

# 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-4D-4FT-H-835-ITL88850.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL88850.003 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]01/26/17

[ISSUEDATE]04/17/17

[MANUFAC]FINELITE, INC.

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

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.2 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.0 WATTS

[ABSOLUTE]LUMENS]2035

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL88850. 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	2035
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	72
Total Luminaire Watts	28.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.28
Spacing Criterion (90-270)	1.08
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	0.33 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1157	1321	8001
55	1191	1160	5933
65	1796	1322	3937
75	2574	2018	2148
85	204	242	506

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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	2622.318	2622.318	2622.318	2622.318	2622.318	2622.318	2622.318	2622.318	2622.318	2622.318
0.5	2535.192	2553.084	2555.418	2561.641	2567.086	2573.310	2583.422	2593.535	2605.204	2616.094
1.0	2467.515	2479.961	2483.851	2494.741	2507.188	2521.968	2542.193	2563.197	2587.312	2609.871
1.5	2395.169	2401.393	2407.616	2423.952	2442.622	2466.737	2497.853	2532.081	2567.864	2602.870
2.0	2318.157	2319.713	2330.603	2352.385	2378.833	2410.728	2454.290	2499.409	2547.639	2595.869
2.5	2239.588	2237.255	2249.701	2277.706	2311.934	2367.943	2407.616	2465.959	2528.191	2588.868
3.0	2124.459	2151.685	2166.465	2201.471	2241.922	2294.820	2360.164	2431.731	2507.188	2579.533
3.5	2034.999	2060.670	2080.896	2122.125	2171.133	2248.923	2312.712	2396.725	2484.629	2570.976
4.0	1945.540	1968.878	1992.215	2038.889	2098.788	2171.133	2264.481	2361.720	2463.625	2563.975
4.5	1851.414	1874.751	1900.422	1955.653	2023.331	2123.681	2213.918	2325.158	2441.844	2553.084
5.0	1756.509	1779.847	1808.629	1870.084	1944.762	2060.670	2162.576	2287.041	2416.951	2542.193
5.5	1663.161	1685.720	1718.392	1783.736	1866.972	1992.993	2109.678	2249.701	2392.836	2531.303
6.0	1570.590	1596.261	1628.933	1699.722	1790.737	1926.871	2056.003	2210.806	2367.943	2519.634
6.5	1479.575	1509.914	1543.363	1614.931	1712.947	1859.193	2002.327	2170.355	2343.050	2507.188
7.0	1398.673	1425.900	1462.461	1536.362	1636.712	1790.737	1946.318	2131.460	2317.379	2495.519
7.5	1345.776	1351.221	1386.227	1460.906	1562.811	1723.837	1891.087	2090.231	2290.930	2482.295
8.0	1271.875	1282.765	1315.437	1388.560	1493.578	1657.716	1836.634	2049.780	2265.259	2469.070
8.5	1204.975	1215.865	1250.871	1321.661	1425.900	1593.927	1781.402	2007.773	2238.033	2455.846
9.0	1140.409	1155.967	1189.417	1258.650	1362.112	1531.695	1726.949	1965.766	2211.584	2441.066
9.5	1081.288	1101.513	1133.408	1201.863	1302.213	1471.018	1672.496	1926.093	2185.135	2428.619
