

# 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-RG-4FT-S-S-835-TG-F-ITL90353.001.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353.001 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/03/18

[ISSUEDATE]05/18/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-ID-RG-4ft-S-S-835-TG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 28.7 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 31.5 WATTS

[\_ABSOLUTE]LUMENS]3249

[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90353. 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                | 3249            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 113             |
| Total Luminaire Watts           | 28.7            |
| 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     |
| Luminous Length (0-180)         | 4.00 ft         |
| Luminous Width (90-270)         | 0.33 ft         |
| Luminous Height                 | 0.00 ft         |

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

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 4278             | 3908              | 3624              |
| 55                  | 3988             | 3438              | 3070              |
| 65                  | 3627             | 2841              | 2373              |
| 75                  | 3162             | 1957              | 1490              |
| 85                  | 2309             | 1270              | 1193              |

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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   | 616.888    | 616.888     | 616.888     | 616.888     | 616.888     |
| 2.5   | 615.660    | 615.251     | 615.660     | 615.660     | 615.660     |
| 5.0   | 612.795    | 612.386     | 612.386     | 612.795     | 613.204     |
| 7.5   | 608.292    | 607.883     | 607.883     | 607.883     | 607.473     |
| 10.0  | 602.561    | 600.514     | 601.333     | 600.105     | 598.468     |
| 12.5  | 594.374    | 591.918     | 591.918     | 589.462     | 586.597     |
| 15.0  | 584.959    | 580.866     | 580.456     | 577.182     | 573.088     |
| 17.5  | 573.497    | 568.585     | 566.538     | 562.036     | 557.942     |
| 20.0  | 559.989    | 554.258     | 550.983     | 544.843     | 541.159     |
| 22.5  | 545.252    | 539.112     | 533.791     | 526.422     | 522.329     |
| 25.0  | 529.288    | 522.329     | 515.370     | 506.364     | 502.271     |
| 27.5  | 512.095    | 504.317     | 495.312     | 485.487     | 480.985     |
| 30.0  | 493.265    | 485.487     | 474.844     | 463.792     | 458.470     |
| 32.5  | 473.616    | 465.839     | 453.149     | 440.868     | 434.319     |
| 35.0  | 453.968    | 444.962     | 431.044     | 417.536     | 410.577     |
| 37.5  | 433.500    | 423.266     | 407.711     | 392.565     | 386.425     |
| 40.0  | 412.214    | 401.571     | 383.969     | 368.823     | 361.864     |
| 42.5  | 390.928    | 379.057     | 361.045     | 344.262     | 337.303     |
| 45.0  | 369.232    | 356.543     | 337.303     | 319.292     | 312.742     |
| 47.5  | 347.537    | 333.619     | 313.561     | 294.731     | 288.181     |
| 50.0  | 325.023    | 310.286     | 289.000     | 269.761     | 263.211     |
| 52.5  | 302.099    | 286.953     | 264.849     | 245.609     | 239.060     |
| 55.0  | 279.176    | 264.030     | 240.697     | 221.458     | 214.908     |
| 57.5  | 256.662    | 240.697     | 216.955     | 197.715     | 191.166     |
| 60.0  | 233.738    | 217.364     | 193.213     | 173.973     | 167.424     |
| 62.5  | 210.815    | 194.031     | 169.470     | 150.640     | 144.500     |
| 65.0  | 187.072    | 171.108     | 146.547     | 128.126     | 122.395     |
| 67.5  | 164.558    | 148.184     | 123.623     | 106.431     | 100.700     |
| 70.0  | 142.044    | 125.670     | 101.928     | 85.145      | 80.232      |
| 72.5  | 119.939    | 103.975     | 81.460      | 65.905      | 60.993      |
| 75.0  | 99.881     | 83.098      | 61.812      | 49.122      | 47.075      |
| 77.5  | 79.414     | 63.449      | 44.210      | 39.297      | 38.888      |
| 80.0  | 59.765     | 44.619      | 31.929      | 30.701      | 30.701      |
| 82.5  | 42.572     | 27.017      | 22.924      | 22.105      | 22.105      |
| 85.0  | 24.561     | 14.737      | 13.509      | 13.099      | 12.690      |
| 87.5  | 7.778      | 4.912       | 4.503       | 4.503       | 4.093       |
| 90.0  | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| 92.5  | 12.280     | 13.509      | 14.737      | 15.146      | 15.146      |
| 95.0  | 30.701     | 31.929      | 33.157      | 34.385      | 34.795      |
| 97.5  | 49.531     | 51.169      | 53.215      | 54.853      | 55.262      |
| 100.0 | 69.589     | 71.227      | 73.683      | 75.729      | 75.729      |
| 102.5 | 90.466     | 92.103      | 94.969      | 97.425      | 97.425      |
| 105.0 | 112.980    | 115.027     | 117.483     | 119.939     | 119.939     |
| 107.5 | 136.313    | 137.950     | 140.407     | 143.272     | 142.863     |
| 110.0 | 160.465    | 161.693     | 164.149     | 166.605     | 166.605     |
| 112.5 | 185.026    | 186.254     | 188.710     | 191.166     | 190.756     |
| 115.0 | 210.405    | 211.224     | 214.089     | 216.136     | 215.317     |
| 117.5 | 235.785    | 235.785     | 239.060     | 239.878     | 240.288     |
| 120.0 | 261.574    | 261.574     | 264.030     | 265.258     | 265.667     |
| 122.5 | 287.772    | 287.772     | 289.409     | 290.638     | 291.866     |
| 125.0 | 313.152    | 312.742     | 314.380     | 316.017     | 316.836     |
| 127.5 | 338.531    | 337.713     | 339.759     | 340.987     | 342.625     |
| 130.0 | 363.911    | 362.683     | 364.730     | 366.367     | 367.186     |
| 132.5 | 388.062    | 386.425     | 388.881     | 390.928     | 391.337     |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-S-835-TG-F-ITL90353.001.IES****CANDELA TABULATION - (Cont.)**

