

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-8-35-20U80D-ITL87820.001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87820.001 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-8-35-20U80D

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.0 WATTS

[ABSOLUTE]LUMENS]1347

[OTHER]see www.finelite.com for source file ITL87820. 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	1347
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Semi-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	3827	3893	3960
55	3662	3721	3789
65	3404	3455	3506
75	2937	2970	3020
85	2070	2070	2168

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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	394.211	394.211	394.211	394.211	394.211
2.5	393.801	393.801	393.801	394.211	393.801
5.0	392.573	392.573	392.573	392.982	392.982
7.5	390.117	390.117	390.526	390.936	390.936
10.0	387.251	386.433	388.070	388.480	388.070
12.5	383.158	382.339	384.386	385.614	384.795
15.0	378.655	377.018	379.883	381.520	380.702
17.5	372.924	370.877	374.561	376.608	375.789
20.0	366.374	363.918	368.421	370.877	370.058
22.5	358.187	355.731	361.053	363.509	363.509
25.0	350.000	347.134	353.275	355.731	355.731
27.5	340.175	338.129	343.860	346.725	347.544
30.0	329.942	328.304	334.444	337.719	338.129
32.5	320.526	318.070	324.211	327.895	328.304
35.0	309.064	307.018	312.749	316.842	317.661
37.5	296.784	295.556	301.287	305.380	305.789
40.0	284.094	282.865	288.596	292.690	293.509
42.5	270.994	270.175	275.906	279.591	280.409
45.0	257.895	256.667	262.398	266.082	266.901
47.5	243.977	243.158	248.480	251.754	252.982
50.0	229.649	228.830	234.152	237.018	238.246
52.5	215.322	215.322	219.006	222.690	223.099
55.0	200.175	200.175	203.450	207.134	207.134
57.5	184.620	184.620	187.895	191.170	191.170
60.0	169.064	169.064	171.930	174.795	174.795
62.5	153.099	153.509	155.556	158.012	158.012
65.0	137.134	137.134	139.181	141.228	141.228
67.5	120.760	120.760	122.398	124.444	124.854
70.0	104.386	104.795	106.023	107.251	107.661
72.5	88.012	88.421	89.240	90.468	90.877
75.0	72.456	72.456	73.275	74.094	74.503
77.5	57.310	57.310	57.719	58.538	59.357
80.0	42.982	42.982	42.982	43.392	44.211
82.5	29.474	29.474	29.474	29.883	30.292
85.0	17.193	17.602	17.193	17.602	18.012
87.5	6.550	6.959	6.550	6.550	6.550
90.0	0.000	0.000	0.000	0.000	0.000
92.5	1.228	1.228	0.819	0.409	0.409
95.0	3.275	3.684	3.684	3.684	4.094
97.5	5.322	5.731	6.550	6.959	7.368
100.0	7.368	8.187	9.415	10.643	11.462
102.5	9.415	10.643	12.690	14.737	15.556
105.0	11.871	13.509	16.374	18.830	19.649
107.5	14.327	16.784	20.468	23.333	24.561
110.0	16.784	19.649	24.561	28.246	29.474
112.5	19.649	22.924	28.655	33.158	34.386
115.0	22.515	26.199	32.749	38.070	39.708
117.5	24.971	29.064	36.842	42.982	45.029
120.0	27.427	32.339	40.936	47.895	49.942
122.5	29.883	35.205	45.029	52.398	54.854
125.0	32.339	38.070	48.713	56.491	59.357
127.5	34.795	40.936	51.988	60.585	63.450
130.0	36.842	42.982	55.263	63.860	67.135
132.5	38.889	45.029	57.719	66.725	70.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-20U80D-ITL87820.001.IES****CANDELA TABULATION - (Cont.)**

135.0	40.526	47.076	59.357	68.772	72.047
137.5	42.164	48.304	60.994	70.409	73.684
140.0	43.801	49.532	61.813	71.228	74.503
142.5	45.029	50.351	62.222	71.637	74.912
145.0	46.257	51.170	62.222	71.228	74.503
147.5	47.076	51.170	61.813	70.409	73.275
150.0	47.895	51.579	60.994	69.181	72.047
152.5	48.304	51.579	60.175	67.135	70.000
155.0	48.713	51.170	58.947	65.497	67.544
157.5	49.123	51.170	57.719	63.041	65.497
160.0	49.123	50.760	56.082	60.585	62.632
162.5	49.532	50.760	54.854	58.538	59.766
165.0	49.532	50.351	53.626	56.082	57.719
167.5	49.532	50.351	52.398	54.444	55.263
170.0	49.532	49.942	51.579	52.807	53.216
172.5	49.942	49.942	50.760	51.579	51.988
175.0	49.942	49.942	50.351	50.351	50.760
177.5	49.942	49.942	49.942	49.942	49.942
180.0	49.942	49.942	49.942	49.942	49.942

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S16-LED-ID-DCO-4FT-2E-S-8-35-20U80D-ITL87820.001.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	144.43	N.A.	10.70
0-30	306.71	N.A.	22.80
0-40	502.15	N.A.	37.30
0-60	885.98	N.A.	65.80
0-80	1101.5	N.A.	81.80
0-90	1122.02	N.A.	83.30
10-90	1084.7	N.A.	80.50
20-40	357.72	N.A.	26.60
20-50	559.67	N.A.	41.50
40-70	521.49	N.A.	38.70
60-80	215.52	N.A.	16.00
70-80	77.86	N.A.	5.80
80-90	20.52	N.A.	1.50
90-110	21.49	N.A.	1.60
90-120	53.12	N.A.	3.90
90-130	95.27	N.A.	7.10
90-150	178.03	N.A.	13.20
90-180	225.18	N.A.	16.70
110-180	203.69	N.A.	15.10
0-180	1347.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	37.32
10-20	107.11
20-30	162.28
30-40	195.43
40-50	201.95
50-60	181.88
60-70	137.66
70-80	77.86
80-90	20.52
90-100	4.24
100-110	17.25
110-120	31.63
120-130	42.15
130-140	44.50
140-150	38.26
150-160	27.07
160-170	15.24
170-180	4.84

