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www.lightlaboratory.com

Report No: L101605122

Date: 12/1/2016



NVLAP LAB CODE 200927-0

Report No: L101605122

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

Model Number: 803/J2-HI-25-XX/DIM1-8-1000 /FR-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 /FR-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: 11/30/16 - 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-GB	2/10/17
Xitron Power Analyzer	2802	MT-EL02-2	12/22/16
BK PRECISION	1747	PS-DC04	12/8/16
Fluke Digital Thermometer	52k/J	MT-TP02-GB	12/8/16
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

Manufacturer:	Number Eight Lighting Company
Model Number:	803/J2-HI-25-XX/DIM1-8-1000 /FR-P-1-WH
Driver Model Number:	INTUITIVE SYSTEMS ISD-601-1050-15-D
Total Lumens:	607.98
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.13
Input Power (W):	15.01
Input Power Factor:	0.98
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	41
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	1:00
Total Operating Time (Hours):	2:10
Off State Power(W):	0.00

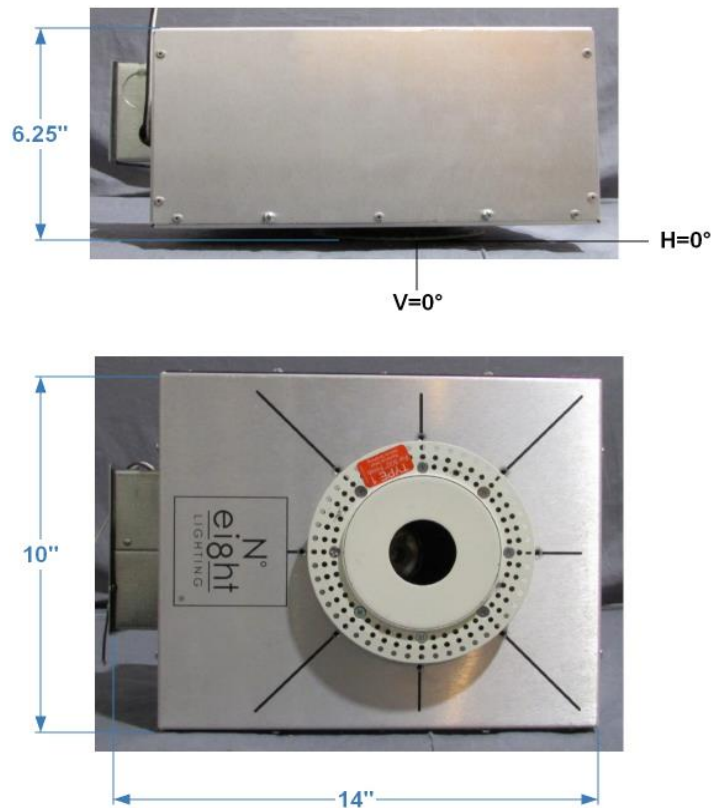


FIG.1 LUMINAIRE

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

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 Released by:



Jeff Ahn
Engineering Manager

Test Report Reviewed by:



Steve Kang
Quality Assurance

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



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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605122.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L101605122
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 12/1/2016
 [MANUFAC] NUMBER EIGHT LIGHTING COMPANY
 [LUMCAT] 803/J2-HI-25-XX/DIM1-8-1000 /FR-P-1-WH
 [LUMINAIRE] LED RECESSED ADJUSTABLE DOWNLIGHT, 90+ CRI,
 [MORE] 25° BEAM SPREAD, 35° AIMING ANGLE, ?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, 15.01W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	608
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	41
Total Luminaire Watts	15.01
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	3.42
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	1.50
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.15 ft (Diameter)
Luminous Width (90-270)	0.15 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1309416	68849	1291
55	446240	11671	0
65	26536	2880	0
75	2351	0	0
85	0	0	0

