

# 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-VCF-PF-4FT-B-8-35-ITL85157.002.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85157.002 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]09/04/15  
[ISSUE DATE]04/27/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE S17-LED-VCF-PF-4ft-B-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 18.5 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 19.8 WATTS  
[ABSOLUTE LUMENS]1847  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85157. 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	1847
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	18.5
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 w/Sides
Luminous Length (0-180)	0.26 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.31 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1604	1814	2727
55	1223	1364	2342
65	1017	1016	1927
75	965	789	1481
85	1083	773	861

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : S17-LED-VCF-PF-4FT-B-8-35-ITL85157.002.IES**

**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	341.193	341.193	341.193	341.193	341.193	341.193	341.193	341.193	341.193
2.5	348.912	348.398	346.339	343.766	341.193	338.105	335.532	334.503	333.988
5.0	355.088	353.544	350.456	345.310	339.649	333.988	329.871	327.298	326.269
7.5	360.749	358.690	354.058	346.339	338.105	329.357	323.181	319.579	319.064
10.0	364.865	362.807	355.602	345.310	334.503	323.696	316.491	311.345	310.830
12.5	367.439	365.895	356.632	343.251	330.901	317.006	309.287	303.626	302.082
15.0	368.982	366.409	356.117	340.164	325.754	309.287	301.567	295.392	293.848
17.5	368.468	365.380	354.058	336.047	320.094	301.567	293.333	287.673	285.099
20.0	365.380	362.807	350.456	330.386	312.889	293.333	284.585	278.924	276.865
22.5	360.234	357.661	344.795	323.181	305.170	283.556	274.807	269.661	267.088
25.0	353.029	350.971	338.620	315.462	296.421	274.807	266.058	260.912	258.339
27.5	343.251	341.193	329.357	306.199	286.129	264.515	255.766	251.135	249.591
30.0	331.930	329.357	319.064	295.906	275.322	253.708	245.988	242.386	240.327
32.5	318.550	316.491	307.228	284.070	263.485	242.901	235.696	233.123	231.064
35.0	303.626	302.082	293.848	271.719	251.649	231.064	224.889	223.345	222.316
37.5	287.673	286.129	280.468	258.339	238.784	219.743	214.596	213.567	213.053
40.0	270.690	269.661	264.515	244.444	224.889	208.421	204.304	204.304	203.789
42.5	253.708	253.193	249.076	230.035	211.509	196.585	194.012	194.526	195.556
45.0	237.240	237.240	232.094	215.111	197.099	184.234	183.205	184.749	185.778
47.5	221.287	221.287	216.140	199.673	183.205	172.398	172.398	174.971	176.515
50.0	206.877	205.848	200.187	183.719	169.310	160.561	162.105	164.678	166.737
52.5	193.497	191.439	185.263	168.795	155.415	149.754	152.327	154.901	156.959
55.0	181.146	179.088	170.339	153.357	141.520	137.918	141.520	145.123	147.181
57.5	170.339	166.737	156.444	138.433	128.140	126.596	131.228	135.345	137.404
60.0	161.076	155.930	143.579	124.538	114.760	115.275	120.936	125.053	127.626
62.5	152.842	146.667	131.228	110.643	102.409	104.468	110.643	115.275	117.848
65.0	146.152	138.433	119.906	97.778	90.058	93.661	100.865	106.012	108.070
67.5	141.006	131.228	109.614	85.427	78.222	83.368	91.088	96.234	98.292
70.0	136.374	125.053	100.351	74.105	67.415	73.591	81.310	86.971	89.029
72.5	132.772	119.906	92.117	63.298	56.608	64.327	72.047	77.708	81.310
75.0	130.199	116.304	84.912	53.520	46.830	55.064	62.784	72.047	77.193
77.5	128.140	112.702	78.737	44.257	37.567	46.316	55.579	69.474	75.649
80.0	128.655	111.673	74.105	36.023	28.819	37.567	50.947	67.415	74.105
82.5	130.713	113.216	72.047	28.304	21.099	29.848	47.860	65.871	73.591
85.0	132.257	114.246	72.561	22.129	13.380	24.702	47.345	66.386	74.105
87.5	132.772	114.760	72.561	21.099	6.175	23.673	47.860	66.901	74.620
90.0	132.772	114.760	72.561	21.099	0.000	21.614	46.830	66.901	74.105
92.5	132.772	114.760	72.561	21.099	3.602	22.643	48.374	67.415	75.135
95.0	132.257	114.246	72.561	21.099	9.263	28.304	49.918	68.444	75.649
97.5	131.228	113.731	72.047	21.614	15.439	35.509	56.094	72.047	78.222
100.0	129.684	112.187	71.018	22.643	22.129	43.228	64.327	79.766	84.912
102.5	127.111	110.643	69.988	26.246	29.333	51.462	73.076	89.029	94.175
105.0	125.053	108.585	69.474	32.936	37.567	59.696	81.825	98.807	103.439
107.5	121.965	106.526	69.474	41.684	46.830	67.930	91.088	108.070	112.702
110.0	119.392	104.468	71.018	51.977	56.094	76.678	100.351	117.333	122.480
112.5	116.304	102.924	74.105	63.298	66.386	84.398	109.099	126.596	131.743
115.0	114.760	102.924	79.251	75.135	76.678	93.146	118.363	135.860	141.006
117.5	114.246	103.953	86.971	88.515	87.485	101.895	127.626	145.123	150.269
120.0	115.275	106.526	97.263	102.924	99.322	110.643	136.374	153.871	159.532
122.5	116.819	111.158	110.129	117.848	110.643	118.877	144.608	162.105	167.766
125.0	121.450	118.877	125.053	133.287	122.480	127.626	152.327	170.339	175.485
127.5	127.626	129.170	141.520	149.754	134.830	135.860	159.532	177.544	182.690
130.0	137.918	143.064	160.047	165.708	146.667	144.094	166.737	184.234	189.380
132.5	151.813	160.561	180.117	181.661	158.503	152.327	172.912	189.895	195.556

