



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

Report No: L081910618



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Issue Date: 8/23/2019

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

Model Number: 201-S-WD-3018-25-NFL/DIM1-2-SO/ FLS-2-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: 8/21/19 - 8/23/19

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-WD-3018-25-NFL/DIM1-2-SO/ FLS-2-WH
Driver Model Number:	INTUITIVE SYSTEMS ISD-701-350-15-D

Photometric & Electrical Test Results

Total Lumens:	573.22
Efficacy:	39.19
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.1228
Input Power (W):	14.63
Input Power Factor:	0.9923
Current ATHD (%):	7.1%

Test Condition

Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	1:00
Total Operating Time (Hours):	2:05

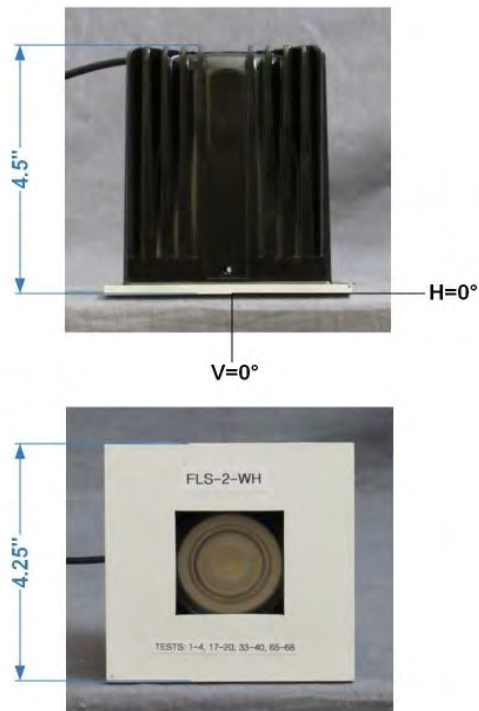


FIG. 1 LUMINAIRE



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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 : L081910618.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L081910618
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 8/23/2019
[MANUFAC] Number Eight Lighting Company
[LUMCAT] 201-S-WD-3018-25-NFL/DIM1-2-SO/ FLS-2-WH
[LUMINAIRE] LED Recessed Fixed Position Downlight, 3000-1800K 90+ CRI, 25° Beam Spread,
[MORE] NFL Lens, Standard Output 1% Dimming Driver, Square Flanged Trim, 1.875" x 1.875" 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] 120.0VAC, 14.63W
[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	573
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	39
Total Luminaire Watts	14.63
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.60
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.60
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	15208	19264	14870
55	4166	4166	3333
65	0	0	0
75	0	0	0
85	0	0	0

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PHOTOMETRIC FILENAME : L081910618.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	1312	1312	1312	1312	1312	1312	1312	1312	1312	1312
1.0	1317	1316	1316	1316	1316	1316	1316	1315	1315	1316
3.0	1301	1301	1301	1300	1301	1300	1301	1300	1300	1298
5.0	1261	1261	1261	1261	1260	1260	1260	1259	1259	1259
7.0	1200	1200	1200	1198	1198	1197	1196	1196	1197	1197
9.0	1119	1119	1120	1119	1119	1117	1116	1116	1115	1114
11.0	1024	1024	1024	1023	1023	1021	1020	1019	1019	1018
13.0	917	916	916	916	916	915	913	913	912	911
15.0	808	808	808	807	807	805	804	802	801	798
17.0	702	702	700	700	699	696	693	692	689	687
19.5	575	574	574	573	572	568	564	561	559	556
22.5	436	435	434	434	432	429	426	424	421	418
25.5	318	318	317	317	315	312	310	309	307	306
29.0	210	210	210	209	208	207	207	207	206	205
33.0	125	124	125	125	125	125	126	127	128	128
37.5	65	65	66	66	67	69	71	73	74	74
42.5	30	30	30	30	31	32	34	36	38	39
47.5	15	15	15	15	15	15	16	16	18	18
55.0	5	5	5	5	5	5	5	5	5	5
65.0	0	0	0	0	0	0	0	0	0	0
75.0	0	0	0	0	0	0	0	0	0	0
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	1312	1312	1312	1312	1312	1312	1312	1312	1312
1.0	1315	1315	1316	1315	1315	1315	1315	1315	1315
3.0	1299	1299	1300	1299	1298	1298	1298	1298	1298
5.0	1259	1258	1257	1257	1257	1256	1256	1257	1256
7.0	1195	1194	1192	1192	1193	1192	1194	1193	1192
9.0	1113	1112	1111	1110	1110	1110	1109	1109	1109
11.0	1018	1016	1013	1012	1012	1010	1010	1010	1010
13.0	909	906	904	903	902	900	899	900	899
15.0	796	793	791	791	790	788	788	788	788
17.0	685	682	680	680	680	679	679	679	679
19.5	554	552	550	551	551	551	550	550	550
22.5	416	414	414	413	413	413	412	412	412
25.5	304	302	300	300	298	298	298	297	297
29.0	204	202	200	198	197	195	195	195	194
33.0	126	124	122	119	117	116	115	115	115
37.5	73	71	68	66	63	62	61	61	61
42.5	38	36	33	31	30	29	28	28	29
47.5	18	16	15	15	15	14	14	15	15
55.0	5	5	5	5	4	4	4	4	4
65.0	0	0	0	0	0	0	0	0	0
75.0	0	0	0	0	0	0	0	0	0
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 : L081910618.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	322.48	N.A.	56.30
0-30	473.75	N.A.	82.60
0-40	537.60	N.A.	93.80
0-60	570.96	N.A.	99.60
0-80	573.22	N.A.	100.00
0-90	573.22	N.A.	100.00
10-90	479.00	N.A.	83.60
20-40	215.12	N.A.	37.50
20-50	241.97	N.A.	42.20
40-70	35.62	N.A.	6.20
60-80	2.25	N.A.	0.40
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	573.22	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	94.21
10-20	228.27
20-30	151.27
30-40	63.84
40-50	26.86
50-60	6.51
60-70	2.25
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

