

# 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-2E-B-8-TW-OPEN-ITL85120.902.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85120.902 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/04/15

[ISSUEDATE]04/22/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S16-LED-ID-DCO-4ft-2E-B-8-TW-OPEN

[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

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 20.4 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 21.8 WATTS

[ABSOLUTE]LUMENS]2430

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85120. 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	2430
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	20.4
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	1919	2049	2172
55	1867	1999	2131
65	1753	1881	1996
75	1504	1609	1713
85	993	1117	1179

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-OPEN-ITL85120.902.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	185.778	185.778	185.778	185.778	185.778
2.5	185.263	185.778	185.778	185.778	185.778
5.0	184.749	185.263	185.263	185.778	185.778
7.5	184.234	184.749	184.749	185.778	185.778
10.0	183.205	183.205	184.234	185.263	185.263
12.5	181.661	181.661	183.719	185.263	185.263
15.0	180.117	179.602	182.690	184.749	184.749
17.5	177.544	177.544	181.146	183.719	184.234
20.0	174.971	174.971	179.602	182.175	183.205
22.5	172.398	171.883	177.029	180.632	181.661
25.0	168.795	168.795	174.456	178.573	180.117
27.5	165.193	165.708	171.883	176.515	178.058
30.0	161.076	161.591	168.281	173.427	174.971
32.5	156.444	157.474	164.164	169.825	171.883
35.0	151.813	152.842	160.047	165.708	167.766
37.5	146.667	148.211	155.415	161.076	163.649
40.0	141.006	142.550	149.754	155.930	158.503
42.5	135.345	136.889	144.094	150.269	152.842
45.0	129.170	130.713	137.918	144.094	146.152
47.5	122.480	124.538	131.228	136.889	139.462
50.0	115.789	117.848	124.023	129.684	132.257
52.5	109.099	110.643	116.819	121.965	124.538
55.0	101.895	103.439	109.099	114.246	116.304
57.5	94.175	95.719	100.865	106.012	107.556
60.0	86.456	88.000	92.632	97.263	98.807
62.5	78.737	79.766	84.398	88.000	89.544
65.0	70.503	71.532	75.649	79.251	80.281
67.5	61.754	62.784	66.901	69.474	71.018
70.0	53.520	54.550	57.637	60.211	60.725
72.5	45.287	46.316	48.889	50.947	51.462
75.0	37.053	38.082	39.626	41.684	42.199
77.5	28.819	29.848	31.392	32.936	33.450
80.0	21.614	22.129	23.158	24.187	24.702
82.5	14.924	15.439	15.953	16.468	16.982
85.0	8.234	8.749	9.263	9.263	9.778
87.5	2.573	3.088	3.088	3.088	3.088
90.0	0.000	0.000	0.000	0.000	0.000
92.5	10.807	7.719	2.573	1.544	1.544
95.0	19.041	170.854	19.041	13.895	12.351
97.5	25.731	192.468	356.117	72.047	30.877
100.0	32.421	207.392	376.702	479.626	514.105
102.5	39.111	221.801	386.480	491.977	528.000
105.0	46.316	242.386	398.316	496.608	533.661
107.5	53.520	252.164	401.918	503.298	538.807
110.0	61.240	256.281	406.035	507.415	545.497
112.5	68.444	257.310	411.181	505.871	542.924
115.0	75.135	256.795	421.474	506.386	540.866
117.5	81.825	255.766	428.678	506.386	539.322
120.0	88.515	254.737	427.649	508.959	537.778
122.5	94.690	253.708	423.532	514.105	537.778
125.0	100.865	252.678	417.357	512.561	539.836
127.5	106.012	251.649	410.667	505.357	535.205
130.0	110.643	249.076	402.433	495.064	525.427
132.5	114.760	246.503	393.684	483.743	513.076

