

# 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-FTO-ITL8516.003.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85165.003 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/09/15

[ISSUEDATE]04/21/16

[MANUFAC]FINELITE, INC.

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

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 43.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 47.1 WATTS

[ABSOLUTE]LUMENS]5193

[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	5193
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
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	4459	4263	4200
55	4181	3899	3839
65	3795	3469	3353
75	3170	2793	2809
85	1860	2015	2281

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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	582.556	582.556	582.556	582.556	582.556
2.5	581.778	581.778	581.778	581.778	581.778
5.0	578.667	579.444	579.444	579.444	579.444
7.5	575.556	575.556	575.556	575.556	576.333
10.0	570.111	569.333	570.889	570.889	570.111
12.5	563.111	561.556	563.889	563.889	563.111
15.0	554.556	551.444	555.333	555.333	554.556
17.5	544.444	541.333	546.000	546.000	545.222
20.0	532.778	528.889	533.556	534.333	533.556
22.5	519.556	515.667	521.111	521.889	521.889
25.0	504.778	501.667	506.333	507.889	508.667
27.5	489.222	486.889	490.778	493.889	493.889
30.0	472.889	470.556	474.444	478.333	477.556
32.5	455.000	453.444	458.889	460.444	459.667
35.0	436.333	435.556	441.000	443.333	441.778
37.5	418.444	416.889	422.333	423.889	423.111
40.0	399.000	398.222	402.889	404.444	403.667
42.5	379.556	378.000	382.667	384.222	383.444
45.0	358.556	357.778	362.444	363.222	363.222
47.5	337.556	336.778	340.667	343.000	342.222
50.0	316.556	316.556	319.667	321.222	321.222
52.5	295.556	296.333	297.889	300.222	300.222
55.0	273.778	274.556	276.111	278.444	278.444
57.5	252.000	252.778	254.333	256.667	255.889
60.0	229.444	230.222	232.556	234.889	234.111
62.5	206.889	208.444	210.778	212.333	211.556
65.0	184.333	185.889	189.000	189.778	189.000
67.5	161.778	163.333	166.444	168.000	167.222
70.0	139.222	141.556	144.667	146.222	147.000
72.5	116.667	119.778	122.111	126.778	127.556
75.0	95.667	98.778	101.889	107.333	108.111
77.5	74.667	77.778	82.444	87.889	89.444
80.0	54.444	58.333	64.556	70.778	72.333
82.5	36.556	40.444	48.222	56.000	57.556
85.0	20.222	24.889	35.000	42.778	44.333
87.5	6.222	13.222	23.333	31.111	33.444
90.0	0.000	7.000	17.889	26.444	29.556
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	295.556
