

# 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-B-8-35-OPEN-ITL85122.008.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85122.008 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-B-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 38.4 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 41.8 WATTS

[ABSOLUTE]LUMENS]4598

[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	4598
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	38.4
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	3938	3900	3846
55	3714	3648	3611
65	3403	3339	3288
75	2883	2820	2779
85	1861	1923	1923

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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	431.766	431.766	431.766	431.766	431.766
2.5	431.766	431.252	431.766	431.766	431.252
5.0	429.708	429.193	429.193	429.708	429.193
7.5	427.135	426.620	426.620	426.620	426.620
10.0	423.017	421.474	422.503	421.988	421.474
12.5	417.871	415.813	416.842	416.842	415.298
15.0	411.696	409.123	410.667	410.667	408.608
17.5	403.977	400.374	402.433	401.918	399.860
20.0	395.743	391.111	393.170	393.170	391.111
22.5	385.450	381.333	382.877	382.877	380.819
25.0	374.643	370.526	372.070	371.555	370.012
27.5	362.807	359.205	360.234	359.205	358.175
30.0	349.942	346.339	347.883	346.339	344.795
32.5	337.076	333.988	334.503	332.959	331.415
35.0	323.696	320.608	321.123	319.064	318.035
37.5	309.801	307.228	307.228	305.170	303.626
40.0	295.392	292.304	292.819	290.760	289.216
42.5	280.468	277.380	277.895	275.322	274.292
45.0	265.029	262.456	262.456	259.883	258.854
47.5	250.620	247.532	247.018	244.444	243.930
50.0	234.667	231.579	231.064	228.491	228.491
52.5	218.714	216.140	215.111	213.053	213.053
55.0	202.760	200.187	199.158	197.099	197.099
57.5	186.807	184.234	183.719	181.146	180.632
60.0	170.339	168.281	167.251	165.193	164.678
62.5	153.871	151.813	150.784	148.725	148.210
65.0	136.889	135.345	134.316	132.257	132.257
67.5	120.421	118.877	117.848	116.304	115.790
