

# 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-B-S-835-ASY-TG-ITL90352 ITL89599.010.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90352 ITL89599.010 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/04/18

[ISSUEDATE]05/31/18

[MANUFAC]FINELITE, INC.

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

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 32.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 35.4 WATTS

[\_ABSOLUTE]LUMENS]3428

[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	3428
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	32.7
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	6.264	10.439	7.308	4.698	2.088	0.000
<b>92.5</b>	40.714	41.236	40.714	38.626	34.972	32.884	31.318	28.708	25.055	12.527
<b>95.0</b>	81.428	82.472	81.428	78.818	76.208	73.598	69.944	63.681	52.719	30.796
<b>97.5</b>	123.707	124.751	123.185	123.185	123.185	121.619	114.834	101.784	80.384	50.109
<b>100.0</b>	160.245	162.855	165.987	173.817	179.558	176.948	164.421	141.454	107.526	69.944
<b>102.5</b>	205.657	211.399	221.838	238.019	246.893	239.585	216.618	179.558	132.581	89.257
<b>105.0</b>	267.772	278.733	300.134	319.969	323.622	306.919	268.815	214.530	156.070	109.092
<b>107.5</b>	363.814	376.342	398.786	412.358	409.226	378.429	318.925	245.327	177.992	129.449
<b>110.0</b>	486.478	492.741	506.834	512.576	495.351	442.110	360.682	271.947	198.871	149.806
<b>112.5</b>	607.575	611.229	618.536	610.185	571.037	493.263	393.045	295.958	219.228	170.163
<b>115.0</b>	725.019	723.975	719.277	690.568	628.454	531.889	419.665	317.359	240.107	191.564
<b>117.5</b>	819.495	811.666	794.963	750.595	669.690	558.510	440.022	337.194	260.986	213.486
<b>120.0</b>	886.830	875.868	848.204	789.743	694.744	576.779	457.769	356.507	282.387	234.887
<b>122.5</b>	930.153	916.582	880.566	811.144	709.881	590.350	473.428	375.820	303.788	256.288
<b>125.0</b>	950.510	935.895	894.659	820.018	717.711	601.311	488.565	395.132	324.666	277.689
<b>127.5</b>	954.686	939.549	895.703	820.539	721.365	610.707	504.225	414.445	345.545	298.568
<b>130.0</b>	947.379	932.241	888.918	816.886	722.931	619.580	520.406	434.280	367.468	320.491
<b>132.5</b>	933.807	920.758	879.522	811.144	724.497	628.976	536.065	454.637	389.391	342.413

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## CANDELA TABULATION - (Cont.)

135.0	918.670	905.621	867.517	805.402	726.585	638.893	551.724	473.950	411.314	364.858
137.5	903.533	891.006	856.556	800.705	729.716	649.333	568.427	493.785	432.714	387.303
140.0	887.352	877.434	847.160	797.051	732.848	659.772	584.608	513.620	454.115	409.226
142.5	874.303	865.951	839.330	794.963	736.502	670.212	600.789	532.933	476.038	431.149
145.0	863.341	856.034	832.023	792.353	740.678	681.173	616.448	551.202	496.395	453.071
147.5	853.424	846.638	825.759	790.265	744.854	691.091	631.064	568.949	516.752	474.472
150.0	842.462	837.242	819.495	788.699	749.029	700.486	643.591	585.130	536.065	496.395
152.5	833.589	828.891	814.276	788.177	752.161	707.793	655.074	600.267	554.334	516.752
155.0	826.281	821.583	809.056	786.089	753.727	713.013	663.948	613.317	571.037	536.065
157.5	818.973	814.276	803.314	782.436	752.161	715.101	670.734	625.322	587.218	554.334
160.0	809.056	804.358	793.919	775.650	748.507	715.101	675.431	634.717	600.789	571.037
162.5	796.007	791.831	782.436	765.732	741.200	712.491	678.041	643.069	613.317	586.174
165.0	779.304	775.128	766.254	752.161	731.804	707.271	678.563	648.811	623.756	599.745
167.5	759.469	755.815	748.507	736.502	719.799	699.964	676.997	652.465	631.586	611.229
170.0	736.502	733.370	727.629	718.233	706.228	691.091	672.821	654.030	637.849	620.102
172.5	713.013	710.925	706.750	700.486	691.091	679.607	667.080	653.509	640.981	627.410
175.0	687.959	686.393	683.261	679.607	673.865	667.080	659.250	650.377	642.025	633.674
177.5	662.382	661.860	660.816	658.728	656.640	653.509	649.333	645.157	640.981	636.805
180.0	637.849	637.849	637.849	637.849	637.849	637.849	637.849	637.849	637.849	637.849

