

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-S-8-35-ITL85159.001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85159.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/04/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S17-LED-ACF-PF-4ft-S-8-35

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 15.9 WATTS

[ABSOLUTE]LUMENS]1353

[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	1353
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	14.5
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	888	722	623
55	949	745	515
65	991	762	420
75	1013	765	307
85	1017	751	141

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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	79.825	79.825	79.825	79.825	79.825	79.825	79.825	79.825	79.825
2.5	79.006	79.006	79.006	79.415	79.825	80.234	81.053	81.462	81.871
5.0	79.006	78.596	78.596	79.006	79.415	81.053	82.690	83.918	84.327
7.5	80.234	79.415	78.596	78.187	79.006	81.462	84.327	86.784	88.012
10.0	81.462	80.643	79.006	77.368	78.187	81.462	85.965	89.649	91.287
12.5	83.099	81.871	79.006	76.550	77.368	81.462	88.012	92.515	94.561
15.0	85.556	83.918	79.825	75.731	76.140	81.462	89.240	94.971	97.018
17.5	87.602	85.556	80.234	74.503	74.503	80.643	90.468	96.199	97.836
20.0	90.468	88.012	81.053	73.684	72.865	79.825	90.468	96.199	97.836
22.5	93.333	90.058	81.462	72.456	70.819	78.596	90.058	95.380	95.789
25.0	96.608	92.515	82.281	71.228	68.363	77.368	88.830	92.924	93.333
27.5	99.883	95.380	83.099	69.591	66.316	75.731	87.193	90.058	89.649
30.0	103.158	97.427	83.509	67.953	63.450	73.275	84.737	86.374	85.965
32.5	106.433	100.292	84.327	66.316	60.585	71.228	81.871	82.690	82.281
35.0	109.708	102.749	84.737	64.678	57.719	68.363	78.596	79.415	79.415
37.5	112.573	105.205	85.556	63.041	54.444	65.497	75.322	76.959	77.368
40.0	115.848	107.251	85.965	60.994	51.170	62.222	72.047	74.503	76.140
42.5	118.713	109.298	86.374	59.357	47.895	59.357	69.181	73.275	75.322
45.0	121.579	111.345	86.374	57.310	44.620	56.082	66.316	72.865	75.731
47.5	124.035	112.982	86.374	54.854	40.936	52.807	64.269	72.456	76.140
50.0	125.673	114.211	86.374	52.807	37.251	49.532	62.222	72.047	76.550
52.5	127.310	115.439	86.374	50.760	33.977	46.667	60.585	72.047	76.959
55.0	128.538	115.848	85.965	48.304	30.702	43.392	58.947	72.047	77.368
57.5	129.357	116.257	85.146	46.257	27.836	40.526	57.310	71.637	76.959
60.0	129.357	116.257	84.327	43.801	24.561	38.070	56.082	70.819	76.550
62.5	129.357	115.439	83.099	41.345	21.696	35.614	54.854	70.000	75.322
65.0	128.538	115.029	81.871	39.298	19.240	33.158	53.216	68.363	73.684
67.5	127.310	113.392	79.825	36.842	16.374	31.111	51.170	66.316	71.637
70.0	126.082	111.754	78.187	34.795	13.918	29.064	49.123	64.269	69.591
72.5	124.035	110.117	76.140	32.339	11.462	27.018	47.076	61.813	67.135
75.0	121.579	107.661	73.684	29.883	9.415	24.971	44.620	59.357	64.678
77.5	118.713	104.795	70.819	27.427	6.959	23.333	42.164	56.901	61.813
80.0	115.439	101.930	67.953	24.971	4.912	21.287	39.708	54.035	58.947
82.5	112.164	98.655	65.088	22.515	3.275	19.240	37.251	51.579	56.901
85.0	108.480	95.380	61.813	20.058	2.047	17.193	35.205	48.713	53.626
87.5	104.386	91.696	58.538	17.602	0.819	15.556	32.339	45.439	49.942
90.0	100.702	88.012	55.263	15.965	0.000	12.690	27.836	39.708	44.211
92.5	97.427	85.146	53.626	17.193	4.094	11.462	23.743	34.386	38.480
95.0	95.789	83.918	54.035	23.743	10.234	13.918	23.743	33.158	37.251
97.5	94.561	83.918	58.129	32.749	17.602	17.193	26.608	34.386	38.480
100.0	95.380	85.965	65.497	42.573	25.380	22.924	29.883	37.251	40.117
102.5	98.655	91.696	76.140	54.035	35.205	30.292	33.977	40.117	42.982
105.0	105.205	100.702	90.058	66.316	45.029	38.889	38.889	43.392	45.439
107.5	115.848	112.982	104.795	79.415	56.082	48.713	45.848	47.485	49.532
110.0	129.766	128.538	121.579	93.333	67.953	58.538	54.035	53.626	54.035
112.5	147.368	147.368	138.363	107.661	80.234	68.772	62.632	60.994	60.585
115.0	168.246	168.246	157.193	122.807	92.515	79.825	72.456	69.181	68.363
117.5	191.988	191.170	175.614	137.953	105.205	90.468	82.281	78.187	76.959
120.0	216.550	214.503	194.854	153.099	118.713	101.930	92.924	88.012	85.965
122.5	241.520	235.789	212.865	168.246	131.813	113.392	103.567	97.836	95.789
125.0	265.263	257.895	230.877	182.982	144.912	124.035	114.211	108.480	106.023
127.5	286.550	277.134	246.842	197.310	158.421	135.497	125.263	118.304	116.257
130.0	304.561	294.327	261.170	210.000	171.930	146.959	136.316	128.947	126.901
132.5	319.708	308.246	273.041	222.281	184.620	158.830	147.368	139.591	137.544

