

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 : 4D90 - HP-4C-ID-P-37IN11-16IN-S-V-835-ITL93249.013.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93249.012 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]03/20/20

[ISSUEDATE]09/28/20

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HP-4C-ID-P-37in11-16in-S-V-835

[_INPUT_ELECTRICAL]120.0 VOLTS, 38.9 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 40.1 WATTS

[_ABSOLUTE]LUMENS]4070

[OTHER]see www.finelite.com for source file ITL93249. 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 | 4072 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 105 |
| Total Luminaire Watts | 38.9 |
| Ballast Factor | 1.00 |
| CIE Type | Semi-Direct |
| Spacing Criterion (0-180) | 1.16 |
| Spacing Criterion (90-270) | 1.18 |
| Spacing Criterion (Diagonal) | 1.28 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 0.33 ft |
| Luminous Width (90-270) | 2.88 ft |
| Luminous Height | 0.02 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 9772 | 10038 | 10567 |
| 55 | 8653 | 8979 | 9604 |
| 65 | 7563 | 7864 | 8665 |
| 75 | 6432 | 6607 | 7511 |
| 85 | 5505 | 5401 | 6280 |

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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> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> |
|-------|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| 0.0 | 1156.000 | 1156.000 | 1156.000 | 1156.000 | 1156.000 | 1156.000 | 1156.000 | 1156.000 | 1156.000 |
| 2.5 | 1155.000 | 1155.000 | 1156.000 | 1155.000 | 1154.000 | 1154.000 | 1154.000 | 1153.000 | 1153.000 |
| 5.0 | 1150.000 | 1150.000 | 1150.000 | 1150.000 | 1149.000 | 1148.000 | 1147.000 | 1146.000 | 1146.000 |
| 7.5 | 1142.000 | 1141.000 | 1141.000 | 1141.000 | 1139.000 | 1138.000 | 1136.000 | 1135.000 | 1133.000 |
| 10.0 | 1127.000 | 1128.000 | 1128.000 | 1128.000 | 1126.000 | 1124.000 | 1122.000 | 1120.000 | 1119.000 |
| 12.5 | 1111.000 | 1110.000 | 1110.000 | 1111.000 | 1110.000 | 1106.000 | 1104.000 | 1100.000 | 1099.000 |
| 15.0 | 1088.000 | 1090.000 | 1088.000 | 1091.000 | 1091.000 | 1086.000 | 1082.000 | 1077.000 | 1073.000 |
| 17.5 | 1060.000 | 1063.000 | 1063.000 | 1066.000 | 1066.000 | 1061.000 | 1054.000 | 1049.000 | 1045.000 |
| 20.0 | 1032.000 | 1035.000 | 1036.000 | 1038.000 | 1040.000 | 1033.000 | 1026.000 | 1017.000 | 1015.000 |
| 22.5 | 1000.000 | 1002.000 | 1004.000 | 1009.000 | 1011.000 | 1002.000 | 994.000 | 984.000 | 982.000 |
| 25.0 | 966.000 | 968.000 | 970.000 | 977.000 | 977.000 | 970.000 | 961.000 | 948.000 | 943.000 |
| 27.5 | 928.000 | 929.000 | 934.000 | 941.000 | 942.000 | 934.000 | 922.000 | 912.000 | 906.000 |
| 30.0 | 890.000 | 892.000 | 898.000 | 903.000 | 906.000 | 896.000 | 885.000 | 871.000 | 869.000 |
| 32.5 | 847.000 | 853.000 | 857.000 | 866.000 | 868.000 | 856.000 | 847.000 | 832.000 | 827.000 |
| 35.0 | 806.000 | 810.000 | 816.000 | 825.000 | 825.000 | 817.000 | 805.000 | 792.000 | 786.000 |
| 37.5 | 765.000 | 769.000 | 775.000 | 783.000 | 785.000 | 778.000 | 764.000 | 751.000 | 746.000 |
| 40.0 | 724.000 | 726.000 | 732.000 | 743.000 | 745.000 | 736.000 | 724.000 | 707.000 | 702.000 |
| 42.5 | 678.000 | 682.000 | 690.000 | 700.000 | 702.000 | 696.000 | 682.000 | 667.000 | 661.000 |
| 45.0 | 635.000 | 639.000 | 646.000 | 655.000 | 659.000 | 653.000 | 637.000 | 624.000 | 619.000 |
| 47.5 | 593.000 | 596.000 | 603.000 | 613.000 | 616.000 | 609.000 | 594.000 | 581.000 | 578.000 |
