

# 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-V-8-35-OPEN-ITL85163.015.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.015 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-V-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 34.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 38.0 WATTS

[ABSOLUTE]LUMENS]4093

[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	4093
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	34.8
Ballast Factor	1.00
CIE Type	General Diffuse
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	5771	5469	5388
55	5391	4998	4909
65	4880	4424	4311
75	4042	3564	3586
85	2391	2418	2778

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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	754.000	754.000	754.000	754.000	754.000
2.5	753.000	753.000	753.000	753.000	753.000
5.0	750.000	750.000	750.000	750.000	750.000
7.5	745.000	745.000	745.000	745.000	746.000
10.0	737.000	736.000	738.000	738.000	738.000
12.5	729.000	727.000	730.000	730.000	729.000
15.0	718.000	714.000	718.000	719.000	718.000
17.5	705.000	701.000	705.000	706.000	705.000
20.0	690.000	685.000	690.000	691.000	691.000
22.5	672.000	667.000	673.000	674.000	673.000
25.0	653.000	649.000	654.000	656.000	655.000
27.5	634.000	629.000	635.000	636.000	636.000
30.0	612.000	608.000	613.000	614.000	613.000
32.5	590.000	586.000	591.000	593.000	591.000
35.0	567.000	563.000	568.000	569.000	568.000
37.5	541.000	538.000	543.000	544.000	543.000
40.0	516.000	513.000	517.000	519.000	518.000
42.5	491.000	488.000	491.000	494.000	492.000
45.0	464.000	462.000	465.000	467.000	466.000
47.5	437.000	435.000	438.000	439.000	438.000
50.0	408.000	407.000	411.000	412.000	411.000
52.5	381.000	380.000	382.000	384.000	384.000
55.0	353.000	352.000	354.000	356.000	356.000
57.5	324.000	324.000	327.000	328.000	328.000
60.0	296.000	295.000	298.000	300.000	300.000
62.5	266.000	267.000	269.000	271.000	272.000
65.0	237.000	238.000	241.000	242.000	243.000
67.5	208.000	209.000	212.000	214.000	214.000
70.0	179.000	181.000	185.000	186.000	188.000
