

# 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-S-835-ASYTG-F-ITL90353 ITL89988.007.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89988.007 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-S-835-ASYTG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 42.8 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 44.7 WATTS

[\_ABSOLUTE]LUMENS]4873

[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	4873
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	42.8
Ballast Factor	1.00
CIE Type	Semi-Indirect
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	4212	3849	3568
55	3926	3391	3022
65	3571	2810	2336
75	3113	1956	1467
85	2273	1259	1174

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## CANDELA TABULATION

	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
<b>0.0</b>	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324
<b>2.5</b>	606.115	605.936	605.756	605.846	606.025	606.115	606.115	606.115	606.115	606.115
<b>5.0</b>	603.294	603.115	602.935	602.891	602.891	602.980	603.160	603.338	603.518	603.697
<b>7.5</b>	598.861	598.682	598.503	598.458	598.458	598.458	598.458	598.413	598.234	598.055
<b>10.0</b>	593.219	592.324	591.428	591.472	591.831	591.741	591.204	590.621	589.905	589.189
<b>12.5</b>	585.159	584.084	583.009	582.741	582.741	582.203	581.129	580.009	578.756	577.502
<b>15.0</b>	575.890	574.099	572.308	571.726	571.546	570.740	569.308	567.785	565.994	564.203
<b>17.5</b>	564.606	562.456	560.307	559.098	558.202	556.769	554.799	552.874	551.083	549.292
<b>20.0</b>	551.307	548.799	546.292	544.590	543.157	541.097	538.410	535.993	534.380	532.768
<b>22.5</b>	536.799	534.112	531.425	529.007	526.679	523.903	520.678	517.813	516.021	514.231
<b>25.0</b>	521.082	518.037	514.992	511.947	508.902	505.409	501.469	498.066	496.274	494.483
<b>27.5</b>	504.155	500.752	497.349	493.543	489.602	485.483	481.184	477.468	475.498	473.527
<b>30.0</b>	485.618	482.214	478.811	474.468	469.811	465.064	460.228	456.019	453.691	451.362
<b>32.5</b>	466.273	462.870	459.467	454.452	448.899	443.437	438.063	433.316	430.451	427.585
<b>35.0</b>	446.929	442.989	439.048	433.496	427.406	421.406	415.495	410.301	407.256	404.211
<b>37.5</b>	426.779	422.301	417.823	411.599	404.793	398.077	391.449	385.807	383.120	380.434
<b>40.0</b>	405.823	401.166	396.509	389.568	381.867	374.702	368.075	362.344	359.299	356.254
<b>42.5</b>	384.867	379.673	374.479	367.269	359.388	351.776	344.432	338.163	335.118	332.074
<b>45.0</b>	363.508	357.955	352.403	344.701	336.283	328.133	320.252	313.625	310.759	307.894
<b>47.5</b>	342.149	336.059	329.969	321.864	313.087	304.580	296.341	289.445	286.579	283.714
<b>50.0</b>	319.983	313.536	307.088	298.490	289.176	280.310	271.892	264.862	261.996	259.130
<b>52.5</b>	297.416	290.788	284.161	275.250	265.578	256.533	248.115	241.084	238.219	235.353
<b>55.0</b>	274.847	268.220	261.593	252.279	242.070	232.756	224.338	217.307	214.442	211.576
<b>57.5</b>	252.682	245.697	238.712	229.174	218.786	209.382	200.964	193.933	191.067	188.202
<b>60.0</b>	230.114	222.950	215.785	206.068	195.501	186.008	177.589	170.559	167.693	164.828
<b>62.5</b>	207.546	200.202	192.859	182.963	172.216	162.723	154.484	147.633	144.946	142.260
<b>65.0</b>	184.172	177.187	170.201	160.395	149.648	140.245	132.185	125.513	123.005	120.497
<b>67.5</b>	162.007	154.842	147.678	137.827	127.080	117.945	110.423	104.154	101.646	99.138
<b>70.0</b>	139.842	132.677	125.513	115.930	105.542	96.676	89.332	83.287	81.138	78.989
<b>72.5</b>	118.079	111.094	104.109	94.974	85.123	76.794	69.988	64.346	62.197	60.047
<b>75.0</b>	98.332	90.989	83.645	74.824	65.510	58.077	52.525	48.136	47.241	46.345
<b>77.5</b>	78.182	71.197	64.212	56.152	47.733	42.449	40.300	38.644	38.464	38.285
<b>80.0</b>	58.838	52.211	45.584	39.763	34.211	31.166	30.628	30.225	30.225	30.225
<b>82.5</b>	41.912	35.106	28.300	25.255	23.464	22.389	22.031	21.762	21.762	21.762
<b>85.0</b>	24.180	19.881	15.583	14.105	13.567	13.209	13.030	12.852	12.672	12.493
<b>87.5</b>	7.657	6.403	5.149	4.702	4.523	4.433	4.433	4.388	4.209	4.030
