

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-S-835-ASY-ITL89599.007.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599.007 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-S-835-ASY
[INPUT_ELECTRICAL]120.0 VOLTS, 42.6 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 44.8 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]4649

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4650
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	42.6
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	6161	6328	6486
55	5699	5862	6035
65	5279	5412	5573
75	5043	4970	5019
85	5134	4849	4350

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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	510.462	510.462	510.462	510.462	510.462	510.462	510.462	510.462	510.462	510.462
2.5	509.643	509.643	509.643	509.643	509.643	509.643	509.643	509.643	510.053	509.643
5.0	506.778	506.778	506.778	506.778	506.778	507.187	506.778	507.187	507.596	507.596
7.5	501.456	501.866	501.456	502.275	503.094	503.094	503.094	503.503	503.912	503.503
10.0	494.497	494.497	494.907	495.316	496.135	496.544	497.772	497.363	497.772	498.591
12.5	486.310	485.491	487.129	487.948	488.766	487.948	490.404	490.404	490.404	491.632
15.0	476.895	475.667	477.305	478.533	480.170	480.170	480.989	480.989	483.854	485.901
17.5	464.205	464.205	465.433	467.480	469.117	468.708	471.983	469.117	471.574	473.620
20.0	452.334	451.515	453.153	455.200	457.246	457.656	458.884	456.837	460.112	462.568
22.5	438.007	438.416	439.235	441.281	444.147	444.556	445.784	444.147	447.831	451.106
25.0	423.270	422.861	424.089	426.954	429.820	429.001	431.457	430.638	433.504	437.597
27.5	406.896	407.305	408.943	410.989	413.855	413.855	416.720	416.720	418.358	423.270
30.0	391.750	391.341	393.387	395.434	397.890	398.709	401.165	401.574	404.031	408.124
32.5	374.966	374.966	375.785	379.879	381.107	382.744	385.200	384.791	387.656	391.750
35.0	357.364	357.364	358.592	361.867	364.323	365.961	367.189	368.007	371.282	374.966
37.5	340.171	340.171	340.990	343.856	346.721	348.768	349.587	350.405	353.680	357.364
40.0	322.569	322.160	323.798	325.844	327.891	330.756	331.575	333.622	335.669	339.353
42.5	305.377	304.967	305.786	308.242	310.289	313.154	313.973	316.020	318.067	320.932
45.0	286.956	286.956	287.774	289.821	292.277	294.733	295.962	297.190	299.236	302.511
47.5	268.944	269.354	270.172	271.810	274.266	277.131	277.541	278.769	281.225	284.500
50.0	250.933	251.342	251.751	253.798	255.845	257.892	259.120	260.348	262.395	265.260
52.5	232.512	233.331	233.740	236.196	237.424	239.471	241.108	241.927	243.974	246.021
55.0	215.319	215.319	216.138	218.185	219.413	221.459	222.688	223.506	225.144	227.190
57.5	197.717	197.717	198.945	200.583	202.220	203.857	204.267	205.495	207.132	209.179
60.0	180.524	180.524	181.343	182.980	184.618	185.846	187.074	187.074	188.711	190.349
62.5	163.332	164.150	164.560	165.788	166.606	168.244	169.062	169.062	170.700	171.928
65.0	146.957	147.776	147.776	149.004	149.413	150.642	151.460	151.460	152.279	153.916
67.5	130.993	131.402	130.993	132.221	132.630	133.449	134.268	133.858	134.677	136.314
70.0	115.028	115.437	115.028	116.256	116.256	116.665	117.075	117.075	118.303	118.712
72.5	100.291	100.291	99.882	100.291	100.291	100.291	100.701	100.291	101.519	101.929
75.0	85.964	85.555	85.145	85.555	85.145	84.736	84.736	83.917	85.145	85.555
77.5	71.637	71.227	71.227	71.227	70.818	69.590	69.180	69.180	69.180	69.590
80.0	56.900	56.900	56.900	56.900	56.491	55.672	54.853	54.035	54.035	54.035
82.5	42.573	42.982	42.982	42.573	42.573	41.754	41.345	40.117	39.707	39.298
85.0	29.473	29.883	29.883	29.473	29.064	27.836	27.427	26.608	25.789	25.380
87.5	18.830	19.239	18.830	18.012	16.783	15.555	14.327	13.099	12.281	11.053
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

