

# 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-S-S-835-ASY-TG-ITL90352 ITL89599.001.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90352 ITL89599.001 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-S-S-835-ASY-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 28.8 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 31.7 WATTS

[\_ABSOLUTE]LUMENS]2944

[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	2944
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
Total Luminaire Watts	28.8
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)	0.18 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	5092	2546	2258
85	4065	2033	1854

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-S-S-835-ASY-TG-ITL90352 ITL89599.001.IES

## 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>
0.0	626.022	626.022	626.022	626.022	626.022	626.022	626.022	626.022	626.022	626.022
2.5	625.203	625.203	624.794	624.794	624.384	624.384	623.975	623.975	623.566	623.566
5.0	622.337	621.928	621.518	620.700	619.881	619.062	617.834	617.015	616.196	615.786
7.5	617.424	616.605	615.786	613.330	610.873	608.417	606.369	604.322	603.503	602.275
10.0	610.464	608.417	605.960	602.685	599.000	594.905	590.811	587.536	585.898	584.260
12.5	601.866	597.771	593.677	588.764	583.032	577.300	571.568	566.654	564.198	561.741
15.0	590.811	585.079	579.347	572.387	564.607	556.828	549.049	542.498	539.222	535.947
17.5	578.528	571.158	563.788	553.962	543.726	533.900	524.483	515.885	511.791	507.696
20.0	564.198	554.781	545.773	533.900	521.207	509.334	497.870	488.043	483.130	478.217
22.5	547.002	536.356	525.711	511.791	497.051	483.130	469.619	458.155	452.423	447.100
25.0	529.396	516.704	504.421	488.453	471.666	455.698	440.549	427.857	422.125	416.393
27.5	510.153	495.823	481.902	463.887	445.053	427.447	411.480	397.559	391.417	385.276
30.0	489.681	474.123	458.564	439.321	418.440	399.197	381.591	366.851	361.119	354.978
32.5	467.162	451.195	435.227	414.346	391.827	370.946	352.112	336.963	331.231	325.499
35.0	444.644	427.857	410.661	388.551	364.804	343.514	324.270	308.303	302.161	295.610
37.5	421.715	403.700	386.095	363.167	338.191	316.082	296.838	280.871	274.729	268.588
40.0	397.968	379.544	360.710	337.372	311.987	289.878	271.044	255.076	249.344	243.203
42.5	374.221	355.387	336.553	312.397	286.603	264.493	246.069	230.920	225.188	219.456
45.0	350.065	330.821	311.578	287.422	261.627	239.927	222.322	207.992	202.669	197.346
47.5	325.499	306.665	287.831	263.674	237.880	216.999	200.212	186.292	181.788	177.284
50.0	301.342	282.508	263.674	239.927	214.952	194.480	178.922	166.230	162.135	158.041
52.5	278.823	259.171	239.927	216.999	192.843	174.009	159.679	148.215	144.530	140.845
55.0	255.486	235.833	216.180	194.480	171.962	153.947	141.254	131.018	128.152	124.877
57.5	232.558	213.314	194.071	173.190	151.490	135.113	124.058	115.051	112.594	109.728
60.0	210.039	191.205	172.371	152.718	132.656	117.507	108.090	100.311	97.854	95.398
62.5	187.929	169.914	151.490	133.066	114.641	101.539	92.941	86.390	83.934	81.886
65.0	166.639	149.033	131.837	114.641	97.854	85.981	78.611	72.470	71.241	70.013
67.5	144.939	128.562	112.594	97.445	82.296	72.470	67.147	63.053	62.643	62.234
70.0	124.877	109.728	94.169	80.658	67.966	59.777	56.911	54.864	54.455	54.045
72.5	105.634	91.303	77.383	65.919	55.683	49.951	48.313	47.085	46.266	45.856
75.0	86.800	73.698	61.005	52.407	45.447	41.353	40.124	38.896	38.487	38.487
77.5	70.013	58.139	45.856	39.715	35.621	33.164	32.345	31.526	31.117	31.117
80.0	53.636	43.400	32.755	28.660	26.613	25.385	24.566	24.157	24.157	24.157
82.5	37.668	30.298	22.928	20.472	19.243	18.015	17.606	17.196	17.196	17.196
85.0	23.338	18.834	14.330	12.692	11.874	11.464	11.055	10.645	10.645	10.645
87.5	9.826	8.189	6.141	5.323	4.913	4.913	4.504	4.504	4.504	4.504
90.0	0.000	0.000	0.000	0.000	4.913	8.189	5.732	3.685	1.638	0.000
92.5	31.936	32.345	31.936	30.298	27.432	25.794	24.566	22.519	19.653	9.826
95.0	63.871	64.690	63.871	61.824	59.777	57.730	54.864	49.951	41.353	24.157
97.5	97.035	97.854	96.626	96.626	96.626	95.398	90.075	79.839	63.053	39.306
100.0	125.696	127.743	130.200	136.341	140.845	138.798	128.971	110.956	84.343	54.864
102.5	161.316	165.820	174.009	186.701	193.662	187.929	169.914	140.845	103.996	70.013
105.0	210.039	218.637	235.424	250.982	253.848	240.746	210.858	168.277	122.420	85.571
107.5	285.374	295.201	312.806	323.452	320.995	296.838	250.163	192.433	139.616	101.539
110.0	381.591	386.504	397.559	402.063	388.551	346.789	282.918	213.314	155.994	117.507
112.5	476.579	479.445	485.177	478.626	447.919	386.914	308.303	232.148	171.962	133.475
115.0	568.702	567.883	564.198	541.679	492.957	417.212	329.184	248.935	188.339	150.262
117.5	642.809	636.667	623.566	588.764	525.302	438.093	345.152	264.493	204.716	167.458
120.0	695.626	687.028	665.328	619.471	544.955	452.423	359.072	279.642	221.503	184.245
122.5	729.609	718.963	690.712	636.258	556.828	463.068	371.355	294.791	238.290	201.031
125.0	745.576	734.112	701.767	643.218	562.970	471.666	383.229	309.940	254.667	217.818
127.5	748.852	736.978	702.586	643.628	565.836	479.036	395.512	325.089	271.044	234.195
130.0	743.120	731.246	697.263	640.762	567.064	485.996	408.204	340.648	288.240	251.392
132.5	732.475	722.239	689.894	636.258	568.292	493.366	420.487	356.616	305.437	268.588