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-OPEN-ITL85120.902.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	118.363	242.901	383.906	471.392	499.181
<b>137.5</b>	121.965	238.784	373.099	458.012	484.772
<b>140.0</b>	125.053	234.152	361.778	442.573	468.304
<b>142.5</b>	127.626	229.006	350.456	427.135	449.778
<b>145.0</b>	129.684	222.830	337.591	409.637	429.708
<b>147.5</b>	131.743	216.140	324.211	392.140	410.667
<b>150.0</b>	133.287	209.450	309.801	373.614	390.082
<b>152.5</b>	134.830	201.731	294.363	354.058	368.982
<b>155.0</b>	135.860	194.012	278.924	333.988	347.883
<b>157.5</b>	137.404	186.292	261.427	312.889	325.754
<b>160.0</b>	137.918	179.088	243.930	289.731	302.596
<b>162.5</b>	138.947	171.368	226.433	266.058	277.380
<b>165.0</b>	139.462	164.164	209.450	242.386	251.649
<b>167.5</b>	139.977	156.959	192.982	218.199	226.433
<b>170.0</b>	139.977	150.784	177.029	195.556	201.731
<b>172.5</b>	139.977	146.152	161.591	174.971	179.088
<b>175.0</b>	139.462	142.035	149.240	155.930	158.503
<b>177.5</b>	139.462	139.977	142.035	143.579	144.094
<b>180.0</b>	139.462	139.462	139.462	139.462	139.462

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-OPEN-ITL85120.902.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	69.20	N.A.	2.80
0-30	149.54	N.A.	6.20
0-40	249.38	N.A.	10.30
0-60	452.63	N.A.	18.60
0-80	569.26	N.A.	23.40
0-90	580.04	N.A.	23.90
10-90	562.37	N.A.	23.10
20-40	180.18	N.A.	7.40
20-50	286.21	N.A.	11.80
40-70	277.70	N.A.	11.40
60-80	116.63	N.A.	4.80
70-80	42.18	N.A.	1.70
80-90	10.78	N.A.	0.40
90-110	480.32	N.A.	19.80
90-120	850.20	N.A.	35.00
90-130	1185.78	N.A.	48.80
90-150	1654.67	N.A.	68.10
90-180	1849.99	N.A.	76.10
110-180	1369.67	N.A.	56.40
0-180	2430.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	17.67
10-20	51.54
20-30	80.34
30-40	99.84
40-50	106.03
50-60	97.22
60-70	74.45
70-80	42.18
80-90	10.78
90-100	105.58
100-110	374.75
110-120	369.87
120-130	335.59
130-140	272.27
140-150	196.62
150-160	121.87
160-170	58.42
170-180	15.04