## 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-B-S-835-ASY-TG-ITL90352 ITL89599.010.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	2.088	4.698	6.786	9.396	10.961	12.527	13.571	14.093	14.093
92.5	16.181	17.225	19.313	20.879	22.445	22.967	23.489	24.011	24.011
95.0	33.928	35.494	38.104	41.236	42.802	43.324	43.324	42.280	41.236
97.5	51.153	53.241	57.417	62.115	65.246	66.812	67.856	66.812	66.290
100.0	68.900	71.510	76.208	81.950	86.125	89.779	92.389	91.867	91.867
102.5	87.169	91.345	97.087	103.350	108.570	112.224	114.834	115.356	115.356
105.0	104.916	110.658	119.010	127.883	133.103	135.713	137.279	136.757	136.757
107.5	123.707	128.927	137.279	147.196	153.982	157.635	160.245	159.201	158.157
110.0	141.976	145.108	155.026	167.031	174.861	178.514	181.646	181.646	181.646
112.5	160.245	161.289	172.251	186.344	195.739	200.959	204.613	204.613	204.613
115.0	178.514	177.470	188.432	204.091	215.574	222.882	228.102	228.624	229.146
117.5	196.783	192.086	203.569	220.794	233.843	243.239	250.024	251.068	252.112
120.0	215.574	207.745	218.706	235.931	250.024	261.508	270.903	271.947	273.513
122.5	233.843	222.882	232.799	250.024	265.162	278.733	289.694	291.260	293.348
125.0	253.156	239.063	247.415	263.074	278.733	294.914	307.441	309.529	311.617
127.5	271.947	254.200	260.464	274.557	290.738	308.485	322.579	325.710	328.842
130.0	290.738	269.337	272.991	284.997	300.656	318.925	334.062	339.282	343.979
132.5	310.573	284.474	285.519	295.436	309.007	326.754	341.369	348.155	354.419
135.0	329.886	299.612	297.524	304.831	316.837	333.018	346.589	353.375	359.639
137.5	349.721	315.271	310.051	313.705	323.100	337.716	350.243	355.985	361.726
140.0	370.078	332.496	323.100	323.622	329.886	341.891	352.331	357.551	362.770
142.5	390.957	351.809	338.238	333.540	336.150	345.545	353.375	357.551	361.726
145.0	412.880	372.166	354.419	344.501	342.413	349.199	354.419	357.551	360.682
147.5	434.280	393.045	370.600	354.941	349.199	352.853	356.507	358.594	360.682
150.0	455.159	412.358	386.781	366.424	357.029	358.594	359.639	360.682	361.204
152.5	476.038	433.758	404.528	379.995	366.424	364.858	363.292	363.292	363.292
155.0	496.395	455.159	424.363	397.220	380.517	374.254	369.034	367.990	366.424
157.5	516.230	475.516	445.764	419.143	399.830	387.825	378.429	375.820	373.732
160.0	536.065	499.005	470.296	444.720	423.319	406.616	393.045	388.869	384.693
162.5	554.856	521.972	494.829	469.774	448.896	432.192	418.099	411.314	405.050
165.0	573.125	545.460	519.884	495.351	475.516	461.423	449.418	442.632	436.368
167.5	588.784	565.817	543.372	521.450	503.703	490.131	479.170	473.950	469.252
170.0	602.355	584.086	566.861	549.636	535.021	521.972	511.532	506.313	501.615
172.5	614.361	601.311	588.784	576.779	565.817	556.422	548.592	544.938	540.763
175.0	624.800	615.927	608.097	600.267	593.482	587.740	583.042	580.432	578.345
177.5	632.630	627.932	624.278	620.624	618.014	615.404	612.795	611.751	610.185
180.0	637.849	637.849	637.849	637.849	637.849	637.849	637.849	637.849	637.849

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-B-S-835-ASY-TG-ITL90352 ITL89599.010.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	215.92	N.A.	6.30
0-30	430.28	N.A.	12.60
0-40	655.38	N.A.	19.10
0-60	1011.91	N.A.	29.50
0-80	1168.07	N.A.	34.10
0-90	1183.84	N.A.	34.50
10-90	1125.44	N.A.	32.80
20-40	439.46	N.A.	12.80
20-50	640.24	N.A.	18.70
40-70	458.85	N.A.	13.40
60-80	156.16	N.A.	4.60
70-80	53.84	N.A.	1.60
80-90	15.76	N.A.	0.50
90-110	269.73	N.A.	7.90
90-120	627.04	N.A.	18.30
90-130	1036.87	N.A.	30.20
90-150	1754.07	N.A.	51.20
90-180	2244.38	N.A.	65.50
110-180	1974.66	N.A.	57.60
0-180	3428.22	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	15.76
90-100	62.66
100-110	207.07
110-120	357.31
120-130	409.83
130-140	385.33
140-150	331.87
150-160	260.14
160-170	170.13
170-180	60.04

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-B-S-835-ASY-TG-ITL90352 ITL89599.010.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

