

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-B-835-ASY-ITL89599.002.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599.002 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-B-835-ASY
[_INPUT_ELECTRICAL]120.0 VOLTS, 36.6 WATTS
[_INPUT_ELECTRICAL]277.0 VOLTS, 39.1 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	3852
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	36.6
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	7746	7956	8154
55	7165	7369	7587
65	6637	6803	7007
75	6339	6249	6309
85	6454	6096	5468

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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	641.743	641.743	641.743	641.743	641.743	641.743	641.743	641.743	641.743	641.743
2.5	640.713	640.713	640.713	640.713	640.713	640.713	640.713	640.713	641.228	640.713
5.0	637.111	637.111	637.111	637.111	637.111	637.626	637.111	637.626	638.140	638.140
7.5	630.421	630.935	630.421	631.450	632.479	632.479	632.479	632.994	633.509	632.994
10.0	621.672	621.672	622.187	622.701	623.731	624.245	625.789	625.274	625.789	626.818
12.5	611.379	610.350	612.409	613.438	614.467	613.438	616.526	616.526	616.526	618.070
15.0	599.543	597.999	600.058	601.602	603.660	603.660	604.689	604.689	608.292	610.865
17.5	583.589	583.589	585.133	587.707	589.765	589.250	593.367	589.765	592.853	595.426
20.0	568.665	567.636	569.695	572.268	574.841	575.355	576.899	574.326	578.443	581.531
22.5	550.653	551.168	552.197	554.770	558.373	558.887	560.431	558.373	563.004	567.121
25.0	532.127	531.612	533.156	536.758	540.361	539.331	542.419	541.390	544.992	550.139
27.5	511.541	512.056	514.115	516.688	520.290	520.290	523.893	523.893	525.951	532.127
30.0	492.500	491.986	494.559	497.132	500.220	501.249	504.337	504.851	507.939	513.085
32.5	471.400	471.400	472.430	477.576	479.120	481.178	484.266	483.751	487.354	492.500
35.0	449.271	449.271	450.815	454.932	458.020	460.078	461.622	462.652	466.769	471.400
37.5	427.657	427.657	428.686	432.289	435.891	438.464	439.493	440.523	444.640	449.271
40.0	405.528	405.013	407.072	409.645	412.218	415.820	416.850	419.423	421.996	426.628
42.5	383.913	383.399	384.428	387.516	390.089	393.691	394.721	397.294	399.867	403.469
45.0	360.755	360.755	361.784	364.357	367.445	370.533	372.077	373.621	376.194	380.311
47.5	338.111	338.626	339.655	341.714	344.802	348.404	348.919	350.462	353.550	357.667
50.0	315.468	315.982	316.497	319.070	321.643	324.216	325.760	327.304	329.877	333.480
52.5	292.309	293.339	293.853	296.941	298.485	301.058	303.117	304.146	306.719	309.292
55.0	270.695	270.695	271.724	274.297	275.841	278.414	279.958	280.988	283.046	285.619
57.5	248.566	248.566	250.110	252.168	254.227	256.285	256.800	258.344	260.402	262.976
60.0	226.951	226.951	227.981	230.039	232.098	233.642	235.186	235.186	237.244	239.303
62.5	205.337	206.366	206.881	208.425	209.454	211.513	212.542	212.542	214.600	216.144
65.0	184.752	185.781	185.781	187.325	187.840	189.384	190.413	190.413	191.442	193.501
67.5	164.681	165.196	164.681	166.225	166.740	167.769	168.798	168.284	169.313	171.372
70.0	144.611	145.125	144.611	146.155	146.155	146.669	147.184	147.184	148.728	149.242
72.5	126.084	126.084	125.570	126.084	126.084	126.084	126.599	126.084	127.628	128.143
75.0	108.072	107.557	107.043	107.557	107.043	106.528	106.528	105.499	107.043	107.557
77.5	90.060	89.545	89.545	89.545	89.031	87.487	86.972	86.972	86.972	87.487
80.0	71.533	71.533	71.533	71.533	71.019	69.990	68.960	67.931	67.931	67.931
82.5	53.521	54.036	54.036	53.521	53.521	52.492	51.978	50.434	49.919	49.404
85.0	37.053	37.568	37.568	37.053	36.539	34.995	34.480	33.451	32.422	31.907
87.5	23.673	24.188	23.673	22.644	21.100	19.556	18.012	16.468	15.439	13.895
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	39.626	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	71.533	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	479.634	476.547	494.559	504.337	505.880	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	226.951
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	913.981	892.882	842.963	756.505	642.772	520.805	412.733	328.333	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	657.181	546.536	447.727	369.504	311.865
130.0	934.052	932.508	905.747	847.080	763.195	661.813	559.917	465.739	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	680.854	599.543	520.805	452.359	400.382
140.0	874.870	873.840	855.828	814.143	757.534	687.545	612.923	539.331	472.944	422.511
142.5	862.004	861.489	846.050	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	840.389	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	680.854	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	607.262	577.414
162.5	784.810	783.780	777.605	765.254	744.154	716.878	687.545	649.462	618.070	591.309
165.0	768.341	767.312	761.137	749.815	732.832	709.674	684.971	653.064	626.304	603.145
167.5	748.785	747.756	742.095	733.347	718.937	699.896	680.340	654.094	631.965	612.923
170.0	726.142	725.113	720.995	713.276	702.983	689.088	673.135	653.064	636.596	620.643
172.5	702.983	702.469	698.866	694.235	686.515	675.708	664.386	650.491	638.140	625.789
175.0	678.281	677.767	675.193	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	641.743	641.743	641.743	641.743	641.743	641.743
2.5	640.713	640.713	640.713	640.713	640.713	640.199
5.0	637.626	637.626	637.626	637.626	637.111	637.111
7.5	632.994	632.994	632.994	632.479	632.479	631.965
10.0	627.333	626.818	625.274	625.789	625.789	624.245
12.5	618.584	619.099	616.011	616.526	616.011	613.438
15.0	610.865	610.865	606.233	605.719	603.660	600.572
17.5	595.426	596.455	592.853	591.824	589.765	585.648
20.0	581.531	582.560	577.414	578.443	573.297	569.695
22.5	565.577	566.607	561.460	560.946	556.314	552.197
25.0	549.109	550.139	543.963	541.905	537.787	533.156
27.5	531.097	532.127	524.922	522.863	518.232	513.085
30.0	511.541	513.085	505.880	502.793	497.132	492.500
32.5	490.956	492.500	485.810	483.237	476.032	471.400
35.0	470.371	470.371	464.196	461.622	455.447	449.271
37.5	448.757	448.242	443.096	440.008	432.803	426.628
40.0	427.142	426.628	420.452	416.850	408.101	403.984
42.5	403.984	403.469	398.838	393.691	385.972	381.855
45.0	379.796	380.311	375.165	370.533	362.814	358.697
47.5	357.153	357.153	352.006	347.375	340.170	336.567
50.0	333.480	333.480	328.333	323.702	317.012	313.924
52.5	309.807	309.807	305.175	301.058	294.368	291.795
55.0	286.648	286.134	281.502	277.385	271.210	269.666
57.5	263.490	262.461	258.344	254.741	250.110	247.537
60.0	240.846	240.332	235.700	232.098	227.466	225.922
62.5	217.688	217.688	212.542	209.454	205.852	204.308
65.0	195.044	194.530	190.413	188.354	184.237	182.693
67.5	172.401	171.886	168.284	166.740	163.137	162.108
70.0	150.272	149.757	146.669	145.125	142.552	141.523
72.5	128.657	128.657	126.599	124.540	122.482	121.452
75.0	107.557	107.557	106.014	104.470	102.926	102.411
77.5	87.487	87.487	85.943	84.914	84.399	83.885
80.0	67.931	67.931	66.902	66.387	66.387	65.873

