

IES INDOOR REPORT**PHOTOMETRIC FILENAME : ALX16LX-130L35KEX-AL16-FGR.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TESTLAB] Photopia 2018.1.0 see: www.ltioptics.com/ies

[ISSUE DATE]

[TEST DATE] 7/27/2018

[UPDATE] 8/3/2018

[TEST] SP-00467_20_M-130L

[MANUFAC] Spectrum Lighting

[LUMCAT] ALX16LX-130L-35K-EX-AL16-FGR-xx

[LUMINAIRE] 16" Diam. Alum. Reflector LED Tech Pendant w/ Frosted Glass Ring

[OTHER] 22" outside diam. frosted, soda-lime glass ring, 16" diam. Open Center

[OTHER] Matte white, inside reflector finish

[OTHER] 73 Deg. Beam Angle

[OTHER] 98.5% Downlight, 1.5% Uplight

[LAMP] N/A

[LAMPCAT] N/A

[OTHER] Total Luminaire Watts is approximate

[OTHER] CCT Output Multipliers: 40K x 1.03, 30K x 0.979, 27K x 0.959

[OTHER] Adapted from Intertek LX-AL16 test luminaire ref. CRT1709151315-001-006

[OTHER] This report updated by Spectrum Lighting

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10815
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	103.89
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.08
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	1.33 ft (Diameter)
Luminous Width (90-270)	1.33 ft (Diameter)
Luminous Height	0.92 ft

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ALX16LX-130L35KEX-AL16-FGR.IES

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7891	7777	7795
55	5750	5747	5812
65	3966	3985	3939
75	2111	2096	2090
85	517	530	534