| 50.0 | 549.000 | 555.000 | 561.000 | 572.000 | 574.000 | 567.000 | 552.000 | 540.000 | 535.000 |
| 52.5 | 508.000 | 511.000 | 518.000 | 529.000 | 531.000 | 525.000 | 512.000 | 498.000 | 498.000 |
| 55.0 | 465.000 | 470.000 | 476.000 | 484.000 | 487.000 | 484.000 | 470.000 | 459.000 | 455.000 |
| 57.5 | 426.000 | 430.000 | 433.000 | 443.000 | 446.000 | 440.000 | 427.000 | 419.000 | 416.000 |
| 60.0 | 387.000 | 388.000 | 393.000 | 402.000 | 406.000 | 401.000 | 389.000 | 379.000 | 375.000 |
| 62.5 | 349.000 | 350.000 | 353.000 | 362.000 | 364.000 | 360.000 | 349.000 | 342.000 | 338.000 |
| 65.0 | 309.000 | 311.000 | 315.000 | 320.000 | 325.000 | 320.000 | 312.000 | 304.000 | 302.000 |
| 67.5 | 274.000 | 276.000 | 276.000 | 282.000 | 285.000 | 283.000 | 272.000 | 268.000 | 267.000 |
| 70.0 | 239.000 | 240.000 | 238.000 | 245.000 | 246.000 | 244.000 | 237.000 | 234.000 | 231.000 |
| 72.5 | 206.000 | 205.000 | 204.000 | 208.000 | 209.000 | 209.000 | 203.000 | 200.000 | 198.000 |
| 75.0 | 172.000 | 173.000 | 171.000 | 172.000 | 174.000 | 174.000 | 171.000 | 167.000 | 168.000 |
| 77.5 | 143.000 | 143.000 | 138.000 | 140.000 | 138.000 | 141.000 | 138.000 | 138.000 | 139.000 |
| 80.0 | 115.000 | 115.000 | 109.000 | 110.000 | 106.000 | 111.000 | 109.000 | 111.000 | 110.000 |
| 82.5 | 90.000 | 88.000 | 83.000 | 82.000 | 78.000 | 82.000 | 83.000 | 85.000 | 86.000 |
| 85.0 | 65.000 | 64.000 | 59.000 | 55.000 | 51.000 | 56.000 | 59.000 | 61.000 | 63.000 |
| 87.5 | 45.000 | 43.000 | 35.000 | 33.000 | 27.000 | 31.000 | 36.000 | 41.000 | 43.000 |
| 90.0 | 31.000 | 29.000 | 22.000 | 18.000 | 12.000 | 15.000 | 20.000 | 27.000 | 29.000 |
| 92.5 | 17.602 | 16.783 | 14.736 | 12.280 | 10.643 | 11.052 | 13.918 | 15.964 | 17.192 |
| 95.0 | 27.835 | 27.017 | 24.561 | 22.105 | 21.286 | 20.877 | 23.742 | 25.789 | 27.017 |
| 97.5 | 39.297 | 38.888 | 36.022 | 33.157 | 32.338 | 32.338 | 34.385 | 36.841 | 37.660 |
| 100.0 | 52.806 | 51.578 | 48.712 | 46.665 | 44.619 | 45.028 | 46.256 | 48.712 | 49.940 |
| 102.5 | 65.905 | 64.677 | 62.630 | 60.174 | 58.127 | 58.536 | 60.174 | 61.402 | 62.630 |
| 105.0 | 79.823 | 79.004 | 76.548 | 74.910 | 72.864 | 72.864 | 73.682 | 76.548 | 76.548 |
| 107.5 | 94.559 | 94.150 | 91.694 | 89.647 | 88.009 | 89.237 | 88.419 | 90.466 | 90.875 |
| 110.0 | 109.705 | 110.114 | 106.839 | 106.430 | 104.793 | 105.202 | 103.155 | 105.202 | 106.839 |
| 112.5 | 126.488 | 125.669 | 123.623 | 124.032 | 121.576 | 121.166 | 119.938 | 121.985 | 122.394 |
| 115.0 | 142.452 | 141.634 | 140.406 | 139.996 | 138.359 | 137.131 | 137.540 | 138.359 | 137.950 |
| 117.5 | 158.826 | 158.008 | 157.598 | 156.370 | 155.961 | 153.914 | 153.914 | 154.733 | 154.323 |
| 120.0 | 175.200 | 176.428 | 175.200 | 173.972 | 173.153 | 172.335 | 170.697 | 171.516 | 169.879 |
| 122.5 | 193.621 | 194.849 | 193.211 | 191.165 | 191.165 | 189.527 | 188.299 | 188.708 | 186.662 |
| 125.0 | 211.222 | 212.860 | 212.041 | 208.767 | 208.357 | 207.129 | 206.310 | 204.673 | 203.445 |
| 127.5 | 228.006 | 231.280 | 229.643 | 228.415 | 225.959 | 223.503 | 223.094 | 220.637 | 220.228 |
| 130.0 | 246.017 | 249.701 | 247.245 | 246.836 | 245.198 | 241.514 | 239.877 | 238.649 | 237.421 |
| 132.5 | 265.256 | 267.712 | 265.256 | 264.438 | 262.800 | 259.116 | 256.660 | 255.841 | 254.204 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4D90 - HP-4C-ID-P-37IN11-16IN-S-V-835-ITL93249.013.IES****CANDELA TABULATION - (Cont.)**

