

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-H-8-35-ITL85158.003.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85158.003 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]09/04/15
[ISSUEDATE]04/27/16
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE S17-LED-VCF-SF-4ft-H-8-35
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.2 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.0 WATTS
[ABSOLUTE]LUMENS]2506
[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	2506
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	28.2
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	4168	5133	6244
55	2583	3700	5498
65	1305	2282	4724
75	283	934	3982
85	0	0	2973

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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	534.333	534.333	534.333	534.333	534.333	534.333	534.333	534.333	534.333
2.5	542.111	541.333	539.778	537.444	533.556	530.444	528.111	525.778	525.778
5.0	549.111	548.333	544.444	539.000	532.000	525.000	519.556	516.444	515.667
7.5	553.778	552.222	546.778	538.222	528.111	518.778	511.000	506.333	506.333
10.0	556.111	554.556	547.556	535.889	523.444	510.222	501.667	496.222	495.444
12.5	554.556	553.778	545.222	532.000	517.222	500.889	491.556	485.333	484.556
15.0	550.667	549.889	541.333	525.778	510.222	490.000	480.667	474.444	472.111
17.5	542.111	542.111	534.333	517.222	501.667	478.333	468.222	462.778	461.222
20.0	530.444	531.222	524.222	507.111	491.556	466.667	455.778	450.333	448.778
22.5	514.111	515.667	512.556	495.444	478.333	452.667	442.556	437.889	436.333
25.0	495.444	497.778	497.000	480.667	464.333	437.889	429.333	424.667	423.889
27.5	471.333	475.222	478.333	464.333	449.556	422.333	413.778	409.889	409.111
30.0	444.111	450.333	456.556	447.222	432.444	406.000	399.000	396.667	395.889
32.5	415.333	422.333	433.222	427.778	415.333	389.667	384.222	381.889	382.667
35.0	385.000	392.000	407.556	406.778	395.889	372.556	367.889	367.111	367.889
37.5	352.333	360.889	380.333	384.222	375.667	354.667	351.556	352.333	353.889
40.0	318.111	328.222	352.333	360.889	355.444	336.000	335.222	337.556	339.111
42.5	283.889	294.778	322.778	336.000	332.889	317.333	318.111	322.000	323.556
45.0	251.222	264.444	294.778	311.111	311.111	297.889	301.778	305.667	308.000
47.5	219.333	232.556	265.222	286.222	289.333	279.222	285.444	290.111	292.444
50.0	189.778	204.556	237.222	260.556	266.778	260.556	267.556	273.778	276.889
52.5	161.778	175.778	209.222	237.222	245.000	241.889	250.444	257.444	260.556
55.0	136.111	150.111	182.778	212.333	223.222	222.444	232.556	241.111	244.222
57.5	113.556	126.000	157.111	189.000	202.222	204.556	215.444	224.000	227.889
60.0	91.778	103.444	133.778	165.667	182.000	185.889	198.333	207.667	211.556
62.5	73.889	83.222	111.222	143.889	161.778	168.000	181.222	191.333	196.000
65.0	56.778	65.333	91.000	122.889	142.333	150.889	164.889	175.000	179.667
67.5	42.000	49.778	72.333	103.444	124.444	133.778	148.556	159.444	164.111
70.0	28.778	35.778	55.222	84.778	106.556	118.222	133.000	143.889	148.556
72.5	17.889	23.333	40.444	68.444	90.222	102.667	117.444	128.333	133.778
75.0	9.333	13.222	27.222	52.111	74.667	87.111	103.444	115.111	121.333
77.5	1.556	3.889	14.778	37.333	59.889	73.889	88.667	106.556	115.111
80.0	0.000	0.000	4.667	24.111	45.889	61.444	78.556	104.222	115.111
82.5	0.000	0.000	0.000	11.667	31.889	48.222	73.889	104.222	115.889
85.0	0.000	0.000	0.000	1.556	20.222	37.333	75.444	105.000	116.667
87.5	0.000	0.000	0.000	0.000	9.333	37.333	77.778	107.333	119.000
90.0	0.000	0.000	0.000	0.000	0.000	36.556	77.778	108.111	119.778
92.5	0.000	0.000	0.000	0.000	5.444	38.111	80.111	111.222	123.667
95.0	0.000	0.000	0.000	0.778	14.000	49.000	85.556	115.111	126.778
97.5	0.000	0.000	0.000	0.778	23.333	60.667	97.222	122.889	133.778
100.0	0.000	0.000	0.778	3.111	35.000	73.889	112.000	136.889	147.000
102.5	0.000	0.000	0.778	10.111	46.667	87.889	126.778	153.222	161.000
105.0	0.000	0.000	1.556	21.000	61.444	101.889	140.778	168.778	176.556
107.5	0.000	0.778	3.889	37.333	77.000	115.111	156.333	185.111	194.444
110.0	0.778	1.556	9.333	56.000	93.333	129.889	172.667	202.222	211.556
112.5	1.556	4.667	17.111	77.778	109.667	143.889	189.778	218.556	227.889
115.0	6.222	10.111	28.000	101.111	126.778	158.667	205.333	235.667	243.444
117.5	12.444	17.889	43.556	126.778	143.889	172.667	220.111	252.000	260.556
120.0	20.222	27.222	64.556	153.222	162.556	186.667	234.889	268.333	276.889
122.5	30.333	38.889	88.667	180.444	181.222	200.667	248.889	282.333	291.667
125.0	42.778	55.222	121.333	208.444	200.667	213.889	262.111	295.556	304.889
127.5	59.889	76.222	155.556	237.222	219.333	227.111	273.778	306.444	316.556
130.0	82.444	105.000	195.222	265.222	237.222	238.778	285.444	318.111	327.444
132.5	112.778	142.333	237.222	292.444	255.111	250.444	294.778	327.444	337.556

