

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SGE6--SQLEDOS-20L35KE1--OSMWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]20141023\_M-20L-Gen3  
[TESTLAB]OSRAM SYLVANIA  
[ISSUE DATE]  
[TEST DATE]8/14/2014  
[UPDATE]11/11/2016  
[MANUFAC]Spectrum Lighting  
[LUMCAT]SGE6SQLEDOS-20L-35K-E1-CA0366OS-MW-SO  
[LUMINAIRE]6" Square, LED recessed downlight  
[TRIM]Cast Alum, Matte White finish, regressed Solite lens  
[OTHER]69.4 Degree Beam Angle  
[LAMP]N/A  
[LAMPCAT]N/A  
[OTHER]Total Luminaire Watts is approximate  
[OTHER]Photometric measurements taken at 120VAC  
[OTHER]Data applicable for Housing: SGE6PZSQLEDOS  
[OTHER]Data applicable for Trims: SD6NOS-MS-SO and TP0366OS-MW-SO  
[OTHER]Output Multipliers: 40K x 1.0, 30K x 1.0, 27K x 0.946  
[OTHER]Catalog number designation update: 25W is now called 20L  
[OTHER]This report updated by Spectrum Lighting, scaled from Gen2 30L

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1980
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	20.24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.16
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.48 ft
Luminous Width (90-270)	0.48 ft
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	15786	24485	15305
55	12343	13311	12297
65	12079	12015	12037
75	11589	11394	11608
85	10038	10154	10239

