

# 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-H-B-8-35-OPEN-ITL85163.008.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.008 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-H-B-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 38.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 42.1 WATTS

[ABSOLUTE]LUMENS]4965

[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	4965
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	38.5
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	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	20.222	272.222	533.556	612.889	542.111
95.0	42.000	322.000	612.889	794.111	847.778
97.5	66.111	346.889	647.111	829.111	889.778
100.0	91.778	374.111	664.222	844.667	905.333
102.5	117.444	378.000	671.222	848.556	909.222
105.0	143.889	388.111	673.556	845.444	903.778
107.5	171.111	400.555	681.333	838.444	894.444
110.0	199.889	413.778	673.556	833.778	885.111
112.5	226.333	430.111	670.444	836.111	882.000
115.0	252.778	447.222	670.444	822.889	878.889
117.5	280.000	465.889	671.222	814.333	862.556
120.0	306.445	486.889	675.111	809.667	854.778
122.5	332.889	507.889	679.778	805.000	847.778
125.0	357.778	528.889	684.444	801.889	841.556
127.5	385.000	549.111	690.667	800.333	836.889
130.0	408.333	567.778	696.889	798.000	832.222
132.5	432.445	583.333	704.667	796.444	828.333

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-H-B-8-35-OPEN-ITL85163.008.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	455.000	595.000	712.444	795.667	825.222
<b>137.5</b>	476.778	604.333	721.000	794.889	821.333
<b>140.0</b>	498.555	612.889	731.111	794.889	818.222
<b>142.5</b>	518.778	619.889	738.889	795.667	815.889
<b>145.0</b>	537.444	624.556	746.667	797.222	813.556
<b>147.5</b>	555.333	627.667	750.556	799.556	813.556
<b>150.0</b>	571.667	630.778	749.000	801.111	813.556
<b>152.5</b>	587.222	633.111	743.556	800.333	812.778
<b>155.0</b>	601.222	637.000	736.556	792.556	808.889
<b>157.5</b>	613.667	641.667	725.667	780.111	798.000
<b>160.0</b>	624.556	645.556	713.222	764.556	781.667
<b>162.5</b>	634.667	650.222	700.000	745.111	762.222
<b>165.0</b>	642.444	653.333	687.556	722.556	738.111
<b>167.5</b>	649.444	657.222	679.000	700.778	713.222
<b>170.0</b>	654.889	659.556	672.778	685.222	693.000
<b>172.5</b>	658.778	661.889	668.889	675.889	679.778
<b>175.0</b>	661.889	664.222	666.556	669.667	671.222
<b>177.5</b>	664.222	665.000	665.000	666.556	666.556
<b>180.0</b>	665.000	665.000	665.000	665.000	665.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-H-B-8-35-OPEN-ITL85163.008.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	140.72	N.A.	2.80
0-30	295.56	N.A.	6.00
0-40	477.85	N.A.	9.60
0-60	825.22	N.A.	16.60
0-80	1018.79	N.A.	20.50
0-90	1043.24	N.A.	21.00
10-90	1006.6	N.A.	20.30
20-40	337.13	N.A.	6.80
20-50	521.51	N.A.	10.50
40-70	469.79	N.A.	9.50
60-80	193.57	N.A.	3.90
70-80	71.15	N.A.	1.40
80-90	24.45	N.A.	0.50
90-110	1145.21	N.A.	23.10
90-120	1767.2	N.A.	35.60
90-130	2353.81	N.A.	47.40
90-150	3330.28	N.A.	67.10
90-180	3921.38	N.A.	79.00
110-180	2776.17	N.A.	55.90
0-180	4964.62	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	502.76
100-110	642.45
110-120	621.99
120-130	586.60
130-140	530.56
140-150	445.91
150-160	331.44
160-170	195.83
170-180	63.83

