

# 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-S-8-35-20U80D-ITL85122.204.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85122.204 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-S-8-35-20U80D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 26.3 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.1 WATTS

[ABSOLUTE]LUMENS]3000

[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	3000
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	26.3
Ballast Factor	1.00
CIE Type	Semi-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	8340	8259	8145
55	7866	7726	7646
65	7207	7072	6963
75	6105	5973	5884
85	3942	4073	4073

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0.0</b>	914.358	914.358	914.358	914.358	914.358
<b>2.5</b>	914.358	913.269	914.358	914.358	913.269
<b>5.0</b>	909.999	908.909	908.909	909.999	908.909
<b>7.5</b>	904.550	903.460	903.460	903.460	903.460
<b>10.0</b>	895.831	892.562	894.742	893.652	892.562
<b>12.5</b>	884.933	880.574	882.754	882.754	879.484
<b>15.0</b>	871.855	866.406	869.676	869.676	865.317
<b>17.5</b>	855.508	847.879	852.239	851.149	846.790
<b>20.0</b>	838.071	828.263	832.622	832.622	828.263
<b>22.5</b>	816.275	807.556	810.826	810.826	806.466
<b>25.0</b>	793.388	784.670	787.939	786.850	783.580
<b>27.5</b>	768.323	760.694	762.874	760.694	758.514
<b>30.0</b>	741.077	733.448	736.718	733.448	730.179
<b>32.5</b>	713.832	707.293	708.383	705.113	701.844
<b>35.0</b>	685.496	678.957	680.047	675.688	673.508
<b>37.5</b>	656.071	650.622	650.622	646.263	642.993
<b>40.0</b>	625.556	619.017	620.107	615.748	612.479
<b>42.5</b>	593.952	587.413	588.502	583.053	580.874
<b>45.0</b>	561.257	555.808	555.808	550.359	548.179
<b>47.5</b>	530.742	524.203	523.113	517.664	516.574
<b>50.0</b>	496.958	490.419	489.329	483.880	483.880
<b>52.5</b>	463.173	457.724	455.545	451.185	451.185
<b>55.0</b>	429.389	423.940	421.760	417.401	417.401
<b>57.5</b>	395.604	390.155	389.065	383.616	382.527
<b>60.0</b>	360.730	356.371	354.191	349.832	348.742
<b>62.5</b>	325.856	321.497	319.317	314.958	313.868
<b>65.0</b>	289.892	286.623	284.443	280.084	280.084
<b>67.5</b>	255.018	251.748	249.569	246.299	245.209
<b>70.0</b>	219.054	216.874	214.694	211.425	211.425
<b>72.5</b>	184.179	183.090	180.910	178.730	177.641
<b>75.0</b>	150.395	149.305	147.126	146.036	144.946
<b>77.5</b>	117.701	116.611	115.521	114.431	114.431
<b>80.0</b>	86.096	86.096	85.006	85.006	85.006
<b>82.5</b>	57.760	58.850	57.760	57.760	57.760
<b>85.0</b>	32.695	33.784	33.784	33.784	33.784
<b>87.5</b>	10.898	11.988	11.988	11.988	11.988
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	2.155	8.081	5.657	5.791	5.791
<b>95.0</b>	6.195	36.498	18.720	10.774	10.236
<b>97.5</b>	11.044	42.559	88.888	49.427	28.821
<b>100.0</b>	16.296	47.003	98.854	122.962	121.346
<b>102.5</b>	21.818	50.235	102.087	132.389	141.682
<b>105.0</b>	27.205	54.949	104.915	134.679	144.780
<b>107.5</b>	32.188	59.528	107.339	135.756	145.453
<b>110.0</b>	37.441	63.569	107.878	137.103	146.261
<b>112.5</b>	42.424	67.340	109.763	138.046	147.339
<b>115.0</b>	47.272	71.111	112.188	137.507	146.935
<b>117.5</b>	51.986	74.882	114.342	137.776	146.261
<b>120.0</b>	56.431	78.383	116.228	138.989	146.531
<b>122.5</b>	60.605	81.750	117.844	140.066	147.339
<b>125.0</b>	64.511	84.848	119.056	140.739	147.743
<b>127.5</b>	68.282	87.811	120.268	141.278	148.012
<b>130.0</b>	71.918	90.639	121.076	141.413	148.012
<b>132.5</b>	75.420	93.198	122.019	141.278	147.608

