



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

Report No: L101605116

Date: 12/1/2016



NVLAP LAB CODE 200927-0

**Report No:** L101605116

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

**Model Number:** 803/J2-HI-25-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-25-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-25-XX/DIM1-8-1000/FS-P-1-WH
<b>Driver Model Number:</b>	INTUITIVE SYSTEMS ISD-601-1050-15-D
<b>Total Lumens:</b>	639.00
<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>	43
<b>Ambient Temperature (°C):</b>	25.0
<b>Stabilization Time (Hours):</b>	0:30
<b>Total Operating Time (Hours):</b>	1:35
<b>Off State Power(W):</b>	0.00

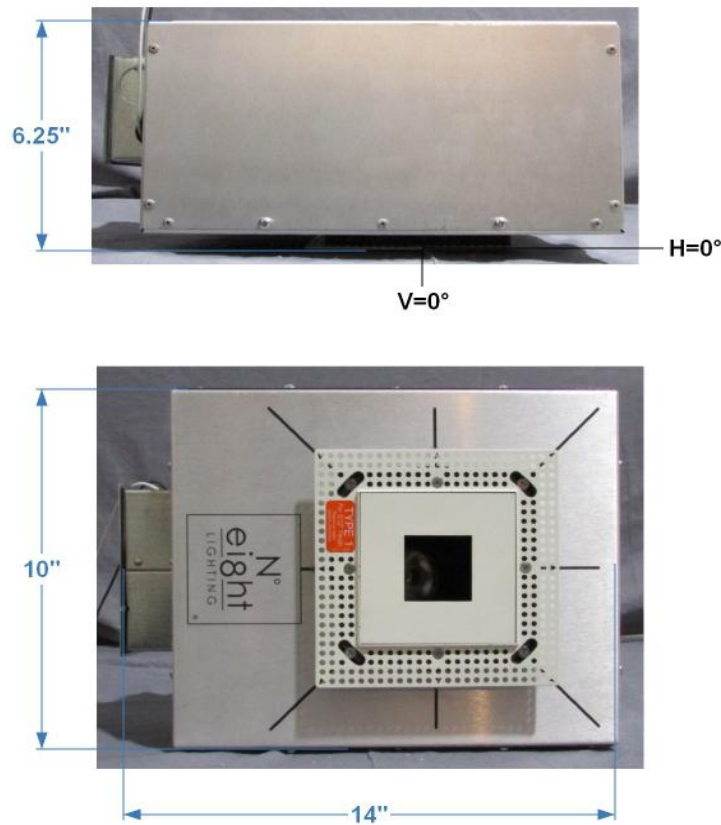


FIG.1 LUMINAIRE

\*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 : L101605116.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] L101605116  
 [TESTLAB] LIGHT LABORATORY, INC.  
 [ISSUE DATE] 12/1/2016  
 [MANUFAC] Number Eight Lighting Company  
 [LUMCAT] 803/J2-HI-25-XX/DIM1-8-1000/FS-P-1-WH  
 [LUMINAIRE] LED Recessed Adjustable 25° 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,  
 [TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	639
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	43
Total Luminaire Watts	14.99
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	3.34
Spacing Criterion (90-270)	0.82
Spacing Criterion (Diagonal)	1.44
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	1113241	55425	2704
55	395973	12999	2333
65	24396	2747	2262
75	1847	1847	3693
85	5484	5484	10968

