

# 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-V-H-835-WSOTG-F-ITL90353 ITL89033.006.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL90353 ITL89033.006 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]04/03/18

[ISSUEDATE]06/04/18

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-4-ID-RG-4ft-V-H-835-WSOTG-F

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 64.8 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 66.2 WATTS

[\_ABSOLUTE]LUMENS]7006

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL90353 and ITL89033. 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)

### CHARACTERISTICS

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 7006            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 108             |
| Total Luminaire Watts           | 64.8            |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Semi-Indirect   |
| 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)         | 0.33 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                  | 8004             | 7312              | 6779              |
| 55                  | 7460             | 6432              | 5743              |
| 65                  | 6785             | 5315              | 4439              |
| 75                  | 5915             | 3661              | 2788              |
| 85                  | 4319             | 2376              | 2232              |

# 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   | 1154.044   | 1154.044    | 1154.044    | 1154.044    | 1154.044    |
| 2.5   | 1151.746   | 1150.980    | 1151.746    | 1151.746    | 1151.746    |
| 5.0   | 1146.386   | 1145.620    | 1145.620    | 1146.386    | 1147.151    |
| 7.5   | 1137.962   | 1137.196    | 1137.196    | 1137.196    | 1136.430    |
| 10.0  | 1127.241   | 1123.412    | 1124.944    | 1122.646    | 1119.583    |
| 12.5  | 1111.925   | 1107.331    | 1107.331    | 1102.736    | 1097.375    |
| 15.0  | 1094.312   | 1086.654    | 1085.888    | 1079.762    | 1072.104    |
| 17.5  | 1072.870   | 1063.680    | 1059.852    | 1051.428    | 1043.770    |
| 20.0  | 1047.599   | 1036.878    | 1030.752    | 1019.265    | 1012.373    |
| 22.5  | 1020.031   | 1008.544    | 998.588     | 984.804     | 977.146     |
| 25.0  | 990.165    | 977.146     | 964.128     | 947.281     | 939.623     |
| 27.5  | 958.002    | 943.452     | 926.604     | 908.226     | 899.802     |
| 30.0  | 922.775    | 908.226     | 888.315     | 867.639     | 857.683     |
| 32.5  | 886.018    | 871.468     | 847.728     | 824.755     | 812.502     |
| 35.0  | 849.260    | 832.412     | 806.375     | 781.105     | 768.086     |
| 37.5  | 810.970    | 791.826     | 762.726     | 734.391     | 722.905     |
| 40.0  | 771.149    | 751.239     | 718.310     | 689.976     | 676.957     |
| 42.5  | 731.328    | 709.120     | 675.426     | 644.028     | 631.010     |
| 45.0  | 690.741    | 667.002     | 631.010     | 597.315     | 585.063     |
| 47.5  | 650.155    | 624.118     | 586.594     | 551.368     | 539.115     |
| 50.0  | 608.036    | 580.468     | 540.647     | 504.655     | 492.402     |
| 52.5  | 565.152    | 536.818     | 495.465     | 459.473     | 447.221     |
| 55.0  | 522.268    | 493.934     | 450.284     | 414.292     | 402.039     |
| 57.5  | 480.149    | 450.284     | 405.868     | 369.876     | 357.623     |
| 60.0  | 437.265    | 406.634     | 361.452     | 325.460     | 313.208     |
| 62.5  | 394.381    | 362.984     | 317.036     | 281.810     | 270.323     |
| 65.0  | 349.966    | 320.100     | 274.152     | 239.692     | 228.971     |
| 67.5  | 307.847    | 277.216     | 231.268     | 199.105     | 188.384     |
| 70.0  | 265.729    | 235.097     | 190.681     | 159.284     | 150.095     |
| 72.5  | 224.376    | 194.510     | 152.392     | 123.292     | 114.103     |
| 75.0  | 186.852    | 155.455     | 115.634     | 91.895      | 88.066      |
| 77.5  | 148.563    | 118.697     | 82.705      | 73.516      | 72.750      |
| 80.0  | 111.805    | 83.471      | 59.731      | 57.434      | 57.434      |
| 82.5  | 79.642     | 50.542      | 42.884      | 41.353      | 41.353      |
| 85.0  | 45.947     | 27.568      | 25.271      | 24.505      | 23.739      |
| 87.5  | 14.550     | 9.190       | 8.424       | 8.424       | 7.658       |
| 90.0  | 0.000      | 0.000       | 0.000       | 0.000       | 0.000       |
| 92.5  | 16.000     | 28.000      | 30.000      | 30.000      | 30.000      |
| 95.0  | 45.000     | 80.000      | 82.000      | 64.000      | 64.000      |
| 97.5  | 79.000     | 136.000     | 210.000     | 131.000     | 114.000     |
| 100.0 | 119.000    | 186.000     | 333.000     | 246.000     | 193.000     |
| 102.5 | 167.000    | 227.000     | 492.000     | 381.000     | 310.000     |
| 105.0 | 211.000    | 271.000     | 614.000     | 589.000     | 472.000     |
| 107.5 | 256.000    | 315.000     | 670.000     | 862.000     | 725.000     |
| 110.0 | 299.000    | 356.000     | 697.000     | 1089.000    | 1038.000    |
| 112.5 | 343.000    | 396.000     | 729.000     | 1183.000    | 1245.000    |
| 115.0 | 385.000    | 434.000     | 783.000     | 1212.000    | 1323.000    |
| 117.5 | 419.000    | 469.000     | 826.000     | 1226.000    | 1352.000    |
| 120.0 | 450.000    | 503.000     | 854.000     | 1281.000    | 1373.000    |
| 122.5 | 477.000    | 536.000     | 872.000     | 1349.000    | 1438.000    |
| 125.0 | 503.000    | 565.000     | 885.000     | 1386.000    | 1514.000    |
| 127.5 | 527.000    | 591.000     | 895.000     | 1387.000    | 1554.000    |
| 130.0 | 547.000    | 614.000     | 903.000     | 1363.000    | 1547.000    |
| 132.5 | 568.000    | 636.000     | 910.000     | 1330.000    | 1510.000    |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-V-H-835-WSOTG-F-ITL90353 ITL89033.006.IES****CANDELA TABULATION - (Cont.)**

