

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 : S17-LED-VCF-PF-4FT-B-8-TW-ITL85157.902.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]ITL85157.902 Family Correlation File
[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.
[TESTDATE]09/04/15
[ISSUE DATE]04/27/16
[MANUFAC]FINELITE, INC.
[LUMCAT]FINELITE S17-LED-VCF-PF-4ft-B-8-TW
[OTHER]ies file is based on 3500K; see luminaire tech sheet at www.finelite.com for lumen adjustment factors for other CCT's & CRI
[OTHER]INPUT ELECTRICAL: 120.0 VOLTS, 20.4 WATTS
[OTHER]INPUT ELECTRICAL: 277.0 VOLTS, 21.7 WATTS
[ABSOLUTE LUMENS]1847
[OTHER]see www.finelite.com for source file ITL85157. 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 | 1847 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 91 |
| Total Luminaire Watts | 20.4 |
| 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) | 0.26 ft |
| Luminous Width (90-270) | 4.00 ft |
| Luminous Height | 0.31 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 1604 | 1814 | 2727 |
| 55 | 1223 | 1364 | 2342 |
| 65 | 1017 | 1016 | 1927 |
| 75 | 965 | 789 | 1481 |
| 85 | 1083 | 773 | 861 |

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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> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> |
|--------------|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| 0.0 | 341.193 | 341.193 | 341.193 | 341.193 | 341.193 | 341.193 | 341.193 | 341.193 | 341.193 |
| 2.5 | 348.912 | 348.398 | 346.339 | 343.766 | 341.193 | 338.105 | 335.532 | 334.503 | 333.988 |
| 5.0 | 355.088 | 353.544 | 350.456 | 345.310 | 339.649 | 333.988 | 329.871 | 327.298 | 326.269 |
| 7.5 | 360.749 | 358.690 | 354.058 | 346.339 | 338.105 | 329.357 | 323.181 | 319.579 | 319.064 |
| 10.0 | 364.865 | 362.807 | 355.602 | 345.310 | 334.503 | 323.696 | 316.491 | 311.345 | 310.830 |
| 12.5 | 367.439 | 365.895 | 356.632 | 343.251 | 330.901 | 317.006 | 309.287 | 303.626 | 302.082 |
| 15.0 | 368.982 | 366.409 | 356.117 | 340.164 | 325.754 | 309.287 | 301.567 | 295.392 | 293.848 |
| 17.5 | 368.468 | 365.380 | 354.058 | 336.047 | 320.094 | 301.567 | 293.333 | 287.673 | 285.099 |
