

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-S-8-35-ITL85125.001.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85125.001 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]08/06/15
[ISSUE DATE]04/21/16
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE HP-4-ID-4ft-S-S-8-35
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 29.1 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 32.0 WATTS
[ABSOLUTE LUMENS]3228
[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 | 3228 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 111 |
| Total Luminaire Watts | 29.1 |
| Ballast Factor | 1.00 |
| CIE Type | General Diffuse |
| Spacing Criterion (0-180) | N.A. |
| Spacing Criterion (90-270) | N.A. |
| Spacing Criterion (Diagonal) | N.A. |
| 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 | 4140 | 4082 | 4010 |
| 55 | 3844 | 3785 | 3708 |
| 65 | 3508 | 3460 | 3403 |
| 75 | 3068 | 3068 | 3055 |
| 85 | 2542 | 2659 | 2737 |

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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 | 590.702 | 590.702 | 590.702 | 590.702 | 590.702 |
| 2.5 | 589.474 | 589.474 | 589.474 | 589.474 | 589.474 |
| 5.0 | 586.608 | 587.018 | 587.018 | 586.608 | 587.018 |
| 7.5 | 582.515 | 582.924 | 582.515 | 581.696 | 582.515 |
| 10.0 | 576.784 | 575.556 | 575.965 | 575.965 | 575.146 |
| 12.5 | 569.825 | 567.778 | 568.187 | 568.187 | 566.140 |
| 15.0 | 560.000 | 556.725 | 558.772 | 557.953 | 555.088 |
| 17.5 | 549.357 | 544.854 | 546.901 | 546.082 | 543.216 |
| 20.0 | 536.667 | 531.754 | 533.392 | 532.164 | 529.298 |
| 22.5 | 522.749 | 517.427 | 518.655 | 517.018 | 514.152 |
| 25.0 | 507.193 | 501.462 | 502.690 | 501.053 | 497.778 |
| 27.5 | 490.409 | 484.678 | 485.497 | 483.450 | 480.585 |
| 30.0 | 472.398 | 466.667 | 467.076 | 465.029 | 461.754 |
| 32.5 | 453.567 | 449.064 | 448.655 | 445.789 | 442.924 |
| 35.0 | 434.737 | 429.825 | 429.415 | 425.731 | 423.275 |
| 37.5 | 414.269 | 409.357 | 409.766 | 405.263 | 402.807 |
| 40.0 | 393.801 | 389.708 | 389.298 | 384.795 | 382.339 |
| 42.5 | 374.152 | 368.830 | 367.602 | 363.918 | 361.462 |
| 45.0 | 351.637 | 347.953 | 346.725 | 343.041 | 340.585 |
| 47.5 | 329.942 | 326.257 | 325.439 | 321.754 | 319.298 |
| 50.0 | 308.246 | 304.971 | 303.743 | 300.058 | 298.012 |
| 52.5 | 286.550 | 283.275 | 282.865 | 278.772 | 276.725 |
| 55.0 | 264.854 | 261.988 | 260.760 | 257.076 | 255.439 |
| 57.5 | 242.749 | 240.292 | 239.064 | 235.789 | 234.152 |
| 60.0 | 221.462 | 218.596 | 217.778 | 214.912 | 213.684 |
| 62.5 | 199.357 | 196.901 | 196.082 | 193.626 | 192.807 |
| 65.0 | 178.070 | 176.023 | 175.614 | 173.567 | 172.749 |
| 67.5 | 156.374 | 155.146 | 154.737 | 153.099 | 152.281 |
| 70.0 | 135.497 | 134.678 | 134.678 | 133.450 | 132.632 |
| 72.5 | 115.029 | 115.439 | 114.620 | 115.029 | 113.801 |
| 75.0 | 95.380 | 95.789 | 95.380 | 95.789 | 94.971 |
| 77.5 | 76.550 | 76.959 | 77.778 | 77.778 | 77.778 |
| 80.0 | 58.947 | 59.357 | 60.175 | 60.585 | 60.585 |
| 82.5 | 42.982 | 43.392 | 43.801 | 44.211 | 44.211 |
| 85.0 | 26.608 | 27.427 | 27.836 | 28.246 | 28.655 |
| 87.5 | 11.462 | 12.281 | 12.690 | 13.918 | 13.918 |
| 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 | 84.327 | 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 | 365.556 |

