



8165 E Kaiser Blvd. Anaheim, CA 92808  
 p. 714.282.2270  
 f. 714.676.5558

Report No: L101605118

Date: 12/1/2016



NVLAP LAB CODE 200927-0

**Report No:** L101605118

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

**Model Number:** 803/J2-HI-15-XX/DIM1-8-1000/FS-P-1-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. Catalog number is 803/J2-HI-15-XX/DIM1-8-1000/FS-P-1-WH . Received in working and undamaged condition. No modifications were necessary.

**Testing Condition:** Fixture is tested with no special conditions.

**Sample Arrival Date:** 10/31/16

**Date of Tests:** 12/1/16 - 12/1/16

**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-S1	11/18/16
Xitron Power Analyzer	2503AH	MT-EL01	11/30/16
ITECH DC Power Supply	IT6122	PSDC-03-S1	11/17/16
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/24/16
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**

<b>Manufacturer:</b>	Number Eight Lighting Company
<b>Model Number:</b>	803/J2-HI-15-XX/DIM1-8-1000/FS-P-1-WH
<b>Driver Model Number:</b>	INTUITIVE SYSTEMS ISD-601-1050-15-D
<b>Total Lumens:</b>	764.00
<b>Input Voltage (VAC/60Hz):</b>	120.00
<b>Input Current (Amp):</b>	0.13
<b>Input Power (W):</b>	14.99
<b>Input Power Factor:</b>	0.98
<b>Current ATHD @ 120V(%):</b>	8%
<b>Current ATHD @ 277V(%):</b>	N/A
<b>Efficacy:</b>	51
<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	0:45
<b>Total Operating Time (Hours):</b>	1:50
<b>Off State Power(W):</b>	0.00

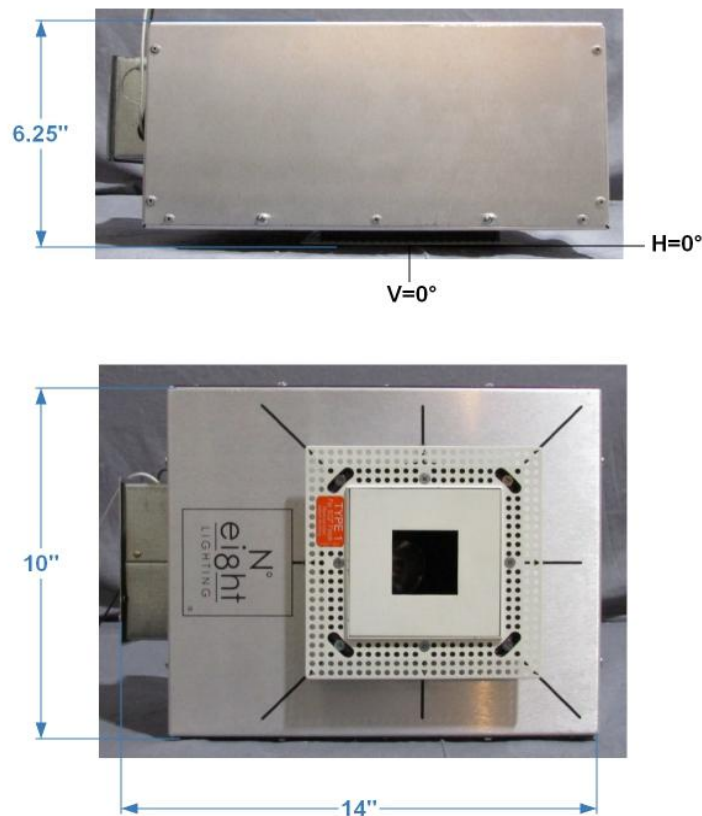


FIG.1 LUMINAIRE

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



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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 : Dennis Malonzo

Test Report Released by:

Test Report Reviewed by:

