

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-H-B-835-ASYTG-F-ITL90353 ITL89988.008.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89988.008 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-H-B-835-ASYTG-F

[_INPUT_ELECTRICAL]120.0 VOLTS, 46.7 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 48.4 WATTS

[_ABSOLUTE]LUMENS]5239

[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	5239
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	46.7
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)	0.33 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5295	4839	4485
55	4936	4264	3800
65	4489	3533	2937
75	3914	2459	1844
85	2858	1582	1477

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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	763.530	763.529	763.529	763.529	763.529	763.529	763.529	763.529	763.529	763.529
2.5	762.010	761.784	761.559	761.672	761.897	762.010	762.010	762.010	762.010	762.010
5.0	758.463	758.237	758.012	757.956	757.956	758.069	758.294	758.519	758.744	758.970
7.5	752.890	752.665	752.439	752.383	752.383	752.383	752.383	752.327	752.102	751.876
10.0	745.797	744.671	743.545	743.601	744.051	743.939	743.263	742.531	741.631	740.730
12.5	735.663	734.312	732.961	732.624	732.624	731.948	730.597	729.190	727.614	726.037
15.0	724.010	721.759	719.507	718.775	718.550	717.537	715.735	713.821	711.569	709.318
17.5	709.824	707.122	704.420	702.900	701.774	699.972	697.495	695.075	692.823	690.571
20.0	693.105	689.952	686.799	684.660	682.859	680.269	676.891	673.851	671.825	669.798
22.5	674.865	671.487	668.109	665.070	662.143	658.652	654.599	650.996	648.744	646.492
25.0	655.105	651.277	647.449	643.621	639.793	635.402	630.448	626.170	623.918	621.666
27.5	633.826	629.547	625.269	620.484	615.530	610.351	604.947	600.274	597.797	595.320
30.0	610.520	606.241	601.963	596.502	590.647	584.680	578.600	573.309	570.381	567.454
32.5	586.200	581.922	577.643	571.338	564.358	557.490	550.734	544.767	541.164	537.561
35.0	561.881	556.927	551.973	544.992	537.336	529.793	522.362	515.831	512.003	508.175
37.5	536.548	530.919	525.289	517.464	508.907	500.463	492.131	485.038	481.660	478.283
40.0	510.202	504.347	498.493	489.767	480.084	471.077	462.745	455.539	451.711	447.883
42.5	483.856	477.325	470.796	461.732	451.824	442.253	433.021	425.140	421.312	417.484
45.0	457.003	450.023	443.042	433.359	422.776	412.530	402.622	394.290	390.687	387.085
47.5	430.150	422.494	414.838	404.648	393.615	382.918	372.561	363.891	360.288	356.685
50.0	402.284	394.178	386.072	375.263	363.553	352.407	341.824	332.985	329.382	325.780
52.5	373.912	365.580	357.248	346.046	333.886	322.514	311.931	303.092	299.490	295.887
55.0	345.539	337.207	328.875	317.166	304.331	292.622	282.038	273.199	269.597	265.994
57.5	317.673	308.891	300.109	288.118	275.058	263.236	252.652	243.813	240.211	236.608
60.0	289.300	280.293	271.286	259.070	245.784	233.850	223.266	214.427	210.825	207.222
62.5	260.928	251.695	242.463	230.022	216.511	204.576	194.218	185.605	182.227	178.850
65.0	231.542	222.760	213.977	201.649	188.138	176.316	166.183	157.795	154.642	151.490
67.5	203.675	194.668	185.661	173.276	159.765	148.281	138.824	130.942	127.790	124.637
70.0	175.809	166.802	157.795	145.748	132.688	121.541	112.309	104.709	102.007	99.305
72.5	148.450	139.668	130.886	119.402	107.017	96.546	87.989	80.896	78.194	75.492
75.0	123.624	114.391	105.159	94.069	82.360	73.015	66.034	60.517	59.391	58.265
77.5	98.291	89.509	80.727	70.594	60.011	53.367	50.666	48.583	48.358	48.132
80.0	73.972	65.640	57.308	49.990	43.010	39.181	38.506	37.999	37.999	37.999
82.5	52.692	44.135	35.579	31.751	29.499	28.148	27.697	27.359	27.359	27.359
85.0	30.399	24.994	19.590	17.733	17.057	16.607	16.382	16.157	15.932	15.706
87.5	9.626	8.050	6.474	5.911	5.686	5.573	5.573	5.517	5.292	5.066
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	52.108	52.886	52.886	51.330	47.441	45.886	47.441	46.664	38.886	17.110
95.0	110.437	112.770	113.548	111.215	111.993	118.992	122.881	110.437	82.439	44.331
97.5	174.211	176.544	184.321	192.099	204.542	212.320	199.098	165.656	120.548	72.329
100.0	269.872	272.982	283.093	295.536	306.425	300.981	269.872	219.319	159.434	101.105
102.5	364.754	368.643	380.309	396.641	405.974	386.531	338.312	271.427	195.987	131.436
105.0	452.637	458.859	480.636	505.523	510.189	475.969	409.863	321.979	231.763	160.990
107.5	557.631	570.074	607.405	632.293	622.182	569.297	479.080	368.643	265.205	192.099
110.0	702.288	720.954	755.174	763.729	732.620	657.180	540.521	409.085	297.870	223.208
112.5	878.055	887.387	903.720	893.609	842.279	736.508	591.851	445.638	330.534	255.095
115.0	1038.266	1041.377	1045.266	1016.490	937.940	800.282	633.070	479.080	362.421	286.981
117.5	1188.368	1185.257	1172.813	1118.372	1009.490	845.390	665.735	510.189	395.863	318.868
120.0	1308.916	1299.583	1270.029	1191.479	1056.154	874.944	692.178	540.521	427.750	353.866
122.5	1396.021	1378.911	1332.248	1235.032	1081.042	895.942	717.843	570.852	462.748	389.642
125.0	1447.351	1425.575	1365.690	1252.919	1092.707	909.941	739.619	600.406	496.190	423.862
127.5	1465.239	1439.574	1371.912	1253.697	1095.041	922.385	761.395	629.959	530.410	458.859
130.0	1457.462	1431.019	1360.246	1243.586	1094.263	934.051	784.727	659.513	563.075	493.079
132.5	1433.352	1408.465	1340.025	1230.365	1092.707	946.495	808.837	690.622	598.073	528.077