| 20.0 | 365.380 | 362.807 | 350.456 | 330.386 | 312.889 | 293.333 | 284.585 | 278.924 | 276.865 |
| 22.5 | 360.234 | 357.661 | 344.795 | 323.181 | 305.170 | 283.556 | 274.807 | 269.661 | 267.088 |
| 25.0 | 353.029 | 350.971 | 338.620 | 315.462 | 296.421 | 274.807 | 266.058 | 260.912 | 258.339 |
| 27.5 | 343.251 | 341.193 | 329.357 | 306.199 | 286.129 | 264.515 | 255.766 | 251.135 | 249.591 |
| 30.0 | 331.930 | 329.357 | 319.064 | 295.906 | 275.322 | 253.708 | 245.988 | 242.386 | 240.327 |
| 32.5 | 318.550 | 316.491 | 307.228 | 284.070 | 263.485 | 242.901 | 235.696 | 233.123 | 231.064 |
| 35.0 | 303.626 | 302.082 | 293.848 | 271.719 | 251.649 | 231.064 | 224.889 | 223.345 | 222.316 |
| 37.5 | 287.673 | 286.129 | 280.468 | 258.339 | 238.784 | 219.743 | 214.596 | 213.567 | 213.053 |
| 40.0 | 270.690 | 269.661 | 264.515 | 244.444 | 224.889 | 208.421 | 204.304 | 204.304 | 203.789 |
| 42.5 | 253.708 | 253.193 | 249.076 | 230.035 | 211.509 | 196.585 | 194.012 | 194.526 | 195.556 |
| 45.0 | 237.240 | 237.240 | 232.094 | 215.111 | 197.099 | 184.234 | 183.205 | 184.749 | 185.778 |
| 47.5 | 221.287 | 221.287 | 216.140 | 199.673 | 183.205 | 172.398 | 172.398 | 174.971 | 176.515 |
| 50.0 | 206.877 | 205.848 | 200.187 | 183.719 | 169.310 | 160.561 | 162.105 | 164.678 | 166.737 |
| 52.5 | 193.497 | 191.439 | 185.263 | 168.795 | 155.415 | 149.754 | 152.327 | 154.901 | 156.959 |
| 55.0 | 181.146 | 179.088 | 170.339 | 153.357 | 141.520 | 137.918 | 141.520 | 145.123 | 147.181 |
| 57.5 | 170.339 | 166.737 | 156.444 | 138.433 | 128.140 | 126.596 | 131.228 | 135.345 | 137.404 |
| 60.0 | 161.076 | 155.930 | 143.579 | 124.538 | 114.760 | 115.275 | 120.936 | 125.053 | 127.626 |
| 62.5 | 152.842 | 146.667 | 131.228 | 110.643 | 102.409 | 104.468 | 110.643 | 115.275 | 117.848 |
| 65.0 | 146.152 | 138.433 | 119.906 | 97.778 | 90.058 | 93.661 | 100.865 | 106.012 | 108.070 |
| 67.5 | 141.006 | 131.228 | 109.614 | 85.427 | 78.222 | 83.368 | 91.088 | 96.234 | 98.292 |
| 70.0 | 136.374 | 125.053 | 100.351 | 74.105 | 67.415 | 73.591 | 81.310 | 86.971 | 89.029 |
| 72.5 | 132.772 | 119.906 | 92.117 | 63.298 | 56.608 | 64.327 | 72.047 | 77.708 | 81.310 |
| 75.0 | 130.199 | 116.304 | 84.912 | 53.520 | 46.830 | 55.064 | 62.784 | 72.047 | 77.193 |
