



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : DLLR48HRA50.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] 3,079P3  
[TESTLAB] TUV SUD America  
[ISSUEDATE] 5/28/2015 2:12:53 PM  
[MANUFAC] LAMAR LIGHTING CO., INC.  
[LUMCAT] DLLR48HRA50  
[LUMINAIRE] 4' FIXTURE, WITH ROUND FROSTED LENS, 5000K  
[MORE] HIGH OUTPUT  
[LAMPCAT] 1847-4  
[LAMP] 72105858  
[\_ AMBIENT] 25.5 deg C  
[\_ POWERFACTOR] 0.9986  
[\_ ATHD] 4.35%  
[\_ CURRENT] 0.44  
[\_ VOLTAGE] 120.56  
[\_ STABILIZATION] 42:20.0 Stable  
[\_ POWER VARIATION] 0.44 %  
[\_ LIGHT VARIATION] 0.48 %  
[\_ Lumens] 6337

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6097
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	52.63
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.42 ft
Luminous Width (90-270)	3.83 ft
Luminous Height	0.33 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7407	7145	8376
55	6344	5618	6619
65	5226	4628	4927
75	4649	3924	3187
85	4078	3410	958

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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>	1993.970	1993.970	1993.970	1993.970	1993.970	1993.970	1993.970	1993.970	1993.970	1993.970
<b>2.5</b>	1999.852	1985.287	1967.665	1986.099	1983.734	1998.858	1991.035	1995.535	1995.462	1986.257
<b>5.0</b>	1995.353	1976.725	1956.714	1973.656	1971.777	1986.160	1979.053	1985.529	1986.075	1979.914
<b>7.5</b>	1987.409	1965.591	1941.542	1954.895	1953.063	1966.877	1960.886	1971.764	1972.080	1968.454
<b>10.0</b>	1974.627	1949.995	1921.446	1931.937	1927.680	1942.161	1939.117	1951.499	1955.283	1952.396
<b>12.5</b>	1957.648	1929.766	1897.397	1903.716	1896.148	1911.017	1911.914	1926.928	1932.822	1931.173
<b>15.0</b>	1936.000	1906.153	1868.812	1870.498	1859.583	1875.846	1878.490	1897.906	1905.790	1905.414
<b>17.5</b>	1909.937	1876.598	1835.170	1830.403	1815.207	1833.326	1839.851	1864.980	1873.675	1873.481
<b>20.0</b>	1881.583	1843.926	1797.707	1786.125	1766.854	1784.391	1796.858	1826.304	1837.814	1837.328
<b>22.5</b>	1848.171	1806.900	1755.757	1734.073	1711.018	1730.022	1749.111	1783.930	1797.950	1797.101
<b>25.0</b>	1811.666	1765.484	1707.853	1678.370	1648.706	1668.826	1695.773	1736.935	1755.102	1753.829
<b>27.5</b>	1768.928	1720.817	1655.376	1616.106	1581.457	1603.639	1637.912	1686.775	1705.391	1705.888
<b>30.0</b>	1725.147	1673.495	1600.364	1548.543	1508.849	1533.201	1576.691	1632.333	1653.933	1653.836
<b>32.5</b>	1677.254	1623.140	1542.018	1477.935	1433.123	1458.591	1513.481	1576.291	1599.843	1596.411
<b>35.0</b>	1625.906	1569.172	1480.761	1402.731	1352.910	1380.986	1446.257	1516.137	1542.697	1537.846
<b>37.5</b>	1571.331	1512.184	1414.725	1322.979	1267.555	1299.900	1377.711	1454.068	1482.422	1476.734
<b>40.0</b>	1513.336	1453.704	1347.756	1241.856	1178.161	1215.515	1304.811	1387.971	1421.141	1414.301
<b>42.5</b>	1450.599	1394.229	1280.568	1158.563	1082.486	1131.494	1233.415	1324.252	1360.344	1353.201
<b>45.0</b>	1391.476	1333.688	1214.072	1041.870	953.155	997.883	1163.414	1261.879	1299.706	1289.955
<b>47.5</b>	1330.280	1270.648	1146.557	945.115	870.044	917.621	1092.588	1195.916	1239.552	1226.357
