

# 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-OPEN-ITL85161.001.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85161.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/09/15

[ISSUEDATE]04/25/16

[MANUFAC]FINELITE, INC.

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

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.2 WATTS

[ABSOLUTE]LUMENS]1958

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85161. 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	1958
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	14.6
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 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	1410	1416	1472
55	1357	1341	1394
65	1256	1202	1249
75	1072	976	1042
85	602	684	842

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-OPEN-ITL85161.001.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>	168.246	168.246	168.246	168.246	168.246
<b>2.5</b>	167.836	167.836	168.246	168.246	168.246
<b>5.0</b>	167.427	167.427	167.836	167.836	167.836
<b>7.5</b>	166.608	166.608	167.018	167.427	167.427
<b>10.0</b>	165.789	165.380	166.199	167.018	167.018
<b>12.5</b>	164.152	163.743	165.380	166.199	166.199
<b>15.0</b>	162.105	161.696	163.743	164.971	164.971
<b>17.5</b>	160.058	159.649	162.105	163.743	164.152
<b>20.0</b>	157.602	156.784	160.058	162.105	162.515
<b>22.5</b>	154.327	153.918	157.602	160.058	160.877
<b>25.0</b>	151.053	151.053	154.737	158.012	158.830
<b>27.5</b>	146.959	147.368	151.871	155.146	156.374
<b>30.0</b>	143.275	143.684	148.187	152.281	153.509
<b>32.5</b>	138.772	140.000	144.503	148.596	150.234
<b>35.0</b>	134.269	135.497	140.409	144.912	146.550
<b>37.5</b>	129.357	130.585	135.906	140.409	142.456
<b>40.0</b>	124.444	125.673	130.994	135.497	137.953
<b>42.5</b>	119.123	120.351	125.673	130.585	132.632
<b>45.0</b>	113.392	115.029	120.351	124.854	127.310
<b>47.5</b>	107.661	108.889	114.211	119.123	121.170
<b>50.0</b>	101.520	103.158	108.070	112.573	115.029
<b>52.5</b>	95.380	96.608	101.520	106.023	108.070
<b>55.0</b>	88.830	90.058	94.971	99.064	101.111
<b>57.5</b>	82.281	83.509	88.012	91.696	93.743
<b>60.0</b>	75.322	76.550	80.643	84.327	86.374
<b>62.5</b>	68.363	69.591	73.275	76.550	78.596
<b>65.0</b>	60.994	62.222	65.497	69.181	70.409
<b>67.5</b>	53.626	54.854	58.129	61.404	62.632
<b>70.0</b>	46.257	47.485	50.351	53.626	54.854
<b>72.5</b>	39.708	40.117	42.982	46.257	47.485
<b>75.0</b>	32.339	33.158	35.614	39.298	40.117
<b>77.5</b>	25.380	26.199	29.064	32.339	33.567
<b>80.0</b>	18.830	19.649	22.924	25.789	27.018
<b>82.5</b>	12.690	13.509	16.784	20.058	21.287
<b>85.0</b>	6.550	8.187	11.871	15.146	16.374
<b>87.5</b>	2.047	4.094	7.778	10.643	11.871
<b>90.0</b>	0.000	1.637	4.503	6.959	8.187
<b>92.5</b>	5.731	104.386	6.550	6.550	6.959
<b>95.0</b>	11.871	133.860	259.942	258.713	132.222
<b>97.5</b>	17.193	151.462	276.725	356.140	380.702
<b>100.0</b>	22.105	160.877	289.006	363.509	388.070
<b>102.5</b>	27.836	165.380	298.421	372.105	395.439
<b>105.0</b>	33.567	171.111	307.427	380.292	403.626
<b>107.5</b>	39.298	203.450	309.064	387.661	410.994
<b>110.0</b>	44.620	195.673	308.655	393.801	417.544
<b>112.5</b>	49.942	187.895	308.655	391.754	419.591
<b>115.0</b>	55.673	185.848	308.655	388.480	415.088
<b>117.5</b>	60.585	182.982	309.064	384.795	410.175
<b>120.0</b>	65.906	180.526	331.170	381.111	405.263
<b>122.5</b>	70.819	178.480	336.082	377.018	399.532
<b>125.0</b>	75.322	176.433	311.930	373.743	394.211
<b>127.5</b>	79.825	174.386	303.743	397.076	389.298
<b>130.0</b>	83.509	171.520	294.737	388.480	415.088
<b>132.5</b>	86.784	168.655	284.912	362.281	399.123

