

# 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-4E-B-8-35-40U60D-ITL85163.211.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.211 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/11/15

[ISSUEDATE]08/15/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S12-LED-ID-DCO-4ft-4E-B-8-35-40U60D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 34.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 37.6 WATTS

[\_ABSOLUTE]LUMENS]4002

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85163. 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	4002
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	34.6
Ballast Factor	1.00
CIE Type	General Diffuse
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	6832	6476	6380
55	6383	5918	5812
65	5777	5238	5105
75	4786	4220	4246
85	2831	2863	3289

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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	892.748	892.748	892.748	892.748	892.748
2.5	891.564	891.564	891.564	891.564	891.564
5.0	888.012	888.012	888.012	888.012	888.012
7.5	882.092	882.092	882.092	882.092	883.276
10.0	872.620	871.436	873.804	873.804	873.804
12.5	863.148	860.779	864.332	864.332	863.148
15.0	850.123	845.387	850.123	851.307	850.123
17.5	834.731	829.995	834.731	835.915	834.731
20.0	816.971	811.051	816.971	818.155	818.155
22.5	795.659	789.739	796.843	798.027	796.843
25.0	773.162	768.426	774.346	776.714	775.530
27.5	750.666	744.746	751.850	753.034	753.034
30.0	724.618	719.882	725.802	726.986	725.802
32.5	698.569	693.833	699.753	702.121	699.753
35.0	671.337	666.601	672.521	673.705	672.521
37.5	640.553	637.000	642.921	644.105	642.921
40.0	610.952	607.400	612.136	614.504	613.320
42.5	581.352	577.800	581.352	584.904	582.536
45.0	549.383	547.015	550.567	552.935	551.751
47.5	517.415	515.047	518.599	519.783	518.599
50.0	483.078	481.894	486.630	487.815	486.630
52.5	451.110	449.926	452.294	454.662	454.662
55.0	417.958	416.774	419.142	421.510	421.510
57.5	383.621	383.621	387.173	388.357	388.357
60.0	350.469	349.285	352.837	355.205	355.205
62.5	314.948	316.132	318.500	320.868	322.052
65.0	280.612	281.796	285.348	286.532	287.716
67.5	246.275	247.459	251.011	253.379	253.379
70.0	211.939	214.307	219.043	220.227	222.595
72.5	177.602	181.154	185.891	189.442	192.995
75.0	144.450	149.186	153.922	159.842	163.394
77.5	112.481	117.218	125.506	131.426	133.794
80.0	81.697	87.617	97.089	104.193	106.561
82.5	54.465	60.385	71.041	80.513	84.065
85.0	30.784	37.889	49.729	60.385	63.937
87.5	10.656	18.944	33.152	42.625	46.177
90.0	0.000	7.104	18.944	28.416	31.968
92.5	8.251	111.067	217.691	250.060	221.182
95.0	17.136	131.376	250.060	323.998	345.894
97.5	26.973	141.531	264.022	338.279	363.031
100.0	37.446	152.638	271.004	344.625	369.377
102.5	47.917	154.225	273.860	346.212	370.964
105.0	58.707	158.350	274.812	344.942	368.743
107.5	69.814	163.427	277.985	342.087	364.935
110.0	81.555	168.822	274.812	340.183	361.127
112.5	92.344	175.486	273.542	341.135	359.857
115.0	103.134	182.467	273.542	335.740	358.588
117.5	114.240	190.083	273.860	332.249	351.924
120.0	125.030	198.651	275.446	330.345	348.750
122.5	135.819	207.219	277.350	328.441	345.894
125.0	145.974	215.787	279.254	327.172	343.356
127.5	157.081	224.038	281.793	326.537	341.452
130.0	166.601	231.654	284.332	325.585	339.548
132.5	176.438	238.001	287.505	324.950	337.961

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-B-8-35-40U60D-ITL85163.211.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	185.641	242.761	290.678	324.633	336.692
<b>137.5</b>	194.526	246.569	294.169	324.316	335.105
<b>140.0</b>	203.411	250.060	298.294	324.316	333.836
<b>142.5</b>	211.662	252.916	301.468	324.633	332.884
<b>145.0</b>	219.278	254.820	304.641	325.268	331.932
<b>147.5</b>	226.577	256.089	306.228	326.220	331.932
<b>150.0</b>	233.241	257.358	305.593	326.854	331.932
<b>152.5</b>	239.588	258.310	303.372	326.537	331.614
<b>155.0</b>	245.299	259.897	300.516	323.364	330.028
<b>157.5</b>	250.377	261.801	296.073	318.286	325.585
<b>160.0</b>	254.820	263.387	290.996	311.940	318.921
<b>162.5</b>	258.945	265.292	285.601	304.006	310.988
<b>165.0</b>	262.118	266.561	280.524	294.804	301.150
<b>167.5</b>	264.974	268.148	277.033	285.918	290.996
<b>170.0</b>	267.196	269.100	274.494	279.572	282.745
<b>172.5</b>	268.782	270.052	272.908	275.764	277.350
<b>175.0</b>	270.052	271.004	271.956	273.225	273.860
<b>177.5</b>	271.004	271.321	271.321	271.956	271.956
<b>180.0</b>	271.321	271.321	271.321	271.321	271.321

