

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-S-835-ASY-ITL89988.007.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89988.007 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-S-835-ASYM
[INPUT_ELECTRICAL]120.0 VOLTS, 42.8 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 44.7 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]4992

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4992
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	42.8
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)	0.32 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	4146	4175	4179
55	3851	3887	3904
65	3541	3581	3581
75	3227	3213	3200
85	2659	2620	2620

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	587.097	587.097	587.097	587.097	587.097	587.097	587.097	587.097	587.097	587.097
2.5	586.278	586.278	586.278	586.278	586.278	586.278	586.278	585.869	586.278	586.278
5.0	584.231	584.231	584.231	584.231	584.231	584.231	584.231	583.822	583.822	584.231
7.5	580.547	580.137	580.137	580.137	580.137	580.137	579.728	579.318	579.318	579.318
10.0	574.405	574.405	575.634	575.224	575.224	574.405	574.815	572.768	572.768	573.177
12.5	566.627	566.627	567.855	568.264	568.674	567.446	567.036	564.580	564.580	565.398
15.0	557.210	556.801	558.438	559.667	560.076	558.029	558.029	555.163	555.163	556.801
17.5	544.928	544.928	546.156	548.203	549.022	547.384	547.384	544.518	546.566	546.975
20.0	532.236	532.645	533.464	535.511	535.921	534.692	537.149	531.417	531.417	533.055
22.5	518.725	518.316	519.544	521.182	522.410	522.410	522.001	517.497	518.725	521.182
25.0	503.577	502.758	503.577	505.624	506.853	505.624	506.443	504.805	502.758	504.396
27.5	486.791	486.791	487.201	489.248	492.114	489.248	490.476	487.201	486.791	488.838
30.0	469.187	469.187	469.596	471.643	473.281	472.462	472.052	470.005	469.596	471.234
32.5	451.582	451.582	451.582	454.038	454.857	454.448	454.038	452.401	453.219	453.629
35.0	431.521	432.339	432.339	435.615	436.024	435.205	434.796	433.568	434.387	434.796
37.5	412.688	413.097	412.688	414.735	417.191	415.963	415.553	415.144	415.553	415.553
40.0	393.445	392.626	392.626	394.264	395.902	395.083	395.902	395.083	395.902	395.902
42.5	372.975	372.565	371.746	373.793	375.022	375.022	375.431	374.612	375.841	375.431
45.0	352.095	352.095	352.095	353.323	354.142	354.551	353.732	354.142	354.961	354.961
47.5	330.396	330.805	330.805	332.033	332.852	333.262	332.852	332.852	333.671	333.671
50.0	308.697	309.516	309.925	309.925	311.153	311.972	311.972	310.744	312.791	312.382
52.5	286.998	288.226	288.226	288.226	289.864	290.683	290.273	289.454	291.502	291.092
55.0	265.299	266.937	266.937	266.527	268.165	267.756	268.575	267.756	269.393	269.393
57.5	243.600	245.238	245.647	246.057	246.466	246.057	246.876	246.466	247.695	248.104
60.0	221.901	223.539	224.358	224.358	224.767	225.586	225.177	224.767	225.586	226.405
62.5	201.022	201.840	203.069	203.069	202.250	203.887	203.478	203.069	204.297	205.116
65.0	179.732	180.551	181.779	181.779	180.960	181.779	181.370	181.779	181.779	182.189
67.5	158.852	159.671	160.080	160.899	160.080	161.309	160.080	159.261	160.490	160.899
70.0	138.381	138.791	139.610	139.200	139.610	140.019	138.791	138.791	139.200	139.610
72.5	118.320	118.730	119.139	119.139	119.139	119.548	118.320	118.320	118.730	119.139
75.0	100.306	99.078	99.078	99.487	99.487	99.897	98.259	98.259	98.259	98.668
77.5	81.064	79.835	81.064	79.835	80.245	80.654	79.017	79.017	78.198	79.017
80.0	62.640	61.412	62.231	61.821	61.412	62.231	61.002	61.412	60.593	60.184
82.5	44.626	43.807	44.626	44.626	43.807	44.217	43.398	43.807	43.807	43.807
85.0	27.840	27.021	27.840	27.021	27.021	27.431	26.612	27.431	27.021	27.431
87.5	12.692	12.692	12.692	12.282	11.463	11.873	11.463	11.463	11.873	11.463
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	516.418	503.196	448.754	370.203	273.764	188.990
107.5	557.638	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	1039.835	993.170	881.954	717.851	548.305	409.868	314.984
117.5	1188.382	1180.605	1189.160	1156.495	1080.277	937.951	752.850	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	800.292	634.634	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	572.415	487.641
130.0	1457.479	1452.813	1408.482	1312.043	1175.161	1012.614	855.511	713.963	604.302	521.862
132.5	1433.370	1430.258	1385.928	1293.377	1166.606	1018.058	874.954	741.961	638.522	557.638

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HP-4-ID-4FT-H-S-835-ASY-ITL89988.007.IES

