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Report No: L101605120

Date: 12/1/2016



NVLAP LAB CODE 200927-0

Report No: L101605120
Prepared For: Number Eight Lighting Company
526 Portal Street, Cotati, CA 94931
Model Number: 803/J2-HI-40-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-40-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-40-XX/DIM1-8-1000/FR-P-1-WH
Driver Model Number:	INTUITIVE SYSTEMS ISD-601-1050-15-D
Total Lumens:	656.28
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:	44
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	2:15
Off State Power(W):	0.00

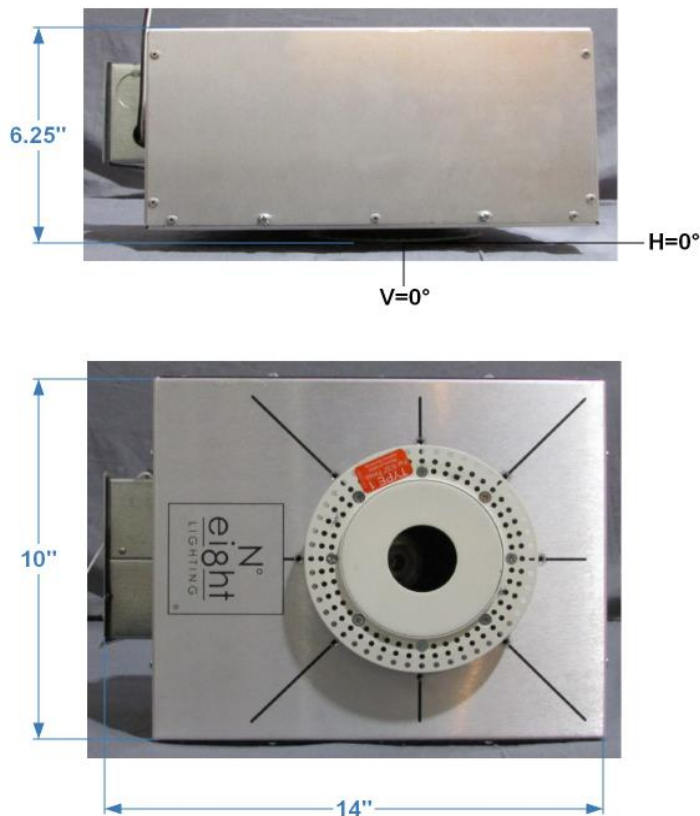


FIG.1 LUMINAIRE

*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 : L101605120.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L101605120
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 12/1/2016
 [MANUFAC] NUMBER EIGHT LIGHTING COMPANY
 [LUMCAT] 803/J2-HI-40-XX/DIM1-8-1000/FR-P-1-WH
 [LUMINAIRE] LED RECESSED ADJUSTABLE DOWNLIGHT, 90+ CRI,
 [MORE] 40° 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	656
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	44
Total Luminaire Watts	15.01
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.98
Spacing Criterion (90-270)	0.70
Spacing Criterion (Diagonal)	1.44
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	987549	199661	4303
55	539181	81057	0
65	181432	10491	0
75	2351	2351	0
85	0	0	0

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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	160	160	160	160	160	160	160	160	160	160
3.5	235	235	233	232	229	226	222	218	214	208
7.0	338	337	334	328	322	313	303	293	280	267
10.0	459	457	450	440	425	407	387	367	343	319
13.0	617	612	599	579	551	517	483	448	410	372
15.5	761	757	740	699	674	624	573	520	465	415
18.0	906	899	876	838	792	707	663	592	518	449
20.0	1020	1012	988	946	886	817	706	643	557	476
22.0	1116	1107	1079	1033	971	889	796	686	587	490
24.0	1201	1190	1159	1111	1041	956	849	700	610	505
26.0	1278	1264	1227	1169	1095	999	887	710	623	502
28.0	1338	1324	1284	1223	1136	1038	911	714	625	501
30.0	1384	1369	1326	1253	1164	1051	915	716	615	480
32.0	1411	1397	1351	1278	1177	1057	911	715	595	459
33.0	1418	1402	1360	1282	1178	1053	909	710	580	450
34.0	1421	1404	1361	1283	1175	1053	897	703	564	436
35.0	1419	1405	1358	1275	1175	1037	882	694	546	421
36.0	1415	1399	1351	1268	1159	1023	863	690	527	401
37.0	1405	1388	1338	1259	1143	1004	841	666	506	385
38.0	1392	1373	1325	1241	1124	980	745	635	483	372
40.0	1354	1333	1277	1187	1070	918	711	586	438	333
42.0	1295	1273	1211	1123	998	842	672	513	390	286
44.0	1204	1179	1123	1032	904	719	582	445	336	250
46.0	1091	1071	1011	922	740	641	502	382	293	214
48.0	967	948	892	773	672	546	427	327	247	180
50.0	836	815	727	658	568	457	362	277	206	165
52.0	661	648	608	547	467	381	301	229	167	118
54.5	532	520	484	433	364	294	228	175	125	81
57.0	413	403	374	330	281	223	172	127	83	58
60.0	293	287	263	231	192	150	110	79	51	31
63.0	190	184	170	144	114	80	59	39	23	13
66.5	78	74	67	55	41	29	19	12	6	3
70.0	19	18	15	12	8	5	3	2	1	1
75.0	1	1	1	1	1	1	1	1	1	1
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	160	160	160	160	160	160	160	160	160	160
3.5	203	198	192	187	181	175	169	164	159	154
7.0	254	241	226	212	198	185	173	161	151	141
10.0	298	274	251	228	207	187	170	154	139	127
13.0	337	304	270	238	210	185	162	142	126	112
15.5	369	326	284	246	210	183	153	132	114	98
18.0	391	339	289	245	204	177	143	120	101	86
20.0	404	345	291	237	194	172	131	108	91	73
22.0	411	345	283	230	186	147	120	98	75	65
24.0	413	342	277	217	176	137	108	87	70	55
26.0	409	333	262	206	171	123	97	75	60	47
28.0	398	320	250	189	155	111	79	66	51	39
30.0	382	301	228	176	129	98	74	57	42	32

