

# 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-4-ID-RG-4FT-H-V-835-ASYTG-F-ITL90353 ITL89988.009.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89988.009 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/03/18

[ISSUEDATE]06/05/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-ID-RG-4ft-H-V-835-ASYTG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 65.2 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 66.4 WATTS

[\_ABSOLUTE]LUMENS]6928

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL90353 and ITL89988. 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)

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6928
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	65.2
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	10292	9406	8717
55	9593	8287	7385
65	8724	6866	5708
75	7606	4780	3585
85	5554	3075	2870

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## CANDELA TABULATION

	0	10	20	30	40	50	60	70	80	90
0.0	1483.953	1483.953	1483.953	1483.953	1483.953	1483.953	1483.953	1483.953	1483.953	1483.953
2.5	1480.999	1480.561	1480.123	1480.342	1480.780	1480.999	1480.999	1480.999	1480.999	1480.999
5.0	1474.106	1473.668	1473.230	1473.121	1473.121	1473.340	1473.778	1474.215	1474.653	1475.091
7.5	1463.274	1462.837	1462.399	1462.290	1462.290	1462.290	1462.290	1462.181	1461.743	1461.305
10.0	1449.489	1447.301	1445.112	1445.221	1446.096	1445.878	1444.565	1443.142	1441.392	1439.641
12.5	1429.794	1427.168	1424.542	1423.886	1423.886	1422.573	1419.947	1417.212	1414.149	1411.085
15.0	1407.146	1402.770	1398.393	1396.971	1396.533	1394.564	1391.063	1387.343	1382.966	1378.590
17.5	1379.574	1374.322	1369.071	1366.117	1363.928	1360.427	1355.613	1350.909	1346.532	1342.155
20.0	1347.079	1340.952	1334.825	1330.667	1327.166	1322.133	1315.568	1309.660	1305.721	1301.782
22.5	1311.630	1305.065	1298.500	1292.592	1286.903	1280.119	1272.241	1265.239	1260.862	1256.486
25.0	1273.226	1265.786	1258.346	1250.906	1243.466	1234.932	1225.303	1216.988	1212.611	1208.235
27.5	1231.868	1223.553	1215.238	1205.938	1196.309	1186.243	1175.740	1166.659	1161.845	1157.031
30.0	1186.572	1178.256	1169.941	1159.328	1147.949	1136.352	1124.535	1114.251	1108.561	1102.872
32.5	1139.306	1130.990	1122.675	1110.421	1096.854	1083.506	1070.376	1058.778	1051.776	1044.774
35.0	1092.040	1082.412	1072.783	1059.216	1044.336	1029.675	1015.233	1002.541	995.101	987.661
37.5	1042.805	1031.864	1020.922	1005.714	989.083	972.672	956.479	942.693	936.128	929.563
40.0	991.600	980.221	968.842	951.883	933.064	915.559	899.366	885.361	877.921	870.481
42.5	940.395	927.703	915.012	897.396	878.139	859.539	841.596	826.278	818.838	811.398
45.0	888.206	874.639	861.072	842.253	821.683	801.770	782.513	766.320	759.318	752.316
47.5	836.016	821.136	806.256	786.452	765.007	744.219	724.088	707.238	700.236	693.234
