

# Family Correlated Photometric Data

The following photometric information is developed using correlated data. Finelite considers a family to be a group of luminaires where critical performance metrics such as photometric performance, thermal performance, and electrical performance can be accurately projected via a combination of LM79 tests at the luminaire level and well-documented specifications at the component level.

For more information, please download [Finelite's Family Correlated White Paper](#)

Additional links:

- [Solid-State Lighting: Early Lessons Learned on the Way to Market](#)  
(U.S. Department of Energy)
- [Lighting Facts®](#)
- [Design Lights Consortium®](#)

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-WG-6W-6D-4FT-H-835-ITL88851.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL88851.003 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]01/25/17

[ISSUEDATE]04/17/17

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-WG-6W-6D-4ft-H-835

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.2 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.0 WATTS

[ABSOLUTE]LUMENS]2010

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL88851. For further details on Finelite family correlation files, go to

[more][http://www.finelite.com/download\\_files/series\\_downloads/photometry\\_pdf/FL\\_Family\\_Correlation\\_WhitePaper.pdf](http://www.finelite.com/download_files/series_downloads/photometry_pdf/FL_Family_Correlation_WhitePaper.pdf)

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2010
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	71
Total Luminaire Watts	28.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.28
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	0.52
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.49 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.49 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1046	1217	7440
55	1027	1038	5253
65	1395	1104	3363
75	2034	1546	1569
85	238	265	345