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : S17-LED-VCF-PF-4FT-B-8-35-ITL85157.002.IES**

**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	169.825	180.632	200.187	197.099	169.825	160.047	178.573	195.556	200.702
<b>137.5</b>	191.439	201.731	220.772	212.023	181.146	167.251	184.234	200.187	204.819
<b>140.0</b>	215.626	225.918	240.842	226.433	191.439	174.456	188.865	203.789	208.421
<b>142.5</b>	240.327	249.591	258.854	238.784	201.731	181.146	192.468	206.877	210.994
<b>145.0</b>	265.544	272.749	276.351	250.105	210.994	187.836	196.585	208.936	213.053
<b>147.5</b>	288.702	292.304	290.246	258.854	219.743	194.526	200.187	210.994	214.596
<b>150.0</b>	307.228	309.287	301.053	266.573	226.947	200.702	203.275	212.023	215.111
<b>152.5</b>	323.181	322.152	308.772	272.749	233.637	206.877	206.363	213.053	215.111
<b>155.0</b>	334.503	330.901	314.433	277.380	239.813	213.053	209.450	213.567	215.111
<b>157.5</b>	339.649	335.018	316.491	280.468	244.959	218.713	213.053	214.596	215.626
<b>160.0</b>	340.678	335.532	315.977	282.012	249.591	224.374	216.655	216.655	216.655
<b>162.5</b>	337.591	332.444	313.404	283.041	253.708	230.035	221.287	218.713	218.199
<b>165.0</b>	331.415	325.754	308.772	282.012	256.795	235.181	225.404	221.287	220.257
<b>167.5</b>	323.181	317.006	303.111	280.982	258.854	240.327	230.550	225.918	223.860
<b>170.0</b>	312.374	307.743	295.906	278.924	260.912	245.988	236.211	231.579	229.520
<b>172.5</b>	301.053	297.965	288.702	276.351	262.971	251.135	242.901	238.269	236.725
<b>175.0</b>	288.702	286.643	280.468	272.749	263.485	255.766	249.591	245.988	243.930
<b>177.5</b>	276.351	275.322	272.749	268.632	264.515	260.398	256.795	254.737	253.708
<b>180.0</b>	265.029	265.029	265.029	265.029	265.029	265.029	265.029	265.029	265.029

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : S17-LED-VCF-PF-4FT-B-8-35-ITL85157.002.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	124.93	N.A.	6.80
0-30	263.36	N.A.	14.30
0-40	424.41	N.A.	23.00
0-60	721.30	N.A.	39.00
0-80	909.42	N.A.	49.20
0-90	973.46	N.A.	52.70
10-90	941.12	N.A.	50.90
20-40	299.47	N.A.	16.20
20-50	458.24	N.A.	24.80
40-70	405.46	N.A.	21.90
60-80	188.12	N.A.	10.20
70-80	79.55	N.A.	4.30
80-90	64.04	N.A.	3.50
90-110	144.74	N.A.	7.80
90-120	245.53	N.A.	13.30
90-130	368.78	N.A.	20.00
90-150	653.93	N.A.	35.40
90-180	873.92	N.A.	47.30
110-180	729.18	N.A.	39.50
0-180	1847.38	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	32.34
10-20	92.59
20-30	138.42
30-40	161.05
40-50	158.76
50-60	138.13
60-70	108.57
70-80	79.55
80-90	64.04
90-100	64.71
100-110	80.03
110-120	100.79
120-130	123.25
130-140	141.58
140-150	143.58
150-160	119.21
160-170	75.43
170-180	25.35