50.0	781.857	766.102	750.347	729.340	706.582	684.918	664.349	647.171	640.169	633.167
52.5	726.714	710.521	694.328	672.555	648.922	626.820	606.251	589.073	582.071	575.069
55.0	671.570	655.377	639.184	616.427	591.481	568.723	548.153	530.975	523.973	516.971
57.5	617.411	600.343	583.275	559.970	534.587	511.610	491.040	473.862	466.860	459.858
60.0	562.268	544.762	527.256	503.513	477.692	454.497	433.927	416.749	409.747	402.745
62.5	507.124	489.180	471.237	447.057	420.798	397.603	377.471	360.731	354.166	347.602
65.0	450.011	432.943	415.874	391.913	365.654	342.678	322.984	306.681	300.554	294.427
67.5	395.852	378.346	360.840	336.770	310.511	288.191	269.810	254.492	248.365	242.238
70.0	341.693	324.187	306.681	283.267	257.884	236.220	218.277	203.506	198.255	193.003
72.5	288.519	271.451	254.383	232.063	207.992	187.642	171.011	157.225	151.973	146.721
75.0	240.268	222.324	204.381	182.827	160.070	141.907	128.340	117.618	115.429	113.241
77.5	191.033	173.965	156.897	137.203	116.633	103.722	98.471	94.423	93.985	93.547
80.0	143.767	127.574	111.381	97.158	83.591	76.151	74.838	73.853	73.853	73.853
82.5	102.410	85.779	69.149	61.709	57.332	54.706	53.831	53.174	53.174	53.174
85.0	59.082	48.578	38.075	34.464	33.151	32.276	31.839	31.402	30.964	30.526
87.5	18.709	15.645	12.582	11.488	11.051	10.832	10.832	10.723	10.285	9.847
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	52.108	52.886	52.886	51.330	47.441	45.886	47.441	46.664	38.886	17.110
95.0	110.437	112.770	113.548	111.215	111.993	118.992	122.881	110.437	82.439	44.331
97.5	174.211	176.544	184.321	192.099	204.542	212.320	199.098	165.656	120.548	72.329
100.0	269.872	272.982	283.093	295.536	306.425	300.981	269.872	219.319	159.434	101.105
102.5	364.754	368.643	380.309	396.641	405.974	386.531	338.312	271.427	195.987	131.436
105.0	452.637	458.859	480.636	505.523	510.189	475.969	409.863	321.979	231.763	160.990
107.5	557.631	570.074	607.405	632.293	622.182	569.297	479.080	368.643	265.205	192.099
110.0	702.288	720.954	755.174	763.729	732.620	657.180	540.521	409.085	297.870	223.208
112.5	878.055	887.387	903.720	893.609	842.279	736.508	591.851	445.638	330.534	255.095
115.0	1038.266	1041.377	1045.266	1016.490	937.940	800.282	633.070	479.080	362.421	286.981
117.5	1188.368	1185.257	1172.813	1118.372	1009.490	845.390	665.735	510.189	395.863	318.868
120.0	1308.916	1299.583	1270.029	1191.479	1056.154	874.944	692.178	540.521	427.750	353.866
122.5	1396.021	1378.911	1332.248	1235.032	1081.042	895.942	717.843	570.852	462.748	389.642
125.0	1447.351	1425.575	1365.690	1252.919	1092.707	909.941	739.619	600.406	496.190	423.862
127.5	1465.239	1439.574	1371.912	1253.697	1095.041	922.385	761.395	629.959	530.410	458.859
130.0	1457.462	1431.019	1360.246	1243.586	1094.263	934.051	784.727	659.513	563.075	493.079
132.5	1433.352	1408.465	1340.025	1230.365	1092.707	946.495	808.837	690.622	598.073	528.077

