

# 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-B-835-ASY-DAO-ITL89599-KPL2008-3.015.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599-KPL2008-3.015 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/24/17

[ISSUEDATE]08/29/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-S-B-835-ASY-DAO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 32.3 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 34.5 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89599 and KPL2008-3. 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](http://www.finelite.com/download_files/series_downloads/photometry_pdf/FL_Family_Correlation_WhitePaper.pdf)

[\_ABSOLUTE LUMENS]3687

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 3689            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 114             |
| Total Luminaire Watts           | 32.3            |
| 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)         | 0.18 ft         |
| Luminous Width (90-270)         | 4.00 ft         |
| Luminous Height                 | 0.00 ft         |

### LUMINANCE DATA (cd/sq.m)

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 11958            | 12383             | 8999              |
| 55                  | 10149            | 11245             | 8027              |
| 65                  | 8379             | 9736              | 7097              |
| 75                  | 6990             | 8274              | 5956              |
| 85                  | 6975             | 8242              | 4954              |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-B-835-ASY-DAO-ITL89599-KPL2008-3.015.IES

## CANDELA TABULATION

|       | <u>0</u> | <u>10</u> | <u>20</u> | <u>30</u> | <u>40</u> | <u>50</u> | <u>60</u> | <u>70</u> | <u>80</u> | <u>90</u> |
|-------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0.0   | 731.898  | 731.898   | 731.898   | 731.898   | 731.898   | 731.898   | 731.898   | 731.898   | 731.898   | 731.898   |
| 2.5   | 756.815  | 755.580   | 751.972   | 754.071   | 751.920   | 747.504   | 747.020   | 748.420   | 747.077   | 735.666   |
| 5.0   | 785.231  | 782.756   | 778.721   | 777.804   | 771.669   | 763.866   | 759.131   | 755.255   | 749.336   | 731.898   |
| 7.5   | 809.237  | 807.029   | 801.110   | 798.794   | 790.075   | 777.377   | 768.658   | 760.155   | 749.228   | 726.190   |
| 10.0  | 829.151  | 827.591   | 821.075   | 815.697   | 804.286   | 788.083   | 775.493   | 762.631   | 746.536   | 717.852   |
| 12.5  | 848.524  | 845.940   | 837.329   | 830.386   | 816.016   | 795.459   | 779.312   | 762.199   | 741.369   | 707.301   |
| 15.0  | 859.503  | 856.759   | 849.008   | 840.937   | 820.591   | 799.926   | 780.012   | 759.131   | 734.158   | 694.814   |
| 17.5  | 863.703  | 860.635   | 853.367   | 844.921   | 828.183   | 801.702   | 777.485   | 752.672   | 723.339   | 679.260   |
| 20.0  | 859.935  | 857.192   | 850.892   | 843.197   | 826.351   | 799.602   | 772.050   | 743.417   | 710.801   | 664.298   |
