

# 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-8-35-30U70D-ITL85122.207.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85122.207 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-8-35-30U70D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 26.4 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.3 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)	114
Total Luminaire Watts	26.4
Ballast Factor	1.00
CIE Type	Semi-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	7297	7226	7127
55	6883	6760	6690
65	6306	6188	6093
75	5342	5226	5149
85	3449	3564	3564

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-S-8-35-30U70D-ITL85122.207.IES

## CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	800.064	800.064	800.064	800.064	800.064
2.5	800.064	799.110	800.064	800.064	799.110
5.0	796.249	795.296	795.296	796.249	795.296
7.5	791.481	790.528	790.528	790.528	790.528
10.0	783.852	780.992	782.899	781.945	780.992
12.5	774.317	770.502	772.409	772.409	769.549
15.0	762.874	758.106	760.966	760.966	757.152
17.5	748.570	741.894	745.709	744.755	740.941
20.0	733.312	724.730	728.544	728.544	724.730
22.5	714.240	706.612	709.472	709.472	705.658
25.0	694.215	686.586	689.447	688.493	685.633
27.5	672.282	665.607	667.514	665.607	663.700
30.0	648.442	641.767	644.628	641.767	638.907
32.5	624.603	618.881	619.835	616.974	614.113
35.0	599.809	594.088	595.041	591.227	589.320
37.5	574.062	569.294	569.294	565.480	562.619
40.0	547.362	541.640	542.594	538.779	535.919
42.5	519.708	513.986	514.940	510.172	508.264
45.0	491.100	486.332	486.332	481.564	479.657
47.5	464.399	458.678	457.724	452.956	452.002
50.0	434.838	429.116	428.163	423.395	423.395
52.5	405.277	400.509	398.601	394.787	394.787
55.0	375.715	370.947	369.040	365.226	365.226
57.5	346.154	341.386	340.432	335.664	334.711
60.0	315.639	311.825	309.917	306.103	305.149
62.5	285.124	281.310	279.402	275.588	274.635
65.0	253.655	250.795	248.887	245.073	245.073
67.5	223.141	220.280	218.373	215.512	214.558
70.0	191.672	189.765	187.858	184.997	184.997
72.5	161.157	160.203	158.296	156.389	155.435
75.0	131.596	130.642	128.735	127.781	126.828
77.5	102.988	102.034	101.081	100.127	100.127
80.0	75.334	75.334	74.380	74.380	74.380
82.5	50.540	51.494	50.540	50.540	50.540
85.0	28.608	29.561	29.561	29.561	29.561
87.5	9.536	10.489	10.489	10.489	10.489
90.0	0.000	0.000	0.000	0.000	0.000
92.5	3.232	12.121	8.485	8.687	8.687
95.0	9.293	54.747	28.081	16.162	15.353
97.5	16.566	63.838	133.332	74.141	43.232
100.0	24.444	70.504	148.281	184.443	182.019
102.5	32.727	75.353	153.130	198.584	212.523
105.0	40.808	82.424	157.372	202.018	217.170
107.5	48.282	89.292	161.009	203.635	218.180
110.0	56.161	95.353	161.817	205.655	219.392
112.5	63.636	101.009	164.645	207.069	221.008
115.0	70.909	106.666	168.281	206.261	220.402
117.5	77.979	112.322	171.514	206.665	219.392
120.0	84.646	117.575	174.342	208.483	219.796
122.5	90.908	122.625	176.766	210.099	221.008
125.0	96.767	127.272	178.584	211.109	221.614
127.5	102.423	131.716	180.402	211.917	222.018
130.0	107.878	135.958	181.614	212.119	222.018
132.5	113.130	139.797	183.029	211.917	221.412

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-S-8-35-30U70D-ITL85122.207.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	117.777	143.231	184.241	211.311	220.200
<b>137.5</b>	122.221	146.261	185.049	210.301	218.988
<b>140.0</b>	126.665	149.090	185.655	209.291	217.170
<b>142.5</b>	130.706	151.514	185.857	208.079	215.352
<b>145.0</b>	134.746	153.736	185.857	206.665	213.331
<b>147.5</b>	138.181	155.756	185.655	205.049	211.109
<b>150.0</b>	141.413	156.968	184.645	202.625	208.281
<b>152.5</b>	144.443	158.180	183.231	200.200	205.453
<b>155.0</b>	147.069	159.190	181.614	197.170	201.816
<b>157.5</b>	149.494	159.797	179.594	193.534	197.978
<b>160.0</b>	151.716	160.201	177.372	189.493	193.534
<b>162.5</b>	153.534	160.201	174.544	185.049	188.685
<b>165.0</b>	155.150	160.201	171.716	180.402	183.231
<b>167.5</b>	156.362	159.999	168.685	175.756	178.382
<b>170.0</b>	157.372	159.797	165.857	170.908	172.928
<b>172.5</b>	158.180	159.797	163.231	166.665	167.877
<b>175.0</b>	158.786	159.393	161.009	163.029	163.433
<b>177.5</b>	159.393	159.595	159.999	160.403	160.403
<b>180.0</b>	159.393	159.393	159.393	159.393	159.393

