

# 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-V-B-835-F-DL-ITL90629 ITL85125.005.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90629 ITL85125.005 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/09/18

[ISSUEDATE]08/10/18

[MANUFAC]FINELITE, INC.

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

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 55.5 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 57.6 WATTS

[\_ABSOLUTE]LUMENS]6404

[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                | 6404                |
| Total Luminaire Efficiency      | N.A.                |
| Luminaire Efficacy Rating (LER) | 115                 |
| Total Luminaire Watts           | 55.5                |
| Ballast Factor                  | 1.00                |
| CIE Type                        | Semi-Indirect       |
| 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             | 4141              | 4051              |
| 55                  | 4128             | 3795              | 3729              |
| 65                  | 3708             | 3399              | 3394              |
| 75                  | 3057             | 2928              | 3019              |
| 85                  | 1986             | 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   | 643.902    | 643.902     | 643.902     | 643.902     | 643.902     |
| 2.5   | 642.873    | 642.873     | 643.388     | 643.902     | 644.417     |
| 5.0   | 639.784    | 640.299     | 641.843     | 642.873     | 643.388     |
| 7.5   | 635.152    | 636.696     | 639.270     | 640.299     | 641.329     |
| 10.0  | 628.976    | 630.005     | 634.123     | 636.182     | 637.211     |
| 12.5  | 621.255    | 621.255     | 627.946     | 631.034     | 631.034     |
| 15.0  | 610.961    | 611.476     | 619.711     | 622.799     | 622.799     |
| 17.5  | 599.122    | 600.152     | 609.417     | 613.534     | 613.534     |
| 20.0  | 585.740    | 586.769     | 597.063     | 601.696     | 601.696     |
| 22.5  | 570.299    | 572.357     | 584.196     | 588.828     | 588.313     |
| 25.0  | 554.343    | 556.916     | 569.269     | 574.416     | 574.931     |
| 27.5  | 536.328    | 540.446     | 554.343     | 558.975     | 559.490     |
| 30.0  | 517.798    | 522.431     | 536.842     | 542.504     | 543.534     |
| 32.5  | 498.239    | 503.901     | 519.857     | 525.519     | 526.034     |
| 35.0  | 475.592    | 483.827     | 500.813     | 507.504     | 508.019     |
| 37.5  | 454.489    | 464.783     | 481.769     | 487.945     | 490.519     |
| 40.0  | 433.386    | 443.680     | 462.210     | 469.416     | 470.960     |
| 42.5  | 410.224    | 422.062     | 441.621     | 450.371     | 451.915     |
| 45.0  | 387.062    | 400.959     | 421.033     | 430.298     | 432.871     |
| 47.5  | 363.385    | 379.341     | 399.930     | 410.224     | 413.312     |
| 50.0  | 340.223    | 357.209     | 378.312     | 389.121     | 392.724     |
| 52.5  | 317.576    | 334.562     | 357.209     | 369.562     | 372.650     |
| 55.0  | 292.870    | 310.885     | 335.076     | 348.459     | 351.547     |
| 57.5  | 268.164    | 288.752     | 312.944     | 326.841     | 331.473     |
| 60.0  | 244.487    | 266.105     | 290.811     | 305.738     | 311.399     |
| 62.5  | 220.296    | 242.428     | 268.164     | 284.120     | 289.267     |
| 65.0  | 196.619    | 218.752     | 245.517     | 262.502     | 267.649     |
| 67.5  | 171.398    | 196.619     | 223.899     | 240.884     | 247.061     |
| 70.0  | 148.237    | 172.943     | 201.252     | 219.266     | 226.472     |
| 72.5  | 125.075    | 150.810     | 178.604     | 198.163     | 204.855     |
| 75.0  | 102.427    | 128.163     | 158.016     | 177.575     | 184.266     |
| 77.5  | 79.780     | 107.060     | 136.913     | 157.501     | 164.707     |
| 80.0  | 59.192     | 86.986      | 117.354     | 138.457     | 146.178     |
| 82.5  | 41.177     | 68.971      | 99.854      | 120.957     | 129.192     |
| 85.0  | 25.735     | 53.530      | 84.927      | 106.030     | 112.722     |
| 87.5  | 14.412     | 41.177      | 71.545      | 92.648      | 98.824      |
| 90.0  | 5.147      | 31.397      | 61.765      | 82.354      | 89.045      |
| 92.5  | 44.000     | 95.000      | 151.000     | 189.000     | 202.000     |
| 95.0  | 84.000     | 134.000     | 190.000     | 227.000     | 239.000     |
| 97.5  | 128.000    | 175.000     | 230.000     | 267.000     | 279.000     |
| 100.0 | 172.000    | 218.000     | 273.000     | 309.000     | 321.000     |
| 102.5 | 220.000    | 262.000     | 317.000     | 352.000     | 363.000     |
| 105.0 | 270.000    | 311.000     | 363.000     | 397.000     | 407.000     |
| 107.5 | 323.000    | 360.000     | 413.000     | 445.000     | 454.000     |
| 110.0 | 379.000    | 411.000     | 461.000     | 493.000     | 502.000     |
| 112.5 | 435.000    | 466.000     | 513.000     | 545.000     | 552.000     |
| 115.0 | 492.000    | 520.000     | 564.000     | 598.000     | 602.000     |
| 117.5 | 549.000    | 574.000     | 617.000     | 648.000     | 653.000     |
| 120.0 | 604.000    | 629.000     | 671.000     | 694.000     | 703.000     |
| 122.5 | 659.000    | 684.000     | 725.000     | 746.000     | 755.000     |
| 125.0 | 718.000    | 745.000     | 780.000     | 797.000     | 807.000     |
| 127.5 | 776.000    | 802.000     | 837.000     | 850.000     | 859.000     |
| 130.0 | 833.000    | 859.000     | 891.000     | 902.000     | 911.000     |
| 132.5 | 889.000    | 913.000     | 944.000     | 955.000     | 961.000     |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-V-B-835-F-DL-ITL90629 ITL85125.005.IES****CANDELA TABULATION - (Cont.)**

