

# 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-B-B-8TW-ITL85132.902.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85132.902 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/11/15  
[ISSUE DATE]02/10/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-ID-4ft-B-B-8TW  
[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 40.4 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 43.1 WATTS  
[ABSOLUTE LUMENS]3596  
[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	3596
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	40.4
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)	0.18 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	646.363	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	283.556	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	15.439	15.439	15.439	16.982	16.982
95.0	36.538	34.994	34.994	35.509	36.023
97.5	57.637	56.094	55.064	55.579	55.579
100.0	79.251	76.678	76.678	76.678	76.164
102.5	101.895	99.836	98.807	98.292	98.292
105.0	125.567	124.023	121.450	120.936	120.421
107.5	149.754	148.211	145.123	144.608	144.094
110.0	174.971	173.427	170.854	169.825	168.281
112.5	201.216	198.643	197.099	194.526	192.982
115.0	227.462	225.918	224.889	219.743	218.713
117.5	255.251	252.678	252.678	246.503	245.474
120.0	283.556	279.439	280.468	274.292	272.234
122.5	310.316	306.199	308.257	303.111	299.509
125.0	340.164	333.988	336.047	330.901	328.327
127.5	369.497	362.807	363.836	359.719	358.690
130.0	398.316	391.626	392.655	387.509	388.023
132.5	427.135	419.930	421.474	416.327	416.327

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	454.924	448.234	450.292	445.661	445.661
<b>137.5</b>	483.228	476.538	478.596	474.480	473.965
<b>140.0</b>	511.532	504.842	506.386	503.813	502.269
<b>142.5</b>	538.292	531.088	533.146	530.573	528.515
<b>145.0</b>	565.567	557.848	559.906	557.848	554.246
<b>147.5</b>	590.784	583.064	585.637	582.550	578.947
<b>150.0</b>	614.971	607.251	610.339	606.737	603.649
<b>152.5</b>	638.129	630.409	633.497	630.409	627.322
<b>155.0</b>	660.257	652.538	656.140	653.053	649.965
<b>157.5</b>	679.298	672.094	676.211	673.123	670.035
<b>160.0</b>	697.825	691.135	694.737	691.649	688.561
<b>162.5</b>	713.778	708.117	710.690	708.632	706.573
<b>165.0</b>	728.187	723.041	724.585	723.556	722.012
<b>167.5</b>	738.994	735.906	736.936	735.906	735.392
<b>170.0</b>	748.772	747.228	747.743	746.713	746.199
<b>172.5</b>	757.006	756.491	756.491	755.977	755.977
<b>175.0</b>	762.667	762.667	762.667	762.667	762.152
<b>177.5</b>	765.754	766.269	766.269	766.269	765.754
<b>180.0</b>	767.813	767.813	767.813	767.813	767.813

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	241.75	N.A.	6.70
0-30	499.36	N.A.	13.90
0-40	791.57	N.A.	22.00
0-60	1317.36	N.A.	36.60
0-80	1600.82	N.A.	44.50
0-90	1633.73	N.A.	45.40
10-90	1570.07	N.A.	43.70
20-40	549.81	N.A.	15.30
20-50	833.78	N.A.	23.20
40-70	704.04	N.A.	19.60
60-80	283.46	N.A.	7.90
70-80	105.22	N.A.	2.90
80-90	32.91	N.A.	0.90
90-110	169.42	N.A.	4.70
90-120	390.97	N.A.	10.90
90-130	689.80	N.A.	19.20
90-150	1385.17	N.A.	38.50
90-180	1962.43	N.A.	54.60
110-180	1793.01	N.A.	49.90
0-180	3596.16	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	39.66
100-110	129.76
110-120	221.56
120-130	298.83
130-140	346.11
140-150	349.26
150-160	300.94
160-170	204.02
170-180	72.31

