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Report No: L101605108

Date: 11/8/2016



NVLAP LAB CODE 200927-0

Report No: L101605108

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

Model Number: 803/K2-HI-25-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/K2-HI-25-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: 11/8/16 - 11/8/16

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/K2-HI-25-XX/DIM1-8-1000/FS-LG-P-1-WH/NL
Driver Model Number:	INTUITIVE SYSTEMS ISD-601-1050-15-D
Total Lumens:	926.00
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.13
Input Power (W):	15.05
Input Power Factor:	0.98
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	62
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:30
Total Operating Time (Hours):	1:15
Off State Power(W):	0.00

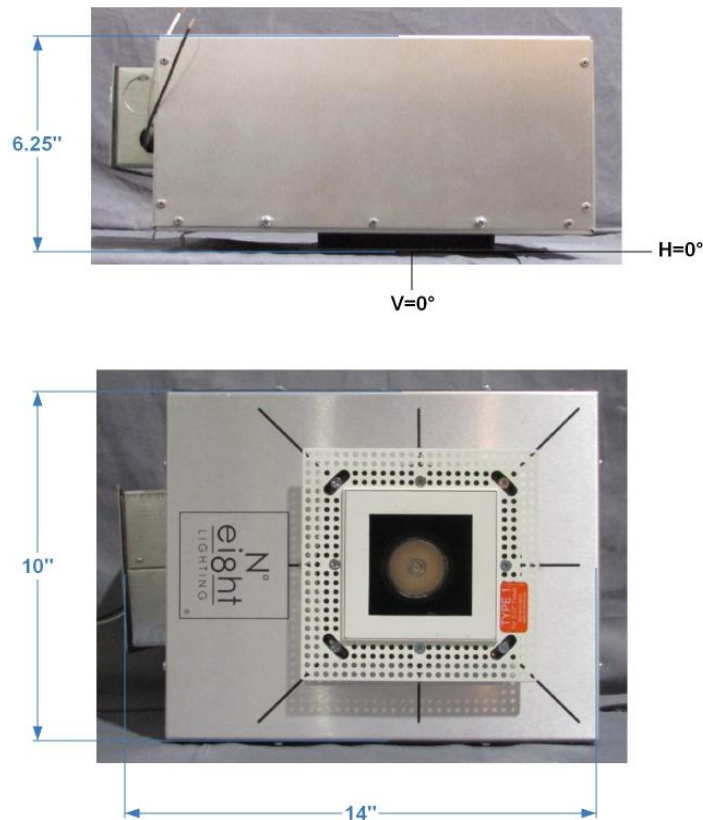


FIG.1 LUMINAIRE

*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.

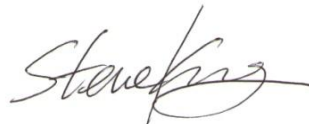
Report Prepared by : Dennis Malonzo

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 : L101605108.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L101605108
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUE DATE] 11/04/2016
 [MANUFAC] Number Eight Lighting Company
 [LUMCAT] 803/K2-HI-25-XX/DIM1-8-1000/FS-LG-P-1-WH/NL
 [LUMINAIRE] LED Recessed Fixed Position Downlight, 25° 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, 15.05W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	926
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	62
Total Luminaire Watts	15.05
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.46
Spacing Criterion (90-270)	0.46
Spacing Criterion (Diagonal)	0.46
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	11787	12218	11500
55	4962	8152	4962
65	1443	3848	1443
75	1571	1571	1571
85	4665	4665	4665

