

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-B-S-835-ASY-ITL89599.010.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599.010 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]08/24/17
[ISSUEDATE]10/30/17
[MANUFAC]FINELITE, INC.
[LUMCAT]HP-2-ID-4ft-B-S-835-ASY
[INPUT_ELECTRICAL]120.0 VOLTS, 32.7 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 35.4 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]3517

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3517
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	35.4
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	18.527	18.527	18.012	16.468	14.410	11.836	8.749	5.661	3.088	0.515
92.5	40.141	40.656	40.656	39.627	36.024	32.422	32.422	28.819	27.275	21.614
95.0	80.282	81.311	80.797	79.253	76.165	73.592	71.534	66.387	59.182	44.773
97.5	121.967	122.996	122.482	120.423	121.967	120.938	118.365	108.072	92.633	65.358
100.0	157.991	159.535	161.079	165.711	177.032	177.032	171.886	151.816	126.599	85.428
102.5	202.764	204.822	211.513	225.408	243.420	242.905	229.010	197.618	155.933	104.984
105.0	264.005	267.093	282.531	308.778	321.643	316.497	288.707	241.361	181.664	125.570
107.5	358.697	357.667	384.428	401.925	411.189	395.235	350.462	278.414	205.337	145.125
110.0	479.635	476.547	494.559	504.337	505.881	470.886	400.896	309.807	226.437	165.711
112.5	599.028	595.426	609.321	610.350	592.853	532.641	439.493	335.538	247.537	184.752
115.0	714.820	710.703	716.364	701.954	659.240	579.472	468.827	358.182	267.607	205.852
117.5	807.968	803.851	796.646	770.915	709.159	610.865	490.442	377.223	287.163	226.952
120.0	874.355	870.753	855.828	816.717	740.037	629.906	506.910	395.235	307.748	248.566
122.5	917.069	913.982	892.882	842.963	756.505	642.772	520.805	412.733	328.334	270.180
125.0	937.140	935.081	910.379	853.255	763.195	651.521	533.670	429.715	348.919	291.280
127.5	941.257	939.713	912.952	852.741	764.739	657.182	546.536	447.727	369.504	311.865
130.0	934.052	932.508	905.747	847.080	763.195	661.813	559.917	465.740	390.604	333.994
132.5	920.672	920.157	894.940	838.846	760.622	667.989	572.268	484.266	411.703	356.123

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CANDELA TABULATION - (Cont.)

135.0	905.747	904.718	881.045	829.068	758.563	674.164	585.648	502.278	432.289	378.252
137.5	890.823	888.765	867.665	820.834	757.534	680.855	599.543	520.805	452.359	400.382
140.0	874.870	873.841	855.828	814.144	757.534	687.545	612.923	539.332	472.944	422.511
142.5	862.004	861.489	846.051	808.997	758.049	694.235	626.818	557.858	493.015	445.154
145.0	851.197	850.682	836.787	803.851	758.563	701.954	640.713	574.326	512.571	466.254
147.5	841.419	840.390	828.553	799.219	759.078	709.159	653.579	590.280	531.612	487.354
150.0	830.612	830.612	820.319	795.102	760.107	716.364	664.386	604.175	549.624	507.424
152.5	821.863	820.834	813.114	792.014	761.651	721.510	674.164	617.040	566.607	526.466
155.0	814.658	813.114	806.939	788.412	761.137	724.598	680.855	627.848	581.531	544.478
157.5	807.453	805.909	799.734	783.780	758.563	724.598	685.486	637.111	595.426	561.975
160.0	797.675	796.131	789.956	775.546	753.417	722.025	687.545	644.316	607.263	577.414
162.5	784.810	783.780	777.605	765.254	744.154	716.879	687.545	649.462	618.070	591.309
165.0	768.341	767.312	761.137	749.815	732.832	709.674	684.972	653.064	626.304	603.145
167.5	748.786	747.756	742.095	733.347	718.937	699.896	680.340	654.094	631.965	612.923
170.0	726.142	725.113	720.996	713.276	702.984	689.089	673.135	653.064	636.596	620.643
172.5	702.984	702.469	698.866	694.235	686.515	675.708	664.386	650.491	638.140	625.789
175.0	678.281	677.767	675.194	672.106	667.474	661.299	654.094	645.345	637.111	628.877
177.5	653.064	653.064	652.035	650.491	648.433	645.860	642.257	637.626	634.023	629.906
180.0	628.877	628.877	628.877	628.877	628.877	628.877	628.877	628.877	628.877	628.877

