

# 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-B-835-F-DL-ITL90629 ITL85125.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90629 ITL85125.002 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/09/18

[ISSUEDATE]08/01/18

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-4-ID-4ft-B-B-835-F-DL

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 36.9 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 39.4 WATTS

[\_ABSOLUTE]LUMENS]4225

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90629 and 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                | 4225                |
| Total Luminaire Efficiency      | N.A.                |
| Luminaire Efficacy Rating (LER) | 115                 |
| Total Luminaire Watts           | 36.9                |
| 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 w/Sides |
| Luminous Length (0-180)         | 4.00 ft             |
| Luminous Width (90-270)         | 0.32 ft             |
| Luminous Height                 | 0.08 ft             |

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

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 4464             | 4140              | 4051              |
| 55                  | 4128             | 3794              | 3728              |
| 65                  | 3707             | 3399              | 3394              |
| 75                  | 3057             | 2928              | 3019              |
| 85                  | 1985             | 2493              | 2726              |

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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   | 643.825    | 643.825     | 643.825     | 643.825     | 643.825     |
| 2.5   | 642.796    | 642.796     | 643.311     | 643.825     | 644.340     |
| 5.0   | 639.708    | 640.223     | 641.767     | 642.796     | 643.311     |
| 7.5   | 635.076    | 636.620     | 639.193     | 640.223     | 641.252     |
| 10.0  | 628.900    | 629.930     | 634.047     | 636.106     | 637.135     |
| 12.5  | 621.181    | 621.181     | 627.871     | 630.959     | 630.959     |
| 15.0  | 610.888    | 611.402     | 619.637     | 622.725     | 622.725     |
| 17.5  | 599.051    | 600.080     | 609.344     | 613.461     | 613.461     |
| 20.0  | 585.670    | 586.699     | 596.992     | 601.624     | 601.624     |
| 22.5  | 570.231    | 572.289     | 584.126     | 588.758     | 588.243     |
| 25.0  | 554.276    | 556.850     | 569.201     | 574.348     | 574.862     |
| 27.5  | 536.264    | 540.381     | 554.276     | 558.908     | 559.423     |
| 30.0  | 517.736    | 522.368     | 536.778     | 542.439     | 543.469     |
| 32.5  | 498.180    | 503.841     | 519.795     | 525.456     | 525.971     |
| 35.0  | 475.535    | 483.769     | 500.753     | 507.443     | 507.958     |
| 37.5  | 454.435    | 464.728     | 481.711     | 487.887     | 490.460     |
| 40.0  | 433.334    | 443.627     | 462.154     | 469.359     | 470.903     |
| 42.5  | 410.175    | 422.012     | 441.568     | 450.317     | 451.861     |
| 45.0  | 387.016    | 400.911     | 420.982     | 430.246     | 432.819     |
| 47.5  | 363.342    | 379.296     | 399.882     | 410.175     | 413.263     |
| 50.0  | 340.183    | 357.166     | 378.267     | 389.074     | 392.677     |
| 52.5  | 317.538    | 334.522     | 357.166     | 369.518     | 372.606     |
| 55.0  | 292.835    | 310.848     | 335.036     | 348.417     | 351.505     |
| 57.5  | 268.132    | 288.718     | 312.906     | 326.802     | 331.434     |
| 60.0  | 244.458    | 266.073     | 290.776     | 305.701     | 311.362     |
| 62.5  | 220.269    | 242.399     | 268.132     | 284.086     | 289.232     |
| 65.0  | 196.596    | 218.726     | 245.487     | 262.471     | 267.617     |
| 67.5  | 171.378    | 196.596     | 223.872     | 240.856     | 247.031     |
| 70.0  | 148.219    | 172.922     | 201.227     | 219.240     | 226.445     |
| 72.5  | 125.060    | 150.792     | 178.583     | 198.140     | 204.830     |
| 75.0  | 102.415    | 128.148     | 157.997     | 177.554     | 184.244     |
| 77.5  | 79.770     | 107.047     | 136.897     | 157.482     | 164.688     |
| 80.0  | 59.185     | 86.976      | 117.340     | 138.440     | 146.160     |
| 82.5  | 41.172     | 68.963      | 99.842      | 120.942     | 129.177     |
| 85.0  | 25.732     | 53.523      | 84.917      | 106.018     | 112.708     |
| 87.5  | 14.410     | 41.172      | 71.536      | 92.637      | 98.813      |
| 90.0  | 5.146      | 31.394      | 61.758      | 82.344      | 89.034      |
| 92.5  | 22.642     | 48.886      | 77.702      | 97.256      | 103.946     |
| 95.0  | 43.225     | 68.954      | 97.771      | 116.811     | 122.986     |
| 97.5  | 65.867     | 90.052      | 118.354     | 137.394     | 143.569     |
| 100.0 | 88.508     | 112.179     | 140.482     | 159.007     | 165.182     |
| 102.5 | 113.209    | 134.821     | 163.123     | 181.134     | 186.794     |
| 105.0 | 138.938    | 160.036     | 186.794     | 204.290     | 209.436     |
| 107.5 | 166.211    | 185.250     | 212.523     | 228.990     | 233.621     |
| 110.0 | 195.028    | 211.494     | 237.223     | 253.690     | 258.321     |
| 112.5 | 223.844    | 239.796     | 263.982     | 280.449     | 284.051     |
| 115.0 | 253.175    | 267.584     | 290.226     | 307.721     | 309.780     |
| 117.5 | 282.507    | 295.371     | 317.498     | 333.451     | 336.024     |
| 120.0 | 310.809    | 323.674     | 345.286     | 357.122     | 361.753     |
| 122.5 | 339.111    | 351.976     | 373.074     | 383.880     | 388.511     |
| 125.0 | 369.472    | 383.365     | 401.376     | 410.124     | 415.270     |
| 127.5 | 399.317    | 412.697     | 430.707     | 437.397     | 442.028     |
| 130.0 | 428.649    | 442.028     | 458.495     | 464.155     | 468.786     |
| 132.5 | 457.466    | 469.815     | 485.768     | 491.428     | 494.516     |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-B-835-F-DL-ITL90629 ITL85125.002.IES****CANDELA TABULATION - (Cont.)**

