



IES INDOOR REPORT

PHOTOMETRIC FILENAME : P4040-LED35-HO-FWA-D9.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] P4040-LED35-HO-FWA -D9
 [TESTLAB] Intertek
 [ISSUE DATE] November 28, 2017
 [MANUFAC] Prudential Ltg

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	28256
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	95
Total Luminaire Watts	296
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	Circular w/ Sides
Luminous Length (0-180)	3.88 ft (Diameter)
Luminous Width (90-270)	3.88 ft (Diameter)
Luminous Height	0.50 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5404	5394	5378
55	4911	4880	4857
65	4243	4204	4154
75	3278	3229	3138
85	1578	1534	1430

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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	7410.689	7410.689	7410.689	7410.689	7410.689	7410.689	7410.689	7410.689	7410.689	7410.689
2.5	7396.566	7399.611	7400.945	7403.439	7405.208	7403.439	7400.945	7399.611	7396.566	7399.611
5.0	7363.187	7372.322	7370.205	7374.265	7378.412	7374.265	7370.205	7372.322	7363.187	7372.322
7.5	7324.240	7328.068	7327.285	7328.097	7331.055	7328.097	7327.285	7328.068	7324.240	7328.068
10.0	7253.567	7264.674	7262.035	7263.050	7259.164	7263.050	7262.035	7264.674	7253.567	7264.674
12.5	7178.718	7181.850	7181.270	7180.574	7180.690	7180.574	7181.270	7181.850	7178.718	7181.850
15.0	7082.815	7087.310	7087.078	7084.903	7079.277	7084.903	7087.078	7087.310	7082.815	7087.310
17.5	6974.152	6977.081	6974.790	6975.515	6970.585	6975.515	6974.790	6977.081	6974.152	6977.081
20.0	6849.568	6854.556	6849.133	6848.176	6843.101	6848.176	6849.133	6854.556	6849.568	6854.556
22.5	6707.729	6714.805	6709.817	6708.715	6701.436	6708.715	6709.817	6714.805	6707.729	6714.805
25.0	6552.289	6559.742	6555.972	6553.217	6551.390	6553.217	6555.972	6559.742	6552.289	6559.742
27.5	6391.629	6394.674	6389.744	6387.569	6384.727	6387.569	6389.744	6394.674	6391.629	6394.674
30.0	6202.114	6214.845	6206.116	6206.522	6199.446	6206.522	6206.116	6214.845	6202.114	6214.845
32.5	6005.697	6021.328	6016.543	6012.483	6005.668	6012.483	6016.543	6021.328	6005.697	6021.328
35.0	5808.004	5817.893	5809.396	5804.031	5797.738	5804.031	5809.396	5817.893	5808.004	5817.893
37.5	5599.059	5598.856	5592.650	5587.894	5578.759	5587.894	5592.650	5598.856	5599.059	5598.856
40.0	5374.222	5370.452	5362.187	5353.690	5346.904	5353.690	5362.187	5370.452	5374.222	5370.452
42.5	5134.392	5131.057	5123.198	5112.555	5109.510	5112.555	5123.198	5131.057	5134.392	5131.057
45.0	4879.047	4879.308	4870.347	4861.473	4855.151	4861.473	4870.347	4879.308	4879.047	4879.308
47.5	4617.525	4621.469	4609.115	4602.358	4595.369	4602.358	4609.115	4621.469	4617.525	4621.469
50.0	4356.844	4355.655	4340.865	4331.933	4326.684	4331.933	4340.865	4355.655	4356.844	4355.655
52.5	4091.581	4083.722	4069.628	4056.491	4049.154	4056.491	4069.628	4083.722	4091.581	4083.722
