

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 : S17-LED-ACF-PF-4FT-B-8-35-ITL85159.002.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85159.002 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]08/04/15
[ISSUE DATE]04/27/16
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE S17-LED-ACF-PF-4ft-B-8-35
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 18.4 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 19.6 WATTS
[ABSOLUTE LUMENS]1701
[OTHER]see www.finelite.com for source file ITL85159. 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	1701
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	18.4
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 w/Sides
Luminous Length (0-180)	0.26 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.27 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1116	907	784
55	1194	937	647
65	1246	958	528
75	1274	961	386
85	1278	944	177

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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	100.351	100.351	100.351	100.351	100.351	100.351	100.351	100.351	100.351
2.5	99.322	99.322	99.322	99.836	100.351	100.865	101.895	102.409	102.924
5.0	99.322	98.807	98.807	99.322	99.836	101.895	103.953	105.497	106.012
7.5	100.865	99.836	98.807	98.292	99.322	102.409	106.012	109.099	110.643
10.0	102.409	101.380	99.322	97.263	98.292	102.409	108.070	112.702	114.760
12.5	104.468	102.924	99.322	96.234	97.263	102.409	110.643	116.304	118.877
15.0	107.556	105.497	100.351	95.205	95.719	102.409	112.187	119.392	121.965
17.5	110.129	107.556	100.865	93.661	93.661	101.380	113.731	120.936	122.994
20.0	113.731	110.643	101.895	92.632	91.602	100.351	113.731	120.936	122.994
22.5	117.333	113.216	102.409	91.088	89.029	98.807	113.216	119.906	120.421
25.0	121.450	116.304	103.439	89.544	85.942	97.263	111.673	116.819	117.333
27.5	125.567	119.906	104.468	87.485	83.368	95.205	109.614	113.216	112.702
30.0	129.684	122.480	104.982	85.427	79.766	92.117	106.526	108.585	108.070
32.5	133.801	126.082	106.012	83.368	76.164	89.544	102.924	103.953	103.439
35.0	137.918	129.170	106.526	81.310	72.561	85.942	98.807	99.836	99.836
37.5	141.520	132.257	107.556	79.251	68.444	82.339	94.690	96.749	97.263
40.0	145.637	134.830	108.070	76.678	64.327	78.222	90.573	93.661	95.719
42.5	149.240	137.404	108.585	74.620	60.211	74.620	86.971	92.117	94.690
45.0	152.842	139.977	108.585	72.047	56.094	70.503	83.368	91.602	95.205
47.5	155.930	142.035	108.585	68.959	51.462	66.386	80.795	91.088	95.719
50.0	157.988	143.579	108.585	66.386	46.830	62.269	78.222	90.573	96.234
52.5	160.047	145.123	108.585	63.813	42.713	58.667	76.164	90.573	96.749
55.0	161.591	145.637	108.070	60.725	38.596	54.550	74.105	90.573	97.263
57.5	162.620	146.152	107.041	58.152	34.994	50.947	72.047	90.058	96.749
60.0	162.620	146.152	106.012	55.064	30.877	47.860	70.503	89.029	96.234
62.5	162.620	145.123	104.468	51.977	27.275	44.772	68.959	88.000	94.690
65.0	161.591	144.608	102.924	49.404	24.187	41.684	66.901	85.942	92.632
67.5	160.047	142.550	100.351	46.316	20.585	39.111	64.327	83.368	90.058
70.0	158.503	140.491	98.292	43.743	17.497	36.538	61.754	80.795	87.485
72.5	155.930	138.433	95.719	40.655	14.409	33.965	59.181	77.708	84.398
75.0	152.842	135.345	92.632	37.567	11.836	31.392	56.094	74.620	81.310
77.5	149.240	131.743	89.029	34.480	8.749	29.333	53.006	71.532	77.708
80.0	145.123	128.140	85.427	31.392	6.175	26.760	49.918	67.930	74.105
82.5	141.006	124.023	81.825	28.304	4.117	24.187	46.830	64.842	71.532
85.0	136.374	119.906	77.708	25.216	2.573	21.614	44.257	61.240	67.415
87.5	131.228	115.275	73.591	22.129	1.029	19.556	40.655	57.123	62.784
90.0	126.596	110.643	69.474	20.070	0.000	15.953	34.994	49.918	55.579
92.5	122.480	107.041	67.415	21.614	5.146	14.409	29.848	43.228	48.374
95.0	120.421	105.497	67.930	29.848	12.865	17.497	29.848	41.684	46.830
97.5	118.877	105.497	73.076	41.170	22.129	21.614	33.450	43.228	48.374
100.0	119.906	108.070	82.339	53.520	31.906	28.819	37.567	46.830	50.433
102.5	124.023	115.275	95.719	67.930	44.257	38.082	42.713	50.433	54.035
105.0	132.257	126.596	113.216	83.368	56.608	48.889	48.889	54.550	57.123
107.5	145.637	142.035	131.743	99.836	70.503	61.240	57.637	59.696	62.269
110.0	163.135	161.591	152.842	117.333	85.427	73.591	67.930	67.415	67.930
112.5	185.263	185.263	173.942	135.345	100.865	86.456	78.737	76.678	76.164
115.0	211.509	211.509	197.614	154.386	116.304	100.351	91.088	86.971	85.942
117.5	241.357	240.327	220.772	173.427	132.257	113.731	103.439	98.292	96.749
120.0	272.234	269.661	244.959	192.468	149.240	128.140	116.819	110.643	108.070
122.5	303.626	296.421	267.602	211.509	165.708	142.550	130.199	122.994	120.421
125.0	333.474	324.211	290.246	230.035	182.175	155.930	143.579	136.374	133.287
127.5	360.234	348.398	310.316	248.047	199.158	170.339	157.474	148.725	146.152
130.0	382.877	370.012	328.327	264.000	216.140	184.749	171.368	162.105	159.532
132.5	401.918	387.509	343.251	279.439	232.094	199.673	185.263	175.485	172.912

