

# 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-4-ID-4FT-B-V-8TW-ITL85125.912.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85125.912 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/06/15  
[ISSUEDATE]02/09/17  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HP-4-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, 61.0 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 63.3 WATTS  
[ABSOLUTE]LUMENS]5857  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85125. 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	5857
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	61
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.32 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	10114	9973	9796
55	9391	9246	9057
65	8569	8451	8313
75	7495	7495	7463
85	6209	6496	6687

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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	1443.000	1443.000	1443.000	1443.000	1443.000
2.5	1440.000	1440.000	1440.000	1440.000	1440.000
5.0	1433.000	1434.000	1434.000	1433.000	1434.000
7.5	1423.000	1424.000	1423.000	1421.000	1423.000
10.0	1409.000	1406.000	1407.000	1407.000	1405.000
12.5	1392.000	1387.000	1388.000	1388.000	1383.000
15.0	1368.000	1360.000	1365.000	1363.000	1356.000
17.5	1342.000	1331.000	1336.000	1334.000	1327.000
20.0	1311.000	1299.000	1303.000	1300.000	1293.000
22.5	1277.000	1264.000	1267.000	1263.000	1256.000
25.0	1239.000	1225.000	1228.000	1224.000	1216.000
27.5	1198.000	1184.000	1186.000	1181.000	1174.000
30.0	1154.000	1140.000	1141.000	1136.000	1128.000
32.5	1108.000	1097.000	1096.000	1089.000	1082.000
35.0	1062.000	1050.000	1049.000	1040.000	1034.000
37.5	1012.000	1000.000	1001.000	990.000	984.000
40.0	962.000	952.000	951.000	940.000	934.000
42.5	914.000	901.000	898.000	889.000	883.000
45.0	859.000	850.000	847.000	838.000	832.000
47.5	806.000	797.000	795.000	786.000	780.000
50.0	753.000	745.000	742.000	733.000	728.000
52.5	700.000	692.000	691.000	681.000	676.000
55.0	647.000	640.000	637.000	628.000	624.000
57.5	593.000	587.000	584.000	576.000	572.000
60.0	541.000	534.000	532.000	525.000	522.000
62.5	487.000	481.000	479.000	473.000	471.000
65.0	435.000	430.000	429.000	424.000	422.000
67.5	382.000	379.000	378.000	374.000	372.000
70.0	331.000	329.000	329.000	326.000	324.000
72.5	281.000	282.000	280.000	281.000	278.000
75.0	233.000	234.000	233.000	234.000	232.000
77.5	187.000	188.000	190.000	190.000	190.000
80.0	144.000	145.000	147.000	148.000	148.000
82.5	105.000	106.000	107.000	108.000	108.000
85.0	65.000	67.000	68.000	69.000	70.000
87.5	28.000	30.000	31.000	34.000	34.000
90.0	0.000	0.000	0.000	0.000	0.000
92.5	15.439	16.468	17.497	19.556	20.070
95.0	36.538	37.053	39.111	41.684	42.199
97.5	59.181	59.696	62.269	64.842	64.328
100.0	82.339	83.368	85.942	88.515	88.000
102.5	106.012	108.070	110.643	113.216	113.216
105.0	132.257	134.316	136.889	138.947	138.433
107.5	160.047	161.591	163.135	165.193	165.193
110.0	189.895	189.895	191.439	193.497	192.982
112.5	219.743	218.714	220.772	223.860	221.286
115.0	249.591	248.561	249.591	252.164	250.105
117.5	279.439	279.953	280.468	280.983	279.439
120.0	309.801	310.830	310.316	309.801	308.772
122.5	340.678	341.708	341.708	340.164	338.620
125.0	372.070	373.614	373.614	370.526	368.983
127.5	403.462	404.491	405.521	400.889	397.801
130.0	433.825	434.339	435.368	432.281	429.708
132.5	464.702	464.187	464.702	462.643	459.555

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	495.579	493.006	494.550	493.006	489.404
<b>137.5</b>	525.427	521.310	523.883	521.825	518.222
<b>140.0</b>	555.275	550.643	553.731	551.673	547.556
<b>142.5</b>	582.550	578.947	582.550	579.462	575.860
<b>145.0</b>	611.883	605.708	609.825	606.737	603.135
<b>147.5</b>	638.129	631.953	636.070	632.982	629.380
<b>150.0</b>	663.860	657.170	661.287	658.199	655.111
<b>152.5</b>	686.503	681.357	685.474	681.871	679.298
<b>155.0</b>	708.632	703.485	707.088	704.000	701.427
<b>157.5</b>	730.246	725.099	728.187	725.099	723.041
<b>160.0</b>	748.772	744.655	747.743	744.655	743.111
<b>162.5</b>	766.269	761.638	765.240	762.152	761.123
<b>165.0</b>	780.678	777.076	779.135	777.591	777.076
<b>167.5</b>	793.544	790.456	792.000	790.971	790.971
<b>170.0</b>	804.351	802.292	803.322	802.292	802.292
<b>172.5</b>	812.070	812.070	811.556	811.556	811.556
<b>175.0</b>	818.246	818.246	818.246	817.731	818.246
<b>177.5</b>	821.848	822.362	822.362	822.362	822.362
<b>180.0</b>	823.392	823.392	823.392	823.392	823.392

