

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-2E-B-8-TW-TDO-ITL87818.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87818.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/15/16

[ISSUEDATE]08/17/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S12-LED-ID-DCO-4ft-2E-B-8-TW-TDO

[OTHER]ies file is based on 3500K; see luminaire tech sheet at www.finelite.com

for lumen adjustment factors for other CCT's & CRI's

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 20.4 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 21.8 WATTS

[ABSOLUTE]LUMENS]1640

[OTHER]see www.finelite.com for source file ITL87818. 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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1640
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	20.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.38
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	4563	4431	4463
55	4314	4127	4130
65	3963	3656	3643
75	3410	2977	3062
85	2319	2104	2489

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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	572.257	572.257	572.257	572.257	572.257
2.5	572.257	572.257	572.257	572.257	572.257
5.0	570.199	570.199	570.199	570.713	570.713
7.5	566.082	566.596	567.111	567.626	567.626
10.0	561.965	561.450	562.994	563.509	564.023
12.5	556.304	554.760	557.848	558.877	558.363
15.0	548.585	546.526	551.158	552.702	552.187
17.5	539.322	536.234	542.409	544.982	543.953
20.0	528.515	525.427	532.632	536.234	535.205
22.5	516.164	514.105	521.825	525.427	525.427
25.0	503.298	501.240	509.474	514.105	514.105
27.5	489.404	487.345	496.094	501.240	501.754
30.0	474.480	472.936	482.199	487.860	488.889
32.5	458.526	457.497	466.760	472.936	474.480
35.0	441.544	441.029	450.807	456.982	458.526
37.5	424.047	424.047	433.310	440.000	442.058
40.0	405.520	406.035	415.813	421.988	424.047
42.5	386.480	387.509	396.772	403.462	405.520
45.0	366.924	367.439	376.702	383.906	385.965
47.5	346.339	347.368	356.117	363.322	365.380
50.0	325.240	326.784	334.503	341.708	344.281
52.5	304.140	305.684	313.918	320.608	322.152
55.0	282.526	284.585	292.304	297.965	299.509
57.5	260.398	262.456	269.661	274.807	276.351
60.0	237.754	240.327	246.503	251.649	253.193
62.5	215.626	217.170	223.345	227.977	229.006
65.0	192.468	194.526	199.158	204.304	205.333
67.5	169.310	171.368	176.000	180.632	182.690
70.0	146.152	148.211	152.842	157.474	159.532
72.5	125.053	126.082	130.713	135.345	138.947
75.0	102.924	104.468	108.585	114.246	117.848
77.5	81.310	82.854	88.000	94.175	97.778
80.0	61.240	62.269	68.959	75.135	78.737
82.5	42.199	43.743	50.947	58.667	62.784
85.0	25.216	27.789	36.538	44.772	48.374
87.5	9.778	14.924	24.702	32.421	36.023
90.0	0.000	6.690	15.439	22.129	25.216
92.5	0.000	2.058	8.234	13.895	16.468
95.0	0.000	0.000	4.117	9.778	9.778
97.5	0.000	0.000	1.029	3.088	4.632
100.0	0.000	0.000	0.515	1.029	1.029
102.5	0.000	0.000	0.515	0.515	0.515
105.0	0.000	0.000	0.515	0.515	0.515
107.5	0.000	0.000	0.515	0.515	0.515
110.0	0.000	0.000	0.515	0.515	0.515
112.5	0.000	0.515	0.515	0.515	0.515
115.0	0.000	0.515	0.515	1.029	0.515
117.5	0.000	0.515	0.515	1.029	0.515
120.0	0.515	0.515	1.029	1.029	0.515
122.5	0.515	0.515	1.029	1.029	1.029
125.0	0.515	0.515	1.029	1.029	1.029
127.5	0.515	0.515	1.029	1.029	1.029
130.0	0.515	1.029	1.029	1.029	1.029
132.5	1.029	1.029	1.029	1.029	1.029

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-B-8-TW-TDO-ITL87818.902.IES****CANDELA TABULATION - (Cont.)**

135.0	1.029	1.029	1.029	1.029	1.029
137.5	1.029	1.029	1.029	1.029	1.029
140.0	1.029	1.029	1.029	1.029	1.029
142.5	1.029	1.029	1.029	1.029	1.029
145.0	1.029	1.029	1.029	1.029	1.544
147.5	1.029	1.029	1.029	1.029	1.544
150.0	1.029	1.029	1.029	1.029	1.544
152.5	1.029	1.029	1.029	1.029	1.544
155.0	1.029	1.029	1.029	1.029	1.029
157.5	1.029	1.029	1.029	1.029	1.544
160.0	1.029	1.029	1.029	1.029	1.029
162.5	1.029	1.029	1.029	1.029	1.029
165.0	1.029	1.029	1.029	1.029	1.029
167.5	1.029	1.029	1.029	1.029	1.029
170.0	1.029	1.029	1.029	1.029	1.029
172.5	1.029	1.029	1.029	1.029	1.029
175.0	1.029	1.029	1.029	1.029	1.029
177.5	1.029	1.029	1.029	1.029	1.029
180.0	1.029	1.029	1.029	1.029	1.029

