

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-S-8-35-ITL85157.001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85157.001 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]09/04/15
[ISSUEDATE]04/27/16
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE S17-LED-VCF-PF-4ft-S-8-35
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.6 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.0 WATTS
[ABSOLUTE]LUMENS]1470
[OTHER]see 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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1470
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	101
Total Luminaire Watts	14.6
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	1276	1443	2169
55	973	1085	1863
65	809	808	1533
75	767	628	1178
85	861	615	685

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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	271.404	271.404	271.404	271.404	271.404	271.404	271.404	271.404	271.404
2.5	277.544	277.134	275.497	273.450	271.404	268.947	266.901	266.082	265.673
5.0	282.456	281.228	278.772	274.678	270.175	265.673	262.398	260.351	259.532
7.5	286.959	285.322	281.637	275.497	268.947	261.988	257.076	254.211	253.801
10.0	290.234	288.596	282.865	274.678	266.082	257.485	251.754	247.661	247.251
12.5	292.281	291.053	283.684	273.041	263.216	252.164	246.023	241.520	240.292
15.0	293.509	291.462	283.275	270.585	259.123	246.023	239.883	234.971	233.743
17.5	293.099	290.643	281.637	267.310	254.620	239.883	233.333	228.830	226.784
20.0	290.643	288.596	278.772	262.807	248.889	233.333	226.374	221.871	220.234
22.5	286.550	284.503	274.269	257.076	242.749	225.556	218.596	214.503	212.456
25.0	280.819	279.181	269.357	250.936	235.789	218.596	211.637	207.544	205.497
27.5	273.041	271.404	261.988	243.567	227.602	210.409	203.450	199.766	198.538
30.0	264.035	261.988	253.801	235.380	219.006	201.813	195.673	192.807	191.170
32.5	253.392	251.754	244.386	225.965	209.591	193.216	187.485	185.439	183.801
35.0	241.520	240.292	233.743	216.140	200.175	183.801	178.889	177.661	176.842
37.5	228.830	227.602	223.099	205.497	189.942	174.795	170.702	169.883	169.474
40.0	215.322	214.503	210.409	194.444	178.889	165.789	162.515	162.515	162.105
42.5	201.813	201.404	198.129	182.982	168.246	156.374	154.327	154.737	155.556
45.0	188.713	188.713	184.620	171.111	156.784	146.550	145.731	146.959	147.778
47.5	176.023	176.023	171.930	158.830	145.731	137.134	137.134	139.181	140.409
50.0	164.561	163.743	159.240	146.140	134.678	127.719	128.947	130.994	132.632
52.5	153.918	152.281	147.368	134.269	123.626	119.123	121.170	123.216	124.854
55.0	144.094	142.456	135.497	121.988	112.573	109.708	112.573	115.439	117.076
57.5	135.497	132.632	124.444	110.117	101.930	100.702	104.386	107.661	109.298
60.0	128.129	124.035	114.211	99.064	91.287	91.696	96.199	99.474	101.520
62.5	121.579	116.667	104.386	88.012	81.462	83.099	88.012	91.696	93.743
65.0	116.257	110.117	95.380	77.778	71.637	74.503	80.234	84.327	85.965
67.5	112.164	104.386	87.193	67.953	62.222	66.316	72.456	76.550	78.187
70.0	108.480	99.474	79.825	58.947	53.626	58.538	64.678	69.181	70.819
72.5	105.614	95.380	73.275	50.351	45.029	51.170	57.310	61.813	64.678
75.0	103.567	92.515	67.544	42.573	37.251	43.801	49.942	57.310	61.404
77.5	101.930	89.649	62.632	35.205	29.883	36.842	44.211	55.263	60.175
80.0	102.339	88.830	58.947	28.655	22.924	29.883	40.526	53.626	58.947
82.5	103.977	90.058	57.310	22.515	16.784	23.743	38.070	52.398	58.538
85.0	105.205	90.877	57.719	17.602	10.643	19.649	37.661	52.807	58.947
87.5	105.614	91.287	57.719	16.784	4.912	18.830	38.070	53.216	59.357
90.0	105.614	91.287	57.719	16.784	0.000	17.193	37.251	53.216	58.947
92.5	105.614	91.287	57.719	16.784	2.865	18.012	38.480	53.626	59.766
95.0	105.205	90.877	57.719	16.784	7.368	22.515	39.708	54.444	60.175
97.5	104.386	90.468	57.310	17.193	12.281	28.246	44.620	57.310	62.222
100.0	103.158	89.240	56.491	18.012	17.602	34.386	51.170	63.450	67.544
102.5	101.111	88.012	55.673	20.877	23.333	40.936	58.129	70.819	74.912
105.0	99.474	86.374	55.263	26.199	29.883	47.485	65.088	78.596	82.281
107.5	97.018	84.737	55.263	33.158	37.251	54.035	72.456	85.965	89.649
110.0	94.971	83.099	56.491	41.345	44.620	60.994	79.825	93.333	97.427
112.5	92.515	81.871	58.947	50.351	52.807	67.135	86.784	100.702	104.795
115.0	91.287	81.871	63.041	59.766	60.994	74.094	94.152	108.070	112.164
117.5	90.877	82.690	69.181	70.409	69.591	81.053	101.520	115.439	119.532
120.0	91.696	84.737	77.368	81.871	79.006	88.012	108.480	122.398	126.901
122.5	92.924	88.421	87.602	93.743	88.012	94.561	115.029	128.947	133.450
125.0	96.608	94.561	99.474	106.023	97.427	101.520	121.170	135.497	139.591
127.5	101.520	102.749	112.573	119.123	107.251	108.070	126.901	141.228	145.322
130.0	109.708	113.801	127.310	131.813	116.667	114.620	132.632	146.550	150.643
132.5	120.760	127.719	143.275	144.503	126.082	121.170	137.544	151.053	155.556

