

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-30U70D-ITL87816.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87816.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/14/16

[ISSUEDATE]08/17/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S12-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]1779

[OTHER]see www.finelite.com for source file ITL87816. 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	1779
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	87
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 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	3283	3232	3296
55	3120	3023	3087
65	2882	2702	2748
75	2455	2201	2287
85	1704	1571	1853

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-B-8-TW-30U70D-ITL87816.902.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	403.462	403.462	403.462	403.462	403.462
2.5	402.947	402.947	402.947	402.947	402.947
5.0	401.918	401.918	401.918	401.918	401.918
7.5	399.860	399.345	399.860	400.374	400.374
10.0	396.772	396.257	397.801	398.316	398.830
12.5	393.170	391.626	394.713	395.743	395.743
15.0	387.509	385.965	390.082	392.140	391.626
17.5	381.333	380.304	384.936	387.509	388.023
20.0	374.643	373.099	378.760	382.363	382.877
22.5	366.924	365.380	372.070	375.673	376.702
25.0	358.175	357.146	364.351	368.982	370.012
27.5	348.398	347.883	355.088	360.749	362.292
30.0	338.105	338.105	345.825	352.000	354.058
32.5	327.298	327.813	336.047	342.222	344.281
35.0	315.462	316.491	325.240	331.930	334.503
37.5	303.111	304.655	313.404	320.094	323.181
40.0	290.246	292.304	301.053	308.257	311.345
42.5	278.409	279.953	288.702	295.906	298.994
45.0	264.000	265.544	274.807	282.012	285.099
47.5	250.105	251.649	260.398	267.602	270.690
50.0	235.696	236.725	245.474	252.678	255.766
52.5	220.257	221.801	230.035	237.240	239.813
55.0	204.304	206.363	214.082	220.772	223.860
57.5	188.865	190.924	197.614	203.789	206.877
60.0	172.912	174.971	181.146	186.807	189.895
62.5	156.444	158.503	164.164	169.310	172.398
65.0	139.977	142.035	147.181	152.327	154.901
67.5	122.994	125.053	130.199	134.830	137.404
70.0	106.526	108.585	113.216	117.333	119.906
72.5	90.058	92.632	96.749	100.865	103.439
75.0	74.105	76.164	80.281	84.912	88.000
77.5	58.152	60.725	64.842	70.503	72.561
80.0	43.743	45.801	50.947	56.094	58.667
82.5	29.848	31.906	37.567	43.743	46.316
85.0	18.526	20.585	27.275	33.450	36.023
87.5	7.205	10.807	18.012	24.187	26.246
90.0	0.000	5.146	11.836	16.982	18.526
92.5	3.602	5.146	10.807	15.953	18.012
95.0	7.205	8.749	13.380	20.585	21.099
97.5	11.836	13.895	19.041	24.702	27.275
100.0	16.982	20.585	28.304	33.965	36.538
102.5	23.158	28.819	37.053	46.316	49.404
105.0	29.333	34.994	47.860	60.211	63.813
107.5	35.509	43.228	59.181	74.620	79.766
110.0	42.199	51.462	71.018	89.544	95.719
112.5	48.889	59.696	83.368	104.468	112.187
115.0	55.579	67.415	95.205	119.392	128.140
117.5	61.754	75.649	107.041	134.316	144.094
120.0	68.444	83.368	117.848	147.181	159.018
122.5	75.135	91.088	127.626	160.047	172.398
125.0	81.825	97.263	136.374	170.854	184.234
127.5	86.971	102.924	143.064	179.602	194.012
130.0	91.602	107.041	148.725	186.807	201.216
132.5	95.719	110.643	152.327	190.924	205.333

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-B-8-TW-30U70D-ITL87816.902.IES****CANDELA TABULATION - (Cont.)**

135.0	99.322	113.216	153.871	192.468	206.877
137.5	102.409	115.275	154.386	191.439	205.333
140.0	105.497	116.819	152.842	188.351	201.731
142.5	107.556	117.333	150.269	183.205	195.556
145.0	109.614	117.848	147.181	176.515	187.836
147.5	111.158	118.363	143.064	169.310	178.573
150.0	112.187	118.363	138.947	161.076	169.310
152.5	113.216	117.848	134.830	152.842	160.047
155.0	113.731	117.333	131.228	145.123	150.784
157.5	114.246	116.819	127.626	137.918	142.550
160.0	114.246	116.304	124.538	132.257	135.345
162.5	114.760	115.789	121.450	127.111	129.170
165.0	114.246	115.275	119.392	122.994	124.538
167.5	114.246	114.760	117.333	119.906	120.936
170.0	114.246	114.246	116.304	117.333	117.848
172.5	113.731	114.246	114.760	115.789	115.789
175.0	113.731	113.731	114.246	114.246	114.760
177.5	113.731	113.731	113.731	113.731	113.731
180.0	113.731	113.731	113.731	113.731	113.731

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-B-8-TW-30U70D-ITL87816.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	148.20	N.A.	8.30
0-30	315.72	N.A.	17.70
0-40	518.70	N.A.	29.20
0-60	921.25	N.A.	51.80
0-80	1152.51	N.A.	64.80
0-90	1183.37	N.A.	66.50
10-90	1145.15	N.A.	64.40
20-40	370.51	N.A.	20.80
20-50	582.00	N.A.	32.70
40-70	548.16	N.A.	30.80
60-80	231.26	N.A.	13.00
70-80	85.65	N.A.	4.80
80-90	30.85	N.A.	1.70
90-110	67.86	N.A.	3.80
90-120	160.22	N.A.	9.00
90-130	279.48	N.A.	15.70
90-150	489.73	N.A.	27.50
90-180	595.88	N.A.	33.50
110-180	528.02	N.A.	29.70
0-180	1779.25	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	38.22
10-20	109.98
20-30	167.52
30-40	202.99
40-50	211.50
50-60	191.05
60-70	145.61
70-80	85.65
80-90	30.85
90-100	17.24
100-110	50.62
110-120	92.36
120-130	119.26
130-140	117.68
140-150	92.57
150-160	61.17
160-170	34.03
170-180	10.95