| 22.5  | 850.140  | 847.448   | 842.065   | 834.910   | 819.248   | 792.283   | 764.350   | 730.498   | 694.598   | 645.568   |
| 25.0  | 833.135  | 832.054   | 828.235   | 821.940   | 807.569   | 780.553   | 752.455   | 716.236   | 677.649   | 625.494   |
| 27.5  | 814.832  | 810.688   | 807.837   | 803.534   | 790.291   | 766.018   | 737.601   | 698.906   | 657.843   | 602.621   |
| 30.0  | 787.923  | 784.804   | 784.048   | 780.820   | 770.058   | 745.353   | 717.636   | 678.349   | 634.538   | 579.696   |
| 32.5  | 758.215  | 756.280   | 756.223   | 754.931   | 747.669   | 724.471   | 695.514   | 656.387   | 611.181   | 553.699   |
| 35.0  | 722.479  | 724.363   | 723.663   | 727.482   | 720.647   | 697.722   | 669.841   | 632.597   | 585.667   | 528.515   |
| 37.5  | 685.344  | 685.827   | 688.736   | 694.222   | 688.844   | 669.573   | 641.373   | 604.181   | 557.842   | 502.193   |
| 40.0  | 645.300  | 646.592   | 650.035   | 658.003   | 656.068   | 639.540   | 612.524   | 576.629   | 529.858   | 476.736   |
| 42.5  | 600.521  | 603.805   | 610.156   | 620.383   | 618.875   | 605.364   | 580.072   | 546.488   | 500.958   | 447.352   |
| 45.0  | 556.931  | 559.407   | 568.553   | 578.348   | 582.064   | 571.404   | 560.858   | 513.979   | 469.257   | 419.151   |
| 47.5  | 515.596  | 515.647   | 524.906   | 537.609   | 543.904   | 536.045   | 512.579   | 481.471   | 439.173   | 390.194   |
| 50.0  | 468.665  | 469.041   | 480.720   | 494.714   | 502.301   | 499.558   | 476.252   | 446.168   | 407.524   | 360.969   |
| 52.5  | 425.286  | 427.386   | 439.384   | 451.819   | 465.057   | 462.046   | 439.600   | 412.367   | 376.580   | 332.769   |
| 55.0  | 383.415  | 385.675   | 396.597   | 413.232   | 425.503   | 424.154   | 404.997   | 378.516   | 345.739   | 303.277   |
| 57.5  | 340.788  | 345.472   | 355.050   | 372.432   | 385.026   | 383.843   | 367.161   | 344.556   | 314.147   | 275.828   |
| 60.0  | 302.793  | 306.128   | 315.547   | 330.885   | 344.988   | 346.331   | 332.229   | 310.112   | 285.031   | 249.779   |
| 62.5  | 264.684  | 270.017   | 280.187   | 293.482   | 307.152   | 308.496   | 296.977   | 277.120   | 254.514   | 218.382   |
| 65.0  | 233.257  | 235.141   | 244.287   | 256.563   | 268.344   | 273.676   | 264.257   | 244.287   | 224.589   | 197.552   |
| 67.5  | 201.932  | 202.473   | 212.643   | 221.738   | 233.308   | 239.068   | 230.565   | 213.667   | 197.357   | 172.713   |
| 70.0  | 172.764  | 173.948   | 181.267   | 191.062   | 201.984   | 205.859   | 199.889   | 184.551   | 169.589   | 147.070   |
| 72.5  | 144.023  | 144.831   | 151.934   | 158.713   | 169.589   | 173.356   | 166.572   | 155.970   | 145.423   | 123.955   |
| 75.0  | 119.158  | 120.558   | 125.777   | 132.880   | 139.556   | 142.567   | 138.748   | 128.953   | 118.026   | 101.535   |
| 77.5  | 95.045   | 97.520    | 100.804   | 107.372   | 112.699   | 114.691   | 111.839   | 104.464   | 96.177    | 81.590    |
