

# 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-V-S-8-35-OPEN-ITL85163.004.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.004 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/11/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S12-LED-ID-DCO-4ft-3E-V-S-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 45.1 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 47.9 WATTS

[ABSOLUTE]LUMENS]5871

[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	5871
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
Total Luminaire Watts	45.1
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	2362	2239	2206
55	2207	2046	2009
65	1997	1811	1765
75	1655	1459	1468
85	979	990	1137

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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	308.655	308.655	308.655	308.655	308.655
2.5	308.246	308.246	308.246	308.246	308.246
5.0	307.017	307.017	307.017	307.017	307.017
7.5	304.971	304.971	304.971	304.971	305.380
10.0	301.696	301.287	302.105	302.105	302.105
12.5	298.421	297.602	298.830	298.830	298.421
15.0	293.918	292.281	293.918	294.327	293.918
17.5	288.596	286.959	288.596	289.006	288.596
20.0	282.456	280.409	282.456	282.865	282.865
22.5	275.088	273.041	275.497	275.906	275.497
25.0	267.310	265.673	267.719	268.538	268.129
27.5	259.532	257.485	259.942	260.351	260.351
30.0	250.526	248.889	250.936	251.345	250.936
32.5	241.520	239.883	241.930	242.749	241.930
35.0	232.105	230.468	232.515	232.924	232.515
37.5	221.462	220.234	222.281	222.690	222.281
40.0	211.228	210.000	211.637	212.456	212.047
42.5	200.994	199.766	200.994	202.222	201.404
45.0	189.941	189.123	190.351	191.170	190.760
47.5	178.889	178.070	179.298	179.708	179.298
50.0	167.018	166.608	168.246	168.655	168.246
52.5	155.965	155.556	156.374	157.193	157.193
55.0	144.503	144.094	144.912	145.731	145.731
57.5	132.632	132.632	133.860	134.269	134.269
60.0	121.170	120.760	121.988	122.807	122.807
62.5	108.889	109.298	110.117	110.936	111.345
65.0	97.017	97.427	98.655	99.064	99.474
67.5	85.146	85.556	86.784	87.602	87.602
70.0	73.275	74.094	75.731	76.140	76.959
72.5	61.404	62.632	64.269	65.497	66.725
75.0	49.941	51.579	53.216	55.263	56.491
77.5	38.889	40.526	43.392	45.439	46.257
80.0	28.246	30.292	33.567	36.023	36.842
82.5	18.830	20.877	24.561	27.836	29.064
85.0	10.643	13.099	17.193	20.877	22.105
87.5	3.684	6.550	11.462	14.737	15.965
90.0	0.000	2.456	6.550	9.825	11.053
92.5	26.000	350.000	686.000	788.000	697.000
95.0	54.000	414.000	788.000	1021.000	1090.000
97.5	85.000	446.000	832.000	1066.000	1144.000
100.0	118.000	481.000	854.000	1086.000	1164.000
102.5	151.000	486.000	863.000	1091.000	1169.000
