

# 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-H-H-835-FTO-ITL88524.003.IES****DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL88524.003 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-H-H-835-FTO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 43.2 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 46.3 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]4700

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4700
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	43.2
Ballast Factor	1.00
CIE Type	Semi-Indirect
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	5674	5605	5513
55	5329	5243	5143
65	4873	4776	4679
75	4136	4041	3978
85	2813	2813	2719

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-H-H-835-FTO-ITL88524.003.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	621.430	621.430	621.430	621.430	621.430
2.5	620.652	620.652	621.430	620.652	620.652
5.0	617.541	617.541	618.319	617.541	617.541
7.5	613.652	613.652	613.652	613.652	613.652
10.0	608.208	607.430	608.208	607.430	606.652
12.5	600.430	598.097	599.652	598.875	598.097
15.0	591.097	587.986	590.319	589.542	587.986
17.5	580.208	576.320	579.431	578.653	576.320
20.0	568.542	563.098	566.209	565.431	563.098
22.5	554.542	548.320	551.431	550.654	548.320
25.0	538.987	532.765	535.098	534.321	531.987
27.5	521.877	515.654	517.988	516.432	514.099
30.0	503.988	498.544	500.099	497.766	495.433
32.5	485.322	479.878	480.655	478.322	475.989
35.0	465.878	460.434	461.211	458.100	456.545
37.5	445.656	440.212	440.990	437.879	435.545
40.0	425.434	419.990	419.990	416.879	414.546
42.5	403.657	399.768	398.991	395.102	392.768
45.0	381.880	377.991	377.213	373.324	370.991
47.5	359.325	356.214	354.658	350.769	348.436
50.0	336.770	333.659	332.103	327.437	325.881
52.5	314.215	310.326	309.548	304.882	303.326
55.0	290.882	287.771	286.215	281.549	280.771
57.5	267.549	264.438	262.883	258.216	257.438
60.0	244.216	241.105	239.550	234.883	234.106
62.5	220.106	217.773	215.439	211.551	211.551
65.0	195.995	194.440	192.107	188.218	188.218
67.5	171.885	170.329	167.996	165.663	164.885
70.0	147.774	146.997	144.663	142.330	142.330
72.5	124.441	123.664	122.108	120.553	119.775
75.0	101.886	101.109	99.553	97.998	97.998
77.5	79.331	80.109	77.776	77.776	76.998
80.0	59.110	59.110	58.332	57.554	56.776
82.5	39.666	40.443	40.443	39.666	38.888
85.0	23.333	23.333	23.333	22.555	22.555
87.5	7.778	7.778	8.555	7.778	7.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	21.000	21.777	18.666	20.222	20.222
95.0	45.888	48.999	50.554	47.443	45.110
97.5	73.887	80.109	90.220	89.442	87.887
100.0	104.998	112.775	125.997	133.775	133.775
102.5	138.441	148.552	169.552	179.662	182.773
105.0	173.440	186.662	216.217	230.995	235.661
107.5	209.995	227.106	264.438	285.438	291.660
110.0	247.327	269.105	315.770	340.659	349.992
112.5	284.660	311.104	366.325	398.213	411.435
115.0	322.770	353.881	418.435	457.323	472.100
117.5	360.880	397.435	471.322	516.432	533.543
120.0	398.213	440.212	522.654	573.986	594.208
122.5	435.545	482.211	573.209	630.763	652.540
125.0	471.322	521.877	620.652	684.428	708.539
127.5	506.321	560.765	664.984	735.760	760.649
130.0	540.543	597.319	706.983	781.648	808.870
132.5	573.209	630.763	743.538	822.092	850.869

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-H-H-835-FTO-ITL88524.003.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	605.097	661.873	776.204	857.091	886.646
<b>137.5</b>	634.652	689.095	804.981	886.646	914.645
<b>140.0</b>	662.651	714.761	828.314	909.201	937.978
<b>142.5</b>	688.317	738.094	847.758	927.867	954.311
<b>145.0</b>	712.428	757.538	861.757	938.756	965.199
<b>147.5</b>	734.983	775.426	872.646	945.755	969.866
<b>150.0</b>	754.427	790.204	879.646	947.311	969.866
<b>152.5</b>	772.315	803.425	882.757	944.978	965.977
<b>155.0</b>	787.870	813.536	884.312	939.533	958.200
<b>157.5</b>	801.092	822.869	884.312	930.978	948.089
<b>160.0</b>	813.536	829.869	881.979	921.645	935.645
<b>162.5</b>	823.647	836.091	878.090	909.978	922.423
<b>165.0</b>	832.203	839.980	873.424	897.534	908.423
<b>167.5</b>	839.202	844.647	867.979	887.423	895.201
<b>170.0</b>	845.424	848.535	863.313	876.535	882.757
<b>172.5</b>	849.313	851.647	859.424	867.202	871.090
<b>175.0</b>	852.424	853.980	856.313	860.202	861.757
<b>177.5</b>	854.758	854.758	855.535	856.313	857.091
<b>180.0</b>	854.758	854.758	854.758	854.758	854.758

