

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-3E-S-V-8-35-FTO-ITL85165.015.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]ITL85165.015 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]09/09/15

[ISSUEDATE]04/27/16

[MANUFAC]FINELITE, INC.

[LUMCAT]S12-LED-ID-DCO-4ft-3E-S-V-8-35-FTO

[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 34.8 WATTS

[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 37.9 WATTS

[ABSOLUTE]LUMENS]3934

[OTHER]see www.finelite.com for source file ITL85165. 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 | 3934 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 113 |
| Total Luminaire Watts | 34.8 |
| 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) | 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 | 5733 | 5481 | 5400 |
| 55 | 5375 | 5012 | 4936 |
| 65 | 4880 | 4461 | 4311 |
| 75 | 4075 | 3591 | 3612 |
| 85 | 2391 | 2591 | 2932 |

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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 | 749.000 | 749.000 | 749.000 | 749.000 | 749.000 |
| 2.5 | 748.000 | 748.000 | 748.000 | 748.000 | 748.000 |
| 5.0 | 744.000 | 745.000 | 745.000 | 745.000 | 745.000 |
| 7.5 | 740.000 | 740.000 | 740.000 | 740.000 | 741.000 |
| 10.0 | 733.000 | 732.000 | 734.000 | 734.000 | 733.000 |
| 12.5 | 724.000 | 722.000 | 725.000 | 725.000 | 724.000 |
| 15.0 | 713.000 | 709.000 | 714.000 | 714.000 | 713.000 |
| 17.5 | 700.000 | 696.000 | 702.000 | 702.000 | 701.000 |
| 20.0 | 685.000 | 680.000 | 686.000 | 687.000 | 686.000 |
| 22.5 | 668.000 | 663.000 | 670.000 | 671.000 | 671.000 |
| 25.0 | 649.000 | 645.000 | 651.000 | 653.000 | 654.000 |
| 27.5 | 629.000 | 626.000 | 631.000 | 635.000 | 635.000 |
| 30.0 | 608.000 | 605.000 | 610.000 | 615.000 | 614.000 |
| 32.5 | 585.000 | 583.000 | 590.000 | 592.000 | 591.000 |
| 35.0 | 561.000 | 560.000 | 567.000 | 570.000 | 568.000 |
| 37.5 | 538.000 | 536.000 | 543.000 | 545.000 | 544.000 |
| 40.0 | 513.000 | 512.000 | 518.000 | 520.000 | 519.000 |
| 42.5 | 488.000 | 486.000 | 492.000 | 494.000 | 493.000 |
| 45.0 | 461.000 | 460.000 | 466.000 | 467.000 | 467.000 |
| 47.5 | 434.000 | 433.000 | 438.000 | 441.000 | 440.000 |
| 50.0 | 407.000 | 407.000 | 411.000 | 413.000 | 413.000 |
| 52.5 | 380.000 | 381.000 | 383.000 | 386.000 | 386.000 |
| 55.0 | 352.000 | 353.000 | 355.000 | 358.000 | 358.000 |
| 57.5 | 324.000 | 325.000 | 327.000 | 330.000 | 329.000 |
| 60.0 | 295.000 | 296.000 | 299.000 | 302.000 | 301.000 |
| 62.5 | 266.000 | 268.000 | 271.000 | 273.000 | 272.000 |
| 65.0 | 237.000 | 239.000 | 243.000 | 244.000 | 243.000 |
| 67.5 | 208.000 | 210.000 | 214.000 | 216.000 | 215.000 |
| 70.0 | 179.000 | 182.000 | 186.000 | 188.000 | 189.000 |
| 72.5 | 150.000 | 154.000 | 157.000 | 163.000 | 164.000 |
| 75.0 | 123.000 | 127.000 | 131.000 | 138.000 | 139.000 |
| 77.5 | 96.000 | 100.000 | 106.000 | 113.000 | 115.000 |
| 80.0 | 70.000 | 75.000 | 83.000 | 91.000 | 93.000 |
| 82.5 | 47.000 | 52.000 | 62.000 | 72.000 | 74.000 |
| 85.0 | 26.000 | 32.000 | 45.000 | 55.000 | 57.000 |
| 87.5 | 8.000 | 17.000 | 30.000 | 40.000 | 43.000 |
| 90.0 | 0.000 | 9.000 | 23.000 | 34.000 | 38.000 |
| 92.5 | 13.509 | 15.965 | 22.105 | 27.017 | 28.246 |
| 95.0 | 28.246 | 31.930 | 38.889 | 44.211 | 46.667 |
| 97.5 | 44.620 | 49.941 | 58.947 | 65.088 | 67.953 |