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605108.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	3344	3344	3344	3344	3344	3344	3344	3344	3344	3344
1.0	3337	3337	3337	3337	3337	3338	3338	3338	3339	3339
3.0	3260	3260	3260	3260	3260	3260	3260	3260	3259	3259
5.0	3081	3081	3081	3080	3080	3080	3079	3079	3079	3078
7.0	2816	2815	2815	2814	2813	2812	2811	2810	2809	2809
9.0	2481	2481	2480	2480	2479	2478	2477	2475	2474	2473
11.0	2104	2104	2103	2103	2102	2100	2099	2099	2097	2095
13.0	1725	1726	1726	1724	1723	1722	1720	1719	1717	1714
15.0	1382	1381	1380	1379	1378	1376	1375	1374	1371	1369
17.0	1079	1079	1078	1077	1076	1075	1073	1072	1069	1067
19.5	761	761	760	759	756	755	754	752	750	749
22.5	473	473	473	472	470	470	469	467	467	465
25.5	296	296	295	295	295	294	294	294	293	291
29.0	184	184	183	184	183	183	183	183	182	181
33.0	114	114	114	113	114	113	113	113	113	113
37.5	74	74	74	74	74	74	74	74	74	73
42.5	49	49	49	49	49	49	50	50	50	50
47.5	33	33	33	34	34	35	35	35	35	35
55.0	14	14	15	16	17	19	20	22	23	23
65.0	3	3	3	3	4	4	4	6	7	8
75.0	2	2	2	2	2	2	2	2	2	2
85.0	2	2	2	2	2	1	1	1	1	2
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	3344	3344	3344	3344	3344	3344	3344	3344	3344
1.0	3339	3339	3338	3338	3338	3337	3337	3336	3336
3.0	3259	3258	3258	3258	3257	3256	3255	3255	3254
5.0	3078	3077	3076	3076	3075	3073	3072	3071	3071
7.0	2808	2807	2805	2805	2804	2802	2801	2800	2800
9.0	2471	2469	2467	2466	2463	2461	2460	2459	2459
11.0	2093	2091	2089	2087	2085	2082	2081	2081	2081
13.0	1712	1711	1708	1707	1704	1702	1700	1700	1699
15.0	1367	1365	1362	1361	1359	1357	1356	1354	1354
17.0	1064	1062	1060	1057	1055	1054	1053	1053	1052
19.5	747	744	741	740	738	737	737	736	736
22.5	463	462	459	458	458	457	457	456	456
25.5	290	289	287	287	286	285	285	285	285
29.0	181	179	179	178	177	177	176	176	175
33.0	113	112	112	112	112	111	111	111	111
37.5	73	73	73	73	73	73	72	72	72
42.5	50	49	49	49	48	48	48	48	48
47.5	35	35	35	34	34	33	33	32	32
55.0	23	22	20	19	17	16	15	14	14
65.0	7	6	5	4	4	3	3	3	3
75.0	2	2	2	2	2	2	2	2	2
85.0	1	2	2	2	2	2	2	2	2
90.0	0	0	0	0	0	0	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605108.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	631.88	N.A.	68.30
0-30	795.25	N.A.	85.90
0-40	854.82	N.A.	92.30
0-60	909.23	N.A.	98.20
0-80	923.32	N.A.	99.70
0-90	925.80	N.A.	100.00
10-90	700.87	N.A.	75.70
20-40	222.94	N.A.	24.10
20-50	260.59	N.A.	28.10
40-70	65.19	N.A.	7.00
60-80	14.09	N.A.	1.50
70-80	3.32	N.A.	0.40
80-90	2.48	N.A.	0.30
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	925.80	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	224.94
10-20	406.94
20-30	163.37
30-40	59.57
40-50	37.65
50-60	16.76
60-70	10.78
70-80	3.32
80-90	2.48
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

