

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-H-8-35-ITL85157.003.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85157.003 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-H-8-35
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.5 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.2 WATTS
[ABSOLUTE LUMENS]2792
[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	2792
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	28.5
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	2424	2742	4121
55	1849	2062	3540
65	1537	1535	2913
75	1458	1192	2239
85	1637	1168	1301

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	515.667	515.667	515.667	515.667	515.667	515.667	515.667	515.667	515.667
2.5	527.333	526.556	523.444	519.556	515.667	511.000	507.111	505.556	504.778
5.0	536.667	534.333	529.667	521.889	513.333	504.778	498.556	494.667	493.111
7.5	545.222	542.111	535.111	523.444	511.000	497.778	488.444	483.000	482.222
10.0	551.444	548.333	537.444	521.889	505.556	489.222	478.333	470.556	469.778
12.5	555.333	553.000	539.000	518.778	500.111	479.111	467.444	458.889	456.556
15.0	557.667	553.778	538.222	514.111	492.333	467.444	455.778	446.444	444.111
17.5	556.889	552.222	535.111	507.889	483.778	455.778	443.333	434.778	430.889
20.0	552.222	548.333	529.667	499.333	472.889	443.333	430.111	421.556	418.444
22.5	544.444	540.556	521.111	488.444	461.222	428.556	415.333	407.556	403.667
25.0	533.556	530.444	511.778	476.778	448.000	415.333	402.111	394.333	390.444
27.5	518.778	515.667	497.778	462.778	432.444	399.778	386.556	379.556	377.222
30.0	501.667	497.778	482.222	447.222	416.111	383.444	371.778	366.333	363.222
32.5	481.444	478.333	464.333	429.333	398.222	367.111	356.222	352.333	349.222
35.0	458.889	456.556	444.111	410.667	380.333	349.222	339.889	337.556	336.000
37.5	434.778	432.444	423.889	390.444	360.889	332.111	324.333	322.778	322.000
40.0	409.111	407.556	399.778	369.444	339.889	315.000	308.778	308.778	308.000
42.5	383.444	382.667	376.444	347.667	319.667	297.111	293.222	294.000	295.556
45.0	358.556	358.556	350.778	325.111	297.889	278.444	276.889	279.222	280.778
47.5	334.444	334.444	326.667	301.778	276.889	260.556	260.556	264.444	266.778
50.0	312.667	311.111	302.556	277.667	255.889	242.667	245.000	248.889	252.000
52.5	292.444	289.333	280.000	255.111	234.889	226.333	230.222	234.111	237.222
55.0	273.778	270.667	257.444	231.778	213.889	208.444	213.889	219.333	222.444
57.5	257.444	252.000	236.444	209.222	193.667	191.333	198.333	204.556	207.667
60.0	243.444	235.667	217.000	188.222	173.444	174.222	182.778	189.000	192.889
62.5	231.000	221.667	198.333	167.222	154.778	157.889	167.222	174.222	178.111
65.0	220.889	209.222	181.222	147.778	136.111	141.556	152.444	160.222	163.333
67.5	213.111	198.333	165.667	129.111	118.222	126.000	137.667	145.444	148.556
70.0	206.111	189.000	151.667	112.000	101.889	111.222	122.889	131.444	134.556
72.5	200.667	181.222	139.222	95.667	85.556	97.222	108.889	117.444	122.889
75.0	196.778	175.778	128.333	80.889	70.778	83.222	94.889	108.889	116.667
77.5	193.667	170.333	119.000	66.889	56.778	70.000	84.000	105.000	114.333
80.0	194.444	168.778	112.000	54.444	43.556	56.778	77.000	101.889	112.000
82.5	197.556	171.111	108.889	42.778	31.889	45.111	72.333	99.556	111.222
85.0	199.889	172.667	109.667	33.444	20.222	37.333	71.556	100.333	112.000
87.5	200.667	173.444	109.667	31.889	9.333	35.778	72.333	101.111	112.778
90.0	200.667	173.444	109.667	31.889	0.000	32.667	70.778	101.111	112.000
92.5	200.667	173.444	109.667	31.889	5.444	34.222	73.111	101.889	113.556
95.0	199.889	172.667	109.667	31.889	14.000	42.778	75.444	103.444	114.333
97.5	198.333	171.889	108.889	32.667	23.333	53.667	84.778	108.889	118.222
100.0	196.000	169.556	107.333	34.222	33.444	65.333	97.222	120.556	128.333
102.5	192.111	167.222	105.778	39.667	44.333	77.778	110.444	134.556	142.333
105.0	189.000	164.111	105.000	49.778	56.778	90.222	123.667	149.333	156.333
107.5	184.333	161.000	105.000	63.000	70.778	102.667	137.667	163.333	170.333
110.0	180.444	157.889	107.333	78.556	84.778	115.889	151.667	177.333	185.111
112.5	175.778	155.556	112.000	95.667	100.333	127.556	164.889	191.333	199.111
115.0	173.444	155.556	119.778	113.556	115.889	140.778	178.889	205.333	213.111
117.5	172.667	157.111	131.444	133.778	132.222	154.000	192.889	219.333	227.111
120.0	174.222	161.000	147.000	155.556	150.111	167.222	206.111	232.556	241.111
122.5	176.556	168.000	166.444	178.111	167.222	179.667	218.556	245.000	253.556
125.0	183.556	179.667	189.000	201.444	185.111	192.889	230.222	257.444	265.222
127.5	192.889	195.222	213.889	226.333	203.778	205.333	241.111	268.333	276.111
130.0	208.444	216.222	241.889	250.444	221.667	217.778	252.000	278.444	286.222
132.5	229.444	242.667	272.222	274.556	239.556	230.222	261.333	287.000	295.556