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## CANDELA TABULATION - (Cont.)

135.0	1402.243	1378.911	1315.915	1215.588	1091.930	960.494	832.946	720.954	633.070	563.075
137.5	1370.356	1349.358	1291.028	1202.367	1092.707	974.493	857.834	753.618	668.068	598.850
140.0	1338.469	1319.804	1269.252	1191.479	1095.041	989.270	882.721	785.505	703.066	635.404
142.5	1310.471	1294.139	1251.364	1184.479	1099.707	1005.602	909.164	817.392	738.064	671.179
145.0	1288.695	1273.140	1236.587	1179.813	1105.151	1021.934	934.829	849.279	772.284	706.955
147.5	1270.029	1257.586	1226.477	1176.702	1111.373	1039.044	960.494	879.610	806.504	742.730
150.0	1255.252	1243.586	1217.144	1175.147	1119.928	1056.932	985.381	909.164	839.168	778.505
152.5	1242.031	1231.921	1210.144	1174.369	1128.483	1072.486	1006.380	935.606	869.500	811.170
155.0	1229.588	1221.810	1204.700	1176.702	1137.038	1087.263	1025.823	959.716	898.275	843.057
157.5	1222.588	1215.588	1201.589	1178.257	1143.260	1098.151	1042.155	980.715	924.718	873.388
160.0	1217.144	1211.700	1200.034	1178.257	1146.371	1105.929	1054.599	999.380	948.828	901.386
162.5	1207.033	1204.700	1193.812	1174.369	1145.593	1109.817	1063.931	1014.157	969.826	927.051
165.0	1195.367	1193.034	1182.146	1164.258	1139.371	1108.262	1068.598	1025.823	987.714	948.828
167.5	1175.924	1174.369	1165.814	1149.482	1127.705	1100.485	1067.820	1032.822	1000.158	967.493
170.0	1151.037	1150.259	1142.482	1130.038	1112.151	1089.596	1063.931	1036.711	1010.268	983.826
172.5	1119.928	1120.706	1115.262	1105.151	1091.152	1074.042	1056.154	1036.711	1015.712	995.491
175.0	1089.596	1087.263	1083.375	1077.153	1067.820	1056.932	1045.266	1032.822	1018.823	1005.602
177.5	1050.710	1050.710	1048.377	1045.266	1040.600	1035.933	1030.489	1023.490	1016.490	1010.268
180.0	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601

## Vert. Angles

## Horizontal Angles

	100	110	120	130	140	150	160	170	180
0.0	1483.953	1483.953	1483.953	1483.953	1483.953	1483.953	1483.953	1483.953	1483.953
2.5	1480.999	1480.999	1480.999	1480.999	1480.780	1480.342	1480.123	1480.561	1480.999
5.0	1474.653	1474.215	1473.778	1473.340	1473.121	1473.121	1473.230	1473.668	1474.106
7.5	1461.743	1462.181	1462.290	1462.290	1462.290	1462.290	1462.399	1462.837	1463.274
10.0	1441.392	1443.142	1444.565	1445.878	1446.096	1445.221	1445.112	1447.301	1449.489
12.5	1414.149	1417.212	1419.947	1422.573	1423.886	1423.886	1424.542	1427.168	1429.794
15.0	1382.966	1387.343	1391.063	1394.564	1396.533	1396.971	1398.393	1402.770	1407.146
17.5	1346.532	1350.909	1355.613	1360.427	1363.928	1366.117	1369.071	1374.322	1379.574
20.0	1305.721	1309.660	1315.568	1322.133	1327.166	1330.667	1334.825	1340.952	1347.079
22.5	1260.862	1265.239	1272.241	1280.119	1286.903	1292.592	1298.500	1305.065	1311.630
25.0	1212.611	1216.988	1225.303	1234.932	1243.466	1250.906	1258.346	1265.786	1273.226
27.5	1161.845	1166.659	1175.740	1186.243	1196.309	1205.938	1215.238	1223.553	1231.868
30.0	1108.561	1114.251	1124.535	1136.352	1147.949	1159.328	1169.941	1178.256	1186.572
32.5	1051.776	1058.778	1070.376	1083.506	1096.854	1110.421	1122.675	1130.990	1139.306
35.0	995.101	1002.541	1015.233	1029.675	1044.336	1059.216	1072.783	1082.412	1092.040
37.5	936.128	942.693	956.479	972.672	989.083	1005.714	1020.922	1031.864	1042.805
40.0	877.921	885.361	899.366	915.559	933.064	951.883	968.842	980.221	991.600
42.5	818.838	826.278	841.596	859.539	878.139	897.396	915.012	927.703	940.395
45.0	759.318	766.320	782.513	801.770	821.683	842.253	861.072	874.639	888.206
47.5	700.236	707.238	724.088	744.219	765.007	786.452	806.256	821.136	836.016
50.0	640.169	647.171	664.349	684.918	706.582	729.340	750.347	766.102	781.857
52.5	582.071	589.073	606.251	626.820	648.922	672.555	694.328	710.521	726.714
55.0	523.973	530.975	548.153	568.723	591.481	616.427	639.184	655.377	671.570
57.5	466.860	473.862	491.040	511.610	534.587	559.970	583.275	600.343	617.411
60.0	409.747	416.749	433.927	454.497	477.692	503.513	527.256	544.762	562.268
62.5	354.166	360.731	377.471	397.603	420.798	447.057	471.237	489.180	507.124
65.0	300.554	306.681	322.984	342.678	365.654	391.913	415.874	432.943	450.011
67.5	248.365	254.492	269.810	288.191	310.511	336.770	360.840	378.346	395.852
70.0	198.255	203.506	218.277	236.220	257.884	283.267	306.681	324.187	341.693
72.5	151.973	157.225	171.011	187.642	207.992	232.063	254.383	271.451	288.519
75.0	115.429	117.618	128.340	141.907	160.070	182.827	204.381	222.324	240.268
77.5	93.985	94.423	98.471	103.722	116.633	137.203	156.897	173.965	191.033
80.0	73.853	73.853	74.838	76.151	83.591	97.158	111.381	127.574	143.767

