

# 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-B-8TW-ITL88850.902.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL88850.902 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]01/26/17  
[ISSUE DATE]04/18/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-WG-6W-4D-4ft-B-8TW  
[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI's  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 20.1 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 21.5 WATTS  
[ABSOLUTE LUMENS]1346  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL88550. 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	1346
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	67
Total Luminaire Watts	20.1
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	766	874	5292
55	788	767	3924
65	1188	874	2604
75	1702	1335	1421
85	135	160	335

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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	1734.467	1734.467	1734.467	1734.467	1734.467	1734.467	1734.467	1734.467	1734.467	1734.467
0.5	1676.840	1688.674	1690.218	1694.334	1697.936	1702.052	1708.741	1715.430	1723.148	1730.351
1.0	1632.077	1640.309	1642.882	1650.085	1658.317	1668.093	1681.471	1695.363	1711.314	1726.235
1.5	1584.226	1588.342	1592.458	1603.263	1615.612	1631.562	1652.143	1674.782	1698.450	1721.604
2.0	1533.288	1534.317	1541.520	1555.927	1573.421	1594.516	1623.330	1653.172	1685.073	1716.973
2.5	1481.320	1479.777	1488.009	1506.532	1529.171	1566.217	1592.458	1631.047	1672.210	1712.343
3.0	1405.171	1423.179	1432.955	1456.109	1482.864	1517.852	1561.072	1608.408	1658.317	1706.168
3.5	1346.000	1362.979	1376.357	1403.627	1436.042	1487.495	1529.686	1585.255	1643.396	1700.508
4.0	1286.830	1302.265	1317.701	1348.573	1388.191	1436.042	1497.785	1562.101	1629.504	1695.878
4.5	1224.572	1240.008	1256.987	1293.518	1338.282	1404.656	1464.341	1537.918	1615.097	1688.674
5.0	1161.800	1177.236	1196.273	1236.921	1286.315	1362.979	1430.382	1512.706	1598.632	1681.471
5.5	1100.057	1114.978	1136.588	1179.808	1234.862	1318.216	1395.395	1488.009	1582.682	1674.268
6.0	1038.828	1055.807	1077.417	1124.239	1184.439	1274.481	1359.892	1462.283	1566.217	1666.550
6.5	978.628	998.695	1020.820	1068.156	1132.986	1229.717	1324.390	1435.528	1549.752	1658.317
7.0	925.118	943.126	967.309	1016.189	1082.563	1184.439	1287.344	1409.801	1532.773	1650.599
