

# 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-3E-S-B-8-35-OPEN-ITL85163.013.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.013 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/11/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S12-LED-ID-DCO-4ft-3E-S-B-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 24.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 28.6 WATTS

[ABSOLUTE]LUMENS]3108

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85163. 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	3108
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	24.8
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	2970	2815	2773
55	2774	2572	2526
65	2511	2277	2219
75	2080	1834	1845
85	1230	1245	1430

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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	388.023	388.023	388.023	388.023	388.023
2.5	387.509	387.509	387.509	387.509	387.509
5.0	385.965	385.965	385.965	385.965	385.965
7.5	383.392	383.392	383.392	383.392	383.906
10.0	379.275	378.760	379.789	379.789	379.789
12.5	375.158	374.129	375.673	375.673	375.158
15.0	369.497	367.439	369.497	370.012	369.497
17.5	362.807	360.748	362.807	363.322	362.807
20.0	355.088	352.515	355.088	355.602	355.602
22.5	345.825	343.252	346.339	346.854	346.339
25.0	336.047	333.988	336.561	337.591	337.076
27.5	326.269	323.696	326.784	327.298	327.298
30.0	314.947	312.889	315.462	315.977	315.462
32.5	303.626	301.567	304.140	305.170	304.140
35.0	291.789	289.731	292.304	292.819	292.304
37.5	278.409	276.865	279.439	279.953	279.439
40.0	265.544	264.000	266.058	267.088	266.573
42.5	252.678	251.135	252.678	254.222	253.193
45.0	238.784	237.754	239.298	240.327	239.813
47.5	224.889	223.860	225.404	225.918	225.404
50.0	209.965	209.450	211.509	212.023	211.509
52.5	196.070	195.556	196.585	197.614	197.614
55.0	181.661	181.146	182.175	183.205	183.205
57.5	166.737	166.737	168.281	168.795	168.795
60.0	152.327	151.813	153.357	154.386	154.386
62.5	136.889	137.404	138.433	139.462	139.977
65.0	121.965	122.480	124.023	124.538	125.053
67.5	107.041	107.556	109.099	110.129	110.129
70.0	92.117	93.146	95.205	95.719	96.749
72.5	77.193	78.737	80.795	82.339	83.883
75.0	62.784	64.842	66.901	69.474	71.017
77.5	48.889	50.947	54.550	57.123	58.152
80.0	35.509	38.082	42.199	45.286	46.316
82.5	23.672	26.246	30.877	34.994	36.538
85.0	13.380	16.468	21.614	26.246	27.790
87.5	4.632	8.234	14.409	18.526	20.070
90.0	0.000	3.088	8.234	12.351	13.895
92.5	10.643	143.275	280.819	322.573	285.322
95.0	22.105	169.474	322.573	417.953	446.199
97.5	34.795	182.573	340.585	436.374	468.304
100.0	48.304	196.901	349.591	444.561	476.491
102.5	61.813	198.947	353.275	446.608	478.538
105.0	75.731	204.269	354.503	444.971	475.673
107.5	90.058	210.819	358.596	441.287	470.760
110.0	105.205	217.778	354.503	438.830	465.848
112.5	119.123	226.374	352.865	440.058	464.211
115.0	133.041	235.380	352.865	433.099	462.573
117.5	147.368	245.205	353.275	428.596	453.977
120.0	161.286	256.257	355.322	426.140	449.883
122.5	175.205	267.310	357.778	423.684	446.199
125.0	188.304	278.363	360.234	422.047	442.924
127.5	202.632	289.006	363.509	421.228	440.468
130.0	214.912	298.830	366.784	420.000	438.012
132.5	227.602	307.017	370.877	419.181	435.965

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-S-B-8-35-OPEN-ITL85163.013.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	239.474	313.158	374.971	418.772	434.327
<b>137.5</b>	250.936	318.070	379.474	418.363	432.281
<b>140.0</b>	262.398	322.573	384.795	418.363	430.643
<b>142.5</b>	273.041	326.257	388.889	418.772	429.415
<b>145.0</b>	282.865	328.713	392.983	419.591	428.187
<b>147.5</b>	292.281	330.351	395.029	420.819	428.187
<b>150.0</b>	300.877	331.988	394.211	421.637	428.187
<b>152.5</b>	309.064	333.216	391.345	421.228	427.778
<b>155.0</b>	316.433	335.263	387.661	417.135	425.731
<b>157.5</b>	322.983	337.719	381.930	410.585	420.000
<b>160.0</b>	328.713	339.766	375.380	402.398	411.404
<b>162.5</b>	334.035	342.222	368.421	392.164	401.170
<b>165.0</b>	338.129	343.860	361.871	380.292	388.479
<b>167.5</b>	341.813	345.906	357.368	368.830	375.380
<b>170.0</b>	344.678	347.135	354.094	360.643	364.737
<b>172.5</b>	346.725	348.363	352.047	355.731	357.778
<b>175.0</b>	348.363	349.591	350.819	352.456	353.275
<b>177.5</b>	349.591	350.000	350.000	350.819	350.819
<b>180.0</b>	350.000	350.000	350.000	350.000	350.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-S-B-8-35-OPEN-ITL85163.013.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	140.72	N.A.	4.50
0-30	295.56	N.A.	9.50
0-40	477.85	N.A.	15.40
0-60	825.22	N.A.	26.60
0-80	1018.79	N.A.	32.80
0-90	1043.24	N.A.	33.60
10-90	1006.6	N.A.	32.40
20-40	337.13	N.A.	10.80
20-50	521.51	N.A.	16.80
40-70	469.79	N.A.	15.10
60-80	193.57	N.A.	6.20
70-80	71.15	N.A.	2.30
80-90	24.45	N.A.	0.80
90-110	603.24	N.A.	19.40
90-120	930.60	N.A.	29.90
90-130	1239.34	N.A.	39.90
90-150	1753.28	N.A.	56.40
90-180	2064.38	N.A.	66.40
110-180	1461.14	N.A.	47.00
0-180	3107.62	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	36.64
10-20	104.08
20-30	154.84
30-40	182.29
40-50	184.39
50-60	162.98
60-70	122.42
70-80	71.15
80-90	24.45
90-100	265.11
100-110	338.13
110-120	327.36
120-130	308.74
130-140	279.24
140-150	234.69
150-160	174.44
160-170	103.07
170-180	33.60

