

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-H-835-ASY-ITL89599.014.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599.014 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-H-835-ASY
[INPUT_ELECTRICAL]120.0 VOLTS, 42.6 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 44.8 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]4237

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4236
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	42.6
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	11707	12024	12325
55	10829	11138	11468
65	10031	10283	10590
75	9581	9445	9536
85	9755	9213	8265

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	943.499	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	868.827	869.605	871.939	868.050	874.272	878.939
22.5	832.270	833.048	834.603	838.492	843.937	844.715	847.048	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	619.146	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	562.365	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	492.361	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	220.901	220.901	221.679	222.457	222.457	224.791	225.569
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	107.340	105.784	104.228	102.672	102.672	102.672
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	14.737	14.737	14.327	13.099	11.462	9.415	6.959	4.503	2.456	0.409
92.5	31.930	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	193.624	193.214	182.162	157.191	124.034	83.508
105.0	209.998	212.454	224.734	245.611	255.845	251.751	229.647	191.986	144.501	99.882
107.5	285.318	284.500	305.786	319.704	327.072	314.382	278.769	221.459	163.332	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	266.897	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	390.113	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	726.191	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	265.670
132.5	732.331	731.921	711.863	667.244	605.022	531.339	455.200	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	690.168	652.917	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	376.195	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	652.917	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	616.894	599.291	574.321	546.894	512.509	483.035	459.293
162.5	624.262	623.443	618.531	608.707	591.923	570.227	546.894	516.602	491.632	470.346
165.0	611.163	610.344	605.432	596.426	582.917	564.496	544.847	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	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	943.499
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	790.268	783.267	775.489
30.0	773.155	775.489	764.599	759.932	751.376	744.376
32.5	742.043	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	645.592	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	567.033	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	374.132
60.0	364.021	363.243	356.243	350.798	343.798	341.464
62.5	329.019	329.019	321.241	316.574	311.129	308.796
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	155.565	154.787
77.5	132.230	132.230	129.896	128.341	127.563	126.785
80.0	102.672	102.672	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	0.409	4.093	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	135.495	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	236.606	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	282.043
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	259.938	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	282.043	283.272
152.5	405.259	390.113	331.985	288.184	284.909	284.909
155.0	420.404	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	470.346	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	478.533
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	348.54	N.A.	8.20
0-30	724.81	N.A.	17.10
0-40	1159.48	N.A.	27.40
0-60	1966.31	N.A.	46.40
0-80	2418.29	N.A.	57.10
0-90	2475.43	N.A.	58.40
10-90	2384.05	N.A.	56.30
20-40	810.94	N.A.	19.10
20-50	1242.2	N.A.	29.30
40-70	1089.29	N.A.	25.70
60-80	451.99	N.A.	10.70
70-80	169.53	N.A.	4.00
80-90	57.14	N.A.	1.30
90-110	212.13	N.A.	5.00
90-120	492.32	N.A.	11.60
90-130	813.68	N.A.	19.20
90-150	1376.05	N.A.	32.50
90-180	1760.56	N.A.	41.60
110-180	1548.44	N.A.	36.60
0-180	4235.99	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	57.14
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

