



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BTRI-44-LED35-SO.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] BTRI-44-LED35-SO  
 [TESTLAB] INTERTEK  
 [ISSUE DATE] 8-9-18  
 [MANUFAC] PRUDENTIAL  
 [\_TOTALLUMINAIRELUMENS] 7777.6

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8945
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	84
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.29 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.15 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	33582	21320	18215
55	33955	19141	15680
65	35509	16873	13202
75	39335	14179	10549
85	55652	10591	7308

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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>	2382.340	2382.340	2382.340	2382.340	2382.340	2382.340	2382.340	2382.340	2382.340	2382.340
<b>2.5</b>	2386.595	2374.060	2381.305	2386.135	2378.315	2383.950	2377.740	2373.025	2385.215	2373.025
<b>5.0</b>	2379.235	2370.380	2383.375	2386.020	2376.245	2377.280	2370.610	2370.150	2385.445	2370.150
<b>7.5</b>	2370.955	2361.525	2373.830	2381.420	2368.080	2364.515	2359.225	2362.100	2375.325	2362.100
<b>10.0</b>	2357.500	2342.665	2360.375	2367.735	2352.095	2347.265	2340.595	2345.195	2358.420	2345.195
<b>12.5</b>	2335.305	2317.595	2339.215	2346.575	2327.140	2323.920	2316.215	2319.550	2335.880	2319.550
<b>15.0</b>	2305.635	2287.695	2307.935	2315.180	2295.745	2293.330	2284.935	2290.340	2306.210	2290.340
<b>17.5</b>	2269.065	2248.365	2271.365	2278.725	2256.300	2256.185	2248.710	2251.240	2269.295	2251.240
<b>20.0</b>	2228.355	2204.550	2227.665	2235.600	2212.255	2214.900	2204.550	2207.080	2228.470	2207.080
<b>22.5</b>	2179.480	2153.720	2179.940	2187.530	2162.230	2165.565	2154.295	2159.700	2175.915	2159.700
<b>25.0</b>	2127.730	2099.785	2128.305	2135.665	2108.295	2112.895	2099.900	2105.305	2123.590	2105.305
<b>27.5</b>	2072.530	2042.630	2071.840	2079.775	2049.530	2057.465	2043.665	2048.725	2066.090	2048.725
<b>30.0</b>	2008.935	1984.555	2012.960	2021.700	1989.500	1998.815	1984.325	1990.305	2007.670	1990.305
<b>32.5</b>	1954.770	1923.490	1954.540	1962.245	1926.365	1939.705	1923.720	1929.585	1947.755	1929.585
<b>35.0</b>	1895.890	1860.125	1894.395	1900.835	1862.310	1875.535	1860.930	1867.370	1887.725	1867.370
<b>37.5</b>	1830.455	1795.955	1832.295	1839.080	1799.290	1812.630	1797.220	1804.695	1825.970	1804.695
<b>40.0</b>	1762.145	1732.820	1768.815	1778.590	1732.590	1746.965	1732.015	1743.170	1767.090	1743.170
<b>42.5</b>	1694.640	1669.110	1709.360	1716.605	1671.180	1681.415	1669.685	1681.300	1707.405	1681.300
<b>45.0</b>	1633.115	1604.135	1647.260	1657.150	1606.320	1615.405	1603.790	1620.695	1648.180	1620.695
<b>47.5</b>	1569.520	1538.585	1588.265	1596.775	1543.760	1548.130	1539.850	1559.055	1589.990	1559.055
<b>50.0</b>	1500.060	1473.610	1525.245	1535.365	1479.820	1480.625	1473.035	1497.875	1530.305	1497.875
<b>52.5</b>	1427.150	1405.990	1462.570	1474.300	1412.775	1413.695	1406.220	1435.890	1468.665	1435.890
