

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-H-835-ASYTG-F-ITL90353 ITL89988.014.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89988.014 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-H-835-ASYTG-F

[_INPUT_ELECTRICAL]120.0 VOLTS, 42.8 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 44.7 WATTS

[_ABSOLUTE]LUMENS]4521

[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	4521
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	42.8
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)	0.33 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8004	7315	6779
55	7460	6444	5743
65	6785	5340	4439
75	5915	3717	2788
85	4319	2392	2232

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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	1154.044	1154.043	1154.043	1154.043	1154.043	1154.043	1154.043	1154.043	1154.043	1154.043
2.5	1151.746	1151.406	1151.065	1151.235	1151.576	1151.746	1151.746	1151.746	1151.746	1151.746
5.0	1146.386	1146.045	1145.704	1145.620	1145.620	1145.790	1146.130	1146.470	1146.811	1147.152
7.5	1137.962	1137.622	1137.281	1137.197	1137.197	1137.197	1137.197	1137.112	1136.771	1136.430
10.0	1127.241	1125.540	1123.837	1123.922	1124.603	1124.433	1123.412	1122.305	1120.945	1119.583
12.5	1111.925	1109.883	1107.841	1107.330	1107.330	1106.309	1104.267	1102.140	1099.758	1097.375
15.0	1094.312	1090.909	1087.505	1086.399	1086.059	1084.527	1081.805	1078.911	1075.508	1072.104
17.5	1072.870	1068.785	1064.702	1062.404	1060.702	1057.979	1054.236	1050.578	1047.174	1043.770
20.0	1047.599	1042.834	1038.069	1034.836	1032.113	1028.199	1023.093	1018.499	1015.436	1012.372
22.5	1020.031	1014.925	1009.820	1005.225	1000.801	995.525	989.399	983.953	980.550	977.146
25.0	990.165	984.379	978.593	972.807	967.021	960.384	952.896	946.430	943.026	939.622
27.5	958.001	951.535	945.069	937.836	930.348	922.520	914.352	907.290	903.546	899.802
30.0	922.776	916.308	909.842	901.588	892.739	883.720	874.530	866.533	862.108	857.684
32.5	886.018	879.551	873.084	863.554	853.004	842.623	832.412	823.393	817.947	812.502
35.0	849.260	841.772	834.284	823.733	812.161	800.760	789.528	779.658	773.872	768.086
37.5	810.971	802.462	793.953	782.126	769.192	756.429	743.836	733.115	728.010	722.904
40.0	771.149	762.300	753.451	740.262	725.627	712.014	699.421	688.529	682.743	676.957
42.5	731.328	721.458	711.588	697.889	682.913	668.448	654.494	642.582	636.795	631.010
45.0	690.742	680.191	669.640	655.005	639.008	623.522	608.546	595.953	590.508	585.063
47.5	650.154	638.583	627.011	611.610	594.932	578.766	563.110	550.006	544.561	539.115
50.0	608.036	595.784	583.531	567.194	549.496	532.648	516.652	503.293	497.848	492.402
52.5	565.152	552.559	539.966	523.034	504.655	487.467	471.470	458.111	452.666	447.221
55.0	522.268	509.675	497.082	479.384	459.984	442.286	426.289	412.930	407.484	402.039
57.5	480.149	466.876	453.602	435.478	415.739	397.870	381.873	368.514	363.069	357.623
60.0	437.266	423.652	410.037	391.573	371.492	353.454	337.457	324.098	318.653	313.207
62.5	394.381	380.426	366.473	347.668	327.247	309.209	293.552	280.534	275.428	270.324
65.0	349.965	336.692	323.418	304.784	284.363	266.495	251.179	238.500	233.735	228.971
67.5	307.847	294.233	280.619	261.900	241.479	224.121	209.826	197.914	193.149	188.384
70.0	265.728	252.114	238.500	220.292	200.552	183.704	169.750	158.263	154.179	150.095
72.5	224.376	211.102	197.829	180.471	161.752	145.926	132.992	122.271	118.187	114.102
75.0	186.852	172.897	158.943	142.181	124.484	110.359	99.808	91.469	89.767	88.066
77.5	148.563	135.289	122.016	106.700	90.703	80.663	76.579	73.431	73.090	72.750
80.0	111.805	99.212	86.619	75.558	65.007	59.221	58.200	57.434	57.434	57.434
82.5	79.642	66.709	53.776	47.990	44.586	42.544	41.863	41.352	41.352	41.352
85.0	45.947	37.778	29.610	26.802	25.781	25.101	24.761	24.421	24.080	23.739
87.5	14.550	12.167	9.785	8.934	8.594	8.424	8.424	8.339	7.998	7.658
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

