



Report No: L121706415 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 FS-LG-P-1-WH/NL trim

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 - 1/5/18

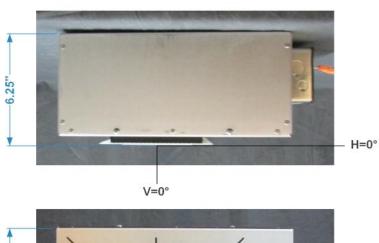
**Seasoning of Sample:** No seasoning was performed in accordance with IESNA LM-79.

#### **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

<sup>\*</sup>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-LG-P-1-WH/NL trim
Driver Model Number:	IntuitiveSystems ISD-701-1000-15-D
Total Lumens:	629.59
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.082
Input Power (W):	9.50
Input Power Factor:	0.97
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	66
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:50
Total Operating Time (Hours):	1:20



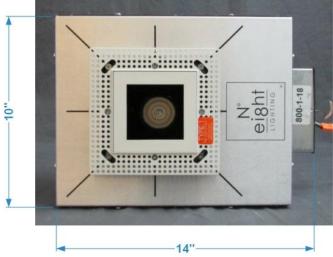


FIG. 1 LUMINAIRE

<sup>\*</sup>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 ceragency of Federal Government.	tification, approval or endorsement by NVLAP, NIST or any
Report Prepared by : Joseph Shin	
Test Report Released by:	Test Report Reviewed by:

Jeff Ahn Engineering Manager

Um

Steve Kang Quality Assurance

Steveling

\*Attached are photometric data reports. Total number of pages: 9

<sup>\*</sup>All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.



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

# **Photometric Test Report**

**IES INDOOR REPORT** 

PHOTOMETRIC FILENAME: L121706415.IES

### **DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TEST] L121706415

[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 FS-LG-P-1-WH/NL trim

[LUMINAIRE] LED Recessed Downlight, 40° Beam Spread, 0° Aiming Angle,

[MORE] 2.75" x 2.75" 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, 9.50W

[TEST PROCEDURE] IESNA:LM-79-08

#### **CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	630 `
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	66
Total Luminaire Watts	9.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.66
Spacing Criterion (90-270)	0.66
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	11500	11500	11500
55	2127	2127	2127
65	0	0	0
75	0	0	0
85	0	0	0

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## **CANDELA TABULATION**

	0
0.0	1140
1.0	1138
2.0	1134
3.0	1126
4.0	1115
5.0	1102
6.0	1086
7.0	1066
8.0	1043
9.0	1018
10.0	989
12.0	924
14.0	850
16.0	766
18.0	673
20.0	579
22.5	469
25.0	375
27.5	301
30.0	238
35.0	140
40.0	77 40
45.0	40 18
50.0 55.0	6
60.0	1
65.0	0
70.0	0
75.0	0
80.0	0
85.0	0
90.0	0
30.0	U

PHOTOMETRIC FILENAME: L121706415.IES

## **ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	322.09	N.A.	51.20
0-30	497.26	N.A.	79.00
0-40	589.13	N.A.	93.60
0-60	629.35	N.A.	100.00
0-80	629.59	N.A.	100.00
0-90	629.59	N.A.	100.00
10-90	527.98	N.A.	83.90
20-40	267.04	N.A.	42.40
20-50	300.42	N.A.	47.70
40-70	40.46	N.A.	6.40
60-80	0.24	N.A.	0.00
70-80	0.00	N.A.	0.00
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	629.59	N.A.	100.00

Total Luminaire Efficiency = N.A.%

## **ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	101.61
10-20	220.48
20-30	175.17
30-40	91.87
40-50	33.38
50-60	6.84
60-70	0.24
70-80	0.00
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

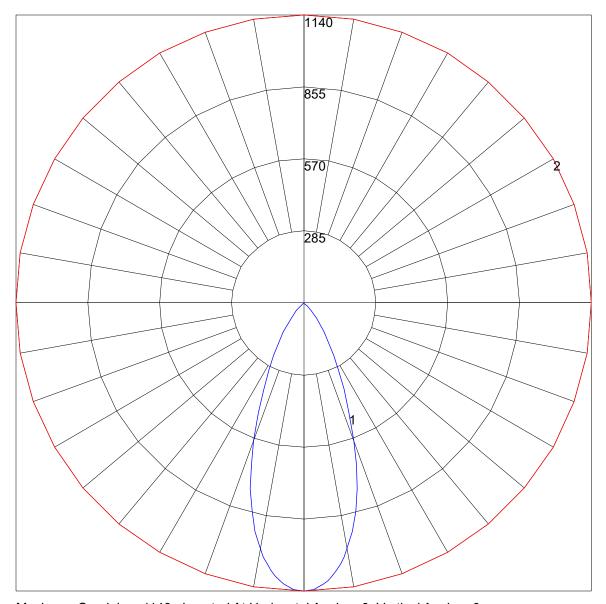
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## **COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	114 111 109 107	111 109 107 105	105 104 102	101 100 99	98 97 96	94
2	109 104 101 98	10710399 96	99 97 94	97 94 92	94 92 90	89
3	10498 93 90	10297 93 89	94 91 88	92 89 86	90 87 85	84
4	99 92 87 83	98 91 87 83	89 85 82	87 84 81	85 83 80	79
5	95 87 82 78	93 86 81 78	85 80 77	83 79 76	81 78 76	74
6	91 83 77 73	89 82 77 73	80 76 72	79 75 72	78 74 72	70
7	87 78 73 69	86 78 73 69	76 72 68	75 71 68	74 71 68	66
8	83 74 69 65	82 74 69 65	73 68 65	72 68 65	71 67 64	63
9	80 71 66 62	79 70 65 62	70 65 62	69 64 61	68 64 61	60
10	76 68 62 59	76 67 62 59	66 62 59	66 61 58	65 61 58	57

### **POLAR GRAPH**



Maximum Candela = 1140 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.)

PHOTOMETRIC FILENAME : L121706415.IES

ILLUMINANCE CONE DIAGRAM: BEAM (50%) MOUNT HEIGHT(Ft): 12

	Illuminance at a	
	Center Beam fc	Beam Width
2.0 <del>R</del>	285 fc	1.5 ft
4.0ft	71.3 fc	2.9 ft
6.0R	31.7 fc	4.4 ft
8.0 <del>0</del>	17.8 fc	5.9 ft
10.0R	11.4 fc	7.4 ft
12.0R	7.92 fc	8.8 ft
	Beam Spread: 40.4°	