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CANDELA TABULATION - (Cont.)

82.5	49.404	49.404	48.375	48.890	49.404	48.890
85.0	31.392	31.907	31.392	32.422	32.936	32.422
87.5	13.380	13.895	14.924	16.983	18.012	19.041
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	107.557	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	157.477	159.535	190.413	201.735	201.735
115.0	188.869	176.518	174.459	208.939	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	254.741	285.105	289.222
125.0	273.783	256.800	232.098	267.093	302.602	307.234
127.5	294.368	276.871	246.507	277.900	317.012	324.216
130.0	315.982	297.456	260.402	287.163	328.333	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	364.357	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	611.379	603.145	571.238	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	575.355	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	230.60	N.A.	6.00
0-30	479.56	N.A.	12.50
0-40	767.14	N.A.	19.90
0-60	1300.96	N.A.	33.80
0-80	1600.01	N.A.	41.50
0-90	1638.45	N.A.	42.50
10-90	1577.99	N.A.	41.00
20-40	536.54	N.A.	13.90
20-50	821.88	N.A.	21.30
40-70	720.70	N.A.	18.70
60-80	299.05	N.A.	7.80
70-80	112.16	N.A.	2.90
80-90	38.44	N.A.	1.00
90-110	266.68	N.A.	6.90
90-120	618.93	N.A.	16.10
90-130	1022.94	N.A.	26.60
90-150	1729.95	N.A.	44.90
90-180	2213.35	N.A.	57.50
110-180	1946.67	N.A.	50.50
0-180	3851.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	60.46
10-20	170.14
20-30	248.95
30-40	287.59
40-50	285.33
50-60	248.49
60-70	186.88
70-80	112.16
80-90	38.44
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

