

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-H-8-35-10U90D-ITL85122.203.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85122.203 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-H-8-35-10U90D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 43.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 46.0 WATTS

[ABSOLUTE]LUMENS]5000

[OTHER]see 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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5000
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	43.6
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	15637	15485	15273
55	14748	14486	14336
65	13514	13260	13056
75	11448	11199	11033
85	7390	7637	7637

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1714.422	1714.422	1714.422	1714.422	1714.422
2.5	1714.422	1712.379	1714.422	1714.422	1712.379
5.0	1706.248	1704.205	1704.205	1706.248	1704.205
7.5	1696.031	1693.988	1693.988	1693.988	1693.988
10.0	1679.684	1673.554	1677.640	1675.597	1673.554
12.5	1659.250	1651.076	1655.163	1655.163	1649.033
15.0	1634.729	1624.512	1630.642	1630.642	1622.468
17.5	1604.078	1589.774	1597.947	1595.904	1587.730
20.0	1571.383	1552.992	1561.166	1561.166	1552.992
22.5	1530.515	1514.168	1520.298	1520.298	1512.124
25.0	1487.603	1471.256	1477.386	1475.343	1469.213
27.5	1440.605	1426.301	1430.388	1426.301	1422.214
30.0	1389.520	1375.216	1381.346	1375.216	1369.085
32.5	1338.434	1326.174	1328.217	1322.087	1315.957
35.0	1285.305	1273.045	1275.089	1266.915	1262.828
37.5	1230.133	1219.917	1219.917	1211.743	1205.612
40.0	1172.918	1160.658	1162.701	1154.527	1148.397
42.5	1113.659	1101.399	1103.442	1093.225	1089.138
45.0	1052.357	1042.140	1042.140	1031.923	1027.836
47.5	995.141	982.881	980.837	970.620	968.577
50.0	931.795	919.535	917.492	907.274	907.274
52.5	868.450	858.233	854.146	845.972	845.972
55.0	805.104	794.887	790.800	782.626	782.626
57.5	741.758	731.541	729.498	719.281	717.237
60.0	676.369	668.195	664.109	655.935	653.891
62.5	610.980	602.806	598.720	590.546	588.502
65.0	543.547	537.417	533.330	525.157	525.157
67.5	478.158	472.028	467.941	461.811	459.767
70.0	410.726	406.639	402.552	396.422	396.422
72.5	345.337	343.293	339.206	335.119	333.076
75.0	281.991	279.947	275.861	273.817	271.774
77.5	220.688	218.645	216.602	214.558	214.558
80.0	161.429	161.429	159.386	159.386	159.386
82.5	108.301	110.344	108.301	108.301	108.301
85.0	61.302	63.346	63.346	63.346	63.346
87.5	20.434	22.477	22.477	22.477	22.477
90.0	0.000	0.000	0.000	0.000	0.000
92.5	1.796	6.734	4.714	4.826	4.826
95.0	5.163	30.415	15.600	8.979	8.530
97.5	9.203	35.465	74.073	41.189	24.018
100.0	13.580	39.169	82.379	102.468	101.121
102.5	18.182	41.863	85.072	110.325	118.069
105.0	22.671	45.791	87.429	112.232	120.650
107.5	26.824	49.607	89.449	113.130	121.211
110.0	31.201	52.974	89.898	114.253	121.884
112.5	35.353	56.116	91.469	115.038	122.782
115.0	39.394	59.259	93.490	114.589	122.446
117.5	43.322	62.401	95.285	114.814	121.884
120.0	47.025	65.319	96.857	115.824	122.109
122.5	50.505	68.125	98.203	116.722	122.782
125.0	53.759	70.706	99.213	117.283	123.119
127.5	56.902	73.176	100.224	117.732	123.344
130.0	59.932	75.532	100.897	117.844	123.344
132.5	62.850	77.665	101.683	117.732	123.007

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-H-8-35-10U90D-ITL85122.203.IES****CANDELA TABULATION - (Cont.)**

135.0	65.431	79.573	102.356	117.395	122.333
137.5	67.901	81.256	102.805	116.834	121.660
140.0	70.370	82.828	103.142	116.273	120.650
142.5	72.614	84.174	103.254	115.599	119.640
145.0	74.859	85.409	103.254	114.814	118.517
147.5	76.767	86.531	103.142	113.916	117.283
150.0	78.563	87.205	102.581	112.569	115.712
152.5	80.246	87.878	101.795	111.222	114.140
155.0	81.705	88.439	100.897	109.539	112.120
157.5	83.052	88.776	99.775	107.519	109.988
160.0	84.287	89.000	98.540	105.274	107.519
162.5	85.297	89.000	96.969	102.805	104.825
165.0	86.195	89.000	95.398	100.224	101.795
167.5	86.868	88.888	93.714	97.642	99.101
170.0	87.429	88.776	92.143	94.949	96.071
172.5	87.878	88.776	90.684	92.592	93.265
175.0	88.215	88.551	89.449	90.572	90.796
177.5	88.551	88.664	88.888	89.113	89.113
180.0	88.551	88.551	88.551	88.551	88.551

