

# 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-WM-WL-D-4FT-H-835-F-ITL90390.007.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

[TEST]ITL90390.007 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]04/13/18  
[ISSUEDATE]06/18/18  
[MANUFAC]FINELITE, INC.  
[LUMCAT]HP-4-WM-WL-D-4ft-H-835-F  
[INPUT\_ELECTRICAL]120.0 VOLTS, 28.3 WATTS  
[INPUT\_ELECTRICAL]277.0 VOLTS, 29.0 WATTS  
[ABSOLUTE LUMENS]2688  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL90390. 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                | 2688            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 95              |
| Total Luminaire Watts           | 28.3            |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Direct          |
| Spacing Criterion (0-180)       | 1.24            |
| Spacing Criterion (90-270)      | 1.24            |
| Spacing Criterion (Diagonal)    | 1.36            |
| Basic Luminous Shape            | Rectangular     |
| Luminous Length (0-180)         | 3.88 ft         |
| Luminous Width (90-270)         | 0.31 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                  | 7951             | 7854              | 7736              |
| 55                  | 7575             | 7466              | 7310              |
| 65                  | 7028             | 6897              | 6766              |
| 75                  | 6031             | 5951              | 5978              |
| 85                  | 4121             | 4359              | 4517              |

CANDELA TABULATION

|      | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|------|------------|-------------|-------------|-------------|-------------|
| 0.0  | 976.889    | 976.889     | 976.889     | 976.889     | 976.889     |
| 2.5  | 975.333    | 975.333     | 975.333     | 975.333     | 975.333     |
| 5.0  | 972.222    | 972.222     | 972.222     | 971.444     | 971.444     |
| 7.5  | 966.000    | 965.222     | 965.222     | 964.444     | 964.444     |
| 10.0 | 959.000    | 955.889     | 957.444     | 956.667     | 955.111     |
| 12.5 | 948.889    | 943.444     | 946.556     | 945.778     | 943.444     |
| 15.0 | 935.667    | 929.444     | 932.556     | 932.556     | 929.444     |
| 17.5 | 921.667    | 913.111     | 917.778     | 916.222     | 913.111     |
| 20.0 | 903.778    | 894.444     | 899.111     | 897.556     | 894.444     |
| 22.5 | 883.556    | 873.444     | 879.667     | 876.556     | 873.444     |
| 25.0 | 861.000    | 851.667     | 857.889     | 854.000     | 850.889     |
| 27.5 | 839.222    | 829.111     | 834.556     | 830.667     | 827.556     |
| 30.0 | 813.556    | 804.222     | 808.111     | 804.222     | 801.111     |
| 32.5 | 787.111    | 777.000     | 781.667     | 776.222     | 773.111     |
| 35.0 | 759.111    | 749.778     | 752.889     | 746.667     | 744.333     |
| 37.5 | 728.778    | 720.222     | 722.556     | 717.111     | 713.222     |
| 40.0 | 698.444    | 689.889     | 690.667     | 686.000     | 682.111     |
| 42.5 | 666.556    | 658.778     | 658.000     | 653.333     | 649.444     |
| 45.0 | 633.111    | 625.333     | 625.333     | 619.889     | 616.000     |
| 47.5 | 598.889    | 591.889     | 591.111     | 584.889     | 581.778     |
| 50.0 | 563.889    | 556.889     | 555.333     | 549.111     | 546.000     |
| 52.5 | 525.778    | 521.111     | 520.333     | 512.556     | 510.222     |
| 55.0 | 489.222    | 483.778     | 482.222     | 476.000     | 472.111     |
| 57.5 | 451.889    | 445.667     | 444.889     | 439.444     | 435.556     |
| 60.0 | 413.778    | 407.556     | 406.000     | 401.333     | 398.222     |
| 62.5 | 374.889    | 370.222     | 367.111     | 363.222     | 360.111     |
| 65.0 | 334.444    | 331.333     | 328.222     | 324.333     | 322.000     |
| 67.5 | 294.778    | 292.444     | 289.333     | 285.444     | 283.889     |
| 70.0 | 255.111    | 251.222     | 249.667     | 247.333     | 246.556     |
| 72.5 | 214.667    | 213.111     | 211.556     | 209.222     | 209.222     |
| 75.0 | 175.778    | 175.000     | 173.444     | 172.667     | 174.222     |
| 77.5 | 137.667    | 137.667     | 136.889     | 137.667     | 138.444     |
| 80.0 | 102.667    | 102.667     | 102.667     | 103.444     | 105.000     |
| 82.5 | 68.444     | 70.000      | 70.778      | 71.556      | 73.111      |
| 85.0 | 40.444     | 42.000      | 42.778      | 43.556      | 44.333      |
| 87.5 | 18.667     | 18.667      | 17.889      | 17.889      | 17.889      |
| 90.0 | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : HP-4-WM-WL-D-4FT-H-835-F-ITL90390.007.IES**

