

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-S-8-35-ITL85158.001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85158.001 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-S-8-35
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.4 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 15.9 WATTS
[ABSOLUTE LUMENS]1319
[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	1319
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	14.4
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	2194	2702	3286
55	1359	1947	2894
65	687	1201	2486
75	149	492	2096
85	0	0	1565

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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	281.228	281.228	281.228	281.228	281.228	281.228	281.228	281.228	281.228
2.5	285.322	284.912	284.094	282.865	280.819	279.181	277.953	276.725	276.725
5.0	289.006	288.596	286.550	283.684	280.000	276.316	273.450	271.813	271.404
7.5	291.462	290.643	287.778	283.275	277.953	273.041	268.947	266.491	266.491
10.0	292.690	291.871	288.187	282.047	275.497	268.538	264.035	261.170	260.760
12.5	291.871	291.462	286.959	280.000	272.222	263.626	258.713	255.439	255.029
15.0	289.825	289.415	284.912	276.725	268.538	257.895	252.982	249.708	248.480
17.5	285.322	285.322	281.228	272.222	264.035	251.754	246.433	243.567	242.749
20.0	279.181	279.591	275.906	266.901	258.713	245.614	239.883	237.018	236.199
22.5	270.585	271.404	269.766	260.760	251.754	238.246	232.924	230.468	229.649
25.0	260.760	261.988	261.579	252.982	244.386	230.468	225.965	223.509	223.099
27.5	248.070	250.117	251.754	244.386	236.608	222.281	217.778	215.731	215.322
30.0	233.743	237.018	240.292	235.380	227.602	213.684	210.000	208.772	208.363
32.5	218.596	222.281	228.012	225.146	218.596	205.088	202.222	200.994	201.404
35.0	202.632	206.316	214.503	214.094	208.363	196.082	193.626	193.216	193.626
37.5	185.439	189.942	200.175	202.222	197.719	186.667	185.029	185.439	186.257
40.0	167.427	172.749	185.439	189.942	187.076	176.842	176.433	177.661	178.480
42.5	149.415	155.146	169.883	176.842	175.205	167.018	167.427	169.474	170.292
45.0	132.222	139.181	155.146	163.743	163.743	156.784	158.830	160.877	162.105
47.5	115.439	122.398	139.591	150.643	152.281	146.959	150.234	152.690	153.918
50.0	99.883	107.661	124.854	137.134	140.409	137.134	140.819	144.094	145.731
52.5	85.146	92.515	110.117	124.854	128.947	127.310	131.813	135.497	137.134
55.0	71.637	79.006	96.199	111.754	117.485	117.076	122.398	126.901	128.538
57.5	59.766	66.316	82.690	99.474	106.433	107.661	113.392	117.895	119.942
60.0	48.304	54.444	70.409	87.193	95.789	97.836	104.386	109.298	111.345
62.5	38.889	43.801	58.538	75.731	85.146	88.421	95.380	100.702	103.158
65.0	29.883	34.386	47.895	64.678	74.912	79.415	86.784	92.105	94.561
67.5	22.105	26.199	38.070	54.444	65.497	70.409	78.187	83.918	86.374
70.0	15.146	18.830	29.064	44.620	56.082	62.222	70.000	75.731	78.187
72.5	9.415	12.281	21.287	36.023	47.485	54.035	61.813	67.544	70.409
75.0	4.912	6.959	14.327	27.427	39.298	45.848	54.444	60.585	63.860
77.5	0.819	2.047	7.778	19.649	31.520	38.889	46.667	56.082	60.585
80.0	0.000	0.000	2.456	12.690	24.152	32.339	41.345	54.854	60.585
82.5	0.000	0.000	0.000	6.140	16.784	25.380	38.889	54.854	60.994
85.0	0.000	0.000	0.000	0.819	10.643	19.649	39.708	55.263	61.404
87.5	0.000	0.000	0.000	0.000	4.912	19.649	40.936	56.491	62.632
90.0	0.000	0.000	0.000	0.000	0.000	19.240	40.936	56.901	63.041
92.5	0.000	0.000	0.000	0.000	2.865	20.058	42.164	58.538	65.088
95.0	0.000	0.000	0.000	0.409	7.368	25.789	45.029	60.585	66.725
97.5	0.000	0.000	0.000	0.409	12.281	31.930	51.170	64.678	70.409
100.0	0.000	0.000	0.409	1.637	18.421	38.889	58.947	72.047	77.368
102.5	0.000	0.000	0.409	5.322	24.561	46.257	66.725	80.643	84.737
105.0	0.000	0.000	0.819	11.053	32.339	53.626	74.094	88.830	92.924
107.5	0.000	0.409	2.047	19.649	40.526	60.585	82.281	97.427	102.339
110.0	0.409	0.819	4.912	29.474	49.123	68.363	90.877	106.433	111.345
112.5	0.819	2.456	9.006	40.936	57.719	75.731	99.883	115.029	119.942
115.0	3.275	5.322	14.737	53.216	66.725	83.509	108.070	124.035	128.129
117.5	6.550	9.415	22.924	66.725	75.731	90.877	115.848	132.632	137.134
120.0	10.643	14.327	33.977	80.643	85.556	98.246	123.626	141.228	145.731
122.5	15.965	20.468	46.667	94.971	95.380	105.614	130.994	148.596	153.509
125.0	22.515	29.064	63.860	109.708	105.614	112.573	137.953	155.556	160.468
127.5	31.520	40.117	81.871	124.854	115.439	119.532	144.094	161.287	166.608
130.0	43.392	55.263	102.749	139.591	124.854	125.673	150.234	167.427	172.339
132.5	59.357	74.912	124.854	153.918	134.269	131.813	155.146	172.339	177.661