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-H-8-35-10U90D-ITL85122.203.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	620.48	N.A.	12.40
0-30	1299.8	N.A.	26.00
0-40	2095.62	N.A.	41.90
0-60	3604.6	N.A.	72.10
0-80	4425.44	N.A.	88.50
0-90	4500.01	N.A.	90.00
10-90	4338.12	N.A.	86.80
20-40	1475.14	N.A.	29.50
20-50	2277.18	N.A.	45.50
40-70	2036.15	N.A.	40.70
60-80	820.84	N.A.	16.40
70-80	293.66	N.A.	5.90
80-90	74.57	N.A.	1.50
90-110	109.47	N.A.	2.20
90-120	195.86	N.A.	3.90
90-130	279.96	N.A.	5.60
90-150	418.72	N.A.	8.40
90-180	500.00	N.A.	10.00
110-180	390.53	N.A.	7.80
0-180	5000.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	161.89
10-20	458.59
20-30	679.32
30-40	795.82
40-50	802.04
50-60	706.94
60-70	527.17
70-80	293.66
80-90	74.57
90-100	26.46
100-110	83.01
110-120	86.39
120-130	84.11
130-140	76.00
140-150	62.76
150-160	45.76
160-170	26.90
170-180	8.62

IES INDOOR REPORT

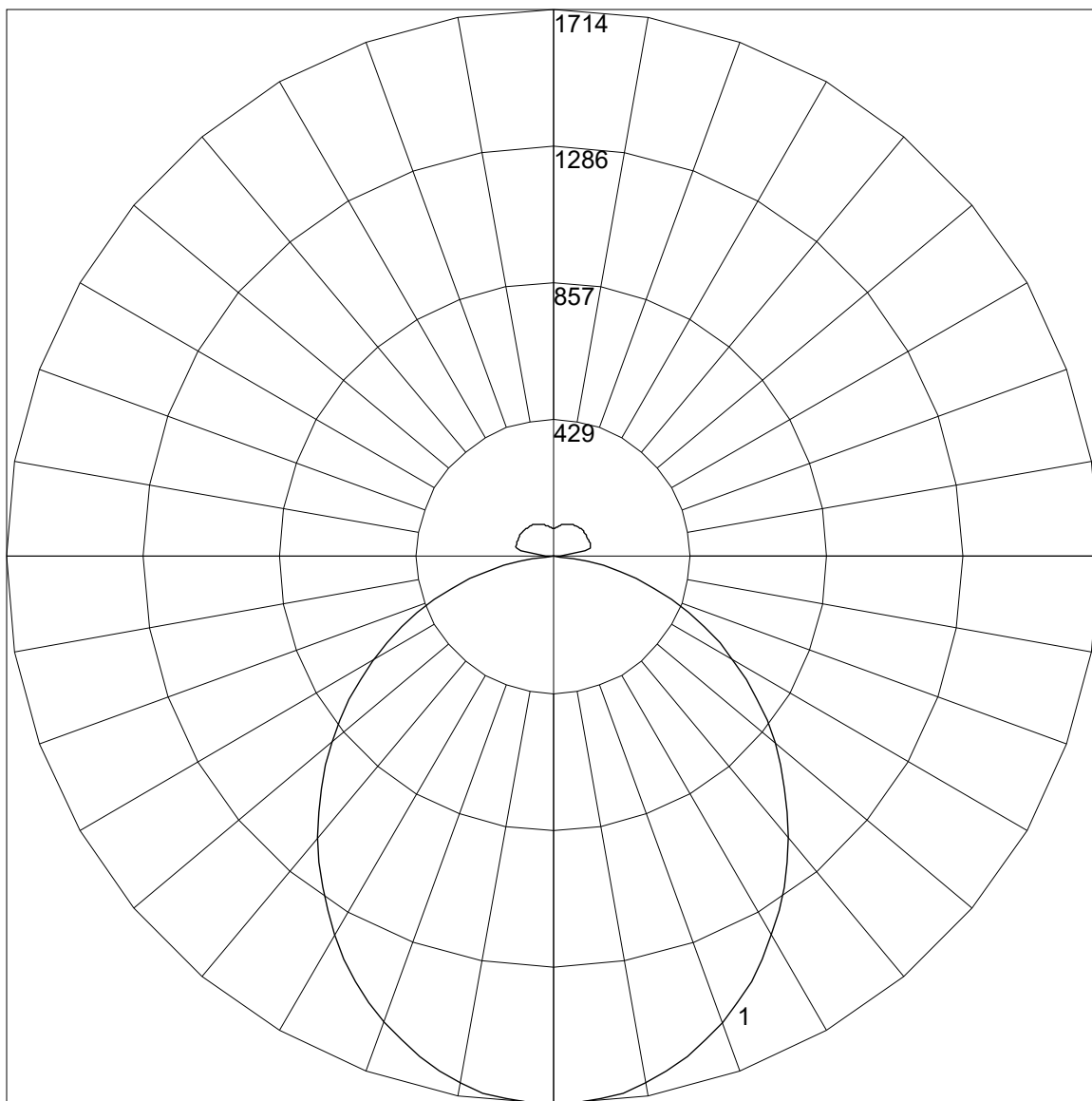
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	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 = 1714.422 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)