

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-2-ID-4FT-S-H-835-ITL85132.014.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85132.014 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]08/11/15
[ISSUEDATE]02/10/17
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HP-2-ID-4ft-S-H-835
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 42.5 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 44.9 WATTS
[ABSOLUTE]LUMENS]4030
[OTHER]see www.finelite.com for source file ITL85132. 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 | 4030 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 95 |
| Total Luminaire Watts | 42.5 |
| Ballast Factor | 1.00 |
| CIE Type | Semi-Direct |
| Spacing Criterion (0-180) | 1.18 |
| Spacing Criterion (90-270) | 1.12 |
| Spacing Criterion (Diagonal) | 1.26 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 4.00 ft |
| Luminous Width (90-270) | 0.18 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 12508 | 11990 | 11406 |
| 55 | 11385 | 10829 | 10273 |
| 65 | 10282 | 9751 | 9276 |
| 75 | 9262 | 8760 | 8395 |
| 85 | 8129 | 7858 | 7452 |

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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 | 1022.000 | 1022.000 | 1022.000 | 1022.000 | 1022.000 |
| 2.5 | 1019.667 | 1021.222 | 1020.444 | 1020.444 | 1020.444 |
| 5.0 | 1015.778 | 1016.556 | 1015.000 | 1014.222 | 1014.222 |
| 7.5 | 1007.222 | 1008.000 | 1005.667 | 1004.889 | 1004.889 |
| 10.0 | 996.333 | 994.778 | 993.222 | 992.444 | 990.889 |
| 12.5 | 981.556 | 978.444 | 976.889 | 974.556 | 971.444 |
| 15.0 | 965.222 | 959.000 | 957.444 | 952.778 | 948.889 |
| 17.5 | 945.000 | 936.444 | 934.111 | 927.111 | 922.444 |
| 20.0 | 921.667 | 911.556 | 907.667 | 899.111 | 892.111 |
| 22.5 | 894.444 | 883.556 | 878.889 | 869.556 | 861.000 |
| 25.0 | 866.444 | 854.000 | 847.000 | 836.889 | 827.556 |
| 27.5 | 834.556 | 823.667 | 815.111 | 801.889 | 791.778 |
| 30.0 | 801.889 | 790.222 | 780.111 | 765.333 | 755.222 |
| 32.5 | 766.889 | 755.222 | 744.333 | 728.000 | 720.222 |
| 35.0 | 732.667 | 719.444 | 707.778 | 689.889 | 682.111 |
| 37.5 | 696.111 | 683.667 | 670.444 | 653.333 | 644.778 |
