90.0	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>
0.0	1514	1514	1514	1514	1514	1514	1514	1514	1514
1.0	1512	1513	1513	1513	1513	1513	1513	1513	1513
3.0	1498	1498	1498	1498	1499	1499	1499	1499	1500
5.0	1467	1467	1468	1468	1468	1469	1469	1469	1469
7.0	1419	1420	1421	1421	1421	1422	1423	1423	1424
9.0	1352	1353	1353	1353	1354	1355	1355	1356	1356
11.0	1271	1271	1270	1271	1271	1271	1271	1271	1272
13.0	1179	1179	1178	1178	1178	1178	1178	1178	1179
15.0	1077	1076	1076	1076	1075	1075	1075	1075	1075
17.0	966	966	965	964	964	964	963	963	964
19.5	813	814	813	813	813	812	812	812	813
22.5	632	632	633	633	632	632	632	632	632
25.5	485	485	485	485	484	484	484	483	483
29.0	356	356	355	356	355	354	353	353	353
33.0	239	239	240	239	238	237	237	237	236
37.5	144	145	144	143	142	140	139	138	137
42.5	82	81	79	78	76	75	74	73	73
47.5	43	41	40	38	37	36	35	35	35
55.0	11	11	11	10	10	9	9	8	8
65.0	2	1	1	1	1	1	1	1	1
75.0	1	1	1	1	1	1	1	1	1
85.0	1	1	1	1	1	1	1	1	1
90.0	0	0	0	0	0	0	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605101.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	414.75	N.A.	48.60
0-30	648.08	N.A.	76.00
0-40	768.94	N.A.	90.20
0-60	844.89	N.A.	99.10
0-80	851.22	N.A.	99.80
0-90	852.57	N.A.	100.00
10-90	741.52	N.A.	87.00
20-40	354.19	N.A.	41.50
20-50	414.86	N.A.	48.70
40-70	81.16	N.A.	9.50
60-80	6.33	N.A.	0.70
70-80	1.11	N.A.	0.10
80-90	1.35	N.A.	0.20
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	852.57	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	111.06
10-20	303.69
20-30	233.33
30-40	120.86
40-50	60.66
50-60	15.29
60-70	5.22
70-80	1.11
80-90	1.35
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

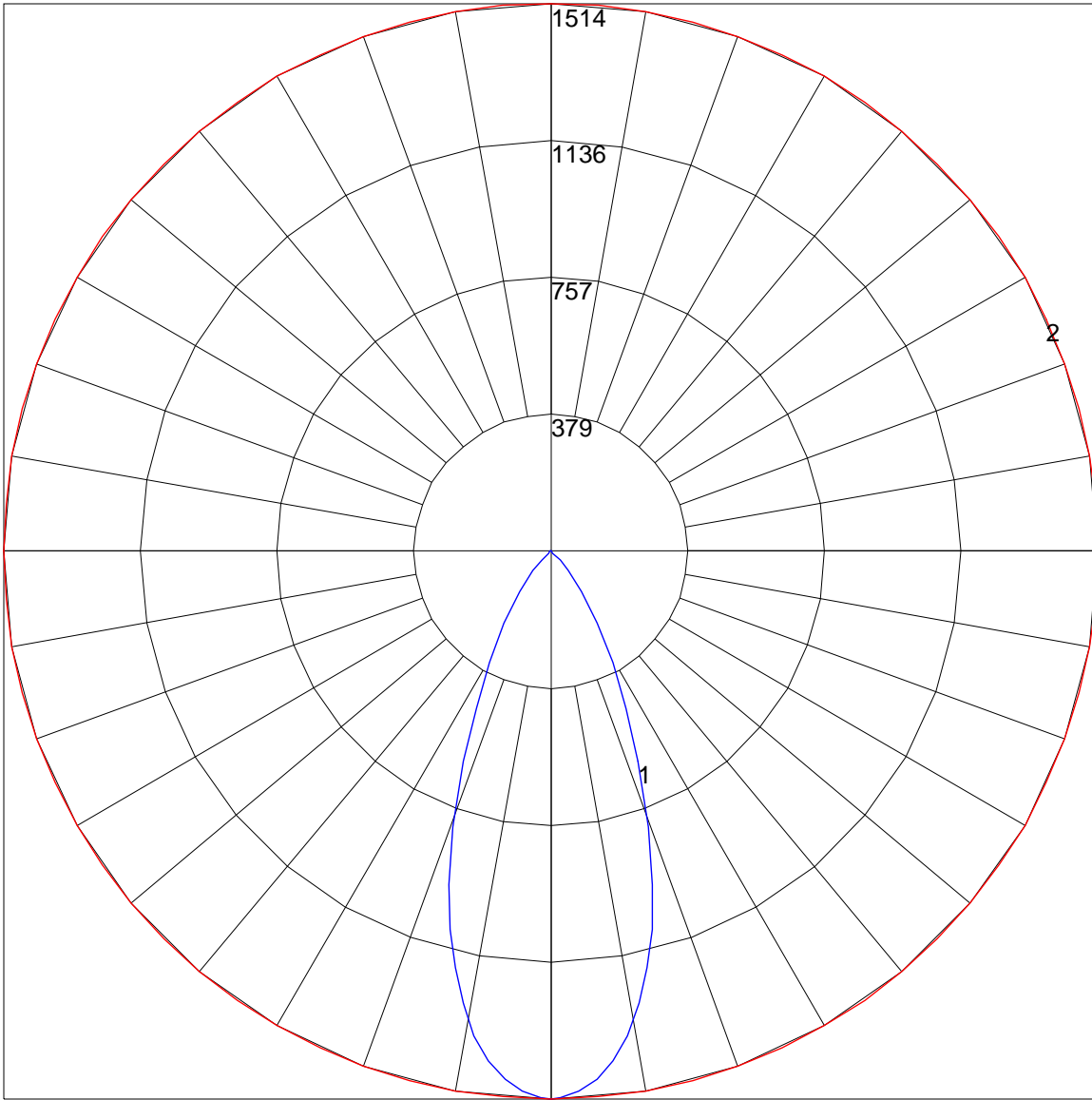
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605101.IES

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	97	96	94
2	108	103	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88
3	103	97	92	88	101	95	91	88	93	89	86	90	87	85	88	86	84	82
4	98	91	86	82	96	90	85	81	88	83	80	86	82	79	84	81	78	77
5	94	86	80	76	92	85	79	75	83	78	75	81	77	74	80	76	74	72
6	89	81	75	71	88	80	75	71	78	74	70	77	73	70	76	72	69	68
7	85	76	71	67	84	76	70	66	74	70	66	73	69	66	72	68	65	64
8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	60
9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	62	59	57
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	54

POLAR GRAPH



Maximum Candela = 1514 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

SAMPLE Illuminance cone diagram

Mounting Height = 12 ft.

