

# 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-WM-ID-LED-DCO-4FT-2E-B-8-35-OPEN-ITL85167.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85167.002 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/08/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S12-WM-ID-LED-DCO-4ft-2E-B-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 18.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 19.9 WATTS

[ABSOLUTE]LUMENS]2380

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85167. 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](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	2380
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	18.5
Ballast Factor	1.00
CIE Type	Semi-Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.17 ft
Luminous Width (90-270)	3.32 ft
Luminous Height	0.01 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3950	3943	3790
55	3535	3578	3538
65	3002	3118	3241
75	2191	2369	2748
85	802	974	1771

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
<b>0.0</b>	230.550	230.550	230.550	230.550	230.550	230.550	230.550	230.550	230.550
<b>2.5</b>	233.123	233.123	232.094	231.579	230.035	229.006	227.977	226.947	226.947
<b>5.0</b>	235.181	234.667	233.637	231.579	229.006	226.947	224.374	223.345	222.830
<b>7.5</b>	236.211	235.696	234.152	231.064	227.462	223.860	220.772	218.713	217.684
<b>10.0</b>	236.211	235.696	233.637	229.520	224.889	220.257	216.140	213.567	212.023
<b>12.5</b>	235.696	235.181	232.094	226.947	221.801	215.626	210.994	207.392	205.848
<b>15.0</b>	233.637	232.608	229.520	223.860	217.684	210.994	205.333	201.216	199.158
<b>17.5</b>	231.064	230.035	226.433	220.257	214.082	205.333	199.158	194.526	191.953
<b>20.0</b>	227.462	226.433	222.316	216.140	208.936	199.158	192.982	187.836	184.749
<b>22.5</b>	222.830	222.316	218.199	210.994	203.789	193.497	186.292	180.632	177.544
<b>25.0</b>	216.655	216.140	212.538	205.333	197.614	186.807	179.088	172.912	170.339
<b>27.5</b>	210.994	210.480	206.363	199.158	191.439	180.117	171.883	165.708	163.135
<b>30.0</b>	203.789	203.275	199.673	192.982	184.749	173.427	165.193	158.503	155.930
<b>32.5</b>	196.585	195.556	192.468	185.778	177.029	166.222	157.474	150.784	148.211
<b>35.0</b>	188.351	187.836	184.749	178.573	169.825	159.018	150.269	143.579	141.006
<b>37.5</b>	180.117	179.602	176.515	170.854	162.105	151.298	142.550	136.374	133.801
<b>40.0</b>	170.854	170.854	167.766	162.620	154.386	144.094	135.345	129.170	126.596
<b>42.5</b>	161.591	161.591	159.018	154.386	146.152	136.374	128.140	121.965	119.392
<b>45.0</b>	152.842	152.327	150.269	145.637	138.433	128.655	120.421	114.760	112.702
<b>47.5</b>	143.579	143.064	141.520	136.889	130.199	120.936	113.216	107.556	105.497
<b>50.0</b>	133.287	133.287	132.257	128.140	121.965	113.216	105.497	100.351	98.292
<b>52.5</b>	123.509	123.509	122.994	119.392	113.731	105.497	98.292	93.146	91.602
<b>55.0</b>	113.731	113.216	112.702	110.129	104.982	97.263	90.573	85.942	84.398
<b>57.5</b>	103.953	103.439	103.439	100.865	97.263	89.544	83.368	78.737	77.193
<b>60.0</b>	93.661	93.661	93.661	92.117	88.515	81.825	76.164	71.532	69.988
<b>62.5</b>	83.883	83.883	83.883	82.339	79.766	73.591	68.444	64.842	63.298
<b>65.0</b>	74.105	73.591	74.620	73.076	71.018	65.871	61.240	57.637	56.094
<b>67.5</b>	64.327	63.813	64.842	64.327	62.269	57.637	53.520	50.433	48.889
<b>70.0</b>	54.550	54.550	55.579	55.064	54.035	49.918	45.801	43.743	42.199
<b>72.5</b>	44.772	45.287	46.316	46.316	45.287	41.684	39.111	36.538	34.994
<b>75.0</b>	36.023	36.023	37.053	37.567	37.053	34.480	31.906	29.333	28.304
<b>77.5</b>	27.275	27.789	28.819	29.333	29.333	27.275	24.702	22.643	21.614
<b>80.0</b>	19.041	19.556	20.585	21.099	21.614	20.070	18.012	16.468	15.439
<b>82.5</b>	11.836	11.836	13.380	13.895	14.409	13.895	11.836	10.807	10.807
<b>85.0</b>	6.175	6.175	6.690	7.719	8.234	7.719	6.690	6.690	6.690
<b>87.5</b>	2.573	2.058	2.573	2.573	3.088	3.088	2.573	2.573	3.088
<b>90.0</b>	0.515	0.515	0.515	0.000	0.000	0.515	0.515	1.029	1.029
<b>92.5</b>	0.515	0.515	0.515	1.544	5.661	2.573	3.088	3.088	3.088
<b>95.0</b>	1.544	2.058	4.117	116.819	20.070	12.351	5.661	5.661	5.661
<b>97.5</b>	8.234	135.860	246.503	156.444	42.713	27.275	14.924	9.263	8.749
<b>100.0</b>	350.971	331.415	302.596	185.263	67.415	39.111	30.877	21.099	16.468
<b>102.5</b>	367.439	360.749	321.123	215.626	94.175	49.404	46.316	36.538	32.421
<b>105.0</b>	446.690	415.813	337.076	241.871	120.936	60.211	62.269	52.491	48.374
<b>107.5</b>	450.292	425.076	358.690	264.000	146.667	71.532	73.076	67.415	63.813
<b>110.0</b>	460.585	440.000	384.421	284.585	172.912	86.456	83.883	81.825	79.251
<b>112.5</b>	473.965	457.497	409.637	304.140	197.614	106.012	93.661	92.117	91.602
<b>115.0</b>	491.462	479.626	430.222	323.181	221.801	125.567	103.953	102.409	101.895
<b>117.5</b>	512.561	502.269	448.749	341.708	245.474	145.637	114.760	112.187	112.187
<b>120.0</b>	532.632	518.737	460.070	362.292	268.117	166.737	125.567	121.965	121.450
<b>122.5</b>	547.041	533.146	470.877	384.936	290.760	190.409	138.947	132.257	131.228
<b>125.0</b>	560.936	542.924	481.684	407.064	312.374	212.538	156.959	142.550	141.006
<b>127.5</b>	566.596	547.041	491.977	426.620	333.474	233.637	177.029	152.327	150.784
<b>130.0</b>	569.170	552.187	500.725	444.117	353.029	259.368	199.673	166.222	161.076
<b>132.5</b>	573.287	557.333	508.959	459.041	371.556	287.158	220.257	185.263	174.971