|              |         |         |         |         |         |
|--------------|---------|---------|---------|---------|---------|
| <b>135.0</b> | 486.797 | 498.118 | 513.041 | 519.216 | 521.274 |
| <b>137.5</b> | 514.584 | 523.332 | 539.284 | 545.459 | 546.489 |
| <b>140.0</b> | 543.916 | 549.576 | 565.528 | 571.703 | 572.218 |
| <b>142.5</b> | 571.189 | 575.305 | 590.743 | 595.889 | 596.918 |
| <b>145.0</b> | 598.462 | 598.462 | 616.472 | 620.074 | 620.589 |
| <b>147.5</b> | 623.676 | 623.162 | 640.143 | 642.716 | 643.745 |
| <b>150.0</b> | 647.347 | 646.832 | 660.212 | 664.843 | 665.357 |
| <b>152.5</b> | 670.503 | 667.931 | 680.280 | 685.426 | 683.883 |
| <b>155.0</b> | 691.601 | 687.999 | 698.806 | 703.951 | 702.408 |
| <b>157.5</b> | 711.156 | 707.039 | 716.816 | 720.418 | 719.904 |
| <b>160.0</b> | 728.651 | 724.020 | 732.768 | 734.826 | 735.341 |
| <b>162.5</b> | 745.118 | 740.487 | 748.720 | 749.749 | 750.264 |
| <b>165.0</b> | 759.527 | 755.410 | 761.070 | 762.614 | 763.129 |
| <b>167.5</b> | 771.362 | 767.760 | 771.362 | 773.420 | 773.935 |
| <b>170.0</b> | 781.139 | 779.081 | 780.625 | 782.168 | 782.683 |
| <b>172.5</b> | 788.343 | 787.829 | 788.343 | 788.858 | 789.372 |
| <b>175.0</b> | 793.489 | 793.489 | 794.004 | 794.004 | 793.489 |
| <b>177.5</b> | 797.606 | 797.091 | 797.091 | 797.091 | 797.606 |
| <b>180.0</b> | 798.635 | 798.635 | 798.635 | 798.635 | 798.635 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-B-835-F-DL-ITL90629 ITL85125.002.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 235.15  | N.A.  | 5.60   |
| 0-30    | 496.02  | N.A.  | 11.70  |
| 0-40    | 806.49  | N.A.  | 19.10  |
| 0-60    | 1421.74 | N.A.  | 33.60  |
| 0-80    | 1820.11 | N.A.  | 43.10  |
| 0-90    | 1907.63 | N.A.  | 45.10  |
| 10-90   | 1846.64 | N.A.  | 43.70  |
| 20-40   | 571.34  | N.A.  | 13.50  |
| 20-50   | 892.02  | N.A.  | 21.10  |
| 40-70   | 852.86  | N.A.  | 20.20  |
| 60-80   | 398.37  | N.A.  | 9.40   |
| 70-80   | 160.76  | N.A.  | 3.80   |
| 80-90   | 87.52   | N.A.  | 2.10   |
| 90-110  | 293.50  | N.A.  | 6.90   |
| 90-120  | 577.35  | N.A.  | 13.70  |
| 90-130  | 932.40  | N.A.  | 22.10  |
| 90-150  | 1706.84 | N.A.  | 40.40  |
| 90-180  | 2317.6  | N.A.  | 54.90  |
| 110-180 | 2024.1  | N.A.  | 47.90  |
| 0-180   | 4225.23 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 60.99  |
| 10-20   | 174.16 |
| 20-30   | 260.87 |
| 30-40   | 310.47 |
| 40-50   | 320.69 |
| 50-60   | 294.56 |
| 60-70   | 237.62 |
| 70-80   | 160.76 |
| 80-90   | 87.52  |
| 90-100  | 101.15 |
| 100-110 | 192.35 |
| 110-120 | 283.85 |
| 120-130 | 355.05 |
| 130-140 | 392.14 |
| 140-150 | 382.29 |
| 150-160 | 321.10 |
| 160-170 | 214.29 |
| 170-180 | 75.37  |