| 80.0  | 74.487   | 75.939    | 78.687    | 83.206    | 86.490    | 87.834    | 85.523    | 81.215    | 75.187    | 61.954    |
| 82.5  | 55.649   | 56.406    | 58.557    | 61.193    | 64.209    | 64.960    | 63.560    | 60.925    | 58.341    | 44.980    |
| 85.0  | 40.044   | 39.493    | 41.022    | 46.822    | 47.018    | 47.615    | 46.426    | 44.774    | 37.058    | 28.437    |
| 87.5  | 24.036   | 25.112    | 24.824    | 26.080    | 27.150    | 27.120    | 25.889    | 23.311    | 20.712    | 13.413    |
| 90.0  | 18.529   | 18.529    | 17.500    | 15.441    | 13.382    | 10.294    | 7.206     | 4.632     | 2.059     | 0.000     |
| 92.5  | 31.936   | 32.346    | 31.936    | 30.299    | 27.432    | 25.795    | 24.566    | 22.519    | 19.653    | 9.827     |
| 95.0  | 63.873   | 64.692    | 63.873    | 61.825    | 59.778    | 57.731    | 54.865    | 49.952    | 41.353    | 24.157    |
| 97.5  | 97.037   | 97.856    | 96.628    | 96.628    | 96.628    | 95.400    | 90.077    | 79.841    | 63.054    | 39.306    |
| 100.0 | 125.698  | 127.745   | 130.202   | 136.344   | 140.847   | 138.800   | 128.974   | 110.958   | 84.345    | 54.865    |
| 102.5 | 161.319  | 165.823   | 174.012   | 186.705   | 193.665   | 187.933   | 169.918   | 140.847   | 103.998   | 70.014    |
| 105.0 | 210.043  | 218.641   | 235.428   | 250.987   | 253.853   | 240.751   | 210.862   | 168.280   | 122.423   | 85.573    |
| 107.5 | 285.380  | 295.206   | 312.812   | 323.458   | 321.001   | 296.844   | 250.168   | 192.437   | 139.619   | 101.541   |
| 110.0 | 381.598  | 386.511   | 397.566   | 402.070   | 388.559   | 346.796   | 282.923   | 213.318   | 155.997   | 117.509   |
| 112.5 | 476.588  | 479.454   | 485.186   | 478.635   | 447.927   | 386.921   | 308.308   | 232.152   | 171.965   | 133.477   |
| 115.0 | 568.712  | 567.893   | 564.208   | 541.689   | 492.966   | 417.219   | 329.190   | 248.940   | 188.342   | 150.264   |
| 117.5 | 642.821  | 636.679   | 623.577   | 588.775   | 525.312   | 438.101   | 345.158   | 264.498   | 204.720   | 167.461   |
| 120.0 | 695.639  | 687.040   | 665.340   | 619.483   | 544.965   | 452.431   | 359.079   | 279.648   | 221.507   | 184.248   |
| 122.5 | 729.622  | 718.977   | 690.725   | 636.270   | 556.838   | 463.077   | 371.362   | 294.797   | 238.294   | 201.035   |
| 125.0 | 745.590  | 734.126   | 701.780   | 643.230   | 562.980   | 471.675   | 383.236   | 309.946   | 254.672   | 217.822   |
| 127.5 | 748.866  | 736.992   | 702.599   | 643.640   | 565.846   | 479.045   | 395.519   | 325.095   | 271.049   | 234.200   |
| 130.0 | 743.134  | 731.260   | 697.276   | 640.774   | 567.074   | 486.005   | 408.212   | 340.654   | 288.246   | 251.396   |
| 132.5 | 732.488  | 722.252   | 689.906   | 636.270   | 568.303   | 493.375   | 420.495   | 356.622   | 305.442   | 268.593   |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-B-835-ASY-DAO-ITL89599-KPL2008-3.015.IES

