



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

Report No: L081910674



**Report No:** L081910674

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

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

**Model Number:** 202-S-BV-WD-3018-25-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-3018-25-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>	651.33
<b>Efficacy:</b>	43.27
<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

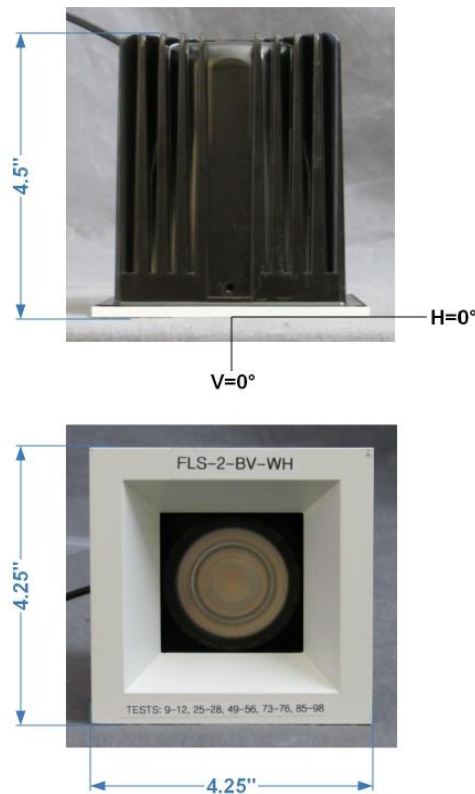


FIG. 1 LUMINAIRE

## 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*



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

# Photometric Test Report

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L081910674.IES**

## DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L081910674  
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
[ISSUE DATE] 9/12/2019  
[MANUFAC] Number Eight Lighting Company  
[LUMCAT] 202-S-BV-WD-3018-25-NFL/DIM1-2-SO/FLS-2-BV-WH  
[LUMINAIRE] LED Recessed Adjustable Downlight, 0° Aiming Angle, 3000-1800K 90+ CRI, 25° 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	651
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	43
Total Luminaire Watts	15.05
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.62
Spacing Criterion (90-270)	0.62
Spacing Criterion (Diagonal)	0.64
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	3964	7093	3651
55	514	1029	514
65	698	698	698
75	570	570	570
85	0	0	0