107.5	239.556	265.222	311.889	346.889	357.000
110.0	283.889	314.222	370.222	411.444	423.889
112.5	326.667	364.000	429.333	475.222	491.556
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-H-8-35-FTO-ITL8516.003.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	1069.444	1088.111
<b>150.0</b>	924.000	952.000	1025.111	1078.000	1093.556
<b>152.5</b>	948.111	970.667	1036.000	1083.444	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	1093.556
<b>162.5</b>	1016.556	1025.111	1057.778	1079.556	1089.667
<b>165.0</b>	1028.222	1034.444	1059.333	1076.444	1083.444
<b>167.5</b>	1037.556	1042.222	1060.111	1071.778	1078.000
<b>170.0</b>	1045.333	1048.444	1059.333	1067.889	1072.556
<b>172.5</b>	1050.778	1053.889	1059.333	1064.778	1067.889
<b>175.0</b>	1055.444	1057.000	1059.333	1061.667	1062.444
<b>177.5</b>	1058.556	1058.556	1058.556	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-H-8-35-FTO-ITL8516.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	211.32	N.A.	4.10
0-30	444.27	N.A.	8.60
0-40	719.22	N.A.	13.80
0-60	1244.75	N.A.	24.00
0-80	1539.33	N.A.	29.60
0-90	1578.52	N.A.	30.40
10-90	1523.5	N.A.	29.30
20-40	507.90	N.A.	9.80
20-50	786.43	N.A.	15.10
40-70	711.51	N.A.	13.70
60-80	294.58	N.A.	5.70
70-80	108.60	N.A.	2.10
80-90	39.19	N.A.	0.80
90-110	350.94	N.A.	6.80
90-120	823.33	N.A.	15.90
90-130	1447.06	N.A.	27.90
90-150	2735.59	N.A.	52.70
90-180	3614.83	N.A.	69.60
110-180	3263.9	N.A.	62.80
0-180	5193.36	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	55.02
10-20	156.30
20-30	232.94
30-40	274.95
40-50	278.54
50-60	246.99
60-70	185.98
70-80	108.60
80-90	39.19
90-100	83.51
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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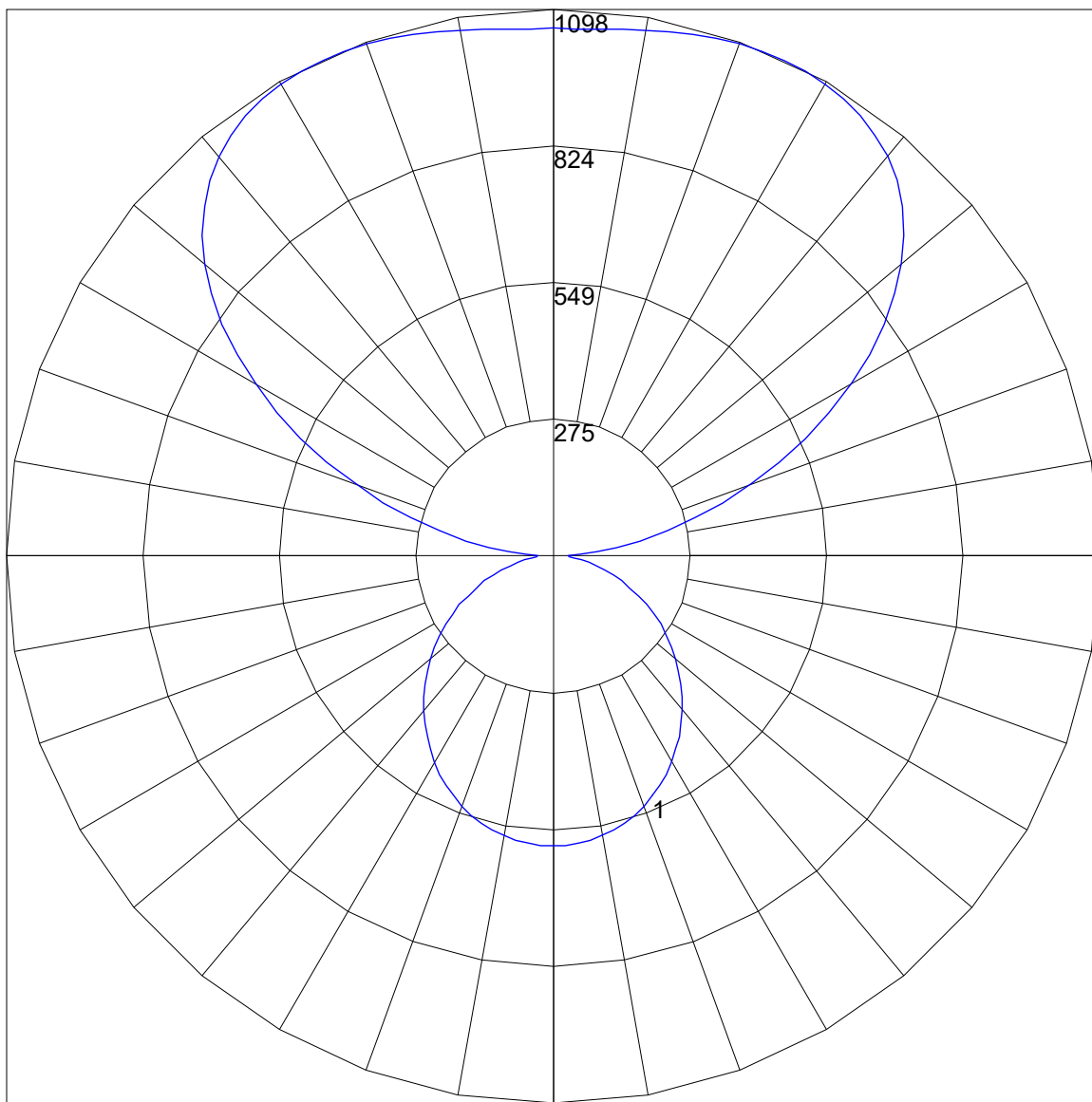
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	102	92	92	92	92	72	72	72	55	55	55	38	38	38	30
1	93	89	85	82	84	80	77	74	63	61	59	48	46	45	33	33	32	25
2	85	78	72	67	76	70	65	61	55	52	49	42	40	37	29	28	27	21
3	77	68	61	55	69	61	55	50	49	44	41	37	34	32	26	24	23	18
4	71	60	52	47	63	54	48	43	43	38	35	33	30	27	23	21	19	15
5	65	53	46	40	58	48	41	36	38	34	30	29	26	23	21	19	17	13
6	60	48	40	34	53	43	36	31	35	30	26	26	23	20	19	17	15	12
7	55	43	35	30	49	39	32	27	31	26	23	24	20	18	17	15	13	10
8	51	39	31	26	46	35	29	24	28	23	20	22	18	16	16	13	12	9
9	47	35	28	23	42	32	26	21	26	21	18	20	17	14	14	12	11	8
10	44	32	25	21	40	29	23	19	24	19	16	18	15	13	13	11	10	7

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.)