10.0	1045.504	1051.728	1082.844	1148.966	1245.426	1414.231	1620.376	1882.530	2156.353	2413.839
11.0	948.266	961.491	992.607	1053.283	1145.854	1306.102	1517.693	1800.072	2101.121	2384.279
11.5	918.706	922.595	952.156	1011.276	1099.958	1256.317	1469.463	1758.065	2071.561	2367.943
12.0	879.033	885.256	914.816	972.381	1057.173	1209.642	1422.010	1717.614	2043.556	2353.163
12.5	840.915	851.028	879.811	934.264	1017.500	1164.524	1376.114	1676.385	2013.996	2336.827
13.0	816.022	820.690	847.139	899.258	980.938	1122.517	1333.329	1637.490	1985.991	2320.491
13.5	781.017	790.351	816.800	866.586	945.155	1082.844	1289.766	1596.261	1957.987	2308.044
14.0	759.235	763.125	788.796	836.248	910.927	1045.504	1250.093	1556.588	1927.649	2288.596
14.5	730.453	738.232	763.125	807.465	880.588	1008.943	1212.754	1518.471	1898.866	2278.484
15.0	711.783	714.117	737.454	781.017	851.028	974.715	1174.637	1479.575	1869.306	2261.370
16.0	669.776	672.110	688.446	733.564	797.353	913.260	1105.403	1408.008	1811.741	2226.364
17.0	631.659	634.770	648.773	690.002	749.123	857.251	1041.615	1339.552	1754.176	2189.025
18.0	595.097	600.543	614.545	651.106	706.338	806.687	982.494	1267.985	1698.944	2154.019
19.0	560.869	567.093	580.317	616.101	667.442	760.791	927.263	1207.309	1644.491	2115.124
20.0	525.864	534.421	549.201	583.429	637.104	719.562	877.477	1149.744	1591.594	2076.228
22.5	451.185	455.852	471.410	508.750	559.314	630.881	767.792	1019.833	1461.683	1976.657
25.0	398.287	402.177	413.068	441.850	490.858	558.536	677.555	905.481	1339.552	1871.639
27.5	369.505	371.061	376.506	394.398	433.293	496.303	598.987	812.133	1224.422	1765.066
30.0	348.501	350.057	353.169	363.282	388.952	442.628	533.643	725.007	1117.072	1653.826
32.5	315.052	318.941	328.276	339.167	357.058	397.509	478.412	646.439	1016.722	1541.808
35.0	284.713	286.269	296.382	311.940	330.610	362.504	430.181	581.095	923.373	1429.789
37.5	273.045	273.823	276.156	285.491	305.717	333.721	388.952	523.530	837.026	1318.549
40.0	261.376	262.932	263.710	269.155	280.824	308.050	353.169	471.410	756.124	1209.642
42.5	254.375	255.153	254.375	255.931	262.932	282.380	324.386	427.070	681.445	1102.291
45.0	248.930	248.930	248.930	246.596	248.930	260.598	297.938	385.841	611.433	998.830
47.5	240.373	240.373	240.373	239.595	238.817	245.040	273.045	350.835	545.311	898.480
50.0	242.706	241.928	235.705	231.816	231.038	231.816	250.485	317.385	486.969	802.020
52.5	244.262	244.262	244.262	232.594	223.259	221.703	231.816	287.825	434.071	711.005
55.0	243.484	243.484	240.373	236.483	221.703	213.146	215.480	259.820	384.285	623.880
57.5	257.487	256.709	247.374	236.483	227.926	206.145	202.255	232.594	338.389	543.756
60.0	278.490	276.934	266.821	250.485	227.926	212.368	192.920	208.479	294.826	460.520
62.5	301.049	300.271	287.825	269.155	239.595	212.368	184.363	188.253	254.375	391.286
65.0	336.833	335.277	316.607	288.603	257.487	217.813	188.253	170.361	217.813	326.720
67.5	388.952	387.397	361.726	321.275	275.378	232.594	188.253	157.137	185.919	268.377