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-S-S-835-ASY-TG-ITL90352 ITL89599.001.IES**

**CANDELA TABULATION - (Cont.)**

135.0	720.601	710.365	680.477	631.754	569.930	501.145	432.770	371.765	322.633	286.193
137.5	708.728	698.901	671.879	628.069	572.387	509.334	445.872	387.323	339.419	303.799
140.0	696.035	688.256	664.509	625.203	574.843	517.523	458.564	402.881	356.206	320.995
142.5	685.799	679.248	658.367	623.566	577.709	525.711	471.257	418.030	373.402	338.191
145.0	677.201	671.469	652.635	621.518	580.985	534.309	483.540	432.361	389.370	355.387
147.5	669.422	664.099	647.722	619.881	584.260	542.089	495.004	446.281	405.338	372.174
150.0	660.824	656.730	642.809	618.652	587.536	549.458	504.830	458.974	420.487	389.370
152.5	653.864	650.179	638.715	618.243	589.992	555.190	513.838	470.847	434.817	405.338
155.0	648.132	644.447	634.620	616.605	591.220	559.285	520.798	481.083	447.919	420.487
157.5	642.399	638.715	630.116	613.739	589.992	560.922	526.121	490.500	460.611	434.817
160.0	634.620	630.935	622.747	608.417	587.126	560.922	529.806	497.870	471.257	447.919
162.5	624.384	621.109	613.739	600.637	581.394	558.875	531.853	504.421	481.083	459.793
165.0	611.283	608.007	601.047	589.992	574.024	554.781	532.262	508.924	489.272	470.438
167.5	595.724	592.858	587.126	577.709	564.607	549.049	531.034	511.791	495.413	479.445
170.0	577.709	575.253	570.749	563.379	553.962	542.089	527.758	513.019	500.326	486.406
172.5	559.285	557.647	554.371	549.458	542.089	533.081	523.255	512.609	502.783	492.138
175.0	539.632	538.404	535.947	533.081	528.577	523.255	517.113	510.153	503.602	497.051
177.5	519.570	519.160	518.341	516.704	515.066	512.609	509.334	506.058	502.783	499.508
180.0	500.326	500.326	500.326	500.326	500.326	500.326	500.326	500.326	500.326	500.326

