

# 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-B-V-8TW-FTO-ITL88524.912.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL88524.912 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]10/18/16

[ISSUEDATE]01/12/17

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S16-LED-ID-DCO-4ft-3E-B-V-8TW-FTO

[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI's

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 41.9 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 45.3 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)

[\_ABSOLUTELUMENS]4125

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4125
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	41.9
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	13.898	14.412	12.353	13.383	13.383
95.0	30.369	32.428	33.457	31.398	29.854
97.5	48.899	53.016	59.708	59.193	58.164
100.0	69.487	74.635	83.385	88.532	88.532
102.5	91.621	98.312	112.209	118.901	120.960
105.0	114.783	123.533	143.093	152.872	155.961
107.5	138.975	150.299	175.005	188.903	193.021
110.0	163.681	178.094	208.977	225.448	231.625
112.5	188.388	205.889	242.434	263.538	272.288
115.0	213.609	234.198	276.920	302.656	312.436
117.5	238.831	263.023	311.921	341.775	353.099
120.0	263.538	291.332	345.893	379.865	393.247
122.5	288.244	319.127	379.350	417.439	431.851
125.0	311.921	345.378	410.748	452.955	468.911
127.5	335.084	371.114	440.087	486.927	503.398
130.0	357.732	395.306	467.882	517.295	535.311
132.5	379.350	417.439	492.074	544.061	563.106

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-B-V-8TW-FTO-ITL88524.912.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	400.454	438.028	513.692	567.223	586.783
<b>137.5</b>	420.013	456.043	532.737	586.783	605.313
<b>140.0</b>	438.543	473.029	548.179	601.710	620.754
<b>142.5</b>	455.529	488.471	561.047	614.063	631.563
<b>145.0</b>	471.485	501.339	570.312	621.269	638.770
<b>147.5</b>	486.412	513.178	577.518	625.902	641.858
<b>150.0</b>	499.280	522.957	582.150	626.931	641.858
<b>152.5</b>	511.119	531.707	584.209	625.387	639.284
<b>155.0</b>	521.413	538.399	585.239	621.784	634.137
<b>157.5</b>	530.163	544.576	585.239	616.122	627.446
<b>160.0</b>	538.399	549.208	583.694	609.945	619.210
<b>162.5</b>	545.090	553.326	581.121	602.224	610.460
<b>165.0</b>	550.752	555.899	578.033	593.989	601.195
<b>167.5</b>	555.385	558.988	574.429	587.298	592.445
<b>170.0</b>	559.503	561.561	571.341	580.091	584.209
<b>172.5</b>	562.076	563.620	568.768	573.915	576.488
<b>175.0</b>	564.135	565.164	566.709	569.282	570.312
<b>177.5</b>	565.679	565.679	566.194	566.709	567.223
<b>180.0</b>	565.679	565.679	565.679	565.679	565.679

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-B-V-8TW-FTO-ITL88524.912.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	289.02	N.A.	7.00
0-30	605.36	N.A.	14.70
0-40	975.48	N.A.	23.60
0-60	1676.42	N.A.	40.60
0-80	2056.45	N.A.	49.80
0-90	2091.41	N.A.	50.70
10-90	2015.99	N.A.	48.90
20-40	686.46	N.A.	16.60
20-50	1059.49	N.A.	25.70
40-70	944.80	N.A.	22.90
60-80	380.03	N.A.	9.20
70-80	136.17	N.A.	3.30
80-90	34.96	N.A.	0.80
90-110	186.27	N.A.	4.50
90-120	452.77	N.A.	11.00
90-130	809.43	N.A.	19.60
90-150	1548.01	N.A.	37.50
90-180	2034.00	N.A.	49.30
110-180	1847.73	N.A.	44.80
0-180	4125.41	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	38.72
100-110	147.55
110-120	266.51
120-130	356.66
130-140	387.11
140-150	351.47
150-160	268.30
160-170	163.42
170-180	54.27