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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>	1259.846	1259.846	1259.846	1259.846	1259.846	1259.846	1259.846	1259.846	1259.846	1259.846
<b>2.5</b>	1257.516	1256.596	1255.424	1255.316	1257.096	1255.316	1255.424	1256.596	1257.516	1256.596
<b>5.0</b>	1251.125	1249.555	1250.409	1248.904	1249.273	1248.904	1250.409	1249.555	1251.125	1249.555
<b>7.5</b>	1243.715	1243.353	1238.439	1240.921	1243.049	1240.921	1238.439	1243.353	1243.715	1243.353
<b>10.0</b>	1234.430	1230.203	1229.827	1229.928	1231.752	1229.928	1229.827	1230.203	1234.430	1230.203
<b>12.5</b>	1219.036	1216.453	1217.575	1215.896	1216.923	1215.896	1217.575	1216.453	1219.036	1216.453
<b>15.0</b>	1200.640	1200.474	1205.597	1199.924	1199.229	1199.924	1205.597	1200.474	1200.640	1200.474
<b>17.5</b>	1178.053	1178.951	1190.371	1181.281	1180.152	1181.281	1190.371	1178.951	1178.053	1178.951
<b>20.0</b>	1157.956	1161.126	1169.521	1162.819	1160.236	1162.819	1169.521	1161.126	1157.956	1161.126
<b>22.5</b>	1132.598	1136.412	1145.335	1143.410	1137.461	1143.410	1145.335	1136.412	1132.598	1136.412
<b>25.0</b>	1085.311	1103.642	1113.347	1113.022	1093.127	1113.022	1113.347	1103.642	1085.311	1103.642
<b>27.5</b>	1006.927	1045.949	1077.908	1058.339	1011.979	1058.339	1077.908	1045.949	1006.927	1045.949
<b>30.0</b>	891.779	957.868	1028.378	970.655	893.248	970.655	1028.378	957.868	891.779	957.868
<b>32.5</b>	750.911	838.312	962.340	851.947	755.022	851.947	962.340	838.312	750.911	838.312
<b>35.0</b>	608.972	702.387	871.726	714.531	604.441	714.531	871.726	702.387	608.972	702.387
<b>37.5</b>	476.643	566.549	749.978	570.927	467.850	570.927	749.978	566.549	476.643	566.549
<b>40.0</b>	366.959	443.599	612.829	444.895	359.549	444.895	612.829	443.599	366.959	443.599
<b>42.5</b>	291.231	345.675	481.941	344.387	283.039	344.387	481.941	345.675	291.231	345.675
<b>45.0</b>	239.147	276.533	370.940	272.531	231.873	272.531	370.940	276.533	239.147	276.533
<b>47.5</b>	203.041	228.704	286.223	224.412	198.460	224.412	286.223	228.704	203.041	228.704
<b>50.0</b>	179.760	195.052	228.306	192.084	176.923	192.084	228.306	195.052	179.760	195.052
<b>52.5</b>	164.302	172.610	189.682	171.054	162.738	171.054	189.682	172.610	164.302	172.610
<b>55.0</b>	151.680	157.151	163.571	156.305	151.116	156.305	163.571	157.151	151.680	157.151
<b>57.5</b>	140.716	144.465	145.247	143.958	140.195	143.958	145.247	144.465	140.716	144.465
<b>60.0</b>	130.302	133.002	131.489	132.770	129.702	132.770	131.489	133.002	130.302	133.002
<b>62.5</b>	119.758	121.936	119.751	121.842	119.345	121.842	119.751	121.936	119.758	121.936
<b>65.0</b>	109.366	110.943	108.794	110.871	108.989	110.871	108.794	110.943	109.366	110.943
<b>67.5</b>	99.060	99.907	97.671	99.777	98.655	99.777	97.671	99.907	99.060	99.907
<b>70.0</b>	88.472	88.805	86.526	88.827	88.234	88.827	86.526	88.805	88.472	88.805
<b>72.5</b>	77.255	77.240	75.048	77.356	77.255	77.356	75.048	77.240	77.255	77.240
<b>75.0</b>	64.265	64.945	63.179	65.379	64.366	65.379	63.179	64.945	64.265	64.945
<b>77.5</b>	51.701	52.287	51.520	52.924	51.969	52.924	51.520	52.287	51.701	52.287
<b>80.0</b>	39.905	40.469	40.006	41.316	40.100	41.316	40.006	40.469	39.905	40.469
<b>82.5</b>	28.919	29.389	29.209	30.186	29.180	30.186	29.209	29.389	28.919	29.389
<b>85.0</b>	18.744	19.012	18.961	19.851	19.120	19.851	18.961	19.012	18.744	19.012
<b>87.5</b>	9.517	9.553	9.618	10.356	9.886	10.356	9.618	9.553	9.517	9.553
<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	1259.846	1259.846	1259.846	1259.846	1259.846	1259.846	1259.846
2.5	1255.424	1255.316	1257.096	1255.316	1255.424	1256.596	1257.516
5.0	1250.409	1248.904	1249.273	1248.904	1250.409	1249.555	1251.125
7.5	1238.439	1240.921	1243.049	1240.921	1238.439	1243.353	1243.715
10.0	1229.827	1229.928	1231.752	1229.928	1229.827	1230.203	1234.430
12.5	1217.575	1215.896	1216.923	1215.896	1217.575	1216.453	1219.036
15.0	1205.597	1199.924	1199.229	1199.924	1205.597	1200.474	1200.640
17.5	1190.371	1181.281	1180.152	1181.281	1190.371	1178.951	1178.053
20.0	1169.521	1162.819	1160.236	1162.819	1169.521	1161.126	1157.956
22.5	1145.335	1143.410	1137.461	1143.410	1145.335	1136.412	1132.598
25.0	1113.347	1113.022	1093.127	1113.022	1113.347	1103.642	1085.311
27.5	1077.908	1058.339	1011.979	1058.339	1077.908	1045.949	1006.927
30.0	1028.378	970.655	893.248	970.655	1028.378	957.868	891.779
32.5	962.340	851.947	755.022	851.947	962.340	838.312	750.911
35.0	871.726	714.531	604.441	714.531	871.726	702.387	608.972
37.5	749.978	570.927	467.850	570.927	749.978	566.549	476.643
40.0	612.829	444.895	359.549	444.895	612.829	443.599	366.959
42.5	481.941	344.387	283.039	344.387	481.941	345.675	291.231
45.0	370.940	272.531	231.873	272.531	370.940	276.533	239.147
47.5	286.223	224.412	198.460	224.412	286.223	228.704	203.041
50.0	228.306	192.084	176.923	192.084	228.306	195.052	179.760
52.5	189.682	171.054	162.738	171.054	189.682	172.610	164.302
55.0	163.571	156.305	151.116	156.305	163.571	157.151	151.680
57.5	145.247	143.958	140.195	143.958	145.247	144.465	140.716
60.0	131.489	132.770	129.702	132.770	131.489	133.002	130.302
62.5	119.751	121.842	119.345	121.842	119.751	121.936	119.758
65.0	108.794	110.871	108.989	110.871	108.794	110.943	109.366
67.5	97.671	99.777	98.655	99.777	97.671	99.907	99.060
70.0	86.526	88.827	88.234	88.827	86.526	88.805	88.472
72.5	75.048	77.356	77.255	77.356	75.048	77.240	77.255
75.0	63.179	65.379	64.366	65.379	63.179	64.945	64.265
77.5	51.520	52.924	51.969	52.924	51.520	52.287	51.701
80.0	40.006	41.316	40.100	41.316	40.006	40.469	39.905

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**CANDELA TABULATION - (Cont.)**

