

# 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 : S18-LED-ID-DCO-4FT-2E-S-8-35-FTO-ITL85169.001.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85169.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/15/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S18-LED-ID-DCO-4ft-2E-S-8-35-FTO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.1 WATTS

[ABSOLUTE]LUMENS]1568

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85169. 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	1568
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Semi-Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.71 ft
Luminous Width (90-270)	0.10 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1547	1547	1547
55	1470	1470	1470
65	1375	1348	1348
75	1189	1189	1145
85	784	784	784

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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>
0.0	59.357	59.357	59.357	59.357	59.357
2.5	58.947	58.947	58.947	58.947	58.947
5.0	58.947	58.947	58.947	58.947	58.947
7.5	58.538	58.538	58.538	58.947	58.947
10.0	58.129	58.129	58.129	58.538	58.538
12.5	57.719	57.310	57.719	58.129	57.719
15.0	56.901	56.901	57.310	57.310	57.310
17.5	56.082	55.673	56.491	56.491	56.082
20.0	55.263	54.854	55.673	55.673	55.263
22.5	54.035	53.626	54.444	54.444	54.444
25.0	52.807	52.398	53.216	53.216	53.216
27.5	51.579	51.170	51.988	51.988	51.988
30.0	49.942	49.532	50.351	50.351	50.351
32.5	48.304	47.895	48.713	49.123	48.713
35.0	46.667	46.257	47.076	47.076	47.076
37.5	45.029	44.620	45.029	45.439	45.029
40.0	42.982	42.573	43.392	43.392	43.392
42.5	40.936	40.936	41.345	41.345	41.345
45.0	39.298	38.889	39.298	39.298	39.298
47.5	36.842	36.842	37.251	37.251	36.842
50.0	34.795	34.386	34.795	34.795	34.795
52.5	32.749	32.339	32.749	32.749	32.749
55.0	30.292	30.292	30.292	30.292	30.292
57.5	28.246	27.836	27.836	27.836	27.836
60.0	25.789	25.380	25.789	25.380	25.380
62.5	23.333	23.333	23.333	22.924	22.924
65.0	20.877	20.877	20.468	20.468	20.468
67.5	18.421	18.421	18.012	18.012	18.012
70.0	15.965	15.965	15.965	15.556	15.146
72.5	13.509	13.509	13.099	13.099	12.690
75.0	11.053	11.053	11.053	10.643	10.643
77.5	8.596	9.006	8.596	8.187	8.187
80.0	6.550	6.550	6.550	6.140	6.140
82.5	4.503	4.503	4.503	4.094	4.094
85.0	2.456	2.865	2.456	2.456	2.456
87.5	0.819	0.819	0.819	0.819	0.819
90.0	0.000	0.000	0.000	0.000	0.000
92.5	6.959	9.415	11.462	11.871	12.281
95.0	15.965	20.468	26.199	31.930	34.795
97.5	25.789	33.158	43.392	50.351	54.444
100.0	37.661	48.713	63.041	72.047	75.322
102.5	50.351	65.497	85.556	98.655	102.749
105.0	64.269	83.509	110.526	129.766	137.134
107.5	79.006	103.567	137.953	161.287	171.111
110.0	94.152	123.626	165.789	194.035	203.041
112.5	110.526	143.684	194.444	227.193	237.836
115.0	124.854	163.333	221.871	261.170	272.222
117.5	139.181	182.573	248.889	293.099	305.380
120.0	154.737	201.404	274.269	322.982	337.310
122.5	169.474	218.596	297.602	349.591	365.146
125.0	183.801	233.743	317.661	372.924	390.117
127.5	197.310	247.661	335.263	392.164	410.175
130.0	210.000	259.532	348.772	407.310	426.140
132.5	221.871	270.175	359.006	417.953	438.421

