

# 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-6-R-4FT-V-8-TW-ITL86098.900.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]ITL86098.900 Family Correlation File  
[TESTLAB] INDEPENDENT TESTING LABORATORIES, INC.  
[ISSUE DATE]11/30/15  
[MANUFACTURER]FINELITE, INC.  
[LUMEN CATEGORY]HP-6-R-4ft-V-8-TW  
[OTHER]ies file is based on 3500K; see luminaire tech sheet at [www.finelite.com](http://www.finelite.com) for lumen adjustment factors for other CCT's & CRI  
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 41.4 WATTS  
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 42.2 WATTS  
[OTHER]see [www.finelite.com](http://www.finelite.com) for source file ITL86098. 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]3769

**CHARACTERISTICS**

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 3769            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 91              |
| Total Luminaire Watts           | 41.4            |
| Ballast Factor                  | 1.00            |
| CIE Type                        | Direct          |
| Spacing Criterion (0-180)       | 1.24            |
| Spacing Criterion (90-270)      | 1.24            |
| Spacing Criterion (Diagonal)    | 1.36            |
| Basic Luminous Shape            | Rectangular     |
| Luminous Length (0-180)         | 4.00 ft         |
| Luminous Width (90-270)         | 0.43 ft         |
| Luminous Height                 | 0.00 ft         |

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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45               | 7608          | 7581           | 7529           |
| 55               | 7243          | 7210           | 7178           |
| 65               | 6843          | 6784           | 6754           |
| 75               | 6320          | 6271           | 6271           |
| 85               | 5780          | 5708           | 5780           |

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**CANDELA TABULATION**

|             | <u><b>0.0</b></u> | <u><b>22.5</b></u> | <u><b>45.0</b></u> | <u><b>67.5</b></u> | <u><b>90.0</b></u> |
|-------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| <b>0.0</b>  | 1360              | 1360               | 1360               | 1360               | 1360               |
| <b>2.5</b>  | 1358              | 1358               | 1358               | 1359               | 1359               |
| <b>5.0</b>  | 1353              | 1353               | 1353               | 1354               | 1354               |
| <b>7.5</b>  | 1345              | 1345               | 1345               | 1345               | 1345               |
| <b>10.0</b> | 1334              | 1331               | 1332               | 1334               | 1331               |
| <b>12.5</b> | 1320              | 1314               | 1318               | 1320               | 1316               |
| <b>15.0</b> | 1301              | 1293               | 1299               | 1300               | 1294               |
| <b>17.5</b> | 1281              | 1270               | 1278               | 1277               | 1271               |
| <b>20.0</b> | 1257              | 1245               | 1252               | 1250               | 1244               |
| <b>22.5</b> | 1226              | 1214               | 1222               | 1221               | 1217               |
| <b>25.0</b> | 1193              | 1183               | 1192               | 1189               | 1185               |
| <b>27.5</b> | 1159              | 1149               | 1158               | 1154               | 1150               |
| <b>30.0</b> | 1123              | 1114               | 1120               | 1117               | 1114               |
| <b>32.5</b> | 1084              | 1076               | 1082               | 1078               | 1076               |
| <b>35.0</b> | 1043              | 1034               | 1039               | 1036               | 1034               |
| <b>37.5</b> | 1000              | 993                | 998                | 995                | 993                |
| <b>40.0</b> | 955               | 949                | 954                | 950                | 949                |
| <b>42.5</b> | 911               | 904                | 909                | 905                | 904                |
| <b>45.0</b> | 865               | 858                | 862                | 859                | 856                |
| <b>47.5</b> | 816               | 810                | 815                | 810                | 809                |
| <b>50.0</b> | 767               | 761                | 764                | 761                | 760                |
| <b>52.5</b> | 718               | 712                | 715                | 711                | 712                |
| <b>55.0</b> | 668               | 662                | 665                | 661                | 662                |
| <b>57.5</b> | 618               | 612                | 614                | 611                | 612                |
| <b>60.0</b> | 567               | 561                | 563                | 561                | 561                |
| <b>62.5</b> | 515               | 512                | 513                | 510                | 510                |
| <b>65.0</b> | 465               | 460                | 461                | 460                | 459                |
| <b>67.5</b> | 413               | 409                | 410                | 409                | 408                |
| <b>70.0</b> | 363               | 359                | 360                | 359                | 358                |
| <b>72.5</b> | 313               | 309                | 310                | 309                | 309                |
| <b>75.0</b> | 263               | 261                | 261                | 260                | 261                |
| <b>77.5</b> | 216               | 214                | 215                | 214                | 216                |
| <b>80.0</b> | 170               | 168                | 169                | 169                | 170                |
| <b>82.5</b> | 126               | 125                | 124                | 124                | 125                |
| <b>85.0</b> | 81                | 80                 | 80                 | 79                 | 81                 |
| <b>87.5</b> | 37                | 37                 | 37                 | 36                 | 37                 |
| <b>90.0</b> | 0                 | 0                  | 0                  | 0                  | 0                  |

