

# 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-V-8-35-ITL85132.015.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85132.015 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/11/15  
[ISSUE DATE]04/26/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-ID-4ft-S-V-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 51.4 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 53.6 WATTS  
[ABSOLUTE LUMENS]4736  
[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	4736
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	51.4
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.26
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	16081	15416	14664
55	14637	13923	13208
65	13220	12537	11927
75	11908	11262	10793
85	10452	10103	9581

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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	1314.000	1314.000	1314.000	1314.000	1314.000
2.5	1311.000	1313.000	1312.000	1312.000	1312.000
5.0	1306.000	1307.000	1305.000	1304.000	1304.000
7.5	1295.000	1296.000	1293.000	1292.000	1292.000
10.0	1281.000	1279.000	1277.000	1276.000	1274.000
12.5	1262.000	1258.000	1256.000	1253.000	1249.000
15.0	1241.000	1233.000	1231.000	1225.000	1220.000
17.5	1215.000	1204.000	1201.000	1192.000	1186.000
20.0	1185.000	1172.000	1167.000	1156.000	1147.000
22.5	1150.000	1136.000	1130.000	1118.000	1107.000
25.0	1114.000	1098.000	1089.000	1076.000	1064.000
27.5	1073.000	1059.000	1048.000	1031.000	1018.000
30.0	1031.000	1016.000	1003.000	984.000	971.000
32.5	986.000	971.000	957.000	936.000	926.000
35.0	942.000	925.000	910.000	887.000	877.000
37.5	895.000	879.000	862.000	840.000	829.000
40.0	847.000	830.000	815.000	790.000	780.000
42.5	798.000	782.000	766.000	741.000	731.000
45.0	749.000	734.000	718.000	693.000	683.000
47.5	700.000	685.000	669.000	645.000	636.000
50.0	650.000	636.000	621.000	597.000	589.000
52.5	601.000	588.000	573.000	551.000	543.000
55.0	553.000	542.000	526.000	506.000	499.000
57.5	506.000	496.000	480.000	462.000	456.000
60.0	458.000	449.000	435.000	418.000	413.000
62.5	413.000	404.000	391.000	378.000	372.000
65.0	368.000	360.000	349.000	337.000	332.000
67.5	326.000	317.000	309.000	297.000	293.000
70.0	283.000	277.000	268.000	260.000	255.000
72.5	242.000	237.000	230.000	223.000	219.000
75.0	203.000	198.000	192.000	187.000	184.000
77.5	165.000	161.000	157.000	153.000	149.000
80.0	128.000	126.000	122.000	119.000	117.000
82.5	93.000	91.000	89.000	87.000	85.000
85.0	60.000	59.000	58.000	57.000	55.000
87.5	27.000	26.000	27.000	28.000	27.000
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	78.597	78.187	78.187
105.0	99.883	98.655	96.608	96.199	95.790
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	160.059	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	311.521	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	377.017
<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	469.77	N.A.	9.90
0-30	970.35	N.A.	20.50
0-40	1538.16	N.A.	32.50
0-60	2559.88	N.A.	54.10
0-80	3110.68	N.A.	65.70
0-90	3174.64	N.A.	67.00
10-90	3050.93	N.A.	64.40
20-40	1068.39	N.A.	22.60
20-50	1620.19	N.A.	34.20
40-70	1368.07	N.A.	28.90
60-80	550.80	N.A.	11.60
70-80	204.45	N.A.	4.30
80-90	63.96	N.A.	1.40
90-110	134.76	N.A.	2.80
90-120	311.00	N.A.	6.60
90-130	548.70	N.A.	11.60
90-150	1101.84	N.A.	23.30
90-180	1561.03	N.A.	33.00
110-180	1426.26	N.A.	30.10
0-180	4735.66	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	123.70
10-20	346.07
20-30	500.58
30-40	567.81
40-50	551.80
50-60	469.91
60-70	346.35
70-80	204.45
80-90	63.96
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

