

# 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 : S12-LED-ID-DCO-4FT-4E-B-8-35-20U80D-ITL85163.205.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85163.205 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/11/15

[ISSUEDATE]08/15/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S12-LED-ID-DCO-4ft-4E-B-8-35-20U80D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 36.4 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 38.8 WATTS

[ABSOLUTE]LUMENS]4003

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85163. 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	4003
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	36.4
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.32 ft
Luminous Width (90-270)	0.36 ft
Luminous Height	0.03 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	9110	8635	8506
55	8510	7891	7749
65	7703	6984	6806
75	6382	5626	5661
85	3775	3818	4386

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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	1190.331	1190.331	1190.331	1190.331	1190.331
2.5	1188.752	1188.752	1188.752	1188.752	1188.752
5.0	1184.016	1184.016	1184.016	1184.016	1184.016
7.5	1176.122	1176.122	1176.122	1176.122	1177.701
10.0	1163.493	1161.914	1165.072	1165.072	1165.072
12.5	1150.863	1147.706	1152.442	1152.442	1150.863
15.0	1133.498	1127.183	1133.498	1135.076	1133.498
17.5	1112.975	1106.660	1112.975	1114.553	1112.975
20.0	1089.295	1081.401	1089.295	1090.873	1090.873
22.5	1060.878	1052.985	1062.457	1064.035	1062.457
25.0	1030.883	1024.568	1032.462	1035.619	1034.040
27.5	1000.888	992.995	1002.467	1004.045	1004.045
30.0	966.157	959.842	967.736	969.314	967.736
32.5	931.426	925.111	933.005	936.162	933.005
35.0	895.116	888.801	896.695	898.273	896.695
37.5	854.070	849.334	857.227	858.806	857.227
40.0	814.603	809.867	816.182	819.339	817.760
42.5	775.136	770.400	775.136	779.872	776.714
45.0	732.511	729.354	734.090	737.247	735.668
47.5	689.886	686.729	691.465	693.044	691.465
50.0	644.105	642.526	648.841	650.419	648.841
52.5	601.480	599.901	603.059	606.216	606.216
55.0	557.277	555.698	558.856	562.013	562.013
57.5	511.495	511.495	516.231	517.810	517.810
60.0	467.292	465.713	470.449	473.606	473.606
62.5	419.931	421.510	424.667	427.824	429.403
65.0	374.149	375.728	380.464	382.042	383.621
67.5	328.367	329.946	334.682	337.839	337.839
70.0	282.585	285.743	292.057	293.636	296.793
72.5	236.803	241.539	247.854	252.590	257.326
75.0	192.600	198.915	205.229	213.123	217.859
77.5	149.975	156.290	167.341	175.234	178.392
80.0	108.930	116.823	129.452	138.924	142.082
82.5	72.620	80.513	94.721	107.351	112.087
85.0	41.046	50.518	66.305	80.513	85.249
87.5	14.208	25.259	44.203	56.833	61.569
90.0	0.000	9.472	25.259	37.889	42.625
92.5	4.125	55.533	108.846	125.030	110.591
95.0	8.568	65.688	125.030	161.999	172.947
97.5	13.487	70.766	132.011	169.139	181.515
100.0	18.723	76.319	135.502	172.313	184.689
102.5	23.959	77.112	136.930	173.106	185.482
105.0	29.353	79.175	137.406	172.471	184.371
107.5	34.907	81.714	138.993	171.043	182.467
110.0	40.778	84.411	137.406	170.091	180.563
112.5	46.172	87.743	136.771	170.567	179.929
115.0	51.567	91.234	136.771	167.870	179.294
117.5	57.120	95.042	136.930	166.125	175.962
120.0	62.515	99.326	137.723	165.173	174.375
122.5	67.910	103.610	138.675	164.221	172.947
125.0	72.987	107.894	139.627	163.586	171.678
127.5	78.540	112.019	140.897	163.268	170.726
130.0	83.300	115.827	142.166	162.792	169.774
132.5	88.219	119.000	143.752	162.475	168.981

