

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-H-835-ASY-ITL89599.003.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599.003 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-H-835-ASY
[INPUT_ELECTRICAL]120.0 VOLTS, 56.4 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 57.9 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]5822

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5822
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	56.4
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)	0.18 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	11707	12024	12325
55	10829	11138	11468
65	10031	10283	10590
75	9581	9445	9536
85	9755	9213	8265

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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	969.944	969.944	969.944	969.944	969.944	969.944	969.944	969.944	969.944	969.944
2.5	968.389	968.389	968.389	968.389	968.389	968.389	968.389	968.389	969.167	968.389
5.0	962.944	962.944	962.944	962.944	962.944	963.722	962.944	963.722	964.500	964.500
7.5	952.832	953.610	952.832	954.388	955.944	955.944	955.944	956.721	957.499	956.721
10.0	939.609	939.609	940.387	941.165	942.721	943.498	945.832	945.054	945.832	947.388
12.5	924.053	922.497	925.609	927.164	928.720	927.164	931.831	931.831	931.831	934.165
15.0	906.163	903.830	906.941	909.274	912.386	912.386	913.941	913.941	919.386	923.275
17.5	882.051	882.051	884.384	888.273	891.384	890.607	896.829	891.384	896.051	899.940
20.0	859.494	857.938	861.049	864.938	868.828	869.605	871.939	868.050	874.272	878.939
22.5	832.270	833.048	834.603	838.492	843.937	844.715	847.049	843.937	850.938	857.160
25.0	804.268	803.490	805.824	811.269	816.713	815.158	819.825	818.269	823.714	831.492
27.5	773.155	773.933	777.044	780.934	786.378	786.378	791.823	791.823	794.934	804.268
30.0	744.376	743.598	747.487	751.376	756.043	757.599	762.266	763.044	767.711	775.489
32.5	712.485	712.485	714.041	721.819	724.153	727.264	731.931	731.153	736.598	744.376
35.0	679.039	679.039	681.372	687.595	692.262	695.373	697.707	699.262	705.485	712.485
37.5	646.370	646.370	647.926	653.371	658.816	662.705	664.260	665.816	672.038	679.039
40.0	612.924	612.146	615.257	619.147	623.036	628.480	630.036	633.925	637.814	644.815
42.5	580.255	579.478	581.033	585.700	589.589	595.034	596.590	600.479	604.368	609.813
45.0	545.253	545.253	546.809	550.698	555.365	560.032	562.366	564.699	568.588	574.811
47.5	511.029	511.807	513.363	516.474	521.141	526.586	527.364	529.697	534.364	540.587
50.0	476.805	477.583	478.361	482.250	486.139	490.028	492.362	494.695	498.584	504.029
52.5	441.803	443.359	444.137	448.803	451.137	455.026	458.137	459.693	463.582	467.471
55.0	409.135	409.135	410.690	414.579	416.913	420.802	423.135	424.691	427.802	431.691
57.5	375.688	375.688	378.022	381.133	384.244	387.356	388.133	390.467	393.578	397.467
60.0	343.020	343.020	344.575	347.687	350.798	353.131	355.465	355.465	358.576	361.687
62.5	310.351	311.907	312.685	315.018	316.574	319.685	321.241	321.241	324.352	326.685
65.0	279.238	280.794	280.794	283.127	283.905	286.239	287.794	287.794	289.350	292.461
67.5	248.903	249.681	248.903	251.237	252.014	253.570	255.126	254.348	255.904	259.015
70.0	218.568	219.346	218.568	220.902	220.902	221.679	222.457	222.457	224.791	225.568
72.5	190.566	190.566	189.789	190.566	190.566	190.566	191.344	190.566	192.900	193.678
75.0	163.343	162.565	161.787	162.565	161.787	161.009	161.009	159.454	161.787	162.565
77.5	136.119	135.341	135.341	135.341	134.563	132.230	131.452	131.452	131.452	132.230
80.0	108.117	108.117	108.117	108.117	107.339	105.784	104.228	102.673	102.673	102.673
82.5	80.894	81.671	81.671	80.894	80.894	79.338	78.560	76.227	75.449	74.671
85.0	56.003	56.781	56.781	56.003	55.225	52.892	52.114	50.558	49.003	48.225
87.5	35.780	36.558	35.780	34.224	31.891	29.557	27.224	24.890	23.335	21.001
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	185.900	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	720.263	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	374.133	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	952.055	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	1153.510	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	1411.748	1409.414	1368.967	1280.296	1153.510	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	1144.954	1029.059	906.163	787.156	683.706	605.146
140.0	1322.298	1320.742	1293.519	1230.515	1144.954	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	1201.735	1148.844	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	952.055
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	969.944	969.944	969.944	969.944	969.944	969.944
2.5	968.389	968.389	968.389	968.389	968.389	967.611
5.0	963.722	963.722	963.722	963.722	962.944	962.944
7.5	956.721	956.721	956.721	955.944	955.944	955.166
10.0	948.165	947.388	945.054	945.832	945.832	943.498
12.5	934.942	935.720	931.053	931.831	931.053	927.164
15.0	923.275	923.275	916.275	915.497	912.386	907.719
17.5	899.940	901.496	896.051	894.496	891.384	885.162
20.0	878.939	880.495	872.717	874.272	866.494	861.049
22.5	854.827	856.382	848.604	847.826	840.826	834.603
25.0	829.936	831.492	822.158	819.047	812.824	805.824
27.5	802.713	804.268	793.379	790.267	783.267	775.489
30.0	773.155	775.489	764.599	759.932	751.376	744.376
32.5	742.042	744.376	734.264	730.375	719.486	712.485
35.0	710.930	710.930	701.596	697.707	688.373	679.039
37.5	678.261	677.483	669.705	665.038	654.149	644.815
40.0	645.593	644.815	635.481	630.036	616.813	610.591
42.5	610.591	609.813	602.812	595.034	583.367	577.144
45.0	574.033	574.811	567.032	560.032	548.365	542.142
47.5	539.809	539.809	532.030	525.030	514.141	508.696
50.0	504.029	504.029	496.251	489.250	479.139	474.472
52.5	468.249	468.249	461.249	455.026	444.914	441.025
55.0	433.247	432.469	425.469	419.246	409.912	407.579
57.5	398.245	396.689	390.467	385.022	378.022	374.133
60.0	364.021	363.243	356.243	350.798	343.797	341.464
62.5	329.019	329.019	321.241	316.574	311.129	308.795
65.0	294.795	294.017	287.794	284.683	278.460	276.127
67.5	260.570	259.793	254.348	252.014	246.570	245.014
70.0	227.124	226.346	221.679	219.346	215.457	213.901
72.5	194.456	194.456	191.344	188.233	185.122	183.566
75.0	162.565	162.565	160.231	157.898	155.564	154.787
77.5	132.230	132.230	129.896	128.341	127.563	126.785
80.0	102.673	102.673	101.117	100.339	100.339	99.561