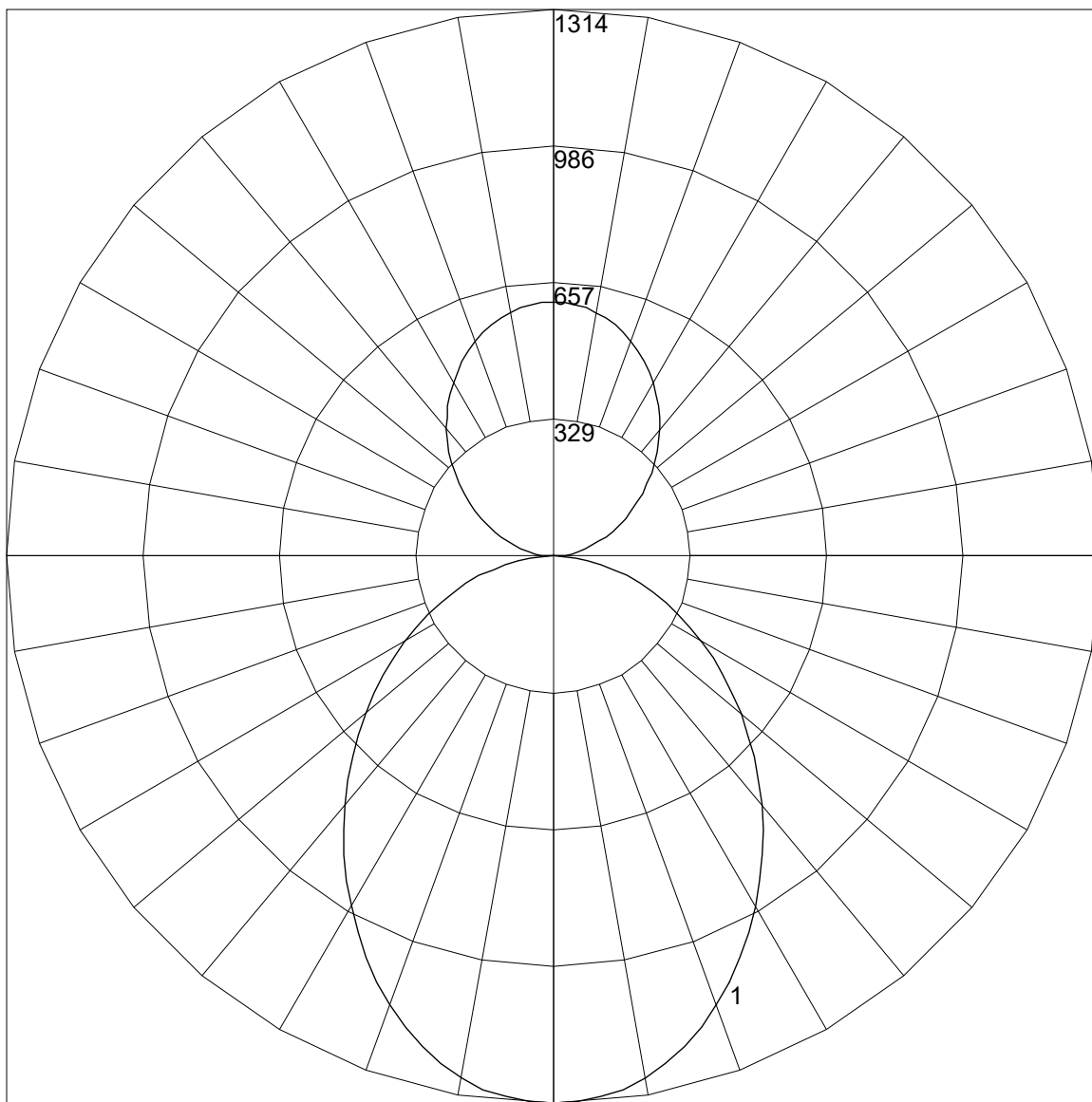
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67
1	102	97	93	90	96	92	88	85	82	79	76	72	70	68	63	62	61	56
2	93	85	79	73	87	80	75	70	72	67	63	63	60	57	56	54	51	47
3	85	75	67	61	79	71	64	59	63	58	54	56	52	49	50	47	44	40
4	78	66	58	52	73	63	56	50	56	51	46	50	46	42	45	41	38	35
5	71	59	51	45	67	56	49	43	51	45	40	45	40	36	40	36	33	30
6	66	54	45	39	62	51	43	38	46	40	35	41	36	32	37	33	29	27
7	61	48	40	35	57	46	39	33	42	35	31	37	32	29	34	29	26	24
8	57	44	36	31	53	42	35	30	38	32	28	34	29	26	31	27	24	21
9	53	40	33	28	50	39	32	27	35	29	25	32	27	23	29	24	21	19
10	50	37	30	25	47	36	29	24	32	27	23	29	24	21	27	22	19	18

POLAR GRAPH



Maximum Candela = 1314 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)