

# 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-2-ID-RG-4FT-H-S-835-ASY-TG-ITL90352 ITL89599.007.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90352 ITL89599.007 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/04/18

[ISSUEDATE]05/30/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-RG-4ft-H-S-835-ASY-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 42.6 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 44.8 WATTS

[\_ABSOLUTE]LUMENS]4528

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL90352 and ITL89599. 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	4528
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	42.6
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)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7516	5384	4237
55	6762	4313	3305
65	5986	3302	2515
75	5091	2546	2258
85	4065	2033	1854

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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>	626.006	626.006	626.006	626.006	626.006	626.006	626.006	626.006	626.006	626.006
<b>2.5</b>	625.187	625.187	624.777	624.777	624.368	624.368	623.958	623.958	623.549	623.549
<b>5.0</b>	622.321	621.911	621.502	620.683	619.864	619.045	617.817	616.998	616.179	615.770
<b>7.5</b>	617.408	616.589	615.770	613.313	610.857	608.400	606.353	604.306	603.487	602.259
<b>10.0</b>	610.447	608.400	605.944	602.668	598.984	594.889	590.795	587.520	585.882	584.245
<b>12.5</b>	601.850	597.755	593.661	588.748	583.016	577.284	571.553	566.639	564.183	561.726
<b>15.0</b>	590.795	585.063	579.332	572.371	564.592	556.813	549.034	542.484	539.208	535.933
<b>17.5</b>	578.513	571.143	563.773	553.947	543.712	533.886	524.469	515.871	511.777	507.683
<b>20.0</b>	564.183	554.766	545.759	533.886	521.194	509.320	497.857	488.031	483.117	478.204
<b>22.5</b>	546.987	536.342	525.697	511.777	497.038	483.117	469.606	458.143	452.411	447.088
<b>25.0</b>	529.382	516.690	504.407	488.440	471.654	455.686	440.538	427.846	422.114	416.382
<b>27.5</b>	510.139	495.810	481.889	463.875	445.041	427.436	411.469	397.548	391.407	385.266
<b>30.0</b>	489.668	474.110	458.552	439.309	418.429	399.186	381.581	366.842	361.110	354.969
<b>32.5</b>	467.150	451.183	435.215	414.335	391.816	370.936	352.103	336.954	331.222	325.490
<b>35.0</b>	444.632	427.846	410.650	388.541	364.795	343.505	324.262	308.294	302.153	295.602
<b>37.5</b>	421.704	403.690	386.084	363.157	338.182	316.073	296.831	280.863	274.722	268.580
<b>40.0</b>	397.958	379.534	360.700	337.363	311.979	289.870	271.037	255.070	249.338	243.196
<b>42.5</b>	374.211	355.378	336.545	312.389	286.595	264.486	246.062	230.914	225.182	219.450
<b>45.0</b>	350.055	330.813	311.570	287.414	261.620	239.921	222.316	207.986	202.664	197.341
<b>47.5</b>	325.490	306.657	287.823	263.668	237.874	216.993	200.207	186.287	181.783	177.280
<b>50.0</b>	301.334	282.501	263.668	239.921	214.946	194.475	178.917	166.225	162.131	158.037