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-S-8-35-20U80D-ITL85122.204.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	78.518	95.487	122.827	140.874	146.800
<b>137.5</b>	81.481	97.507	123.366	140.201	145.992
<b>140.0</b>	84.444	99.393	123.770	139.527	144.780
<b>142.5</b>	87.137	101.009	123.905	138.719	143.568
<b>145.0</b>	89.831	102.491	123.905	137.776	142.221
<b>147.5</b>	92.120	103.837	123.770	136.699	140.739
<b>150.0</b>	94.275	104.645	123.097	135.083	138.854
<b>152.5</b>	96.295	105.454	122.154	133.467	136.969
<b>155.0</b>	98.046	106.127	121.076	131.447	134.544
<b>157.5</b>	99.662	106.531	119.730	129.022	131.985
<b>160.0</b>	101.144	106.800	118.248	126.329	129.022
<b>162.5</b>	102.356	106.800	116.363	123.366	125.790
<b>165.0</b>	103.433	106.800	114.477	120.268	122.154
<b>167.5</b>	104.242	106.666	112.457	117.171	118.921
<b>170.0</b>	104.915	106.531	110.571	113.938	115.285
<b>172.5</b>	105.454	106.531	108.821	111.110	111.918
<b>175.0</b>	105.858	106.262	107.339	108.686	108.955
<b>177.5</b>	106.262	106.396	106.666	106.935	106.935
<b>180.0</b>	106.262	106.262	106.262	106.262	106.262

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-4E-S-8-35-20U80D-ITL85122.204.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	330.92	N.A.	11.00
0-30	693.23	N.A.	23.10
0-40	1117.66	N.A.	37.30
0-60	1922.45	N.A.	64.10
0-80	2360.23	N.A.	78.70
0-90	2400.00	N.A.	80.00
10-90	2313.66	N.A.	77.10
20-40	786.74	N.A.	26.20
20-50	1214.5	N.A.	40.50
40-70	1085.95	N.A.	36.20
60-80	437.78	N.A.	14.60
70-80	156.62	N.A.	5.20
80-90	39.77	N.A.	1.30
90-110	131.37	N.A.	4.40
90-120	235.03	N.A.	7.80
90-130	335.96	N.A.	11.20
90-150	502.46	N.A.	16.70
90-180	600.00	N.A.	20.00
110-180	468.63	N.A.	15.60
0-180	3000.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	86.34
10-20	244.58
20-30	362.30
30-40	424.44
40-50	427.76
50-60	377.03
60-70	281.16
70-80	156.62
80-90	39.77
90-100	31.75
100-110	99.62
110-120	103.66
120-130	100.93
130-140	91.20
140-150	75.31
150-160	54.91
160-170	32.28
170-180	10.35