## CANDELA TABULATION - (Cont.)

|       |         |         |         |         |         |         |         |         |         |         |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 135.0 | 720.614 | 710.378 | 680.489 | 631.766 | 569.940 | 501.155 | 432.778 | 371.772 | 322.639 | 286.199 |
| 137.5 | 708.741 | 698.914 | 671.891 | 628.081 | 572.397 | 509.343 | 445.880 | 387.330 | 339.426 | 303.804 |
| 140.0 | 696.048 | 688.269 | 664.521 | 625.215 | 574.854 | 517.532 | 458.573 | 402.889 | 356.213 | 321.001 |
| 142.5 | 685.812 | 679.261 | 658.380 | 623.577 | 577.720 | 525.721 | 471.265 | 418.038 | 373.409 | 338.197 |
| 145.0 | 677.214 | 671.482 | 652.647 | 621.530 | 580.995 | 534.319 | 483.549 | 432.369 | 389.377 | 355.394 |
| 147.5 | 669.434 | 664.112 | 647.734 | 619.892 | 584.271 | 542.099 | 495.013 | 446.290 | 405.346 | 372.181 |
| 150.0 | 660.836 | 656.742 | 642.821 | 618.664 | 587.546 | 549.469 | 504.840 | 458.982 | 420.495 | 389.377 |
| 152.5 | 653.876 | 650.191 | 638.726 | 618.254 | 590.003 | 555.201 | 513.847 | 470.856 | 434.825 | 405.346 |
| 155.0 | 648.143 | 644.459 | 634.632 | 616.617 | 591.231 | 559.295 | 520.808 | 481.092 | 447.927 | 420.495 |
| 157.5 | 642.411 | 638.726 | 630.128 | 613.751 | 590.003 | 560.933 | 526.130 | 490.509 | 460.620 | 434.825 |
| 160.0 | 634.632 | 630.947 | 622.758 | 608.428 | 587.137 | 560.933 | 529.815 | 497.879 | 471.265 | 447.927 |
| 162.5 | 624.396 | 621.120 | 613.751 | 600.648 | 581.405 | 558.886 | 531.863 | 504.430 | 481.092 | 459.801 |
| 165.0 | 611.294 | 608.018 | 601.058 | 590.003 | 574.035 | 554.791 | 532.272 | 508.934 | 489.281 | 470.447 |
| 167.5 | 595.735 | 592.869 | 587.137 | 577.720 | 564.618 | 549.059 | 531.044 | 511.800 | 495.422 | 479.454 |
| 170.0 | 577.720 | 575.263 | 570.759 | 563.389 | 553.972 | 542.099 | 527.768 | 513.028 | 500.336 | 486.415 |
| 172.5 | 559.295 | 557.657 | 554.382 | 549.469 | 542.099 | 533.091 | 523.264 | 512.619 | 502.792 | 492.147 |
| 175.0 | 539.642 | 538.414 | 535.957 | 533.091 | 528.587 | 523.264 | 517.123 | 510.162 | 503.611 | 497.060 |
| 177.5 | 519.579 | 519.170 | 518.351 | 516.713 | 515.076 | 512.619 | 509.343 | 506.068 | 502.792 | 499.517 |
| 180.0 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 |