| | | | | | | | | | |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 135.0 | 282.858 | 284.905 | 283.677 | 282.039 | 281.221 | 277.537 | 274.671 | 273.853 | 273.034 |
| 137.5 | 300.460 | 302.097 | 302.097 | 299.641 | 298.413 | 294.729 | 292.682 | 291.045 | 290.226 |
| 140.0 | 319.290 | 319.290 | 318.880 | 317.652 | 316.015 | 312.740 | 309.466 | 308.647 | 307.010 |
| 142.5 | 335.664 | 336.073 | 335.664 | 334.436 | 334.436 | 329.933 | 327.067 | 325.430 | 323.793 |
| 145.0 | 351.628 | 352.038 | 352.038 | 350.400 | 351.219 | 346.307 | 344.260 | 342.213 | 341.395 |
| 147.5 | 368.411 | 368.002 | 367.183 | 365.546 | 366.774 | 362.271 | 359.815 | 358.587 | 357.359 |
| 150.0 | 382.738 | 382.738 | 382.329 | 381.101 | 381.510 | 377.417 | 375.780 | 374.552 | 372.505 |
| 152.5 | 396.247 | 397.066 | 395.838 | 395.019 | 395.838 | 392.563 | 390.107 | 388.879 | 386.832 |
| 155.0 | 409.755 | 410.574 | 408.937 | 408.118 | 409.346 | 406.071 | 403.615 | 402.796 | 401.568 |
| 157.5 | 421.626 | 422.445 | 420.808 | 419.580 | 421.217 | 417.942 | 417.124 | 415.896 | 414.258 |
| 160.0 | 431.451 | 432.269 | 431.041 | 431.041 | 431.451 | 428.995 | 428.176 | 427.357 | 425.720 |
| 162.5 | 440.456 | 441.684 | 441.275 | 440.047 | 441.275 | 439.638 | 438.819 | 438.000 | 437.182 |
| 165.0 | 449.053 | 449.871 | 449.462 | 448.643 | 449.871 | 447.825 | 447.415 | 447.006 | 446.187 |
| 167.5 | 456.830 | 456.421 | 456.421 | 456.011 | 456.830 | 456.011 | 455.602 | 455.193 | 454.783 |
| 170.0 | 462.561 | 462.561 | 462.152 | 462.970 | 462.561 | 461.742 | 461.742 | 461.742 | 461.742 |
| 172.5 | 467.473 | 467.064 | 467.064 | 467.473 | 467.064 | 467.064 | 467.064 | 466.654 | 466.654 |
| 175.0 | 470.748 | 470.339 | 470.339 | 470.339 | 470.339 | 470.339 | 470.339 | 470.339 | 470.748 |
| 177.5 | 472.385 | 472.385 | 472.385 | 472.385 | 472.385 | 472.385 | 472.385 | 472.385 | 472.385 |
| 180.0 | 473.204 | 473.204 | 473.204 | 473.204 | 473.204 | 473.204 | 473.204 | 473.204 | 473.204 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4D90 - HP-4C-ID-P-37IN11-16IN-S-V-835-ITL93249.013.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 414.36 | N.A. | 10.20 |
| 0-30 | 858.59 | N.A. | 21.10 |
| 0-40 | 1365.84 | N.A. | 33.50 |
| 0-60 | 2285.95 | N.A. | 56.10 |
| 0-80 | 2779.91 | N.A. | 68.30 |
| 0-90 | 2846.48 | N.A. | 69.90 |
| 10-90 | 2737.61 | N.A. | 67.20 |
| 20-40 | 951.48 | N.A. | 23.40 |
| 20-50 | 1447.5 | N.A. | 35.50 |
| 40-70 | 1231.74 | N.A. | 30.20 |
| 60-80 | 493.96 | N.A. | 12.10 |
| 70-80 | 182.33 | N.A. | 4.50 |
| 80-90 | 66.58 | N.A. | 1.60 |
| 90-110 | 109.77 | N.A. | 2.70 |
| 90-120 | 247.73 | N.A. | 6.10 |
| 90-130 | 434.11 | N.A. | 10.70 |
| 90-150 | 867.22 | N.A. | 21.30 |
| 90-180 | 1225.5 | N.A. | 30.10 |
| 110-180 | 1115.73 | N.A. | 27.40 |
| 0-180 | 4071.98 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 108.88 |
| 10-20 | 305.49 |
| 20-30 | 444.23 |
| 30-40 | 507.25 |
| 40-50 | 496.03 |
| 50-60 | 424.08 |
| 60-70 | 311.63 |
| 70-80 | 182.33 |
| 80-90 | 66.58 |
| 90-100 | 29.48 |
| 100-110 | 80.29 |
| 110-120 | 137.96 |
| 120-130 | 186.38 |
| 130-140 | 215.53 |
| 140-150 | 217.57 |
| 150-160 | 187.22 |
| 160-170 | 126.42 |
| 170-180 | 44.64 |