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**CANDELA TABULATION - (Cont.)**

70.0	448.851	445.740	415.401	366.393	304.939	246.596	193.698	147.802	154.025	217.035
72.5	483.079	479.189	453.519	406.066	339.944	265.266	201.477	147.802	129.132	171.139
75.0	424.736	426.292	416.179	396.732	352.391	283.935	209.256	147.024	108.129	129.132
77.5	294.826	299.493	302.605	308.050	301.049	272.267	213.924	146.246	93.349	92.571
80.0	101.128	108.907	126.021	158.693	187.475	194.476	187.475	142.357	86.347	62.232
82.5	28.782	29.560	30.338	33.450	52.120	80.902	113.574	117.464	80.124	37.339
85.0	28.005	28.005	28.782	28.782	28.005	27.227	31.894	58.343	64.566	21.781
87.5	27.227	27.227	28.005	28.005	27.227	25.671	24.115	21.781	28.005	15.558
90.0	26.449	26.449	27.227	26.449	25.671	24.115	22.559	20.226	17.114	9.335
92.5	24.893	24.893	25.671	25.671	24.893	23.337	21.003	17.892	14.002	6.223
95.0	24.115	24.115	24.893	24.893	23.337	21.781	19.448	15.558	10.891	3.112
97.5	22.559	23.337	23.337	23.337	21.781	20.226	17.114	13.224	8.557	1.556
100.0	21.781	21.781	22.559	21.781	21.003	18.670	15.558	11.669	5.445	0.778
102.5	20.226	20.226	21.003	20.226	18.670	17.114	14.002	9.335	3.890	0.778
105.0	18.670	18.670	19.448	18.670	17.114	14.780	11.669	6.223	2.334	0.778
107.5	17.114	17.114	17.892	17.114	15.558	13.224	9.335	4.667	2.334	0.778
110.0	15.558	15.558	15.558	14.780	13.224	10.891	6.223	3.112	1.556	0.000
112.5	13.224	13.224	13.224	12.446	10.891	7.779	3.890	2.334	0.778	0.000
115.0	11.669	10.891	11.669	10.113	8.557	5.445	3.112	2.334	0.778	0.000
117.5	9.335	8.557	8.557	7.779	6.223	3.112	2.334	1.556	0.778	0.000
120.0	6.223	6.223	6.223	5.445	3.112	3.112	2.334	1.556	0.778	0.000
122.5	3.890	3.890	3.112	2.334	2.334	2.334	1.556	1.556	0.778	0.000
125.0	0.778	0.778	0.778	1.556	1.556	1.556	1.556	0.778	0.000	0.000
127.5	0.000	0.000	0.778	1.556	1.556	1.556	1.556	0.778	0.000	0.000
130.0	0.000	0.000	0.778	0.778	1.556	1.556	0.778	0.778	0.000	0.000
132.5	0.000	0.000	0.000	0.778	0.778	0.778	0.778	0.778	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.778	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.778	0.778	0.778	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.778	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	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	2622.318	2622.318	2622.318	2622.318	2622.318
0.5	2622.318	2647.211	2668.214	2680.661	2685.328
1.0	2622.318	2671.326	2709.443	2729.669	2736.670
1.5	2620.762	2692.329	2743.671	2767.008	2770.898
2.0	2620.762	2712.555	2769.342	2790.345	2791.123
2.5	2619.206	2729.669	2788.011	2798.902	2794.235
3.0	2616.872	2743.671	2798.124	2794.235	2778.677

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**CANDELA TABULATION - (Cont.)**