55.0	3813.500	3806.453	3790.039	3774.611	3771.595	3774.611	3790.039	3806.453	3813.500	3806.453
57.5	3528.140	3519.933	3506.100	3489.889	3484.640	3489.889	3506.100	3519.933	3528.140	3519.933
60.0	3235.443	3231.963	3218.942	3200.440	3192.088	3200.440	3218.942	3231.963	3235.443	3231.963
62.5	2948.285	2943.297	2928.449	2906.409	2898.840	2906.409	2928.449	2943.297	2948.285	2943.297
65.0	2659.532	2651.035	2634.969	2611.856	2603.272	2611.856	2634.969	2651.035	2659.532	2651.035
67.5	2374.346	2358.773	2343.490	2316.636	2306.979	2316.636	2343.490	2358.773	2374.346	2358.773
70.0	2076.284	2068.860	2054.737	2024.113	2013.818	2024.113	2054.737	2068.860	2076.284	2068.860
72.5	1786.574	1780.020	1765.665	1732.257	1719.497	1732.257	1765.665	1780.020	1786.574	1780.020
75.0	1500.982	1496.893	1478.362	1447.738	1436.776	1447.738	1478.362	1496.893	1500.982	1496.893
77.5	1226.584	1218.116	1203.268	1170.585	1162.523	1170.585	1203.268	1218.116	1226.584	1218.116
80.0	957.290	943.196	930.436	901.755	893.780	901.755	930.436	943.196	957.290	943.196
82.5	688.054	680.688	670.770	643.133	634.085	643.133	670.770	680.688	688.054	680.688
85.0	434.014	428.910	421.979	398.953	393.443	398.953	421.979	428.910	434.014	428.910
87.5	198.708	199.665	204.943	214.774	229.158	214.774	204.943	199.665	198.708	199.665
90.0	33.234	117.044	202.710	237.104	230.260	237.104	202.710	117.044	33.234	117.044
92.5	61.364	158.398	292.668	388.919	413.337	388.919	292.668	158.398	61.364	158.398
95.0	122.235	201.666	344.665	457.852	495.204	457.852	344.665	201.666	122.235	201.666
97.5	188.964	251.981	397.300	515.301	554.770	515.301	397.300	251.981	188.964	251.981
100.0	248.530	308.241	454.691	574.142	614.800	574.142	454.691	308.241	248.530	308.241
102.5	325.293	369.924	514.344	636.666	682.457	636.666	514.344	369.924	325.293	369.924
105.0	392.138	438.219	577.448	701.597	744.662	701.597	577.448	438.219	392.138	438.219
107.5	467.132	506.891	644.583	767.717	810.608	767.717	644.583	506.891	467.132	506.891
110.0	552.015	584.234	716.619	837.636	880.324	837.636	716.619	584.234	552.015	584.234
112.5	628.691	667.058	785.871	906.598	951.925	906.598	785.871	667.058	628.691	667.058
115.0	714.444	746.228	860.285	982.317	1026.078	982.317	860.285	746.228	714.444	746.228
117.5	805.997	828.994	940.151	1058.616	1100.231	1058.616	940.151	828.994	805.997	828.994
120.0	884.529	920.576	1025.904	1136.626	1179.198	1136.626	1025.904	920.576	884.529	920.576
122.5	968.629	1016.276	1110.265	1217.043	1260.949	1217.043	1110.265	1016.276	968.629	1016.276
125.0	1068.302	1104.204	1197.004	1297.605	1338.379	1297.605	1197.004	1104.204	1068.302	1104.204
127.5	1159.855	1186.129	1288.383	1379.414	1418.796	1379.414	1288.383	1186.129	1159.855	1186.129
130.0	1255.787	1268.663	1381.734	1462.006	1499.039	1462.006	1381.734	1268.663	1255.787	1268.663
132.5	1332.173	1358.505	1473.113	1545.903	1582.791	1545.903	1473.113	1358.505	1332.173	1358.505

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CANDELA TABULATION - (Cont.)

