

# 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-3E-S-V-835-FTO-ITL88524.015.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL88524.015 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]10/18/16

[ISSUEDATE]01/05/17

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S16-LED-ID-DCO-4ft-3E-S-V-835-FTO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 34.2 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 37.3 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL88524. 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)

[\_ABSOLUTE]LUMENS]3709

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3709
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	34.2
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
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	7296	7207	7088
55	6851	6741	6613
65	6265	6141	6017
75	5318	5196	5115
85	3617	3617	3496

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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	799.000	799.000	799.000	799.000	799.000
2.5	798.000	798.000	799.000	798.000	798.000
5.0	794.000	794.000	795.000	794.000	794.000
7.5	789.000	789.000	789.000	789.000	789.000
10.0	782.000	781.000	782.000	781.000	780.000
12.5	772.000	769.000	771.000	770.000	769.000
15.0	760.000	756.000	759.000	758.000	756.000
17.5	746.000	741.000	745.000	744.000	741.000
20.0	731.000	724.000	728.000	727.000	724.000
22.5	713.000	705.000	709.000	708.000	705.000
25.0	693.000	685.000	688.000	687.000	684.000
27.5	671.000	663.000	666.000	664.000	661.000
30.0	648.000	641.000	643.000	640.000	637.000
32.5	624.000	617.000	618.000	615.000	612.000
35.0	599.000	592.000	593.000	589.000	587.000
37.5	573.000	566.000	567.000	563.000	560.000
40.0	547.000	540.000	540.000	536.000	533.000
42.5	519.000	514.000	513.000	508.000	505.000
45.0	491.000	486.000	485.000	480.000	477.000
47.5	462.000	458.000	456.000	451.000	448.000
50.0	433.000	429.000	427.000	421.000	419.000
52.5	404.000	399.000	398.000	392.000	390.000
55.0	374.000	370.000	368.000	362.000	361.000
57.5	344.000	340.000	338.000	332.000	331.000
60.0	314.000	310.000	308.000	302.000	301.000
62.5	283.000	280.000	277.000	272.000	272.000
65.0	252.000	250.000	247.000	242.000	242.000
67.5	221.000	219.000	216.000	213.000	212.000
70.0	190.000	189.000	186.000	183.000	183.000
72.5	160.000	159.000	157.000	155.000	154.000
75.0	131.000	130.000	128.000	126.000	126.000
77.5	102.000	103.000	100.000	100.000	99.000
80.0	76.000	76.000	75.000	74.000	73.000
82.5	51.000	52.000	52.000	51.000	50.000
85.0	30.000	30.000	30.000	29.000	29.000
87.5	10.000	10.000	11.000	10.000	9.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	11.055	11.465	9.827	10.646	10.646
95.0	24.157	25.795	26.614	24.976	23.748
97.5	38.898	42.173	47.496	47.087	46.268
100.0	55.276	59.370	66.331	70.425	70.425
102.5	72.882	78.205	89.260	94.583	96.221
105.0	91.307	98.268	113.827	121.606	124.063
107.5	110.551	119.559	139.213	150.268	153.543
110.0	130.205	141.669	166.236	179.339	184.252
112.5	149.858	163.780	192.851	209.638	216.599
115.0	169.921	186.299	220.284	240.756	248.536
117.5	189.984	209.228	248.126	271.874	280.882
120.0	209.638	231.748	275.150	302.173	312.819
122.5	229.292	253.858	301.764	332.063	343.528
125.0	248.126	274.740	326.740	360.315	373.008
127.5	266.551	295.213	350.079	387.339	400.441
130.0	284.567	314.457	372.189	411.497	425.827
132.5	301.764	332.063	391.433	432.788	447.937

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-S-V-835-FTO-ITL88524.015.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	318.551	348.441	408.630	451.213	466.772
<b>137.5</b>	334.111	362.772	423.780	466.772	481.512
<b>140.0</b>	348.851	376.284	436.063	478.646	493.796
<b>142.5</b>	362.363	388.567	446.300	488.473	502.394
<b>145.0</b>	375.055	398.803	453.670	494.205	508.127
<b>147.5</b>	386.930	408.221	459.402	497.890	510.583
<b>150.0</b>	397.166	416.000	463.087	498.709	510.583
<b>152.5</b>	406.583	422.961	464.725	497.481	508.536
<b>155.0</b>	414.772	428.284	465.544	494.615	504.441
<b>157.5</b>	421.733	433.197	465.544	490.111	499.119
<b>160.0</b>	428.284	436.882	464.315	485.197	492.567
<b>162.5</b>	433.607	440.158	462.268	479.056	485.607
<b>165.0</b>	438.111	442.205	459.812	472.504	478.237
<b>167.5</b>	441.796	444.662	456.945	467.182	471.276
<b>170.0</b>	445.071	446.709	454.489	461.449	464.725
<b>172.5</b>	447.118	448.347	452.441	456.536	458.583
<b>175.0</b>	448.756	449.575	450.804	452.851	453.670
<b>177.5</b>	449.985	449.985	450.394	450.804	451.213
<b>180.0</b>	449.985	449.985	449.985	449.985	449.985

