

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : ALX16LX-65L35KEX-AL16-CFG.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

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

[ISSUEDATE]

[TESTDATE] 7/27/2018

[UPDATE] 8/3/2018

[TEST] SP-00467\_19\_M-65L

[MANUFAC] Spectrum Lighting

[LUMCAT] ALX16LX-65L-35K-EX-AL16-CFG-xx

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

[OTHER] 22" Diam. Sodalime Glass disc, w/ 16" Diam. Frosted Center Pattern

[OTHER] Matte white, inside reflector finish

[OTHER] 75.5 Deg. Beam Angle

[OTHER] 97.8% Downlight, 2.2% 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	4421
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	79
Total Luminaire Watts	56.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.06
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	1.10
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

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5001	5039	5034
55	3008	2966	2962
65	1740	1759	1799
75	945	944	965
85	426	420	433

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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>	2564.944	2564.944	2564.944	2564.944	2564.944	2564.944	2564.944	2564.944	2564.944	2564.944
<b>2.5</b>	2566.991	2563.561	2538.059	2546.064	2550.040	2546.064	2538.059	2563.561	2566.991	2563.561
<b>5.0</b>	2569.034	2562.172	2511.173	2527.183	2535.132	2527.183	2511.173	2562.172	2569.034	2562.172
<b>7.5</b>	2536.045	2515.046	2494.891	2509.969	2509.710	2509.969	2494.891	2515.046	2536.045	2515.046
<b>10.0</b>	2503.056	2467.921	2478.603	2492.754	2484.288	2492.754	2478.603	2467.921	2503.056	2467.921
<b>12.5</b>	2430.861	2405.458	2411.317	2423.698	2406.804	2423.698	2411.317	2405.458	2430.861	2405.458
<b>15.0</b>	2358.666	2342.995	2344.026	2354.638	2329.315	2354.638	2344.026	2342.995	2358.666	2342.995
<b>17.5</b>	2274.415	2264.273	2263.195	2271.713	2248.052	2271.713	2263.195	2264.273	2274.415	2264.273
<b>20.0</b>	2190.163	2185.551	2182.360	2188.789	2166.784	2188.789	2182.360	2185.551	2190.163	2185.551
<b>22.5</b>	2099.158	2078.132	2084.753	2079.840	2080.880	2079.840	2084.753	2078.132	2099.158	2078.132
<b>25.0</b>	2008.154	1970.708	1987.146	1970.887	1994.972	1970.887	1987.146	1970.708	2008.154	1970.708
<b>27.5</b>	1869.755	1856.668	1866.051	1856.028	1869.421	1856.028	1866.051	1856.668	1869.755	1856.668
<b>30.0</b>	1731.356	1742.622	1744.952	1741.168	1743.865	1741.168	1744.952	1742.622	1731.356	1742.622
<b>32.5</b>	1602.426	1598.751	1598.449	1601.485	1595.871	1601.485	1598.449	1598.751	1602.426	1598.751
<b>35.0</b>	1473.496	1454.874	1451.947	1461.801	1447.872	1461.801	1451.947	1454.874	1473.496	1454.874
<b>37.5</b>	1313.774	1294.164	1302.884	1303.586	1301.858	1303.586	1302.884	1294.164	1313.774	1294.164
<b>40.0</b>	1154.048	1133.454	1153.822	1145.365	1155.841	1145.365	1153.822	1133.454	1154.048	1133.454
<b>42.5</b>	1006.604	993.352	1009.809	1001.987	1010.397	1001.987	1009.809	993.352	1006.604	993.352
<b>45.0</b>	859.160	853.245	865.791	858.605	864.949	858.605	865.791	853.245	859.160	853.245
