

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 : HPO-P-ID-4FT-V-V-8TW-RT-RB-RE-ITL93794.900.IES

DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL93794.900 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[ISSUEDATE]08/19/20

[TESTDATE]09/08/20

[MANUFAC]FINELITE, INC.

[LUMCAT]FINELITE HPO-P-ID-4ft-V-V-8TW-RT-RB-RE-SW

[OTHER]ies file is based on 3500K; see luminaire tech sheet at
www.finelite.com for lumen adjustment factors for other CCT's & CRI's

[_INPUT_ELECTRICAL]120.0 VOLTS, 69.0 WATTS

[_INPUT_ELECTRICAL]277.0 VOLTS, 69.2 WATTS

[_ABSOLUTE]LUMENS]8490

[OTHER]see www.finelite.com for source file ITL93794. 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 | 8490 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 123 |
| Total Luminaire Watts | 69 |
| 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 w/Sides |
| Luminous Length (0-180) | 4.00 ft |
| Luminous Width (90-270) | 0.20 ft |
| Luminous Height | 0.04 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 15932 | 14471 | 14298 |
| 55 | 15005 | 13302 | 13456 |
| 65 | 13802 | 12279 | 13132 |
| 75 | 12327 | 12134 | 14343 |
| 85 | 9888 | 16281 | 19858 |

