

# 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-2-ID-4FT-H-B-835-ITL85132.008.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85132.008 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/11/15  
[ISSUE DATE]02/10/17  
[MANUFACT]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-ID-4ft-H-B-835  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 46.7 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 48.6 WATTS  
[ABSOLUTE LUMENS]4600  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85132. 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	4600
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	46.7
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)	4.00 ft
Luminous Width (90-270)	0.18 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8276	7933	7547
55	7533	7165	6797
65	6803	6452	6138
75	6128	5796	5554
85	5379	5199	4930

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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	676.211	676.211	676.211	676.211	676.211
2.5	674.667	675.696	675.181	675.181	675.181
5.0	672.094	672.608	671.579	671.064	671.064
7.5	666.433	666.947	665.404	664.889	664.889
10.0	659.228	658.199	657.170	656.655	655.626
12.5	649.450	647.392	646.362	644.819	642.760
15.0	638.643	634.526	633.497	630.409	627.836
17.5	625.263	619.602	618.058	613.427	610.339
20.0	609.825	603.135	600.561	594.901	590.269
22.5	591.813	584.608	581.520	575.345	569.684
25.0	573.287	565.053	560.421	553.731	547.556
27.5	552.187	544.982	539.322	530.573	523.883
30.0	530.573	522.854	516.164	506.386	499.696
32.5	507.415	499.696	492.491	481.684	476.538
35.0	484.772	476.023	468.304	456.468	451.322
37.5	460.585	452.351	443.602	432.281	426.620
40.0	435.883	427.135	419.415	406.550	401.404
42.5	410.667	402.433	394.199	381.333	376.187
45.0	385.450	377.731	369.497	356.632	351.485
47.5	360.234	352.515	344.281	331.930	327.298
50.0	334.503	327.298	319.579	307.228	303.111
52.5	309.287	302.596	294.877	283.555	279.439
55.0	284.585	278.924	270.690	260.398	256.795
57.5	260.398	255.251	247.018	237.754	234.667
60.0	235.696	231.064	223.860	215.111	212.538
62.5	212.538	207.906	201.216	194.526	191.439
65.0	189.380	185.263	179.602	173.427	170.854
67.5	167.766	163.135	159.018	152.842	150.784
70.0	145.637	142.550	137.918	133.801	131.228
72.5	124.538	121.965	118.363	114.760	112.702
75.0	104.468	101.895	98.807	96.234	94.690
77.5	84.912	82.854	80.795	78.737	76.678
80.0	65.871	64.842	62.784	61.240	60.211
82.5	47.860	46.830	45.801	44.772	43.743
85.0	30.877	30.363	29.848	29.333	28.304
87.5	13.895	13.380	13.895	14.409	13.895
90.0	0.000	0.000	0.000	0.000	0.000
92.5	23.333	23.333	23.333	25.667	25.667
95.0	55.222	52.889	52.889	53.667	54.444
97.5	87.111	84.778	83.222	84.000	84.000
100.0	119.778	115.889	115.889	115.889	115.111
102.5	154.000	150.889	149.333	148.556	148.556
105.0	189.778	187.444	183.556	182.778	182.000
107.5	226.333	224.000	219.333	218.556	217.778
110.0	264.445	262.111	258.222	256.667	254.333
112.5	304.111	300.222	297.889	294.000	291.667
115.0	343.778	341.445	339.889	332.111	330.555
117.5	385.778	381.889	381.889	372.555	371.000
120.0	428.555	422.333	423.889	414.555	411.445
122.5	469.000	462.778	465.889	458.111	452.667
125.0	514.111	504.778	507.889	500.111	496.222
127.5	558.444	548.333	549.889	543.667	542.111
130.0	602.000	591.889	593.444	585.667	586.444
132.5	645.556	634.667	637.000	629.222	629.222

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	687.556	677.444	680.556	673.556	673.556
<b>137.5</b>	730.333	720.222	723.333	717.111	716.333
<b>140.0</b>	773.111	763.000	765.333	761.444	759.111
<b>142.5</b>	813.556	802.667	805.778	801.889	798.778
<b>145.0</b>	854.778	843.111	846.222	843.111	837.667
<b>147.5</b>	892.889	881.222	885.111	880.444	875.000
<b>150.0</b>	929.444	917.778	922.444	917.000	912.333
<b>152.5</b>	964.444	952.778	957.444	952.778	948.111
<b>155.0</b>	997.889	986.222	991.667	987.000	982.333
<b>157.5</b>	1026.667	1015.778	1022.000	1017.333	1012.667
<b>160.0</b>	1054.667	1044.555	1050.000	1045.333	1040.667
<b>162.5</b>	1078.778	1070.222	1074.111	1071.000	1067.889
<b>165.0</b>	1100.555	1092.778	1095.111	1093.555	1091.222
<b>167.5</b>	1116.889	1112.222	1113.778	1112.222	1111.445
<b>170.0</b>	1131.667	1129.333	1130.111	1128.555	1127.778
<b>172.5</b>	1144.111	1143.333	1143.333	1142.555	1142.555
<b>175.0</b>	1152.667	1152.667	1152.667	1152.667	1151.889
<b>177.5</b>	1157.333	1158.111	1158.111	1158.111	1157.333
<b>180.0</b>	1160.445	1160.445	1160.445	1160.445	1160.445