<b>50.0</b>	1268.513	1209.354	1053.670	867.388	787.806	838.936	975.434	1132.767	1179.204	1166.276
<b>52.5</b>	1206.237	1148.824	962.797	792.657	708.527	763.271	910.842	1034.423	1121.270	1105.371
<b>55.0</b>	1149.904	1082.207	901.443	719.684	631.734	691.827	850.239	969.067	1046.527	997.495
<b>57.5</b>	1093.352	984.481	841.799	649.816	559.865	622.541	791.105	917.888	965.259	943.829
<b>60.0</b>	986.240	931.835	783.222	582.289	491.234	556.797	734.298	866.770	915.814	893.002
<b>62.5</b>	933.739	882.511	728.586	520.365	426.193	494.885	681.239	818.562	869.280	846.795
<b>65.0</b>	883.882	835.856	676.279	461.873	365.482	436.853	629.333	773.883	824.953	800.528
<b>67.5</b>	837.869	791.323	629.624	407.298	308.384	384.801	581.622	727.313	779.595	755.170
<b>70.0</b>	793.591	747.906	583.926	357.502	255.143	334.350	536.701	684.611	734.092	710.868
<b>72.5</b>	749.325	705.167	539.539	311.392	206.608	289.853	494.472	641.060	687.522	666.977
<b>75.0</b>	706.101	663.873	499.724	268.775	161.517	248.061	454.245	599.632	643.122	623.754
<b>77.5</b>	663.011	623.208	460.891	231.300	119.373	209.749	415.460	558.470	599.826	582.022
<b>80.0</b>	619.436	582.229	424.265	196.955	81.802	176.738	379.477	517.964	558.373	541.116
<b>82.5</b>	575.461	540.327	390.719	166.841	50.112	147.667	345.968	478.342	516.375	500.815
<b>85.0</b>	530.067	499.566	356.980	140.985	24.547	122.624	314.424	438.927	471.818	458.756
<b>87.5</b>	484.261	458.526	325.593	118.112	6.234	100.806	284.505	401.380	426.836	418.298
<b>90.0</b>	439.594	417.097	294.583	98.962	0.000	82.359	254.743	362.886	385.480	378.919
<b>92.5</b>	396.553	379.259	265.840	82.481	0.000	66.169	227.444	326.103	347.824	342.087
<b>95.0</b>	357.016	340.571	239.026	68.910	0.000	53.714	202.376	291.975	310.967	307.899
<b>97.5</b>	318.632	304.127	213.994	57.813	0.000	42.799	178.945	259.873	275.651	273.881
<b>100.0</b>	283.534	271.419	189.666	47.917	0.000	33.667	157.685	230.852	241.209	241.912
<b>102.5</b>	251.263	240.942	168.309	39.536	0.000	26.548	138.038	204.158	210.404	210.768
<b>105.0</b>	221.137	212.599	147.777	31.908	0.000	20.435	119.288	178.302	184.317	183.408
<b>107.5</b>	194.420	185.943	128.845	25.638	0.000	15.584	101.412	154.738	162.548	160.365
<b>110.0</b>	170.674	162.342	111.175	20.241	0.000	11.339	85.125	133.175	142.028	139.809
<b>112.5</b>	149.911	141.276	95.482	15.730	0.000	8.235	71.141	114.583	122.454	120.028
<b>115.0</b>	130.397	122.830	80.807	11.364	0.000	5.457	58.868	97.992	105.354	102.116
<b>117.5</b>	113.952	106.057	67.964	8.623	0.000	3.408	48.487	83.305	90.182	86.083
<b>120.0</b>	99.363	91.625	55.569	6.585	0.000	1.370	39.973	70.074	76.951	71.784
<b>122.5</b>	86.240	78.382	44.982	4.439	0.000	0.085	31.617	58.710	65.053	60.384
<b>125.0</b>	74.355	66.387	37.038	2.668	0.000	0.036	25.347	48.851	55.375	51.155
<b>127.5</b>	63.622	55.594	29.786	1.213	0.000	0.206	19.598	40.604	47.322	42.144
<b>130.0</b>	54.320	46.486	22.582	0.521	0.218	0.303	14.565	33.157	39.524	34.212
<b>132.5</b>	46.025	38.493	17.003	0.594	0.643	0.340	10.745	27.033	31.969	27.324