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	35	35	35	35	35	35	35	35	35	35
3.5	69	69	69	68	67	65	63	61	59	56
7.0	149	148	145	141	135	127	119	110	102	92
10.0	288	286	278	266	249	228	206	184	161	138
13.0	483	478	463	437	402	361	319	274	234	194
15.5	683	674	649	610	556	491	424	360	293	237
18.0	926	913	873	814	719	638	538	449	358	276
20.0	1158	1139	1084	1001	892	741	641	515	404	306
22.0	1395	1368	1301	1197	1056	898	730	586	444	322
24.0	1622	1592	1504	1378	1210	1024	768	633	472	339
26.0	1846	1806	1694	1529	1348	1111	898	671	489	342
28.0	2054	2001	1864	1673	1441	1185	942	703	494	335
30.0	2246	2182	2008	1769	1525	1228	957	695	482	320
32.0	2404	2309	2114	1843	1546	1238	955	688	456	293
33.0	2450	2348	2128	1855	1548	1247	1109	660	440	279
34.0	2461	2367	2133	1851	1536	1229	1064	639	419	264
35.0	2436	2349	2111	1815	1529	1190	794	624	397	246
36.0	2391	2305	2071	1795	1483	1159	777	596	373	225
37.0	2325	2230	2014	1750	1444	1124	783	566	347	209
38.0	2237	2147	1947	1693	1395	1095	756	520	321	197
40.0	2028	1964	1791	1552	1299	989	695	455	271	144
42.0	1815	1762	1622	1418	1143	800	594	367	220	132
44.0	1620	1574	1444	1248	1019	721	477	299	146	102
46.0	1423	1379	1260	1081	777	583	372	211	130	58
48.0	1216	1180	1063	797	660	439	270	134	77	40
50.0	978	937	781	668	486	319	186	126	51	28
52.0	694	687	599	469	339	212	132	67	34	19
54.5	462	437	369	280	197	110	68	38	21	12
57.0	255	242	205	156	95	63	35	20	12	7
60.0	115	108	84	64	43	25	15	11	6	4
63.0	35	33	27	19	13	8	5	4	3	2
66.5	6	6	5	4	3	3	2	2	2	2
70.0	2	2	2	2	2	1	1	1	1	1
75.0	1	1	1	1	1	0	0	0	0	0
80.0	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. 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>
0.0	35	35	35	35	35	35	35	35	35	35
3.5	54	51	49	46	44	41	39	37	35	33
7.0	84	75	66	59	51	45	40	35	32	28
10.0	119	99	81	68	57	47	39	33	28	24
13.0	158	127	91	75	58	47	36	29	24	20
15.5	188	145	101	79	59	45	33	26	20	16
18.0	217	162	107	81	56	41	29	22	17	14
20.0	227	166	127	79	53	37	26	19	15	11
22.0	239	169	127	74	48	33	22	16	13	10
24.0	236	163	128	69	43	28	19	14	11	8
26.0	231	167	114	61	38	23	16	13	9	7
28.0	220	133	89	51	32	20	14	10	8	6
30.0	204	126	78	44	26	16	13	9	7	5

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CANDELA TABULATION - (Cont.)

32.0	185	129	63	35	20	14	10	7	6	5
33.0	180	124	58	31	19	13	9	7	5	5
34.0	145	120	51	28	17	13	8	6	5	4
35.0	136	102	44	25	15	12	8	6	5	4
36.0	133	75	39	22	14	10	7	5	4	4
37.0	129	65	34	19	13	9	6	5	4	4
38.0	123	56	31	17	12	8	6	5	4	4
40.0	118	43	23	14	10	7	5	4	4	3
42.0	60	31	18	12	8	6	4	4	3	0
44.0	43	23	14	10	6	5	4	4	3	0
46.0	29	17	12	7	5	4	4	3	0	0
48.0	22	13	8	6	4	4	3	0	0	0
50.0	16	12	6	5	4	3	0	0	0	0
52.0	12	7	5	4	3	0	0	0	0	0
54.5	7	5	4	3	0	0	0	0	0	0
57.0	5	4	3	0	0	0	0	0	0	0
60.0	3	3	2	0	0	0	0	0	0	0
63.0	2	2	0	0	0	0	0	0	0	0
66.5	2	0	0	0	0	0	0	0	0	0
70.0	1	0	0	0	0	0	0	0	0	0
75.0	0	0	0	0	0	0	0	0	0	0
80.0	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>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
0.0	35	35	35	35	35	35	35	35	35	35
3.5	31	30	28	27	26	25	24	23	22	21
7.0	25	23	21	19	18	16	15	14	13	12
10.0	21	18	16	14	13	11	10	9	9	8
13.0	17	15	12	10	9	8	7	7	6	6
15.5	14	11	10	8	7	7	6	5	5	4
18.0	11	9	8	7	6	5	5	4	4	3
20.0	9	8	7	6	5	5	4	4	3	3
22.0	8	7	6	5	4	4	3	3	3	3
24.0	7	6	5	4	4	3	3	3	3	2
26.0	6	5	5	4	4	3	3	3	2	2
28.0	5	5	4	4	3	3	3	2	2	2
30.0	5	4	4	3	3	3	3	2	2	2
32.0	4	4	3	3	3	3	2	2	2	1
33.0	4	4	3	3	3	2	2	2	1	0
34.0	4	3	3	3	3	0	0	0	0	0
35.0	4	0	0	0	0	0	0	0	0	0
36.0	4	0	0	0	0	0	0	0	0	0
37.0	3	0	0	0	0	0	0	0	0	0
38.0	0	0	0	0	0	0	0	0	0	0
40.0	0	0	0	0	0	0	0	0	0	0
42.0	0	0	0	0	0	0	0	0	0	0
44.0	0	0	0	0	0	0	0	0	0	0
46.0	0	0	0	0	0	0	0	0	0	0
48.0	0	0	0	0	0	0	0	0	0	0
50.0	0	0	0	0	0	0	0	0	0	0
52.0	0	0	0	0	0	0	0	0	0	0
54.5	0	0	0	0	0	0	0	0	0	0

