



IES INDOOR REPORT

PHOTOMETRIC FILENAME : QD-44-LED35-SO-D9.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

IESNA:LM-63-2002[ISSUE DATE][TEST] [TEST LAB] LIGHT LABORATORY, INC.[MANUFACTURER] PRUDENTIAL LTG.[LUMCAT] QUALITY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	24765
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	272
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4502	4491	4471
55	4331	4311	4281
65	4103	4072	4046
75	3785	3737	3719
85	3271	3175	3218

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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>
0.0	7186.548	7186.547	7186.547	7186.547	7186.547	7186.547	7186.547	7186.547	7186.547	7186.547
2.5	7177.445	7179.260	7177.198	7174.750	7175.932	7174.750	7177.198	7179.260	7177.445	7179.260
5.0	7152.035	7152.200	7150.358	7149.725	7147.470	7149.725	7150.358	7152.200	7152.035	7152.200
7.5	7108.118	7108.557	7107.403	7106.358	7105.587	7106.358	7107.403	7108.557	7108.118	7108.557
10.0	7047.810	7048.882	7045.280	7044.345	7042.585	7044.345	7045.280	7048.882	7047.810	7048.882
12.5	6970.783	6973.148	6968.637	6967.455	6965.063	6967.455	6968.637	6973.148	6970.783	6973.148
15.0	6882.563	6881.325	6878.465	6874.835	6874.065	6874.835	6878.465	6881.325	6882.563	6881.325
17.5	6775.175	6775.422	6773.167	6766.705	6765.000	6766.705	6773.167	6775.422	6775.175	6775.422
20.0	6656.512	6654.615	6651.177	6645.842	6640.370	6645.842	6651.177	6654.615	6656.512	6654.615
22.5	6520.800	6519.865	6514.337	6506.087	6503.667	6506.087	6514.337	6519.865	6520.800	6519.865
25.0	6372.300	6370.925	6363.693	6357.422	6354.507	6357.422	6363.693	6370.925	6372.300	6370.925
27.5	6209.830	6207.052	6197.345	6189.892	6184.970	6189.892	6197.345	6207.052	6209.830	6207.052
30.0	6029.953	6029.595	6021.427	6012.930	6007.017	6012.930	6021.427	6029.595	6029.953	6029.595
32.5	5841.632	5841.248	5831.127	5821.585	5821.063	5821.585	5831.127	5841.248	5841.632	5841.248
35.0	5646.052	5642.807	5631.917	5618.690	5620.065	5618.690	5631.917	5642.807	5646.052	5642.807
37.5	5436.750	5431.525	5419.150	5406.252	5406.995	5406.252	5419.150	5431.525	5436.750	5431.525
40.0	5218.785	5209.958	5197.940	5183.805	5179.350	5183.805	5197.940	5209.958	5218.785	5209.958
42.5	4981.323	4978.545	4962.815	4950.055	4948.075	4950.055	4962.815	4978.545	4981.323	4978.545
45.0	4736.517	4739.323	4724.417	4706.708	4703.490	4706.708	4724.417	4739.323	4736.517	4739.323
47.5	4486.130	4487.835	4473.012	4456.292	4452.085	4456.292	4473.012	4487.835	4486.130	4487.835
50.0	4228.675	4227.438	4213.632	4199.443	4191.083	4199.443	4213.632	4227.438	4228.675	4227.438
52.5	3965.142	3962.613	3949.852	3934.012	3925.790	3934.012	3949.852	3962.613	3965.142	3962.613
55.0	3696.385	3694.350	3679.088	3662.505	3653.677	3662.505	3679.088	3694.350	3696.385	3694.350
57.5	3417.452	3418.718	3402.548	3385.443	3378.568	3385.443	3402.548	3418.718	3417.452	3418.718
60.0	3138.465	3140.088	3124.907	3107.363	3103.925	3107.363	3124.907	3140.088	3138.465	3140.088
62.5	2859.395	2857.030	2842.427	2829.778	2823.920	2829.778	2842.427	2857.030	2859.395	2857.030
65.0	2580.215	2572.735	2560.278	2545.483	2544.135	2545.483	2560.278	2572.735	2580.215	2572.735
67.5	2296.773	2292.290	2277.193	2263.910	2263.140	2263.910	2277.193	2292.290	2296.773	2292.290
70.0	2011.322	2008.682	1991.165	1980.963	1982.310	1980.963	1991.165	2008.682	2011.322	2008.682
72.5	1731.483	1727.523	1711.435	1702.745	1704.395	1702.745	1711.435	1727.523	1731.483	1727.523
75.0	1457.720	1451.340	1439.047	1430.908	1432.172	1430.908	1439.047	1451.340	1457.720	1451.340
77.5	1189.182	1180.850	1167.953	1163.828	1163.443	1163.828	1167.953	1180.850	1189.182	1180.850
80.0	924.028	917.317	903.870	901.477	900.955	901.477	903.870	917.317	924.028	917.317
82.5	665.472	664.923	650.375	648.285	653.895	648.285	650.375	664.923	665.472	664.923
85.0	424.160	422.400	411.702	412.967	417.313	412.967	411.702	422.400	424.160	422.400
87.5	201.273	201.822	185.708	188.347	190.025	188.347	185.708	201.822	201.273	201.822
90.0	202.868	209.330	181.748	97.103	24.255	97.103	181.748	209.330	202.868	209.330
92.5	275.358	256.108	193.188	111.320	50.958	111.320	193.188	256.108	275.358	256.108
95.0	276.402	260.397	204.298	130.653	91.052	130.653	204.298	260.397	276.402	260.397
97.5	307.560	291.225	232.760	158.042	124.547	158.042	232.760	291.225	307.560	291.225
100.0	344.630	327.305	268.620	192.252	168.575	192.252	268.620	327.305	344.630	327.305
102.5	384.395	368.225	304.892	229.488	213.757	229.488	304.892	368.225	384.395	368.225
105.0	427.598	411.180	343.475	271.178	255.585	271.178	343.475	411.180	427.598	411.180
107.5	467.445	447.755	383.350	315.178	304.315	315.178	383.350	447.755	467.445	447.755
110.0	504.322	485.595	426.470	361.543	354.392	361.543	426.470	485.595	504.322	485.595
112.5	542.053	525.553	468.793	410.438	388.712	410.438	468.793	525.553	542.053	525.553
115.0	587.482	570.185	515.982	456.308	453.200	456.308	515.982	570.185	587.482	570.185
117.5	635.360	617.925	564.107	507.650	500.995	507.650	564.107	617.925	635.360	617.925
120.0	682.082	669.048	611.215	557.480	544.033	557.480	611.215	669.048	682.082	669.048
122.5	729.933	716.485	663.850	618.090	593.285	618.090	663.850	716.485	729.933	716.485
125.0	775.940	763.592	715.715	665.060	659.148	665.060	715.715	763.592	775.940	763.592
127.5	826.732	812.982	764.967	713.075	695.530	713.075	764.967	812.982	826.732	812.982
130.0	875.380	862.620	819.197	767.938	750.420	767.938	819.197	862.620	875.380	862.620
132.5	924.908	910.607	876.727	815.815	813.945	815.815	876.727	910.607	924.908	910.607