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ALX16LX-130L35KEX-AL16-FGR.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0.0	7093.429	7093.429	7093.429	7093.429	7093.429	7093.429	7093.429	7093.429	7093.429	7093.429
2.5	7108.316	7082.020	7093.137	7079.680	7076.708	7079.680	7093.137	7082.020	7108.316	7082.020
5.0	7123.203	7070.611	7092.844	7065.930	7059.986	7065.930	7092.844	7070.611	7123.203	7070.611
7.5	7032.571	6976.552	7010.176	7013.022	7006.837	7013.022	7010.176	6976.552	7032.571	6976.552
10.0	6941.939	6882.493	6927.507	6960.114	6953.687	6960.114	6927.507	6882.493	6941.939	6882.493
12.5	6760.249	6763.220	6753.752	6784.023	6769.229	6784.023	6753.752	6763.220	6760.249	6763.220
15.0	6578.558	6643.947	6579.997	6607.932	6584.771	6607.932	6579.997	6643.947	6578.558	6643.947
17.5	6322.910	6378.660	6347.618	6361.915	6333.363	6361.915	6347.618	6378.660	6322.910	6378.660
20.0	6067.262	6113.372	6115.239	6115.898	6081.954	6115.898	6113.372	6067.262	6113.372	6113.372
22.5	5846.575	5866.008	5863.928	5897.222	5855.663	5897.222	5863.928	5866.008	5846.575	5866.008
25.0	5625.888	5618.644	5612.617	5678.545	5629.371	5678.545	5612.617	5618.644	5625.888	5618.644
27.5	5424.541	5417.409	5428.781	5451.859	5431.957	5451.859	5428.781	5417.409	5424.541	5417.409
30.0	5223.194	5216.173	5244.945	5225.173	5234.543	5225.173	5244.945	5216.173	5223.194	5216.173
32.5	4667.344	4668.556	4686.434	4678.953	4683.063	4678.953	4686.434	4668.556	4667.344	4668.556
35.0	4111.494	4120.939	4127.923	4132.733	4131.582	4132.733	4127.923	4120.939	4111.494	4120.939
37.5	3245.960	3270.492	3276.584	3283.349	3292.539	3283.349	3276.584	3270.492	3245.960	3270.492
40.0	2380.425	2420.044	2425.244	2433.965	2453.495	2433.965	2425.244	2420.044	2380.425	2420.044
42.5	1868.094	1876.787	1880.673	1891.419	1896.359	1891.419	1880.673	1876.787	1868.094	1876.787
45.0	1355.763	1333.530	1336.102	1348.872	1339.223	1348.872	1336.102	1333.530	1355.763	1333.530
47.5	1240.233	1232.399	1230.885	1232.947	1231.294	1232.947	1230.885	1232.399	1240.233	1232.399
50.0	1124.702	1131.268	1125.668	1117.022	1123.365	1117.022	1125.668	1131.268	1124.702	1131.268
52.5	1043.390	1044.718	1043.594	1034.349	1047.894	1034.349	1043.594	1044.718	1043.390	1044.718
55.0	962.077	958.168	961.520	951.676	972.423	951.676	961.520	958.168	962.077	958.168
57.5	871.204	876.261	876.702	868.260	884.749	868.260	876.702	876.261	871.204	876.261
60.0	780.331	794.354	791.884	784.844	797.075	784.844	791.884	794.354	780.331	794.354
62.5	702.915	710.033	710.163	703.527	709.165	703.527	710.163	710.033	702.915	710.033
65.0	625.498	625.712	628.442	622.210	621.254	622.210	628.442	625.712	625.498	625.712
67.5	542.890	542.501	545.644	537.169	541.316	537.169	545.644	542.501	542.890	542.501
70.0	460.282	459.289	462.845	452.128	461.378	452.128	462.845	459.289	460.282	459.289
72.5	381.431	380.744	381.677	375.627	380.516	375.627	381.677	380.744	381.431	380.744
75.0	302.580	302.199	300.509	299.125	299.654	299.125	300.509	302.199	302.580	302.199
77.5	234.627	235.096	233.383	231.223	234.896	231.223	233.383	235.096	234.627	235.096
80.0	166.674	167.993	166.256	163.321	170.138	163.321	166.256	167.993	166.674	167.993
82.5	115.549	116.376	116.167	113.659	118.354	113.659	116.167	116.376	115.549	116.376
85.0	64.424	64.758	66.077	63.997	66.569	63.997	66.077	64.758	64.424	64.758
87.5	34.427	34.585	35.049	33.694	35.472	33.694	35.049	34.585	34.427	34.585
90.0	4.430	4.411	4.021	3.390	4.374	3.390	4.021	4.411	4.430	4.411
92.5	6.784	7.202	6.366	6.436	7.513	6.436	6.366	7.202	6.784	7.202
95.0	9.138	9.993	8.711	9.482	10.652	9.482	8.711	9.993	9.138	9.993
97.5	16.786	18.184	16.907	17.413	17.998	17.413	16.907	18.184	16.786	18.184
100.0	24.434	26.375	25.103	25.344	25.344	25.344	25.103	26.375	24.434	26.375
102.5	29.839	30.123	30.253	29.825	30.067	29.825	30.253	30.123	29.839	30.123
105.0	35.244	33.870	35.402	34.306	34.789	34.306	35.402	33.870	35.244	33.870
107.5	33.062	33.280	34.543	32.876	33.986	32.876	34.543	33.280	33.062	33.280
110.0	30.879	32.690	33.684	31.446	33.182	31.446	33.684	32.690	30.879	32.690
112.5	30.935	32.221	31.590	31.395	32.166	31.395	31.590	32.221	30.935	32.221
115.0	30.991	31.752	29.496	31.344	31.149	31.344	29.496	31.752	30.991	31.752
117.5	29.110	29.133	27.453	29.556	28.660	29.556	27.453	29.133	29.110	29.133
120.0	27.229	26.514	25.409	27.768	26.171	27.768	25.409	26.514	27.229	26.514
122.5	26.106	25.094	24.722	26.705	25.205	26.705	24.722	25.094	26.106	25.094
125.0	24.982	23.673	24.035	25.641	24.239	25.641	24.035	23.673	24.982	23.673
127.5	22.345	22.535	22.057	23.454	23.766	23.454	22.057	22.535	22.345	22.535
130.0	19.707	21.397	20.078	21.267	23.292	21.267	20.078	21.397	19.707	21.397
132.5	21.788	21.040	20.394	21.917	22.401	21.917	20.394	21.040	21.788	21.040

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ALX16LX-130L35KEX-AL16-FGR.IES

