

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-V-8TW-TG-F-ITL90353.912.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353.912 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-V-8TW-TG-F

[OTHER]ies file is based on 3500K; see luminaire tech sheet at www.finelite.com for lumen adjustment factors for other CCT's & CRI's

[_INPUT_ELECTRICAL]120.0 VOLTS, 60.3 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 62.4 WATTS

[_ABSOLUTE]LUMENS]5799

[OTHER]see 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

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 5799 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 96 |
| Total Luminaire Watts | 60.3 |
| Ballast Factor | 1.00 |
| CIE Type | Semi-Direct |
| Spacing Criterion (0-180) | 1.20 |
| Spacing Criterion (90-270) | 1.14 |
| Spacing Criterion (Diagonal) | 1.26 |
| 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 Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 10452 | 9548 | 8853 |
| 55 | 9742 | 8399 | 7499 |
| 65 | 8860 | 6941 | 5797 |
| 75 | 7724 | 4780 | 3641 |
| 85 | 5641 | 3102 | 2914 |

IES INDOOR REPORT
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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 | 1507.000 | 1507.000 | 1507.000 | 1507.000 | 1507.000 |
| 2.5 | 1504.000 | 1503.000 | 1504.000 | 1504.000 | 1504.000 |
| 5.0 | 1497.000 | 1496.000 | 1496.000 | 1497.000 | 1498.000 |
| 7.5 | 1486.000 | 1485.000 | 1485.000 | 1485.000 | 1484.000 |
| 10.0 | 1472.000 | 1467.000 | 1469.000 | 1466.000 | 1462.000 |
| 12.5 | 1452.000 | 1446.000 | 1446.000 | 1440.000 | 1433.000 |
| 15.0 | 1429.000 | 1419.000 | 1418.000 | 1410.000 | 1400.000 |
| 17.5 | 1401.000 | 1389.000 | 1384.000 | 1373.000 | 1363.000 |
| 20.0 | 1368.000 | 1354.000 | 1346.000 | 1331.000 | 1322.000 |
| 22.5 | 1332.000 | 1317.000 | 1304.000 | 1286.000 | 1276.000 |
| 25.0 | 1293.000 | 1276.000 | 1259.000 | 1237.000 | 1227.000 |
| 27.5 | 1251.000 | 1232.000 | 1210.000 | 1186.000 | 1175.000 |
| 30.0 | 1205.000 | 1186.000 | 1160.000 | 1133.000 | 1120.000 |
| 32.5 | 1157.000 | 1138.000 | 1107.000 | 1077.000 | 1061.000 |
| 35.0 | 1109.000 | 1087.000 | 1053.000 | 1020.000 | 1003.000 |
| 37.5 | 1059.000 | 1034.000 | 996.000 | 959.000 | 944.000 |
| 40.0 | 1007.000 | 981.000 | 938.000 | 901.000 | 884.000 |
| 42.5 | 955.000 | 926.000 | 882.000 | 841.000 | 824.000 |
| 45.0 | 902.000 | 871.000 | 824.000 | 780.000 | 764.000 |
| 47.5 | 849.000 | 815.000 | 766.000 | 720.000 | 704.000 |
| 50.0 | 794.000 | 758.000 | 706.000 | 659.000 | 643.000 |
| 52.5 | 738.000 | 701.000 | 647.000 | 600.000 | 584.000 |
| 55.0 | 682.000 | 645.000 | 588.000 | 541.000 | 525.000 |
| 57.5 | 627.000 | 588.000 | 530.000 | 483.000 | 467.000 |
| 60.0 | 571.000 | 531.000 | 472.000 | 425.000 | 409.000 |
| 62.5 | 515.000 | 474.000 | 414.000 | 368.000 | 353.000 |
| 65.0 | 457.000 | 418.000 | 358.000 | 313.000 | 299.000 |
| 67.5 | 402.000 | 362.000 | 302.000 | 260.000 | 246.000 |
| 70.0 | 347.000 | 307.000 | 249.000 | 208.000 | 196.000 |
| 72.5 | 293.000 | 254.000 | 199.000 | 161.000 | 149.000 |
| 75.0 | 244.000 | 203.000 | 151.000 | 120.000 | 115.000 |
| 77.5 | 194.000 | 155.000 | 108.000 | 96.000 | 95.000 |
| 80.0 | 146.000 | 109.000 | 78.000 | 75.000 | 75.000 |
| 82.5 | 104.000 | 66.000 | 56.000 | 54.000 | 54.000 |
| 85.0 | 60.000 | 36.000 | 33.000 | 32.000 | 31.000 |
| 87.5 | 19.000 | 12.000 | 11.000 | 11.000 | 10.000 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 92.5 | 15.440 | 16.984 | 18.528 | 19.042 | 19.042 |