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	1252.935	1151.051	1033.613	915.397	800.292	706.185	629.189
140.0	1338.486	1336.930	1301.932	1235.824	1147.162	1042.946	935.618	829.846	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	1285.600	1260.712	1212.492	1146.384	1063.167	979.949	889.731	808.069	736.517
147.5	1270.045	1267.711	1246.713	1205.493	1147.162	1075.611	1002.503	918.508	840.734	771.515
150.0	1255.268	1251.379	1235.047	1199.271	1150.273	1088.832	1025.057	945.728	871.843	805.736
152.5	1242.046	1238.158	1224.936	1194.604	1154.162	1102.053	1042.946	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	1220.270	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	1084.166	1025.057	973.727	923.952
162.5	1207.048	1207.826	1201.604	1186.049	1162.717	1128.497	1090.388	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	1175.939	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	1098.943	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	587.097	587.097	587.097	587.097	587.097	587.097
2.5	586.278	586.278	586.278	586.278	586.278	586.278
5.0	583.822	584.231	583.822	583.413	583.003	583.822
7.5	579.728	579.728	579.318	578.500	578.909	578.909
10.0	573.996	573.996	572.359	572.768	573.587	572.768
12.5	566.627	566.217	563.761	565.398	566.627	565.398
15.0	558.029	557.210	553.525	556.801	557.210	555.982
17.5	548.203	547.794	542.881	545.747	546.156	544.518
20.0	533.874	533.055	529.370	533.055	533.055	531.417
22.5	522.410	521.591	515.860	520.773	519.544	517.907
25.0	505.624	504.805	501.121	505.215	503.577	502.349
27.5	489.657	489.248	485.154	488.838	487.610	485.972
30.0	471.643	471.643	468.368	472.052	469.596	468.777
32.5	454.038	454.448	450.763	453.219	451.582	451.172
35.0	435.205	433.568	431.930	433.977	432.339	429.883
37.5	415.144	414.325	412.278	414.735	413.097	411.050
40.0	395.492	394.673	392.626	394.673	393.445	391.398
42.5	375.431	374.612	372.565	374.612	372.565	371.337
45.0	354.961	354.551	352.095	353.732	351.685	350.457
47.5	334.080	333.671	330.805	332.443	330.396	329.577
50.0	313.200	312.382	309.516	311.153	308.697	308.697
52.5	290.683	291.092	288.226	289.454	287.408	286.998
55.0	268.984	268.575	266.937	267.756	265.709	264.890
57.5	247.285	246.466	245.238	246.057	244.419	243.600
60.0	225.586	224.767	223.948	224.358	223.130	221.901
62.5	203.478	203.887	202.250	202.659	201.840	200.612
65.0	181.779	182.189	180.551	180.960	179.732	178.913
67.5	162.127	160.490	158.443	159.671	158.852	158.033
70.0	140.428	139.200	137.972	138.791	138.381	137.563
72.5	119.548	118.320	117.501	118.730	118.320	117.092
75.0	99.487	98.259	97.440	98.259	98.259	97.440
77.5	79.835	78.607	78.198	79.426	79.017	80.654
80.0	61.412	60.184	60.593	60.593	60.593	61.821

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HP-4-ID-4FT-H-S-835-ASY-ITL89988.007.IES

CANDELA TABULATION - (Cont.)

82.5	43.807	43.807	43.398	43.398	43.807	44.217
85.0	27.431	27.021	27.021	27.021	26.612	27.021
87.5	11.463	11.463	11.054	11.463	11.054	11.463
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	347.649	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	409.868
120.0	353.870	332.872	303.317	360.092	421.534	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	395.091	419.200	483.752	513.307
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	951.173	897.509	831.401	778.515	760.627
170.0	983.837	969.838	927.063	875.732	837.623	823.624
172.5	995.504	985.393	952.728	916.174	889.731	880.398
175.0	1005.614	998.615	976.060	952.728	936.395	930.174
177.5	1010.280	1007.170	995.504	983.837	975.282	972.171
180.0	1012.614	1012.614	1012.614	1012.614	1012.614	1012.614

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HP-4-ID-4FT-H-S-835-ASY-ITL89988.007.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	212.31	N.A.	4.30
0-30	444.49	N.A.	8.90
0-40	715.68	N.A.	14.30
0-60	1227.26	N.A.	24.60
0-80	1511.2	N.A.	30.30
0-90	1541.95	N.A.	30.90
10-90	1486.55	N.A.	29.80
20-40	503.36	N.A.	10.10
20-50	775.74	N.A.	15.50
40-70	690.98	N.A.	13.80
60-80	283.94	N.A.	5.70
70-80	104.54	N.A.	2.10
80-90	30.75	N.A.	0.60
90-110	449.53	N.A.	9.00
90-120	987.72	N.A.	19.80
90-130	1607.63	N.A.	32.20
90-150	2686.61	N.A.	53.80
90-180	3449.96	N.A.	69.10
110-180	3000.42	N.A.	60.10
0-180	4991.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

