

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-4FT-H-B-835-ASY-ITL89599.008.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599.008 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]08/24/17
[ISSUEDATE]10/30/17
[MANUFAC]FINELITE, INC.
[LUMCAT]HP-2-ID-4ft-H-B-835-ASY
[INPUT_ELECTRICAL]120.0 VOLTS, 46.5 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 48.5 WATTS
[OTHER]see www.finelite.com for source file 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
[ABSOLUTE LUMENS]4984

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4984
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	46.5
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)	0.18 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7746	7956	8154
55	7165	7369	7587
65	6637	6803	7007
75	6339	6249	6309
85	6454	6096	5468

CANDELA TABULATION

	<u>0.0</u>	<u>5.0</u>	<u>15.0</u>	<u>25.0</u>	<u>35.0</u>	<u>45.0</u>	<u>55.0</u>	<u>65.0</u>	<u>75.0</u>	<u>85.0</u>
0.0	641.743	641.743	641.743	641.743	641.743	641.743	641.743	641.743	641.743	641.743
2.5	640.713	640.713	640.713	640.713	640.713	640.713	640.713	640.713	641.228	640.713
5.0	637.111	637.111	637.111	637.111	637.111	637.626	637.111	637.626	638.140	638.140
7.5	630.421	630.936	630.421	631.450	632.479	632.479	632.479	632.994	633.509	632.994
10.0	621.672	621.672	622.187	622.701	623.731	624.245	625.789	625.274	625.789	626.818
12.5	611.380	610.350	612.409	613.438	614.467	613.438	616.526	616.526	616.526	618.070
15.0	599.543	597.999	600.058	601.602	603.660	603.660	604.689	604.689	608.292	610.865
17.5	583.590	583.590	585.134	587.707	589.765	589.250	593.368	589.765	592.853	595.426
20.0	568.665	567.636	569.695	572.268	574.841	575.356	576.899	574.326	578.443	581.531
22.5	550.653	551.168	552.197	554.770	558.373	558.887	560.431	558.373	563.004	567.121
25.0	532.127	531.612	533.156	536.758	540.361	539.332	542.419	541.390	544.992	550.139
27.5	511.541	512.056	514.115	516.688	520.290	520.290	523.893	523.893	525.951	532.127
30.0	492.500	491.986	494.559	497.132	500.220	501.249	504.337	504.851	507.939	513.085
32.5	471.400	471.400	472.430	477.576	479.120	481.178	484.266	483.752	487.354	492.500
35.0	449.271	449.271	450.815	454.932	458.020	460.079	461.622	462.652	466.769	471.400
37.5	427.657	427.657	428.686	432.289	435.891	438.464	439.493	440.523	444.640	449.271
40.0	405.528	405.013	407.072	409.645	412.218	415.820	416.850	419.423	421.996	426.628
42.5	383.913	383.399	384.428	387.516	390.089	393.691	394.721	397.294	399.867	403.469
45.0	360.755	360.755	361.784	364.358	367.445	370.533	372.077	373.621	376.194	380.311
47.5	338.111	338.626	339.655	341.714	344.802	348.404	348.919	350.462	353.550	357.667
50.0	315.468	315.982	316.497	319.070	321.643	324.216	325.760	327.304	329.877	333.480
52.5	292.309	293.339	293.853	296.941	298.485	301.058	303.117	304.146	306.719	309.292
55.0	270.695	270.695	271.724	274.297	275.841	278.414	279.958	280.988	283.046	285.619
57.5	248.566	248.566	250.110	252.168	254.227	256.285	256.800	258.344	260.402	262.976
60.0	226.952	226.952	227.981	230.039	232.098	233.642	235.186	235.186	237.244	239.303
62.5	205.337	206.366	206.881	208.425	209.454	211.513	212.542	212.542	214.600	216.144
65.0	184.752	185.781	185.781	187.325	187.840	189.384	190.413	190.413	191.442	193.501
67.5	164.681	165.196	164.681	166.225	166.740	167.769	168.798	168.284	169.313	171.371
70.0	144.611	145.125	144.611	146.155	146.155	146.669	147.184	147.184	148.728	149.243
72.5	126.084	126.084	125.570	126.084	126.084	126.084	126.599	126.084	127.628	128.143
75.0	108.072	107.558	107.043	107.558	107.043	106.528	106.528	105.499	107.043	107.558
77.5	90.060	89.546	89.546	89.546	89.031	87.487	86.972	86.972	86.972	87.487
80.0	71.534	71.534	71.534	71.534	71.019	69.990	68.960	67.931	67.931	67.931
82.5	53.521	54.036	54.036	53.521	53.521	52.492	51.978	50.434	49.919	49.404
85.0	37.053	37.568	37.568	37.053	36.539	34.995	34.480	33.451	32.422	31.907
87.5	23.673	24.188	23.673	22.644	21.100	19.556	18.012	16.468	15.439	13.895
90.0	28.002	28.002	27.224	24.890	21.779	17.890	13.223	8.556	4.667	0.778
92.5	60.670	61.448	61.448	59.892	54.448	49.003	49.003	43.558	41.225	32.669
95.0	121.340	122.896	122.118	119.785	115.118	111.229	108.117	100.339	89.450	67.671
97.5	184.344	185.899	185.122	182.010	184.344	182.788	178.899	163.343	140.008	98.783
100.0	238.791	241.125	243.458	250.459	267.571	267.571	259.793	229.458	191.344	129.119
102.5	306.462	309.573	319.685	340.686	367.910	367.132	346.131	298.684	235.680	158.676
105.0	399.023	403.690	427.024	466.693	486.139	478.361	436.358	364.799	274.571	189.789
107.5	542.142	540.587	581.033	607.479	621.480	597.368	529.697	420.802	310.351	219.346
110.0	724.930	720.264	747.487	762.266	764.599	711.707	605.924	468.249	342.242	250.459
112.5	905.385	899.940	920.942	922.497	896.051	805.046	664.260	507.140	374.132	279.238
115.0	1080.395	1074.173	1082.729	1060.950	996.390	875.828	708.596	541.364	404.468	311.129
117.5	1221.181	1214.958	1204.069	1165.178	1071.839	923.275	741.265	570.144	434.025	343.020
120.0	1321.520	1316.075	1293.519	1234.404	1118.508	952.054	766.155	597.368	465.138	375.688
122.5	1386.079	1381.412	1349.522	1274.073	1143.399	971.500	787.156	623.813	496.251	408.357
125.0	1416.414	1413.303	1375.968	1289.629	1153.511	984.723	806.602	649.482	527.364	440.247
127.5	1422.637	1420.304	1379.857	1288.852	1155.844	993.279	826.047	676.705	558.476	471.360
130.0	1411.747	1409.414	1368.967	1280.295	1153.511	1000.279	846.271	703.929	590.367	504.807
132.5	1391.524	1390.746	1352.633	1267.850	1149.621	1009.613	864.938	731.931	622.258	538.253