| 95.0 | 38.599 | 40.143 | 41.687 | 43.231 | 43.746 |
| 97.5 | 62.273 | 64.332 | 66.905 | 68.964 | 69.479 |
| 100.0 | 87.492 | 89.550 | 92.638 | 95.212 | 95.212 |
| 102.5 | 113.739 | 115.798 | 119.400 | 122.488 | 122.488 |
| 105.0 | 142.045 | 144.619 | 147.707 | 150.794 | 150.794 |
| 107.5 | 171.381 | 173.439 | 176.527 | 180.130 | 179.615 |
| 110.0 | 201.746 | 203.290 | 206.377 | 209.465 | 209.465 |
| 112.5 | 232.625 | 234.169 | 237.257 | 240.345 | 239.830 |
| 115.0 | 264.534 | 265.563 | 269.166 | 271.739 | 270.710 |
| 117.5 | 296.442 | 296.442 | 300.560 | 301.589 | 302.104 |
| 120.0 | 328.866 | 328.866 | 331.954 | 333.498 | 334.012 |
| 122.5 | 361.804 | 361.804 | 363.863 | 365.406 | 366.950 |
| 125.0 | 393.713 | 393.198 | 395.257 | 397.315 | 398.345 |
| 127.5 | 425.621 | 424.592 | 427.165 | 428.709 | 430.768 |
| 130.0 | 457.530 | 455.986 | 458.559 | 460.618 | 461.647 |
| 132.5 | 487.895 | 485.836 | 488.924 | 491.498 | 492.012 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-V-8TW-TG-F-ITL90353.912.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|--------------|---------|---------|---------|---------|---------|
| 135.0 | 519.804 | 516.201 | 520.318 | 522.892 | 522.892 |
| 137.5 | 550.683 | 546.051 | 550.683 | 552.227 | 552.742 |
| 140.0 | 579.504 | 574.872 | 581.048 | 581.048 | 582.077 |
| 142.5 | 609.354 | 603.693 | 609.869 | 609.869 | 608.839 |
| 145.0 | 638.689 | 631.484 | 638.175 | 637.660 | 636.631 |
| 147.5 | 665.966 | 658.246 | 664.937 | 664.422 | 662.364 |
| 150.0 | 691.184 | 683.465 | 690.155 | 689.126 | 688.096 |
| 152.5 | 715.373 | 708.168 | 714.859 | 713.315 | 711.771 |
| 155.0 | 738.018 | 731.328 | 737.504 | 736.474 | 733.901 |
| 157.5 | 758.605 | 751.914 | 758.090 | 755.517 | 753.973 |
| 160.0 | 778.162 | 772.500 | 777.647 | 775.073 | 772.500 |
| 162.5 | 795.145 | 789.999 | 794.116 | 791.543 | 789.999 |
| 165.0 | 810.070 | 805.953 | 808.526 | 806.982 | 805.438 |
| 167.5 | 822.937 | 819.849 | 821.393 | 820.363 | 819.334 |
| 170.0 | 833.230 | 831.686 | 832.201 | 831.686 | 830.657 |
| 172.5 | 840.950 | 840.950 | 840.950 | 839.920 | 839.920 |
| 175.0 | 847.125 | 847.125 | 847.125 | 846.611 | 846.611 |
| 177.5 | 851.243 | 851.243 | 851.243 | 851.243 | 851.243 |
| 180.0 | 852.272 | 852.272 | 852.272 | 852.272 | 852.272 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 540.33 | N.A. | 9.30 |
| 0-30 | 1119.1 | N.A. | 19.30 |
| 0-40 | 1777.63 | N.A. | 30.70 |
| 0-60 | 2946.95 | N.A. | 50.80 |
| 0-80 | 3488.07 | N.A. | 60.20 |
| 0-90 | 3531.33 | N.A. | 60.90 |
| 10-90 | 3389.38 | N.A. | 58.40 |
| 20-40 | 1237.3 | N.A. | 21.30 |
| 20-50 | 1875.11 | N.A. | 32.30 |
| 40-70 | 1532.82 | N.A. | 26.40 |
| 60-80 | 541.11 | N.A. | 9.30 |
| 70-80 | 177.61 | N.A. | 3.10 |
| 80-90 | 43.26 | N.A. | 0.70 |
| 90-110 | 202.93 | N.A. | 3.50 |
| 90-120 | 468.61 | N.A. | 8.10 |
| 90-130 | 822.25 | N.A. | 14.20 |
| 90-150 | 1621.12 | N.A. | 28.00 |
| 90-180 | 2267.55 | N.A. | 39.10 |
| 110-180 | 2064.62 | N.A. | 35.60 |
| 0-180 | 5798.88 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 141.95 |
| 10-20 | 398.38 |
| 20-30 | 578.77 |
| 30-40 | 658.53 |
| 40-50 | 637.81 |
| 50-60 | 531.51 |
| 60-70 | 363.50 |
| 70-80 | 177.61 |
| 80-90 | 43.26 |
| 90-100 | 46.82 |
| 100-110 | 156.11 |
| 110-120 | 265.68 |
| 120-130 | 353.64 |
| 130-140 | 401.13 |
| 140-150 | 397.74 |
| 150-160 | 338.44 |
| 160-170 | 227.62 |
| 170-180 | 80.37 |