IES INDOOR REPORT

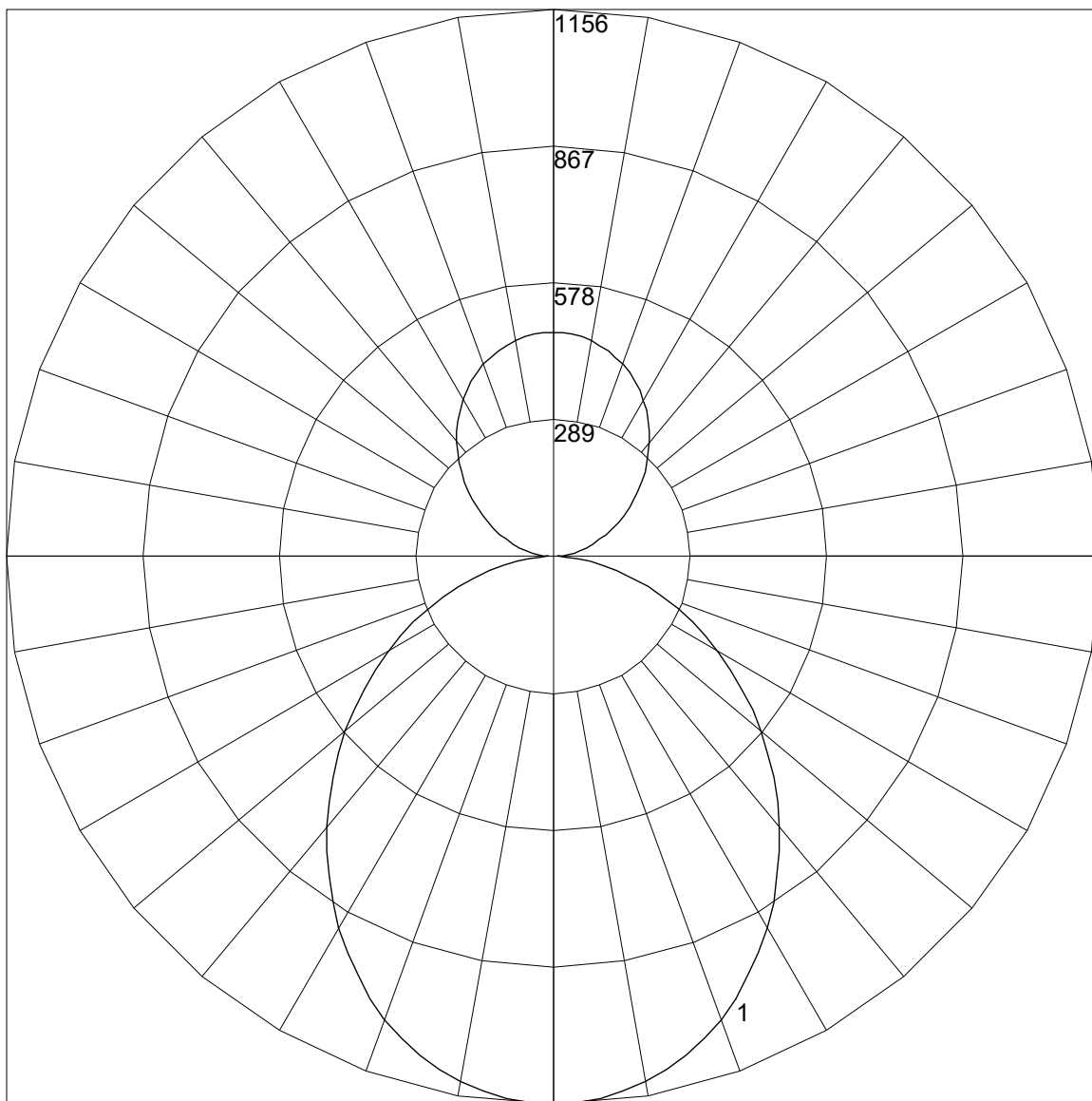
PHOTOMETRIC FILENAME : 4D90 - HP-4C-ID-P-37IN11-16IN-S-V-835-ITL93249.013.IES

