

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-4FT-H-H-835-ASY-ITL89988.003.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988.003 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]11/16/17
[ISSUE DATE]12/11/17
[MANUFAC]FINELITE, INC.
[LUMCAT]HP-4-ID-4ft-H-H-835-ASYM
[INPUT_ELECTRICAL]120.0 VOLTS, 56.6 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 57.8 WATTS
[OTHER]see www.finelite.com for source file 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
[ABSOLUTE LUMENS]6379

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6379
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	56.6
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)	0.32 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	7875	7930	7939
55	7315	7383	7417
65	6726	6803	6803
75	6129	6104	6079
85	5052	4978	4978

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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	1115.275	1115.275	1115.275	1115.275	1115.275	1115.275	1115.275	1115.275	1115.275	1115.275
2.5	1113.720	1113.720	1113.720	1113.720	1113.720	1113.720	1113.720	1112.942	1113.720	1113.720
5.0	1109.831	1109.831	1109.831	1109.831	1109.831	1109.831	1109.831	1109.053	1109.053	1109.831
7.5	1102.831	1102.053	1102.053	1102.053	1102.053	1102.053	1101.276	1100.498	1100.498	1100.498
10.0	1091.165	1091.165	1093.498	1092.721	1092.721	1091.165	1091.943	1088.054	1088.054	1088.832
12.5	1076.388	1076.388	1078.721	1079.499	1080.277	1077.944	1077.166	1072.499	1072.499	1074.055
15.0	1058.500	1057.722	1060.833	1063.167	1063.944	1060.056	1060.056	1054.611	1054.611	1057.722
17.5	1035.168	1035.168	1037.501	1041.390	1042.945	1039.834	1039.834	1034.390	1038.279	1039.057
20.0	1011.058	1011.836	1013.391	1017.280	1018.058	1015.725	1020.391	1009.503	1009.503	1012.614
22.5	985.393	984.615	986.948	990.059	992.393	992.393	991.615	983.060	985.393	990.059
25.0	956.617	955.061	956.617	960.505	962.839	960.505	962.061	958.950	955.061	958.172
27.5	924.729	924.729	925.507	929.396	934.840	929.396	931.729	925.507	924.729	928.618
30.0	891.287	891.287	892.064	895.953	899.064	897.509	896.731	892.842	892.064	895.175
32.5	857.844	857.844	857.844	862.510	864.066	863.288	862.510	859.399	860.955	861.733
35.0	819.735	821.290	821.290	827.512	828.290	826.735	825.957	823.624	825.179	825.957
37.5	783.959	784.737	783.959	787.848	792.514	790.181	789.403	788.625	789.403	789.403
40.0	747.405	745.850	745.850	748.961	752.072	750.516	752.072	750.516	752.072	752.072
42.5	708.518	707.741	706.185	710.074	712.407	712.407	713.185	711.629	713.963	713.185
45.0	668.854	668.854	668.854	671.187	672.743	673.520	671.965	672.743	674.298	674.298
47.5	627.634	628.412	628.412	630.745	632.300	633.078	632.300	632.300	633.856	633.856
50.0	586.414	587.969	588.747	588.747	591.080	592.636	592.636	590.302	594.191	593.413
52.5	545.194	547.527	547.527	547.527	550.638	552.193	551.416	549.860	553.749	552.971
55.0	503.974	507.085	507.085	506.307	509.418	508.640	510.196	508.640	511.751	511.751
57.5	462.754	465.865	466.642	467.420	468.198	467.420	468.975	468.198	470.531	471.309
60.0	421.533	424.644	426.200	426.200	426.978	428.533	427.755	426.978	428.533	430.089
62.5	381.869	383.424	385.758	385.758	384.202	387.313	386.535	385.758	388.091	389.646
65.0	341.427	342.982	345.315	345.315	343.760	345.315	344.538	345.315	345.315	346.093
67.5	301.762	303.317	304.095	305.651	304.095	306.428	304.095	302.540	304.873	305.651
70.0	262.875	263.653	265.208	264.431	265.208	265.986	263.653	263.653	264.431	265.208
72.5	224.766	225.544	226.321	226.321	226.321	227.099	224.766	224.766	225.544	226.321
75.0	190.546	188.212	188.212	188.990	188.990	189.768	186.657	186.657	186.657	187.435
77.5	153.992	151.659	153.992	151.659	152.436	153.214	150.103	150.103	148.548	150.103
80.0	118.994	116.661	118.216	117.438	116.661	118.216	115.883	116.661	115.105	114.327
82.5	84.773	83.218	84.773	84.773	83.218	83.996	82.440	83.218	83.218	83.218
85.0	52.886	51.331	52.886	51.331	51.331	52.108	50.553	52.108	51.331	52.108
87.5	24.110	24.110	24.110	23.332	21.777	22.554	21.777	21.777	22.554	21.777
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	51.331	53.664	52.108	49.775	45.109	46.664	48.220	45.109	32.665
95.0	110.439	110.439	114.327	111.994	109.661	113.550	123.660	121.327	99.550	64.552
97.5	174.213	170.324	181.990	186.657	197.545	211.544	212.322	185.879	145.437	94.884
100.0	269.875	265.986	279.208	286.985	303.317	309.539	292.429	246.543	192.101	125.993
102.5	364.759	361.648	375.647	384.980	407.534	404.423	368.647	307.984	234.877	157.103
105.0	452.643	449.532	467.420	493.863	516.417	503.196	448.754	370.203	273.763	188.990
107.5	557.637	553.749	586.414	627.634	636.967	606.635	531.194	426.200	310.317	219.322
110.0	702.297	698.408	743.517	766.849	759.849	705.408	608.190	472.864	345.315	250.431
112.5	878.065	872.621	902.175	904.508	881.954	802.625	670.409	512.529	378.758	282.319
115.0	1038.279	1032.057	1050.723	1039.834	993.170	881.954	717.851	548.305	409.867	314.984
117.5	1188.382	1180.605	1189.160	1156.495	1080.277	937.951	752.849	577.859	442.532	348.426
120.0	1308.932	1301.932	1296.488	1242.824	1139.385	972.171	777.737	606.635	473.642	381.869
122.5	1396.038	1391.372	1365.706	1298.821	1170.494	991.615	800.291	634.633	507.085	417.645
125.0	1447.369	1442.702	1407.704	1322.931	1182.938	1001.725	818.179	661.077	538.972	452.643
127.5	1465.257	1460.590	1418.592	1324.486	1182.160	1007.947	836.067	686.742	572.414	487.641
130.0	1457.479	1452.813	1408.482	1312.042	1175.161	1012.614	855.511	713.963	604.302	521.862
132.5	1433.369	1430.258	1385.927	1293.377	1166.606	1018.058	874.954	741.961	638.522	557.637