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-B-835-ASY-ITL89599.008.IES

CANDELA TABULATION - (Cont.)

135.0	1368.967	1367.412	1331.632	1253.072	1146.510	1018.947	885.162	759.155	653.371	571.699
137.5	1346.410	1343.299	1311.408	1240.627	1144.955	1029.059	906.163	787.156	683.706	605.146
140.0	1322.298	1320.742	1293.519	1230.515	1144.955	1039.171	926.386	815.158	714.819	638.592
142.5	1302.852	1302.075	1278.740	1222.737	1145.732	1049.282	947.388	843.159	745.154	672.816
145.0	1286.518	1285.740	1264.739	1214.958	1146.510	1060.950	968.389	868.050	774.711	704.707
147.5	1271.739	1270.184	1252.294	1207.958	1147.288	1071.839	987.834	892.162	803.490	736.598
150.0	1255.405	1255.405	1239.849	1201.736	1148.843	1082.729	1004.169	913.163	830.714	766.933
152.5	1242.182	1240.627	1228.959	1197.069	1151.177	1090.507	1018.947	932.609	856.382	795.712
155.0	1231.293	1228.959	1219.625	1191.624	1150.399	1095.174	1029.059	948.943	878.939	822.936
157.5	1220.403	1218.070	1208.736	1184.623	1146.510	1095.174	1036.059	962.944	899.940	849.382
160.0	1205.625	1203.291	1193.957	1172.178	1138.732	1091.285	1039.171	973.834	917.830	872.717
162.5	1186.179	1184.623	1175.290	1156.622	1124.731	1083.506	1039.171	981.612	934.165	893.718
165.0	1161.289	1159.733	1150.399	1133.287	1107.619	1072.617	1035.282	987.057	946.610	911.608
167.5	1131.731	1130.176	1121.620	1108.397	1086.618	1057.838	1028.281	988.612	955.166	926.386
170.0	1097.507	1095.952	1089.729	1078.062	1062.505	1041.504	1017.392	987.057	962.166	938.054
172.5	1062.505	1061.727	1056.283	1049.282	1037.615	1021.281	1004.169	983.167	964.500	945.832
175.0	1025.170	1024.392	1020.503	1015.836	1008.836	999.502	988.612	975.389	962.944	950.499
177.5	987.057	987.057	985.501	983.167	980.056	976.167	970.722	963.722	958.277	952.054
180.0	950.499	950.499	950.499	950.499	950.499	950.499	950.499	950.499	950.499	950.499