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	52.108	52.886	52.886	51.330	47.441	45.886	47.441	46.664	38.886	17.110
<b>95.0</b>	110.437	112.770	113.548	111.215	111.993	118.992	122.881	110.437	82.439	44.331
<b>97.5</b>	174.211	176.544	184.321	192.099	204.542	212.320	199.098	165.656	120.548	72.329
<b>100.0</b>	269.872	272.982	283.093	295.536	306.425	300.981	269.872	219.319	159.434	101.105
<b>102.5</b>	364.754	368.643	380.309	396.641	405.974	386.531	338.312	271.427	195.987	131.436
<b>105.0</b>	452.637	458.859	480.636	505.523	510.189	475.969	409.863	321.979	231.763	160.990
<b>107.5</b>	557.631	570.074	607.405	632.293	622.182	569.297	479.080	368.643	265.205	192.099
<b>110.0</b>	702.288	720.954	755.174	763.729	732.620	657.180	540.521	409.085	297.870	223.208
<b>112.5</b>	878.055	887.387	903.720	893.609	842.279	736.508	591.851	445.638	330.534	255.095
<b>115.0</b>	1038.266	1041.377	1045.266	1016.490	937.940	800.282	633.070	479.080	362.421	286.981
<b>117.5</b>	1188.368	1185.257	1172.813	1118.372	1009.490	845.390	665.735	510.189	395.863	318.868
<b>120.0</b>	1308.916	1299.583	1270.029	1191.479	1056.154	874.944	692.178	540.521	427.750	353.866
<b>122.5</b>	1396.021	1378.911	1332.248	1235.032	1081.042	895.942	717.843	570.852	462.748	389.642
<b>125.0</b>	1447.351	1425.575	1365.690	1252.919	1092.707	909.941	739.619	600.406	496.190	423.862
<b>127.5</b>	1465.239	1439.574	1371.912	1253.697	1095.041	922.385	761.395	629.959	530.410	458.859
<b>130.0</b>	1457.462	1431.019	1360.246	1243.586	1094.263	934.051	784.727	659.513	563.075	493.079
<b>132.5</b>	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	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324	607.324
2.5	606.115	606.115	606.115	606.115	606.025	605.846	605.756	605.936	606.115
5.0	603.518	603.338	603.160	602.980	602.891	602.891	602.935	603.115	603.294
7.5	598.234	598.413	598.458	598.458	598.458	598.458	598.503	598.682	598.861
10.0	589.905	590.621	591.204	591.741	591.831	591.472	591.428	592.324	593.219
12.5	578.756	580.009	581.129	582.203	582.741	582.741	583.009	584.084	585.159
15.0	565.994	567.785	569.308	570.740	571.546	571.726	572.308	574.099	575.890
17.5	551.083	552.874	554.799	556.769	558.202	559.098	560.307	562.456	564.606
20.0	534.380	535.993	538.410	541.097	543.157	544.590	546.292	548.799	551.307
22.5	516.021	517.813	520.678	523.903	526.679	529.007	531.425	534.112	536.799
25.0	496.274	498.066	501.469	505.409	508.902	511.947	514.992	518.037	521.082
27.5	475.498	477.468	481.184	485.483	489.602	493.543	497.349	500.752	504.155
30.0	453.691	456.019	460.228	465.064	469.811	474.468	478.811	482.214	485.618
32.5	430.451	433.316	438.063	443.437	448.899	454.452	459.467	462.870	466.273
35.0	407.256	410.301	415.495	421.406	427.406	433.496	439.048	442.989	446.929
37.5	383.120	385.807	391.449	398.077	404.793	411.599	417.823	422.301	426.779
40.0	359.299	362.344	368.075	374.702	381.867	389.568	396.509	401.166	405.823
42.5	335.118	338.163	344.432	351.776	359.388	367.269	374.479	379.673	384.867
45.0	310.759	313.625	320.252	328.133	336.283	344.701	352.403	357.955	363.508
47.5	286.579	289.445	296.341	304.580	313.087	321.864	329.969	336.059	342.149
50.0	261.996	264.862	271.892	280.310	289.176	298.490	307.088	313.536	319.983
52.5	238.219	241.084	248.115	256.533	265.578	275.250	284.161	290.788	297.416
55.0	214.442	217.307	224.338	232.756	242.070	252.279	261.593	268.220	274.847
57.5	191.067	193.933	200.964	209.382	218.786	229.174	238.712	245.697	252.682
60.0	167.693	170.559	177.589	186.008	195.501	206.068	215.785	222.950	230.114
62.5	144.946	147.633	154.484	162.723	172.216	182.963	192.859	200.202	207.546
65.0	123.005	125.513	132.185	140.245	149.648	160.395	170.201	177.187	184.172
67.5	101.646	104.154	110.423	117.945	127.080	137.827	147.678	154.842	162.007
70.0	81.138	83.287	89.332	96.676	105.542	115.930	125.513	132.677	139.842
72.5	62.197	64.346	69.988	76.794	85.123	94.974	104.109	111.094	118.079
75.0	47.241	48.136	52.525	58.077	65.510	74.824	83.645	90.989	98.332
77.5	38.464	38.644	40.300	42.449	47.733	56.152	64.212	71.197	78.182
80.0	30.225	30.225	30.628	31.166	34.211	39.763	45.584	52.211	58.838