**IES INDOOR REPORT**

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**CANDELA TABULATION - (Cont.)**

82.5	53.174	53.174	53.831	54.706	57.332	61.709	69.149	85.779	102.410
85.0	30.964	31.402	31.839	32.276	33.151	34.464	38.075	48.578	59.082
87.5	10.285	10.723	10.832	10.832	11.051	11.488	12.582	15.645	18.709
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	29.554	41.997	53.663	65.329	73.884	80.106	85.550	87.883	90.216
95.0	53.663	67.662	83.995	101.105	114.326	122.881	130.658	132.991	136.102
97.5	77.773	91.772	111.215	133.769	150.879	164.101	174.989	178.877	182.766
100.0	103.438	117.437	138.435	161.767	181.211	197.543	211.542	216.986	222.430
102.5	129.103	143.102	165.656	191.321	211.542	226.319	238.762	244.207	249.651
105.0	156.323	167.212	189.766	215.431	237.207	254.317	268.316	272.205	276.093
107.5	183.544	190.543	212.320	238.762	261.317	279.982	294.759	298.647	301.758
110.0	209.987	213.097	234.874	262.094	286.204	306.425	321.979	325.868	328.979
112.5	236.429	234.874	256.650	285.426	311.091	332.090	348.422	353.088	356.977
115.0	264.427	258.206	278.426	307.202	333.645	356.199	374.087	378.753	383.420
117.5	293.981	282.315	300.203	328.201	354.644	380.309	400.530	405.196	409.863
120.0	324.312	307.202	321.979	347.644	374.087	401.308	423.084	429.306	435.527
122.5	355.421	332.090	343.756	366.310	391.975	421.528	445.638	453.415	460.415
125.0	385.753	356.199	363.199	382.642	407.529	437.861	463.526	472.858	482.191
127.5	416.084	381.087	383.420	398.197	421.528	451.860	478.303	489.968	501.634
130.0	446.416	405.196	402.863	413.751	433.194	461.970	486.858	500.079	513.300
132.5	476.747	429.306	423.084	430.083	445.638	471.303	493.079	504.745	517.189
135.0	509.412	457.304	444.860	445.638	457.304	478.303	496.968	507.856	518.744
137.5	542.854	486.858	468.970	463.526	468.970	486.080	501.634	510.189	518.744
140.0	577.074	518.744	493.857	480.636	479.858	493.079	504.745	511.745	518.744
142.5	611.294	551.409	520.300	497.746	491.524	500.079	508.634	513.300	518.744
145.0	646.292	584.073	545.965	515.634	503.190	508.634	513.300	516.411	519.522
147.5	680.512	616.738	573.185	536.632	518.744	519.522	520.300	521.855	523.411
150.0	716.287	652.514	604.294	561.519	537.410	532.744	528.855	529.633	529.633
152.5	752.063	689.067	639.292	593.406	563.853	549.854	539.743	538.188	536.632
155.0	787.060	727.953	678.178	632.293	597.295	573.963	555.298	552.187	549.076
157.5	821.280	766.840	719.398	673.512	635.404	605.850	582.518	575.519	569.297
160.0	853.945	804.948	759.062	714.732	678.178	649.403	625.293	615.960	606.628
162.5	884.276	841.501	798.726	756.729	722.509	696.066	674.290	665.735	656.402
165.0	911.497	874.944	838.390	802.615	771.506	745.063	723.287	715.510	707.732
167.5	935.606	905.275	875.721	846.168	819.725	796.393	776.172	768.395	760.618
170.0	957.383	933.273	909.941	887.387	867.166	850.056	836.057	829.835	823.614
172.5	976.048	957.383	940.273	923.941	909.941	898.275	888.943	884.276	880.388
175.0	992.380	979.159	968.271	958.160	948.828	941.828	935.606	933.273	930.162
177.5	1004.046	997.047	991.603	986.159	982.270	978.381	975.270	973.715	972.160
180.0	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	669.910

