

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : ALXXX16LX-65L35KEX-AL16.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TEST]

[TESTLAB] Intertek

[ISSUE DATE] 10/18/2017

[UPDATE] 2/15/2018

[LAB-REF LUMCAT] CRT1709151315-001-006-NL\_M-35K

[MANUFAC] SPECTRUM

[LUMCAT] ALxxx16LX-65L-35K-EX-AL16

[LUMINAIRE] 16" Diam. LED Low Bay: Spun Aluminum Reflector

[OTHER] Matte white, inside reflector finish

[OTHER] Open aperture; No Lens

[OTHER] 73 Deg. Beam Angle

[LAMP] N/A

[LAMPCAT] N/A

[OTHER] Tested as ALDDH16LX, data applicable to ALEXT16LX &amp; ALEXL16LX

[OTHER] Total Luminaire Watts is approximate

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

[OTHER] This report updated by Spectrum Lighting, scaled from 65K-27L

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5495
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	56.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.08
Basic Luminous Shape	Circular
Luminous Length (0-180)	1.29 ft (Diameter)
Luminous Width (90-270)	1.29 ft (Diameter)
Luminous Height	0.00 ft

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**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7342	7322	7309
55	7093	7085	7094
65	6570	6570	6591
75	5742	5739	5782
85	3456	3466	3613

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**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>
<b>0.0</b>	3594.042	3594.042	3594.042	3594.042	3594.042	3594.042	3594.042	3594.042	3594.042	3594.042
<b>2.5</b>	3596.649	3593.938	3593.729	3590.392	3599.361	3590.392	3593.729	3593.938	3596.649	3593.938
<b>5.0</b>	3593.938	3599.986	3591.747	3600.404	3599.778	3600.404	3591.747	3599.986	3593.938	3599.986
<b>7.5</b>	3576.208	3577.668	3582.674	3576.938	3581.110	3576.938	3582.674	3577.668	3576.208	3577.668
<b>10.0</b>	3538.664	3539.915	3537.204	3531.676	3535.744	3531.676	3537.204	3539.915	3538.664	3539.915
<b>12.5</b>	3473.587	3475.881	3470.980	3464.827	3471.710	3464.827	3470.980	3475.881	3473.587	3475.881
<b>15.0</b>	3377.223	3375.971	3373.364	3364.708	3373.156	3364.708	3373.364	3375.971	3377.223	3375.971
<b>17.5</b>	3244.775	3247.799	3240.603	3239.247	3244.670	3239.247	3240.603	3247.799	3244.775	3247.799
<b>20.0</b>	3105.860	3110.136	3103.149	3106.590	3107.738	3106.590	3103.149	3110.136	3105.860	3110.136
<b>22.5</b>	2980.087	2983.737	2982.172	2982.381	2983.111	2982.381	2982.172	2983.737	2980.087	2983.737
<b>25.0</b>	2875.379	2877.257	2878.091	2880.073	2878.612	2880.073	2878.091	2877.257	2875.379	2877.257
<b>27.5</b>	2798.622	2799.665	2795.911	2801.542	2799.144	2801.542	2795.911	2799.665	2798.622	2799.665
<b>30.0</b>	2723.846	2724.368	2724.680	2724.680	2724.159	2724.680	2724.680	2724.368	2723.846	2724.368
<b>32.5</b>	2536.124	2556.148	2551.455	2551.350	2542.069	2551.350	2551.455	2556.148	2536.124	2556.148
<b>35.0</b>	2139.301	2156.196	2150.668	2159.533	2157.134	2159.533	2150.668	2156.196	2139.301	2156.196
<b>37.5</b>	1663.217	1687.621	1682.406	1688.038	1696.903	1688.038	1682.406	1687.621	1663.217	1687.621
<b>40.0</b>	1216.439	1239.278	1243.658	1251.063	1257.633	1251.063	1243.658	1239.278	1216.439	1239.278
<b>42.5</b>	805.119	825.560	820.137	833.903	837.762	833.903	820.137	825.560	805.119	825.560
<b>45.0</b>	630.954	631.059	629.286	627.617	628.139	627.617	629.286	631.059	630.954	631.059
<b>47.5</b>	601.649	601.962	599.980	597.895	598.833	597.895	599.980	601.962	601.649	601.962
<b>50.0</b>	569.528	570.258	568.380	566.920	567.650	566.920	568.380	570.258	569.528	570.258
<b>52.5</b>	533.130	533.860	532.400	531.670	532.192	531.670	532.400	533.860	533.130	533.860
<b>55.0</b>	494.439	495.377	493.917	493.500	494.543	493.500	493.917	495.377	494.439	495.377
<b>57.5</b>	455.434	456.582	454.913	454.496	455.852	454.496	454.913	456.582	455.434	456.582
<b>60.0</b>	416.639	417.994	416.326	415.804	417.473	415.804	416.326	417.994	416.639	417.994
<b>62.5</b>	377.634	377.843	377.217	376.591	378.260	376.591	377.217	377.843	377.634	377.843
<b>65.0</b>	337.482	338.212	337.482	337.065	338.525	337.065	337.482	338.212	337.482	338.212
<b>67.5</b>	297.644	298.165	297.644	297.122	298.478	297.122	297.644	298.165	297.644	298.165
<b>70.0</b>	258.326	259.265	258.013	257.909	259.056	257.909	258.013	259.265	258.326	259.265
<b>72.5</b>	219.635	219.530	218.696	218.488	220.260	218.488	218.696	219.530	219.635	219.530
<b>75.0</b>	180.630	181.360	180.526	180.213	181.882	180.213	180.526	181.360	180.630	181.360
<b>77.5</b>	143.503	143.607	143.294	142.877	144.442	142.877	143.294	143.607	143.503	143.607
<b>80.0</b>	106.376	107.210	106.480	106.167	107.732	106.167	106.480	107.210	106.376	107.210
<b>82.5</b>	71.334	71.439	70.917	70.709	72.064	70.709	70.917	71.439	71.334	71.439
<b>85.0</b>	36.606	37.649	36.710	36.814	38.274	36.814	36.710	37.649	36.606	37.649
<b>87.5</b>	6.362	6.779	6.466	6.570	7.926	6.570	6.466	6.779	6.362	6.779
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>97.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>100.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>102.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>107.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>112.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>115.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>117.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>120.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>122.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>125.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>127.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>130.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>132.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**CANDELA TABULATION - (Cont.)**