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**CANDELA TABULATION - (Cont.)**

135.0	38.700	31.314	13.037	1.043	0.788	0.873	7.240	21.648	25.687	21.660
137.5	32.502	25.674	9.217	1.055	1.007	1.091	4.305	16.409	20.484	16.579
140.0	26.657	20.326	6.391	1.771	1.637	1.286	2.280	12.564	15.754	12.698
142.5	21.127	15.742	4.536	1.819	1.516	1.807	1.892	8.623	11.970	8.683
145.0	16.469	11.594	2.935	2.292	2.183	2.062	2.219	5.603	8.065	5.700
147.5	12.103	8.538	2.607	2.438	2.159	2.292	2.413	3.420	4.621	3.117
150.0	8.926	5.639	2.947	2.741	2.680	2.656	2.474	2.741	3.008	2.535
152.5	5.482	3.493	2.607	3.068	2.571	2.826	2.765	3.105	2.753	2.498
155.0	2.899	3.032	3.408	2.911	3.129	3.274	2.911	3.165	2.814	2.583
157.5	3.068	3.517	3.590	3.323	3.299	3.578	3.420	3.311	2.862	2.547
160.0	3.590	3.687	3.711	3.493	3.638	3.602	3.323	3.699	3.432	3.165
162.5	3.469	3.905	3.638	3.626	3.626	3.881	3.942	3.747	3.723	3.347
165.0	3.566	4.087	4.026	3.650	3.869	3.820	3.990	4.026	3.820	3.638
167.5	4.123	3.917	3.990	3.832	4.087	4.039	3.942	3.747	3.942	3.735
170.0	4.063	4.245	4.026	4.220	4.184	4.293	4.075	4.233	3.905	4.026
172.5	4.196	4.414	4.281	4.414	4.051	4.317	4.354	4.281	4.330	4.245
175.0	4.512	4.427	4.342	4.245	4.269	4.512	4.245	4.536	4.499	4.257
177.5	4.536	4.317	4.669	4.621	4.233	4.596	4.136	4.390	4.354	4.451
180.0	4.427	4.427	4.427	4.427	4.427	4.427	4.427	4.427	4.427	4.427

