

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-30U70D-ITL87821.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87821.902 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-30U70D

[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]1804

[OTHER]see www.finelite.com for source file ITL87821. 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	1804
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
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	4268	4375	4459
55	4095	4198	4292
65	3807	3897	3986
75	3296	3359	3421
85	2416	2354	2354

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-30U70D-ITL87821.902.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	436.912	436.912	436.912	436.912	436.912
2.5	436.912	436.398	436.398	436.398	436.398
5.0	434.854	434.854	434.854	435.368	435.368
7.5	432.795	432.795	433.310	433.825	433.825
10.0	429.708	428.678	430.737	431.251	431.251
12.5	425.591	424.047	427.135	428.164	427.649
15.0	420.444	417.871	421.988	424.047	423.532
17.5	414.269	411.696	416.327	418.901	418.386
20.0	407.064	403.977	409.637	412.725	412.725
22.5	398.316	395.228	401.918	405.006	405.520
25.0	389.053	385.965	393.170	397.287	397.801
27.5	379.275	376.702	383.906	388.023	388.538
30.0	368.468	365.895	373.614	378.246	379.275
32.5	356.117	354.573	362.807	367.439	368.468
35.0	344.281	342.737	350.971	355.602	356.632
37.5	330.901	329.871	337.591	342.222	343.766
40.0	317.006	315.977	324.211	328.842	330.386
42.5	302.596	302.596	310.316	314.433	317.006
45.0	287.673	287.673	294.877	299.509	300.538
47.5	272.234	272.749	278.924	284.070	285.614
50.0	256.281	256.795	262.971	267.602	268.632
52.5	239.813	240.842	247.018	250.620	251.649
55.0	223.860	223.860	229.520	233.123	234.667
57.5	206.877	206.877	211.509	215.626	216.655
60.0	189.380	189.380	193.497	197.099	198.129
62.5	171.368	171.883	175.485	178.058	179.602
65.0	153.357	153.871	156.959	159.018	160.561
67.5	135.345	135.345	137.918	139.977	141.520
70.0	116.819	117.333	119.392	120.936	121.965
72.5	98.807	99.322	100.865	101.895	102.924
75.0	81.310	81.310	82.854	83.368	84.398
77.5	63.813	64.842	65.357	65.357	66.386
80.0	48.889	48.374	48.889	48.889	49.404
82.5	33.450	33.450	33.450	33.450	33.450
85.0	20.070	19.556	19.556	19.556	19.556
87.5	7.719	7.719	7.205	7.205	7.205
90.0	0.000	0.000	0.000	0.000	0.000
92.5	2.573	2.573	1.544	1.029	1.029
95.0	7.205	7.719	8.234	8.749	8.749
97.5	11.836	13.380	14.924	16.982	17.497
100.0	16.468	19.041	22.643	25.731	26.760
102.5	22.129	25.216	30.877	35.509	37.053
105.0	27.789	32.421	40.140	45.801	48.374
107.5	33.965	39.626	49.404	57.123	60.211
110.0	40.140	47.345	59.696	68.959	73.076
112.5	46.830	55.064	69.988	81.310	85.427
115.0	53.006	62.784	80.795	93.146	97.778
117.5	59.181	70.503	91.088	105.497	110.643
120.0	65.357	78.222	101.380	117.333	123.509
122.5	71.532	85.942	111.673	129.170	135.345
125.0	77.193	92.632	120.421	139.462	147.181
127.5	82.854	98.807	128.655	149.240	156.959
130.0	88.000	104.468	135.860	157.474	165.193
132.5	92.632	109.614	141.520	164.164	172.398

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-30U70D-ITL87821.902.IES****CANDELA TABULATION - (Cont.)**

135.0	96.749	113.731	146.152	169.310	177.544
137.5	100.865	117.333	149.754	172.912	180.632
140.0	103.953	119.906	151.813	174.456	182.690
142.5	106.526	121.450	152.327	174.971	182.690
145.0	109.099	122.994	152.327	173.942	181.146
147.5	111.158	123.509	150.784	171.368	178.058
150.0	112.702	123.509	148.725	168.281	174.456
152.5	113.731	123.509	146.152	163.649	169.825
155.0	114.760	122.994	142.550	158.503	164.164
157.5	115.275	121.965	139.462	152.842	157.988
160.0	115.789	121.450	135.860	147.181	151.298
162.5	116.304	120.421	131.743	141.006	145.123
165.0	116.304	119.392	128.140	135.345	138.433
167.5	116.819	118.877	125.053	130.199	132.772
170.0	116.819	118.363	122.480	125.567	127.111
172.5	116.819	117.848	119.906	121.965	122.994
175.0	116.819	117.333	118.363	119.392	119.392
177.5	116.819	116.819	117.333	117.333	117.333
180.0	116.819	116.819	116.819	116.819	116.819

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-30U70D-ITL87821.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	160.38	N.A.	8.90
0-30	341.29	N.A.	18.90
0-40	560.00	N.A.	31.00
0-60	991.31	N.A.	55.00
0-80	1233.91	N.A.	68.40
0-90	1257.00	N.A.	69.70
10-90	1215.61	N.A.	67.40
20-40	399.62	N.A.	22.20
20-50	626.44	N.A.	34.70
40-70	586.23	N.A.	32.50
60-80	242.60	N.A.	13.40
70-80	87.68	N.A.	4.90
80-90	23.09	N.A.	1.30
90-110	51.42	N.A.	2.90
90-120	128.63	N.A.	7.10
90-130	232.05	N.A.	12.90
90-150	433.74	N.A.	24.00
90-180	546.85	N.A.	30.30
110-180	495.43	N.A.	27.50
0-180	1803.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	41.39
10-20	118.99
20-30	180.91
30-40	218.71
40-50	226.81
50-60	204.50
60-70	154.92
70-80	87.68
80-90	23.09
90-100	9.79
100-110	41.63
110-120	77.21
120-130	103.42
130-140	108.82
140-150	92.87
150-160	65.27
160-170	36.43
170-180	11.41