135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**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	3594.042	3594.042	3594.042	3594.042	3594.042	3594.042	3594.042
2.5	3593.729	3590.392	3599.361	3590.392	3593.729	3593.938	3596.649
5.0	3591.747	3600.404	3599.778	3600.404	3591.747	3599.986	3593.938
7.5	3582.674	3576.938	3581.110	3576.938	3582.674	3577.668	3576.208
10.0	3537.204	3531.676	3535.744	3531.676	3537.204	3539.915	3538.664
12.5	3470.980	3464.827	3471.710	3464.827	3470.980	3475.881	3473.587
15.0	3373.364	3364.708	3373.156	3364.708	3373.364	3375.971	3377.223
17.5	3240.603	3239.247	3244.670	3239.247	3240.603	3247.799	3244.775
20.0	3103.149	3106.590	3107.738	3106.590	3103.149	3110.136	3105.860
22.5	2982.172	2982.381	2983.111	2982.381	2982.172	2983.737	2980.087
25.0	2878.091	2880.073	2878.612	2880.073	2878.091	2877.257	2875.379
27.5	2795.911	2801.542	2799.144	2801.542	2795.911	2799.665	2798.622
30.0	2724.680	2724.680	2724.159	2724.680	2724.680	2724.368	2723.846
32.5	2551.455	2551.350	2542.069	2551.350	2551.455	2556.148	2536.124
35.0	2150.668	2159.533	2157.134	2159.533	2150.668	2156.196	2139.301
37.5	1682.406	1688.038	1696.903	1688.038	1682.406	1687.621	1663.217
40.0	1243.658	1251.063	1257.633	1251.063	1243.658	1239.278	1216.439
42.5	820.137	833.903	837.762	833.903	820.137	825.560	805.119
45.0	629.286	627.617	628.139	627.617	629.286	631.059	630.954
47.5	599.980	597.895	598.833	597.895	599.980	601.962	601.649
50.0	568.380	566.920	567.650	566.920	568.380	570.258	569.528
52.5	532.400	531.670	532.192	531.670	532.400	533.860	533.130
55.0	493.917	493.500	494.543	493.500	493.917	495.377	494.439
57.5	454.913	454.496	455.852	454.496	454.913	456.582	455.434
60.0	416.326	415.804	417.473	415.804	416.326	417.994	416.639
62.5	377.217	376.591	378.260	376.591	377.217	377.843	377.634
65.0	337.482	337.065	338.525	337.065	337.482	338.212	337.482
67.5	297.644	297.122	298.478	297.122	297.644	298.165	297.644
70.0	258.013	257.909	259.056	257.909	258.013	259.265	258.326
72.5	218.696	218.488	220.260	218.488	218.696	219.530	219.635
75.0	180.526	180.213	181.882	180.213	180.526	181.360	180.630
77.5	143.294	142.877	144.442	142.877	143.294	143.607	143.503
80.0	106.480	106.167	107.732	106.167	106.480	107.210	106.376

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**CANDELA TABULATION - (Cont.)**