IES INDOOR REPORT

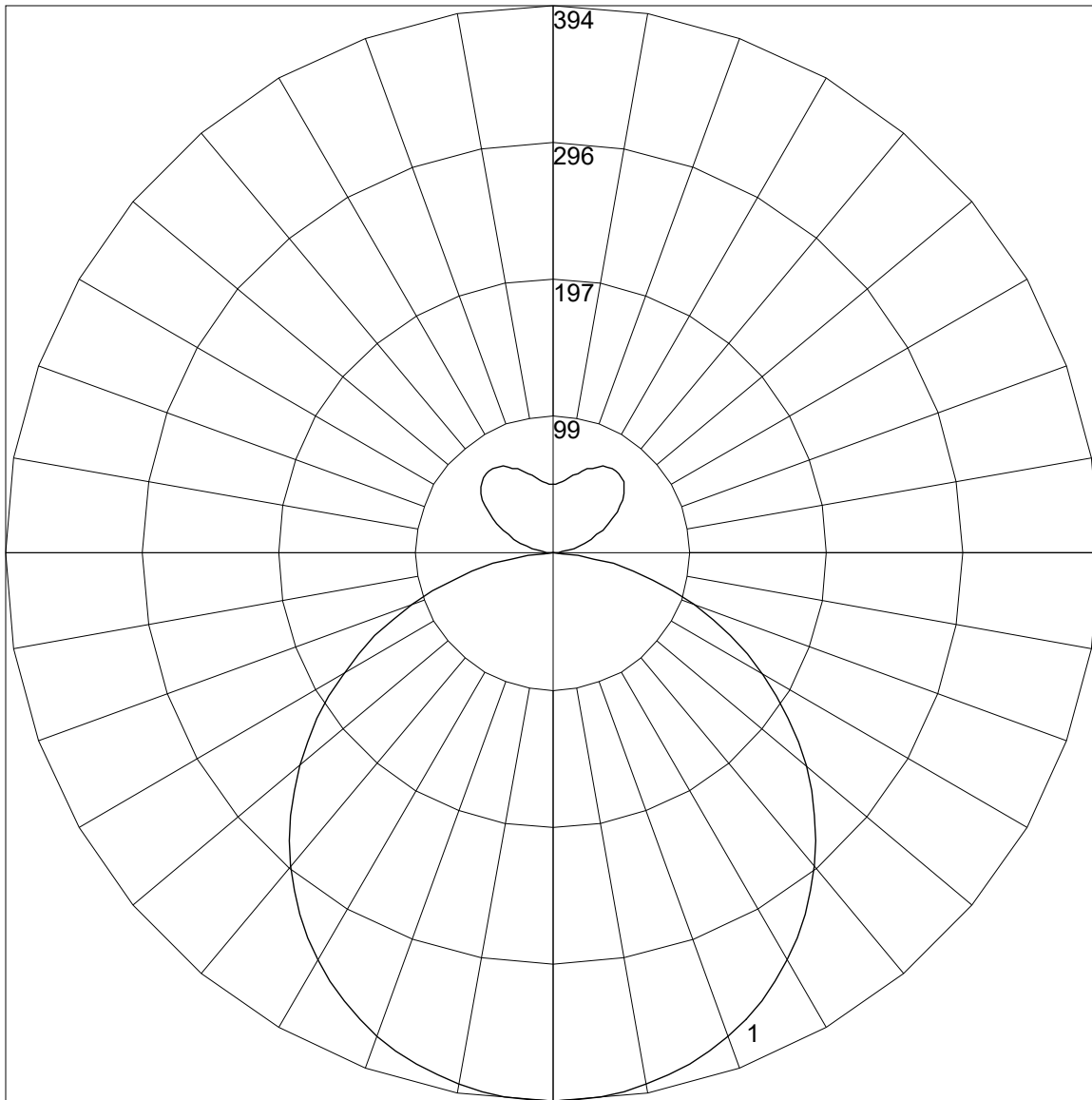
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	87	87	87	83
1	105	100	96	92	101	96	93	89	89	86	84	83	80	78	76	75	73	70
2	95	87	81	75	91	84	78	73	78	73	69	72	68	65	67	64	61	58
3	87	77	69	62	83	74	67	61	69	63	58	64	59	55	59	55	52	49
4	80	68	59	53	76	65	58	52	61	54	49	57	51	47	53	48	44	42
5	73	61	52	45	70	58	50	44	54	48	42	51	45	40	47	42	38	36
6	67	54	46	39	64	53	44	39	49	42	37	46	40	35	43	38	34	31
7	62	49	41	35	60	48	40	34	45	38	33	42	36	31	39	34	30	28
8	58	45	37	31	56	43	36	30	41	34	29	38	32	28	36	31	27	25
9	54	41	33	28	52	40	32	27	37	31	26	35	29	25	33	28	24	22
10	51	38	30	25	49	37	29	25	35	28	24	33	27	23	31	26	22	20

POLAR GRAPH



Maximum Candela = 394.211 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)