

# 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 : HPR-LED-F-2X2-DCO-S-8-35-ITL85142.001.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL85142.001 Family Correlation File  
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.  
[TESTDATE]08/18/15  
[ISSUE DATE]04/28/16  
[MANUFAC]FINELITE, INC.  
[LUMCAT]FINELITE HPR-LED-F-2X2-DCO-S-8-35  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 28.4 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 29.3 WATTS  
[ABSOLUTE LUMENS]3397  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL85142. 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                | 3397            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 120             |
| Total Luminaire Watts           | 28.4            |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Direct          |
| Spacing Criterion (0-180)       | 1.20            |
| Spacing Criterion (90-270)      | 1.22            |
| Spacing Criterion (Diagonal)    | 1.30            |
| Basic Luminous Shape            | Rectangular     |
| Luminous Length (0-180)         | 1.82 ft         |
| Luminous Width (90-270)         | 1.81 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                  | 3583             | 3629              | 3714              |
| 55                  | 3219             | 3273              | 3342              |
| 65                  | 2817             | 2853              | 2918              |
| 75                  | 2363             | 2369              | 2436              |
| 85                  | 1774             | 1675              | 1675              |

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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  | 1358.500   | 1358.500    | 1358.500    | 1358.500    | 1358.500    |
| 2.5  | 1357.444   | 1356.917    | 1356.917    | 1356.917    | 1356.917    |
| 5.0  | 1351.639   | 1351.639    | 1351.111    | 1350.583    | 1351.111    |
| 7.5  | 1342.139   | 1341.611    | 1341.611    | 1341.083    | 1341.611    |
| 10.0 | 1329.472   | 1328.417    | 1327.361    | 1326.833    | 1326.833    |
| 12.5 | 1310.472   | 1309.944    | 1309.417    | 1309.944    | 1310.472    |
| 15.0 | 1287.778   | 1287.250    | 1288.306    | 1288.833    | 1289.889    |
| 17.5 | 1261.917   | 1260.861    | 1262.444    | 1264.028    | 1265.611    |
| 20.0 | 1230.778   | 1231.306    | 1233.417    | 1237.111    | 1238.694    |
| 22.5 | 1197.528   | 1197.528    | 1200.694    | 1204.917    | 1207.556    |
| 25.0 | 1160.583   | 1160.583    | 1164.806    | 1170.083    | 1173.778    |
| 27.5 | 1119.944   | 1119.944    | 1125.750    | 1133.139    | 1136.306    |
| 30.0 | 1075.611   | 1076.667    | 1083.000    | 1092.500    | 1095.667    |
| 32.5 | 1030.222   | 1031.806    | 1038.139    | 1049.222    | 1052.389    |
| 35.0 | 982.194    | 983.250     | 990.639     | 1002.778    | 1006.472    |
| 37.5 | 932.056    | 933.639     | 941.556     | 954.222     | 958.444     |
| 40.0 | 880.333    | 881.917     | 891.944     | 904.083     | 908.306     |
| 42.5 | 832.306    | 830.194     | 841.278     | 852.889     | 859.222     |
| 45.0 | 778.472    | 777.417     | 788.500     | 800.639     | 806.972     |
| 47.5 | 724.639    | 724.639     | 735.722     | 747.333     | 753.139     |
| 50.0 | 671.333    | 671.333     | 682.417     | 693.500     | 698.250     |
| 52.5 | 619.083    | 619.083     | 629.639     | 639.139     | 643.361     |
| 55.0 | 567.361    | 566.833     | 576.861     | 585.306     | 589.000     |
| 57.5 | 516.694    | 515.639     | 525.139     | 532.000     | 535.694     |
| 60.0 | 464.444    | 464.444     | 471.833     | 479.750     | 480.278     |
| 62.5 | 413.250    | 415.361     | 420.111     | 425.917     | 429.083     |
| 65.0 | 365.750    | 367.333     | 370.500     | 375.778     | 378.944     |
| 67.5 | 319.306    | 319.306     | 323.000     | 327.750     | 330.389     |
| 70.0 | 273.917    | 273.917     | 276.556     | 280.778     | 283.417     |
| 72.5 | 230.111    | 230.111     | 231.167     | 233.806     | 238.028     |
| 75.0 | 187.889    | 186.833     | 188.417     | 191.056     | 193.694     |
| 77.5 | 147.778    | 147.778     | 148.833     | 149.889     | 152.528     |
| 80.0 | 111.361    | 110.306     | 110.833     | 112.417     | 114.000     |
| 82.5 | 77.583     | 76.528      | 77.056      | 77.583      | 78.111      |
| 85.0 | 47.500     | 45.917      | 44.861      | 43.806      | 44.861      |
| 87.5 | 20.056     | 17.944      | 16.361      | 15.306      | 15.833      |
| 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    | 491.27  | N.A.  | 14.50  |
| 0-30    | 1027.69 | N.A.  | 30.30  |
| 0-40    | 1648.09 | N.A.  | 48.50  |
| 0-60    | 2773.15 | N.A.  | 81.60  |
| 0-80    | 3343.58 | N.A.  | 98.40  |
| 0-90    | 3396.65 | N.A.  | 100.00 |
| 10-90   | 3268.41 | N.A.  | 96.20  |
| 20-40   | 1156.82 | N.A.  | 34.10  |
| 20-50   | 1765.83 | N.A.  | 52.00  |
| 40-70   | 1493.74 | N.A.  | 44.00  |
| 60-80   | 570.43  | N.A.  | 16.80  |
| 70-80   | 201.75  | N.A.  | 5.90   |
| 80-90   | 53.07   | N.A.  | 1.60   |
| 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   | 3396.65 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 128.23 |
| 10-20   | 363.04 |
| 20-30   | 536.42 |
| 30-40   | 620.40 |
| 40-50   | 609.01 |
| 50-60   | 516.05 |
| 60-70   | 368.68 |
| 70-80   | 201.75 |
| 80-90   | 53.07  |
| 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   |