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**CANDELA TABULATION**

	<u>0.0</u>	<u>5.0</u>	<u>15.0</u>	<u>25.0</u>	<u>35.0</u>	<u>45.0</u>	<u>55.0</u>	<u>65.0</u>	<u>75.0</u>	<u>85.0</u>
0.0	2657.961	2657.961	2657.961	2657.961	2657.961	2657.961	2657.961	2657.961	2657.961	2657.961
0.5	2602.733	2598.066	2599.621	2604.289	2609.734	2615.179	2622.957	2633.070	2643.182	2652.516
1.0	2521.835	2531.947	2535.059	2544.393	2556.061	2569.285	2587.176	2607.400	2626.847	2647.849
1.5	2453.383	2461.939	2467.385	2480.608	2499.277	2521.057	2548.282	2578.619	2609.734	2641.626
2.0	2382.597	2387.265	2395.043	2412.934	2439.381	2468.940	2507.056	2549.060	2591.843	2633.070
2.5	2308.700	2309.478	2321.146	2343.704	2377.152	2415.268	2464.273	2518.724	2573.952	2628.402
3.0	2227.025	2228.580	2242.582	2270.585	2311.812	2360.039	2419.935	2487.609	2553.727	2619.846
3.5	2143.793	2145.349	2160.128	2195.910	2245.693	2304.033	2375.597	2455.717	2534.281	2611.289
4.0	2055.894	2057.450	2076.119	2118.124	2177.241	2245.693	2329.703	2423.046	2514.056	2602.733
4.5	1962.551	1967.218	1989.776	2037.226	2105.678	2184.242	2282.253	2388.042	2492.276	2593.399
5.0	1869.985	1874.652	1901.100	1953.994	2032.559	2122.013	2232.470	2351.483	2469.718	2580.953
5.5	1774.308	1781.309	1810.867	1870.763	1957.106	2075.341	2182.686	2315.701	2446.382	2573.174
6.0	1680.186	1690.298	1720.635	1785.976	1882.431	1994.443	2130.569	2278.364	2421.491	2558.395
6.5	1587.620	1600.066	1634.292	1701.966	1805.422	1943.882	2077.675	2239.470	2397.377	2549.060
7.0	1499.722	1513.723	1550.283	1620.291	1729.192	1877.764	2024.780	2200.577	2371.707	2532.725
7.5	1414.935	1432.825	1468.607	1542.504	1653.739	1810.089	1970.329	2162.462	2346.038	2523.391
8.0	1335.592	1357.373	1393.154	1467.829	1581.397	1743.971	1915.101	2122.791	2320.368	2509.389
8.5	1287.365	1286.587	1323.147	1397.044	1509.834	1678.630	1859.873	2081.564	2293.921	2498.499
9.0	1218.135	1222.802	1258.584	1330.147	1442.160	1614.068	1806.200	2041.115	2268.251	2484.498
9.5	1154.350	1162.907	1197.911	1267.140	1379.153	1549.505	1764.196	2000.666	2240.248	2468.940
10.0	1096.010	1110.012	1142.682	1210.356	1319.257	1488.832	1709.745	1958.661	2212.245	2454.161
11.0	1008.890	1015.112	1047.005	1108.456	1211.134	1376.819	1604.733	1876.986	2157.795	2423.824
11.5	959.884	972.330	1003.445	1062.562	1162.129	1323.147	1553.394	1834.203	2129.792	2407.489
12.0	931.103	933.437	963.773	1020.558	1117.791	1273.363	1503.611	1792.976	2101.788	2391.932
12.5	888.321	896.877	925.658	980.886	1074.230	1225.914	1454.606	1751.750	2073.008	2374.819
13.0	850.983	863.429	890.654	944.327	1033.781	1180.798	1407.156	1710.523	2037.226	2357.706
13.5	826.869	831.537	858.762	909.323	997.999	1138.793	1362.818	1670.074	2008.445	2340.593
14.0	791.866	801.978	828.425	876.653	961.440	1098.344	1320.035	1628.847	1977.330	2323.480
14.5	771.641	775.530	801.200	847.094	927.214	1061.784	1279.586	1589.954	1948.549	2306.367
15.0	743.638	750.639	774.753	819.869	896.877	1026.780	1238.359	1540.949	1918.213	2289.254
16.0	698.522	705.523	723.414	767.752	837.760	959.884	1162.129	1465.496	1860.651	2251.138
17.0	659.629	666.629	683.742	724.191	786.420	901.544	1092.899	1394.710	1805.422	2213.801
18.0	623.847	631.626	646.405	685.298	741.304	847.872	1029.892	1328.592	1749.416	2174.908
19.0	596.622	598.177	613.735	649.516	701.633	799.644	971.552	1264.807	1694.188	2136.014
20.0	563.174	567.063	582.620	617.624	664.296	756.084	917.879	1204.133	1640.515	2097.899
22.5	481.498	488.499	506.389	539.838	586.509	663.518	801.200	1066.452	1509.056	1991.332
25.0	429.381	431.715	443.382	472.941	519.613	588.843	706.300	947.438	1383.042	1882.431
27.5	393.599	395.155	402.156	421.602	459.718	525.058	626.958	843.205	1263.251	1763.418
30.0	373.375	375.708	378.042	386.598	413.046	469.052	560.062	752.194	1150.461	1648.294
32.5	346.149	346.149	354.706	362.485	378.820	422.380	504.056	677.520	1045.449	1533.170
35.0	310.368	310.368	321.258	336.037	352.372	385.043	453.495	608.290	947.438	1418.824
37.5	294.810	294.810	297.144	308.034	327.481	354.706	411.490	545.283	855.650	1306.811
40.0	283.920	283.142	284.698	289.365	301.811	329.036	374.153	491.610	770.085	1194.799
42.5	276.142	275.364	275.364	276.920	283.142	304.923	343.038	446.494	695.410	1086.676
45.0	270.697	269.919	269.141	266.807	269.141	282.365	315.813	402.934	622.291	980.886
47.5	261.362	261.362	261.362	260.584	258.251	265.252	291.699	365.596	556.951	879.764
50.0	259.029	258.251	253.584	252.028	250.472	251.250	269.141	330.592	491.610	777.864
52.5	266.029	266.029	262.918	248.916	242.694	240.360	249.694	300.255	438.715	686.076
55.0	262.140	262.140	259.807	257.473	238.026	232.581	234.137	273.030	387.376	598.955
57.5	269.141	269.141	261.362	254.362	247.361	224.803	220.913	247.361	340.704	517.280
60.0	289.365	289.365	278.475	262.140	245.027	226.358	210.801	224.025	296.366	444.160
62.5	310.368	308.812	297.922	280.031	251.250	229.470	203.022	205.356	256.695	374.153
65.0	339.927	337.593	322.814	297.922	268.363	231.026	201.467	188.243	220.913	309.590
67.5	385.043	382.709	361.707	325.147	283.920	242.694	203.022	174.242	189.799	251.250

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**CANDELA TABULATION - (Cont.)**

