

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-S-8-35-30U70D-ITL87816.001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87816.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/14/16

[ISSUEDATE]07/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S12-LED-ID-DCO-4ft-2E-S-8-35-30U70D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.0 WATTS

[ABSOLUTE]LUMENS]1415

[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	1415
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	14.5
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	2612	2571	2622
55	2482	2404	2455
65	2292	2149	2186
75	1953	1751	1819
85	1355	1249	1474

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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	320.936	320.936	320.936	320.936	320.936
2.5	320.526	320.526	320.526	320.526	320.526
5.0	319.708	319.708	319.708	319.708	319.708
7.5	318.070	317.661	318.070	318.480	318.480
10.0	315.614	315.205	316.433	316.842	317.251
12.5	312.749	311.520	313.977	314.795	314.795
15.0	308.246	307.018	310.292	311.930	311.520
17.5	303.333	302.515	306.199	308.246	308.655
20.0	298.012	296.784	301.287	304.152	304.561
22.5	291.871	290.643	295.965	298.830	299.649
25.0	284.912	284.094	289.825	293.509	294.327
27.5	277.134	276.725	282.456	286.959	288.187
30.0	268.947	268.947	275.088	280.000	281.637
32.5	260.351	260.760	267.310	272.222	273.860
35.0	250.936	251.754	258.713	264.035	266.082
37.5	241.111	242.339	249.298	254.620	257.076
40.0	230.877	232.515	239.474	245.205	247.661
42.5	221.462	222.690	229.649	235.380	237.836
45.0	210.000	211.228	218.596	224.327	226.784
47.5	198.947	200.175	207.134	212.865	215.322
50.0	187.485	188.304	195.263	200.994	203.450
52.5	175.205	176.433	182.982	188.713	190.760
55.0	162.515	164.152	170.292	175.614	178.070
57.5	150.234	151.871	157.193	162.105	164.561
60.0	137.544	139.181	144.094	148.596	151.053
62.5	124.444	126.082	130.585	134.678	137.134
65.0	111.345	112.982	117.076	121.170	123.216
67.5	97.836	99.474	103.567	107.251	109.298
70.0	84.737	86.374	90.058	93.333	95.380
72.5	71.637	73.684	76.959	80.234	82.281
75.0	58.947	60.585	63.860	67.544	70.000
77.5	46.257	48.304	51.579	56.082	57.719
80.0	34.795	36.433	40.526	44.620	46.667
82.5	23.743	25.380	29.883	34.795	36.842
85.0	14.737	16.374	21.696	26.608	28.655
87.5	5.731	8.596	14.327	19.240	20.877
90.0	0.000	4.094	9.415	13.509	14.737
92.5	2.865	4.094	8.596	12.690	14.327
95.0	5.731	6.959	10.643	16.374	16.784
97.5	9.415	11.053	15.146	19.649	21.696
100.0	13.509	16.374	22.515	27.018	29.064
102.5	18.421	22.924	29.474	36.842	39.298
105.0	23.333	27.836	38.070	47.895	50.760
107.5	28.246	34.386	47.076	59.357	63.450
110.0	33.567	40.936	56.491	71.228	76.140
112.5	38.889	47.485	66.316	83.099	89.240
115.0	44.211	53.626	75.731	94.971	101.930
117.5	49.123	60.175	85.146	106.842	114.620
120.0	54.444	66.316	93.743	117.076	126.491
122.5	59.766	72.456	101.520	127.310	137.134
125.0	65.088	77.368	108.480	135.906	146.550
127.5	69.181	81.871	113.801	142.865	154.327
130.0	72.865	85.146	118.304	148.596	160.058
132.5	76.140	88.012	121.170	151.871	163.333

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-30U70D-ITL87816.001.IES****CANDELA TABULATION - (Cont.)**

135.0	79.006	90.058	122.398	153.099	164.561
137.5	81.462	91.696	122.807	152.281	163.333
140.0	83.918	92.924	121.579	149.825	160.468
142.5	85.556	93.333	119.532	145.731	155.556
145.0	87.193	93.743	117.076	140.409	149.415
147.5	88.421	94.152	113.801	134.678	142.047
150.0	89.240	94.152	110.526	128.129	134.678
152.5	90.058	93.743	107.251	121.579	127.310
155.0	90.468	93.333	104.386	115.439	119.942
157.5	90.877	92.924	101.520	109.708	113.392
160.0	90.877	92.515	99.064	105.205	107.661
162.5	91.287	92.105	96.608	101.111	102.749
165.0	90.877	91.696	94.971	97.836	99.064
167.5	90.877	91.287	93.333	95.380	96.199
170.0	90.877	90.877	92.515	93.333	93.743
172.5	90.468	90.877	91.287	92.105	92.105
175.0	90.468	90.468	90.877	90.877	91.287
177.5	90.468	90.468	90.468	90.468	90.468
180.0	90.468	90.468	90.468	90.468	90.468

