



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

Report No: L081910627



Report No: L081910627

Issue Date: 8/27/2019

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

Model Number: 201-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: 8/22/19 - 8/27/19

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

Manufacturer:	Number Eight Lighting Company
Model Number:	201-S-BV-WD-3018-40-NFL/DIM1-2-SO/FLS-2-BV-WH
Driver Model Number:	INTUITIVE SYSTEMS ISD-701-350-15-D

Photometric & Electrical Test Results

Total Lumens:	748.94
Efficacy:	49.84
Input Voltage (VAC/60Hz):	120.04
Input Current (Amp):	0.1260
Input Power (W):	15.03
Input Power Factor:	0.9940
Current ATHD (%):	5.1%

Test Condition

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

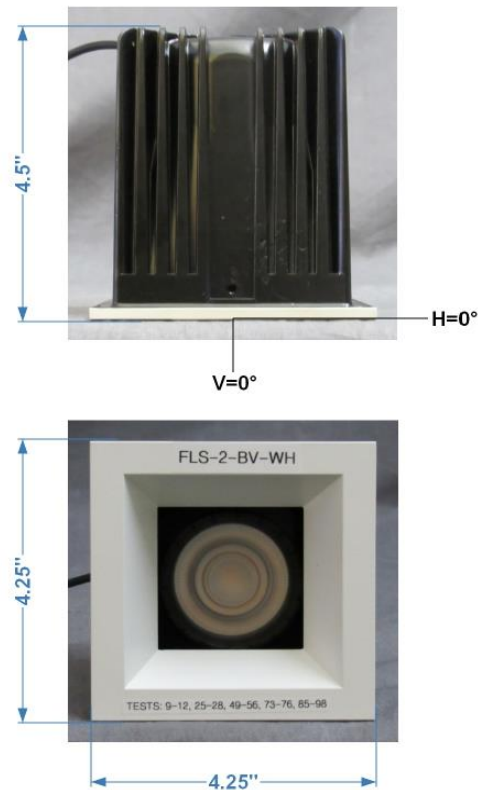


FIG. 1 LUMINAIRE

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 : L081910627.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L081910627
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 8/27/2019
[MANUFAC] Number Eight Lighting Company
[LUMCAT] 201-S-BV-WD-3018-40-NFL/DIM1-2-SO/FLS-2-BV-WH
[LUMINAIRE] LED Recessed Fixed Position Downlight, 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] 120.04VAC, 15.03W
[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	749
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	50
Total Luminaire Watts	15.03
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.68
Spacing Criterion (90-270)	0.66
Spacing Criterion (Diagonal)	0.68
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	6050	11161	5320
55	1029	2057	1029
65	1047	1047	1047
75	1140	1140	1140
85	0	0	0

**IES INDOOR REPORT
PHOTOMETRIC FILENAME : L081910627.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>
0.0	1378	1378	1378	1378	1378	1378	1378	1378	1378	1378
1.0	1381	1381	1381	1381	1381	1381	1382	1380	1381	1380
3.0	1369	1369	1369	1369	1369	1370	1368	1370	1369	1370
5.0	1340	1340	1340	1339	1340	1339	1338	1340	1338	1339
7.0	1293	1293	1293	1294	1292	1292	1292	1292	1291	1290
9.0	1232	1230	1231	1231	1230	1228	1229	1228	1227	1227
11.0	1157	1157	1157	1157	1155	1153	1153	1152	1149	1149
13.0	1070	1070	1070	1069	1067	1066	1065	1064	1061	1060
15.0	975	975	976	975	972	970	970	969	965	963
17.0	875	876	875	874	872	870	869	868	863	861
19.5	747	748	748	746	744	742	741	739	735	732
22.5	599	599	599	598	596	593	592	589	585	582
25.5	463	464	464	462	460	458	456	454	449	445
29.0	329	329	329	329	327	325	323	321	317	314
33.0	212	212	212	212	212	210	209	207	204	202
37.5	116	117	119	121	123	123	124	123	122	121
42.5	40	40	41	43	47	54	62	68	69	70
47.5	18	18	18	19	19	20	21	24	32	37
55.0	4	4	4	4	5	5	6	6	7	8
65.0	3	3	3	3	3	3	3	3	3	3
75.0	2	2	2	2	2	2	2	2	2	2
85.0	0	0	0	0	0	0	0	0	0	0
90.0	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>
0.0	1378	1378	1378	1378	1378	1378	1378	1378	1378
1.0	1380	1381	1380	1381	1380	1380	1381	1379	1381
3.0	1370	1370	1369	1369	1369	1368	1369	1369	1369
5.0	1340	1339	1339	1337	1337	1336	1336	1337	1337
7.0	1292	1292	1292	1289	1288	1287	1288	1289	1288
9.0	1228	1227	1227	1224	1222	1222	1221	1223	1223
11.0	1150	1149	1148	1145	1143	1141	1141	1141	1142
13.0	1060	1060	1058	1054	1051	1049	1048	1050	1049
15.0	964	962	960	956	952	949	948	949	949
17.0	861	859	856	851	847	842	842	842	843
19.5	731	728	724	719	714	709	708	708	707
22.5	580	576	573	567	562	557	555	555	555
25.5	443	440	436	432	427	422	420	421	420
29.0	312	309	306	302	298	295	293	292	292
33.0	200	199	196	194	191	188	186	185	185
37.5	120	118	116	114	111	107	104	102	102
42.5	69	65	58	49	43	38	36	35	35
47.5	31	23	20	19	18	17	16	16	16
55.0	7	6	6	5	5	4	4	4	4
65.0	3	3	3	3	3	3	3	3	3
75.0	2	2	2	2	2	2	2	2	2
85.0	0	0	0	0	0	0	0	0	0
90.0	0	0	0	0	0	0	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L081910627.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	373.80	N.A.	49.90
0-30	586.01	N.A.	78.20
0-40	689.22	N.A.	92.00
0-60	741.39	N.A.	99.00
0-80	747.86	N.A.	99.90
0-90	748.94	N.A.	100.00
10-90	647.82	N.A.	86.50
20-40	315.41	N.A.	42.10
20-50	359.06	N.A.	47.90
40-70	56.07	N.A.	7.50
60-80	6.47	N.A.	0.90
70-80	2.57	N.A.	0.30
80-90	1.08	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	748.94	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	101.12
10-20	272.69
20-30	212.21
30-40	103.21
40-50	43.64
50-60	8.53
60-70	3.90
70-80	2.57
80-90	1.08
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