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CANDELA TABULATION - (Cont.)

135.0	152.444	186.667	280.778	318.111	272.222	262.111	304.111	335.222	345.333
137.5	200.667	238.000	323.556	342.222	288.556	272.222	311.111	343.000	352.333
140.0	256.667	292.444	362.444	363.222	304.111	281.556	317.333	347.667	357.000
142.5	315.000	346.111	398.222	381.889	318.889	290.889	322.000	351.556	360.111
145.0	371.778	395.889	427.778	397.444	330.556	299.444	325.889	353.111	362.444
147.5	419.222	438.667	452.667	410.667	343.778	308.000	329.000	354.667	363.222
150.0	461.222	472.889	470.556	420.778	353.889	316.556	331.333	353.889	361.667
152.5	493.111	497.000	483.000	428.556	363.222	325.111	333.667	351.556	359.333
155.0	513.333	512.556	490.778	434.000	371.778	332.889	336.000	349.222	356.222
157.5	524.222	520.333	493.111	437.111	378.778	340.667	339.111	347.667	353.111
160.0	527.333	520.333	492.333	438.667	385.778	348.444	342.222	346.889	350.778
162.5	522.667	514.889	487.667	438.667	392.000	356.222	346.111	346.889	349.222
165.0	513.333	505.556	479.889	437.111	396.667	364.778	352.333	348.444	350.000
167.5	499.333	492.333	469.000	434.778	399.778	371.778	357.778	352.333	353.111
170.0	483.778	476.000	458.111	430.889	402.889	379.556	366.333	359.333	359.333
172.5	463.556	459.667	444.889	426.222	404.444	386.556	374.111	367.889	367.111
175.0	444.889	442.556	432.444	420.000	406.000	394.333	385.000	378.778	378.778
177.5	425.444	424.667	419.222	413.778	406.778	400.556	395.111	392.000	391.222
180.0	407.556	407.556	407.556	407.556	407.556	407.556	407.556	407.556	407.556

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	194.36	N.A.	7.80
0-30	406.38	N.A.	16.20
0-40	647.27	N.A.	25.80
0-60	1060.82	N.A.	42.30
0-80	1261.58	N.A.	50.30
0-90	1304.06	N.A.	52.00
10-90	1253.51	N.A.	50.00
20-40	452.91	N.A.	18.10
20-50	681.07	N.A.	27.20
40-70	541.78	N.A.	21.60
60-80	200.76	N.A.	8.00
70-80	72.52	N.A.	2.90
80-90	42.48	N.A.	1.70
90-110	124.22	N.A.	5.00
90-120	247.57	N.A.	9.90
90-130	419.21	N.A.	16.70
90-150	857.63	N.A.	34.20
90-180	1201.66	N.A.	48.00
110-180	1077.44	N.A.	43.00
0-180	2505.72	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	50.55
10-20	143.81
20-30	212.02
30-40	240.89
40-50	228.16
50-60	185.39
60-70	128.23
70-80	72.52
80-90	42.48
90-100	46.18
100-110	78.04
110-120	123.35
120-130	171.64
130-140	213.00
140-150	225.42
150-160	187.57
160-170	117.35
170-180	39.11