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L101605116.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>	51	51	51	51	51	51	51	51	51	51
<b>3.5</b>	91	91	91	90	88	87	85	82	80	77
<b>7.0</b>	173	173	170	166	161	154	146	138	130	122
<b>10.0</b>	277	275	269	261	249	235	218	201	183	165
<b>13.0</b>	428	423	411	390	364	335	304	272	241	211
<b>15.5</b>	601	593	571	538	493	441	389	339	289	246
<b>18.0</b>	817	805	771	722	649	571	488	416	342	280
<b>20.0</b>	1022	1007	959	888	791	656	580	475	388	308
<b>22.0</b>	1244	1224	1164	1075	953	813	637	540	420	324
<b>24.0</b>	1463	1442	1367	1255	1105	939	761	589	457	343
<b>26.0</b>	1684	1652	1560	1425	1244	1036	825	612	473	345
<b>28.0</b>	1894	1860	1745	1575	1362	1133	889	609	483	351
<b>30.0</b>	2101	2051	1908	1708	1455	1181	922	618	484	337
<b>32.0</b>	2279	2223	2047	1805	1503	1229	936	602	471	328
<b>33.0</b>	2342	2283	2094	1826	1547	1219	932	613	461	317
<b>34.0</b>	2389	2315	2116	1853	1537	1214	907	598	448	295
<b>35.0</b>	2395	2319	2118	1852	1530	1203	905	594	434	278
<b>36.0</b>	2375	2301	2106	1833	1512	1196	884	574	416	264
<b>37.0</b>	2333	2272	2068	1799	1481	1167	857	563	388	244
<b>38.0</b>	2274	2215	2018	1743	1457	1119	828	559	364	222
<b>40.0</b>	2121	2057	1896	1638	1341	1031	737	497	310	194
<b>42.0</b>	1939	1886	1721	1478	1226	922	590	423	246	134
<b>44.0</b>	1744	1691	1550	1327	1067	803	556	337	213	103
<b>46.0</b>	1550	1501	1357	1146	925	604	452	264	137	61
<b>48.0</b>	1326	1282	1166	981	766	546	345	213	100	51
<b>50.0</b>	1064	1034	931	774	582	419	253	139	62	37
<b>52.0</b>	794	759	641	553	437	294	204	101	48	26
<b>54.5</b>	521	498	424	329	247	161	95	53	29	17
<b>57.0</b>	292	278	238	188	135	95	49	28	18	10
<b>60.0</b>	136	129	109	85	59	37	23	15	9	5
<b>63.0</b>	41	40	36	31	24	16	10	7	4	3
<b>66.5</b>	7	7	7	6	6	5	4	3	3	2
<b>70.0</b>	3	2	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>	51	51	51	51	51	51	51	51	51	51
<b>3.5</b>	74	69	67	64	61	58	56	54	51	49
<b>7.0</b>	113	103	92	84	75	66	59	54	49	44
<b>10.0</b>	149	132	116	101	87	70	62	53	46	38
<b>13.0</b>	183	158	135	114	96	81	64	51	42	33
<b>15.5</b>	208	175	146	121	100	83	65	51	39	30
<b>18.0</b>	233	198	152	123	101	81	64	49	36	26
<b>20.0</b>	244	201	155	123	99	81	63	48	34	24
<b>22.0</b>	256	204	151	119	96	70	60	45	32	22
<b>24.0</b>	257	203	149	115	91	68	57	43	29	20
<b>26.0</b>	260	203	141	108	85	66	53	40	27	17
<b>28.0</b>	250	198	134	100	70	61	47	35	23	16
<b>30.0</b>	243	169	120	87	66	51	39	29	20	14

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

<b>32.0</b>	225	149	104	71	52	40	31	23	16	10
<b>33.0</b>	218	137	79	63	46	34	27	20	14	9
<b>34.0</b>	206	124	75	55	39	29	22	17	14	8
<b>35.0</b>	192	110	69	46	33	24	19	15	10	7
<b>36.0</b>	182	106	61	39	27	21	16	12	9	6
<b>37.0</b>	141	76	52	33	23	18	15	11	8	6
<b>38.0</b>	125	70	44	28	20	16	12	9	7	5
<b>40.0</b>	75	53	32	22	17	12	9	7	6	5
<b>42.0</b>	62	39	25	17	12	9	7	6	5	4
<b>44.0</b>	50	29	19	13	9	7	6	5	4	4
<b>46.0</b>	37	22	16	10	7	6	5	4	4	4
<b>48.0</b>	27	17	11	7	6	5	4	4	3	3
<b>50.0</b>	20	12	8	6	5	4	4	3	3	3
<b>52.0</b>	16	9	6	5	4	4	3	3	3	3
<b>54.5</b>	9	6	4	4	3	3	3	3	3	2
<b>57.0</b>	6	4	3	3	3	3	3	2	2	2
<b>60.0</b>	4	3	3	3	2	2	2	2	2	2
<b>63.0</b>	3	3	2	2	2	2	2	2	2	2
<b>66.5</b>	2	2	2	2	2	2	2	2	2	2
<b>70.0</b>	2	2	2	2	2	2	2	2	2	2
<b>75.0</b>	2	2	2	2	2	2	2	2	2	2
<b>80.0</b>	2	2	2	2	2	2	2	2	2	2
<b>85.0</b>	2	2	2	2	2	2	2	2	2	2
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0

