

# 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-S-8-35-TDO-ITL85163.213.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.213 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-S-8-35-TDO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 27.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 28.7 WATTS

[ABSOLUTE]LUMENS]3003

[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	3003
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	27.8
Ballast Factor	1.00
CIE Type	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	8540	8095	7974
55	7978	7398	7265
65	7222	6547	6381
75	5983	5275	5307
85	3539	3579	4112

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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	1115.935	1115.935	1115.935	1115.935	1115.935
2.5	1114.455	1114.455	1114.455	1114.455	1114.455
5.0	1110.015	1110.015	1110.015	1110.015	1110.015
7.5	1102.615	1102.615	1102.615	1102.615	1104.095
10.0	1090.774	1089.295	1092.255	1092.255	1092.255
12.5	1078.934	1075.974	1080.414	1080.414	1078.934
15.0	1062.654	1056.734	1062.654	1064.134	1062.654
17.5	1043.414	1037.494	1043.414	1044.894	1043.414
20.0	1021.214	1013.813	1021.214	1022.694	1022.694
22.5	994.573	987.173	996.053	997.533	996.053
25.0	966.453	960.533	967.933	970.893	969.413
27.5	938.332	930.932	939.813	941.293	941.293
30.0	905.772	899.852	907.252	908.732	907.252
32.5	873.212	867.292	874.692	877.652	874.692
35.0	839.171	833.251	840.651	842.131	840.651
37.5	800.691	796.251	803.651	805.131	803.651
40.0	763.690	759.250	765.170	768.130	766.650
42.5	726.690	722.250	726.690	731.130	728.170
45.0	686.729	683.769	688.209	691.169	689.689
47.5	646.769	643.809	648.249	649.729	648.249
50.0	603.848	602.368	608.288	609.768	608.288
52.5	563.888	562.408	565.368	568.328	568.328
55.0	522.447	520.967	523.927	526.887	526.887
57.5	479.526	479.526	483.966	485.447	485.447
60.0	438.086	436.606	441.046	444.006	444.006
62.5	393.685	395.165	398.125	401.085	402.565
65.0	350.765	352.245	356.685	358.165	359.645
67.5	307.844	309.324	313.764	316.724	316.724
70.0	264.923	267.884	273.804	275.284	278.244
72.5	222.003	226.443	232.363	236.803	241.243
75.0	180.562	186.482	192.403	199.803	204.243
77.5	140.602	146.522	156.882	164.282	167.242
80.0	102.121	109.522	121.362	130.242	133.202
82.5	68.081	75.481	88.801	100.641	105.081
85.0	38.480	47.361	62.161	75.481	79.921