**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	1993.970	1993.970	1993.970	1993.970	1993.970	1993.970	1993.970
2.5	1972.383	1992.758	1990.029	2006.365	1997.778	2002.545	1999.852
5.0	1966.974	1986.609	1983.637	2000.677	1993.691	1997.791	1995.353
7.5	1955.489	1975.306	1973.329	1990.732	1985.056	1989.920	1987.409
10.0	1940.196	1958.303	1956.605	1975.172	1970.612	1977.404	1974.627
12.5	1919.130	1935.769	1934.447	1951.996	1951.814	1960.461	1957.648
15.0	1892.485	1906.262	1904.164	1923.059	1926.528	1938.668	1936.000
17.5	1860.577	1871.383	1868.509	1887.913	1896.451	1912.957	1909.937
20.0	1822.326	1829.191	1823.867	1846.097	1861.062	1882.104	1881.583
22.5	1779.710	1779.916	1772.578	1800.036	1821.017	1848.183	1848.171
25.0	1731.356	1724.540	1714.681	1746.625	1775.938	1809.617	1811.666
27.5	1678.491	1663.950	1652.223	1687.733	1726.493	1766.223	1768.928
30.0	1621.758	1600.098	1584.501	1623.334	1670.815	1720.938	1725.147
32.5	1560.452	1528.908	1509.382	1552.593	1612.686	1670.293	1677.254
35.0	1495.205	1453.000	1428.866	1480.142	1551.623	1616.858	1625.906
37.5	1428.151	1372.339	1344.700	1401.833	1485.976	1560.125	1571.331
40.0	1358.695	1289.373	1255.888	1319.243	1417.211	1501.754	1513.336
42.5	1286.899	1205.619	1167.647	1233.840	1346.422	1439.708	1450.599
45.0	1215.721	1120.518	1058.582	1147.187	1276.614	1376.814	1391.476
47.5	1146.144	986.774	938.772	1010.653	1206.092	1315.278	1330.280
50.0	1061.675	907.592	853.247	931.083	1134.538	1251.704	1268.513
52.5	960.529	828.385	771.943	851.865	1038.038	1189.016	1206.237
55.0	896.361	752.381	691.548	773.944	946.607	1128.292	1149.904
57.5	835.407	680.500	614.161	699.188	883.324	1038.583	1093.352
60.0	779.389	612.693	542.462	629.078	822.637	964.859	986.240
62.5	724.535	549.011	476.717	563.358	764.981	914.044	933.739
65.0	672.592	490.616	414.975	502.392	710.710	867.400	883.882
67.5	623.693	435.495	356.386	445.816	657.978	818.877	837.869
70.0	575.922	382.291	304.528	392.320	607.818	772.561	793.591
72.5	530.613	334.180	253.834	342.778	560.435	726.391	749.325
75.0	487.572	290.338	207.251	299.155	516.921	684.089	706.101
77.5	448.836	251.384	164.816	259.643	475.965	643.534	663.011
80.0	411.421	215.886	125.680	224.691	439.291	602.167	619.436

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**CANDELA TABULATION - (Cont.)**

<b>82.5</b>	374.590	184.354	91.007	192.552	403.526	559.780	575.461
