

# 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-8-35-10U90D-ITL85163.203.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.203 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-8-35-10U90D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 46.7 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 48.9 WATTS

[\_ABSOLUTE]LUMENS]5005

[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	5005
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	46.7
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	12811	12142	11962
55	11967	11096	10897
65	10833	9821	9572
75	8974	7912	7961
85	5308	5369	6167

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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	1673.902	1673.902	1673.902	1673.902	1673.902
2.5	1671.682	1671.682	1671.682	1671.682	1671.682
5.0	1665.022	1665.022	1665.022	1665.022	1665.022
7.5	1653.922	1653.922	1653.922	1653.922	1656.142
10.0	1636.162	1633.942	1638.382	1638.382	1638.382
12.5	1618.402	1613.961	1620.622	1620.622	1618.402
15.0	1593.981	1585.101	1593.981	1596.201	1593.981
17.5	1565.121	1556.241	1565.121	1567.341	1565.121
20.0	1531.820	1520.720	1531.820	1534.040	1534.040
22.5	1491.860	1480.760	1494.080	1496.300	1494.080
25.0	1449.679	1440.799	1451.899	1456.340	1454.119
27.5	1407.499	1396.399	1409.719	1411.939	1411.939
30.0	1358.658	1349.778	1360.878	1363.098	1360.878
32.5	1309.818	1300.937	1312.037	1316.477	1312.037
35.0	1258.757	1249.877	1260.977	1263.197	1260.977
37.5	1201.036	1194.376	1205.476	1207.696	1205.476
40.0	1145.535	1138.875	1147.755	1152.195	1149.975
42.5	1090.034	1083.374	1090.034	1096.695	1092.255
45.0	1030.094	1025.654	1032.314	1036.754	1034.534
47.5	970.153	965.713	972.373	974.593	972.373
50.0	905.772	903.552	912.432	914.652	912.432
52.5	845.831	843.611	848.051	852.491	852.491
55.0	783.670	781.450	785.890	790.331	790.331
57.5	719.290	719.290	725.950	728.170	728.170
60.0	657.129	654.909	661.569	666.009	666.009
62.5	590.528	592.748	597.188	601.628	603.848
65.0	526.147	528.367	535.027	537.247	539.467
67.5	461.766	463.986	470.646	475.086	475.086
70.0	397.385	401.825	410.705	412.925	417.366
72.5	333.004	339.664	348.545	355.205	361.865
75.0	270.844	279.724	288.604	299.704	306.364
77.5	210.903	219.783	235.323	246.423	250.863
80.0	153.182	164.282	182.042	195.363	199.803
82.5	102.121	113.222	133.202	150.962	157.622
85.0	57.721	71.041	93.241	113.222	119.882
87.5	19.980	35.520	62.161	79.921	86.581
90.0	0.000	13.320	35.520	53.281	59.941
92.5	2.578	34.709	68.029	78.144	69.119
95.0	5.355	41.055	78.144	101.249	108.092
97.5	8.429	44.228	82.507	105.712	113.447
100.0	11.702	47.699	84.689	107.695	115.430
102.5	14.974	48.195	85.581	108.191	115.926
105.0	18.346	49.484	85.879	107.794	115.232
107.5	21.817	51.071	86.870	106.902	114.042
110.0	25.486	52.757	85.879	106.307	112.852
112.5	28.858	54.839	85.482	106.605	112.455
115.0	32.229	57.021	85.482	104.919	112.059
117.5	35.700	59.401	85.581	103.828	109.976
120.0	39.072	62.078	86.077	103.233	108.984
122.5	42.444	64.756	86.672	102.638	108.092
125.0	45.617	67.434	87.267	102.241	107.299
127.5	49.088	70.012	88.060	102.043	106.704
130.0	52.063	72.392	88.854	101.745	106.109
132.5	55.137	74.375	89.845	101.547	105.613