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CANDELA TABULATION - (Cont.)

135.0	1402.243	1378.911	1315.915	1215.588	1091.930	960.494	832.946	720.954	633.070	563.075
137.5	1370.356	1349.358	1291.028	1202.367	1092.707	974.493	857.834	753.618	668.068	598.850
140.0	1338.469	1319.804	1269.252	1191.479	1095.041	989.270	882.721	785.505	703.066	635.404
142.5	1310.471	1294.139	1251.364	1184.479	1099.707	1005.602	909.164	817.392	738.064	671.179
145.0	1288.695	1273.140	1236.587	1179.813	1105.151	1021.934	934.829	849.279	772.284	706.955
147.5	1270.029	1257.586	1226.477	1176.702	1111.373	1039.044	960.494	879.610	806.504	742.730
150.0	1255.252	1243.586	1217.144	1175.147	1119.928	1056.932	985.381	909.164	839.168	778.505
152.5	1242.031	1231.921	1210.144	1174.369	1128.483	1072.486	1006.380	935.606	869.500	811.170
155.0	1229.588	1221.810	1204.700	1176.702	1137.038	1087.263	1025.823	959.716	898.275	843.057
157.5	1222.588	1215.588	1201.589	1178.257	1143.260	1098.151	1042.155	980.715	924.718	873.388
160.0	1217.144	1211.700	1200.034	1178.257	1146.371	1105.929	1054.599	999.380	948.828	901.386
162.5	1207.033	1204.700	1193.812	1174.369	1145.593	1109.817	1063.931	1014.157	969.826	927.051
165.0	1195.367	1193.034	1182.146	1164.258	1139.371	1108.262	1068.598	1025.823	987.714	948.828
167.5	1175.924	1174.369	1165.814	1149.482	1127.705	1100.485	1067.820	1032.822	1000.158	967.493
170.0	1151.037	1150.259	1142.482	1130.038	1112.151	1089.596	1063.931	1036.711	1010.268	983.826
172.5	1119.928	1120.706	1115.262	1105.151	1091.152	1074.042	1056.154	1036.711	1015.712	995.491
175.0	1089.596	1087.263	1083.375	1077.153	1067.820	1056.932	1045.266	1032.822	1018.823	1005.602
177.5	1050.710	1050.710	1048.377	1045.266	1040.600	1035.933	1030.489	1023.490	1016.490	1010.268
180.0	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601