|              |          |          |          |          |          |
|--------------|----------|----------|----------|----------|----------|
| <b>135.0</b> | 946.000  | 968.000  | 997.000  | 1009.000 | 1013.000 |
| <b>137.5</b> | 1000.000 | 1017.000 | 1048.000 | 1060.000 | 1062.000 |
| <b>140.0</b> | 1057.000 | 1068.000 | 1099.000 | 1111.000 | 1112.000 |
| <b>142.5</b> | 1110.000 | 1118.000 | 1148.000 | 1158.000 | 1160.000 |
| <b>145.0</b> | 1163.000 | 1163.000 | 1198.000 | 1205.000 | 1206.000 |
| <b>147.5</b> | 1212.000 | 1211.000 | 1244.000 | 1249.000 | 1251.000 |
| <b>150.0</b> | 1258.000 | 1257.000 | 1283.000 | 1292.000 | 1293.000 |
| <b>152.5</b> | 1303.000 | 1298.000 | 1322.000 | 1332.000 | 1329.000 |
| <b>155.0</b> | 1344.000 | 1337.000 | 1358.000 | 1368.000 | 1365.000 |
| <b>157.5</b> | 1382.000 | 1374.000 | 1393.000 | 1400.000 | 1399.000 |
| <b>160.0</b> | 1416.000 | 1407.000 | 1424.000 | 1428.000 | 1429.000 |
| <b>162.5</b> | 1448.000 | 1439.000 | 1455.000 | 1457.000 | 1458.000 |
| <b>165.0</b> | 1476.000 | 1468.000 | 1479.000 | 1482.000 | 1483.000 |
| <b>167.5</b> | 1499.000 | 1492.000 | 1499.000 | 1503.000 | 1504.000 |
| <b>170.0</b> | 1518.000 | 1514.000 | 1517.000 | 1520.000 | 1521.000 |
| <b>172.5</b> | 1532.000 | 1531.000 | 1532.000 | 1533.000 | 1534.000 |
| <b>175.0</b> | 1542.000 | 1542.000 | 1543.000 | 1543.000 | 1542.000 |
| <b>177.5</b> | 1550.000 | 1549.000 | 1549.000 | 1549.000 | 1550.000 |
| <b>180.0</b> | 1552.000 | 1552.000 | 1552.000 | 1552.000 | 1552.000 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-4FT-V-B-835-F-DL-ITL90629 ITL85125.005.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 235.18  | N.A.  | 3.70   |
| 0-30    | 496.08  | N.A.  | 7.70   |
| 0-40    | 806.58  | N.A.  | 12.60  |
| 0-60    | 1421.91 | N.A.  | 22.20  |
| 0-80    | 1820.33 | N.A.  | 28.40  |
| 0-90    | 1907.86 | N.A.  | 29.80  |
| 10-90   | 1846.86 | N.A.  | 28.80  |
| 20-40   | 571.40  | N.A.  | 8.90   |
| 20-50   | 892.13  | N.A.  | 13.90  |
| 40-70   | 852.97  | N.A.  | 13.30  |
| 60-80   | 398.42  | N.A.  | 6.20   |
| 70-80   | 160.78  | N.A.  | 2.50   |
| 80-90   | 87.53   | N.A.  | 1.40   |
| 90-110  | 563.17  | N.A.  | 8.80   |
| 90-120  | 1114.79 | N.A.  | 17.40  |
| 90-130  | 1804.76 | N.A.  | 28.20  |
| 90-150  | 3309.73 | N.A.  | 51.70  |
| 90-180  | 4496.63 | N.A.  | 70.20  |
| 110-180 | 3933.46 | N.A.  | 61.40  |
| 0-180   | 6404.49 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 61.00  |
| 10-20   | 174.18 |
| 20-30   | 260.90 |
| 30-40   | 310.50 |
| 40-50   | 320.73 |
| 50-60   | 294.59 |
| 60-70   | 237.64 |
| 70-80   | 160.78 |
| 80-90   | 87.53  |
| 90-100  | 189.37 |
| 100-110 | 373.80 |
| 110-120 | 551.62 |
| 120-130 | 689.98 |
| 130-140 | 762.06 |
| 140-150 | 742.91 |
| 150-160 | 624.00 |
| 160-170 | 416.44 |
| 170-180 | 146.46 |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-4-ID-4FT-V-B-835-F-DL-ITL90629 ITL85125.005.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