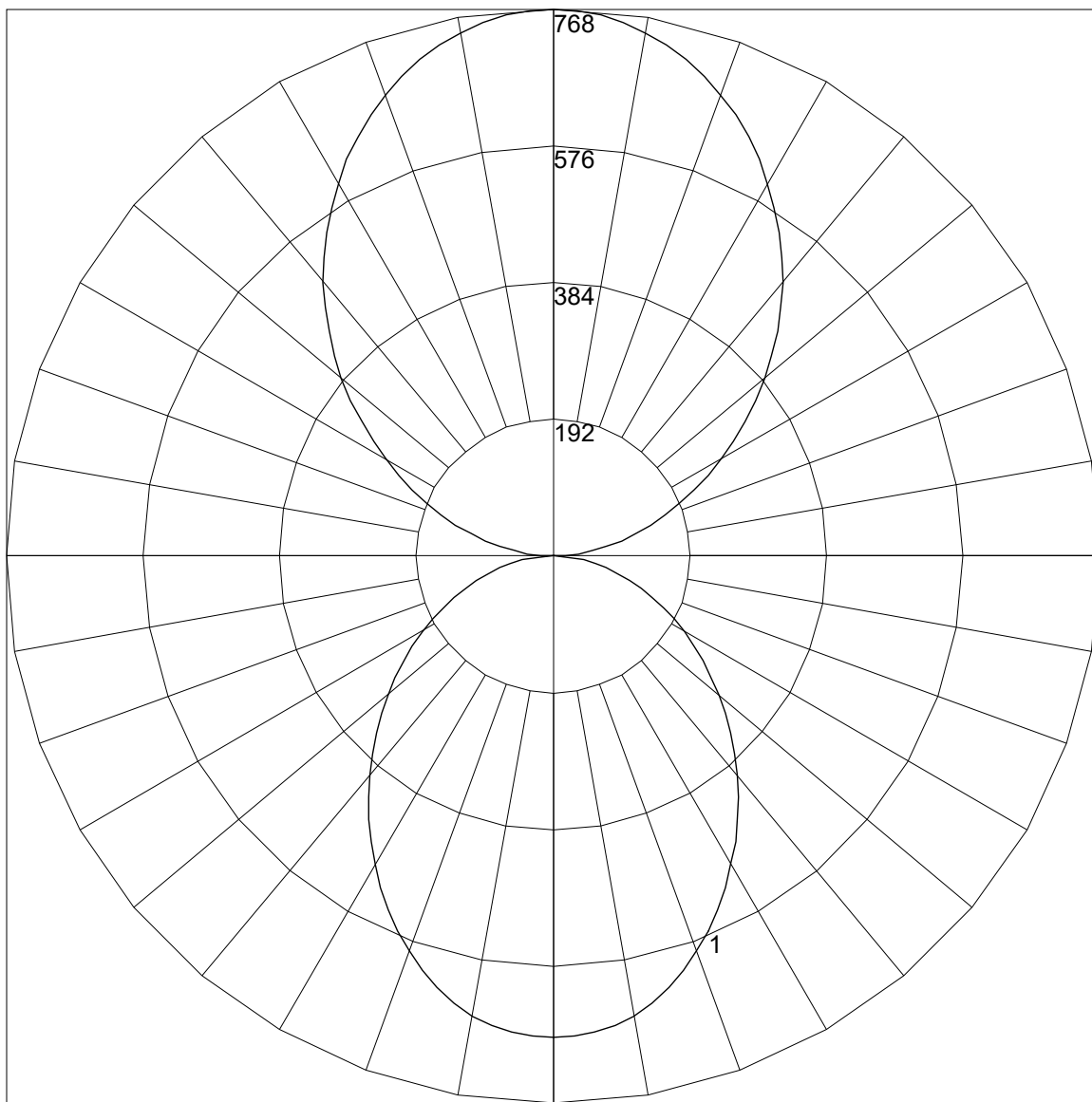
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45
1	97	92	89	85	89	85	82	79	71	68	66	58	56	55	46	45	44	38
2	88	81	75	70	81	74	69	65	62	58	55	51	48	46	40	39	37	32
3	80	71	64	58	74	65	59	54	55	50	46	45	42	39	36	34	32	27
4	74	63	55	49	67	58	51	46	49	44	40	40	36	33	32	30	27	24
5	68	56	48	42	62	52	45	40	44	38	34	36	32	29	29	26	24	21
6	62	50	42	37	57	47	40	34	39	34	30	33	29	25	26	23	21	18
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16
8	53	41	34	28	49	38	31	27	33	27	23	27	23	20	22	19	17	14
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	17	15	13
10	47	35	27	23	43	32	26	21	28	22	19	23	19	16	19	16	14	12

POLAR GRAPH



Maximum Candela = 767.813 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)