**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	0.515	5.146	10.293	13.380	13.895
92.5	12.351	15.439	17.497	21.614	23.158	23.673
95.0	30.363	32.422	35.509	42.200	42.714	40.656
97.5	49.404	49.404	53.007	63.299	66.902	65.358
100.0	68.960	66.387	71.019	83.370	91.089	90.575
102.5	88.002	83.885	91.089	104.984	113.218	113.733
105.0	107.558	100.867	110.645	130.201	135.347	134.833
107.5	127.628	119.394	128.143	149.757	158.506	155.933
110.0	147.699	138.435	144.096	170.342	179.091	179.091
112.5	167.769	157.476	159.535	190.413	201.735	201.735
115.0	188.869	176.518	174.459	208.940	224.893	225.922
117.5	210.483	196.074	188.354	225.922	246.507	248.566
120.0	231.583	216.144	202.764	240.846	266.578	269.666
122.5	252.683	236.215	217.174	254.742	285.105	289.222
125.0	273.783	256.800	232.098	267.093	302.602	307.234
127.5	294.368	276.870	246.507	277.900	317.012	324.216
130.0	315.982	297.456	260.402	287.163	328.334	339.141
132.5	337.597	319.070	274.297	295.912	335.024	349.433
135.0	359.726	340.170	287.678	304.146	340.170	354.580
137.5	381.855	361.784	302.602	311.351	343.772	356.638
140.0	403.469	383.399	318.555	319.070	345.831	357.667
142.5	425.084	405.013	337.082	326.790	347.375	356.638
145.0	446.698	427.142	357.153	334.509	348.919	355.609
147.5	467.798	448.757	377.223	342.228	350.977	355.609
150.0	489.412	469.856	396.264	350.977	354.580	356.123
152.5	509.483	490.442	417.364	362.299	358.182	358.182
155.0	528.524	509.998	438.464	378.252	364.358	361.270
157.5	546.536	529.039	459.049	400.382	373.621	368.474
160.0	563.004	547.051	482.722	425.598	388.545	379.282
162.5	577.929	563.519	506.395	450.815	413.762	399.352
165.0	591.309	578.958	531.097	476.032	444.640	430.230
167.5	602.631	591.824	552.197	503.307	473.459	462.652
170.0	611.380	603.145	571.239	533.670	505.366	494.559
172.5	618.584	612.409	589.765	562.490	541.905	533.156
175.0	624.760	620.128	605.204	588.221	575.356	570.209
177.5	627.848	625.789	618.070	610.350	604.689	601.602
180.0	628.877	628.877	628.877	628.877	628.877	628.877

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	183.43	N.A.	5.20
0-30	381.45	N.A.	10.80
0-40	610.21	N.A.	17.40
0-60	1034.83	N.A.	29.40
0-80	1272.7	N.A.	36.20
0-90	1303.55	N.A.	37.10
10-90	1255.46	N.A.	35.70
20-40	426.78	N.A.	12.10
20-50	653.75	N.A.	18.60
40-70	573.27	N.A.	16.30
60-80	237.87	N.A.	6.80
70-80	89.22	N.A.	2.50
80-90	30.85	N.A.	0.90
90-110	266.68	N.A.	7.60
90-120	618.93	N.A.	17.60
90-130	1022.94	N.A.	29.10
90-150	1729.95	N.A.	49.20
90-180	2213.35	N.A.	62.90
110-180	1946.67	N.A.	55.40
0-180	3516.9	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	30.85
90-100	62.42
100-110	204.26
110-120	352.25
120-130	404.01
130-140	379.83
140-150	327.18
150-160	256.47
160-170	167.74
170-180	59.19

