

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-S-8-35-40U60D-ITL87822.001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87822.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/19/16

[ISSUEDATE]07/26/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S16-LED-ID-DCO-4ft-2E-S-8-35-40U60D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.0 WATTS

[ABSOLUTE]LUMENS]1504

[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	1504
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	14.6
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	3079	3177	3250
55	2958	3055	3137
65	2764	2846	2917
75	2390	2456	2489
85	1725	1774	1675

IES INDOOR REPORT

PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-40U60D-ITL87822.001.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	312.339	312.339	312.339	312.339	312.339
2.5	311.930	311.930	312.339	311.930	312.339
5.0	311.111	311.111	311.520	311.520	311.520
7.5	309.474	309.883	309.883	310.292	310.292
10.0	307.018	306.608	308.246	308.246	308.246
12.5	304.152	303.743	305.380	306.608	306.199
15.0	301.287	299.649	302.924	304.152	303.743
17.5	296.784	295.146	298.830	300.468	300.468
20.0	291.871	289.825	294.327	296.784	296.784
22.5	286.140	283.684	289.415	291.871	292.281
25.0	279.591	277.544	283.275	286.140	286.550
27.5	272.632	270.994	276.725	280.000	280.819
30.0	264.854	263.626	269.357	273.041	274.269
32.5	256.667	255.439	261.988	265.673	266.491
35.0	247.661	246.842	252.982	257.076	258.304
37.5	238.246	238.246	244.386	248.480	249.708
40.0	228.830	228.830	234.971	239.064	240.292
42.5	218.596	219.006	224.737	228.830	230.058
45.0	207.544	208.363	214.094	217.778	219.006
47.5	196.491	197.310	203.041	206.725	207.544
50.0	185.439	185.848	191.579	194.854	196.082
52.5	173.567	174.386	179.298	182.573	183.392
55.0	161.696	162.105	167.018	169.883	171.520
57.5	149.006	150.234	154.327	157.193	158.421
60.0	137.134	137.953	141.228	144.094	144.912
62.5	124.444	125.263	128.129	130.175	131.404
65.0	111.345	112.164	114.620	116.667	117.485
67.5	98.246	98.655	101.111	102.749	103.158
70.0	85.146	85.556	87.602	88.830	89.240
72.5	72.047	72.456	74.094	74.912	75.322
75.0	58.947	59.357	60.585	60.994	61.404
77.5	47.076	47.076	47.895	48.304	48.304
80.0	35.614	35.205	36.023	36.023	36.023
82.5	24.561	24.561	24.561	24.561	24.561
85.0	14.327	14.737	14.737	14.737	13.918
87.5	5.731	5.731	5.322	5.322	4.912
90.0	0.000	0.000	0.000	0.000	0.000
92.5	3.275	2.865	1.637	1.228	0.819
95.0	7.778	8.187	9.006	9.415	9.006
97.5	12.281	13.918	15.965	18.421	18.830
100.0	17.602	20.058	24.152	27.836	29.474
102.5	22.924	26.608	33.158	38.889	40.936
105.0	29.064	34.386	42.573	50.351	53.216
107.5	35.614	42.164	53.216	63.041	66.725
110.0	42.164	50.351	63.860	76.140	80.643
112.5	49.123	58.538	75.322	89.649	94.971
115.0	55.673	67.135	86.784	103.158	109.708
117.5	62.222	74.912	97.836	116.257	124.035
120.0	69.181	83.509	109.298	129.766	137.953
122.5	75.731	91.287	119.942	142.456	151.462
125.0	81.462	98.655	129.766	153.918	163.743
127.5	87.602	105.614	138.772	164.561	174.795
130.0	93.333	111.754	146.959	173.977	184.211
132.5	98.246	117.485	153.509	181.345	191.988

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-40U60D-ITL87822.001.IES****CANDELA TABULATION - (Cont.)**

135.0	102.749	121.988	158.830	187.076	197.719
137.5	106.842	125.673	162.515	190.760	201.404
140.0	110.117	128.538	164.971	192.807	202.632
142.5	112.982	130.175	165.789	193.216	202.632
145.0	115.439	131.404	165.380	191.579	200.994
147.5	117.485	132.222	164.152	188.713	197.310
150.0	119.123	132.222	161.696	184.620	192.398
152.5	120.351	131.813	158.421	179.708	186.667
155.0	121.579	130.994	154.737	173.567	180.117
157.5	121.988	130.175	150.643	167.018	173.158
160.0	122.807	128.947	146.140	160.058	165.380
162.5	122.807	128.129	142.047	153.099	157.602
165.0	123.216	126.901	137.544	146.550	150.234
167.5	123.626	126.082	133.450	140.000	142.865
170.0	123.626	125.263	130.175	134.678	136.725
172.5	123.626	124.444	127.310	130.175	131.404
175.0	123.626	124.035	125.263	126.491	127.310
177.5	123.626	123.626	124.035	124.444	124.444
180.0	123.626	123.626	123.626	123.626	123.626

