



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

Report No: L121706401



Report No: L121706401 **Issue Date:** 1/5/2018

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

Model Number: 803/J2-HI-15/DIM1-8-700 with FS-P-1-WH trim

Test: Photometric/Colorimetric/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: 1/4/18 - 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-15/DIM1-8-700 with FS-P-1-WH trim
Driver Model Number:	IntuitiveSystems ISD-701-1000-15-D
Total Lumens:	612.50
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.082
Input Power (W):	9.53
Input Power Factor:	0.97
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	64
Color Rendering Index (CRI):	94
Correlated Color Temperature (K):	2931
Chromaticity Coordinate x:	0.4449
Chromaticity Coordinate y:	0.4116
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	2:00

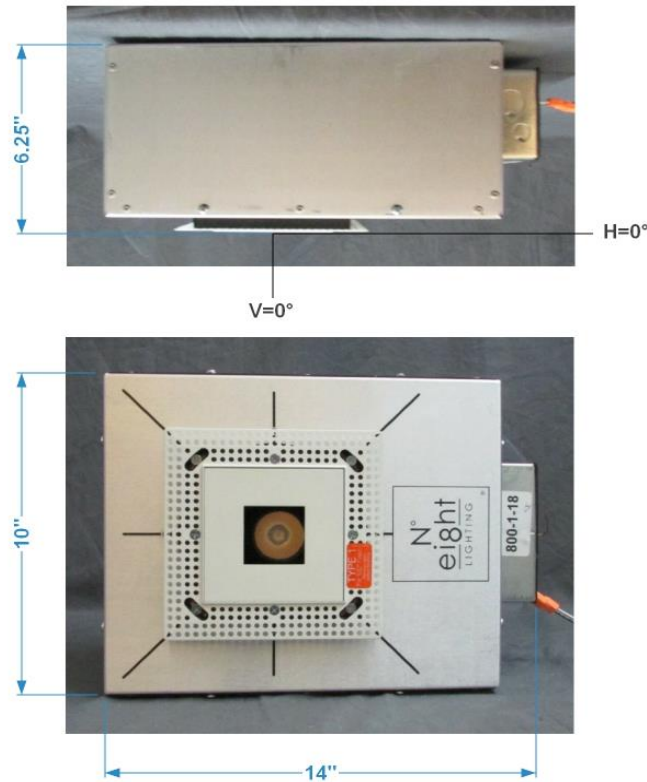
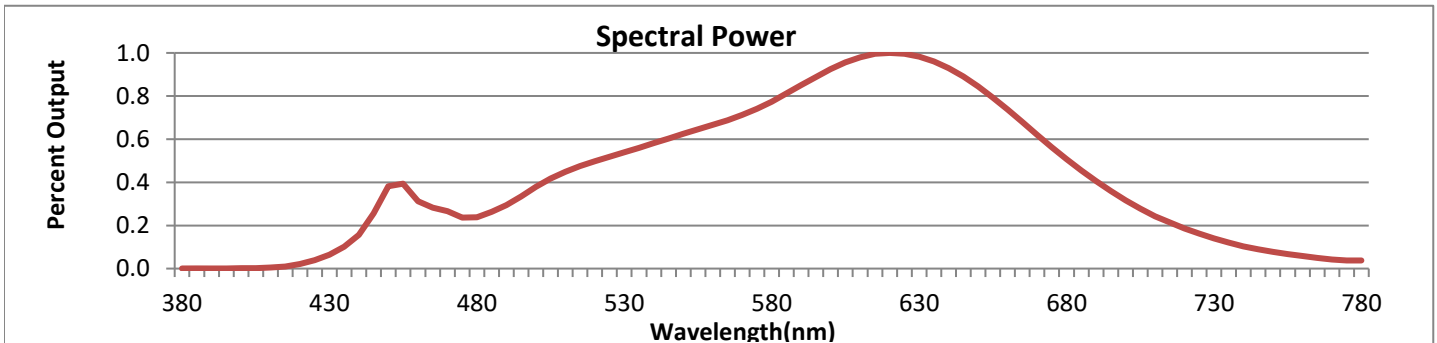


