

# 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-V-8-35-FTO-ITL85165.009.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85165.009 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/09/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S12-LED-ID-DCO-4ft-3E-H-V-8-35-FTO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 48.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 51.4 WATTS

[ABSOLUTE]LUMENS]5645

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85165. 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	5645
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	48.5
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	5733	5481	5400
55	5375	5012	4936
65	4880	4461	4311
75	4075	3591	3612
85	2391	2591	2932

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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	749.000	749.000	749.000	749.000	749.000
2.5	748.000	748.000	748.000	748.000	748.000
5.0	744.000	745.000	745.000	745.000	745.000
7.5	740.000	740.000	740.000	740.000	741.000
10.0	733.000	732.000	734.000	734.000	733.000
12.5	724.000	722.000	725.000	725.000	724.000
15.0	713.000	709.000	714.000	714.000	713.000
17.5	700.000	696.000	702.000	702.000	701.000
20.0	685.000	680.000	686.000	687.000	686.000
22.5	668.000	663.000	670.000	671.000	671.000
25.0	649.000	645.000	651.000	653.000	654.000
27.5	629.000	626.000	631.000	635.000	635.000
30.0	608.000	605.000	610.000	615.000	614.000
32.5	585.000	583.000	590.000	592.000	591.000
35.0	561.000	560.000	567.000	570.000	568.000
37.5	538.000	536.000	543.000	545.000	544.000
40.0	513.000	512.000	518.000	520.000	519.000
42.5	488.000	486.000	492.000	494.000	493.000
45.0	461.000	460.000	466.000	467.000	467.000
47.5	434.000	433.000	438.000	441.000	440.000
50.0	407.000	407.000	411.000	413.000	413.000
52.5	380.000	381.000	383.000	386.000	386.000
55.0	352.000	353.000	355.000	358.000	358.000
57.5	324.000	325.000	327.000	330.000	329.000
60.0	295.000	296.000	299.000	302.000	301.000
62.5	266.000	268.000	271.000	273.000	272.000
65.0	237.000	239.000	243.000	244.000	243.000
67.5	208.000	210.000	214.000	216.000	215.000
70.0	179.000	182.000	186.000	188.000	189.000
72.5	150.000	154.000	157.000	163.000	164.000
75.0	123.000	127.000	131.000	138.000	139.000
77.5	96.000	100.000	106.000	113.000	115.000
80.0	70.000	75.000	83.000	91.000	93.000
82.5	47.000	52.000	62.000	72.000	74.000
85.0	26.000	32.000	45.000	55.000	57.000
87.5	8.000	17.000	30.000	40.000	43.000
90.0	0.000	9.000	23.000	34.000	38.000
92.5	25.667	30.333	42.000	51.333	53.667
95.0	53.667	60.667	73.889	84.000	88.667
97.5	84.778	94.889	112.000	123.667	129.111
100.0	119.000	132.222	155.556	171.111	178.111
102.5	157.111	174.222	203.778	225.556	234.889
105.0	197.556	218.556	256.667	284.667	295.555
107.5	239.556	265.222	311.889	346.889	357.000
110.0	283.889	314.222	370.222	411.445	423.889
112.5	326.667	364.000	429.333	475.222	491.555
115.0	373.333	413.778	489.222	541.333	559.222
117.5	420.000	464.333	546.778	606.667	625.333
120.0	465.889	514.889	605.111	670.444	690.667
122.5	511.778	563.889	659.556	731.111	753.667
125.0	557.667	611.333	713.222	787.889	812.000
127.5	602.000	658.000	763.778	840.778	865.667
130.0	645.556	701.556	809.667	888.222	913.111
132.5	688.333	743.556	851.667	930.222	955.111

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-H-V-8-35-FTO-ITL85165.009.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	728.000	781.667	889.000	967.556	991.667
<b>137.5</b>	766.889	818.222	922.444	997.889	1022.000
<b>140.0</b>	803.444	850.889	951.222	1023.556	1046.111
<b>142.5</b>	836.889	878.889	974.556	1042.222	1064.000
<b>145.0</b>	869.556	906.889	995.556	1059.333	1078.778
<b>147.5</b>	896.778	930.222	1011.111	1069.445	1088.111
<b>150.0</b>	924.000	952.000	1025.111	1078.000	1093.555
<b>152.5</b>	948.111	970.667	1036.000	1083.445	1096.667
<b>155.0</b>	968.333	987.778	1043.778	1085.778	1098.222
<b>157.5</b>	987.000	1001.778	1050.000	1085.000	1096.667
<b>160.0</b>	1002.556	1015.000	1054.667	1082.667	1093.555
<b>162.5</b>	1016.556	1025.111	1057.778	1079.555	1089.667
<b>165.0</b>	1028.222	1034.445	1059.333	1076.445	1083.445
<b>167.5</b>	1037.555	1042.222	1060.111	1071.778	1078.000
<b>170.0</b>	1045.333	1048.445	1059.333	1067.889	1072.555
<b>172.5</b>	1050.778	1053.889	1059.333	1064.778	1067.889
<b>175.0</b>	1055.445	1057.000	1059.333	1061.667	1062.445
<b>177.5</b>	1058.555	1058.555	1058.555	1060.111	1060.111
<b>180.0</b>	1059.333	1059.333	1059.333	1059.333	1059.333