3.5	2614.539	2755.339	2798.902	2774.787	2749.116
4.0	2612.205	2764.674	2789.567	2742.893	2705.554
4.5	2609.093	2769.342	2774.009	2699.330	2649.544
5.0	2604.426	2770.898	2749.894	2647.211	2584.978
5.5	2598.203	2769.342	2718.000	2584.978	2511.077
6.0	2592.757	2765.452	2679.883	2516.523	2431.731
6.5	2586.534	2756.117	2635.542	2444.177	2346.939
7.0	2580.311	2744.449	2586.534	2365.609	2258.258
7.5	2571.754	2729.669	2533.637	2304.932	2166.465
8.0	2564.753	2713.333	2476.849	2221.697	2072.339
8.5	2559.307	2693.107	2416.951	2135.349	1975.879
9.0	2549.195	2671.326	2353.940	2046.668	1878.641
9.5	2542.193	2646.433	2290.152	1956.431	1781.402
10.0	2532.859	2616.094	2223.252	1866.194	1680.275
11.0	2512.633	2553.084	2086.341	1681.831	1483.465
11.5	2500.965	2518.078	2015.552	1590.816	1434.457
12.0	2490.074	2479.961	1945.540	1499.023	1289.766
12.5	2478.405	2442.622	1871.639	1408.008	1243.870
13.0	2466.737	2405.282	1798.516	1320.105	1154.411
13.5	2455.068	2365.609	1726.171	1233.757	1068.064
14.0	2440.288	2325.158	1653.048	1147.410	984.828
14.5	2427.064	2285.485	1580.703	1065.730	907.815
15.0	2413.839	2243.478	1507.580	988.717	834.692
16.0	2385.057	2159.464	1368.335	847.916	706.338
17.0	2353.940	2073.895	1232.979	726.563	599.765
18.0	2321.268	1976.657	1104.625	623.880	514.973
19.0	2287.819	1888.753	982.494	539.866	447.295
20.0	2251.257	1799.294	872.031	471.410	392.842
22.5	2156.353	1576.813	647.217	336.833	257.487
25.0	2052.891	1359.778	482.301	220.147	152.469
27.5	1943.985	1159.856	378.062	126.021	66.122
30.0	1830.410	967.714	269.933	52.898	35.006
32.5	1713.725	790.351	181.252	34.228	27.227
35.0	1595.483	648.773	101.128	27.227	23.337
37.5	1474.908	531.309	48.230	24.115	20.226
40.0	1355.110	435.627	34.228	21.003	12.446
42.5	1230.646	357.058	28.005	10.113	2.334
45.0	1114.738	281.602	24.115	3.890	2.334
47.5	1001.164	206.923	21.003	3.112	1.556
50.0	890.701	143.912	14.780	3.112	0.778
52.5	791.907	85.570	6.223	2.334	0.778
55.0	692.335	46.674	5.445	2.334	0.778
57.5	598.209	31.116	4.667	1.556	0.000
60.0	510.306	24.893	3.890	1.556	0.000
62.5	430.181	20.226	3.890	1.556	0.000
65.0	356.280	14.002	3.112	1.556	0.000
67.5	290.159	7.779	3.112	0.778	0.000
70.0	231.038	7.001	2.334	0.778	0.000
72.5	178.140	5.445	2.334	0.778	0.000
75.0	132.244	4.667	1.556	0.778	0.000
77.5	92.571	3.890	1.556	0.778	0.000
80.0	57.565	3.112	0.778	0.778	0.000
82.5	30.338	2.334	0.778	0.000	0.000
85.0	15.558	1.556	0.778	0.000	0.000
87.5	6.223	0.778	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-4D-4FT-H-835-ITL88850.003.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	601.58	N.A.	29.60
0-30	968.92	N.A.	47.60
0-40	1269.62	N.A.	62.40
0-60	1687.81	N.A.	82.90
0-80	1984.94	N.A.	97.60
0-90	2014.36	N.A.	99.00
10-90	1803.07	N.A.	88.60
20-40	668.04	N.A.	32.80
20-50	906.11	N.A.	44.50
40-70	573.84	N.A.	28.20
60-80	297.13	N.A.	14.60
70-80	141.48	N.A.	7.00
80-90	29.41	N.A.	1.40
90-110	16.66	N.A.	0.80
90-120	19.59	N.A.	1.00
90-130	20.25	N.A.	1.00
90-150	20.39	N.A.	1.00
90-180	20.39	N.A.	1.00
110-180	3.73	N.A.	0.20
0-180	2034.75	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	211.29
10-20	390.29
20-30	367.33
30-40	300.71
40-50	238.07
50-60	180.11
60-70	155.66
70-80	141.48
80-90	29.41
90-100	10.14
100-110	6.51
110-120	2.94
120-130	0.65
130-140	0.14
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

