

# 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-3E-B-B-8-TW-FTO-ITL85165.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85165.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/07/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S12-LED-ID-DCO-4ft-3E-B-B-8-TW-FTO

[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 31.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 35.7 WATTS

[ABSOLUTE]LUMENS]3436

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85165. 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	3436
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	31.6
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)	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	2950	2821	2779
55	2766	2580	2540
65	2511	2295	2219
75	2097	1848	1859
85	1230	1333	1509

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-B-B-8-TW-FTO-ITL85165.902.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	385.450	385.450	385.450	385.450	385.450
<b>2.5</b>	384.936	384.936	384.936	384.936	384.936
<b>5.0</b>	382.877	383.392	383.392	383.392	383.392
<b>7.5</b>	380.819	380.819	380.819	380.819	381.333
<b>10.0</b>	377.216	376.702	377.731	377.731	377.216
<b>12.5</b>	372.585	371.556	373.099	373.099	372.585
<b>15.0</b>	366.924	364.865	367.439	367.439	366.924
<b>17.5</b>	360.234	358.175	361.263	361.263	360.749
<b>20.0</b>	352.515	349.942	353.029	353.544	353.029
<b>22.5</b>	343.766	341.193	344.795	345.310	345.310
<b>25.0</b>	333.988	331.930	335.018	336.047	336.561
<b>27.5</b>	323.696	322.152	324.725	326.784	326.784
<b>30.0</b>	312.889	311.345	313.918	316.491	315.977
<b>32.5</b>	301.053	300.023	303.626	304.655	304.140
<b>35.0</b>	288.702	288.187	291.789	293.333	292.304
<b>37.5</b>	276.865	275.836	279.439	280.468	279.953
<b>40.0</b>	264.000	263.485	266.573	267.602	267.088
<b>42.5</b>	251.135	250.105	253.193	254.222	253.708
<b>45.0</b>	237.240	236.725	239.813	240.327	240.327
<b>47.5</b>	223.345	222.830	225.404	226.947	226.433
<b>50.0</b>	209.450	209.450	211.509	212.538	212.538
<b>52.5</b>	195.556	196.070	197.099	198.643	198.643
<b>55.0</b>	181.146	181.661	182.690	184.234	184.234
<b>57.5</b>	166.737	167.251	168.281	169.825	169.310
<b>60.0</b>	151.813	152.327	153.871	155.415	154.901
<b>62.5</b>	136.889	137.918	139.462	140.491	139.977
<b>65.0</b>	121.965	122.994	125.053	125.567	125.053
<b>67.5</b>	107.041	108.070	110.129	111.158	110.643
<b>70.0</b>	92.117	93.661	95.719	96.749	97.263
<b>72.5</b>	77.193	79.251	80.795	83.883	84.398
<b>75.0</b>	63.298	65.357	67.415	71.018	71.532
<b>77.5</b>	49.404	51.462	54.550	58.152	59.181
<b>80.0</b>	36.023	38.596	42.713	46.830	47.860
<b>82.5</b>	24.187	26.760	31.906	37.053	38.082
<b>85.0</b>	13.380	16.468	23.158	28.304	29.333
<b>87.5</b>	4.117	8.749	15.439	20.585	22.129
<b>90.0</b>	0.000	4.632	11.836	17.497	19.556
<b>92.5</b>	16.982	20.070	27.789	33.965	35.509
<b>95.0</b>	35.509	40.140	48.889	55.579	58.667
<b>97.5</b>	56.094	62.784	74.105	81.825	85.427
<b>100.0</b>	78.737	87.485	102.924	113.216	117.848
<b>102.5</b>	103.953	115.275	134.830	149.240	155.415
<b>105.0</b>	130.713	144.608	169.825	188.351	195.556
<b>107.5</b>	158.503	175.485	206.363	229.520	236.211
<b>110.0</b>	187.836	207.906	244.959	272.234	280.468
<b>112.5</b>	216.140	240.842	284.070	314.433	325.240
<b>115.0</b>	247.018	273.778	323.696	358.175	370.012
<b>117.5</b>	277.895	307.228	361.778	401.404	413.754
<b>120.0</b>	308.257	340.678	400.374	443.602	456.982
<b>122.5</b>	338.620	373.099	436.398	483.743	498.667
<b>125.0</b>	368.982	404.491	471.906	521.310	537.263
<b>127.5</b>	398.316	435.368	505.357	556.304	572.772
<b>130.0</b>	427.135	464.187	535.719	587.696	604.164
<b>132.5</b>	455.439	491.977	563.509	615.485	631.953