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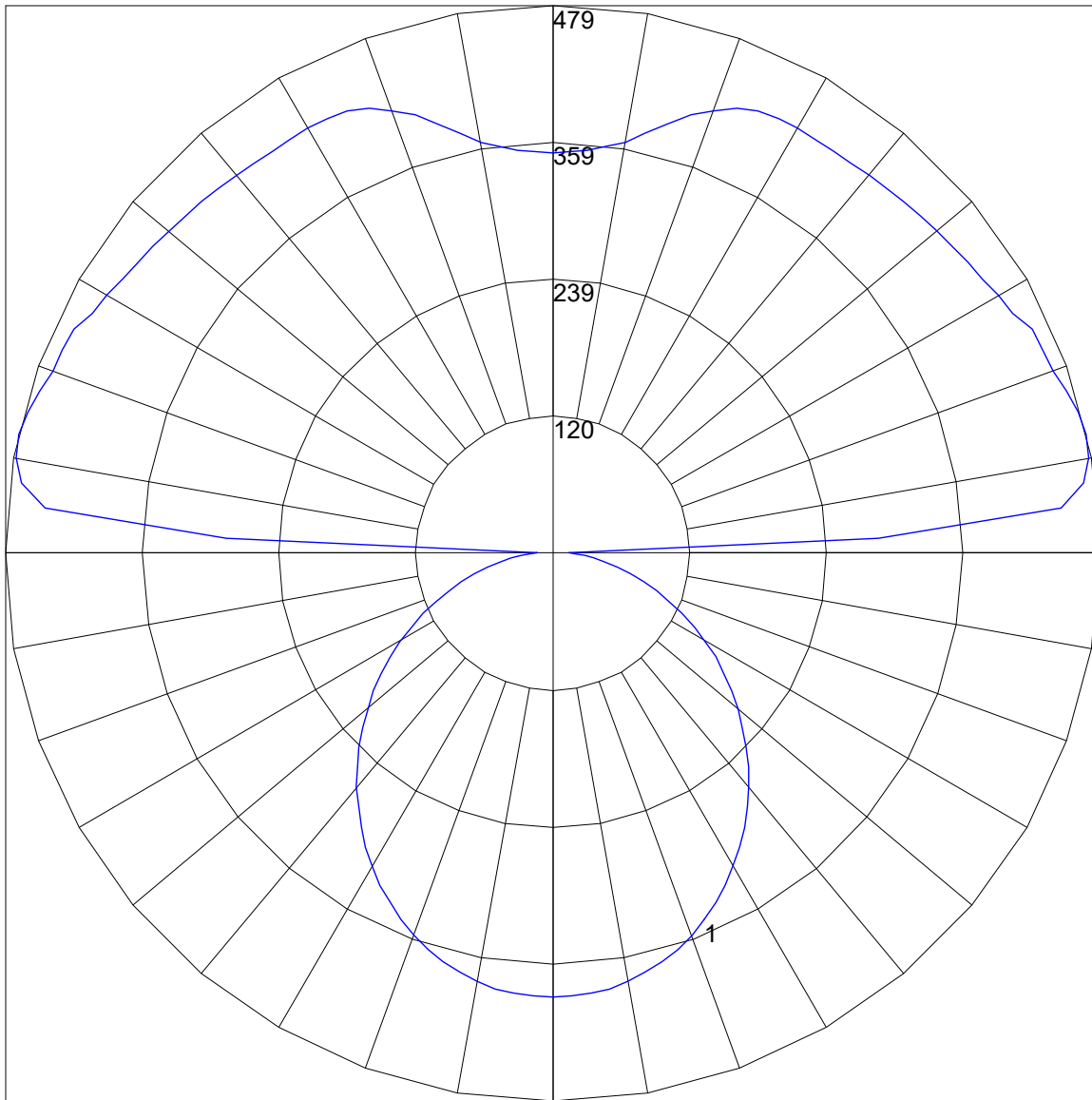
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	94	90	86	82	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	32	30	29	23
3	78	69	62	56	70	62	56	51	50	45	42	39	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	43	36	30	50	40	33	28	32	27	23	25	21	19	19	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	28	24	43	33	26	22	27	22	18	21	17	15	16	13	11	9
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	15	12	10	8

POLAR GRAPH



Maximum Candela = 478.538 Located At Horizontal Angle = 90, Vertical Angle = 102.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)