**Vert.
Angles**

Horizontal Angles

	<u>90.0</u>	<u>95.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	641.743	641.743	641.743	641.743	641.743	641.743
2.5	640.713	640.713	640.713	640.713	640.713	640.199
5.0	637.626	637.626	637.626	637.626	637.111	637.111
7.5	632.994	632.994	632.994	632.479	632.479	631.965
10.0	627.333	626.818	625.274	625.789	625.789	624.245
12.5	618.584	619.099	616.011	616.526	616.011	613.438
15.0	610.865	610.865	606.233	605.719	603.660	600.572
17.5	595.426	596.455	592.853	591.824	589.765	585.648
20.0	581.531	582.560	577.414	578.443	573.297	569.695
22.5	565.578	566.607	561.461	560.946	556.314	552.197
25.0	549.109	550.139	543.963	541.905	537.788	533.156
27.5	531.097	532.127	524.922	522.863	518.232	513.085
30.0	511.541	513.085	505.881	502.793	497.132	492.500
32.5	490.956	492.500	485.810	483.237	476.032	471.400
35.0	470.371	470.371	464.196	461.622	455.447	449.271
37.5	448.757	448.242	443.096	440.008	432.803	426.628
40.0	427.142	426.628	420.452	416.850	408.101	403.984
42.5	403.984	403.469	398.838	393.691	385.972	381.855
45.0	379.796	380.311	375.165	370.533	362.814	358.697
47.5	357.153	357.153	352.006	347.375	340.170	336.567
50.0	333.480	333.480	328.334	323.702	317.012	313.924
52.5	309.807	309.807	305.175	301.058	294.368	291.795
55.0	286.649	286.134	281.502	277.385	271.210	269.666
57.5	263.490	262.461	258.344	254.742	250.110	247.537
60.0	240.846	240.332	235.700	232.098	227.466	225.922
62.5	217.688	217.688	212.542	209.454	205.852	204.308
65.0	195.044	194.530	190.413	188.354	184.237	182.693
67.5	172.401	171.886	168.284	166.740	163.137	162.108
70.0	150.272	149.757	146.669	145.125	142.552	141.523
72.5	128.657	128.657	126.599	124.540	122.482	121.453
75.0	107.558	107.558	106.014	104.470	102.926	102.411
77.5	87.487	87.487	85.943	84.914	84.399	83.885
80.0	67.931	67.931	66.902	66.387	66.387	65.873

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-B-835-ASY-ITL89599.008.IES

CANDELA TABULATION - (Cont.)