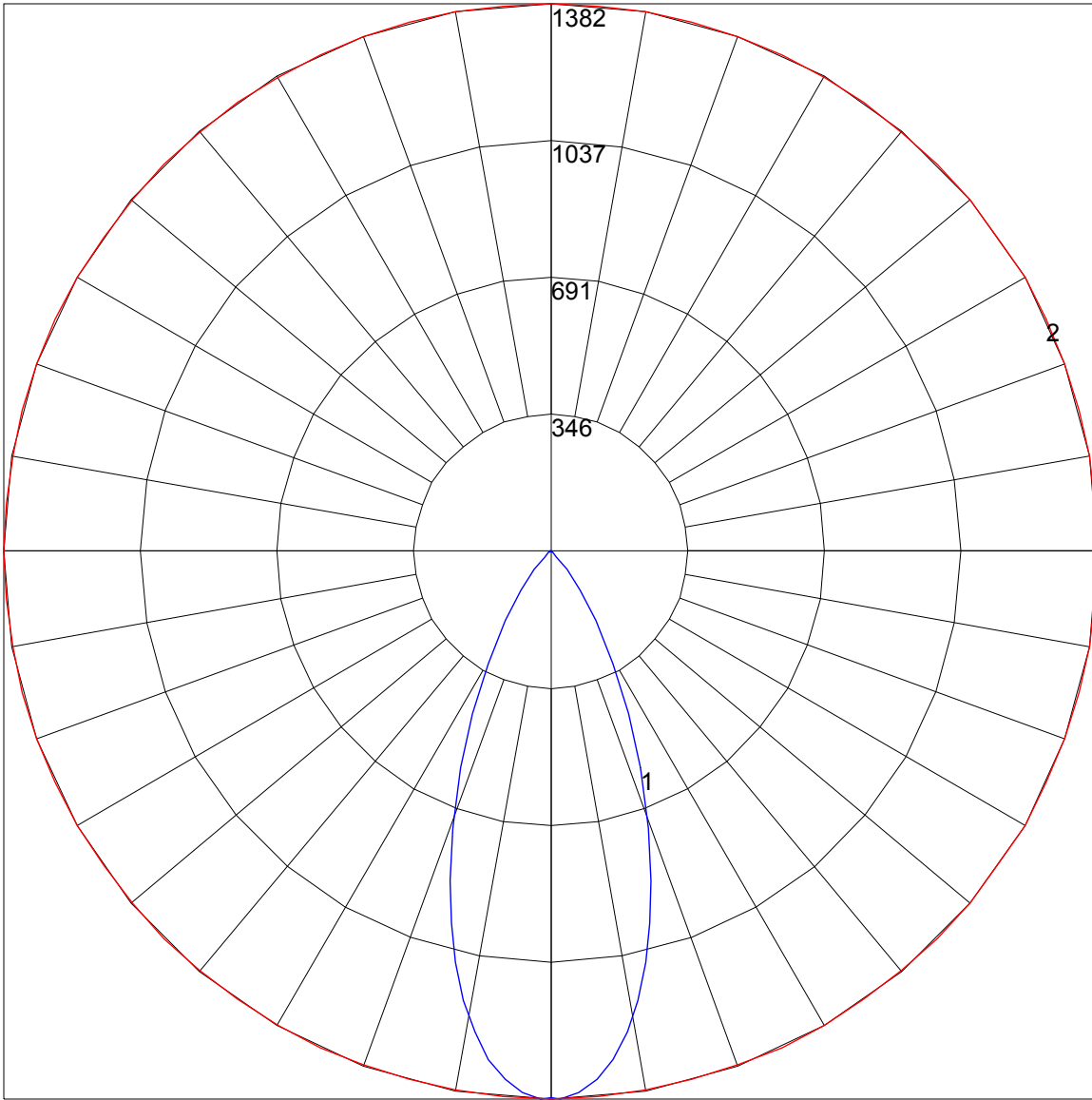
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L081910627.IES

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	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88
3	103	97	93	89	101	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	81	79	78
5	94	86	81	77	93	85	80	76	84	79	76	82	78	75	80	77	74	73
6	90	82	76	72	88	81	75	72	79	75	71	78	74	71	77	73	70	69
7	86	77	72	68	85	77	71	67	75	71	67	74	70	67	73	69	66	65
8	82	73	68	64	81	73	67	64	72	67	63	71	66	63	70	66	63	62
9	79	70	64	60	78	69	64	60	68	63	60	67	63	60	67	63	60	58
10	75	66	61	57	74	66	61	57	65	60	57	64	60	57	64	60	57	56

POLAR GRAPH



Maximum Candela = 1382 Located At Horizontal Angle = 30, Vertical Angle = 1
1 - Vertical Plane Through Horizontal Angles (30 - 210) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)

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