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CANDELA TABULATION - (Cont.)

32.0	365	278	207	168	114	80	64	48	35	25
33.0	348	266	196	164	107	77	59	43	32	22
34.0	335	250	188	134	100	73	54	39	28	20
35.0	321	240	180	126	105	67	49	36	25	17
36.0	306	228	173	118	79	62	46	32	22	14
37.0	294	215	168	109	75	58	41	28	19	13
38.0	275	202	165	102	74	53	37	25	17	12
40.0	242	180	123	80	62	43	30	19	13	7
42.0	214	166	105	73	51	34	23	14	8	5
44.0	179	124	82	60	40	26	16	12	6	4
46.0	167	104	73	48	31	19	12	7	4	3
48.0	125	81	59	37	23	14	9	5	3	2
50.0	114	70	46	28	17	11	5	3	3	0
52.0	80	54	33	19	12	6	4	3	2	0
54.5	58	35	21	12	6	3	3	2	0	0
57.0	35	21	12	6	3	2	2	0	0	0
60.0	18	12	5	3	2	2	0	0	0	0
63.0	7	4	3	2	2	0	0	0	0	0
66.5	2	2	2	0	0	0	0	0	0	0
70.0	1	0	0	0	0	0	0	0	0	0
75.0	1	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>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	160	160	160	160	160	160	160	160	160	160
3.5	149	145	140	136	132	128	125	122	120	117
7.0	132	124	117	110	104	98	93	88	85	81
10.0	116	105	96	88	81	75	70	65	61	57
13.0	99	88	78	70	62	56	50	46	42	39
15.5	86	75	65	56	49	43	39	34	31	28
18.0	71	61	52	44	38	33	28	25	22	19
20.0	62	52	43	36	30	25	21	18	16	13
22.0	53	43	35	29	23	19	16	12	10	8
24.0	44	35	28	22	18	15	10	8	6	5
26.0	37	28	22	17	14	9	7	5	4	3
28.0	30	22	16	13	9	6	5	3	3	2
30.0	23	17	13	8	6	4	3	2	2	2
32.0	18	14	8	6	4	3	2	2	2	1
33.0	15	11	7	5	3	3	2	2	1	0
34.0	14	9	6	4	3	2	0	0	0	0
35.0	13	7	5	3	0	0	0	0	0	0
36.0	9	6	4	3	0	0	0	0	0	0
37.0	8	5	3	3	0	0	0	0	0	0
38.0	7	4	3	2	0	0	0	0	0	0
40.0	5	3	3	0	0	0	0	0	0	0
42.0	3	3	2	0	0	0	0	0	0	0
44.0	3	2	0	0	0	0	0	0	0	0
46.0	2	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	0
60.0	0	0	0	0	0	0	0	0	0	0	0
63.0	0	0	0	0	0	0	0	0	0	0	0
66.5	0	0	0	0	0	0	0	0	0	0	0
70.0	0	0	0	0	0	0	0	0	0	0	0
75.0	0	0	0	0	0	0	0	0	0	0	0
80.0	0	0	0	0	0	0	0	0	0	0	0
85.0	0	0	0	0	0	0	0	0	0	0	0
90.0	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	160	160	160	160	160	160	160
3.5	115	113	112	111	110	110	109
7.0	78	76	74	73	72	71	71
10.0	54	52	50	49	48	47	47
13.0	37	35	33	32	31	30	30
15.5	26	24	23	22	21	20	20
18.0	17	15	14	13	12	12	12
20.0	11	10	9	8	7	7	7
22.0	7	6	5	4	4	4	4
24.0	4	3	3	2	2	2	2
26.0	2	2	2	2	1	1	1
28.0	2	1	1	1	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
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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	84.75	N.A.	12.90
0-30	224.26	N.A.	34.20
0-40	407.50	N.A.	62.10
0-60	637.12	N.A.	97.10
0-80	656.28	N.A.	100.00
0-90	656.28	N.A.	100.00
10-90	639.30	N.A.	97.40
20-40	322.75	N.A.	49.20
20-50	477.02	N.A.	72.70
40-70	248.07	N.A.	37.80
60-80	19.16	N.A.	2.90
70-80	0.70	N.A.	0.10
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	656.28	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	16.98
10-20	67.77
20-30	139.52
30-40	183.24
40-50	154.27
50-60	75.35
60-70	18.45
70-80	0.70
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