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CANDELA TABULATION - (Cont.)

135.0	416.842	401.918	357.146	294.877	248.561	214.082	199.158	188.865	185.778
137.5	428.164	412.725	368.468	308.772	264.000	228.491	212.538	202.246	198.643
140.0	435.368	419.930	377.216	321.637	278.409	242.386	225.918	215.111	212.023
142.5	440.000	425.076	384.936	333.474	292.304	255.766	238.784	227.977	224.889
145.0	441.544	427.649	391.626	344.281	305.170	269.146	251.649	240.842	237.240
147.5	440.515	428.678	396.772	353.029	317.006	282.012	263.485	251.649	248.561
150.0	440.000	429.193	401.404	362.807	328.842	294.363	275.836	264.000	260.398
152.5	437.427	428.678	405.006	371.041	339.135	306.713	287.673	275.836	271.719
155.0	435.368	427.649	408.094	377.731	348.912	318.035	299.509	287.673	283.041
157.5	432.281	427.135	410.667	382.877	357.146	328.842	310.830	298.480	294.877
160.0	430.737	426.105	412.211	388.023	365.380	338.620	322.152	309.801	306.199
162.5	428.678	424.561	413.240	392.140	372.070	348.398	332.444	321.637	318.035
165.0	426.620	422.503	413.240	395.228	377.731	357.146	342.737	332.959	329.357
167.5	423.532	420.444	412.211	397.287	382.363	365.380	353.029	343.766	341.193
170.0	419.415	416.842	410.152	398.316	385.965	372.585	362.292	355.088	352.515
172.5	414.269	412.725	407.064	398.830	389.053	379.275	371.041	365.895	363.836
175.0	408.094	407.064	403.462	397.801	391.111	384.936	379.275	375.673	374.643
177.5	400.889	400.889	398.830	395.743	392.655	389.567	386.994	384.936	384.421
180.0	393.170	393.170	393.170	393.170	393.170	393.170	393.170	393.170	393.170

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	39.64	N.A.	2.30
0-30	88.10	N.A.	5.20
0-40	150.31	N.A.	8.80
0-60	301.01	N.A.	17.70
0-80	453.84	N.A.	26.70
0-90	515.53	N.A.	30.30
10-90	505.79	N.A.	29.70
20-40	110.68	N.A.	6.50
20-50	182.81	N.A.	10.70
40-70	230.12	N.A.	13.50
60-80	152.83	N.A.	9.00
70-80	73.41	N.A.	4.30
80-90	61.69	N.A.	3.60
90-110	139.50	N.A.	8.20
90-120	277.03	N.A.	16.30
90-130	466.10	N.A.	27.40
90-150	879.15	N.A.	51.70
90-180	1185.89	N.A.	69.70
110-180	1046.39	N.A.	61.50
0-180	1701.43	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

