

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-B-H-835-ASYTG-F-ITL90353 ITL89988.011.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89988.011 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-B-H-835-ASYTG-F
[INPUT_ELECTRICAL]120.0 VOLTS, 46.7 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 48.4 WATTS
[ABSOLUTE LUMENS]4988
[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	4988
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	46.7
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	34.482	34.996	34.996	33.967	31.394	30.364	31.394	30.879	25.733	11.322
95.0	73.081	74.625	75.139	73.595	74.110	78.742	81.315	73.081	54.553	29.335
97.5	115.282	116.826	121.973	127.119	135.354	140.500	131.751	109.621	79.771	47.863
100.0	178.584	180.643	187.334	195.568	202.773	199.171	178.584	145.132	105.504	66.905
102.5	241.372	243.945	251.665	262.473	268.649	255.782	223.874	179.614	129.692	86.976
105.0	299.528	303.645	318.055	334.524	337.612	314.967	271.222	213.066	153.367	106.533
107.5	369.006	377.240	401.944	418.413	411.722	376.726	317.026	243.945	175.497	127.119
110.0	464.731	477.083	499.728	505.389	484.803	434.882	357.684	270.707	197.112	147.705
112.5	581.043	587.219	598.027	591.336	557.369	487.376	391.651	294.896	218.727	168.806
115.0	687.062	689.120	691.693	672.651	620.671	529.578	418.927	317.026	239.828	189.907
117.5	786.389	784.331	776.096	740.071	668.019	559.428	440.543	337.612	261.958	211.008
120.0	866.161	859.985	840.428	788.448	698.899	578.984	458.041	357.684	283.059	234.167
122.5	923.802	912.480	881.600	817.269	715.367	592.880	475.025	377.755	306.218	257.841
125.0	957.769	943.359	903.730	829.106	723.087	602.144	489.435	397.312	328.349	280.486
127.5	969.606	952.622	907.848	829.620	724.631	610.378	503.845	416.869	350.993	303.645
130.0	964.459	946.961	900.128	822.930	724.116	618.098	519.285	436.426	372.609	326.290
132.5	948.505	932.036	886.747	814.181	723.087	626.332	535.239	457.012	395.768	349.449

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CANDELA TABULATION - (Cont.)

135.0	927.919	912.480	870.793	804.402	722.573	635.596	551.193	477.083	418.927	372.609
137.5	906.818	892.923	854.324	795.653	723.087	644.860	567.662	498.699	442.087	396.283
140.0	885.717	873.366	839.913	788.448	724.631	654.638	584.131	519.799	465.246	420.471
142.5	867.190	856.382	828.076	783.816	727.719	665.446	601.629	540.900	488.406	444.145
145.0	852.780	842.487	818.298	780.728	731.322	676.254	618.613	562.001	511.050	467.819
147.5	840.428	832.194	811.607	778.670	735.439	687.576	635.596	582.072	533.695	491.493
150.0	830.650	822.930	805.432	777.640	741.100	699.413	652.065	601.629	555.310	515.168
152.5	821.901	815.210	800.800	777.126	746.761	709.706	665.961	619.127	575.382	536.783
155.0	813.666	808.520	797.197	778.670	752.422	719.485	678.827	635.082	594.424	557.884
157.5	809.034	804.402	795.139	779.699	756.540	726.690	689.635	648.977	611.922	577.955
160.0	805.432	801.829	794.109	779.699	758.598	731.836	697.869	661.329	627.876	596.483
162.5	798.741	797.197	789.992	777.126	758.084	734.410	704.045	671.107	641.772	613.466
165.0	791.021	789.477	782.272	770.435	753.966	733.380	707.133	678.827	653.609	627.876
167.5	778.155	777.126	771.465	760.657	746.247	728.234	706.618	683.459	661.844	640.228
170.0	761.686	761.172	756.025	747.791	735.954	721.029	704.045	686.032	668.534	651.036
172.5	741.100	741.615	738.012	731.322	722.058	710.736	698.899	686.032	672.137	658.756
175.0	721.029	719.485	716.911	712.794	706.618	699.413	691.693	683.459	674.195	665.446
177.5	695.296	695.296	693.752	691.693	688.606	685.518	681.915	677.283	672.651	668.534
180.0	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078