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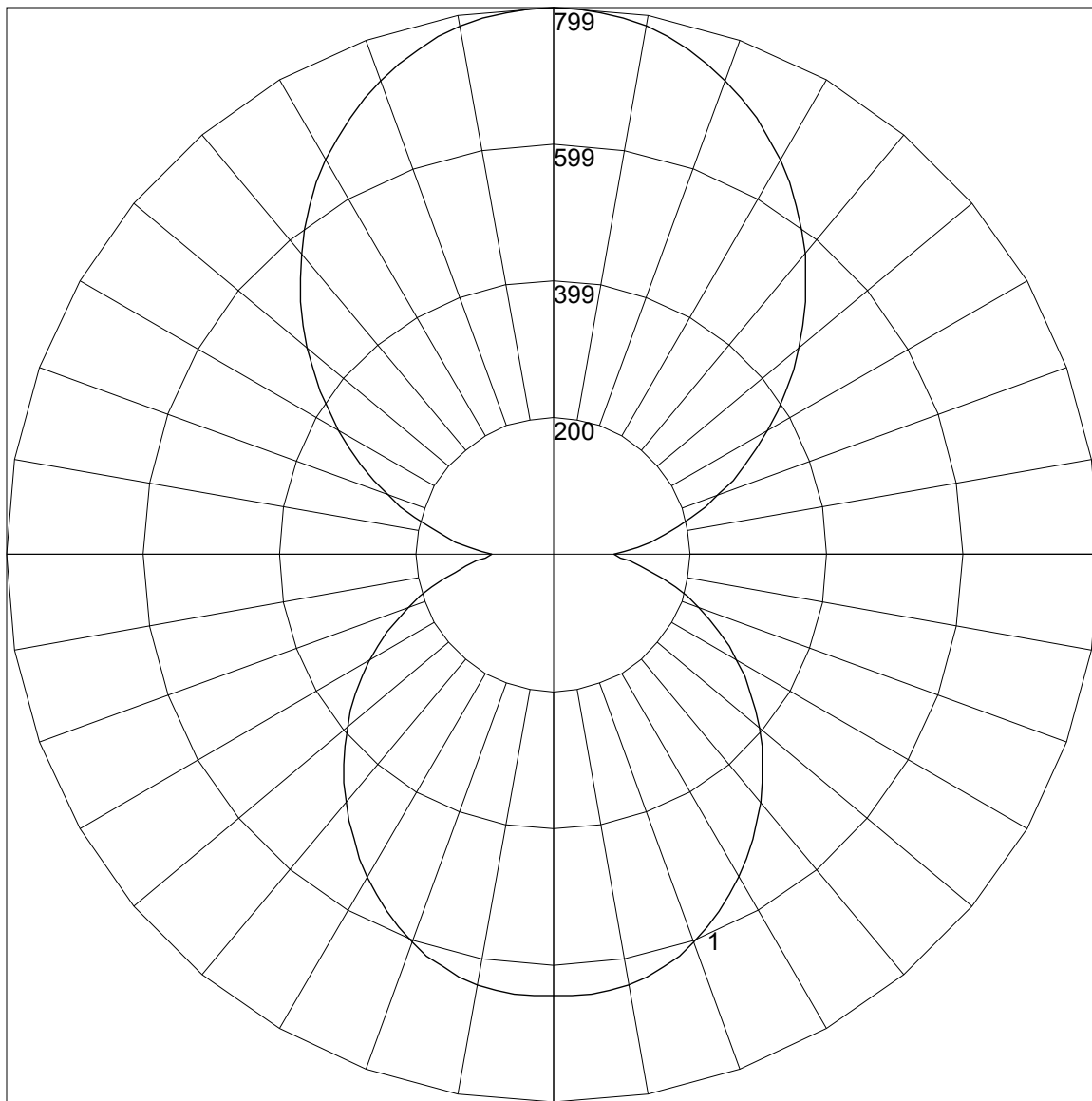
PHOTOMETRIC FILENAME : HP-4-ID-4FT-B-B-835-F-DL-ITL90629 ITL85125.002.IES

