

# 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-S-8-35-10U90D-ITL87819.001.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87819.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/18/16

[ISSUEDATE]07/26/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S16-LED-ID-DCO-4ft-2E-S-8-35-10U90D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.0 WATTS

[ABSOLUTE]LUMENS]1285

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL87819. 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	1285
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	88
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.58 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	3936	4021	4076
55	3759	3841	3894
65	3496	3557	3598
75	3020	3070	3070
85	2119	2168	2119

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-10U90D-ITL87819.001.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	407.719	407.719	407.719	407.719	407.719
2.5	407.719	407.719	407.310	407.310	407.719
5.0	406.082	406.082	406.491	406.491	406.491
7.5	403.216	403.626	404.035	404.444	404.444
10.0	400.351	399.942	401.170	401.988	401.170
12.5	396.257	395.439	397.895	398.304	398.304
15.0	391.345	389.708	392.982	393.801	393.801
17.5	385.614	383.567	387.251	388.889	388.480
20.0	378.246	376.199	380.702	382.749	382.749
22.5	370.058	367.602	372.924	375.380	375.380
25.0	361.053	358.596	364.737	367.193	367.193
27.5	351.228	349.591	355.322	358.187	358.596
30.0	340.585	339.357	345.497	348.363	348.772
32.5	329.532	327.895	334.444	337.719	338.129
35.0	318.070	316.433	322.982	326.667	327.076
37.5	305.789	304.971	311.111	314.795	315.205
40.0	293.099	292.281	298.012	302.105	302.515
42.5	279.591	279.181	284.912	288.596	289.415
45.0	265.263	265.263	270.994	274.269	274.678
47.5	251.754	250.936	256.667	259.532	259.942
50.0	236.199	236.199	241.111	244.386	244.795
52.5	221.053	221.053	225.965	228.830	229.240
55.0	205.497	205.497	210.000	212.865	212.865
57.5	189.942	189.942	193.626	196.901	196.491
60.0	173.567	173.567	177.251	179.708	179.708
62.5	157.193	157.193	160.468	162.515	162.515
65.0	140.819	140.819	143.275	144.912	144.912
67.5	124.035	124.035	126.082	127.310	127.310
70.0	107.251	107.661	108.889	110.117	110.117
72.5	90.468	91.287	92.105	92.924	92.924
75.0	74.503	74.912	75.731	76.140	75.731
77.5	58.538	59.357	59.766	59.766	59.766
80.0	43.801	44.620	44.620	44.620	44.620
82.5	30.292	30.702	30.702	30.702	30.292
85.0	17.602	18.012	18.012	18.012	17.602
87.5	6.550	6.959	6.550	6.959	6.550
90.0	0.000	0.000	0.000	0.000	0.000
92.5	0.819	0.819	0.819	0.819	0.819
95.0	2.047	2.047	2.047	2.047	2.047
97.5	3.275	3.275	3.275	3.684	3.684
100.0	4.912	4.912	4.912	4.912	4.912
102.5	6.550	6.550	6.550	6.550	6.550
105.0	8.596	8.596	8.596	8.596	8.596
107.5	10.234	10.234	10.234	10.234	10.234
110.0	12.281	12.281	12.281	12.281	12.281
112.5	13.918	13.918	13.918	13.918	13.918
115.0	15.965	15.965	15.965	15.965	15.965
117.5	17.602	18.012	18.012	17.602	17.602
120.0	19.649	19.649	19.649	19.649	19.240
122.5	21.287	21.287	21.287	21.287	21.287
125.0	23.333	23.333	23.333	22.924	22.924
127.5	24.971	24.971	24.971	24.971	24.561
130.0	26.608	26.608	26.608	26.608	26.199
132.5	28.246	28.246	28.246	28.246	28.246

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-10U90D-ITL87819.001.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	29.883	29.883	29.883	29.883	29.474
<b>137.5</b>	31.520	31.520	31.520	31.520	31.111
<b>140.0</b>	33.158	32.749	32.749	32.749	32.749
<b>142.5</b>	34.386	34.386	34.386	34.386	33.977
<b>145.0</b>	36.023	35.614	35.614	35.614	35.614
<b>147.5</b>	37.251	36.842	36.842	36.842	36.842
<b>150.0</b>	38.480	38.070	38.070	38.070	38.070
<b>152.5</b>	39.298	38.889	39.298	39.298	39.298
<b>155.0</b>	40.526	40.117	40.526	40.526	40.526
<b>157.5</b>	41.345	40.936	41.345	41.345	41.345
<b>160.0</b>	42.164	41.754	42.164	42.164	42.164
<b>162.5</b>	42.982	42.573	42.982	42.982	42.982
<b>165.0</b>	43.392	43.392	43.392	43.392	43.392
<b>167.5</b>	44.211	43.801	43.801	43.801	44.211
<b>170.0</b>	44.620	44.620	44.620	44.620	44.620
<b>172.5</b>	44.620	44.620	44.620	44.620	45.029
<b>175.0</b>	45.029	45.029	45.029	45.029	45.029
<b>177.5</b>	45.439	45.029	45.029	45.029	45.029
<b>180.0</b>	45.439	45.439	45.439	45.439	45.439

