



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

Report No: L121706466



Report No: L121706466

Issue Date: 1/16/2018

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

Model Number: 804/J2-WD-15/DIM1-8-1000-WD 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: 1/9/18 - 1/16/18

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:	804/J2-WD-15/DIM1-8-1000-WD with FS-P-1-WH trim
Driver Model Number:	IntuitiveSystems ISD-701-350-15-D
Total Lumens:	803.47
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.12
Input Power (W):	14.36
Input Power Factor:	0.98
Current ATHD @ 120V(%):	5%
Current ATHD @ 277V(%):	N/A
Efficacy:	56
Color Rendering Index (CRI):	98
Correlated Color Temperature (K):	3093
Chromaticity Coordinate x:	0.4283
Chromaticity Coordinate y:	0.3971
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:40
Total Operating Time (Hours):	1:15

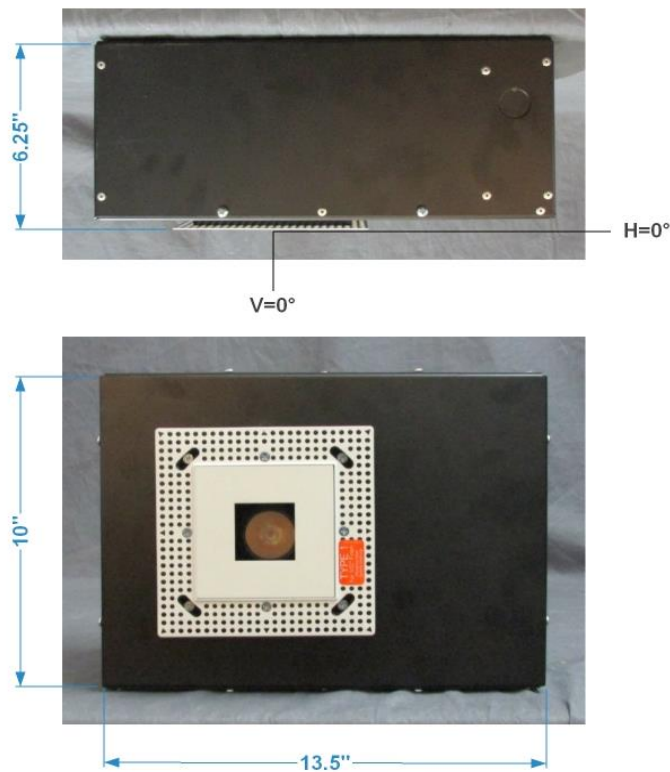
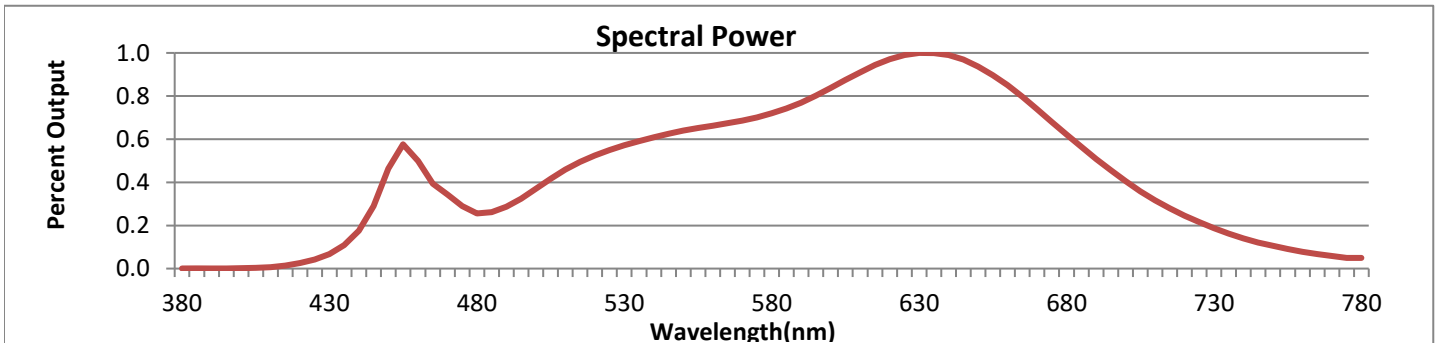