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-B-8-35-20U80D-ITL85163.205.IES****CANDELA TABULATION - (Cont.)**

<b>135.0</b>	92.820	121.380	145.339	162.316	168.346
<b>137.5</b>	97.263	123.284	147.084	162.158	167.553
<b>140.0</b>	101.706	125.030	149.147	162.158	166.918
<b>142.5</b>	105.831	126.458	150.734	162.316	166.442
<b>145.0</b>	109.639	127.410	152.321	162.634	165.966
<b>147.5</b>	113.288	128.044	153.114	163.110	165.966
<b>150.0</b>	116.620	128.679	152.797	163.427	165.966
<b>152.5</b>	119.794	129.155	151.686	163.268	165.807
<b>155.0</b>	122.650	129.948	150.258	161.682	165.014
<b>157.5</b>	125.188	130.900	148.036	159.143	162.792
<b>160.0</b>	127.410	131.694	145.498	155.970	159.460
<b>162.5</b>	129.472	132.646	142.800	152.003	155.494
<b>165.0</b>	131.059	133.280	140.262	147.402	150.575
<b>167.5</b>	132.487	134.074	138.517	142.959	145.498
<b>170.0</b>	133.598	134.550	137.247	139.786	141.373
<b>172.5</b>	134.391	135.026	136.454	137.882	138.675
<b>175.0</b>	135.026	135.502	135.978	136.613	136.930
<b>177.5</b>	135.502	135.660	135.660	135.978	135.978
<b>180.0</b>	135.660	135.660	135.660	135.660	135.660

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-4E-B-8-35-20U80D-ITL85163.205.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	431.68	N.A.	10.80
0-30	906.68	N.A.	22.60
0-40	1465.88	N.A.	36.60
0-60	2531.5	N.A.	63.20
0-80	3125.32	N.A.	78.10
0-90	3200.32	N.A.	79.90
10-90	3087.92	N.A.	77.10
20-40	1034.2	N.A.	25.80
20-50	1599.84	N.A.	40.00
40-70	1441.18	N.A.	36.00
60-80	593.82	N.A.	14.80
70-80	218.26	N.A.	5.50
80-90	75.00	N.A.	1.90
90-110	236.63	N.A.	5.90
90-120	363.51	N.A.	9.10
90-130	483.18	N.A.	12.10
90-150	682.38	N.A.	17.00
90-180	802.97	N.A.	20.10
110-180	566.34	N.A.	14.10
0-180	4003.29	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	112.41
10-20	319.28
20-30	475.00
30-40	559.20
40-50	565.64
50-60	499.98
60-70	375.56
70-80	218.26
80-90	75.00
90-100	105.57
100-110	131.06
110-120	126.89
120-130	119.67
130-140	108.23
140-150	90.97
150-160	67.61
160-170	39.95
170-180	13.02