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 355.08  | N.A.  | 13.20  |
| 0-30    | 749.09  | N.A.  | 27.90  |
| 0-40    | 1218.31 | N.A.  | 45.30  |
| 0-60    | 2129.11 | N.A.  | 79.20  |
| 0-80    | 2638.07 | N.A.  | 98.10  |
| 0-90    | 2687.9  | N.A.  | 100.00 |
| 10-90   | 2595.63 | N.A.  | 96.60  |
| 20-40   | 863.23  | N.A.  | 32.10  |
| 20-50   | 1344.28 | N.A.  | 50.00  |
| 40-70   | 1235.32 | N.A.  | 46.00  |
| 60-80   | 508.95  | N.A.  | 18.90  |
| 70-80   | 184.44  | N.A.  | 6.90   |
| 80-90   | 49.84   | N.A.  | 1.90   |
| 90-110  | 0.00    | N.A.  | 0.00   |
| 90-120  | 0.00    | N.A.  | 0.00   |
| 90-130  | 0.00    | N.A.  | 0.00   |
| 90-150  | 0.00    | N.A.  | 0.00   |
| 90-180  | 0.00    | N.A.  | 0.00   |
| 110-180 | 0.00    | N.A.  | 0.00   |
| 0-180   | 2687.9  | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

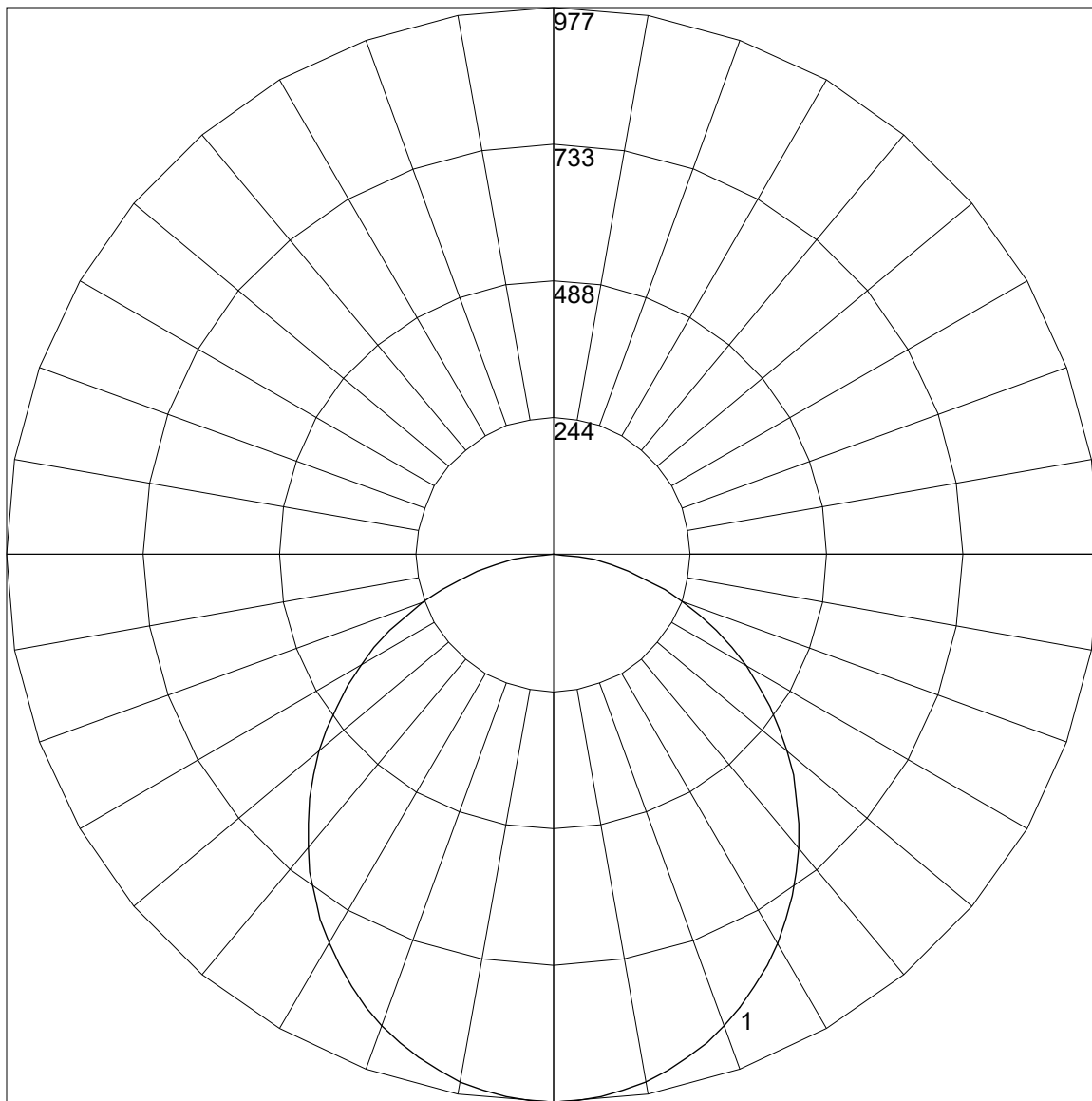
| Zone    | Lumens |
|---------|--------|
| 0-10    | 92.27  |
| 10-20   | 262.81 |
| 20-30   | 394.01 |
| 30-40   | 469.22 |
| 40-50   | 481.05 |
| 50-60   | 429.75 |
| 60-70   | 324.51 |
| 70-80   | 184.44 |
| 80-90   | 49.84  |
| 90-100  | 0.00   |
| 100-110 | 0.00   |
| 110-120 | 0.00   |
| 120-130 | 0.00   |
| 130-140 | 0.00   |
| 140-150 | 0.00   |
| 150-160 | 0.00   |
| 160-170 | 0.00   |
| 170-180 | 0.00   |

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  | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1  | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2  | 99  | 91  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 82  | 78  | 74  | 79  | 75  | 72  | 70  |
| 3  | 90  | 80  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 69  | 63  | 72  | 67  | 62  | 70  | 65  | 61  | 59  |
| 4  | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 50  |
| 5  | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 60  | 52  | 47  | 58  | 51  | 46  | 56  | 50  | 46  | 43  |
| 6  | 70  | 57  | 48  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 41  | 52  | 46  | 40  | 51  | 45  | 40  | 38  |
| 7  | 65  | 52  | 43  | 37  | 63  | 51  | 42  | 36  | 49  | 42  | 36  | 48  | 41  | 36  | 46  | 40  | 36  | 34  |
| 8  | 61  | 47  | 39  | 33  | 59  | 46  | 38  | 33  | 45  | 38  | 32  | 44  | 37  | 32  | 43  | 36  | 32  | 30  |
| 9  | 57  | 43  | 35  | 29  | 55  | 43  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 27  |
| 10 | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 27  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 31  | 26  | 24  |

POLAR GRAPH



Maximum Candela = 976.889 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)