

# 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-2E-H-8-35-FTO-ITL85121.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85121.003 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/04/15

[ISSUEDATE]04/21/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S16-LED-ID-DCO-4ft-2E-H-8-35-FTO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.4 WATTS

[ABSOLUTE]LUMENS]3455

[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	3455
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	28.6
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)	3.57 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	4311	4507	4704
55	4160	4374	4559
65	3906	4080	4293
75	3378	3505	3694
85	2250	2438	2438

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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	420.000	420.000	420.000	420.000	420.000
2.5	419.222	419.222	419.222	420.000	420.000
5.0	418.444	418.444	419.222	419.222	419.222
7.5	416.889	416.889	417.667	418.444	419.222
10.0	413.778	414.556	416.111	417.667	417.667
12.5	410.667	409.889	413.778	416.111	416.111
15.0	407.556	406.000	411.444	414.556	414.556
17.5	401.333	400.556	407.556	410.667	411.444
20.0	395.889	395.111	402.889	407.556	408.333
22.5	389.667	388.111	396.667	402.889	404.444
25.0	381.889	380.333	390.444	397.444	399.000
27.5	373.333	372.556	383.444	390.444	392.778
30.0	364.000	364.000	374.889	383.444	385.000
32.5	353.111	353.889	365.556	374.111	377.222
35.0	342.222	343.778	354.667	364.000	367.111
37.5	329.778	331.333	343.000	353.111	355.444
40.0	317.333	318.889	331.333	340.667	344.556
42.5	304.111	305.667	317.333	326.667	330.556
45.0	290.111	291.667	303.333	312.667	316.556
47.5	275.333	276.889	288.556	297.111	301.000
50.0	259.778	262.111	272.222	281.556	283.889
52.5	244.222	245.778	255.889	264.444	266.778
55.0	227.111	229.444	238.778	246.556	248.889
57.5	210.778	212.333	220.889	227.889	230.222
60.0	192.889	195.222	202.222	209.222	211.556
62.5	175.000	176.556	183.556	189.000	191.333
65.0	157.111	158.667	164.111	169.556	172.667
67.5	138.444	140.000	144.667	149.333	151.667
70.0	119.778	120.556	125.222	129.111	131.444
72.5	100.333	101.889	105.778	108.889	111.222
75.0	83.222	84.000	86.333	88.667	91.000
77.5	65.333	66.111	68.444	70.000	71.556
80.0	48.222	49.000	50.556	52.111	52.889
82.5	32.667	33.444	34.222	35.000	35.778
85.0	18.667	19.444	20.222	20.222	20.222
87.5	6.222	7.000	7.000	7.000	7.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	15.556	15.556	10.111	2.333	1.556
95.0	33.444	37.333	41.222	41.222	39.667
97.5	52.889	59.889	71.556	73.889	73.111
100.0	73.889	84.778	102.667	108.889	109.667
102.5	95.667	111.222	136.889	150.111	156.333
105.0	119.000	138.444	174.222	196.000	205.333
107.5	142.333	168.778	213.111	242.667	253.556
110.0	167.222	199.111	253.556	290.111	302.556
112.5	192.111	229.444	294.778	338.333	353.111
115.0	216.222	259.778	335.222	387.333	403.667
117.5	240.333	289.333	375.667	434.000	453.444
120.0	262.889	317.333	414.556	479.889	501.667
122.5	285.444	344.556	451.111	522.667	546.778
125.0	305.667	369.444	483.778	562.333	588.000
127.5	325.889	391.222	513.333	595.778	624.556
130.0	343.778	411.444	538.222	626.111	656.444
132.5	359.333	427.778	558.444	650.222	682.111

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-H-8-35-FTO-ITL85121.003.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	374.111	442.556	574.000	668.889	700.778
<b>137.5</b>	386.556	452.667	584.111	679.778	711.667
<b>140.0</b>	399.000	461.222	590.333	684.444	717.111
<b>142.5</b>	409.111	467.444	591.889	684.444	715.556
<b>145.0</b>	416.111	471.333	588.778	677.444	707.000
<b>147.5</b>	422.333	472.111	581.000	665.778	693.778
<b>150.0</b>	427.778	471.333	571.667	650.222	676.667
<b>152.5</b>	431.667	470.556	560.000	631.556	654.111
<b>155.0</b>	435.556	467.444	546.778	610.556	630.778
<b>157.5</b>	437.889	464.333	531.222	587.222	605.111
<b>160.0</b>	439.444	460.444	516.444	563.111	579.444
<b>162.5</b>	441.000	457.333	502.444	540.556	553.778
<b>165.0</b>	441.000	453.444	487.667	517.222	527.333
<b>167.5</b>	441.778	450.333	474.444	496.222	505.556
<b>170.0</b>	441.000	447.222	462.778	477.556	483.778
<b>172.5</b>	441.000	444.889	453.444	462.000	465.889
<b>175.0</b>	441.000	442.556	447.222	451.111	452.667
<b>177.5</b>	441.000	441.000	442.556	443.333	444.111
<b>180.0</b>	441.000	441.000	441.000	441.000	441.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-H-8-35-FTO-ITL85121.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	155.87	N.A.	4.50
0-30	335.58	N.A.	9.70
0-40	557.08	N.A.	16.10
0-60	1003.14	N.A.	29.00
0-80	1257.2	N.A.	36.40
0-90	1280.65	N.A.	37.10
10-90	1240.75	N.A.	35.90
20-40	401.21	N.A.	11.60
20-50	634.55	N.A.	18.40
40-70	608.31	N.A.	17.60
60-80	254.06	N.A.	7.40
70-80	91.80	N.A.	2.70
80-90	23.45	N.A.	0.70
90-110	222.52	N.A.	6.40
90-120	541.62	N.A.	15.70
90-130	955.94	N.A.	27.70
90-150	1742.28	N.A.	50.40
90-180	2173.96	N.A.	62.90
110-180	1951.44	N.A.	56.50
0-180	3454.61	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	39.90
10-20	115.97
20-30	179.71
30-40	221.50
40-50	233.34
50-60	212.72
60-70	162.26
70-80	91.80
80-90	23.45
90-100	44.55
100-110	177.98
110-120	319.09
120-130	414.32
130-140	426.86
140-150	359.49
150-160	249.89
160-170	138.65
170-180	43.15