82.5	29.209	30.186	29.180	30.186	29.209	29.389	28.919
85.0	18.961	19.851	19.120	19.851	18.961	19.012	18.744
87.5	9.618	10.356	9.886	10.356	9.618	9.553	9.517
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	457.74	N.A.	23.10
0-30	959.11	N.A.	48.40
0-40	1405.12	N.A.	71.00
0-60	1781.7	N.A.	90.00
0-80	1958.5	N.A.	98.90
0-90	1979.9	N.A.	100.00
10-90	1861.19	N.A.	94.00
20-40	947.39	N.A.	47.90
20-50	1180.98	N.A.	59.60
40-70	485.43	N.A.	24.50
60-80	176.79	N.A.	8.90
70-80	67.95	N.A.	3.40
80-90	21.41	N.A.	1.10
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	1979.9	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	118.71
10-20	339.02
20-30	501.38
30-40	446.01
40-50	233.59
50-60	142.99
60-70	108.85
70-80	67.95
80-90	21.41
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

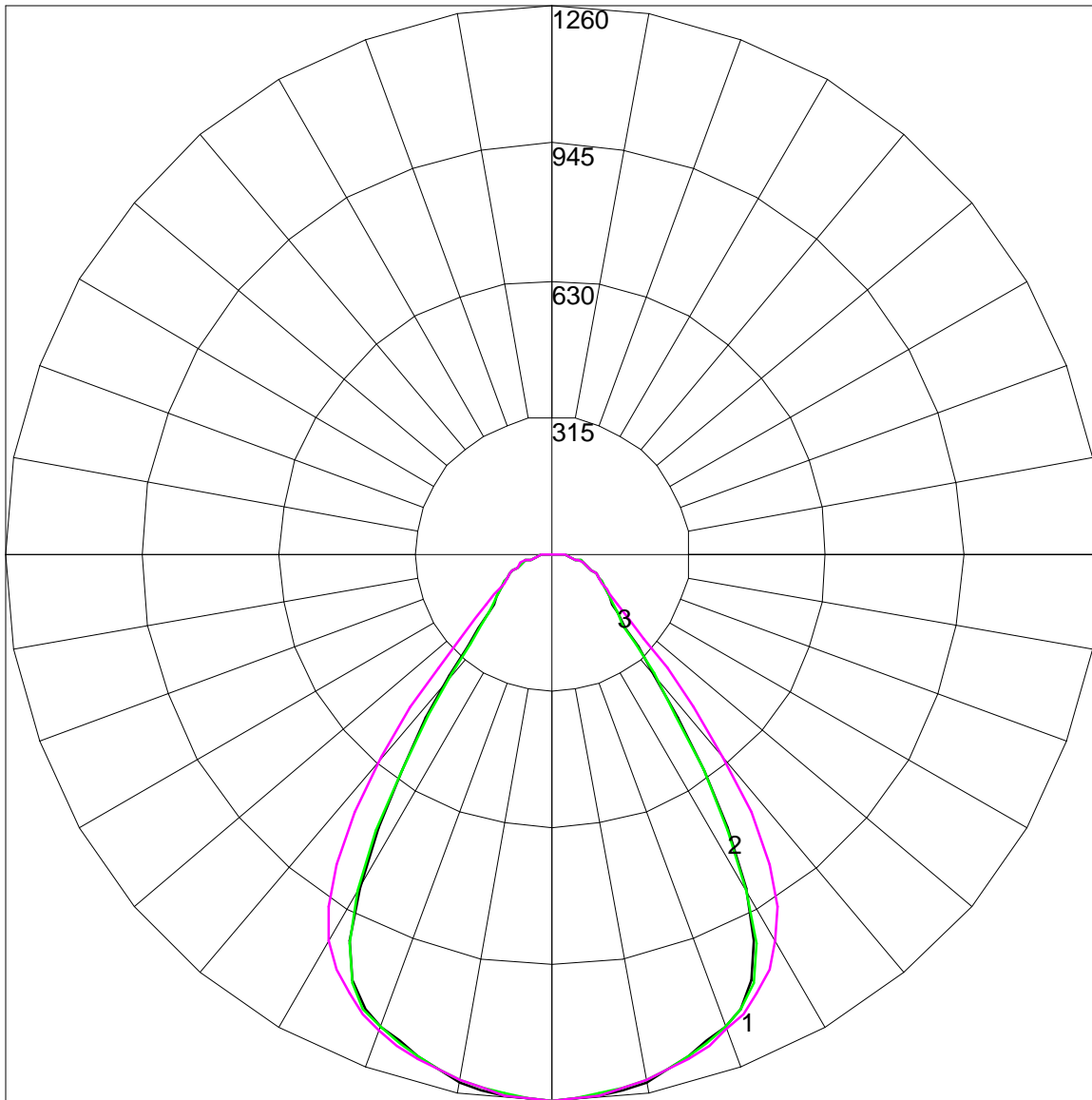
**IES INDOOR REPORT**  
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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

POLAR GRAPH



Maximum Candela = 1259.846 Located At Horizontal Angle = 0, Vertical Angle = 0

# 1 - Vertical Plane Through Horizontal Angles (0 - 180)

# 2 - Vertical Plane Through Horizontal Angles (90 - 270)

# 3 - Vertical Plane Through Horizontal Angles (45 - 225)