

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 : S16-LED-ID-DCO-4FT-2E-B-8-TW-TDO-ITL87823.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87823.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/20/16

[ISSUEDATE]08/17/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S16-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]1678

[OTHER]see www.finelite.com for source file ITL87823. 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	1678
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	82
Total Luminaire Watts	20.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.58 ft
Luminous Width (90-270)	0.29 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5727	5818	5872
55	5460	5544	5601
65	5046	5110	5200
75	4360	4423	4464
85	3097	3097	3097

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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	596.444	596.444	596.444	596.444	596.444
2.5	596.444	596.444	596.444	596.444	596.444
5.0	593.871	593.871	593.871	594.386	593.871
7.5	590.269	590.269	590.784	590.784	590.784
10.0	585.637	584.608	586.152	587.181	586.667
12.5	579.977	577.404	580.491	582.035	581.006
15.0	571.743	569.170	573.287	574.830	573.801
17.5	563.509	559.392	564.538	567.111	566.082
20.0	552.702	548.585	554.760	556.819	556.819
22.5	540.351	536.234	542.924	545.497	546.012
25.0	526.971	522.854	530.573	533.146	533.146
27.5	513.076	508.959	516.678	519.766	520.281
30.0	496.608	493.520	501.240	504.842	505.357
32.5	480.140	477.567	484.772	488.889	489.404
35.0	462.643	461.099	467.789	471.906	472.936
37.5	444.632	443.088	450.807	454.409	454.924
40.0	425.591	424.561	431.766	435.883	436.398
42.5	407.064	405.520	412.211	415.813	416.842
45.0	385.965	384.936	392.140	394.713	395.743
47.5	364.865	364.351	370.526	373.099	375.158
50.0	343.251	342.737	348.912	351.485	353.029
52.5	321.637	320.608	325.754	328.842	330.901
55.0	298.480	297.965	303.111	305.684	306.199
57.5	275.836	274.807	278.924	281.497	282.526
60.0	252.678	251.649	255.251	257.310	258.339
62.5	226.947	227.977	230.550	232.608	234.152
65.0	203.275	203.789	205.848	207.906	209.450
67.5	179.088	179.088	181.661	182.690	184.234
70.0	154.901	154.901	156.444	157.988	159.018
72.5	131.228	130.713	133.287	133.801	134.316
75.0	107.556	107.041	109.099	109.099	110.129
77.5	84.912	84.912	85.427	85.942	86.456
80.0	63.813	63.813	63.813	63.813	64.327
82.5	43.743	43.743	43.743	43.743	44.257
85.0	25.731	25.731	25.731	25.731	25.731
87.5	9.778	10.292	9.778	9.778	9.778
90.0	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.515	0.515	0.000	0.000
102.5	0.515	0.515	0.515	0.515	0.000
105.0	0.515	0.515	0.515	0.515	0.000
107.5	0.515	0.515	0.515	0.515	0.000
110.0	0.515	0.515	0.515	0.515	0.515
112.5	0.515	0.515	0.515	0.515	0.515
115.0	0.515	0.515	0.515	0.515	0.515
117.5	0.515	0.515	0.515	0.515	0.515
120.0	0.515	0.515	1.029	0.515	0.515
122.5	0.515	0.515	1.029	0.515	0.515
125.0	0.515	0.515	1.029	1.029	0.515
127.5	0.515	0.515	0.515	1.029	0.515
130.0	0.515	0.515	0.515	1.029	0.515
132.5	0.515	0.515	0.515	1.029	1.029

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-TDO-ITL87823.902.IES****CANDELA TABULATION - (Cont.)**

135.0	0.515	0.515	0.515	1.029	1.029
137.5	0.515	0.515	0.515	1.029	1.029
140.0	0.515	0.515	1.029	1.029	1.029
142.5	0.515	0.515	1.029	1.029	1.029
145.0	0.515	1.029	1.029	1.029	1.029
147.5	1.029	1.029	1.029	1.029	1.029
150.0	1.029	1.029	1.029	1.029	1.029
152.5	1.029	1.029	1.029	1.029	1.029
155.0	1.029	1.029	1.029	1.029	1.029
157.5	1.029	1.029	1.029	1.029	1.029
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 : S16-LED-ID-DCO-4FT-2E-B-8-TW-TDO-ITL87823.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	218.02	N.A.	13.00
0-30	461.87	N.A.	27.50
0-40	754.10	N.A.	44.90
0-60	1325.48	N.A.	79.00
0-80	1644.38	N.A.	98.00
0-90	1674.67	N.A.	99.80
10-90	1618.22	N.A.	96.40
20-40	536.08	N.A.	31.90
20-50	837.40	N.A.	49.90
40-70	775.09	N.A.	46.20
60-80	318.90	N.A.	19.00
70-80	115.18	N.A.	6.90
80-90	30.29	N.A.	1.80
90-110	0.49	N.A.	0.00
90-120	1.02	N.A.	0.10
90-130	1.63	N.A.	0.10
90-150	2.77	N.A.	0.20
90-180	3.63	N.A.	0.20
110-180	3.14	N.A.	0.20
0-180	1678.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	56.45
10-20	161.57
20-30	243.85
30-40	292.23
40-50	301.32
50-60	270.06
60-70	203.72
70-80	115.18
80-90	30.29
90-100	0.03
100-110	0.46
110-120	0.53
120-130	0.61
130-140	0.55
140-150	0.59
150-160	0.48
160-170	0.29
170-180	0.10

