

# 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-H-8-35-OPEN-ITL85168.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85168.003 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-H-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.4 WATTS

[ABSOLUTE]LUMENS]3435

[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	3435
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	28.5
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	1960	1990	1990
55	1888	1925	1888
65	1742	1793	1742
75	1506	1590	1506
85	994	1242	994

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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	75.444	75.444	75.444	75.444	75.444
2.5	75.444	75.444	75.444	75.444	75.444
5.0	74.667	74.667	74.667	74.667	74.667
7.5	74.667	74.667	74.667	74.667	74.667
10.0	73.889	73.889	73.889	74.667	74.667
12.5	73.111	73.111	73.889	73.889	73.889
15.0	72.333	72.333	73.111	73.111	73.111
17.5	71.556	70.778	72.333	72.333	72.333
20.0	70.000	70.000	70.778	70.778	70.778
22.5	68.444	68.444	69.222	70.000	70.000
25.0	66.889	66.889	67.667	68.444	68.444
27.5	65.333	65.333	66.111	66.889	66.889
30.0	63.778	63.000	64.556	65.333	64.556
32.5	61.444	61.444	62.222	63.000	63.000
35.0	59.111	59.111	60.667	60.667	60.667
37.5	56.778	56.778	58.333	58.333	58.333
40.0	54.444	54.444	56.000	56.000	56.000
42.5	52.111	52.111	52.889	53.667	53.667
45.0	49.778	49.778	50.556	51.333	50.556
47.5	46.667	46.667	48.222	48.222	48.222
50.0	44.333	44.333	45.111	45.111	45.111
52.5	41.222	41.222	42.000	42.778	42.000
55.0	38.889	38.889	39.667	39.667	38.889
57.5	35.778	35.778	36.556	36.556	35.778
60.0	32.667	32.667	33.444	33.444	32.667
62.5	29.556	29.556	30.333	30.333	29.556
65.0	26.444	26.444	27.222	26.444	26.444
67.5	23.333	24.111	24.111	23.333	23.333
70.0	20.222	21.000	21.000	20.222	20.222
72.5	17.111	17.889	17.889	17.111	17.111
75.0	14.000	14.778	14.778	14.000	14.000
77.5	11.667	11.667	11.667	11.667	10.889
80.0	8.556	9.333	8.556	8.556	8.556
82.5	6.222	6.222	6.222	6.222	6.222
85.0	3.111	3.889	3.889	3.111	3.111
87.5	0.778	1.556	0.778	0.778	0.778
90.0	0.000	0.000	0.000	0.000	0.000
92.5	17.889	224.000	17.889	14.000	14.000
95.0	35.778	257.444	495.444	528.111	448.000
97.5	52.889	281.556	518.000	668.889	719.444
100.0	70.778	313.444	538.222	684.444	732.667
102.5	88.667	339.111	556.111	703.111	749.000
105.0	108.111	358.556	577.889	720.222	771.556
107.5	126.778	375.667	599.667	733.444	782.444
110.0	146.222	386.556	619.111	752.111	798.000
112.5	164.889	392.778	637.000	768.444	812.778
115.0	182.778	400.556	650.222	783.222	823.667
117.5	200.667	406.000	658.778	795.667	833.778
120.0	218.556	412.222	665.000	802.667	843.111
122.5	234.889	417.667	665.778	805.778	847.000
125.0	251.222	423.111	661.111	807.333	848.556
127.5	266.000	426.222	654.111	803.444	846.222
130.0	280.778	429.333	648.667	794.889	840.000
132.5	295.556	431.667	641.667	780.111	828.333

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S18-LED-ID-DCO-4FT-2E-H-8-35-OPEN-ITL85168.003.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	309.556	433.222	633.889	763.000	809.667
<b>137.5</b>	322.000	434.000	624.556	747.444	788.667
<b>140.0</b>	335.222	434.000	614.444	731.111	769.222
<b>142.5</b>	346.111	432.444	602.000	712.444	748.222
<b>145.0</b>	357.000	431.667	590.333	693.778	727.222
<b>147.5</b>	366.333	430.111	575.556	672.778	705.444
<b>150.0</b>	375.667	428.556	560.000	650.222	681.333
<b>152.5</b>	383.444	427.000	543.667	626.111	657.222
<b>155.0</b>	390.444	425.444	525.778	601.222	629.222
<b>157.5</b>	397.444	423.889	508.667	575.556	599.667
<b>160.0</b>	402.889	421.556	490.778	548.333	570.111
<b>162.5</b>	408.333	420.000	475.222	521.889	539.778
<b>165.0</b>	412.222	419.222	460.444	495.444	510.222
<b>167.5</b>	416.111	419.222	446.444	472.111	483.000
<b>170.0</b>	418.444	420.000	434.778	451.889	459.667
<b>172.5</b>	420.000	420.778	427.000	436.333	440.222
<b>175.0</b>	422.333	422.333	423.111	426.222	427.000
<b>177.5</b>	423.111	423.111	423.111	423.111	423.111
<b>180.0</b>	423.111	423.111	423.111	423.111	423.111