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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 | 1335 | 1335 | 1335 | 1335 | 1335 |
| 2.5 | 1333 | 1333 | 1333 | 1333 | 1333 |
| 5.0 | 1327 | 1328 | 1328 | 1329 | 1329 |
| 7.5 | 1319 | 1318 | 1320 | 1321 | 1322 |
| 10.0 | 1306 | 1305 | 1310 | 1312 | 1311 |
| 12.5 | 1292 | 1288 | 1295 | 1299 | 1298 |
| 15.0 | 1273 | 1267 | 1278 | 1283 | 1282 |
| 17.5 | 1252 | 1243 | 1258 | 1265 | 1263 |
| 20.0 | 1225 | 1218 | 1233 | 1243 | 1242 |
| 22.5 | 1197 | 1190 | 1207 | 1218 | 1216 |
| 25.0 | 1164 | 1158 | 1179 | 1189 | 1191 |
| 27.5 | 1131 | 1125 | 1147 | 1158 | 1160 |
| 30.0 | 1094 | 1089 | 1114 | 1127 | 1128 |
| 32.5 | 1054 | 1052 | 1076 | 1091 | 1094 |
| 35.0 | 1015 | 1013 | 1039 | 1053 | 1058 |
| 37.5 | 973 | 972 | 999 | 1015 | 1020 |
| 40.0 | 927 | 930 | 956 | 976 | 981 |
| 42.5 | 882 | 887 | 914 | 935 | 942 |
| 45.0 | 838 | 841 | 871 | 891 | 901 |
| 47.5 | 789 | 795 | 826 | 849 | 860 |
| 50.0 | 740 | 748 | 779 | 806 | 819 |
| 52.5 | 692 | 701 | 734 | 765 | 778 |
| 55.0 | 643 | 650 | 687 | 722 | 739 |
| 57.5 | 594 | 602 | 641 | 681 | 699 |
| 60.0 | 540 | 553 | 594 | 643 | 662 |
| 62.5 | 490 | 504 | 551 | 604 | 627 |
| 65.0 | 439 | 454 | 510 | 567 | 593 |
| 67.5 | 390 | 406 | 470 | 535 | 562 |
| 70.0 | 340 | 360 | 431 | 504 | 533 |
| 72.5 | 292 | 316 | 396 | 478 | 508 |
| 75.0 | 244 | 272 | 366 | 454 | 488 |
| 77.5 | 198 | 233 | 341 | 435 | 469 |
| 80.0 | 153 | 199 | 318 | 418 | 454 |
| 82.5 | 111 | 171 | 303 | 406 | 443 |
| 85.0 | 71 | 151 | 291 | 396 | 434 |
| 87.5 | 30 | 140 | 284 | 391 | 431 |
| 90.0 | 0 | 136 | 282 | 390 | 429 |
| 92.5 | 36 | 142 | 287 | 394 | 434 |
| 95.0 | 79 | 156 | 296 | 401 | 441 |
| 97.5 | 121 | 178 | 309 | 412 | 451 |
| 100.0 | 164 | 211 | 327 | 429 | 464 |
| 102.5 | 209 | 247 | 351 | 446 | 481 |
| 105.0 | 260 | 287 | 381 | 468 | 502 |
| 107.5 | 308 | 330 | 414 | 494 | 525 |
| 110.0 | 358 | 379 | 450 | 525 | 552 |
| 112.5 | 408 | 429 | 489 | 558 | 583 |
| 115.0 | 461 | 478 | 531 | 592 | 618 |
| 117.5 | 517 | 528 | 576 | 630 | 653 |
| 120.0 | 568 | 579 | 624 | 671 | 690 |
| 122.5 | 618 | 629 | 671 | 713 | 729 |
| 125.0 | 672 | 678 | 720 | 754 | 768 |
| 127.5 | 725 | 731 | 768 | 795 | 811 |
| 130.0 | 775 | 784 | 815 | 839 | 851 |
| 132.5 | 828 | 837 | 861 | 886 | 895 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HPO-P-ID-4FT-V-V-8TW-RT-RB-RE-ITL93794.900.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|--------------|------|------|------|------|------|
| 135.0 | 877 | 882 | 905 | 930 | 939 |
| 137.5 | 929 | 926 | 952 | 974 | 987 |
| 140.0 | 974 | 969 | 994 | 1016 | 1030 |
| 142.5 | 1017 | 1014 | 1036 | 1062 | 1070 |
| 145.0 | 1061 | 1055 | 1080 | 1102 | 1110 |
| 147.5 | 1103 | 1095 | 1122 | 1139 | 1145 |
| 150.0 | 1142 | 1133 | 1161 | 1175 | 1182 |
| 152.5 | 1178 | 1172 | 1197 | 1209 | 1214 |
| 155.0 | 1212 | 1206 | 1229 | 1239 | 1245 |
| 157.5 | 1247 | 1240 | 1262 | 1268 | 1273 |
| 160.0 | 1276 | 1269 | 1288 | 1292 | 1296 |
| 162.5 | 1300 | 1297 | 1310 | 1316 | 1316 |
| 165.0 | 1321 | 1318 | 1330 | 1334 | 1332 |
| 167.5 | 1339 | 1337 | 1346 | 1350 | 1349 |
| 170.0 | 1354 | 1353 | 1359 | 1361 | 1361 |
| 172.5 | 1365 | 1367 | 1369 | 1370 | 1371 |
| 175.0 | 1375 | 1375 | 1376 | 1376 | 1376 |
| 177.5 | 1379 | 1379 | 1380 | 1379 | 1380 |
| 180.0 | 1381 | 1381 | 1381 | 1381 | 1381 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HPO-P-ID-4FT-V-V-8TW-RT-RB-RE-ITL93794.900.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 486.25 | N.A. | 5.70 |
| 0-30 | 1028.02 | N.A. | 12.10 |
| 0-40 | 1675.73 | N.A. | 19.70 |
| 0-60 | 2961.32 | N.A. | 34.90 |
| 0-80 | 3857.79 | N.A. | 45.40 |
| 0-90 | 4159.36 | N.A. | 49.00 |
| 10-90 | 4033.2 | N.A. | 47.50 |
| 20-40 | 1189.48 | N.A. | 14.00 |
| 20-50 | 1859.41 | N.A. | 21.90 |
| 40-70 | 1794.05 | N.A. | 21.10 |
| 60-80 | 896.47 | N.A. | 10.60 |
| 70-80 | 388.01 | N.A. | 4.60 |
| 80-90 | 301.57 | N.A. | 3.60 |
| 90-110 | 710.48 | N.A. | 8.40 |
| 90-120 | 1242.11 | N.A. | 14.60 |
| 90-130 | 1885.2 | N.A. | 22.20 |
| 90-150 | 3260.78 | N.A. | 38.40 |
| 90-180 | 4331.03 | N.A. | 51.00 |
| 110-180 | 3620.55 | N.A. | 42.60 |
| 0-180 | 8490.39 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 126.16 |
| 10-20 | 360.09 |
| 20-30 | 541.77 |
| 30-40 | 647.71 |
| 40-50 | 669.93 |
| 50-60 | 615.65 |
| 60-70 | 508.46 |
| 70-80 | 388.01 |
| 80-90 | 301.57 |
| 90-100 | 307.30 |
| 100-110 | 403.18 |
| 110-120 | 531.63 |
| 120-130 | 643.09 |
| 130-140 | 699.75 |
| 140-150 | 675.84 |
| 150-160 | 564.99 |
| 160-170 | 374.52 |
| 170-180 | 130.74 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HPO-P-ID-4FT-V-V-8TW-RT-RB-RE-ITL93794.900.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 | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 98 | 83 | 83 | 83 | 68 | 68 | 68 | 55 | 55 | 55 | 49 |
| 1 | 96 | 91 | 87 | 83 | 88 | 84 | 80 | 77 | 71 | 68 | 65 | 58 | 56 | 54 | 47 | 45 | 44 | 39 |
| 2 | 87 | 79 | 73 | 67 | 80 | 73 | 67 | 62 | 61 | 57 | 53 | 50 | 47 | 44 | 40 | 38 | 36 | 31 |
| 3 | 79 | 69 | 61 | 55 | 73 | 64 | 57 | 52 | 54 | 48 | 44 | 44 | 40 | 37 | 36 | 33 | 30 | 26 |
| 4 | 72 | 61 | 53 | 46 | 66 | 56 | 49 | 43 | 48 | 42 | 37 | 39 | 35 | 32 | 32 | 29 | 26 | 22 |
| 5 | 66 | 54 | 46 | 40 | 61 | 50 | 43 | 37 | 42 | 37 | 32 | 35 | 31 | 27 | 28 | 25 | 22 | 19 |
| 6 | 61 | 49 | 40 | 34 | 56 | 45 | 38 | 32 | 38 | 32 | 28 | 32 | 27 | 24 | 26 | 22 | 20 | 17 |
| 7 | 56 | 44 | 36 | 30 | 52 | 41 | 33 | 28 | 35 | 29 | 24 | 29 | 24 | 21 | 23 | 20 | 17 | 15 |
| 8 | 52 | 40 | 32 | 26 | 48 | 37 | 30 | 25 | 31 | 26 | 22 | 26 | 22 | 19 | 22 | 18 | 16 | 13 |
| 9 | 49 | 36 | 29 | 23 | 45 | 34 | 27 | 22 | 29 | 23 | 19 | 24 | 20 | 17 | 20 | 16 | 14 | 12 |
| 10 | 45 | 33 | 26 | 21 | 42 | 31 | 24 | 20 | 26 | 21 | 17 | 22 | 18 | 15 | 18 | 15 | 13 | 11 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HPO-P-ID-4FT-V-V-8TW-RT-RB-RE-ITL93794.900.IES