# IES INDOOR REPORT

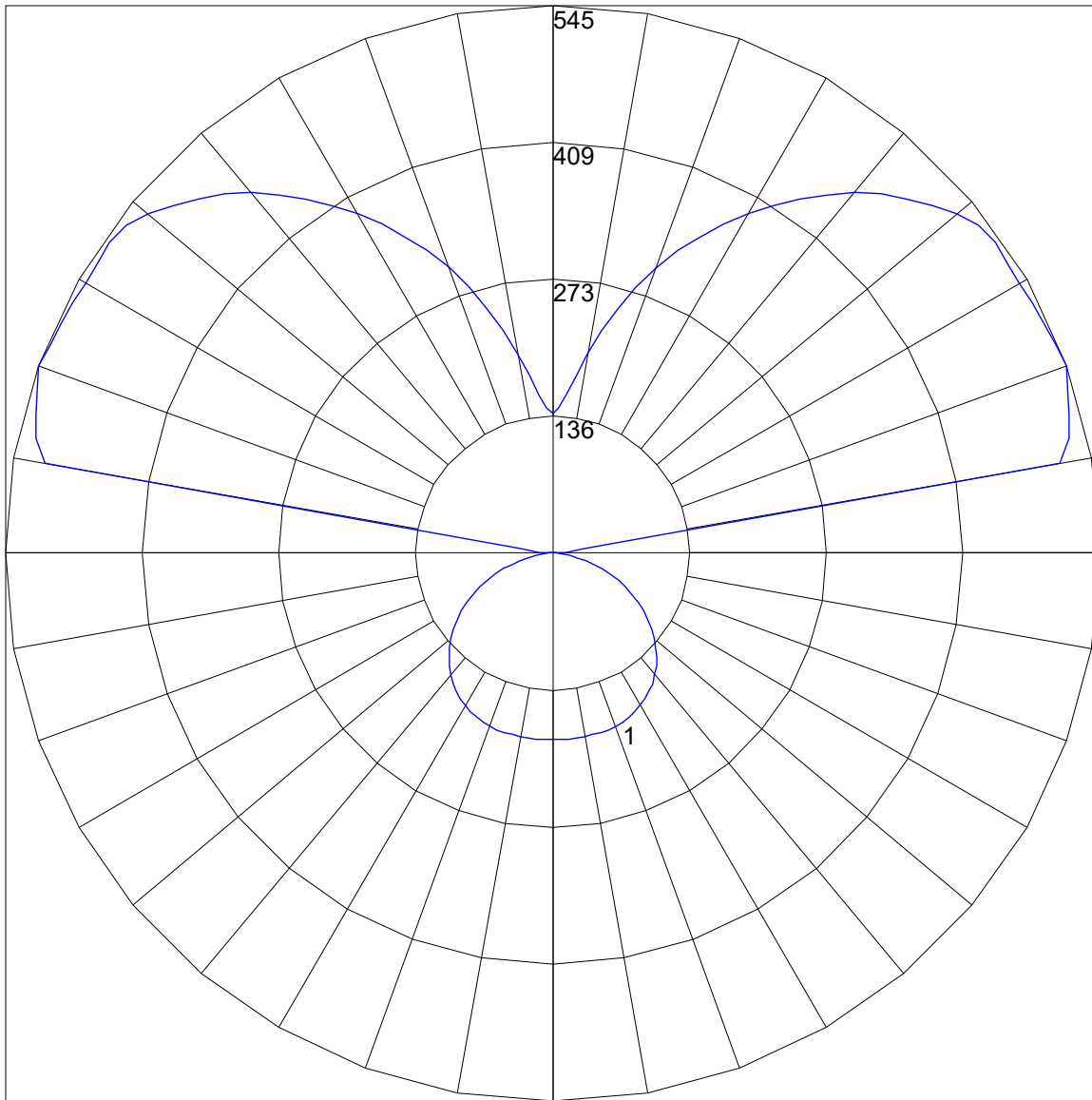
PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-B-8-TW-OPEN-ITL85120.902.IES

## 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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32	24
1	92	88	84	80	81	78	75	72	60	58	56	43	42	41	28	27	27	20
2	83	76	70	65	74	68	63	59	52	49	46	38	36	34	25	23	22	16
3	76	67	60	54	67	60	54	49	46	42	39	33	31	29	22	20	19	14
4	69	59	51	46	61	53	46	41	41	36	33	30	27	24	19	18	16	12
5	63	52	44	39	56	47	40	35	36	31	28	26	23	21	17	15	14	10
6	58	47	39	33	52	42	35	30	32	28	24	24	20	18	16	14	12	9
7	54	42	34	29	48	38	31	26	29	24	21	21	18	16	14	12	11	8
8	50	38	30	25	44	34	27	23	26	22	18	19	16	14	13	11	9	7
9	46	34	27	22	41	31	25	20	24	20	16	18	15	12	12	10	8	6
10	43	31	24	20	38	28	22	18	22	18	15	16	13	11	11	9	8	6

POLAR GRAPH



Maximum Candela = 545.497 Located At Horizontal Angle = 90, Vertical Angle = 110  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)