

# 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-V-8TW-ITL85132.912.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85132.912 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/11/15  
[ISSUEDATE]02/10/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-2-ID-4ft-B-V-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, 60.8 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 63.0 WATTS  
[ABSOLUTE]LUMENS]5137  
[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	5137
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	60.8
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	15.439	15.439	15.439	16.983	16.983
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	148.210	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	218.714
117.5	255.251	252.678	252.678	246.503	245.474
120.0	283.555	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	474.479	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	585.638	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	469.77	N.A.	9.10
0-30	970.35	N.A.	18.90
0-40	1538.16	N.A.	29.90
0-60	2559.88	N.A.	49.80
0-80	3110.68	N.A.	60.60
0-90	3174.64	N.A.	61.80
10-90	3050.93	N.A.	59.40
20-40	1068.39	N.A.	20.80
20-50	1620.19	N.A.	31.50
40-70	1368.07	N.A.	26.60
60-80	550.80	N.A.	10.70
70-80	204.45	N.A.	4.00
80-90	63.96	N.A.	1.20
90-110	169.42	N.A.	3.30
90-120	390.97	N.A.	7.60
90-130	689.80	N.A.	13.40
90-150	1385.17	N.A.	27.00
90-180	1962.43	N.A.	38.20
110-180	1793.01	N.A.	34.90
0-180	5137.07	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	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

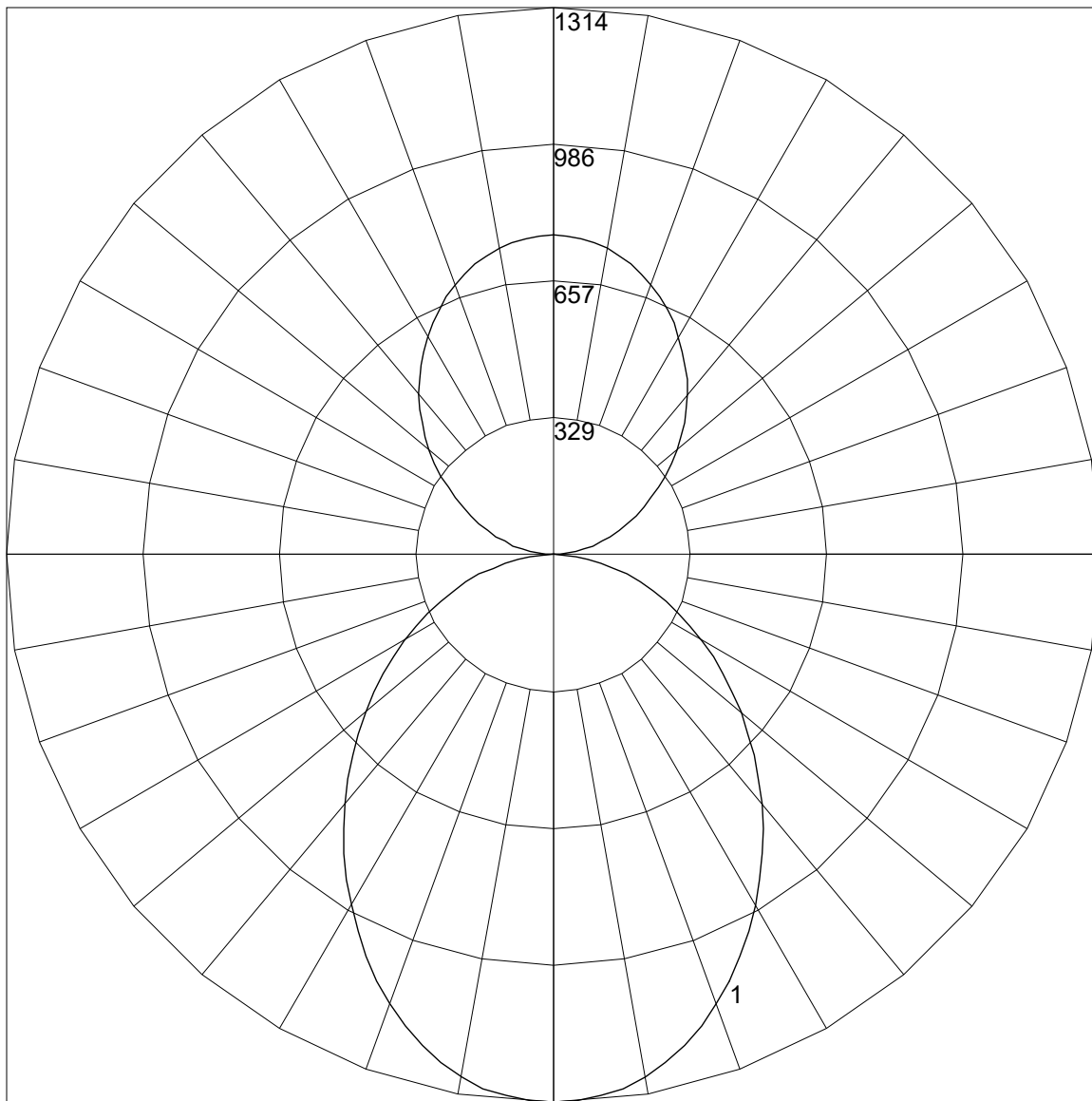
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	96	92	89	94	90	87	84	79	76	74	69	67	65	59	58	57	52
2	92	84	78	73	85	79	73	69	69	65	61	60	57	54	52	50	48	44
3	84	74	67	61	78	70	63	58	61	56	52	54	50	46	46	43	41	37
4	77	66	58	51	71	62	55	49	55	49	44	48	43	40	42	38	35	32
5	70	59	50	44	66	55	48	42	49	43	38	43	38	35	38	34	31	28
6	65	53	45	39	61	50	42	37	44	38	34	39	34	30	34	30	27	25
7	60	48	40	34	56	45	38	33	40	34	30	36	31	27	31	27	24	22
8	56	43	36	30	52	41	34	29	37	31	27	33	28	24	29	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	27	23	20	18
10	49	37	29	24	46	35	28	24	31	26	22	28	23	20	25	21	18	16

POLAR GRAPH



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