

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-S-H-835-ITL85125.014.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85125.014 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]08/06/15
[ISSUE DATE]02/09/17
[MANUFACTURER]FINELITE, INC.
[LUMCAT]FINELITE HP-4-ID-4ft-S-H-835
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 42.9 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 45.2 WATTS
[ABSOLUTE LUMENS]4594
[OTHER]see www.finelite.com for source file 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

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 4594 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 107 |
| Total Luminaire Watts | 42.9 |
| Ballast Factor | 1.00 |
| CIE Type | Semi-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 | 7866 | 7757 | 7619 |
| 55 | 7304 | 7191 | 7045 |
| 65 | 6665 | 6573 | 6466 |
| 75 | 5829 | 5829 | 5804 |
| 85 | 4829 | 5052 | 5201 |

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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 | 1122.333 | 1122.333 | 1122.333 | 1122.333 | 1122.333 |
| 2.5 | 1120.000 | 1120.000 | 1120.000 | 1120.000 | 1120.000 |
| 5.0 | 1114.555 | 1115.333 | 1115.333 | 1114.555 | 1115.333 |
| 7.5 | 1106.778 | 1107.555 | 1106.778 | 1105.222 | 1106.778 |
| 10.0 | 1095.889 | 1093.555 | 1094.333 | 1094.333 | 1092.778 |
| 12.5 | 1082.667 | 1078.778 | 1079.555 | 1079.555 | 1075.667 |
| 15.0 | 1064.000 | 1057.778 | 1061.667 | 1060.111 | 1054.667 |
| 17.5 | 1043.778 | 1035.222 | 1039.111 | 1037.555 | 1032.111 |
| 20.0 | 1019.667 | 1010.333 | 1013.444 | 1011.111 | 1005.667 |
| 22.5 | 993.222 | 983.111 | 985.444 | 982.333 | 976.889 |
| 25.0 | 963.667 | 952.778 | 955.111 | 952.000 | 945.778 |
| 27.5 | 931.778 | 920.889 | 922.444 | 918.556 | 913.111 |
| 30.0 | 897.556 | 886.667 | 887.444 | 883.556 | 877.333 |
| 32.5 | 861.778 | 853.222 | 852.444 | 847.000 | 841.556 |
| 35.0 | 826.000 | 816.667 | 815.889 | 808.889 | 804.222 |