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CANDELA TABULATION - (Cont.)

57.0	0	0	0	0	0	0	0	0	0	0
60.0	0	0	0	0	0	0	0	0	0	0
63.0	0	0	0	0	0	0	0	0	0	0
66.5	0	0	0	0	0	0	0	0	0	0
70.0	0	0	0	0	0	0	0	0	0	0
75.0	0	0	0	0	0	0	0	0	0	0
80.0	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. 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	35	35	35	35	35	35	35
3.5	21	20	20	19	19	19	19
7.0	12	11	11	10	10	10	10
10.0	7	7	7	6	6	6	6
13.0	5	5	5	4	4	4	4
15.5	4	4	3	3	3	3	3
18.0	3	3	3	3	2	2	2
20.0	3	2	2	2	2	2	2
22.0	2	2	2	2	2	2	2
24.0	2	2	2	2	2	2	1
26.0	2	2	2	1	1	1	1
28.0	2	1	1	0	0	0	0
30.0	1	0	0	0	0	0	0
32.0	0	0	0	0	0	0	0
33.0	0	0	0	0	0	0	0
34.0	0	0	0	0	0	0	0
35.0	0	0	0	0	0	0	0
36.0	0	0	0	0	0	0	0
37.0	0	0	0	0	0	0	0
38.0	0	0	0	0	0	0	0
40.0	0	0	0	0	0	0	0
42.0	0	0	0	0	0	0	0
44.0	0	0	0	0	0	0	0
46.0	0	0	0	0	0	0	0
48.0	0	0	0	0	0	0	0
50.0	0	0	0	0	0	0	0
52.0	0	0	0	0	0	0	0
54.5	0	0	0	0	0	0	0
57.0	0	0	0	0	0	0	0
60.0	0	0	0	0	0	0	0
63.0	0	0	0	0	0	0	0
66.5	0	0	0	0	0	0	0
70.0	0	0	0	0	0	0	0
75.0	0	0	0	0	0	0	0
80.0	0	0	0	0	0	0	0
85.0	0	0	0	0	0	0	0
90.0	0	0	0	0	0	0	0

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605122.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	49.25	N.A.	8.10
0-30	190.52	N.A.	31.30
0-40	405.01	N.A.	66.60
0-60	604.49	N.A.	99.40
0-80	607.98	N.A.	100.00
0-90	607.98	N.A.	100.00
10-90	602.61	N.A.	99.10
20-40	355.76	N.A.	58.50
20-50	510.02	N.A.	83.90
40-70	202.80	N.A.	33.40
60-80	3.49	N.A.	0.60
70-80	0.18	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	607.98	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	5.37
10-20	43.88
20-30	141.27
30-40	214.48
40-50	154.27
50-60	45.22
60-70	3.31
70-80	0.18
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