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CANDELA TABULATION - (Cont.)

135.0	1402.260	1399.927	1357.929	1273.156	1158.051	1025.057	895.175	769.960	671.965	593.413
137.5	1370.373	1368.817	1329.153	1252.934	1151.051	1033.613	915.397	800.291	706.185	629.189
140.0	1338.486	1336.930	1301.932	1235.824	1147.162	1042.945	935.618	829.845	741.183	664.965
142.5	1310.487	1308.154	1280.155	1222.603	1146.384	1053.056	957.394	860.177	774.626	700.741
145.0	1288.710	1285.599	1260.712	1212.492	1146.384	1063.167	979.949	889.731	808.069	736.517
147.5	1270.045	1267.711	1246.713	1205.492	1147.162	1075.610	1002.503	918.507	840.734	771.515
150.0	1255.268	1251.379	1235.046	1199.271	1150.273	1088.832	1025.057	945.728	871.843	805.736
152.5	1242.046	1238.157	1224.936	1194.604	1154.162	1102.053	1042.945	969.838	900.620	838.401
155.0	1229.602	1227.269	1215.603	1193.049	1159.606	1113.720	1060.833	990.837	927.840	868.732
157.5	1222.603	1220.269	1210.937	1192.271	1163.495	1122.275	1074.055	1009.503	951.950	897.509
160.0	1217.159	1214.825	1207.826	1191.493	1165.050	1127.719	1084.165	1025.057	973.727	923.952
162.5	1207.048	1207.826	1201.604	1186.049	1162.717	1128.497	1090.387	1036.724	991.615	948.062
165.0	1195.382	1195.382	1189.938	1174.383	1154.162	1124.608	1091.165	1045.279	1006.392	968.283
167.5	1175.938	1176.716	1172.050	1158.828	1140.163	1114.497	1086.499	1049.167	1016.502	983.837
170.0	1151.051	1152.606	1147.940	1137.052	1122.275	1101.276	1077.944	1049.945	1023.502	996.281
172.5	1119.941	1122.275	1119.164	1110.609	1098.942	1082.610	1065.500	1046.834	1025.835	1005.614
175.0	1089.610	1088.054	1085.721	1081.055	1073.277	1062.389	1051.501	1039.057	1025.835	1011.836
177.5	1050.723	1050.723	1049.945	1046.834	1043.723	1037.501	1033.613	1026.613	1019.613	1013.391
180.0	1012.614	1012.614	1012.614	1012.614	1012.614	1012.614	1012.614	1012.614	1012.614	1012.614