|              |         |         |         |         |         |
|--------------|---------|---------|---------|---------|---------|
| <b>135.0</b> | 413.442 | 410.577 | 413.851 | 415.898 | 415.898 |
| <b>137.5</b> | 438.003 | 434.319 | 438.003 | 439.231 | 439.640 |
| <b>140.0</b> | 460.927 | 457.242 | 462.155 | 462.155 | 462.973 |
| <b>142.5</b> | 484.669 | 480.166 | 485.078 | 485.078 | 484.259 |
| <b>145.0</b> | 508.002 | 502.271 | 507.592 | 507.183 | 506.364 |
| <b>147.5</b> | 529.697 | 523.557 | 528.878 | 528.469 | 526.832 |
| <b>150.0</b> | 549.755 | 543.615 | 548.936 | 548.118 | 547.299 |
| <b>152.5</b> | 568.995 | 563.264 | 568.585 | 567.357 | 566.129 |
| <b>155.0</b> | 587.006 | 581.684 | 586.597 | 585.778 | 583.731 |
| <b>157.5</b> | 603.380 | 598.058 | 602.970 | 600.924 | 599.696 |
| <b>160.0</b> | 618.935 | 614.432 | 618.526 | 616.479 | 614.432 |
| <b>162.5</b> | 632.444 | 628.350 | 631.625 | 629.578 | 628.350 |
| <b>165.0</b> | 644.315 | 641.040 | 643.087 | 641.859 | 640.631 |
| <b>167.5</b> | 654.548 | 652.092 | 653.320 | 652.502 | 651.683 |
| <b>170.0</b> | 662.735 | 661.507 | 661.917 | 661.507 | 660.689 |
| <b>172.5</b> | 668.876 | 668.876 | 668.876 | 668.057 | 668.057 |
| <b>175.0</b> | 673.788 | 673.788 | 673.788 | 673.378 | 673.378 |
| <b>177.5</b> | 677.063 | 677.063 | 677.063 | 677.063 | 677.063 |
| <b>180.0</b> | 677.881 | 677.881 | 677.881 | 677.881 | 677.881 |