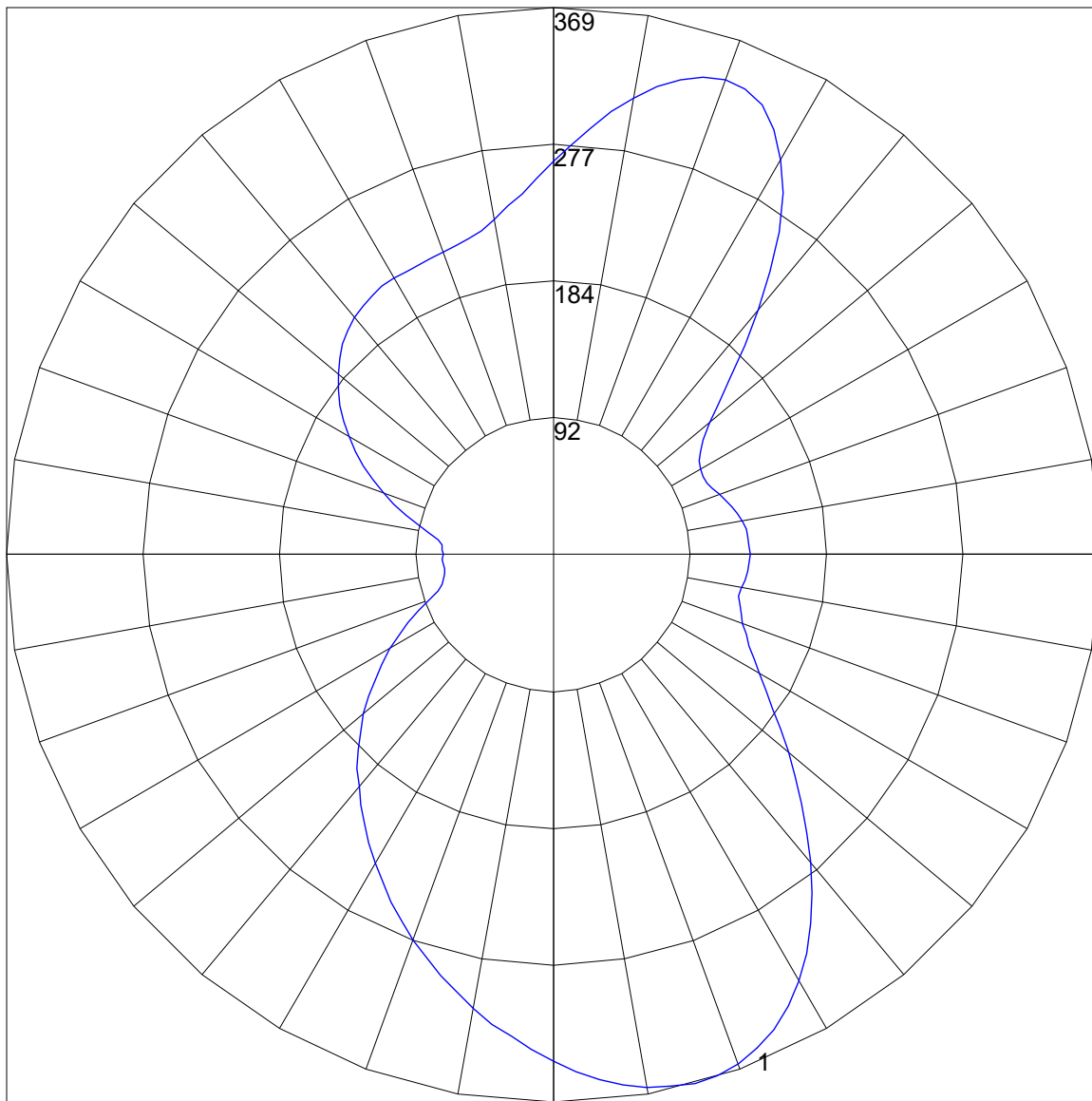
IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : S17-LED-VCF-PF-4FT-B-8-35-ITL85157.002.IES

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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	97	92	88	84	90	86	82	78	73	70	67	61	59	57	50	49	47	42
2	88	80	74	68	81	75	69	64	63	59	55	53	50	47	44	41	39	35
3	81	71	63	57	74	65	59	53	56	51	46	47	43	40	39	36	33	29
4	74	62	54	48	68	58	51	45	50	44	39	42	37	34	34	31	29	25
5	68	56	47	41	62	52	44	39	44	38	34	37	33	29	31	28	25	22
6	62	50	42	36	57	46	39	34	40	34	30	34	29	26	28	25	22	19
7	58	45	37	31	53	42	35	29	36	30	26	31	26	23	26	22	20	17
8	53	41	33	28	49	38	31	26	33	27	23	28	24	20	24	20	17	15
9	50	37	30	25	46	35	28	23	30	25	21	26	21	18	22	18	16	14
10	47	34	27	22	43	32	25	21	28	22	19	24	20	17	20	17	14	12

POLAR GRAPH



Maximum Candela = 368.982 Located At Horizontal Angle = 0, Vertical Angle = 15  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)