

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-SF-4FT-B-8-35-ITL85158.002.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85158.002 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-SF-4ft-B-8-35
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 18.3 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 19.6 WATTS
[ABSOLUTE LUMENS]1658
[OTHER]see www.finelite.com for source file ITL85158. 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	1658
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	18.3
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)	0.19 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.04 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2758	3396	4131
55	1709	2448	3638
65	863	1510	3125
75	187	618	2635
85	0	0	1967

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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	353.544	353.544	353.544	353.544	353.544	353.544	353.544	353.544	353.544
2.5	358.690	358.175	357.146	355.602	353.029	350.971	349.427	347.883	347.883
5.0	363.322	362.807	360.234	356.632	352.000	347.368	343.766	341.708	341.193
7.5	366.409	365.380	361.778	356.117	349.427	343.251	338.105	335.018	335.018
10.0	367.953	366.924	362.292	354.573	346.339	337.591	331.930	328.327	327.813
12.5	366.924	366.409	360.749	352.000	342.222	331.415	325.240	321.123	320.608
15.0	364.351	363.836	358.175	347.883	337.591	324.211	318.035	313.918	312.374
17.5	358.690	358.690	353.544	342.222	331.930	316.491	309.801	306.199	305.170
20.0	350.971	351.485	346.854	335.532	325.240	308.772	301.567	297.965	296.936
22.5	340.164	341.193	339.135	327.813	316.491	299.509	292.819	289.731	288.702
25.0	327.813	329.357	328.842	318.035	307.228	289.731	284.070	280.982	280.468
27.5	311.860	314.433	316.491	307.228	297.450	279.439	273.778	271.205	270.690
30.0	293.848	297.965	302.082	295.906	286.129	268.632	264.000	262.456	261.942
32.5	274.807	279.439	286.643	283.041	274.807	257.825	254.222	252.678	253.193
35.0	254.737	259.368	269.661	269.146	261.942	246.503	243.415	242.901	243.415
37.5	233.123	238.784	251.649	254.222	248.561	234.667	232.608	233.123	234.152
40.0	210.480	217.170	233.123	238.784	235.181	222.316	221.801	223.345	224.374
42.5	187.836	195.041	213.567	222.316	220.257	209.965	210.480	213.053	214.082
45.0	166.222	174.971	195.041	205.848	205.848	197.099	199.673	202.246	203.789
47.5	145.123	153.871	175.485	189.380	191.439	184.749	188.865	191.953	193.497
50.0	125.567	135.345	156.959	172.398	176.515	172.398	177.029	181.146	183.205
52.5	107.041	116.304	138.433	156.959	162.105	160.047	165.708	170.339	172.398
55.0	90.058	99.322	120.936	140.491	147.696	147.181	153.871	159.532	161.591
57.5	75.135	83.368	103.953	125.053	133.801	135.345	142.550	148.211	150.784
60.0	60.725	68.444	88.515	109.614	120.421	122.994	131.228	137.404	139.977
62.5	48.889	55.064	73.591	95.205	107.041	111.158	119.906	126.596	129.684
65.0	37.567	43.228	60.211	81.310	94.175	99.836	109.099	115.789	118.877
67.5	27.789	32.936	47.860	68.444	82.339	88.515	98.292	105.497	108.585
70.0	19.041	23.673	36.538	56.094	70.503	78.222	88.000	95.205	98.292
72.5	11.836	15.439	26.760	45.287	59.696	67.930	77.708	84.912	88.515
75.0	6.175	8.749	18.012	34.480	49.404	57.637	68.444	76.164	80.281
77.5	1.029	2.573	9.778	24.702	39.626	48.889	58.667	70.503	76.164
80.0	0.000	0.000	3.088	15.953	30.363	40.655	51.977	68.959	76.164
82.5	0.000	0.000	0.000	7.719	21.099	31.906	48.889	68.959	76.678
85.0	0.000	0.000	0.000	1.029	13.380	24.702	49.918	69.474	77.193
87.5	0.000	0.000	0.000	0.000	6.175	24.702	51.462	71.018	78.737
90.0	0.000	0.000	0.000	0.000	0.000	24.187	51.462	71.532	79.251
92.5	0.000	0.000	0.000	0.000	3.602	25.216	53.006	73.591	81.825
95.0	0.000	0.000	0.000	0.515	9.263	32.421	56.608	76.164	83.883
97.5	0.000	0.000	0.000	0.515	15.439	40.140	64.327	81.310	88.515
100.0	0.000	0.000	0.515	2.058	23.158	48.889	74.105	90.573	97.263
102.5	0.000	0.000	0.515	6.690	30.877	58.152	83.883	101.380	106.526
105.0	0.000	0.000	1.029	13.895	40.655	67.415	93.146	111.673	116.819
107.5	0.000	0.515	2.573	24.702	50.947	76.164	103.439	122.480	128.655
110.0	0.515	1.029	6.175	37.053	61.754	85.942	114.246	133.801	139.977
112.5	1.029	3.088	11.322	51.462	72.561	95.205	125.567	144.608	150.784
115.0	4.117	6.690	18.526	66.901	83.883	104.982	135.860	155.930	161.076
117.5	8.234	11.836	28.819	83.883	95.205	114.246	145.637	166.737	172.398
120.0	13.380	18.012	42.713	101.380	107.556	123.509	155.415	177.544	183.205
122.5	20.070	25.731	58.667	119.392	119.906	132.772	164.678	186.807	192.982
125.0	28.304	36.538	80.281	137.918	132.772	141.520	173.427	195.556	201.731
127.5	39.626	50.433	102.924	156.959	145.123	150.269	181.146	202.760	209.450
130.0	54.550	69.474	129.170	175.485	156.959	157.988	188.865	210.480	216.655
132.5	74.620	94.175	156.959	193.497	168.795	165.708	195.041	216.655	223.345