| 40.0 | 658.778 | 645.556 | 633.889 | 614.444 | 606.667 |
| 42.5 | 620.667 | 608.222 | 595.778 | 576.333 | 568.556 |
| 45.0 | 582.556 | 570.889 | 558.444 | 539.000 | 531.222 |
| 47.5 | 544.444 | 532.778 | 520.333 | 501.667 | 494.667 |
| 50.0 | 505.555 | 494.667 | 483.000 | 464.333 | 458.111 |
| 52.5 | 467.445 | 457.333 | 445.667 | 428.555 | 422.333 |
| 55.0 | 430.111 | 421.555 | 409.111 | 393.555 | 388.111 |
| 57.5 | 393.555 | 385.778 | 373.333 | 359.333 | 354.667 |
| 60.0 | 356.222 | 349.222 | 338.333 | 325.111 | 321.222 |
| 62.5 | 321.222 | 314.222 | 304.111 | 294.000 | 289.333 |
| 65.0 | 286.222 | 280.000 | 271.445 | 262.111 | 258.222 |
| 67.5 | 253.556 | 246.556 | 240.333 | 231.000 | 227.889 |
| 70.0 | 220.111 | 215.444 | 208.444 | 202.222 | 198.333 |
| 72.5 | 188.222 | 184.333 | 178.889 | 173.444 | 170.333 |
| 75.0 | 157.889 | 154.000 | 149.333 | 145.444 | 143.111 |
| 77.5 | 128.333 | 125.222 | 122.111 | 119.000 | 115.889 |
| 80.0 | 99.556 | 98.000 | 94.889 | 92.556 | 91.000 |
| 82.5 | 72.333 | 70.778 | 69.222 | 67.667 | 66.111 |
| 85.0 | 46.667 | 45.889 | 45.111 | 44.333 | 42.778 |
| 87.5 | 21.000 | 20.222 | 21.000 | 21.778 | 21.000 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 92.5 | 12.281 | 12.281 | 12.281 | 13.509 | 13.509 |
| 95.0 | 29.064 | 27.836 | 27.836 | 28.246 | 28.655 |
| 97.5 | 45.848 | 44.620 | 43.801 | 44.211 | 44.211 |
| 100.0 | 63.041 | 60.994 | 60.994 | 60.994 | 60.585 |
| 102.5 | 81.053 | 79.415 | 78.597 | 78.187 | 78.187 |
| 105.0 | 99.883 | 98.655 | 96.608 | 96.199 | 95.790 |
| 107.5 | 119.123 | 117.895 | 115.439 | 115.029 | 114.620 |
| 110.0 | 139.181 | 137.953 | 135.906 | 135.088 | 133.860 |
| 112.5 | 160.059 | 158.012 | 156.784 | 154.737 | 153.509 |
| 115.0 | 180.936 | 179.708 | 178.889 | 174.795 | 173.977 |
| 117.5 | 203.041 | 200.994 | 200.994 | 196.082 | 195.263 |
| 120.0 | 225.556 | 222.281 | 223.099 | 218.187 | 216.550 |
| 122.5 | 246.842 | 243.567 | 245.205 | 241.111 | 238.246 |
| 125.0 | 270.585 | 265.673 | 267.310 | 263.216 | 261.170 |
| 127.5 | 293.918 | 288.596 | 289.415 | 286.140 | 285.322 |
| 130.0 | 316.842 | 311.521 | 312.339 | 308.246 | 308.655 |
| 132.5 | 339.766 | 334.035 | 335.263 | 331.170 | 331.170 |

IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

| | | | | | |
|--------------|---------|---------|---------|---------|---------|
| 135.0 | 361.871 | 356.550 | 358.187 | 354.503 | 354.503 |
| 137.5 | 384.386 | 379.064 | 380.702 | 377.427 | 377.017 |
| 140.0 | 406.901 | 401.579 | 402.807 | 400.760 | 399.532 |
| 142.5 | 428.187 | 422.456 | 424.094 | 422.047 | 420.409 |
| 145.0 | 449.883 | 443.743 | 445.380 | 443.743 | 440.877 |
| 147.5 | 469.942 | 463.801 | 465.848 | 463.392 | 460.526 |
| 150.0 | 489.181 | 483.041 | 485.497 | 482.632 | 480.175 |
| 152.5 | 507.602 | 501.462 | 503.918 | 501.462 | 499.006 |
| 155.0 | 525.205 | 519.064 | 521.930 | 519.474 | 517.018 |
| 157.5 | 540.351 | 534.620 | 537.895 | 535.439 | 532.982 |
| 160.0 | 555.088 | 549.766 | 552.632 | 550.175 | 547.719 |
| 162.5 | 567.778 | 563.275 | 565.322 | 563.684 | 562.047 |
| 165.0 | 579.240 | 575.146 | 576.374 | 575.556 | 574.327 |
| 167.5 | 587.836 | 585.380 | 586.199 | 585.380 | 584.971 |
| 170.0 | 595.614 | 594.386 | 594.795 | 593.977 | 593.567 |
| 172.5 | 602.164 | 601.754 | 601.754 | 601.345 | 601.345 |
| 175.0 | 606.667 | 606.667 | 606.667 | 606.667 | 606.257 |
| 177.5 | 609.123 | 609.532 | 609.532 | 609.532 | 609.123 |
| 180.0 | 610.760 | 610.760 | 610.760 | 610.760 | 610.760 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 365.38 | N.A. | 9.10 |
| 0-30 | 754.71 | N.A. | 18.70 |
| 0-40 | 1196.34 | N.A. | 29.70 |
| 0-60 | 1991.01 | N.A. | 49.40 |
| 0-80 | 2419.42 | N.A. | 60.00 |
| 0-90 | 2469.16 | N.A. | 61.30 |
| 10-90 | 2372.95 | N.A. | 58.90 |
| 20-40 | 830.97 | N.A. | 20.60 |
| 20-50 | 1260.15 | N.A. | 31.30 |
| 40-70 | 1064.05 | N.A. | 26.40 |
| 60-80 | 428.40 | N.A. | 10.60 |
| 70-80 | 159.02 | N.A. | 3.90 |
| 80-90 | 49.74 | N.A. | 1.20 |
| 90-110 | 134.76 | N.A. | 3.30 |
| 90-120 | 311.00 | N.A. | 7.70 |
| 90-130 | 548.70 | N.A. | 13.60 |
| 90-150 | 1101.84 | N.A. | 27.30 |
| 90-180 | 1561.03 | N.A. | 38.70 |
| 110-180 | 1426.26 | N.A. | 35.40 |
| 0-180 | 4030.19 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 96.21 |
| 10-20 | 269.16 |
| 20-30 | 389.34 |
| 30-40 | 441.63 |
| 40-50 | 429.18 |
| 50-60 | 365.49 |
| 60-70 | 269.38 |
| 70-80 | 159.02 |
| 80-90 | 49.74 |
| 90-100 | 31.55 |
| 100-110 | 103.22 |
| 110-120 | 176.24 |
| 120-130 | 237.70 |
| 130-140 | 275.32 |
| 140-150 | 277.82 |
| 150-160 | 239.38 |
| 160-170 | 162.28 |
| 170-180 | 57.52 |

