

# 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 : HPW-LED-4FT-FR-LED-S-8-35-ITL85170.001.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85170.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/15/15

[ISSUEDATE]04/28/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HPW-LED-4ft-FR-LED-S-8-35

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.0 WATTS

[ABSOLUTE]LUMENS]1599

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85170. 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](http://www.finelite.com/download_files/series_downloads/photometry_pdf/FL_Family_Correlation_WhitePaper.pdf)

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1599
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	14.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.92
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.48 ft
Luminous Width (90-270)	3.91 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6135	5388	2960
55	6159	5405	2744
65	5513	5219	2468
75	4220	4419	2096
85	1913	2398	1563

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0.0	579.649	579.649	579.649	579.649	579.649	579.649	579.649	579.649	579.649
2.5	621.403	619.766	608.713	596.023	579.240	562.865	549.766	540.351	537.076
5.0	663.158	658.655	637.778	610.351	577.193	544.854	518.655	501.053	494.503
7.5	706.140	697.134	666.023	623.860	573.509	525.614	487.544	462.573	453.567
10.0	744.620	733.158	692.222	634.503	569.006	505.965	456.842	424.912	413.450
12.5	776.959	765.088	716.374	643.509	562.456	484.678	426.140	388.070	374.561
15.0	803.158	789.649	737.251	650.468	554.678	463.392	395.439	352.047	337.310
17.5	822.398	808.480	753.216	655.789	545.263	440.877	364.737	316.433	300.468
20.0	838.772	823.216	763.860	659.474	535.848	417.953	334.854	282.865	265.673
22.5	847.368	831.813	770.000	660.292	523.567	394.620	305.380	251.345	231.696
25.0	852.690	836.316	772.456	658.655	510.468	370.877	276.316	219.415	200.175
27.5	855.146	836.725	771.228	654.561	496.140	347.134	247.661	190.760	169.883
30.0	852.690	832.632	765.088	647.193	480.585	323.392	219.825	161.696	141.228
32.5	846.959	825.263	756.901	636.959	463.392	299.240	193.216	135.088	115.439
35.0	836.316	814.211	744.620	623.860	445.380	275.497	167.427	110.526	90.877
37.5	821.579	799.883	729.064	607.485	426.550	251.754	142.456	87.193	69.591
40.0	804.386	781.053	710.234	589.064	406.491	228.421	119.532	67.135	52.398
42.5	781.871	758.947	688.947	568.187	386.023	205.088	98.246	50.760	36.023
45.0	756.082	732.749	663.977	544.444	364.737	182.164	77.778	35.614	16.784
47.5	727.836	704.503	636.550	519.474	343.041	160.058	59.766	17.193	13.509
50.0	697.953	673.392	606.257	492.456	319.708	138.363	45.029	13.918	11.053
52.5	660.702	641.871	573.918	463.801	297.193	118.713	32.339	11.871	9.415
55.0	615.672	602.573	540.351	435.146	274.269	97.836	17.193	10.234	7.778
57.5	566.140	556.725	505.146	404.035	251.345	79.415	13.918	8.596	6.550
60.0	514.561	507.602	469.942	371.696	228.012	62.222	11.871	7.368	5.322
62.5	460.936	455.614	428.596	339.357	205.906	47.485	10.234	6.140	4.503
65.0	406.082	402.398	384.386	304.561	181.754	34.386	8.596	5.322	3.684
67.5	352.456	351.228	338.129	271.813	158.830	23.333	7.368	4.503	3.275
70.0	298.012	298.421	291.871	240.292	136.725	13.918	6.140	3.684	2.456
72.5	243.158	245.205	245.205	210.000	115.848	11.053	4.912	3.275	2.047
75.0	190.351	193.626	199.357	176.023	94.561	9.006	4.094	2.456	1.637
77.5	140.000	145.322	154.327	142.456	74.912	6.959	3.275	2.047	1.637
80.0	93.743	99.883	110.936	108.889	56.082	5.322	2.456	1.637	1.228
82.5	60.585	60.994	71.228	75.731	39.298	3.684	2.047	1.228	0.819
85.0	29.064	31.111	36.433	43.801	23.743	2.456	1.228	0.819	0.819
87.5	4.503	5.322	7.368	15.146	10.643	0.819	0.409	0.409	0.409
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HPW-LED-4FT-FR-LED-S-8-35-ITL85170.001.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	214.18	N.A.	13.40
0-30	454.31	N.A.	28.40
0-40	739.13	N.A.	46.20
0-60	1283.22	N.A.	80.30
0-80	1575.11	N.A.	98.50
0-90	1598.84	N.A.	100.00
10-90	1543.75	N.A.	96.60
20-40	524.95	N.A.	32.80
20-50	813.27	N.A.	50.90
40-70	733.17	N.A.	45.90
60-80	291.89	N.A.	18.30
70-80	102.81	N.A.	6.40
80-90	23.74	N.A.	1.50
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1598.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	55.10
10-20	159.08
20-30	240.13
30-40	284.82
40-50	288.32
50-60	255.77
60-70	189.08
70-80	102.81
80-90	23.74
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