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CANDELA TABULATION - (Cont.)

135.0	100.865	123.509	185.778	210.480	180.117	173.427	201.216	221.801	228.491
137.5	132.772	157.474	214.082	226.433	190.924	180.117	205.848	226.947	233.123
140.0	169.825	193.497	239.813	240.327	201.216	186.292	209.965	230.035	236.211
142.5	208.421	229.006	263.485	252.678	210.994	192.468	213.053	232.608	238.269
145.0	245.988	261.942	283.041	262.971	218.713	198.129	215.626	233.637	239.813
147.5	277.380	290.246	299.509	271.719	227.462	203.789	217.684	234.667	240.327
150.0	305.170	312.889	311.345	278.409	234.152	209.450	219.228	234.152	239.298
152.5	326.269	328.842	319.579	283.556	240.327	215.111	220.772	232.608	237.754
155.0	339.649	339.135	324.725	287.158	245.988	220.257	222.316	231.064	235.696
157.5	346.854	344.281	326.269	289.216	250.620	225.404	224.374	230.035	233.637
160.0	348.912	344.281	325.754	290.246	255.251	230.550	226.433	229.520	232.094
162.5	345.825	340.678	322.667	290.246	259.368	235.696	229.006	229.520	231.064
165.0	339.649	334.503	317.520	289.216	262.456	241.357	233.123	230.550	231.579
167.5	330.386	325.754	310.316	287.673	264.515	245.988	236.725	233.123	233.637
170.0	320.094	314.947	303.111	285.099	266.573	251.135	242.386	237.754	237.754
172.5	306.713	304.140	294.363	282.012	267.602	255.766	247.532	243.415	242.901
175.0	294.363	292.819	286.129	277.895	268.632	260.912	254.737	250.620	250.620
177.5	281.497	280.982	277.380	273.778	269.146	265.029	261.427	259.368	258.854
180.0	269.661	269.661	269.661	269.661	269.661	269.661	269.661	269.661	269.661

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	128.60	N.A.	7.80
0-30	268.88	N.A.	16.20
0-40	428.27	N.A.	25.80
0-60	701.90	N.A.	42.30
0-80	834.73	N.A.	50.30
0-90	862.84	N.A.	52.00
10-90	829.39	N.A.	50.00
20-40	299.67	N.A.	18.10
20-50	450.64	N.A.	27.20
40-70	358.47	N.A.	21.60
60-80	132.83	N.A.	8.00
70-80	47.99	N.A.	2.90
80-90	28.11	N.A.	1.70
90-110	82.19	N.A.	5.00
90-120	163.81	N.A.	9.90
90-130	277.37	N.A.	16.70
90-150	567.45	N.A.	34.20
90-180	795.08	N.A.	48.00
110-180	712.89	N.A.	43.00
0-180	1657.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	33.44
10-20	95.15
20-30	140.28
30-40	159.39
40-50	150.96
50-60	122.66
60-70	84.85
70-80	47.99
80-90	28.11
90-100	30.55
100-110	51.64
110-120	81.61
120-130	113.56
130-140	140.93
140-150	149.15
150-160	124.10
160-170	77.65
170-180	25.88

