

# 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 : S11-LED-MF-4FT-S-8-35-ITL85171.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85171.001 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]09/17/15  
[ISSUEDATE]04/21/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE S11-LED-MF-4ft-S-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 8.1 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 10.2 WATTS  
[ABSOLUTE]LUMENS]946  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85171. 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](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	946
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	8.1
Ballast Factor	1.00
CIE Type	Indirect
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)	0.12 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.06 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	0	0	0
55	0	0	0
65	185	0	0
75	927	426	0
85	2634	2091	0

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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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
47.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
60.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
62.5	2.865	0.819	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65.0	7.368	4.094	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67.5	11.871	8.596	0.409	0.000	0.000	0.000	0.000	0.000	0.000
70.0	16.784	13.099	2.865	0.000	0.000	0.000	0.000	0.000	0.000
72.5	23.743	18.830	6.959	0.000	0.000	0.000	0.000	0.000	0.000
75.0	31.520	25.380	11.871	0.000	0.000	0.000	0.000	0.000	0.000
77.5	39.708	33.567	18.421	0.000	0.000	0.000	0.000	0.000	0.000
80.0	49.123	42.573	25.789	3.275	0.000	0.000	0.000	0.000	0.000
82.5	59.766	52.398	33.977	8.187	0.000	0.000	0.000	0.000	0.000
85.0	71.228	63.450	43.392	14.327	0.000	0.000	0.000	0.000	0.000
87.5	83.918	75.731	54.035	21.287	0.000	0.000	0.000	0.000	0.000
90.0	96.608	89.240	65.906	29.883	0.000	0.000	0.000	0.000	0.000
92.5	112.164	104.386	78.596	39.298	4.094	0.000	0.000	0.000	0.000
95.0	129.357	120.351	92.515	49.532	10.234	0.000	0.000	0.000	0.000
97.5	147.778	137.544	106.842	60.585	16.784	0.000	0.000	0.000	0.000
100.0	167.018	155.556	121.988	72.047	24.152	0.000	0.000	0.000	0.000
102.5	187.076	174.386	137.134	84.327	32.749	0.819	0.000	0.000	0.000
105.0	207.134	193.216	153.099	97.018	42.164	4.912	0.000	0.000	0.000
107.5	227.602	212.456	169.474	110.117	51.579	10.234	0.000	0.000	0.000
110.0	246.842	230.877	185.848	123.626	62.222	16.784	0.000	0.000	0.000
112.5	265.673	248.889	202.632	137.544	73.275	24.561	1.228	0.000	0.000
115.0	282.865	265.263	218.187	151.462	85.146	32.749	6.140	0.000	0.000
117.5	299.240	281.228	234.152	165.789	97.427	42.573	10.643	0.409	0.000
120.0	313.158	295.556	248.070	179.708	110.526	52.398	16.374	4.912	1.228
122.5	325.848	309.064	262.398	194.035	123.626	62.222	22.924	10.234	6.550
125.0	336.901	320.526	275.088	207.544	136.725	72.865	30.702	15.146	11.462
127.5	347.134	331.170	287.368	220.643	150.643	84.327	39.708	20.877	16.374
130.0	355.731	340.175	298.421	233.743	164.152	96.199	49.532	27.427	22.105
132.5	362.690	348.772	308.246	246.023	178.070	108.889	59.766	35.205	29.064

