

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-40U60D-ITL87822.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87822.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/19/16

[ISSUEDATE]08/17/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S16-LED-ID-DCO-4ft-2E-B-8-TW-40U60D

[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]1891

[OTHER]see www.finelite.com for source file ITL87822. 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	1891
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	20.4
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.40
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	3871	3993	4085
55	3718	3841	3944
65	3475	3577	3667
75	3004	3087	3129
85	2168	2230	2106

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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	392.655	392.655	392.655	392.655	392.655
2.5	392.140	392.140	392.655	392.140	392.655
5.0	391.111	391.111	391.626	391.626	391.626
7.5	389.053	389.567	389.567	390.082	390.082
10.0	385.965	385.450	387.509	387.509	387.509
12.5	382.363	381.848	383.906	385.450	384.936
15.0	378.760	376.702	380.819	382.363	381.848
17.5	373.099	371.041	375.673	377.731	377.731
20.0	366.924	364.351	370.012	373.099	373.099
22.5	359.719	356.632	363.836	366.924	367.439
25.0	351.485	348.912	356.117	359.719	360.234
27.5	342.737	340.678	347.883	352.000	353.029
30.0	332.959	331.415	338.620	343.251	344.795
32.5	322.667	321.123	329.357	333.988	335.018
35.0	311.345	310.316	318.035	323.181	324.725
37.5	299.509	299.509	307.228	312.374	313.918
40.0	287.673	287.673	295.392	300.538	302.082
42.5	274.807	275.322	282.526	287.673	289.216
45.0	260.912	261.942	269.146	273.778	275.322
47.5	247.018	248.047	255.251	259.883	260.912
50.0	233.123	233.637	240.842	244.959	246.503
52.5	218.199	219.228	225.404	229.520	230.550
55.0	203.275	203.789	209.965	213.567	215.626
57.5	187.322	188.865	194.012	197.614	199.158
60.0	172.398	173.427	177.544	181.146	182.175
62.5	156.444	157.474	161.076	163.649	165.193
65.0	139.977	141.006	144.094	146.667	147.696
67.5	123.509	124.023	127.111	129.170	129.684
70.0	107.041	107.556	110.129	111.673	112.187
72.5	90.573	91.088	93.146	94.175	94.690
75.0	74.105	74.620	76.164	76.678	77.193
77.5	59.181	59.181	60.211	60.725	60.725
80.0	44.772	44.257	45.287	45.287	45.287
82.5	30.877	30.877	30.877	30.877	30.877
85.0	18.012	18.526	18.526	18.526	17.497
87.5	7.205	7.205	6.690	6.690	6.175
90.0	0.000	0.000	0.000	0.000	0.000
92.5	4.117	3.602	2.058	1.544	1.029
95.0	9.778	10.292	11.322	11.836	11.322
97.5	15.439	17.497	20.070	23.158	23.673
100.0	22.129	25.216	30.363	34.994	37.053
102.5	28.819	33.450	41.684	48.889	51.462
105.0	36.538	43.228	53.520	63.298	66.901
107.5	44.772	53.006	66.901	79.251	83.883
110.0	53.006	63.298	80.281	95.719	101.380
112.5	61.754	73.591	94.690	112.702	119.392
115.0	69.988	84.398	109.099	129.684	137.918
117.5	78.222	94.175	122.994	146.152	155.930
120.0	86.971	104.982	137.404	163.135	173.427
122.5	95.205	114.760	150.784	179.088	190.409
125.0	102.409	124.023	163.135	193.497	205.848
127.5	110.129	132.772	174.456	206.877	219.743
130.0	117.333	140.491	184.749	218.713	231.579
132.5	123.509	147.696	192.982	227.977	241.357

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-40U60D-ITL87822.902.IES****CANDELA TABULATION - (Cont.)**

135.0	129.170	153.357	199.673	235.181	248.561
137.5	134.316	157.988	204.304	239.813	253.193
140.0	138.433	161.591	207.392	242.386	254.737
142.5	142.035	163.649	208.421	242.901	254.737
145.0	145.123	165.193	207.906	240.842	252.678
147.5	147.696	166.222	206.363	237.240	248.047
150.0	149.754	166.222	203.275	232.094	241.871
152.5	151.298	165.708	199.158	225.918	234.667
155.0	152.842	164.678	194.526	218.199	226.433
157.5	153.357	163.649	189.380	209.965	217.684
160.0	154.386	162.105	183.719	201.216	207.906
162.5	154.386	161.076	178.573	192.468	198.129
165.0	154.901	159.532	172.912	184.234	188.865
167.5	155.415	158.503	167.766	176.000	179.602
170.0	155.415	157.474	163.649	169.310	171.883
172.5	155.415	156.444	160.047	163.649	165.193
175.0	155.415	155.930	157.474	159.018	160.047
177.5	155.415	155.415	155.930	156.444	156.444
180.0	155.415	155.415	155.415	155.415	155.415

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-40U60D-ITL87822.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	144.46	N.A.	7.60
0-30	308.20	N.A.	16.30
0-40	506.89	N.A.	26.80
0-60	900.72	N.A.	47.60
0-80	1123.62	N.A.	59.40
0-90	1144.98	N.A.	60.50
10-90	1107.76	N.A.	58.60
20-40	362.43	N.A.	19.20
20-50	569.33	N.A.	30.10
40-70	536.08	N.A.	28.30
60-80	222.90	N.A.	11.80
70-80	80.65	N.A.	4.30
80-90	21.35	N.A.	1.10
90-110	69.72	N.A.	3.70
90-120	175.16	N.A.	9.30
90-130	316.54	N.A.	16.70
90-150	592.84	N.A.	31.40
90-180	746.02	N.A.	39.50
110-180	676.31	N.A.	35.80
0-180	1891.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	37.22
10-20	107.24
20-30	163.74
30-40	198.69
40-50	206.90
50-60	186.94
60-70	142.24
70-80	80.65
80-90	21.35
90-100	13.20
100-110	56.52
110-120	105.44
120-130	141.38
130-140	149.19
140-150	127.11
150-160	88.82
160-170	49.13
170-180	15.23

