

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-B-8-TW-ITL85170.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85170.902 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]09/15/15
[ISSUE DATE]04/28/16
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HPW-LED-4ft-FR-LED-B-8-TW
[OTHER]ies file is based on 3500K; see luminaire tech sheet at www.finelite.com for lumen adjustment factors for other CCT's & CRI
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 20.2 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 21.7 WATTS
[ABSOLUTE LUMENS]2010
[OTHER]see 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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2010
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	20.2
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	7713	6773	3721
55	7742	6795	3449
65	6931	6561	3102
75	5305	5556	2635
85	2405	3015	1965

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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	728.702	728.702	728.702	728.702	728.702	728.702	728.702	728.702	728.702
2.5	781.193	779.135	765.240	749.287	728.187	707.602	691.135	679.298	675.181
5.0	833.684	828.023	801.778	767.298	725.614	684.959	652.023	629.895	621.661
7.5	887.719	876.398	837.287	784.281	720.982	660.772	612.912	581.520	570.199
10.0	936.094	921.684	870.222	797.661	715.322	636.070	574.316	534.175	519.766
12.5	976.749	961.825	900.585	808.982	707.088	609.310	535.719	487.860	470.877
15.0	1009.684	992.702	926.830	817.731	697.310	582.550	497.123	442.573	424.047
17.5	1033.871	1016.374	946.901	824.421	685.474	554.246	458.526	397.801	377.731
20.0	1054.456	1034.901	960.281	829.053	673.637	525.427	420.959	355.602	333.988
22.5	1065.263	1045.708	968.000	830.082	658.199	496.094	383.906	315.977	291.275
25.0	1071.953	1051.368	971.088	828.023	641.731	466.246	347.368	275.836	251.649
27.5	1075.041	1051.883	969.544	822.877	623.719	436.398	311.345	239.813	213.567
30.0	1071.953	1046.737	961.825	813.614	604.164	406.550	276.351	203.275	177.544
32.5	1064.749	1037.474	951.532	800.749	582.550	376.187	242.901	169.825	145.123
35.0	1051.368	1023.579	936.094	784.281	559.906	346.339	210.480	138.947	114.246
37.5	1032.842	1005.567	916.538	763.696	536.234	316.491	179.088	109.614	87.485
40.0	1011.228	981.895	892.866	740.538	511.018	287.158	150.269	84.398	65.871
42.5	982.924	954.105	866.105	714.292	485.287	257.825	123.509	63.813	45.287
45.0	950.503	921.170	834.713	684.444	458.526	229.006	97.778	44.772	21.099
47.5	914.994	885.661	800.234	653.053	431.251	201.216	75.135	21.614	16.982
50.0	877.427	846.550	762.152	619.088	401.918	173.942	56.608	17.497	13.895
52.5	830.596	806.924	721.497	583.064	373.614	149.240	40.655	14.924	11.836
55.0	773.988	757.520	679.298	547.041	344.795	122.994	21.614	12.865	9.778
57.5	711.719	699.883	635.041	507.930	315.977	99.836	17.497	10.807	8.234
60.0	646.877	638.129	590.784	467.275	286.643	78.222	14.924	9.263	6.690
62.5	579.462	572.772	538.807	426.620	258.854	59.696	12.865	7.719	5.661
65.0	510.503	505.871	483.228	382.877	228.491	43.228	10.807	6.690	4.632
67.5	443.088	441.544	425.076	341.708	199.673	29.333	9.263	5.661	4.117
70.0	374.643	375.158	366.924	302.082	171.883	17.497	7.719	4.632	3.088
72.5	305.684	308.257	308.257	264.000	145.637	13.895	6.175	4.117	2.573
75.0	239.298	243.415	250.620	221.287	118.877	11.322	5.146	3.088	2.058
77.5	176.000	182.690	194.012	179.088	94.175	8.749	4.117	2.573	2.058
80.0	117.848	125.567	139.462	136.889	70.503	6.690	3.088	2.058	1.544
82.5	76.164	76.678	89.544	95.205	49.404	4.632	2.573	1.544	1.029
85.0	36.538	39.111	45.801	55.064	29.848	3.088	1.544	1.029	1.029
87.5	5.661	6.690	9.263	19.041	13.380	1.029	0.515	0.515	0.515
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	269.25	N.A.	13.40
0-30	571.13	N.A.	28.40
0-40	929.19	N.A.	46.20
0-60	1613.19	N.A.	80.30
0-80	1980.14	N.A.	98.50
0-90	2009.97	N.A.	100.00
10-90	1940.71	N.A.	96.60
20-40	659.94	N.A.	32.80
20-50	1022.4	N.A.	50.90
40-70	921.70	N.A.	45.90
60-80	366.95	N.A.	18.30
70-80	129.25	N.A.	6.40
80-90	29.84	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	2009.97	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	69.26
10-20	199.98
20-30	301.88
30-40	358.06
40-50	362.46
50-60	321.54
60-70	237.70
70-80	129.25
80-90	29.84
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

