

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-X-R-D-4FT-S-835-F-ITL93256.001.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITI93256.001 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[ISSUE DATE]03/23/20
[ISSUE DATE]05/14/20
[MANUFACTURER]FINELITE, INC.
[LUMCAT]FINELITE HP-X-R-D-4ft-S-835-F
[INPUT_ELECTRICAL]120.0 VOLTS, 13.0 WATTS
[INPUT_ELECTRICAL]277.0 VOLTS, 14.1 WATTS
[ABSOLUTE LUMENS]1689
[OTHER]see www.finelite.com for source file ITL93256. 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 | 1689 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 130 |
| Total Luminaire Watts | 13 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.28 |
| Spacing Criterion (90-270) | 1.26 |
| Spacing Criterion (Diagonal) | 1.40 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 4.00 ft |
| Luminous Width (90-270) | 0.20 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 7477 | 7469 | 7422 |
| 55 | 7230 | 7240 | 7182 |
| 65 | 6840 | 6880 | 6867 |
| 75 | 6272 | 6401 | 6444 |
| 85 | 5677 | 5804 | 5804 |

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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 | 578.279 | 578.279 | 578.279 | 578.279 | 578.279 |
| 2.5 | 577.869 | 577.869 | 577.869 | 577.869 | 577.869 |
| 5.0 | 576.642 | 575.823 | 576.232 | 576.232 | 575.823 |
| 7.5 | 572.958 | 572.549 | 572.958 | 572.549 | 572.958 |
| 10.0 | 569.275 | 567.638 | 568.457 | 568.866 | 568.457 |
| 12.5 | 563.955 | 561.499 | 563.136 | 563.546 | 562.318 |
| 15.0 | 557.816 | 554.133 | 556.588 | 556.997 | 555.770 |
| 17.5 | 550.040 | 544.720 | 548.812 | 548.812 | 547.585 |
| 20.0 | 540.627 | 535.307 | 539.809 | 539.399 | 537.762 |
| 22.5 | 529.577 | 524.666 | 528.759 | 529.168 | 527.531 |
| 25.0 | 518.527 | 512.798 | 517.300 | 517.300 | 516.072 |
| 27.5 | 505.840 | 499.702 | 505.022 | 504.613 | 503.385 |
| 30.0 | 491.926 | 486.605 | 491.516 | 490.289 | 489.470 |
| 32.5 | 476.374 | 472.281 | 476.374 | 475.555 | 474.328 |
| 35.0 | 461.232 | 456.730 | 460.822 | 459.595 | 457.957 |
| 37.5 | 444.861 | 440.359 | 444.452 | 442.815 | 441.587 |
| 40.0 | 426.445 | 422.761 | 426.854 | 424.808 | 423.580 |
| 42.5 | 408.028 | 405.163 | 408.847 | 406.391 | 404.754 |
| 45.0 | 389.202 | 386.747 | 388.793 | 387.156 | 386.338 |
| 47.5 | 369.558 | 366.693 | 369.558 | 367.103 | 366.693 |
| 50.0 | 349.505 | 346.640 | 349.095 | 347.458 | 345.821 |
| 52.5 | 326.996 | 325.768 | 327.814 | 325.768 | 324.949 |
| 55.0 | 305.305 | 304.077 | 305.714 | 304.077 | 303.259 |
| 57.5 | 283.205 | 281.977 | 284.024 | 281.977 | 281.977 |
| 60.0 | 260.287 | 259.059 | 260.287 | 259.468 | 258.650 |
| 62.5 | 237.368 | 236.550 | 237.778 | 236.141 | 236.959 |
| 65.0 | 212.813 | 213.222 | 214.041 | 213.632 | 213.632 |
| 67.5 | 189.895 | 189.895 | 191.532 | 190.304 | 191.532 |
| 70.0 | 166.158 | 166.567 | 167.795 | 167.795 | 167.795 |
| 72.5 | 143.240 | 143.649 | 145.286 | 145.286 | 144.877 |
| 75.0 | 119.503 | 120.731 | 121.958 | 122.368 | 122.777 |
| 77.5 | 97.403 | 98.221 | 100.268 | 100.677 | 101.495 |
| 80.0 | 76.531 | 77.349 | 78.577 | 79.396 | 79.396 |
| 82.5 | 56.068 | 56.068 | 57.296 | 58.114 | 58.114 |
| 85.0 | 36.424 | 36.015 | 37.242 | 37.242 | 37.242 |
| 87.5 | 15.961 | 15.961 | 17.598 | 17.189 | 17.598 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 211.65 | N.A. | 12.50 |
| 0-30 | 449.54 | N.A. | 26.60 |
| 0-40 | 736.80 | N.A. | 43.60 |
| 0-60 | 1308.02 | N.A. | 77.40 |
| 0-80 | 1648.35 | N.A. | 97.60 |
| 0-90 | 1689.17 | N.A. | 100.00 |
| 10-90 | 1634.43 | N.A. | 96.80 |
| 20-40 | 525.15 | N.A. | 31.10 |
| 20-50 | 824.14 | N.A. | 48.80 |
| 40-70 | 782.69 | N.A. | 46.30 |
| 60-80 | 340.33 | N.A. | 20.10 |
| 70-80 | 128.87 | N.A. | 7.60 |
| 80-90 | 40.82 | N.A. | 2.40 |
| 90-110 | 0.00 | N.A. | 0.00 |
| 90-120 | 0.00 | N.A. | 0.00 |
| 90-130 | 0.00 | N.A. | 0.00 |
| 90-150 | 0.00 | N.A. | 0.00 |
| 90-180 | 0.00 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 1689.17 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 54.74 |
| 10-20 | 156.90 |
| 20-30 | 237.90 |
| 30-40 | 287.25 |
| 40-50 | 298.98 |
| 50-60 | 272.24 |
| 60-70 | 211.46 |
| 70-80 | 128.87 |
| 80-90 | 40.82 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |