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-H-S-835-ASYTG-F-ITL90353 ITL89988.007.IES****CANDELA TABULATION - (Cont.)**

82.5	21.762	21.762	22.031	22.389	23.464	25.255	28.300	35.106	41.912
85.0	12.672	12.852	13.030	13.209	13.567	14.105	15.583	19.881	24.180
87.5	4.209	4.388	4.433	4.433	4.523	4.702	5.149	6.403	7.657
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	1012.601

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-H-S-835-ASYTG-F-ITL90353 ITL89988.007.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	217.75	N.A.	4.50
0-30	451.00	N.A.	9.30
0-40	716.40	N.A.	14.70
0-60	1187.71	N.A.	24.40
0-80	1405.91	N.A.	28.80
0-90	1423.39	N.A.	29.20
10-90	1366.19	N.A.	28.00
20-40	498.65	N.A.	10.20
20-50	755.71	N.A.	15.50
40-70	617.85	N.A.	12.70
60-80	218.21	N.A.	4.50
70-80	71.66	N.A.	1.50
80-90	17.48	N.A.	0.40
90-110	449.30	N.A.	9.20
90-120	987.51	N.A.	20.30
90-130	1607.49	N.A.	33.00
90-150	2686.57	N.A.	55.10
90-180	3449.94	N.A.	70.80
110-180	3000.64	N.A.	61.60
0-180	4873.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	57.21
10-20	160.55
20-30	233.25
30-40	265.40
40-50	257.06
50-60	214.24
60-70	146.55
70-80	71.66
80-90	17.48
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	95.54

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-H-S-835-ASYTG-F-ITL90353 ITL89988.007.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