<b>55.0</b>	1358.265	1341.590	1400.585	1411.050	1345.730	1343.660	1340.670	1372.525	1407.945	1372.525
<b>57.5</b>	1291.105	1273.050	1336.645	1346.995	1278.340	1274.890	1271.785	1306.515	1345.845	1306.515
<b>60.0</b>	1221.530	1203.935	1268.910	1281.330	1210.375	1203.475	1201.635	1242.000	1281.675	1242.000
<b>62.5</b>	1145.975	1134.245	1200.140	1211.525	1140.915	1131.485	1130.795	1174.725	1213.135	1174.725
<b>65.0</b>	1070.880	1060.760	1128.035	1141.030	1067.430	1057.310	1058.805	1103.770	1141.605	1103.770
<b>67.5</b>	993.140	985.205	1056.505	1069.040	995.900	984.055	984.745	1030.975	1069.730	1030.975
<b>70.0</b>	918.505	909.075	982.560	994.290	922.990	907.925	909.420	957.030	997.050	957.030
<b>72.5</b>	842.605	833.175	904.015	919.425	847.895	833.405	834.555	882.855	923.450	882.855
<b>75.0</b>	763.025	758.540	829.610	844.100	774.640	756.700	758.885	807.990	847.665	807.990
<b>77.5</b>	685.860	681.490	752.560	766.475	698.510	678.845	684.020	731.170	769.580	731.170
<b>80.0</b>	608.005	603.060	673.440	686.205	620.425	602.715	607.430	653.200	688.505	653.200
<b>82.5</b>	530.265	526.470	593.860	606.165	543.720	525.320	529.115	577.760	611.685	577.760
<b>85.0</b>	447.925	447.005	512.440	522.560	466.095	446.890	451.260	500.825	531.990	500.825
<b>87.5</b>	339.825	341.895	402.845	410.205	366.505	340.170	353.510	403.765	427.455	403.765
<b>90.0</b>	220.915	224.710	272.320	277.840	236.440	220.340	229.540	271.285	289.340	271.285
<b>92.5</b>	209.875	215.740	254.610	257.945	221.030	207.690	212.980	249.435	268.985	249.435
<b>95.0</b>	242.880	246.905	274.045	271.285	247.250	235.060	236.555	267.030	285.775	267.030
<b>97.5</b>	242.420	233.680	262.545	268.870	250.010	246.790	247.940	264.385	275.310	264.385
<b>100.0</b>	224.135	219.190	253.575	257.830	238.165	238.050	237.475	253.115	256.220	253.115
<b>102.5</b>	219.880	212.635	245.295	250.240	226.780	226.090	225.170	242.535	241.385	242.535
<b>105.0</b>	209.415	202.745	233.680	247.940	215.970	216.775	214.820	229.540	234.485	229.540
<b>107.5</b>	199.640	190.900	220.915	241.615	204.470	207.230	204.125	217.005	235.060	217.005
<b>110.0</b>	190.670	175.260	210.680	234.370	194.465	196.305	191.590	197.110	223.445	197.110
<b>112.5</b>	177.560	159.160	203.780	226.780	186.185	187.105	173.880	184.920	214.820	184.920
<b>115.0</b>	168.820	151.685	195.040	216.545	178.480	178.595	153.870	177.215	207.115	177.215
<b>117.5</b>	142.140	145.130	188.025	206.540	171.810	169.280	142.255	171.120	198.605	171.120
<b>120.0</b>	124.430	141.450	181.700	195.500	163.530	150.765	137.310	163.300	191.475	163.300
<b>122.5</b>	115.690	134.435	173.535	187.335	154.330	131.100	132.135	157.895	183.080	157.895
<b>125.0</b>	109.480	129.260	167.555	177.560	142.025	118.220	124.890	153.410	181.355	153.410
<b>127.5</b>	103.500	124.660	162.495	170.085	132.135	111.205	118.795	149.960	177.330	149.960
<b>130.0</b>	97.980	117.990	155.940	161.690	121.900	103.730	113.045	148.120	172.960	148.120
<b>132.5</b>	92.805	114.885	149.960	153.985	113.735	97.980	108.790	143.060	167.785	143.060

