

# 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 : S12-LED-ID-DCO-4FT-2E-S-8-35-FTO-ITL85162.001.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85162.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/10/15

[ISSUEDATE]04/26/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S12-LED-ID-DCO-4ft-2E-S-8-35-FTO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.1 WATTS

[ABSOLUTE]LUMENS]1797

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85162. 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	1797
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	14.5
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 w/Sides
Luminous Length (0-180)	3.32 ft
Luminous Width (90-270)	0.36 ft
Luminous Height	0.03 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1894	1883	1926
55	1825	1780	1823
65	1677	1593	1612
75	1411	1268	1340
85	828	849	990

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-FTO-ITL85162.001.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	225.556	225.556	225.556	225.556	225.556
<b>2.5</b>	225.146	225.146	225.146	225.146	225.146
<b>5.0</b>	224.327	224.327	224.737	224.737	225.146
<b>7.5</b>	223.099	223.509	223.918	224.327	224.327
<b>10.0</b>	221.871	221.462	222.690	223.509	223.509
<b>12.5</b>	220.234	219.415	221.462	222.690	222.281
<b>15.0</b>	217.368	216.550	219.415	220.643	220.643
<b>17.5</b>	214.503	214.094	216.959	218.596	219.006
<b>20.0</b>	211.228	210.409	214.094	216.550	216.550
<b>22.5</b>	207.134	206.725	210.819	213.684	214.094
<b>25.0</b>	202.632	202.632	207.134	210.409	211.228
<b>27.5</b>	197.719	198.129	202.632	206.725	207.544
<b>30.0</b>	192.398	192.807	198.129	202.632	203.450
<b>32.5</b>	186.667	187.485	193.216	197.719	198.947
<b>35.0</b>	180.526	181.345	187.485	192.398	193.626
<b>37.5</b>	173.977	175.205	180.936	185.848	187.485
<b>40.0</b>	167.427	168.246	174.795	179.708	181.345
<b>42.5</b>	160.058	161.287	167.427	172.749	174.386
<b>45.0</b>	152.281	153.509	160.058	164.971	166.608
<b>47.5</b>	144.503	145.731	151.871	156.784	158.830
<b>50.0</b>	136.316	137.953	143.684	148.596	150.234
<b>52.5</b>	127.719	129.357	134.678	139.591	141.637
<b>55.0</b>	119.532	120.760	126.082	130.585	132.222
<b>57.5</b>	110.526	111.754	116.257	120.760	122.398
<b>60.0</b>	101.111	102.339	106.842	110.526	112.164
<b>62.5</b>	91.696	92.924	97.018	100.702	101.930
<b>65.0</b>	81.462	83.509	86.784	90.058	90.877
<b>67.5</b>	72.456	73.684	76.550	79.825	80.643
<b>70.0</b>	62.632	63.450	66.316	69.591	70.409
<b>72.5</b>	52.807	54.035	56.082	59.766	60.994
<b>75.0</b>	42.573	44.211	46.257	50.351	51.579
<b>77.5</b>	33.158	34.795	37.251	41.345	42.164
<b>80.0</b>	24.971	25.789	29.474	32.749	33.567
<b>82.5</b>	16.784	17.602	21.696	24.971	25.789
<b>85.0</b>	9.006	11.053	14.737	18.012	19.240
<b>87.5</b>	2.456	4.912	9.006	12.281	13.099
<b>90.0</b>	0.000	2.456	6.140	9.825	11.053
<b>92.5</b>	8.187	9.825	14.327	18.421	19.649
<b>95.0</b>	17.193	20.877	27.427	31.930	31.930
<b>97.5</b>	27.018	32.749	41.345	45.439	47.076
<b>100.0</b>	37.661	45.848	55.263	63.450	66.316
<b>102.5</b>	49.123	57.719	73.275	83.918	88.012
<b>105.0</b>	60.994	72.047	92.105	106.433	111.345
<b>107.5</b>	73.275	86.784	112.164	129.766	135.906
<b>110.0</b>	85.556	102.339	131.813	153.918	161.696
<b>112.5</b>	97.836	117.485	153.099	178.889	187.485
<b>115.0</b>	110.117	133.041	173.977	202.632	213.275
<b>117.5</b>	121.579	147.778	194.444	226.784	237.427
<b>120.0</b>	133.041	162.105	213.684	249.708	261.579
<b>122.5</b>	144.503	175.614	232.105	271.404	284.094
<b>125.0</b>	155.146	187.895	248.480	291.053	304.971
<b>127.5</b>	164.561	198.947	262.807	308.246	323.392
<b>130.0</b>	173.158	207.953	274.678	322.573	337.719
<b>132.5</b>	180.936	215.731	284.094	333.626	349.591