Jeff Ahn  
 Engineering Manager

Steve Kang  
 Quality Assurance

*\*Attached are photometric data reports. Total number of pages: 10*

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



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# Photometric Test Report

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L101605118.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] L101605118  
 [TESTLAB] LIGHT LABORATORY, INC.  
 [ISSUE DATE] 12/1/2016  
 [MANUFAC] Number Eight Lighting Company  
 [LUMCAT] 803/J2-HI-15-XX/DIM1-8-1000/FS-P-1-WH  
 [LUMINAIRE] LED Recessed Adjustable 15° Beam Spread, 35° Aiming Angle, 1.75" x 1.75" Aperture Trim  
 [BALLASTCAT] INTUITIVE SYSTEMS ISD-601-1050-15-D  
 [LAMPPOSITION] 0,0  
 [LAMPCAT] N/A  
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
 [INPUT] 120VAC, 14.99  
 [TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	764
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	51
Total Luminaire Watts	14.99
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	3.30
Spacing Criterion (90-270)	0.66
Spacing Criterion (Diagonal)	1.48
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	1445794	45287	2704
55	328311	9666	2500
65	18418	2747	3393
75	1847	1847	5540
85	5484	5484	16452

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L101605118.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>	40	40	40	40	40	40	40	40	40	40
<b>3.5</b>	73	73	72	71	69	69	67	65	63	61
<b>7.0</b>	137	136	135	132	127	122	116	109	102	95
<b>10.0</b>	229	228	223	214	204	191	178	163	147	132
<b>13.0</b>	380	373	360	342	318	290	259	231	203	176
<b>15.5</b>	556	546	524	489	447	397	347	298	249	209
<b>18.0</b>	788	776	744	677	610	526	450	375	307	248
<b>20.0</b>	1042	1023	974	888	779	651	542	443	351	275
<b>22.0</b>	1399	1367	1273	1132	980	805	638	504	388	297
<b>24.0</b>	1885	1822	1669	1438	1186	938	693	551	418	310
<b>26.0</b>	2516	2412	2126	1759	1417	1069	798	599	436	314
<b>28.0</b>	3283	3098	2660	2133	1587	1195	871	614	440	308
<b>30.0</b>	4120	3870	3215	2469	1801	1245	875	626	431	287
<b>32.0</b>	4873	4532	3666	2707	1860	1261	868	607	404	262
<b>33.0</b>	5147	4739	3867	2766	1868	1253	869	592	387	251
<b>34.0</b>	5294	4864	3891	2781	1850	1253	831	561	369	235
<b>35.0</b>	5323	4918	3882	2697	1841	1190	710	536	346	220
<b>36.0</b>	5227	4829	3805	2631	1750	1150	692	519	324	200
<b>37.0</b>	5021	4645	3665	2584	1679	1103	684	489	304	190
<b>38.0</b>	4738	4358	3524	2455	1596	1049	671	445	282	182
<b>40.0</b>	4008	3732	2986	2104	1411	933	616	393	234	165
<b>42.0</b>	3189	2964	2458	1790	1213	709	522	323	194	90
<b>44.0</b>	2440	2299	1913	1425	1025	658	435	261	171	76
<b>46.0</b>	1838	1741	1504	1152	992	550	345	200	87	58
<b>48.0</b>	1368	1315	1147	901	652	441	267	174	76	40
<b>50.0</b>	982	951	855	669	512	339	203	89	54	27
<b>52.0</b>	660	643	571	473	359	232	144	72	36	17
<b>54.5</b>	434	413	351	280	204	140	76	42	21	13
<b>57.0</b>	234	217	183	142	105	69	43	22	14	6
<b>60.0</b>	72	72	66	57	45	30	19	11	6	4
<b>63.0</b>	26	25	22	19	16	12	8	5	3	3
<b>66.5</b>	9	8	7	6	5	4	3	3	2	2
<b>70.0</b>	3	3	2	2	2	2	2	2	2	2
<b>75.0</b>	1	1	1	1	1	1	1	1	1	1
<b>80.0</b>	1	1	1	1	1	1	1	1	1	1
<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. 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>	<u>95</u>
<b>0.0</b>	40	40	40	40	40	40	40	40	40	40
<b>3.5</b>	59	56	54	51	49	46	44	41	39	37
<b>7.0</b>	87	79	70	65	59	53	47	41	37	32
<b>10.0</b>	117	103	89	77	65	55	47	40	33	27
<b>13.0</b>	153	129	107	88	69	58	47	37	29	22
<b>15.5</b>	176	145	117	94	70	57	46	35	26	19
<b>18.0</b>	200	159	125	98	71	56	42	31	23	17
<b>20.0</b>	214	184	129	99	70	55	40	28	20	16
<b>22.0</b>	224	184	130	99	69	52	38	26	18	12
<b>24.0</b>	226	185	127	93	68	49	34	23	16	10
<b>26.0</b>	224	181	120	100	62	43	30	20	15	9
<b>28.0</b>	215	153	111	73	55	38	25	17	14	8
<b>30.0</b>	202	137	106	66	46	31	21	15	10	7