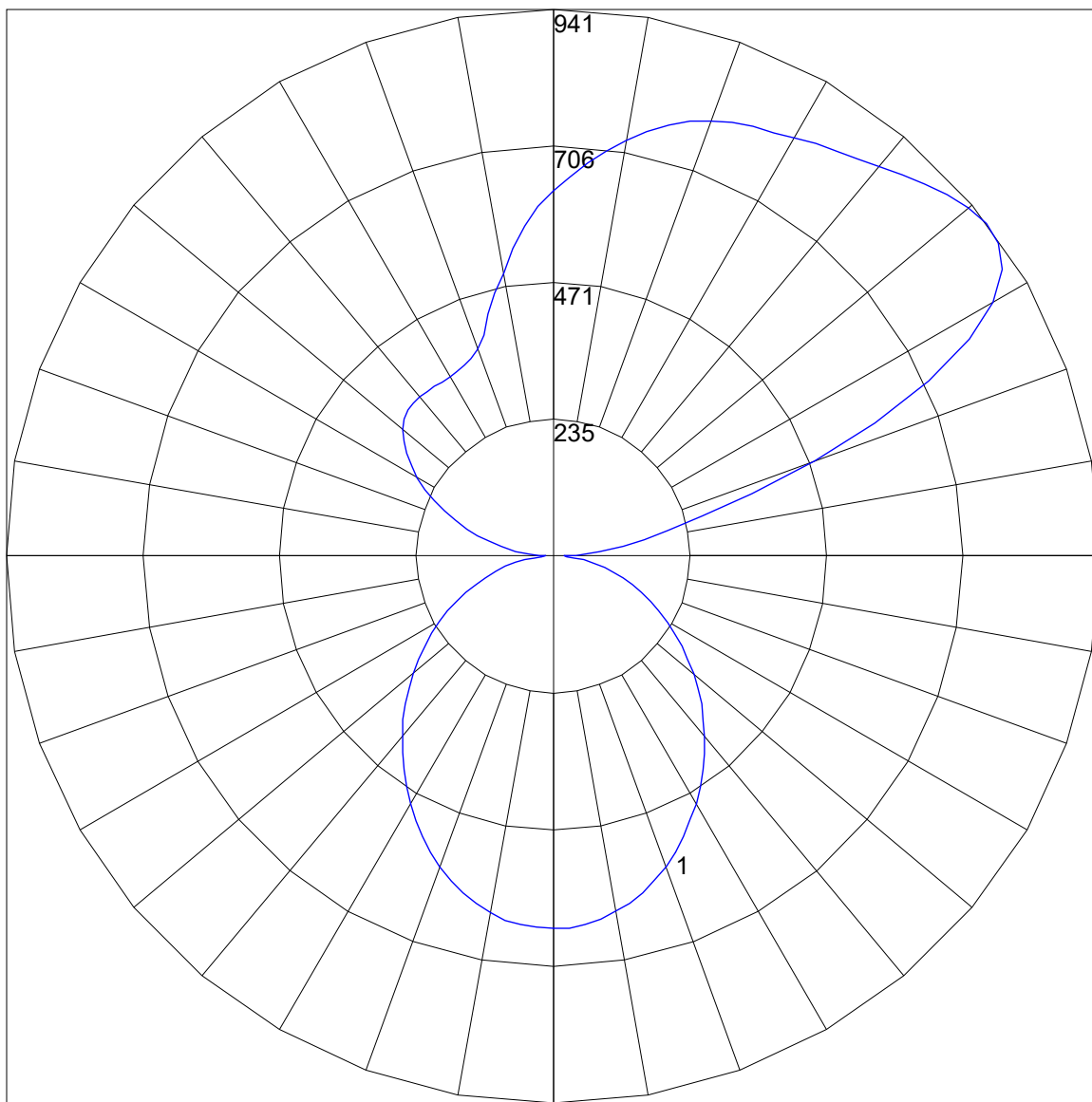
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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