FIG. 1 LUMINAIRE

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



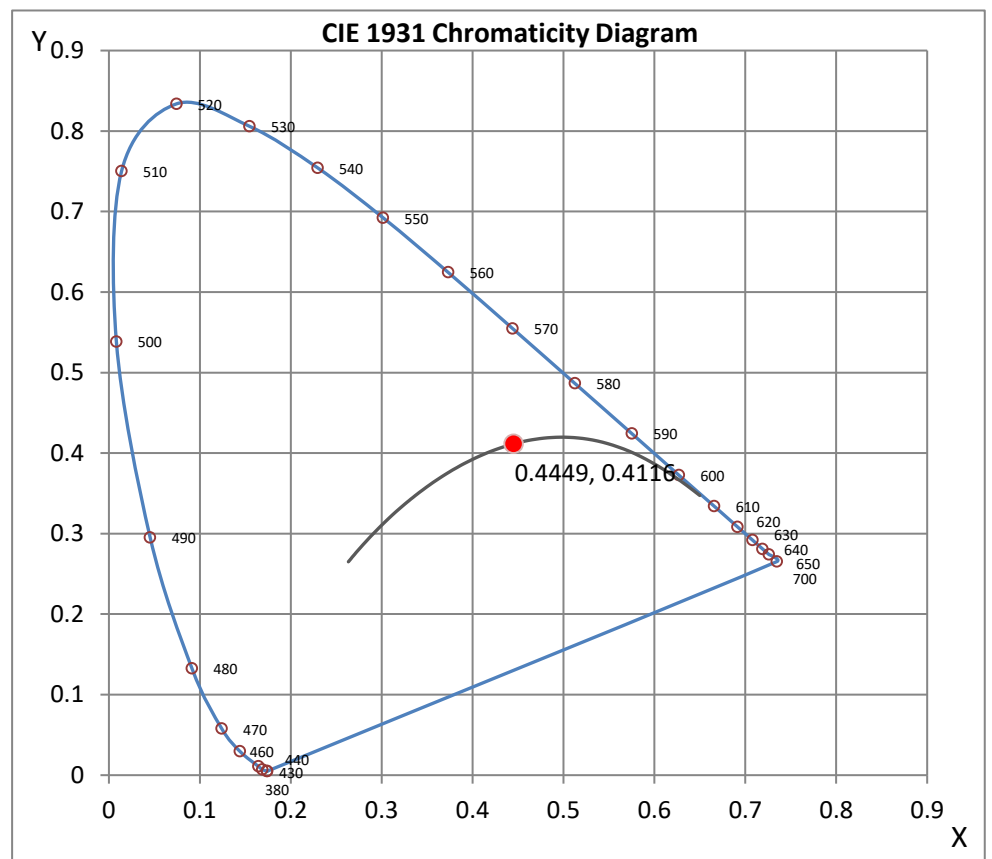
Wavelength	W/m ² nm	440	0.1556	510	0.4487	580	0.7743	650	0.8449	720	0.1867
380	0.0009	450	0.3823	520	0.4971	590	0.8502	660	0.7378	730	0.1402
390	0.0009	460	0.3120	530	0.5385	600	0.9244	670	0.6203	740	0.1034
400	0.0013	470	0.2661	540	0.5816	610	0.9798	680	0.5073	750	0.0778
410	0.0046	480	0.2373	550	0.6250	620	1.0000	690	0.4049	760	0.0580
420	0.0207	490	0.2943	560	0.6661	630	0.9825	700	0.3166	770	0.0427
430	0.0648	500	0.3782	570	0.7122	640	0.9298	710	0.2426	780	0.0369

CRI & CCT

x	0.4449
y	0.4116
u'	0.2524
v'	0.5255
CRI	93.60
CCT	2931
Duv	0.00191

R Values

R1	93.60
R2	96.79
R3	99.21
R4	93.96
R5	93.34
R6	96.77
R7	92.65
R8	82.35
R9	60.12
R10	91.82
R11	95.47
R12	83.38
R13	94.52
R14	98.80



*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 : L121706401.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L121706401
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUE DATE] 1/5/2018
[MANUFAC] Number Eight Lighting Company
[LUMCAT] 803/J2-HI-15/DIM1-8-700 with FS-P-1-WH trim
[LUMINAIRE] LED Recessed Downlight, 15° Beam Spread, 0° 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, 9.53W
[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	613
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	64
Total Luminaire Watts	9.53
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.32
Spacing Criterion (90-270)	0.32
Spacing Criterion (Diagonal)	0.36
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	676	676	676
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706401.IES

CANDELA TABULATION

	<u>0</u>
0.0	3972
1.0	3928
2.0	3811
3.0	3628
4.0	3393
5.0	3126
6.0	2843
7.0	2556
8.0	2275
9.0	2008
10.0	1763
12.0	1345
14.0	1017
16.0	765
18.0	568
20.0	415
22.5	275
25.0	179
27.5	114
30.0	70
35.0	21
40.0	5
45.0	1
50.0	0
55.0	0
60.0	0
65.0	0
70.0	0
75.0	0
80.0	0
85.0	0
90.0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706401.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	504.22	N.A.	82.30
0-30	593.45	N.A.	96.90
0-40	611.19	N.A.	99.80
0-60	612.50	N.A.	100.00
0-80	612.50	N.A.	100.00
0-90	612.50	N.A.	100.00
10-90	359.99	N.A.	58.80
20-40	106.97	N.A.	17.50
20-50	108.28	N.A.	17.70
40-70	1.31	N.A.	0.20
60-80	0.00	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	612.50	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	252.52
10-20	251.70
20-30	89.23
30-40	17.74
40-50	1.31
50-60	0.00
60-70	0.00
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