Vert. Angles

Horizontal Angles

	100	110	120	130	140	150	160	170	180
0.0	763.529	763.529	763.529	763.529	763.529	763.529	763.529	763.529	763.529
2.5	762.010	762.010	762.010	762.010	761.897	761.672	761.559	761.784	762.010
5.0	758.744	758.519	758.294	758.069	757.956	757.956	758.012	758.237	758.463
7.5	752.102	752.327	752.383	752.383	752.383	752.383	752.439	752.665	752.890
10.0	741.631	742.531	743.263	743.939	744.051	743.601	743.545	744.671	745.797
12.5	727.614	729.190	730.597	731.948	732.624	732.624	732.961	734.312	735.663
15.0	711.569	713.821	715.735	717.537	718.550	718.775	719.507	721.759	724.010
17.5	692.823	695.075	697.495	699.972	701.774	702.900	704.420	707.122	709.824
20.0	671.825	673.851	676.891	680.269	682.859	684.660	686.799	689.952	693.105
22.5	648.744	650.996	654.599	658.652	662.143	665.070	668.109	671.487	674.865
25.0	623.918	626.170	630.448	635.402	639.793	643.621	647.449	651.277	655.105
27.5	597.797	600.274	604.947	610.351	615.530	620.484	625.269	629.547	633.826
30.0	570.381	573.309	578.600	584.680	590.647	596.502	601.963	606.241	610.520
32.5	541.164	544.767	550.734	557.490	564.358	571.338	577.643	581.922	586.200
35.0	512.003	515.831	522.362	529.793	537.336	544.992	551.973	556.927	561.881
37.5	481.660	485.038	492.131	500.463	508.907	517.464	525.289	530.919	536.548
40.0	451.711	455.539	462.745	471.077	480.084	489.767	498.493	504.347	510.202
42.5	421.312	425.140	433.021	442.253	451.824	461.732	470.796	477.325	483.856
45.0	390.687	394.290	402.622	412.530	422.776	433.359	443.042	450.023	457.003
47.5	360.288	363.891	372.561	382.918	393.615	404.648	414.838	422.494	430.150
50.0	329.382	332.985	341.824	352.407	363.553	375.263	386.072	394.178	402.284
52.5	299.490	303.092	311.931	322.514	333.886	346.046	357.248	365.580	373.912
55.0	269.597	273.199	282.038	292.622	304.331	317.166	328.875	337.207	345.539
57.5	240.211	243.813	252.652	263.236	275.058	288.118	300.109	308.891	317.673
60.0	210.825	214.427	223.266	233.850	245.784	259.070	271.286	280.293	289.300
62.5	182.227	185.605	194.218	204.576	216.511	230.022	242.463	251.695	260.928
65.0	154.642	157.795	166.183	176.316	188.138	201.649	213.977	222.760	231.542
67.5	127.790	130.942	138.824	148.281	159.765	173.276	185.661	194.668	203.675
70.0	102.007	104.709	112.309	121.541	132.688	145.748	157.795	166.802	175.809
72.5	78.194	80.896	87.989	96.546	107.017	119.402	130.886	139.668	148.450
75.0	59.391	60.517	66.034	73.015	82.360	94.069	105.159	114.391	123.624
77.5	48.358	48.583	50.666	53.367	60.011	70.594	80.727	89.509	98.291
80.0	37.999	37.999	38.506	39.181	43.010	49.990	57.308	65.640	73.972

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CANDELA TABULATION - (Cont.)