**Vert.
Angles**

Horizontal Angles

	90.0	95.0	112.5	135.0	157.5	180.0
0.0	1115.275	1115.275	1115.275	1115.275	1115.275	1115.275
2.5	1113.720	1113.720	1113.720	1113.720	1113.720	1113.720
5.0	1109.053	1109.831	1109.053	1108.275	1107.498	1109.053
7.5	1101.276	1101.276	1100.498	1098.942	1099.720	1099.720
10.0	1090.387	1090.387	1087.276	1088.054	1089.610	1088.054
12.5	1076.388	1075.610	1070.944	1074.055	1076.388	1074.055
15.0	1060.056	1058.500	1051.501	1057.722	1058.500	1056.167
17.5	1041.390	1040.612	1031.279	1036.724	1037.501	1034.390
20.0	1014.169	1012.614	1005.614	1012.614	1012.614	1009.503
22.5	992.393	990.837	979.949	989.282	986.948	983.837
25.0	960.505	958.950	951.950	959.728	956.617	954.283
27.5	930.174	929.396	921.618	928.618	926.285	923.174
30.0	895.953	895.953	889.731	896.731	892.064	890.509
32.5	862.510	863.288	856.289	860.955	857.844	857.066
35.0	826.735	823.624	820.513	824.401	821.290	816.624
37.5	788.625	787.070	783.181	787.848	784.737	780.848
40.0	751.294	749.739	745.850	749.739	747.405	743.517
42.5	713.185	711.629	707.741	711.629	707.741	705.408
45.0	674.298	673.520	668.854	671.965	668.076	665.743
47.5	634.633	633.856	628.412	631.523	627.634	626.078
50.0	594.969	593.413	587.969	591.080	586.414	586.414
52.5	552.193	552.971	547.527	549.860	545.971	545.194
55.0	510.973	510.196	507.085	508.640	504.751	503.196
57.5	469.753	468.198	465.865	467.420	464.309	462.754
60.0	428.533	426.978	425.422	426.200	423.867	421.533
62.5	386.535	387.313	384.202	384.980	383.424	381.091
65.0	345.315	346.093	342.982	343.760	341.427	339.871
67.5	307.984	304.873	300.984	303.317	301.762	300.207
70.0	266.764	264.431	262.097	263.653	262.875	261.320
72.5	227.099	224.766	223.211	225.544	224.766	222.433
75.0	188.990	186.657	185.101	186.657	186.657	185.101
77.5	151.659	149.326	148.548	150.881	150.103	153.214
80.0	116.661	114.327	115.105	115.105	115.105	117.438

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CANDELA TABULATION - (Cont.)