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-FTO-ITL85162.001.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	187.895	222.281	291.053	341.403	358.187
<b>137.5</b>	194.444	227.602	295.556	345.906	362.690
<b>140.0</b>	199.766	231.287	297.193	347.134	363.918
<b>142.5</b>	204.269	233.743	296.784	345.088	361.462
<b>145.0</b>	207.953	234.561	293.918	339.766	355.731
<b>147.5</b>	211.228	234.971	289.825	332.807	347.953
<b>150.0</b>	213.684	234.561	284.094	323.801	337.310
<b>152.5</b>	215.322	233.743	277.544	313.158	325.439
<b>155.0</b>	217.368	232.515	270.994	302.105	313.158
<b>157.5</b>	218.187	230.877	263.216	289.825	299.649
<b>160.0</b>	219.006	229.240	255.439	277.544	286.550
<b>162.5</b>	219.415	227.193	248.070	266.082	273.041
<b>165.0</b>	219.825	225.556	241.520	254.620	260.760
<b>167.5</b>	219.825	223.918	235.380	244.795	248.889
<b>170.0</b>	219.825	222.281	230.058	236.199	239.064
<b>172.5</b>	219.415	221.053	225.556	229.240	231.287
<b>175.0</b>	219.006	219.825	222.281	223.918	224.327
<b>177.5</b>	219.415	219.825	220.234	220.643	220.643
<b>180.0</b>	219.415	219.415	219.415	219.415	219.415

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-FTO-ITL85162.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	83.25	N.A.	4.60
0-30	178.57	N.A.	9.90
0-40	295.54	N.A.	16.40
0-60	530.75	N.A.	29.50
0-80	666.45	N.A.	37.10
0-90	683.34	N.A.	38.00
10-90	661.96	N.A.	36.80
20-40	212.29	N.A.	11.80
20-50	335.29	N.A.	18.70
40-70	320.99	N.A.	17.90
60-80	135.70	N.A.	7.50
70-80	49.93	N.A.	2.80
80-90	16.88	N.A.	0.90
90-110	124.58	N.A.	6.90
90-120	290.31	N.A.	16.20
90-130	503.24	N.A.	28.00
90-150	900.07	N.A.	50.10
90-180	1114.16	N.A.	62.00
110-180	989.58	N.A.	55.10
0-180	1797.5	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	21.38
10-20	61.87
20-30	95.32
30-40	116.97
40-50	123.00
50-60	112.21
60-70	85.77
70-80	49.93
80-90	16.88
90-100	29.81
100-110	94.77
110-120	165.72
120-130	212.93
130-140	216.74
140-150	180.08
150-160	124.02
160-170	68.64
170-180	21.43