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-B-8-TW-TDO-ITL87818.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	209.35	N.A.	12.80
0-30	443.61	N.A.	27.00
0-40	724.88	N.A.	44.20
0-60	1275.17	N.A.	77.70
0-80	1588.51	N.A.	96.80
0-90	1630.26	N.A.	99.40
10-90	1576.06	N.A.	96.10
20-40	515.53	N.A.	31.40
20-50	805.54	N.A.	49.10
40-70	747.56	N.A.	45.60
60-80	313.34	N.A.	19.10
70-80	116.06	N.A.	7.10
80-90	41.75	N.A.	2.50
90-110	6.32	N.A.	0.40
90-120	6.86	N.A.	0.40
90-130	7.61	N.A.	0.50
90-150	9.07	N.A.	0.60
90-180	9.96	N.A.	0.60
110-180	3.64	N.A.	0.20
0-180	1640.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	54.20
10-20	155.16
20-30	234.26
30-40	281.27
40-50	290.01
50-60	260.28
60-70	197.27
70-80	116.06
80-90	41.75
90-100	5.96
100-110	0.37
110-120	0.53
120-130	0.76
130-140	0.79
140-150	0.67
150-160	0.50
160-170	0.29
170-180	0.10

IES INDOOR REPORT

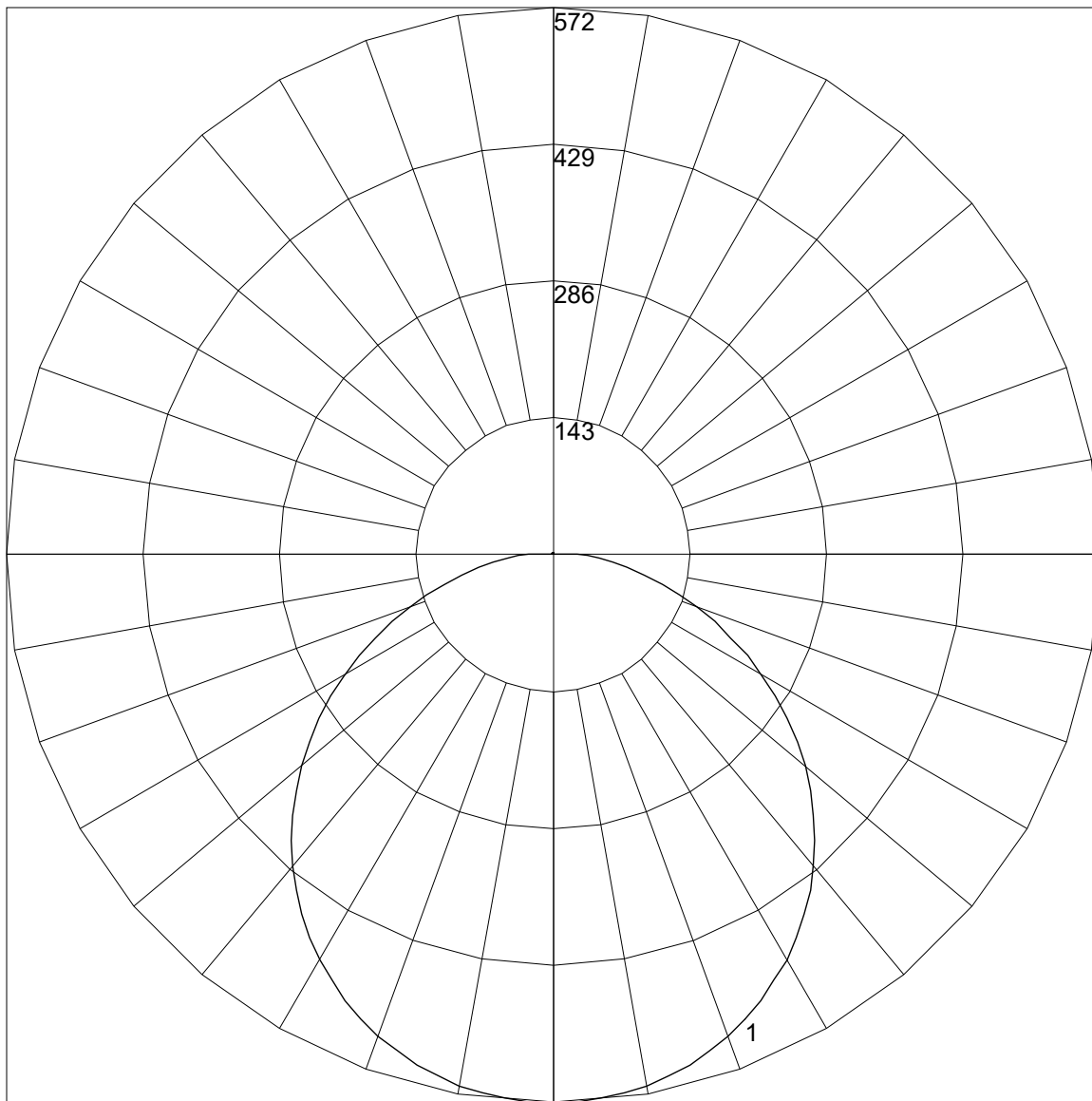
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	108	103	99	95	106	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	47	73	61	53	46	59	52	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	35	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

POLAR GRAPH



Maximum Candela = 572.257 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)