

# 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-V-B-835-FTO-ITL88524.005.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL88524.005 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-V-B-835-FTO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 46.4 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 49.1 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]5028

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5028
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	46.4
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	3754	3708	3647
55	3525	3468	3402
65	3223	3159	3095
75	2736	2673	2632
85	1861	1861	1799

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-V-B-835-FTO-ITL88524.005.IES****CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	411.074	411.074	411.074	411.074	411.074
<b>2.5</b>	410.559	410.559	411.074	410.559	410.559
<b>5.0</b>	408.501	408.501	409.016	408.501	408.501
<b>7.5</b>	405.929	405.929	405.929	405.929	405.929
<b>10.0</b>	402.328	401.813	402.328	401.813	401.299
<b>12.5</b>	397.183	395.639	396.668	396.154	395.639
<b>15.0</b>	391.009	388.951	390.494	389.980	388.951
<b>17.5</b>	383.806	381.234	383.292	382.777	381.234
<b>20.0</b>	376.089	372.488	374.545	374.031	372.488
<b>22.5</b>	366.828	362.712	364.770	364.256	362.712
<b>25.0</b>	356.538	352.423	353.966	353.452	351.908
<b>27.5</b>	345.220	341.104	342.647	341.618	340.075
<b>30.0</b>	333.387	329.785	330.814	329.271	327.727
<b>32.5</b>	321.039	317.438	317.952	316.409	314.865
<b>35.0</b>	308.177	304.575	305.090	303.032	302.003
<b>37.5</b>	294.800	291.199	291.713	289.655	288.112
<b>40.0</b>	281.423	277.822	277.822	275.764	274.221
<b>42.5</b>	267.018	264.445	263.931	261.359	259.815
<b>45.0</b>	252.612	250.040	249.525	246.953	245.410
<b>47.5</b>	237.692	235.634	234.605	232.033	230.489
<b>50.0</b>	222.772	220.714	219.685	216.598	215.569
<b>52.5</b>	207.852	205.280	204.765	201.678	200.649
<b>55.0</b>	192.418	190.360	189.331	186.244	185.729
<b>57.5</b>	176.983	174.925	173.896	170.809	170.295
<b>60.0</b>	161.548	159.490	158.462	155.375	154.860
<b>62.5</b>	145.599	144.056	142.512	139.940	139.940
<b>65.0</b>	129.650	128.621	127.078	124.505	124.505
<b>67.5</b>	113.701	112.672	111.129	109.585	109.071
<b>70.0</b>	97.752	97.238	95.694	94.151	94.151
<b>72.5</b>	82.318	81.803	80.774	79.745	79.231
<b>75.0</b>	67.398	66.883	65.854	64.825	64.825
<b>77.5</b>	52.477	52.992	51.449	51.449	50.934
<b>80.0</b>	39.101	39.101	38.586	38.072	37.557
<b>82.5</b>	26.239	26.753	26.753	26.239	25.724
<b>85.0</b>	15.435	15.435	15.435	14.920	14.920
<b>87.5</b>	5.145	5.145	5.659	5.145	4.630
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	27.000	28.000	24.000	26.000	26.000
<b>95.0</b>	59.000	63.000	65.000	61.000	58.000
<b>97.5</b>	95.000	103.000	116.000	115.000	113.000