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**CANDELA TABULATION - (Cont.)**

<b>32.0</b>	185	120	77	54	37	25	17	13	8	6
<b>33.0</b>	176	111	72	47	32	22	15	11	8	6
<b>34.0</b>	171	87	65	41	27	18	13	9	7	5
<b>35.0</b>	153	82	58	36	23	15	13	8	6	5
<b>36.0</b>	131	79	49	30	20	14	10	7	6	5
<b>37.0</b>	118	71	42	26	16	13	9	7	6	5
<b>38.0</b>	88	63	37	22	15	10	7	6	5	5
<b>40.0</b>	77	46	26	16	11	8	6	5	4	4
<b>42.0</b>	60	33	19	13	8	6	5	5	4	4
<b>44.0</b>	43	23	14	8	6	5	5	4	4	4
<b>46.0</b>	29	15	9	6	5	4	4	4	4	3
<b>48.0</b>	19	13	6	5	4	4	4	4	3	3
<b>50.0</b>	14	7	5	4	4	4	3	3	3	3
<b>52.0</b>	10	6	4	4	4	3	3	3	3	3
<b>54.5</b>	6	4	4	3	3	3	3	3	3	3
<b>57.0</b>	4	3	3	3	3	3	3	3	3	3
<b>60.0</b>	3	3	3	3	3	3	3	3	3	3
<b>63.0</b>	3	3	3	3	3	3	3	3	3	3
<b>66.5</b>	2	2	2	2	3	3	3	3	3	3
<b>70.0</b>	2	2	2	2	3	3	3	3	3	3
<b>75.0</b>	2	2	2	2	3	3	3	3	3	3
<b>80.0</b>	2	2	2	2	3	3	3	3	3	3
<b>85.0</b>	2	2	2	2	3	3	3	3	3	3
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0

**Vert. Horizontal Angles**

<b>Angles</b>	<b><u>100</u></b>	<b><u>105</u></b>	<b><u>110</u></b>	<b><u>115</u></b>	<b><u>120</u></b>	<b><u>125</u></b>	<b><u>130</u></b>	<b><u>135</u></b>	<b><u>140</u></b>	<b><u>145</u></b>
<b>0.0</b>	40	40	40	40	40	40	40	40	40	40
<b>3.5</b>	34	32	30	28	27	25	24	23	21	20
<b>7.0</b>	28	24	21	19	17	15	13	12	11	10
<b>10.0</b>	22	18	16	13	11	10	9	8	7	6
<b>13.0</b>	18	14	11	9	8	7	6	6	5	5
<b>15.5</b>	16	11	9	8	7	6	5	5	4	4
<b>18.0</b>	12	9	8	7	6	5	4	4	3	3
<b>20.0</b>	10	8	7	6	5	4	4	3	3	3
<b>22.0</b>	9	7	6	5	5	4	3	3	3	2
<b>24.0</b>	8	7	6	5	4	4	3	3	2	2
<b>26.0</b>	7	6	5	4	4	3	3	3	2	2
<b>28.0</b>	6	5	5	4	4	3	3	2	2	2
<b>30.0</b>	6	5	5	4	3	3	3	2	2	2
<b>32.0</b>	5	5	4	4	3	3	3	2	2	2
<b>33.0</b>	5	5	4	4	3	3	2	2	2	2
<b>34.0</b>	5	4	4	3	3	3	2	2	2	1
<b>35.0</b>	5	4	4	3	3	3	2	2	2	1
<b>36.0</b>	4	4	4	3	3	3	2	2	2	1
<b>37.0</b>	4	4	4	3	3	3	2	2	1	1
<b>38.0</b>	4	4	4	3	3	3	2	2	1	1
<b>40.0</b>	4	4	4	3	3	3	2	2	1	1
<b>42.0</b>	4	4	4	3	3	2	2	2	1	1
<b>44.0</b>	4	4	3	3	3	2	2	2	1	1
<b>46.0</b>	4	3	3	3	2	2	2	2	1	1
<b>48.0</b>	3	3	3	3	2	2	2	2	1	1
<b>50.0</b>	3	3	3	2	2	2	2	2	1	1
<b>52.0</b>	3	3	3	2	2	2	2	1	1	1
<b>54.5</b>	3	3	3	2	2	2	2	1	1	1