| 37.5 | 787.111 | 777.778 | 778.556 | 770.000 | 765.333 |
| 40.0 | 748.222 | 740.444 | 739.667 | 731.111 | 726.444 |
| 42.5 | 710.889 | 700.778 | 698.444 | 691.444 | 686.778 |
| 45.0 | 668.111 | 661.111 | 658.778 | 651.778 | 647.111 |
| 47.5 | 626.889 | 619.889 | 618.333 | 611.333 | 606.667 |
| 50.0 | 585.667 | 579.444 | 577.111 | 570.111 | 566.222 |
| 52.5 | 544.444 | 538.222 | 537.444 | 529.667 | 525.778 |
| 55.0 | 503.222 | 497.778 | 495.445 | 488.445 | 485.333 |
| 57.5 | 461.222 | 456.555 | 454.222 | 448.000 | 444.889 |
| 60.0 | 420.778 | 415.333 | 413.778 | 408.333 | 406.000 |
| 62.5 | 378.778 | 374.111 | 372.555 | 367.889 | 366.333 |
| 65.0 | 338.333 | 334.445 | 333.667 | 329.778 | 328.222 |
| 67.5 | 297.111 | 294.778 | 294.000 | 290.889 | 289.333 |
| 70.0 | 257.445 | 255.889 | 255.889 | 253.556 | 252.000 |
| 72.5 | 218.556 | 219.333 | 217.778 | 218.556 | 216.222 |
| 75.0 | 181.222 | 182.000 | 181.222 | 182.000 | 180.444 |
| 77.5 | 145.444 | 146.222 | 147.778 | 147.778 | 147.778 |
| 80.0 | 112.000 | 112.778 | 114.333 | 115.111 | 115.111 |
| 82.5 | 81.667 | 82.444 | 83.222 | 84.000 | 84.000 |
| 85.0 | 50.556 | 52.111 | 52.889 | 53.667 | 54.444 |
| 87.5 | 21.778 | 23.333 | 24.111 | 26.444 | 26.444 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 92.5 | 12.281 | 13.099 | 13.918 | 15.556 | 15.965 |
| 95.0 | 29.064 | 29.474 | 31.111 | 33.158 | 33.567 |
| 97.5 | 47.076 | 47.485 | 49.532 | 51.579 | 51.170 |
| 100.0 | 65.497 | 66.316 | 68.363 | 70.409 | 70.000 |
| 102.5 | 84.328 | 85.965 | 88.012 | 90.058 | 90.058 |
| 105.0 | 105.205 | 106.842 | 108.889 | 110.526 | 110.117 |
| 107.5 | 127.310 | 128.538 | 129.766 | 131.404 | 131.404 |
| 110.0 | 151.053 | 151.053 | 152.281 | 153.918 | 153.509 |
| 112.5 | 174.795 | 173.977 | 175.614 | 178.070 | 176.023 |
| 115.0 | 198.538 | 197.719 | 198.538 | 200.585 | 198.947 |
| 117.5 | 222.281 | 222.690 | 223.099 | 223.509 | 222.281 |
| 120.0 | 246.433 | 247.251 | 246.842 | 246.433 | 245.614 |