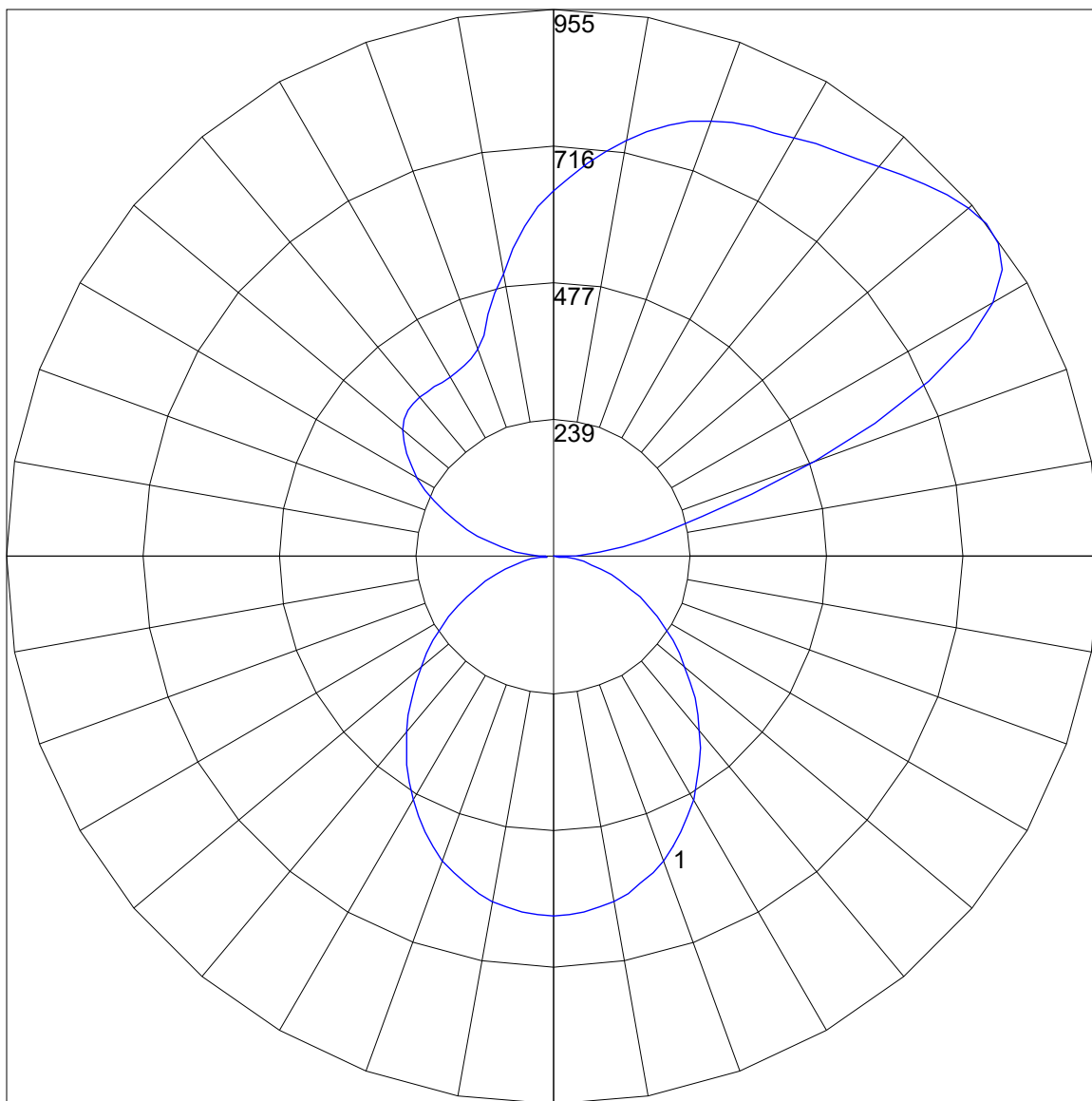
Effective Floor Cavity Reflectance 0.20

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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35
1	95	91	87	84	85	82	79	76	66	64	62	51	50	49	38	37	36	30
2	87	80	74	69	78	72	67	63	58	55	52	45	43	41	34	32	31	26
3	79	70	63	58	71	64	58	53	52	48	44	40	38	35	30	28	27	22
4	73	62	55	49	65	57	50	45	46	42	38	36	33	31	27	25	23	19
5	67	56	48	42	60	51	44	39	41	37	33	33	29	27	25	22	21	17
6	62	50	42	37	55	46	39	34	37	32	29	30	26	24	23	20	18	15
7	57	45	38	32	51	41	35	30	34	29	25	27	24	21	21	18	17	14
8	53	41	34	29	48	38	31	27	31	26	23	25	21	19	19	17	15	12
9	49	38	30	26	45	34	28	24	29	24	20	23	19	17	18	15	14	11
10	46	34	28	23	42	32	26	21	26	22	18	21	18	15	16	14	12	10

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## POLAR GRAPH



Maximum Candela = 954.686 Located At Horizontal Angle = 0, Vertical Angle = 127.5

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