

# 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-H-8-35-30U70D-ITL85163.209.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.209 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-H-8-35-30U70D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 44.3 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 46.9 WATTS

[\_ABSOLUTE]LUMENS]5003

[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	5003
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	44.3
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.34
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	9964	9444	9304
55	9308	8631	8476
65	8425	7639	7445
75	6980	6154	6192
85	4129	4176	4797

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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	1301.924	1301.924	1301.924	1301.924	1301.924
2.5	1300.197	1300.197	1300.197	1300.197	1300.197
5.0	1295.017	1295.017	1295.017	1295.017	1295.017
7.5	1286.384	1286.384	1286.384	1286.384	1288.111
10.0	1272.570	1270.844	1274.297	1274.297	1274.297
12.5	1258.757	1255.303	1260.484	1260.484	1258.757
15.0	1239.763	1232.856	1239.763	1241.490	1239.763
17.5	1217.316	1210.409	1217.316	1219.043	1217.316
20.0	1191.416	1182.783	1191.416	1193.143	1193.143
22.5	1160.335	1151.702	1162.062	1163.789	1162.062
25.0	1127.528	1120.622	1129.255	1132.708	1130.982
27.5	1094.721	1086.088	1096.448	1098.175	1098.175
30.0	1056.734	1049.827	1058.461	1060.188	1058.461
32.5	1018.747	1011.840	1020.474	1023.927	1020.474
35.0	979.033	972.126	980.760	982.486	980.760
37.5	934.139	928.959	937.592	939.319	937.592
40.0	890.972	885.792	892.698	896.152	894.425
42.5	847.805	842.625	847.805	852.985	849.531
45.0	801.184	797.731	802.911	806.364	804.637
47.5	754.563	751.110	756.290	758.017	756.290
50.0	704.489	702.763	709.669	711.396	709.669
52.5	657.869	656.142	659.596	663.049	663.049
55.0	609.521	607.795	611.248	614.702	614.702
57.5	559.447	559.447	564.628	566.354	566.354
60.0	511.100	509.373	514.553	518.007	518.007
62.5	459.300	461.026	464.479	467.933	469.660
65.0	409.226	410.952	416.132	417.859	419.586
67.5	359.151	360.878	366.058	369.512	369.512
70.0	309.077	312.531	319.438	321.164	324.618
72.5	259.003	264.183	271.090	276.270	281.450
75.0	210.656	217.563	224.470	233.103	238.283
77.5	164.036	170.942	183.029	191.663	195.116
80.0	119.142	127.775	141.589	151.949	155.402
82.5	79.428	88.061	103.601	117.415	122.595
85.0	44.894	55.254	72.521	88.061	93.241
87.5	15.540	27.627	48.347	62.161	67.341
90.0	0.000	10.360	27.627	41.441	46.621
92.5	7.735	104.125	204.086	234.431	207.358
95.0	16.065	123.165	234.431	303.748	324.276
97.5	25.288	132.685	247.521	317.136	340.341
100.0	35.105	143.098	254.066	323.086	346.291
102.5	44.923	144.585	256.743	324.574	347.779
105.0	55.038	148.453	257.636	323.384	345.696
107.5	65.450	153.213	260.611	320.706	342.126
110.0	76.458	158.270	257.636	318.921	338.556
112.5	86.573	164.518	256.446	319.814	337.366
115.0	96.688	171.063	256.446	314.756	336.176
117.5	107.100	178.203	256.743	311.484	329.929
120.0	117.215	186.236	258.231	309.699	326.954
122.5	127.330	194.268	260.016	307.913	324.276
125.0	136.850	202.301	261.801	306.724	321.896
127.5	147.263	210.036	264.181	306.128	320.111
130.0	156.188	217.176	266.561	305.236	318.326
132.5	165.411	223.126	269.536	304.641	316.839