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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	510.462	510.462	510.462	510.462	510.462	510.462
2.5	509.643	509.643	509.643	509.643	509.643	509.234
5.0	507.187	507.187	507.187	507.187	506.778	506.778
7.5	503.503	503.503	503.503	503.094	503.094	502.684
10.0	499.000	498.591	497.363	497.772	497.772	496.544
12.5	492.041	492.450	489.994	490.404	489.994	487.948
15.0	485.901	485.901	482.217	481.807	480.170	477.714
17.5	473.620	474.439	471.574	470.755	469.117	465.843
20.0	462.568	463.387	459.293	460.112	456.018	453.153
22.5	449.878	450.697	446.603	446.194	442.510	439.235
25.0	436.779	437.597	432.685	431.048	427.773	424.089
27.5	422.451	423.270	417.539	415.902	412.217	408.124
30.0	406.896	408.124	402.393	399.937	395.434	391.750
32.5	390.522	391.750	386.428	384.382	378.651	374.966
35.0	374.148	374.148	369.236	367.189	362.277	357.364
37.5	356.955	356.546	352.452	349.996	344.265	339.353
40.0	339.762	339.353	334.441	331.575	324.616	321.341
42.5	321.341	320.932	317.248	313.154	307.014	303.739
45.0	302.102	302.511	298.418	294.733	288.593	285.318
47.5	284.090	284.090	279.997	276.313	270.582	267.716
50.0	265.260	265.260	261.167	257.482	252.161	249.705
52.5	246.430	246.430	242.746	239.471	234.149	232.103
55.0	228.009	227.600	223.916	220.641	215.728	214.500
57.5	209.588	208.769	205.495	202.629	198.945	196.898
60.0	191.577	191.167	187.483	184.618	180.934	179.706
62.5	173.156	173.156	169.062	166.606	163.741	162.513
65.0	155.144	154.735	151.460	149.823	146.548	145.320
67.5	137.133	136.724	133.858	132.630	129.765	128.946
70.0	119.531	119.121	116.665	115.437	113.391	112.572
72.5	102.338	102.338	100.701	99.063	97.426	96.607
75.0	85.555	85.555	84.326	83.099	81.870	81.461
77.5	69.590	69.590	68.362	67.543	67.134	66.724
80.0	54.035	54.035	53.216	52.806	52.806	52.397

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CANDELA TABULATION - (Cont.)

82.5	39.298	39.298	38.479	38.888	39.298	38.888
85.0	24.971	25.380	24.971	25.789	26.198	25.789
87.5	10.643	11.053	11.871	13.509	14.327	15.146
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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	183.43	N.A.	3.90
0-30	381.45	N.A.	8.20
0-40	610.21	N.A.	13.10
0-60	1034.83	N.A.	22.30
0-80	1272.7	N.A.	27.40
0-90	1304.24	N.A.	28.10
10-90	1256.15	N.A.	27.00
20-40	426.78	N.A.	9.20
20-50	653.75	N.A.	14.10
40-70	573.27	N.A.	12.30
60-80	237.87	N.A.	5.10
70-80	89.22	N.A.	1.90
80-90	31.54	N.A.	0.70
90-110	403.07	N.A.	8.70
90-120	935.47	N.A.	20.10
90-130	1546.1	N.A.	33.30
90-150	2614.68	N.A.	56.20
90-180	3345.3	N.A.	71.90
110-180	2942.24	N.A.	63.30
0-180	4649.54	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	48.09
10-20	135.34
20-30	198.03
30-40	228.76
40-50	226.96
50-60	197.65
60-70	148.65
70-80	89.22
80-90	31.54
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