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135.0	23.868	20.682	20.710	22.567	21.509	22.567	20.710	20.682	23.868	20.682
137.5	26.473	23.738	24.518	23.677	24.179	23.677	24.518	23.738	26.473	23.738
140.0	29.078	26.793	28.325	24.787	26.849	24.787	28.325	26.793	29.078	26.793
142.5	28.567	29.440	28.381	28.414	29.589	28.414	28.381	29.440	28.567	29.440
145.0	28.056	32.087	28.437	32.040	32.328	32.040	28.437	32.087	28.056	32.087
147.5	28.302	31.288	28.047	30.494	29.872	30.494	28.047	31.288	28.302	31.288
150.0	28.548	30.489	27.657	28.948	27.415	28.948	27.657	30.489	28.548	30.489
152.5	29.231	31.195	27.912	28.363	27.531	28.363	27.912	31.195	29.231	31.195
155.0	29.913	31.901	28.167	27.777	27.647	27.777	28.167	31.901	29.913	31.901
157.5	28.330	29.593	29.217	27.271	29.379	27.271	29.217	29.593	28.330	29.593
160.0	26.747	27.285	30.266	26.765	31.111	26.765	30.266	27.285	26.747	27.285
162.5	28.730	26.826	29.500	27.081	29.008	27.081	29.500	26.826	28.730	26.826
165.0	30.712	26.366	28.734	27.397	26.904	27.397	28.734	26.366	30.712	26.366
167.5	29.663	23.097	26.649	25.489	26.004	25.489	26.649	23.097	29.663	23.097
170.0	28.613	19.828	24.564	23.580	25.103	23.580	24.564	19.828	28.613	19.828
172.5	22.428	19.735	22.136	21.621	25.247	21.621	22.136	19.735	22.428	19.735
175.0	16.243	19.642	19.707	19.661	25.391	19.661	19.707	19.642	16.243	19.642
177.5	19.340	21.040	21.072	21.049	23.914	21.049	21.072	21.040	19.340	21.040
180.0	22.000	22.000	22.000	22.000	22.000	22.000	22.000	22.000	22.000	22.000

Vert. Angles **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	7093.429	7093.429	7093.429	7093.429	7093.429	7093.429	7093.429
2.5	7093.137	7079.680	7076.708	7079.680	7093.137	7082.020	7108.316
5.0	7092.844	7065.930	7059.986	7065.930	7092.844	7070.611	7123.203
7.5	7010.176	7013.022	7006.837	7013.022	7010.176	6976.552	7032.571
10.0	6927.507	6960.114	6953.687	6960.114	6927.507	6882.493	6941.939
12.5	6753.752	6784.023	6769.229	6784.023	6753.752	6763.220	6760.249
15.0	6579.997	6607.932	6584.771	6607.932	6579.997	6643.947	6578.558
17.5	6347.618	6361.915	6333.363	6361.915	6347.618	6378.660	6322.910
20.0	6115.239	6115.898	6081.954	6115.898	6115.239	6113.372	6067.262
22.5	5863.928	5897.222	5855.663	5897.222	5863.928	5866.008	5846.575
25.0	5612.617	5678.545	5629.371	5678.545	5612.617	5618.644	5625.888
27.5	5428.781	5451.859	5431.957	5451.859	5428.781	5417.409	5424.541
30.0	5244.945	5225.173	5234.543	5225.173	5244.945	5216.173	5223.194
32.5	4686.434	4678.953	4683.063	4678.953	4686.434	4668.556	4667.344
35.0	4127.923	4132.733	4131.582	4132.733	4127.923	4120.939	4111.494
37.5	3276.584	3283.349	3292.539	3283.349	3276.584	3270.492	3245.960
40.0	2425.244	2433.965	2453.495	2433.965	2425.244	2420.044	2380.425
42.5	1880.673	1891.419	1896.359	1891.419	1880.673	1876.787	1868.094
45.0	1336.102	1348.872	1339.223	1348.872	1336.102	1333.530	1355.763
47.5	1230.885	1232.947	1231.294	1232.947	1230.885	1232.399	1240.233
50.0	1125.668	1117.022	1123.365	1117.022	1125.668	1131.268	1124.702
52.5	1043.594	1034.349	1047.894	1034.349	1043.594	1044.718	1043.390
55.0	961.520	951.676	972.423	951.676	961.520	958.168	962.077
57.5	876.702	868.260	884.749	868.260	876.702	876.261	871.204
60.0	791.884	784.844	797.075	784.844	791.884	794.354	780.331
62.5	710.163	703.527	709.165	703.527	710.163	710.033	702.915
65.0	628.442	622.210	621.254	622.210	628.442	625.712	625.498
67.5	545.644	537.169	541.316	537.169	545.644	542.501	542.890
70.0	462.845	452.128	461.378	452.128	462.845	459.289	460.282
72.5	381.677	375.627	380.516	375.627	381.677	380.744	381.431
75.0	300.509	299.125	299.654	299.125	300.509	302.199	302.580
77.5	233.383	231.223	234.896	231.223	233.383	235.096	234.627
80.0	166.256	163.321	170.138	163.321	166.256	167.993	166.674

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ALX16LX-130L35KEX-AL16-FGR.IES