7.5	890.130	893.732	916.885	966.280	1033.683	1140.190	1250.813	1382.531	1515.279	1641.852
8.0	841.250	848.453	870.063	918.429	987.890	1096.455	1214.796	1355.776	1498.300	1633.106
8.5	797.001	804.204	827.358	874.180	943.126	1054.264	1178.265	1327.992	1480.291	1624.359
9.0	754.295	764.586	786.710	832.503	900.935	1013.102	1142.248	1300.207	1462.797	1614.583
9.5	715.191	728.569	749.664	794.943	861.317	972.969	1106.231	1273.966	1445.304	1606.350
10.0	691.523	695.639	716.220	759.955	823.756	935.408	1071.758	1245.153	1426.266	1596.574
11.0	627.207	635.954	656.535	696.668	757.897	863.889	1003.840	1190.613	1389.735	1577.022
11.5	607.655	610.228	629.780	668.884	727.540	830.960	971.940	1162.829	1370.183	1566.217
12.0	581.414	585.531	605.083	643.158	699.241	800.088	940.554	1136.073	1351.660	1556.441
12.5	556.203	562.891	581.929	617.946	673.000	770.245	910.197	1108.804	1332.108	1545.636
13.0	539.738	542.825	560.319	594.792	648.817	742.461	881.898	1083.077	1313.585	1534.831
13.5	516.584	522.758	540.252	573.182	625.149	716.220	853.084	1055.807	1295.062	1526.599
14.0	502.177	504.750	521.729	553.115	602.510	691.523	826.843	1029.567	1274.995	1513.736
14.5	483.140	488.285	504.750	534.078	582.443	667.340	802.146	1004.355	1255.958	1507.047
15.0	470.791	472.335	487.771	516.584	562.891	644.701	776.934	978.628	1236.406	1495.727
16.0	443.007	444.550	455.356	485.198	527.389	604.054	731.141	931.292	1198.331	1472.573
17.0	417.795	419.853	429.115	456.385	495.489	567.008	688.950	886.014	1160.256	1447.876
18.0	393.612	397.214	406.476	430.658	467.190	533.563	649.846	838.677	1123.725	1424.723
19.0	370.973	375.089	383.836	407.505	441.463	503.206	613.315	798.544	1087.708	1398.996
20.0	347.820	353.479	363.255	385.895	421.397	475.937	580.385	760.469	1052.720	1373.270
22.5	298.425	301.512	311.803	336.500	369.944	417.281	507.837	674.544	966.794	1307.411
25.0	263.437	266.010	273.213	292.251	324.666	369.430	448.152	598.908	886.014	1237.950
27.5	244.400	245.429	249.031	260.865	286.591	328.268	396.185	537.165	809.864	1167.460
30.0	230.508	231.537	233.595	240.284	257.263	292.765	352.965	479.538	738.859	1093.882
32.5	208.383	210.956	217.130	224.333	236.167	262.923	316.433	427.571	672.485	1019.791
35.0	188.317	189.346	196.034	206.325	218.674	239.769	284.533	384.351	610.742	945.699
37.5	180.599	181.113	182.657	188.831	202.209	220.732	257.263	346.276	553.630	872.122