<b>85.0</b>	339.225	154.968	61.476	162.960	366.949	515.720	530.067
<b>87.5</b>	306.929	128.687	37.232	137.031	332.700	471.235	484.261
<b>90.0</b>	276.197	107.549	20.848	115.832	301.047	429.880	439.594
<b>92.5</b>	247.345	89.115	17.440	98.635	270.861	391.823	396.553
<b>95.0</b>	220.591	73.628	15.608	82.311	243.840	353.536	357.016
<b>97.5</b>	195.342	60.020	13.680	68.534	217.414	315.588	318.632
<b>100.0</b>	170.589	48.123	11.424	56.443	192.310	280.587	283.534
<b>102.5</b>	147.267	37.232	8.938	45.467	168.660	247.697	251.263
<b>105.0</b>	126.808	28.658	6.889	36.456	147.983	218.978	221.137
<b>107.5</b>	108.931	21.466	4.730	28.767	130.919	192.722	194.420
<b>110.0</b>	92.947	16.178	2.850	22.254	113.419	169.643	170.674
<b>112.5</b>	77.569	12.188	1.698	17.294	97.010	147.473	149.911
<b>115.0</b>	64.119	8.356	0.509	13.583	82.044	126.880	130.397
<b>117.5</b>	52.271	4.997	0.000	9.726	68.049	108.834	113.952
<b>120.0</b>	42.132	2.911	0.000	7.107	56.358	93.553	99.363
<b>122.5</b>	34.613	0.740	0.000	4.790	46.643	79.922	86.240
<b>125.0</b>	28.185	0.012	0.000	2.886	37.972	68.134	74.355
<b>127.5</b>	21.721	0.000	0.012	1.577	31.023	57.716	63.622
<b>130.0</b>	16.239	0.194	0.255	0.764	23.831	47.116	54.320
<b>132.5</b>	11.449	0.691	0.461	0.752	18.228	38.906	46.025
<b>135.0</b>	7.847	0.800	0.764	0.534	13.923	31.593	38.700
<b>137.5</b>	4.875	0.837	1.079	1.140	10.490	25.905	32.502
<b>140.0</b>	2.874	1.079	1.213	1.273	7.531	20.229	26.657
<b>142.5</b>	1.928	1.759	1.601	1.577	4.924	16.045	21.127
<b>145.0</b>	2.037	2.037	2.122	2.147	2.959	11.861	16.469
<b>147.5</b>	2.050	2.183	2.098	2.171	2.389	8.162	12.103
<b>150.0</b>	2.304	2.171	2.110	2.365	2.256	5.021	8.926
<b>152.5</b>	2.510	2.450	2.547	2.668	2.377	2.789	5.482
<b>155.0</b>	2.559	2.668	2.753	2.765	2.886	2.826	2.899
<b>157.5</b>	2.874	2.826	3.068	3.117	2.632	2.874	3.068
<b>160.0</b>	2.996	3.153	3.372	3.444	3.165	3.141	3.590
<b>162.5</b>	3.323	3.566	3.323	3.347	3.384	3.456	3.469
<b>165.0</b>	3.590	3.432	3.553	3.529	3.905	3.541	3.566
<b>167.5</b>	3.978	4.002	3.505	3.735	3.857	3.954	4.123
<b>170.0</b>	3.954	4.014	4.087	3.820	4.172	4.051	4.063
<b>172.5</b>	4.051	4.123	4.026	3.978	4.136	4.402	4.196
<b>175.0</b>	4.111	4.245	4.317	4.087	4.196	4.475	4.512
<b>177.5</b>	4.572	4.269	4.354	4.354	4.305	4.693	4.536
<b>180.0</b>	4.427	4.427	4.427	4.427	4.427	4.427	4.427