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-40U60D-ITL87822.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	114.91	N.A.	7.60
0-30	245.16	N.A.	16.30
0-40	403.21	N.A.	26.80
0-60	716.49	N.A.	47.60
0-80	893.79	N.A.	59.40
0-90	910.78	N.A.	60.50
10-90	881.17	N.A.	58.60
20-40	288.30	N.A.	19.20
20-50	452.88	N.A.	30.10
40-70	426.43	N.A.	28.30
60-80	177.30	N.A.	11.80
70-80	64.16	N.A.	4.30
80-90	16.99	N.A.	1.10
90-110	55.46	N.A.	3.70
90-120	139.33	N.A.	9.30
90-130	251.79	N.A.	16.70
90-150	471.58	N.A.	31.40
90-180	593.43	N.A.	39.50
110-180	537.97	N.A.	35.80
0-180	1504.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	29.61
10-20	85.30
20-30	130.25
30-40	158.05
40-50	164.58
50-60	148.70
60-70	113.15
70-80	64.16
80-90	16.99
90-100	10.50
100-110	44.96
110-120	83.87
120-130	112.46
130-140	118.68
140-150	101.11
150-160	70.65
160-170	39.08
170-180	12.11

IES INDOOR REPORT

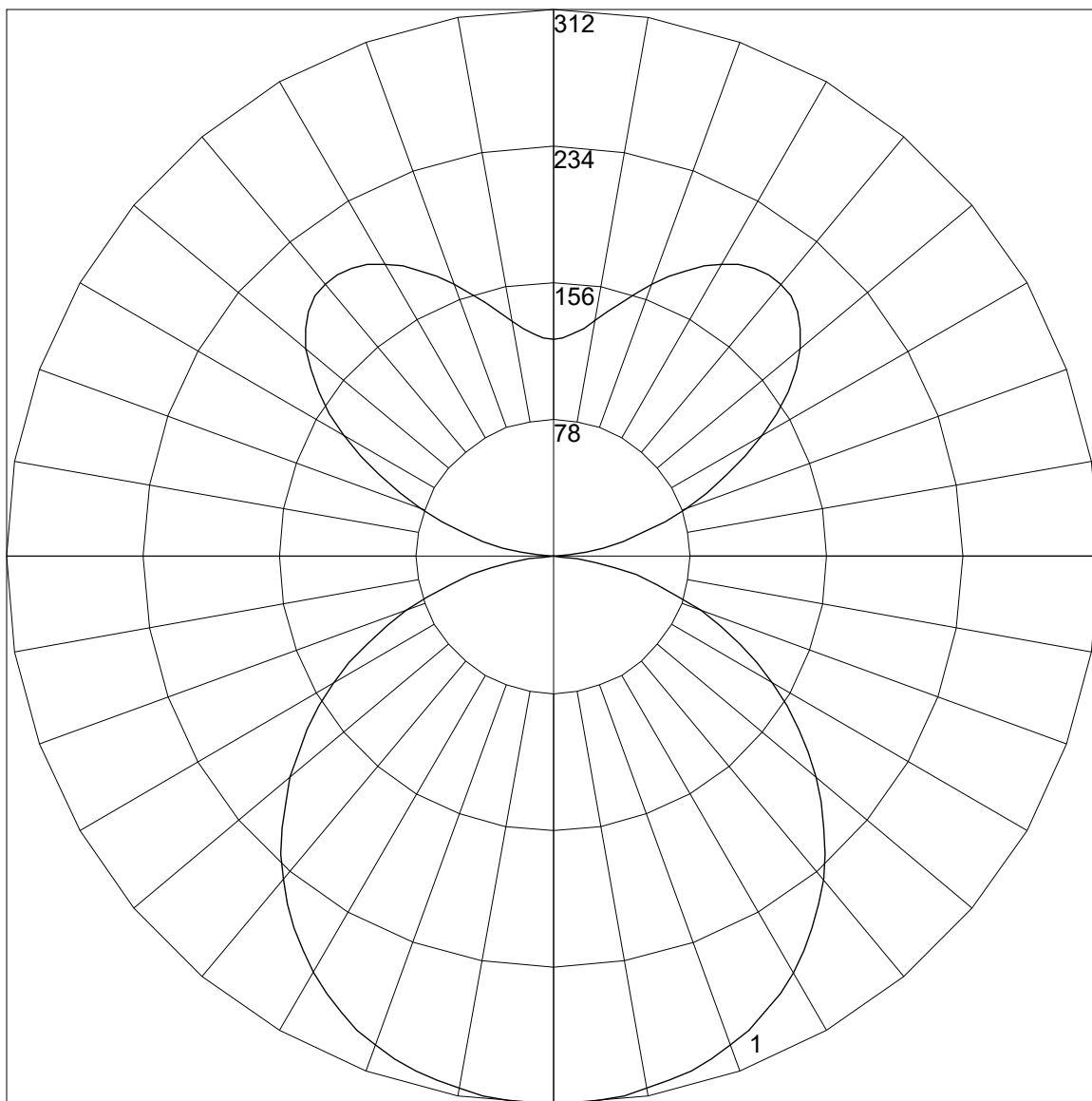
PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-40U60D-ITL87822.001.IES

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 = 312.339 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)