82.5	49.404	49.404	48.375	48.890	49.404	48.890
85.0	31.392	31.907	31.392	32.422	32.936	32.422
87.5	13.380	13.895	14.924	16.983	18.012	19.041
90.0	0.000	0.778	7.778	15.556	20.223	21.001
92.5	18.668	23.335	26.446	32.669	35.002	35.780
95.0	45.892	49.003	53.670	63.781	64.559	61.448
97.5	74.671	74.671	80.116	95.672	101.117	98.783
100.0	104.228	100.339	107.340	126.007	137.674	136.897
102.5	133.008	126.785	137.674	158.676	171.121	171.899
105.0	162.565	152.453	167.232	196.789	204.567	203.789
107.5	192.900	180.455	193.678	226.346	239.569	235.680
110.0	223.235	209.234	217.790	257.459	270.682	270.682
112.5	253.570	238.014	241.125	287.794	304.906	304.906
115.0	285.461	266.793	263.682	315.796	339.908	341.464
117.5	318.129	296.350	284.683	341.464	372.577	375.688
120.0	350.020	326.685	306.462	364.021	402.912	407.579
122.5	381.911	357.020	328.241	385.022	430.914	437.136
125.0	413.801	388.133	350.798	403.690	457.360	464.360
127.5	444.914	418.468	372.577	420.024	479.139	490.028
130.0	477.583	449.581	393.578	434.025	496.251	512.585
132.5	510.251	482.250	414.579	447.248	506.362	528.141
135.0	543.698	514.141	434.803	459.693	514.141	535.920
137.5	577.144	546.809	457.360	470.582	519.585	539.031
140.0	609.813	579.478	481.472	482.250	522.697	540.587
142.5	642.481	612.146	509.474	493.917	525.030	539.031
145.0	675.150	645.592	539.809	505.584	527.364	537.475
147.5	707.040	678.261	570.144	517.252	530.475	537.475
150.0	739.709	710.152	598.923	530.475	535.920	538.253
152.5	770.044	741.265	630.814	547.587	541.364	541.364
155.0	798.823	770.822	662.705	571.699	550.698	546.031
157.5	826.047	799.601	693.817	605.146	564.699	556.921
160.0	850.938	826.825	729.597	643.259	587.256	573.255
162.5	873.494	851.716	765.377	681.372	625.369	603.590
165.0	893.718	875.050	802.713	719.486	672.038	650.260
167.5	910.830	894.496	834.603	760.710	715.596	699.262
170.0	924.053	911.608	863.383	806.602	763.822	747.487
172.5	934.942	925.609	891.384	850.160	819.047	805.824
175.0	944.276	937.276	914.719	889.051	869.605	861.827
177.5	948.943	945.832	934.165	922.497	913.941	909.274
180.0	950.499	950.499	950.499	950.499	950.499	950.499

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HP-2-ID-4FT-H-B-835-ASY-ITL89599.008.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	230.60	N.A.	4.60
0-30	479.56	N.A.	9.60
0-40	767.14	N.A.	15.40
0-60	1300.96	N.A.	26.10
0-80	1600.01	N.A.	32.10
0-90	1639.14	N.A.	32.90
10-90	1578.68	N.A.	31.70
20-40	536.54	N.A.	10.80
20-50	821.88	N.A.	16.50
40-70	720.70	N.A.	14.50
60-80	299.05	N.A.	6.00
70-80	112.16	N.A.	2.30
80-90	39.13	N.A.	0.80
90-110	403.07	N.A.	8.10
90-120	935.47	N.A.	18.80
90-130	1546.1	N.A.	31.00
90-150	2614.68	N.A.	52.50
90-180	3345.3	N.A.	67.10
110-180	2942.24	N.A.	59.00
0-180	4984.44	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