IES INDOOR REPORT

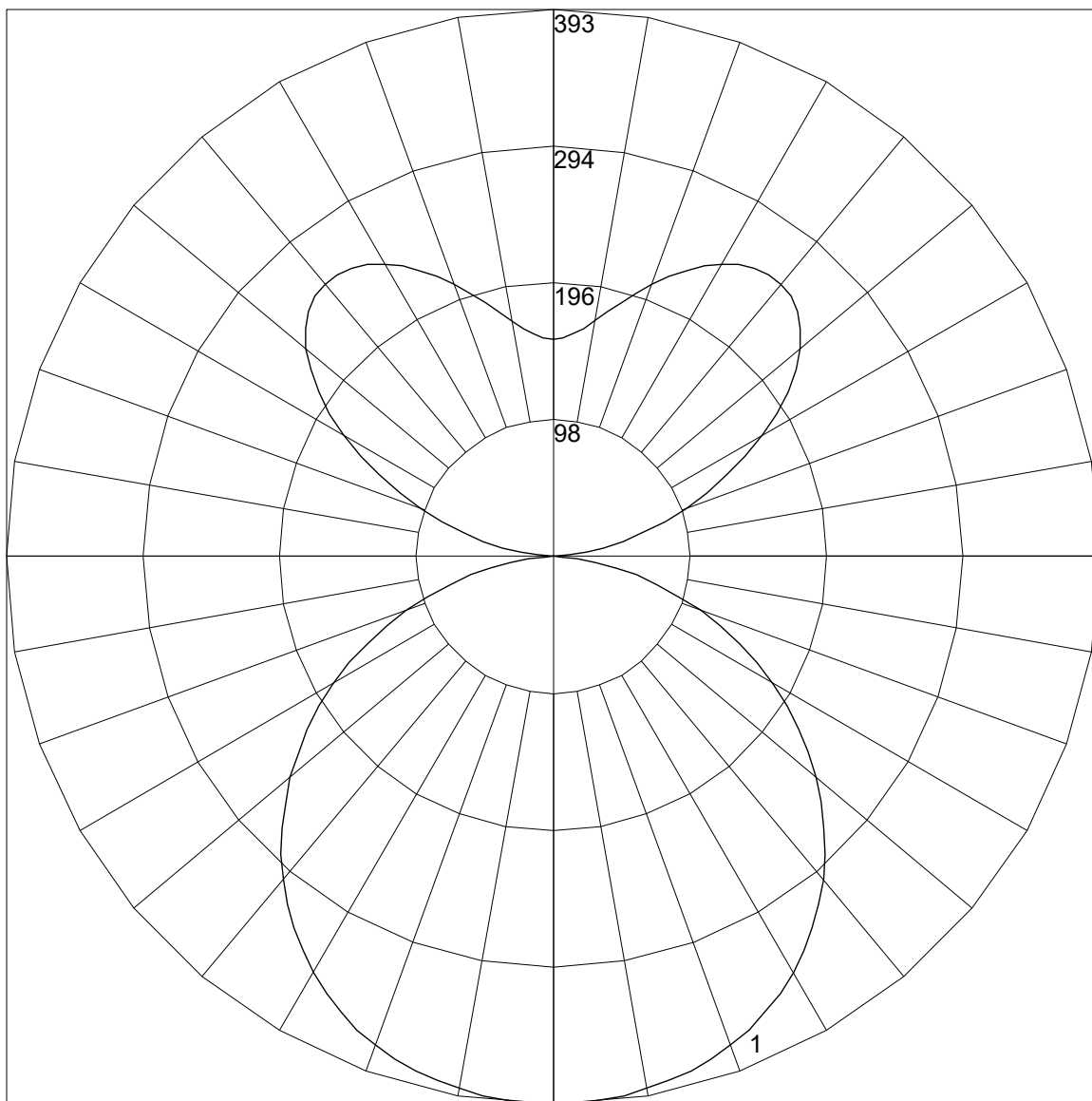
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	100	95	91	88	93	89	86	83	78	75	73	68	66	64	58	57	55	51
2	91	83	77	71	85	78	72	68	68	64	60	59	56	53	51	48	46	42
3	83	73	65	59	77	68	62	56	60	55	50	52	48	45	45	42	39	35
4	76	64	56	50	70	60	53	47	53	47	43	46	42	38	40	36	33	30
5	69	57	49	43	65	54	46	41	47	41	37	41	37	33	36	32	29	26
6	64	51	43	37	59	48	41	35	43	37	32	37	32	29	32	28	25	23
7	59	46	38	32	55	44	36	31	39	33	28	34	29	25	29	26	22	20
8	55	42	34	29	51	40	32	27	35	29	25	31	26	22	27	23	20	18
9	51	38	31	26	48	36	29	24	32	26	22	28	24	20	25	21	18	16
10	48	35	28	23	45	33	27	22	30	24	20	26	22	18	23	19	16	14

POLAR GRAPH



Maximum Candela = 392.655 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)