FIG. 1 LUMINAIRE

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



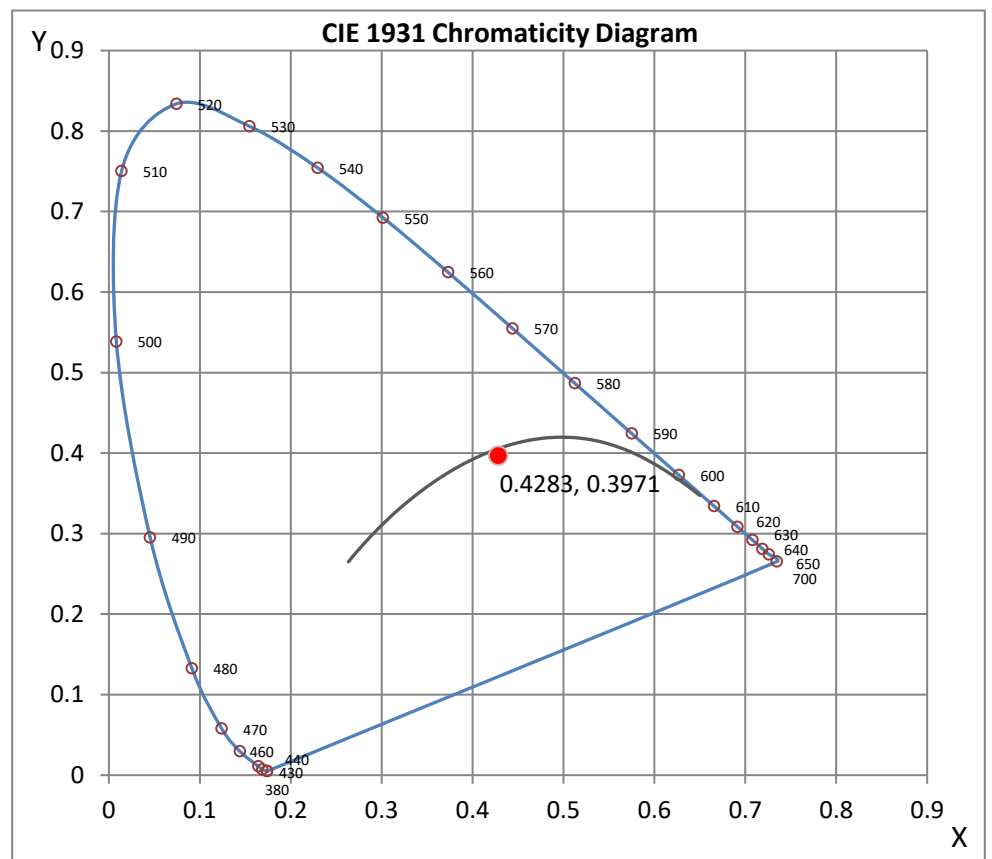
Wavelength	W/m ² nm	440	0.1750	510	0.4588	580	0.7195	650	0.9373	720	0.2460
380	0.0009	450	0.4639	520	0.5236	590	0.7698	660	0.8504	730	0.1873
390	0.0010	460	0.4985	530	0.5718	600	0.8376	670	0.7389	740	0.1399
400	0.0017	470	0.3429	540	0.6086	610	0.9107	680	0.6228	750	0.1053
410	0.0069	480	0.2563	550	0.6397	620	0.9707	690	0.5087	760	0.0782
420	0.0252	490	0.2872	560	0.6630	630	1.0000	700	0.4052	770	0.0578
430	0.0680	500	0.3694	570	0.6856	640	0.9896	710	0.3167	780	0.0498

CRI & CCT

x	0.4283
y	0.3971
u'	0.2480
v'	0.5173
CRI	98.00
CCT	3093
Duv	-0.00158

R Values

R1	99.19
R2	99.37
R3	96.43
R4	99.03
R5	98.66
R6	97.21
R7	97.61
R8	96.13
R9	91.06
R10	96.80
R11	97.29
R12	82.41
R13	99.52
R14	96.93



*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 : L121706466.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L121706466
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUE DATE] 1/16/2018
[MANUFAC] Number Eight Lighting Company
[LUMCAT] 804/J2-WD-15/DIM1-8-1000-WD 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-701-350-15-D
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 120VAC, 14.36W
[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	803
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	56
Total Luminaire Watts	14.36
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.40
Spacing Criterion (90-270)	0.40
Spacing Criterion (Diagonal)	0.40
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	1352	1352	1352
55	0	0	0
65	0	0	0
75	0	0	0
85	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706466.IES

CANDELA TABULATION

	<u>0</u>
0.0	3971
1.0	3953
2.0	3894
3.0	3801
4.0	3672
5.0	3503
6.0	3297
7.0	3061
8.0	2810
9.0	2547
10.0	2287
12.0	1798
14.0	1387
16.0	1061
18.0	805
20.0	602
22.5	412
25.0	279
27.5	183
30.0	112
35.0	32
40.0	7
45.0	2
50.0	1
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 : L121706466.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	637.29	N.A.	79.30
0-30	773.27	N.A.	96.20
0-40	800.98	N.A.	99.70
0-60	803.47	N.A.	100.00
0-80	803.47	N.A.	100.00
0-90	803.47	N.A.	100.00
10-90	509.75	N.A.	63.40
20-40	163.69	N.A.	20.40
20-50	165.96	N.A.	20.70
40-70	2.49	N.A.	0.30
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	803.47	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	293.72
10-20	343.57
20-30	135.98
30-40	27.71
40-50	2.27
50-60	0.22
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