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CANDELA TABULATION - (Cont.)

135.0	256.667	273.000	302.556	297.889	256.667	241.889	269.889	295.556	303.333
137.5	289.333	304.889	333.667	320.444	273.778	252.778	278.444	302.556	309.556
140.0	325.889	341.444	364.000	342.222	289.333	263.667	285.444	308.000	315.000
142.5	363.222	377.222	391.222	360.889	304.889	273.778	290.889	312.667	318.889
145.0	401.333	412.222	417.667	378.000	318.889	283.889	297.111	315.778	322.000
147.5	436.333	441.778	438.667	391.222	332.111	294.000	302.556	318.889	324.333
150.0	464.333	467.444	455.000	402.889	343.000	303.333	307.222	320.444	325.111
152.5	488.444	486.889	466.667	412.222	353.111	312.667	311.889	322.000	325.111
155.0	505.556	500.111	475.222	419.222	362.444	322.000	316.556	322.778	325.111
157.5	513.333	506.333	478.333	423.889	370.222	330.556	322.000	324.333	325.889
160.0	514.889	507.111	477.556	426.222	377.222	339.111	327.444	327.444	327.444
162.5	510.222	502.444	473.667	427.778	383.444	347.667	334.444	330.556	329.778
165.0	500.889	492.333	466.667	426.222	388.111	355.444	340.667	334.444	332.889
167.5	488.444	479.111	458.111	424.667	391.222	363.222	348.444	341.444	338.333
170.0	472.111	465.111	447.222	421.556	394.333	371.778	357.000	350.000	346.889
172.5	455.000	450.333	436.333	417.667	397.444	379.556	367.111	360.111	357.778
175.0	436.333	433.222	423.889	412.222	398.222	386.556	377.222	371.778	368.667
177.5	417.667	416.111	412.222	406.000	399.778	393.556	388.111	385.000	383.444
180.0	400.556	400.556	400.556	400.556	400.556	400.556	400.556	400.556	400.556

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	188.82	N.A.	6.80
0-30	398.03	N.A.	14.30
0-40	641.43	N.A.	23.00
0-60	1090.14	N.A.	39.00
0-80	1374.46	N.A.	49.20
0-90	1471.26	N.A.	52.70
10-90	1422.38	N.A.	50.90
20-40	452.61	N.A.	16.20
20-50	692.56	N.A.	24.80
40-70	612.80	N.A.	21.90
60-80	284.32	N.A.	10.20
70-80	120.23	N.A.	4.30
80-90	96.79	N.A.	3.50
90-110	218.75	N.A.	7.80
90-120	371.08	N.A.	13.30
90-130	557.35	N.A.	20.00
90-150	988.33	N.A.	35.40
90-180	1320.8	N.A.	47.30
110-180	1102.05	N.A.	39.50
0-180	2792.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	48.88
10-20	139.94
20-30	209.21
30-40	243.40
40-50	239.95
50-60	208.77
60-70	164.09
70-80	120.23
80-90	96.79
90-100	97.80
100-110	120.95
110-120	152.33
120-130	186.28
130-140	213.98
140-150	217.00
150-160	180.16
160-170	114.00
170-180	38.31