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-S-V-835-FTO-ITL88524.015.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	289.02	N.A.	7.80
0-30	605.36	N.A.	16.30
0-40	975.48	N.A.	26.30
0-60	1676.42	N.A.	45.20
0-80	2056.45	N.A.	55.40
0-90	2091.41	N.A.	56.40
10-90	2015.99	N.A.	54.30
20-40	686.46	N.A.	18.50
20-50	1059.49	N.A.	28.60
40-70	944.80	N.A.	25.50
60-80	380.03	N.A.	10.20
70-80	136.17	N.A.	3.70
80-90	34.96	N.A.	0.90
90-110	148.17	N.A.	4.00
90-120	360.17	N.A.	9.70
90-130	643.88	N.A.	17.40
90-150	1231.41	N.A.	33.20
90-180	1618.00	N.A.	43.60
110-180	1469.83	N.A.	39.60
0-180	3709.41	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	75.42
10-20	213.60
20-30	316.34
30-40	370.12
40-50	373.03
50-60	327.92
60-70	243.85
70-80	136.17
80-90	34.96
90-100	30.80
100-110	117.37
110-120	212.00
120-130	283.71
130-140	307.93
140-150	279.59
150-160	213.43
160-170	129.99
170-180	43.17

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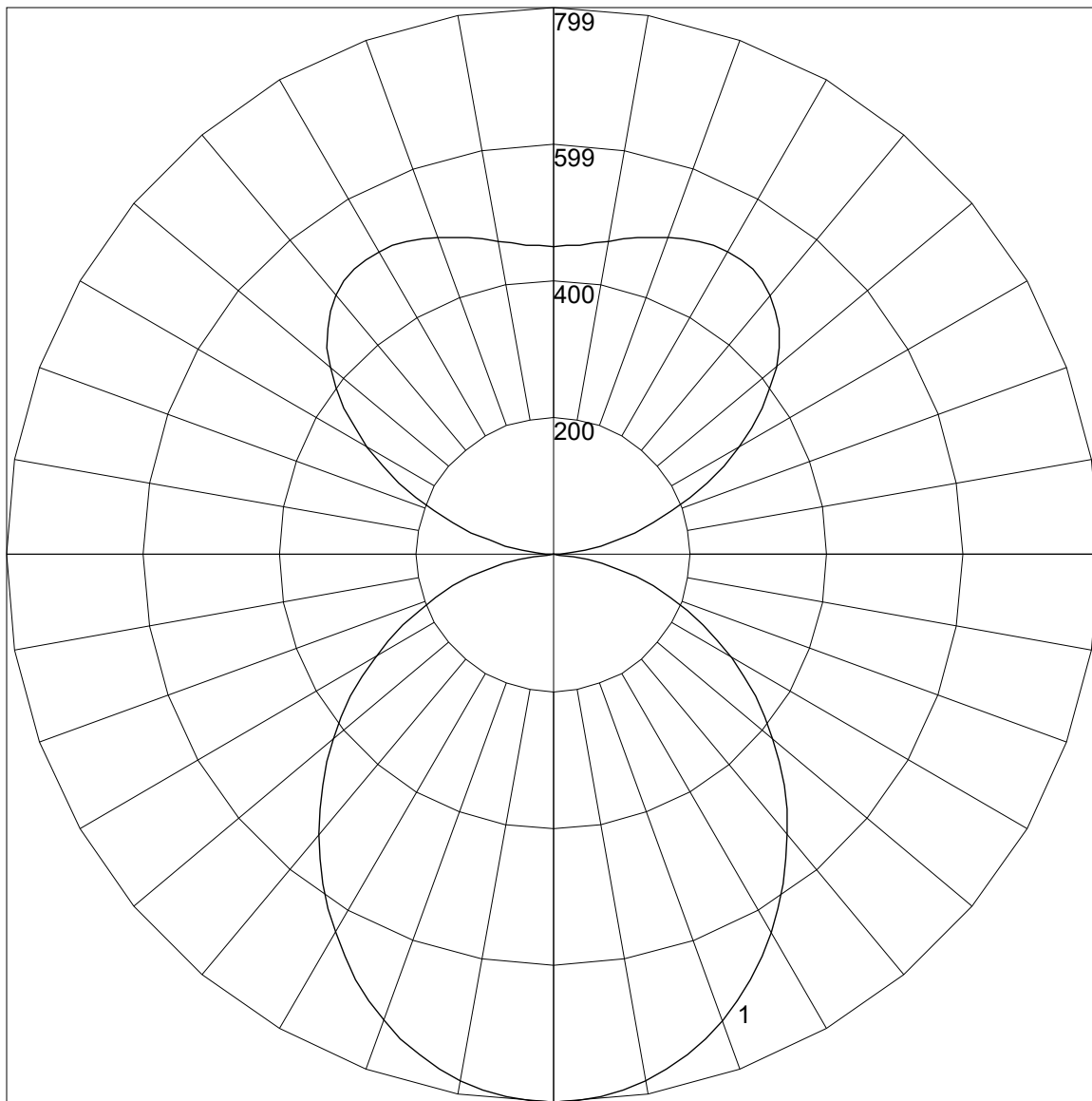
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	95	91	87	92	88	85	82	76	74	71	65	63	62	55	54	52	47
2	90	83	77	71	84	77	72	67	67	63	59	57	54	51	48	46	44	40
3	82	73	65	59	76	68	61	56	59	54	50	50	47	43	43	40	37	34
4	75	64	56	50	70	60	53	48	52	47	42	45	41	37	38	35	32	29
5	69	57	49	43	64	54	46	41	47	41	37	40	36	32	34	31	28	25
6	64	52	43	37	59	48	41	36	42	36	32	36	32	28	31	28	25	22
7	59	47	38	33	55	44	36	31	38	32	28	33	29	25	28	25	22	19
8	55	42	34	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	20	18	16
10	48	35	28	23	44	33	27	22	30	24	20	26	21	18	22	19	16	14

POLAR GRAPH



Maximum Candela = 799 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)