

# 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-4E-B-8-35-10U90D-ITL85122.202.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85122.202 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE] 08/4/15

[ISSUEDATE]08/15/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S16-LED-ID-DCO-4ft-4E-B-8-35-10U90D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 34.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 37.3 WATTS

[ABSOLUTE]LUMENS]4000

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85122. 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	4000
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	34.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.32
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	12510	12388	12218
55	11799	11589	11469
65	10811	10608	10445
75	9158	8959	8826
85	5912	6109	6109

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-B-8-35-10U90D-ITL85122.202.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	1371.538	1371.538	1371.538	1371.538	1371.538
2.5	1371.538	1369.903	1371.538	1371.538	1369.903
5.0	1364.999	1363.364	1363.364	1364.999	1363.364
7.5	1356.825	1355.190	1355.190	1355.190	1355.190
10.0	1343.747	1338.843	1342.112	1340.478	1338.843
12.5	1327.400	1320.861	1324.130	1324.130	1319.226
15.0	1307.783	1299.610	1304.514	1304.514	1297.975
17.5	1283.262	1271.819	1278.358	1276.723	1270.184
20.0	1257.107	1242.394	1248.933	1248.933	1242.394
22.5	1224.412	1211.334	1216.238	1216.238	1209.699
25.0	1190.083	1177.005	1181.909	1180.274	1175.370
27.5	1152.484	1141.041	1144.310	1141.041	1137.771
30.0	1111.616	1100.173	1105.077	1100.173	1095.268
32.5	1070.747	1060.939	1062.574	1057.670	1052.765
35.0	1028.245	1018.436	1020.071	1013.532	1010.263
37.5	984.107	975.933	975.933	969.394	964.490
40.0	938.334	928.526	930.161	923.622	918.718
42.5	890.927	881.119	882.754	874.580	871.311
45.0	841.885	833.712	833.712	825.538	822.269
47.5	796.113	786.305	784.670	776.496	774.861
50.0	745.436	735.628	733.993	725.820	725.820
52.5	694.760	686.586	683.317	676.778	676.778
55.0	644.083	635.909	632.640	626.101	626.101
57.5	593.407	585.233	583.598	575.425	573.790
60.0	541.095	534.556	531.287	524.748	523.113
62.5	488.784	482.245	478.976	472.437	470.802
65.0	434.838	429.934	426.664	420.125	420.125
67.5	382.527	377.622	374.353	369.449	367.814
70.0	328.580	325.311	322.042	317.137	317.137
72.5	276.269	274.635	271.365	268.096	266.461
75.0	225.593	223.958	220.688	219.054	217.419
77.5	176.551	174.916	173.281	171.647	171.647
80.0	129.144	129.144	127.509	127.509	127.509
82.5	86.641	88.275	86.641	86.641	86.641
85.0	49.042	50.677	50.677	50.677	50.677
87.5	16.347	17.982	17.982	17.982	17.982
90.0	0.000	0.000	0.000	0.000	0.000
92.5	1.437	5.387	3.771	3.861	3.861
95.0	4.130	24.332	12.480	7.183	6.824
97.5	7.362	28.372	59.259	32.951	19.214
100.0	10.864	31.335	65.903	81.975	80.897
102.5	14.545	33.490	68.058	88.260	94.455
105.0	18.137	36.633	69.943	89.786	96.520
107.5	21.459	39.685	71.559	90.504	96.969
110.0	24.960	42.379	71.918	91.402	97.507
112.5	28.283	44.893	73.176	92.031	98.226
115.0	31.515	47.407	74.792	91.671	97.957
117.5	34.657	49.921	76.228	91.851	97.507
120.0	37.620	52.255	77.485	92.659	97.687
122.5	40.404	54.500	78.563	93.377	98.226
125.0	43.008	56.565	79.371	93.826	98.495
127.5	45.522	58.540	80.179	94.186	98.675
130.0	47.946	60.426	80.718	94.275	98.675
132.5	50.280	62.132	81.346	94.186	98.405