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S18-LED-ID-DCO-4FT-2E-S-8-35-FTO-ITL85169.001.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	232.515	278.772	365.146	424.503	444.971
<b>137.5</b>	242.749	285.731	369.240	427.778	447.427
<b>140.0</b>	252.573	291.871	370.877	427.778	447.018
<b>142.5</b>	260.760	295.965	370.058	424.912	442.924
<b>145.0</b>	268.538	299.240	368.421	419.591	436.374
<b>147.5</b>	275.497	302.515	365.146	412.632	428.596
<b>150.0</b>	281.637	304.561	361.053	404.035	419.181
<b>152.5</b>	287.368	307.018	356.140	395.029	408.947
<b>155.0</b>	292.281	308.246	350.819	384.795	396.667
<b>157.5</b>	296.784	309.474	345.088	374.152	384.795
<b>160.0</b>	300.468	310.292	339.357	363.509	372.515
<b>162.5</b>	303.743	311.111	334.035	352.865	360.643
<b>165.0</b>	306.199	311.520	328.713	343.041	349.181
<b>167.5</b>	308.246	311.930	324.211	334.444	338.947
<b>170.0</b>	309.883	312.749	320.117	327.076	329.942
<b>172.5</b>	311.520	313.158	317.251	320.936	322.573
<b>175.0</b>	312.339	313.158	315.205	316.842	317.251
<b>177.5</b>	312.749	313.158	313.567	314.386	313.977
<b>180.0</b>	313.158	313.158	313.158	313.158	313.158

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S18-LED-ID-DCO-4FT-2E-S-8-35-FTO-ITL85169.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	21.71	N.A.	1.40
0-30	46.13	N.A.	2.90
0-40	75.42	N.A.	4.80
0-60	132.64	N.A.	8.50
0-80	164.61	N.A.	10.50
0-90	167.58	N.A.	10.70
10-90	161.98	N.A.	10.30
20-40	53.70	N.A.	3.40
20-50	83.89	N.A.	5.30
40-70	77.67	N.A.	5.00
60-80	31.97	N.A.	2.00
70-80	11.53	N.A.	0.70
80-90	2.97	N.A.	0.20
90-110	142.48	N.A.	9.10
90-120	350.87	N.A.	22.40
90-130	620.10	N.A.	39.50
90-150	1116.47	N.A.	71.20
90-180	1400.73	N.A.	89.30
110-180	1258.26	N.A.	80.20
0-180	1568.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	5.61
10-20	16.11
20-30	24.42
30-40	29.29
40-50	30.18
50-60	27.05
60-70	20.44
70-80	11.53
80-90	2.97
90-100	29.48
100-110	113.00
110-120	208.39
120-130	269.22
130-140	270.75
140-150	225.63
150-160	160.77
160-170	93.27
170-180	30.23