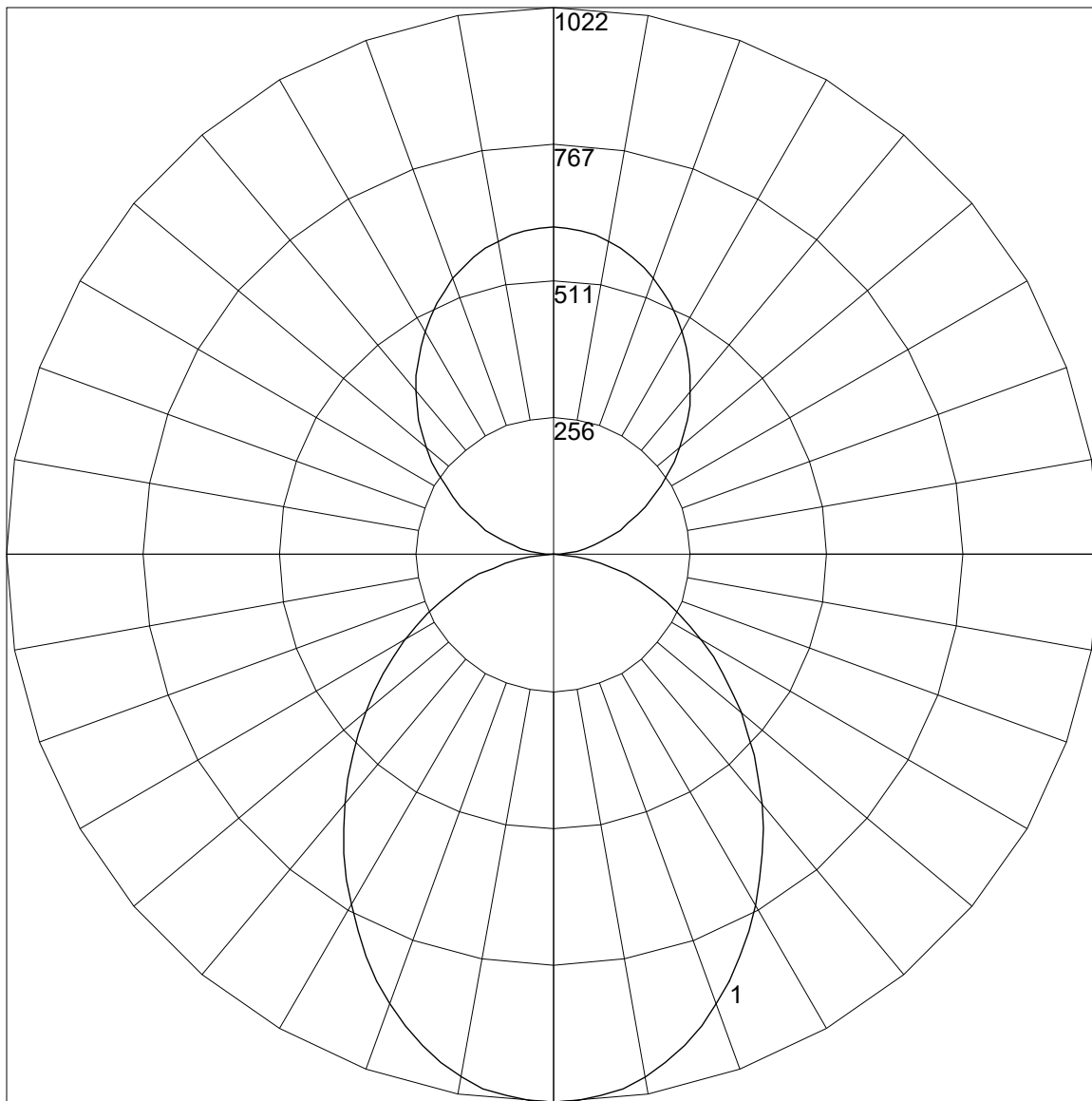
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 78 | 78 | 78 | 66 | 66 | 66 | 61 |
| 1 | 100 | 96 | 92 | 88 | 94 | 90 | 86 | 83 | 79 | 76 | 74 | 68 | 66 | 65 | 59 | 57 | 56 | 52 |
| 2 | 91 | 84 | 78 | 72 | 85 | 79 | 73 | 69 | 69 | 65 | 61 | 60 | 57 | 54 | 52 | 50 | 47 | 43 |
| 3 | 84 | 74 | 66 | 60 | 78 | 69 | 63 | 57 | 61 | 56 | 52 | 53 | 49 | 46 | 46 | 43 | 41 | 37 |
| 4 | 77 | 66 | 58 | 51 | 71 | 62 | 55 | 49 | 54 | 49 | 44 | 48 | 43 | 40 | 41 | 38 | 35 | 32 |
| 5 | 70 | 59 | 50 | 44 | 66 | 55 | 48 | 42 | 49 | 43 | 38 | 43 | 38 | 34 | 37 | 34 | 31 | 28 |
| 6 | 65 | 53 | 44 | 39 | 61 | 50 | 42 | 37 | 44 | 38 | 34 | 39 | 34 | 30 | 34 | 30 | 27 | 24 |
| 7 | 60 | 48 | 40 | 34 | 56 | 45 | 38 | 33 | 40 | 34 | 30 | 35 | 31 | 27 | 31 | 27 | 24 | 22 |
| 8 | 56 | 43 | 36 | 30 | 52 | 41 | 34 | 29 | 37 | 31 | 27 | 32 | 28 | 24 | 29 | 25 | 22 | 20 |
| 9 | 52 | 40 | 32 | 27 | 49 | 38 | 31 | 26 | 34 | 28 | 24 | 30 | 25 | 22 | 26 | 23 | 20 | 18 |
| 10 | 49 | 37 | 29 | 24 | 46 | 35 | 28 | 23 | 31 | 25 | 22 | 28 | 23 | 20 | 25 | 21 | 18 | 16 |

POLAR GRAPH



Maximum Candela = 1022 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)