| 77.5 | 128.140 | 112.702 | 78.737 | 44.257 | 37.567 | 46.316 | 55.579 | 69.474 | 75.649 |
| 80.0 | 128.655 | 111.673 | 74.105 | 36.023 | 28.819 | 37.567 | 50.947 | 67.415 | 74.105 |
| 82.5 | 130.713 | 113.216 | 72.047 | 28.304 | 21.099 | 29.848 | 47.860 | 65.871 | 73.591 |
| 85.0 | 132.257 | 114.246 | 72.561 | 22.129 | 13.380 | 24.702 | 47.345 | 66.386 | 74.105 |
| 87.5 | 132.772 | 114.760 | 72.561 | 21.099 | 6.175 | 23.673 | 47.860 | 66.901 | 74.620 |
| 90.0 | 132.772 | 114.760 | 72.561 | 21.099 | 0.000 | 21.614 | 46.830 | 66.901 | 74.105 |
| 92.5 | 132.772 | 114.760 | 72.561 | 21.099 | 3.602 | 22.643 | 48.374 | 67.415 | 75.135 |
| 95.0 | 132.257 | 114.246 | 72.561 | 21.099 | 9.263 | 28.304 | 49.918 | 68.444 | 75.649 |
| 97.5 | 131.228 | 113.731 | 72.047 | 21.614 | 15.439 | 35.509 | 56.094 | 72.047 | 78.222 |
| 100.0 | 129.684 | 112.187 | 71.018 | 22.643 | 22.129 | 43.228 | 64.327 | 79.766 | 84.912 |
| 102.5 | 127.111 | 110.643 | 69.988 | 26.246 | 29.333 | 51.462 | 73.076 | 89.029 | 94.175 |
| 105.0 | 125.053 | 108.585 | 69.474 | 32.936 | 37.567 | 59.696 | 81.825 | 98.807 | 103.439 |
| 107.5 | 121.965 | 106.526 | 69.474 | 41.684 | 46.830 | 67.930 | 91.088 | 108.070 | 112.702 |
| 110.0 | 119.392 | 104.468 | 71.018 | 51.977 | 56.094 | 76.678 | 100.351 | 117.333 | 122.480 |
| 112.5 | 116.304 | 102.924 | 74.105 | 63.298 | 66.386 | 84.398 | 109.099 | 126.596 | 131.743 |
| 115.0 | 114.760 | 102.924 | 79.251 | 75.135 | 76.678 | 93.146 | 118.363 | 135.860 | 141.006 |
| 117.5 | 114.246 | 103.953 | 86.971 | 88.515 | 87.485 | 101.895 | 127.626 | 145.123 | 150.269 |
| 120.0 | 115.275 | 106.526 | 97.263 | 102.924 | 99.322 | 110.643 | 136.374 | 153.871 | 159.532 |
| 122.5 | 116.819 | 111.158 | 110.129 | 117.848 | 110.643 | 118.877 | 144.608 | 162.105 | 167.766 |
| 125.0 | 121.450 | 118.877 | 125.053 | 133.287 | 122.480 | 127.626 | 152.327 | 170.339 | 175.485 |
| 127.5 | 127.626 | 129.170 | 141.520 | 149.754 | 134.830 | 135.860 | 159.532 | 177.544 | 182.690 |
| 130.0 | 137.918 | 143.064 | 160.047 | 165.708 | 146.667 | 144.094 | 166.737 | 184.234 | 189.380 |
| 132.5 | 151.813 | 160.561 | 180.117 | 181.661 | 158.503 | 152.327 | 172.912 | 189.895 | 195.556 |

