

# 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-B-B-8-TW-OPEN-ITL85122.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85122.902 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-B-B-8-TW-OPEN

[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 31.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 35.6 WATTS

[ABSOLUTE]LUMENS]3426

[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	3426
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	31.5
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	431.251	431.766	431.766	431.251
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	423.018	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	371.556	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	218.713	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	148.211
65.0	136.889	135.345	134.316	132.257	132.257
67.5	120.421	118.877	117.848	116.304	115.789
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	71.018	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	27.789	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	8.234	30.877	21.614	22.129	22.129
95.0	23.673	139.462	71.532	41.170	39.111
97.5	42.199	162.620	339.649	188.865	110.129
100.0	62.269	179.602	377.731	469.848	463.673
102.5	83.368	191.953	390.082	505.871	541.380
105.0	103.953	209.965	400.889	514.620	553.216
107.5	122.994	227.462	410.152	518.737	555.789
110.0	143.064	242.901	412.211	523.883	558.877
112.5	162.105	257.310	419.415	527.485	562.994
115.0	180.632	271.719	428.678	525.427	561.450
117.5	198.643	286.129	436.912	526.456	558.877
120.0	215.626	299.509	444.117	531.088	559.906
122.5	231.579	312.374	450.292	535.205	562.994
125.0	246.503	324.211	454.924	537.778	564.538
127.5	260.912	335.532	459.556	539.836	565.567
130.0	274.807	346.339	462.643	540.351	565.567
132.5	288.187	356.117	466.246	539.836	564.023

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-B-B-8-TW-OPEN-ITL85122.902.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	300.023	364.865	469.333	538.292	560.936
<b>137.5</b>	311.345	372.585	471.392	535.719	557.848
<b>140.0</b>	322.667	379.789	472.936	533.146	553.216
<b>142.5</b>	332.959	385.965	473.450	530.058	548.585
<b>145.0</b>	343.251	391.626	473.450	526.456	543.439
<b>147.5</b>	352.000	396.772	472.936	522.339	537.778
<b>150.0</b>	360.234	399.860	470.363	516.164	530.573
<b>152.5</b>	367.953	402.947	466.760	509.988	523.368
<b>155.0</b>	374.643	405.520	462.643	502.269	514.105
<b>157.5</b>	380.819	407.064	457.497	493.006	504.327
<b>160.0</b>	386.480	408.094	451.836	482.713	493.006
<b>162.5</b>	391.111	408.094	444.632	471.392	480.655
<b>165.0</b>	395.228	408.094	437.427	459.556	466.760
<b>167.5</b>	398.316	407.579	429.708	447.719	454.409
<b>170.0</b>	400.889	407.064	422.503	435.368	440.515
<b>172.5</b>	402.947	407.064	415.813	424.561	427.649
<b>175.0</b>	404.491	406.035	410.152	415.298	416.327
<b>177.5</b>	406.035	406.550	407.579	408.608	408.608
<b>180.0</b>	406.035	406.035	406.035	406.035	406.035

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-B-B-8-TW-OPEN-ITL85122.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	156.26	N.A.	4.60
0-30	327.35	N.A.	9.60
0-40	527.77	N.A.	15.40
0-60	907.79	N.A.	26.50
0-80	1114.52	N.A.	32.50
0-90	1133.3	N.A.	33.10
10-90	1092.53	N.A.	31.90
20-40	371.50	N.A.	10.80
20-50	573.49	N.A.	16.70
40-70	512.79	N.A.	15.00
60-80	206.72	N.A.	6.00
70-80	73.96	N.A.	2.20
80-90	18.78	N.A.	0.50
90-110	501.97	N.A.	14.70
90-120	898.07	N.A.	26.20
90-130	1283.72	N.A.	37.50
90-150	1919.95	N.A.	56.00
90-180	2292.65	N.A.	66.90
110-180	1790.69	N.A.	52.30
0-180	3425.95	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	121.32
100-110	380.65
110-120	396.11
120-130	385.65
130-140	348.47
140-150	287.76
150-160	209.83
160-170	123.33
170-180	39.55