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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	1154.043	1154.043	1154.043	1154.043	1154.043	1154.043	1154.043	1154.043	1154.043
2.5	1151.746	1151.746	1151.746	1151.746	1151.576	1151.235	1151.065	1151.406	1151.746
5.0	1146.811	1146.470	1146.130	1145.790	1145.620	1145.620	1145.704	1146.045	1146.386
7.5	1136.771	1137.112	1137.197	1137.197	1137.197	1137.197	1137.281	1137.622	1137.962
10.0	1120.945	1122.305	1123.412	1124.433	1124.603	1123.922	1123.837	1125.540	1127.241
12.5	1099.758	1102.140	1104.267	1106.309	1107.330	1107.330	1107.841	1109.883	1111.925
15.0	1075.508	1078.911	1081.805	1084.527	1086.059	1086.399	1087.505	1090.909	1094.312
17.5	1047.174	1050.578	1054.236	1057.979	1060.702	1062.404	1064.702	1068.785	1072.870
20.0	1015.436	1018.499	1023.093	1028.199	1032.113	1034.836	1038.069	1042.834	1047.599
22.5	980.550	983.953	989.399	995.525	1000.801	1005.225	1009.820	1014.925	1020.031
25.0	943.026	946.430	952.896	960.384	967.021	972.807	978.593	984.379	990.165
27.5	903.546	907.290	914.352	922.520	930.348	937.836	945.069	951.535	958.001
30.0	862.108	866.533	874.530	883.720	892.739	901.588	909.842	916.308	922.776
32.5	817.947	823.393	832.412	842.623	853.004	863.554	873.084	879.551	886.018
35.0	773.872	779.658	789.528	800.760	812.161	823.733	834.284	841.772	849.260
37.5	728.010	733.115	743.836	756.429	769.192	782.126	793.953	802.462	810.971
40.0	682.743	688.529	699.421	712.014	725.627	740.262	753.451	762.300	771.149
42.5	636.795	642.582	654.494	668.448	682.913	697.889	711.588	721.458	731.328
45.0	590.508	595.953	608.546	623.522	639.008	655.005	669.640	680.191	690.742
47.5	544.561	550.006	563.110	578.766	594.932	611.610	627.011	638.583	650.154
50.0	497.848	503.293	516.652	532.648	549.496	567.194	583.531	595.784	608.036
52.5	452.666	458.111	471.470	487.467	504.655	523.034	539.966	552.559	565.152
55.0	407.484	412.930	426.289	442.286	459.984	479.384	497.082	509.675	522.268
57.5	363.069	368.514	381.873	397.870	415.739	435.478	453.602	466.876	480.149
60.0	318.653	324.098	337.457	353.454	371.492	391.573	410.037	423.652	437.266
62.5	275.428	280.534	293.552	309.209	327.247	347.668	366.473	380.426	394.381
65.0	233.735	238.500	251.179	266.495	284.363	304.784	323.418	336.692	349.965
67.5	193.149	197.914	209.826	224.121	241.479	261.900	280.619	294.233	307.847
70.0	154.179	158.263	169.750	183.704	200.552	220.292	238.500	252.114	265.728
72.5	118.187	122.271	132.992	145.926	161.752	180.471	197.829	211.102	224.376
75.0	89.767	91.469	99.808	110.359	124.484	142.181	158.943	172.897	186.852
77.5	73.090	73.431	76.579	80.663	90.703	106.700	122.016	135.289	148.563
80.0	57.434	57.434	58.200	59.221	65.007	75.558	86.619	99.212	111.805

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-H-835-ASYTG-F-ITL90353 ITL89988.014.IES****CANDELA TABULATION - (Cont.)**

82.5	41.352	41.352	41.863	42.544	44.586	47.990	53.776	66.709	79.642
85.0	24.080	24.421	24.761	25.101	25.781	26.802	29.610	37.778	45.947
87.5	7.998	8.339	8.424	8.424	8.594	8.934	9.785	12.167	14.550
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-H-835-ASYTG-F-ITL90353 ITL89988.014.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	413.78	N.A.	9.20
0-30	857.00	N.A.	19.00
0-40	1361.31	N.A.	30.10
0-60	2256.89	N.A.	49.90
0-80	2671.53	N.A.	59.10
0-90	2704.75	N.A.	59.80
10-90	2596.05	N.A.	57.40
20-40	947.54	N.A.	21.00
20-50	1436.01	N.A.	31.80
40-70	1174.05	N.A.	26.00
60-80	414.64	N.A.	9.20
70-80	136.17	N.A.	3.00
80-90	33.22	N.A.	0.70
90-110	236.50	N.A.	5.20
90-120	519.80	N.A.	11.50
90-130	846.14	N.A.	18.70
90-150	1414.15	N.A.	31.30
90-180	1815.97	N.A.	40.20
110-180	1579.47	N.A.	34.90
0-180	4520.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	108.70
10-20	305.07
20-30	443.22
30-40	504.31
40-50	488.47
50-60	407.10
60-70	278.47
70-80	136.17
80-90	33.22
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-H-835-ASYTG-F-ITL90353 ITL89988.014.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