70.0	440.271	437.937	411.490	365.596	310.368	255.139	203.800	161.796	161.018	198.355
72.5	482.276	480.720	455.050	407.601	343.038	272.252	211.579	161.796	140.793	150.128
75.0	457.384	456.606	441.827	414.602	363.262	290.921	217.802	157.129	121.347	109.679
77.5	341.482	350.039	345.372	343.038	326.703	289.365	223.247	157.129	105.012	77.009
80.0	165.685	175.797	184.354	209.245	224.025	231.026	208.468	153.239	97.233	47.450
82.5	48.228	49.005	49.783	59.118	89.454	123.680	146.238	134.570	90.232	31.892
85.0	47.450	47.450	48.228	47.450	45.894	42.783	57.562	80.898	77.009	24.892
87.5	46.672	46.672	47.450	46.672	44.338	41.227	37.337	33.448	43.560	19.447
90.0	45.116	45.894	45.894	45.116	43.560	39.671	35.782	31.115	26.447	14.002
92.5	44.338	44.338	45.116	44.338	42.005	38.893	34.226	29.559	23.336	10.890
95.0	43.560	43.560	44.338	42.783	41.227	37.337	32.670	27.225	20.224	7.779
97.5	42.005	42.005	42.783	42.005	39.671	35.782	30.337	24.892	16.335	4.667
100.0	40.449	41.227	41.227	40.449	37.337	34.226	28.781	22.558	13.224	3.111
102.5	38.893	39.671	39.671	38.115	35.782	31.892	27.225	20.224	10.890	2.334
105.0	37.337	37.337	38.115	36.560	34.226	30.337	24.892	17.113	7.779	1.556
107.5	35.782	35.782	35.782	35.004	31.892	28.003	21.780	14.779	6.223	1.556
110.0	34.226	34.226	34.226	32.670	30.337	25.670	19.447	11.668	4.667	0.778
112.5	31.892	31.892	31.892	30.337	27.225	22.558	17.113	9.334	3.889	0.778
115.0	29.559	29.559	29.559	28.003	24.892	20.224	14.002	7.001	3.111	0.778
117.5	26.447	26.447	26.447	24.892	21.780	17.113	10.890	5.445	2.334	0.000
120.0	23.336	23.336	23.336	21.780	18.669	14.002	7.779	4.667	2.334	0.000
122.5	20.224	20.224	20.224	18.669	15.557	10.890	5.445	3.889	2.334	0.000
125.0	17.113	17.113	17.113	15.557	12.446	7.779	4.667	3.111	1.556	0.000
127.5	14.002	14.002	14.002	12.446	9.334	5.445	3.889	3.111	1.556	0.000
130.0	10.890	10.890	10.112	9.334	6.223	3.889	3.889	3.111	1.556	0.000
132.5	7.779	7.779	7.001	6.223	3.889	3.889	3.111	2.334	0.778	0.000
135.0	4.667	3.889	3.889	3.111	3.111	3.111	3.111	2.334	0.778	0.000
137.5	0.778	0.778	1.556	2.334	2.334	3.111	2.334	2.334	0.778	0.000
140.0	0.000	0.000	0.778	1.556	2.334	2.334	1.556	1.556	0.000	0.000
142.5	0.000	0.000	0.778	1.556	1.556	1.556	1.556	1.556	0.000	0.000
145.0	0.000	0.000	0.778	0.778	1.556	1.556	1.556	1.556	0.000	0.000
147.5	0.000	0.000	0.000	0.778	0.778	0.778	0.778	1.556	0.000	0.000
150.0	0.000	0.000	0.000	0.778	0.778	0.778	0.778	0.778	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.778	0.778	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>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	2657.961	2657.961	2657.961	2657.961	2657.961
0.5	2657.961	2680.519	2697.632	2710.078	2712.412
1.0	2657.961	2705.411	2733.414	2751.305	2753.638
1.5	2657.183	2719.412	2760.639	2781.642	2780.864
2.0	2656.405	2738.081	2781.642	2797.977	2790.198
2.5	2654.072	2752.083	2791.754	2794.865	2777.752
3.0	2651.738	2762.973	2792.532	2776.197	2748.971

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**CANDELA TABULATION - (Cont.)**