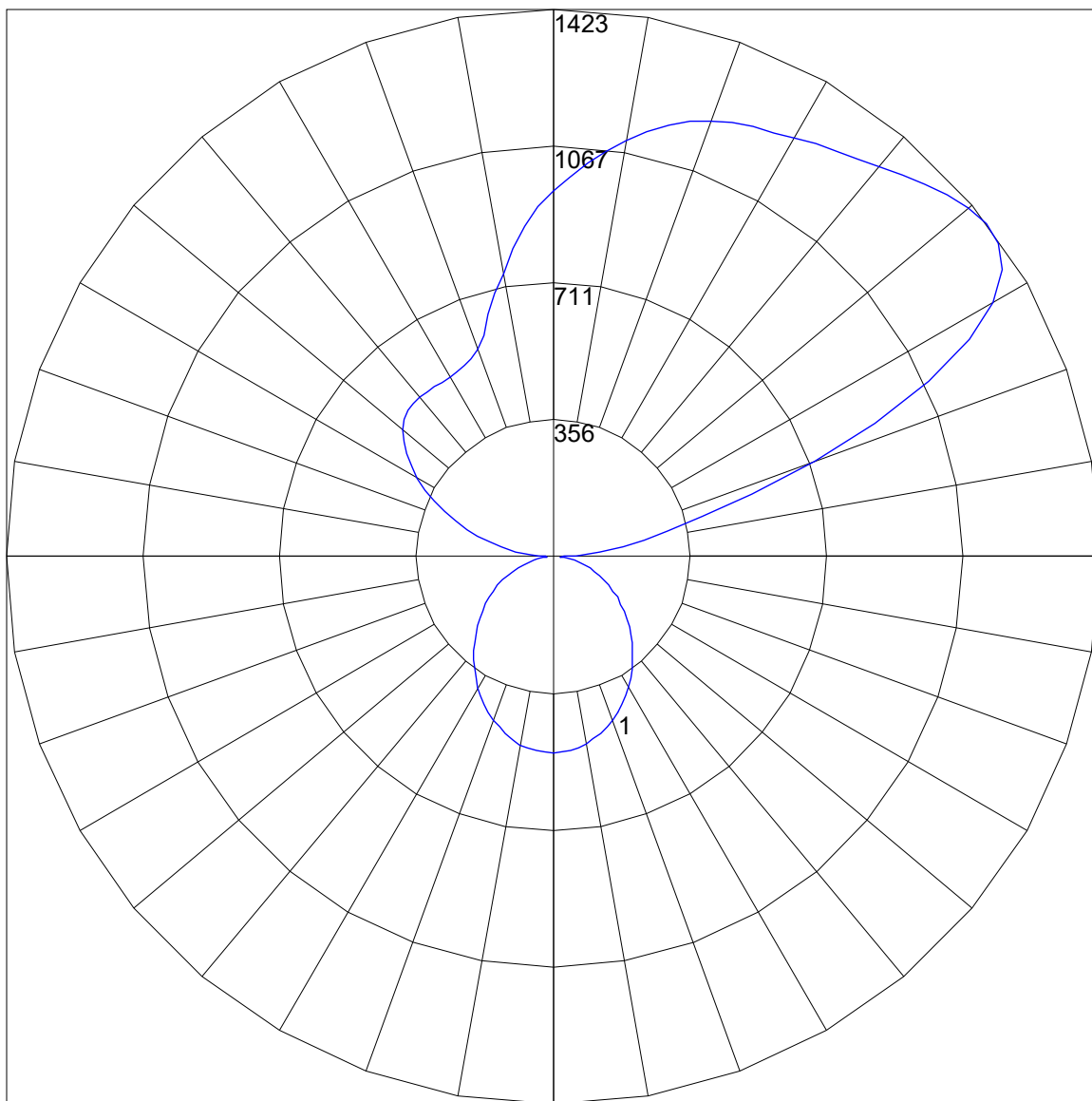
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	28
1	93	89	85	81	83	79	76	73	62	60	58	46	45	44	32	31	30	23
2	84	77	71	66	75	69	64	60	54	51	48	41	38	36	28	26	25	20
3	77	68	61	55	69	61	55	50	48	44	40	36	33	31	25	23	22	17
4	70	60	52	46	63	54	47	42	42	38	34	32	29	26	22	20	19	14
5	64	53	45	40	57	48	41	36	38	33	29	29	25	23	20	18	16	12
6	59	48	40	34	53	43	36	31	34	29	25	26	22	20	18	16	14	11
7	55	43	35	30	49	39	32	27	31	26	22	23	20	17	16	14	13	10
8	51	39	31	26	45	35	29	24	28	23	20	21	18	15	15	13	11	9
9	47	35	28	23	42	32	26	21	26	21	18	20	16	14	14	12	10	8
10	44	32	25	21	39	29	23	19	23	19	16	18	15	12	13	11	9	7

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.)