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82.5	116.167	113.659	118.354	113.659	116.167	116.376	115.549
85.0	66.077	63.997	66.569	63.997	66.077	64.758	64.424
87.5	35.049	33.694	35.472	33.694	35.049	34.585	34.427
90.0	4.021	3.390	4.374	3.390	4.021	4.411	4.430
92.5	6.366	6.436	7.513	6.436	6.366	7.202	6.784
95.0	8.711	9.482	10.652	9.482	8.711	9.993	9.138
97.5	16.907	17.413	17.998	17.413	16.907	18.184	16.786
100.0	25.103	25.344	25.344	25.344	25.103	26.375	24.434
102.5	30.253	29.825	30.067	29.825	30.253	30.123	29.839
105.0	35.402	34.306	34.789	34.306	35.402	33.870	35.244
107.5	34.543	32.876	33.986	32.876	34.543	33.280	33.062
110.0	33.684	31.446	33.182	31.446	33.684	32.690	30.879
112.5	31.590	31.395	32.166	31.395	31.590	32.221	30.935
115.0	29.496	31.344	31.149	31.344	29.496	31.752	30.991
117.5	27.453	29.556	28.660	29.556	27.453	29.133	29.110
120.0	25.409	27.768	26.171	27.768	25.409	26.514	27.229
122.5	24.722	26.705	25.205	26.705	24.722	25.094	26.106
125.0	24.035	25.641	24.239	25.641	24.035	23.673	24.982
127.5	22.057	23.454	23.766	23.454	22.057	22.535	22.345
130.0	20.078	21.267	23.292	21.267	20.078	21.397	19.707
132.5	20.394	21.917	22.401	21.917	20.394	21.040	21.788
135.0	20.710	22.567	21.509	22.567	20.710	20.682	23.868
137.5	24.518	23.677	24.179	23.677	24.518	23.738	26.473
140.0	28.325	24.787	26.849	24.787	28.325	26.793	29.078
142.5	28.381	28.414	29.589	28.414	28.381	29.440	28.567
145.0	28.437	32.040	32.328	32.040	28.437	32.087	28.056
147.5	28.047	30.494	29.872	30.494	28.047	31.288	28.302
150.0	27.657	28.948	27.415	28.948	27.657	30.489	28.548
152.5	27.912	28.363	27.531	28.363	27.912	31.195	29.231
155.0	28.167	27.777	27.647	27.777	28.167	31.901	29.913
157.5	29.217	27.271	29.379	27.271	29.217	29.593	28.330
160.0	30.266	26.765	31.111	26.765	30.266	27.285	26.747
162.5	29.500	27.081	29.008	27.081	29.500	26.826	28.730
165.0	28.734	27.397	26.904	27.397	28.734	26.366	30.712
167.5	26.649	25.489	26.004	25.489	26.649	23.097	29.663
170.0	24.564	23.580	25.103	23.580	24.564	19.828	28.613
172.5	22.136	21.621	25.247	21.621	22.136	19.735	22.428
175.0	19.707	19.661	25.391	19.661	19.707	19.642	16.243
177.5	21.072	21.049	23.914	21.049	21.072	21.040	19.340
180.0	22.000	22.000	22.000	22.000	22.000	22.000	22.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ALX16LX-130L35KEX-AL16-FGR.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2517.84	N.A.	23.30
0-30	5121.43	N.A.	47.40
0-40	7584.93	N.A.	70.10
0-60	9634.62	N.A.	89.10
0-80	10575.88	N.A.	97.80
0-90	10657.69	N.A.	98.50
10-90	9987.56	N.A.	92.30
20-40	5067.08	N.A.	46.90
20-50	6259.77	N.A.	57.90
40-70	2667.64	N.A.	24.70
60-80	941.26	N.A.	8.70
70-80	323.31	N.A.	3.00
80-90	81.81	N.A.	0.80
90-110	46.82	N.A.	0.40
90-120	76.86	N.A.	0.70
90-130	98.58	N.A.	0.90
90-150	134.57	N.A.	1.20
90-180	157.70	N.A.	1.50
110-180	110.88	N.A.	1.00
0-180	10815.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	670.13
10-20	1847.72
20-30	2603.58
30-40	2463.5
40-50	1192.69
50-60	857.01
60-70	617.94
70-80	323.31
80-90	81.81
90-100	13.21
100-110	33.61
110-120	30.04
120-130	21.72
130-140	17.62
140-150	18.37
150-160	13.36
160-170	7.70
170-180	2.07