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 | 112 | 112 | 112 | 112 | 106 | 106 | 106 | 106 | 94 | 94 | 94 | 84 | 84 | 84 | 74 | 74 | 74 | 70 |
| 1 | 102 | 98 | 94 | 90 | 96 | 92 | 89 | 86 | 83 | 80 | 78 | 74 | 72 | 70 | 66 | 64 | 63 | 59 |
| 2 | 93 | 85 | 79 | 74 | 88 | 81 | 75 | 71 | 73 | 68 | 64 | 65 | 62 | 59 | 58 | 55 | 53 | 49 |
| 3 | 85 | 75 | 68 | 62 | 80 | 71 | 65 | 59 | 64 | 59 | 54 | 58 | 53 | 50 | 51 | 48 | 45 | 42 |
| 4 | 78 | 67 | 59 | 52 | 73 | 63 | 56 | 50 | 57 | 51 | 47 | 51 | 47 | 43 | 46 | 42 | 39 | 36 |
| 5 | 72 | 60 | 51 | 45 | 68 | 57 | 49 | 44 | 51 | 45 | 40 | 46 | 41 | 37 | 42 | 37 | 34 | 31 |
| 6 | 66 | 54 | 45 | 39 | 62 | 51 | 44 | 38 | 46 | 40 | 35 | 42 | 37 | 33 | 38 | 34 | 30 | 28 |
| 7 | 61 | 49 | 40 | 35 | 58 | 46 | 39 | 34 | 42 | 36 | 31 | 38 | 33 | 29 | 35 | 30 | 27 | 25 |
| 8 | 57 | 44 | 36 | 31 | 54 | 42 | 35 | 30 | 39 | 32 | 28 | 35 | 30 | 26 | 32 | 28 | 24 | 22 |
| 9 | 53 | 41 | 33 | 28 | 50 | 39 | 32 | 27 | 36 | 30 | 25 | 32 | 27 | 24 | 29 | 25 | 22 | 20 |
| 10 | 50 | 37 | 30 | 25 | 47 | 36 | 29 | 24 | 33 | 27 | 23 | 30 | 25 | 21 | 27 | 23 | 20 | 18 |

POLAR GRAPH



Maximum Candela = 1156 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)