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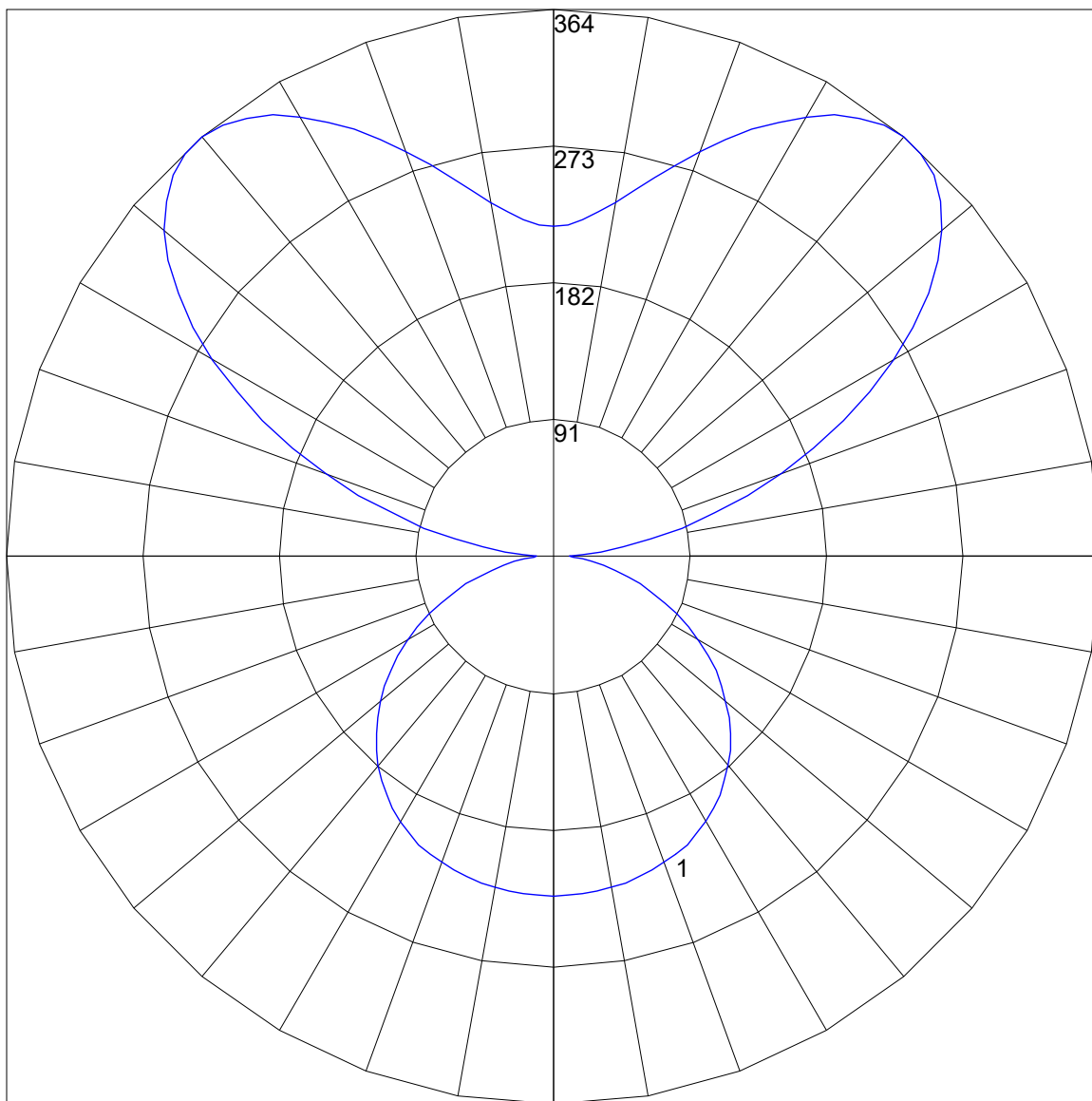
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	60	60	60	45	45	45	38
1	95	91	87	83	86	82	79	76	67	64	62	53	51	50	39	39	38	32
2	86	79	73	68	78	72	66	62	58	55	51	46	43	41	35	33	31	26
3	78	69	62	56	71	63	57	51	51	47	43	40	37	35	30	28	26	22
4	72	61	53	47	65	56	49	43	45	40	36	36	32	29	27	25	23	19
5	66	54	46	40	59	49	42	37	40	35	31	32	28	25	24	22	20	16
6	60	48	40	35	55	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	44	36	30	50	40	33	28	33	27	24	26	22	19	20	17	15	12
8	52	39	32	26	47	36	29	25	30	25	21	24	20	17	18	15	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	17	14	12	10
10	45	33	26	21	41	30	24	19	25	20	17	20	16	14	16	13	11	9

POLAR GRAPH



Maximum Candela = 363.918 Located At Horizontal Angle = 90, Vertical Angle = 140  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)