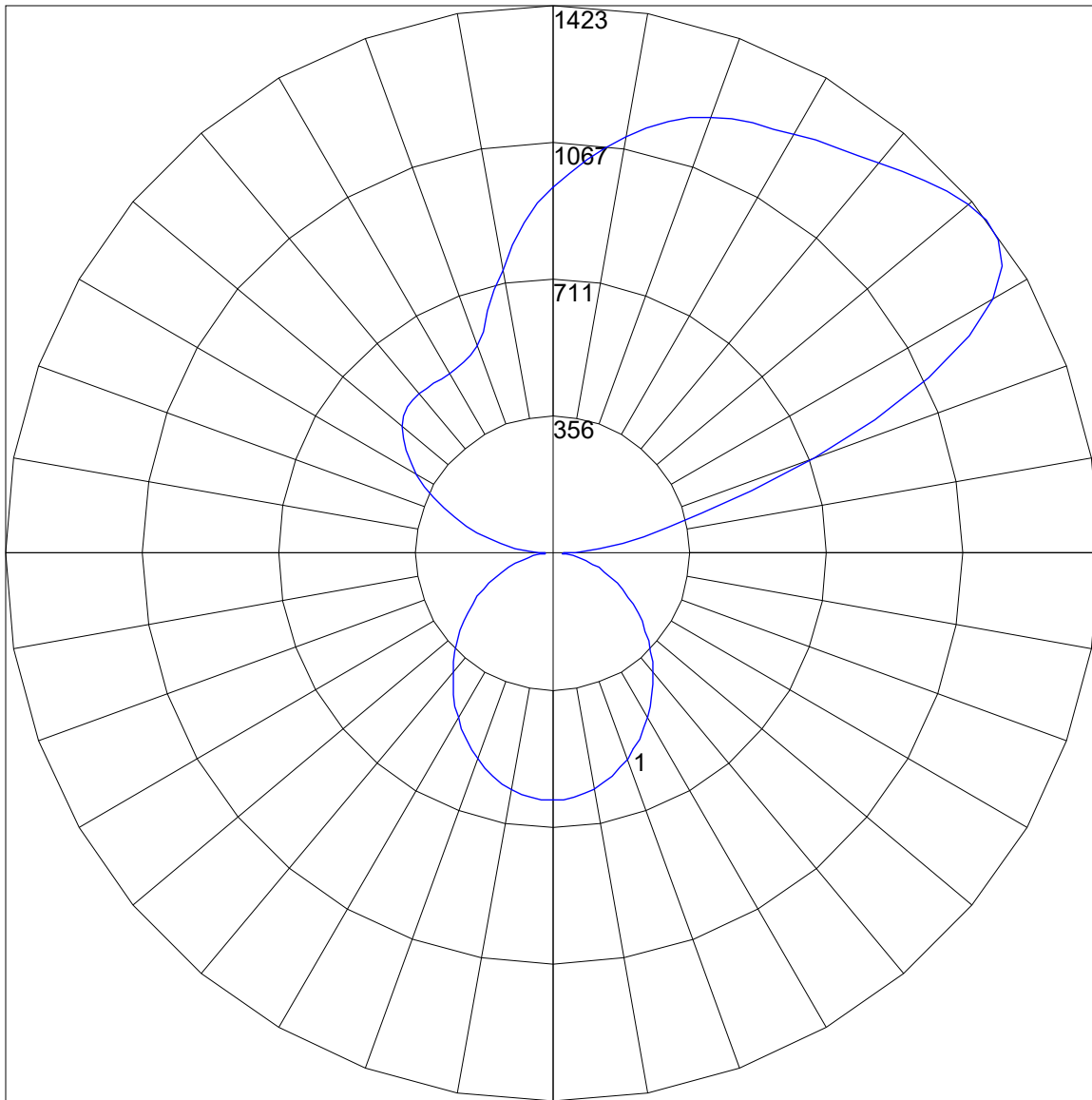
Zone	Lumens
0-10	60.46
10-20	170.14
20-30	248.95
30-40	287.59
40-50	285.33
50-60	248.49
60-70	186.88
70-80	112.16
80-90	39.13
90-100	94.34
100-110	308.72
110-120	532.40
120-130	610.63
130-140	574.08
140-150	494.51
150-160	387.63
160-170	253.53
170-180	89.47

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	74	74	74	56	56	56	40	40	40	33
1	94	90	86	82	84	81	78	75	64	62	60	49	48	47	36	35	34	28
2	85	78	72	67	77	71	66	61	56	53	50	43	41	39	31	30	28	23
3	78	69	62	56	70	62	56	51	50	45	42	38	35	33	28	26	24	19
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	25	23	21	17
5	65	54	46	40	59	49	42	37	39	34	31	31	27	24	22	20	18	15
6	60	48	40	35	54	44	37	32	35	30	27	28	24	21	20	18	16	13
7	55	44	36	30	50	40	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	27	46	36	29	25	29	24	21	23	19	17	17	14	13	10
9	48	36	29	24	43	33	26	22	27	22	18	21	17	15	16	13	11	9
10	45	33	26	21	40	30	24	20	24	20	16	19	16	13	14	12	10	8

POLAR GRAPH



Maximum Candela = 1422.637 Located At Horizontal Angle = 0, Vertical Angle = 127.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)