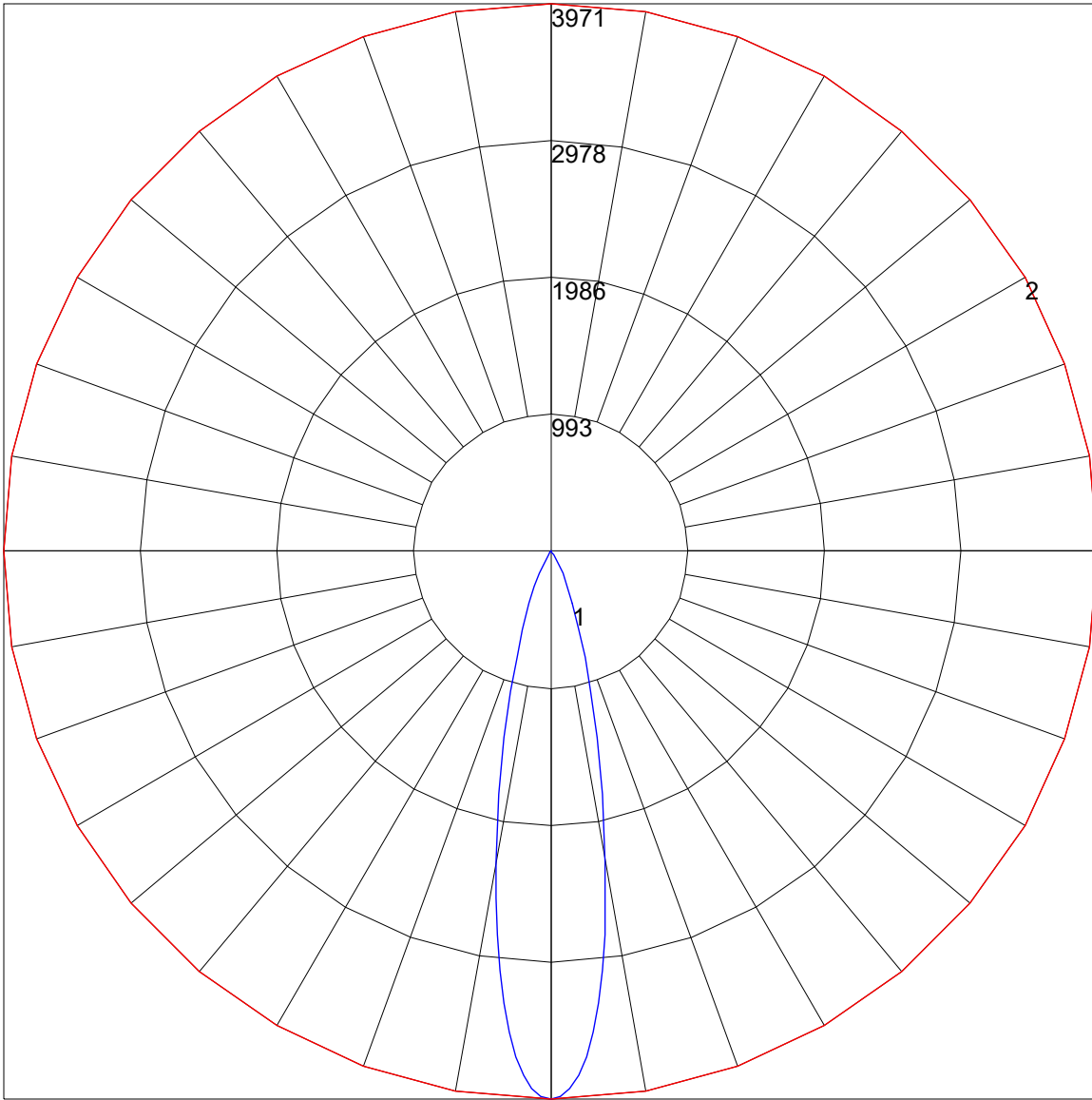
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L121706466.IES

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	0
1	115	113	111	110	113	111	109	108	107	106	104	103	102	101	100	99	99	97	0
2	111	108	105	103	109	106	104	101	103	101	99	100	99	97	98	96	95	94	0
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	94	92	91	0
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88	0
5	102	96	92	89	100	95	91	89	93	90	88	92	89	87	91	88	86	85	0
6	99	93	89	86	98	92	88	85	91	87	85	89	87	84	88	86	84	83	0
7	96	90	86	83	95	89	85	83	88	85	82	87	84	82	86	83	81	80	0
8	93	87	83	80	93	87	83	80	86	82	80	85	82	79	84	81	79	78	0
9	91	85	81	78	90	84	80	78	83	80	78	83	80	77	82	79	77	76	0
10	89	82	78	76	88	82	78	76	81	78	75	81	77	75	80	77	75	74	0

POLAR GRAPH



Maximum Candela = 3971 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