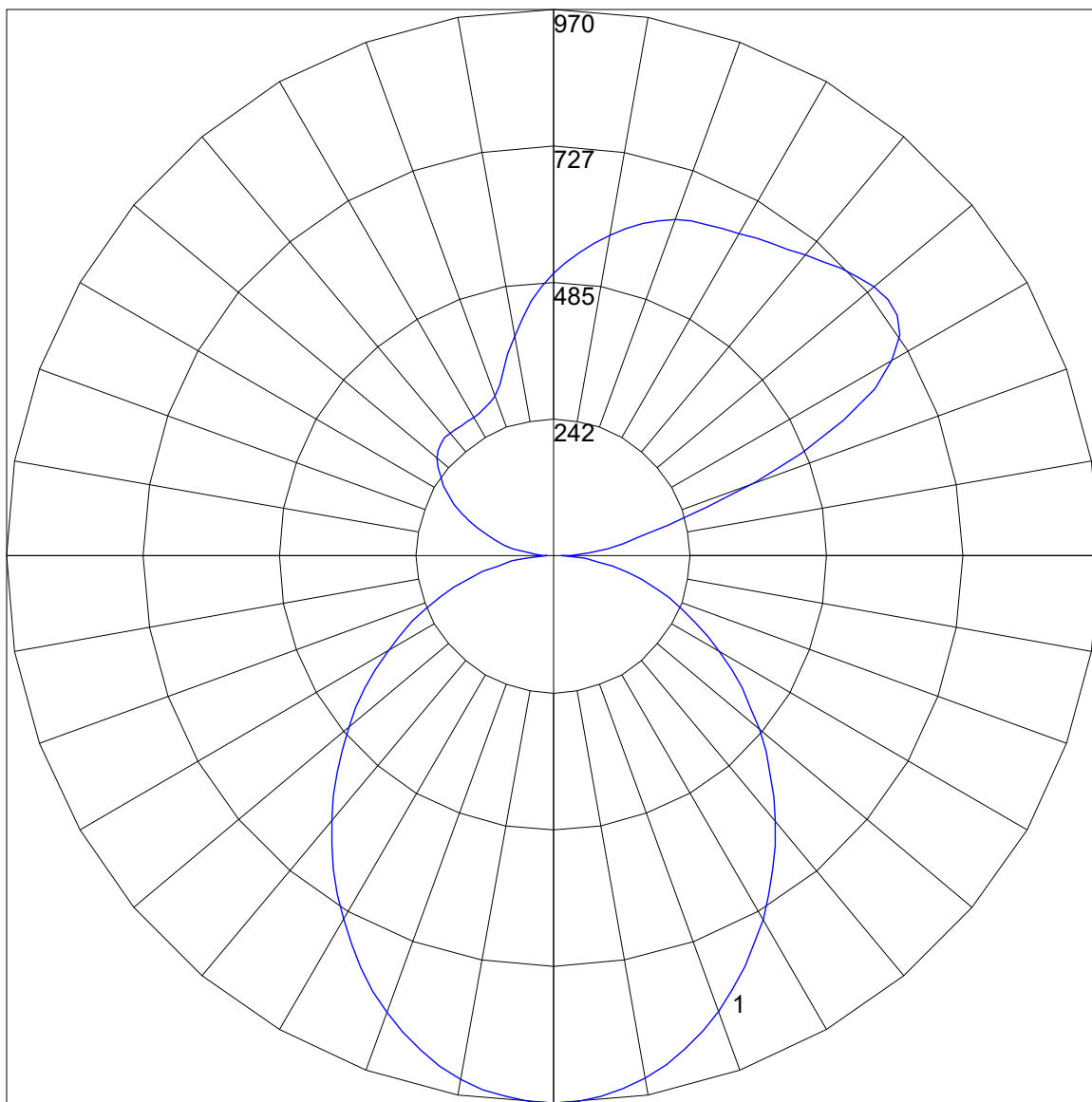
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58
1	100	95	91	87	93	89	85	82	77	74	72	66	64	63	56	55	54	49
2	91	83	77	71	84	78	72	67	67	63	60	58	55	52	49	47	45	41
3	83	73	65	59	77	68	62	56	60	54	50	51	47	44	44	41	38	35
4	76	65	57	50	70	61	53	48	53	47	43	46	41	38	39	36	33	30
5	70	58	49	43	65	54	47	41	47	41	37	41	37	33	35	32	29	26
6	64	52	44	38	60	49	41	36	43	37	32	37	32	29	32	28	25	23
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	29	26	23	20
8	55	43	35	29	51	40	33	28	35	30	25	31	26	23	27	23	20	18
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	21	18	16
10	48	36	28	24	45	34	27	23	30	24	21	26	22	19	23	19	17	15

POLAR GRAPH



Maximum Candela = 969.944 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)