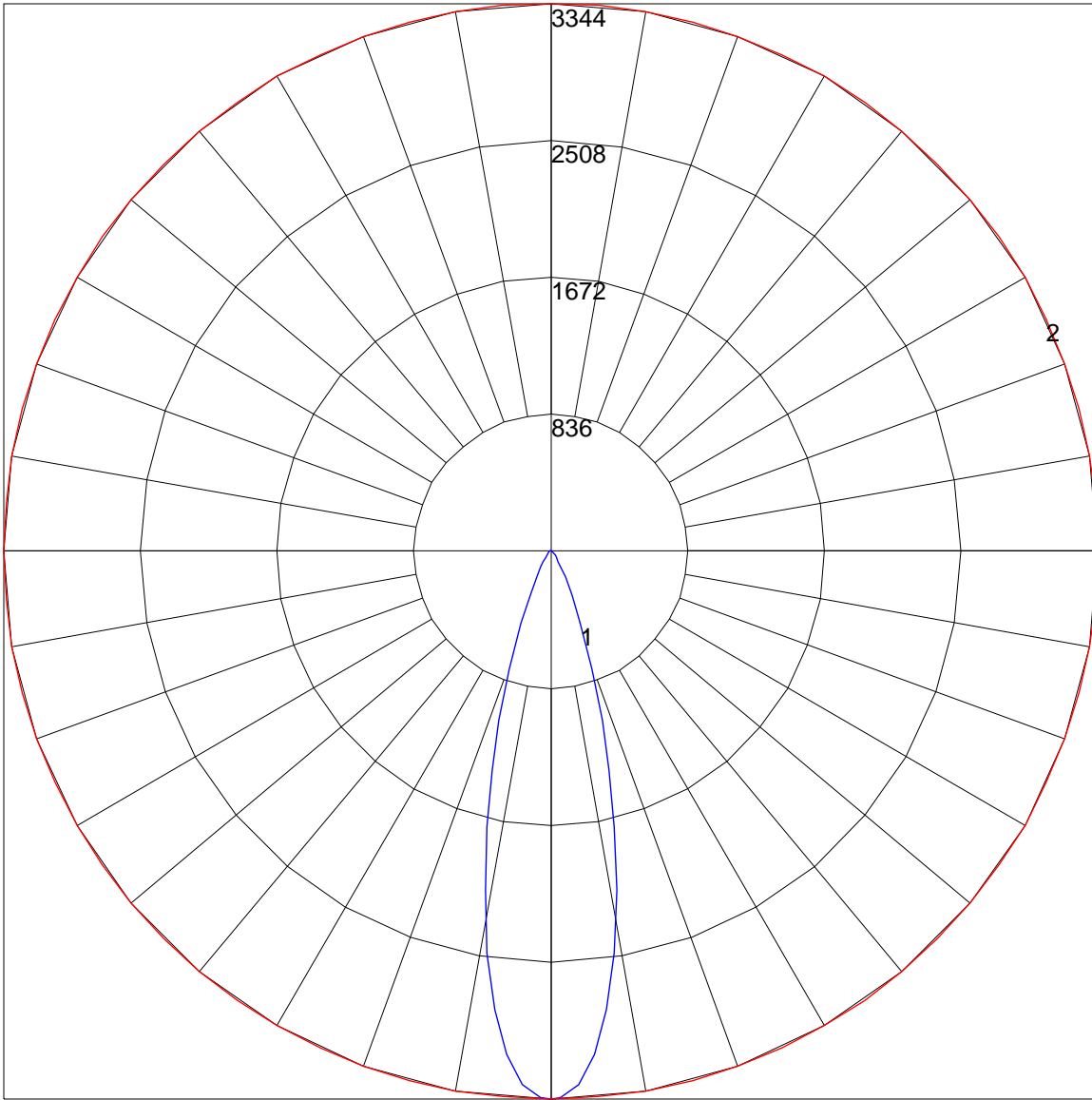
IES INDOOR REPORT
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	114	112	109	107	112	110	108	106	106	104	103	102	101	99	98	97	97	95	
2	110	105	102	99	107	104	100	98	100	98	96	97	95	94	95	93	92	90	
3	105	100	95	92	103	98	94	91	96	92	90	93	91	88	91	89	87	86	
4	101	95	90	86	99	94	89	86	92	88	85	90	87	84	88	85	83	82	
5	97	90	85	82	96	89	85	81	88	84	81	86	83	80	85	82	79	78	
6	94	86	81	78	92	86	81	78	84	80	77	83	79	77	82	79	76	75	
7	90	83	78	74	89	82	78	74	81	77	74	80	76	73	79	76	73	72	
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69	
9	84	77	72	69	83	76	72	68	75	71	68	74	71	68	74	70	68	67	
10	82	74	69	66	81	73	69	66	73	69	66	72	68	66	71	68	65	64	

POLAR GRAPH



Maximum Candela = 3344 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.

