

# 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-V-B-8-TW-OPEN-ITL85122.905.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85122.905 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-V-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, 51.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 54.8 WATTS

[ABSOLUTE]LUMENS]5588

[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	5588
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	51.6
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	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	16.000	60.000	42.000	43.000	43.000
95.0	46.000	271.000	139.000	80.000	76.000
97.5	82.000	316.000	660.000	367.000	214.000
100.0	121.000	349.000	734.000	913.000	901.000
102.5	162.000	373.000	758.000	983.000	1052.000
105.0	202.000	408.000	779.000	1000.000	1075.000
107.5	239.000	442.000	797.000	1008.000	1080.000
110.0	278.000	472.000	801.000	1018.000	1086.000
112.5	315.000	500.000	815.000	1025.000	1094.000
115.0	351.000	528.000	833.000	1021.000	1091.000
117.5	386.000	556.000	849.000	1023.000	1086.000
120.0	419.000	582.000	863.000	1032.000	1088.000
122.5	450.000	607.000	875.000	1040.000	1094.000
125.0	479.000	630.000	884.000	1045.000	1097.000
127.5	507.000	652.000	893.000	1049.000	1099.000
130.0	534.000	673.000	899.000	1050.000	1099.000
132.5	560.000	692.000	906.000	1049.000	1096.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-V-B-8-TW-OPEN-ITL85122.905.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	583.000	709.000	912.000	1046.000	1090.000
<b>137.5</b>	605.000	724.000	916.000	1041.000	1084.000
<b>140.0</b>	627.000	738.000	919.000	1036.000	1075.000
<b>142.5</b>	647.000	750.000	920.000	1030.000	1066.000
<b>145.0</b>	667.000	761.000	920.000	1023.000	1056.000
<b>147.5</b>	684.000	771.000	919.000	1015.000	1045.000
<b>150.0</b>	700.000	777.000	914.000	1003.000	1031.000
<b>152.5</b>	715.000	783.000	907.000	991.000	1017.000
<b>155.0</b>	728.000	788.000	899.000	976.000	999.000
<b>157.5</b>	740.000	791.000	889.000	958.000	980.000
<b>160.0</b>	751.000	793.000	878.000	938.000	958.000
<b>162.5</b>	760.000	793.000	864.000	916.000	934.000
<b>165.0</b>	768.000	793.000	850.000	893.000	907.000
<b>167.5</b>	774.000	792.000	835.000	870.000	883.000
<b>170.0</b>	779.000	791.000	821.000	846.000	856.000
<b>172.5</b>	783.000	791.000	808.000	825.000	831.000
<b>175.0</b>	786.000	789.000	797.000	807.000	809.000
<b>177.5</b>	789.000	790.000	792.000	794.000	794.000
<b>180.0</b>	789.000	789.000	789.000	789.000	789.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-V-B-8-TW-OPEN-ITL85122.905.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	156.26	N.A.	2.80
0-30	327.35	N.A.	5.90
0-40	527.77	N.A.	9.40
0-60	907.79	N.A.	16.20
0-80	1114.52	N.A.	19.90
0-90	1133.3	N.A.	20.30
10-90	1092.53	N.A.	19.60
20-40	371.50	N.A.	6.60
20-50	573.49	N.A.	10.30
40-70	512.79	N.A.	9.20
60-80	206.72	N.A.	3.70
70-80	73.96	N.A.	1.30
80-90	18.78	N.A.	0.30
90-110	975.41	N.A.	17.50
90-120	1745.12	N.A.	31.20
90-130	2494.51	N.A.	44.60
90-150	3730.81	N.A.	66.80
90-180	4455.04	N.A.	79.70
110-180	3479.63	N.A.	62.30
0-180	5588.34	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	235.75
100-110	739.67
110-120	769.71
120-130	749.39
130-140	677.14
140-150	559.16
150-160	407.74
160-170	239.65
170-180	76.85