<b>100.0</b>	135.000	145.000	162.000	172.000	172.000
<b>102.5</b>	178.000	191.000	218.000	231.000	235.000
<b>105.0</b>	223.000	240.000	278.000	297.000	303.000
<b>107.5</b>	270.000	292.000	340.000	367.000	375.000
<b>110.0</b>	318.000	346.000	406.000	438.000	450.000
<b>112.5</b>	366.000	400.000	471.000	512.000	529.000
<b>115.0</b>	415.000	455.000	538.000	588.000	607.000
<b>117.5</b>	464.000	511.000	606.000	664.000	686.000
<b>120.0</b>	512.000	566.000	672.000	738.000	764.000
<b>122.5</b>	560.000	620.000	737.000	811.000	839.000
<b>125.0</b>	606.000	671.000	798.000	880.000	911.000
<b>127.5</b>	651.000	721.000	855.000	946.000	978.000
<b>130.0</b>	695.000	768.000	909.000	1005.000	1040.000
<b>132.5</b>	737.000	811.000	956.000	1057.000	1094.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-V-B-835-FTO-ITL88524.005.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	778.000	851.000	998.000	1102.000	1140.000
<b>137.5</b>	816.000	886.000	1035.000	1140.000	1176.000
<b>140.0</b>	852.000	919.000	1065.000	1169.000	1206.000
<b>142.5</b>	885.000	949.000	1090.000	1193.000	1227.000
<b>145.0</b>	916.000	974.000	1108.000	1207.000	1241.000
<b>147.5</b>	945.000	997.000	1122.000	1216.000	1247.000
<b>150.0</b>	970.000	1016.000	1131.000	1218.000	1247.000
<b>152.5</b>	993.000	1033.000	1135.000	1215.000	1242.000
<b>155.0</b>	1013.000	1046.000	1137.000	1208.000	1232.000
<b>157.5</b>	1030.000	1058.000	1137.000	1197.000	1219.000
<b>160.0</b>	1046.000	1067.000	1134.000	1185.000	1203.000
<b>162.5</b>	1059.000	1075.000	1129.000	1170.000	1186.000
<b>165.0</b>	1070.000	1080.000	1123.000	1154.000	1168.000
<b>167.5</b>	1079.000	1086.000	1116.000	1141.000	1151.000
<b>170.0</b>	1087.000	1091.000	1110.000	1127.000	1135.000
<b>172.5</b>	1092.000	1095.000	1105.000	1115.000	1120.000
<b>175.0</b>	1096.000	1098.000	1101.000	1106.000	1108.000
<b>177.5</b>	1099.000	1099.000	1100.000	1101.000	1102.000
<b>180.0</b>	1099.000	1099.000	1099.000	1099.000	1099.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-V-B-835-FTO-ITL88524.005.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	148.70	N.A.	3.00
0-30	311.45	N.A.	6.20
0-40	501.87	N.A.	10.00
0-60	862.50	N.A.	17.20
0-80	1058.01	N.A.	21.00
0-90	1076.00	N.A.	21.40
10-90	1037.2	N.A.	20.60
20-40	353.17	N.A.	7.00
20-50	545.09	N.A.	10.80
40-70	486.09	N.A.	9.70
60-80	195.52	N.A.	3.90
70-80	70.06	N.A.	1.40
80-90	17.99	N.A.	0.40
90-110	361.88	N.A.	7.20
90-120	879.65	N.A.	17.50
90-130	1572.56	N.A.	31.30
90-150	3007.47	N.A.	59.80
90-180	3951.65	N.A.	78.60
110-180	3589.77	N.A.	71.40
0-180	5027.65	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	38.80
10-20	109.90
20-30	162.75
30-40	190.42
40-50	191.92
50-60	168.71
60-70	125.46
70-80	70.06
80-90	17.99
90-100	75.22
100-110	286.66
110-120	517.77
120-130	692.92
130-140	752.07
140-150	682.84
150-160	521.26
160-170	317.49
170-180	105.43