135.0	1420.594	1451.798	1554.980	1623.565	1659.525	1623.565	1554.980	1451.798	1420.594	1451.798
137.5	1511.538	1546.309	1633.599	1702.764	1736.346	1702.764	1633.599	1546.309	1511.538	1546.309
140.0	1603.700	1638.906	1706.708	1778.425	1808.846	1778.425	1706.708	1638.906	1603.700	1638.906
142.5	1699.052	1725.703	1781.760	1850.519	1877.866	1850.519	1781.760	1725.703	1699.052	1725.703
145.0	1784.805	1806.671	1853.738	1919.858	1946.509	1919.858	1853.738	1806.671	1784.805	1806.671
147.5	1857.073	1877.982	1924.121	1982.556	2006.278	1982.556	1924.121	1877.982	1857.073	1877.982
150.0	1930.298	1941.956	1992.474	2045.660	2063.205	2045.660	1992.474	1941.956	1930.298	1941.956
152.5	1993.431	2007.670	2055.259	2101.369	2118.624	2101.369	2055.259	2007.670	1993.431	2007.670
155.0	2055.114	2071.934	2112.215	2153.743	2166.503	2153.743	2112.215	2071.934	2055.114	2071.934
157.5	2119.233	2133.907	2167.373	2200.810	2212.787	2200.810	2167.373	2133.907	2119.233	2133.907
160.0	2176.363	2187.151	2216.615	2244.542	2254.112	2244.542	2216.615	2187.151	2176.363	2187.151
162.5	2228.679	2236.770	2262.087	2283.663	2290.594	2283.663	2262.087	2236.770	2228.679	2236.770
165.0	2275.833	2280.647	2300.425	2315.795	2320.928	2315.795	2300.425	2280.647	2275.833	2280.647
167.5	2316.375	2319.449	2333.224	2345.114	2348.971	2345.114	2333.224	2319.449	2316.375	2319.449
170.0	2348.420	2351.929	2360.861	2369.677	2371.214	2369.677	2360.861	2351.929	2348.420	2351.929
172.5	2374.665	2378.348	2382.466	2390.354	2388.875	2390.354	2382.466	2378.348	2374.665	2378.348
175.0	2391.978	2395.458	2398.967	2401.751	2401.954	2401.751	2398.967	2395.458	2391.978	2395.458
177.5	2404.564	2406.797	2407.058	2410.190	2408.566	2410.190	2407.058	2406.797	2404.564	2406.797
180.0	2409.929	2409.929	2409.929	2409.929	2409.929	2409.929	2409.929	2409.929	2409.929	2409.929

