

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 : S12-LED-ID-DCO-4FT-2E-B-8-35-TDO-ITL87818.002.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL87818.002 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]07/15/16

[ISSUEDATE]07/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S12-LED-ID-DCO-4ft-2E-B-8-35-TDO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 18.5 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 19.8 WATTS

[ABSOLUTE]LUMENS]1640

[OTHER]see www.finelite.com for source file ITL87818. 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 | 1640 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 89 |
| Total Luminaire Watts | 18.5 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.24 |
| Spacing Criterion (90-270) | 1.28 |
| Spacing Criterion (Diagonal) | 1.38 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 3.32 ft |
| Luminous Width (90-270) | 0.36 ft |
| Luminous Height | 0.03 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 4563 | 4431 | 4463 |
| 55 | 4314 | 4127 | 4130 |
| 65 | 3963 | 3656 | 3643 |
| 75 | 3410 | 2977 | 3062 |
| 85 | 2319 | 2104 | 2489 |

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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 | 572.257 | 572.257 | 572.257 | 572.257 | 572.257 |
| 2.5 | 572.257 | 572.257 | 572.257 | 572.257 | 572.257 |
| 5.0 | 570.199 | 570.199 | 570.199 | 570.713 | 570.713 |
| 7.5 | 566.082 | 566.596 | 567.111 | 567.626 | 567.626 |
| 10.0 | 561.965 | 561.450 | 562.994 | 563.509 | 564.023 |
| 12.5 | 556.304 | 554.760 | 557.848 | 558.877 | 558.363 |
| 15.0 | 548.585 | 546.526 | 551.158 | 552.702 | 552.187 |
| 17.5 | 539.322 | 536.234 | 542.409 | 544.982 | 543.953 |
| 20.0 | 528.515 | 525.427 | 532.632 | 536.234 | 535.205 |
| 22.5 | 516.164 | 514.105 | 521.825 | 525.427 | 525.427 |
| 25.0 | 503.298 | 501.240 | 509.474 | 514.105 | 514.105 |
| 27.5 | 489.404 | 487.345 | 496.094 | 501.240 | 501.754 |
| 30.0 | 474.480 | 472.936 | 482.199 | 487.860 | 488.889 |
| 32.5 | 458.526 | 457.497 | 466.760 | 472.936 | 474.480 |
| 35.0 | 441.544 | 441.029 | 450.807 | 456.982 | 458.526 |
| 37.5 | 424.047 | 424.047 | 433.310 | 440.000 | 442.058 |
| 40.0 | 405.520 | 406.035 | 415.813 | 421.988 | 424.047 |
| 42.5 | 386.480 | 387.509 | 396.772 | 403.462 | 405.520 |
| 45.0 | 366.924 | 367.439 | 376.702 | 383.906 | 385.965 |
| 47.5 | 346.339 | 347.368 | 356.117 | 363.322 | 365.380 |
| 50.0 | 325.240 | 326.784 | 334.503 | 341.708 | 344.281 |
| 52.5 | 304.140 | 305.684 | 313.918 | 320.608 | 322.152 |
| 55.0 | 282.526 | 284.585 | 292.304 | 297.965 | 299.509 |
| 57.5 | 260.398 | 262.456 | 269.661 | 274.807 | 276.351 |
| 60.0 | 237.754 | 240.327 | 246.503 | 251.649 | 253.193 |
| 62.5 | 215.626 | 217.170 | 223.345 | 227.977 | 229.006 |
| 65.0 | 192.468 | 194.526 | 199.158 | 204.304 | 205.333 |
| 67.5 | 169.310 | 171.368 | 176.000 | 180.632 | 182.690 |
| 70.0 | 146.152 | 148.211 | 152.842 | 157.474 | 159.532 |
| 72.5 | 125.053 | 126.082 | 130.713 | 135.345 | 138.947 |
| 75.0 | 102.924 | 104.468 | 108.585 | 114.246 | 117.848 |
| 77.5 | 81.310 | 82.854 | 88.000 | 94.175 | 97.778 |
| 80.0 | 61.240 | 62.269 | 68.959 | 75.135 | 78.737 |
| 82.5 | 42.199 | 43.743 | 50.947 | 58.667 | 62.784 |
| 85.0 | 25.216 | 27.789 | 36.538 | 44.772 | 48.374 |
| 87.5 | 9.778 | 14.924 | 24.702 | 32.421 | 36.023 |