IES INDOOR REPORT

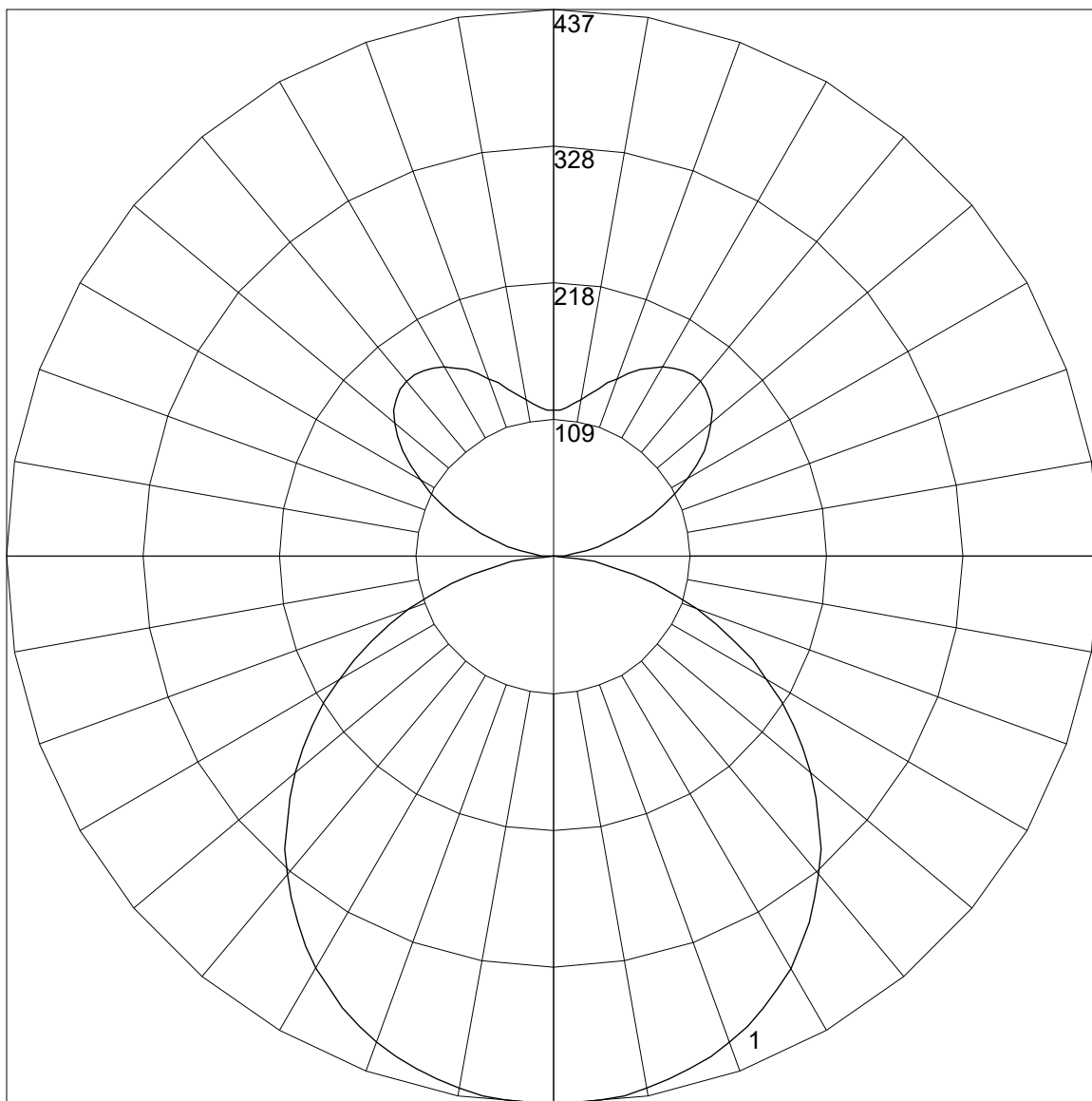
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	102	97	93	90	96	92	89	85	82	80	77	74	71	70	65	64	62	58
2	93	85	78	73	87	80	75	70	72	68	64	64	61	58	57	55	52	48
3	84	74	67	61	79	71	64	58	63	58	53	57	52	49	50	47	44	41
4	77	66	57	51	73	62	55	49	56	50	45	50	45	41	45	41	38	35
5	71	59	50	44	67	56	48	42	50	44	39	45	40	36	40	36	33	30
6	65	53	44	38	61	50	42	37	45	39	34	41	35	31	37	32	29	26
7	60	48	39	33	57	45	38	32	41	35	30	37	32	28	33	29	26	23
8	56	43	35	30	53	41	34	29	37	31	27	34	29	25	31	26	23	21
9	52	39	32	26	49	38	30	26	34	28	24	31	26	22	28	24	21	19
10	49	36	29	24	46	35	28	23	32	26	22	29	24	20	26	22	19	17

POLAR GRAPH



Maximum Candela = 436.912 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)