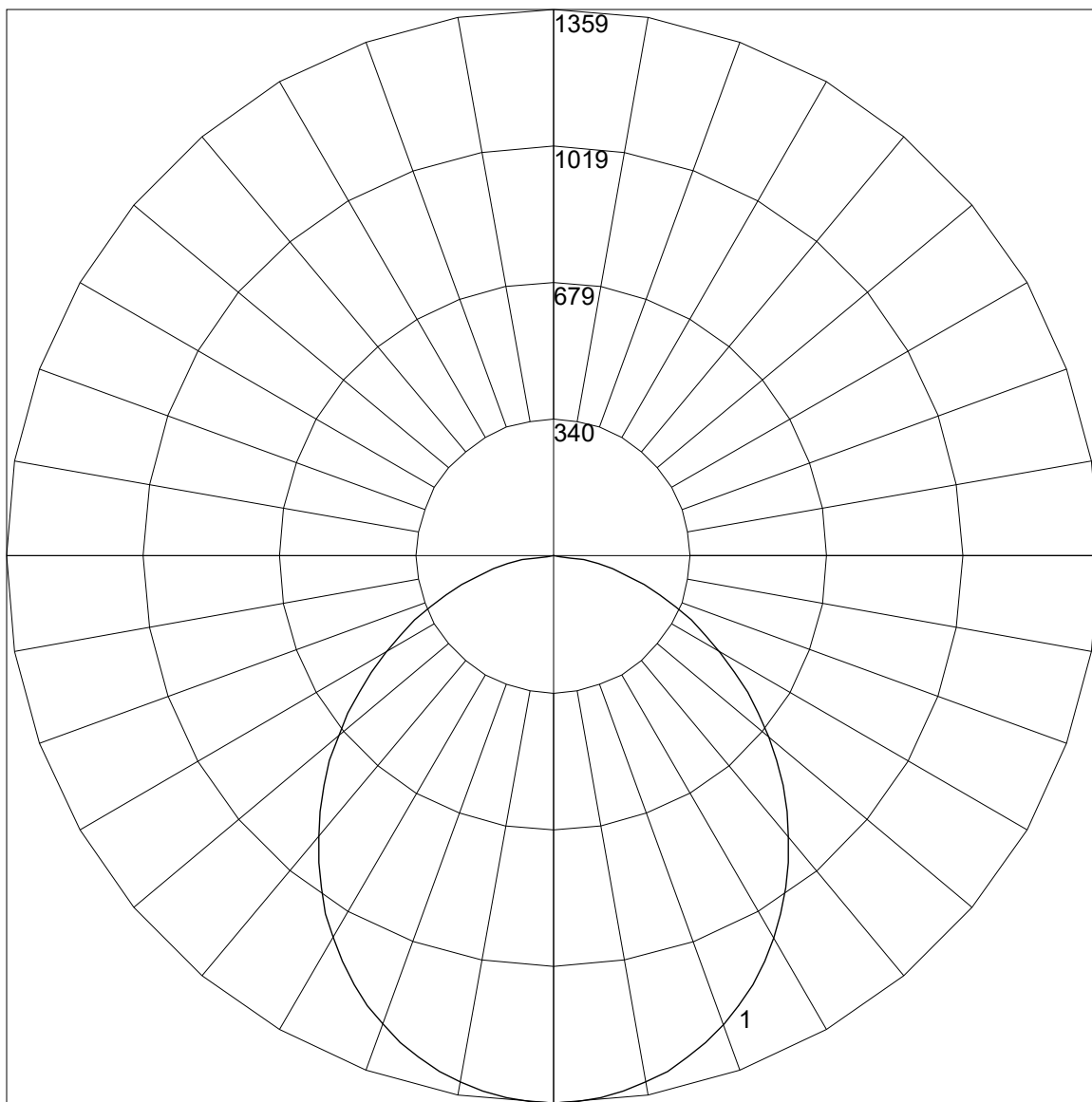
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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  | 109 | 105 | 101 | 97  | 107 | 102 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 89  | 91  | 89  | 87  | 85  |
| 2  | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 77  | 73  | 71  |
| 3  | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  | 61  |
| 4  | 84  | 72  | 64  | 57  | 81  | 71  | 63  | 57  | 68  | 61  | 56  | 66  | 60  | 55  | 64  | 59  | 54  | 52  |
| 5  | 77  | 65  | 56  | 49  | 75  | 64  | 55  | 49  | 61  | 54  | 49  | 59  | 53  | 48  | 58  | 52  | 48  | 45  |
| 6  | 71  | 58  | 50  | 43  | 70  | 57  | 49  | 43  | 56  | 48  | 43  | 54  | 47  | 42  | 52  | 47  | 42  | 40  |
| 7  | 66  | 53  | 45  | 38  | 65  | 52  | 44  | 38  | 51  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |
| 8  | 62  | 49  | 40  | 34  | 60  | 48  | 40  | 34  | 47  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 32  |
| 9  | 58  | 45  | 37  | 31  | 56  | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 29  |
| 10 | 54  | 41  | 33  | 28  | 53  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 38  | 32  | 28  | 26  |

POLAR GRAPH



Maximum Candela = 1358.5 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)