

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-S-S-835-ASY-ITL89599.001.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/24/17

[ISSUEDATE]10/30/17

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-S-S-835-ASY

[_INPUT_ELECTRICAL]120.0 VOLTS, 28.8 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 31.7 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]3064

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3064
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	28.8
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	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	477.304	478.532	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	455.199	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	404.030	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	340.172	340.172	340.990	343.856	346.721	348.768	349.587	350.405	353.680	357.364
40.0	322.569	322.160	323.797	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	295.961	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	222.687	223.506	225.144	227.190
57.5	197.717	197.717	198.945	200.582	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	163.331	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	134.267	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	54.034	54.034	54.034
82.5	42.573	42.982	42.982	42.573	42.573	41.754	41.345	40.116	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	19.240	18.830	18.011	16.783	15.555	14.327	13.099	12.281	11.053
90.0	14.737	14.737	14.327	13.099	11.462	9.415	6.959	4.503	2.456	0.409
92.5	31.929	32.339	32.339	31.520	28.655	25.789	25.789	22.924	21.696	17.193
95.0	63.859	64.678	64.268	63.040	60.584	58.537	56.900	52.806	47.075	35.614
97.5	97.016	97.835	97.426	95.788	97.016	96.198	94.151	85.964	73.683	51.988
100.0	125.671	126.899	128.127	131.811	140.817	140.817	136.724	120.759	100.701	67.952
102.5	161.285	162.922	168.244	179.296	193.623	193.214	182.162	157.191	124.034	83.508
105.0	209.998	212.454	224.734	245.611	255.845	251.751	229.646	191.986	144.501	99.882
107.5	285.318	284.500	305.786	319.704	327.072	314.382	278.769	221.459	163.331	115.437
110.0	381.516	379.060	393.387	401.165	402.393	374.557	318.885	246.430	180.115	131.811
112.5	476.486	473.620	484.673	485.491	471.574	423.679	349.587	266.898	196.898	146.957
115.0	568.590	565.315	569.818	558.356	524.380	460.930	372.920	284.909	212.863	163.741
117.5	642.683	639.408	633.677	613.209	564.087	485.901	390.112	300.055	228.418	180.524
120.0	695.489	692.624	680.752	649.642	588.648	501.047	403.212	314.382	244.792	197.717
122.5	729.465	727.009	710.226	670.519	601.747	511.281	414.264	328.300	261.167	214.910
125.0	745.430	743.793	724.144	678.706	607.069	518.240	424.498	341.809	277.541	231.693
127.5	748.705	747.477	726.190	678.296	608.297	522.743	434.732	356.136	293.915	248.067
130.0	742.974	741.746	720.460	673.793	607.069	526.427	445.375	370.464	310.698	265.669
132.5	732.331	731.921	711.863	667.244	605.022	531.339	455.199	385.200	327.482	283.272

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CANDELA TABULATION - (Cont.)

135.0	720.460	719.641	700.811	659.466	603.385	536.251	465.843	399.528	343.856	300.874
137.5	708.588	706.951	690.167	652.916	602.566	541.573	476.895	414.264	359.820	318.476
140.0	695.898	695.080	680.752	647.595	602.566	546.894	487.538	429.001	376.194	336.078
142.5	685.665	685.255	672.975	643.501	602.976	552.216	498.591	443.738	392.159	354.089
145.0	677.068	676.659	665.606	639.408	603.385	558.356	509.643	456.837	407.715	370.873
147.5	669.291	668.472	659.057	635.724	603.794	564.087	519.877	469.527	422.861	387.656
150.0	660.694	660.694	652.507	632.449	604.613	569.818	528.473	480.579	437.188	403.621
152.5	653.735	652.916	646.776	629.993	605.841	573.912	536.251	490.813	450.697	418.767
155.0	648.004	646.776	641.864	627.127	605.432	576.368	541.573	499.409	462.568	433.094
157.5	642.273	641.045	636.133	623.443	603.385	576.368	545.257	506.778	473.620	447.012
160.0	634.496	633.268	628.355	616.893	599.291	574.321	546.894	512.509	483.035	459.293
162.5	624.262	623.443	618.531	608.706	591.923	570.227	546.894	516.602	491.632	470.345
165.0	611.163	610.344	605.432	596.426	582.917	564.496	544.848	519.468	498.181	479.761
167.5	595.607	594.788	590.286	583.327	571.865	556.719	541.163	520.286	502.684	487.538
170.0	577.596	576.777	573.502	567.362	559.175	548.122	535.432	519.468	506.368	493.679
172.5	559.175	558.765	555.900	552.216	546.076	537.479	528.473	517.421	507.596	497.772
175.0	539.526	539.117	537.070	534.614	530.930	526.017	520.286	513.327	506.778	500.228
177.5	519.468	519.468	518.649	517.421	515.784	513.737	510.871	507.187	504.322	501.047
180.0	500.228	500.228	500.228	500.228	500.228	500.228	500.228	500.228	500.228	500.228