UGR TABLE - CORRECTED

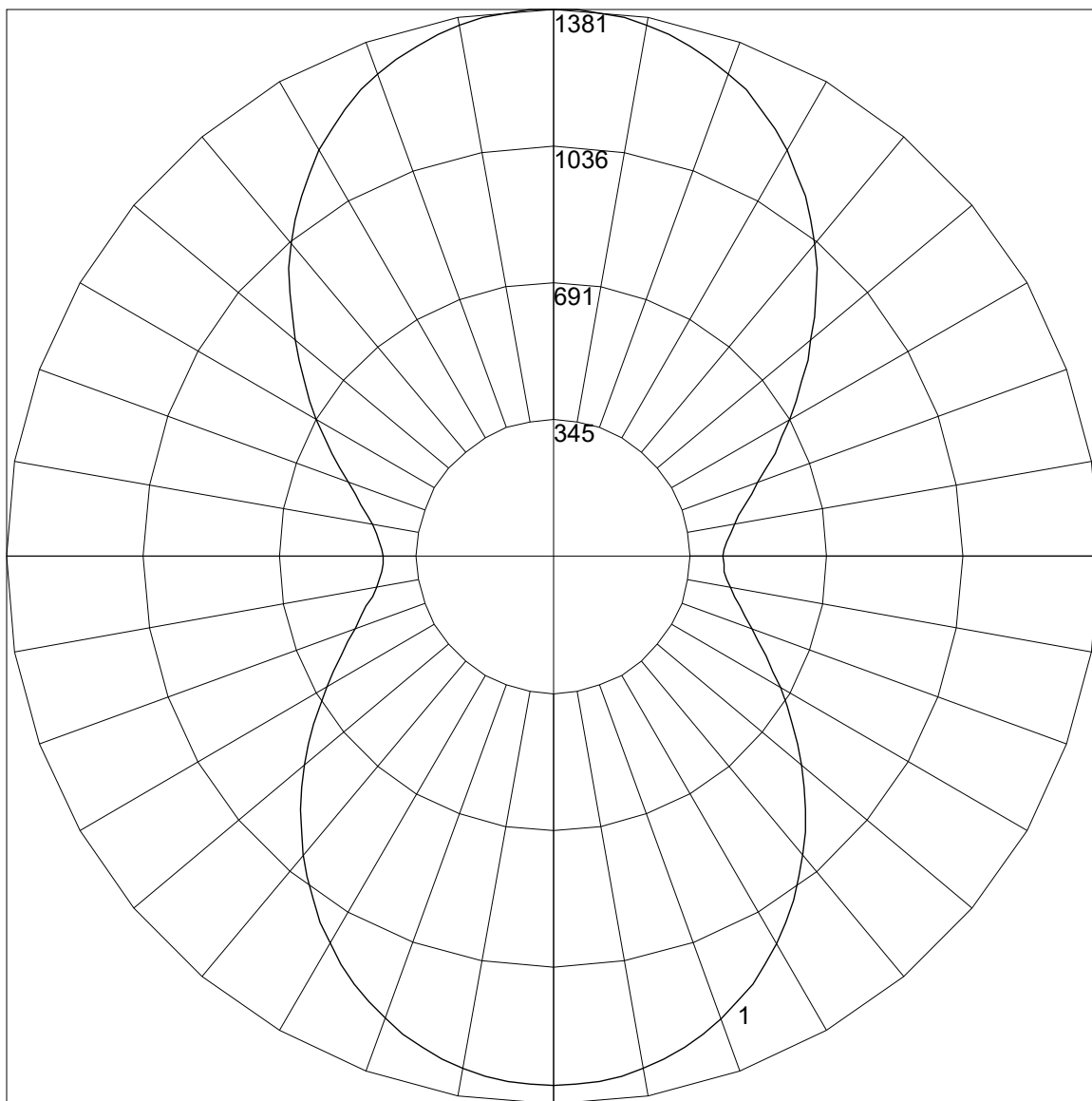
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| Ceiling Cavity | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