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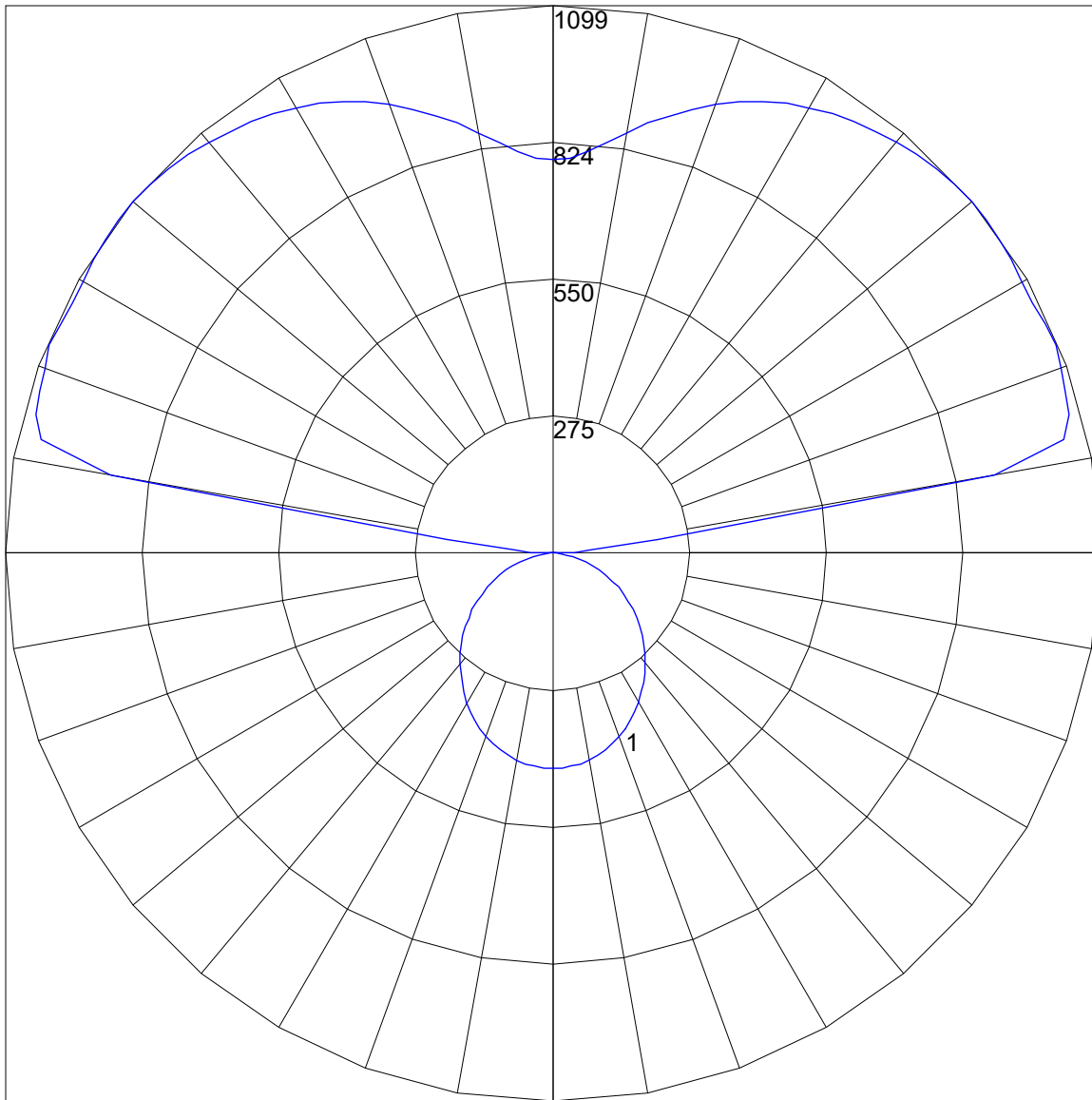
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	100	100	100	100	88	88	88	88	67	67	67	47	47	47	29	29	29	20
1	91	87	83	80	80	77	74	71	58	56	55	41	40	39	25	25	24	17
2	83	76	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	76	67	60	54	67	59	53	49	45	41	38	32	29	27	20	18	17	12
4	69	59	51	46	61	52	46	41	40	35	32	28	26	23	18	16	15	10
5	63	52	44	39	56	46	40	35	35	31	27	25	22	20	16	14	13	9
6	58	47	39	33	51	41	35	30	32	27	24	23	20	17	14	13	11	8
7	54	42	34	29	47	37	31	26	29	24	21	21	18	15	13	11	10	7
8	49	38	30	25	44	34	27	23	26	21	18	19	16	14	12	10	9	6
9	46	34	27	22	41	31	25	20	24	19	16	17	14	12	11	9	8	6
10	43	31	24	20	38	28	22	18	22	17	14	16	13	11	10	8	7	5

POLAR GRAPH



Maximum Candela = 1099 Located At Horizontal Angle = 90, Vertical Angle = 127.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)