**Vert.  
Angles**

**Horizontal Angles**

	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>
0.0	626.022	626.022	626.022	626.022	626.022	626.022	626.022	626.022	626.022
2.5	623.566	623.975	623.975	624.384	624.384	624.794	624.794	625.203	625.203
5.0	616.196	617.015	617.834	619.062	619.881	620.700	621.518	621.928	622.337
7.5	603.503	604.322	606.369	608.417	610.873	613.330	615.786	616.605	617.424
10.0	585.898	587.536	590.811	594.905	599.000	602.685	605.960	608.417	610.464
12.5	564.198	566.654	571.568	577.300	583.032	588.764	593.677	597.771	601.866
15.0	539.222	542.498	549.049	556.828	564.607	572.387	579.347	585.079	590.811
17.5	511.791	515.885	524.483	533.900	543.726	553.962	563.788	571.158	578.528
20.0	483.130	488.043	497.870	509.334	521.207	533.900	545.773	554.781	564.198
22.5	452.423	458.155	469.619	483.130	497.051	511.791	525.711	536.356	547.002
25.0	422.125	427.857	440.549	455.698	471.666	488.453	504.421	516.704	529.396
27.5	391.417	397.559	411.480	427.447	445.053	463.887	481.902	495.823	510.153
30.0	361.119	366.851	381.591	399.197	418.440	439.321	458.564	474.123	489.681
32.5	331.231	336.963	352.112	370.946	391.827	414.346	435.227	451.195	467.162
35.0	302.161	308.303	324.270	343.514	364.804	388.551	410.661	427.857	444.644
37.5	274.729	280.871	296.838	316.082	338.191	363.167	386.095	403.700	421.715
40.0	249.344	255.076	271.044	289.878	311.987	337.372	360.710	379.544	397.968
42.5	225.188	230.920	246.069	264.493	286.603	312.397	336.553	355.387	374.221
45.0	202.669	207.992	222.322	239.927	261.627	287.422	311.578	330.821	350.065
47.5	181.788	186.292	200.212	216.999	237.880	263.674	287.831	306.665	325.499
50.0	162.135	166.230	178.922	194.480	214.952	239.927	263.674	282.508	301.342
52.5	144.530	148.215	159.679	174.009	192.843	216.999	239.927	259.171	278.823
55.0	128.152	131.018	141.254	153.947	171.962	194.480	216.180	235.833	255.486
57.5	112.594	115.051	124.058	135.113	151.490	173.190	194.071	213.314	232.558
60.0	97.854	100.311	108.090	117.507	132.656	152.718	172.371	191.205	210.039
62.5	83.934	86.390	92.941	101.539	114.641	133.066	151.490	169.914	187.929
65.0	71.241	72.470	78.611	85.981	97.854	114.641	131.837	149.033	166.639
67.5	62.643	63.053	67.147	72.470	82.296	97.445	112.594	128.562	144.939
70.0	54.455	54.864	56.911	59.777	67.966	80.658	94.169	109.728	124.877
72.5	46.266	47.085	48.313	49.951	55.683	65.919	77.383	91.303	105.634
75.0	38.487	38.896	40.124	41.353	45.447	52.407	61.005	73.698	86.800
77.5	31.117	31.526	32.345	33.164	35.621	39.715	45.856	58.139	70.013
80.0	24.157	24.157	24.566	25.385	26.613	28.660	32.755	43.400	53.636

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-S-S-835-ASY-TG-ITL90352 ITL89599.001.IES****CANDELA TABULATION - (Cont.)**