## 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  | 96  | 91  | 87  | 84  | 88 | 84 | 80 | 77 | 70 | 67 | 65 | 57 | 55 | 53 | 45 | 43 | 42 | 37 |
| 2  | 87  | 79  | 73  | 68  | 79 | 73 | 67 | 63 | 61 | 57 | 53 | 49 | 46 | 44 | 39 | 37 | 35 | 30 |
| 3  | 79  | 70  | 62  | 56  | 72 | 64 | 57 | 52 | 53 | 48 | 44 | 43 | 40 | 37 | 34 | 32 | 29 | 25 |
| 4  | 72  | 61  | 53  | 47  | 66 | 56 | 49 | 44 | 47 | 42 | 37 | 38 | 34 | 31 | 30 | 28 | 25 | 21 |
| 5  | 66  | 55  | 46  | 40  | 60 | 50 | 43 | 38 | 42 | 36 | 32 | 34 | 30 | 27 | 27 | 24 | 22 | 18 |
| 6  | 61  | 49  | 41  | 35  | 56 | 45 | 38 | 32 | 38 | 32 | 28 | 31 | 27 | 23 | 25 | 22 | 19 | 16 |
| 7  | 56  | 44  | 36  | 30  | 51 | 41 | 33 | 28 | 34 | 29 | 25 | 28 | 24 | 21 | 23 | 19 | 17 | 14 |
| 8  | 52  | 40  | 32  | 27  | 48 | 37 | 30 | 25 | 31 | 26 | 22 | 26 | 21 | 18 | 21 | 17 | 15 | 13 |
| 9  | 49  | 36  | 29  | 24  | 44 | 34 | 27 | 22 | 28 | 23 | 19 | 24 | 19 | 16 | 19 | 16 | 14 | 11 |
| 10 | 45  | 33  | 26  | 21  | 42 | 31 | 24 | 20 | 26 | 21 | 17 | 22 | 18 | 15 | 18 | 15 | 12 | 10 |

POLAR GRAPH



Maximum Candela = 798.635 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)