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**CANDELA TABULATION - (Cont.)**

135.0	85.905	112.355	143.635	147.775	104.765	90.735	105.340	138.345	160.310	138.345
137.5	82.915	109.940	139.150	139.380	99.245	83.145	105.685	132.135	150.190	132.135
140.0	78.430	106.260	132.250	130.870	90.965	76.130	105.685	127.190	142.370	127.190
142.5	73.715	101.200	124.315	122.590	85.675	71.185	103.385	122.015	132.825	122.015
145.0	78.775	97.865	115.000	112.355	80.730	69.575	100.165	116.035	122.935	116.035
147.5	91.770	96.025	106.950	104.190	75.095	67.965	95.910	107.985	112.930	107.985
150.0	86.710	88.550	97.635	97.175	70.840	68.885	89.240	97.520	103.270	97.520
152.5	79.350	81.305	89.355	86.710	63.250	67.735	81.075	89.585	94.530	89.585
155.0	71.415	72.450	81.190	78.430	57.155	68.310	73.025	80.040	85.560	80.040
157.5	65.435	64.745	72.795	70.840	51.405	62.100	64.515	72.220	75.555	72.220
160.0	57.500	57.730	63.710	62.215	47.150	54.855	58.305	65.435	66.125	65.435
162.5	49.335	50.025	55.545	53.130	40.595	47.955	50.830	55.660	58.535	55.660
165.0	43.010	43.930	47.380	46.690	37.145	42.550	44.160	48.415	48.185	48.415
167.5	34.730	36.685	39.100	38.985	31.050	32.775	35.420	40.365	42.205	40.365
170.0	29.900	30.130	32.545	32.545	27.255	29.325	29.785	33.580	32.545	33.580
172.5	22.425	24.035	26.565	25.185	21.045	23.460	25.415	27.370	26.680	27.370
175.0	19.550	19.320	19.550	18.975	18.285	19.550	19.205	20.930	20.240	20.930
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	2382.340	2382.340	2382.340	2382.340	2382.340	2382.340	2382.340
2.5	2377.740	2383.950	2378.315	2386.135	2381.305	2374.060	2386.595
5.0	2370.610	2377.280	2376.245	2386.020	2383.375	2370.380	2379.235
7.5	2359.225	2364.515	2368.080	2381.420	2373.830	2361.525	2370.955
10.0	2340.595	2347.265	2352.095	2367.735	2360.375	2342.665	2357.500
12.5	2316.215	2323.920	2327.140	2346.575	2339.215	2317.595	2335.305
15.0	2284.935	2293.330	2295.745	2315.180	2307.935	2287.695	2305.635
17.5	2248.710	2256.185	2256.300	2278.725	2271.365	2248.365	2269.065
20.0	2204.550	2214.900	2212.255	2235.600	2227.665	2204.550	2228.355
22.5	2154.295	2165.565	2162.230	2187.530	2179.940	2153.720	2179.480
25.0	2099.900	2112.895	2108.295	2135.665	2128.305	2099.785	2127.730
27.5	2043.665	2057.465	2049.530	2079.775	2071.840	2042.630	2072.530
30.0	1984.325	1998.815	1989.500	2021.700	2012.960	1984.555	2008.935
32.5	1923.720	1939.705	1926.365	1962.245	1954.540	1923.490	1954.770
35.0	1860.930	1875.535	1862.310	1900.835	1894.395	1860.125	1895.890
37.5	1797.220	1812.630	1799.290	1839.080	1832.295	1795.955	1830.455
40.0	1732.015	1746.965	1732.590	1778.590	1768.815	1732.820	1762.145
42.5	1669.685	1681.415	1671.180	1716.605	1709.360	1669.110	1694.640
45.0	1603.790	1615.405	1606.320	1657.150	1647.260	1604.135	1633.115
47.5	1539.850	1548.130	1543.760	1596.775	1588.265	1538.585	1569.520
50.0	1473.035	1480.625	1479.820	1535.365	1525.245	1473.610	1500.060
52.5	1406.220	1413.695	1412.775	1474.300	1462.570	1405.990	1427.150
55.0	1340.670	1343.660	1345.730	1411.050	1400.585	1341.590	1358.265
57.5	1271.785	1274.890	1278.340	1346.995	1336.645	1273.050	1291.105
60.0	1201.635	1203.475	1210.375	1281.330	1268.910	1203.935	1221.530
62.5	1130.795	1131.485	1140.915	1211.525	1200.140	1134.245	1145.975
65.0	1058.805	1057.310	1067.430	1141.030	1128.035	1060.760	1070.880
67.5	984.745	984.055	995.900	1069.040	1056.505	985.205	993.140
70.0	909.420	907.925	922.990	994.290	982.560	909.075	918.505
72.5	834.555	833.405	847.895	919.425	904.015	833.175	842.605
75.0	758.885	756.700	774.640	844.100	829.610	758.540	763.025
77.5	684.020	678.845	698.510	766.475	752.560	681.490	685.860
80.0	607.430	602.715	620.425	686.205	673.440	603.060	608.005

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**CANDELA TABULATION - (Cont.)**