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**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 494.48  | N.A.  | 13.10  |
| 0-30    | 1041.79 | N.A.  | 27.60  |
| 0-40    | 1690.85 | N.A.  | 44.90  |
| 0-60    | 2946.96 | N.A.  | 78.20  |
| 0-80    | 3679.98 | N.A.  | 97.60  |
| 0-90    | 3768.65 | N.A.  | 100.00 |
| 10-90   | 3640.12 | N.A.  | 96.60  |
| 20-40   | 1196.37 | N.A.  | 31.70  |
| 20-50   | 1859.41 | N.A.  | 49.30  |
| 40-70   | 1712.22 | N.A.  | 45.40  |
| 60-80   | 733.03  | N.A.  | 19.50  |
| 70-80   | 276.92  | N.A.  | 7.30   |
| 80-90   | 88.66   | 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   | 3768.65 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 128.53 |
| 10-20   | 365.95 |
| 20-30   | 547.30 |
| 30-40   | 649.06 |
| 40-50   | 663.05 |
| 50-60   | 593.06 |
| 60-70   | 456.11 |
| 70-80   | 276.92 |
| 80-90   | 88.66  |
| 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   |

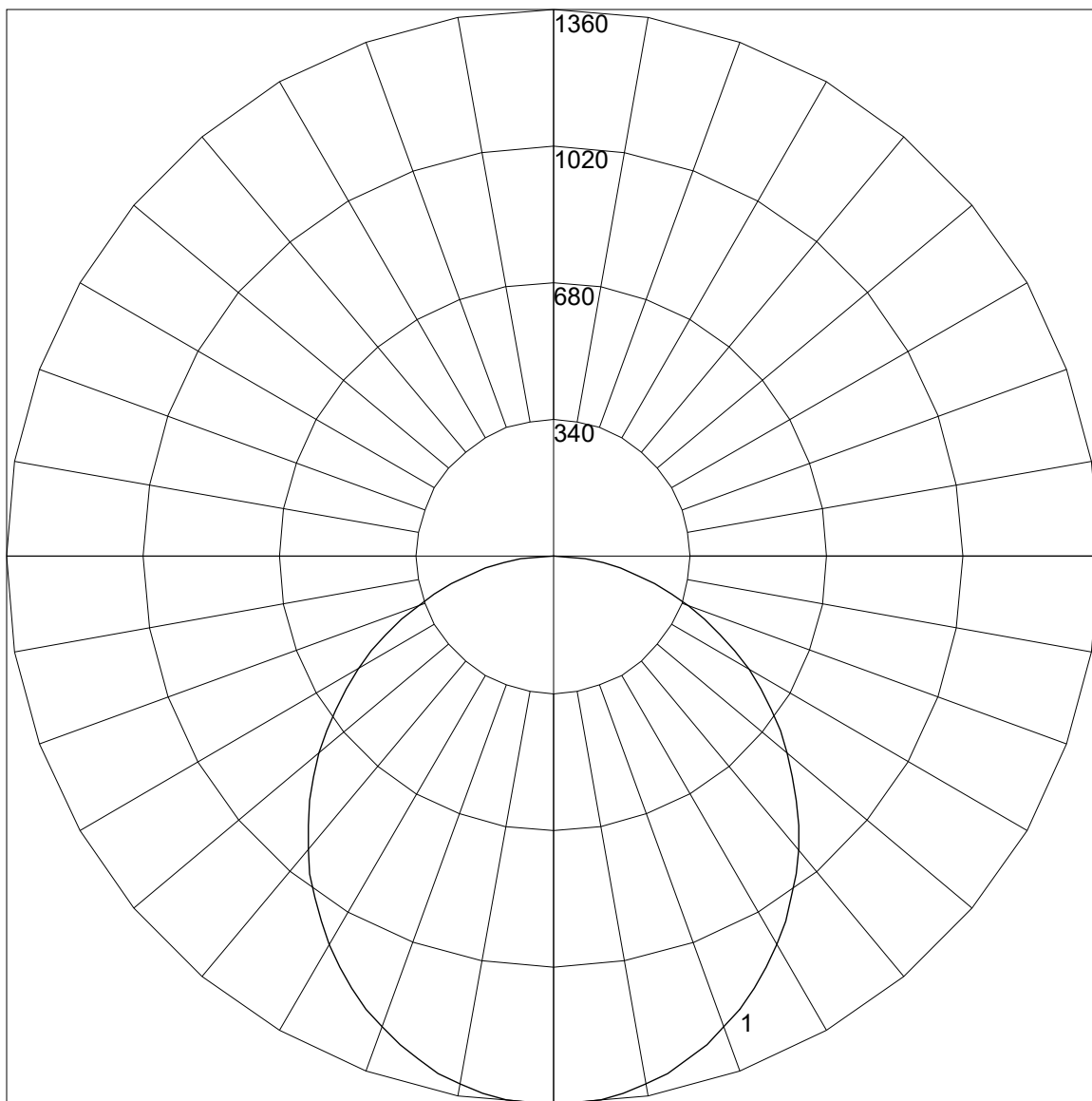
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 90  | 87  | 85  | 83  |
| 2  | 99  | 90  | 83  | 77  | 96  | 88  | 82  | 77  | 85  | 79  | 75  | 81  | 77  | 73  | 78  | 75  | 71  | 69  |
| 3  | 90  | 79  | 71  | 64  | 87  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4  | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  | 64  | 58  | 53  | 62  | 56  | 52  | 50  |
| 5  | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 56  | 50  | 45  | 43  |
| 6  | 70  | 56  | 47  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 40  | 38  |
| 7  | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 35  | 33  |
| 8  | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30  |
| 9  | 56  | 43  | 35  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 29  | 39  | 33  | 29  | 27  |
| 10 | 53  | 40  | 32  | 26  | 52  | 39  | 32  | 26  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24  |

POLAR GRAPH



Maximum Candela = 1360 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)