82.5	83.218	83.218	82.440	82.440	83.218	83.996
85.0	52.108	51.331	51.331	51.331	50.553	51.331
87.5	21.777	21.777	20.999	21.777	20.999	21.777
90.0	0.000	0.000	0.000	0.000	0.000	0.000
92.5	17.110	23.332	45.109	70.774	84.773	90.218
95.0	44.331	46.664	71.552	109.661	129.882	136.104
97.5	72.330	70.774	94.884	144.659	174.213	182.768
100.0	101.106	96.439	120.549	173.435	209.989	222.433
102.5	131.438	122.105	146.215	204.545	237.210	249.654
105.0	160.992	150.881	170.324	228.655	267.542	276.097
107.5	192.101	179.657	192.101	251.987	293.985	301.762
110.0	223.211	208.434	213.878	276.097	321.205	328.983
112.5	255.098	237.210	234.877	300.207	347.648	356.981
115.0	286.985	267.542	256.653	321.983	373.314	383.424
117.5	318.872	299.429	279.208	342.204	398.979	409.867
120.0	353.870	332.871	303.317	360.092	421.533	435.533
122.5	389.646	367.092	326.650	377.202	444.088	460.420
125.0	423.867	400.535	349.204	391.979	461.198	482.197
127.5	458.865	433.977	372.536	405.979	475.197	501.640
130.0	493.085	466.642	395.090	419.200	483.752	513.306
132.5	528.083	500.863	417.645	433.200	489.974	517.195
135.0	563.082	535.861	444.088	446.421	494.641	518.751
137.5	598.858	570.859	472.864	460.420	499.307	518.751
140.0	635.411	606.635	503.974	473.642	503.196	518.751
142.5	671.187	640.855	536.639	486.863	507.085	518.751
145.0	706.963	677.409	568.526	500.863	512.529	519.528
147.5	742.739	712.407	601.191	517.973	520.306	523.417
150.0	778.515	748.183	636.189	539.750	528.861	529.639
152.5	811.180	783.181	673.520	570.859	539.750	536.639
155.0	843.067	816.624	713.185	608.968	556.082	549.082
157.5	873.399	848.511	753.627	650.188	584.081	569.304
160.0	901.397	878.843	792.514	692.186	627.634	606.635
162.5	927.063	906.064	830.623	735.739	676.631	656.410
165.0	948.839	930.174	865.621	784.737	725.629	707.741
167.5	967.505	951.172	897.509	831.401	778.515	760.627
170.0	983.837	969.838	927.063	875.732	837.623	823.624
172.5	995.503	985.393	952.728	916.174	889.731	880.398
175.0	1005.614	998.614	976.060	952.728	936.395	930.174
177.5	1010.280	1007.170	995.503	983.837	975.282	972.171
180.0	1012.614	1012.614	1012.614	1012.614	1012.614	1012.614

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	403.32	N.A.	6.30
0-30	844.37	N.A.	13.20
0-40	1359.53	N.A.	21.30
0-60	2331.36	N.A.	36.50
0-80	2870.74	N.A.	45.00
0-90	2929.16	N.A.	45.90
10-90	2823.92	N.A.	44.30
20-40	956.21	N.A.	15.00
20-50	1473.63	N.A.	23.10
40-70	1312.61	N.A.	20.60
60-80	539.38	N.A.	8.50
70-80	198.59	N.A.	3.10
80-90	58.42	N.A.	0.90
90-110	449.53	N.A.	7.00
90-120	987.72	N.A.	15.50
90-130	1607.62	N.A.	25.20
90-150	2686.61	N.A.	42.10
90-180	3449.96	N.A.	54.10
110-180	3000.42	N.A.	47.00
0-180	6379.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