82.5	17.196	17.196	17.606	18.015	19.243	20.472	22.928	30.298	37.668
85.0	10.645	10.645	11.055	11.464	11.874	12.692	14.330	18.834	23.338
87.5	4.504	4.504	4.504	4.913	4.913	5.323	6.141	8.189	9.826
90.0	1.638	3.685	5.323	7.370	8.598	9.826	10.645	11.055	11.055
92.5	12.692	13.511	15.149	16.377	17.606	18.015	18.424	18.834	18.834
95.0	26.613	27.841	29.889	32.345	33.573	33.983	33.983	33.164	32.345
97.5	40.124	41.762	45.038	48.722	51.179	52.407	53.226	52.407	51.998
100.0	54.045	56.092	59.777	64.281	67.556	70.422	72.470	72.060	72.060
102.5	68.375	71.651	76.154	81.068	85.162	88.028	90.075	90.485	90.485
105.0	82.296	86.800	93.351	100.311	104.405	106.452	107.681	107.271	107.271
107.5	97.035	101.130	107.681	115.460	120.783	123.649	125.696	124.877	124.058
110.0	111.366	113.822	121.601	131.018	137.160	140.026	142.482	142.482	142.482
112.5	125.696	126.515	135.113	146.167	153.537	157.631	160.498	160.498	160.498
115.0	140.026	139.207	147.805	160.088	169.096	174.828	178.922	179.331	179.741
117.5	154.356	150.671	159.679	173.190	183.426	190.796	196.118	196.937	197.756
120.0	169.096	162.954	171.552	185.063	196.118	205.126	212.495	213.314	214.543
122.5	183.426	174.828	182.607	196.118	207.992	218.637	227.235	228.463	230.101
125.0	198.575	187.520	194.071	206.354	218.637	231.329	241.156	242.793	244.431
127.5	213.314	199.394	204.307	215.361	228.054	241.975	253.029	255.486	257.942
130.0	228.054	211.267	214.133	223.550	235.833	250.163	262.037	266.131	269.816
132.5	243.612	223.141	223.960	231.739	242.384	256.305	267.769	273.091	278.005
135.0	258.761	235.014	233.376	239.109	248.525	261.218	271.863	277.186	282.099
137.5	274.320	247.297	243.203	246.069	253.439	264.903	274.729	279.233	283.737
140.0	290.288	260.808	253.439	253.848	258.761	268.178	276.367	280.461	284.556
142.5	306.665	275.957	265.312	261.627	263.674	271.044	277.186	280.461	283.737
145.0	323.861	291.925	278.005	270.225	268.588	273.910	278.005	280.461	282.918
147.5	340.648	308.303	290.697	278.414	273.910	276.776	279.642	281.280	282.918
150.0	357.025	323.452	303.389	287.422	280.052	281.280	282.099	282.918	283.327
152.5	373.402	340.238	317.310	298.067	287.422	286.193	284.965	284.965	284.965
155.0	389.370	357.025	332.869	311.578	298.476	293.563	289.469	288.650	287.422
157.5	404.929	372.993	349.655	328.774	313.625	304.208	296.838	294.791	293.154
160.0	420.487	391.417	368.899	348.836	332.050	318.948	308.303	305.027	301.752
162.5	435.227	409.432	388.142	368.489	352.112	339.010	327.955	322.633	317.720
165.0	449.557	427.857	407.795	388.551	372.993	361.938	352.521	347.199	342.285
167.5	461.840	443.825	426.219	409.023	395.102	384.457	375.859	371.765	368.080
170.0	472.485	458.155	444.644	431.132	419.668	409.432	401.244	397.149	393.465
172.5	481.902	471.666	461.840	452.423	443.825	436.455	430.313	427.447	424.172
175.0	490.091	483.130	476.989	470.847	465.525	461.021	457.336	455.289	453.651
177.5	496.232	492.547	489.681	486.815	484.768	482.721	480.674	479.855	478.626
180.0	500.326	500.326	500.326	500.326	500.326	500.326	500.326	500.326	500.326

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-S-S-835-ASY-TG-ITL90352 ITL89599.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	215.92	N.A.	7.30
0-30	430.29	N.A.	14.60
0-40	655.39	N.A.	22.30
0-60	1011.94	N.A.	34.40
0-80	1168.1	N.A.	39.70
0-90	1183.68	N.A.	40.20
10-90	1125.29	N.A.	38.20
20-40	439.47	N.A.	14.90
20-50	640.25	N.A.	21.70
40-70	458.87	N.A.	15.60
60-80	156.17	N.A.	5.30
70-80	53.84	N.A.	1.80
80-90	15.58	N.A.	0.50
90-110	211.57	N.A.	7.20
90-120	491.85	N.A.	16.70
90-130	813.32	N.A.	27.60
90-150	1375.88	N.A.	46.70
90-180	1760.48	N.A.	59.80
110-180	1548.91	N.A.	52.60
0-180	2944.17	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	58.39
10-20	157.53
20-30	214.37
30-40	225.10
40-50	200.78
50-60	155.76
60-70	102.33
70-80	53.84
80-90	15.58
90-100	49.15
100-110	162.43
110-120	280.28
120-130	321.47
130-140	302.25
140-150	260.32
150-160	204.06
160-170	133.45
170-180	47.09

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-RG-4FT-S-S-835-ASY-TG-ITL90352 ITL89599.001.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

