

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-S-V-835-ASYTG-F-ITL90353 ITL89988.015.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89988.015 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-S-V-835-ASYTG-F

[_INPUT_ELECTRICAL]120.0 VOLTS, 51.3 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 53.3 WATTS

[_ABSOLUTE]LUMENS]5294

[OTHER]see 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

[_CONVERT] Photometric web converted from original test data

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5294
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	51.3
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.26
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

IES INDOOR REPORT

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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>
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	27.428	27.838	27.838	27.019	24.972	24.153	24.972	24.563	20.469	9.006
95.0	58.132	59.360	59.769	58.541	58.950	62.635	64.682	58.132	43.394	23.334
97.5	91.701	92.929	97.022	101.116	107.666	111.760	104.801	87.198	63.454	38.072
100.0	142.054	143.692	149.013	155.564	161.295	158.429	142.054	115.445	83.922	53.219
102.5	191.998	194.045	200.186	208.783	213.695	203.461	178.079	142.873	103.163	69.185
105.0	238.258	241.533	252.995	266.096	268.552	250.539	215.742	169.482	121.995	84.741
107.5	293.524	300.074	319.724	332.824	327.502	299.665	252.177	194.045	139.598	101.116
110.0	369.668	379.493	397.506	402.009	385.634	345.924	284.518	215.333	156.792	117.491
112.5	462.188	467.100	475.697	470.375	443.356	387.681	311.536	234.573	173.986	134.276
115.0	546.519	548.157	550.204	535.057	493.710	421.250	333.234	252.177	190.770	151.060
117.5	625.529	623.892	617.342	588.685	531.372	444.994	350.427	268.552	208.373	167.845
120.0	688.983	684.070	668.514	627.167	555.935	460.550	364.346	284.518	225.158	186.267
122.5	734.833	725.827	701.264	650.092	569.035	471.603	377.856	300.483	243.580	205.098
125.0	761.852	750.389	718.867	659.508	575.176	478.972	389.318	316.040	261.183	223.111
127.5	771.268	757.758	722.143	659.917	576.404	485.522	400.781	331.596	279.196	241.533
130.0	767.174	753.255	716.002	654.595	575.995	491.663	413.062	347.152	296.389	259.546
132.5	754.483	741.383	705.358	647.636	575.176	498.213	425.753	363.527	314.812	277.967

IES INDOOR REPORT

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CANDELA TABULATION - (Cont.)

135.0	738.108	725.827	692.667	639.857	574.766	505.582	438.444	379.493	333.234	296.389
137.5	721.324	710.270	679.567	632.898	575.176	512.950	451.544	396.687	351.656	315.221
140.0	704.539	694.714	668.105	627.167	576.404	520.729	464.644	413.472	370.077	334.462
142.5	689.802	681.205	658.689	623.482	578.860	529.326	478.563	430.256	388.500	353.293
145.0	678.339	670.152	650.911	621.026	581.726	537.922	492.072	447.041	406.512	372.125
147.5	668.514	661.964	645.589	619.389	585.001	546.929	505.582	463.006	424.525	390.956
150.0	660.736	654.595	640.676	618.570	589.504	556.345	518.682	478.563	441.719	409.787
152.5	653.776	648.455	636.992	618.160	594.007	564.532	529.735	492.481	457.684	426.981
155.0	647.226	643.133	634.126	619.389	598.510	572.310	539.969	505.172	472.831	443.766
157.5	643.542	639.857	632.489	620.207	601.785	578.042	548.566	516.225	486.750	459.731
160.0	640.676	637.811	631.670	620.207	603.423	582.135	555.116	526.051	499.441	474.469
162.5	635.354	634.126	628.395	618.160	603.014	584.182	560.029	533.829	510.494	487.978
165.0	629.214	627.986	622.254	612.839	599.739	583.363	562.485	539.969	519.910	499.441
167.5	618.979	618.160	613.657	605.060	593.598	579.270	562.076	543.654	526.460	509.266
170.0	605.879	605.470	601.376	594.826	585.410	573.538	560.029	545.701	531.782	517.863
172.5	589.504	589.913	587.048	581.726	574.357	565.351	555.935	545.701	534.647	524.004
175.0	573.538	572.310	570.263	566.988	562.076	556.345	550.204	543.654	536.285	529.326
177.5	553.069	553.069	551.841	550.204	547.747	545.291	542.426	538.741	535.057	531.782
180.0	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010

