



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

Report No: L081910675



**Report No:** L081910675

**Issue Date:** 9/12/2019

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

**Model Number:** 202-S-BV-WD-3018-40-NFL/DIM1-2-SO/FLS-2-BV-WH

**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.

**Special Test Condition:** Fixture is tested with no special conditions.

**Sample Arrival Date:** 8/16/19

**Date of Tests:** 9/9/19 - 9/12/19

**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	1/9/21
BK PRECISION	1747	PS-DC04	1/10/21
Fluke Digital Thermometer	52K/J	MT-TP05	1/10/21
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

### General Information

<b>Manufacturer:</b>	Number Eight Lighting Company
<b>Model Number:</b>	202-S-BV-WD-3018-40-NFL/DIM1-2-SO/FLS-2-BV-WH
<b>Driver Model Number:</b>	INTUITIVE SYSTEMS ISD-701-350-15-D

### Photometric & Electrical Test Results

<b>Total Lumens:</b>	760.48
<b>Efficacy:</b>	50.52
<b>Input Voltage (VAC/60Hz):</b>	120.03
<b>Input Current (Amp):</b>	0.1262
<b>Input Power (W):</b>	15.05
<b>Input Power Factor:</b>	0.9940
<b>Current ATHD (%):</b>	5.1%

### Test Condition

<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	1:00
<b>Total Operating Time (Hours):</b>	2:00

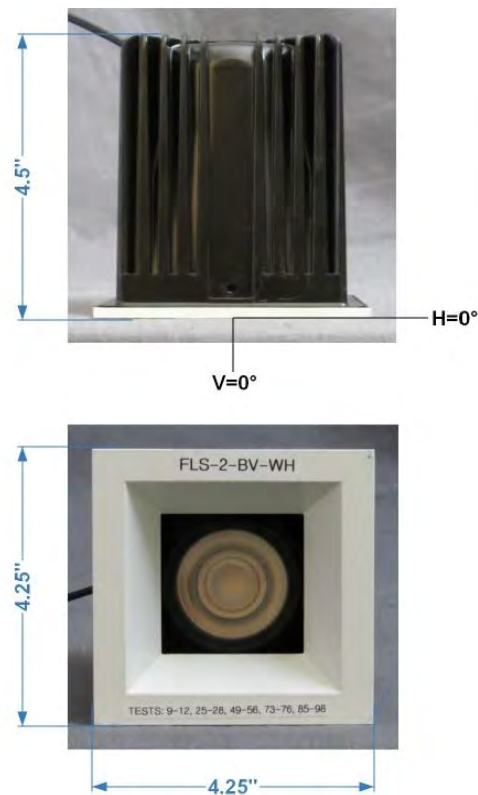


FIG. 1 LUMINAIRE

## 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 : Keyur Patel

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 : L081910675.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L081910675  
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
[ISSUEDATE] 9/12/2019  
[MANUFAC] Number Eight Lighting Company  
[LUMCAT] 202-S-BV-WD-3018-40-NFL/DIM1-2-SO/FLS-2-BV-WH  
[LUMINAIRE] LED Recessed Adjustable Downlight, 0° Aiming Angle, 3000-1800K 90+ CRI, 40° Beam Spread,  
[MORE] NFL Lens, Standard Output 1% Dimming Driver, Square Flanged Bevel Trim, 2.25" x 2.25" Aperture  
[BALLASTCAT] INTUITIVE SYSTEMS ISD-701-350-15-D  
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
[INPUT] 120.03VAC, 15.05W  
[TEST PROCEDURE] IESNA:LM-79-08

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	760
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	51
Total Luminaire Watts	15.05
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.70
Spacing Criterion (90-270)	0.70
Spacing Criterion (Diagonal)	0.72
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.27 ft
Luminous Width (90-270)	0.27 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4277	9909	5215
55	772	1029	772
65	1047	698	1047
75	1140	1140	1140
85	1693	1693	1693