|              |         |         |         |          |          |
|--------------|---------|---------|---------|----------|----------|
| <b>135.0</b> | 588.000 | 656.000 | 915.000 | 1294.000 | 1462.000 |
| <b>137.5</b> | 607.000 | 674.000 | 917.000 | 1255.000 | 1407.000 |
| <b>140.0</b> | 627.000 | 691.000 | 918.000 | 1216.000 | 1349.000 |
| <b>142.5</b> | 647.000 | 707.000 | 917.000 | 1175.000 | 1291.000 |
| <b>145.0</b> | 668.000 | 723.000 | 912.000 | 1137.000 | 1234.000 |
| <b>147.5</b> | 685.000 | 736.000 | 905.000 | 1099.000 | 1179.000 |
| <b>150.0</b> | 703.000 | 749.000 | 898.000 | 1062.000 | 1129.000 |
| <b>152.5</b> | 721.000 | 760.000 | 890.000 | 1026.000 | 1083.000 |
| <b>155.0</b> | 737.000 | 771.000 | 882.000 | 992.000  | 1037.000 |
| <b>157.5</b> | 752.000 | 780.000 | 872.000 | 961.000  | 996.000  |
| <b>160.0</b> | 766.000 | 789.000 | 864.000 | 933.000  | 959.000  |
| <b>162.5</b> | 778.000 | 796.000 | 854.000 | 907.000  | 927.000  |
| <b>165.0</b> | 790.000 | 802.000 | 845.000 | 884.000  | 899.000  |
| <b>167.5</b> | 799.000 | 807.000 | 837.000 | 864.000  | 875.000  |
| <b>170.0</b> | 806.000 | 812.000 | 831.000 | 848.000  | 854.000  |
| <b>172.5</b> | 811.000 | 815.000 | 826.000 | 835.000  | 839.000  |
| <b>175.0</b> | 816.000 | 817.000 | 821.000 | 825.000  | 828.000  |
| <b>177.5</b> | 818.000 | 818.000 | 819.000 | 820.000  | 820.000  |
| <b>180.0</b> | 819.000 | 819.000 | 819.000 | 819.000  | 819.000  |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-4-ID-RG-4FT-V-H-835-WSOTG-F-ITL90353 ITL89033.006.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 413.78  | N.A.  | 5.90   |
| 0-30    | 856.99  | N.A.  | 12.20  |
| 0-40    | 1361.29 | N.A.  | 19.40  |
| 0-60    | 2256.74 | N.A.  | 32.20  |
| 0-80    | 2671.12 | N.A.  | 38.10  |
| 0-90    | 2704.25 | N.A.  | 38.60  |
| 10-90   | 2595.55 | N.A.  | 37.00  |
| 20-40   | 947.51  | N.A.  | 13.50  |
| 20-50   | 1435.94 | N.A.  | 20.50  |
| 40-70   | 1173.82 | N.A.  | 16.80  |
| 60-80   | 414.38  | N.A.  | 5.90   |
| 70-80   | 136.01  | N.A.  | 1.90   |
| 80-90   | 33.13   | N.A.  | 0.50   |
| 90-110  | 581.48  | N.A.  | 8.30   |
| 90-120  | 1385.14 | N.A.  | 19.80  |
| 90-130  | 2237.22 | N.A.  | 31.90  |
| 90-150  | 3574.02 | N.A.  | 51.00  |
| 90-180  | 4302.09 | N.A.  | 61.40  |
| 110-180 | 3720.6  | N.A.  | 53.10  |
| 0-180   | 7006.33 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 108.70 |
| 10-20   | 305.07 |
| 20-30   | 443.22 |
| 30-40   | 504.30 |
| 40-50   | 488.43 |
| 50-60   | 407.03 |
| 60-70   | 278.36 |
| 70-80   | 136.01 |
| 80-90   | 33.13  |
| 90-100  | 96.89  |
| 100-110 | 484.59 |
| 110-120 | 803.65 |
| 120-130 | 852.09 |
| 130-140 | 751.91 |
| 140-150 | 584.88 |
| 150-160 | 409.48 |
| 160-170 | 239.90 |
| 170-180 | 78.69  |

