

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-R-4FT-H-835-ITL85128.003.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL85128.003 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]08/07/15
[ISSUEDATE]02/10/17
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HP-4-R-4ft-H-835
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.3 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.1 WATTS
[ABSOLUTE]LUMENS]2898
[OTHER]see www.finelite.com for source file ITL85128. 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

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2898 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 102 |
| Total Luminaire Watts | 28.3 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.20 |
| Spacing Criterion (90-270) | 1.18 |
| Spacing Criterion (Diagonal) | 1.30 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 4.00 ft |
| Luminous Width (90-270) | 0.32 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 7912 | 7793 | 7637 |
| 55 | 7338 | 7225 | 7067 |
| 65 | 6757 | 6634 | 6512 |
| 75 | 5955 | 5955 | 5905 |
| 85 | 5201 | 5201 | 5275 |

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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 | 1121.556 | 1121.556 | 1121.556 | 1121.556 | 1121.556 |
| 2.5 | 1120.000 | 1120.000 | 1120.000 | 1120.000 | 1120.000 |
| 5.0 | 1115.333 | 1115.333 | 1114.556 | 1114.556 | 1115.333 |
| 7.5 | 1107.556 | 1106.778 | 1106.778 | 1106.000 | 1106.778 |
| 10.0 | 1096.667 | 1094.333 | 1095.111 | 1095.111 | 1093.556 |
| 12.5 | 1082.667 | 1077.222 | 1080.333 | 1079.556 | 1077.222 |
| 15.0 | 1064.778 | 1057.778 | 1061.667 | 1060.889 | 1057.000 |
| 17.5 | 1045.333 | 1036.000 | 1041.444 | 1039.111 | 1034.444 |
| 20.0 | 1020.444 | 1011.111 | 1016.556 | 1012.667 | 1007.222 |
| 22.5 | 995.556 | 983.111 | 988.556 | 983.889 | 979.222 |
| 25.0 | 965.222 | 953.556 | 958.222 | 952.778 | 948.111 |
| 27.5 | 934.111 | 923.222 | 926.333 | 919.333 | 915.444 |
| 30.0 | 900.667 | 889.778 | 892.111 | 884.333 | 880.444 |
| 32.5 | 864.111 | 855.556 | 855.556 | 848.556 | 843.889 |
| 35.0 | 827.556 | 819.000 | 820.556 | 811.222 | 806.556 |
| 37.5 | 791.000 | 781.667 | 781.667 | 773.889 | 768.444 |
| 40.0 | 751.333 | 742.778 | 742.778 | 734.222 | 728.778 |
| 42.5 | 711.667 | 703.889 | 702.333 | 694.556 | 689.111 |
| 45.0 | 672.000 | 663.444 | 661.889 | 653.333 | 648.667 |
| 47.5 | 630.778 | 623.000 | 621.444 | 613.667 | 608.222 |
| 50.0 | 588.000 | 581.778 | 580.222 | 573.222 | 567.778 |
| 52.5 | 547.556 | 542.111 | 539.000 | 532.000 | 527.333 |
| 55.0 | 505.556 | 500.889 | 497.778 | 490.778 | 486.889 |
| 57.5 | 464.333 | 459.667 | 456.556 | 450.333 | 446.444 |
| 60.0 | 422.333 | 418.444 | 416.111 | 411.444 | 406.778 |
| 62.5 | 383.444 | 378.778 | 375.667 | 371.778 | 367.889 |
| 65.0 | 343.000 | 339.111 | 336.778 | 332.889 | 330.556 |
| 67.5 | 302.556 | 298.667 | 297.111 | 294.000 | 292.444 |
| 70.0 | 261.333 | 259.778 | 259.000 | 255.889 | 255.111 |
| 72.5 | 222.444 | 221.667 | 221.667 | 219.333 | 219.333 |
| 75.0 | 185.111 | 184.333 | 185.111 | 184.333 | 183.556 |
| 77.5 | 150.889 | 149.333 | 150.111 | 150.889 | 150.111 |
| 80.0 | 116.667 | 115.111 | 116.667 | 118.222 | 117.444 |
| 82.5 | 84.778 | 84.000 | 85.556 | 86.333 | 85.556 |
| 85.0 | 54.444 | 53.667 | 54.444 | 56.000 | 55.222 |
| 87.5 | 25.667 | 24.889 | 25.667 | 26.444 | 25.667 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 404.60 | N.A. | 14.00 |
| 0-30 | 844.47 | N.A. | 29.10 |
| 0-40 | 1355.28 | N.A. | 46.80 |
| 0-60 | 2308.53 | N.A. | 79.70 |
| 0-80 | 2837.38 | N.A. | 97.90 |
| 0-90 | 2898.34 | N.A. | 100.00 |
| 10-90 | 2792.55 | N.A. | 96.30 |
| 20-40 | 950.69 | N.A. | 32.80 |
| 20-50 | 1459.83 | N.A. | 50.40 |
| 40-70 | 1286.11 | N.A. | 44.40 |
| 60-80 | 528.86 | N.A. | 18.20 |
| 70-80 | 195.99 | N.A. | 6.80 |
| 80-90 | 60.96 | N.A. | 2.10 |
| 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 | 2898.34 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 105.79 |
| 10-20 | 298.80 |
| 20-30 | 439.87 |
| 30-40 | 510.82 |
| 40-50 | 509.15 |
| 50-60 | 444.09 |
| 60-70 | 332.87 |
| 70-80 | 195.99 |
| 80-90 | 60.96 |
| 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 |