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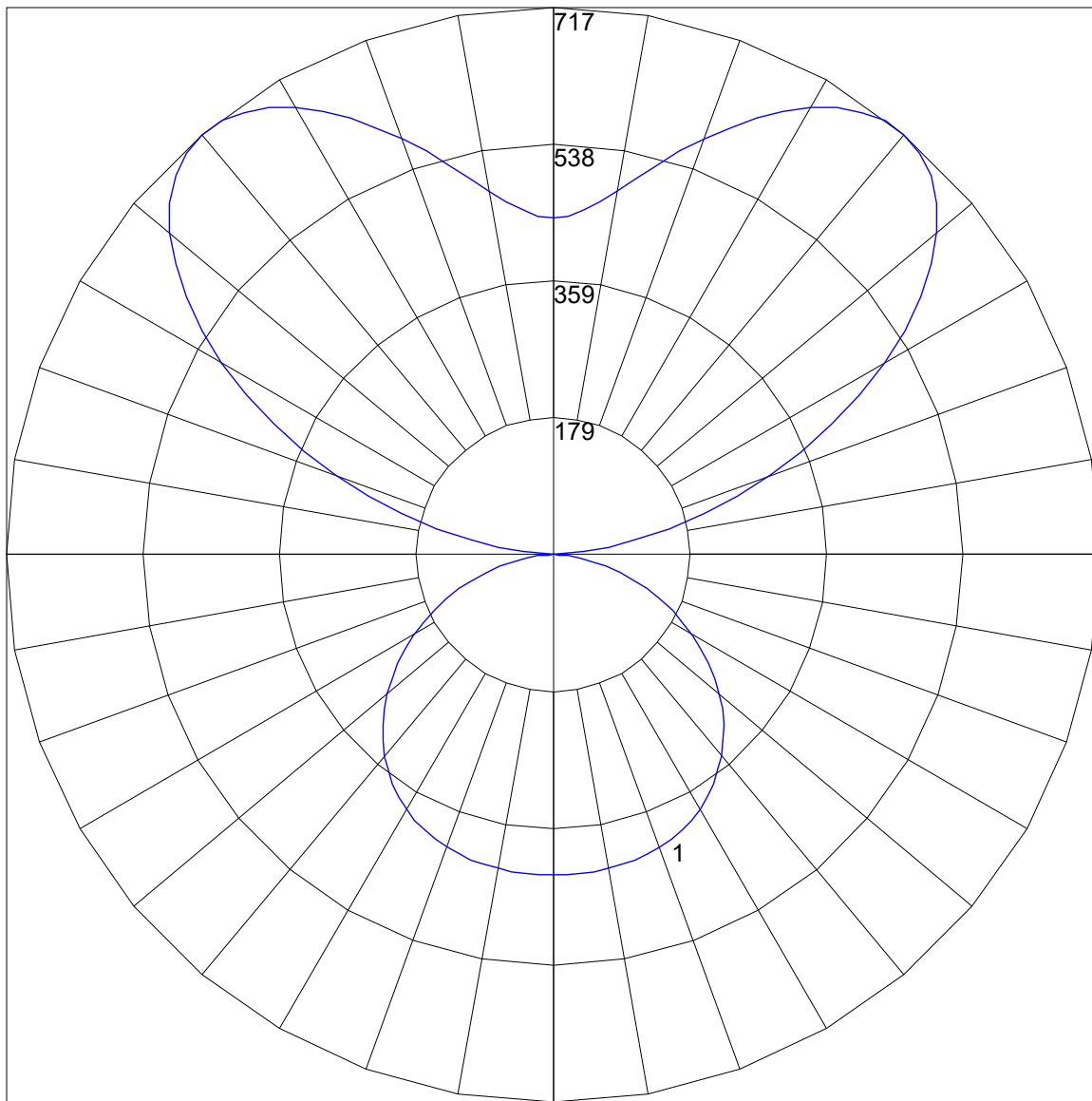
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	95	90	87	83	86	82	79	76	66	64	62	52	51	49	39	38	37	31
2	86	79	73	68	78	72	66	62	58	54	51	46	43	41	34	32	31	26
3	78	69	62	56	71	63	56	51	51	46	43	40	37	34	30	28	26	21
4	72	61	53	47	65	55	49	43	45	40	36	36	32	29	27	24	22	18
5	66	54	46	40	59	49	42	37	40	35	31	32	28	25	24	21	19	16
6	60	48	40	35	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	43	36	30	50	40	33	28	33	27	23	26	22	19	20	17	15	12
8	51	39	32	26	46	36	29	24	30	24	21	24	20	17	18	15	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	16	14	12	10
10	45	33	26	21	40	30	24	19	25	20	16	20	16	14	15	13	11	9

POLAR GRAPH



Maximum Candela = 717.111 Located At Horizontal Angle = 90, Vertical Angle = 140  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)