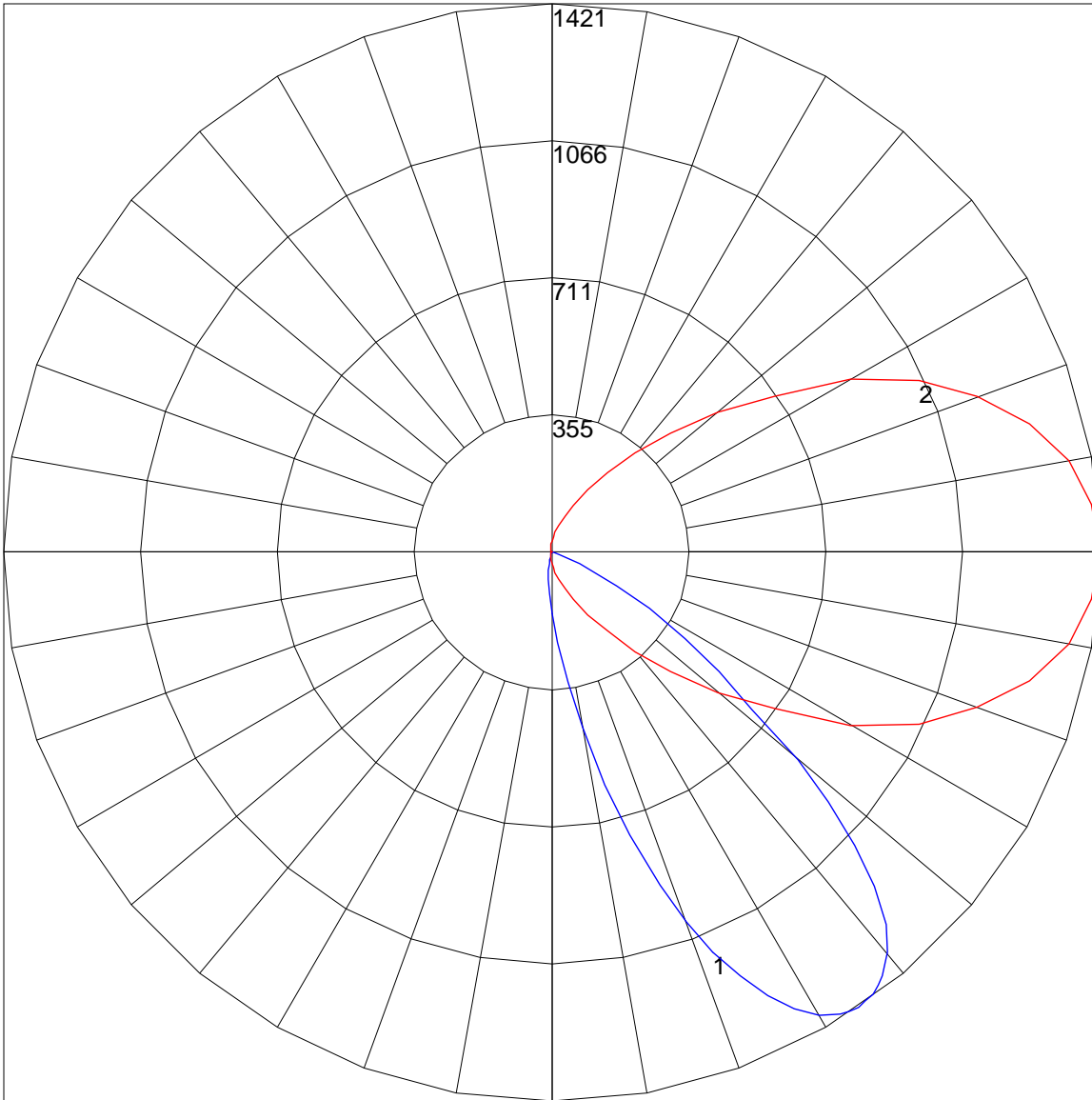
IES INDOOR REPORT
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	97	92	87	101	96	91	86	92	88	85	89	86	83	86	83	81	79
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69
4	89	79	71	66	87	77	71	65	75	69	64	73	68	64	71	66	63	61
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	35	34
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	30

POLAR GRAPH



Maximum Candela = 1421 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.)