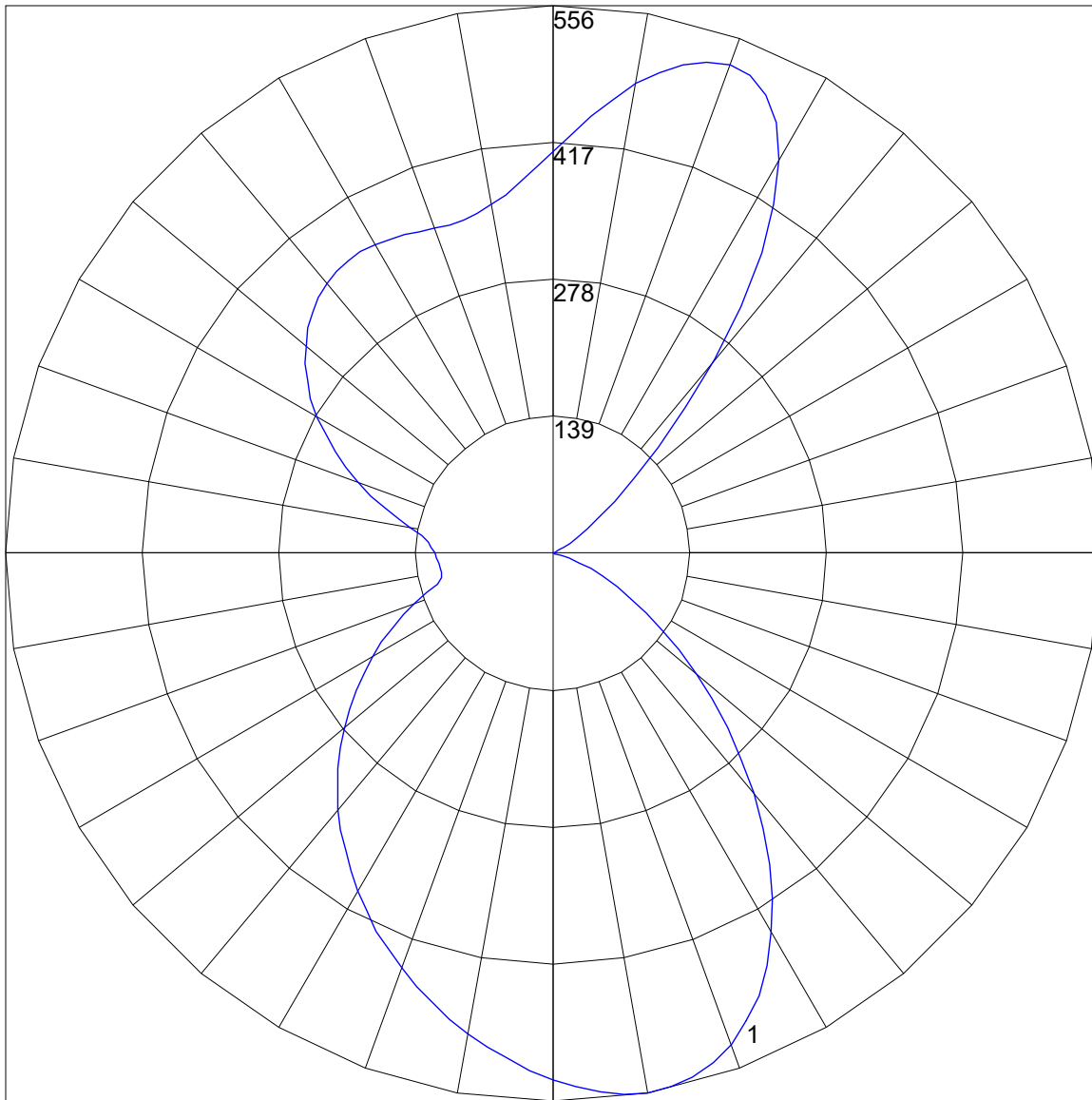
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 556.111 Located At Horizontal Angle = 0, Vertical Angle = 10
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)