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CANDELA TABULATION - (Cont.)

135.0	972.482	957.082	922.735	866.415	864.023	866.415	922.735	957.082	972.482	957.082
137.5	1015.740	1000.918	967.285	919.628	903.100	919.628	967.285	1000.918	1015.740	1000.918
140.0	1061.500	1044.230	1011.230	982.602	952.875	982.602	1011.230	1044.230	1061.500	1044.230
142.5	1099.588	1086.470	1053.580	1033.477	1016.097	1033.477	1053.580	1086.470	1099.588	1086.470
145.0	1140.975	1125.190	1100.688	1072.912	1071.015	1072.912	1100.688	1125.190	1140.975	1125.190
147.5	1175.267	1163.085	1141.497	1113.860	1107.700	1113.860	1141.497	1163.085	1175.267	1163.085
150.0	1212.612	1198.065	1177.550	1150.793	1145.375	1150.793	1177.550	1198.065	1212.612	1198.065
152.5	1243.412	1232.440	1210.110	1192.620	1178.430	1192.620	1210.110	1232.440	1243.412	1232.440
155.0	1276.220	1262.910	1244.787	1228.507	1222.045	1228.507	1244.787	1262.910	1276.220	1262.910
157.5	1302.537	1292.610	1274.322	1258.372	1257.080	1258.372	1274.322	1292.610	1302.537	1292.610
160.0	1325.170	1318.570	1303.060	1286.780	1284.085	1286.780	1303.060	1318.570	1325.170	1318.570
162.5	1347.500	1340.955	1331.275	1317.112	1313.263	1317.112	1331.275	1340.955	1347.500	1340.955
165.0	1366.557	1361.057	1351.047	1341.175	1339.635	1341.175	1351.047	1361.057	1366.557	1361.057
167.5	1381.435	1377.832	1370.710	1363.230	1366.310	1363.230	1370.710	1377.832	1381.435	1377.832
170.0	1394.855	1392.600	1385.725	1378.328	1382.370	1378.328	1385.725	1392.600	1394.855	1392.600
172.5	1404.205	1402.610	1399.007	1393.672	1393.260	1393.672	1399.007	1402.610	1404.205	1402.610
175.0	1412.372	1411.410	1406.598	1405.140	1407.780	1405.140	1406.598	1411.410	1412.372	1411.410
177.5	1416.773	1415.150	1413.362	1410.832	1411.328	1410.832	1413.362	1415.150	1416.773	1415.150
180.0	1414.352	1414.352	1414.352	1414.352	1414.352	1414.352	1414.352	1414.352	1414.352	1414.352