| 100.0 | 62.632 | 69.591 | 81.871 | 90.058 | 93.743 |
| 102.5 | 82.690 | 91.696 | 107.251 | 118.713 | 123.626 |
| 105.0 | 103.977 | 115.029 | 135.088 | 149.825 | 155.556 |
| 107.5 | 126.082 | 139.591 | 164.152 | 182.573 | 187.895 |
| 110.0 | 149.415 | 165.380 | 194.854 | 216.550 | 223.099 |
| 112.5 | 171.930 | 191.579 | 225.965 | 250.117 | 258.713 |
| 115.0 | 196.491 | 217.778 | 257.485 | 284.912 | 294.327 |
| 117.5 | 221.053 | 244.386 | 287.778 | 319.298 | 329.123 |
| 120.0 | 245.205 | 270.994 | 318.479 | 352.865 | 363.509 |
| 122.5 | 269.357 | 296.784 | 347.135 | 384.795 | 396.667 |
| 125.0 | 293.509 | 321.754 | 375.380 | 414.678 | 427.368 |
| 127.5 | 316.842 | 346.316 | 401.988 | 442.515 | 455.614 |
| 130.0 | 339.766 | 369.240 | 426.140 | 467.485 | 480.585 |
| 132.5 | 362.281 | 391.345 | 448.246 | 489.591 | 502.690 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-S-V-8-35-FTO-ITL85165.015.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|--------------|---------|---------|---------|---------|---------|
| 135.0 | 383.158 | 411.404 | 467.895 | 509.240 | 521.930 |
| 137.5 | 403.626 | 430.643 | 485.497 | 525.205 | 537.895 |
| 140.0 | 422.865 | 447.836 | 500.643 | 538.713 | 550.585 |
| 142.5 | 440.468 | 462.573 | 512.924 | 548.538 | 560.000 |
| 145.0 | 457.661 | 477.310 | 523.977 | 557.544 | 567.778 |
| 147.5 | 471.988 | 489.591 | 532.164 | 562.865 | 572.690 |
| 150.0 | 486.316 | 501.053 | 539.532 | 567.368 | 575.556 |
| 152.5 | 499.006 | 510.877 | 545.263 | 570.234 | 577.193 |
| 155.0 | 509.649 | 519.883 | 549.357 | 571.462 | 578.012 |
| 157.5 | 519.474 | 527.251 | 552.632 | 571.053 | 577.193 |
| 160.0 | 527.661 | 534.211 | 555.088 | 569.825 | 575.556 |
| 162.5 | 535.029 | 539.532 | 556.725 | 568.187 | 573.509 |
| 165.0 | 541.170 | 544.444 | 557.544 | 566.550 | 570.234 |
| 167.5 | 546.082 | 548.538 | 557.953 | 564.094 | 567.368 |
| 170.0 | 550.175 | 551.813 | 557.544 | 562.047 | 564.503 |
| 172.5 | 553.041 | 554.678 | 557.544 | 560.409 | 562.047 |
| 175.0 | 555.497 | 556.316 | 557.544 | 558.772 | 559.181 |
| 177.5 | 557.135 | 557.135 | 557.135 | 557.953 | 557.953 |
| 180.0 | 557.544 | 557.544 | 557.544 | 557.544 | 557.544 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : S12-LED-ID-DCO-4FT-3E-S-V-8-35-FTO-ITL85165.015.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 271.70 | N.A. | 6.90 |
| 0-30 | 571.20 | N.A. | 14.50 |
| 0-40 | 924.71 | N.A. | 23.50 |
| 0-60 | 1600.39 | N.A. | 40.70 |
| 0-80 | 1979.14 | N.A. | 50.30 |
| 0-90 | 2029.53 | N.A. | 51.60 |
| 10-90 | 1958.79 | N.A. | 49.80 |
| 20-40 | 653.01 | N.A. | 16.60 |
| 20-50 | 1011.13 | N.A. | 25.70 |
| 40-70 | 914.80 | N.A. | 23.30 |
| 60-80 | 378.75 | N.A. | 9.60 |
| 70-80 | 139.63 | N.A. | 3.50 |
| 80-90 | 50.39 | N.A. | 1.30 |
| 90-110 | 186.42 | N.A. | 4.70 |
| 90-120 | 435.05 | N.A. | 11.10 |
| 90-130 | 763.33 | N.A. | 19.40 |
| 90-150 | 1441.5 | N.A. | 36.60 |
| 90-180 | 1904.26 | N.A. | 48.40 |
| 110-180 | 1717.84 | N.A. | 43.70 |
| 0-180 | 3933.79 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 70.74 |
| 10-20 | 200.96 |
| 20-30 | 299.50 |
| 30-40 | 353.51 |
| 40-50 | 358.12 |
| 50-60 | 317.56 |
| 60-70 | 239.12 |
| 70-80 | 139.63 |
| 80-90 | 50.39 |
| 90-100 | 45.67 |
| 100-110 | 140.75 |
| 110-120 | 248.63 |
| 120-130 | 328.28 |
| 130-140 | 354.40 |
| 140-150 | 323.77 |
| 150-160 | 252.11 |
| 160-170 | 157.44 |
| 170-180 | 53.21 |