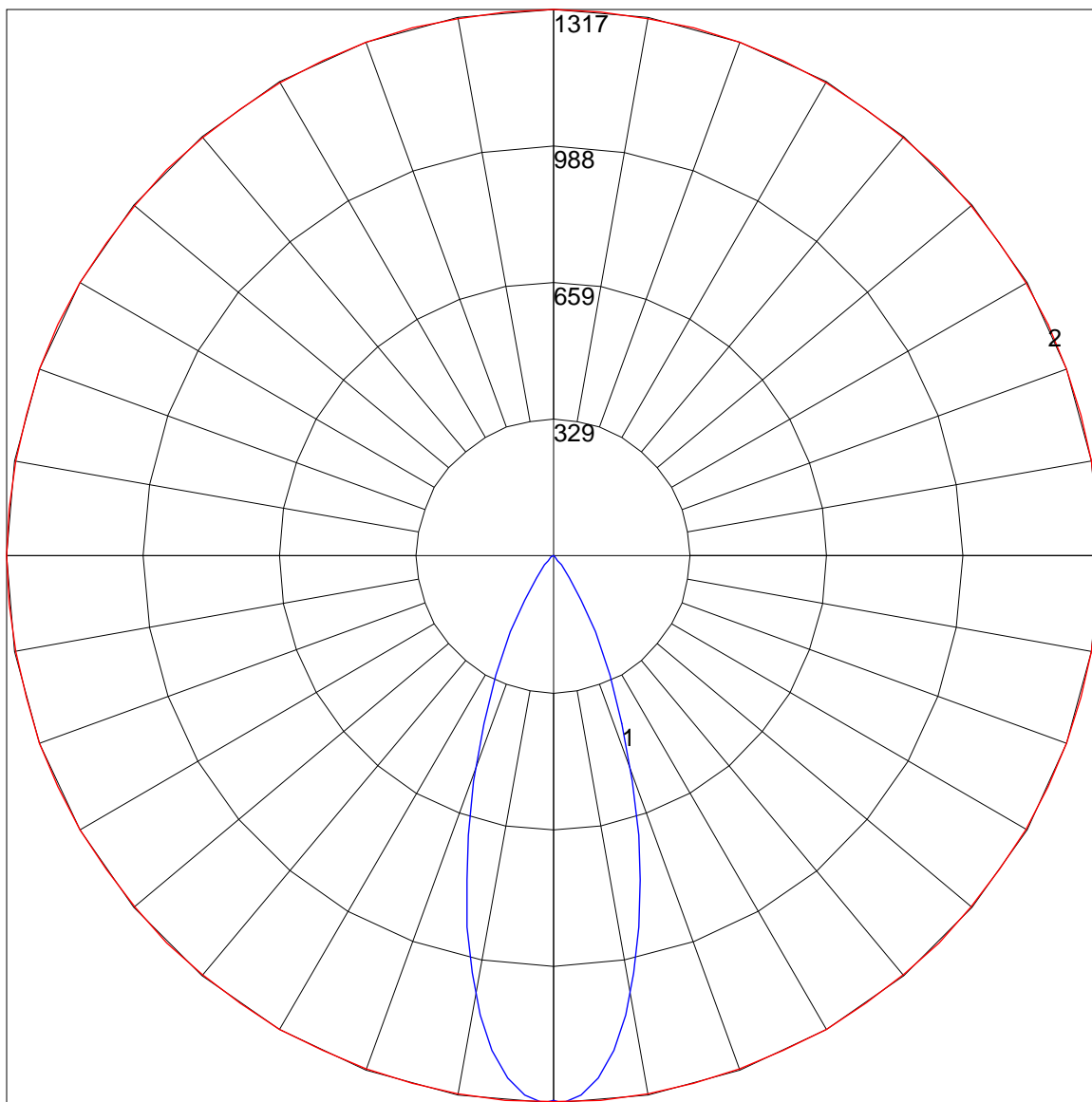
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	93	88	84	98	92	88	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	79	94	87	82	79	86	81	78	84	80	78	83	79	77	76
6	92	84	78	75	90	83	78	74	82	77	74	80	76	73	79	76	73	72
7	88	80	74	71	87	79	74	70	78	73	70	77	73	70	76	72	69	68
8	84	76	71	67	83	75	70	67	74	70	67	73	69	66	72	69	66	65
9	81	72	67	64	80	72	67	64	71	67	63	70	66	63	70	66	63	62
10	78	69	64	61	77	69	64	61	68	64	61	67	63	60	67	63	60	59

POLAR GRAPH



Maximum Candela = 1317 Located At Horizontal Angle = 0, Vertical Angle = 1
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (1) (Through Max. Cd.)

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