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CANDELA TABULATION - (Cont.)

82.5	74.671	74.671	73.115	73.893	74.671	73.893
85.0	47.447	48.225	47.447	49.003	49.781	49.003
87.5	20.223	21.001	22.557	25.668	27.224	28.779
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	107.339	126.007	137.675	136.897
102.5	133.008	126.785	137.675	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	470.583	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	645.593	539.809	505.585	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	798.824	770.822	662.705	571.699	550.698	546.031
157.5	826.047	799.601	693.818	605.146	564.699	556.921
160.0	850.938	826.825	729.597	643.259	587.256	573.255
162.5	873.494	851.715	765.377	681.372	625.369	603.590
165.0	893.718	875.050	802.713	719.486	672.038	650.259
167.5	910.830	894.496	834.603	760.710	715.597	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	348.54	N.A.	6.00
0-30	724.81	N.A.	12.50
0-40	1159.48	N.A.	19.90
0-60	1966.31	N.A.	33.80
0-80	2418.29	N.A.	41.50
0-90	2476.39	N.A.	42.50
10-90	2385.02	N.A.	41.00
20-40	810.94	N.A.	13.90
20-50	1242.2	N.A.	21.30
40-70	1089.29	N.A.	18.70
60-80	451.99	N.A.	7.80
70-80	169.53	N.A.	2.90
80-90	58.10	N.A.	1.00
90-110	403.07	N.A.	6.90
90-120	935.47	N.A.	16.10
90-130	1546.1	N.A.	26.60
90-150	2614.68	N.A.	44.90
90-180	3345.3	N.A.	57.50
110-180	2942.24	N.A.	50.50
0-180	5821.7	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	91.38
10-20	257.16
20-30	376.27
30-40	434.67
40-50	431.26
50-60	375.57
60-70	282.46
70-80	169.53
80-90	58.10
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