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-H-V-835-ASYTG-F-ITL90353 ITL89988.009.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	532.06	N.A.	7.70
0-30	1101.99	N.A.	15.90
0-40	1750.48	N.A.	25.30
0-60	2902.07	N.A.	41.90
0-80	3435.25	N.A.	49.60
0-90	3477.96	N.A.	50.20
10-90	3338.19	N.A.	48.20
20-40	1218.41	N.A.	17.60
20-50	1846.53	N.A.	26.70
40-70	1509.68	N.A.	21.80
60-80	533.18	N.A.	7.70
70-80	175.10	N.A.	2.50
80-90	42.71	N.A.	0.60
90-110	449.30	N.A.	6.50
90-120	987.51	N.A.	14.30
90-130	1607.49	N.A.	23.20
90-150	2686.57	N.A.	38.80
90-180	3449.91	N.A.	49.80
110-180	3000.61	N.A.	43.30
0-180	6927.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	139.78
10-20	392.29
20-30	569.93
30-40	648.48
40-50	628.11
50-60	523.48
60-70	358.08
70-80	175.10
80-90	42.71
90-100	113.83
100-110	335.46
110-120	538.22
120-130	619.97
130-140	579.38
140-150	499.71
150-160	399.38
160-170	268.45
170-180	95.51

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-H-V-835-ASYTG-F-ITL90353 ITL89988.009.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

