

# 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 : HP-4-ID-4FT-S-B-8-35-ITL85125.013.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85125.013 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/06/15  
[ISSUE DATE]04/21/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-4-ID-4ft-S-B-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 33.0 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 35.7 WATTS  
[ABSOLUTE LUMENS]3618  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85125. 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	3618
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	33
Ballast Factor	1.00
CIE Type	General Diffuse
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)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5205	5132	5041
55	4833	4758	4661
65	4410	4349	4278
75	3857	3857	3841
85	3195	3343	3441

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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	742.597	742.596	742.596	742.596	742.596
2.5	741.053	741.053	741.053	741.053	741.053
5.0	737.450	737.965	737.965	737.450	737.965
7.5	732.304	732.819	732.304	731.275	732.304
10.0	725.099	723.556	724.070	724.070	723.041
12.5	716.351	713.778	714.292	714.292	711.719
15.0	704.000	699.883	702.456	701.427	697.825
17.5	690.620	684.959	687.532	686.503	682.901
20.0	674.667	668.491	670.550	669.006	665.404
22.5	657.170	650.480	652.023	649.965	646.362
25.0	637.614	630.409	631.953	629.895	625.778
27.5	616.515	609.310	610.339	607.766	604.164
30.0	593.871	586.667	587.181	584.608	580.491
32.5	570.199	564.538	564.023	560.421	556.819
35.0	546.526	540.351	539.836	535.205	532.117
37.5	520.795	514.620	515.135	509.474	506.386
40.0	495.064	489.918	489.404	483.743	480.655
42.5	470.363	463.673	462.129	457.497	454.409
45.0	442.058	437.427	435.883	431.252	428.164
47.5	414.784	410.152	409.123	404.491	401.404
50.0	387.509	383.392	381.848	377.216	374.643
52.5	360.234	356.117	355.602	350.456	347.883
55.0	332.959	329.357	327.813	323.181	321.123
57.5	305.170	302.082	300.538	296.421	294.363
60.0	278.409	274.807	273.778	270.175	268.632
62.5	250.620	247.532	246.503	243.415	242.386
65.0	223.860	221.286	220.772	218.199	217.170
67.5	196.585	195.041	194.526	192.468	191.439
70.0	170.339	169.310	169.310	167.766	166.737
72.5	144.608	145.123	144.094	144.608	143.064
75.0	119.906	120.421	119.906	120.421	119.392
77.5	96.234	96.749	97.778	97.778	97.778
80.0	74.105	74.620	75.649	76.164	76.164
82.5	54.035	54.550	55.064	55.579	55.579
85.0	33.450	34.480	34.994	35.509	36.023
87.5	14.409	15.439	15.953	17.497	17.497
90.0	0.000	0.000	0.000	0.000	0.000
92.5	12.281	13.099	13.918	15.556	15.965
95.0	29.064	29.474	31.111	33.158	33.567
97.5	47.076	47.485	49.532	51.579	51.170
100.0	65.497	66.316	68.363	70.409	70.000
102.5	84.328	85.965	88.012	90.058	90.058
105.0	105.205	106.842	108.889	110.526	110.117
107.5	127.310	128.538	129.766	131.404	131.404
110.0	151.053	151.053	152.281	153.918	153.509
112.5	174.795	173.977	175.614	178.070	176.023
115.0	198.538	197.719	198.538	200.585	198.947
117.5	222.281	222.690	223.099	223.509	222.281
120.0	246.433	247.251	246.842	246.433	245.614
122.5	270.994	271.813	271.813	270.585	269.357
125.0	295.965	297.193	297.193	294.737	293.509
127.5	320.936	321.754	322.573	318.889	316.433
130.0	345.088	345.497	346.316	343.860	341.813
132.5	369.649	369.240	369.649	368.012	365.555

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	394.211	392.164	393.392	392.164	389.298
<b>137.5</b>	417.953	414.678	416.725	415.088	412.222
<b>140.0</b>	441.696	438.012	440.468	438.830	435.555
<b>142.5</b>	463.392	460.526	463.392	460.936	458.070
<b>145.0</b>	486.725	481.813	485.088	482.632	479.766
<b>147.5</b>	507.602	502.690	505.965	503.509	500.643
<b>150.0</b>	528.070	522.749	526.023	523.567	521.111
<b>152.5</b>	546.082	541.988	545.263	542.398	540.351
<b>155.0</b>	563.684	559.591	562.456	560.000	557.953
<b>157.5</b>	580.877	576.784	579.240	576.784	575.146
<b>160.0</b>	595.614	592.339	594.795	592.339	591.111
<b>162.5</b>	609.532	605.848	608.713	606.257	605.439
<b>165.0</b>	620.994	618.129	619.766	618.538	618.129
<b>167.5</b>	631.228	628.772	630.000	629.181	629.181
<b>170.0</b>	639.825	638.187	639.006	638.187	638.187
<b>172.5</b>	645.965	645.965	645.556	645.556	645.556
<b>175.0</b>	650.877	650.877	650.877	650.468	650.877
<b>177.5</b>	653.743	654.152	654.152	654.152	654.152
<b>180.0</b>	654.971	654.971	654.971	654.971	654.971