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L081910675.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>
<b>0.0</b>	1306	1306	1306	1306	1306	1306	1306	1306	1306	1306
<b>1.0</b>	1307	1308	1307	1307	1308	1307	1307	1306	1307	1307
<b>3.0</b>	1298	1298	1298	1298	1300	1298	1298	1298	1298	1300
<b>5.0</b>	1277	1277	1275	1275	1276	1276	1276	1275	1277	1275
<b>7.0</b>	1236	1236	1239	1240	1238	1240	1237	1239	1238	1240
<b>9.0</b>	1187	1187	1187	1186	1187	1186	1186	1187	1187	1186
<b>11.0</b>	1123	1122	1123	1123	1123	1124	1123	1124	1123	1123
<b>13.0</b>	1047	1047	1047	1047	1047	1048	1049	1048	1048	1048
<b>15.0</b>	963	963	963	963	963	964	965	965	964	964
<b>17.0</b>	871	870	872	873	873	873	874	875	875	876
<b>19.5</b>	750	751	751	752	754	755	756	757	758	759
<b>22.5</b>	603	603	605	606	608	610	613	615	618	620
<b>25.5</b>	467	466	467	469	471	474	478	482	485	488
<b>29.0</b>	330	331	332	333	336	340	343	347	348	351
<b>33.0</b>	205	206	209	212	216	220	224	226	227	228
<b>37.5</b>	82	83	86	93	103	115	126	133	136	138
<b>42.5</b>	33	33	34	35	36	38	42	52	66	74
<b>47.5</b>	8	8	9	10	13	15	17	18	20	21
<b>55.0</b>	3	3	3	3	3	3	3	4	4	4
<b>65.0</b>	3	3	3	2	2	2	2	2	2	2
<b>75.0</b>	2	2	2	2	2	2	2	2	2	2
<b>85.0</b>	1	1	1	1	1	1	1	1	1	1
<b>90.0</b>	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>
<b>0.0</b>	1306	1306	1306	1306	1306	1306	1306	1306	1306
<b>1.0</b>	1306	1307	1307	1307	1307	1307	1307	1308	1307
<b>3.0</b>	1299	1298	1298	1298	1298	1298	1299	1299	1296
<b>5.0</b>	1275	1275	1276	1275	1274	1275	1274	1274	1275
<b>7.0</b>	1241	1236	1236	1239	1237	1239	1238	1234	1240
<b>9.0</b>	1186	1186	1187	1186	1187	1185	1186	1186	1186
<b>11.0</b>	1123	1123	1123	1124	1124	1124	1123	1124	1123
<b>13.0</b>	1050	1049	1050	1050	1049	1049	1048	1050	1050
<b>15.0</b>	965	965	966	966	968	967	966	966	967
<b>17.0</b>	876	877	877	879	879	880	879	879	878
<b>19.5</b>	760	761	762	762	762	762	762	762	761
<b>22.5</b>	621	621	621	621	620	619	618	618	618
<b>25.5</b>	488	488	487	485	485	484	484	483	483
<b>29.0</b>	352	353	352	352	351	351	350	349	349
<b>33.0</b>	230	232	232	231	229	227	226	225	224
<b>37.5</b>	138	137	134	124	113	105	99	96	95
<b>42.5</b>	68	55	46	43	41	41	40	40	40
<b>47.5</b>	21	19	18	17	15	13	11	10	10
<b>55.0</b>	4	4	4	3	3	3	3	3	3
<b>65.0</b>	2	2	2	2	3	3	3	3	3
<b>75.0</b>	2	2	2	2	2	2	2	2	2
<b>85.0</b>	1	1	1	1	1	1	1	1	1
<b>90.0</b>	0	0	0	0	0	0	0	0	0

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L081910675.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	369.37	N.A.	48.60
0-30	596.00	N.A.	78.40
0-40	708.10	N.A.	93.10
0-60	753.61	N.A.	99.10
0-80	758.59	N.A.	99.80
0-90	760.48	N.A.	100.00
10-90	663.76	N.A.	87.30
20-40	338.73	N.A.	44.50
20-50	378.48	N.A.	49.80
40-70	48.23	N.A.	6.30
60-80	4.97	N.A.	0.70
70-80	2.26	N.A.	0.30
80-90	1.89	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	760.48	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	96.72
10-20	272.65
20-30	226.63
30-40	112.10
40-50	39.75
50-60	5.77
60-70	2.71
70-80	2.26
80-90	1.89
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