105.0	185.000	499.000	866.000	1087.000	1162.000
107.5	220.000	515.000	876.000	1078.000	1150.000
110.0	257.000	532.000	866.000	1072.000	1138.000
112.5	291.000	553.000	862.000	1075.000	1134.000
115.0	325.000	575.000	862.000	1058.000	1130.000
117.5	360.000	599.000	863.000	1047.000	1109.000
120.0	394.000	626.000	868.000	1041.000	1099.000
122.5	428.000	653.000	874.000	1035.000	1090.000
125.0	460.000	680.000	880.000	1031.000	1082.000
127.5	495.000	706.000	888.000	1029.000	1076.000
130.0	525.000	730.000	896.000	1026.000	1070.000
132.5	556.000	750.000	906.000	1024.000	1065.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-V-S-8-35-OPEN-ITL85163.004.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	585.000	765.000	916.000	1023.000	1061.000
<b>137.5</b>	613.000	777.000	927.000	1022.000	1056.000
<b>140.0</b>	641.000	788.000	940.000	1022.000	1052.000
<b>142.5</b>	667.000	797.000	950.000	1023.000	1049.000
<b>145.0</b>	691.000	803.000	960.000	1025.000	1046.000
<b>147.5</b>	714.000	807.000	965.000	1028.000	1046.000
<b>150.0</b>	735.000	811.000	963.000	1030.000	1046.000
<b>152.5</b>	755.000	814.000	956.000	1029.000	1045.000
<b>155.0</b>	773.000	819.000	947.000	1019.000	1040.000
<b>157.5</b>	789.000	825.000	933.000	1003.000	1026.000
<b>160.0</b>	803.000	830.000	917.000	983.000	1005.000
<b>162.5</b>	816.000	836.000	900.000	958.000	980.000
<b>165.0</b>	826.000	840.000	884.000	929.000	949.000
<b>167.5</b>	835.000	845.000	873.000	901.000	917.000
<b>170.0</b>	842.000	848.000	865.000	881.000	891.000
<b>172.5</b>	847.000	851.000	860.000	869.000	874.000
<b>175.0</b>	851.000	854.000	857.000	861.000	863.000
<b>177.5</b>	854.000	855.000	855.000	857.000	857.000
<b>180.0</b>	855.000	855.000	855.000	855.000	855.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-V-S-8-35-OPEN-ITL85163.004.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	111.94	N.A.	1.90
0-30	235.10	N.A.	4.00
0-40	380.11	N.A.	6.50
0-60	656.42	N.A.	11.20
0-80	810.40	N.A.	13.80
0-90	829.85	N.A.	14.10
10-90	800.70	N.A.	13.60
20-40	268.17	N.A.	4.60
20-50	414.84	N.A.	7.10
40-70	373.70	N.A.	6.40
60-80	153.98	N.A.	2.60
70-80	56.59	N.A.	1.00
80-90	19.45	N.A.	0.30
90-110	1471.9	N.A.	25.10
90-120	2271.6	N.A.	38.70
90-130	3025.81	N.A.	51.50
90-150	4281.27	N.A.	72.90
90-180	5041.26	N.A.	85.90
110-180	3569.36	N.A.	60.80
0-180	5871.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	29.15
10-20	82.79
20-30	123.17
30-40	145.00
40-50	146.67
50-60	129.65
60-70	97.38
70-80	56.59
80-90	19.45
90-100	645.89
100-110	826.01
110-120	799.70
120-130	754.20
130-140	682.15
140-150	573.32
150-160	426.14
160-170	251.78
170-180	82.07