# IES INDOOR REPORT

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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

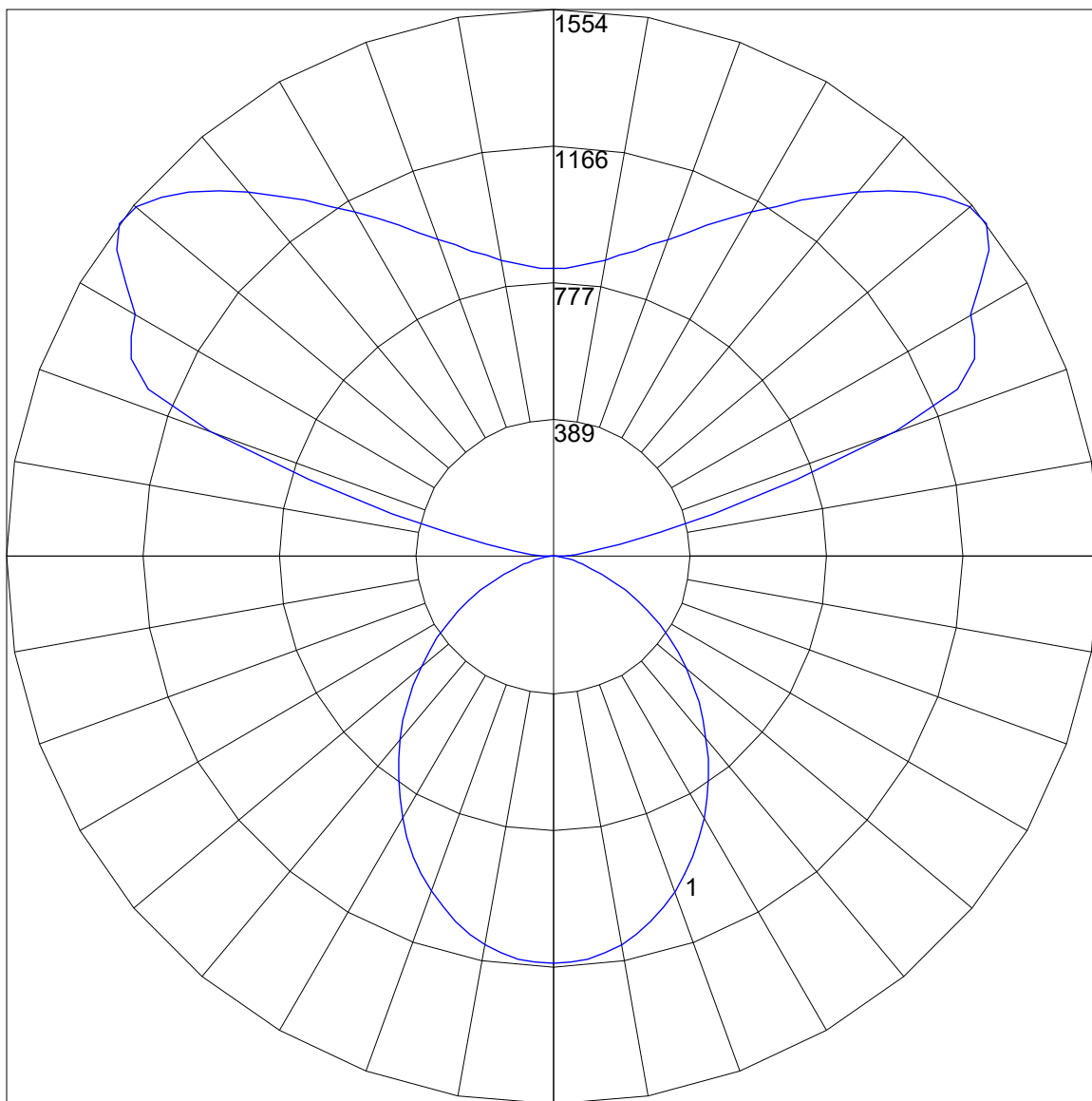
Effective Floor Cavity Reflectance 0.20

| 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  | 104 | 104 | 104 | 104 | 95 | 95 | 95 | 95 | 77 | 77 | 77 | 61 | 61 | 61 | 46 | 46 | 46 | 39 |
| 1  | 95  | 91  | 88  | 84  | 87 | 83 | 80 | 77 | 68 | 66 | 64 | 54 | 52 | 51 | 41 | 40 | 39 | 33 |
| 2  | 87  | 80  | 74  | 69  | 79 | 73 | 68 | 64 | 60 | 56 | 53 | 47 | 45 | 43 | 36 | 35 | 33 | 28 |
| 3  | 80  | 70  | 63  | 58  | 72 | 64 | 58 | 53 | 53 | 48 | 45 | 42 | 39 | 36 | 32 | 30 | 28 | 24 |
| 4  | 73  | 62  | 55  | 49  | 66 | 57 | 50 | 45 | 47 | 42 | 38 | 38 | 34 | 31 | 29 | 27 | 25 | 21 |