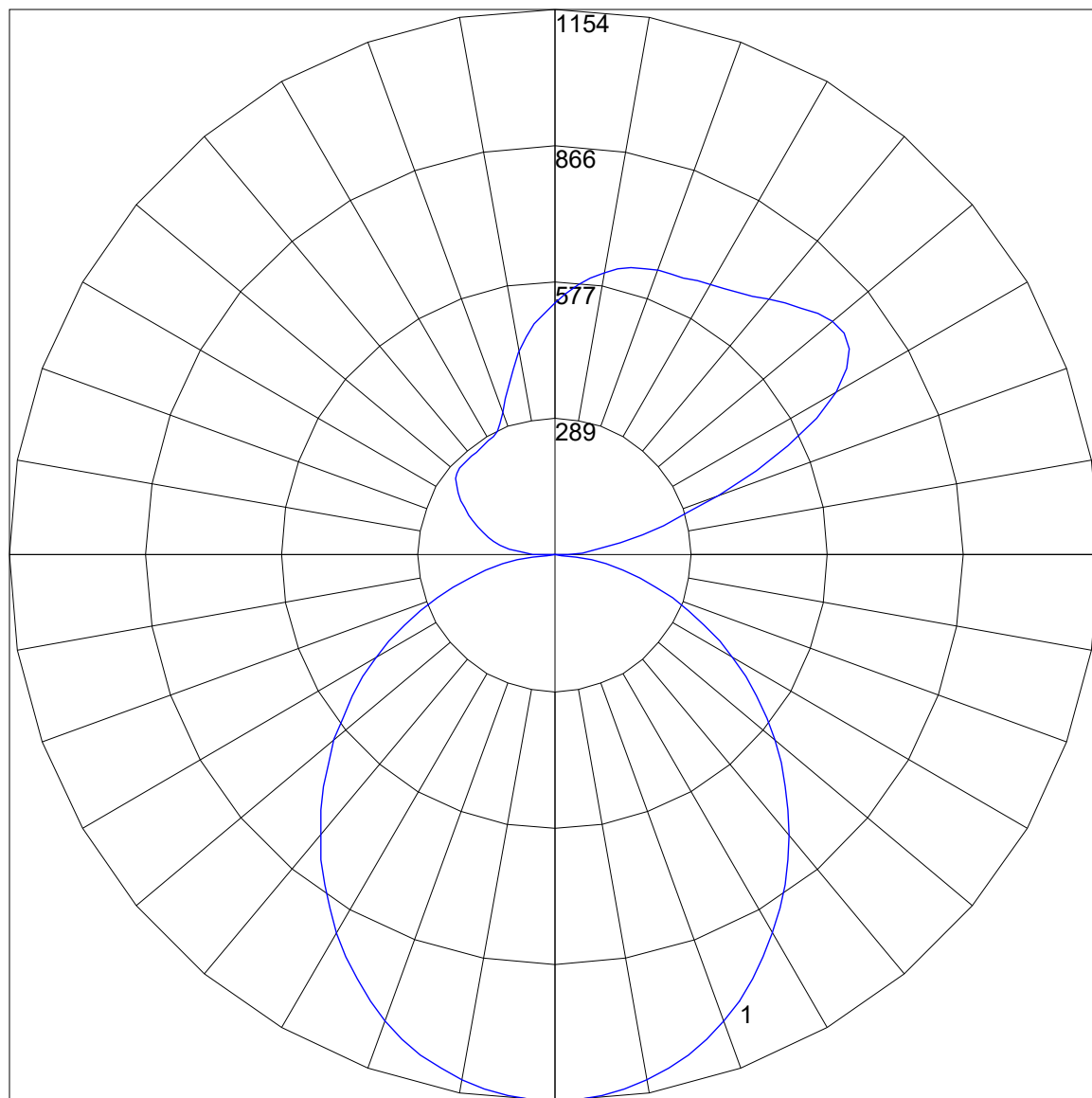
Effective Floor Cavity Reflectance 0.20

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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60
1	100	96	92	89	94	90	87	84	78	76	74	68	66	65	58	57	56	51
2	92	84	78	73	85	79	74	69	69	65	62	60	57	54	52	49	47	43
3	84	74	67	61	78	70	63	58	61	56	52	53	50	46	46	43	41	37
4	77	66	58	52	72	62	55	50	55	49	45	48	43	40	41	38	35	32
5	71	59	51	45	66	56	48	43	49	43	39	43	38	35	37	34	31	28
6	65	53	45	39	61	50	43	37	44	38	34	39	34	31	34	30	27	25
7	60	48	40	35	56	45	38	33	40	34	30	36	31	27	31	27	24	22
8	56	44	36	31	52	41	34	29	37	31	27	33	28	24	29	25	22	20
9	52	40	33	27	49	38	31	26	34	28	24	30	25	22	26	23	20	18
10	49	37	30	25	46	35	28	24	31	26	22	28	23	20	25	21	18	16

IES INDOOR REPORT

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POLAR GRAPH



Maximum Candela = 1154.044 Located At Horizontal Angle = 0, Vertical Angle = 0

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