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CANDELA TABULATION - (Cont.)

135.0	135.088	143.684	159.240	156.784	135.088	127.310	142.047	155.556	159.649
137.5	152.281	160.468	175.614	168.655	144.094	133.041	146.550	159.240	162.924
140.0	171.520	179.708	191.579	180.117	152.281	138.772	150.234	162.105	165.789
142.5	191.170	198.538	205.906	189.942	160.468	144.094	153.099	164.561	167.836
145.0	211.228	216.959	219.825	198.947	167.836	149.415	156.374	166.199	169.474
147.5	229.649	232.515	230.877	205.906	174.795	154.737	159.240	167.836	170.702
150.0	244.386	246.023	239.474	212.047	180.526	159.649	161.696	168.655	171.111
152.5	257.076	256.257	245.614	216.959	185.848	164.561	164.152	169.474	171.111
155.0	266.082	263.216	250.117	220.643	190.760	169.474	166.608	169.883	171.111
157.5	270.175	266.491	251.754	223.099	194.854	173.977	169.474	170.702	171.520
160.0	270.994	266.901	251.345	224.327	198.538	178.480	172.339	172.339	172.339
162.5	268.538	264.444	249.298	225.146	201.813	182.982	176.023	173.977	173.567
165.0	263.626	259.123	245.614	224.327	204.269	187.076	179.298	176.023	175.205
167.5	257.076	252.164	241.111	223.509	205.906	191.170	183.392	179.708	178.070
170.0	248.480	244.795	235.380	221.871	207.544	195.673	187.895	184.211	182.573
172.5	239.474	237.018	229.649	219.825	209.181	199.766	193.216	189.532	188.304
175.0	229.649	228.012	223.099	216.959	209.591	203.450	198.538	195.673	194.035
177.5	219.825	219.006	216.959	213.684	210.409	207.134	204.269	202.632	201.813
180.0	210.819	210.819	210.819	210.819	210.819	210.819	210.819	210.819	210.819

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	99.38	N.A.	6.80
0-30	209.49	N.A.	14.30
0-40	337.60	N.A.	23.00
0-60	573.76	N.A.	39.00
0-80	723.40	N.A.	49.20
0-90	774.35	N.A.	52.70
10-90	748.62	N.A.	50.90
20-40	238.22	N.A.	16.20
20-50	364.51	N.A.	24.80
40-70	322.53	N.A.	21.90
60-80	149.64	N.A.	10.20
70-80	63.28	N.A.	4.30
80-90	50.94	N.A.	3.50
90-110	115.13	N.A.	7.80
90-120	195.30	N.A.	13.30
90-130	293.34	N.A.	20.00
90-150	520.17	N.A.	35.40
90-180	695.16	N.A.	47.30
110-180	580.03	N.A.	39.50
0-180	1469.51	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