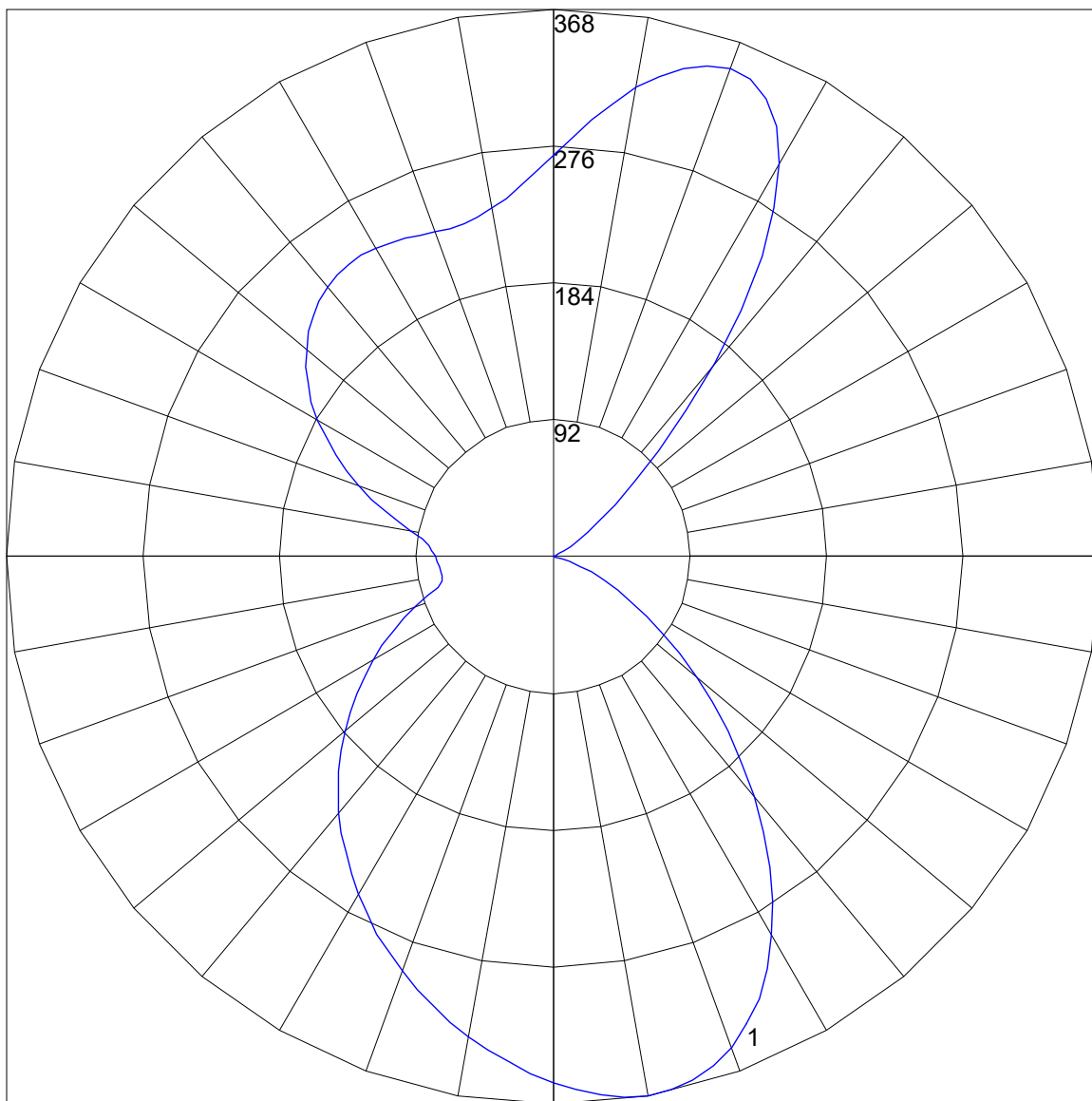
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	108	108	108	108	100	100	100	100	84	84	84	71	71	71	58	58	58	52
1	98	94	90	86	91	87	83	80	74	71	69	62	60	59	51	50	49	44
2	90	82	76	71	83	76	71	66	65	61	58	55	52	49	45	43	41	37
3	82	72	65	59	75	67	61	56	58	53	49	49	45	42	40	38	36	32
4	75	64	56	50	69	60	53	47	51	46	42	43	39	36	36	33	31	27
5	69	57	49	43	64	53	46	41	46	40	36	39	35	32	33	30	27	24
6	64	52	44	38	59	48	41	36	42	36	32	35	31	28	30	26	24	21
7	59	47	39	33	54	44	36	31	38	32	28	32	28	25	27	24	21	19
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17
9	51	39	31	26	47	36	30	25	32	26	22	27	23	20	23	20	17	15
10	48	36	28	24	44	33	27	23	29	24	20	25	21	18	22	18	16	14

POLAR GRAPH



Maximum Candela = 367.953 Located At Horizontal Angle = 0, Vertical Angle = 10
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)