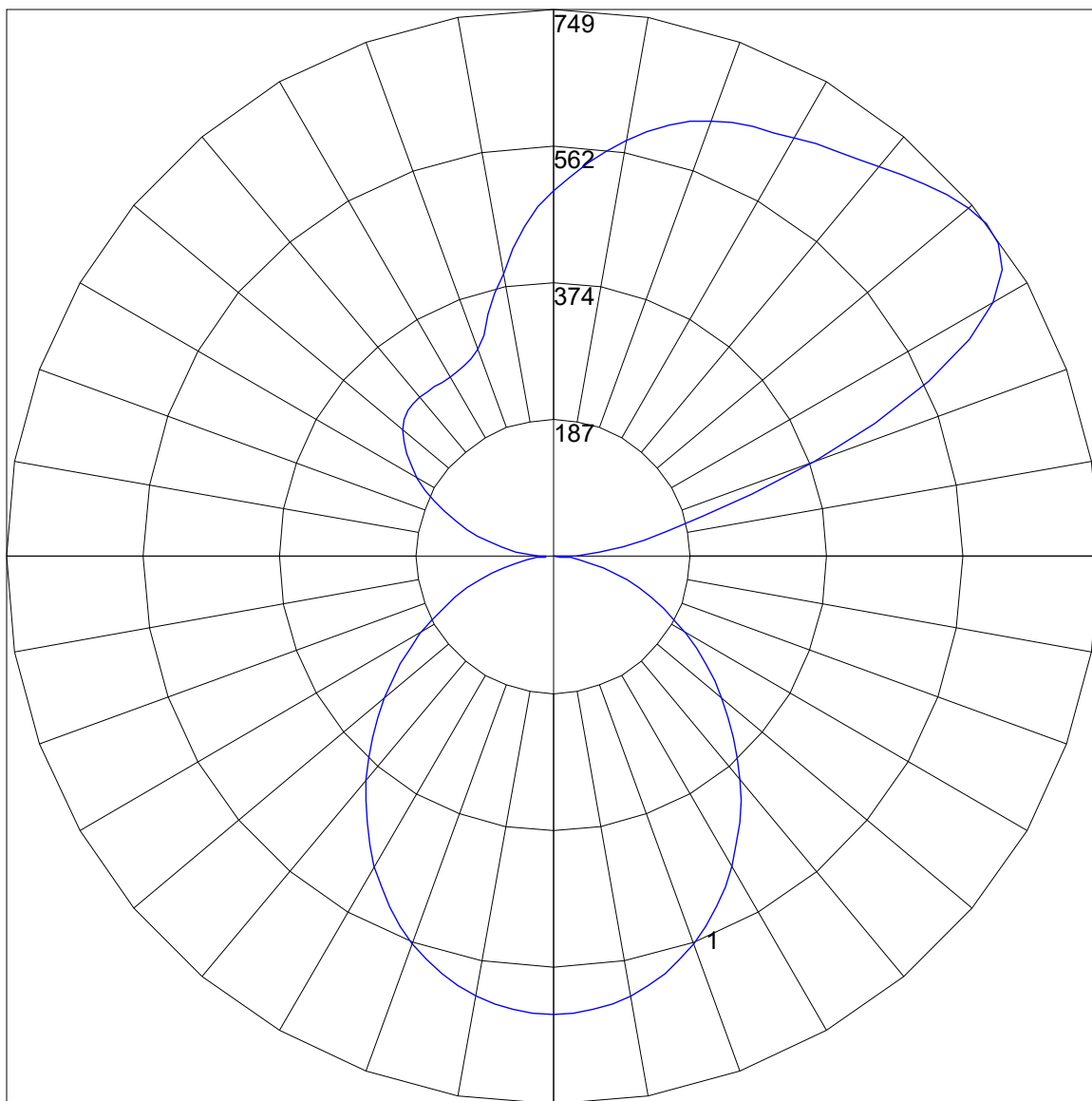
Effective Floor Cavity Reflectance 0.20

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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	96	92	88	85	87	84	81	78	69	67	65	55	54	52	42	41	41	35
2	88	81	75	70	80	74	69	65	61	57	54	49	46	44	38	36	35	30
3	80	71	64	59	73	65	59	55	54	50	46	44	41	38	34	32	30	26
4	74	63	56	50	67	58	52	47	48	44	40	39	36	33	31	28	26	23
5	68	57	49	43	62	52	45	40	43	38	35	35	32	29	28	25	23	20
6	63	51	43	38	57	47	40	35	39	34	30	32	28	26	25	23	21	18
7	58	46	39	33	53	43	36	31	36	31	27	29	26	23	23	21	19	16
8	54	42	35	29	49	39	32	28	33	28	24	27	23	20	22	19	17	14
9	50	38	31	26	46	36	29	25	30	25	22	25	21	18	20	17	15	13
10	47	35	28	24	43	33	27	22	28	23	20	23	19	17	19	16	14	12

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## POLAR GRAPH



Maximum Candela = 748.852 Located At Horizontal Angle = 0, Vertical Angle = 127.5

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