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-10U90D-ITL87819.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	149.33	N.A.	11.60
0-30	316.94	N.A.	24.70
0-40	518.49	N.A.	40.40
0-60	913.96	N.A.	71.10
0-80	1135.43	N.A.	88.40
0-90	1156.51	N.A.	90.00
10-90	1117.9	N.A.	87.00
20-40	369.16	N.A.	28.70
20-50	577.50	N.A.	45.00
40-70	536.88	N.A.	41.80
60-80	221.47	N.A.	17.20
70-80	80.06	N.A.	6.20
80-90	21.08	N.A.	1.60
90-110	11.34	N.A.	0.90
90-120	27.08	N.A.	2.10
90-130	47.76	N.A.	3.70
90-150	93.07	N.A.	7.20
90-180	128.18	N.A.	10.00
110-180	116.84	N.A.	9.10
0-180	1284.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	38.61
10-20	110.72
20-30	167.61
30-40	201.55
40-50	208.35
50-60	187.12
60-70	141.41
70-80	80.06
80-90	21.08
90-100	2.38
100-110	8.96
110-120	15.74
120-130	20.68
130-140	23.02
140-150	22.29
150-160	18.57
160-170	12.26
170-180	4.28

# IES INDOOR REPORT

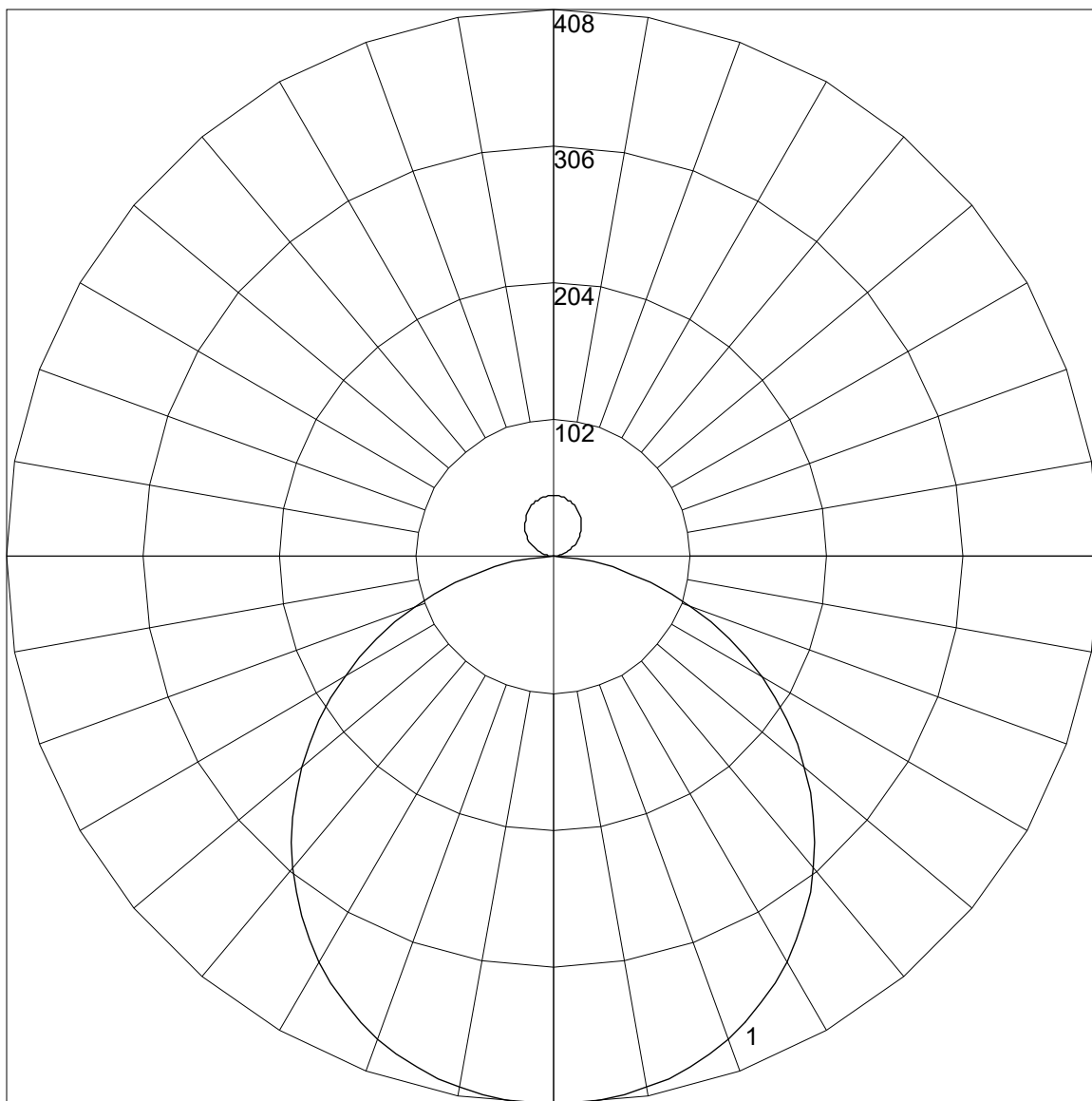
PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-10U90D-ITL87819.001.IES

## 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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	107	102	98	94	103	99	95	91	92	89	87	87	84	82	82	80	78	75
2	97	89	82	76	93	86	80	75	81	76	71	76	72	68	72	68	65	63
3	88	78	70	63	85	75	68	62	71	65	60	67	62	58	63	59	55	53
4	81	69	60	54	78	67	59	53	63	56	51	60	54	49	56	52	47	45
5	74	61	53	46	71	60	52	45	57	49	44	54	47	43	51	45	41	39
6	68	55	46	40	66	54	46	40	51	44	38	48	42	37	46	40	36	34
7	63	50	41	35	61	49	41	35	46	39	34	44	38	33	42	36	32	30
8	59	46	37	31	57	45	37	31	42	35	30	40	34	30	38	33	29	27
9	55	42	34	28	53	41	33	28	39	32	27	37	31	27	36	30	26	24
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	33	28	24	22

POLAR GRAPH



Maximum Candela = 407.719 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)