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CANDELA TABULATION - (Cont.)

| | | | | | | | | | |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 135.0 | 169.825 | 180.632 | 200.187 | 197.099 | 169.825 | 160.047 | 178.573 | 195.556 | 200.702 |
| 137.5 | 191.439 | 201.731 | 220.772 | 212.023 | 181.146 | 167.251 | 184.234 | 200.187 | 204.819 |
| 140.0 | 215.626 | 225.918 | 240.842 | 226.433 | 191.439 | 174.456 | 188.865 | 203.789 | 208.421 |
| 142.5 | 240.327 | 249.591 | 258.854 | 238.784 | 201.731 | 181.146 | 192.468 | 206.877 | 210.994 |
| 145.0 | 265.544 | 272.749 | 276.351 | 250.105 | 210.994 | 187.836 | 196.585 | 208.936 | 213.053 |
| 147.5 | 288.702 | 292.304 | 290.246 | 258.854 | 219.743 | 194.526 | 200.187 | 210.994 | 214.596 |
| 150.0 | 307.228 | 309.287 | 301.053 | 266.573 | 226.947 | 200.702 | 203.275 | 212.023 | 215.111 |
| 152.5 | 323.181 | 322.152 | 308.772 | 272.749 | 233.637 | 206.877 | 206.363 | 213.053 | 215.111 |
| 155.0 | 334.503 | 330.901 | 314.433 | 277.380 | 239.813 | 213.053 | 209.450 | 213.567 | 215.111 |
| 157.5 | 339.649 | 335.018 | 316.491 | 280.468 | 244.959 | 218.713 | 213.053 | 214.596 | 215.626 |
| 160.0 | 340.678 | 335.532 | 315.977 | 282.012 | 249.591 | 224.374 | 216.655 | 216.655 | 216.655 |
| 162.5 | 337.591 | 332.444 | 313.404 | 283.041 | 253.708 | 230.035 | 221.287 | 218.713 | 218.199 |
| 165.0 | 331.415 | 325.754 | 308.772 | 282.012 | 256.795 | 235.181 | 225.404 | 221.287 | 220.257 |
| 167.5 | 323.181 | 317.006 | 303.111 | 280.982 | 258.854 | 240.327 | 230.550 | 225.918 | 223.860 |
| 170.0 | 312.374 | 307.743 | 295.906 | 278.924 | 260.912 | 245.988 | 236.211 | 231.579 | 229.520 |
| 172.5 | 301.053 | 297.965 | 288.702 | 276.351 | 262.971 | 251.135 | 242.901 | 238.269 | 236.725 |
| 175.0 | 288.702 | 286.643 | 280.468 | 272.749 | 263.485 | 255.766 | 249.591 | 245.988 | 243.930 |
| 177.5 | 276.351 | 275.322 | 272.749 | 268.632 | 264.515 | 260.398 | 256.795 | 254.737 | 253.708 |
| 180.0 | 265.029 | 265.029 | 265.029 | 265.029 | 265.029 | 265.029 | 265.029 | 265.029 | 265.029 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 124.93 | N.A. | 6.80 |
| 0-30 | 263.36 | N.A. | 14.30 |
| 0-40 | 424.41 | N.A. | 23.00 |