## Vert. Angles

## Horizontal Angles

|      | <u>100</u> | <u>110</u> | <u>120</u> | <u>130</u> | <u>140</u> | <u>150</u> | <u>160</u> | <u>170</u> | <u>180</u> |
|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 0.0  | 731.898    | 731.898    | 731.898    | 731.898    | 731.898    | 731.898    | 731.898    | 731.898    | 731.898    |
| 2.5  | 735.450    | 726.890    | 717.260    | 710.317    | 707.085    | 704.290    | 699.230    | 699.014    | 701.166    |
| 5.0  | 726.731    | 714.193    | 700.146    | 690.135    | 685.452    | 680.392    | 673.181    | 674.200    | 672.641    |
| 7.5  | 715.320    | 698.746    | 681.144    | 669.522    | 663.598    | 657.303    | 649.016    | 650.576    | 649.176    |
| 10.0 | 701.974    | 681.576    | 662.954    | 649.500    | 642.232    | 634.697    | 628.294    | 628.027    | 628.402    |
| 12.5 | 686.579    | 663.062    | 643.200    | 629.318    | 621.351    | 613.389    | 605.364    | 605.689    | 606.656    |
| 15.0 | 670.649    | 645.084    | 624.367    | 609.081    | 600.794    | 591.967    | 577.756    | 584.323    | 584.807    |
| 17.5 | 651.868    | 624.902    | 604.397    | 588.143    | 578.996    | 570.977    | 564.894    | 563.977    | 565.110    |
| 20.0 | 632.113    | 604.613    | 583.356    | 568.177    | 558.918    | 551.331    | 546.380    | 545.196    | 545.196    |
| 22.5 | 610.048    | 582.815    | 562.258    | 547.831    | 538.953    | 533.250    | 527.274    | 527.434    | 526.898    |
| 25.0 | 587.983    | 562.094    | 539.385    | 526.142    | 518.715    | 512.960    | 508.277    | 508.009    | 508.812    |
| 27.5 | 565.161    | 539.869    | 517.479    | 506.393    | 499.609    | 493.906    | 489.387    | 490.406    | 490.514    |
| 30.0 | 540.836    | 516.028    | 495.466    | 485.079    | 479.695    | 473.452    | 470.281    | 463.714    | 472.217    |
| 32.5 | 516.347    | 492.347    | 472.484    | 464.414    | 458.330    | 453.754    | 451.443    | 452.035    | 453.595    |
| 35.0 | 492.022    | 466.781    | 449.343    | 442.832    | 437.881    | 434.005    | 433.141    | 433.197    | 433.573    |
| 37.5 | 464.841    | 442.400    | 428.246    | 420.762    | 416.403    | 413.983    | 412.532    | 413.443    | 414.416    |
| 40.0 | 438.900    | 417.803    | 403.973    | 399.073    | 394.821    | 392.937    | 393.046    | 393.210    | 395.037    |
| 42.5 | 411.884    | 393.210    | 380.940    | 377.064    | 374.156    | 373.024    | 373.672    | 373.348    | 374.156    |
| 45.0 | 386.102    | 368.397    | 357.686    | 354.134    | 353.383    | 351.499    | 352.842    | 354.618    | 338.853    |
| 47.5 | 358.869    | 343.048    | 333.629    | 331.585    | 330.237    | 329.753    | 331.693    | 333.737    | 335.188    |
| 50.0 | 331.637    | 317.590    | 310.328    | 308.980    | 308.280    | 308.444    | 310.220    | 312.480    | 313.231    |
| 52.5 | 305.320    | 292.941    | 286.431    | 285.406    | 285.298    | 285.566    | 288.474    | 291.382    | 292.242    |
| 55.0 | 279.271    | 268.401    | 263.393    | 261.725    | 262.157    | 263.717    | 267.809    | 268.560    | 269.425    |
| 57.5 | 253.490    | 243.911    | 240.252    | 238.100    | 239.819    | 241.111    | 245.311    | 246.819    | 247.571    |
| 60.0 | 224.028    | 213.791    | 212.345    | 213.523    | 212.890    | 214.512    | 219.983    | 213.662    | 225.506    |
| 62.5 | 203.034    | 196.193    | 193.800    | 193.769    | 194.742    | 197.912    | 200.810    | 202.375    | 202.555    |
| 65.0 | 178.338    | 173.233    | 171.287    | 171.467    | 173.912    | 176.666    | 178.328    | 180.408    | 179.867    |
| 67.5 | 155.733    | 150.277    | 147.791    | 148.295    | 151.986    | 153.355    | 156.042    | 157.030    | 155.671    |
| 70.0 | 132.391    | 128.654    | 126.946    | 127.543    | 129.236    | 131.496    | 133.071    | 133.812    | 135.819    |
| 72.5 | 111.577    | 108.437    | 105.570    | 106.811    | 108.319    | 109.986    | 110.619    | 111.541    | 111.958    |
| 75.0 | 89.959     | 87.221     | 85.245     | 86.253     | 87.417     | 87.854     | 80.020     | 88.456     | 90.073     |
| 77.5 | 70.668     | 68.208     | 67.076     | 66.715     | 67.096     | 67.910     | 67.894     | 67.657     | 67.611     |
| 80.0 | 51.789     | 50.188     | 49.524     | 49.092     | 48.541     | 47.306     | 47.605     | 47.260     | 47.553     |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-B-835-ASY-DAO-ITL89599-KPL2008-3.015.IES****CANDELA TABULATION - (Cont.)**