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 PHOTOMETRIC FILENAME : L101605118.IES

CANDELA TABULATION - (Cont.)

57.0	3	3	3	2	2	2	2	1	1	1
60.0	3	3	3	2	2	2	2	1	1	1
63.0	3	3	3	2	2	2	2	1	1	1
66.5	3	3	3	2	2	2	2	1	1	1
70.0	3	3	3	2	2	2	2	1	1	1
75.0	3	3	3	2	2	2	2	1	1	1
80.0	3	3	3	2	2	2	2	1	1	1
85.0	3	3	3	2	2	2	2	1	1	1
90.0	0	0	0	0	0	0	0	0	0	0

Vert. Horizontal Angles

	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
0.0	40	40	40	40	40	40	40
3.5	20	19	18	18	17	17	17
7.0	9	9	8	8	8	8	8
10.0	6	6	5	5	5	5	5
13.0	4	4	4	3	3	3	3
15.5	3	3	3	3	3	3	3
18.0	3	2	2	2	2	2	2
20.0	2	2	2	2	2	2	2
22.0	2	2	2	2	2	2	2
24.0	2	2	2	1	1	1	1
26.0	2	2	1	1	1	1	1
28.0	2	2	1	1	1	1	1
30.0	2	1	1	1	1	1	1
32.0	1	1	1	1	1	1	1
33.0	1	1	1	1	1	1	1
34.0	1	1	1	1	1	1	1
35.0	1	1	1	1	1	1	1
36.0	1	1	1	1	1	1	1
37.0	1	1	1	1	1	1	1
38.0	1	1	1	1	1	1	1
40.0	1	1	1	1	1	1	1
42.0	1	1	1	1	1	1	1
44.0	1	1	1	1	1	1	1
46.0	1	1	1	1	1	1	1
48.0	1	1	1	1	1	1	1
50.0	1	1	1	1	1	1	1
52.0	1	1	1	1	1	1	1
54.5	1	1	1	1	1	1	1
57.0	1	1	1	1	1	1	1
60.0	1	1	1	1	1	1	1
63.0	1	1	1	1	1	1	1
66.5	1	1	1	1	1	1	1
70.0	1	1	1	1	1	1	1
75.0	1	1	1	1	1	1	1
80.0	1	1	1	1	1	1	1
85.0	1	1	1	1	1	1	1
90.0	0	0	0	0	0	0	0

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	43.57	N.A.	5.70
0-30	203.53	N.A.	26.60
0-40	521.76	N.A.	68.30
0-60	756.58	N.A.	99.00
0-80	763.02	N.A.	99.80
0-90	764.43	N.A.	100.00
10-90	759.21	N.A.	99.30
20-40	478.20	N.A.	62.60
20-50	667.24	N.A.	87.30
40-70	239.35	N.A.	31.30
60-80	6.44	N.A.	0.80
70-80	1.90	N.A.	0.20
80-90	1.41	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	764.43	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	5.22
10-20	38.35
20-30	159.96
30-40	318.24
40-50	189.04
50-60	45.77
60-70	4.54
70-80	1.90
80-90	1.41
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