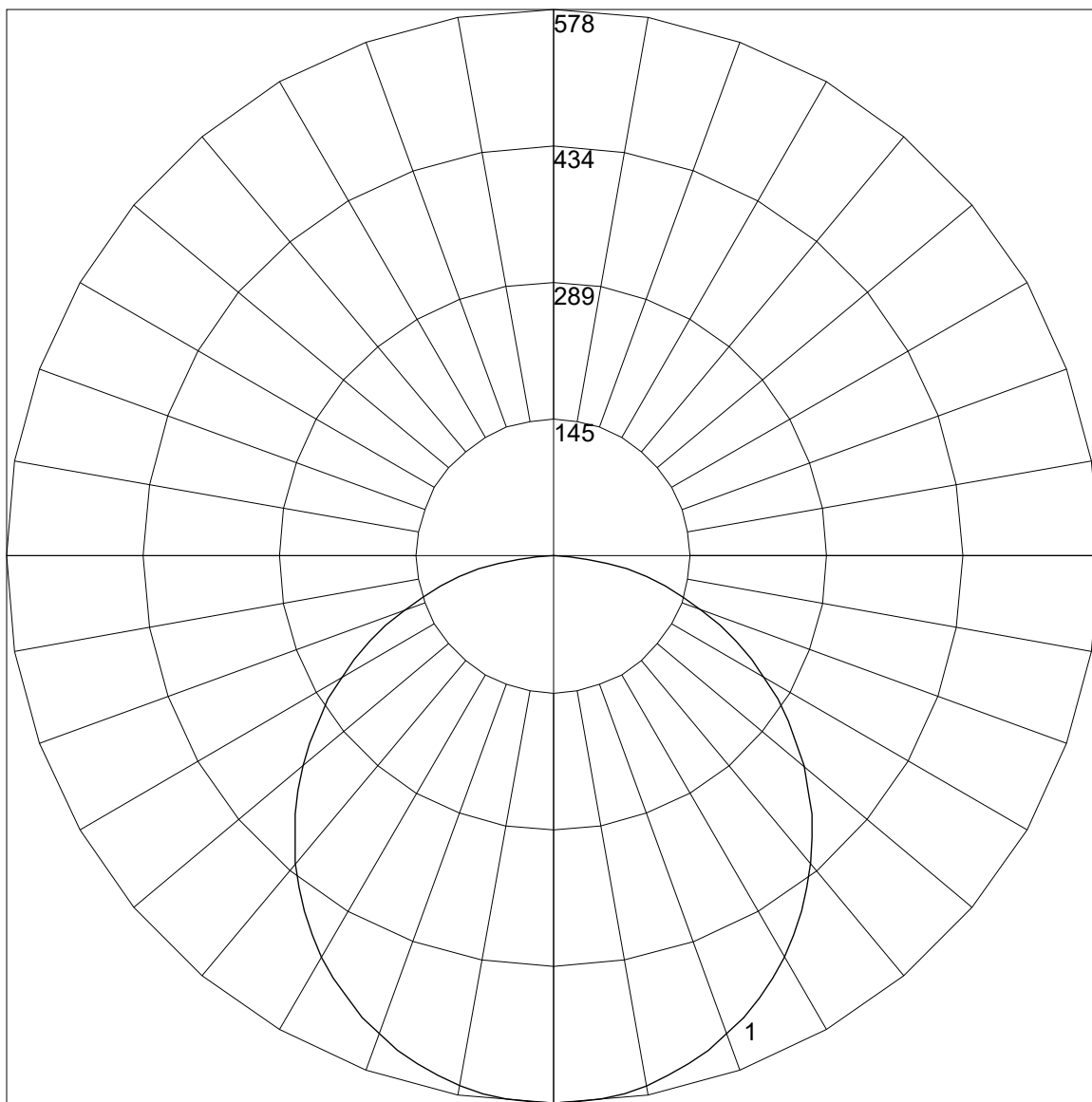
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 88 | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 81 | 76 | 84 | 79 | 74 | 81 | 76 | 72 | 78 | 74 | 71 | 69 |
| 3 | 89 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 53 | 66 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 45 | 39 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 32 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 41 | 33 | 28 | 40 | 33 | 28 | 38 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 |

POLAR GRAPH



Maximum Candela = 578.279 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)