IES INDOOR REPORT

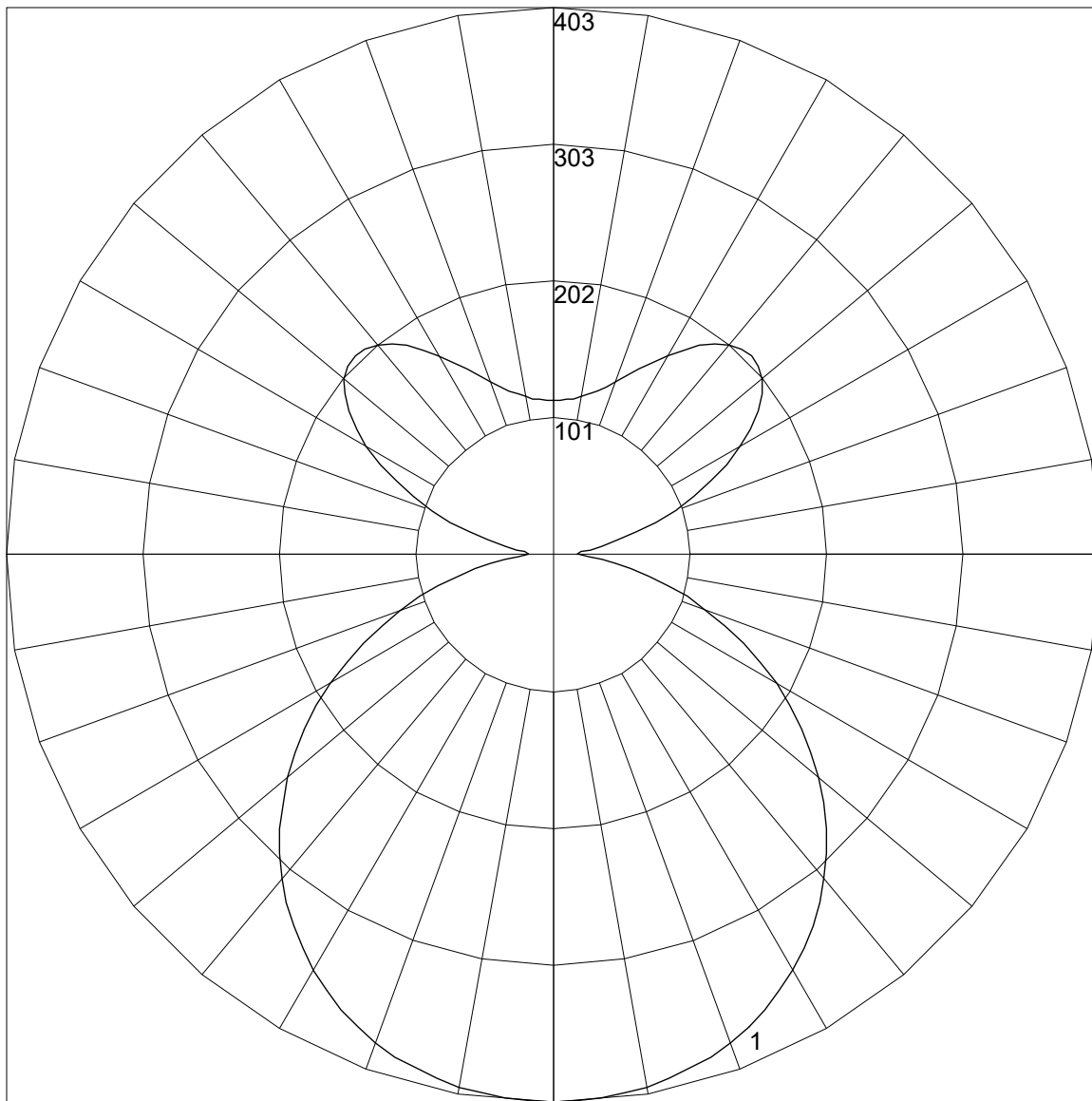
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	111	111	111	111	105	105	105	105	93	93	93	81	81	81	71	71	71	67
1	101	96	92	89	95	91	87	84	81	78	75	71	69	67	62	61	59	55
2	92	84	77	72	86	79	73	69	70	66	62	62	59	56	55	52	50	46
3	84	74	66	60	78	69	63	57	62	56	52	55	50	47	48	45	42	38
4	76	65	57	50	72	61	54	48	55	49	44	49	44	40	43	39	36	33
5	70	58	49	43	66	55	47	41	49	43	38	44	38	34	38	34	31	28
6	65	52	43	37	61	49	41	36	44	38	33	39	34	30	35	31	27	25
7	60	47	39	33	56	45	37	31	40	34	29	36	30	27	32	27	24	22
8	55	43	35	29	52	40	33	28	36	30	26	33	27	24	29	25	22	19
9	52	39	31	26	49	37	30	25	33	27	23	30	25	21	27	23	19	17
10	48	36	28	23	45	34	27	22	31	25	21	28	23	19	25	21	18	16

POLAR GRAPH



Maximum Candela = 403.462 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)