**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	7186.547	7186.547	7186.547	7186.547	7186.547	7186.547	7186.547
2.5	7177.198	7174.750	7175.932	7174.750	7177.198	7179.260	7177.445
5.0	7150.358	7149.725	7147.470	7149.725	7150.358	7152.200	7152.035
7.5	7107.403	7106.358	7105.587	7106.358	7107.403	7108.557	7108.118
10.0	7045.280	7044.345	7042.585	7044.345	7045.280	7048.882	7047.810
12.5	6968.637	6967.455	6965.063	6967.455	6968.637	6973.148	6970.783
15.0	6878.465	6874.835	6874.065	6874.835	6878.465	6881.325	6882.563
17.5	6773.167	6766.705	6765.000	6766.705	6773.167	6775.422	6775.175
20.0	6651.177	6645.842	6640.370	6645.842	6651.177	6654.615	6656.512
22.5	6514.337	6506.087	6503.667	6506.087	6514.337	6519.865	6520.800
25.0	6363.693	6357.422	6354.507	6357.422	6363.693	6370.925	6372.300
27.5	6197.345	6189.892	6184.970	6189.892	6197.345	6207.052	6209.830
30.0	6021.427	6012.930	6007.017	6012.930	6021.427	6029.595	6029.953
32.5	5831.127	5821.585	5821.063	5821.585	5831.127	5841.248	5841.632
35.0	5631.917	5618.690	5620.065	5618.690	5631.917	5642.807	5646.052
37.5	5419.150	5406.252	5406.995	5406.252	5419.150	5431.525	5436.750
40.0	5197.940	5183.805	5179.350	5183.805	5197.940	5209.958	5218.785
42.5	4962.815	4950.055	4948.075	4950.055	4962.815	4978.545	4981.323
45.0	4724.417	4706.708	4703.490	4706.708	4724.417	4739.323	4736.517
47.5	4473.012	4456.292	4452.085	4456.292	4473.012	4487.835	4486.130
50.0	4213.632	4199.443	4191.083	4199.443	4213.632	4227.438	4228.675
52.5	3949.852	3934.012	3925.790	3934.012	3949.852	3962.613	3965.142
55.0	3679.088	3662.505	3653.677	3662.505	3679.088	3694.350	3696.385
57.5	3402.548	3385.443	3378.568	3385.443	3402.548	3418.718	3417.452
60.0	3124.907	3107.363	3103.925	3107.363	3124.907	3140.088	3138.465
62.5	2842.427	2829.778	2823.920	2829.778	2842.427	2857.030	2859.395
65.0	2560.278	2545.483	2544.135	2545.483	2560.278	2572.735	2580.215
67.5	2277.193	2263.910	2263.140	2263.910	2277.193	2292.290	2296.773
70.0	1991.165	1980.963	1982.310	1980.963	1991.165	2008.682	2011.322
72.5	1711.435	1702.745	1704.395	1702.745	1711.435	1727.523	1731.483
75.0	1439.047	1430.908	1432.172	1430.908	1439.047	1451.340	1457.720
77.5	1167.953	1163.828	1163.443	1163.828	1167.953	1180.850	1189.182
80.0	903.870	901.477	900.955	901.477	903.870	917.317	924.028

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CANDELA TABULATION - (Cont.)