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CANDELA TABULATION - (Cont.)

135.0	331.579	319.708	284.094	234.561	197.719	170.292	158.421	150.234	147.778
137.5	340.585	328.304	293.099	245.614	210.000	181.754	169.064	160.877	158.012
140.0	346.316	334.035	300.058	255.848	221.462	192.807	179.708	171.111	168.655
142.5	350.000	338.129	306.199	265.263	232.515	203.450	189.942	181.345	178.889
145.0	351.228	340.175	311.520	273.860	242.749	214.094	200.175	191.579	188.713
147.5	350.409	340.994	315.614	280.819	252.164	224.327	209.591	200.175	197.719
150.0	350.000	341.403	319.298	288.596	261.579	234.152	219.415	210.000	207.134
152.5	347.953	340.994	322.164	295.146	269.766	243.977	228.830	219.415	216.140
155.0	346.316	340.175	324.620	300.468	277.544	252.982	238.246	228.830	225.146
157.5	343.860	339.766	326.667	304.561	284.094	261.579	247.251	237.427	234.561
160.0	342.632	338.947	327.895	308.655	290.643	269.357	256.257	246.433	243.567
162.5	340.994	337.719	328.713	311.930	295.965	277.134	264.444	255.848	252.982
165.0	339.357	336.082	328.713	314.386	300.468	284.094	272.632	264.854	261.988
167.5	336.901	334.444	327.895	316.023	304.152	290.643	280.819	273.450	271.404
170.0	333.626	331.579	326.257	316.842	307.018	296.374	288.187	282.456	280.409
172.5	329.532	328.304	323.801	317.251	309.474	301.696	295.146	291.053	289.415
175.0	324.620	323.801	320.936	316.433	311.111	306.199	301.696	298.830	298.012
177.5	318.889	318.889	317.251	314.795	312.339	309.883	307.836	306.199	305.789
180.0	312.749	312.749	312.749	312.749	312.749	312.749	312.749	312.749	312.749

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	31.53	N.A.	2.30
0-30	70.08	N.A.	5.20
0-40	119.57	N.A.	8.80
0-60	239.44	N.A.	17.70
0-80	361.01	N.A.	26.70
0-90	410.08	N.A.	30.30
10-90	402.33	N.A.	29.70
20-40	88.04	N.A.	6.50
20-50	145.42	N.A.	10.70
40-70	183.05	N.A.	13.50
60-80	121.57	N.A.	9.00
70-80	58.39	N.A.	4.30
80-90	49.07	N.A.	3.60
90-110	110.97	N.A.	8.20
90-120	220.37	N.A.	16.30
90-130	370.76	N.A.	27.40
90-150	699.32	N.A.	51.70
90-180	943.32	N.A.	69.70
110-180	832.36	N.A.	61.50
0-180	1353.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	7.75
10-20	23.78
20-30	38.55
30-40	49.49
40-50	57.38
50-60	62.49
60-70	63.17
70-80	58.39
80-90	49.07
90-100	43.92
100-110	67.04
110-120	109.40
120-130	150.40
130-140	168.81
140-150	159.75
150-160	129.64
160-170	84.78
170-180	29.58