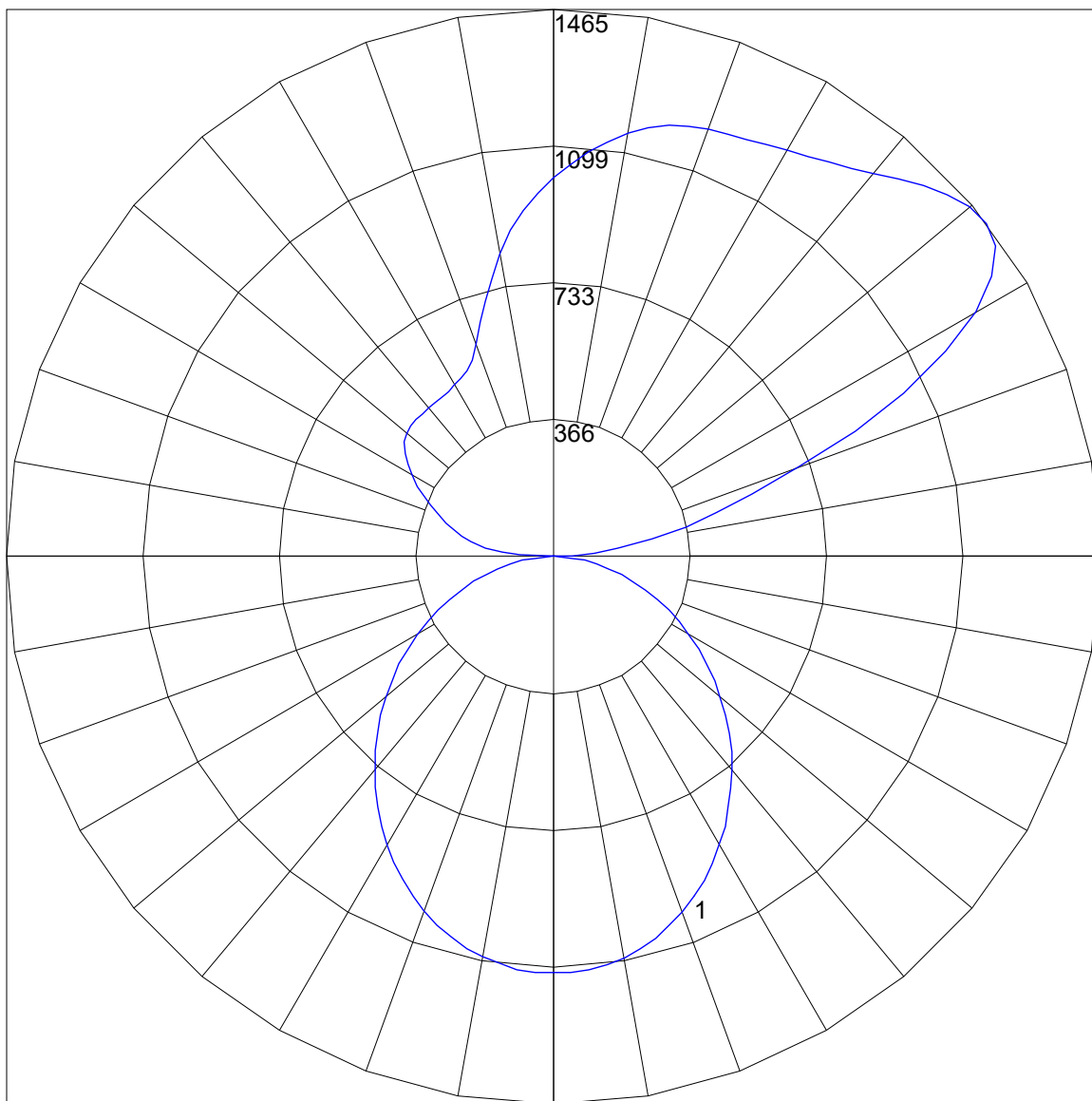
Zone	Lumens
0-10	105.24
10-20	298.08
20-30	441.05
30-40	515.16
40-50	517.41
50-60	454.41
60-70	340.79
70-80	198.59
80-90	58.42
90-100	114.00
100-110	335.53
110-120	538.19
120-130	619.90
130-140	579.32
140-150	499.66
150-160	399.34
160-170	268.47
170-180	95.54

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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	97	92	89	85	89	85	82	79	71	69	66	58	56	55	46	45	44	39
2	88	81	75	69	81	74	69	64	62	58	55	51	48	46	41	39	37	32
3	80	71	64	58	73	65	59	54	55	50	46	45	42	39	36	34	31	27
4	73	63	55	49	67	58	51	46	49	43	39	40	36	33	32	29	27	23
5	67	56	48	42	62	52	44	39	43	38	34	36	32	29	29	26	24	20
6	62	50	42	36	57	46	39	34	39	34	29	32	28	25	26	23	21	18
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	24	21	18	16
8	53	41	33	28	49	38	31	26	32	27	23	27	23	20	22	19	16	14
9	49	37	30	25	45	35	28	23	30	24	21	25	21	18	20	17	15	13
10	46	34	27	22	42	32	25	21	27	22	18	23	19	16	19	16	14	12

POLAR GRAPH



Maximum Candela = 1465.257 Located At Horizontal Angle = 0, Vertical Angle = 127.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)