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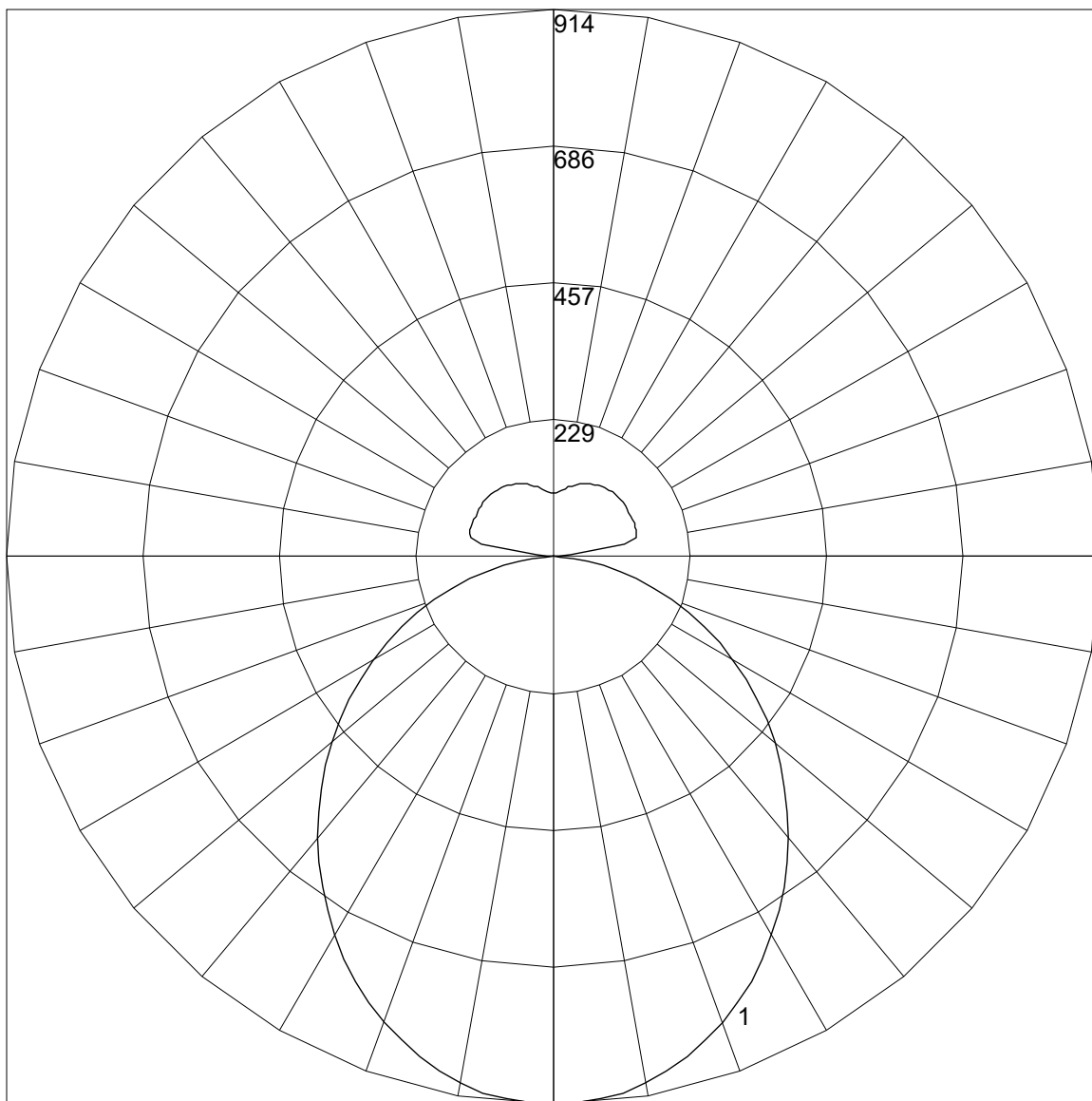
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	84	84	84	80
1	104	100	96	92	100	96	92	89	88	85	82	81	78	76	74	72	71	67
2	95	87	81	75	91	84	78	73	77	72	68	71	67	64	65	62	59	56
3	87	77	69	63	83	74	67	61	68	62	57	63	58	54	58	54	51	48
4	80	68	60	53	76	65	58	52	60	54	49	56	51	46	51	47	44	41
5	73	61	52	46	70	59	51	45	54	48	42	50	45	40	46	42	38	35
6	67	55	46	40	64	53	45	39	49	42	37	45	40	35	42	37	33	31
7	63	50	41	35	60	48	40	34	45	38	33	41	36	31	38	34	30	28
8	58	45	37	31	56	44	36	31	41	34	29	38	32	28	35	30	27	25
9	54	41	34	28	52	40	33	28	37	31	26	35	29	25	33	28	24	22
10	51	38	31	25	49	37	30	25	35	28	24	32	27	23	30	25	22	20

POLAR GRAPH



Maximum Candela = 914.358 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)