

# 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-B-B-835-TG-F-ITL90353.002.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353.002 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-B-B-835-TG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 36.4 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 38.8 WATTS

[\_ABSOLUTE]LUMENS]4085

[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                | 4085            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 112             |
| Total Luminaire Watts           | 36.4            |
| 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                  | 5379             | 4914              | 4556              |
| 55                  | 5014             | 4323              | 3860              |
| 65                  | 4560             | 3572              | 2983              |
| 75                  | 3975             | 2460              | 1874              |
| 85                  | 2903             | 1597              | 1500              |

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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   | 775.620    | 775.620     | 775.620     | 775.620     | 775.620     |
| 2.5   | 774.076    | 773.561     | 774.076     | 774.076     | 774.076     |
| 5.0   | 770.473    | 769.958     | 769.958     | 770.473     | 770.988     |
| 7.5   | 764.812    | 764.297     | 764.297     | 764.297     | 763.782     |
| 10.0  | 757.606    | 755.033     | 756.062     | 754.518     | 752.459     |
| 12.5  | 747.313    | 744.225     | 744.225     | 741.136     | 737.534     |
| 15.0  | 735.475    | 730.328     | 729.814     | 725.696     | 720.549     |
| 17.5  | 721.064    | 714.888     | 712.315     | 706.653     | 701.506     |
| 20.0  | 704.080    | 696.874     | 692.757     | 685.037     | 680.404     |
| 22.5  | 685.551    | 677.831     | 671.140     | 661.876     | 656.729     |
| 25.0  | 665.479    | 656.729     | 647.980     | 636.657     | 631.510     |
| 27.5  | 643.862    | 634.083     | 622.761     | 610.408     | 604.747     |
| 30.0  | 620.187    | 610.408     | 597.027     | 583.130     | 576.439     |
| 32.5  | 595.483    | 585.704     | 569.749     | 554.308     | 546.073     |
| 35.0  | 570.778    | 559.455     | 541.956     | 524.972     | 516.222     |
| 37.5  | 545.044    | 532.177     | 512.619     | 493.576     | 485.856     |
| 40.0  | 518.281    | 504.899     | 482.768     | 463.725     | 454.975     |
| 42.5  | 491.518    | 476.592     | 453.946     | 432.844     | 424.095     |
| 45.0  | 464.240    | 448.285     | 424.095     | 401.449     | 393.214     |
| 47.5  | 436.962    | 419.463     | 394.243     | 370.568     | 362.333     |
| 50.0  | 408.654    | 390.126     | 363.363     | 339.173     | 330.938     |
| 52.5  | 379.832    | 360.789     | 332.997     | 308.807     | 300.572     |
| 55.0  | 351.010    | 331.967     | 302.631     | 278.441     | 270.206     |
| 57.5  | 322.703    | 302.631     | 272.779     | 248.590     | 240.355     |
| 60.0  | 293.881    | 273.294     | 242.928     | 218.738     | 210.503     |
| 62.5  | 265.059    | 243.957     | 213.077     | 189.402     | 181.681     |
| 65.0  | 235.208    | 215.135     | 184.255     | 161.094     | 153.889     |
| 67.5  | 206.901    | 186.313     | 155.433     | 133.816     | 126.611     |
| 70.0  | 178.593    | 158.006     | 128.155     | 107.053     | 100.877     |
| 72.5  | 150.801    | 130.728     | 102.421     | 82.863      | 76.687      |
| 75.0  | 125.581    | 104.480     | 77.716      | 61.761      | 59.188      |
| 77.5  | 99.848     | 79.775      | 55.585      | 49.409      | 48.894      |
| 80.0  | 75.143     | 56.100      | 40.145      | 38.601      | 38.601      |
| 82.5  | 53.527     | 33.969      | 28.822      | 27.793      | 27.793      |
| 85.0  | 30.881     | 18.528      | 16.984      | 16.470      | 15.955      |
| 87.5  | 9.779      | 6.176       | 5.661       | 5.661       | 5.147       |
| 90.0  | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| 92.5  | 15.440     | 16.984      | 18.528      | 19.043      | 19.043      |
| 95.0  | 38.601     | 40.145      | 41.689      | 43.233      | 43.748      |
| 97.5  | 62.276     | 64.335      | 66.908      | 68.967      | 69.482      |
| 100.0 | 87.495     | 89.554      | 92.642      | 95.215      | 95.215      |
| 102.5 | 113.744    | 115.803     | 119.405     | 122.493     | 122.493     |
| 105.0 | 142.051    | 144.625     | 147.713     | 150.801     | 150.801     |
| 107.5 | 171.388    | 173.447     | 176.535     | 180.137     | 179.623     |
| 110.0 | 201.754    | 203.298     | 206.386     | 209.474     | 209.474     |
| 112.5 | 232.635    | 234.179     | 237.267     | 240.355     | 239.840     |
| 115.0 | 264.545    | 265.574     | 269.177     | 271.750     | 270.721     |
| 117.5 | 296.455    | 296.455     | 300.572     | 301.601     | 302.116     |
| 120.0 | 328.879    | 328.879     | 331.967     | 333.511     | 334.026     |
| 122.5 | 361.819    | 361.819     | 363.877     | 365.421     | 366.965     |
| 125.0 | 393.729    | 393.214     | 395.273     | 397.332     | 398.361     |
| 127.5 | 425.639    | 424.609     | 427.183     | 428.727     | 430.786     |
| 130.0 | 457.549    | 456.005     | 458.578     | 460.637     | 461.666     |
| 132.5 | 487.915    | 485.856     | 488.944     | 491.518     | 492.032     |