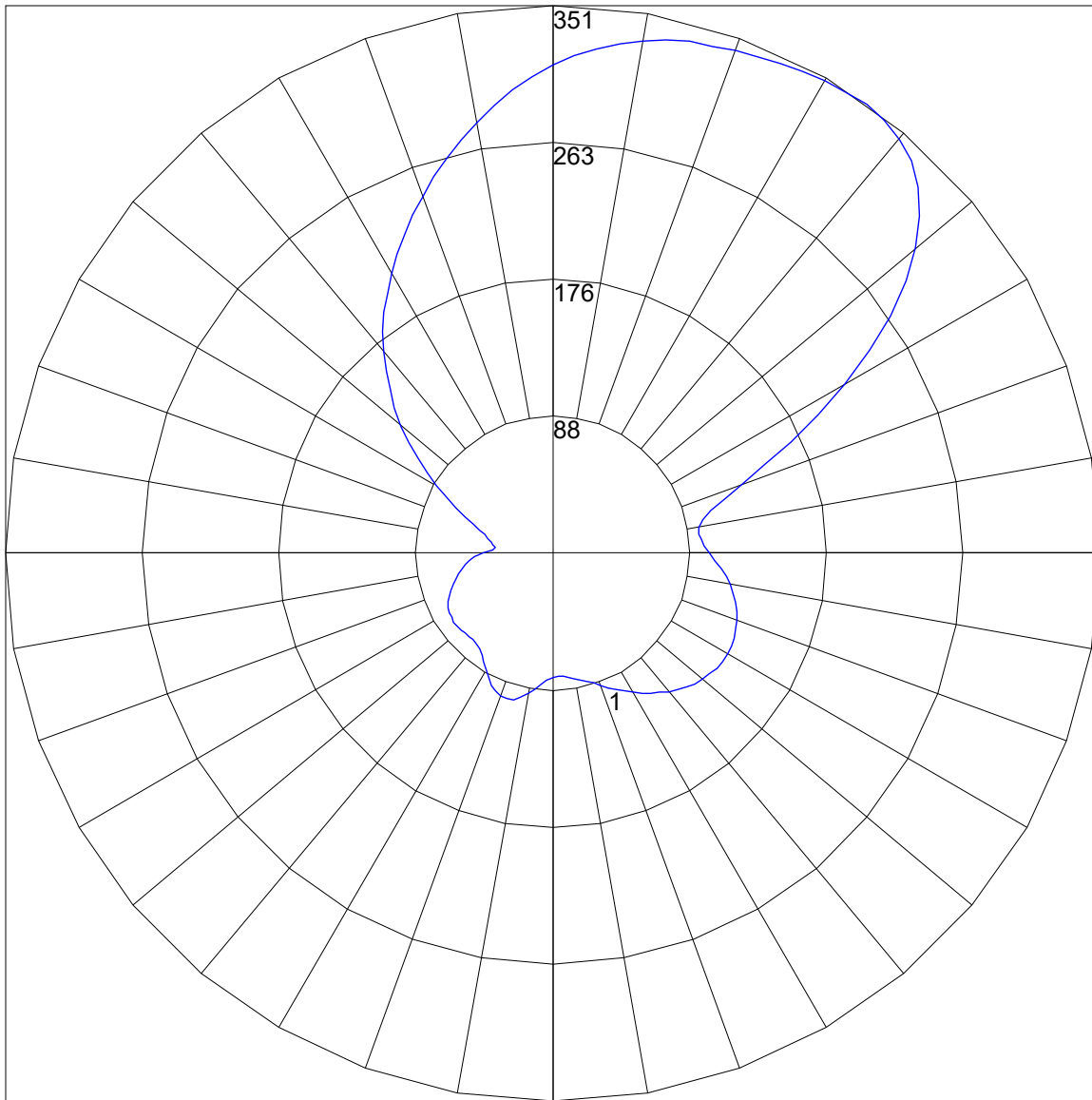
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	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 = 351.228 Located At Horizontal Angle = 0, Vertical Angle = 145
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)