82.5	650.375	648.285	653.895	648.285	650.375	664.923	665.472
85.0	411.702	412.967	417.313	412.967	411.702	422.400	424.160
87.5	185.708	188.347	190.025	188.347	185.708	201.822	201.273
90.0	181.748	97.103	24.255	97.103	181.748	209.330	202.868
92.5	193.188	111.320	50.958	111.320	193.188	256.108	275.358
95.0	204.298	130.653	91.052	130.653	204.298	260.397	276.402
97.5	232.760	158.042	124.547	158.042	232.760	291.225	307.560
100.0	268.620	192.252	168.575	192.252	268.620	327.305	344.630
102.5	304.892	229.488	213.757	229.488	304.892	368.225	384.395
105.0	343.475	271.178	255.585	271.178	343.475	411.180	427.598
107.5	383.350	315.178	304.315	315.178	383.350	447.755	467.445
110.0	426.470	361.543	354.392	361.543	426.470	485.595	504.322
112.5	468.793	410.438	388.712	410.438	468.793	525.553	542.053
115.0	515.982	456.308	453.200	456.308	515.982	570.185	587.482
117.5	564.107	507.650	500.995	507.650	564.107	617.925	635.360
120.0	611.215	557.480	544.033	557.480	611.215	669.048	682.082
122.5	663.850	618.090	593.285	618.090	663.850	716.485	729.933
125.0	715.715	665.060	659.148	665.060	715.715	763.592	775.940
127.5	764.967	713.075	695.530	713.075	764.967	812.982	826.732
130.0	819.197	767.938	750.420	767.938	819.197	862.620	875.380
132.5	876.727	815.815	813.945	815.815	876.727	910.607	924.908
135.0	922.735	866.415	864.023	866.415	922.735	957.082	972.482
137.5	967.285	919.628	903.100	919.628	967.285	1000.918	1015.740
140.0	1011.230	982.602	952.875	982.602	1011.230	1044.230	1061.500
142.5	1053.580	1033.477	1016.097	1033.477	1053.580	1086.470	1099.588
145.0	1100.688	1072.912	1071.015	1072.912	1100.688	1125.190	1140.975
147.5	1141.497	1113.860	1107.700	1113.860	1141.497	1163.085	1175.267
150.0	1177.550	1150.793	1145.375	1150.793	1177.550	1198.065	1212.612
152.5	1210.110	1192.620	1178.430	1192.620	1210.110	1232.440	1243.412
155.0	1244.787	1228.507	1222.045	1228.507	1244.787	1262.910	1276.220
157.5	1274.322	1258.372	1257.080	1258.372	1274.322	1292.610	1302.537
160.0	1303.060	1286.780	1284.085	1286.780	1303.060	1318.570	1325.170
162.5	1331.275	1317.112	1313.263	1317.112	1331.275	1340.955	1347.500
165.0	1351.047	1341.175	1339.635	1341.175	1351.047	1361.057	1366.557
167.5	1370.710	1363.230	1366.310	1363.230	1370.710	1377.832	1381.435
170.0	1385.725	1378.328	1382.370	1378.328	1385.725	1392.600	1394.855
172.5	1399.007	1393.672	1393.260	1393.672	1399.007	1402.610	1404.205
175.0	1406.598	1405.140	1407.780	1405.140	1406.598	1411.410	1412.372
177.5	1413.362	1410.832	1411.328	1410.832	1413.362	1415.150	1416.773
180.0	1414.352	1414.352	1414.352	1414.352	1414.352	1414.352	1414.352

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2620.03	N.A.	10.60
0-30	5551.88	N.A.	22.40
0-40	9074.14	N.A.	36.60
0-60	16002.47	N.A.	64.60
0-80	20061.03	N.A.	81.00
0-90	20549.61	N.A.	83.00
10-90	19870.36	N.A.	80.20
20-40	6454.11	N.A.	26.10
20-50	10095.86	N.A.	40.80
40-70	9462.33	N.A.	38.20
60-80	4058.56	N.A.	16.40
70-80	1524.56	N.A.	6.20
80-90	488.58	N.A.	2.00
90-110	581.10	N.A.	2.30
90-120	1092.82	N.A.	4.40
90-130	1732.06	N.A.	7.00
90-150	3126.45	N.A.	12.60
90-180	4215.3	N.A.	17.00
110-180	3634.2	N.A.	14.70
0-180	24764.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	679.25
10-20	1940.77
20-30	2931.85
30-40	3522.26
40-50	3641.75
50-60	3286.58
60-70	2534.00
70-80	1524.56
80-90	488.58
90-100	219.73
100-110	361.38
110-120	511.72
120-130	639.24
130-140	706.50
140-150	687.88
150-160	573.83
160-170	381.32
170-180	133.70