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-B-8-35-10U90D-ITL85122.202.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	52.345	63.658	81.885	93.916	97.867
<b>137.5</b>	54.321	65.005	82.244	93.467	97.328
<b>140.0</b>	56.296	66.262	82.513	93.018	96.520
<b>142.5</b>	58.092	67.340	82.603	92.480	95.712
<b>145.0</b>	59.887	68.327	82.603	91.851	94.814
<b>147.5</b>	61.414	69.225	82.513	91.133	93.826
<b>150.0</b>	62.850	69.764	82.064	90.055	92.569
<b>152.5</b>	64.197	70.302	81.436	88.978	91.312
<b>155.0</b>	65.364	70.751	80.718	87.631	89.696
<b>157.5</b>	66.442	71.021	79.820	86.015	87.990
<b>160.0</b>	67.429	71.200	78.832	84.219	86.015
<b>162.5</b>	68.237	71.200	77.575	82.244	83.860
<b>165.0</b>	68.956	71.200	76.318	80.179	81.436
<b>167.5</b>	69.494	71.111	74.971	78.114	79.281
<b>170.0</b>	69.943	71.021	73.714	75.959	76.857
<b>172.5</b>	70.302	71.021	72.547	74.073	74.612
<b>175.0</b>	70.572	70.841	71.559	72.457	72.637
<b>177.5</b>	70.841	70.931	71.111	71.290	71.290
<b>180.0</b>	70.841	70.841	70.841	70.841	70.841

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-B-8-35-10U90D-ITL85122.202.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	496.38	N.A.	12.40
0-30	1039.84	N.A.	26.00
0-40	1676.49	N.A.	41.90
0-60	2883.68	N.A.	72.10
0-80	3540.35	N.A.	88.50
0-90	3600.01	N.A.	90.00
10-90	3470.5	N.A.	86.80
20-40	1180.11	N.A.	29.50
20-50	1821.74	N.A.	45.50
40-70	1628.92	N.A.	40.70
60-80	656.67	N.A.	16.40
70-80	234.93	N.A.	5.90
80-90	59.66	N.A.	1.50
90-110	87.58	N.A.	2.20
90-120	156.69	N.A.	3.90
90-130	223.97	N.A.	5.60
90-150	334.97	N.A.	8.40
90-180	400.00	N.A.	10.00
110-180	312.42	N.A.	7.80
0-180	4000.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	129.51
10-20	366.87
20-30	543.46
30-40	636.65
40-50	641.63
50-60	565.55
60-70	421.74
70-80	234.93
80-90	59.66
90-100	21.17
100-110	66.41
110-120	69.11
120-130	67.28
130-140	60.80
140-150	50.21
150-160	36.61
160-170	21.52
170-180	6.90

