

# 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-H-8-35-OPEN-ITL85163.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.003 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-H-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 43.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 47.2 WATTS

[ABSOLUTE]LUMENS]5499

[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	5499
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	43.8
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	4488	4254	4191
55	4193	3888	3818
65	3795	3441	3353
75	3144	2772	2789
85	1860	1881	2161

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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	586.444	586.444	586.444	586.444	586.444
2.5	585.667	585.667	585.667	585.667	585.667
5.0	583.333	583.333	583.333	583.333	583.333
7.5	579.444	579.444	579.444	579.444	580.222
10.0	573.222	572.444	574.000	574.000	574.000
12.5	567.000	565.444	567.778	567.778	567.000
15.0	558.444	555.333	558.444	559.222	558.444
17.5	548.333	545.222	548.333	549.111	548.333
20.0	536.667	532.778	536.667	537.444	537.444
22.5	522.667	518.778	523.444	524.222	523.444
25.0	507.889	504.778	508.667	510.222	509.444
27.5	493.111	489.222	493.889	494.667	494.667
30.0	476.000	472.889	476.778	477.556	476.778
32.5	458.889	455.778	459.667	461.222	459.667
35.0	441.000	437.889	441.778	442.556	441.778
37.5	420.778	418.444	422.333	423.111	422.333
40.0	401.333	399.000	402.111	403.667	402.889
42.5	381.889	379.556	381.889	384.222	382.667
45.0	360.889	359.333	361.667	363.222	362.444
47.5	339.889	338.333	340.667	341.444	340.667
50.0	317.333	316.556	319.667	320.444	319.667
52.5	296.333	295.556	297.111	298.667	298.667
55.0	274.556	273.778	275.333	276.889	276.889
57.5	252.000	252.000	254.333	255.111	255.111
60.0	230.222	229.444	231.778	233.333	233.333
62.5	206.889	207.667	209.222	210.778	211.556
65.0	184.333	185.111	187.444	188.222	189.000
67.5	161.778	162.556	164.889	166.444	166.444
70.0	139.222	140.778	143.889	144.667	146.222
72.5	116.667	119.000	122.111	124.444	126.778
75.0	94.889	98.000	101.111	105.000	107.333
77.5	73.889	77.000	82.444	86.333	87.889
80.0	53.667	57.556	63.778	68.444	70.000
82.5	35.778	39.667	46.667	52.889	55.222
85.0	20.222	24.889	32.667	39.667	42.000
87.5	7.000	12.444	21.778	28.000	30.333
90.0	0.000	4.667	12.444	18.667	21.000
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	400.556	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	306.444	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	432.444	583.333	704.667	796.444	828.333

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-H-H-8-35-OPEN-ITL85163.003.IES****CANDELA TABULATION - (Cont.)**