<b>52.5</b>	278.816	259.164	239.921	216.993	192.838	174.004	159.674	148.211	144.526	140.841
<b>55.0</b>	255.479	235.827	216.175	194.475	171.957	153.942	141.250	131.015	128.149	124.874
<b>57.5</b>	232.551	213.309	194.066	173.185	151.486	135.109	124.055	115.047	112.591	109.725
<b>60.0</b>	210.033	191.200	172.367	152.714	132.653	117.504	108.087	100.308	97.852	95.395
<b>62.5</b>	187.924	169.910	151.486	133.062	114.638	101.537	92.939	86.388	83.931	81.884
<b>65.0</b>	166.635	149.029	131.834	114.638	97.852	85.978	78.609	72.468	71.239	70.011
<b>67.5</b>	144.935	128.558	112.591	97.442	82.294	72.468	67.145	63.051	62.642	62.232
<b>70.0</b>	124.874	109.725	94.167	80.656	67.964	59.776	56.910	54.862	54.453	54.044
<b>72.5</b>	105.631	91.301	77.381	65.917	55.681	49.949	48.312	47.084	46.265	45.855
<b>75.0</b>	86.797	73.696	61.004	52.406	45.446	41.352	40.123	38.895	38.486	38.486
<b>77.5</b>	70.011	58.138	45.855	39.714	35.620	33.163	32.344	31.526	31.116	31.116
<b>80.0</b>	53.634	43.399	32.754	28.660	26.612	25.384	24.565	24.156	24.156	24.156
<b>82.5</b>	37.667	30.297	22.928	20.471	19.243	18.015	17.605	17.196	17.196	17.196
<b>85.0</b>	23.337	18.833	14.330	12.692	11.873	11.464	11.054	10.645	10.645	10.645
<b>87.5</b>	9.826	8.188	6.141	5.322	4.913	4.913	4.504	4.504	4.504	4.504
<b>90.0</b>	0.000	0.000	0.000	0.000	9.332	15.553	10.887	6.999	3.111	0.000
<b>92.5</b>	60.655	61.432	60.655	57.544	52.101	48.990	46.657	42.769	37.326	18.663
<b>95.0</b>	121.309	122.865	121.309	117.421	113.533	109.645	104.202	94.870	78.540	45.880
<b>97.5</b>	184.297	185.852	183.519	183.519	183.519	181.186	171.077	151.637	119.754	74.652
<b>100.0</b>	238.731	242.619	247.284	258.949	267.503	263.615	244.952	210.736	160.190	104.202
<b>102.5</b>	306.384	314.938	330.490	354.596	367.816	356.929	322.714	267.503	197.516	132.974
<b>105.0</b>	398.921	415.251	447.134	476.683	482.127	457.243	400.476	319.603	232.510	162.523
<b>107.5</b>	542.004	560.667	594.105	614.323	609.657	563.777	475.128	365.483	265.170	192.851
<b>110.0</b>	724.745	734.077	755.073	763.627	737.965	658.647	537.338	405.142	296.275	223.178
<b>112.5</b>	905.154	910.597	921.484	909.042	850.721	734.855	585.551	440.913	326.602	253.505
<b>115.0</b>	1080.120	1078.564	1071.566	1028.796	936.259	792.399	625.210	472.795	357.707	285.388
<b>117.5</b>	1220.869	1209.205	1184.321	1118.223	997.691	832.058	655.537	502.345	388.812	318.048
<b>120.0</b>	1321.183	1304.853	1263.639	1176.545	1035.017	859.274	681.976	531.117	420.695	349.931
<b>122.5</b>	1385.726	1365.507	1311.851	1208.428	1057.568	879.493	705.305	559.889	452.577	381.813
<b>125.0</b>	1416.053	1394.280	1332.847	1221.647	1069.233	895.823	727.856	588.661	483.682	413.696
<b>127.5</b>	1422.274	1399.723	1334.402	1222.425	1074.676	909.820	751.185	617.433	514.787	444.801
<b>130.0</b>	1411.387	1388.836	1324.293	1216.981	1077.009	923.039	775.291	646.983	547.447	477.461
<b>132.5</b>	1391.169	1371.728	1310.296	1208.428	1079.342	937.037	798.620	677.310	580.107	510.121