| Room Size | | UGR Viewed Crosswise | | | | | UGR Viewed Endwise | | | | |
|-----------|------|----------------------|------|------|------|------|--------------------|------|------|------|------|
| X=2H | Y=2H | 16.2 | 17.1 | 17.2 | 18.1 | 19.4 | 17.7 | 18.6 | 18.7 | 19.6 | 20.9 |
| | 3H | 17.8 | 18.6 | 18.8 | 19.6 | 20.9 | 20.2 | 21.0 | 21.2 | 22.0 | 23.3 |
| | 4H | 18.4 | 19.1 | 19.3 | 20.1 | 21.4 | 21.6 | 22.3 | 22.5 | 23.3 | 24.6 |
| | 6H | 18.8 | 19.5 | 19.7 | 20.5 | 21.8 | 23.1 | 23.8 | 24.1 | 24.8 | 26.1 |
| | 8H | 18.8 | 19.5 | 19.8 | 20.5 | 21.9 | 24.0 | 24.6 | 24.9 | 25.6 | 27.0 |
| | 12H | 18.9 | 19.5 | 19.9 | 20.6 | 21.9 | 25.0 | 25.6 | 26.0 | 26.6 | 28.0 |
| 4H | 2H | 17.0 | 17.7 | 18.0 | 18.7 | 20.0 | 18.1 | 18.9 | 19.1 | 19.9 | 21.2 |
| | 3H | 18.8 | 19.4 | 19.8 | 20.5 | 21.8 | 20.9 | 21.5 | 21.9 | 22.6 | 23.9 |
| | 4H | 19.5 | 20.1 | 20.5 | 21.1 | 22.4 | 22.4 | 23.0 | 23.4 | 24.0 | 25.4 |
| | 6H | 20.0 | 20.5 | 21.0 | 21.5 | 22.9 | 24.2 | 24.7 | 25.2 | 25.7 | 27.1 |
| | 8H | 20.1 | 20.6 | 21.2 | 21.7 | 23.0 | 25.2 | 25.6 | 26.2 | 26.7 | 28.0 |
| | 12H | 20.2 | 20.7 | 21.3 | 21.7 | 23.1 | 26.3 | 26.8 | 27.4 | 27.8 | 29.2 |
| 8H | 4H | 20.1 | 20.6 | 21.2 | 21.7 | 23.0 | 22.6 | 23.1 | 23.7 | 24.2 | 25.5 |
| | 6H | 20.9 | 21.3 | 21.9 | 22.3 | 23.7 | 24.6 | 25.0 | 25.7 | 26.1 | 27.5 |
| | 8H | 21.1 | 21.5 | 22.2 | 22.6 | 23.9 | 25.8 | 26.2 | 26.8 | 27.2 | 28.6 |
| | 12H | 21.3 | 21.7 | 22.4 | 22.7 | 24.1 | 27.2 | 27.5 | 28.2 | 28.6 | 30.0 |
| 12H | 4H | 20.4 | 20.8 | 21.4 | 21.9 | 23.2 | 22.6 | 23.1 | 23.7 | 24.1 | 25.5 |
| | 6H | 21.2 | 21.6 | 22.3 | 22.7 | 24.0 | 24.7 | 25.0 | 25.7 | 26.1 | 27.5 |
| | 8H | 21.6 | 21.9 | 22.7 | 23.0 | 24.4 | 25.9 | 26.2 | 27.0 | 27.3 | 28.7 |

Maximum UGR = 30.0

POLAR GRAPH



Maximum Candela = 1381 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (90 - 270)