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CANDELA TABULATION - (Cont.)

135.0	80.234	98.246	147.778	167.427	143.275	137.953	160.058	176.433	181.754
137.5	105.614	125.263	170.292	180.117	151.871	143.275	163.743	180.526	185.439
140.0	135.088	153.918	190.760	191.170	160.058	148.187	167.018	182.982	187.895
142.5	165.789	182.164	209.591	200.994	167.836	153.099	169.474	185.029	189.532
145.0	195.673	208.363	225.146	209.181	173.977	157.602	171.520	185.848	190.760
147.5	220.643	230.877	238.246	216.140	180.936	162.105	173.158	186.667	191.170
150.0	242.749	248.889	247.661	221.462	186.257	166.608	174.386	186.257	190.351
152.5	259.532	261.579	254.211	225.556	191.170	171.111	175.614	185.029	189.123
155.0	270.175	269.766	258.304	228.421	195.673	175.205	176.842	183.801	187.485
157.5	275.906	273.860	259.532	230.058	199.357	179.298	178.480	182.982	185.848
160.0	277.544	273.860	259.123	230.877	203.041	183.392	180.117	182.573	184.620
162.5	275.088	270.994	256.667	230.877	206.316	187.485	182.164	182.573	183.801
165.0	270.175	266.082	252.573	230.058	208.772	191.988	185.439	183.392	184.211
167.5	262.807	259.123	246.842	228.830	210.409	195.673	188.304	185.439	185.848
170.0	254.620	250.526	241.111	226.784	212.047	199.766	192.807	189.123	189.123
172.5	243.977	241.930	234.152	224.327	212.865	203.450	196.901	193.626	193.216
175.0	234.152	232.924	227.602	221.053	213.684	207.544	202.632	199.357	199.357
177.5	223.918	223.509	220.643	217.778	214.094	210.819	207.953	206.316	205.906
180.0	214.503	214.503	214.503	214.503	214.503	214.503	214.503	214.503	214.503

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	102.29	N.A.	7.80
0-30	213.88	N.A.	16.20
0-40	340.67	N.A.	25.80
0-60	558.33	N.A.	42.30
0-80	663.99	N.A.	50.30
0-90	686.35	N.A.	52.00
10-90	659.74	N.A.	50.00
20-40	238.38	N.A.	18.10
20-50	358.46	N.A.	27.20
40-70	285.15	N.A.	21.60
60-80	105.66	N.A.	8.00
70-80	38.17	N.A.	2.90
80-90	22.36	N.A.	1.70
90-110	65.38	N.A.	5.00
90-120	130.30	N.A.	9.90
90-130	220.64	N.A.	16.70
90-150	451.38	N.A.	34.20
90-180	632.45	N.A.	48.00
110-180	567.07	N.A.	43.00
0-180	1318.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	26.60
10-20	75.69
20-30	111.59
30-40	126.79
40-50	120.08
50-60	97.57
60-70	67.49
70-80	38.17
80-90	22.36
90-100	24.30
100-110	41.08
110-120	64.92
120-130	90.34
130-140	112.10
140-150	118.64
150-160	98.72
160-170	61.76
170-180	20.58

