

# 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-S-S-8-35-ITL85132.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85132.001 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/11/15  
[ISSUE DATE]04/18/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-ID-4ft-S-S-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.9 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 31.9 WATTS  
[ABSOLUTE LUMENS]2861  
[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	2861
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	28.9
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	6583	6311	6003
55	5992	5699	5407
65	5412	5132	4882
75	4874	4610	4418
85	4278	4136	3922

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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	537.895	537.895	537.895	537.895	537.895
2.5	536.667	537.485	537.076	537.076	537.076
5.0	534.620	535.029	534.211	533.801	533.801
7.5	530.117	530.526	529.298	528.889	528.889
10.0	524.386	523.567	522.749	522.339	521.520
12.5	516.608	514.971	514.152	512.924	511.287
15.0	508.012	504.737	503.918	501.462	499.415
17.5	497.368	492.865	491.637	487.953	485.497
20.0	485.088	479.766	477.719	473.216	469.532
22.5	470.760	465.029	462.573	457.661	453.158
25.0	456.023	449.474	445.789	440.468	435.556
27.5	439.240	433.509	429.006	422.047	416.725
30.0	422.047	415.906	410.585	402.807	397.485
32.5	403.626	397.485	391.754	383.158	379.064
35.0	385.614	378.655	372.515	363.099	359.006
37.5	366.374	359.825	352.865	343.860	339.357
40.0	346.725	339.766	333.626	323.392	319.298
42.5	326.667	320.117	313.567	303.333	299.240
45.0	306.608	300.468	293.918	283.684	279.591
47.5	286.550	280.409	273.860	264.035	260.351
50.0	266.082	260.351	254.211	244.386	241.111
52.5	246.023	240.702	234.561	225.556	222.281
55.0	226.374	221.871	215.322	207.134	204.269
57.5	207.134	203.041	196.491	189.123	186.667
60.0	187.485	183.801	178.070	171.111	169.064
62.5	169.064	165.380	160.058	154.737	152.281
65.0	150.643	147.368	142.865	137.953	135.906
67.5	133.450	129.766	126.491	121.579	119.942
70.0	115.848	113.392	109.708	106.433	104.386
72.5	99.064	97.018	94.152	91.287	89.649
75.0	83.099	81.053	78.596	76.550	75.322
77.5	67.544	65.906	64.269	62.632	60.994
80.0	52.398	51.579	49.942	48.713	47.895
82.5	38.070	37.251	36.433	35.614	34.795
85.0	24.561	24.152	23.743	23.333	22.515
87.5	11.053	10.643	11.053	11.462	11.053
90.0	0.000	0.000	0.000	0.000	0.000
92.5	12.281	12.281	12.281	13.509	13.509
95.0	29.064	27.836	27.836	28.246	28.655
97.5	45.848	44.620	43.801	44.211	44.211
100.0	63.041	60.994	60.994	60.994	60.585
102.5	81.053	79.415	78.596	78.187	78.187
105.0	99.883	98.655	96.608	96.199	95.789
107.5	119.123	117.895	115.439	115.029	114.620
110.0	139.181	137.953	135.906	135.088	133.860
112.5	160.058	158.012	156.784	154.737	153.509
115.0	180.936	179.708	178.889	174.795	173.977
117.5	203.041	200.994	200.994	196.082	195.263
120.0	225.556	222.281	223.099	218.187	216.550
122.5	246.842	243.567	245.205	241.111	238.246
125.0	270.585	265.673	267.310	263.216	261.170
127.5	293.918	288.596	289.415	286.140	285.322
130.0	316.842	311.520	312.339	308.246	308.655
132.5	339.766	334.035	335.263	331.170	331.170

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	361.871	356.550	358.187	354.503	354.503
<b>137.5</b>	384.386	379.064	380.702	377.427	377.018
<b>140.0</b>	406.901	401.579	402.807	400.760	399.532
<b>142.5</b>	428.187	422.456	424.094	422.047	420.409
<b>145.0</b>	449.883	443.743	445.380	443.743	440.877
<b>147.5</b>	469.942	463.801	465.848	463.392	460.526
<b>150.0</b>	489.181	483.041	485.497	482.632	480.175
<b>152.5</b>	507.602	501.462	503.918	501.462	499.006
<b>155.0</b>	525.205	519.064	521.930	519.474	517.018
<b>157.5</b>	540.351	534.620	537.895	535.439	532.982
<b>160.0</b>	555.088	549.766	552.632	550.175	547.719
<b>162.5</b>	567.778	563.275	565.322	563.684	562.047
<b>165.0</b>	579.240	575.146	576.374	575.556	574.327
<b>167.5</b>	587.836	585.380	586.199	585.380	584.971
<b>170.0</b>	595.614	594.386	594.795	593.977	593.567
<b>172.5</b>	602.164	601.754	601.754	601.345	601.345
<b>175.0</b>	606.667	606.667	606.667	606.667	606.257
<b>177.5</b>	609.123	609.532	609.532	609.532	609.123
<b>180.0</b>	610.760	610.760	610.760	610.760	610.760