70.0	103.439	102.409	101.380	99.836	99.836
72.5	86.971	86.456	85.427	84.398	83.883
75.0	71.017	70.503	69.474	68.959	68.444
77.5	55.579	55.064	54.550	54.035	54.035
80.0	40.655	40.655	40.140	40.140	40.140
82.5	27.275	27.790	27.275	27.275	27.275
85.0	15.439	15.953	15.953	15.953	15.953
87.5	5.146	5.661	5.661	5.661	5.661
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-B-8-35-OPEN-ITL85122.008.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-B-8-35-OPEN-ITL85122.008.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	156.26	N.A.	3.40
0-30	327.35	N.A.	7.10
0-40	527.77	N.A.	11.50
0-60	907.79	N.A.	19.70
0-80	1114.52	N.A.	24.20
0-90	1133.3	N.A.	24.60
10-90	1092.53	N.A.	23.80
20-40	371.50	N.A.	8.10
20-50	573.49	N.A.	12.50
40-70	512.79	N.A.	11.20
60-80	206.72	N.A.	4.50
70-80	73.96	N.A.	1.60
80-90	18.78	N.A.	0.40
90-110	758.66	N.A.	16.50
90-120	1357.31	N.A.	29.50
90-130	1940.17	N.A.	42.20
90-150	2901.74	N.A.	63.10
90-180	3465.03	N.A.	75.40
110-180	2706.38	N.A.	58.90
0-180	4598.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	40.77
10-20	115.49
20-30	171.08
30-40	200.42
40-50	201.99
50-60	178.04
60-70	132.77
70-80	73.96
80-90	18.78
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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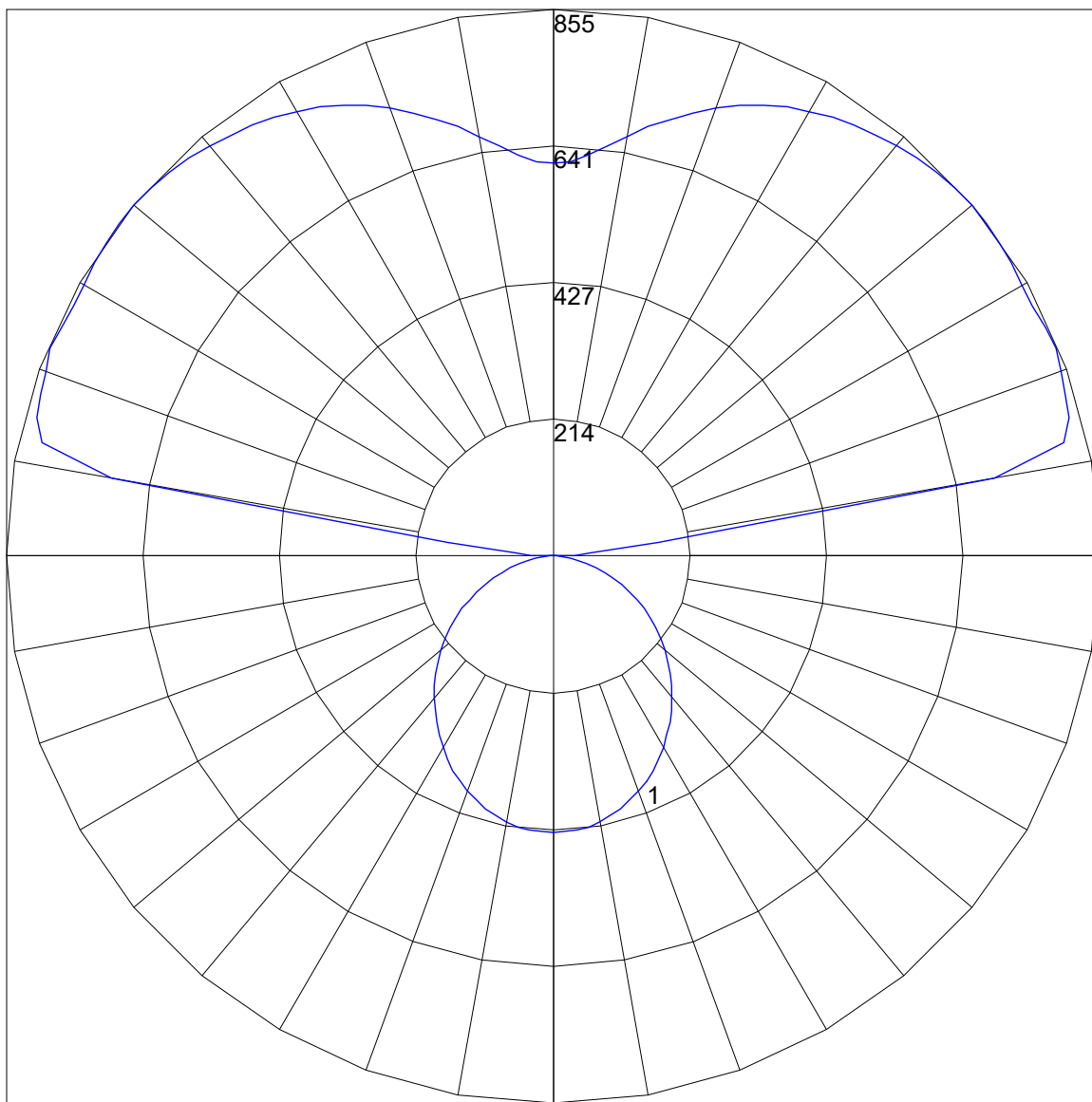
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	25
1	92	88	84	81	82	78	75	73	61	58	57	44	43	42	29	28	28	21
2	84	77	71	66	74	68	64	59	53	50	47	39	37	35	25	24	23	17
3	76	67	60	55	68	60	54	49	47	43	39	34	32	29	23	21	20	15
4	70	59	52	46	62	53	47	42	41	37	33	30	27	25	20	18	17	13
5	64	53	45	39	57	47	41	36	37	32	29	27	24	22	18	16	15	11
6	59	47	39	34	52	42	36	31	33	28	25	24	21	19	16	14	13	10
7	54	42	35	29	48	38	32	27	30	25	22	22	19	16	15	13	11	8
8	50	38	31	26	45	34	28	24	27	22	19	20	17	15	14	12	10	8
9	47	35	28	23	41	31	25	21	25	20	17	18	15	13	13	11	9	7
10	43	32	25	20	39	29	23	19	23	18	15	17	14	12	12	10	8	6

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.)