82.5	27.359	27.359	27.697	28.148	29.499	31.751	35.579	44.135	52.692
85.0	15.932	16.157	16.382	16.607	17.057	17.733	19.590	24.994	30.399
87.5	5.292	5.517	5.573	5.573	5.686	5.911	6.474	8.050	9.626
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	29.554	41.997	53.663	65.329	73.884	80.106	85.550	87.883	90.216
95.0	53.663	67.662	83.995	101.105	114.326	122.881	130.658	132.991	136.102
97.5	77.773	91.772	111.215	133.769	150.879	164.101	174.989	178.877	182.766
100.0	103.438	117.437	138.435	161.767	181.211	197.543	211.542	216.986	222.430
102.5	129.103	143.102	165.656	191.321	211.542	226.319	238.762	244.207	249.651
105.0	156.323	167.212	189.766	215.431	237.207	254.317	268.316	272.205	276.093
107.5	183.544	190.543	212.320	238.762	261.317	279.982	294.759	298.647	301.758
110.0	209.987	213.097	234.874	262.094	286.204	306.425	321.979	325.868	328.979
112.5	236.429	234.874	256.650	285.426	311.091	332.090	348.422	353.088	356.977
115.0	264.427	258.206	278.426	307.202	333.645	356.199	374.087	378.753	383.420
117.5	293.981	282.315	300.203	328.201	354.644	380.309	400.530	405.196	409.863
120.0	324.312	307.202	321.979	347.644	374.087	401.308	423.084	429.306	435.527
122.5	355.421	332.090	343.756	366.310	391.975	421.528	445.638	453.415	460.415
125.0	385.753	356.199	363.199	382.642	407.529	437.861	463.526	472.858	482.191
127.5	416.084	381.087	383.420	398.197	421.528	451.860	478.303	489.968	501.634
130.0	446.416	405.196	402.863	413.751	433.194	461.970	486.858	500.079	513.300
132.5	476.747	429.306	423.084	430.083	445.638	471.303	493.079	504.745	517.189
135.0	509.412	457.304	444.860	445.638	457.304	478.303	496.968	507.856	518.744
137.5	542.854	486.858	468.970	463.526	468.970	486.080	501.634	510.189	518.744
140.0	577.074	518.744	493.857	480.636	479.858	493.079	504.745	511.745	518.744
142.5	611.294	551.409	520.300	497.746	491.524	500.079	508.634	513.300	518.744
145.0	646.292	584.073	545.965	515.634	503.190	508.634	513.300	516.411	519.522
147.5	680.512	616.738	573.185	536.632	518.744	519.522	520.300	521.855	523.411
150.0	716.287	652.514	604.294	561.519	537.410	532.744	528.855	529.633	529.633
152.5	752.063	689.067	639.292	593.406	563.853	549.854	539.743	538.188	536.632
155.0	787.060	727.953	678.178	632.293	597.295	573.963	555.298	552.187	549.076
157.5	821.280	766.840	719.398	673.512	635.404	605.850	582.518	575.519	569.297
160.0	853.945	804.948	759.062	714.732	678.178	649.403	625.293	615.960	606.628
162.5	884.276	841.501	798.726	756.729	722.509	696.066	674.290	665.735	656.402
165.0	911.497	874.944	838.390	802.615	771.506	745.063	723.287	715.510	707.732
167.5	935.606	905.275	875.721	846.168	819.725	796.393	776.172	768.395	760.618
170.0	957.383	933.273	909.941	887.387	867.166	850.056	836.057	829.835	823.614
172.5	976.048	957.383	940.273	923.941	909.941	898.275	888.943	884.276	880.388
175.0	992.380	979.159	968.271	958.160	948.828	941.828	935.606	933.273	930.162
177.5	1004.046	997.047	991.603	986.159	982.270	978.381	975.270	973.715	972.160
180.0	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	1012.601	669.910

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-H-B-835-ASYTG-F-ITL90353 ITL89988.008.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	273.76	N.A.	5.20
0-30	567.00	N.A.	10.80
0-40	900.66	N.A.	17.20
0-60	1493.19	N.A.	28.50
0-80	1767.52	N.A.	33.70
0-90	1789.5	N.A.	34.20
10-90	1717.58	N.A.	32.80
20-40	626.90	N.A.	12.00
20-50	950.08	N.A.	18.10
40-70	776.77	N.A.	14.80
60-80	274.33	N.A.	5.20
70-80	90.09	N.A.	1.70
80-90	21.98	N.A.	0.40
90-110	449.30	N.A.	8.60
90-120	987.51	N.A.	18.80
90-130	1607.49	N.A.	30.70
90-150	2686.57	N.A.	51.30
90-180	3449.91	N.A.	65.80
110-180	3000.61	N.A.	57.30
0-180	5239.4	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	71.92
10-20	201.84
20-30	293.24
30-40	333.66
40-50	323.18
50-60	269.35
60-70	184.24
70-80	90.09
80-90	21.98
90-100	113.83
100-110	335.46
110-120	538.22
120-130	619.97
130-140	579.38
140-150	499.71
150-160	399.38
160-170	268.45
170-180	95.51

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-H-B-835-ASYTG-F-ITL90353 ITL89988.008.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