<b>47.5</b>	755.134	753.247	758.184	754.588	760.400	754.588	758.184	753.247	755.134	753.247
<b>50.0</b>	651.108	653.249	650.576	650.572	655.852	650.572	650.576	653.249	651.108	653.249
<b>52.5</b>	577.205	576.589	573.436	577.577	575.727	577.577	573.436	576.589	577.205	576.589
<b>55.0</b>	503.297	499.928	496.295	504.582	495.598	504.582	496.295	499.928	503.297	499.928
<b>57.5</b>	439.992	440.515	436.232	443.912	437.517	443.912	436.232	440.515	439.992	440.515
<b>60.0</b>	376.687	381.101	376.174	383.247	379.435	383.247	376.174	381.101	376.687	381.101
<b>62.5</b>	325.566	330.291	326.780	331.401	331.608	331.401	326.780	330.291	325.566	330.291
<b>65.0</b>	274.440	279.480	277.381	279.555	283.777	279.555	277.381	279.480	274.440	279.480
<b>67.5</b>	235.399	240.335	239.879	239.851	243.804	239.851	239.879	240.335	235.399	240.335
<b>70.0</b>	196.358	201.186	202.372	200.146	203.826	200.146	202.372	201.186	196.358	201.186
<b>72.5</b>	165.924	169.317	168.818	168.517	171.096	168.517	168.818	169.317	165.924	169.317
<b>75.0</b>	135.486	137.448	135.260	136.888	138.361	136.888	135.260	137.448	135.486	137.448
<b>77.5</b>	113.038	113.085	112.563	113.490	115.499	113.490	112.563	113.085	113.038	113.085
<b>80.0</b>	90.586	88.718	89.866	90.087	92.633	90.087	89.866	88.718	90.586	88.718
<b>82.5</b>	71.851	70.345	71.094	71.009	73.305	71.009	71.094	70.345	71.851	70.345
<b>85.0</b>	53.112	51.968	52.321	51.931	53.978	51.931	52.321	51.968	53.112	51.968
<b>87.5</b>	30.994	30.848	30.824	30.241	31.648	30.241	30.824	30.848	30.994	30.848
<b>90.0</b>	8.876	9.723	9.327	8.551	9.318	8.551	9.327	9.723	8.876	9.723
<b>92.5</b>	13.742	14.085	13.624	13.586	13.902	13.586	13.624	14.085	13.742	14.085
<b>95.0</b>	18.608	18.443	17.920	18.617	18.485	18.617	17.920	18.443	18.608	18.443
<b>97.5</b>	23.459	23.488	23.144	23.794	23.761	23.794	23.144	23.488	23.459	23.488
<b>100.0</b>	28.307	28.528	28.368	28.970	29.031	28.970	28.368	28.528	28.307	28.528
<b>102.5</b>	27.620	27.088	28.020	27.812	27.530	27.812	28.020	27.088	27.620	27.088
<b>105.0</b>	26.928	25.643	27.671	26.650	26.024	26.650	27.671	25.643	26.928	25.643
<b>107.5</b>	25.252	24.749	25.135	24.419	24.603	24.419	25.135	24.749	25.252	24.749
<b>110.0</b>	23.577	23.850	22.594	22.184	23.182	22.184	22.594	23.850	23.577	23.850
<b>112.5</b>	20.462	21.003	19.939	20.156	19.840	20.156	19.939	21.003	20.462	21.003
<b>115.0</b>	17.342	18.151	17.285	18.128	16.499	18.128	17.285	18.151	17.342	18.151
<b>117.5</b>	15.680	16.805	15.756	16.184	15.525	16.184	15.756	16.805	15.680	16.805
<b>120.0</b>	14.019	15.455	14.222	14.236	14.546	14.236	14.222	15.455	14.019	15.455
<b>122.5</b>	13.483	13.045	12.984	12.913	13.389	12.913	12.984	13.045	13.483	13.045
<b>125.0</b>	12.946	10.636	11.746	11.591	12.231	11.591	11.746	10.636	12.946	10.636
<b>127.5</b>	11.054	9.666	10.174	10.650	10.268	10.650	10.174	9.666	11.054	9.666
<b>130.0</b>	9.163	8.692	8.603	9.708	8.301	9.708	8.603	8.692	9.163	8.692
<b>132.5</b>	8.461	8.348	8.405	8.636	8.659	8.636	8.405	8.348	8.461	8.348