72.5	150.000	153.000	157.000	160.000	163.000
75.0	122.000	126.000	130.000	135.000	138.000
77.5	95.000	99.000	106.000	111.000	113.000
80.0	69.000	74.000	82.000	88.000	90.000
82.5	46.000	51.000	60.000	68.000	71.000
85.0	26.000	32.000	42.000	51.000	54.000
87.5	9.000	16.000	28.000	36.000	39.000
90.0	0.000	6.000	16.000	24.000	27.000
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-V-8-35-OPEN-ITL85163.015.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-V-8-35-OPEN-ITL85163.015.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	273.44	N.A.	6.70
0-30	574.32	N.A.	14.00
0-40	928.54	N.A.	22.70
0-60	1603.55	N.A.	39.20
0-80	1979.69	N.A.	48.40
0-90	2027.2	N.A.	49.50
10-90	1956.00	N.A.	47.80
20-40	655.10	N.A.	16.00
20-50	1013.4	N.A.	24.80
40-70	912.90	N.A.	22.30
60-80	376.15	N.A.	9.20
70-80	138.25	N.A.	3.40
80-90	47.51	N.A.	1.20
90-110	604.23	N.A.	14.80
90-120	931.59	N.A.	22.80
90-130	1240.33	N.A.	30.30
90-150	1754.26	N.A.	42.90
90-180	2065.37	N.A.	50.50
110-180	1461.14	N.A.	35.70
0-180	4092.57	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	71.20
10-20	202.24
20-30	300.88
30-40	354.22
40-50	358.30
50-60	316.71
60-70	237.89
70-80	138.25
80-90	47.51
90-100	266.10
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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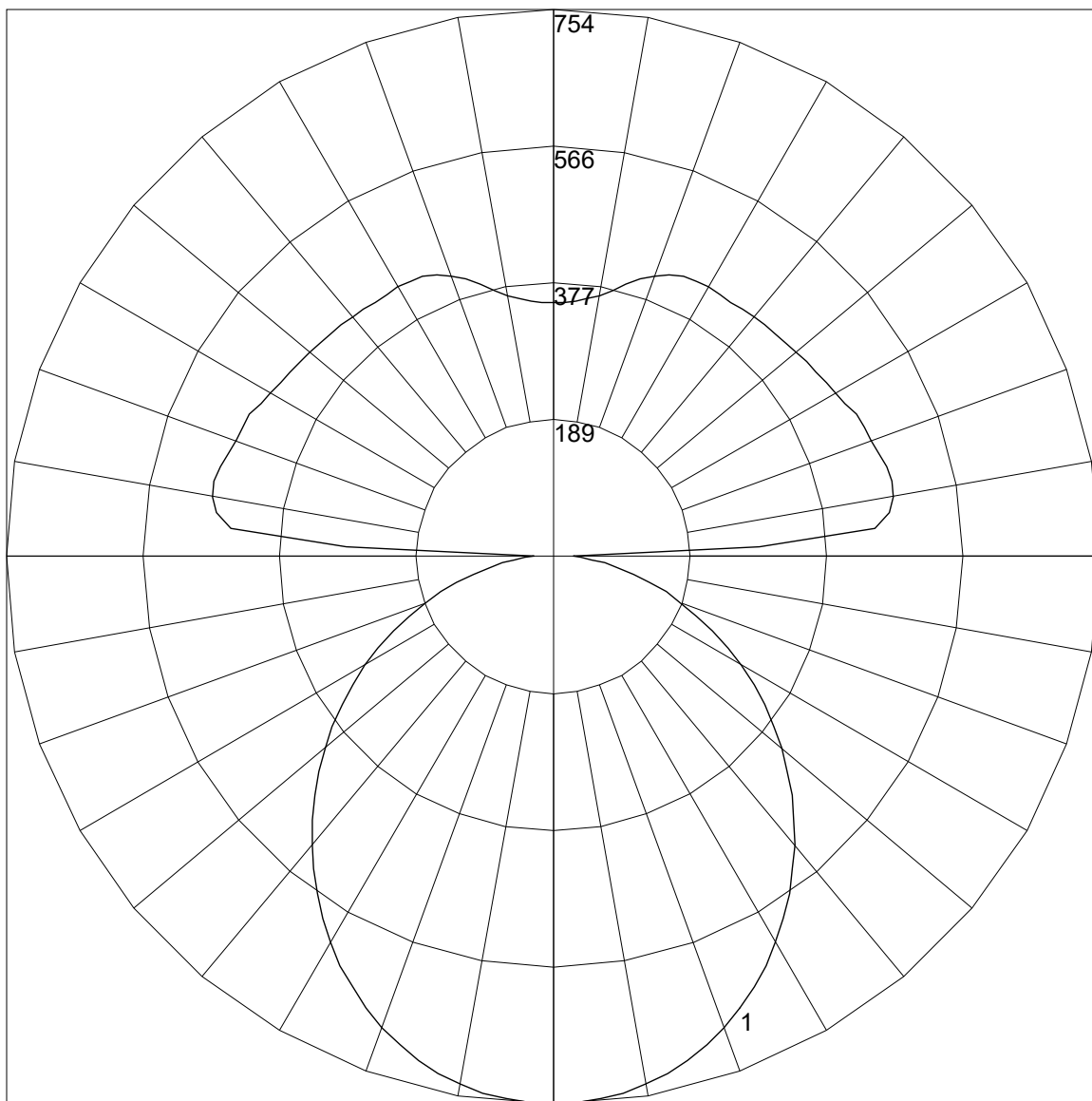
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	98	93	89	86	90	86	83	80	73	70	68	60	59	57	49	48	47	41
2	89	81	75	70	81	75	70	65	63	60	56	53	50	47	43	41	39	35
3	81	71	64	58	74	66	59	54	56	51	47	47	43	40	38	35	33	29
4	74	63	55	49	68	58	51	46	50	44	40	42	37	34	34	31	29	25
5	68	56	48	42	62	52	45	39	44	39	34	37	33	30	31	27	25	22
6	62	50	42	36	57	47	39	34	40	34	30	34	29	26	28	24	22	19
7	58	45	37	32	53	42	35	30	36	31	26	31	26	23	25	22	19	17
8	54	41	33	28	49	38	31	27	33	27	23	28	24	20	23	20	17	15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	14
10	47	34	27	22	43	32	26	21	28	23	19	24	20	17	20	17	14	12

POLAR GRAPH



Maximum Candela = 754 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)