|       |         |         |         |         |         |         |         |         |         |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 82.5  | 35.571  | 33.481  | 31.989  | 31.093  | 31.016  | 30.347  | 30.161  | 29.631  | 28.710  |
| 85.0  | 21.025  | 18.962  | 17.371  | 15.601  | 14.756  | 13.624  | 12.584  | 11.792  | 10.484  |
| 87.5  | 6.912   | 5.343   | 4.210   | 3.196   | 2.275   | 1.518   | 0.978   | 0.726   | 0.659   |
| 90.0  | 2.059   | 4.632   | 6.691   | 9.265   | 10.809  | 12.353  | 13.382  | 13.897  | 13.897  |
| 92.5  | 12.693  | 13.512  | 15.149  | 16.378  | 17.606  | 18.015  | 18.425  | 18.834  | 18.834  |
| 95.0  | 26.614  | 27.842  | 29.889  | 32.346  | 33.574  | 33.984  | 33.984  | 33.165  | 32.346  |
| 97.5  | 40.125  | 41.763  | 45.038  | 48.723  | 51.180  | 52.408  | 53.227  | 52.408  | 51.999  |
| 100.0 | 54.046  | 56.093  | 59.778  | 64.282  | 67.558  | 70.424  | 72.471  | 72.061  | 72.061  |
| 102.5 | 68.376  | 71.652  | 76.156  | 81.069  | 85.164  | 88.030  | 90.077  | 90.486  | 90.486  |
| 105.0 | 82.297  | 86.801  | 93.352  | 100.313 | 104.407 | 106.454 | 107.683 | 107.273 | 107.273 |
| 107.5 | 97.037  | 101.132 | 107.683 | 115.462 | 120.785 | 123.651 | 125.698 | 124.879 | 124.060 |
| 110.0 | 111.368 | 113.824 | 121.604 | 131.021 | 137.162 | 140.028 | 142.485 | 142.485 | 142.485 |
| 112.5 | 125.698 | 126.517 | 135.115 | 146.170 | 153.540 | 157.634 | 160.500 | 160.500 | 160.500 |
| 115.0 | 140.028 | 139.210 | 147.808 | 160.091 | 169.099 | 174.831 | 178.925 | 179.335 | 179.744 |
| 117.5 | 154.359 | 150.674 | 159.682 | 173.193 | 183.429 | 190.799 | 196.122 | 196.941 | 197.760 |
| 120.0 | 169.099 | 162.957 | 171.555 | 185.067 | 196.122 | 205.129 | 212.499 | 213.318 | 214.547 |
| 122.5 | 183.429 | 174.831 | 182.610 | 196.122 | 207.996 | 218.641 | 227.239 | 228.468 | 230.105 |
| 125.0 | 198.578 | 187.524 | 194.075 | 206.358 | 218.641 | 231.334 | 241.160 | 242.798 | 244.436 |
| 127.5 | 213.318 | 199.397 | 204.311 | 215.365 | 228.058 | 241.979 | 253.034 | 255.491 | 257.947 |
| 130.0 | 228.058 | 211.271 | 214.137 | 223.554 | 235.837 | 250.168 | 262.042 | 266.136 | 269.821 |
| 132.5 | 243.617 | 223.145 | 223.964 | 231.743 | 242.388 | 256.309 | 267.774 | 273.096 | 278.010 |
| 135.0 | 258.766 | 235.019 | 233.381 | 239.113 | 248.530 | 261.223 | 271.868 | 277.191 | 282.104 |
| 137.5 | 274.325 | 247.302 | 243.207 | 246.073 | 253.443 | 264.908 | 274.734 | 279.238 | 283.742 |
| 140.0 | 290.293 | 260.813 | 253.443 | 253.853 | 258.766 | 268.183 | 276.372 | 280.466 | 284.561 |
| 142.5 | 306.671 | 275.963 | 265.317 | 261.632 | 263.679 | 271.049 | 277.191 | 280.466 | 283.742 |
| 145.0 | 323.867 | 291.931 | 278.010 | 270.230 | 268.593 | 273.915 | 278.010 | 280.466 | 282.923 |