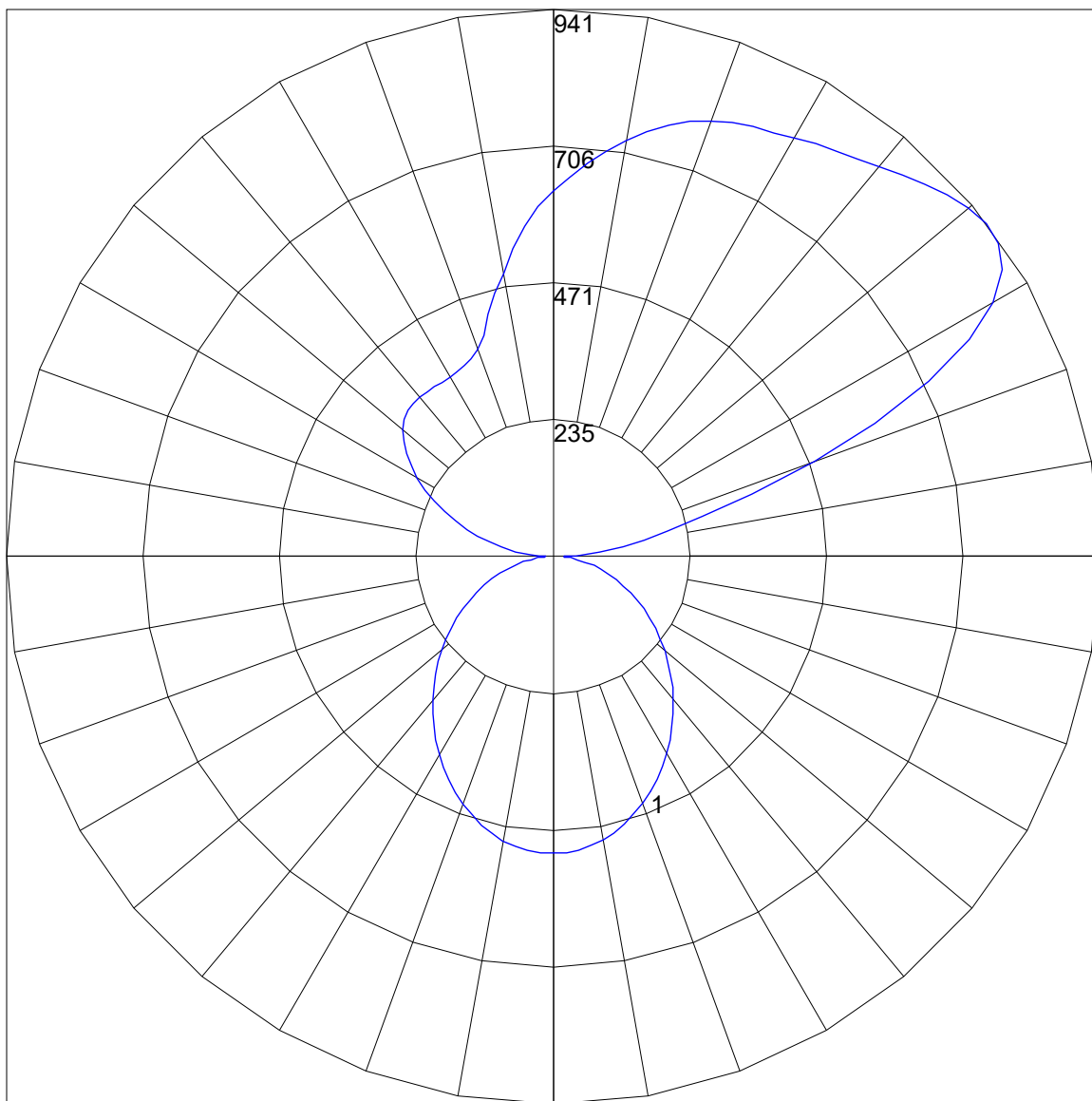
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	95	91	87	83	86	82	79	76	67	64	62	52	51	49	39	38	37	31
2	86	79	73	68	78	72	67	62	58	55	51	46	43	41	34	33	31	26
3	79	69	62	56	71	63	57	52	51	47	43	40	37	35	30	28	27	22
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19
5	66	55	47	41	60	50	43	38	41	36	32	32	29	26	24	22	20	16
6	61	49	41	35	55	45	38	33	37	31	28	29	25	22	22	20	18	14
7	56	44	36	31	51	40	33	29	33	28	24	26	23	20	20	18	16	13
8	52	40	32	27	47	37	30	25	30	25	21	24	20	18	19	16	14	11
9	48	36	29	24	44	33	27	22	28	23	19	22	18	16	17	14	13	10
10	45	33	26	22	41	31	24	20	25	21	17	20	17	14	16	13	11	9

POLAR GRAPH



Maximum Candela = 941.257 Located At Horizontal Angle = 0, Vertical Angle = 127.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)