IES INDOOR REPORT

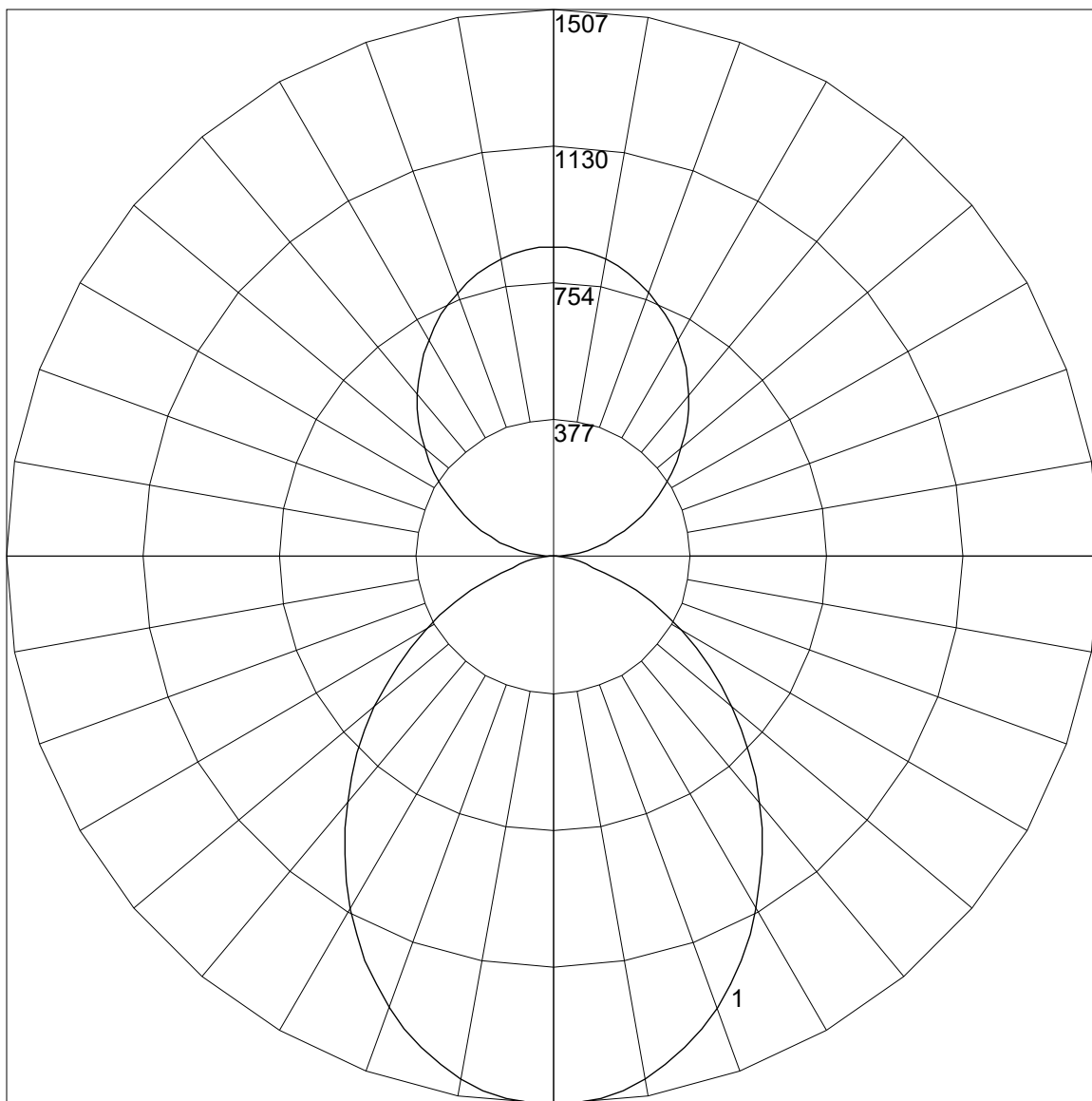
PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-B-V-8TW-TG-F-ITL90353.912.IES