82.5	70.917	70.709	72.064	70.709	70.917	71.439	71.334
85.0	36.710	36.814	38.274	36.814	36.710	37.649	36.606
87.5	6.466	6.570	7.926	6.570	6.466	6.779	6.362
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1285.24	N.A.	23.40
0-30	2619.58	N.A.	47.70
0-40	3914.96	N.A.	71.20
0-60	4923.55	N.A.	89.60
0-80	5449.11	N.A.	99.20
0-90	5494.9	N.A.	100.00
10-90	5153.49	N.A.	93.80
20-40	2629.72	N.A.	47.90
20-50	3196.63	N.A.	58.20
40-70	1342.72	N.A.	24.40
60-80	525.56	N.A.	9.60
70-80	191.43	N.A.	3.50
80-90	45.79	N.A.	0.80
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	5494.9	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	341.41
10-20	943.83
20-30	1334.33
30-40	1295.38
40-50	566.92
50-60	441.67
60-70	334.12
70-80	191.43
80-90	45.79
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

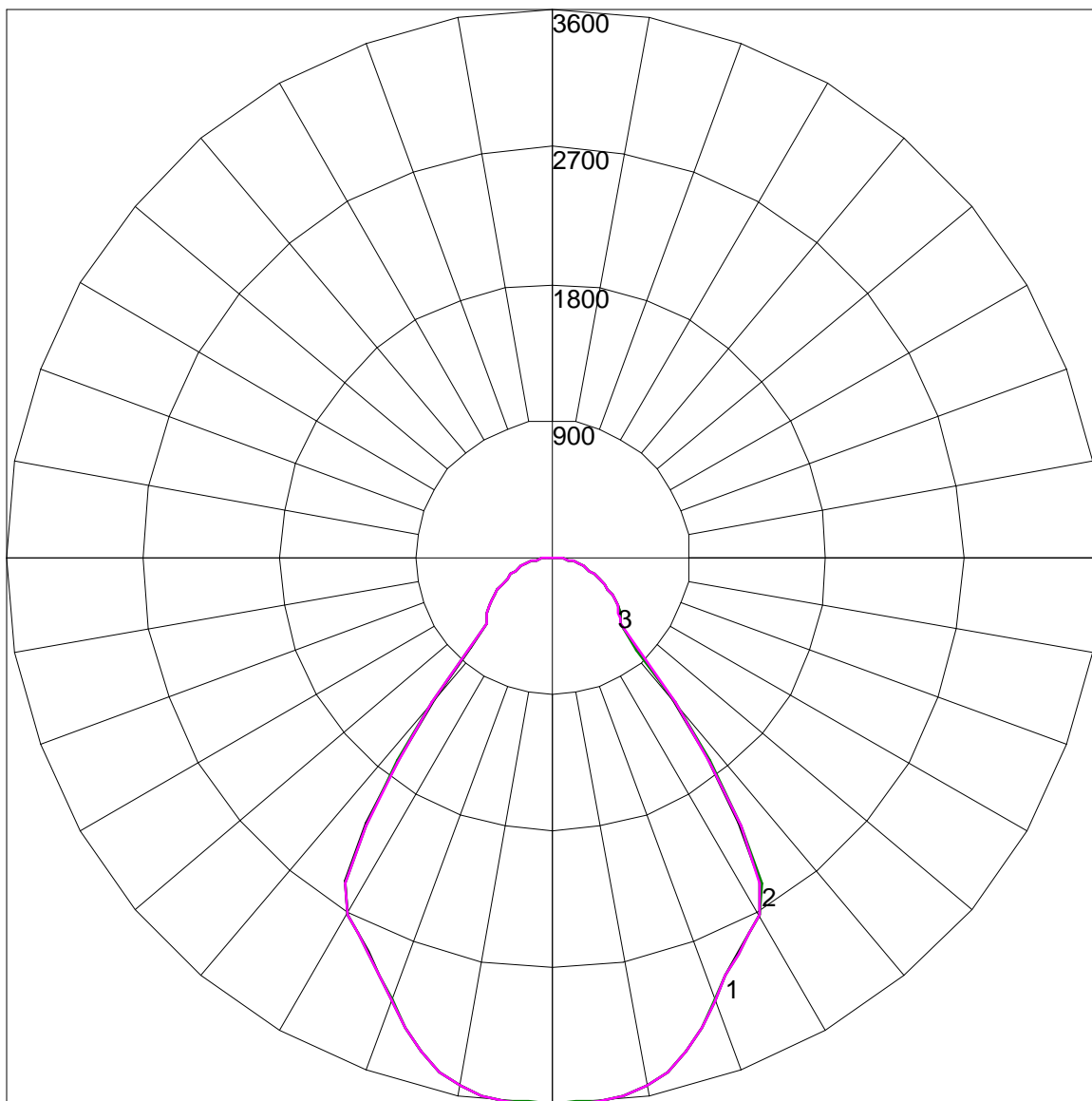
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : ALXXX16LX-65L35KEX-AL16.IES**

**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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	44	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37

POLAR GRAPH



Maximum Candela = 3600.404 Located At Horizontal Angle = 67.5, 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)