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	7410.689	7410.689	7410.689	7410.689	7410.689	7410.689	7410.689
2.5	7400.945	7403.439	7405.208	7403.439	7400.945	7399.611	7396.566
5.0	7370.205	7374.265	7378.412	7374.265	7370.205	7372.322	7363.187
7.5	7327.285	7328.097	7331.055	7328.097	7327.285	7328.068	7324.240
10.0	7262.035	7263.050	7259.164	7263.050	7262.035	7264.674	7253.567
12.5	7181.270	7180.574	7180.690	7180.574	7181.270	7181.850	7178.718
15.0	7087.078	7084.903	7079.277	7084.903	7087.078	7087.310	7082.815
17.5	6974.790	6975.515	6970.585	6975.515	6974.790	6977.081	6974.152
20.0	6849.133	6848.176	6843.101	6848.176	6849.133	6854.556	6849.568
22.5	6709.817	6708.715	6701.436	6708.715	6709.817	6714.805	6707.729
25.0	6555.972	6553.217	6551.390	6553.217	6555.972	6559.742	6552.289
27.5	6389.744	6387.569	6384.727	6387.569	6389.744	6394.674	6391.629
30.0	6206.116	6206.522	6199.446	6206.522	6206.116	6214.845	6202.114
32.5	6016.543	6012.483	6005.668	6012.483	6016.543	6021.328	6005.697
35.0	5809.396	5804.031	5797.738	5804.031	5809.396	5817.893	5808.004
37.5	5592.650	5587.894	5578.759	5587.894	5592.650	5598.856	5599.059
40.0	5362.187	5353.690	5346.904	5353.690	5362.187	5370.452	5374.222
42.5	5123.198	5112.555	5109.510	5112.555	5123.198	5131.057	5134.392
45.0	4870.347	4861.473	4855.151	4861.473	4870.347	4879.308	4879.047
47.5	4609.115	4602.358	4595.369	4602.358	4609.115	4621.469	4617.525
50.0	4340.865	4331.933	4326.684	4331.933	4340.865	4355.655	4356.844
52.5	4069.628	4056.491	4049.154	4056.491	4069.628	4083.722	4091.581
55.0	3790.039	3774.611	3771.595	3774.611	3790.039	3806.453	3813.500
57.5	3506.100	3489.889	3484.640	3489.889	3506.100	3519.933	3528.140
60.0	3218.942	3200.440	3192.088	3200.440	3218.942	3231.963	3235.443
62.5	2928.449	2906.409	2898.840	2906.409	2928.449	2943.297	2948.285
65.0	2634.969	2611.856	2603.272	2611.856	2634.969	2651.035	2659.532
67.5	2343.490	2316.636	2306.979	2316.636	2343.490	2358.773	2374.346
70.0	2054.737	2024.113	2013.818	2024.113	2054.737	2068.860	2076.284
72.5	1765.665	1732.257	1719.497	1732.257	1765.665	1780.020	1786.574
75.0	1478.362	1447.738	1436.776	1447.738	1478.362	1496.893	1500.982
77.5	1203.268	1170.585	1162.523	1170.585	1203.268	1218.116	1226.584
80.0	930.436	901.755	893.780	901.755	930.436	943.196	957.290

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82.5	670.770	643.133	634.085	643.133	670.770	680.688	688.054
85.0	421.979	398.953	393.443	398.953	421.979	428.910	434.014
87.5	204.943	214.774	229.158	214.774	204.943	199.665	198.708