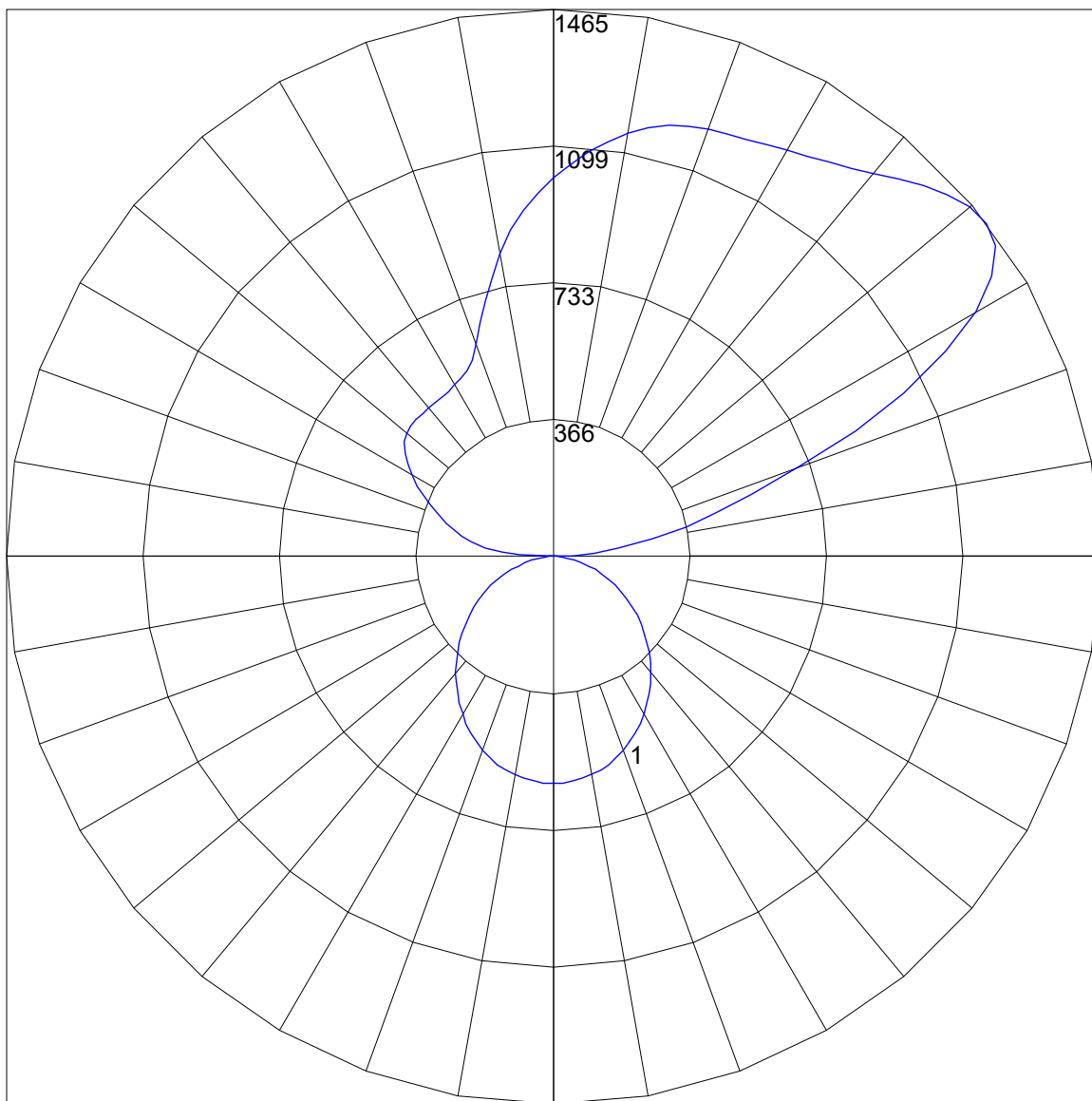
Effective Floor Cavity Reflectance 0.20

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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	37	37	37	29
1	93	89	86	82	84	80	77	74	63	61	59	47	46	45	33	32	32	25
2	85	78	72	67	76	70	65	61	55	52	49	42	40	38	29	28	27	21
3	78	69	62	56	69	62	56	51	49	45	41	37	34	32	26	24	23	18
4	71	61	53	47	63	55	48	43	43	39	35	33	30	27	23	21	20	16
5	65	54	46	41	58	49	42	37	39	34	30	30	26	24	21	19	17	14
6	60	48	41	35	54	44	37	32	35	30	26	27	23	21	19	17	15	12
7	55	44	36	31	49	39	33	28	32	27	23	24	21	18	17	15	14	11
8	51	39	32	27	46	36	29	25	29	24	21	22	19	16	16	14	12	10
9	48	36	29	24	43	33	26	22	26	22	18	20	17	15	15	13	11	9
10	44	33	26	21	40	30	24	20	24	20	16	19	16	13	14	12	10	8

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## POLAR GRAPH



Maximum Candela = 1465.239 Located At Horizontal Angle = 0, Vertical Angle = 127.5

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)