87.5	13.320	23.680	41.441	53.281	57.721
90.0	0.000	8.880	23.680	35.520	39.961
92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-S-8-35-TDO-ITL85163.213.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	0.000	0.000	0.000	0.000	0.000
<b>137.5</b>	0.000	0.000	0.000	0.000	0.000
<b>140.0</b>	0.000	0.000	0.000	0.000	0.000
<b>142.5</b>	0.000	0.000	0.000	0.000	0.000
<b>145.0</b>	0.000	0.000	0.000	0.000	0.000
<b>147.5</b>	0.000	0.000	0.000	0.000	0.000
<b>150.0</b>	0.000	0.000	0.000	0.000	0.000
<b>152.5</b>	0.000	0.000	0.000	0.000	0.000
<b>155.0</b>	0.000	0.000	0.000	0.000	0.000
<b>157.5</b>	0.000	0.000	0.000	0.000	0.000
<b>160.0</b>	0.000	0.000	0.000	0.000	0.000
<b>162.5</b>	0.000	0.000	0.000	0.000	0.000
<b>165.0</b>	0.000	0.000	0.000	0.000	0.000
<b>167.5</b>	0.000	0.000	0.000	0.000	0.000
<b>170.0</b>	0.000	0.000	0.000	0.000	0.000
<b>172.5</b>	0.000	0.000	0.000	0.000	0.000
<b>175.0</b>	0.000	0.000	0.000	0.000	0.000
<b>177.5</b>	0.000	0.000	0.000	0.000	0.000
<b>180.0</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-S-8-35-TDO-ITL85163.213.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	404.70	N.A.	13.50
0-30	850.01	N.A.	28.30
0-40	1374.26	N.A.	45.80
0-60	2373.28	N.A.	79.00
0-80	2929.99	N.A.	97.60
0-90	3000.3	N.A.	99.90
10-90	2894.92	N.A.	96.40
20-40	969.56	N.A.	32.30
20-50	1499.85	N.A.	49.90
40-70	1351.11	N.A.	45.00
60-80	556.71	N.A.	18.50
70-80	204.62	N.A.	6.80
80-90	70.32	N.A.	2.30
90-110	3.02	N.A.	0.10
90-120	3.02	N.A.	0.10
90-130	3.02	N.A.	0.10
90-150	3.02	N.A.	0.10
90-180	3.02	N.A.	0.10
110-180	0.00	N.A.	0.00
0-180	3003.32	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	105.38
10-20	299.32
20-30	445.31
30-40	524.25
40-50	530.29
50-60	468.73
60-70	352.09
70-80	204.62
80-90	70.32
90-100	3.02
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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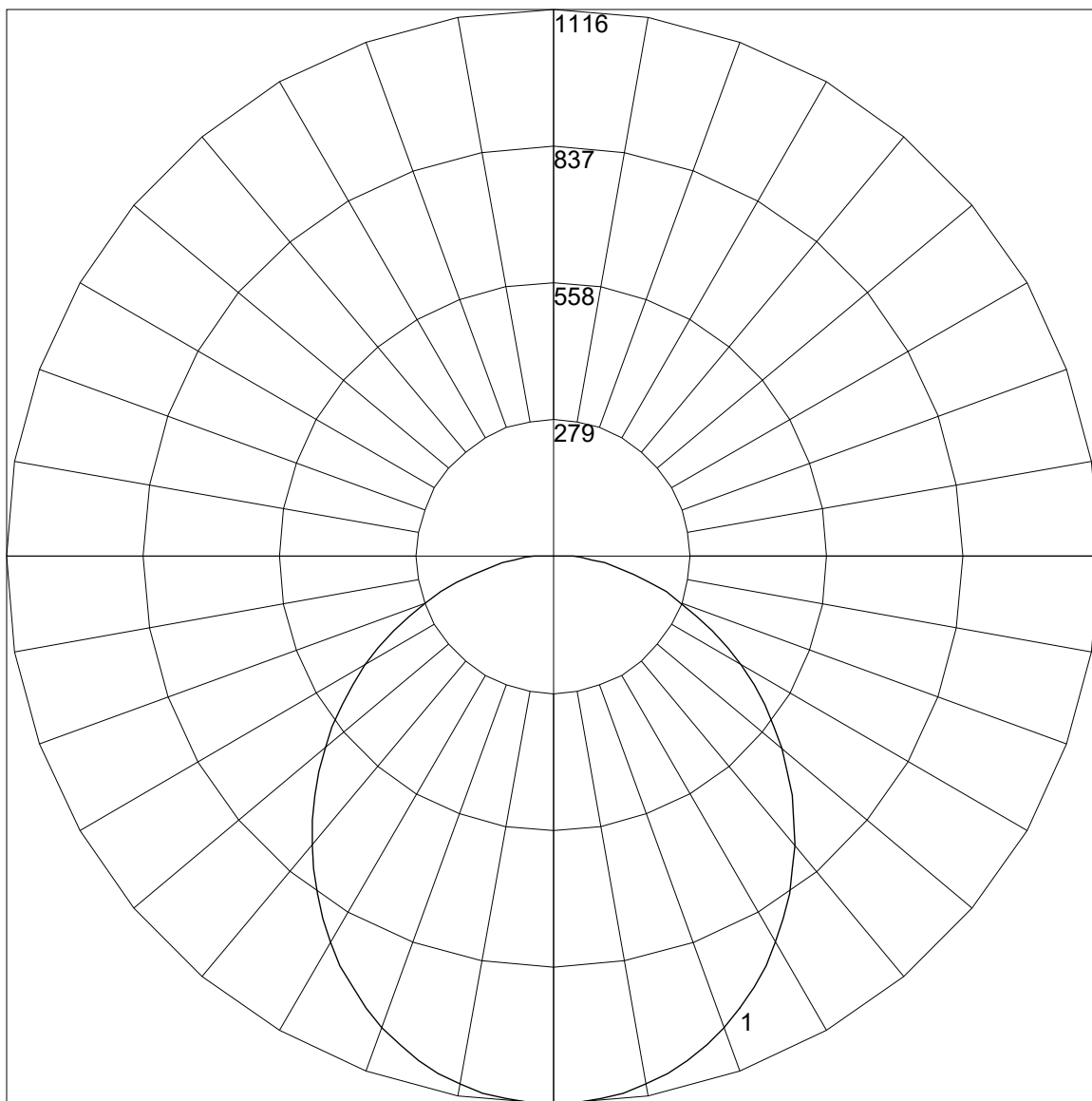
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	83
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	80	71	65	88	78	70	64	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	50
5	76	63	54	48	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	48	41	54	47	41	52	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	40	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

POLAR GRAPH



Maximum Candela = 1115.935 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)