| 90.0 | 0.000 | 6.690 | 15.439 | 22.129 | 25.216 |
| 92.5 | 0.000 | 2.058 | 8.234 | 13.895 | 16.468 |
| 95.0 | 0.000 | 0.000 | 4.117 | 9.778 | 9.778 |
| 97.5 | 0.000 | 0.000 | 1.029 | 3.088 | 4.632 |
| 100.0 | 0.000 | 0.000 | 0.515 | 1.029 | 1.029 |
| 102.5 | 0.000 | 0.000 | 0.515 | 0.515 | 0.515 |
| 105.0 | 0.000 | 0.000 | 0.515 | 0.515 | 0.515 |
| 107.5 | 0.000 | 0.000 | 0.515 | 0.515 | 0.515 |
| 110.0 | 0.000 | 0.000 | 0.515 | 0.515 | 0.515 |
| 112.5 | 0.000 | 0.515 | 0.515 | 0.515 | 0.515 |
| 115.0 | 0.000 | 0.515 | 0.515 | 1.029 | 0.515 |
| 117.5 | 0.000 | 0.515 | 0.515 | 1.029 | 0.515 |
| 120.0 | 0.515 | 0.515 | 1.029 | 1.029 | 0.515 |
| 122.5 | 0.515 | 0.515 | 1.029 | 1.029 | 1.029 |
| 125.0 | 0.515 | 0.515 | 1.029 | 1.029 | 1.029 |
| 127.5 | 0.515 | 0.515 | 1.029 | 1.029 | 1.029 |
| 130.0 | 0.515 | 1.029 | 1.029 | 1.029 | 1.029 |
| 132.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-B-8-35-TDO-ITL87818.002.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|--------------|-------|-------|-------|-------|-------|
| 135.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 137.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 140.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 142.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 145.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.544 |
| 147.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.544 |
| 150.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.544 |
| 152.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.544 |
| 155.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 157.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.544 |
| 160.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 162.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 165.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 167.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 170.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 172.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 175.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 177.5 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |
| 180.0 | 1.029 | 1.029 | 1.029 | 1.029 | 1.029 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-2E-B-8-35-TDO-ITL87818.002.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 209.35 | N.A. | 12.80 |
| 0-30 | 443.61 | N.A. | 27.00 |
| 0-40 | 724.88 | N.A. | 44.20 |
| 0-60 | 1275.17 | N.A. | 77.70 |
| 0-80 | 1588.51 | N.A. | 96.80 |
| 0-90 | 1630.26 | N.A. | 99.40 |
| 10-90 | 1576.06 | N.A. | 96.10 |
| 20-40 | 515.53 | N.A. | 31.40 |
| 20-50 | 805.54 | N.A. | 49.10 |
| 40-70 | 747.56 | N.A. | 45.60 |
| 60-80 | 313.34 | N.A. | 19.10 |
| 70-80 | 116.06 | N.A. | 7.10 |
| 80-90 | 41.75 | N.A. | 2.50 |
| 90-110 | 6.32 | N.A. | 0.40 |
| 90-120 | 6.86 | N.A. | 0.40 |
| 90-130 | 7.61 | N.A. | 0.50 |
| 90-150 | 9.07 | N.A. | 0.60 |
| 90-180 | 9.96 | N.A. | 0.60 |
| 110-180 | 3.64 | N.A. | 0.20 |
| 0-180 | 1640.21 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 54.20 |
| 10-20 | 155.16 |
| 20-30 | 234.26 |
| 30-40 | 281.27 |
| 40-50 | 290.01 |
| 50-60 | 260.28 |
| 60-70 | 197.27 |
| 70-80 | 116.06 |
| 80-90 | 41.75 |
| 90-100 | 5.96 |
| 100-110 | 0.37 |
| 110-120 | 0.53 |
| 120-130 | 0.76 |
| 130-140 | 0.79 |
| 140-150 | 0.67 |
| 150-160 | 0.50 |
| 160-170 | 0.29 |
| 170-180 | 0.10 |