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-WM-ID-LED-DCO-4FT-2E-B-8-35-OPEN-ITL85167.002.IES****CANDELA TABULATION - (Cont.)**

135.0	576.374	561.450	516.678	471.392	389.567	309.287	240.327	207.392	195.041
137.5	578.433	565.053	525.942	483.228	406.035	328.842	262.971	229.520	218.199
140.0	579.977	567.111	537.263	494.035	420.959	348.398	284.585	250.620	239.813
142.5	580.491	569.684	549.614	503.298	435.883	367.953	305.684	271.205	261.427
145.0	581.520	573.287	559.392	512.047	449.263	386.480	325.240	291.789	282.012
147.5	583.579	579.462	566.596	519.766	462.129	403.462	349.427	314.947	303.111
150.0	589.754	587.696	571.228	526.456	473.450	419.930	375.673	336.561	326.269
152.5	595.930	592.327	574.316	531.602	484.257	435.368	395.743	355.088	345.310
155.0	599.018	594.386	575.860	536.234	493.006	449.778	413.754	383.392	366.924
157.5	599.532	593.871	577.404	539.322	501.754	462.643	430.737	406.550	395.743
160.0	596.959	591.813	577.404	541.895	508.959	474.994	445.661	425.076	416.842
162.5	593.871	588.211	575.345	542.409	515.135	486.830	460.070	441.029	434.339
165.0	589.240	584.094	572.257	543.439	521.310	498.152	473.965	456.468	450.292
167.5	584.094	578.433	566.596	542.924	524.912	507.415	487.345	471.906	466.760
170.0	574.830	571.228	559.906	542.924	528.515	515.649	500.211	487.860	482.713
172.5	565.567	561.450	552.187	546.012	531.602	520.795	512.047	503.813	500.725
175.0	553.216	551.158	547.556	543.953	533.661	526.971	522.854	517.193	514.620
177.5	548.070	547.041	543.953	539.836	535.205	531.602	529.029	526.456	524.912
180.0	535.205	535.205	535.205	535.205	535.205	535.205	535.205	535.205	535.205

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-WM-ID-LED-DCO-4FT-2E-B-8-35-OPEN-ITL85167.002.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	82.95	N.A.	3.50
0-30	173.01	N.A.	7.30
0-40	277.63	N.A.	11.70
0-60	473.21	N.A.	19.90
0-80	576.89	N.A.	24.20
0-90	585.67	N.A.	24.60
10-90	563.94	N.A.	23.70
20-40	194.68	N.A.	8.20
20-50	299.15	N.A.	12.60
40-70	262.65	N.A.	11.00
60-80	103.68	N.A.	4.40
70-80	36.61	N.A.	1.50
80-90	8.78	N.A.	0.40
90-110	246.30	N.A.	10.40
90-120	504.17	N.A.	21.20
90-130	795.33	N.A.	33.40
90-150	1369.52	N.A.	57.60
90-180	1793.99	N.A.	75.40
110-180	1547.69	N.A.	65.00
0-180	2379.66	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	21.73
10-20	61.22
20-30	90.07
30-40	104.61
40-50	104.47
50-60	91.11
60-70	67.07
70-80	36.61
80-90	8.78
90-100	47.98
100-110	198.32
110-120	257.87
120-130	291.16
130-140	297.59
140-150	276.60
150-160	226.38
160-170	147.21
170-180	50.87

