

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-20U80D-ITL87815.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87815.902 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-20U80D

[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]1714

[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	1714
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	20.4
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	3514	3456	3505
55	3340	3219	3271
65	3083	2872	2904
75	2626	2314	2420
85	1751	1630	1959

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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	436.912	436.912	436.912	436.912	436.912
2.5	436.398	436.398	436.912	436.398	436.912
5.0	435.368	434.854	435.368	435.368	435.368
7.5	432.281	432.795	433.310	433.310	433.825
10.0	429.193	428.164	430.222	430.737	430.737
12.5	424.561	423.532	426.105	427.649	427.649
15.0	419.415	417.357	421.474	423.532	423.018
17.5	412.211	410.152	415.298	417.871	417.871
20.0	404.491	402.947	408.608	412.211	412.725
22.5	395.228	394.199	400.374	405.006	405.520
25.0	385.965	384.936	392.140	396.772	397.801
27.5	375.158	375.158	382.363	388.023	389.053
30.0	364.351	364.351	372.585	378.246	379.789
32.5	352.000	352.515	361.263	367.439	368.982
35.0	339.135	340.164	348.912	355.602	357.661
37.5	325.754	327.298	336.047	343.251	345.310
40.0	311.860	313.918	323.181	330.386	332.444
42.5	297.450	299.509	308.772	315.977	318.035
45.0	282.526	284.585	293.848	301.567	303.111
47.5	267.088	269.661	278.409	285.614	287.673
50.0	251.649	253.708	261.942	269.146	271.719
52.5	235.181	237.240	244.959	252.164	254.222
55.0	218.713	220.257	227.977	235.181	237.240
57.5	201.731	203.789	210.480	217.170	219.228
60.0	184.749	186.807	192.468	199.158	200.702
62.5	167.251	169.310	174.456	180.632	182.175
65.0	149.754	151.298	156.444	162.105	163.649
67.5	132.257	133.287	137.918	143.579	145.637
70.0	114.246	116.304	119.906	125.053	127.626
72.5	96.234	98.292	101.895	107.556	110.129
75.0	79.251	81.310	84.398	90.573	93.146
77.5	62.784	64.327	68.444	75.135	77.193
80.0	46.830	48.889	53.520	59.696	62.269
82.5	31.906	34.480	39.626	46.316	49.404
85.0	19.041	21.614	28.304	35.509	38.082
87.5	7.205	11.836	19.556	25.731	27.789
90.0	0.000	5.146	12.351	17.497	20.070
92.5	2.573	4.117	9.778	14.924	16.982
95.0	5.661	6.690	10.807	16.982	18.012
97.5	9.263	10.807	14.924	19.041	20.585
100.0	12.865	16.468	22.129	25.216	26.760
102.5	17.497	22.643	28.304	34.480	36.023
105.0	22.643	27.275	36.538	44.772	46.830
107.5	27.789	33.450	44.772	55.064	57.637
110.0	32.936	39.626	54.035	65.871	69.474
112.5	37.567	45.801	63.298	76.678	81.310
115.0	42.713	51.977	72.561	87.485	92.632
117.5	47.860	58.152	81.310	97.778	103.953
120.0	53.006	64.327	89.029	107.556	114.760
122.5	58.667	70.503	96.234	116.819	123.509
125.0	63.813	75.135	101.895	124.538	131.743
127.5	68.444	79.251	107.041	130.713	138.947
130.0	71.532	82.339	110.643	135.345	144.094
132.5	74.620	84.912	112.702	138.433	147.181

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-B-8-TW-20U80D-ITL87815.902.IES****CANDELA TABULATION - (Cont.)**

135.0	77.708	86.971	113.731	139.462	148.211
137.5	79.766	88.000	113.731	138.947	147.181
140.0	81.825	89.029	113.216	136.374	144.608
142.5	83.883	90.058	111.673	133.287	141.006
145.0	85.427	90.573	109.099	128.655	135.345
147.5	86.456	90.573	107.041	123.509	129.684
150.0	87.485	91.088	104.468	118.363	123.509
152.5	88.000	91.088	101.380	113.216	117.333
155.0	88.515	90.573	99.322	108.070	111.673
157.5	89.029	90.573	97.263	103.953	106.526
160.0	89.544	90.573	95.205	99.836	102.409
162.5	89.544	90.058	93.661	96.749	98.292
165.0	89.544	90.058	92.632	94.690	95.719
167.5	89.544	90.058	91.602	92.632	93.661
170.0	89.544	89.544	90.573	91.088	91.602
172.5	89.544	89.544	90.058	90.573	90.573
175.0	89.029	89.544	89.544	89.544	90.058
177.5	89.029	89.029	89.029	89.029	89.029
180.0	89.029	89.029	89.029	89.029	89.029