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## CANDELA TABULATION - (Cont.)

135.0	1368.618	1349.177	1292.411	1199.873	1082.452	951.812	821.948	706.082	612.768	543.559
137.5	1346.067	1327.404	1276.081	1192.875	1087.118	967.364	846.832	735.632	644.650	576.997
140.0	1321.961	1307.186	1262.083	1187.432	1091.784	982.917	870.939	765.182	676.533	609.657
142.5	1302.520	1290.078	1250.419	1184.321	1097.227	998.469	895.045	793.954	709.193	642.317
145.0	1286.190	1275.303	1239.532	1180.433	1103.448	1014.799	918.374	821.171	739.520	674.977
147.5	1271.415	1261.306	1230.201	1177.322	1109.669	1029.574	940.147	847.610	769.848	706.860
150.0	1255.085	1247.309	1220.869	1174.990	1115.890	1043.571	958.810	871.716	798.620	739.520
152.5	1241.865	1234.867	1213.093	1174.212	1120.556	1054.458	975.918	894.267	825.837	769.848
155.0	1230.978	1223.980	1205.317	1171.101	1122.889	1062.234	989.138	913.708	850.721	798.620
157.5	1220.092	1213.093	1196.763	1165.658	1120.556	1065.345	999.247	931.593	874.827	825.837
160.0	1205.317	1198.318	1182.766	1155.549	1115.112	1065.345	1006.245	945.591	895.045	850.721
162.5	1185.876	1179.655	1165.658	1140.774	1104.226	1061.457	1010.133	958.033	913.708	873.271
165.0	1160.992	1154.771	1141.552	1120.556	1090.229	1053.680	1010.911	966.586	929.260	893.490
167.5	1131.443	1125.999	1115.112	1097.227	1072.343	1042.794	1008.578	972.030	940.925	910.597
170.0	1097.227	1092.562	1084.008	1070.010	1052.125	1029.574	1002.357	974.363	950.256	923.817
172.5	1062.234	1059.124	1052.903	1043.571	1029.574	1012.466	993.803	973.585	954.922	934.704
175.0	1024.908	1022.575	1017.910	1012.466	1003.912	993.803	982.139	968.919	956.477	944.035
177.5	986.805	986.027	984.472	981.361	978.251	973.585	967.364	961.143	954.922	948.701
180.0	950.256	950.256	950.256	950.256	950.256	950.256	950.256	950.256	950.256	950.256

## Vert. Angles

## Horizontal Angles

	100	110	120	130	140	150	160	170	180
0.0	626.006	626.006	626.006	626.006	626.006	626.006	626.006	626.006	626.006
2.5	623.549	623.958	623.958	624.368	624.368	624.777	624.777	625.187	625.187
5.0	616.179	616.998	617.817	619.045	619.864	620.683	621.502	621.911	622.321
7.5	603.487	604.306	606.353	608.400	610.857	613.313	615.770	616.589	617.408
10.0	585.882	587.520	590.795	594.889	598.984	602.668	605.944	608.400	610.447
12.5	564.183	566.639	571.553	577.284	583.016	588.748	593.661	597.755	601.850
15.0	539.208	542.484	549.034	556.813	564.592	572.371	579.332	585.063	590.795
17.5	511.777	515.871	524.469	533.886	543.712	553.947	563.773	571.143	578.513
20.0	483.117	488.031	497.857	509.320	521.194	533.886	545.759	554.766	564.183
22.5	452.411	458.143	469.606	483.117	497.038	511.777	525.697	536.342	546.987
25.0	422.114	427.846	440.538	455.686	471.654	488.440	504.407	516.690	529.382
27.5	391.407	397.548	411.469	427.436	445.041	463.875	481.889	495.810	510.139
30.0	361.110	366.842	381.581	399.186	418.429	439.309	458.552	474.110	489.668
32.5	331.222	336.954	352.103	370.936	391.816	414.335	435.215	451.183	467.150
35.0	302.153	308.294	324.262	343.505	364.795	388.541	410.650	427.846	444.632
37.5	274.722	280.863	296.831	316.073	338.182	363.157	386.084	403.690	421.704
40.0	249.338	255.070	271.037	289.870	311.979	337.363	360.700	379.534	397.958
42.5	225.182	230.914	246.062	264.486	286.595	312.389	336.545	355.378	374.211
45.0	202.664	207.986	222.316	239.921	261.620	287.414	311.570	330.813	350.055
47.5	181.783	186.287	200.207	216.993	237.874	263.668	287.823	306.657	325.490
50.0	162.131	166.225	178.917	194.475	214.946	239.921	263.668	282.501	301.334
52.5	144.526	148.211	159.674	174.004	192.838	216.993	239.921	259.164	278.816
55.0	128.149	131.015	141.250	153.942	171.957	194.475	216.175	235.827	255.479
57.5	112.591	115.047	124.055	135.109	151.486	173.185	194.066	213.309	232.551
60.0	97.852	100.308	108.087	117.504	132.653	152.714	172.367	191.200	210.033
62.5	83.931	86.388	92.939	101.537	114.638	133.062	151.486	169.910	187.924
65.0	71.239	72.468	78.609	85.978	97.852	114.638	131.834	149.029	166.635
67.5	62.642	63.051	67.145	72.468	82.294	97.442	112.591	128.558	144.935
70.0	54.453	54.862	56.910	59.776	67.964	80.656	94.167	109.725	124.874
72.5	46.265	47.084	48.312	49.949	55.681	65.917	77.381	91.301	105.631
75.0	38.486	38.895	40.123	41.352	45.446	52.406	61.004	73.696	86.797
77.5	31.116	31.526	32.344	33.163	35.620	39.714	45.855	58.138	70.011
80.0	24.156	24.156	24.565	25.384	26.612	28.660	32.754	43.399	53.634

