

# 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-B-8-35-OPEN-ITL85168.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85168.002 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/14/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S18-LED-ID-DCO-4ft-2E-B-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 18.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 19.9 WATTS

[ABSOLUTE]LUMENS]2273

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85168. 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	2273
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	18.5
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
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	1297	1317	1317
55	1249	1274	1249
65	1153	1187	1153
75	996	1052	996
85	657	822	657

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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	49.918	49.918	49.918	49.918	49.918
2.5	49.918	49.918	49.918	49.918	49.918
5.0	49.404	49.404	49.404	49.404	49.404
7.5	49.404	49.404	49.404	49.404	49.404
10.0	48.889	48.889	48.889	49.404	49.404
12.5	48.374	48.374	48.889	48.889	48.889
15.0	47.860	47.860	48.374	48.374	48.374
17.5	47.345	46.830	47.860	47.860	47.860
20.0	46.316	46.316	46.830	46.830	46.830
22.5	45.287	45.287	45.801	46.316	46.316
25.0	44.257	44.257	44.772	45.287	45.287
27.5	43.228	43.228	43.743	44.257	44.257
30.0	42.199	41.684	42.713	43.228	42.713
32.5	40.655	40.655	41.170	41.684	41.684
35.0	39.111	39.111	40.140	40.140	40.140
37.5	37.567	37.567	38.596	38.596	38.596
40.0	36.023	36.023	37.053	37.053	37.053
42.5	34.480	34.480	34.994	35.509	35.509
45.0	32.936	32.936	33.450	33.965	33.450
47.5	30.877	30.877	31.906	31.906	31.906
50.0	29.333	29.333	29.848	29.848	29.848
52.5	27.275	27.275	27.789	28.304	27.789
55.0	25.731	25.731	26.246	26.246	25.731
57.5	23.673	23.673	24.187	24.187	23.673
60.0	21.614	21.614	22.129	22.129	21.614
62.5	19.556	19.556	20.070	20.070	19.556
65.0	17.497	17.497	18.012	17.497	17.497
67.5	15.439	15.953	15.953	15.439	15.439
70.0	13.380	13.895	13.895	13.380	13.380
72.5	11.322	11.836	11.836	11.322	11.322
75.0	9.263	9.778	9.778	9.263	9.263
77.5	7.719	7.719	7.719	7.719	7.205
80.0	5.661	6.175	5.661	5.661	5.661
82.5	4.117	4.117	4.117	4.117	4.117
85.0	2.058	2.573	2.573	2.058	2.058
87.5	0.515	1.029	0.515	0.515	0.515
90.0	0.000	0.000	0.000	0.000	0.000
92.5	11.836	148.211	11.836	9.263	9.263
95.0	23.673	170.339	327.813	349.427	296.421
97.5	34.994	186.292	342.737	442.573	476.023
100.0	46.830	207.392	356.117	452.866	484.772
102.5	58.667	224.374	367.953	465.216	495.579
105.0	71.532	237.240	382.363	476.538	510.503
107.5	83.883	248.561	396.772	485.287	517.708
110.0	96.749	255.766	409.637	497.637	528.000
112.5	109.099	259.883	421.474	508.444	537.778
115.0	120.936	265.029	430.222	518.222	544.982
117.5	132.772	268.632	435.883	526.456	551.673
120.0	144.608	272.749	440.000	531.088	557.848
122.5	155.415	276.351	440.515	533.146	560.421
125.0	166.222	279.953	437.427	534.175	561.450
127.5	176.000	282.012	432.795	531.602	559.906
130.0	185.778	284.070	429.193	525.942	555.789
132.5	195.556	285.614	424.561	516.164	548.070

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S18-LED-ID-DCO-4FT-2E-B-8-35-OPEN-ITL85168.002.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	204.819	286.643	419.415	504.842	535.719
<b>137.5</b>	213.053	287.158	413.240	494.550	521.825
<b>140.0</b>	221.801	287.158	406.550	483.743	508.959
<b>142.5</b>	229.006	286.129	398.316	471.392	495.064
<b>145.0</b>	236.211	285.614	390.596	459.041	481.170
<b>147.5</b>	242.386	284.585	380.819	445.146	466.760
<b>150.0</b>	248.561	283.556	370.526	430.222	450.807
<b>152.5</b>	253.708	282.526	359.719	414.269	434.854
<b>155.0</b>	258.339	281.497	347.883	397.801	416.327
<b>157.5</b>	262.971	280.468	336.561	380.819	396.772
<b>160.0</b>	266.573	278.924	324.725	362.807	377.216
<b>162.5</b>	270.175	277.895	314.433	345.310	357.146
<b>165.0</b>	272.749	277.380	304.655	327.813	337.591
<b>167.5</b>	275.322	277.380	295.392	312.374	319.579
<b>170.0</b>	276.865	277.895	287.673	298.994	304.140
<b>172.5</b>	277.895	278.409	282.526	288.702	291.275
<b>175.0</b>	279.439	279.439	279.953	282.012	282.526
<b>177.5</b>	279.953	279.953	279.953	279.953	279.953
<b>180.0</b>	279.953	279.953	279.953	279.953	279.953