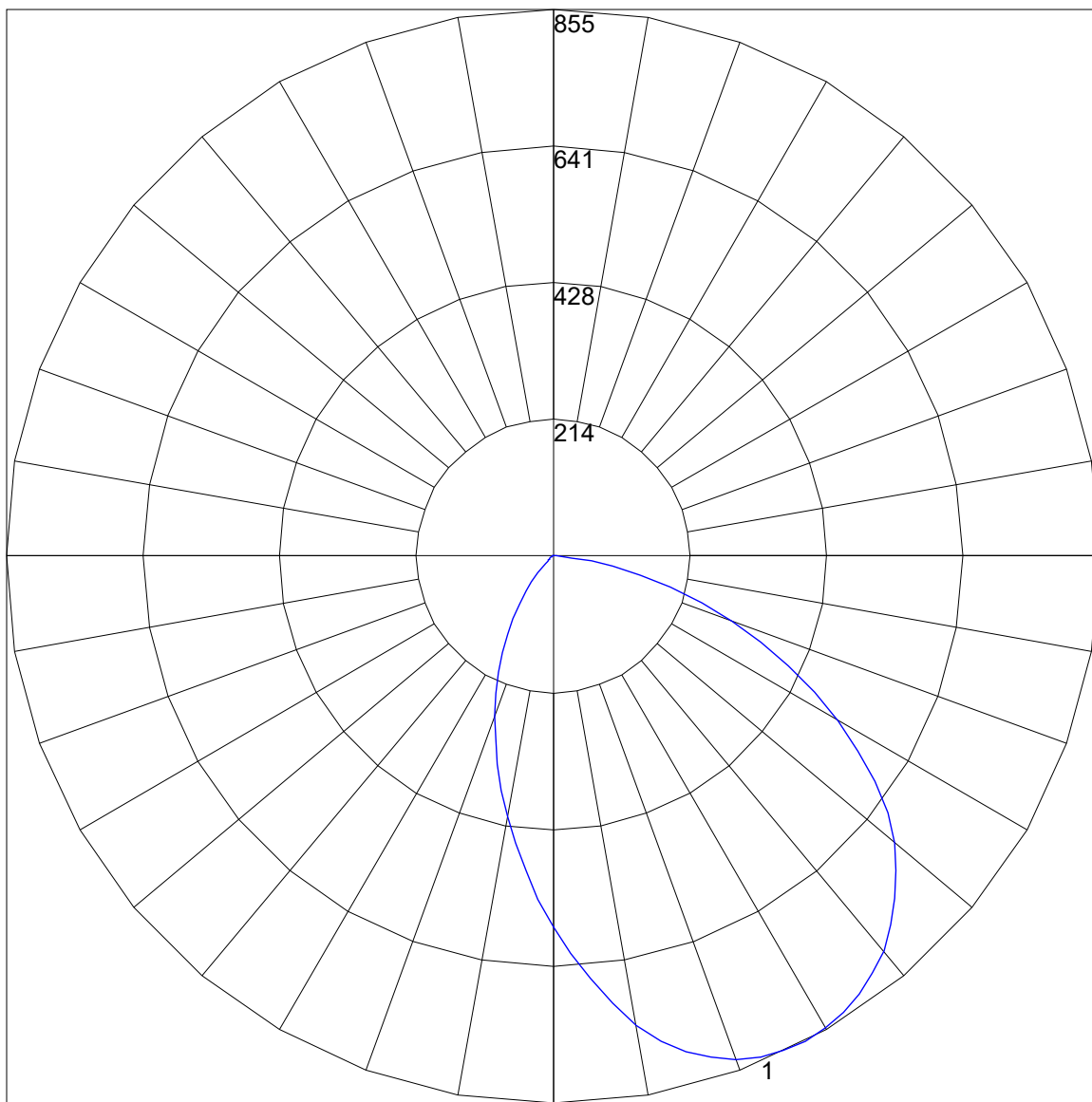
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	31
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 855.146 Located At Horizontal Angle = 0, Vertical Angle = 27.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)