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-30U70D-ITL87816.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	117.88	N.A.	8.30
0-30	251.14	N.A.	17.70
0-40	412.60	N.A.	29.20
0-60	732.82	N.A.	51.80
0-80	916.77	N.A.	64.80
0-90	941.31	N.A.	66.50
10-90	910.91	N.A.	64.40
20-40	294.72	N.A.	20.80
20-50	462.96	N.A.	32.70
40-70	436.04	N.A.	30.80
60-80	183.96	N.A.	13.00
70-80	68.13	N.A.	4.80
80-90	24.54	N.A.	1.70
90-110	53.98	N.A.	3.80
90-120	127.45	N.A.	9.00
90-130	222.31	N.A.	15.70
90-150	389.55	N.A.	27.50
90-180	474.00	N.A.	33.50
110-180	420.02	N.A.	29.70
0-180	1415.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	30.40
10-20	87.48
20-30	133.25
30-40	161.47
40-50	168.24
50-60	151.97
60-70	115.83
70-80	68.13
80-90	24.54
90-100	13.72
100-110	40.26
110-120	73.47
120-130	94.86
130-140	93.61
140-150	73.64
150-160	48.66
160-170	27.07
170-180	8.71

IES INDOOR REPORT

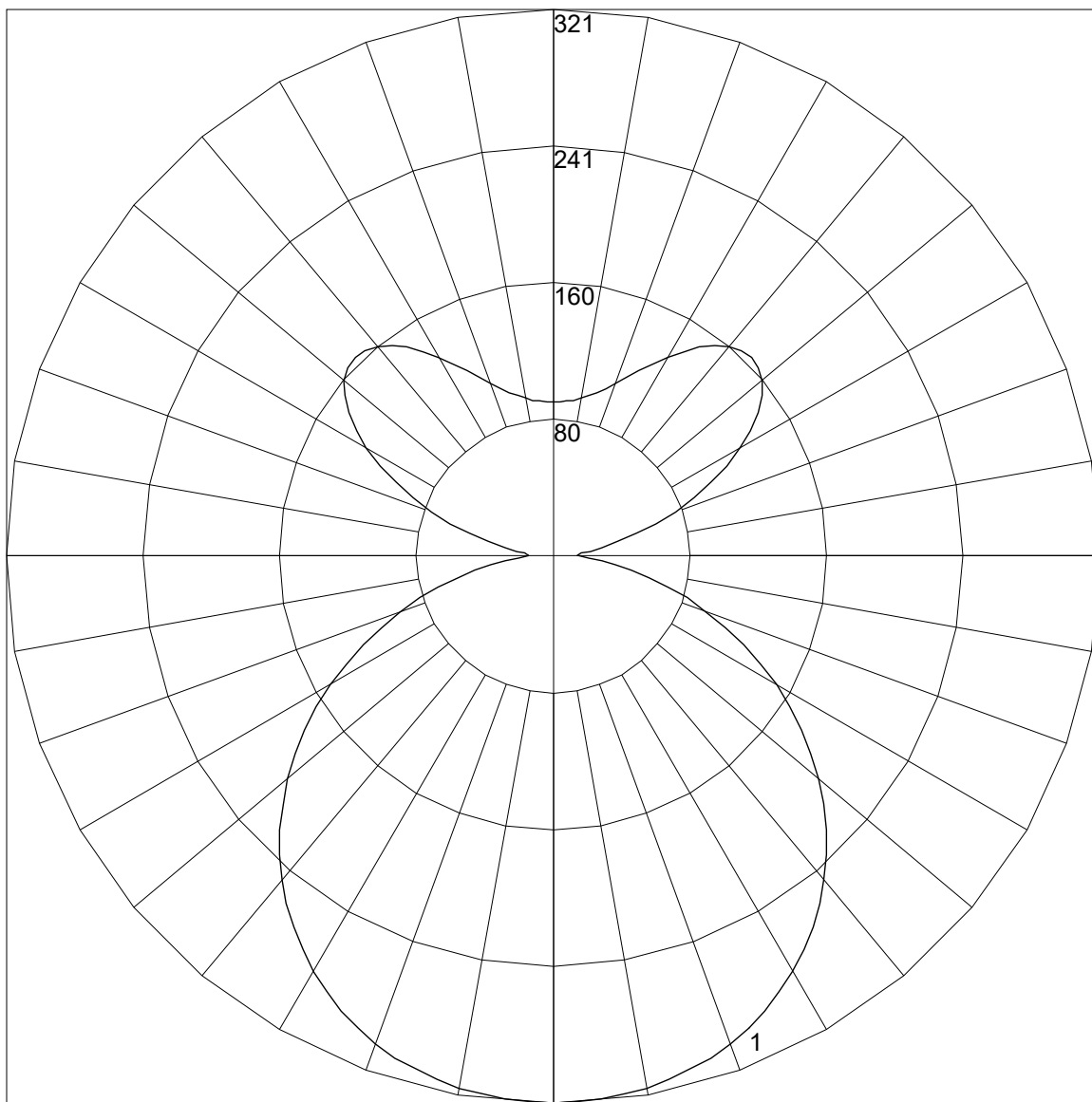
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	70	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 = 320.936 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)