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-H-V-8-35-FTO-ITL85165.009.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	271.70	N.A.	4.80
0-30	571.20	N.A.	10.10
0-40	924.71	N.A.	16.40
0-60	1600.39	N.A.	28.40
0-80	1979.14	N.A.	35.10
0-90	2029.53	N.A.	36.00
10-90	1958.79	N.A.	34.70
20-40	653.01	N.A.	11.60
20-50	1011.13	N.A.	17.90
40-70	914.80	N.A.	16.20
60-80	378.75	N.A.	6.70
70-80	139.63	N.A.	2.50
80-90	50.39	N.A.	0.90
90-110	351.58	N.A.	6.20
90-120	823.98	N.A.	14.60
90-130	1447.71	N.A.	25.60
90-150	2736.24	N.A.	48.50
90-180	3615.48	N.A.	64.00
110-180	3263.9	N.A.	57.80
0-180	5645.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	70.74
10-20	200.96
20-30	299.50
30-40	353.51
40-50	358.12
50-60	317.56
60-70	239.12
70-80	139.63
80-90	50.39
90-100	84.16
100-110	267.42
110-120	472.39
120-130	623.73
130-140	673.36
140-150	615.16
150-160	479.01
160-170	299.13
170-180	101.10

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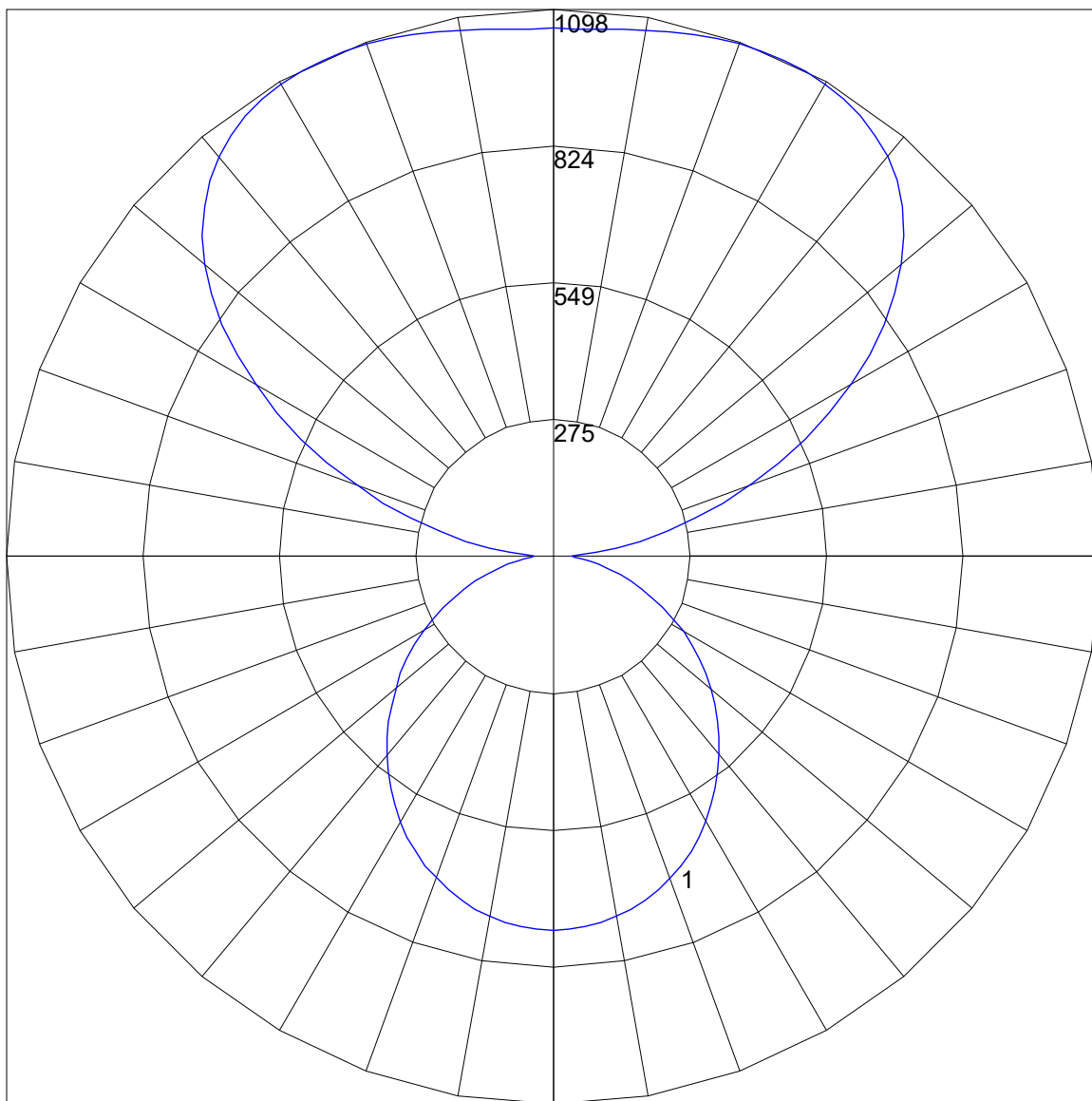
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36
1	95	90	86	83	85	82	78	76	66	64	62	51	50	48	38	37	36	30
2	86	79	73	68	78	71	66	62	58	54	51	45	43	40	33	32	30	25
3	78	69	62	56	71	63	56	51	51	46	43	40	37	34	29	27	26	21
4	72	61	53	47	64	55	49	44	45	40	36	35	32	29	26	24	22	18
5	66	54	46	40	59	49	42	37	40	35	31	32	28	25	24	21	19	16
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	19	17	14
7	56	44	36	30	50	40	33	28	33	27	24	26	22	19	19	17	15	12
8	52	40	32	27	47	36	29	25	30	25	21	24	20	17	18	15	13	11
9	48	36	29	24	43	33	26	22	27	22	19	22	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	13	11	9

POLAR GRAPH



Maximum Candela = 1098.222 Located At Horizontal Angle = 90, Vertical Angle = 155  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)