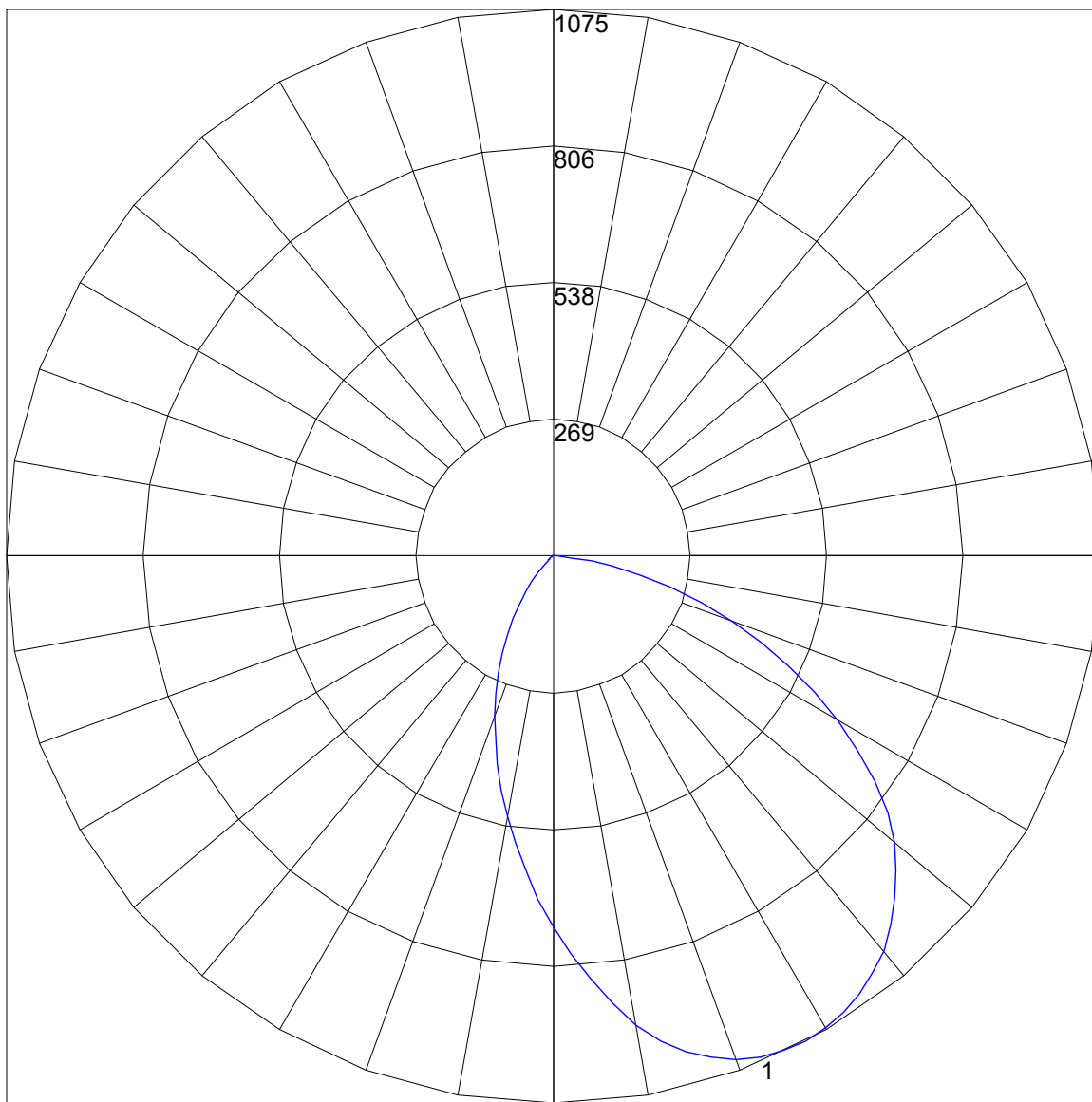
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	81	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	38	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 = 1075.041 Located At Horizontal Angle = 0, Vertical Angle = 27.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)