CANDELA TABULATION - (Cont.)

|       |         |         |         |         |         |
|-------|---------|---------|---------|---------|---------|
| 135.0 | 519.825 | 516.222 | 520.340 | 522.913 | 522.913 |
| 137.5 | 550.706 | 546.073 | 550.706 | 552.250 | 552.764 |
| 140.0 | 579.528 | 574.895 | 581.072 | 581.072 | 582.101 |
| 142.5 | 609.379 | 603.717 | 609.894 | 609.894 | 608.864 |
| 145.0 | 638.716 | 631.510 | 638.201 | 637.686 | 636.657 |
| 147.5 | 665.993 | 658.273 | 664.964 | 664.449 | 662.391 |
| 150.0 | 691.213 | 683.493 | 690.183 | 689.154 | 688.125 |
| 152.5 | 715.403 | 708.197 | 714.888 | 713.344 | 711.800 |
| 155.0 | 738.048 | 731.358 | 737.534 | 736.504 | 733.931 |
| 157.5 | 758.636 | 751.945 | 758.121 | 755.547 | 754.003 |
| 160.0 | 778.193 | 772.532 | 777.679 | 775.105 | 772.532 |
| 162.5 | 795.178 | 790.031 | 794.148 | 791.575 | 790.031 |
| 165.0 | 810.103 | 805.986 | 808.559 | 807.015 | 805.471 |
| 167.5 | 822.970 | 819.882 | 821.426 | 820.397 | 819.368 |
| 170.0 | 833.264 | 831.720 | 832.235 | 831.720 | 830.690 |
| 172.5 | 840.984 | 840.984 | 840.984 | 839.955 | 839.955 |
| 175.0 | 847.160 | 847.160 | 847.160 | 846.646 | 846.646 |
| 177.5 | 851.278 | 851.278 | 851.278 | 851.278 | 851.278 |
| 180.0 | 852.307 | 852.307 | 852.307 | 852.307 | 852.307 |

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**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 278.10  | N.A.  | 6.80   |
| 0-30    | 575.98  | N.A.  | 14.10  |
| 0-40    | 914.91  | N.A.  | 22.40  |
| 0-60    | 1516.73 | N.A.  | 37.10  |
| 0-80    | 1795.23 | N.A.  | 43.90  |
| 0-90    | 1817.5  | N.A.  | 44.50  |
| 10-90   | 1744.44 | N.A.  | 42.70  |
| 20-40   | 636.81  | N.A.  | 15.60  |
| 20-50   | 965.08  | N.A.  | 23.60  |
| 40-70   | 788.91  | N.A.  | 19.30  |
| 60-80   | 278.50  | N.A.  | 6.80   |
| 70-80   | 91.41   | N.A.  | 2.20   |
| 80-90   | 22.26   | N.A.  | 0.50   |
| 90-110  | 202.94  | N.A.  | 5.00   |
| 90-120  | 468.63  | N.A.  | 11.50  |
| 90-130  | 822.28  | N.A.  | 20.10  |
| 90-150  | 1621.19 | N.A.  | 39.70  |
| 90-180  | 2267.65 | N.A.  | 55.50  |
| 110-180 | 2064.71 | N.A.  | 50.50  |
| 0-180   | 4085.14 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 73.06  |
| 10-20   | 205.04 |
| 20-30   | 297.88 |
| 30-40   | 338.93 |
| 40-50   | 328.27 |
| 50-60   | 273.56 |
| 60-70   | 187.09 |
| 70-80   | 91.41  |
| 80-90   | 22.26  |
| 90-100  | 46.83  |
| 100-110 | 156.11 |
| 110-120 | 265.69 |
| 120-130 | 353.65 |
| 130-140 | 401.15 |
| 140-150 | 397.76 |
| 150-160 | 338.45 |
| 160-170 | 227.63 |
| 170-180 | 80.37  |