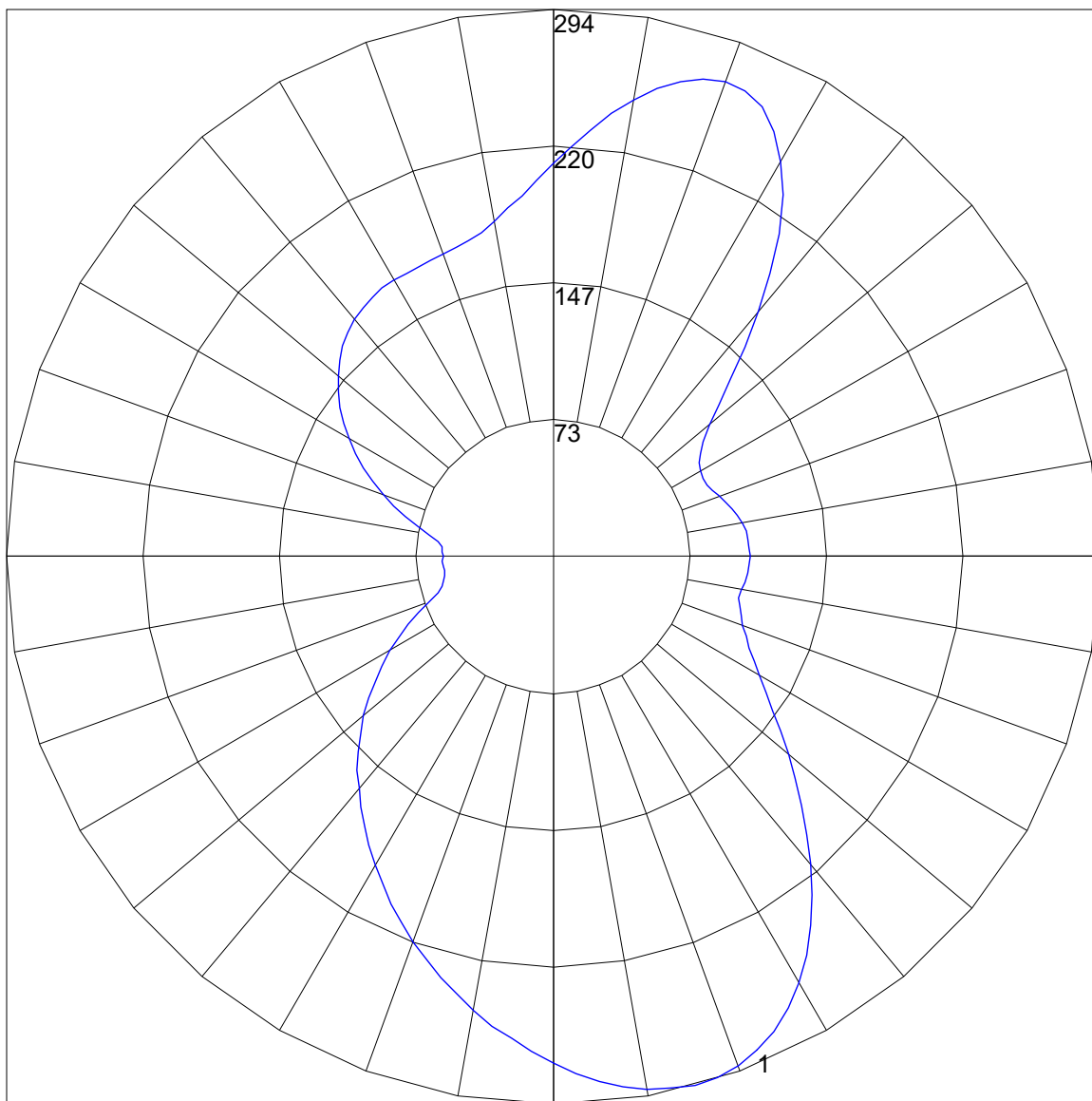
Zone	Lumens
0-10	25.73
10-20	73.65
20-30	110.11
30-40	128.11
40-50	126.29
50-60	109.88
60-70	86.36
70-80	63.28
80-90	50.94
90-100	51.48
100-110	63.66
110-120	80.17
120-130	98.04
130-140	112.62
140-150	114.21
150-160	94.82
160-170	60.00
170-180	20.16

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	74	69	64	63	59	55	53	50	47	44	41	39	35
3	80	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	19	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 = 293.509 Located At Horizontal Angle = 0, Vertical Angle = 15
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)