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**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 221.18  | N.A.  | 6.80   |
| 0-30    | 458.10  | N.A.  | 14.10  |
| 0-40    | 727.67  | N.A.  | 22.40  |
| 0-60    | 1206.33 | N.A.  | 37.10  |
| 0-80    | 1427.84 | N.A.  | 43.90  |
| 0-90    | 1445.54 | N.A.  | 44.50  |
| 10-90   | 1387.44 | N.A.  | 42.70  |
| 20-40   | 506.49  | N.A.  | 15.60  |
| 20-50   | 767.57  | N.A.  | 23.60  |
| 40-70   | 627.46  | N.A.  | 19.30  |
| 60-80   | 221.50  | N.A.  | 6.80   |
| 70-80   | 72.71   | N.A.  | 2.20   |
| 80-90   | 17.71   | N.A.  | 0.50   |
| 90-110  | 161.41  | N.A.  | 5.00   |
| 90-120  | 372.72  | N.A.  | 11.50  |
| 90-130  | 654.00  | N.A.  | 20.10  |
| 90-150  | 1289.41 | N.A.  | 39.70  |
| 90-180  | 1803.57 | N.A.  | 55.50  |
| 110-180 | 1642.16 | N.A.  | 50.50  |
| 0-180   | 3249.11 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 58.11  |
| 10-20   | 163.08 |
| 20-30   | 236.92 |
| 30-40   | 269.57 |
| 40-50   | 261.09 |
| 50-60   | 217.57 |
| 60-70   | 148.80 |
| 70-80   | 72.71  |
| 80-90   | 17.71  |
| 90-100  | 37.24  |
| 100-110 | 124.16 |
| 110-120 | 211.32 |
| 120-130 | 281.28 |
| 130-140 | 319.05 |
| 140-150 | 316.36 |
| 150-160 | 269.19 |
| 160-170 | 181.05 |
| 170-180 | 63.93  |

# IES INDOOR REPORT

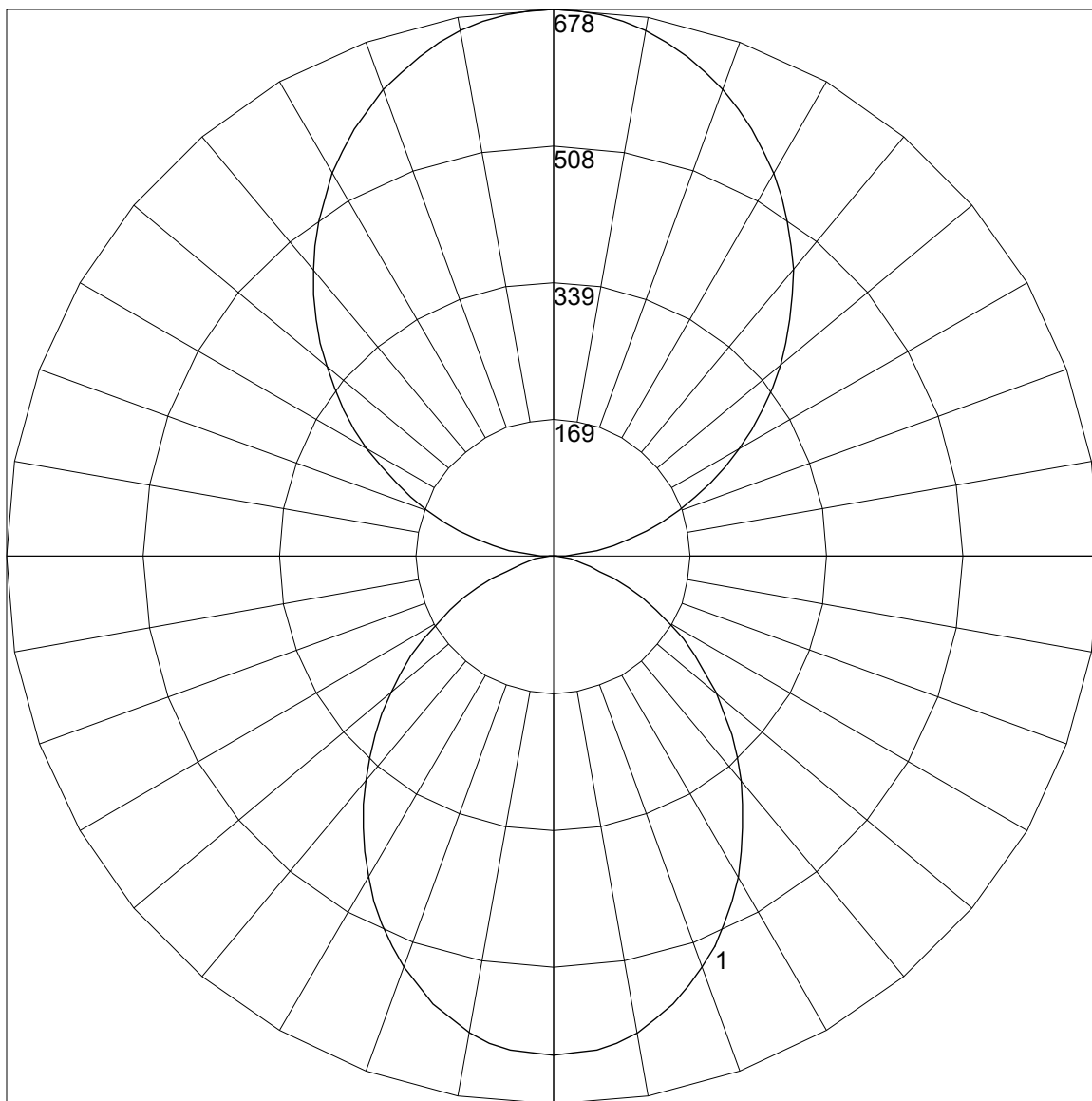
PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-S-S-835-TG-F-ITL90353.001.IES