3.5	2650.183	2769.196	2782.419	2745.860	2706.967
4.0	2647.071	2774.641	2763.751	2702.299	2652.516
4.5	2642.404	2773.863	2737.303	2649.405	2588.731
5.0	2636.959	2769.974	2703.077	2588.731	2515.612
5.5	2630.736	2761.417	2663.406	2521.835	2437.826
6.0	2622.957	2748.193	2617.512	2448.716	2354.594
6.5	2615.179	2732.636	2566.173	2370.929	2265.918
7.0	2608.178	2714.745	2511.723	2290.809	2174.908
7.5	2599.621	2692.965	2454.161	2206.800	2082.342
8.0	2590.287	2669.629	2392.710	2121.235	1988.220
8.5	2580.953	2650.183	2329.703	2032.559	1891.765
9.0	2570.840	2614.401	2263.584	1943.882	1795.310
9.5	2559.950	2591.065	2195.910	1853.650	1698.077
10.0	2548.282	2556.839	2128.236	1763.418	1600.066
11.0	2525.724	2486.053	1987.442	1583.731	1408.712
11.5	2513.279	2447.160	1917.435	1493.499	1314.590
12.0	2500.833	2405.933	1845.093	1404.822	1222.802
12.5	2487.609	2364.706	1773.530	1317.702	1134.904
13.0	2472.830	2323.480	1701.966	1232.137	1042.338
13.5	2458.828	2279.919	1630.403	1148.905	943.549
14.0	2444.049	2237.915	1558.839	1062.562	848.650
14.5	2429.269	2195.132	1489.610	969.996	760.751
15.0	2414.490	2151.572	1418.824	880.542	678.297
16.0	2381.820	2065.229	1265.585	716.413	530.503
17.0	2349.927	1977.330	1136.459	573.286	402.156
18.0	2314.923	1887.876	1008.890	448.050	285.476
19.0	2279.141	1799.199	869.652	335.259	175.797
20.0	2239.470	1712.079	742.082	227.136	110.457
22.5	2136.792	1493.499	475.275	73.897	40.449
25.0	2028.669	1280.364	258.251	36.560	26.447
27.5	1914.323	1079.675	105.790	25.670	19.447
30.0	1796.866	896.099	47.450	19.447	4.667
32.5	1677.853	710.968	32.670	6.223	3.889
35.0	1555.728	538.282	24.892	5.445	3.111
37.5	1434.381	390.488	17.891	4.667	2.334
40.0	1313.812	259.029	8.557	3.111	1.556
42.5	1194.799	146.238	7.001	2.334	0.778
45.0	1076.564	74.675	6.223	2.334	0.778
47.5	963.773	44.338	5.445	2.334	0.778
50.0	854.095	31.892	4.667	1.556	0.778
52.5	750.639	24.114	3.889	1.556	0.000
55.0	645.627	16.335	3.889	1.556	0.000
57.5	556.173	10.890	3.111	1.556	0.000
60.0	473.719	9.334	3.111	1.556	0.000
62.5	397.488	8.557	3.111	0.778	0.000
65.0	327.481	7.779	2.334	0.778	0.000
67.5	262.918	6.223	2.334	0.778	0.000
70.0	204.578	5.445	2.334	0.778	0.000
72.5	153.239	4.667	1.556	0.778	0.000
75.0	108.123	3.889	1.556	0.778	0.000
77.5	70.786	3.111	0.778	0.778	0.000
80.0	39.671	2.334	0.778	0.000	0.000
82.5	23.336	1.556	0.778	0.000	0.000
85.0	13.224	0.778	0.000	0.000	0.000
87.5	5.445	0.000	0.000	0.000	0.000
90.0	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HP-WG-6W-6D-4FT-H-835-ITL88851.003.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	594.54	N.A.	29.60
0-30	937.47	N.A.	46.60
0-40	1223.77	N.A.	60.90
0-60	1623.00	N.A.	80.80
0-80	1925.29	N.A.	95.80
0-90	1964.64	N.A.	97.70
10-90	1752.2	N.A.	87.20
20-40	629.23	N.A.	31.30
20-50	851.19	N.A.	42.30
40-70	554.93	N.A.	27.60
60-80	302.28	N.A.	15.00
70-80	146.58	N.A.	7.30
80-90	39.35	N.A.	2.00
90-110	31.20	N.A.	1.60
90-120	39.80	N.A.	2.00
90-130	43.85	N.A.	2.20
90-150	45.24	N.A.	2.30
90-180	45.27	N.A.	2.30
110-180	14.07	N.A.	0.70
0-180	2009.9	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	212.44
10-20	382.11
20-30	342.93
30-40	286.30
40-50	221.96
50-60	177.28
60-70	155.70
70-80	146.58
80-90	39.35
90-100	17.81
100-110	13.39
110-120	8.60
120-130	4.05
130-140	1.14
140-150	0.25
150-160	0.03
160-170	0.00
170-180	0.00