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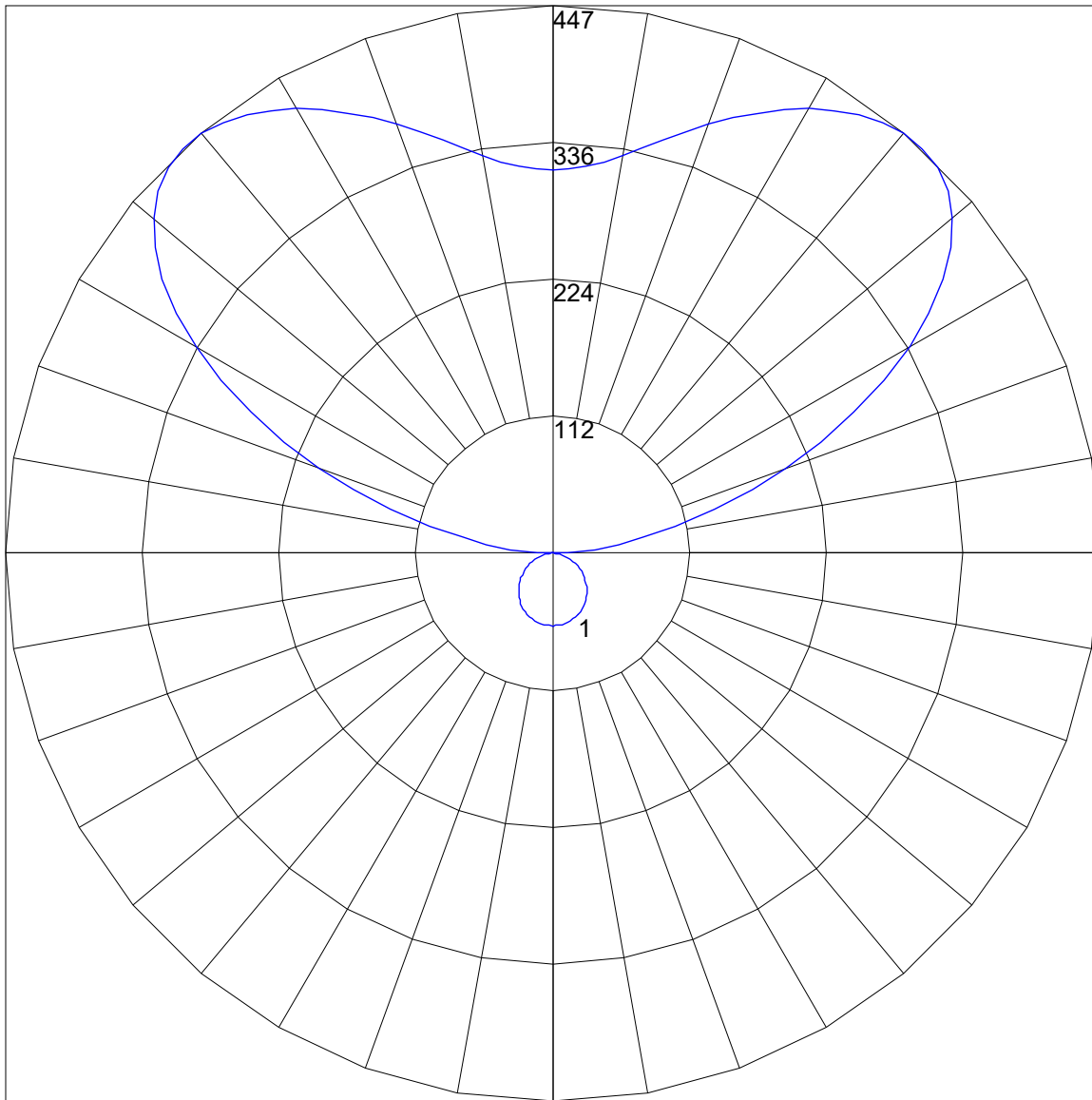
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	98	98	98	98	85	85	85	85	62	62	62	40	40	40	20	20	20	11
1	89	85	81	78	77	74	71	68	54	52	50	35	34	33	18	17	17	9
2	81	74	68	64	70	65	60	56	47	44	41	31	29	27	15	15	14	7
3	74	65	58	53	64	57	51	47	41	38	35	27	25	23	14	13	12	6
4	67	57	50	44	58	50	44	39	36	32	29	24	21	20	12	11	10	5
5	62	51	43	38	53	44	38	33	32	28	25	21	19	17	11	10	9	5
6	56	45	38	32	49	40	33	29	29	25	22	19	16	15	10	9	8	4
7	52	41	33	28	45	36	29	25	26	22	19	17	15	13	9	8	7	4
8	48	37	29	24	42	32	26	22	24	19	16	16	13	11	8	7	6	3
9	45	33	26	21	39	29	23	19	21	17	14	14	12	10	7	6	5	3
10	41	30	23	19	36	27	21	17	20	16	13	13	11	9	7	6	5	3

POLAR GRAPH



Maximum Candela = 447.427 Located At Horizontal Angle = 90, Vertical Angle = 137.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)