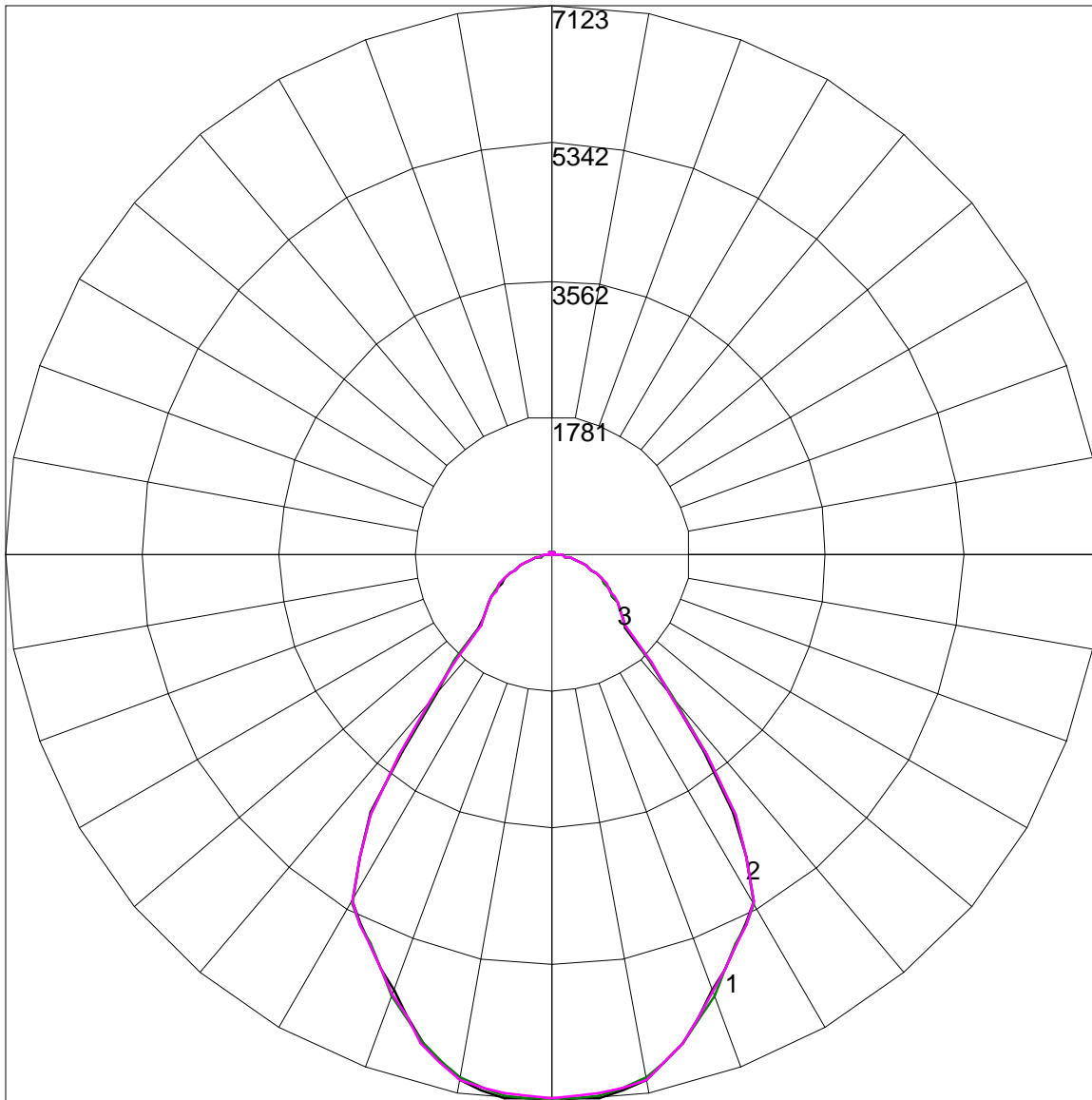
IES INDOOR REPORT
PHOTOMETRIC FILENAME : ALX16LX-130L35KEX-AL16-FGR.IES

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	110	110	110	105	105	105	101	101	101	99
1	111	107	104	101	108	105	102	99	100	98	96	96	94	93	93	91	90	88
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	82	80	78
3	96	88	81	76	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	67	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56
6	79	67	60	55	77	67	60	54	65	59	54	63	58	53	61	57	53	51
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	57	52	48	47
8	69	58	51	46	68	57	50	45	56	50	45	55	49	45	53	48	45	43
9	65	54	47	42	64	53	47	42	52	46	42	51	45	41	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38	37

POLAR GRAPH



Maximum Candela = 7123.203 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180)
2 - Vertical Plane Through Horizontal Angles (45 - 225)
3 - Vertical Plane Through Horizontal Angles (90 - 270)