

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-OPEN-ITL85120.001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85120.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/04/15

[ISSUEDATE]04/22/16

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE S16-LED-ID-DCO-4ft-2E-S-8-35-OPEN

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 14.6 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 16.1 WATTS

[ABSOLUTE]LUMENS]1933

[OTHER]see www.finelite.com for source file ITL85120. 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	1933
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	14.6
Ballast Factor	1.00
CIE Type	Semi-Indirect
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
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	1527	1630	1727
55	1485	1590	1695
65	1394	1496	1588
75	1197	1280	1363
85	790	888	938

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	147.778	147.778	147.778	147.778	147.778
2.5	147.368	147.778	147.778	147.778	147.778
5.0	146.959	147.368	147.368	147.778	147.778
7.5	146.550	146.959	146.959	147.778	147.778
10.0	145.731	145.731	146.550	147.368	147.368
12.5	144.503	144.503	146.140	147.368	147.368
15.0	143.275	142.865	145.322	146.959	146.959
17.5	141.228	141.228	144.094	146.140	146.550
20.0	139.181	139.181	142.865	144.912	145.731
22.5	137.134	136.725	140.819	143.684	144.503
25.0	134.269	134.269	138.772	142.047	143.275
27.5	131.404	131.813	136.725	140.409	141.637
30.0	128.129	128.538	133.860	137.953	139.181
32.5	124.444	125.263	130.585	135.088	136.725
35.0	120.760	121.579	127.310	131.813	133.450
37.5	116.667	117.895	123.626	128.129	130.175
40.0	112.164	113.392	119.123	124.035	126.082
42.5	107.661	108.889	114.620	119.532	121.579
45.0	102.749	103.977	109.708	114.620	116.257
47.5	97.427	99.064	104.386	108.889	110.936
50.0	92.105	93.743	98.655	103.158	105.205
52.5	86.784	88.012	92.924	97.018	99.064
55.0	81.053	82.281	86.784	90.877	92.515
57.5	74.912	76.140	80.234	84.327	85.556
60.0	68.772	70.000	73.684	77.368	78.596
62.5	62.632	63.450	67.135	70.000	71.228
65.0	56.082	56.901	60.175	63.041	63.860
67.5	49.123	49.942	53.216	55.263	56.491
70.0	42.573	43.392	45.848	47.895	48.304
72.5	36.023	36.842	38.889	40.526	40.936
75.0	29.474	30.292	31.520	33.158	33.567
77.5	22.924	23.743	24.971	26.199	26.608
80.0	17.193	17.602	18.421	19.240	19.649
82.5	11.871	12.281	12.690	13.099	13.509
85.0	6.550	6.959	7.368	7.368	7.778
87.5	2.047	2.456	2.456	2.456	2.456
90.0	0.000	0.000	0.000	0.000	0.000
92.5	8.596	6.140	2.047	1.228	1.228
95.0	15.146	135.906	15.146	11.053	9.825
97.5	20.468	153.099	283.275	57.310	24.561
100.0	25.789	164.971	299.649	381.520	408.947
102.5	31.111	176.433	307.427	391.345	420.000
105.0	36.842	192.807	316.842	395.029	424.503
107.5	42.573	200.585	319.708	400.351	428.596
110.0	48.713	203.860	322.982	403.626	433.918
112.5	54.444	204.678	327.076	402.398	431.871
115.0	59.766	204.269	335.263	402.807	430.234
117.5	65.088	203.450	340.994	402.807	429.006
120.0	70.409	202.632	340.175	404.854	427.778
122.5	75.322	201.813	336.901	408.947	427.778
125.0	80.234	200.994	331.988	407.719	429.415
127.5	84.327	200.175	326.667	401.988	425.731
130.0	88.012	198.129	320.117	393.801	417.953
132.5	91.287	196.082	313.158	384.795	408.129

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135.0	94.152	193.216	305.380	374.971	397.076
137.5	97.018	189.942	296.784	364.327	385.614
140.0	99.474	186.257	287.778	352.047	372.515
142.5	101.520	182.164	278.772	339.766	357.778
145.0	103.158	177.251	268.538	325.848	341.813
147.5	104.795	171.930	257.895	311.930	326.667
150.0	106.023	166.608	246.433	297.193	310.292
152.5	107.251	160.468	234.152	281.637	293.509
155.0	108.070	154.327	221.871	265.673	276.725
157.5	109.298	148.187	207.953	248.889	259.123
160.0	109.708	142.456	194.035	230.468	240.702
162.5	110.526	136.316	180.117	211.637	220.643
165.0	110.936	130.585	166.608	192.807	200.175
167.5	111.345	124.854	153.509	173.567	180.117
170.0	111.345	119.942	140.819	155.556	160.468
172.5	111.345	116.257	128.538	139.181	142.456
175.0	110.936	112.982	118.713	124.035	126.082
177.5	110.936	111.345	112.982	114.211	114.620
180.0	110.936	110.936	110.936	110.936	110.936

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Zone	Lumens	%Lamp	%Fixt
0-20	55.05	N.A.	2.80
0-30	118.95	N.A.	6.20
0-40	198.37	N.A.	10.30
0-60	360.05	N.A.	18.60
0-80	452.82	N.A.	23.40
0-90	461.39	N.A.	23.90
10-90	447.34	N.A.	23.10
20-40	143.32	N.A.	7.40
20-50	227.66	N.A.	11.80
40-70	220.90	N.A.	11.40
60-80	92.78	N.A.	4.80
70-80	33.55	N.A.	1.70
80-90	8.57	N.A.	0.40
90-110	382.08	N.A.	19.80
90-120	676.29	N.A.	35.00
90-130	943.24	N.A.	48.80
90-150	1316.21	N.A.	68.10
90-180	1471.58	N.A.	76.10
110-180	1089.51	N.A.	56.40
0-180	1932.98	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	14.05
10-20	40.99
20-30	63.91
30-40	79.42
40-50	84.34
50-60	77.34
60-70	59.22
70-80	33.55
80-90	8.57
90-100	83.98
100-110	298.09
110-120	294.22
120-130	266.94
130-140	216.58
140-150	156.40
150-160	96.94
160-170	46.47
170-180	11.96