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	368.421	354.912	316.842	257.485	191.579	121.170	71.228	44.620	37.251
<b>137.5</b>	373.743	361.053	324.620	268.129	205.088	134.678	83.099	54.444	46.667
<b>140.0</b>	377.836	366.374	331.988	278.772	218.187	147.778	95.789	65.497	56.901
<b>142.5</b>	380.292	370.058	338.538	287.368	230.468	161.287	109.298	77.778	68.772
<b>145.0</b>	382.749	372.924	343.860	296.374	242.339	175.614	124.035	91.287	81.871
<b>147.5</b>	384.386	375.789	349.181	304.561	254.211	189.942	139.591	106.023	96.199
<b>150.0</b>	385.205	377.018	352.865	311.520	264.854	204.269	155.556	121.988	112.164
<b>152.5</b>	385.205	377.836	356.140	317.661	274.678	218.596	172.339	139.181	129.357
<b>155.0</b>	384.386	377.836	358.187	322.982	284.094	232.515	189.532	157.602	148.187
<b>157.5</b>	382.749	377.018	359.825	327.895	292.281	245.614	206.725	177.251	168.246
<b>160.0</b>	380.292	375.380	360.234	331.988	300.058	258.304	223.509	196.901	188.713
<b>162.5</b>	377.427	372.924	359.825	334.854	306.608	270.175	239.883	216.550	209.591
<b>165.0</b>	374.152	369.649	358.187	336.901	312.339	281.228	255.848	235.380	230.058
<b>167.5</b>	369.649	365.556	355.731	338.129	317.251	291.462	270.994	254.211	250.117
<b>170.0</b>	363.509	359.825	352.047	338.129	320.526	300.468	284.503	271.404	268.538
<b>172.5</b>	356.959	354.094	347.544	336.901	323.801	309.474	297.602	288.187	286.140
<b>175.0</b>	348.772	346.725	342.222	334.854	325.848	316.433	308.655	302.515	302.105
<b>177.5</b>	338.538	337.310	335.263	331.579	327.076	322.164	318.480	315.614	314.386
<b>180.0</b>	327.485	327.485	327.485	327.485	327.485	327.485	327.485	327.485	327.485

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	0.00	N.A.	0.00
0-30	0.00	N.A.	0.00
0-40	0.00	N.A.	0.00
0-60	0.00	N.A.	0.00
0-80	8.57	N.A.	0.90
0-90	30.38	N.A.	3.20
10-90	30.38	N.A.	3.20
20-40	0.00	N.A.	0.00
20-50	0.00	N.A.	0.00
40-70	1.17	N.A.	0.10
60-80	8.57	N.A.	0.90
70-80	7.40	N.A.	0.80
80-90	21.81	N.A.	2.30
90-110	125.05	N.A.	13.20
90-120	236.68	N.A.	25.00
90-130	374.59	N.A.	39.60
90-150	672.34	N.A.	71.10
90-180	915.50	N.A.	96.80
110-180	790.45	N.A.	83.60
0-180	945.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	0.00
10-20	0.00
20-30	0.00
30-40	0.00
40-50	0.00
50-60	0.00
60-70	1.17
70-80	7.40
80-90	21.81
90-100	46.36
100-110	78.70
110-120	111.63
120-130	137.91
130-140	150.66
140-150	147.08
150-160	126.05
160-170	86.30
170-180	30.82