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S18-LED-ID-DCO-4FT-2E-H-8-35-OPEN-ITL85168.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	27.67	N.A.	0.80
0-30	58.87	N.A.	1.70
0-40	96.44	N.A.	2.80
0-60	170.22	N.A.	5.00
0-80	212.06	N.A.	6.20
0-90	216.15	N.A.	6.30
10-90	209.03	N.A.	6.10
20-40	68.77	N.A.	2.00
20-50	107.59	N.A.	3.10
40-70	100.29	N.A.	2.90
60-80	41.84	N.A.	1.20
70-80	15.33	N.A.	0.40
80-90	4.10	N.A.	0.10
90-110	866.71	N.A.	25.20
90-120	1444.76	N.A.	42.10
90-130	1990.5	N.A.	57.90
90-150	2807.45	N.A.	81.70
90-180	3218.71	N.A.	93.70
110-180	2352.00	N.A.	68.50
0-180	3434.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	7.13
10-20	20.54
20-30	31.20
30-40	37.57
40-50	38.82
50-60	34.95
60-70	26.51
70-80	15.33
80-90	4.10
90-100	314.17
100-110	552.54
110-120	578.05
120-130	545.74
130-140	462.47
140-150	354.48
150-160	239.22
160-170	131.15
170-180	40.88

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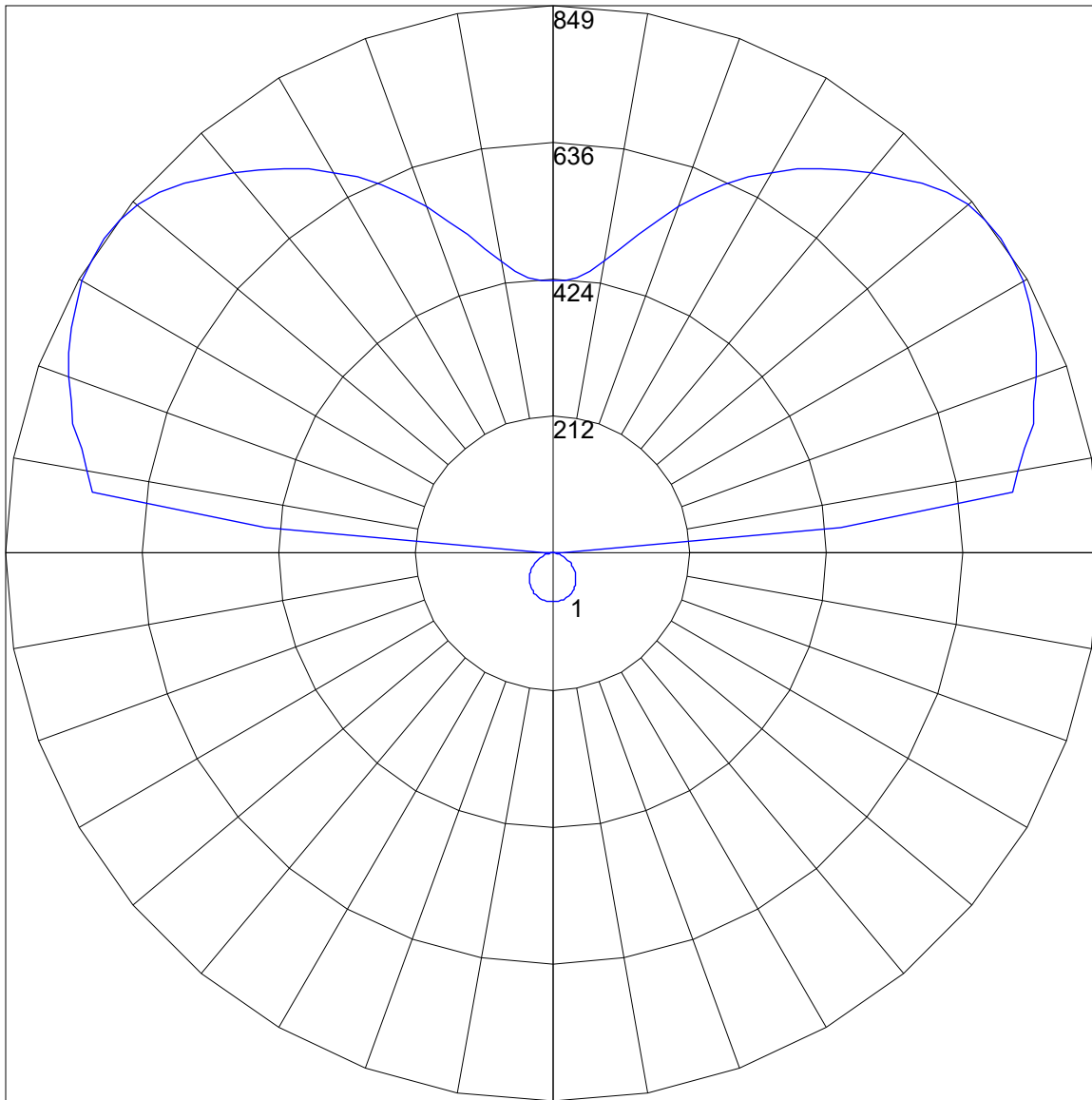
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 848.556 Located At Horizontal Angle = 90, Vertical Angle = 125  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)