<b>82.5</b>	529.115	525.320	543.720	606.165	593.860	526.470	530.265
<b>85.0</b>	451.260	446.890	466.095	522.560	512.440	447.005	447.925
<b>87.5</b>	353.510	340.170	366.505	410.205	402.845	341.895	339.825
<b>90.0</b>	229.540	220.340	236.440	277.840	272.320	224.710	220.915
<b>92.5</b>	212.980	207.690	221.030	257.945	254.610	215.740	209.875
<b>95.0</b>	236.555	235.060	247.250	271.285	274.045	246.905	242.880
<b>97.5</b>	247.940	246.790	250.010	268.870	262.545	233.680	242.420
<b>100.0</b>	237.475	238.050	238.165	257.830	253.575	219.190	224.135
<b>102.5</b>	225.170	226.090	226.780	250.240	245.295	212.635	219.880
<b>105.0</b>	214.820	216.775	215.970	247.940	233.680	202.745	209.415
<b>107.5</b>	204.125	207.230	204.470	241.615	220.915	190.900	199.640
<b>110.0</b>	191.590	196.305	194.465	234.370	210.680	175.260	190.670
<b>112.5</b>	173.880	187.105	186.185	226.780	203.780	159.160	177.560
<b>115.0</b>	153.870	178.595	178.480	216.545	195.040	151.685	168.820
<b>117.5</b>	142.255	169.280	171.810	206.540	188.025	145.130	142.140
<b>120.0</b>	137.310	150.765	163.530	195.500	181.700	141.450	124.430
<b>122.5</b>	132.135	131.100	154.330	187.335	173.535	134.435	115.690
<b>125.0</b>	124.890	118.220	142.025	177.560	167.555	129.260	109.480
<b>127.5</b>	118.795	111.205	132.135	170.085	162.495	124.660	103.500
<b>130.0</b>	113.045	103.730	121.900	161.690	155.940	117.990	97.980
<b>132.5</b>	108.790	97.980	113.735	153.985	149.960	114.885	92.805
<b>135.0</b>	105.340	90.735	104.765	147.775	143.635	112.355	85.905
<b>137.5</b>	105.685	83.145	99.245	139.380	139.150	109.940	82.915
<b>140.0</b>	105.685	76.130	90.965	130.870	132.250	106.260	78.430
<b>142.5</b>	103.385	71.185	85.675	122.590	124.315	101.200	73.715
<b>145.0</b>	100.165	69.575	80.730	112.355	115.000	97.865	78.775
<b>147.5</b>	95.910	67.965	75.095	104.190	106.950	96.025	91.770
<b>150.0</b>	89.240	68.885	70.840	97.175	97.635	88.550	86.710
<b>152.5</b>	81.075	67.735	63.250	86.710	89.355	81.305	79.350
<b>155.0</b>	73.025	68.310	57.155	78.430	81.190	72.450	71.415
<b>157.5</b>	64.515	62.100	51.405	70.840	72.795	64.745	65.435
<b>160.0</b>	58.305	54.855	47.150	62.215	63.710	57.730	57.500
<b>162.5</b>	50.830	47.955	40.595	53.130	55.545	50.025	49.335
<b>165.0</b>	44.160	42.550	37.145	46.690	47.380	43.930	43.010
<b>167.5</b>	35.420	32.775	31.050	38.985	39.100	36.685	34.730
<b>170.0</b>	29.785	29.325	27.255	32.545	32.545	30.130	29.900
<b>172.5</b>	25.415	23.460	21.045	25.185	26.565	24.035	22.425
<b>175.0</b>	19.205	19.550	18.285	18.975	19.550	19.320	19.550
<b>177.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>180.0</b>	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	874.01	N.A.	9.80
0-30	1848.59	N.A.	20.70
0-40	3023.97	N.A.	33.80
0-60	5502.97	N.A.	61.50
0-80	7418.33	N.A.	82.90
0-90	7924.31	N.A.	88.60
10-90	7698.21	N.A.	86.10
20-40	2149.97	N.A.	24.00
20-50	3405.28	N.A.	38.10
40-70	3558.7	N.A.	39.80
60-80	1915.36	N.A.	21.40
70-80	835.66	N.A.	9.30
80-90	505.98	N.A.	5.70
90-110	504.73	N.A.	5.60
90-120	684.00	N.A.	7.60
90-130	814.97	N.A.	9.10
90-150	971.52	N.A.	10.90
90-180	1020.87	N.A.	11.40
110-180	516.14	N.A.	5.80
0-180	8945.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	226.10
10-20	647.91
20-30	974.58
30-40	1175.38
40-50	1255.31
50-60	1223.68
60-70	1079.71
70-80	835.66
80-90	505.98
90-100	269.24
100-110	235.50
110-120	179.26
120-130	130.98
130-140	93.96
140-150	62.58
150-160	34.42
160-170	12.95
170-180	1.99