# IES INDOOR REPORT

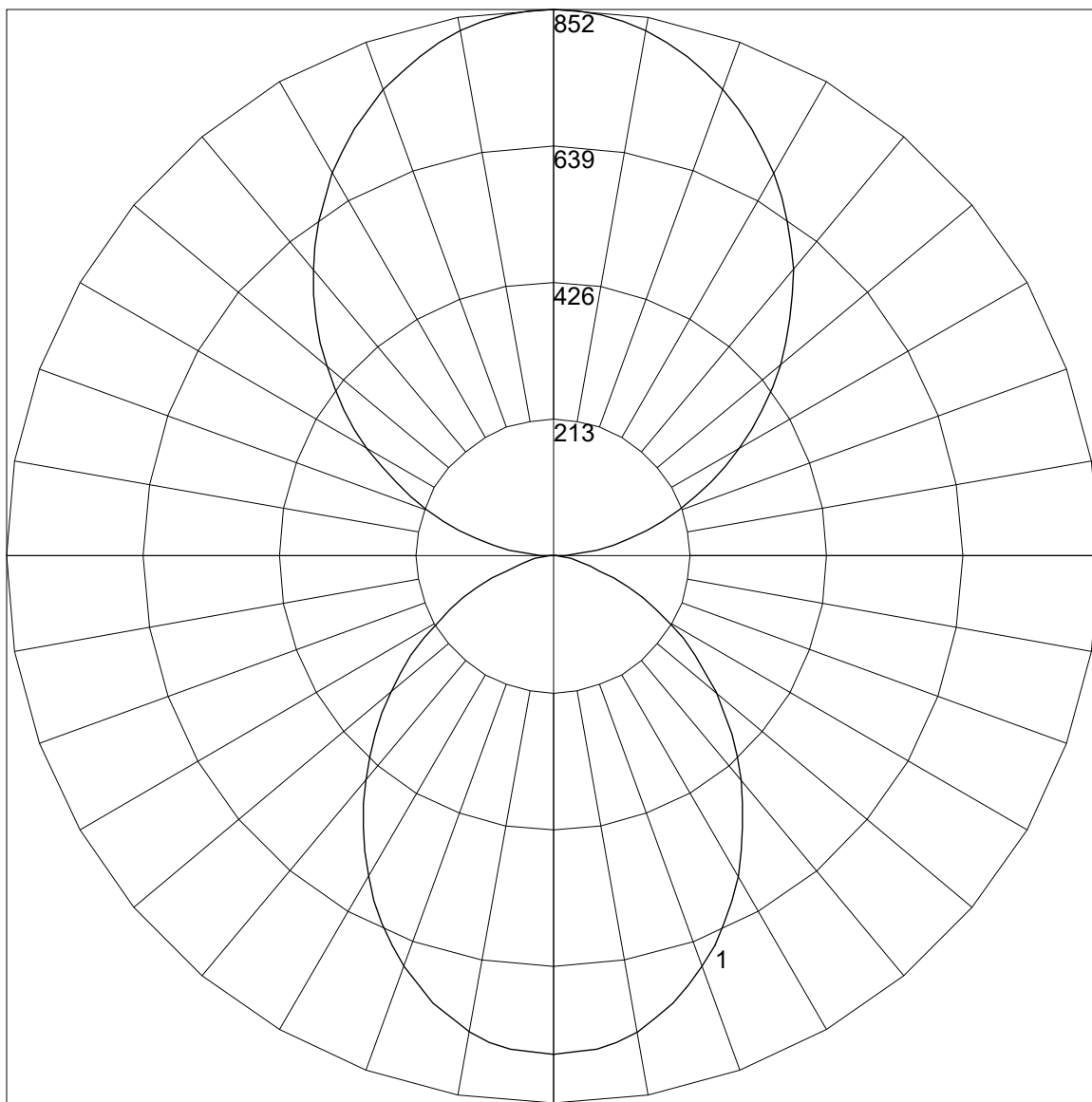
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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  | 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 = 852.307 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)