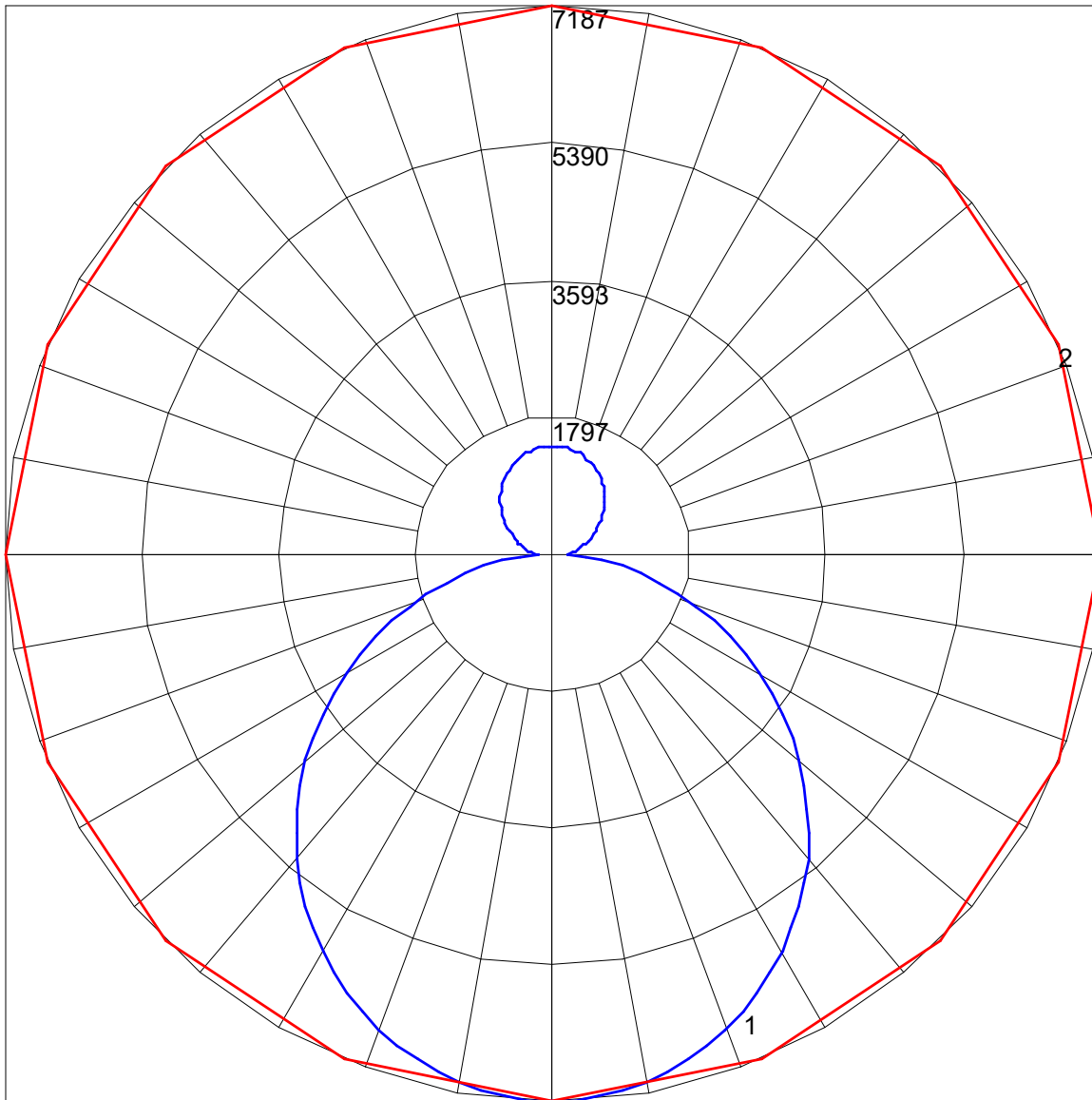
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	105	100	96	92	100	96	92	89	89	86	83	82	80	77	76	74	72	69
2	95	87	80	75	91	84	78	72	77	72	68	72	68	64	66	63	60	57
3	87	76	68	62	83	73	66	60	68	62	57	63	58	54	58	54	51	48
4	79	67	59	52	76	65	57	51	60	54	48	56	50	46	52	47	44	41
5	73	60	51	45	69	58	50	44	54	47	42	50	44	40	47	42	38	35
6	67	54	45	39	64	52	44	38	49	42	36	45	39	35	42	37	33	31
7	62	49	40	34	59	47	39	34	44	37	32	41	35	31	39	33	30	27
8	58	45	36	30	55	43	35	30	40	34	29	38	32	28	35	30	26	24
9	54	41	33	27	52	40	32	27	37	30	26	35	29	25	33	28	24	22
10	50	38	30	25	48	36	29	24	34	28	23	32	27	22	30	25	22	20

POLAR GRAPH



Maximum Candela = 7186.548 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)