IES INDOOR REPORT
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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 | 435.556 |
| 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 | 212.80 | N.A. | 6.60 |
| 0-30 | 443.81 | N.A. | 13.70 |
| 0-40 | 711.69 | N.A. | 22.00 |
| 0-60 | 1211.11 | N.A. | 37.50 |
| 0-80 | 1486.02 | N.A. | 46.00 |
| 0-90 | 1517.15 | N.A. | 47.00 |
| 10-90 | 1461.48 | N.A. | 45.30 |
| 20-40 | 498.90 | N.A. | 15.50 |
| 20-50 | 765.76 | N.A. | 23.70 |
| 40-70 | 672.82 | N.A. | 20.80 |
| 60-80 | 274.92 | N.A. | 8.50 |
| 70-80 | 101.52 | N.A. | 3.10 |
| 80-90 | 31.13 | N.A. | 1.00 |
| 90-110 | 150.17 | N.A. | 4.70 |
| 90-120 | 347.37 | N.A. | 10.80 |
| 90-130 | 611.92 | N.A. | 19.00 |
| 90-150 | 1216.66 | N.A. | 37.70 |
| 90-180 | 1711.21 | N.A. | 53.00 |
| 110-180 | 1561.04 | N.A. | 48.40 |
| 0-180 | 3228.36 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 55.67 |
| 10-20 | 157.12 |
| 20-30 | 231.01 |
| 30-40 | 267.88 |
| 40-50 | 266.86 |
| 50-60 | 232.55 |
| 60-70 | 173.40 |
| 70-80 | 101.52 |
| 80-90 | 31.13 |
| 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 |