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-H-8-35-30U70D-ITL85163.209.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	174.038	227.588	272.511	304.344	315.649
<b>137.5</b>	182.368	231.158	275.783	304.046	314.161
<b>140.0</b>	190.698	234.431	279.651	304.046	312.971
<b>142.5</b>	198.433	237.108	282.626	304.344	312.079
<b>145.0</b>	205.573	238.893	285.601	304.938	311.186
<b>147.5</b>	212.416	240.083	287.089	305.831	311.186
<b>150.0</b>	218.663	241.273	286.493	306.426	311.186
<b>152.5</b>	224.613	242.166	284.411	306.128	310.889
<b>155.0</b>	229.968	243.653	281.733	303.154	309.401
<b>157.5</b>	234.728	245.438	277.568	298.394	305.236
<b>160.0</b>	238.893	246.926	272.808	292.443	298.988
<b>162.5</b>	242.761	248.711	267.751	285.006	291.551
<b>165.0</b>	245.736	249.901	262.991	276.378	282.328
<b>167.5</b>	248.413	251.388	259.718	268.048	272.808
<b>170.0</b>	250.496	252.281	257.338	262.098	265.073
<b>172.5</b>	251.983	253.173	255.851	258.528	260.016
<b>175.0</b>	253.173	254.066	254.958	256.148	256.743
<b>177.5</b>	254.066	254.363	254.363	254.958	254.958
<b>180.0</b>	254.363	254.363	254.363	254.363	254.363

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-H-8-35-30U70D-ITL85163.209.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	472.15	N.A.	9.40
0-30	991.68	N.A.	19.80
0-40	1603.31	N.A.	32.00
0-60	2768.83	N.A.	55.30
0-80	3418.32	N.A.	68.30
0-90	3500.35	N.A.	70.00
10-90	3377.41	N.A.	67.50
20-40	1131.16	N.A.	22.60
20-50	1749.82	N.A.	35.00
40-70	1576.29	N.A.	31.50
60-80	649.49	N.A.	13.00
70-80	238.72	N.A.	4.80
80-90	82.03	N.A.	1.60
90-110	441.16	N.A.	8.80
90-120	679.08	N.A.	13.60
90-130	903.45	N.A.	18.10
90-150	1276.95	N.A.	25.50
90-180	1503.05	N.A.	30.00
110-180	1061.89	N.A.	21.20
0-180	5003.4	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	122.94
10-20	349.21
20-30	519.53
30-40	611.63
40-50	618.67
50-60	546.85
60-70	410.77
70-80	238.72
80-90	82.03
90-100	195.42
100-110	245.74
110-120	237.91
120-130	224.38
130-140	202.94
140-150	170.56
150-160	126.78
160-170	74.91
170-180	24.42