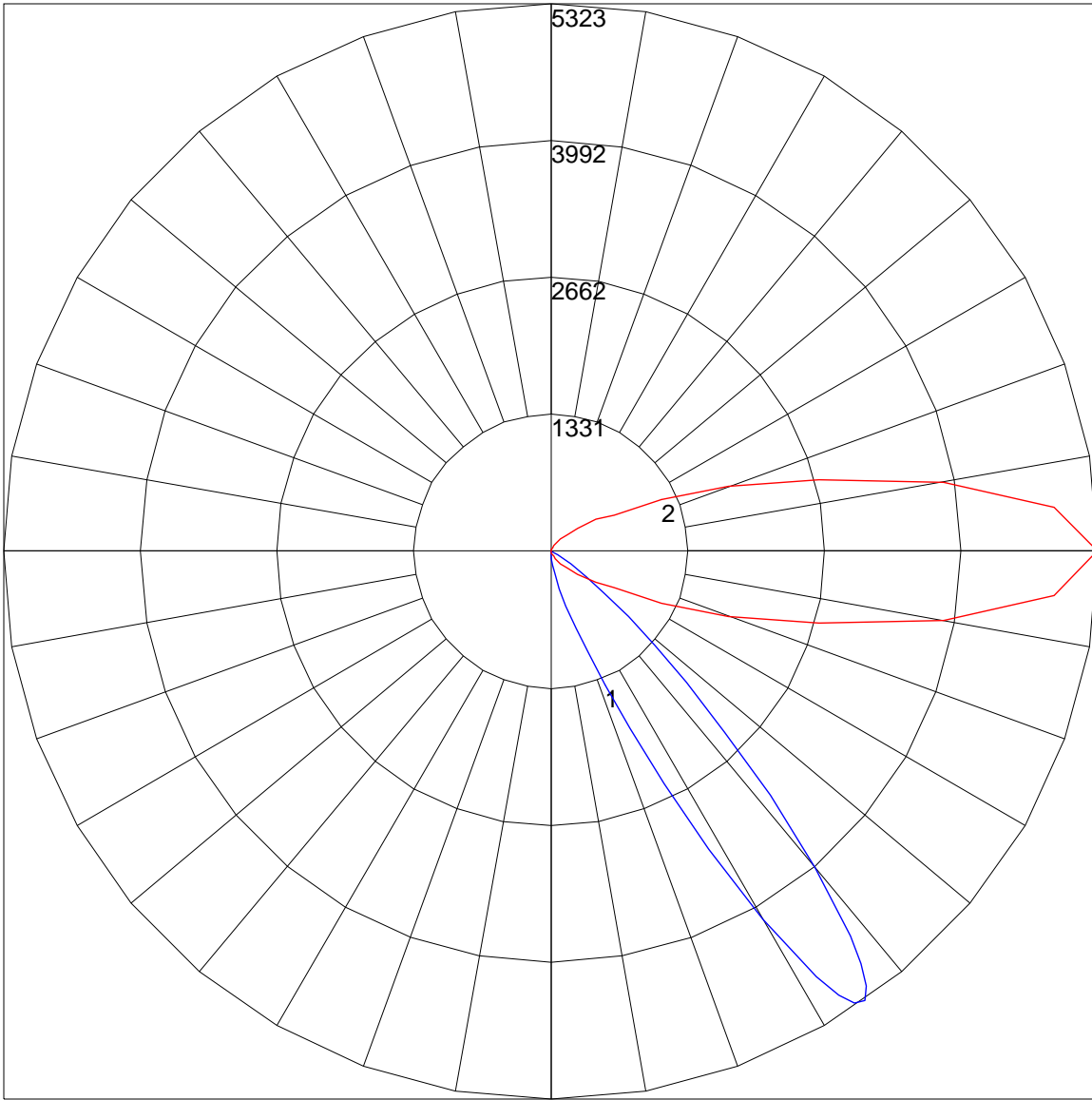
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L101605118.IES**

**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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	82	71	63	57	80	70	63	57	68	62	57	66	60	56	64	59	55	54
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	70	58	50	44	69	57	49	44	56	49	44	54	48	43	53	47	43	41
8	65	52	44	39	63	52	44	39	50	44	39	49	43	38	48	42	38	36
9	60	48	40	34	59	47	39	34	46	39	34	45	39	34	44	38	34	32
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	28

POLAR GRAPH



Maximum Candela = 5323 Located At Horizontal Angle = 0, Vertical Angle = 35  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (35) (Through Max. Cd.)