**IES INDOOR REPORT  
PHOTOMETRIC FILENAME : L081910674.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>	1371	1371	1371	1371	1371	1371	1371	1371	1371	1371
<b>1.0</b>	1375	1376	1376	1376	1377	1376	1376	1375	1375	1375
<b>3.0</b>	1364	1364	1365	1364	1363	1364	1364	1363	1363	1363
<b>5.0</b>	1327	1328	1328	1327	1328	1328	1327	1327	1327	1328
<b>7.0</b>	1271	1271	1271	1271	1271	1269	1269	1268	1270	1270
<b>9.0</b>	1195	1195	1195	1195	1195	1194	1193	1192	1192	1191
<b>11.0</b>	1107	1106	1106	1105	1105	1103	1102	1102	1101	1100
<b>13.0</b>	1005	1005	1004	1004	1004	1001	1001	1000	999	996
<b>15.0</b>	899	899	899	897	897	895	894	893	891	889
<b>17.0</b>	789	789	789	788	787	786	785	783	781	779
<b>19.5</b>	656	655	655	655	654	653	651	651	649	647
<b>22.5</b>	504	504	504	504	504	504	504	504	503	501
<b>25.5</b>	375	374	375	375	375	376	377	377	377	376
<b>29.0</b>	253	254	255	256	258	259	260	260	260	259
<b>33.0</b>	149	149	151	154	158	162	164	165	164	163
<b>37.5</b>	70	71	72	75	79	84	90	94	97	98
<b>42.5</b>	28	28	29	30	31	33	36	42	48	50
<b>47.5</b>	10	10	11	11	12	13	14	16	17	18
<b>55.0</b>	2	2	2	2	3	3	4	4	4	4
<b>65.0</b>	2	2	2	2	2	2	2	2	2	2
<b>75.0</b>	1	1	1	1	1	1	1	1	1	1
<b>85.0</b>	0	0	0	0	0	0	0	0	0	0
<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>	1371	1371	1371	1371	1371	1371	1371	1371	1371
<b>1.0</b>	1376	1375	1376	1376	1376	1376	1375	1376	1376
<b>3.0</b>	1363	1363	1363	1363	1364	1362	1363	1363	1364
<b>5.0</b>	1327	1326	1325	1326	1326	1325	1325	1326	1324
<b>7.0</b>	1266	1268	1266	1267	1266	1267	1267	1264	1265
<b>9.0</b>	1190	1190	1188	1188	1188	1187	1187	1186	1187
<b>11.0</b>	1098	1097	1096	1096	1095	1094	1094	1094	1094
<b>13.0</b>	995	995	994	991	991	990	990	990	989
<b>15.0</b>	887	886	885	884	882	882	881	880	880
<b>17.0</b>	778	777	774	773	772	771	770	770	770
<b>19.5</b>	644	643	640	639	638	636	635	634	633
<b>22.5</b>	499	496	494	491	488	485	483	482	482
<b>25.5</b>	374	370	366	362	359	357	355	354	354
<b>29.0</b>	257	254	251	248	245	243	240	239	238
<b>33.0</b>	163	161	158	154	150	145	142	140	139
<b>37.5</b>	96	92	87	81	75	71	68	66	65
<b>42.5</b>	47	41	35	32	30	28	27	26	26
<b>47.5</b>	17	16	14	13	12	11	10	10	9
<b>55.0</b>	4	4	3	3	2	2	2	2	2
<b>65.0</b>	2	2	2	2	2	2	2	2	2
<b>75.0</b>	1	1	1	1	1	1	1	1	1
<b>85.0</b>	0	0	0	0	0	0	0	0	0
<b>90.0</b>	0	0	0	0	0	0	0	0	0

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L081910674.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	352.74	N.A.	54.20
0-30	532.62	N.A.	81.80
0-40	612.23	N.A.	94.00
0-60	646.92	N.A.	99.30
0-80	650.79	N.A.	99.90
0-90	651.33	N.A.	100.00
10-90	551.68	N.A.	84.70
20-40	259.49	N.A.	39.80
20-50	289.08	N.A.	44.40
40-70	37.01	N.A.	5.70
60-80	3.86	N.A.	0.60
70-80	1.54	N.A.	0.20
80-90	0.54	N.A.	0.10
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	651.33	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	99.65
10-20	253.09
20-30	179.88
30-40	79.61
40-50	29.59
50-60	5.10
60-70	2.32
70-80	1.54
80-90	0.54
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