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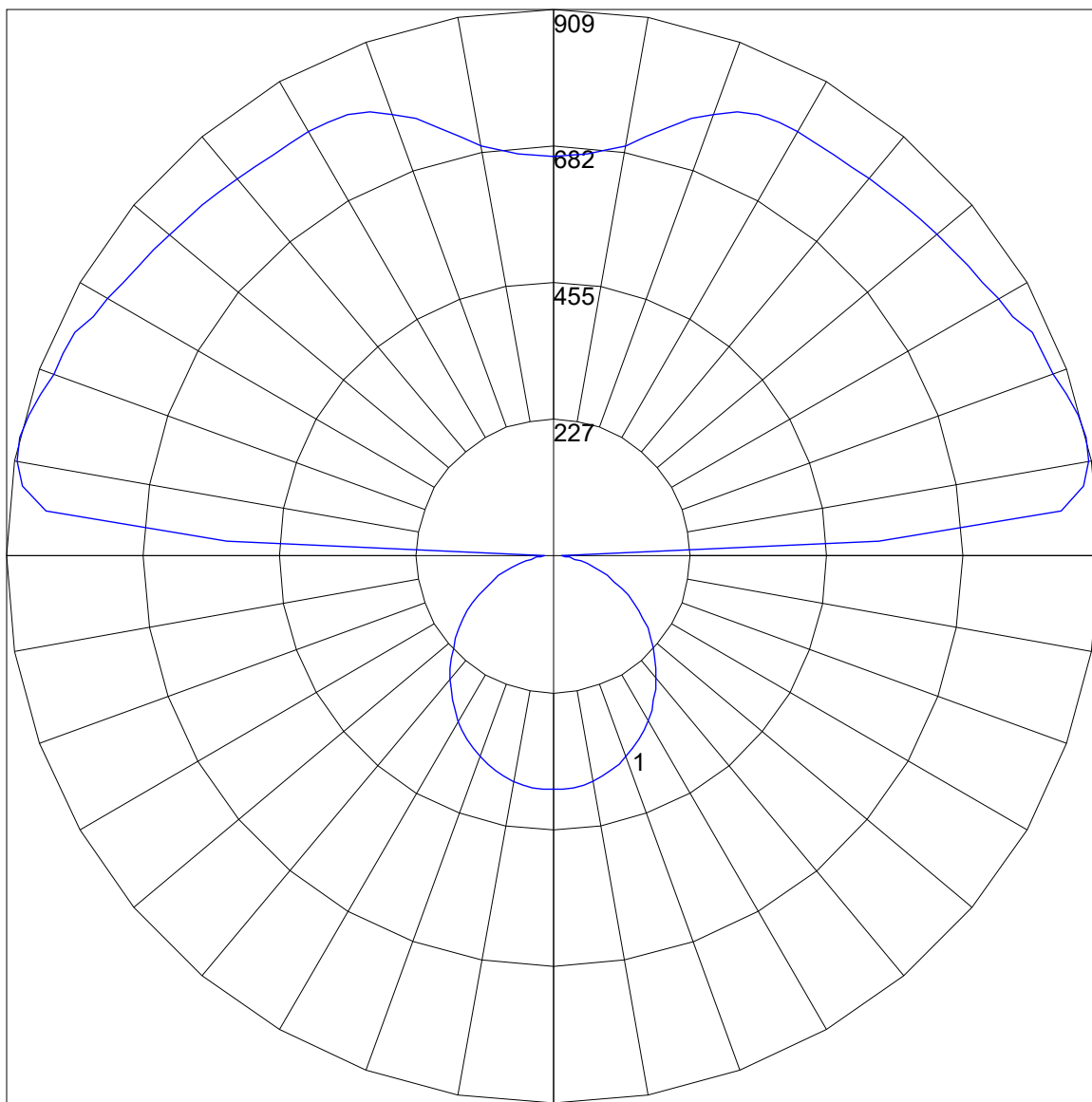
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	89	89	89	89	67	67	67	48	48	48	29	29	29	21
1	91	87	83	80	81	77	74	71	59	57	55	42	40	39	26	25	25	18
2	83	76	70	65	73	67	62	58	51	48	45	36	34	33	23	22	21	15
3	76	67	60	54	67	59	53	49	45	41	38	32	30	28	20	19	18	12
4	69	59	51	46	61	52	46	41	40	36	32	29	26	23	18	16	15	11
5	63	52	44	39	56	46	40	35	36	31	28	26	23	20	16	14	13	9
6	58	47	39	33	51	42	35	30	32	27	24	23	20	18	15	13	11	8
7	54	42	34	29	47	37	31	26	29	24	21	21	18	15	13	11	10	7
8	50	38	30	25	44	34	27	23	26	22	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	9	7	5

POLAR GRAPH



Maximum Candela = 909.222 Located At Horizontal Angle = 90, Vertical Angle = 102.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)