# IES INDOOR REPORT

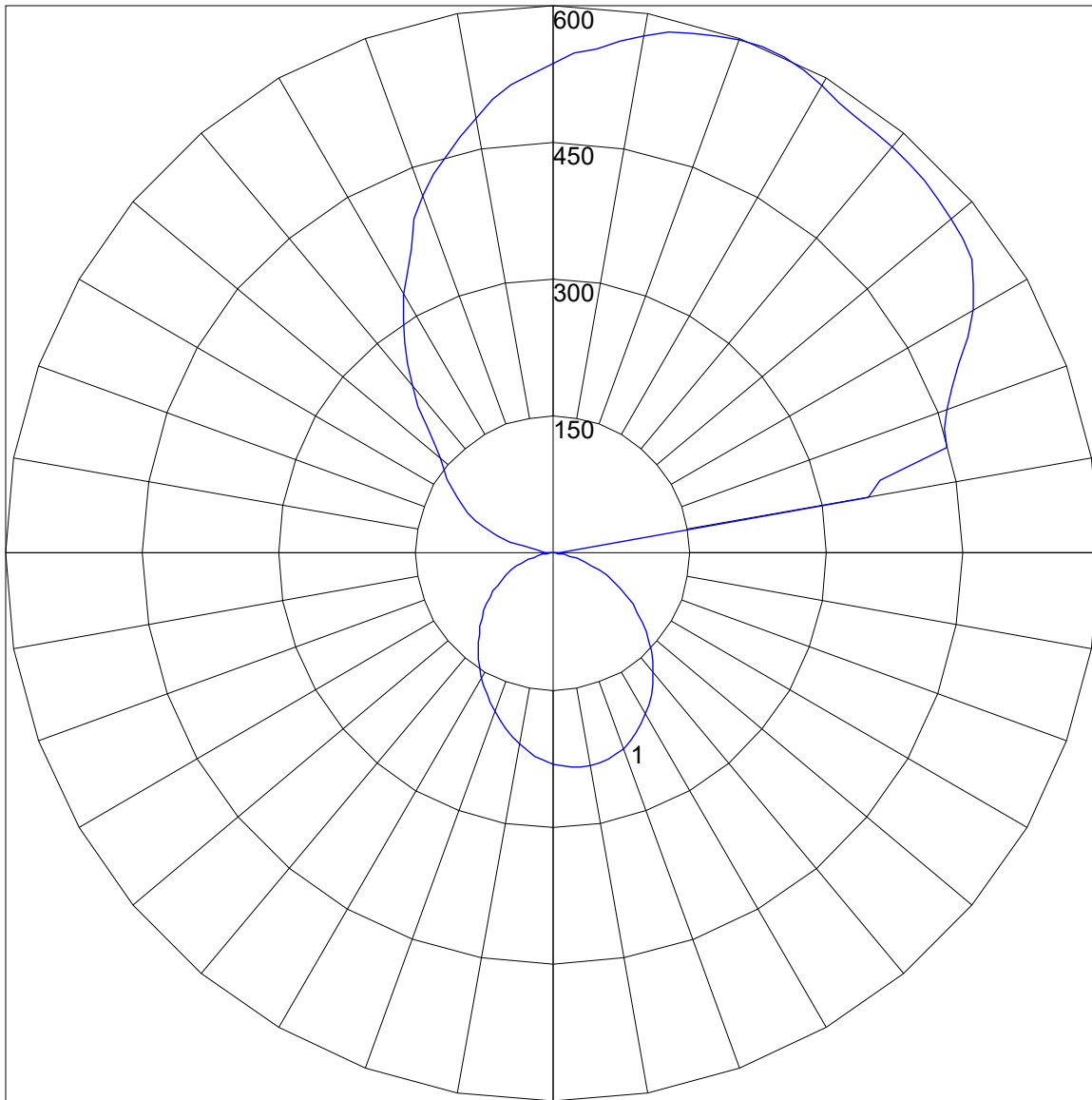
PHOTOMETRIC FILENAME : S12-WM-ID-LED-DCO-4FT-2E-B-8-35-OPEN-ITL85167.002.IES

## 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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	25
1	92	88	84	81	82	78	75	73	61	59	57	44	43	42	29	28	28	21
2	84	77	71	66	74	69	64	60	53	50	47	39	37	35	26	24	23	17
3	76	67	60	55	68	60	54	50	47	43	39	34	32	29	23	21	20	15
4	70	60	52	46	62	53	47	42	41	37	33	30	27	25	20	18	17	13
5	64	53	45	39	57	47	41	36	37	32	29	27	24	22	18	16	15	11
6	59	47	40	34	52	42	36	31	33	28	25	25	21	19	16	15	13	10
7	54	43	35	30	48	38	32	27	30	25	22	22	19	17	15	13	12	9
8	50	38	31	26	45	35	28	24	27	23	19	20	17	15	14	12	10	8
9	47	35	28	23	41	31	25	21	25	20	17	19	15	13	13	11	9	7
10	43	32	25	20	39	29	23	19	23	18	15	17	14	12	12	10	8	6

POLAR GRAPH



Maximum Candela = 599.532 Located At Horizontal Angle = 0, Vertical Angle = 157.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)