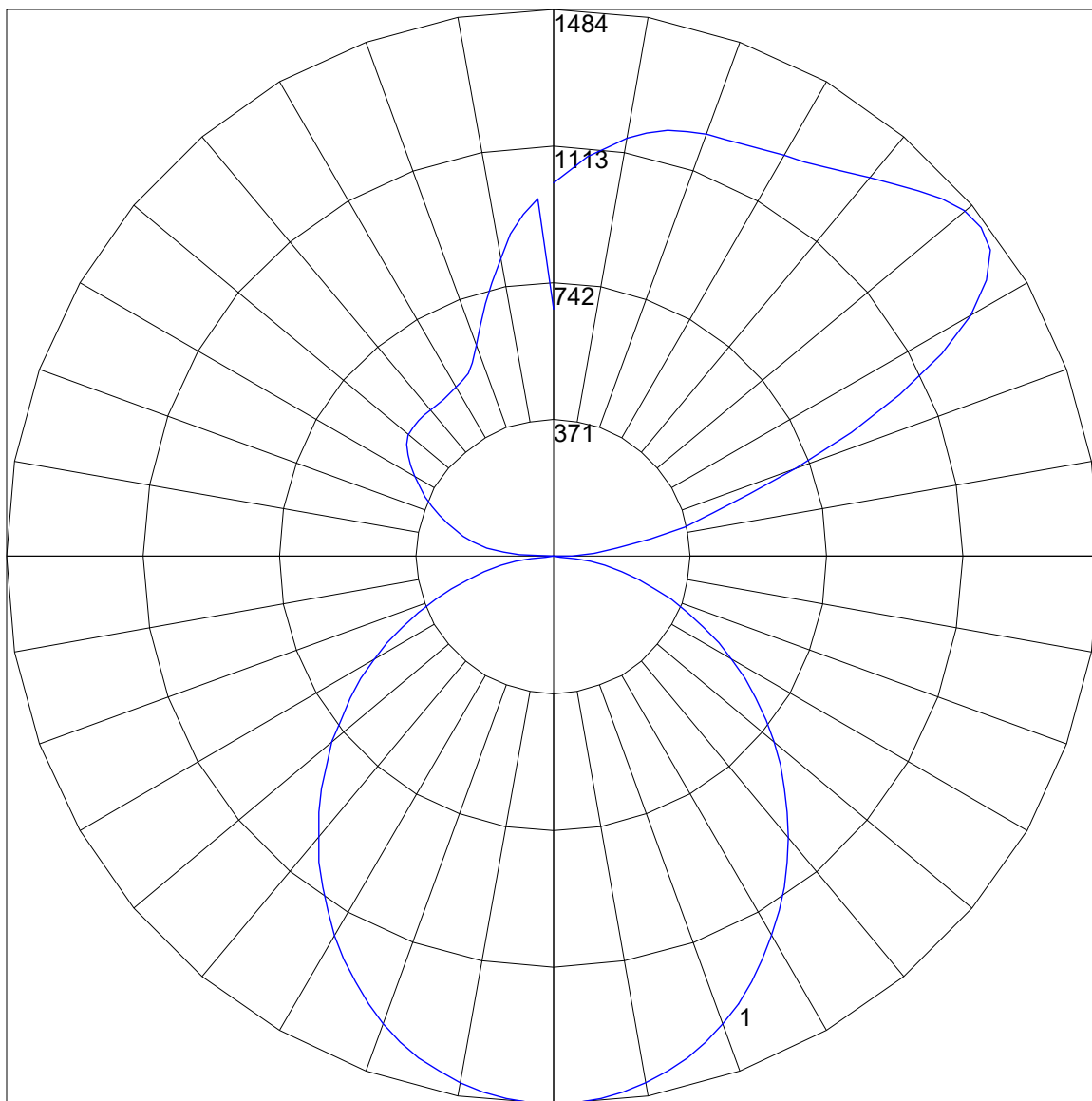
Effective Floor Cavity Reflectance 0.20

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	94	90	87	90	87	84	81	74	71	69	61	60	58	50	49	48	43
2	90	82	76	71	82	76	71	67	65	61	58	54	52	49	45	43	41	36
3	82	73	65	60	75	67	61	56	57	53	49	48	45	42	40	37	35	31
4	75	64	57	51	69	60	53	48	51	46	42	43	39	36	36	33	30	27
5	69	57	49	44	63	53	46	41	46	40	36	39	35	31	32	29	27	23
6	64	52	44	38	59	48	41	36	41	36	32	35	31	28	29	26	24	21
7	59	47	39	33	54	44	37	32	38	32	28	32	28	24	27	24	21	18
8	55	42	35	30	50	40	33	28	34	29	25	29	25	22	25	21	19	17
9	51	39	31	26	47	36	30	25	32	26	22	27	23	20	23	20	17	15
10	48	36	28	24	44	33	27	23	29	24	20	25	21	18	21	18	16	14

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## POLAR GRAPH



Maximum Candela = 1483.953 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)