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-B-B-8-TW-FTO-ITL85165.902.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	481.684	517.193	588.211	640.187	656.140
<b>137.5</b>	507.415	541.380	610.339	660.257	676.211
<b>140.0</b>	531.602	562.994	629.380	677.240	692.164
<b>142.5</b>	553.731	581.520	644.819	689.591	704.000
<b>145.0</b>	575.345	600.047	658.713	700.912	713.778
<b>147.5</b>	593.357	615.485	669.006	707.602	719.953
<b>150.0</b>	611.368	629.895	678.269	713.263	723.556
<b>152.5</b>	627.322	642.246	685.474	716.866	725.614
<b>155.0</b>	640.702	653.567	690.620	718.409	726.643
<b>157.5</b>	653.053	662.830	694.737	717.895	725.614
<b>160.0</b>	663.345	671.579	697.825	716.351	723.556
<b>162.5</b>	672.608	678.269	699.883	714.292	720.982
<b>165.0</b>	680.327	684.444	700.912	712.234	716.866
<b>167.5</b>	686.503	689.591	701.427	709.146	713.263
<b>170.0</b>	691.649	693.708	700.912	706.573	709.661
<b>172.5</b>	695.251	697.310	700.912	704.515	706.573
<b>175.0</b>	698.339	699.368	700.912	702.456	702.971
<b>177.5</b>	700.398	700.398	700.398	701.427	701.427
<b>180.0</b>	700.912	700.912	700.912	700.912	700.912

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-B-B-8-TW-FTO-ITL85165.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	139.82	N.A.	4.10
0-30	293.95	N.A.	8.60
0-40	475.87	N.A.	13.80
0-60	823.59	N.A.	24.00
0-80	1018.5	N.A.	29.60
0-90	1044.44	N.A.	30.40
10-90	1008.03	N.A.	29.30
20-40	336.05	N.A.	9.80
20-50	520.35	N.A.	15.10
40-70	470.78	N.A.	13.70
60-80	194.91	N.A.	5.70
70-80	71.85	N.A.	2.10
80-90	25.93	N.A.	0.80
90-110	232.20	N.A.	6.80
90-120	544.76	N.A.	15.90
90-130	957.45	N.A.	27.90
90-150	1810.01	N.A.	52.70
90-180	2391.77	N.A.	69.60
110-180	2159.57	N.A.	62.80
0-180	3436.21	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	36.40
10-20	103.42
20-30	154.13
30-40	181.92
40-50	184.30
50-60	163.42
60-70	123.06
70-80	71.85
80-90	25.93
90-100	55.26
100-110	176.94
110-120	312.56
120-130	412.69
130-140	445.53
140-150	407.03
150-160	316.94
160-170	197.92
170-180	66.89