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-H-S-835-ASY-TG-ITL90352 ITL89599.007.IES****CANDELA TABULATION - (Cont.)**

82.5	17.196	17.196	17.605	18.015	19.243	20.471	22.928	30.297	37.667
85.0	10.645	10.645	11.054	11.464	11.873	12.692	14.330	18.833	23.337
87.5	4.504	4.504	4.504	4.913	4.913	5.322	6.141	8.188	9.826
90.0	3.111	6.999	10.109	13.997	16.330	18.663	20.218	20.996	20.996
92.5	24.106	25.662	28.772	31.105	33.438	34.215	34.993	35.771	35.771
95.0	50.545	52.878	56.767	61.432	63.765	64.543	64.543	62.987	61.432
97.5	76.207	79.318	85.539	92.537	97.203	99.536	101.091	99.536	98.758
100.0	102.646	106.534	113.533	122.087	128.308	133.751	137.639	136.862	136.862
102.5	129.863	136.084	144.638	153.970	161.746	167.189	171.077	171.855	171.855
105.0	156.302	164.856	177.298	190.518	198.294	202.182	204.515	203.737	203.737
107.5	184.297	192.073	204.515	219.290	229.399	234.842	238.731	237.175	235.620
110.0	211.514	216.179	230.954	248.840	260.504	265.947	270.613	270.613	270.613
112.5	238.731	240.286	256.616	277.612	291.609	299.385	304.829	304.829	304.829
115.0	265.947	264.392	280.722	304.051	321.159	332.045	339.822	340.599	341.377
117.5	293.164	286.166	303.273	328.935	348.375	362.373	372.482	374.037	375.592
120.0	321.159	309.494	325.824	351.486	372.482	389.589	403.587	405.142	407.475
122.5	348.375	332.045	346.820	372.482	395.033	415.251	431.581	433.914	437.025
125.0	377.148	356.152	368.594	391.922	415.251	439.358	458.020	461.131	464.241
127.5	405.142	378.703	388.034	409.030	433.137	459.576	480.572	485.237	489.903
130.0	433.137	401.254	406.697	424.583	447.911	475.128	497.679	505.455	512.454
132.5	462.686	423.805	425.360	440.135	460.353	486.793	508.566	518.675	528.007
135.0	491.458	446.356	443.246	454.132	472.018	496.124	516.342	526.451	535.783
137.5	521.008	469.685	461.909	467.352	481.349	503.123	521.786	530.340	538.893
140.0	551.335	495.346	481.349	482.127	491.458	509.344	524.896	532.672	540.448
142.5	582.440	524.119	503.900	496.902	500.790	514.787	526.451	532.672	538.893
145.0	615.101	554.446	528.007	513.232	510.121	520.230	528.007	532.672	537.338
147.5	646.983	585.551	552.113	528.784	520.230	525.674	531.117	534.228	537.338
150.0	678.088	614.323	576.219	545.892	531.895	534.228	535.783	537.338	538.116
152.5	709.193	646.205	602.658	566.110	545.892	543.559	541.226	541.226	541.226
155.0	739.520	678.088	632.208	591.772	566.888	557.556	549.780	548.225	545.892
157.5	769.070	708.415	664.091	624.432	595.660	577.774	563.777	559.889	556.779
160.0	798.620	743.408	700.639	662.535	630.653	605.769	585.551	579.330	573.109
162.5	826.614	777.624	737.187	699.861	668.756	643.873	622.877	612.768	603.436
165.0	853.831	812.617	774.513	737.965	708.415	687.419	669.534	659.425	650.093
167.5	877.160	842.944	809.506	776.846	750.407	730.189	713.859	706.082	699.084
170.0	897.378	870.161	844.500	818.838	797.064	777.624	762.071	754.295	747.297
172.5	915.263	895.823	877.160	859.274	842.944	828.947	817.283	811.839	805.618
175.0	930.816	917.596	905.932	894.267	884.158	875.604	868.606	864.718	861.607
177.5	942.480	935.481	930.038	924.595	920.707	916.818	912.930	911.375	909.042
180.0	950.256	950.256	950.256	950.256	950.256	950.256	950.256	950.256	950.256