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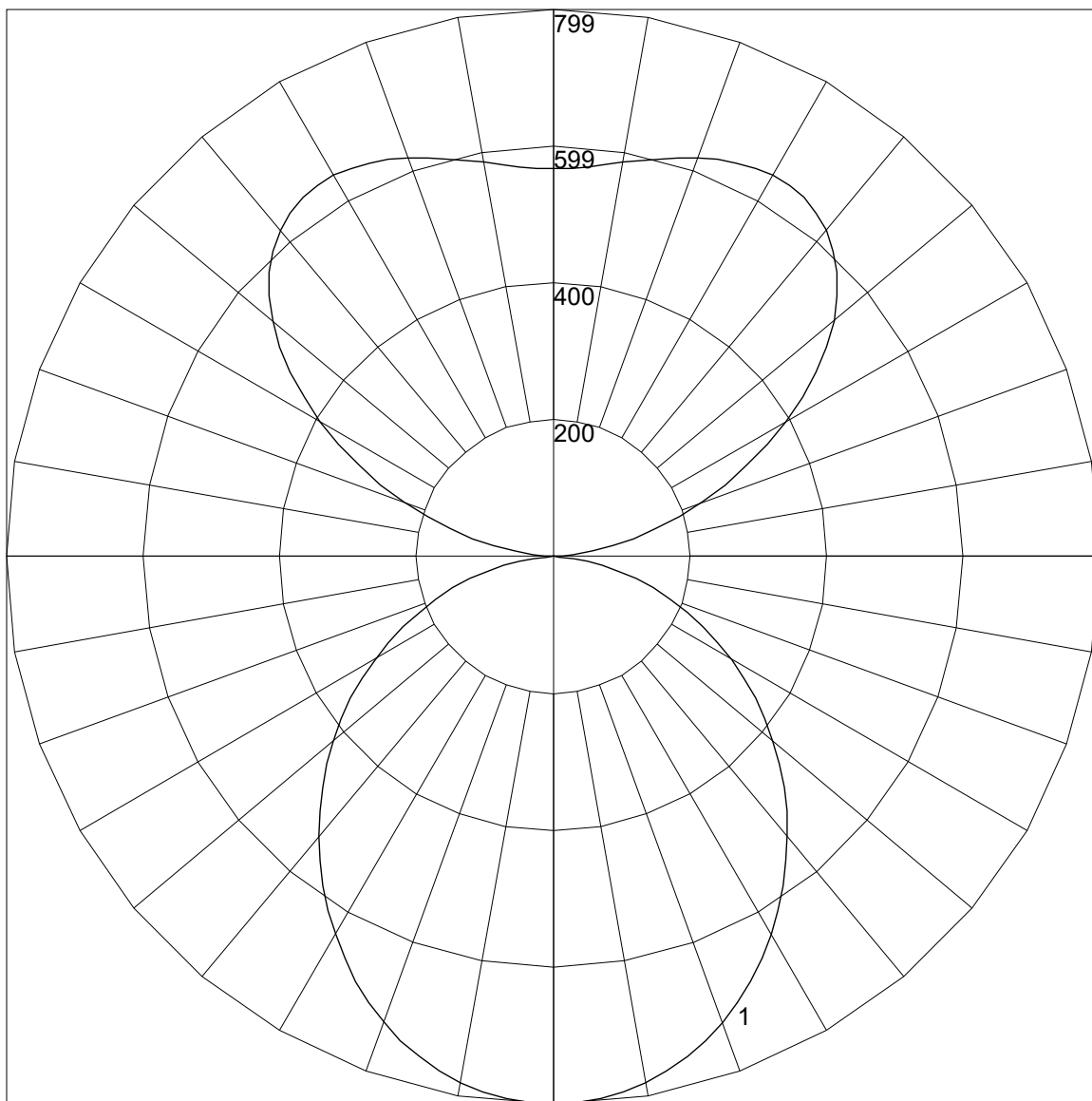
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	94	90	86	90	87	83	80	73	71	69	61	60	58	50	49	48	43
2	89	82	76	70	82	76	70	66	64	60	57	54	51	48	44	42	40	36
3	81	72	64	59	75	67	60	55	57	52	48	48	44	41	39	36	34	30
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	35	32	30	26
5	68	57	48	42	63	53	45	40	45	39	35	38	34	30	31	28	26	22
6	63	51	43	37	58	47	40	35	41	35	31	34	30	27	28	25	23	20
7	58	46	38	32	54	43	36	30	37	31	27	31	27	23	26	23	20	17
8	54	42	34	28	50	39	32	27	34	28	24	29	24	21	24	21	18	16
9	50	38	30	25	46	35	29	24	31	25	21	26	22	19	22	19	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13

POLAR GRAPH



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