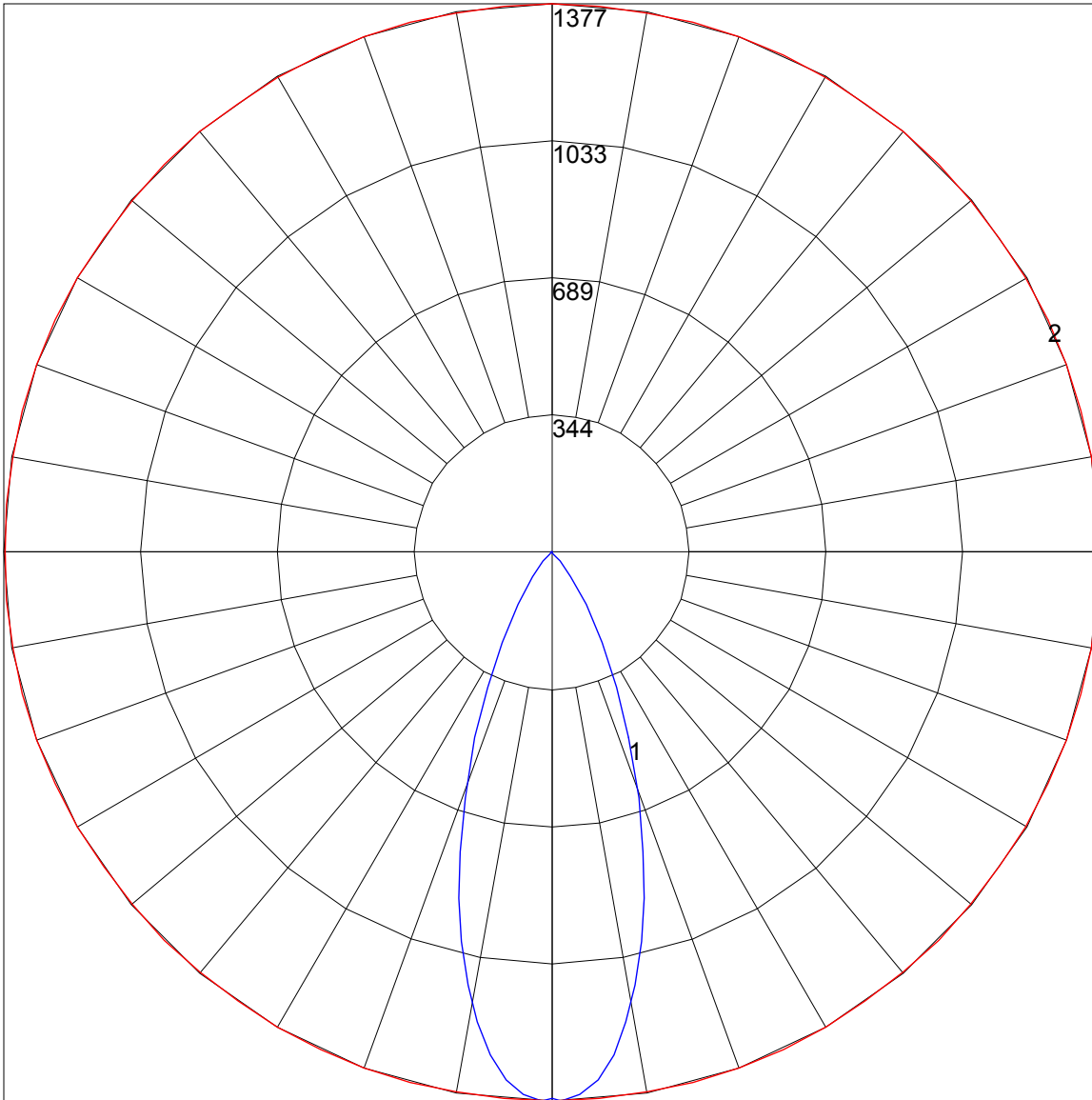
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L081910674.IES**

**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
1	114	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	94
2	109	105	101	98	107	103	99	97	100	97	94	97	94	92	94	92	91	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84
4	100	93	88	84	98	92	87	83	90	86	82	88	84	82	86	83	81	79
5	95	88	82	79	94	87	82	78	85	81	78	83	80	77	82	79	76	75
6	91	83	78	74	90	82	77	74	81	77	73	80	76	73	78	75	72	71
7	87	79	74	70	86	78	73	70	77	73	69	76	72	69	75	71	69	67
8	84	75	70	66	83	75	70	66	74	69	66	73	69	65	72	68	65	64
9	80	72	66	63	79	71	66	63	70	66	63	70	65	62	69	65	62	61
10	77	69	63	60	76	68	63	60	67	63	60	67	62	59	66	62	59	58

POLAR GRAPH



Maximum Candela = 1377 Located At Horizontal Angle = 20, Vertical Angle = 1  
# 1 - Vertical Plane Through Horizontal Angles (20 - 200) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)



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