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	192.30	N.A.	6.70
0-30	397.22	N.A.	13.90
0-40	629.65	N.A.	22.00
0-60	1047.9	N.A.	36.60
0-80	1273.38	N.A.	44.50
0-90	1299.56	N.A.	45.40
10-90	1248.92	N.A.	43.70
20-40	437.35	N.A.	15.30
20-50	663.24	N.A.	23.20
40-70	560.03	N.A.	19.60
60-80	225.48	N.A.	7.90
70-80	83.69	N.A.	2.90
80-90	26.18	N.A.	0.90
90-110	134.76	N.A.	4.70
90-120	311.00	N.A.	10.90
90-130	548.70	N.A.	19.20
90-150	1101.84	N.A.	38.50
90-180	1561.03	N.A.	54.60
110-180	1426.26	N.A.	49.90
0-180	2860.58	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	50.64
10-20	141.66
20-30	204.91
30-40	232.44
40-50	225.88
50-60	192.36
60-70	141.78
70-80	83.69
80-90	26.18
90-100	31.55
100-110	103.22
110-120	176.24
120-130	237.70
130-140	275.32
140-150	277.82
150-160	239.38
160-170	162.28
170-180	57.52

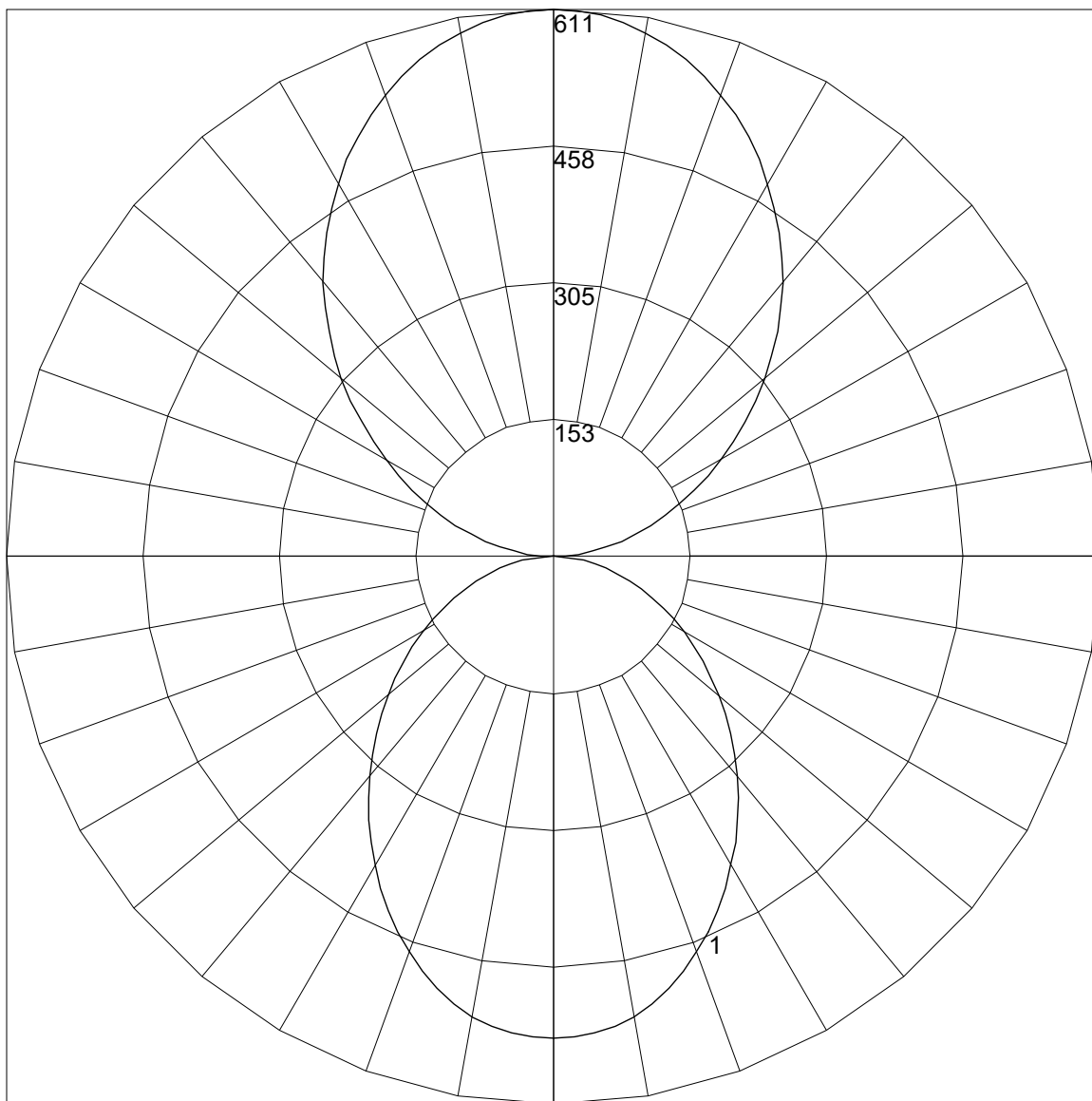
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	73	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	45	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 = 610.76 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)