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**CANDELA TABULATION - (Cont.)**

135.0	7.755	8.005	8.203	7.558	9.017	7.558	8.203	8.005	7.755	8.005
137.5	9.101	8.974	9.012	9.087	9.238	9.087	9.012	8.974	9.101	8.974
140.0	10.447	9.944	9.821	10.612	9.454	10.612	9.821	9.944	10.447	9.944
142.5	10.532	10.880	10.734	10.758	10.485	10.758	10.734	10.880	10.532	10.880
145.0	10.617	11.812	11.643	10.899	11.511	10.899	11.643	11.812	10.617	11.812
147.5	10.645	11.158	10.758	11.181	10.551	11.181	10.758	11.158	10.645	11.158
150.0	10.669	10.504	9.868	11.464	9.586	11.464	9.868	10.504	10.669	10.504
152.5	9.228	9.563	9.036	9.930	8.951	9.930	9.036	9.563	9.228	9.563
155.0	7.788	8.617	8.203	8.391	8.316	8.391	8.203	8.617	7.788	8.617
157.5	6.932	7.346	7.421	7.233	7.850	7.233	7.421	7.346	6.932	7.346
160.0	6.075	6.075	6.640	6.071	7.379	6.071	6.640	6.075	6.075	6.075
162.5	5.572	5.727	5.144	5.384	6.598	5.384	5.144	5.727	5.572	5.727
165.0	5.068	5.374	3.642	4.697	5.812	4.697	3.642	5.374	5.068	5.374
167.5	3.826	4.024	3.619	3.501	4.108	3.501	3.619	4.024	3.826	4.024
170.0	2.584	2.673	3.595	2.306	2.400	2.306	3.595	2.673	2.584	2.673
172.5	1.845	1.887	2.442	1.431	1.751	1.431	2.442	1.887	1.845	1.887
175.0	1.101	1.101	1.285	0.551	1.101	0.551	1.285	1.101	1.101	1.101
177.5	0.551	0.551	0.645	0.278	0.551	0.278	0.645	0.551	0.551	0.551
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	2564.944	2564.944	2564.944	2564.944	2564.944	2564.944	2564.944
2.5	2538.059	2546.064	2550.040	2546.064	2538.059	2563.561	2566.991
5.0	2511.173	2527.183	2535.132	2527.183	2511.173	2562.172	2569.034
7.5	2494.891	2509.969	2509.710	2509.969	2494.891	2515.046	2536.045
10.0	2478.603	2492.754	2484.288	2492.754	2478.603	2467.921	2503.056
12.5	2411.317	2423.698	2406.804	2423.698	2411.317	2405.458	2430.861
15.0	2344.026	2354.638	2329.315	2354.638	2344.026	2342.995	2358.666
17.5	2263.195	2271.713	2248.052	2271.713	2263.195	2264.273	2274.415
20.0	2182.360	2188.789	2166.784	2188.789	2182.360	2185.551	2190.163
22.5	2084.753	2079.840	2080.880	2079.840	2084.753	2078.132	2099.158
25.0	1987.146	1970.887	1994.972	1970.887	1987.146	1970.708	2008.154
27.5	1866.051	1856.028	1869.421	1856.028	1866.051	1856.668	1869.755
30.0	1744.952	1741.168	1743.865	1741.168	1744.952	1742.622	1731.356
32.5	1598.449	1601.485	1595.871	1601.485	1598.449	1598.751	1602.426
35.0	1451.947	1461.801	1447.872	1461.801	1451.947	1454.874	1473.496
37.5	1302.884	1303.586	1301.858	1303.586	1302.884	1294.164	1313.774
40.0	1153.822	1145.365	1155.841	1145.365	1153.822	1133.454	1154.048
42.5	1009.809	1001.987	1010.397	1001.987	1009.809	993.352	1006.604
45.0	865.791	858.605	864.949	858.605	865.791	853.245	859.160
47.5	758.184	754.588	760.400	754.588	758.184	753.247	755.134
50.0	650.576	650.572	655.852	650.572	650.576	653.249	651.108
52.5	573.436	577.577	575.727	577.577	573.436	576.589	577.205
55.0	496.295	504.582	495.598	504.582	496.295	499.928	503.297
57.5	436.232	443.912	437.517	443.912	436.232	440.515	439.992
60.0	376.174	383.247	379.435	383.247	376.174	381.101	376.687
62.5	326.780	331.401	331.608	331.401	326.780	330.291	325.566
65.0	277.381	279.555	283.777	279.555	277.381	279.480	274.440
67.5	239.879	239.851	243.804	239.851	239.879	240.335	235.399
70.0	202.372	200.146	203.826	200.146	202.372	201.186	196.358
72.5	168.818	168.517	171.096	168.517	168.818	169.317	165.924
75.0	135.260	136.888	138.361	136.888	135.260	137.448	135.486
77.5	112.563	113.490	115.499	113.490	112.563	113.085	113.038
80.0	89.866	90.087	92.633	90.087	89.866	88.718	90.586

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**CANDELA TABULATION - (Cont.)**