| 122.5 | 270.994 | 271.813 | 271.813 | 270.585 | 269.357 |
| 125.0 | 295.965 | 297.193 | 297.193 | 294.737 | 293.509 |
| 127.5 | 320.936 | 321.754 | 322.573 | 318.889 | 316.433 |
| 130.0 | 345.088 | 345.497 | 346.316 | 343.860 | 341.813 |
| 132.5 | 369.649 | 369.240 | 369.649 | 368.012 | 365.555 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HP-4-ID-4FT-S-H-835-ITL85125.014.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|--------------|---------|---------|---------|---------|---------|
| 135.0 | 394.211 | 392.164 | 393.392 | 392.164 | 389.298 |
| 137.5 | 417.953 | 414.678 | 416.725 | 415.088 | 412.222 |
| 140.0 | 441.696 | 438.012 | 440.468 | 438.830 | 435.555 |
| 142.5 | 463.392 | 460.526 | 463.392 | 460.936 | 458.070 |
| 145.0 | 486.725 | 481.813 | 485.088 | 482.632 | 479.766 |
| 147.5 | 507.602 | 502.690 | 505.965 | 503.509 | 500.643 |
| 150.0 | 528.070 | 522.749 | 526.023 | 523.567 | 521.111 |
| 152.5 | 546.082 | 541.988 | 545.263 | 542.398 | 540.351 |
| 155.0 | 563.684 | 559.591 | 562.456 | 560.000 | 557.953 |
| 157.5 | 580.877 | 576.784 | 579.240 | 576.784 | 575.146 |
| 160.0 | 595.614 | 592.339 | 594.795 | 592.339 | 591.111 |
| 162.5 | 609.532 | 605.848 | 608.713 | 606.257 | 605.439 |
| 165.0 | 620.994 | 618.129 | 619.766 | 618.538 | 618.129 |
| 167.5 | 631.228 | 628.772 | 630.000 | 629.181 | 629.181 |
| 170.0 | 639.825 | 638.187 | 639.006 | 638.187 | 638.187 |
| 172.5 | 645.965 | 645.965 | 645.556 | 645.556 | 645.556 |
| 175.0 | 650.877 | 650.877 | 650.877 | 650.468 | 650.877 |
| 177.5 | 653.743 | 654.152 | 654.152 | 654.152 | 654.152 |
| 180.0 | 654.971 | 654.971 | 654.971 | 654.971 | 654.971 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 404.31 | N.A. | 8.80 |
| 0-30 | 843.24 | N.A. | 18.40 |
| 0-40 | 1352.22 | N.A. | 29.40 |
| 0-60 | 2301.11 | N.A. | 50.10 |
| 0-80 | 2823.45 | N.A. | 61.50 |
| 0-90 | 2882.59 | N.A. | 62.70 |
| 10-90 | 2776.81 | N.A. | 60.40 |
| 20-40 | 947.90 | N.A. | 20.60 |
| 20-50 | 1454.95 | N.A. | 31.70 |