**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	463.386	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	215.729	214.500
57.5	209.588	208.770	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	84.327	83.098	81.870	81.461
77.5	69.590	69.590	68.362	67.543	67.134	66.724
80.0	54.034	54.034	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	24.970	25.380	24.970	25.789	26.199	25.789
87.5	10.643	11.053	11.871	13.509	14.327	15.146
90.0	0.000	0.409	4.094	8.187	10.643	11.053
92.5	9.824	12.281	13.918	17.193	18.421	18.830
95.0	24.152	25.789	28.245	33.567	33.976	32.339
97.5	39.298	39.298	42.163	50.350	53.216	51.988
100.0	54.853	52.806	56.491	66.315	72.455	72.046
102.5	69.999	66.724	72.455	83.508	90.057	90.467
105.0	85.555	80.233	88.011	103.566	107.660	107.250
107.5	101.519	94.970	101.929	119.121	126.080	124.034
110.0	117.484	110.116	114.619	135.496	142.454	142.454
112.5	133.449	125.262	126.899	151.460	160.466	160.466
115.0	150.232	140.408	138.770	166.197	178.887	179.706
117.5	167.425	155.963	149.823	179.706	196.080	197.717
120.0	184.208	171.928	161.285	191.577	212.044	214.500
122.5	200.992	187.893	172.747	202.629	226.781	230.056
125.0	217.775	204.267	184.618	212.454	240.699	244.383
127.5	234.149	220.231	196.080	221.050	252.161	257.892
130.0	251.342	236.605	207.132	228.418	261.167	269.763
132.5	268.535	253.798	218.185	235.377	266.488	277.950
135.0	286.137	270.582	228.828	241.927	270.582	282.044
137.5	303.739	287.774	240.699	247.658	273.447	283.681
140.0	320.932	304.967	253.389	253.798	275.085	284.500
142.5	338.125	322.160	268.126	259.939	276.313	283.681
145.0	355.318	339.762	284.090	266.079	277.541	282.862
147.5	372.101	356.955	300.055	272.219	279.178	282.862
150.0	389.294	373.738	315.201	279.178	282.044	283.272
152.5	405.258	390.112	331.984	288.184	284.909	284.909
155.0	420.405	405.668	348.768	300.874	289.821	287.365
157.5	434.732	420.814	365.142	318.476	297.190	293.096
160.0	447.831	435.141	383.972	338.534	309.061	301.692
162.5	459.702	448.240	402.802	358.592	329.119	317.657
165.0	470.345	460.521	422.451	378.651	353.680	342.218
167.5	479.351	470.755	439.235	400.346	376.604	368.007
170.0	486.310	479.761	454.381	424.498	401.984	393.387
172.5	492.041	487.129	469.117	447.422	431.048	424.089
175.0	496.953	493.269	481.398	467.889	457.656	453.562
177.5	499.409	497.772	491.632	485.491	480.989	478.532
180.0	500.228	500.228	500.228	500.228	500.228	500.228

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	183.43	N.A.	6.00
0-30	381.45	N.A.	12.50
0-40	610.21	N.A.	19.90
0-60	1034.83	N.A.	33.80
0-80	1272.7	N.A.	41.50
0-90	1303.28	N.A.	42.50
10-90	1255.19	N.A.	41.00
20-40	426.78	N.A.	13.90
20-50	653.75	N.A.	21.30
40-70	573.27	N.A.	18.70
60-80	237.87	N.A.	7.80
70-80	89.22	N.A.	2.90
80-90	30.58	N.A.	1.00
90-110	212.13	N.A.	6.90
90-120	492.32	N.A.	16.10
90-130	813.68	N.A.	26.60
90-150	1376.05	N.A.	44.90
90-180	1760.56	N.A.	57.50
110-180	1548.44	N.A.	50.50
0-180	3063.84	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	30.58
90-100	49.65
100-110	162.48
110-120	280.19
120-130	321.36
130-140	302.13
140-150	260.25
150-160	204.00
160-170	133.43
170-180	47.08