40.0	172.881	173.910	174.424	178.026	185.744	203.752	233.595	311.803	500.119	800.088
42.5	168.250	168.765	168.250	169.279	173.910	186.773	214.557	282.475	450.725	729.083
45.0	164.648	164.648	164.648	163.105	164.648	172.366	197.063	255.205	404.417	660.651
47.5	158.989	158.989	158.989	158.474	157.959	162.076	180.599	232.051	360.683	594.278
50.0	160.532	160.018	155.901	153.329	152.814	153.329	165.677	209.927	322.093	530.476
52.5	161.561	161.561	161.561	153.843	147.669	146.640	153.329	190.375	287.106	470.277
55.0	161.047	161.047	158.989	156.416	146.640	140.980	142.524	171.852	254.176	412.650
57.5	170.308	169.794	163.619	156.416	150.756	136.349	133.777	153.843	223.819	359.654
60.0	184.200	183.171	176.482	165.677	150.756	140.466	127.602	137.893	195.005	304.599
62.5	199.122	198.607	190.375	178.026	158.474	140.466	121.943	124.515	168.250	258.807
65.0	222.790	221.761	209.412	190.889	170.308	144.067	124.515	112.681	144.067	216.101
67.5	257.263	256.234	239.255	212.499	182.142	153.843	124.515	103.934	122.972	177.511

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**CANDELA TABULATION - (Cont.)**

70.0	296.882	294.823	274.757	242.342	201.694	163.105	128.117	97.760	101.876	143.553
72.5	319.521	316.948	299.969	268.583	224.848	175.453	133.262	97.760	85.411	113.196
75.0	280.931	281.960	275.271	262.408	233.080	187.802	138.407	97.245	71.519	85.411
77.5	195.005	198.093	200.151	203.752	199.122	180.084	141.495	96.731	61.743	61.229
80.0	66.888	72.034	83.353	104.963	124.001	128.632	124.001	94.158	57.112	41.162
82.5	19.037	19.552	20.067	22.125	34.473	53.511	75.121	77.693	52.996	24.697
85.0	18.523	18.523	19.037	19.037	18.523	18.008	21.096	38.589	42.706	14.407
87.5	18.008	18.008	18.523	18.523	18.008	16.979	15.950	14.407	18.523	10.291
90.0	17.494	17.494	18.008	17.494	16.979	15.950	14.921	13.378	11.320	6.174
92.5	16.465	16.465	16.979	16.979	16.465	15.436	13.892	11.834	9.261	4.116
95.0	15.950	15.950	16.465	16.465	15.436	14.407	12.863	10.291	7.203	2.058
97.5	14.921	15.436	15.436	15.436	14.407	13.378	11.320	8.747	5.660	1.029
100.0	14.407	14.407	14.921	14.407	13.892	12.349	10.291	7.718	3.602	0.515
102.5	13.378	13.378	13.892	13.378	12.349	11.320	9.261	6.174	2.573	0.515
105.0	12.349	12.349	12.863	12.349	11.320	9.776	7.718	4.116	1.544	0.515
107.5	11.320	11.320	11.834	11.320	10.291	8.747	6.174	3.087	1.544	0.515
110.0	10.291	10.291	10.291	9.776	8.747	7.203	4.116	2.058	1.029	0.000