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**PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-V-835-ASYTG-F-ITL90353 ITL89988.015.IES****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	15.556	22.106	28.247	34.388	38.891	42.166	45.032	46.260	47.488
95.0	28.247	35.616	44.213	53.219	60.178	64.682	68.775	70.004	71.641
97.5	40.938	48.307	58.541	70.413	79.419	86.379	92.110	94.157	96.204
100.0	54.447	61.816	72.869	85.151	95.385	103.982	111.351	114.216	117.082
102.5	67.957	75.326	87.198	100.707	111.351	119.129	125.679	128.545	131.410
105.0	82.285	88.016	99.888	113.398	124.860	133.867	141.235	143.282	145.329
107.5	96.613	100.298	111.760	125.679	137.551	147.376	155.154	157.201	158.839
110.0	110.532	112.169	123.632	137.960	150.651	161.295	169.482	171.529	173.167
112.5	124.451	123.632	135.095	150.242	163.751	174.804	183.401	185.857	187.904
115.0	139.189	135.913	146.557	161.704	175.623	187.495	196.911	199.367	201.823
117.5	154.745	148.604	158.020	172.757	186.676	200.186	210.830	213.286	215.742
120.0	170.711	161.704	169.482	182.992	196.911	211.239	222.702	225.977	229.252
122.5	187.086	174.804	180.945	192.817	206.326	221.883	234.573	238.667	242.352
125.0	203.051	187.495	191.179	201.414	214.514	230.480	243.989	248.902	253.814
127.5	219.017	200.595	201.823	209.601	221.883	237.849	251.767	257.908	264.049
130.0	234.983	213.286	212.058	217.789	228.023	243.170	256.271	263.230	270.189
132.5	250.949	225.977	222.702	226.386	234.573	248.083	259.546	265.686	272.236
135.0	268.142	240.714	234.164	234.573	240.714	251.767	261.592	267.324	273.055
137.5	285.746	256.271	246.855	243.989	246.855	255.861	264.049	268.552	273.055
140.0	303.758	273.055	259.955	252.995	252.586	259.546	265.686	269.371	273.055
142.5	321.771	290.249	273.874	262.002	258.727	263.230	267.733	270.189	273.055
145.0	340.193	307.443	287.383	271.418	264.868	267.733	270.189	271.827	273.464
147.5	358.206	324.637	301.712	282.471	273.055	273.464	273.874	274.692	275.511
150.0	377.037	343.468	318.087	295.571	282.880	280.424	278.377	278.786	278.786
152.5	395.868	362.709	336.509	312.355	296.799	289.430	284.108	283.289	282.471
155.0	414.290	383.178	356.977	332.824	314.402	302.121	292.296	290.658	289.021
157.5	432.303	403.647	378.675	354.521	334.462	318.905	306.624	302.940	299.665
160.0	449.497	423.706	399.553	376.218	356.977	341.830	329.140	324.227	319.315
162.5	465.463	442.947	420.431	398.325	380.312	366.393	354.931	350.427	345.515
165.0	479.791	460.550	441.309	422.478	406.103	392.184	380.721	376.628	372.534
167.5	492.481	476.516	460.959	445.403	431.484	419.203	408.559	404.465	400.372
170.0	503.944	491.253	478.972	467.100	456.456	447.450	440.081	436.806	433.531
172.5	513.769	503.944	494.938	486.341	478.972	472.831	467.919	465.463	463.416
175.0	522.366	515.407	509.675	504.353	499.441	495.757	492.481	491.253	489.616
177.5	528.507	524.822	521.957	519.091	517.044	514.997	513.360	512.541	511.722
180.0	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010	533.010

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-V-835-ASYTG-F-ITL90353 ITL89988.015.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	532.06	N.A.	10.10
0-30	1101.99	N.A.	20.80
0-40	1750.48	N.A.	33.10
0-60	2902.07	N.A.	54.80
0-80	3435.25	N.A.	64.90
0-90	3477.96	N.A.	65.70
10-90	3338.19	N.A.	63.10
20-40	1218.41	N.A.	23.00
20-50	1846.53	N.A.	34.90
40-70	1509.68	N.A.	28.50
60-80	533.18	N.A.	10.10
70-80	175.10	N.A.	3.30
80-90	42.71	N.A.	0.80
90-110	236.50	N.A.	4.50
90-120	519.80	N.A.	9.80
90-130	846.14	N.A.	16.00
90-150	1414.15	N.A.	26.70
90-180	1815.97	N.A.	34.30
110-180	1579.47	N.A.	29.80
0-180	5293.93	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	59.92
100-110	176.58
110-120	283.31
120-130	326.34
130-140	304.97
140-150	263.04
150-160	210.22
160-170	141.31
170-180	50.29

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-V-835-ASYTG-F-ITL90353 ITL89988.015.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