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	519.83	N.A.	8.90
0-30	1084.16	N.A.	18.50
0-40	1738.57	N.A.	29.70
0-60	2958.57	N.A.	50.50
0-80	3630.15	N.A.	62.00
0-90	3706.19	N.A.	63.30
10-90	3570.19	N.A.	61.00
20-40	1218.73	N.A.	20.80
20-50	1870.64	N.A.	31.90
40-70	1643.59	N.A.	28.10
60-80	671.58	N.A.	11.50
70-80	247.99	N.A.	4.20
80-90	76.04	N.A.	1.30
90-110	188.78	N.A.	3.20
90-120	436.69	N.A.	7.50
90-130	769.27	N.A.	13.10
90-150	1529.52	N.A.	26.10
90-180	2151.23	N.A.	36.70
110-180	1962.45	N.A.	33.50
0-180	5857.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	136.00
10-20	383.83
20-30	564.33
30-40	654.40
40-50	651.91
50-60	568.09
60-70	423.59
70-80	247.99
80-90	76.04
90-100	44.11
100-110	144.67
110-120	247.91
120-130	332.57
130-140	380.47
140-150	379.79
150-160	324.73
160-170	219.37
170-180	77.61

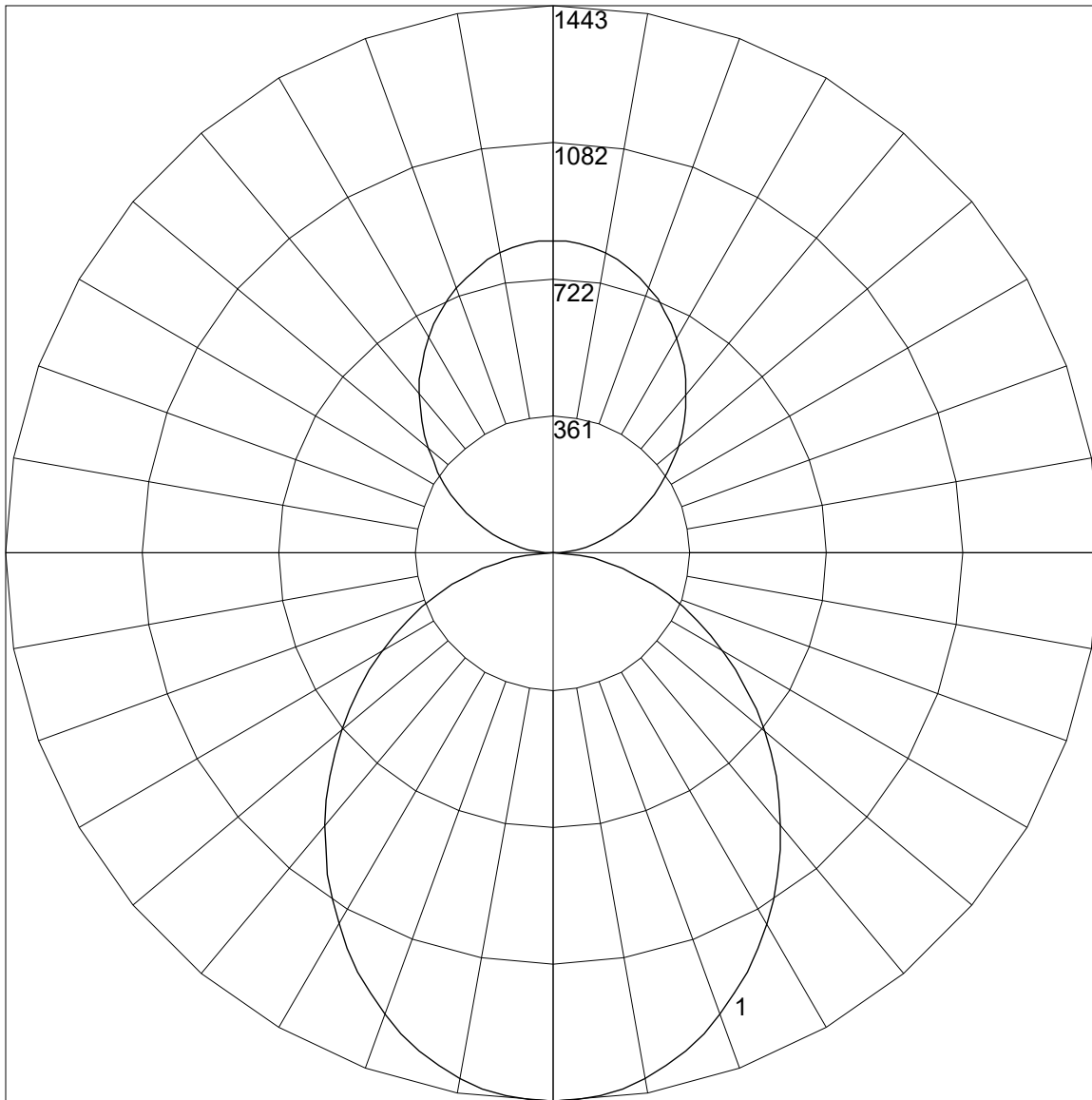
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	91	91	91	79	79	79	68	68	68	63
1	101	96	92	89	94	90	87	84	80	77	74	69	68	66	60	59	58	53
2	92	84	78	72	86	79	73	69	70	65	62	61	58	55	53	51	48	44
3	84	74	66	60	78	70	63	57	61	56	52	54	50	46	47	44	41	38
4	77	65	57	51	72	62	54	49	55	49	44	48	44	40	42	38	36	32
5	70	58	50	44	66	55	48	42	49	43	38	43	38	35	38	34	31	28
6	65	53	44	38	61	50	42	37	44	38	33	39	34	30	34	30	27	25
7	60	47	39	34	56	45	38	32	40	34	30	36	31	27	31	27	24	22
8	56	43	35	30	52	41	34	29	37	31	26	33	28	24	29	25	22	20
9	52	40	32	27	49	38	30	26	34	28	24	30	25	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	25	21	28	23	20	25	21	18	16

POLAR GRAPH



Maximum Candela = 1443 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)