112.5	8.747	8.747	8.747	8.232	7.203	5.145	2.573	1.544	0.515	0.000
115.0	7.718	7.203	7.718	6.689	5.660	3.602	2.058	1.544	0.515	0.000
117.5	6.174	5.660	5.660	5.145	4.116	2.058	1.544	1.029	0.515	0.000
120.0	4.116	4.116	4.116	3.602	2.058	2.058	1.544	1.029	0.515	0.000
122.5	2.573	2.573	2.058	1.544	1.544	1.544	1.029	1.029	0.515	0.000
125.0	0.515	0.515	0.515	1.029	1.029	1.029	1.029	0.515	0.000	0.000
127.5	0.000	0.000	0.515	1.029	1.029	1.029	1.029	0.515	0.000	0.000
130.0	0.000	0.000	0.515	0.515	1.029	1.029	0.515	0.515	0.000	0.000
132.5	0.000	0.000	0.000	0.515	0.515	0.515	0.515	0.515	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.515	0.515	0.515	0.515	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.515	0.515	0.515	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.515	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	1734.467	1734.467	1734.467	1734.467	1734.467
0.5	1734.467	1750.932	1764.824	1773.057	1776.144
1.0	1734.467	1766.882	1792.094	1805.472	1810.103
1.5	1733.438	1780.775	1814.733	1830.169	1832.742
2.0	1733.438	1794.152	1831.713	1845.605	1846.119
2.5	1732.409	1805.472	1844.061	1851.265	1848.177
3.0	1730.865	1814.733	1850.750	1848.177	1837.887

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**CANDELA TABULATION - (Cont.)**

3.5	1729.322	1822.451	1851.265	1835.314	1818.335
4.0	1727.778	1828.625	1845.090	1814.219	1789.521
4.5	1725.720	1831.713	1834.800	1785.405	1752.476
5.0	1722.633	1832.742	1818.849	1750.932	1709.770
5.5	1718.517	1831.713	1797.754	1709.770	1660.890
6.0	1714.915	1829.140	1772.542	1664.492	1608.408
6.5	1710.799	1822.966	1743.214	1616.641	1552.325
7.0	1706.683	1815.248	1710.799	1564.674	1493.669
7.5	1701.023	1805.472	1675.811	1524.541	1432.955
8.0	1696.392	1794.667	1638.251	1469.486	1370.697
8.5	1692.791	1781.289	1598.632	1412.374	1306.896
9.0	1686.102	1766.882	1556.956	1353.718	1242.580
9.5	1681.471	1750.417	1514.765	1294.033	1178.265
10.0	1675.297	1730.351	1470.515	1234.348	1111.376
11.0	1661.919	1688.674	1379.959	1112.405	981.201
11.5	1654.201	1665.521	1333.137	1052.206	948.786
12.0	1646.998	1640.309	1286.830	991.492	853.084
12.5	1639.280	1615.612	1237.950	931.292	822.727
13.0	1631.562	1590.914	1189.584	873.151	763.557
13.5	1623.844	1564.674	1141.733	816.038	706.444
14.0	1614.068	1537.918	1093.368	758.926	651.390
14.5	1605.321	1511.677	1045.517	704.901	600.452
15.0	1596.574	1483.893	997.151	653.963	552.086