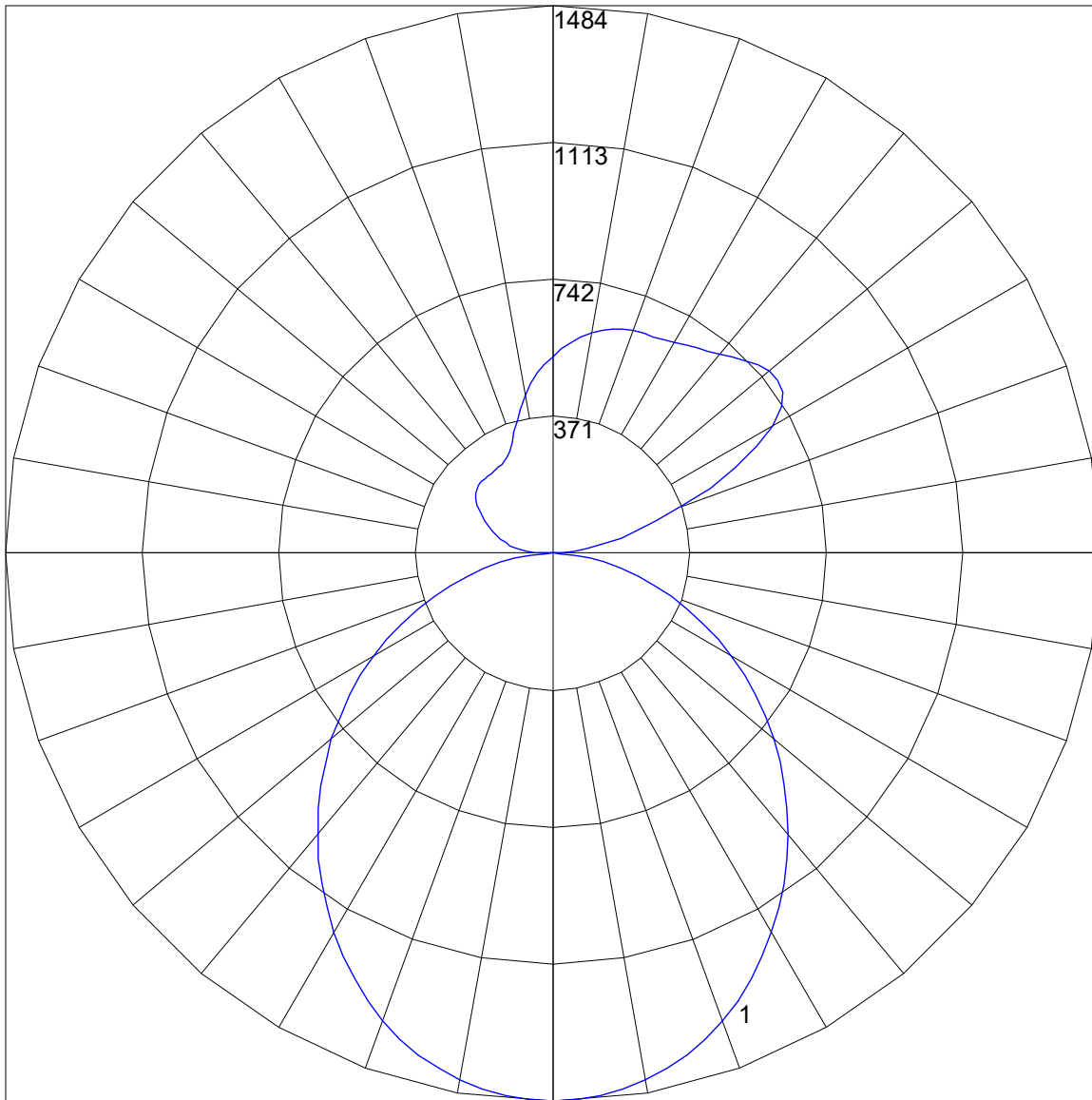
Effective Floor Cavity Reflectance 0.20

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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	102	97	94	90	96	92	89	86	81	79	77	72	70	68	63	62	60	56
2	93	86	79	74	87	81	75	71	72	68	64	64	60	58	56	54	51	48
3	85	76	68	62	80	71	65	60	64	58	54	56	52	49	50	47	44	41
4	78	67	59	53	73	64	56	51	57	51	47	51	46	42	45	41	38	35
5	72	60	52	46	67	57	50	44	51	45	40	46	41	37	40	37	34	31
6	66	54	46	40	62	51	44	38	46	40	36	41	36	33	37	33	30	27
7	61	49	41	35	58	47	39	34	42	36	31	38	33	29	34	30	27	24
8	57	45	37	31	54	42	35	30	38	32	28	35	30	26	31	27	24	22
9	53	41	33	28	50	39	32	27	35	29	25	32	27	23	29	25	22	20
10	50	38	30	25	47	36	29	25	33	27	23	30	25	21	27	23	20	18

IES INDOOR REPORT

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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.)