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S18-LED-ID-DCO-4FT-2E-B-8-35-OPEN-ITL85168.002.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	18.31	N.A.	0.80
0-30	38.95	N.A.	1.70
0-40	63.81	N.A.	2.80
0-60	112.63	N.A.	5.00
0-80	140.31	N.A.	6.20
0-90	143.02	N.A.	6.30
10-90	138.30	N.A.	6.10
20-40	45.50	N.A.	2.00
20-50	71.19	N.A.	3.10
40-70	66.35	N.A.	2.90
60-80	27.68	N.A.	1.20
70-80	10.14	N.A.	0.40
80-90	2.71	N.A.	0.10
90-110	573.46	N.A.	25.20
90-120	955.93	N.A.	42.10
90-130	1317.02	N.A.	57.90
90-150	1857.56	N.A.	81.70
90-180	2129.67	N.A.	93.70
110-180	1556.21	N.A.	68.50
0-180	2272.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	4.72
10-20	13.59
20-30	20.65
30-40	24.86
40-50	25.69
50-60	23.13
60-70	17.54
70-80	10.14
80-90	2.71
90-100	207.87
100-110	365.59
110-120	382.47
120-130	361.09
130-140	306.00
140-150	234.54
150-160	158.28
160-170	86.78
170-180	27.05

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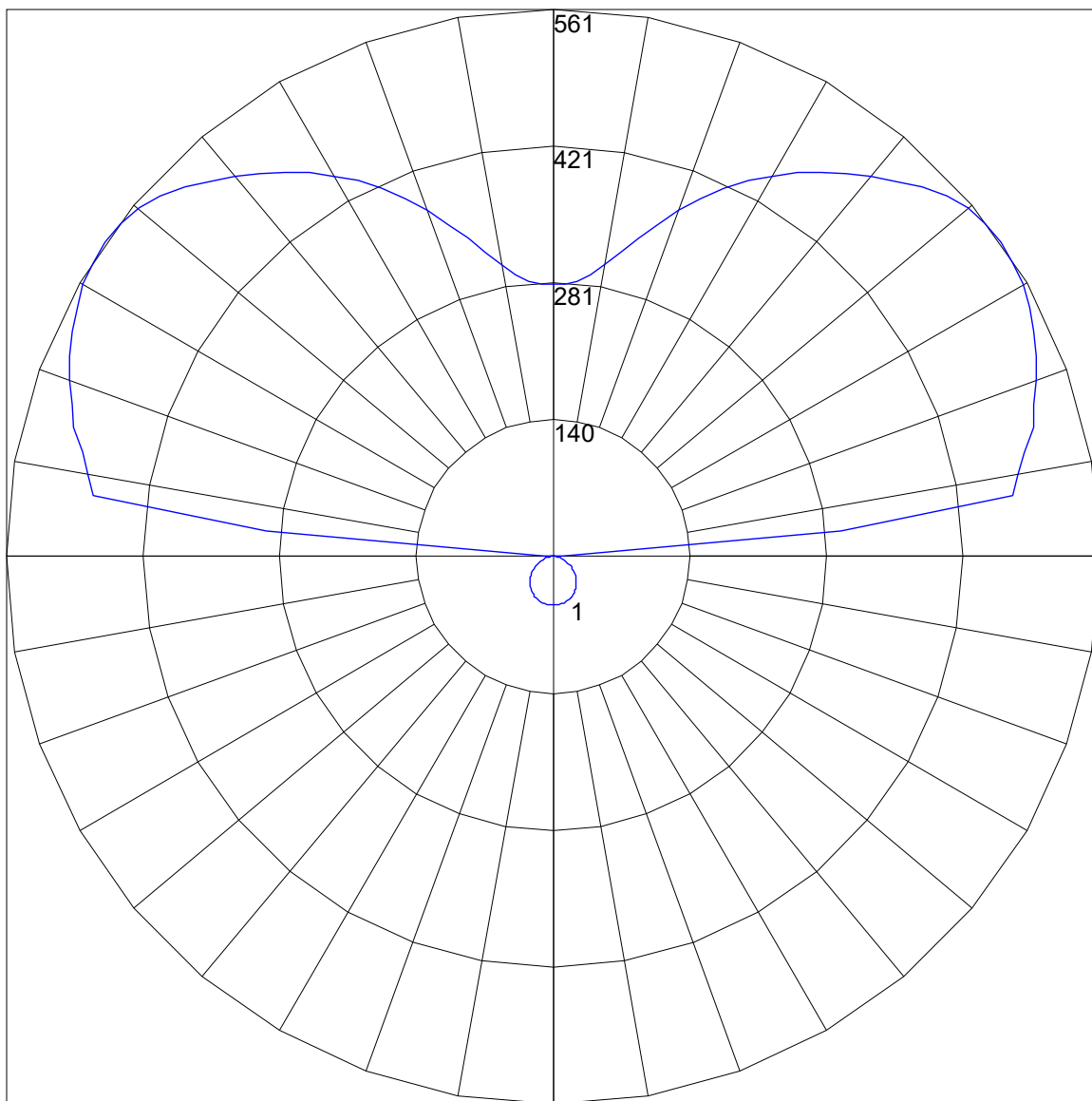
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	97	97	97	97	84	84	84	84	59	59	59	37	37	37	16	16	16	6
1	88	84	80	77	76	73	70	67	51	50	48	32	31	30	14	14	13	5
2	80	73	68	63	69	63	59	55	45	42	40	28	26	25	12	12	11	4
3	73	64	57	52	63	56	50	46	40	36	33	25	23	21	11	10	9	4
4	66	57	49	44	57	49	43	38	35	31	28	22	20	18	10	9	8	3
5	61	50	43	37	52	44	37	33	31	27	24	19	17	15	9	8	7	3
6	56	45	37	32	48	39	33	28	28	24	21	17	15	13	8	7	6	2
7	51	40	33	27	44	35	29	24	25	21	18	16	13	11	7	6	5	2
8	47	36	29	24	41	31	25	21	23	18	16	14	12	10	6	5	5	2
9	44	33	26	21	38	28	23	19	20	16	14	13	11	9	6	5	4	2
10	41	30	23	19	35	26	20	16	19	15	12	12	10	8	5	4	4	2

POLAR GRAPH



Maximum Candela = 561.45 Located At Horizontal Angle = 90, Vertical Angle = 125  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)