16.0	1577.537	1428.324	905.051	560.833	467.190
17.0	1556.956	1371.726	815.524	480.567	396.700
18.0	1535.346	1307.411	730.627	412.650	340.616
19.0	1513.221	1249.269	649.846	357.081	295.852
20.0	1489.038	1190.099	576.784	311.803	259.836
22.5	1426.266	1042.944	428.086	222.790	170.308
25.0	1357.834	899.391	319.006	145.611	100.847
27.5	1285.800	767.158	250.060	83.353	43.735
30.0	1210.680	640.070	178.541	34.988	23.154
32.5	1133.501	522.758	119.885	22.639	18.008
35.0	1055.293	429.115	66.888	18.008	15.436
37.5	975.541	351.421	31.901	15.950	13.378
40.0	896.304	288.135	22.639	13.892	8.232
42.5	813.980	236.167	18.523	6.689	1.544
45.0	737.316	186.258	15.950	2.573	1.544
47.5	662.195	136.864	13.892	2.058	1.029
50.0	589.132	95.187	9.776	2.058	0.515
52.5	523.787	56.598	4.116	1.544	0.515
55.0	457.928	30.872	3.602	1.544	0.515
57.5	395.671	20.581	3.087	1.029	0.000
60.0	337.529	16.465	2.573	1.029	0.000
62.5	284.533	13.378	2.573	1.029	0.000
65.0	235.653	9.261	2.058	1.029	0.000
67.5	191.918	5.145	2.058	0.515	0.000
70.0	152.814	4.631	1.544	0.515	0.000
72.5	117.826	3.602	1.544	0.515	0.000
75.0	87.469	3.087	1.029	0.515	0.000
77.5	61.229	2.573	1.029	0.515	0.000
80.0	38.075	2.058	0.515	0.515	0.000
82.5	20.067	1.544	0.515	0.000	0.000
85.0	10.291	1.029	0.515	0.000	0.000
87.5	4.116	0.515	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-B-8TW-ITL88850.902.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	397.90	N.A.	29.60
0-30	640.86	N.A.	47.60
0-40	839.76	N.A.	62.40
0-60	1116.36	N.A.	82.90
0-80	1312.89	N.A.	97.60
0-90	1332.35	N.A.	99.00
10-90	1192.6	N.A.	88.60
20-40	441.86	N.A.	32.80
20-50	599.33	N.A.	44.50
40-70	379.55	N.A.	28.20
60-80	196.53	N.A.	14.60
70-80	93.58	N.A.	7.00
80-90	19.46	N.A.	1.40
90-110	11.02	N.A.	0.80
90-120	12.96	N.A.	1.00
90-130	13.39	N.A.	1.00
90-150	13.49	N.A.	1.00
90-180	13.49	N.A.	1.00
110-180	2.47	N.A.	0.20
0-180	1345.83	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	139.75
10-20	258.15
20-30	242.96
30-40	198.90
40-50	157.47
50-60	119.13
60-70	102.96
70-80	93.58
80-90	19.46
90-100	6.71
100-110	4.31
110-120	1.94
120-130	0.43
130-140	0.09
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-B-8TW-ITL88850.902.IES**

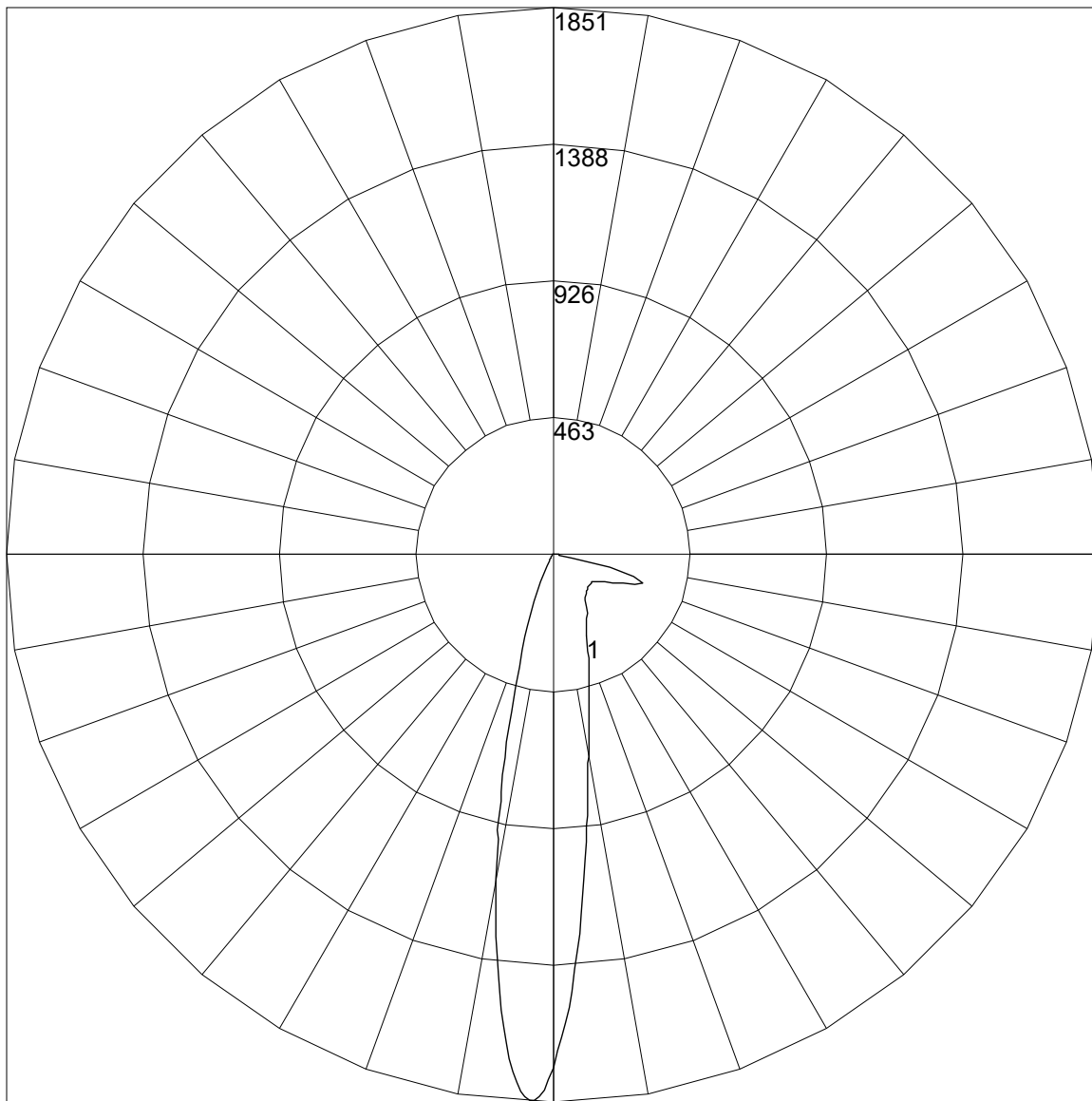
**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 = 1851.265 Located At Horizontal Angle = 135, Vertical Angle = 3.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)