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-H-8-35-10U90D-ITL85163.203.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	58.013	75.863	90.837	101.448	105.216
<b>137.5</b>	60.789	77.053	91.928	101.349	104.720
<b>140.0</b>	63.566	78.144	93.217	101.349	104.324
<b>142.5</b>	66.144	79.036	94.209	101.448	104.026
<b>145.0</b>	68.524	79.631	95.200	101.646	103.729
<b>147.5</b>	70.805	80.028	95.696	101.944	103.729
<b>150.0</b>	72.888	80.424	95.498	102.142	103.729
<b>152.5</b>	74.871	80.722	94.804	102.043	103.629
<b>155.0</b>	76.656	81.218	93.911	101.051	103.134
<b>157.5</b>	78.243	81.813	92.523	99.465	101.745
<b>160.0</b>	79.631	82.309	90.936	97.481	99.663
<b>162.5</b>	80.920	82.904	89.250	95.002	97.184
<b>165.0</b>	81.912	83.300	87.664	92.126	94.109
<b>167.5</b>	82.804	83.796	86.573	89.350	90.936
<b>170.0</b>	83.499	84.094	85.779	87.366	88.358
<b>172.5</b>	83.994	84.391	85.284	86.176	86.672
<b>175.0</b>	84.391	84.689	84.986	85.383	85.581
<b>177.5</b>	84.689	84.788	84.788	84.986	84.986
<b>180.0</b>	84.788	84.788	84.788	84.788	84.788

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-H-8-35-10U90D-ITL85163.203.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	607.05	N.A.	12.10
0-30	1275.01	N.A.	25.50
0-40	2061.39	N.A.	41.20
0-60	3559.92	N.A.	71.10
0-80	4394.98	N.A.	87.80
0-90	4500.45	N.A.	89.90
10-90	4342.38	N.A.	86.80
20-40	1454.34	N.A.	29.10
20-50	2249.77	N.A.	45.00
40-70	2026.66	N.A.	40.50
60-80	835.06	N.A.	16.70
70-80	306.93	N.A.	6.10
80-90	105.47	N.A.	2.10
90-110	150.41	N.A.	3.00
90-120	229.71	N.A.	4.60
90-130	304.50	N.A.	6.10
90-150	429.00	N.A.	8.60
90-180	504.37	N.A.	10.10
110-180	353.96	N.A.	7.10
0-180	5004.82	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	158.07
10-20	448.98
20-30	667.96
30-40	786.38
40-50	795.43
50-60	703.10
60-70	528.13
70-80	306.93
80-90	105.47
90-100	68.49
100-110	81.91
110-120	79.30
120-130	74.79
130-140	67.65
140-150	56.85
150-160	42.26
160-170	24.97
170-180	8.14

