

# 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 : S16-LED-ID-DCO-4FT-4E-S-8-35-10U90D-ITL85122.201.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85122.201 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE] 08/4/15

[ISSUEDATE]08/15/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S16-LED-ID-DCO-4ft-4E-S-8-35-10U90D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 26.2 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.0 WATTS

[ABSOLUTE]LUMENS]3000

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85122. 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	3000
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	26.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.57 ft
Luminous Width (90-270)	0.29 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9382	9291	9164
55	8849	8692	8602
65	8108	7956	7834
75	6869	6719	6620
85	4434	4582	4582

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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	1028.653	1028.653	1028.653	1028.653	1028.653
2.5	1028.653	1027.427	1028.653	1028.653	1027.427
5.0	1023.749	1022.523	1022.523	1023.749	1022.523
7.5	1017.619	1016.393	1016.393	1016.393	1016.393
10.0	1007.810	1004.132	1006.584	1005.358	1004.132
12.5	995.550	990.646	993.098	993.098	989.420
15.0	980.837	974.707	978.385	978.385	973.481
17.5	962.447	953.864	958.769	957.543	952.638
20.0	942.830	931.795	936.700	936.700	931.795
22.5	918.309	908.501	912.179	912.179	907.274
25.0	892.562	882.754	886.432	885.206	881.528
27.5	864.363	855.781	858.233	855.781	853.328
30.0	833.712	825.129	828.808	825.129	821.451
32.5	803.061	795.704	796.930	793.252	789.574
35.0	771.183	763.827	765.053	760.149	757.697
37.5	738.080	731.950	731.950	727.046	723.368
40.0	703.751	696.394	697.620	692.716	689.038
42.5	668.195	660.839	662.065	655.935	653.483
45.0	631.414	625.284	625.284	619.154	616.702
47.5	597.085	589.729	588.502	582.372	581.146
50.0	559.077	551.721	550.495	544.365	544.365
52.5	521.070	514.940	512.487	507.583	507.583
55.0	483.062	476.932	474.480	469.576	469.576
57.5	445.055	438.925	437.699	431.568	430.342
60.0	405.821	400.917	398.465	393.561	392.335
62.5	366.588	361.684	359.232	354.327	353.101
65.0	326.128	322.450	319.998	315.094	315.094
67.5	286.895	283.217	280.765	277.087	275.861
70.0	246.435	243.983	241.531	237.853	237.853
72.5	207.202	205.976	203.524	201.072	199.846
75.0	169.194	167.968	165.516	164.290	163.064
77.5	132.413	131.187	129.961	128.735	128.735
80.0	96.858	96.858	95.632	95.632	95.632
82.5	64.981	66.207	64.981	64.981	64.981
85.0	36.781	38.007	38.007	38.007	38.007
87.5	12.261	13.486	13.486	13.486	13.486
90.0	0.000	0.000	0.000	0.000	0.000
92.5	1.077	4.040	2.828	2.896	2.896
95.0	3.098	18.249	9.360	5.387	5.118
97.5	5.522	21.279	44.444	24.714	14.411
100.0	8.148	23.502	49.427	61.481	60.673
102.5	10.909	25.118	51.043	66.195	70.841
105.0	13.603	27.474	52.457	67.340	72.390
107.5	16.094	29.764	53.670	67.878	72.727
110.0	18.720	31.784	53.939	68.552	73.131
112.5	21.212	33.670	54.882	69.023	73.669
115.0	23.636	35.555	56.094	68.754	73.467
117.5	25.993	37.441	57.171	68.888	73.131
120.0	28.215	39.192	58.114	69.494	73.265
122.5	30.303	40.875	58.922	70.033	73.669
125.0	32.256	42.424	59.528	70.370	73.871
127.5	34.141	43.905	60.134	70.639	74.006
130.0	35.959	45.319	60.538	70.706	74.006
132.5	37.710	46.599	61.010	70.639	73.804

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-S-8-35-10U90D-ITL85122.201.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	39.259	47.744	61.414	70.437	73.400
<b>137.5</b>	40.740	48.754	61.683	70.100	72.996
<b>140.0</b>	42.222	49.697	61.885	69.764	72.390
<b>142.5</b>	43.569	50.505	61.952	69.360	71.784
<b>145.0</b>	44.915	51.245	61.952	68.888	71.111
<b>147.5</b>	46.060	51.919	61.885	68.350	70.370
<b>150.0</b>	47.138	52.323	61.548	67.541	69.427
<b>152.5</b>	48.148	52.727	61.077	66.733	68.484
<b>155.0</b>	49.023	53.063	60.538	65.723	67.272
<b>157.5</b>	49.831	53.266	59.865	64.511	65.993
<b>160.0</b>	50.572	53.400	59.124	63.164	64.511
<b>162.5</b>	51.178	53.400	58.181	61.683	62.895
<b>165.0</b>	51.717	53.400	57.239	60.134	61.077
<b>167.5</b>	52.121	53.333	56.228	58.585	59.461
<b>170.0</b>	52.457	53.266	55.286	56.969	57.643
<b>172.5</b>	52.727	53.266	54.410	55.555	55.959
<b>175.0</b>	52.929	53.131	53.670	54.343	54.478
<b>177.5</b>	53.131	53.198	53.333	53.468	53.468
<b>180.0</b>	53.131	53.131	53.131	53.131	53.131