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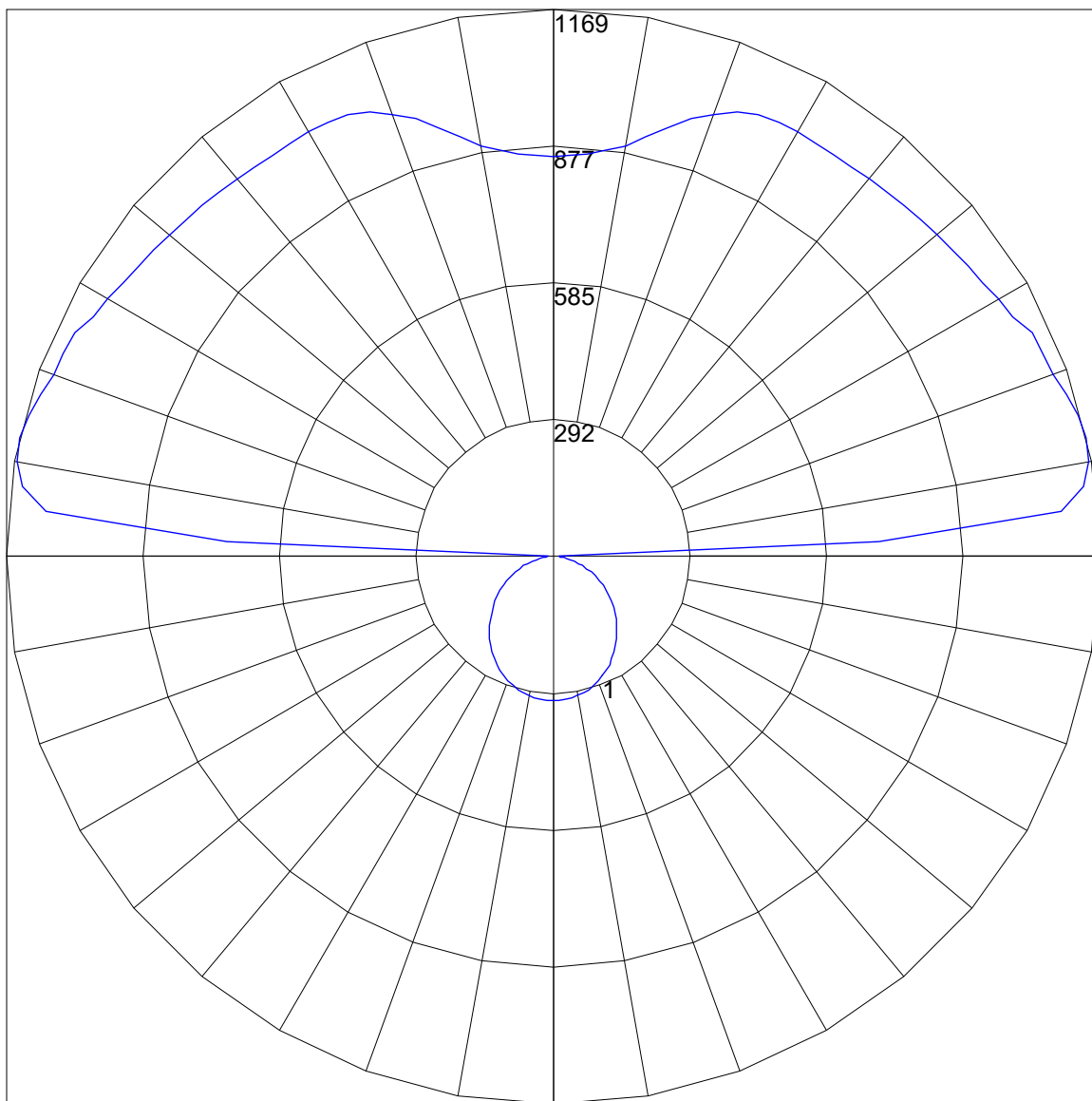
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	99	99	99	99	86	86	86	86	63	63	63	42	42	42	23	23	23	14
1	90	86	82	79	78	75	72	69	55	53	52	37	36	35	20	20	19	12
2	82	75	69	64	71	66	61	57	48	45	43	33	31	29	18	17	16	10
3	74	65	59	53	65	58	52	47	43	39	36	29	26	25	16	15	14	8
4	68	58	50	45	59	51	45	40	38	33	30	25	23	21	14	13	12	7
5	62	51	44	38	54	45	39	34	33	29	26	23	20	18	13	11	10	6
6	57	46	38	33	50	40	34	29	30	26	22	20	18	16	11	10	9	5
7	53	41	34	28	46	36	30	25	27	23	19	18	16	14	10	9	8	5
8	49	37	30	25	42	33	26	22	24	20	17	17	14	12	9	8	7	4
9	45	34	27	22	39	30	24	20	22	18	15	15	13	11	9	7	6	4
10	42	31	24	19	37	27	21	17	20	16	13	14	11	9	8	7	6	3

POLAR GRAPH



Maximum Candela = 1169 Located At Horizontal Angle = 90, Vertical Angle = 102.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)