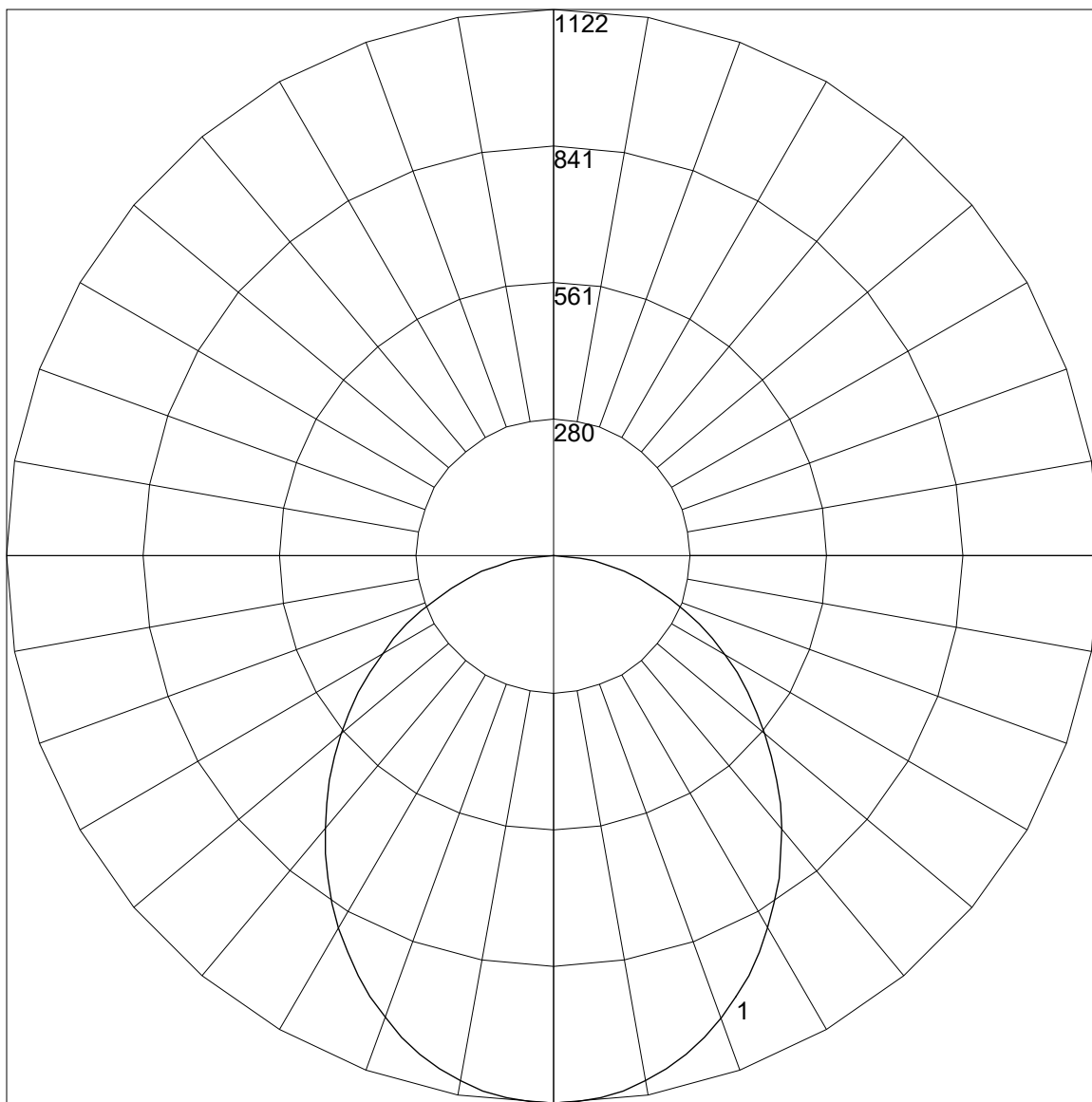
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 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 | 98 | 94 | 91 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 84 | 78 | 96 | 89 | 83 | 78 | 85 | 80 | 76 | 82 | 78 | 74 | 79 | 76 | 72 | 70 |
| 3 | 90 | 80 | 72 | 65 | 88 | 78 | 71 | 65 | 75 | 69 | 64 | 73 | 67 | 63 | 70 | 66 | 62 | 59 |
| 4 | 83 | 71 | 62 | 56 | 81 | 70 | 62 | 55 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 57 | 53 | 51 |
| 5 | 76 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 47 | 57 | 51 | 46 | 44 |
| 6 | 71 | 57 | 49 | 42 | 69 | 56 | 48 | 42 | 55 | 47 | 42 | 53 | 46 | 41 | 51 | 46 | 41 | 39 |
| 7 | 66 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 50 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 36 | 34 |
| 8 | 61 | 48 | 39 | 33 | 60 | 47 | 39 | 33 | 46 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

POLAR GRAPH



Maximum Candela = 1121.556 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)