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-OPEN-ITL85161.001.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	89.649	165.380	275.497	349.181	370.877
<b>137.5</b>	92.515	161.696	265.673	335.673	358.596
<b>140.0</b>	94.971	157.602	255.439	321.754	343.450
<b>142.5</b>	97.018	153.509	244.795	306.608	327.485
<b>145.0</b>	98.655	149.006	233.743	291.462	310.702
<b>147.5</b>	100.292	144.094	222.281	276.316	293.918
<b>150.0</b>	101.111	139.181	210.409	260.351	276.725
<b>152.5</b>	101.930	134.269	198.538	243.977	259.532
<b>155.0</b>	102.749	129.357	185.848	227.193	240.702
<b>157.5</b>	103.158	124.444	173.158	210.409	222.690
<b>160.0</b>	103.567	120.351	160.877	193.216	204.269
<b>162.5</b>	103.977	115.848	148.596	176.433	185.439
<b>165.0</b>	103.977	112.164	137.134	159.240	166.608
<b>167.5</b>	103.977	109.298	127.310	143.275	149.006
<b>170.0</b>	103.567	106.842	117.895	129.357	133.041
<b>172.5</b>	103.567	104.795	110.936	117.485	119.532
<b>175.0</b>	103.567	103.567	106.023	108.480	109.298
<b>177.5</b>	103.567	103.567	103.567	103.977	104.386
<b>180.0</b>	103.567	103.567	103.567	103.567	103.567

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-OPEN-ITL85161.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	62.18	N.A.	3.20
0-30	133.47	N.A.	6.80
0-40	221.19	N.A.	11.30
0-60	398.38	N.A.	20.30
0-80	501.65	N.A.	25.60
0-90	515.11	N.A.	26.30
10-90	499.15	N.A.	25.50
20-40	159.01	N.A.	8.10
20-50	251.58	N.A.	12.80
40-70	242.16	N.A.	12.40
60-80	103.27	N.A.	5.30
70-80	38.31	N.A.	2.00
80-90	13.46	N.A.	0.70
90-110	445.60	N.A.	22.80
90-120	723.69	N.A.	37.00
90-130	973.25	N.A.	49.70
90-150	1310.31	N.A.	66.90
90-180	1443.34	N.A.	73.70
110-180	997.74	N.A.	50.90
0-180	1958.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	15.96
10-20	46.22
20-30	71.29
30-40	87.72
40-50	92.57
50-60	84.63
60-70	64.96
70-80	38.31
80-90	13.46
90-100	159.81
100-110	285.79
110-120	278.10
120-130	249.56
130-140	198.68
140-150	138.38
150-160	83.21
160-170	39.30
170-180	10.53