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-S-8-35-30U70D-ITL85122.207.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	289.56	N.A.	9.70
0-30	606.57	N.A.	20.20
0-40	977.96	N.A.	32.60
0-60	1682.15	N.A.	56.10
0-80	2065.2	N.A.	68.80
0-90	2100.00	N.A.	70.00
10-90	2024.46	N.A.	67.50
20-40	688.40	N.A.	22.90
20-50	1062.68	N.A.	35.40
40-70	950.21	N.A.	31.70
60-80	383.06	N.A.	12.80
70-80	137.04	N.A.	4.60
80-90	34.80	N.A.	1.20
90-110	197.05	N.A.	6.60
90-120	352.55	N.A.	11.80
90-130	503.94	N.A.	16.80
90-150	753.69	N.A.	25.10
90-180	900.00	N.A.	30.00
110-180	702.95	N.A.	23.40
0-180	3000.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	75.55
10-20	214.01
20-30	317.02
30-40	371.38
40-50	374.29
50-60	329.90
60-70	246.02
70-80	137.04
80-90	34.80
90-100	47.63
100-110	149.43
110-120	155.49
120-130	151.39
130-140	136.79
140-150	112.96
150-160	82.37
160-170	48.41
170-180	15.52

# IES INDOOR REPORT

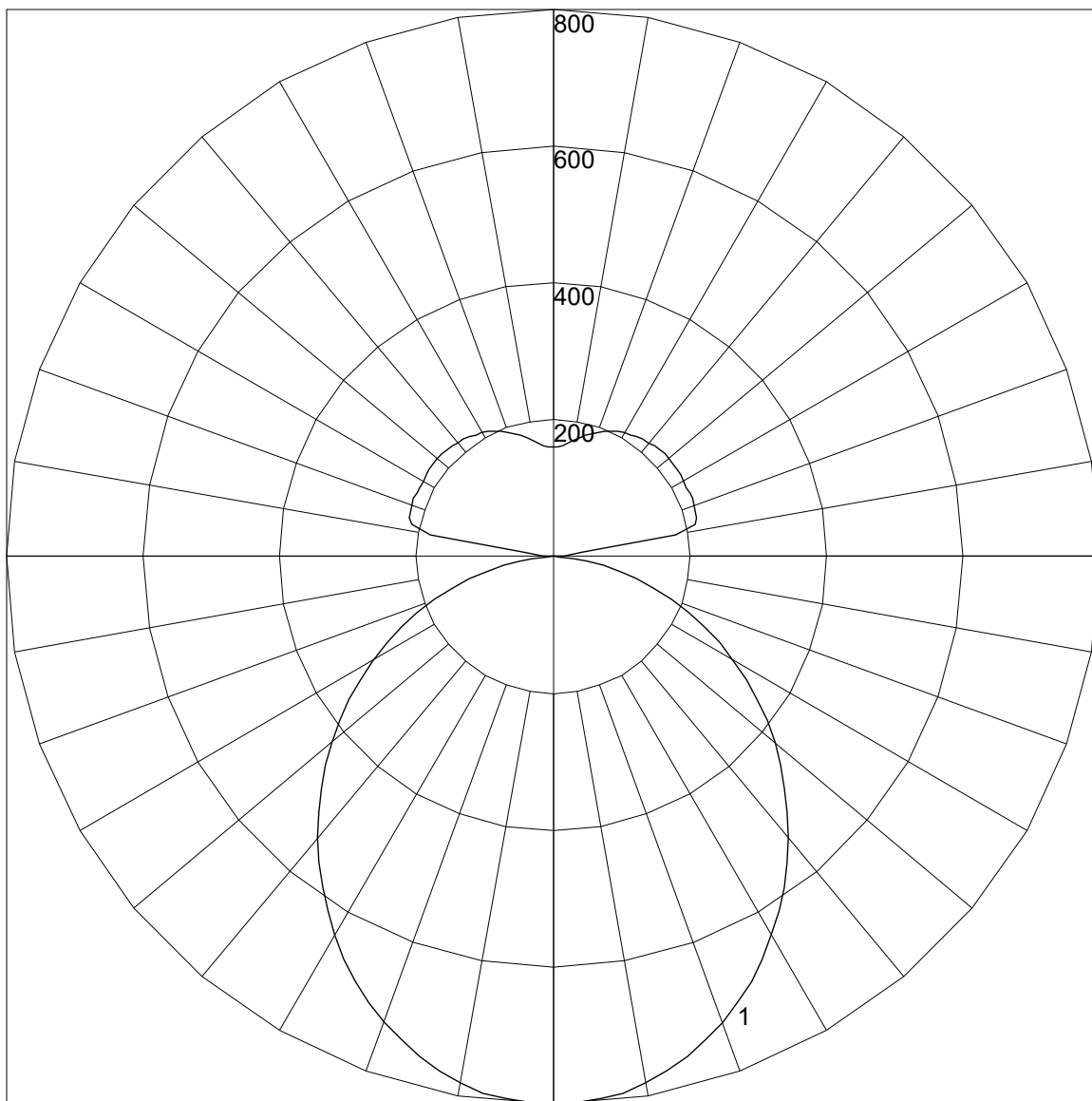
PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-S-8-35-30U70D-ITL85122.207.IES

## 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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	102	98	94	90	97	93	89	86	83	80	78	74	72	70	66	64	63	59
2	93	85	79	74	88	81	75	70	73	68	64	65	62	59	58	55	53	49
3	85	75	67	61	80	71	64	59	64	59	54	57	53	49	51	48	45	42
4	78	67	58	52	73	63	56	50	57	51	46	51	46	42	46	42	39	36
5	71	59	51	45	67	56	49	43	51	45	40	46	41	37	41	37	34	31
6	66	53	45	39	62	51	43	38	46	40	35	42	36	32	37	33	30	27
7	61	48	40	34	58	46	38	33	42	35	31	38	33	29	34	30	26	24
8	57	44	36	30	54	42	35	29	38	32	27	35	29	26	31	27	24	22
9	53	40	32	27	50	38	31	26	35	29	25	32	27	23	29	25	21	19
10	50	37	30	25	47	35	28	24	32	26	22	30	25	21	27	23	20	18

POLAR GRAPH



Maximum Candela = 800.064 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)