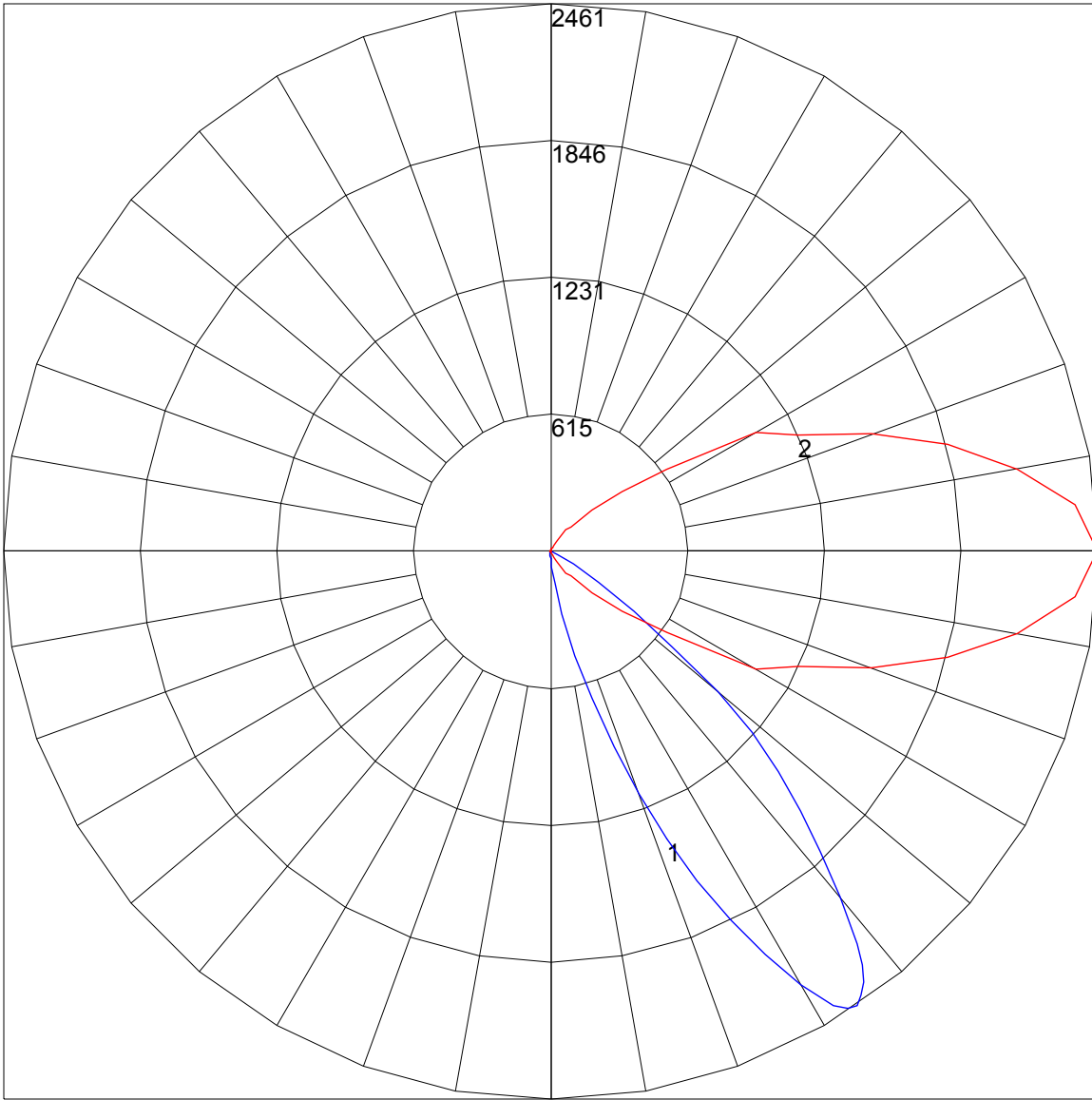
IES INDOOR REPORT
PHOTOMETRIC FILENAME : L101605122.IES

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	0
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90	0
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80	0
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70	0
4	89	79	72	67	87	78	71	66	76	70	65	74	69	64	72	67	64	62	0
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54	0
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48	0
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42	0
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37	0
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	33	0
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31	30	0

POLAR GRAPH



Maximum Candela = 2461 Located At Horizontal Angle = 0, Vertical Angle = 34
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (34) (Through Max. Cd.)