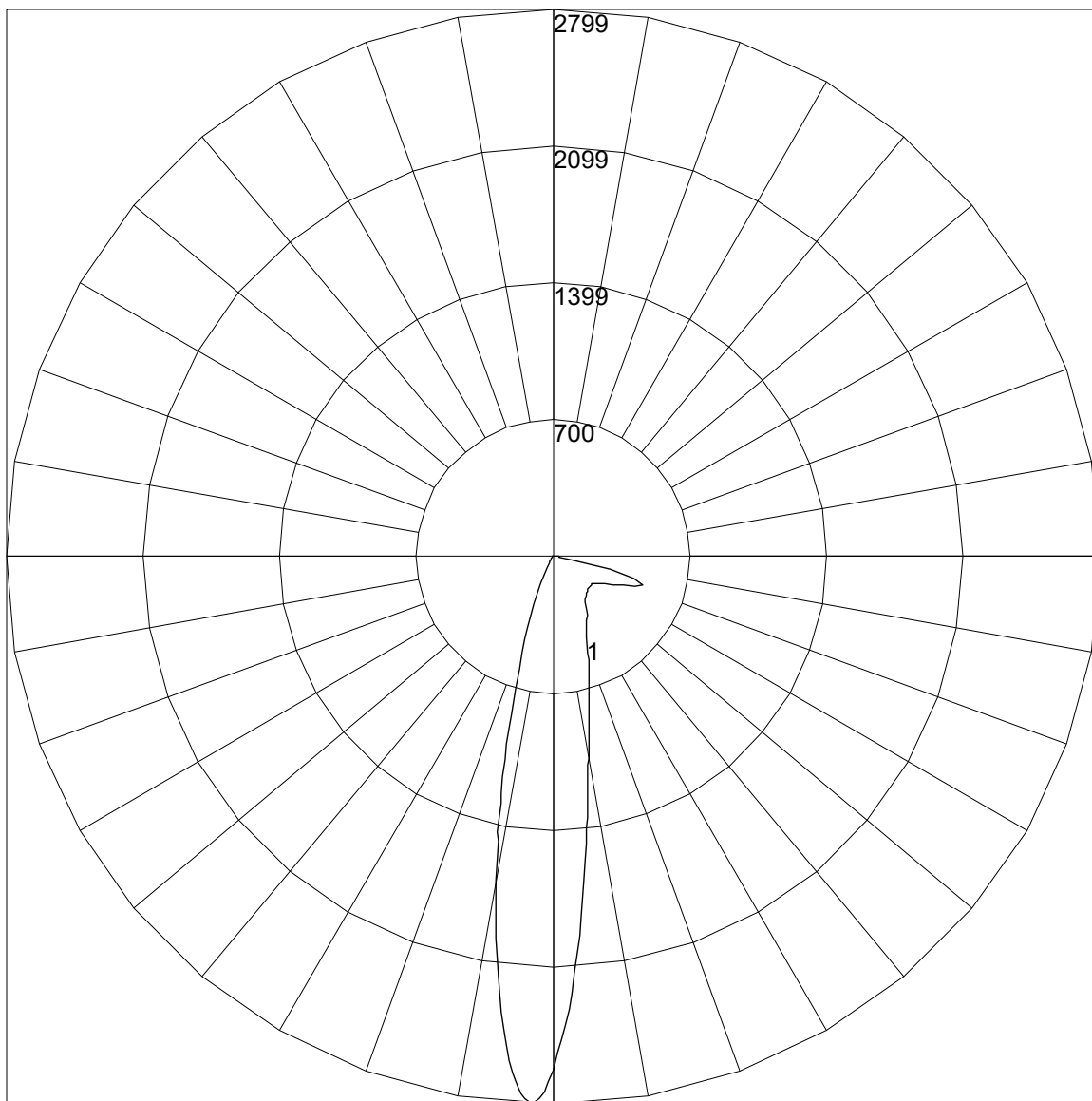
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HP-WG-6W-4D-4FT-H-835-ITL88850.003.IES**

**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	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	110	106	102	99	107	104	100	97	99	96	94	95	93	91	91	90	88	86
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	95	86	79	73	92	84	78	72	81	76	71	78	74	70	76	72	68	66
4	88	78	71	65	86	77	70	64	74	68	63	72	67	63	70	65	62	60
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	78	66	59	53	76	65	58	53	64	57	53	62	56	52	60	55	52	50
7	73	62	54	49	72	61	54	49	59	53	48	58	52	48	57	52	48	46
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43
9	66	54	47	42	64	54	47	42	52	46	42	51	46	42	50	45	42	40
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38

POLAR GRAPH



Maximum Candela = 2798.902 Located At Horizontal Angle = 135, Vertical Angle = 3.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)