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-B-H-835-ASYTG-F-ITL90353 ITL89988.011.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	19.557	27.791	35.511	43.231	48.892	53.009	56.612	58.156	59.700
95.0	35.511	44.775	55.583	66.905	75.654	81.315	86.462	88.006	90.064
97.5	51.465	60.729	73.595	88.520	99.843	108.592	115.797	118.370	120.943
100.0	68.449	77.713	91.608	107.048	119.914	130.722	139.986	143.588	147.191
102.5	85.432	94.696	109.621	126.605	139.986	149.764	157.998	161.601	165.204
105.0	103.445	110.650	125.575	142.559	156.969	168.292	177.555	180.129	182.702
107.5	121.458	126.090	140.500	157.998	172.923	185.275	195.053	197.627	199.685
110.0	138.956	141.015	155.425	173.438	189.392	202.773	213.066	215.639	217.698
112.5	156.454	155.425	169.835	188.878	205.861	219.757	230.565	233.652	236.226
115.0	174.982	170.865	184.246	203.288	220.786	235.711	247.548	250.636	253.724
117.5	194.539	186.819	198.656	217.184	234.682	251.665	265.046	268.134	271.222
120.0	214.610	203.288	213.066	230.050	247.548	265.561	279.971	284.088	288.206
122.5	235.196	219.757	227.477	242.401	259.385	278.942	294.896	300.043	304.675
125.0	255.268	235.711	240.343	253.209	269.678	289.750	306.733	312.909	319.085
127.5	275.339	252.180	253.724	263.502	278.942	299.013	316.512	324.231	331.951
130.0	295.411	268.134	266.590	273.795	286.662	305.704	322.173	330.922	339.671
132.5	315.482	284.088	279.971	284.603	294.896	311.880	326.290	334.010	342.244
135.0	337.098	302.616	294.381	294.896	302.616	316.512	328.863	336.068	343.273
137.5	359.228	322.173	310.336	306.733	310.336	321.658	331.951	337.612	343.273
140.0	381.872	343.273	326.805	318.055	317.541	326.290	334.010	338.642	343.273
142.5	404.517	364.889	344.303	329.378	325.261	330.922	336.583	339.671	343.273
145.0	427.676	386.504	361.286	341.215	332.980	336.583	339.671	341.729	343.788
147.5	450.321	408.120	379.299	355.111	343.273	343.788	344.303	345.332	346.361
150.0	473.995	431.794	399.885	371.579	355.625	352.537	349.964	350.479	350.479
152.5	497.669	455.982	423.045	392.680	373.123	363.860	357.169	356.140	355.111
155.0	520.829	481.715	448.777	418.413	395.253	379.814	367.462	365.404	363.345
157.5	543.473	507.448	476.054	445.689	420.471	400.915	385.475	380.843	376.726
160.0	565.089	532.666	502.301	472.966	448.777	429.735	413.781	407.605	401.429
162.5	585.160	556.854	528.548	500.757	478.113	460.614	446.204	440.543	434.367
165.0	603.173	578.984	554.796	531.122	510.536	493.037	478.627	473.481	468.334
167.5	619.127	599.056	579.499	559.942	542.444	527.005	513.624	508.477	503.330
170.0	633.538	617.583	602.144	587.219	573.838	562.516	553.252	549.135	545.017
172.5	645.889	633.538	622.215	611.408	602.144	594.424	588.248	585.160	582.587
175.0	656.697	647.948	640.743	634.052	627.876	623.245	619.127	617.583	615.525
177.5	664.417	659.785	656.182	652.580	650.006	647.433	645.375	644.345	643.316
180.0	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078	670.078

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-H-835-ASYTG-F-ITL90353 ITL89988.011.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	413.78	N.A.	8.30
0-30	857.00	N.A.	17.20
0-40	1361.31	N.A.	27.30
0-60	2256.89	N.A.	45.20
0-80	2671.53	N.A.	53.60
0-90	2704.75	N.A.	54.20
10-90	2596.05	N.A.	52.00
20-40	947.54	N.A.	19.00
20-50	1436.01	N.A.	28.80
40-70	1174.05	N.A.	23.50
60-80	414.64	N.A.	8.30
70-80	136.17	N.A.	2.70
80-90	33.22	N.A.	0.70
90-110	297.32	N.A.	6.00
90-120	653.48	N.A.	13.10
90-130	1063.74	N.A.	21.30
90-150	1777.81	N.A.	35.60
90-180	2282.96	N.A.	45.80
110-180	1985.64	N.A.	39.80
0-180	4987.71	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	75.33
100-110	221.99
110-120	356.16
120-130	410.26
130-140	383.40
140-150	330.68
150-160	264.28
160-170	177.64
170-180	63.22

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-H-835-ASYTG-F-ITL90353 ITL89988.011.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