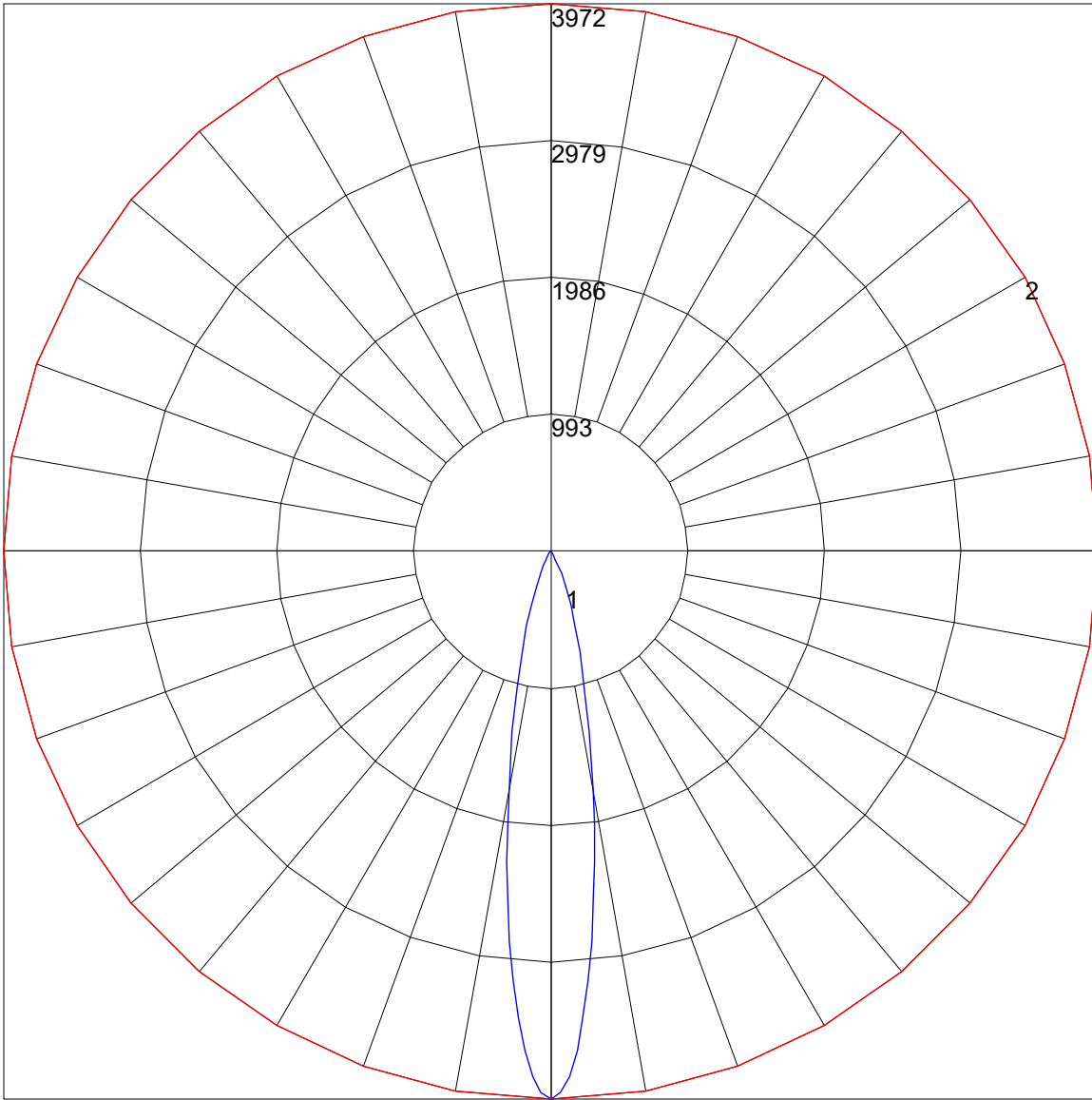
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706401.IES

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	100
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	94	94
3	108	104	101	98	107	103	100	97	100	98	96	98	96	94	96	94	93	91	91
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89
5	102	97	93	90	101	96	92	90	94	91	89	93	90	88	92	89	88	86	86
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	90	87	85	84	84
7	97	91	87	84	96	91	87	84	89	86	84	88	86	83	87	85	83	82	82
8	95	89	85	82	94	88	84	82	87	84	82	86	83	81	86	83	81	80	80
9	92	86	82	80	92	86	82	80	85	82	80	84	81	79	84	81	79	78	78
10	90	84	80	78	90	84	80	78	83	80	78	82	80	77	82	79	77	76	76

POLAR GRAPH



Maximum Candela = 3972 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.)

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