## 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 | 80 | 80 | 80 | 65 | 65 | 65 | 51 | 51 | 51 | 44 |
| 1  | 97  | 93  | 89  | 86  | 89 | 85 | 82 | 79 | 71 | 69 | 66 | 58 | 56 | 55 | 46 | 45 | 44 | 38 |
| 2  | 88  | 81  | 75  | 70  | 81 | 75 | 70 | 65 | 62 | 59 | 55 | 51 | 48 | 46 | 40 | 39 | 37 | 32 |
| 3  | 81  | 72  | 64  | 59  | 74 | 66 | 60 | 55 | 55 | 51 | 47 | 45 | 42 | 39 | 36 | 34 | 32 | 28 |
| 4  | 74  | 63  | 56  | 50  | 67 | 58 | 52 | 46 | 49 | 44 | 40 | 40 | 37 | 34 | 32 | 30 | 28 | 24 |
| 5  | 68  | 57  | 49  | 43  | 62 | 52 | 45 | 40 | 44 | 39 | 35 | 36 | 32 | 29 | 29 | 26 | 24 | 21 |
| 6  | 63  | 51  | 43  | 37  | 57 | 47 | 40 | 35 | 40 | 34 | 30 | 33 | 29 | 26 | 26 | 24 | 21 | 18 |
| 7  | 58  | 46  | 38  | 33  | 53 | 42 | 36 | 31 | 36 | 31 | 27 | 30 | 26 | 23 | 24 | 21 | 19 | 16 |
| 8  | 54  | 42  | 34  | 29  | 49 | 39 | 32 | 27 | 33 | 28 | 24 | 27 | 23 | 20 | 22 | 19 | 17 | 15 |
| 9  | 50  | 38  | 31  | 26  | 46 | 35 | 29 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 21 | 18 | 15 | 13 |
| 10 | 47  | 35  | 28  | 23  | 43 | 32 | 26 | 22 | 28 | 23 | 19 | 23 | 19 | 17 | 19 | 16 | 14 | 12 |

POLAR GRAPH



Maximum Candela = 677.881 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)