90.0	202.710	237.104	230.260	237.104	202.710	117.044	33.234
92.5	292.668	388.919	413.337	388.919	292.668	158.398	61.364
95.0	344.665	457.852	495.204	457.852	344.665	201.666	122.235
97.5	397.300	515.301	554.770	515.301	397.300	251.981	188.964
100.0	454.691	574.142	614.800	574.142	454.691	308.241	248.530
102.5	514.344	636.666	682.457	636.666	514.344	369.924	325.293
105.0	577.448	701.597	744.662	701.597	577.448	438.219	392.138
107.5	644.583	767.717	810.608	767.717	644.583	506.891	467.132
110.0	716.619	837.636	880.324	837.636	716.619	584.234	552.015
112.5	785.871	906.598	951.925	906.598	785.871	667.058	628.691
115.0	860.285	982.317	1026.078	982.317	860.285	746.228	714.444
117.5	940.151	1058.616	1100.231	1058.616	940.151	828.994	805.997
120.0	1025.904	1136.626	1179.198	1136.626	1025.904	920.576	884.529
122.5	1110.265	1217.043	1260.949	1217.043	1110.265	1016.276	968.629
125.0	1197.004	1297.605	1338.379	1297.605	1197.004	1104.204	1068.302
127.5	1288.383	1379.414	1418.796	1379.414	1288.383	1186.129	1159.855
130.0	1381.734	1462.006	1499.039	1462.006	1381.734	1268.663	1255.787
132.5	1473.113	1545.903	1582.791	1545.903	1473.113	1358.505	1332.173
135.0	1554.980	1623.565	1659.525	1623.565	1554.980	1451.798	1420.594
137.5	1633.599	1702.764	1736.346	1702.764	1633.599	1546.309	1511.538
140.0	1706.708	1778.425	1808.846	1778.425	1706.708	1638.906	1603.700
142.5	1781.760	1850.519	1877.866	1850.519	1781.760	1725.703	1699.052
145.0	1853.738	1919.858	1946.509	1919.858	1853.738	1806.671	1784.805
147.5	1924.121	1982.556	2006.278	1982.556	1924.121	1877.982	1857.073
150.0	1992.474	2045.660	2063.205	2045.660	1992.474	1941.956	1930.298
152.5	2055.259	2101.369	2118.624	2101.369	2055.259	2007.670	1993.431
155.0	2112.215	2153.743	2166.503	2153.743	2112.215	2071.934	2055.114
157.5	2167.373	2200.810	2212.787	2200.810	2167.373	2133.907	2119.233
160.0	2216.615	2244.542	2254.112	2244.542	2216.615	2187.151	2176.363
162.5	2262.087	2283.663	2290.594	2283.663	2262.087	2236.770	2228.679
165.0	2300.425	2315.795	2320.928	2315.795	2300.425	2280.647	2275.833
167.5	2333.224	2345.114	2348.971	2345.114	2333.224	2319.449	2316.375
170.0	2360.861	2369.677	2371.214	2369.677	2360.861	2351.929	2348.420
172.5	2382.466	2390.354	2388.875	2390.354	2382.466	2378.348	2374.665
175.0	2398.967	2401.751	2401.954	2401.751	2398.967	2395.458	2391.978
177.5	2407.058	2410.190	2408.566	2410.190	2407.058	2406.797	2404.564
180.0	2409.929	2409.929	2409.929	2409.929	2409.929	2409.929	2409.929