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

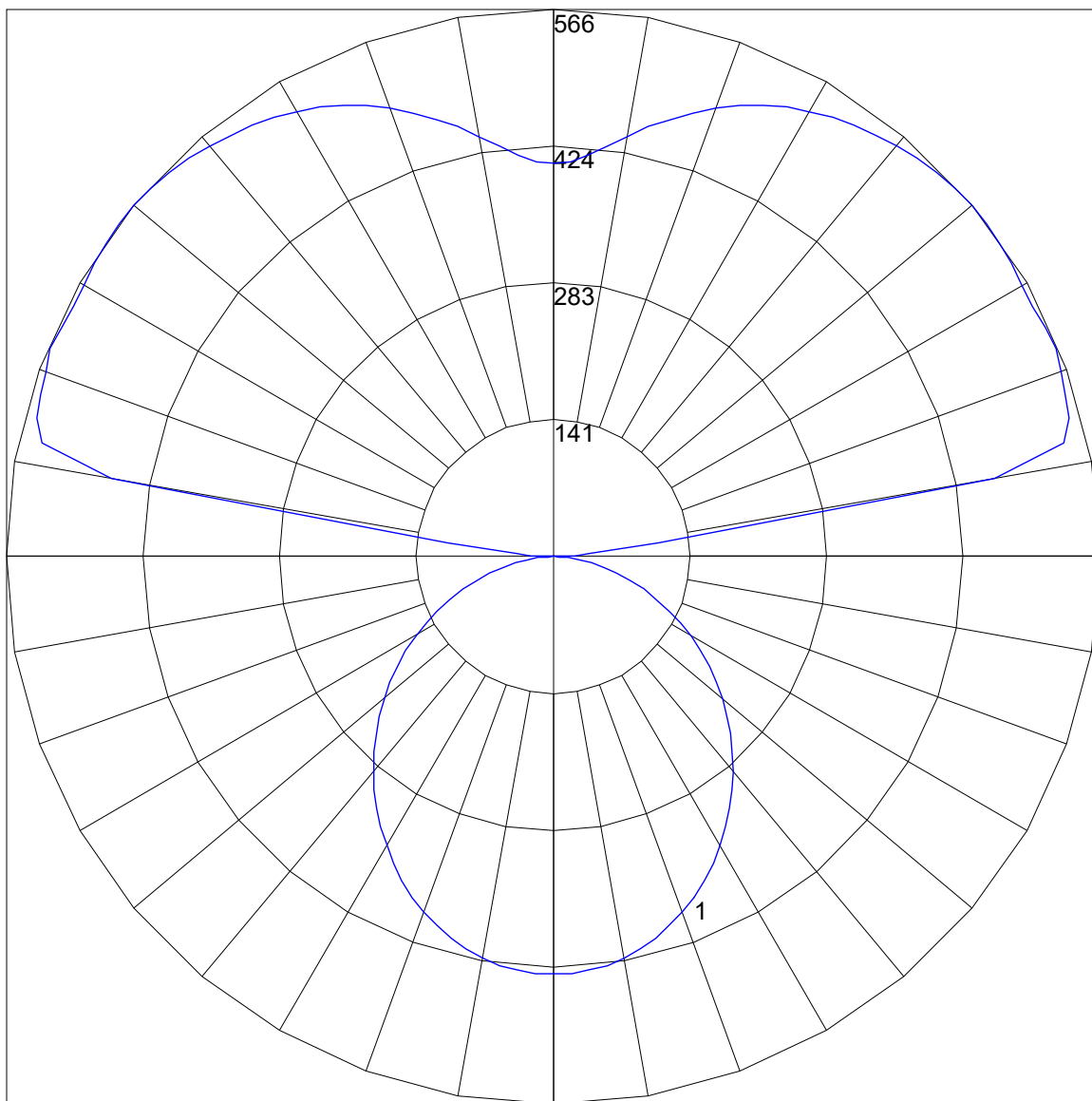
Effective Floor Cavity Reflectance 0.20

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	86	78	72	67	77	71	66	61	57	53	50	44	41	39	31	30	29	23
3	78	69	62	56	70	62	56	51	50	46	42	38	36	33	28	26	24	20
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	25	23	21	17
5	65	54	46	40	59	49	42	37	39	34	31	31	27	24	22	20	18	15
6	60	48	40	35	54	44	37	32	35	30	27	28	24	21	20	18	16	13
7	55	44	36	30	50	40	33	28	32	27	23	25	21	19	18	16	14	11
8	51	39	32	27	46	36	29	25	29	24	21	23	19	17	17	15	13	10
9	48	36	29	24	43	33	26	22	27	22	18	21	17	15	16	13	11	9
10	45	33	26	21	40	30	24	20	24	20	16	19	16	13	14	12	10	8

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## POLAR GRAPH



Maximum Candela = 565.567 Located At Horizontal Angle = 90, Vertical Angle = 127.5

# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)