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 | 89 | 89 | 89 | 77 | 77 | 77 | 66 | 66 | 66 | 61 |
| 1 | 101 | 96 | 93 | 89 | 94 | 90 | 87 | 84 | 79 | 77 | 74 | 69 | 67 | 65 | 59 | 58 | 57 | 52 |
| 2 | 92 | 85 | 78 | 73 | 86 | 79 | 74 | 70 | 70 | 66 | 62 | 61 | 58 | 55 | 52 | 50 | 48 | 44 |
| 3 | 84 | 75 | 67 | 61 | 78 | 70 | 64 | 58 | 62 | 57 | 53 | 54 | 50 | 47 | 47 | 44 | 41 | 38 |
| 4 | 77 | 66 | 58 | 52 | 72 | 62 | 55 | 50 | 55 | 49 | 45 | 48 | 44 | 40 | 42 | 39 | 36 | 33 |
| 5 | 71 | 59 | 51 | 45 | 66 | 56 | 49 | 43 | 49 | 44 | 39 | 43 | 39 | 35 | 38 | 34 | 31 | 29 |
| 6 | 65 | 53 | 45 | 39 | 61 | 50 | 43 | 38 | 45 | 39 | 34 | 39 | 35 | 31 | 34 | 31 | 28 | 25 |
| 7 | 61 | 48 | 40 | 35 | 57 | 46 | 38 | 33 | 41 | 35 | 30 | 36 | 31 | 28 | 32 | 28 | 25 | 22 |
| 8 | 56 | 44 | 36 | 31 | 53 | 42 | 35 | 30 | 37 | 31 | 27 | 33 | 28 | 25 | 29 | 25 | 22 | 20 |
| 9 | 53 | 40 | 33 | 28 | 49 | 38 | 31 | 27 | 34 | 28 | 24 | 30 | 26 | 22 | 27 | 23 | 20 | 18 |
| 10 | 49 | 37 | 30 | 25 | 46 | 35 | 28 | 24 | 32 | 26 | 22 | 28 | 24 | 20 | 25 | 21 | 18 | 17 |

POLAR GRAPH



Maximum Candela = 1507 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)