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-B-8-TW-20U80D-ITL87815.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	160.13	N.A.	9.30
0-30	340.54	N.A.	19.90
0-40	558.44	N.A.	32.60
0-60	988.10	N.A.	57.60
0-80	1234.15	N.A.	72.00
0-90	1266.86	N.A.	73.90
10-90	1225.49	N.A.	71.50
20-40	398.31	N.A.	23.20
20-50	624.39	N.A.	36.40
40-70	584.67	N.A.	34.10
60-80	246.05	N.A.	14.40
70-80	91.04	N.A.	5.30
80-90	32.71	N.A.	1.90
90-110	52.37	N.A.	3.10
90-120	121.38	N.A.	7.10
90-130	210.07	N.A.	12.30
90-150	365.92	N.A.	21.30
90-180	447.14	N.A.	26.10
110-180	394.76	N.A.	23.00
0-180	1714.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	41.38
10-20	118.76
20-30	180.41
30-40	217.90
40-50	226.08
50-60	203.58
60-70	155.02
70-80	91.04
80-90	32.71
90-100	14.23
100-110	38.14
110-120	69.01
120-130	88.69
130-140	87.00
140-150	68.85
150-160	46.31
160-170	26.32
170-180	8.58

IES INDOOR REPORT

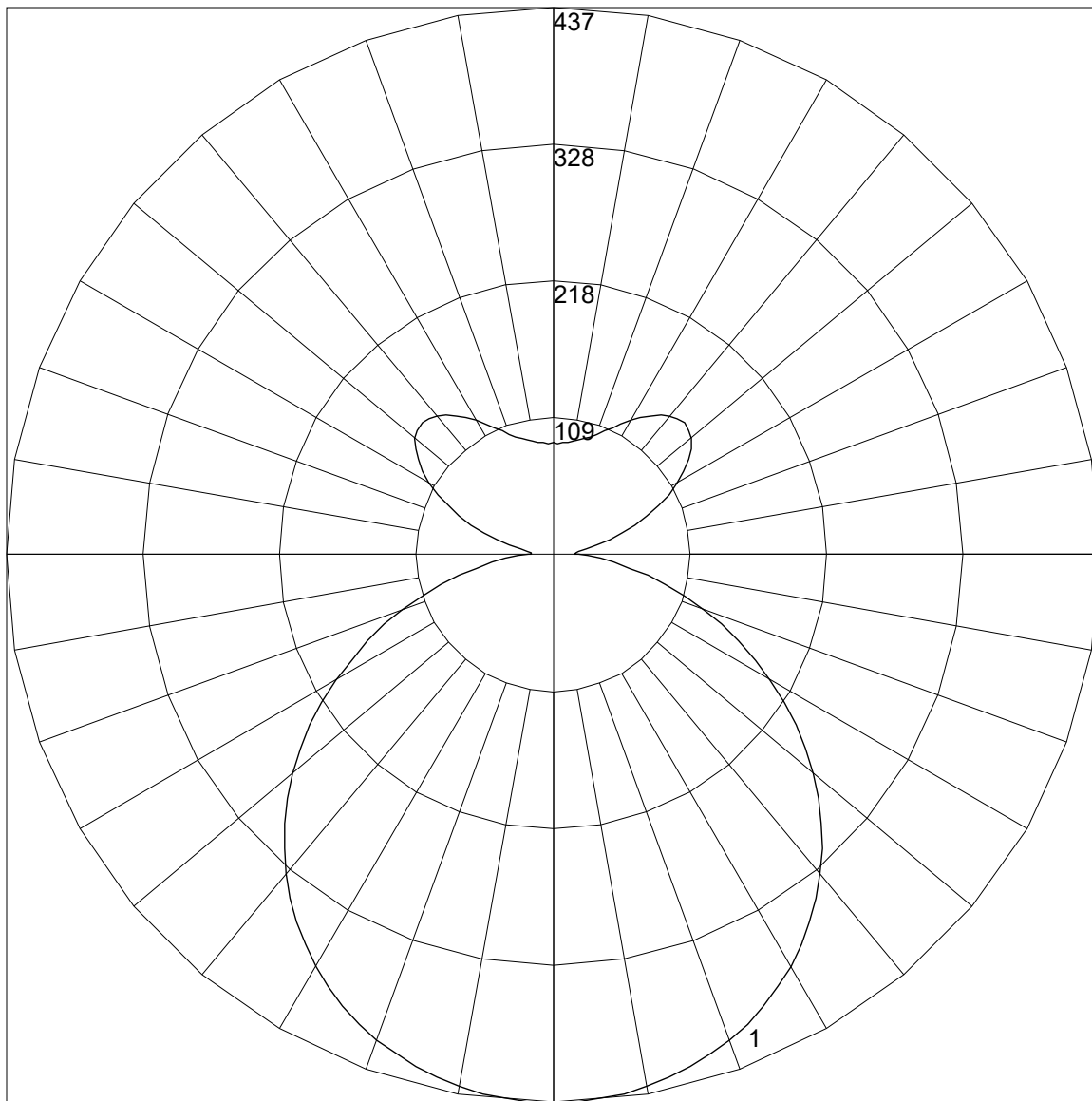
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	89	86	84	81	79	76	74	72	68	67	65	61
2	93	85	79	73	88	81	75	70	73	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	27
7	61	48	39	33	58	46	38	32	42	35	30	38	33	29	35	30	27	24
8	57	43	35	30	54	42	34	29	38	32	27	35	29	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 = 436.912 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)