<b>Vert. Angles</b>	<b>Horizontal 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>	51	51	51	51	51	51	51	51	51	51
<b>3.5</b>	46	43	41	39	37	35	34	32	31	30
<b>7.0</b>	39	35	31	28	26	24	22	21	19	18
<b>10.0</b>	33	28	24	22	19	17	15	14	13	12
<b>13.0</b>	27	23	19	17	14	12	11	10	8	8
<b>15.5</b>	24	19	17	13	11	10	8	7	6	6
<b>18.0</b>	21	17	13	11	9	8	7	6	5	4
<b>20.0</b>	18	15	11	9	8	6	5	5	4	4
<b>22.0</b>	17	12	10	8	6	5	5	4	4	3
<b>24.0</b>	15	11	8	7	6	5	4	3	3	3
<b>26.0</b>	12	9	7	6	5	4	4	3	3	2
<b>28.0</b>	10	8	6	5	4	4	3	3	2	2
<b>30.0</b>	9	7	5	4	4	3	3	3	2	2
<b>32.0</b>	7	5	5	4	4	3	3	2	2	2
<b>33.0</b>	6	5	4	4	3	3	3	2	2	2
<b>34.0</b>	6	5	4	4	3	3	3	2	2	1
<b>35.0</b>	5	5	4	4	3	3	2	2	2	1
<b>36.0</b>	5	4	4	3	3	3	2	2	1	1
<b>37.0</b>	5	4	4	3	3	3	2	2	1	1
<b>38.0</b>	5	4	4	3	3	3	2	2	1	1
<b>40.0</b>	4	4	3	3	3	2	2	1	1	1
<b>42.0</b>	4	4	3	3	3	2	1	1	1	1
<b>44.0</b>	4	3	3	3	2	2	1	1	1	1
<b>46.0</b>	3	3	3	3	2	2	1	1	1	1
<b>48.0</b>	3	3	3	2	2	2	1	1	1	1
<b>50.0</b>	3	3	2	2	2	2	1	1	1	1
<b>52.0</b>	3	2	2	2	2	2	1	1	1	1
<b>54.5</b>	2	2	2	2	2	2	1	1	1	1

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : L101605116.IES

CANDELA TABULATION - (Cont.)

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

Vert. Horizontal Angles  
 Angles

	<u>150</u>	<u>155</u>	<u>160</u>	<u>165</u>	<u>170</u>	<u>175</u>	<u>180</u>
0.0	51	51	51	51	51	51	51
3.5	29	28	27	27	27	27	27
7.0	17	16	15	15	15	14	14
10.0	11	10	9	9	9	9	8
13.0	7	7	6	6	6	6	5
15.5	5	5	4	4	4	4	4
18.0	4	4	3	3	3	3	3
20.0	3	3	3	3	3	2	2
22.0	3	3	2	2	2	2	2
24.0	2	2	2	2	2	2	2
26.0	2	2	2	2	2	2	2
28.0	2	2	2	2	1	1	1
30.0	2	2	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

**IES INDOOR REPORT**  
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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	50.21	N.A.	7.90
0-30	186.39	N.A.	29.20
0-40	405.18	N.A.	63.40
0-60	630.76	N.A.	98.70
0-80	637.98	N.A.	99.80
0-90	639.15	N.A.	100.00
10-90	632.38	N.A.	98.90
20-40	354.97	N.A.	55.50
20-50	525.38	N.A.	82.20
40-70	231.20	N.A.	36.20
60-80	7.22	N.A.	1.10
70-80	1.60	N.A.	0.30
80-90	1.18	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	639.15	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	6.77
10-20	43.44
20-30	136.17
30-40	218.79
40-50	170.42
50-60	55.16
60-70	5.62
70-80	1.60
80-90	1.18
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