IES INDOOR REPORT

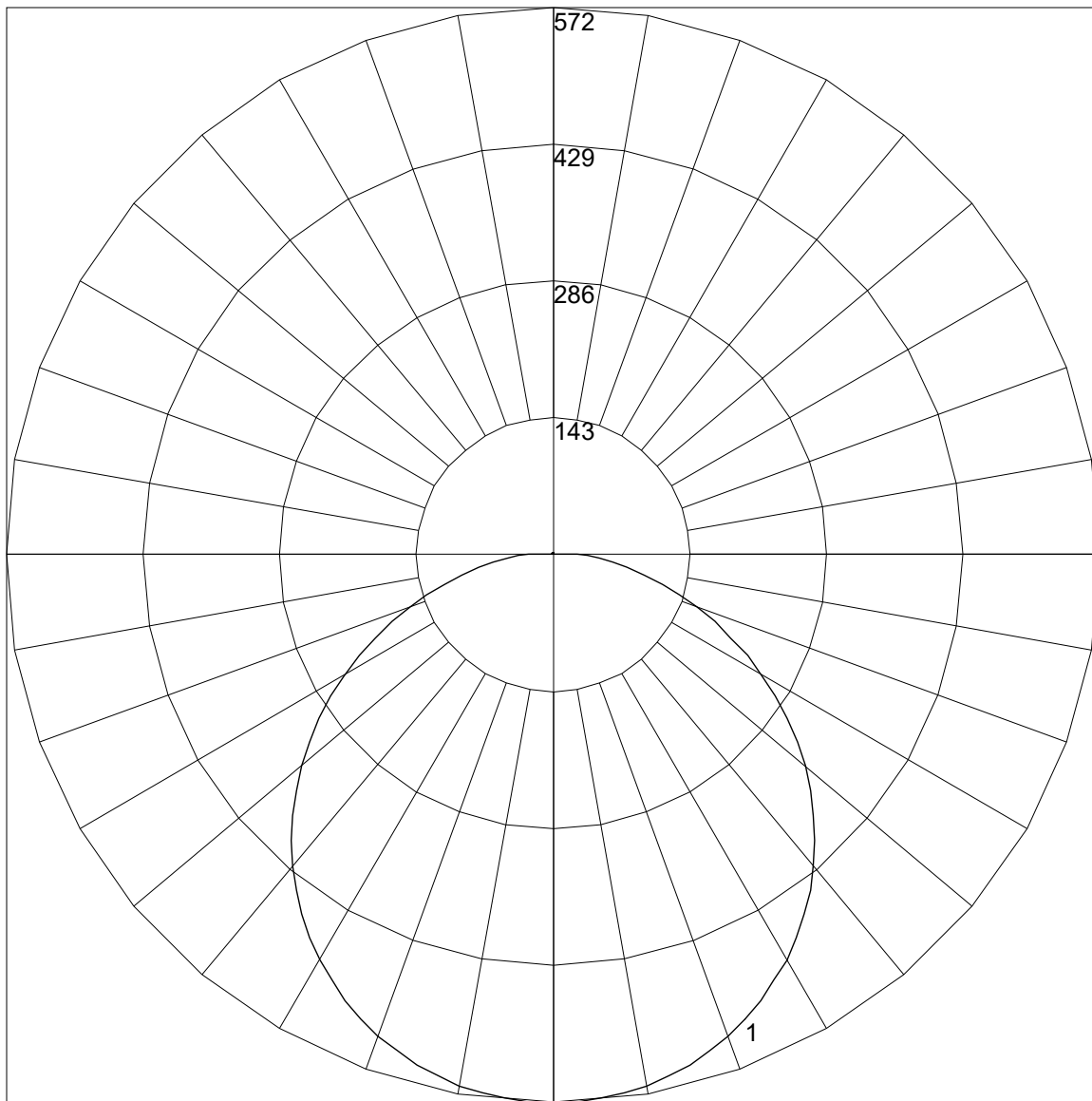
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 101 | 101 | 101 | 99 |
| 1 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 87 | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 69 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 47 | 73 | 61 | 53 | 46 | 59 | 52 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 35 | 47 | 40 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 28 | 39 | 33 | 28 | 26 |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 |

POLAR GRAPH



Maximum Candela = 572.257 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)