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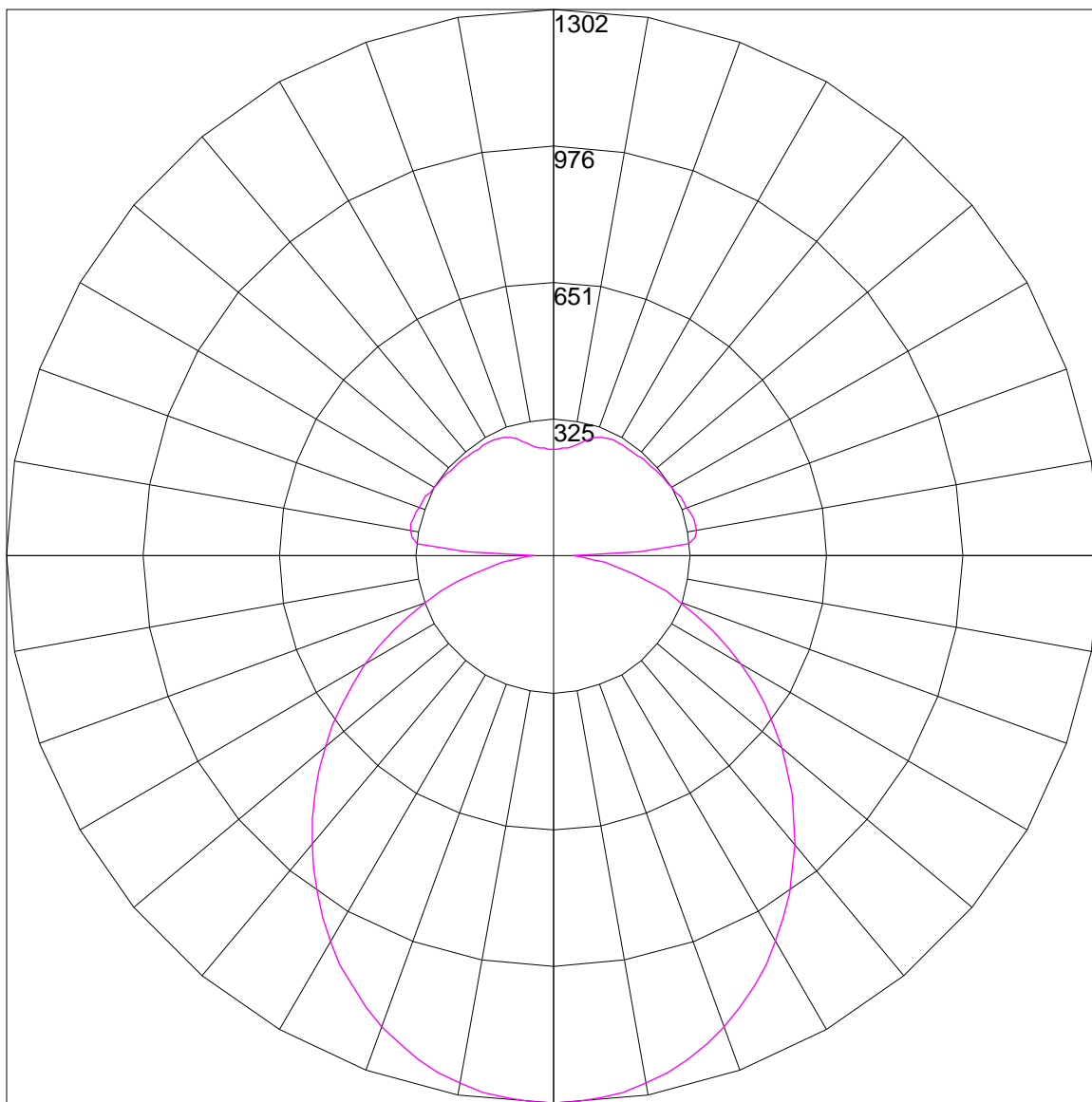
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	102	97	93	90	96	92	89	85	83	80	77	74	72	70	65	64	62	58
2	93	85	79	73	87	81	75	70	72	68	64	65	61	58	57	55	52	49
3	85	75	67	61	80	71	64	58	64	58	54	57	53	49	51	47	45	41
4	77	66	58	51	73	63	55	50	57	51	46	51	46	42	45	42	38	35
5	71	59	51	44	67	56	48	43	51	44	39	46	40	36	41	37	33	31
6	66	53	45	38	62	51	43	37	46	39	35	41	36	32	37	33	29	27
7	61	48	40	34	57	46	38	33	42	35	30	38	32	28	34	29	26	24
8	56	44	36	30	53	42	34	29	38	32	27	34	29	25	31	27	23	21
9	53	40	32	27	50	38	31	26	35	29	24	32	26	23	29	24	21	19
10	49	37	29	24	47	35	28	24	32	26	22	29	24	21	27	22	19	17

POLAR GRAPH



Maximum Candela = 1301.924 Located At Horizontal Angle = 0, Vertical Angle = 0  
Vertical Plane Through Horizontal Angles (90 - 270)