135.0	455.000	595.000	712.444	795.667	825.222
137.5	476.778	604.333	721.000	794.889	821.333
140.0	498.556	612.889	731.111	794.889	818.222
142.5	518.778	619.889	738.889	795.667	815.889
145.0	537.444	624.556	746.667	797.222	813.556
147.5	555.333	627.667	750.556	799.556	813.556
150.0	571.667	630.778	749.000	801.111	813.556
152.5	587.222	633.111	743.556	800.333	812.778
155.0	601.222	637.000	736.556	792.556	808.889
157.5	613.667	641.667	725.667	780.111	798.000
160.0	624.556	645.556	713.222	764.556	781.667
162.5	634.667	650.222	700.000	745.111	762.222
165.0	642.444	653.333	687.556	722.556	738.111
167.5	649.444	657.222	679.000	700.778	713.222
170.0	654.889	659.556	672.778	685.222	693.000
172.5	658.778	661.889	668.889	675.889	679.778
175.0	661.889	664.222	666.556	669.667	671.222
177.5	664.222	665.000	665.000	666.556	666.556
180.0	665.000	665.000	665.000	665.000	665.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-H-H-8-35-OPEN-ITL85163.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	212.68	N.A.	3.90
0-30	446.70	N.A.	8.10
0-40	722.20	N.A.	13.10
0-60	1247.2	N.A.	22.70
0-80	1539.76	N.A.	28.00
0-90	1576.71	N.A.	28.70
10-90	1521.33	N.A.	27.70
20-40	509.52	N.A.	9.30
20-50	788.20	N.A.	14.30
40-70	710.03	N.A.	12.90
60-80	292.56	N.A.	5.30
70-80	107.53	N.A.	2.00
80-90	36.95	N.A.	0.70
90-110	1145.75	N.A.	20.80
90-120	1767.74	N.A.	32.10
90-130	2354.34	N.A.	42.80
90-150	3330.81	N.A.	60.60
90-180	3921.92	N.A.	71.30
110-180	2776.17	N.A.	50.50
0-180	5498.63	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	55.38
10-20	157.30
20-30	234.02
30-40	275.50
40-50	278.68
50-60	246.33
60-70	185.03
70-80	107.53
80-90	36.95
90-100	503.30
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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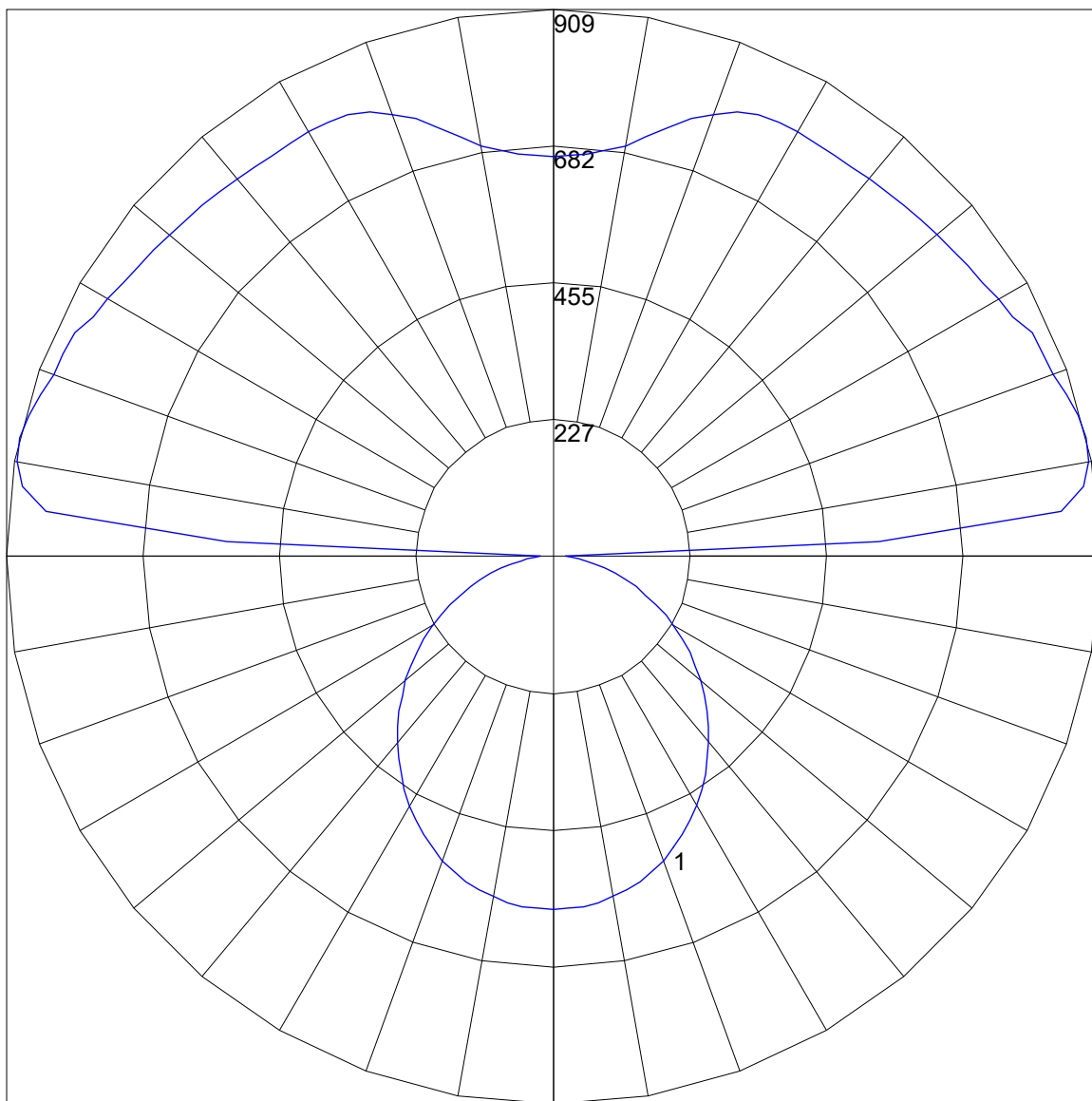
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	37	37	37	29
1	93	89	85	81	83	80	76	73	62	60	58	47	45	44	32	31	31	24
2	85	77	71	66	75	69	64	60	55	51	48	41	39	37	28	27	26	20
3	77	68	61	55	69	61	55	50	48	44	40	36	33	31	25	23	22	17
4	70	60	52	46	63	54	47	42	43	38	34	32	29	26	22	20	19	14
5	64	53	45	40	57	48	41	36	38	33	29	29	25	23	20	18	16	13
6	59	48	40	34	53	43	36	31	34	29	25	26	22	20	18	16	14	11
7	55	43	35	30	49	39	32	27	31	26	22	23	20	17	16	14	13	10
8	51	39	31	26	45	35	28	24	28	23	20	21	18	15	15	13	11	9
9	47	35	28	23	42	32	26	21	26	21	17	20	16	14	14	12	10	8
10	44	32	25	21	39	29	23	19	23	19	16	18	15	12	13	11	9	7

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.)