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2699.61	N.A.	9.60
0-30	5720.73	N.A.	20.20
0-40	9353.79	N.A.	33.10
0-60	16496.9	N.A.	58.40
0-80	20662.34	N.A.	73.10
0-90	21162.26	N.A.	74.90
10-90	20461.99	N.A.	72.40
20-40	6654.19	N.A.	23.50
20-50	10409.86	N.A.	36.80
40-70	9748.75	N.A.	34.50
60-80	4165.44	N.A.	14.70
70-80	1559.79	N.A.	5.50
80-90	499.93	N.A.	1.80
90-110	957.17	N.A.	3.40
90-120	1815.94	N.A.	6.40
90-130	2889.94	N.A.	10.20
90-150	5243.67	N.A.	18.60
90-180	7093.47	N.A.	25.10
110-180	6136.29	N.A.	21.70
0-180	28255.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	700.28
10-20	1999.33
20-30	3021.12
30-40	3633.07
40-50	3755.68
50-60	3387.43
60-70	2605.65
70-80	1559.79
80-90	499.93
90-100	351.23
100-110	605.95
110-120	858.77
120-130	1074.00
130-140	1190.66
140-150	1163.08
150-160	973.55
160-170	648.49
170-180	227.75

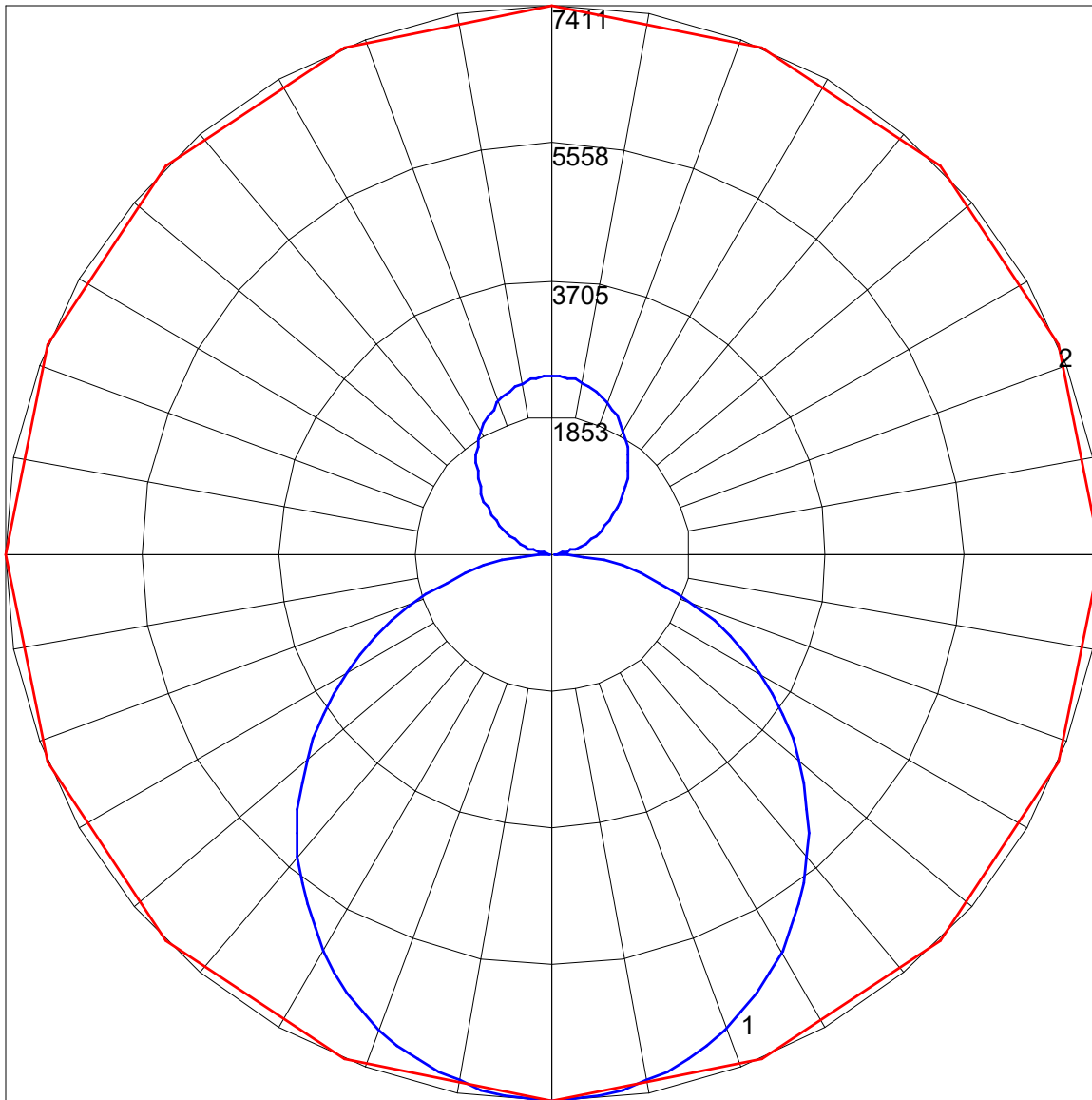
IES INDOOR REPORT
PHOTOMETRIC FILENAME : P4040-LED35-HO-FWA-D9.IES

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	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	75
1	103	98	94	90	98	94	90	86	85	82	79	77	74	72	69	68	66	62
2	94	86	79	73	89	82	76	71	74	69	65	67	63	60	61	58	55	52
3	85	75	67	61	81	72	64	59	65	59	54	59	54	50	53	50	47	43
4	78	66	58	51	74	63	56	50	58	51	46	52	47	43	48	43	40	37
5	72	59	50	44	68	57	49	43	52	45	40	47	42	37	43	38	35	32
6	66	53	44	38	62	51	43	37	47	40	35	42	37	33	39	34	30	28
7	61	48	40	34	58	46	38	33	42	36	31	39	33	29	35	31	27	25
8	57	44	35	30	54	42	34	29	39	32	27	35	30	26	32	28	24	22
9	53	40	32	27	50	38	31	26	35	29	25	33	27	23	30	25	22	20
10	49	37	29	24	47	35	28	23	33	26	22	30	25	21	28	23	20	18

POLAR GRAPH



Maximum Candela = 7410.689 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.)