| 147.5 | 340.654 | 308.308 | 290.702 | 278.419 | 273.915 | 276.781 | 279.648 | 281.285 | 282.923 |
| 150.0 | 357.032 | 323.458 | 303.395 | 287.427 | 280.057 | 281.285 | 282.104 | 282.923 | 283.332 |
| 152.5 | 373.409 | 340.245 | 317.316 | 298.072 | 287.427 | 286.199 | 284.970 | 284.970 | 284.970 |
| 155.0 | 389.377 | 357.032 | 332.875 | 311.584 | 298.482 | 293.568 | 289.474 | 288.655 | 287.427 |
| 157.5 | 404.936 | 373.000 | 349.662 | 328.780 | 313.631 | 304.214 | 296.844 | 294.797 | 293.159 |
| 160.0 | 420.495 | 391.425 | 368.905 | 348.843 | 332.056 | 318.954 | 308.308 | 305.033 | 301.757 |
| 162.5 | 435.235 | 409.440 | 388.149 | 368.496 | 352.118 | 339.016 | 327.961 | 322.639 | 317.725 |
| 165.0 | 449.565 | 427.865 | 407.802 | 388.559 | 373.000 | 361.945 | 352.528 | 347.205 | 342.292 |
| 167.5 | 461.848 | 443.833 | 426.227 | 409.031 | 395.110 | 384.464 | 375.866 | 371.772 | 368.087 |
| 170.0 | 472.494 | 458.163 | 444.652 | 431.140 | 419.676 | 409.440 | 401.251 | 397.157 | 393.472 |
| 172.5 | 481.911 | 471.675 | 461.848 | 452.431 | 443.833 | 436.463 | 430.321 | 427.455 | 424.180 |
| 175.0 | 490.100 | 483.139 | 476.998 | 470.856 | 465.533 | 461.029 | 457.344 | 455.297 | 453.660 |
| 177.5 | 496.241 | 492.556 | 489.690 | 486.824 | 484.777 | 482.730 | 480.683 | 479.864 | 478.635 |
| 180.0 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 | 500.336 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-B-835-ASY-DAO-ITL89599-KPL2008-3.015.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 269.52  | N.A.  | 7.30   |
| 0-30    | 570.62  | N.A.  | 15.50  |
| 0-40    | 923.70  | N.A.  | 25.00  |
| 0-60    | 1567.2  | N.A.  | 42.50  |
| 0-80    | 1893.08 | N.A.  | 51.30  |
| 0-90    | 1927.59 | N.A.  | 52.30  |
| 10-90   | 1858.11 | N.A.  | 50.40  |
| 20-40   | 654.18  | N.A.  | 17.70  |
| 20-50   | 1002.97 | N.A.  | 27.20  |
| 40-70   | 853.67  | N.A.  | 23.10  |
| 60-80   | 325.88  | N.A.  | 8.80   |
| 70-80   | 115.70  | N.A.  | 3.10   |
| 80-90   | 34.51   | N.A.  | 0.90   |
| 90-110  | 212.27  | N.A.  | 5.80   |
| 90-120  | 492.55  | N.A.  | 13.40  |
| 90-130  | 814.02  | N.A.  | 22.10  |
| 90-150  | 1376.6  | N.A.  | 37.30  |
| 90-180  | 1761.21 | N.A.  | 47.70  |
| 110-180 | 1548.94 | N.A.  | 42.00  |
| 0-180   | 3688.79 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 69.48  |
| 10-20   | 200.05 |
| 20-30   | 301.10 |
| 30-40   | 353.08 |
| 40-50   | 348.79 |
| 50-60   | 294.70 |
| 60-70   | 210.18 |
| 70-80   | 115.70 |
| 80-90   | 34.51  |
| 90-100  | 49.84  |
| 100-110 | 162.43 |
| 110-120 | 280.28 |
| 120-130 | 321.48 |
| 130-140 | 302.25 |
| 140-150 | 260.32 |
| 150-160 | 204.06 |
| 160-170 | 133.45 |
| 170-180 | 47.10  |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-B-835-ASY-DAO-ITL89599-KPL2008-3.015.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