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	723.82	N.A.	11.90
0-30	1521.44	N.A.	25.00
0-40	2454.17	N.A.	40.30
0-60	4175.13	N.A.	68.50
0-80	5305.34	N.A.	87.00
0-90	5645.24	N.A.	92.60
10-90	5456.98	N.A.	89.50
20-40	1730.35	N.A.	28.40
20-50	2653.3	N.A.	43.50
40-70	2363.56	N.A.	38.80
60-80	1130.21	N.A.	18.50
70-80	487.61	N.A.	8.00
80-90	339.90	N.A.	5.60
90-110	342.05	N.A.	5.60
90-120	406.04	N.A.	6.70
90-130	434.73	N.A.	7.10
90-150	449.15	N.A.	7.40
90-180	452.02	N.A.	7.40
110-180	109.97	N.A.	1.80
0-180	6097.26	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	188.26
10-20	535.55
20-30	797.63
30-40	932.72
40-50	922.95
50-60	798.01
60-70	642.60
70-80	487.61
80-90	339.90
90-100	216.95
100-110	125.10
110-120	64.00
120-130	28.69
130-140	10.97
140-150	3.45
150-160	1.42
160-170	1.05
170-180	0.41

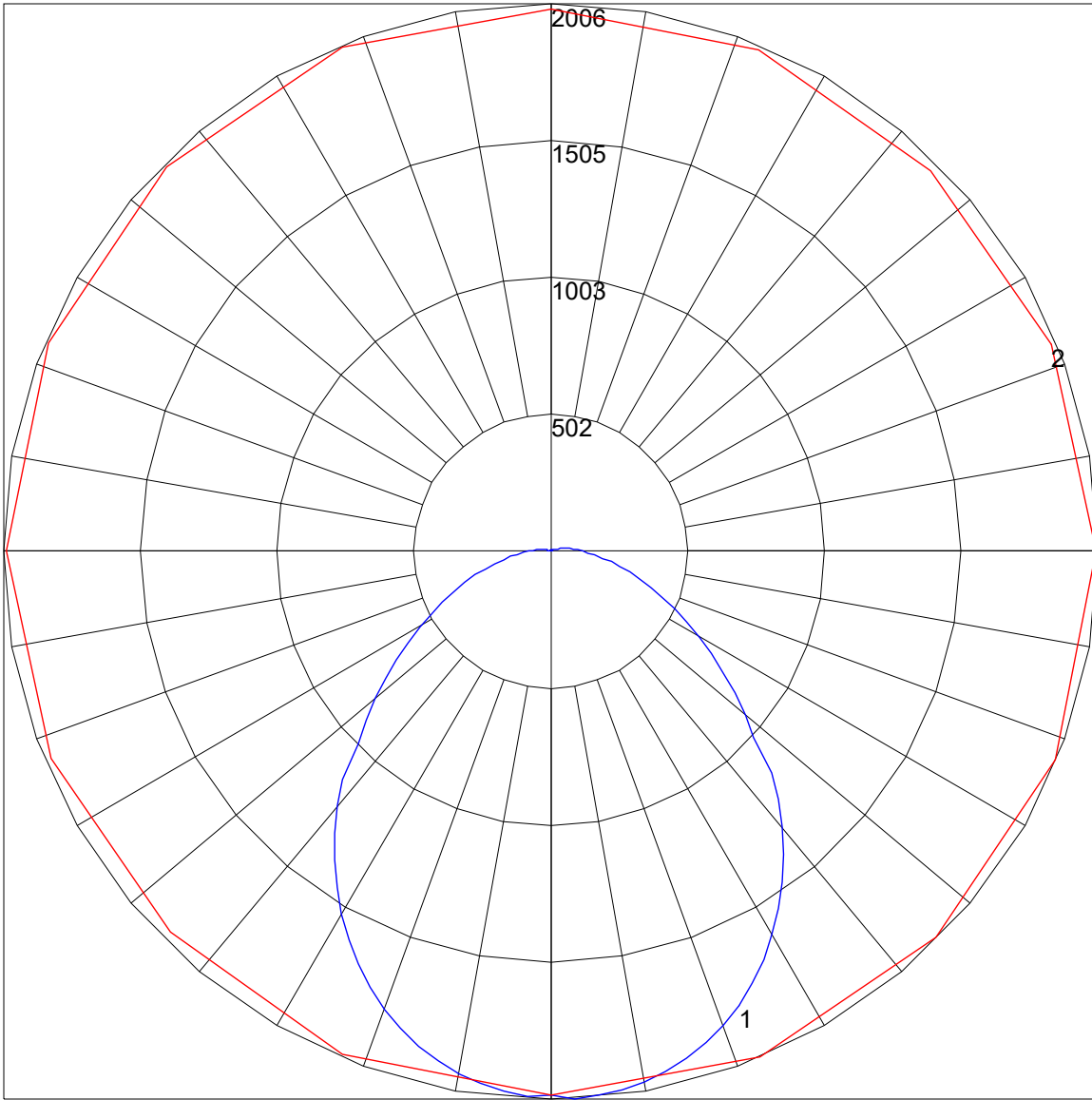
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : DLLR48HRA50.IES**

**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	117	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	93
1	105	100	95	91		102	97	93	89	91	88	84	86	83	81	81	79	77	74
2	96	87	80	73		92	84	78	72	79	74	69	75	70	66	71	67	64	61
3	87	76	68	61		84	74	66	60	70	63	58	66	61	56	63	58	54	51
4	80	67	58	52		77	66	57	51	62	55	49	59	53	48	56	51	46	44
5	73	60	51	44		71	59	50	44	56	48	43	53	47	42	50	45	40	38
6	68	54	45	39		65	53	45	38	50	43	37	48	42	37	46	40	36	33
7	63	49	41	34		61	48	40	34	46	39	33	44	37	32	42	36	32	30
8	59	45	37	31		57	44	36	30	42	35	30	40	34	29	39	33	29	26
9	55	41	33	28		53	41	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25		50	37	30	25	36	29	24	35	28	24	33	28	23	22

POLAR GRAPH



Maximum Candela = 2006.365 Located At Horizontal Angle = 292.5, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (292.5 - 112.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)