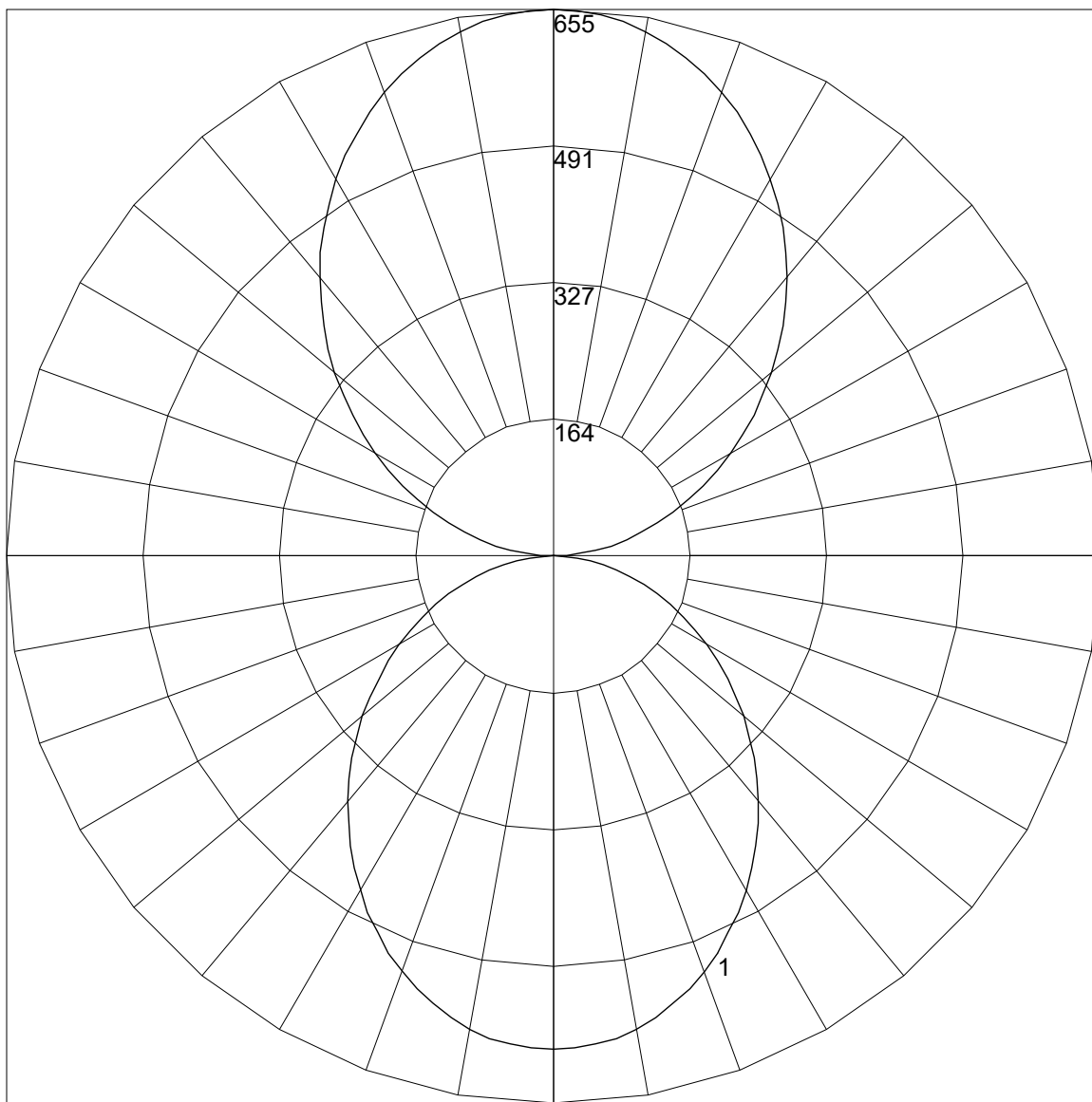
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 106 | 106 | 106 | 106 | 98 | 98 | 98 | 98 | 82 | 82 | 82 | 67 | 67 | 67 | 53 | 53 | 53 | 47 |
| 1 | 97 | 93 | 89 | 85 | 89 | 85 | 82 | 79 | 71 | 69 | 67 | 59 | 57 | 56 | 47 | 46 | 45 | 39 |
| 2 | 88 | 81 | 75 | 70 | 81 | 75 | 69 | 65 | 63 | 59 | 55 | 52 | 49 | 46 | 41 | 39 | 38 | 33 |
| 3 | 81 | 71 | 64 | 58 | 74 | 66 | 59 | 54 | 55 | 50 | 47 | 46 | 42 | 39 | 37 | 34 | 32 | 28 |
| 4 | 74 | 63 | 55 | 49 | 67 | 58 | 51 | 46 | 49 | 44 | 40 | 41 | 37 | 34 | 33 | 30 | 28 | 24 |
| 5 | 68 | 56 | 48 | 42 | 62 | 52 | 45 | 39 | 44 | 38 | 34 | 36 | 32 | 29 | 30 | 27 | 24 | 21 |
| 6 | 62 | 50 | 42 | 36 | 57 | 47 | 39 | 34 | 40 | 34 | 30 | 33 | 29 | 25 | 27 | 24 | 21 | 18 |
| 7 | 58 | 45 | 37 | 32 | 53 | 42 | 35 | 30 | 36 | 30 | 26 | 30 | 26 | 23 | 24 | 21 | 19 | 16 |
| 8 | 53 | 41 | 33 | 28 | 49 | 38 | 31 | 27 | 33 | 27 | 23 | 27 | 23 | 20 | 22 | 19 | 17 | 15 |
| 9 | 50 | 38 | 30 | 25 | 46 | 35 | 28 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 21 | 18 | 15 | 13 |
| 10 | 46 | 34 | 27 | 22 | 43 | 32 | 26 | 21 | 28 | 22 | 19 | 23 | 19 | 16 | 19 | 16 | 14 | 12 |

POLAR GRAPH



Maximum Candela = 654.971 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)