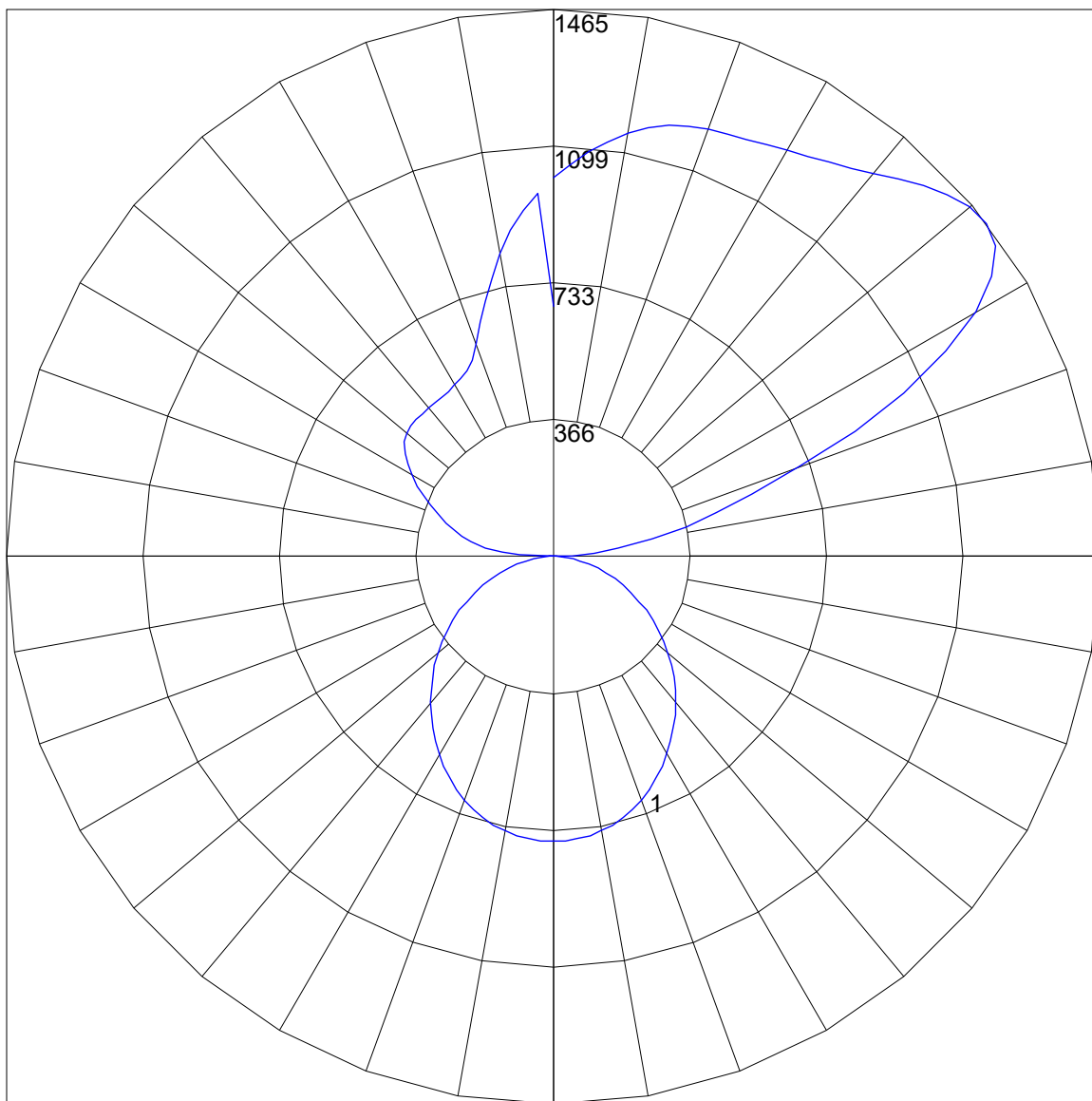
Effective Floor Cavity Reflectance 0.20

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	57	57	57	42	42	42	34
1	94	90	87	83	85	82	79	76	66	63	62	51	49	48	37	36	35	29
2	86	79	73	68	78	72	67	62	58	54	51	45	42	40	33	31	30	25
3	79	70	63	57	71	63	57	52	51	47	43	40	37	34	29	27	26	21
4	72	62	54	48	65	56	49	44	45	41	37	35	32	29	26	24	22	18
5	66	55	47	41	59	50	43	38	41	36	32	32	28	26	24	21	20	16
6	61	49	41	36	55	45	38	33	36	31	28	29	25	22	21	19	17	14
7	56	44	37	31	51	40	34	29	33	28	24	26	23	20	20	17	15	13
8	52	40	33	28	47	37	30	26	30	25	22	24	20	18	18	16	14	11
9	48	37	29	24	44	33	27	23	28	23	19	22	18	16	17	14	12	10
10	45	34	27	22	41	31	25	20	25	21	17	20	17	14	15	13	11	9

IES INDOOR REPORT

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POLAR GRAPH



Maximum Candela = 1465.239 Located At Horizontal Angle = 0, Vertical Angle = 127.5

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