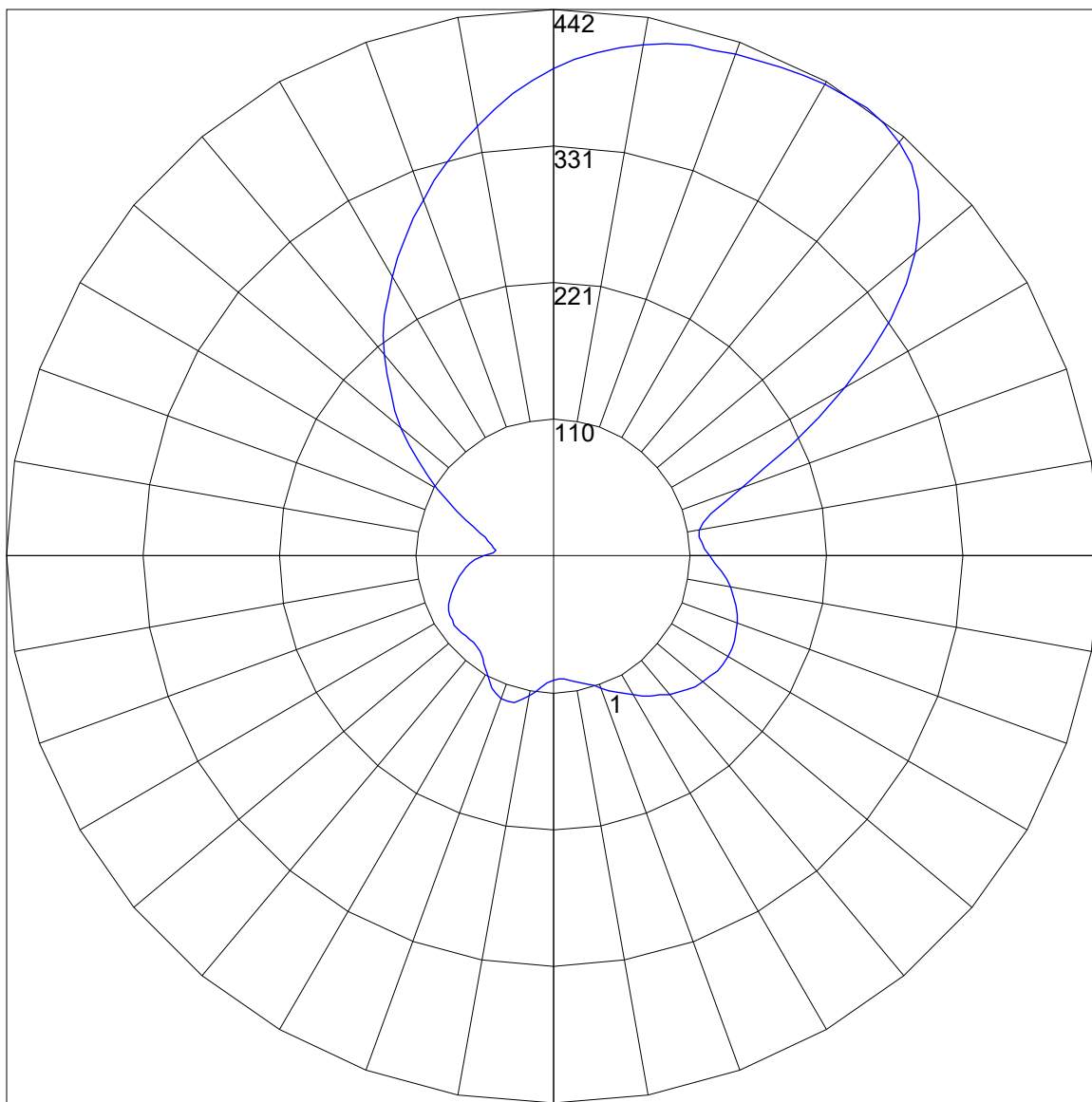
Zone	Lumens
0-10	9.75
10-20	29.89
20-30	48.46
30-40	62.22
40-50	72.14
50-60	78.56
60-70	79.42
70-80	73.41
80-90	61.69
90-100	55.22
100-110	84.28
110-120	137.53
120-130	189.07
130-140	212.22
140-150	200.83
150-160	162.98
160-170	106.58
170-180	37.19

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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	38	38	38	30
1	92	87	82	78	82	78	74	70	61	58	56	45	43	42	31	30	29	22
2	83	75	68	62	74	67	61	56	52	48	45	39	36	33	26	24	23	17
3	75	65	57	51	67	58	51	46	45	41	37	33	30	27	22	20	18	14
4	68	57	49	42	61	51	44	38	40	35	31	29	26	23	20	17	15	11
5	62	50	42	36	55	45	38	33	35	30	26	26	22	19	18	15	13	9
6	57	45	37	31	51	40	33	28	32	26	22	23	20	17	16	13	11	8
7	53	40	32	27	47	36	29	24	28	23	19	21	17	15	14	12	10	7
8	49	36	29	23	43	33	26	21	26	21	17	19	15	13	13	11	9	6
9	45	33	25	20	40	30	23	19	23	18	15	18	14	11	12	10	8	5
10	42	30	23	18	38	27	21	16	21	17	13	16	13	10	11	9	7	5

POLAR GRAPH



Maximum Candela = 441.544 Located At Horizontal Angle = 0, Vertical Angle = 145
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)