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	241.75	N.A.	5.30
0-30	499.36	N.A.	10.90
0-40	791.57	N.A.	17.20
0-60	1317.36	N.A.	28.60
0-80	1600.82	N.A.	34.80
0-90	1633.73	N.A.	35.50
10-90	1570.07	N.A.	34.10
20-40	549.81	N.A.	12.00
20-50	833.78	N.A.	18.10
40-70	704.04	N.A.	15.30
60-80	283.46	N.A.	6.20
70-80	105.22	N.A.	2.30
80-90	32.91	N.A.	0.70
90-110	256.05	N.A.	5.60
90-120	590.90	N.A.	12.80
90-130	1042.54	N.A.	22.70
90-150	2093.49	N.A.	45.50
90-180	2965.95	N.A.	64.50
110-180	2709.9	N.A.	58.90
0-180	4599.68	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	63.66
10-20	178.09
20-30	257.61
30-40	292.21
40-50	283.97
50-60	241.83
60-70	178.24
70-80	105.22
80-90	32.91
90-100	59.94
100-110	196.12
110-120	334.85
120-130	451.64
130-140	523.10
140-150	527.85
150-160	454.83
160-170	308.34
170-180	109.29

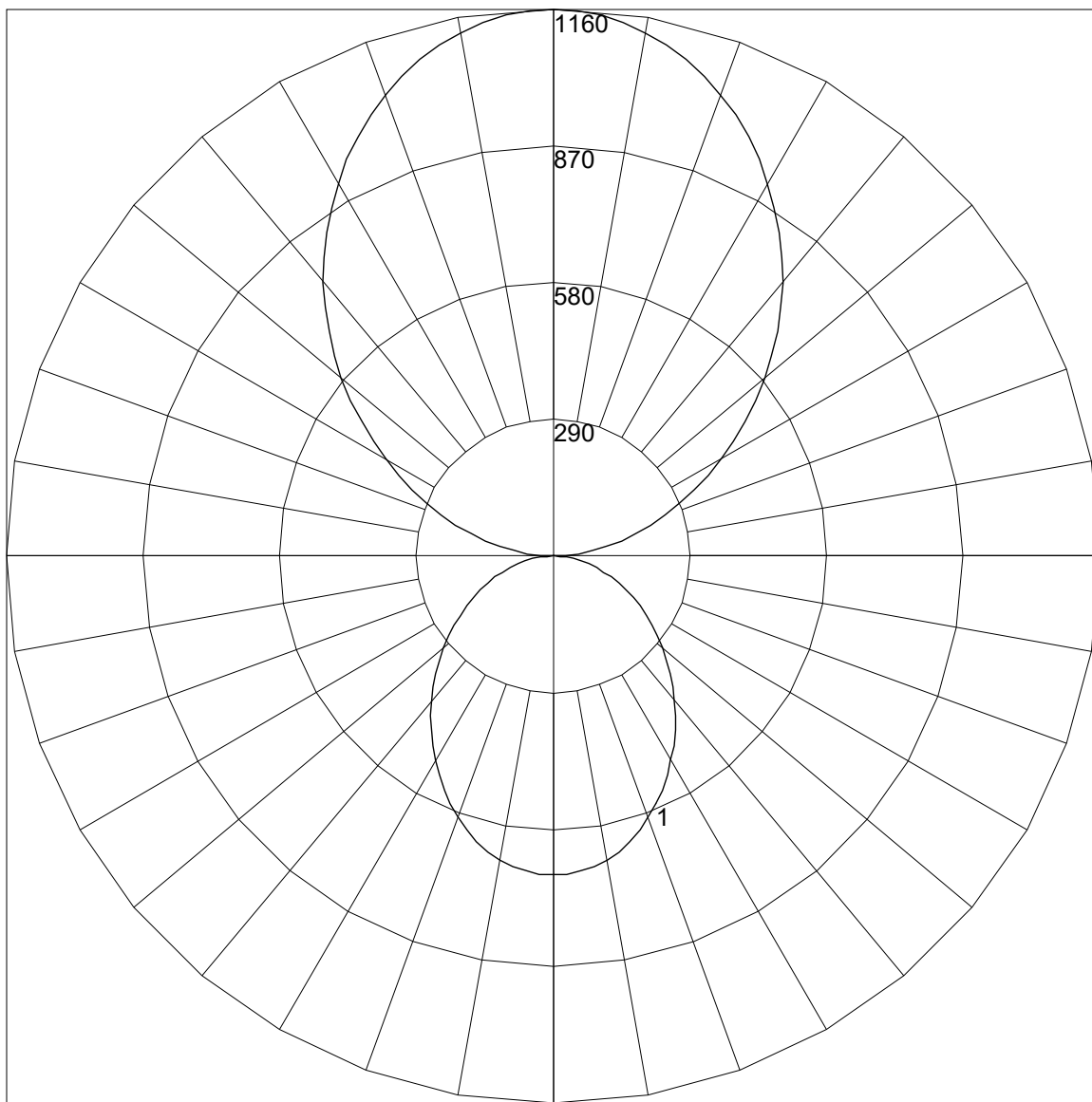
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	95	90	87	83	85	82	79	76	66	64	62	51	50	49	38	37	36	30
2	86	79	73	68	78	72	67	62	58	54	51	45	43	41	33	32	31	25
3	79	69	62	57	71	63	57	52	51	47	43	40	37	34	30	28	26	21
4	72	61	54	48	65	56	49	44	45	40	37	36	32	29	27	24	22	18
5	66	55	47	41	59	50	43	38	41	35	32	32	28	26	24	22	20	16
6	61	49	41	35	55	45	38	33	36	31	28	29	25	22	22	19	17	14
7	56	44	36	31	51	40	34	29	33	28	24	26	23	20	20	17	15	13
8	52	40	32	27	47	37	30	25	30	25	21	24	20	18	18	16	14	11
9	48	36	29	24	44	33	27	23	28	23	19	22	18	16	17	14	12	10
10	45	33	26	22	41	31	24	20	25	21	17	20	17	14	16	13	11	9

POLAR GRAPH



Maximum Candela = 1160.445 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)