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-H-H-835-FTO-ITL88524.003.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	224.79	N.A.	4.80
0-30	470.83	N.A.	10.00
0-40	758.69	N.A.	16.10
0-60	1303.85	N.A.	27.70
0-80	1599.42	N.A.	34.00
0-90	1626.62	N.A.	34.60
10-90	1567.96	N.A.	33.40
20-40	533.90	N.A.	11.40
20-50	824.03	N.A.	17.50
40-70	734.83	N.A.	15.60
60-80	295.57	N.A.	6.30
70-80	105.91	N.A.	2.30
80-90	27.19	N.A.	0.60
90-110	281.45	N.A.	6.00
90-120	684.15	N.A.	14.60
90-130	1223.07	N.A.	26.00
90-150	2339.09	N.A.	49.80
90-180	3073.43	N.A.	65.40
110-180	2791.98	N.A.	59.40
0-180	4700.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	58.66
10-20	166.13
20-30	246.04
30-40	287.86
40-50	290.13
50-60	255.04
60-70	189.66
70-80	105.91
80-90	27.19
90-100	58.50
100-110	222.95
110-120	402.70
120-130	538.92
130-140	584.93
140-150	531.09
150-160	405.41
160-170	246.93
170-180	82.00

# IES INDOOR REPORT

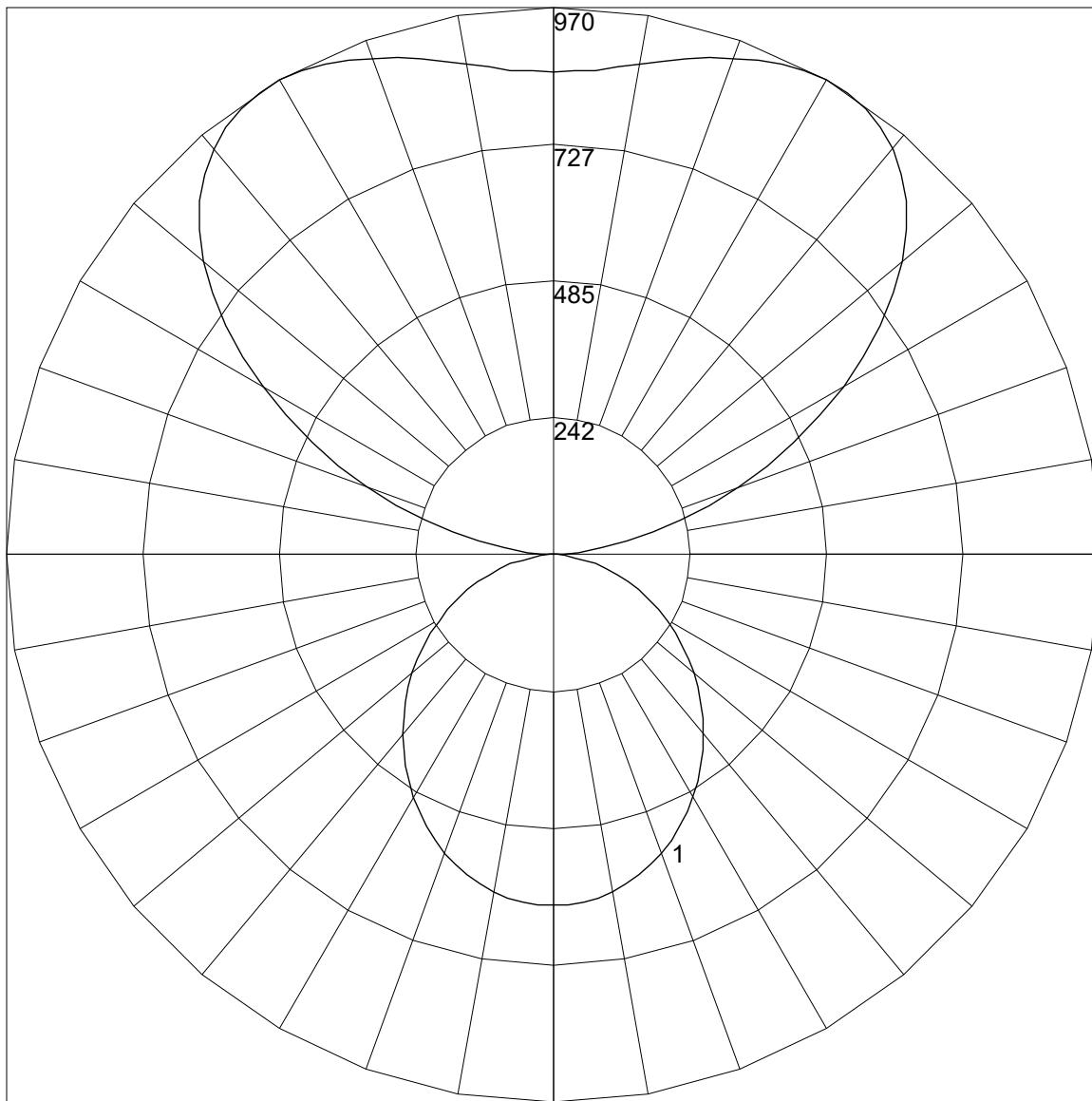
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35
1	94	90	86	83	85	82	78	75	65	63	61	51	49	48	37	36	35	29
2	86	79	73	68	77	71	66	62	57	54	51	44	42	40	33	31	30	24
3	78	69	62	56	70	63	56	52	50	46	42	39	36	34	29	27	25	21
4	72	61	53	47	64	55	49	44	45	40	36	35	32	29	26	24	22	18
5	66	54	46	41	59	49	42	37	40	35	31	31	28	25	23	21	19	15
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	19	17	13
7	56	44	36	31	50	40	33	28	32	27	24	26	22	19	19	17	15	12
8	52	40	32	27	47	36	29	25	30	25	21	23	20	17	18	15	13	11
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	13	11	9

POLAR GRAPH



Maximum Candela = 969.866 Located At Horizontal Angle = 90, Vertical Angle = 147.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)