# IES INDOOR REPORT

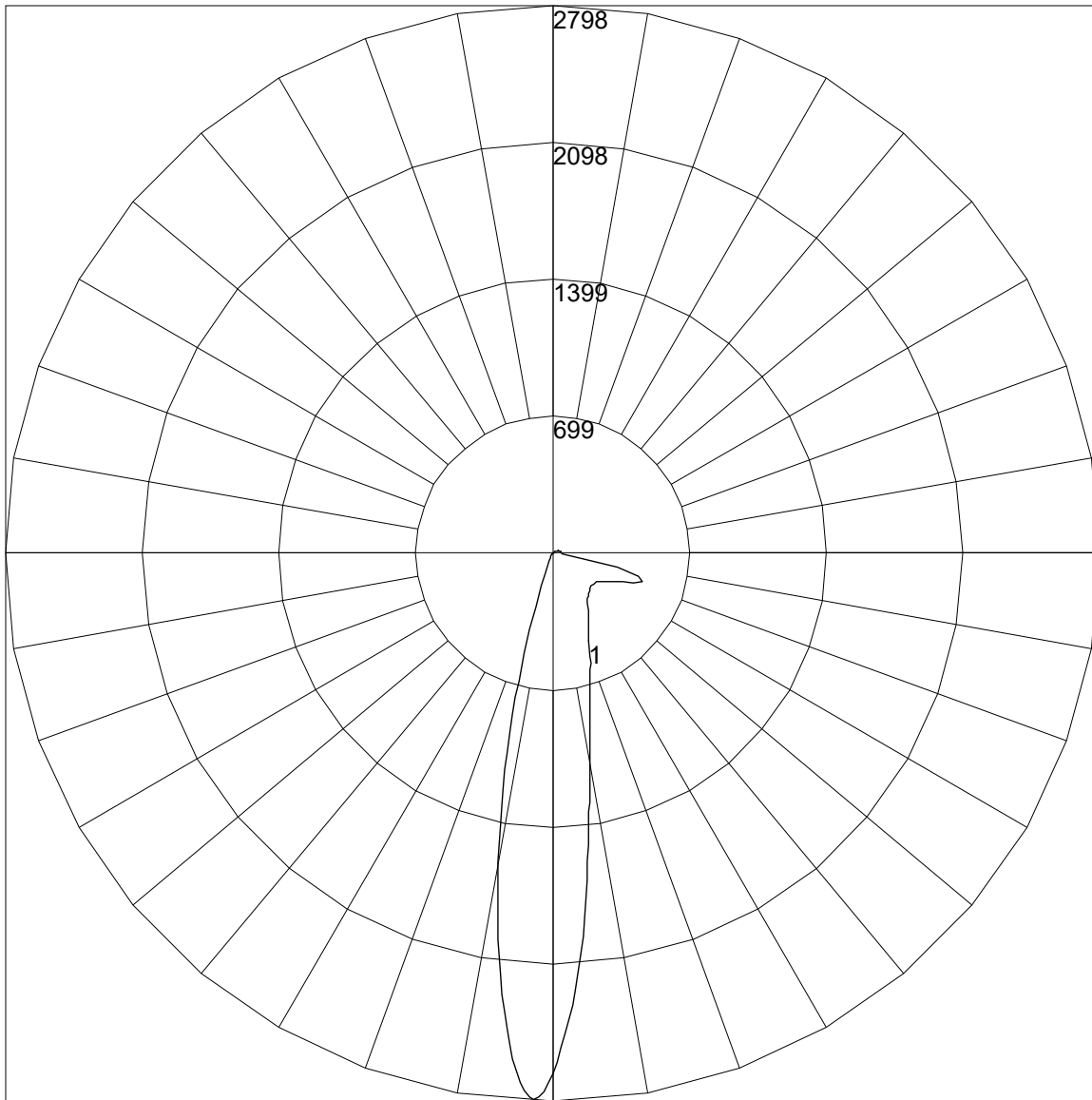
PHOTOMETRIC FILENAME : HP-WG-6W-6D-4FT-H-835-ITL88851.003.IES

## 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	119	119	119	119	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	109	105	101	98	107	103	99	96	98	95	93	94	92	89	90	88	86	84
2	101	94	88	83	98	92	86	82	88	84	80	85	81	78	81	78	76	73
3	94	85	78	72	91	83	77	71	80	74	70	77	72	68	74	70	67	65
4	88	77	70	64	85	76	69	64	73	67	62	71	66	61	69	64	60	58
5	82	71	63	58	80	70	63	57	68	61	57	66	60	56	64	59	55	53
6	77	66	58	53	75	65	58	52	63	56	52	61	55	51	59	54	51	49
7	73	61	54	48	71	60	53	48	59	52	48	57	51	47	56	51	47	45
8	69	57	50	45	67	56	50	45	55	49	44	54	48	44	53	47	44	42
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	47	42	38	37

POLAR GRAPH



Maximum Candela = 2797.977 Located At Horizontal Angle = 157.5, Vertical Angle = 2  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)