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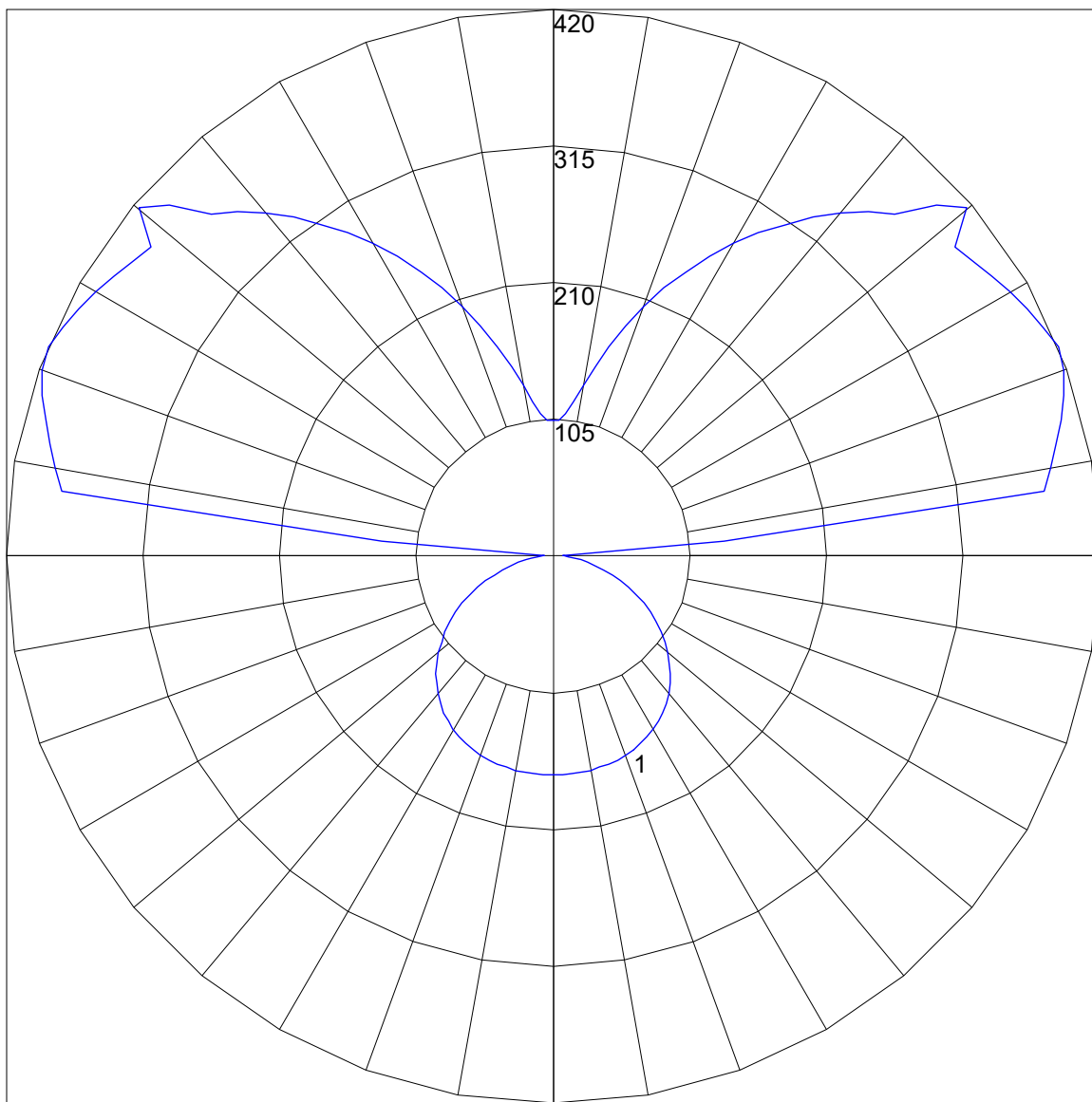
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	102	91	91	91	91	70	70	70	52	52	52	34	34	34	26
1	92	88	84	81	82	79	75	73	61	59	57	45	44	42	30	29	29	22
2	84	77	71	66	75	69	64	59	53	50	47	39	37	35	26	25	24	18
3	76	67	60	54	68	60	54	49	47	43	39	35	32	29	23	21	20	15
4	70	59	52	46	62	53	47	41	41	37	33	31	28	25	21	19	17	13
5	64	53	45	39	57	47	40	35	37	32	28	27	24	22	18	16	15	11
6	59	47	39	33	52	42	35	30	33	28	25	25	21	19	17	15	13	10
7	54	42	34	29	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	31	25	44	34	28	23	27	22	19	20	17	14	14	12	10	8
9	46	35	27	22	41	31	25	21	25	20	17	18	15	13	13	11	9	7
10	43	32	25	20	39	28	22	18	23	18	15	17	14	12	12	10	8	6

POLAR GRAPH



Maximum Candela = 419.591 Located At Horizontal Angle = 90, Vertical Angle = 112.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)