IES INDOOR REPORT

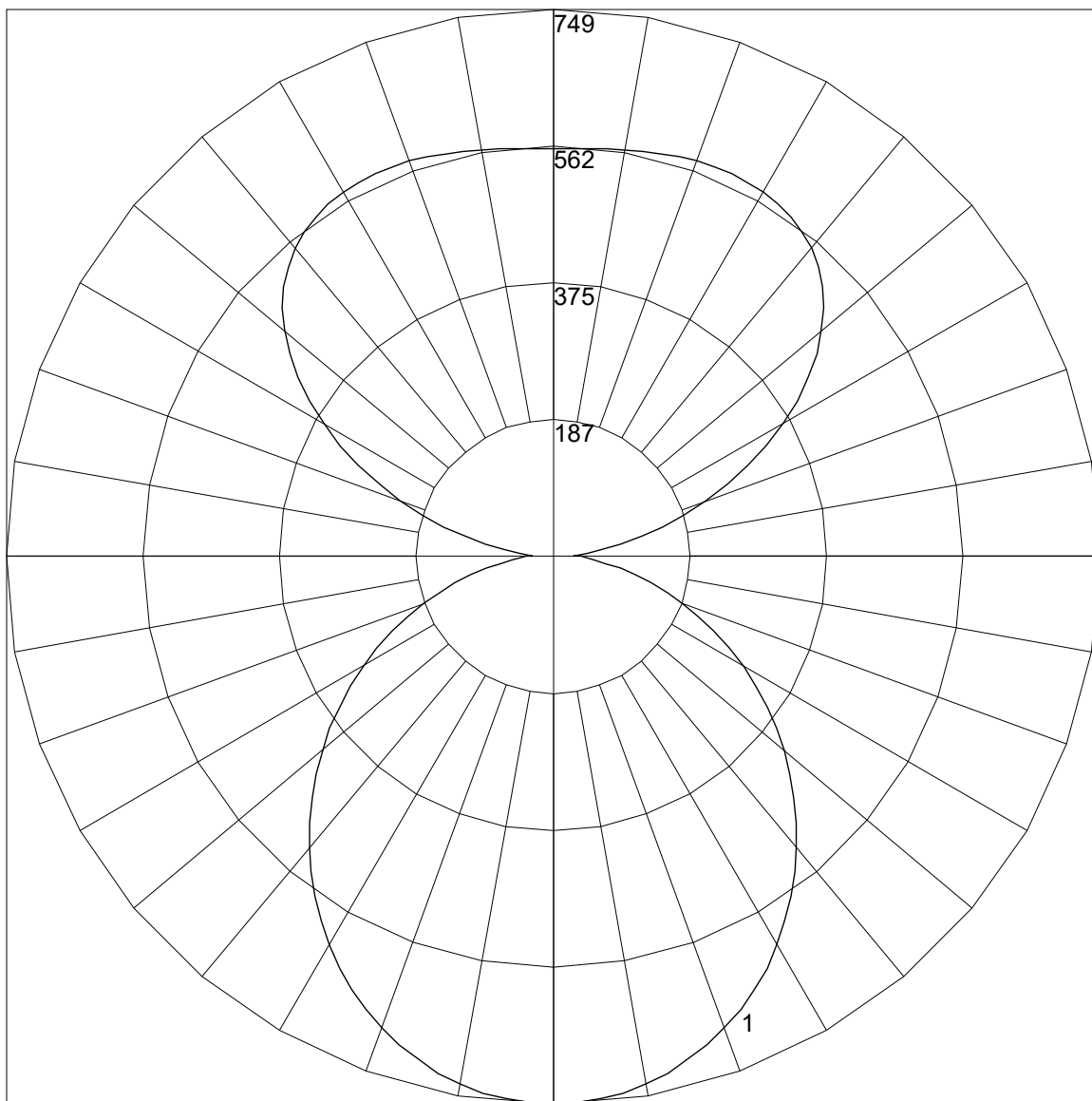
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 108 | 108 | 108 | 108 | 99 | 99 | 99 | 99 | 84 | 84 | 84 | 70 | 70 | 70 | 58 | 58 | 58 | 52 |
| 1 | 98 | 93 | 90 | 86 | 90 | 87 | 83 | 80 | 74 | 71 | 69 | 62 | 60 | 58 | 51 | 49 | 48 | 43 |
| 2 | 89 | 82 | 75 | 70 | 82 | 76 | 70 | 66 | 64 | 60 | 57 | 54 | 51 | 48 | 44 | 42 | 40 | 36 |
| 3 | 81 | 72 | 64 | 58 | 75 | 66 | 60 | 55 | 57 | 52 | 48 | 48 | 44 | 41 | 39 | 37 | 34 | 30 |
| 4 | 74 | 63 | 55 | 49 | 68 | 59 | 52 | 46 | 50 | 45 | 40 | 42 | 38 | 35 | 35 | 32 | 29 | 26 |
| 5 | 68 | 56 | 48 | 42 | 63 | 52 | 45 | 40 | 45 | 39 | 35 | 38 | 34 | 30 | 32 | 28 | 26 | 22 |
| 6 | 63 | 51 | 42 | 36 | 58 | 47 | 40 | 34 | 40 | 35 | 30 | 34 | 30 | 26 | 29 | 25 | 23 | 20 |
| 7 | 58 | 46 | 38 | 32 | 53 | 43 | 35 | 30 | 37 | 31 | 27 | 31 | 27 | 23 | 26 | 23 | 20 | 17 |
| 8 | 54 | 41 | 34 | 28 | 50 | 39 | 32 | 27 | 33 | 28 | 24 | 29 | 24 | 21 | 24 | 20 | 18 | 16 |
| 9 | 50 | 38 | 30 | 25 | 46 | 35 | 28 | 24 | 31 | 25 | 21 | 26 | 22 | 19 | 22 | 19 | 16 | 14 |
| 10 | 47 | 35 | 27 | 23 | 43 | 32 | 26 | 21 | 28 | 23 | 19 | 24 | 20 | 17 | 20 | 17 | 15 | 13 |

POLAR GRAPH



Maximum Candela = 749 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)