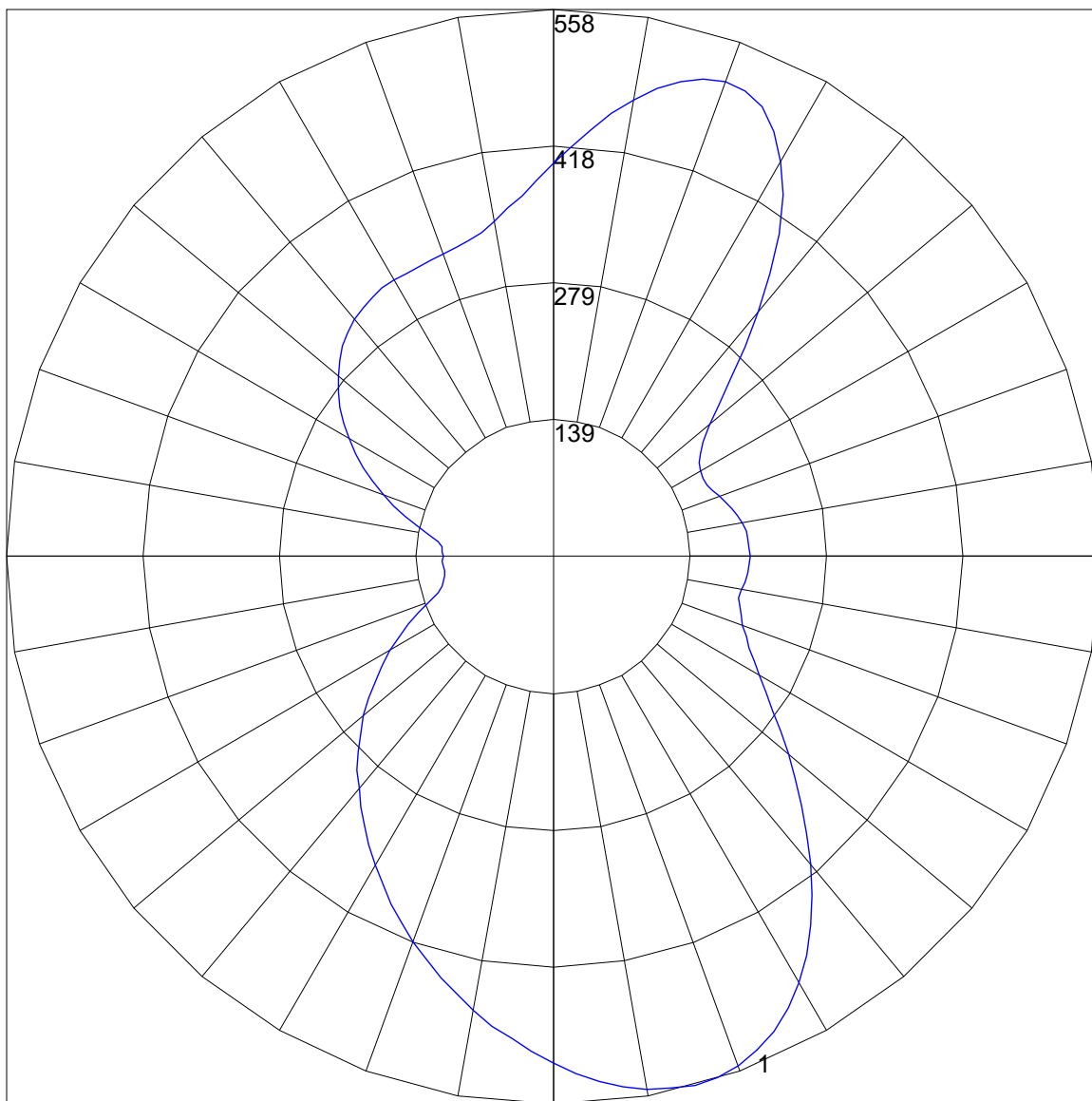
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	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	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 = 557.667 Located At Horizontal Angle = 0, Vertical Angle = 15
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)