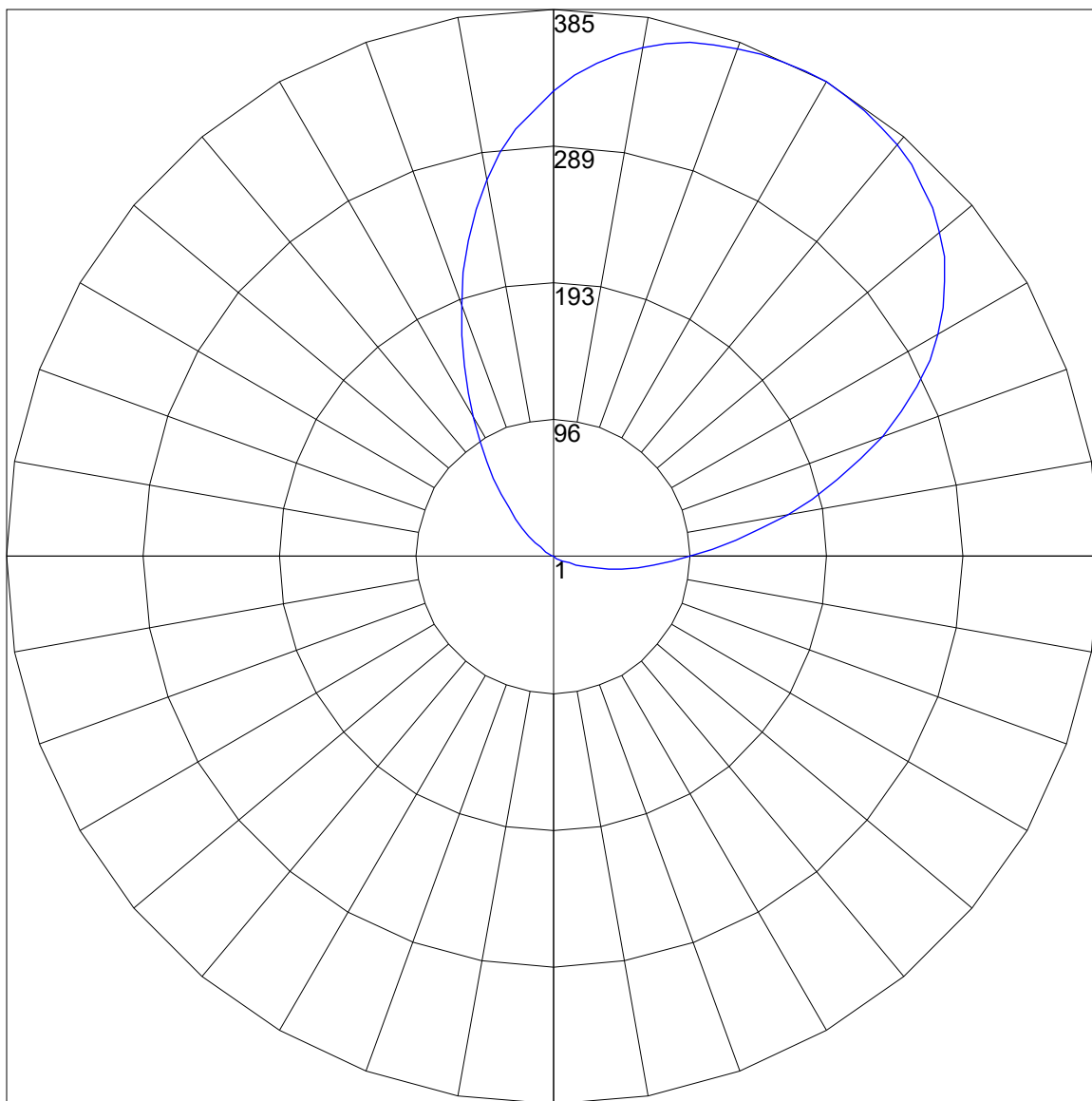
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	96	96	96	96	83	83	83	83	57	57	57	34	34	34	13	13	13	3
1	86	82	78	74	74	70	67	64	49	47	45	29	27	26	10	10	9	1
2	78	71	65	60	67	61	56	52	42	39	37	25	23	22	9	8	7	0
3	71	62	55	50	61	54	48	43	37	33	30	22	20	18	7	7	6	0
4	65	55	47	42	55	47	41	36	33	29	26	19	17	15	7	6	5	0
5	59	49	41	35	51	42	36	31	29	25	22	17	15	13	6	5	4	0
6	55	43	36	30	47	37	31	26	26	22	19	15	13	11	5	4	4	0
7	50	39	31	26	43	33	27	23	23	19	16	14	11	10	5	4	3	0
8	46	35	28	23	40	30	24	20	21	17	14	12	10	8	4	3	3	0
9	43	32	25	20	37	27	21	17	19	15	12	11	9	7	4	3	2	0
10	40	29	22	18	34	25	19	15	17	14	11	10	8	7	4	3	2	0

POLAR GRAPH



Maximum Candela = 385.205 Located At Horizontal Angle = 0, Vertical Angle = 150  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)