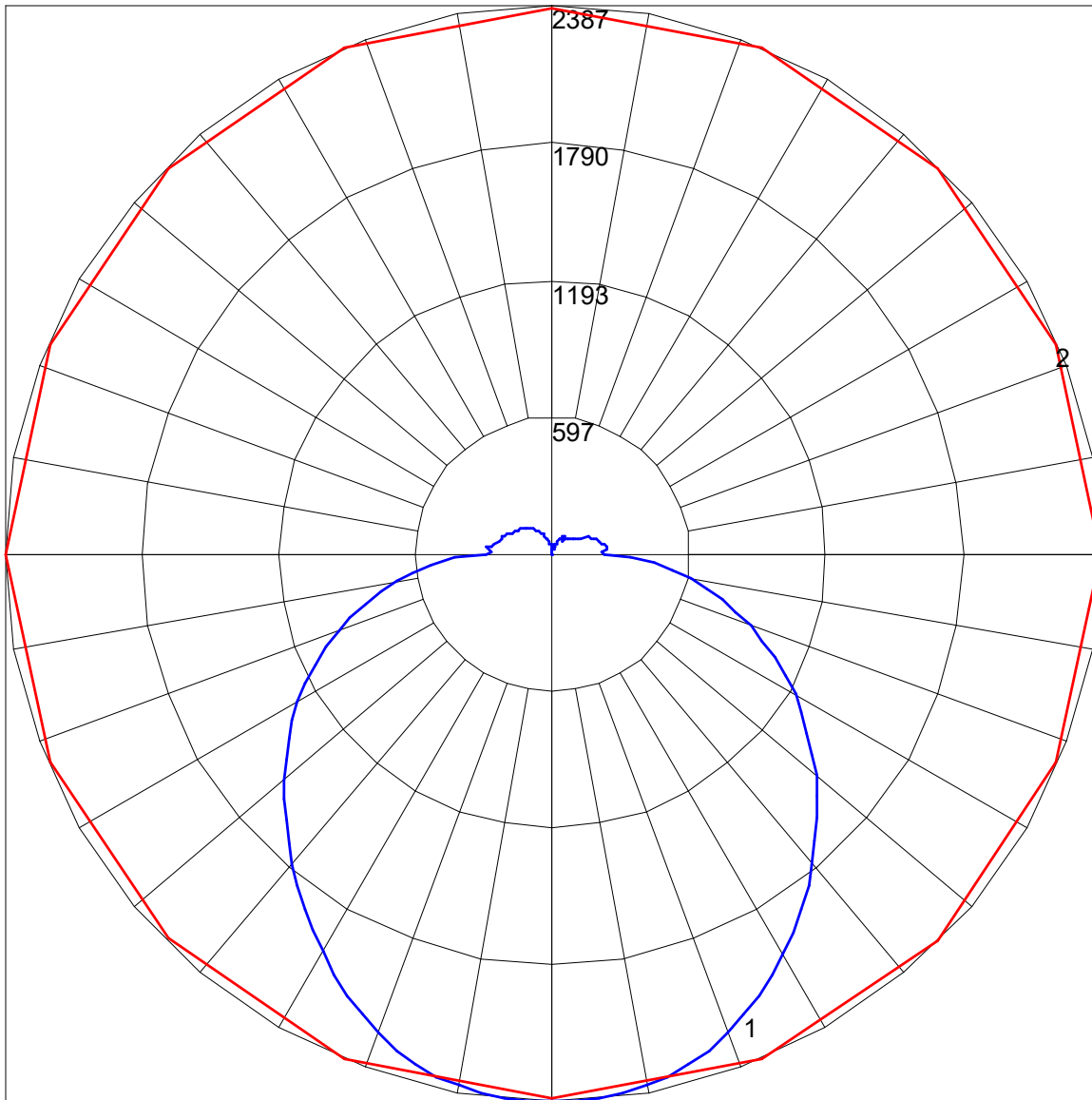
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : BTRI-44-LED35-SO.IES**

**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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	89	100	95	90	86	88	85	81	83	80	77	77	75	72	70
2	94	84	77	70	90	82	75	69	76	70	65	71	66	62	66	62	59	56
3	85	73	65	58	81	71	63	56	66	59	54	62	56	51	58	53	49	46
4	77	65	55	48	74	63	54	47	59	51	45	55	49	43	51	46	42	39
5	71	57	48	41	68	56	47	40	52	45	39	49	42	37	46	40	36	33
6	65	52	42	36	63	50	41	35	47	39	34	44	38	33	42	36	31	29
7	61	47	38	31	58	45	37	31	43	35	30	40	34	29	38	32	28	26
8	56	42	34	28	54	41	33	27	39	32	26	37	30	26	35	29	25	23
9	53	39	30	25	51	38	30	24	36	29	24	34	28	23	32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

POLAR GRAPH



Maximum Candela = 2386.595 Located At Horizontal Angle = 0, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)