

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-8-35-20U80D-ITL87815.001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87815.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[ISSUEDATE]07/14/16

[ISSUEDATE]07/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S12-LED-ID-DCO-4ft-2E-S-8-35-20U80D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.0 WATTS

[ABSOLUTE]LUMENS]1364

[OTHER]see www.finelite.com for source file ITL87815. 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	1363
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	14.5
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.24
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	2795	2749	2788
55	2657	2561	2602
65	2453	2284	2310
75	2089	1841	1925
85	1393	1296	1558

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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	347.544	347.544	347.544	347.544	347.544
2.5	347.134	347.134	347.544	347.134	347.544
5.0	346.316	345.906	346.316	346.316	346.316
7.5	343.860	344.269	344.678	344.678	345.088
10.0	341.403	340.585	342.222	342.632	342.632
12.5	337.719	336.901	338.947	340.175	340.175
15.0	333.626	331.988	335.263	336.901	336.491
17.5	327.895	326.257	330.351	332.398	332.398
20.0	321.754	320.526	325.029	327.895	328.304
22.5	314.386	313.567	318.480	322.164	322.573
25.0	307.018	306.199	311.930	315.614	316.433
27.5	298.421	298.421	304.152	308.655	309.474
30.0	289.825	289.825	296.374	300.877	302.105
32.5	280.000	280.409	287.368	292.281	293.509
35.0	269.766	270.585	277.544	282.865	284.503
37.5	259.123	260.351	267.310	273.041	274.678
40.0	248.070	249.708	257.076	262.807	264.444
42.5	236.608	238.246	245.614	251.345	252.982
45.0	224.737	226.374	233.743	239.883	241.111
47.5	212.456	214.503	221.462	227.193	228.830
50.0	200.175	201.813	208.363	214.094	216.140
52.5	187.076	188.713	194.854	200.585	202.222
55.0	173.977	175.205	181.345	187.076	188.713
57.5	160.468	162.105	167.427	172.749	174.386
60.0	146.959	148.596	153.099	158.421	159.649
62.5	133.041	134.678	138.772	143.684	144.912
65.0	119.123	120.351	124.444	128.947	130.175
67.5	105.205	106.023	109.708	114.211	115.848
70.0	90.877	92.515	95.380	99.474	101.520
72.5	76.550	78.187	81.053	85.556	87.602
75.0	63.041	64.678	67.135	72.047	74.094
77.5	49.942	51.170	54.444	59.766	61.404
80.0	37.251	38.889	42.573	47.485	49.532
82.5	25.380	27.427	31.520	36.842	39.298
85.0	15.146	17.193	22.515	28.246	30.292
87.5	5.731	9.415	15.556	20.468	22.105
90.0	0.000	4.094	9.825	13.918	15.965
92.5	2.047	3.275	7.778	11.871	13.509
95.0	4.503	5.322	8.596	13.509	14.327
97.5	7.368	8.596	11.871	15.146	16.374
100.0	10.234	13.099	17.602	20.058	21.287
102.5	13.918	18.012	22.515	27.427	28.655
105.0	18.012	21.696	29.064	35.614	37.251
107.5	22.105	26.608	35.614	43.801	45.848
110.0	26.199	31.520	42.982	52.398	55.263
112.5	29.883	36.433	50.351	60.994	64.678
115.0	33.977	41.345	57.719	69.591	73.684
117.5	38.070	46.257	64.678	77.778	82.690
120.0	42.164	51.170	70.819	85.556	91.287
122.5	46.667	56.082	76.550	92.924	98.246
125.0	50.760	59.766	81.053	99.064	104.795
127.5	54.444	63.041	85.146	103.977	110.526
130.0	56.901	65.497	88.012	107.661	114.620
132.5	59.357	67.544	89.649	110.117	117.076

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-20U80D-ITL87815.001.IES****CANDELA TABULATION - (Cont.)**

135.0	61.813	69.181	90.468	110.936	117.895
137.5	63.450	70.000	90.468	110.526	117.076
140.0	65.088	70.819	90.058	108.480	115.029
142.5	66.725	71.637	88.830	106.023	112.164
145.0	67.953	72.047	86.784	102.339	107.661
147.5	68.772	72.047	85.146	98.246	103.158
150.0	69.591	72.456	83.099	94.152	98.246
152.5	70.000	72.456	80.643	90.058	93.333
155.0	70.409	72.047	79.006	85.965	88.830
157.5	70.819	72.047	77.368	82.690	84.737
160.0	71.228	72.047	75.731	79.415	81.462
162.5	71.228	71.637	74.503	76.959	78.187
165.0	71.228	71.637	73.684	75.322	76.140
167.5	71.228	71.637	72.865	73.684	74.503
170.0	71.228	71.228	72.047	72.456	72.865
172.5	71.228	71.228	71.637	72.047	72.047
175.0	70.819	71.228	71.228	71.228	71.637
177.5	70.819	70.819	70.819	70.819	70.819
180.0	70.819	70.819	70.819	70.819	70.819

