

# 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 : S16-LED-ID-DCO-4FT-3E-H-V-8-35-OPEN-ITL85122.009.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85122.009 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/03/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S16-LED-ID-DCO-4ft-3E-H-V-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 48.3 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 51.2 WATTS

[ABSOLUTE]LUMENS]5667

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85122. 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	5667
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	48.3
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)	3.57 ft
Luminous Width (90-270)	0.29 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7652	7578	7474
55	7217	7089	7016
65	6613	6489	6389
75	5602	5480	5399
85	3617	3737	3737

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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	839.000	839.000	839.000	839.000	839.000
2.5	839.000	838.000	839.000	839.000	838.000
5.0	835.000	834.000	834.000	835.000	834.000
7.5	830.000	829.000	829.000	829.000	829.000
10.0	822.000	819.000	821.000	820.000	819.000
12.5	812.000	808.000	810.000	810.000	807.000
15.0	800.000	795.000	798.000	798.000	794.000
17.5	785.000	778.000	782.000	781.000	777.000
20.0	769.000	760.000	764.000	764.000	760.000
22.5	749.000	741.000	744.000	744.000	740.000
25.0	728.000	720.000	723.000	722.000	719.000
27.5	705.000	698.000	700.000	698.000	696.000
30.0	680.000	673.000	676.000	673.000	670.000
32.5	655.000	649.000	650.000	647.000	644.000
35.0	629.000	623.000	624.000	620.000	618.000
37.5	602.000	597.000	597.000	593.000	590.000
40.0	574.000	568.000	569.000	565.000	562.000
42.5	545.000	539.000	540.000	535.000	533.000
45.0	515.000	510.000	510.000	505.000	503.000
47.5	487.000	481.000	480.000	475.000	474.000
50.0	456.000	450.000	449.000	444.000	444.000
52.5	425.000	420.000	418.000	414.000	414.000
55.0	394.000	389.000	387.000	383.000	383.000
57.5	363.000	358.000	357.000	352.000	351.000
60.0	331.000	327.000	325.000	321.000	320.000
62.5	299.000	295.000	293.000	289.000	288.000
65.0	266.000	263.000	261.000	257.000	257.000
67.5	234.000	231.000	229.000	226.000	225.000
70.0	201.000	199.000	197.000	194.000	194.000
72.5	169.000	168.000	166.000	164.000	163.000
75.0	138.000	137.000	135.000	134.000	133.000
77.5	108.000	107.000	106.000	105.000	105.000
80.0	79.000	79.000	78.000	78.000	78.000
82.5	53.000	54.000	53.000	53.000	53.000
85.0	30.000	31.000	31.000	31.000	31.000
87.5	10.000	11.000	11.000	11.000	11.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	12.444	46.667	32.667	33.444	33.444
95.0	35.778	210.778	108.111	62.222	59.111
97.5	63.778	245.778	513.333	285.445	166.444
100.0	94.111	271.445	570.889	710.111	700.778
102.5	126.000	290.111	589.556	764.556	818.222
105.0	157.111	317.333	605.889	777.778	836.111
107.5	185.889	343.778	619.889	784.000	840.000
110.0	216.222	367.111	623.000	791.778	844.667
112.5	245.000	388.889	633.889	797.222	850.889
115.0	273.000	410.667	647.889	794.111	848.556
117.5	300.222	432.445	660.333	795.667	844.667
120.0	325.889	452.667	671.222	802.667	846.222
122.5	350.000	472.111	680.556	808.889	850.889
125.0	372.555	490.000	687.556	812.778	853.222
127.5	394.333	507.111	694.556	815.889	854.778
130.0	415.333	523.444	699.222	816.667	854.778
132.5	435.555	538.222	704.667	815.889	852.444

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-H-V-8-35-OPEN-ITL85122.009.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	453.445	551.444	709.333	813.556	847.778
<b>137.5</b>	470.555	563.111	712.444	809.667	843.111
<b>140.0</b>	487.667	574.000	714.778	805.778	836.111
<b>142.5</b>	503.222	583.333	715.556	801.111	829.111
<b>145.0</b>	518.778	591.889	715.556	795.667	821.333
<b>147.5</b>	532.000	599.667	714.778	789.444	812.778
<b>150.0</b>	544.444	604.333	710.889	780.111	801.889
<b>152.5</b>	556.111	609.000	705.444	770.778	791.000
<b>155.0</b>	566.222	612.889	699.222	759.111	777.000
<b>157.5</b>	575.556	615.222	691.444	745.111	762.222
<b>160.0</b>	584.111	616.778	682.889	729.556	745.111
<b>162.5</b>	591.111	616.778	672.000	712.444	726.444
<b>165.0</b>	597.333	616.778	661.111	694.556	705.444
<b>167.5</b>	602.000	616.000	649.444	676.667	686.778
<b>170.0</b>	605.889	615.222	638.556	658.000	665.778
<b>172.5</b>	609.000	615.222	628.444	641.667	646.333
<b>175.0</b>	611.333	613.667	619.889	627.667	629.222
<b>177.5</b>	613.667	614.444	616.000	617.556	617.556
<b>180.0</b>	613.667	613.667	613.667	613.667	613.667