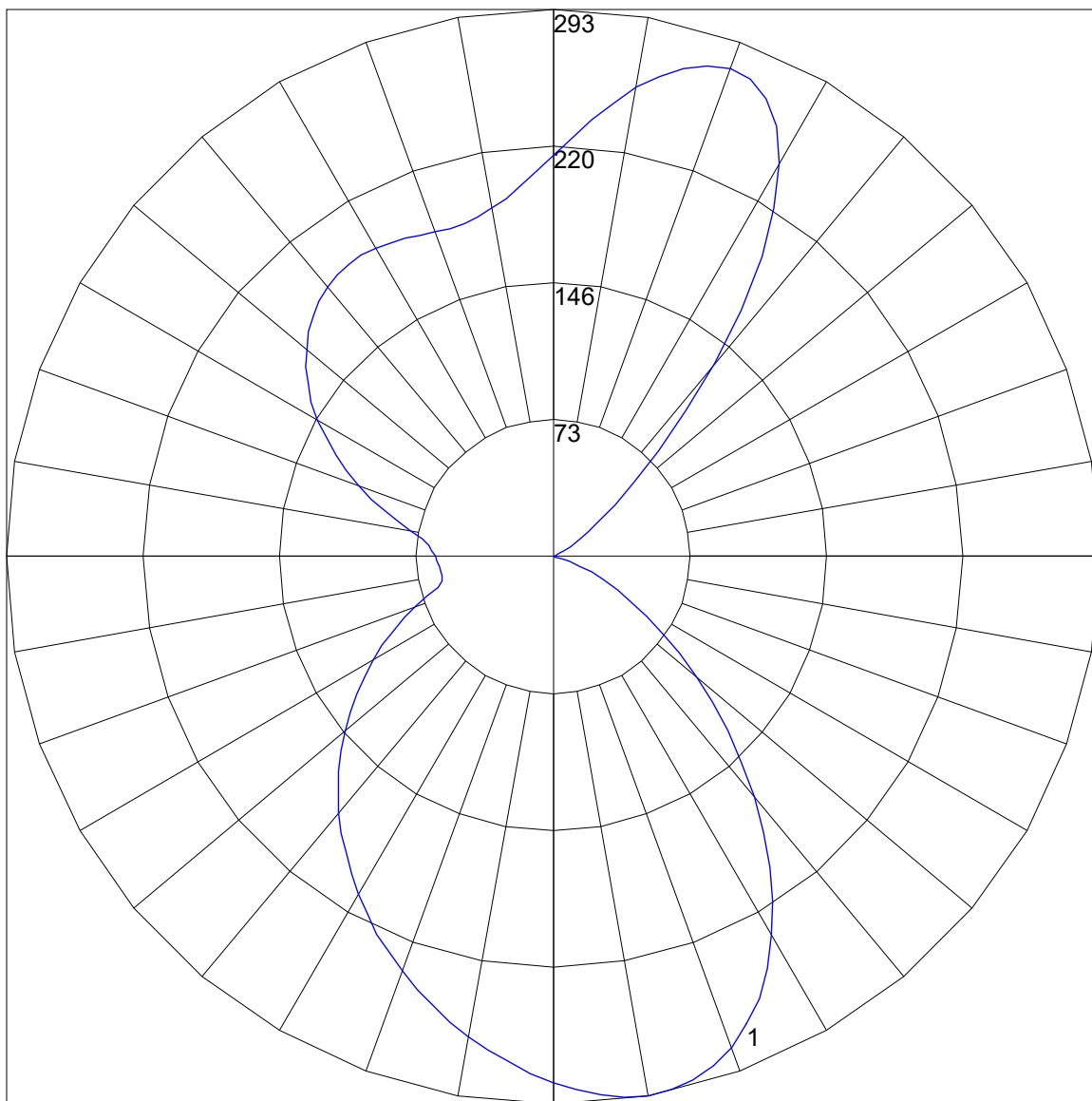
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	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	22	29	24	20	25	21	18	22	18	16	14

POLAR GRAPH



Maximum Candela = 292.69 Located At Horizontal Angle = 0, Vertical Angle = 10
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)