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-H-S-835-ASY-TG-ITL90352 ITL89599.007.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	215.92	N.A.	4.80
0-30	430.28	N.A.	9.50
0-40	655.38	N.A.	14.50
0-60	1011.91	N.A.	22.30
0-80	1168.07	N.A.	25.80
0-90	1184.25	N.A.	26.20
10-90	1125.86	N.A.	24.90
20-40	439.46	N.A.	9.70
20-50	640.24	N.A.	14.10
40-70	458.85	N.A.	10.10
60-80	156.16	N.A.	3.40
70-80	53.84	N.A.	1.20
80-90	16.18	N.A.	0.40
90-110	401.83	N.A.	8.90
90-120	934.16	N.A.	20.60
90-130	1544.72	N.A.	34.10
90-150	2613.18	N.A.	57.70
90-180	3343.64	N.A.	73.80
110-180	2941.81	N.A.	65.00
0-180	4527.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	58.39
10-20	157.53
20-30	214.36
30-40	225.10
40-50	200.78
50-60	155.76
60-70	102.32
70-80	53.84
80-90	16.18
90-100	93.34
100-110	308.49
110-120	532.32
120-130	610.56
130-140	574.05
140-150	494.41
150-160	387.56
160-170	253.46
170-180	89.44

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-H-S-835-ASY-TG-ITL90352 ITL89599.007.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