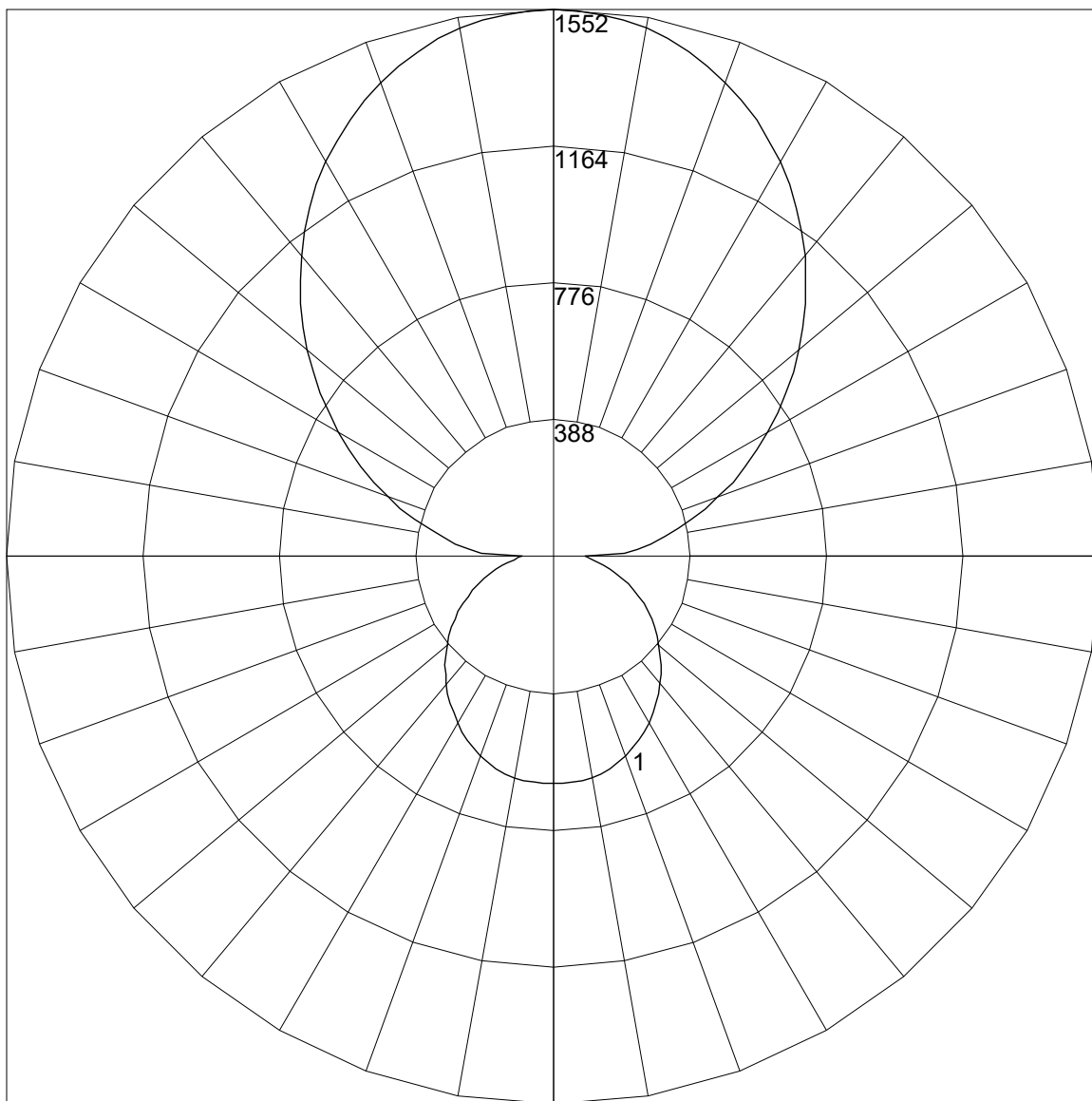
Effective Floor Cavity Reflectance 0.20

| 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  | 102 | 102 | 102 | 102 | 92 | 92 | 92 | 92 | 72 | 72 | 72 | 54 | 54 | 54 | 38 | 38 | 38 | 30 |
| 1  | 93  | 88  | 84  | 81  | 83 | 79 | 76 | 73 | 62 | 60 | 58 | 47 | 45 | 44 | 32 | 32 | 31 | 24 |
| 2  | 84  | 77  | 71  | 66  | 75 | 69 | 64 | 60 | 54 | 51 | 48 | 41 | 38 | 36 | 28 | 27 | 26 | 20 |
| 3  | 77  | 67  | 60  | 54  | 68 | 61 | 54 | 49 | 48 | 43 | 40 | 36 | 33 | 30 | 25 | 23 | 22 | 17 |
| 4  | 70  | 59  | 52  | 46  | 62 | 53 | 47 | 42 | 42 | 37 | 34 | 32 | 29 | 26 | 22 | 20 | 18 | 14 |
| 5  | 64  | 53  | 45  | 39  | 57 | 48 | 41 | 36 | 38 | 33 | 29 | 28 | 25 | 22 | 20 | 18 | 16 | 12 |
| 6  | 59  | 47  | 39  | 34  | 53 | 43 | 36 | 31 | 34 | 29 | 25 | 26 | 22 | 19 | 18 | 16 | 14 | 11 |
| 7  | 54  | 42  | 35  | 29  | 49 | 38 | 32 | 27 | 30 | 25 | 22 | 23 | 20 | 17 | 16 | 14 | 12 | 9  |
| 8  | 50  | 38  | 31  | 26  | 45 | 35 | 28 | 23 | 28 | 23 | 19 | 21 | 18 | 15 | 15 | 13 | 11 | 8  |
| 9  | 47  | 35  | 28  | 23  | 42 | 32 | 25 | 21 | 25 | 20 | 17 | 19 | 16 | 13 | 14 | 12 | 10 | 8  |
| 10 | 44  | 32  | 25  | 20  | 39 | 29 | 23 | 18 | 23 | 18 | 15 | 18 | 14 | 12 | 13 | 11 | 9  | 7  |

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POLAR GRAPH



Maximum Candela = 1552 Located At Horizontal Angle = 0, Vertical Angle = 180

# 1 - Vertical Plane Through Horizontal Angles (90 - 270)