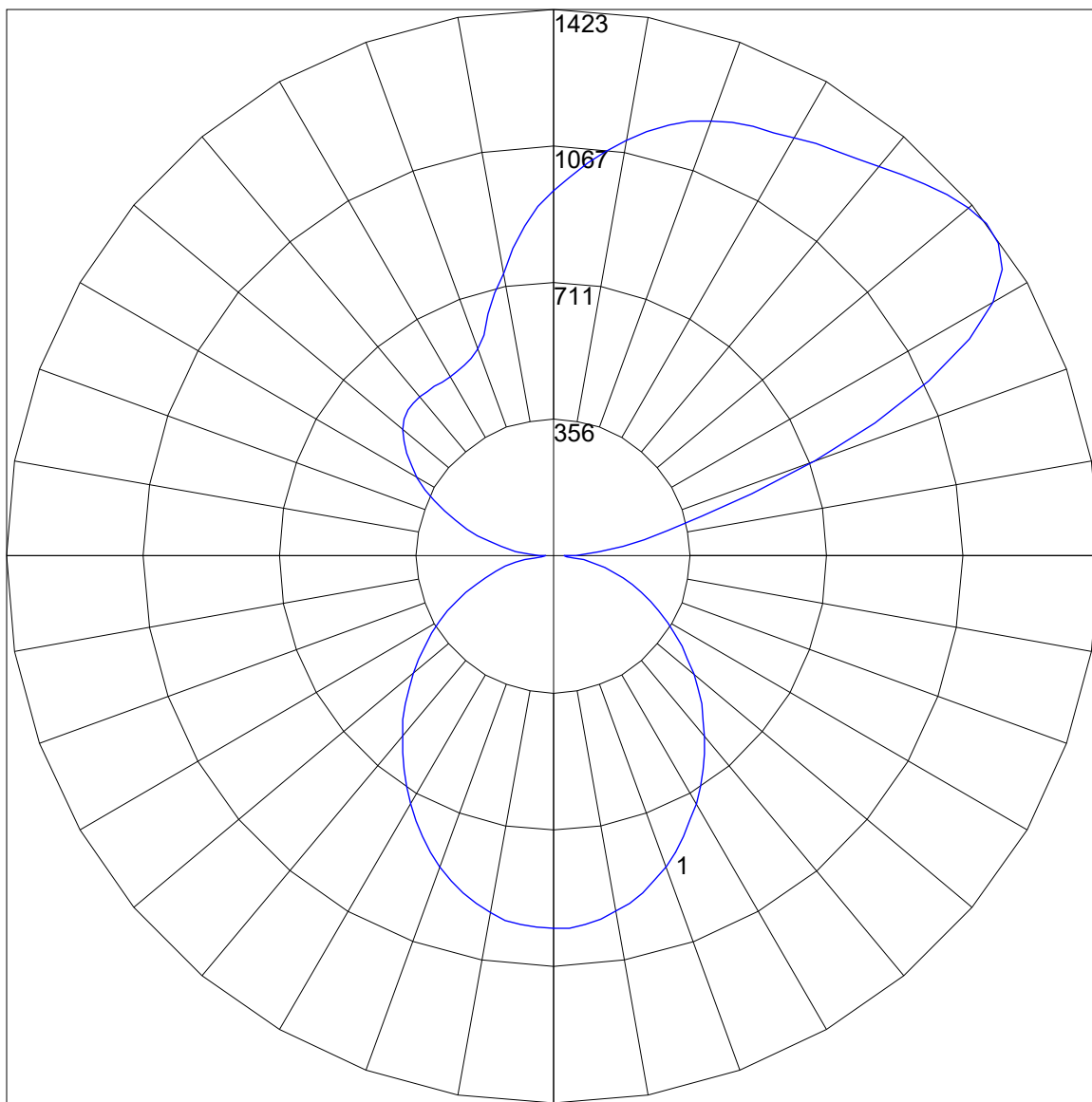
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	43
1	96	92	88	84	88	84	81	78	69	67	65	56	54	53	43	42	41	36
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	70	63	57	72	64	58	53	53	49	45	43	40	37	34	32	30	25
4	73	62	54	48	66	57	50	45	47	42	38	38	35	32	30	28	25	22
5	67	55	47	41	61	51	44	39	42	37	33	35	31	28	27	24	22	19
6	62	50	42	36	56	46	39	33	38	33	29	31	27	24	25	22	20	17
7	57	45	37	31	52	41	34	29	35	29	25	28	24	21	23	20	17	15
8	53	41	33	28	48	37	31	26	32	26	22	26	22	19	21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	27	22	18	22	18	15	18	15	13	11

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.)