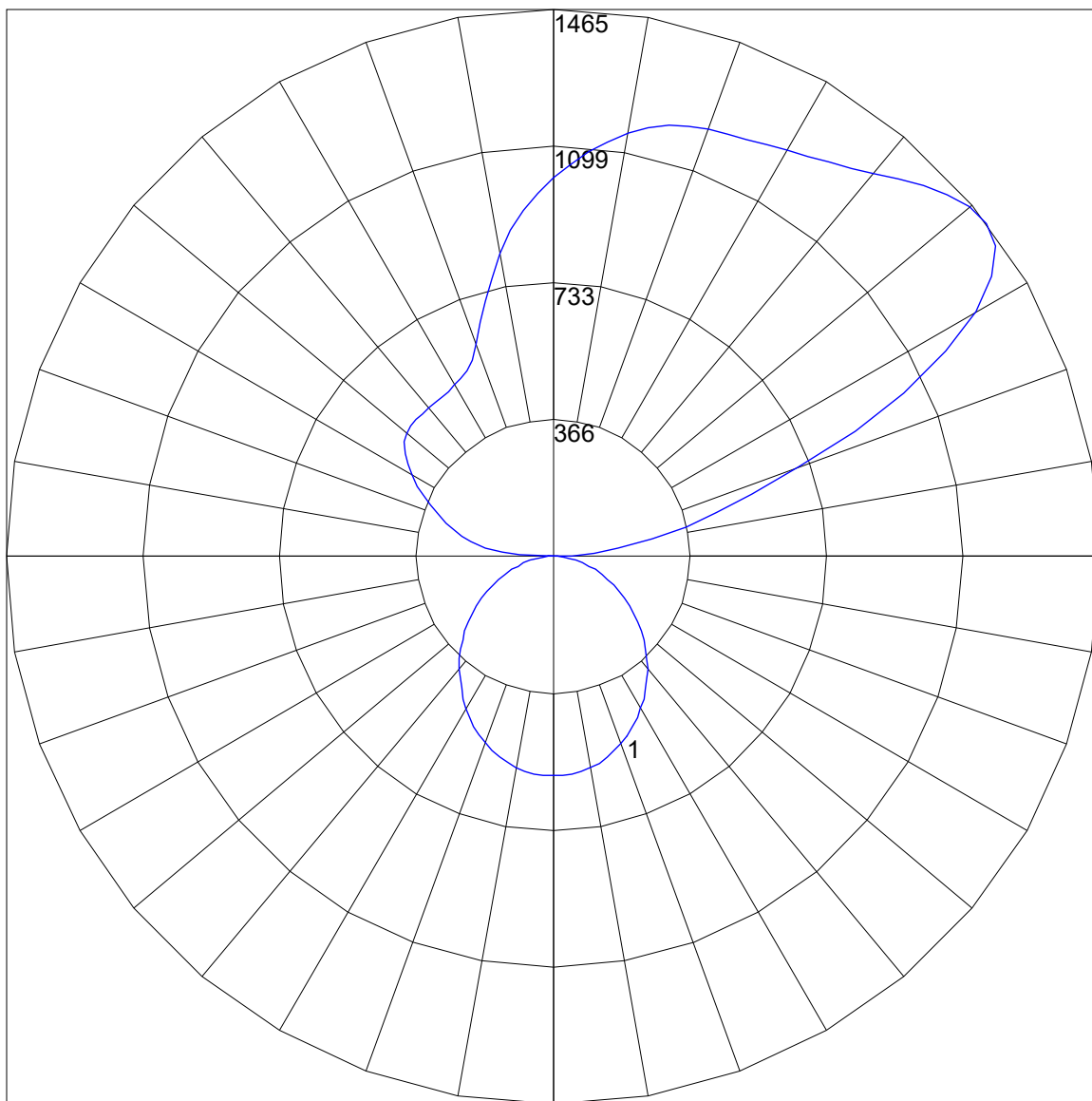
Zone	Lumens
0-10	55.40
10-20	156.91
20-30	232.18
30-40	271.19
40-50	272.37
50-60	239.21
60-70	179.40
70-80	104.54
80-90	30.75
90-100	114.00
100-110	335.53
110-120	538.19
120-130	619.90
130-140	579.32
140-150	499.66
150-160	399.34
160-170	268.47
170-180	95.54

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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	31
1	93	89	85	82	84	80	77	74	64	61	59	48	47	46	34	33	32	26
2	85	78	72	67	76	70	65	61	56	52	49	42	40	38	30	28	27	22
3	77	68	61	56	69	62	56	51	49	45	41	37	34	32	26	25	23	18
4	71	60	53	47	63	54	48	43	43	39	35	33	30	27	24	22	20	16
5	65	54	46	40	58	49	42	37	39	34	30	30	26	24	21	19	17	14
6	60	48	40	35	53	43	37	32	35	30	26	27	23	21	19	17	15	12
7	55	43	35	30	49	39	32	28	31	26	23	24	21	18	18	15	13	11
8	51	39	32	26	46	35	29	24	29	24	20	22	19	16	16	14	12	9
9	47	36	28	23	43	32	26	22	26	21	18	20	17	14	15	13	11	9
10	44	33	26	21	40	30	23	19	24	19	16	19	15	13	14	11	10	8

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.)