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	267.52	N.A.	7.40
0-30	557.93	N.A.	15.40
0-40	894.70	N.A.	24.70
0-60	1522.54	N.A.	42.10
0-80	1868.15	N.A.	51.60
0-90	1907.28	N.A.	52.70
10-90	1837.29	N.A.	50.80
20-40	627.19	N.A.	17.30
20-50	962.67	N.A.	26.60
40-70	845.83	N.A.	23.40
60-80	345.61	N.A.	9.60
70-80	127.62	N.A.	3.50
80-90	39.13	N.A.	1.10
90-110	150.17	N.A.	4.20
90-120	347.37	N.A.	9.60
90-130	611.92	N.A.	16.90
90-150	1216.66	N.A.	33.60
90-180	1711.21	N.A.	47.30
110-180	1561.04	N.A.	43.10
0-180	3618.49	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	69.99
10-20	197.53
20-30	290.42
30-40	336.77
40-50	335.49
50-60	292.35
60-70	217.99
70-80	127.62
80-90	39.13
90-100	35.09
100-110	115.08
110-120	197.20
120-130	264.55
130-140	302.64
140-150	302.10
150-160	258.31
160-170	174.50
170-180	61.74

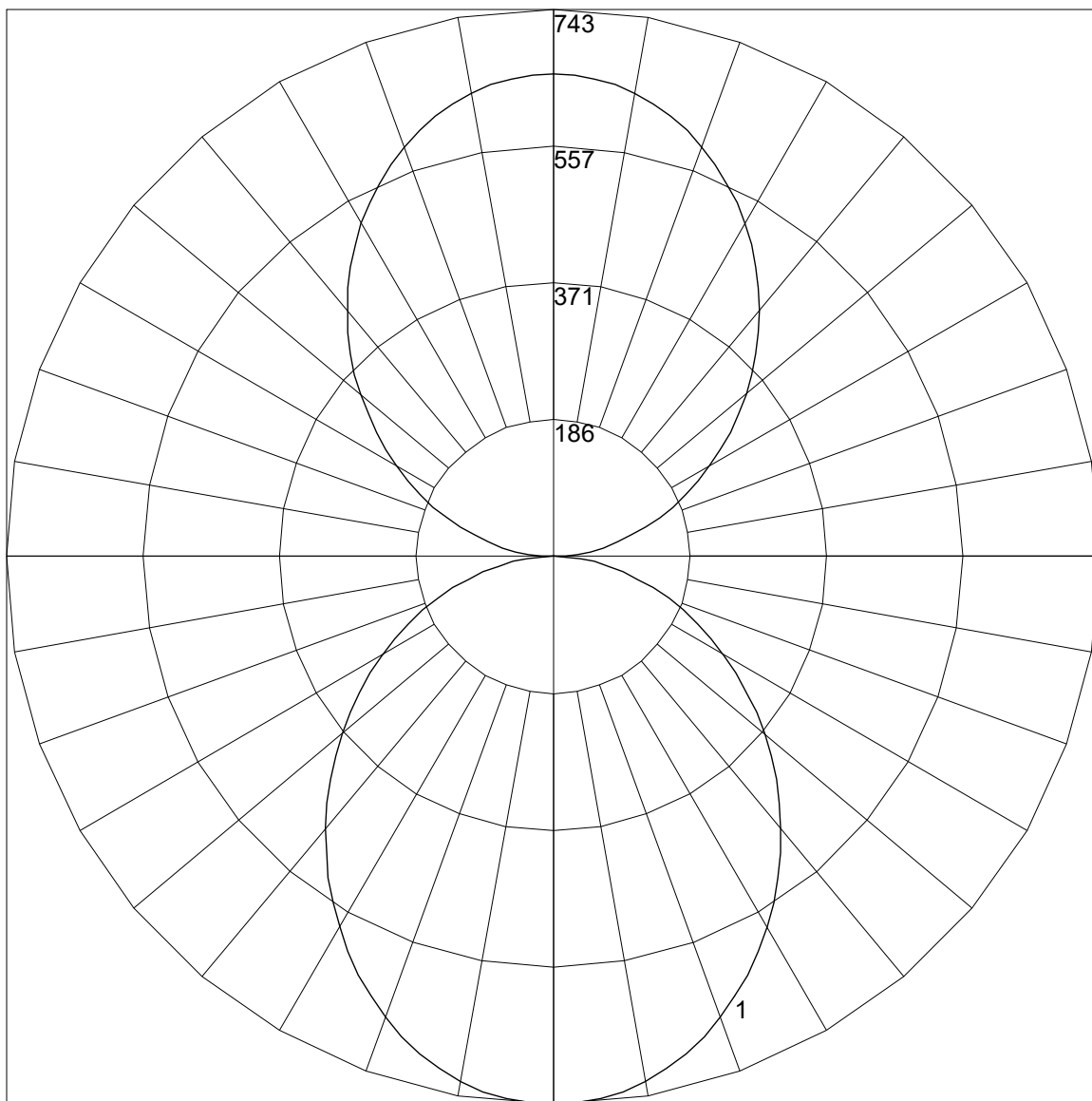
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	98	94	90	86	91	87	84	81	74	72	70	63	61	59	52	50	49	44
2	90	82	76	71	83	76	71	66	65	61	58	55	52	49	45	43	42	37
3	82	72	65	59	75	67	60	55	57	52	48	49	45	42	40	38	35	31
4	75	64	56	50	69	59	52	47	51	46	41	43	39	36	36	33	30	27
5	69	57	49	43	63	53	46	40	46	40	36	39	34	31	32	29	27	23
6	63	51	43	37	58	48	40	35	41	35	31	35	31	27	29	26	23	21
7	58	46	38	32	54	43	36	31	37	32	27	32	27	24	27	23	21	18
8	54	42	34	29	50	39	32	27	34	28	24	29	25	21	25	21	19	16
9	51	38	31	26	47	36	29	24	31	26	22	27	23	19	23	19	17	15
10	47	35	28	23	44	33	26	22	29	23	20	25	21	18	21	18	15	13

POLAR GRAPH



Maximum Candela = 742.597 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)