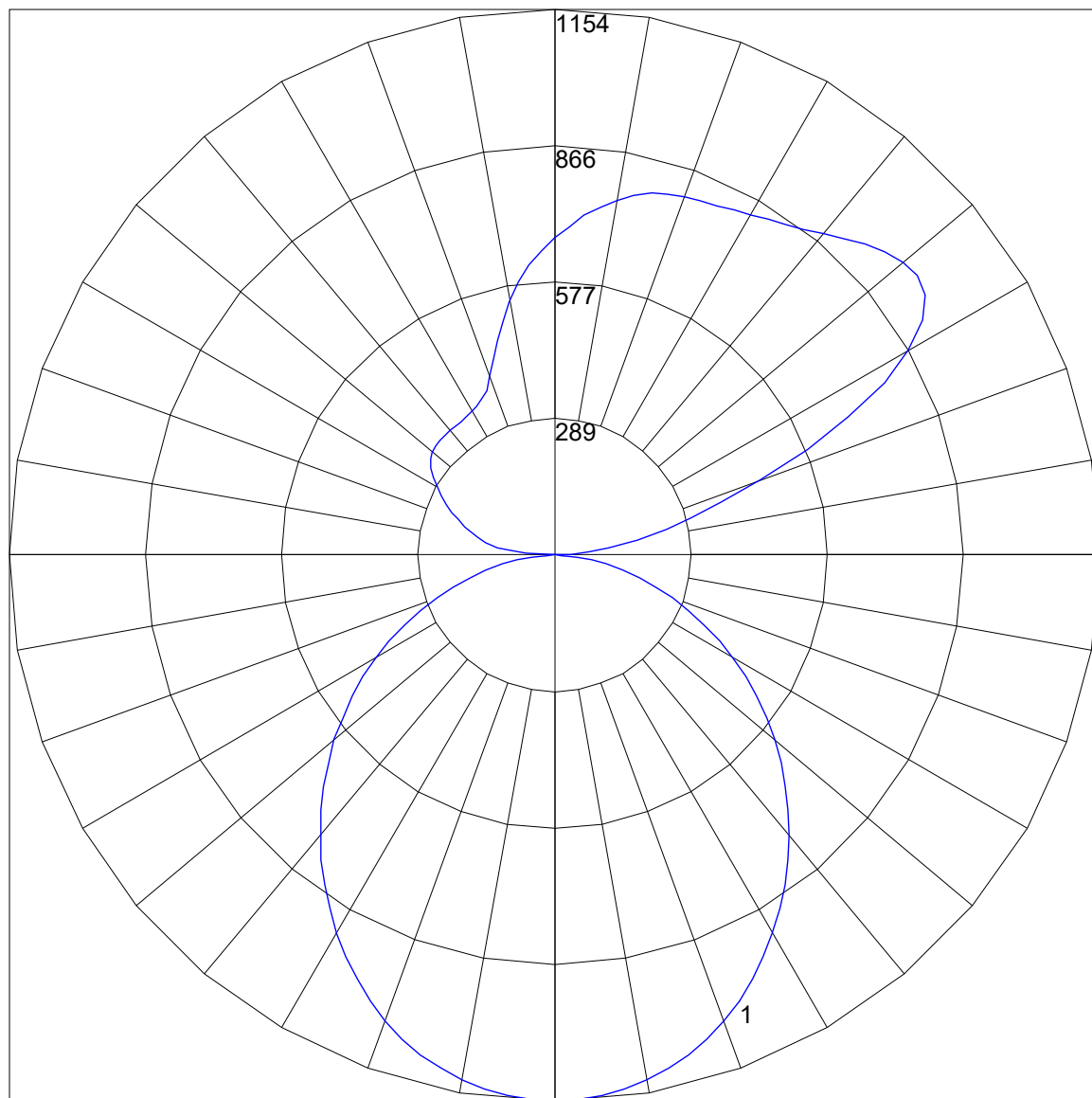
Effective Floor Cavity Reflectance 0.20

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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	99	95	91	88	92	88	85	82	76	73	71	64	62	61	54	52	51	46
2	90	83	77	72	84	77	72	68	67	63	59	57	54	51	48	45	44	39
3	83	73	66	60	76	68	62	57	59	54	50	50	47	44	42	40	37	34
4	76	65	57	51	70	61	54	48	53	47	43	45	41	38	38	35	33	29
5	70	58	50	44	64	54	47	42	47	42	37	41	36	33	34	31	28	25
6	64	52	44	38	59	49	42	37	43	37	33	37	32	29	31	28	25	22
7	59	47	39	34	55	44	37	32	39	33	29	33	29	26	29	25	22	20
8	55	43	35	30	51	40	33	29	35	30	26	31	26	23	26	23	20	18
9	51	39	32	27	48	37	30	26	32	27	23	28	24	21	24	21	18	16
10	48	36	29	24	45	34	27	23	30	25	21	26	22	19	23	19	17	15

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.)