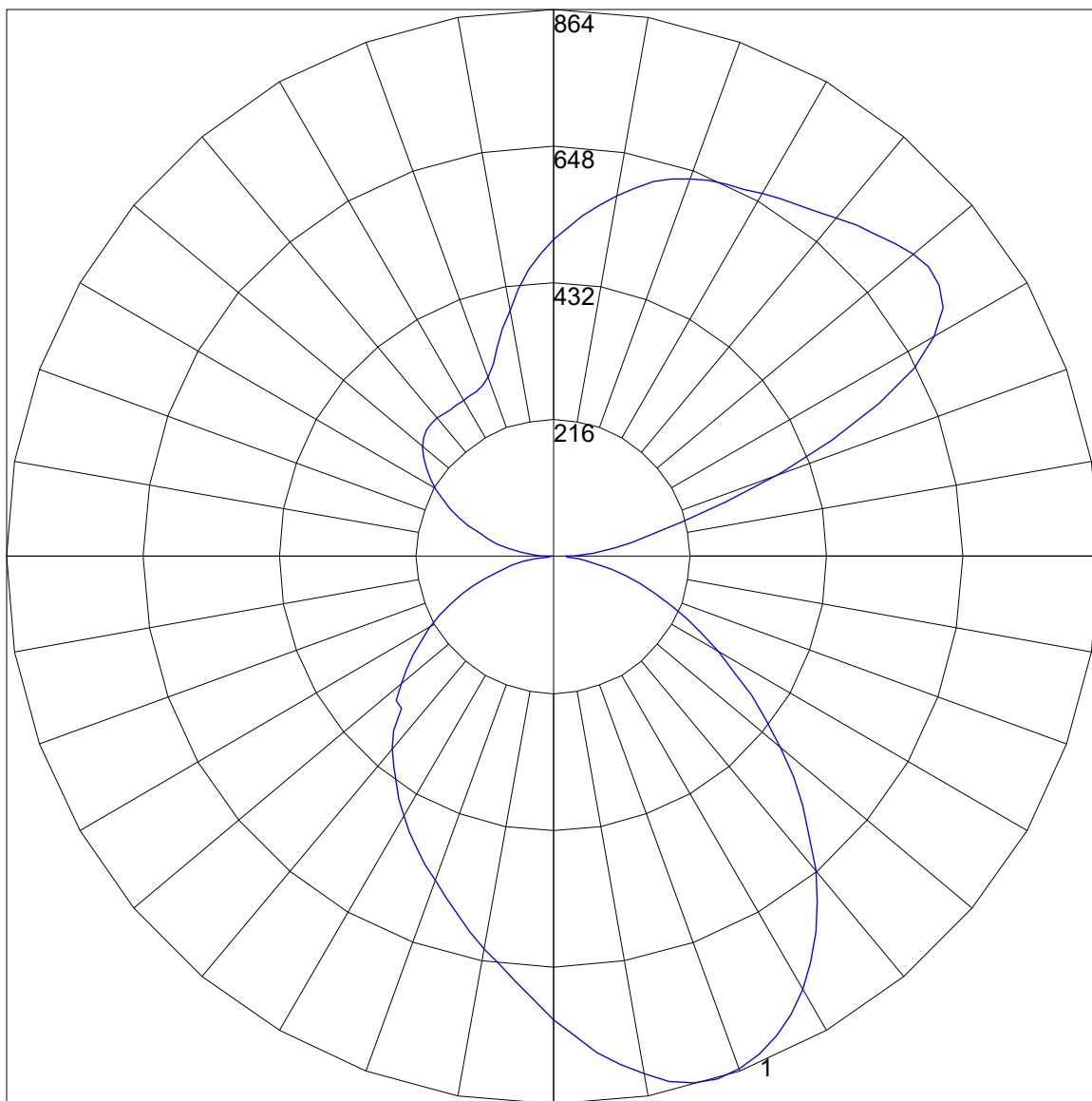
Effective Floor Cavity Reflectance 0.20

| 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  | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 58 | 58 | 58 | 52 |
| 1  | 98  | 94  | 90  | 87  | 91  | 87  | 84  | 81  | 74 | 72 | 70 | 62 | 61 | 59 | 52 | 50 | 49 | 44 |
| 2  | 90  | 82  | 76  | 71  | 83  | 76  | 71  | 66  | 65 | 61 | 58 | 55 | 52 | 50 | 45 | 43 | 42 | 37 |
| 3  | 82  | 72  | 65  | 59  | 75  | 67  | 61  | 56  | 58 | 53 | 49 | 49 | 45 | 42 | 40 | 38 | 36 | 32 |
| 4  | 75  | 64  | 56  | 50  | 69  | 60  | 53  | 47  | 51 | 46 | 42 | 43 | 39 | 36 | 36 | 33 | 31 | 27 |
| 5  | 69  | 57  | 49  | 43  | 63  | 53  | 46  | 41  | 46 | 40 | 36 | 39 | 35 | 31 | 33 | 29 | 27 | 24 |
| 6  | 63  | 51  | 43  | 37  | 58  | 48  | 41  | 35  | 41 | 36 | 31 | 35 | 31 | 27 | 30 | 26 | 24 | 21 |
| 7  | 59  | 46  | 38  | 33  | 54  | 43  | 36  | 31  | 37 | 32 | 28 | 32 | 28 | 24 | 27 | 24 | 21 | 18 |
| 8  | 54  | 42  | 34  | 29  | 50  | 39  | 32  | 27  | 34 | 29 | 25 | 29 | 25 | 22 | 25 | 21 | 19 | 16 |
| 9  | 51  | 38  | 31  | 26  | 47  | 36  | 29  | 25  | 31 | 26 | 22 | 27 | 23 | 19 | 23 | 19 | 17 | 15 |
| 10 | 47  | 35  | 28  | 23  | 44  | 33  | 26  | 22  | 29 | 24 | 20 | 25 | 21 | 18 | 21 | 18 | 15 | 13 |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-S-B-835-ASY-DAO-ITL89599-KPL2008-3.015.IES

## POLAR GRAPH



Maximum Candela = 863.703 Located At Horizontal Angle = 0, Vertical Angle = 17.5

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)