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-H-V-8-35-OPEN-ITL85122.009.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	303.65	N.A.	5.40
0-30	636.09	N.A.	11.20
0-40	1025.55	N.A.	18.10
0-60	1764.01	N.A.	31.10
0-80	2165.71	N.A.	38.20
0-90	2202.2	N.A.	38.90
10-90	2122.98	N.A.	37.50
20-40	721.90	N.A.	12.70
20-50	1114.4	N.A.	19.70
40-70	996.45	N.A.	17.60
60-80	401.70	N.A.	7.10
70-80	143.71	N.A.	2.50
80-90	36.49	N.A.	0.60
90-110	758.66	N.A.	13.40
90-120	1357.31	N.A.	24.00
90-130	1940.17	N.A.	34.20
90-150	2901.74	N.A.	51.20
90-180	3465.03	N.A.	61.10
110-180	2706.38	N.A.	47.80
0-180	5667.24	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	79.23
10-20	224.42
20-30	332.44
30-40	389.46
40-50	392.50
50-60	345.96
60-70	257.99
70-80	143.71
80-90	36.49
90-100	183.36
100-110	575.30
110-120	598.66
120-130	582.86
130-140	526.66
140-150	434.91
150-160	317.13
160-170	186.40
170-180	59.77

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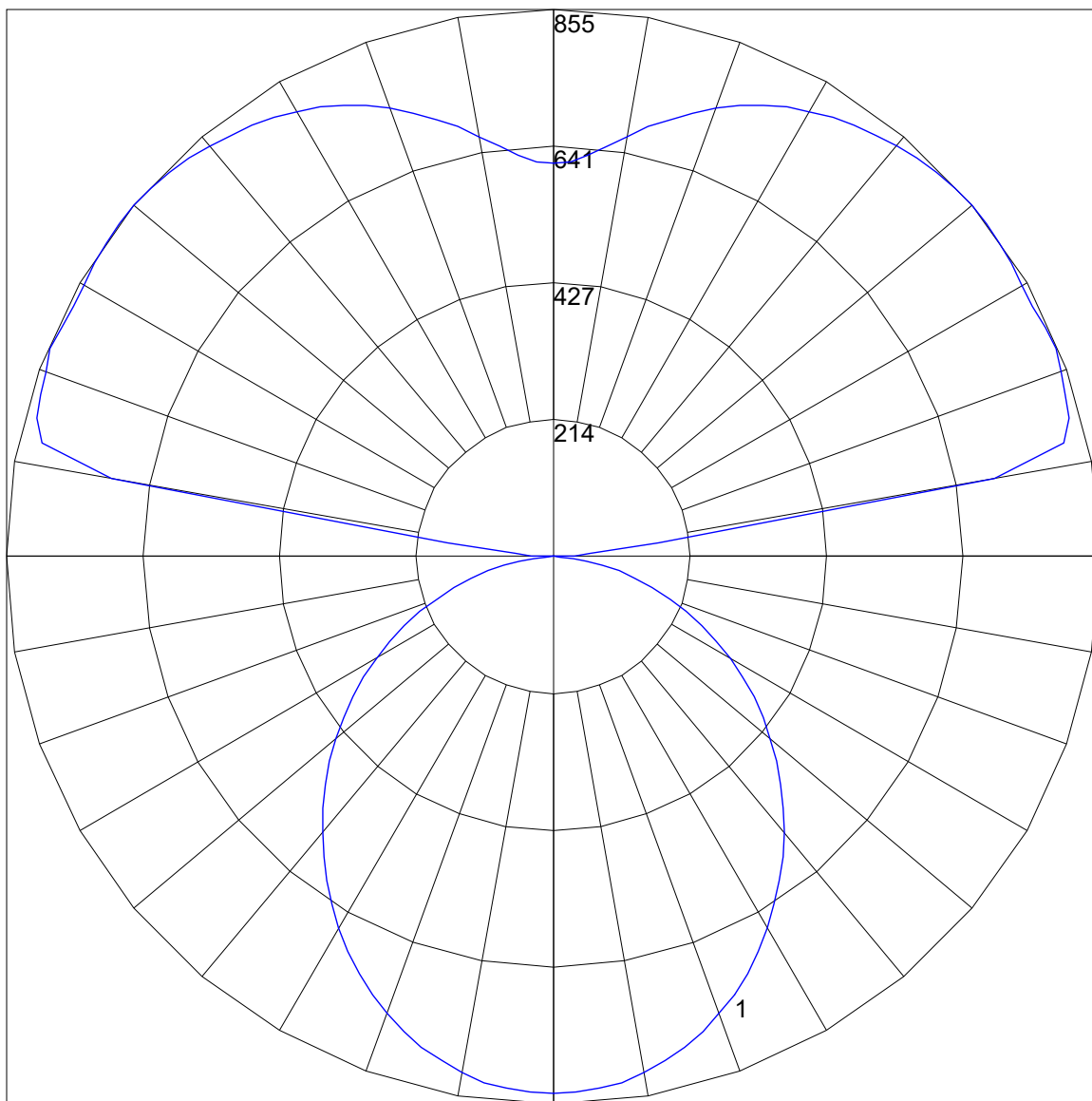
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	91	87	84	86	83	80	77	68	65	63	53	52	51	41	40	39	33
2	87	79	73	68	79	72	67	63	59	55	52	47	44	42	36	34	33	27
3	79	70	63	57	72	64	57	52	52	48	44	41	38	36	32	29	28	23
4	72	62	54	48	65	56	50	44	46	41	37	37	33	30	28	26	24	20
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	23	21	17
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	56	44	36	31	51	41	34	29	34	28	25	27	23	20	21	18	16	13
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	19	16	14	12
9	49	37	29	24	44	34	27	23	28	23	19	23	19	16	18	15	13	11
10	45	33	26	22	41	31	24	20	26	21	17	21	17	15	16	14	12	10

POLAR GRAPH



Maximum Candela = 854.778 Located At Horizontal Angle = 90, Vertical Angle = 127.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)