82.5	71.094	71.009	73.305	71.009	71.094	70.345	71.851
85.0	52.321	51.931	53.978	51.931	52.321	51.968	53.112
87.5	30.824	30.241	31.648	30.241	30.824	30.848	30.994
90.0	9.327	8.551	9.318	8.551	9.327	9.723	8.876
92.5	13.624	13.586	13.902	13.586	13.624	14.085	13.742
95.0	17.920	18.617	18.485	18.617	17.920	18.443	18.608
97.5	23.144	23.794	23.761	23.794	23.144	23.488	23.459
100.0	28.368	28.970	29.031	28.970	28.368	28.528	28.307
102.5	28.020	27.812	27.530	27.812	28.020	27.088	27.620
105.0	27.671	26.650	26.024	26.650	27.671	25.643	26.928
107.5	25.135	24.419	24.603	24.419	25.135	24.749	25.252
110.0	22.594	22.184	23.182	22.184	22.594	23.850	23.577
112.5	19.939	20.156	19.840	20.156	19.939	21.003	20.462
115.0	17.285	18.128	16.499	18.128	17.285	18.151	17.342
117.5	15.756	16.184	15.525	16.184	15.756	16.805	15.680
120.0	14.222	14.236	14.546	14.236	14.222	15.455	14.019
122.5	12.984	12.913	13.389	12.913	12.984	13.045	13.483
125.0	11.746	11.591	12.231	11.591	11.746	10.636	12.946
127.5	10.174	10.650	10.268	10.650	10.174	9.666	11.054
130.0	8.603	9.708	8.301	9.708	8.603	8.692	9.163
132.5	8.405	8.636	8.659	8.636	8.405	8.348	8.461
135.0	8.203	7.558	9.017	7.558	8.203	8.005	7.755
137.5	9.012	9.087	9.238	9.087	9.012	8.974	9.101
140.0	9.821	10.612	9.454	10.612	9.821	9.944	10.447
142.5	10.734	10.758	10.485	10.758	10.734	10.880	10.532
145.0	11.643	10.899	11.511	10.899	11.643	11.812	10.617
147.5	10.758	11.181	10.551	11.181	10.758	11.158	10.645
150.0	9.868	11.464	9.586	11.464	9.868	10.504	10.669
152.5	9.036	9.930	8.951	9.930	9.036	9.563	9.228
155.0	8.203	8.391	8.316	8.391	8.203	8.617	7.788
157.5	7.421	7.233	7.850	7.233	7.421	7.346	6.932
160.0	6.640	6.071	7.379	6.071	6.640	6.075	6.075
162.5	5.144	5.384	6.598	5.384	5.144	5.727	5.572
165.0	3.642	4.697	5.812	4.697	3.642	5.374	5.068
167.5	3.619	3.501	4.108	3.501	3.619	4.024	3.826
170.0	3.595	2.306	2.400	2.306	3.595	2.673	2.584
172.5	2.442	1.431	1.751	1.431	2.442	1.887	1.845
175.0	1.285	0.551	1.101	0.551	1.285	1.101	1.101
177.5	0.645	0.278	0.551	0.278	0.645	0.551	0.551
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	899.38	N.A.	20.30
0-30	1806.45	N.A.	40.90
0-40	2710.56	N.A.	61.30
0-60	3839.95	N.A.	86.80
0-80	4270.11	N.A.	96.60
0-90	4325.69	N.A.	97.80
10-90	4085.29	N.A.	92.40
20-40	1811.18	N.A.	41.00
20-50	2487.21	N.A.	56.30
40-70	1410.75	N.A.	31.90
60-80	430.17	N.A.	9.70
70-80	148.81	N.A.	3.40
80-90	55.57	N.A.	1.30
90-110	48.07	N.A.	1.10
90-120	66.19	N.A.	1.50
90-130	76.73	N.A.	1.70
90-150	90.30	N.A.	2.00
90-180	95.77	N.A.	2.20
110-180	47.70	N.A.	1.10
0-180	4421.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	240.39
10-20	658.98
20-30	907.08
30-40	904.10
40-50	676.03
50-60	453.36
60-70	281.36
70-80	148.81
80-90	55.57
90-100	20.32
100-110	27.75
110-120	18.12
120-130	10.54
130-140	6.78
140-150	6.79
150-160	3.93
160-170	1.38
170-180	0.16