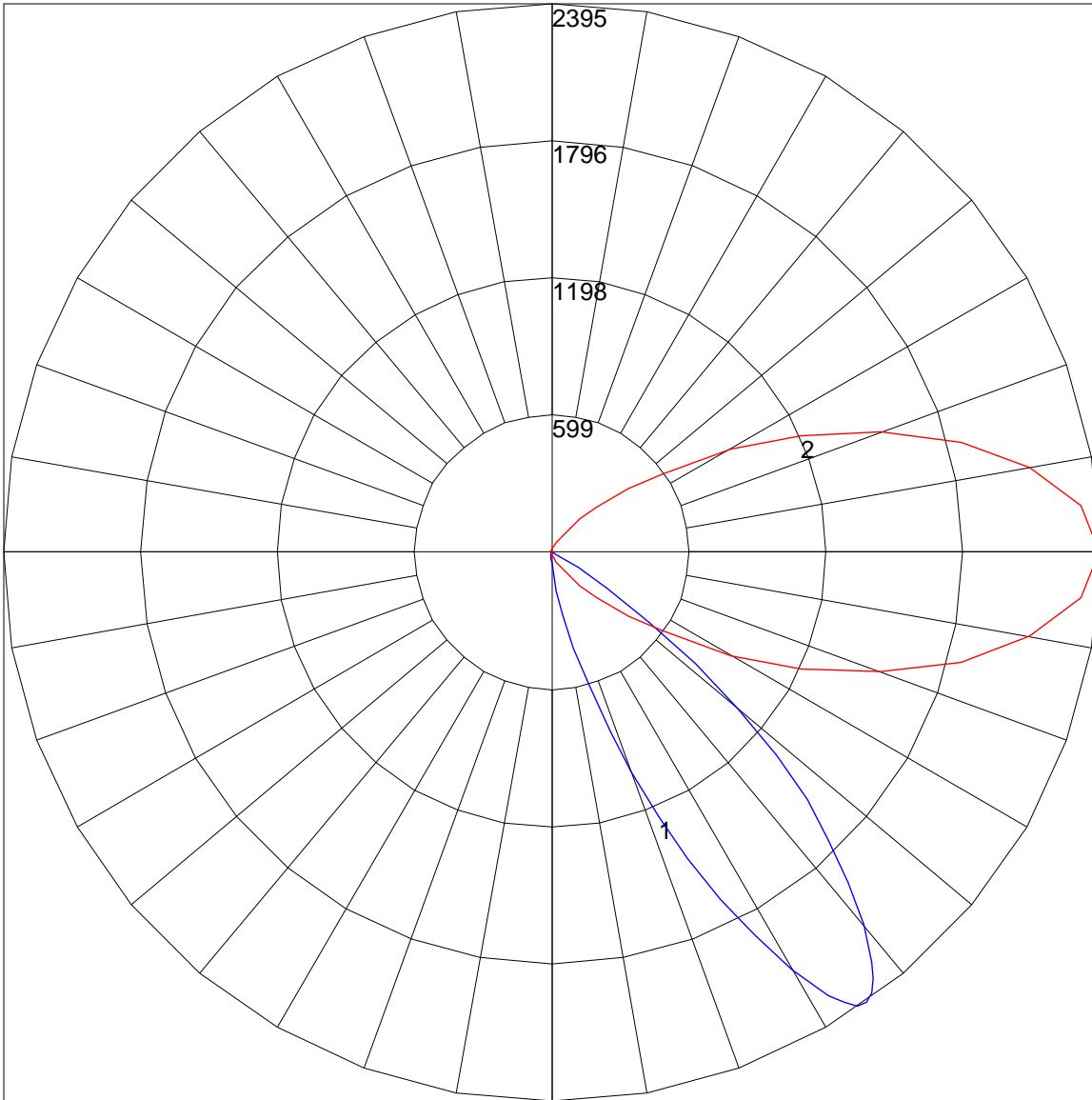
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L101605116.IES**

**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	100	102	99	97	98	96	94	94	93	92	90
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	49	47
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36
9	60	47	40	34	59	47	39	34	46	39	34	45	39	34	44	38	34	32
10	56	43	36	31	55	43	36	31	42	35	31	41	35	30	40	34	30	29

POLAR GRAPH



Maximum Candela = 2395 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.)