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

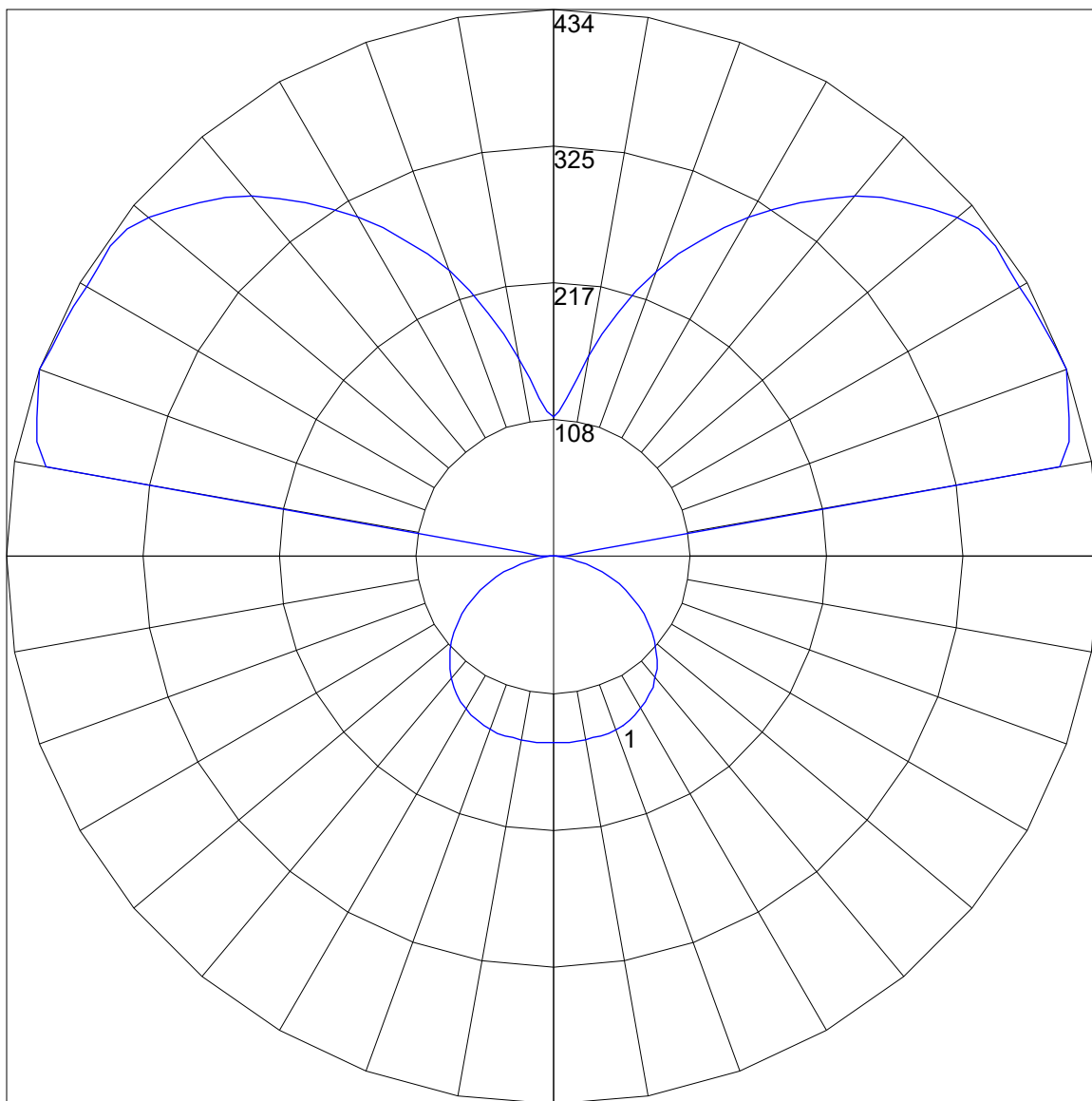
Effective Floor Cavity Reflectance 0.20

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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32	24
1	92	88	84	80	81	78	75	72	60	58	56	43	42	41	28	27	27	20
2	83	76	70	65	74	68	63	59	52	49	46	38	36	34	25	23	22	16
3	76	67	60	54	67	60	54	49	46	42	39	33	31	29	22	20	19	14
4	69	59	51	46	61	53	46	41	41	36	33	30	27	24	19	18	16	12
5	63	52	44	39	56	47	40	35	36	31	28	26	23	21	17	15	14	10
6	58	47	39	33	52	42	35	30	32	28	24	24	20	18	16	14	12	9
7	54	42	34	29	48	38	31	26	29	24	21	21	18	16	14	12	11	8
8	50	38	30	25	44	34	27	23	26	22	18	19	16	14	13	11	9	7
9	46	34	27	22	41	31	25	20	24	20	16	18	15	12	12	10	8	6
10	43	31	24	20	38	28	22	18	22	18	15	16	13	11	11	9	8	6

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POLAR GRAPH



Maximum Candela = 433.918 Located At Horizontal Angle = 90, Vertical Angle = 110

1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)