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-S-8-35-10U90D-ITL85122.201.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	372.29	N.A.	12.40
0-30	779.88	N.A.	26.00
0-40	1257.37	N.A.	41.90
0-60	2162.76	N.A.	72.10
0-80	2655.26	N.A.	88.50
0-90	2700.01	N.A.	90.00
10-90	2602.87	N.A.	86.80
20-40	885.08	N.A.	29.50
20-50	1366.31	N.A.	45.50
40-70	1221.69	N.A.	40.70
60-80	492.50	N.A.	16.40
70-80	176.20	N.A.	5.90
80-90	44.74	N.A.	1.50
90-110	65.68	N.A.	2.20
90-120	117.52	N.A.	3.90
90-130	167.98	N.A.	5.60
90-150	251.23	N.A.	8.40
90-180	300.00	N.A.	10.00
110-180	234.32	N.A.	7.80
0-180	3000.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	97.13
10-20	275.15
20-30	407.59
30-40	477.49
40-50	481.23
50-60	424.16
60-70	316.30
70-80	176.20
80-90	44.74
90-100	15.88
100-110	49.81
110-120	51.83
120-130	50.46
130-140	45.60
140-150	37.65
150-160	27.46
160-170	16.14
170-180	5.17

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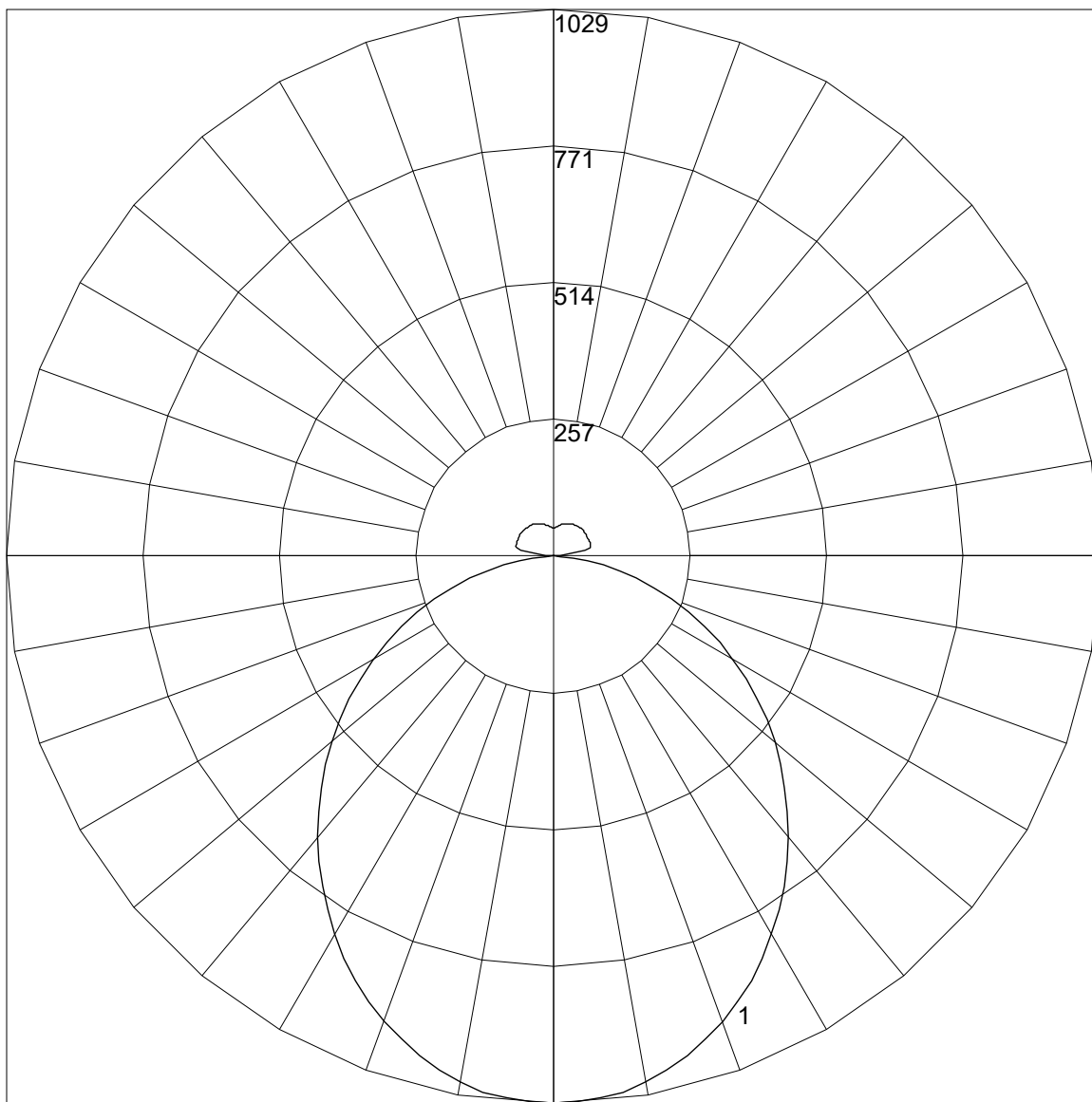
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	107	102	98	94	103	99	95	92	93	90	87	87	85	83	82	80	79	76
2	97	89	83	77	94	86	80	75	81	76	72	77	73	69	72	69	66	63
3	89	78	71	64	85	76	69	63	72	66	61	68	63	58	64	60	56	54
4	81	70	61	55	78	68	60	54	64	57	52	60	55	50	57	52	48	46
5	75	62	53	47	72	61	52	46	57	50	45	54	48	44	52	46	42	40
6	69	56	47	41	67	55	46	41	52	45	39	49	43	38	47	41	37	35
7	64	51	42	36	62	50	42	36	47	40	35	45	39	34	43	37	33	31
8	60	46	38	32	58	45	37	32	43	36	31	41	35	30	39	34	30	28
9	56	43	35	29	54	42	34	29	40	33	28	38	32	27	36	31	27	25
10	52	39	32	26	50	38	31	26	37	30	26	35	29	25	34	28	24	23

POLAR GRAPH



Maximum Candela = 1028.653 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)