# IES INDOOR REPORT

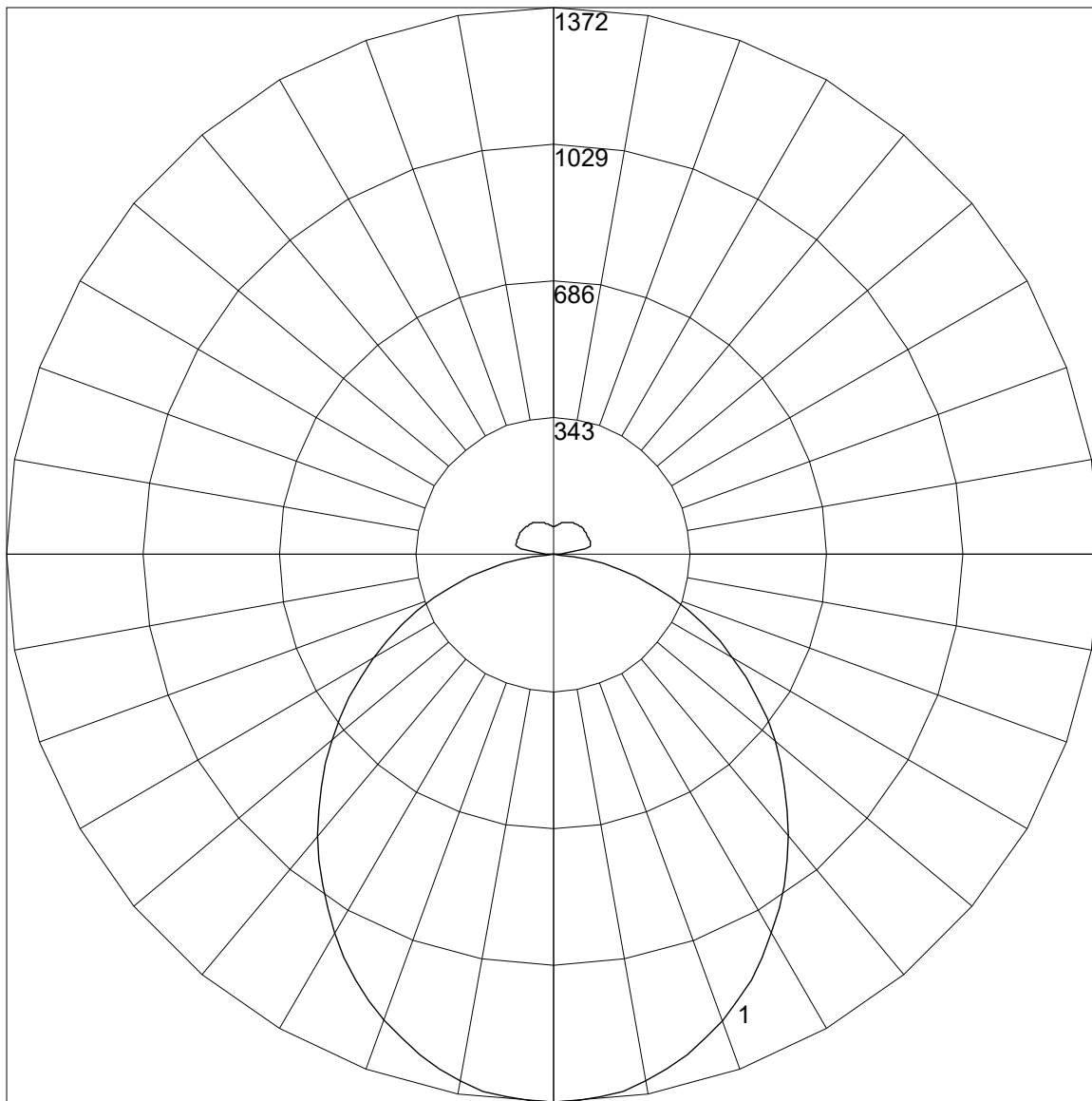
PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-B-8-35-10U90D-ITL85122.202.IES

## 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	92	93	90	87	87	85	83	82	80	79	76
2	97	89	83	77	94	86	80	75	81	76	72	77	73	69	72	69	66	63
3	89	78	71	64	85	76	69	63	72	66	61	68	63	58	64	60	56	54
4	81	70	61	55	78	68	60	54	64	57	52	60	55	50	57	52	48	46
5	75	62	53	47	72	61	52	46	57	50	45	54	48	44	52	46	42	40
6	69	56	47	41	67	55	46	41	52	45	39	49	43	38	47	41	37	35
7	64	51	42	36	62	50	42	36	47	40	35	45	39	34	43	37	33	31
8	60	46	38	32	58	45	37	32	43	36	31	41	35	30	39	34	30	28
9	56	43	35	29	54	42	34	29	40	33	28	38	32	27	36	31	27	25
10	52	39	32	26	50	38	31	26	37	30	26	35	29	25	34	28	24	23

POLAR GRAPH



Maximum Candela = 1371.538 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)