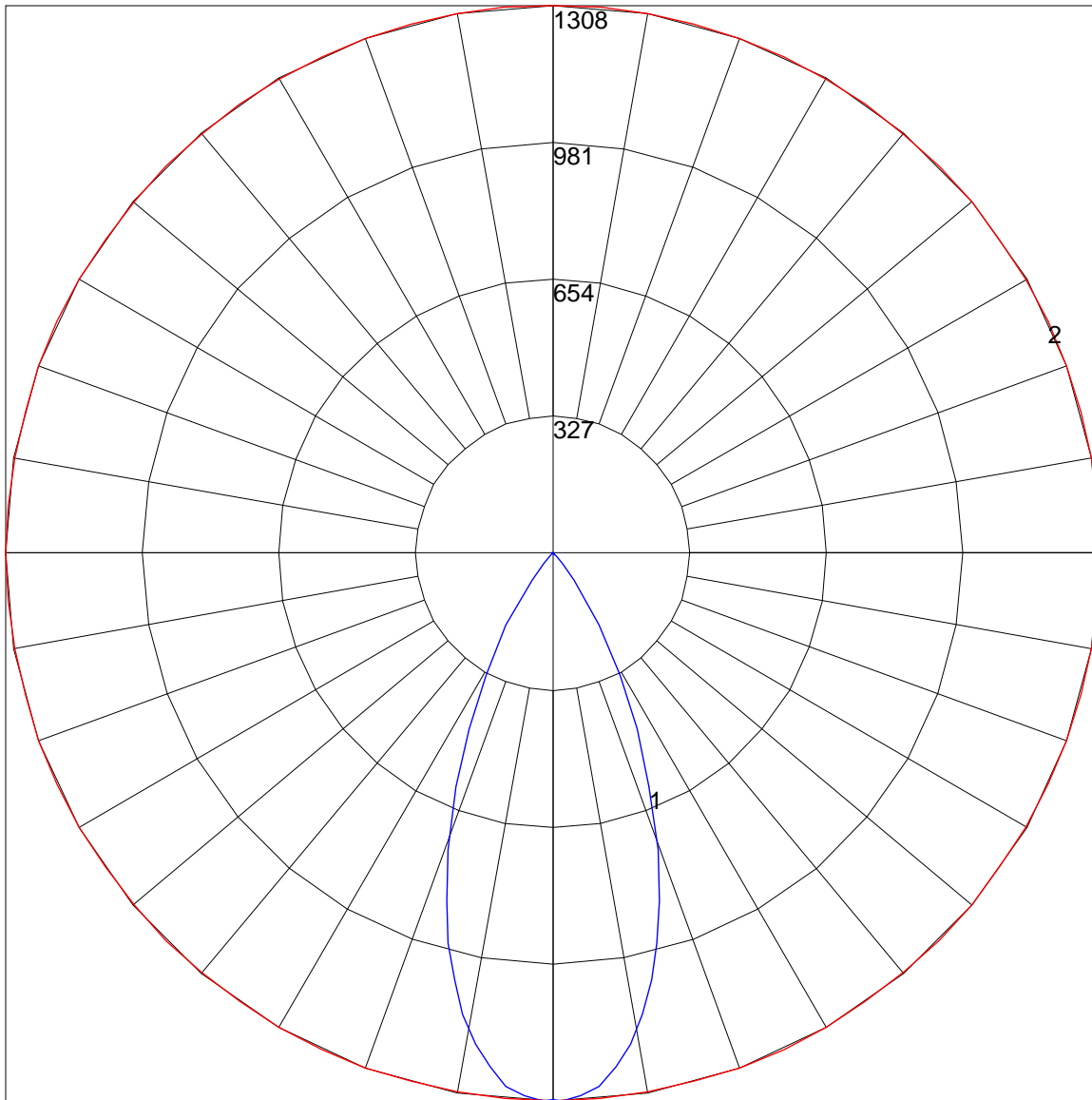
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	103	102	101	100	99	98	97	96	94
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88
3	103	97	93	89	102	96	92	88	93	90	87	91	88	85	89	86	84	83
4	99	92	86	82	97	90	86	82	88	84	81	86	83	80	84	82	79	78
5	94	86	81	77	93	85	80	76	84	79	76	82	78	75	80	77	74	73
6	90	81	76	72	88	81	75	72	79	75	71	78	74	71	77	73	70	69
7	86	77	71	67	85	76	71	67	75	70	67	74	70	67	73	69	66	65
8	82	73	67	64	81	73	67	64	71	67	63	70	66	63	70	66	63	61
9	79	69	64	60	77	69	64	60	68	63	60	67	63	60	66	62	59	58
10	75	66	61	57	74	66	60	57	65	60	57	64	60	57	63	59	56	55

POLAR GRAPH



Maximum Candela = 1308 Located At Horizontal Angle = 5, Vertical Angle = 1  
# 1 - Vertical Plane Through Horizontal Angles (5 - 185) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)



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