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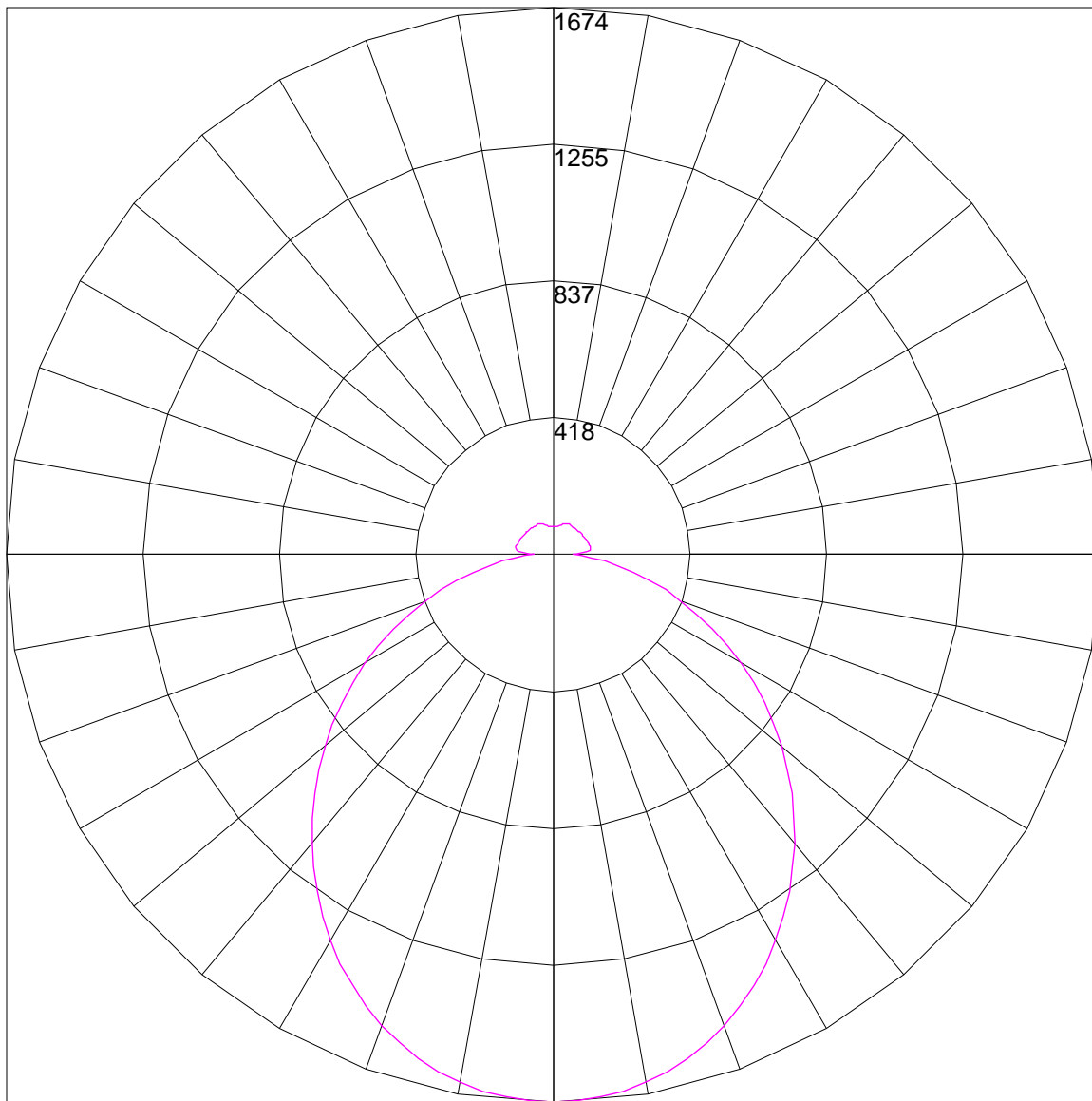
PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-H-8-35-10U90D-ITL85163.203.IES

## 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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	106	102	97	94	103	98	95	91	92	89	86	87	84	82	82	80	78	75
2	97	89	82	76	93	86	80	75	81	76	71	76	72	68	72	68	65	63
3	88	78	70	64	85	76	68	62	71	65	60	67	62	58	63	59	55	53
4	81	69	61	54	78	67	59	53	63	57	51	60	54	49	57	52	48	45
5	74	62	53	46	72	60	52	46	57	50	44	54	48	43	51	46	42	39
6	69	56	47	41	66	54	46	40	51	44	39	49	43	38	46	41	37	34
7	64	50	42	36	61	49	41	35	47	40	34	44	38	33	42	37	33	30
8	59	46	38	32	57	45	37	32	43	36	31	41	35	30	39	33	29	27
9	55	42	34	29	53	41	34	28	39	33	28	38	31	27	36	30	26	25
10	52	39	31	26	50	38	31	26	36	30	25	35	29	25	33	28	24	22

POLAR GRAPH



Maximum Candela = 1673.902 Located At Horizontal Angle = 0, Vertical Angle = 0  
Vertical Plane Through Horizontal Angles (90 - 270)