| 5  | 67  | 56  | 48  | 42  | 61 | 51 | 44 | 39 | 42 | 37 | 33 | 34 | 30 | 27 | 26 | 24 | 22 | 18 |
| 6  | 62  | 50  | 42  | 36  | 56 | 46 | 39 | 34 | 38 | 33 | 29 | 31 | 27 | 24 | 24 | 21 | 19 | 16 |
| 7  | 57  | 45  | 37  | 32  | 52 | 41 | 34 | 30 | 34 | 29 | 25 | 28 | 24 | 21 | 22 | 19 | 17 | 14 |
| 8  | 53  | 41  | 33  | 28  | 48 | 38 | 31 | 26 | 31 | 26 | 22 | 25 | 22 | 19 | 20 | 17 | 15 | 13 |
| 9  | 49  | 37  | 30  | 25  | 45 | 34 | 28 | 23 | 29 | 24 | 20 | 23 | 20 | 17 | 18 | 16 | 14 | 12 |
| 10 | 46  | 34  | 27  | 22  | 42 | 31 | 25 | 21 | 26 | 21 | 18 | 22 | 18 | 15 | 17 | 14 | 13 | 10 |

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## POLAR GRAPH



Maximum Candela = 1554 Located At Horizontal Angle = 90, Vertical Angle = 127.5

# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)