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

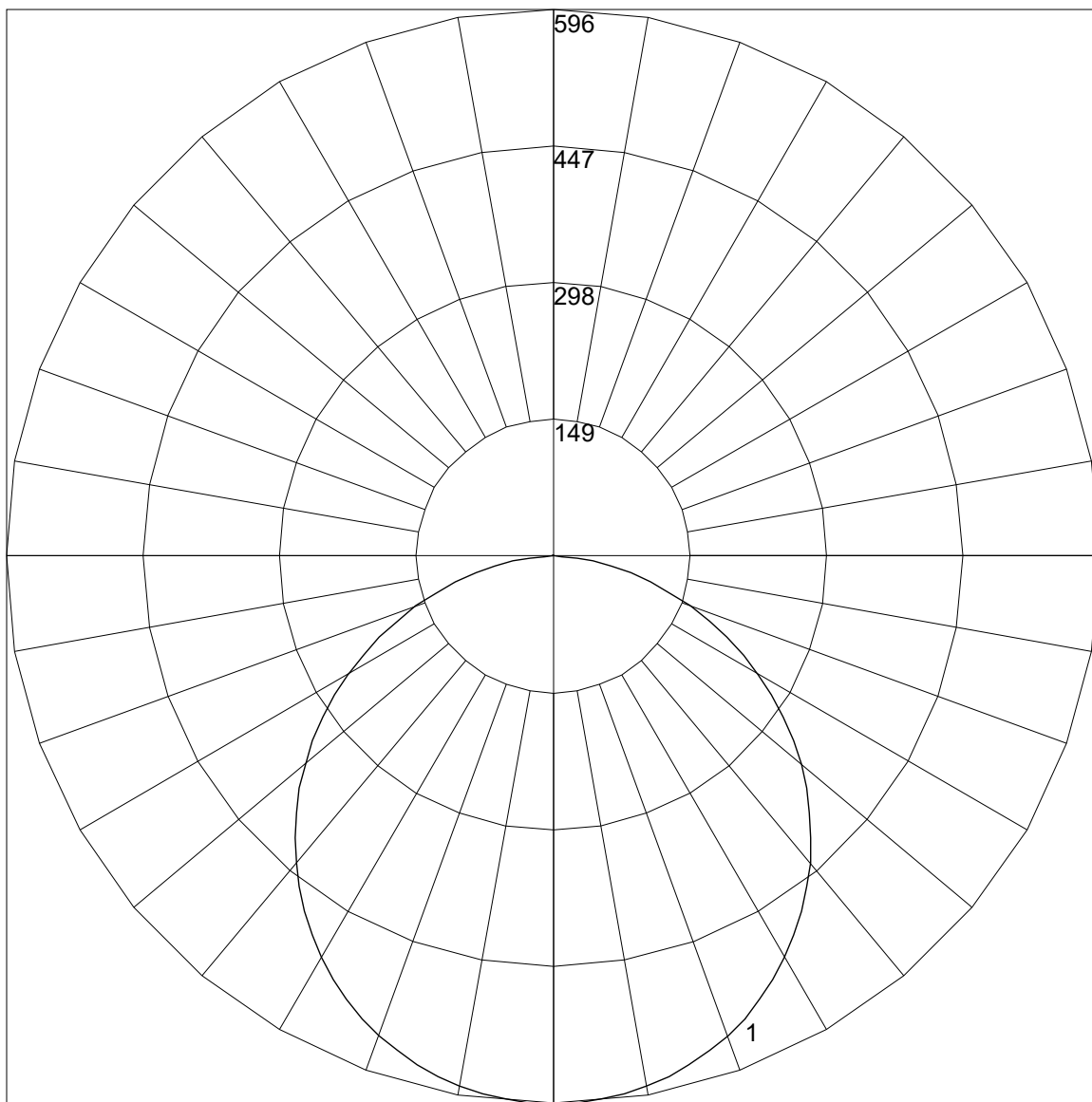
Effective Floor Cavity Reflectance 0.20

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	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	55	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	65	51	43	36	63	51	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

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POLAR GRAPH



Maximum Candela = 596.444 Located At Horizontal Angle = 0, Vertical Angle = 0

1 - Vertical Plane Through Horizontal Angles (90 - 270)