| 40-70 | 1278.35 | N.A. | 27.80 |
| 60-80 | 522.34 | N.A. | 11.40 |
| 70-80 | 192.88 | N.A. | 4.20 |
| 80-90 | 59.14 | N.A. | 1.30 |
| 90-110 | 150.17 | N.A. | 3.30 |
| 90-120 | 347.37 | N.A. | 7.60 |
| 90-130 | 611.92 | N.A. | 13.30 |
| 90-150 | 1216.66 | N.A. | 26.50 |
| 90-180 | 1711.21 | N.A. | 37.30 |
| 110-180 | 1561.04 | N.A. | 34.00 |
| 0-180 | 4593.8 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 105.78 |
| 10-20 | 298.53 |
| 20-30 | 438.92 |
| 30-40 | 508.98 |
| 40-50 | 507.04 |
| 50-60 | 441.85 |
| 60-70 | 329.46 |
| 70-80 | 192.88 |
| 80-90 | 59.14 |
| 90-100 | 35.09 |
| 100-110 | 115.08 |
| 110-120 | 197.20 |
| 120-130 | 264.55 |
| 130-140 | 302.64 |
| 140-150 | 302.10 |
| 150-160 | 258.31 |
| 160-170 | 174.50 |
| 170-180 | 61.74 |

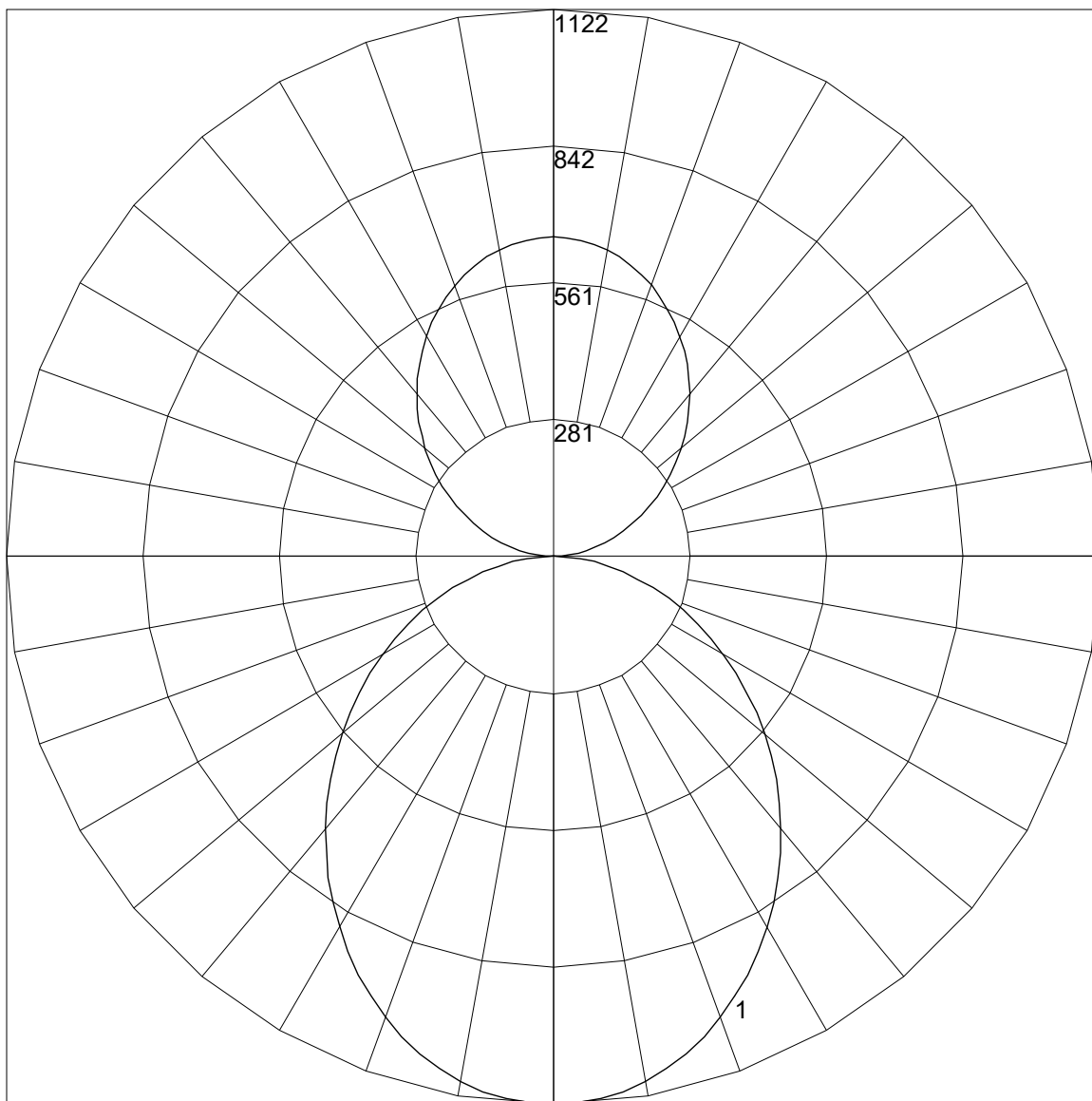
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 79 | 79 | 79 | 68 | 68 | 68 | 63 |
| 1 | 101 | 96 | 92 | 88 | 94 | 90 | 87 | 84 | 79 | 77 | 74 | 69 | 67 | 65 | 60 | 58 | 57 | 53 |
| 2 | 92 | 84 | 78 | 72 | 86 | 79 | 73 | 69 | 69 | 65 | 61 | 61 | 57 | 55 | 53 | 50 | 48 | 44 |
| 3 | 84 | 74 | 66 | 60 | 78 | 69 | 63 | 57 | 61 | 56 | 52 | 54 | 50 | 46 | 47 | 44 | 41 | 37 |
| 4 | 76 | 65 | 57 | 51 | 71 | 62 | 54 | 49 | 54 | 49 | 44 | 48 | 43 | 40 | 42 | 38 | 35 | 32 |
| 5 | 70 | 58 | 50 | 44 | 66 | 55 | 48 | 42 | 49 | 43 | 38 | 43 | 38 | 34 | 38 | 34 | 31 | 28 |
| 6 | 65 | 52 | 44 | 38 | 61 | 50 | 42 | 37 | 44 | 38 | 33 | 39 | 34 | 30 | 34 | 30 | 27 | 24 |
| 7 | 60 | 47 | 39 | 34 | 56 | 45 | 37 | 32 | 40 | 34 | 29 | 35 | 30 | 27 | 31 | 27 | 24 | 22 |
| 8 | 56 | 43 | 35 | 30 | 52 | 41 | 34 | 29 | 37 | 31 | 26 | 32 | 28 | 24 | 29 | 25 | 22 | 19 |
| 9 | 52 | 39 | 32 | 27 | 49 | 37 | 30 | 26 | 34 | 28 | 24 | 30 | 25 | 22 | 27 | 23 | 20 | 18 |
| 10 | 49 | 36 | 29 | 24 | 46 | 34 | 28 | 23 | 31 | 25 | 21 | 28 | 23 | 20 | 25 | 21 | 18 | 16 |

POLAR GRAPH



Maximum Candela = 1122.333 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)