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-S-8-35-20U80D-ITL87815.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	127.38	N.A.	9.30
0-30	270.89	N.A.	19.90
0-40	444.22	N.A.	32.60
0-60	785.99	N.A.	57.60
0-80	981.71	N.A.	72.00
0-90	1007.73	N.A.	73.90
10-90	974.82	N.A.	71.50
20-40	316.84	N.A.	23.20
20-50	496.67	N.A.	36.40
40-70	465.08	N.A.	34.10
60-80	195.72	N.A.	14.40
70-80	72.41	N.A.	5.30
80-90	26.02	N.A.	1.90
90-110	41.66	N.A.	3.10
90-120	96.56	N.A.	7.10
90-130	167.10	N.A.	12.30
90-150	291.08	N.A.	21.30
90-180	355.68	N.A.	26.10
110-180	314.02	N.A.	23.00
0-180	1363.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	32.91
10-20	94.47
20-30	143.51
30-40	173.33
40-50	179.83
50-60	161.94
60-70	123.31
70-80	72.41
80-90	26.02
90-100	11.32
100-110	30.34
110-120	54.90
120-130	70.55
130-140	69.20
140-150	54.77
150-160	36.84
160-170	20.94
170-180	6.82

IES INDOOR REPORT

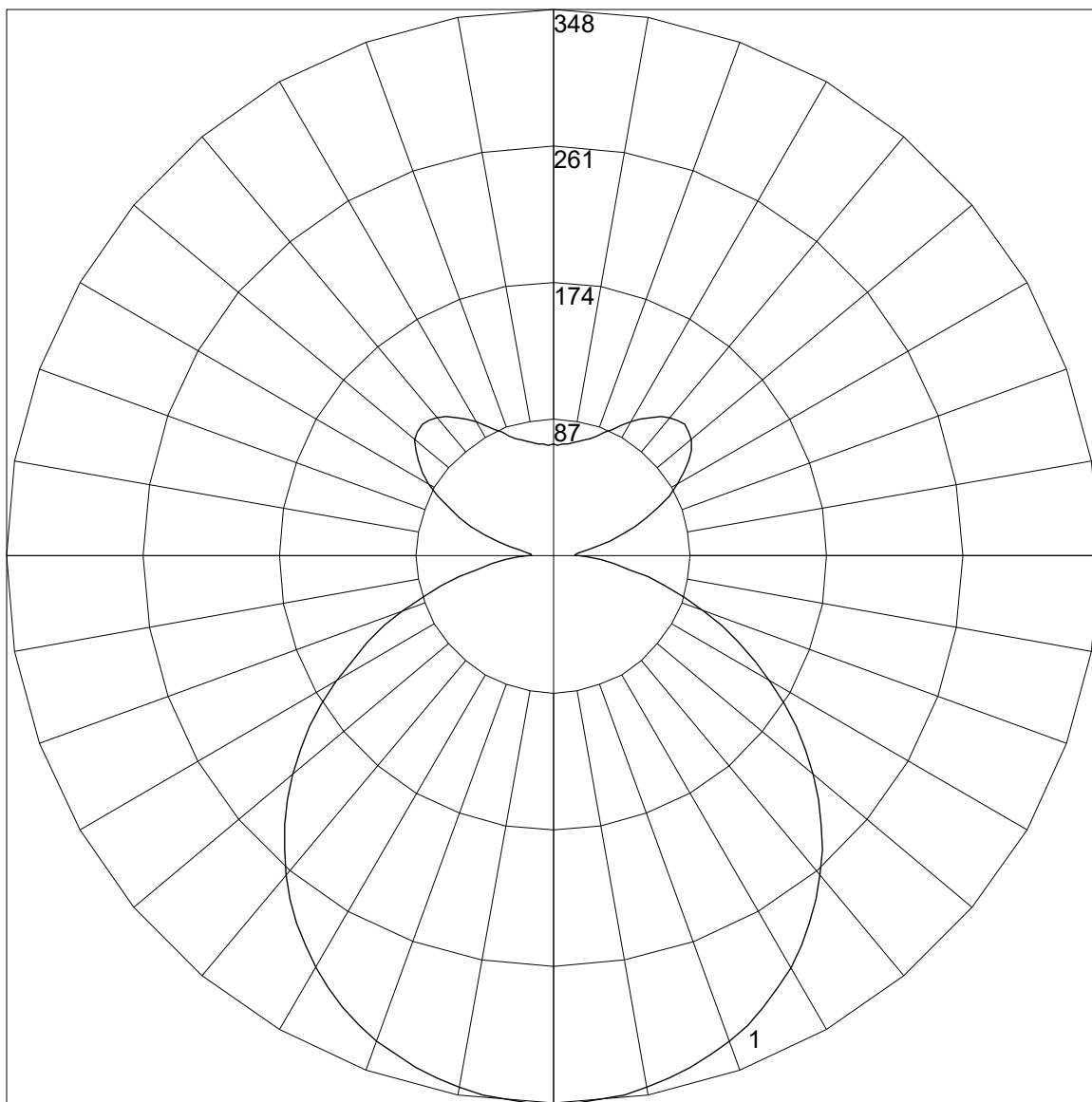
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74
1	103	98	94	90	97	93	90	86	84	81	79	76	74	72	68	67	65	61
2	93	85	79	73	88	81	75	70	74	69	65	66	63	59	60	57	54	51
3	85	75	67	61	80	71	64	58	65	59	54	58	54	50	53	49	46	43
4	78	66	58	51	73	63	55	49	57	51	46	52	47	43	47	43	39	36
5	71	59	50	44	67	56	48	42	51	45	40	47	41	37	42	38	34	31
6	66	53	44	38	62	51	43	37	46	40	35	42	37	32	38	34	30	28
7	61	48	39	33	58	46	38	32	42	35	30	38	33	29	35	30	27	24
8	57	44	35	30	54	42	34	29	38	32	27	35	30	25	32	27	24	22
9	53	40	32	27	50	38	31	26	35	29	24	32	27	23	30	25	21	19
10	49	37	29	24	47	35	28	23	32	26	22	30	24	21	27	23	19	18

POLAR GRAPH



Maximum Candela = 347.544 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)