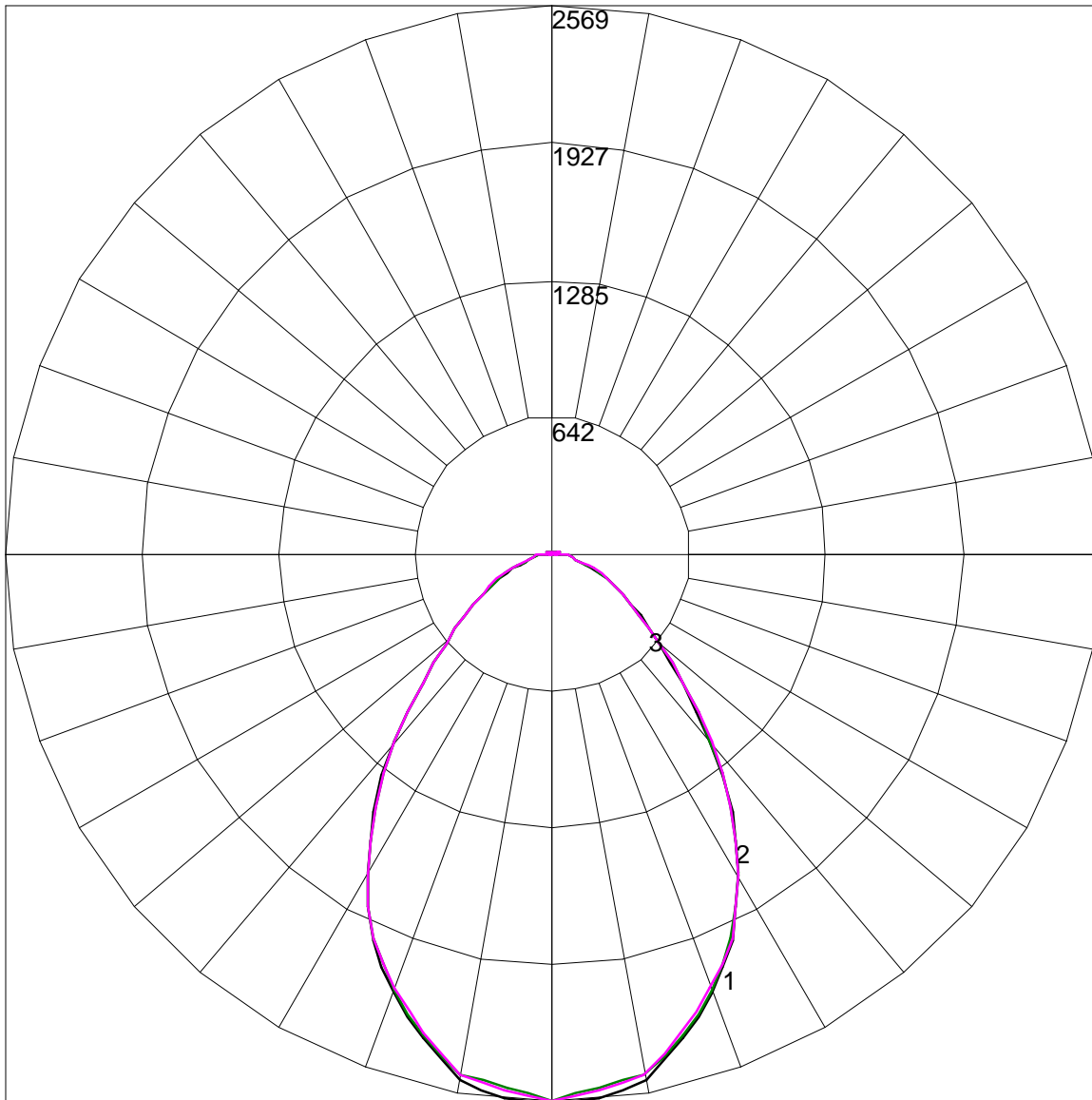
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : ALX16LX-65L35KEX-AL16-CFG.IES**

**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	100	100	100	98
1	110	106	103	99	107	104	101	98	99	97	94	95	93	91	91	89	88	86
2	102	95	89	85	99	93	88	83	89	85	81	86	82	79	83	80	77	75
3	94	86	79	73	92	84	77	72	81	75	71	78	73	69	75	71	68	66
4	88	77	70	64	85	76	69	64	73	67	63	71	66	62	69	64	61	59
5	82	70	63	57	80	69	62	56	67	61	56	65	59	55	63	58	54	52
6	76	64	57	51	74	63	56	51	62	55	50	60	54	50	58	53	49	47
7	71	59	51	46	69	58	51	46	57	50	45	55	49	45	54	48	44	43
8	67	55	47	42	65	54	47	42	53	46	41	51	45	41	50	45	41	39
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	38	34	33

POLAR GRAPH



Maximum Candela = 2569.034 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)