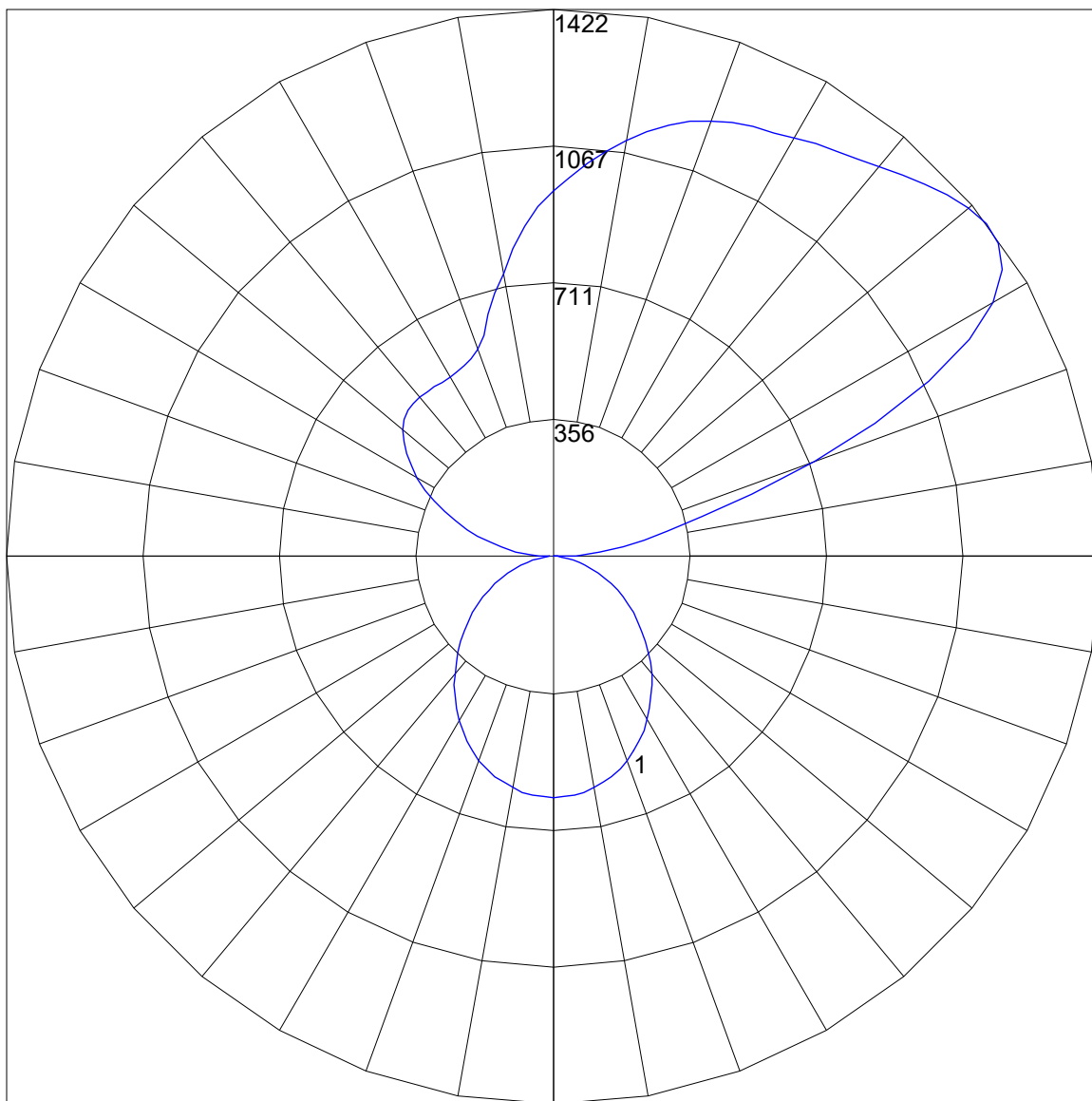
Effective Floor Cavity Reflectance 0.20

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	101	101	101	101	91	91	91	91	70	70	70	51	51	51	34	34	34	26
1	93	89	85	82	83	79	76	74	62	60	58	46	44	43	31	30	29	23
2	85	78	72	67	75	70	65	61	54	51	48	40	38	36	27	26	25	19
3	77	68	62	56	69	61	56	51	48	44	41	36	33	31	24	23	22	17
4	71	61	53	48	63	55	48	43	43	39	35	32	29	27	22	20	19	15
5	65	54	47	41	58	49	42	37	38	34	30	29	26	23	20	18	17	13
6	60	49	41	35	53	44	37	32	35	30	26	26	23	21	18	16	15	12
7	55	44	36	31	49	40	33	28	31	27	23	24	21	18	17	15	13	10
8	51	40	32	27	46	36	30	25	29	24	21	22	19	16	15	13	12	9
9	48	36	29	24	43	33	27	22	26	22	18	20	17	15	14	12	11	9
10	45	33	26	22	40	30	24	20	24	20	17	19	15	13	13	11	10	8

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## POLAR GRAPH



Maximum Candela = 1422.274 Located At Horizontal Angle = 0, Vertical Angle = 127.5

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