IES INDOOR REPORT

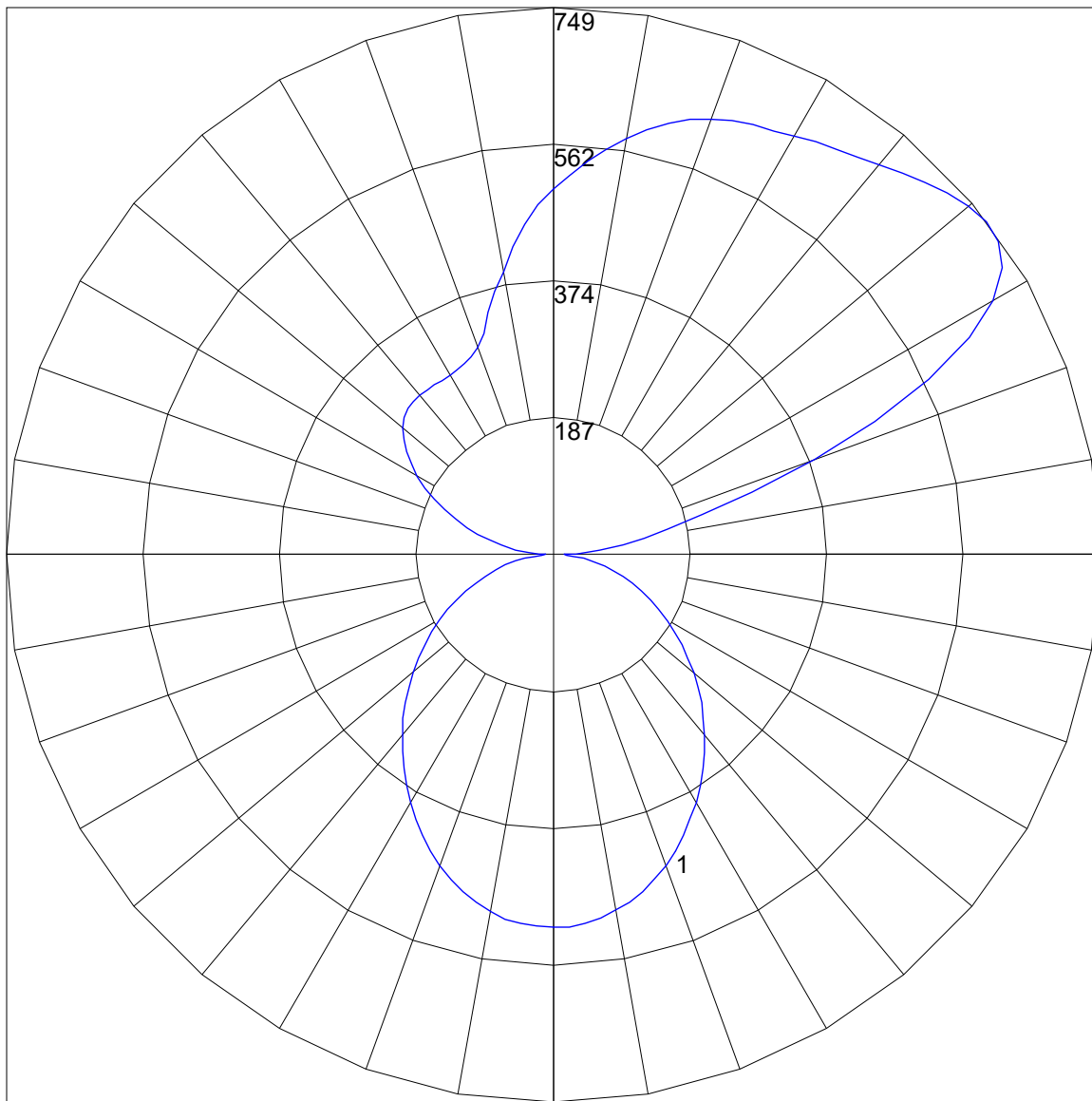
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 748.705 Located At Horizontal Angle = 0, Vertical Angle = 127.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)