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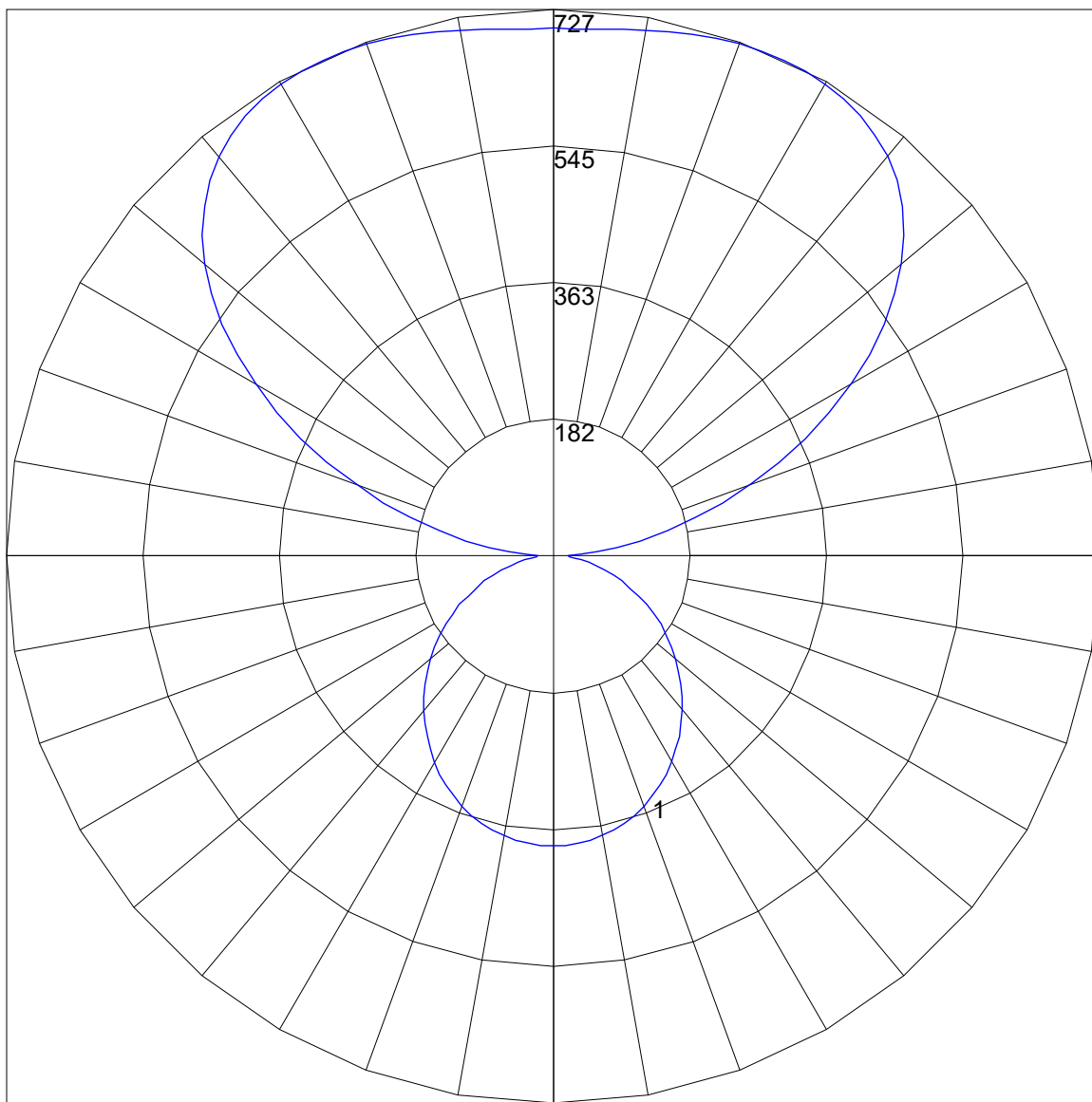
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	102	92	92	92	92	72	72	72	55	55	55	38	38	38	30
1	93	89	85	82	84	80	77	74	63	61	59	48	46	45	33	33	32	25
2	85	78	72	67	76	70	65	61	55	52	49	42	40	37	29	28	27	21
3	77	68	61	55	69	61	55	50	49	44	41	37	34	32	26	24	23	18
4	71	60	52	47	63	54	48	43	43	38	35	33	30	27	23	21	19	15
5	65	53	46	40	58	48	41	36	38	34	30	29	26	23	21	19	17	13
6	60	48	40	34	53	43	36	31	35	30	26	26	23	20	19	17	15	12
7	55	43	35	30	49	39	32	27	31	26	23	24	20	18	17	15	13	10
8	51	39	31	26	46	35	29	24	28	23	20	22	18	16	16	13	12	9
9	47	35	28	23	42	32	26	21	26	21	18	20	17	14	14	12	11	8
10	44	32	25	21	40	29	23	19	24	19	16	18	15	13	13	11	10	7

POLAR GRAPH



Maximum Candela = 726.643 Located At Horizontal Angle = 90, Vertical Angle = 155  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)