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-B-8-35-40U60D-ITL85163.211.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	323.76	N.A.	8.10
0-30	680.01	N.A.	17.00
0-40	1099.41	N.A.	27.50
0-60	1898.62	N.A.	47.40
0-80	2343.99	N.A.	58.60
0-90	2400.24	N.A.	60.00
10-90	2315.94	N.A.	57.90
20-40	775.65	N.A.	19.40
20-50	1199.88	N.A.	30.00
40-70	1080.88	N.A.	27.00
60-80	445.36	N.A.	11.10
70-80	163.69	N.A.	4.10
80-90	56.25	N.A.	1.40
90-110	469.23	N.A.	11.70
90-120	723.01	N.A.	18.10
90-130	962.34	N.A.	24.00
90-150	1360.74	N.A.	34.00
90-180	1601.92	N.A.	40.00
110-180	1132.68	N.A.	28.30
0-180	4002.16	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	84.30
10-20	239.46
20-30	356.25
30-40	419.40
40-50	424.23
50-60	374.98
60-70	281.67
70-80	163.69
80-90	56.25
90-100	207.11
100-110	262.12
110-120	253.77
120-130	239.33
130-140	216.47
140-150	181.93
150-160	135.23
160-170	79.90
170-180	26.04

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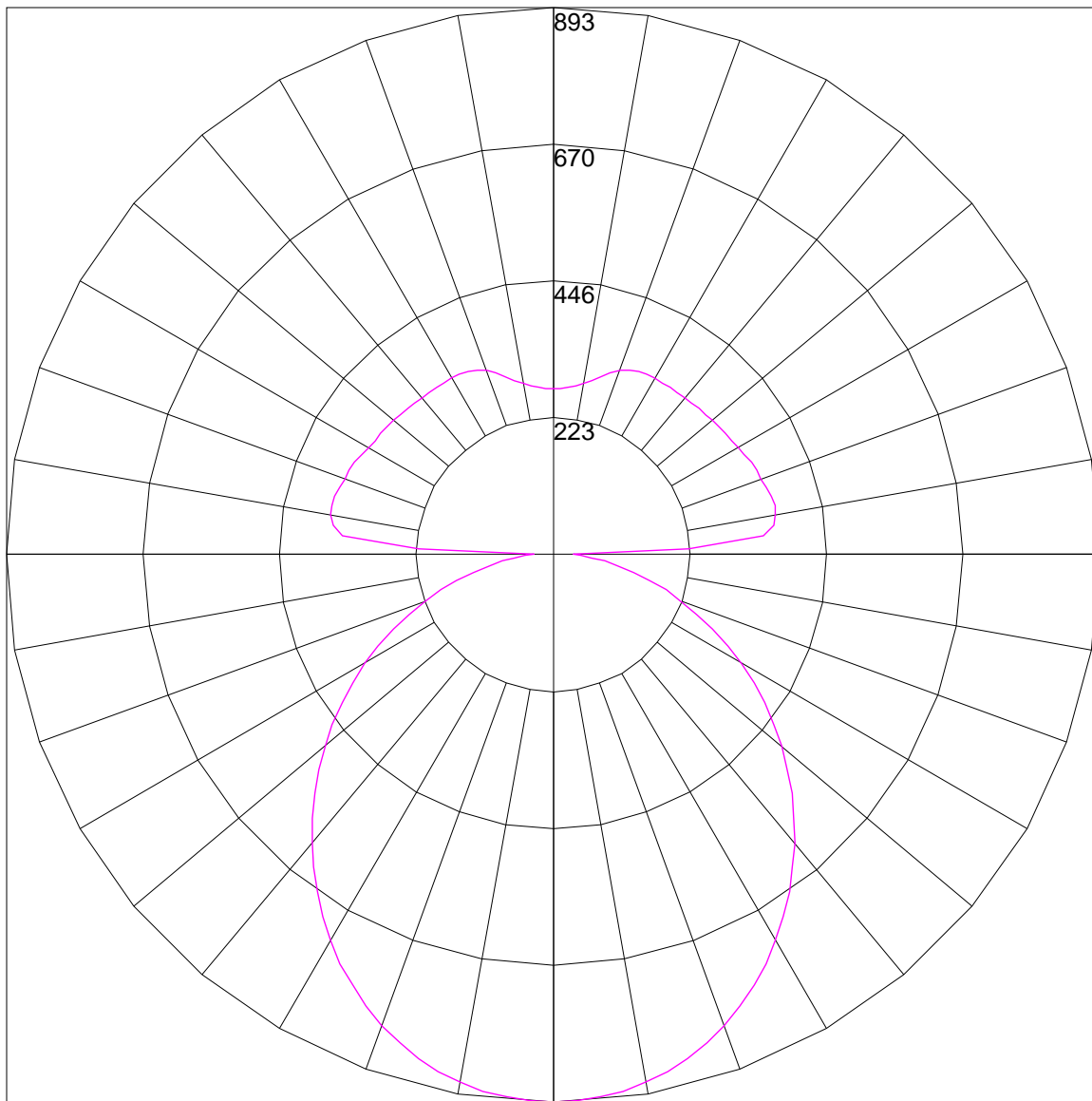
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60
1	100	95	91	88	93	89	86	83	78	75	73	67	65	63	57	56	55	50
2	91	83	77	71	85	78	72	68	68	64	60	59	56	53	50	48	46	42
3	83	73	65	59	77	68	62	56	60	55	50	52	48	45	45	42	39	35
4	76	65	56	50	70	61	53	48	53	47	43	46	42	38	40	36	34	30
5	70	58	49	43	65	54	47	41	48	42	37	42	37	33	36	32	29	26
6	64	52	43	37	60	49	41	36	43	37	32	38	33	29	32	29	26	23
7	59	47	39	33	55	44	37	31	39	33	28	34	29	26	30	26	23	20
8	55	42	35	29	51	40	33	28	36	30	25	31	26	23	27	23	20	18
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	21	18	16
10	48	36	28	23	45	34	27	22	30	24	21	27	22	19	23	20	17	15

POLAR GRAPH



Maximum Candela = 892.748 Located At Horizontal Angle = 0, Vertical Angle = 0  
Vertical Plane Through Horizontal Angles (90 - 270)