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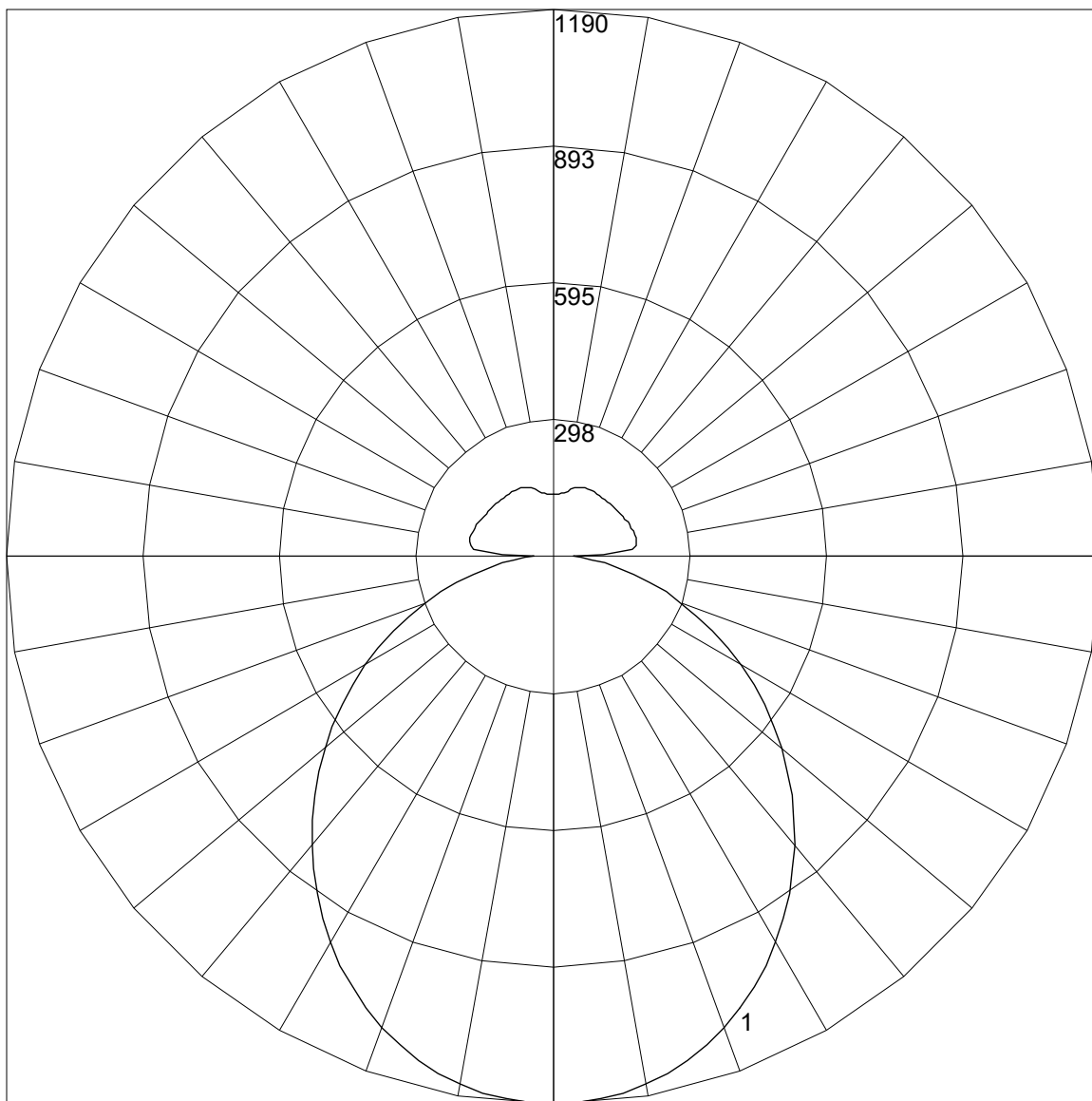
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	95	92	99	95	92	88	87	85	82	80	78	76	74	72	70	67
2	95	87	80	75	90	83	77	72	77	72	68	70	67	63	65	62	59	56
3	86	76	68	62	82	73	66	60	67	62	57	62	57	53	57	53	50	47
4	79	68	59	53	75	65	57	51	60	54	48	55	50	46	51	47	43	40
5	73	60	52	45	69	58	50	44	54	47	42	50	44	40	46	41	37	35
6	67	54	46	40	64	52	44	39	49	42	37	45	39	35	42	37	33	31
7	62	49	41	35	59	47	40	34	44	37	32	41	35	31	38	33	29	27
8	58	45	37	31	55	43	36	30	40	34	29	38	32	28	35	30	26	24
9	54	41	33	28	52	40	32	27	37	31	26	35	29	25	32	27	24	22
10	51	38	30	25	48	37	29	25	34	28	24	32	27	23	30	25	22	20

POLAR GRAPH



Maximum Candela = 1190.331 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)