# IES INDOOR REPORT

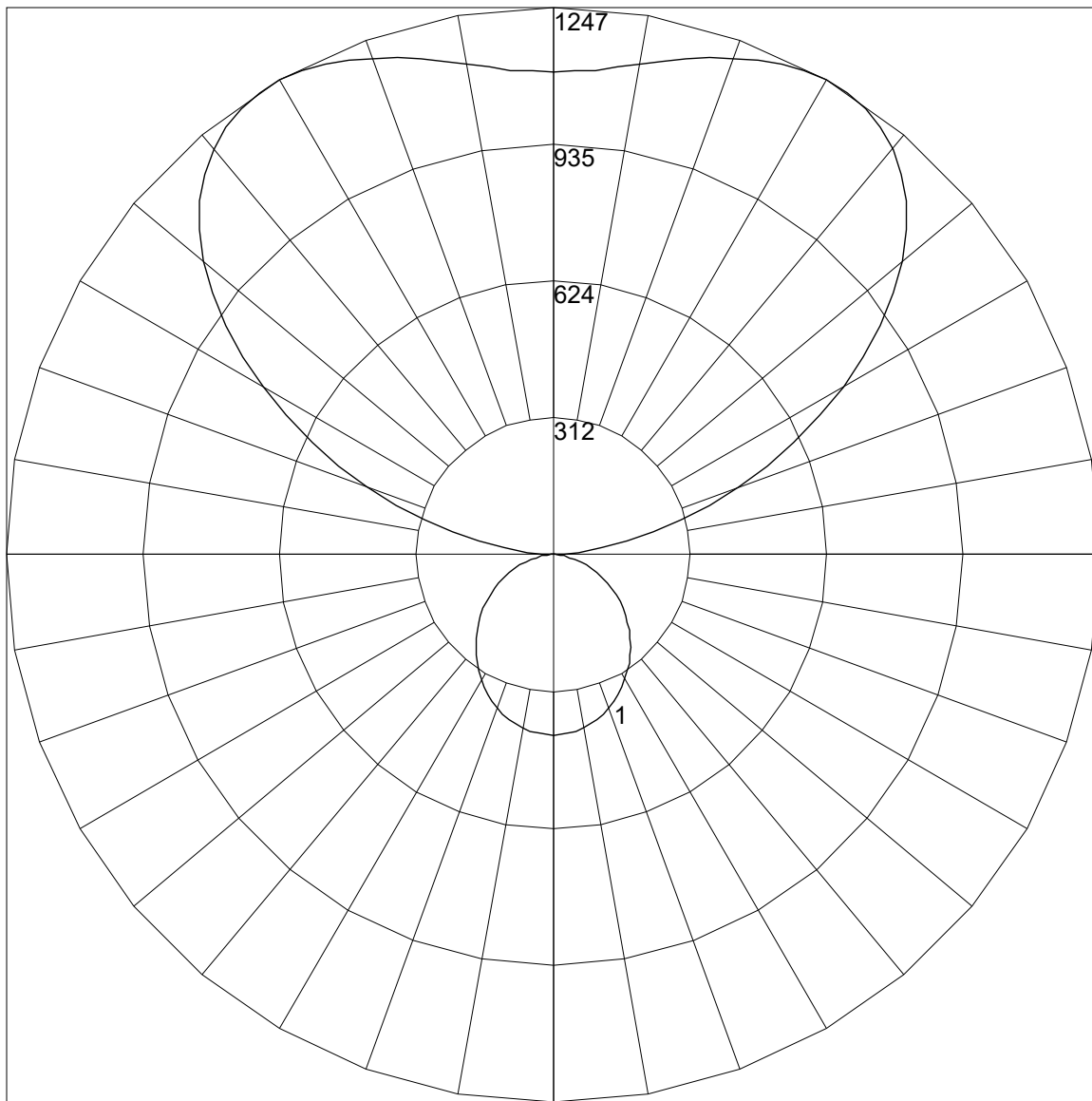
PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-3E-V-B-835-FTO-ITL88524.005.IES

## 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	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	84	80	81	77	74	72	59	57	55	42	41	40	26	26	25	18
2	83	76	70	65	73	68	63	59	52	48	46	37	35	33	23	22	21	15
3	76	67	60	54	67	59	54	49	45	41	38	32	30	28	20	19	18	13
4	69	59	51	46	61	52	46	41	40	36	32	29	26	24	18	17	15	11
5	63	52	45	39	56	47	40	35	36	31	28	26	23	20	16	15	13	9
6	58	47	39	34	51	42	35	30	32	27	24	23	20	18	15	13	12	8
7	54	42	34	29	47	38	31	26	29	24	21	21	18	16	14	12	10	7
8	50	38	31	26	44	34	28	23	26	22	18	19	16	14	12	11	9	7
9	46	34	27	23	41	31	25	20	24	19	16	17	14	12	11	10	8	6
10	43	31	25	20	38	28	22	18	22	18	15	16	13	11	11	9	8	5

POLAR GRAPH



Maximum Candela = 1247 Located At Horizontal Angle = 90, Vertical Angle = 147.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)