| 0-60 | 721.30 | N.A. | 39.00 |
| 0-80 | 909.42 | N.A. | 49.20 |
| 0-90 | 973.46 | N.A. | 52.70 |
| 10-90 | 941.12 | N.A. | 50.90 |
| 20-40 | 299.47 | N.A. | 16.20 |
| 20-50 | 458.24 | N.A. | 24.80 |
| 40-70 | 405.46 | N.A. | 21.90 |
| 60-80 | 188.12 | N.A. | 10.20 |
| 70-80 | 79.55 | N.A. | 4.30 |
| 80-90 | 64.04 | N.A. | 3.50 |
| 90-110 | 144.74 | N.A. | 7.80 |
| 90-120 | 245.53 | N.A. | 13.30 |
| 90-130 | 368.78 | N.A. | 20.00 |
| 90-150 | 653.93 | N.A. | 35.40 |
| 90-180 | 873.92 | N.A. | 47.30 |
| 110-180 | 729.18 | N.A. | 39.50 |
| 0-180 | 1847.38 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 32.34 |
| 10-20 | 92.59 |
| 20-30 | 138.42 |
| 30-40 | 161.05 |
| 40-50 | 158.76 |
| 50-60 | 138.13 |
| 60-70 | 108.57 |
| 70-80 | 79.55 |
| 80-90 | 64.04 |
| 90-100 | 64.71 |
| 100-110 | 80.03 |
| 110-120 | 100.79 |
| 120-130 | 123.25 |
| 130-140 | 141.58 |
| 140-150 | 143.58 |
| 150-160 | 119.21 |
| 160-170 | 75.43 |
| 170-180 | 25.35 |

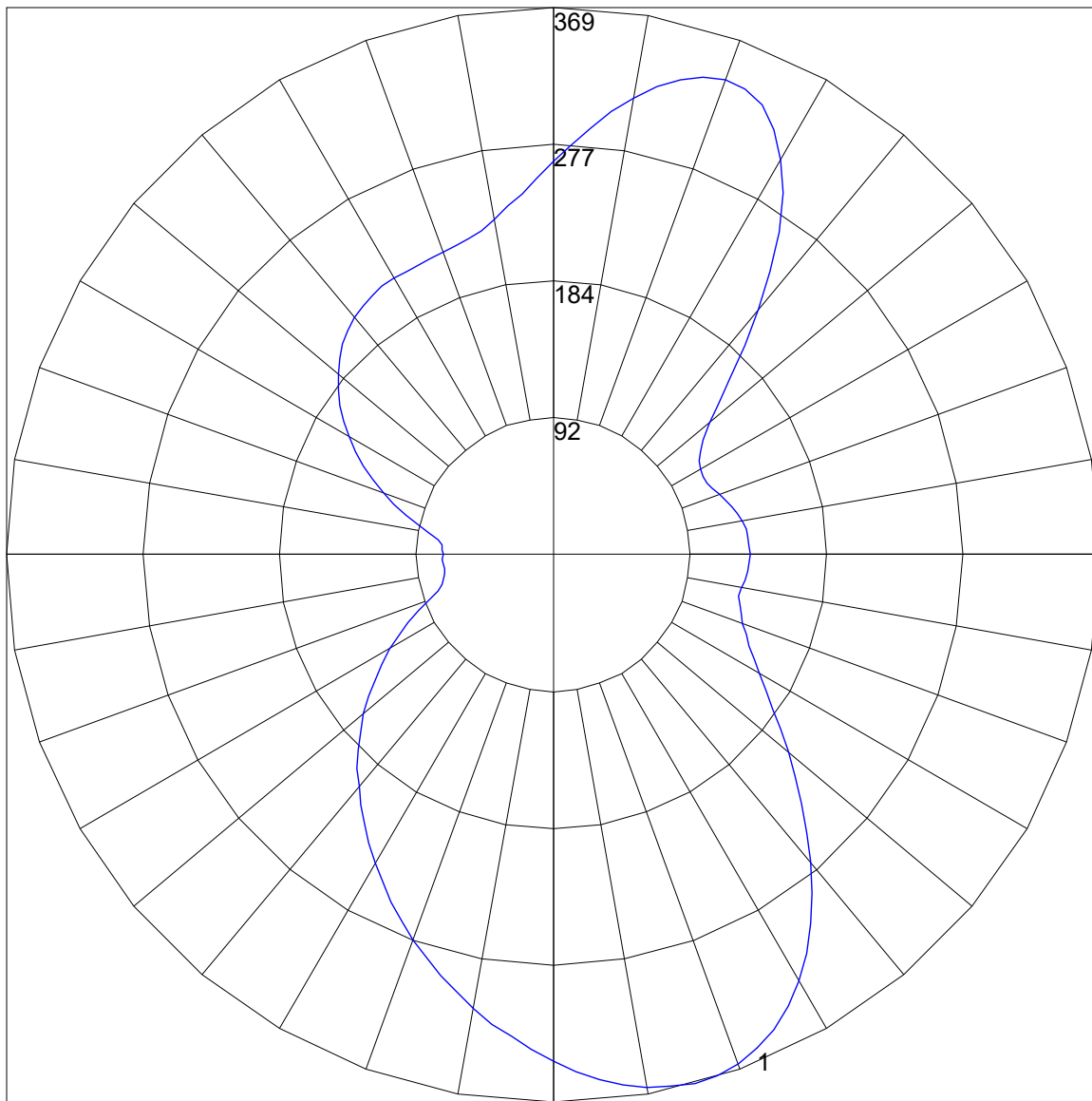
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 59 | 59 | 59 | 53 |
| 1 | 97 | 92 | 88 | 84 | 90 | 86 | 82 | 78 | 73 | 70 | 67 | 61 | 59 | 57 | 50 | 49 | 47 | 42 |
| 2 | 88 | 80 | 74 | 68 | 81 | 75 | 69 | 64 | 63 | 59 | 55 | 53 | 50 | 47 | 44 | 41 | 39 | 35 |
| 3 | 81 | 71 | 63 | 57 | 74 | 65 | 59 | 53 | 56 | 51 | 46 | 47 | 43 | 40 | 39 | 36 | 33 | 29 |
| 4 | 74 | 62 | 54 | 48 | 68 | 58 | 51 | 45 | 50 | 44 | 39 | 42 | 37 | 34 | 34 | 31 | 29 | 25 |
| 5 | 68 | 56 | 47 | 41 | 62 | 52 | 44 | 39 | 44 | 38 | 34 | 37 | 33 | 29 | 31 | 28 | 25 | 22 |
| 6 | 62 | 50 | 42 | 36 | 57 | 46 | 39 | 34 | 40 | 34 | 30 | 34 | 29 | 26 | 28 | 25 | 22 | 19 |
| 7 | 58 | 45 | 37 | 31 | 53 | 42 | 35 | 29 | 36 | 30 | 26 | 31 | 26 | 23 | 26 | 22 | 20 | 17 |
| 8 | 53 | 41 | 33 | 28 | 49 | 38 | 31 | 26 | 33 | 27 | 23 | 28 | 24 | 20 | 24 | 20 | 17 | 15 |
| 9 | 50 | 37 | 30 | 25 | 46 | 35 | 28 | 23 | 30 | 25 | 21 | 26 | 21 | 18 | 22 | 18 | 16 | 14 |
| 10 | 47 | 34 | 27 | 22 | 43 | 32 | 25 | 21 | 28 | 22 | 19 | 24 | 20 | 17 | 20 | 17 | 14 | 12 |

POLAR GRAPH



Maximum Candela = 368.982 Located At Horizontal Angle = 0, Vertical Angle = 15
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)