

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number:

Luminaire Tested: SQ4-F-100U-100D-927-1D-UNV-STD-W-6

Issue Date: 8/1/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G3-1910-536-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-F-100U-100D-927-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

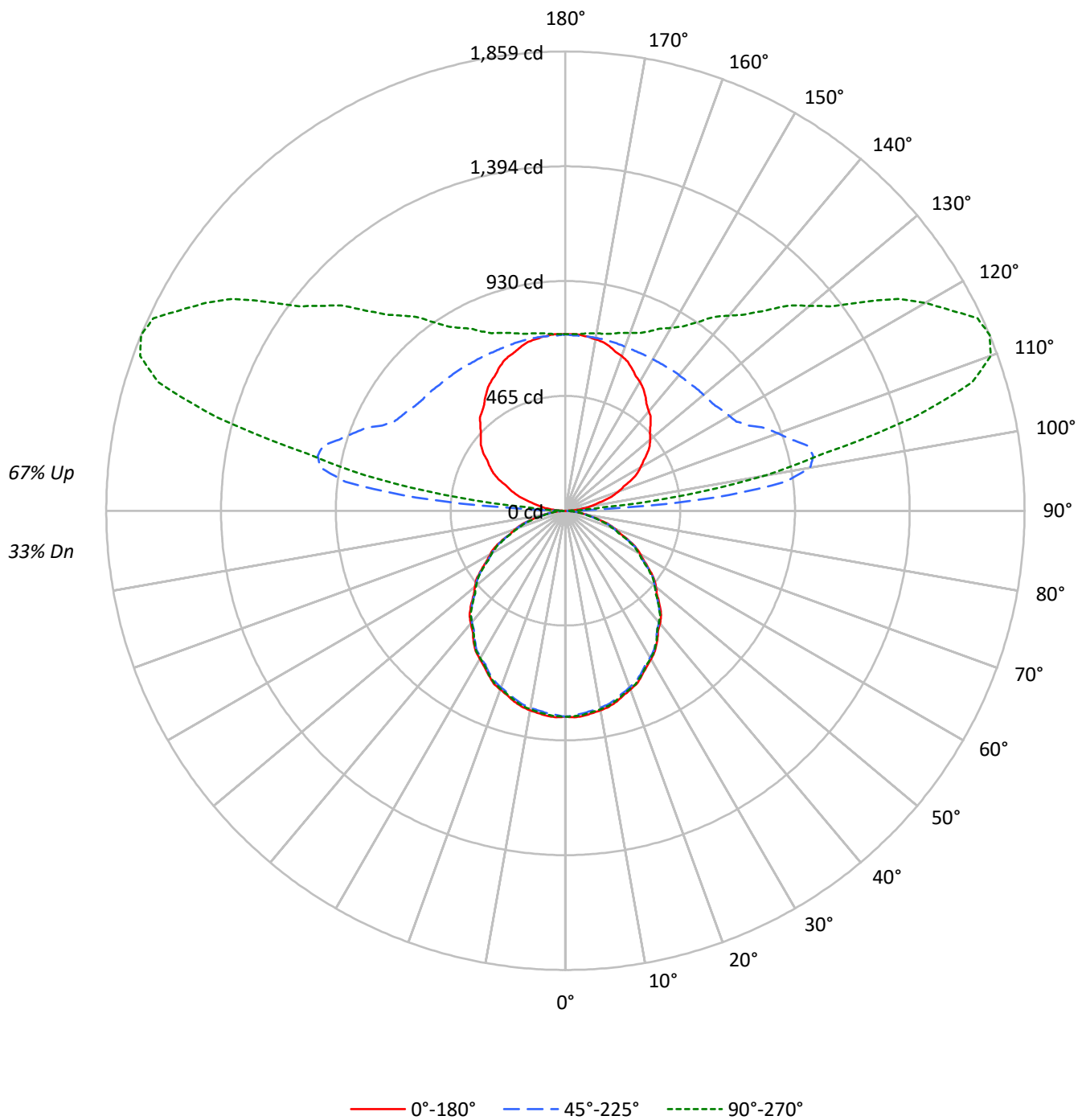
Lumens per Lamp: N/A  
Luminaire Lumens: 6914.4 lumens  
Efficiency: N/A  
Efficacy: 74.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 92.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER:

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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |
| RC  | 80  |     |     |     | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 56 | 56 | 56 | 40 | 40 | 40 |
| 1   | 94  | 90  | 86  | 83  | 85 | 81 | 78 | 75 | 65 | 62 | 60 | 50 | 48 | 47 | 36 | 35 | 34 |
| 2   | 85  | 78  | 72  | 67  | 77 | 71 | 66 | 61 | 57 | 53 | 50 | 43 | 41 | 39 | 31 | 30 | 29 |
| 3   | 78  | 69  | 62  | 56  | 70 | 62 | 56 | 51 | 50 | 45 | 42 | 38 | 35 | 33 | 28 | 26 | 24 |
| 4   | 71  | 61  | 53  | 47  | 64 | 55 | 48 | 43 | 44 | 39 | 36 | 34 | 31 | 28 | 25 | 23 | 21 |
| 5   | 65  | 54  | 46  | 40  | 58 | 49 | 42 | 37 | 39 | 34 | 30 | 30 | 27 | 24 | 22 | 20 | 18 |
| 6   | 60  | 48  | 40  | 35  | 54 | 44 | 37 | 32 | 35 | 30 | 26 | 27 | 24 | 21 | 20 | 18 | 16 |
| 7   | 55  | 43  | 36  | 30  | 50 | 39 | 33 | 28 | 32 | 27 | 23 | 25 | 21 | 19 | 18 | 16 | 14 |
| 8   | 51  | 39  | 32  | 26  | 46 | 36 | 29 | 24 | 29 | 24 | 20 | 23 | 19 | 16 | 17 | 14 | 13 |
| 9   | 48  | 36  | 28  | 23  | 43 | 33 | 26 | 22 | 26 | 22 | 18 | 21 | 17 | 15 | 15 | 13 | 11 |
| 10  | 44  | 33  | 26  | 21  | 40 | 30 | 24 | 19 | 24 | 20 | 16 | 19 | 16 | 13 | 14 | 12 | 10 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5129 | 5129 | 5129 |
| 5°  | 5152 | 5081 | 5120 |
| 10° | 5125 | 5061 | 5100 |
| 15° | 5094 | 5025 | 5066 |
| 20° | 5042 | 4982 | 5023 |
| 25° | 4987 | 4928 | 4967 |
| 30° | 4926 | 4874 | 4898 |
| 35° | 4864 | 4804 | 4830 |
| 40° | 4783 | 4728 | 4732 |
| 45° | 4699 | 4635 | 4620 |
| 50° | 4578 | 4523 | 4513 |
| 55° | 4443 | 4393 | 4363 |
| 60° | 4308 | 4231 | 4217 |
| 65° | 4098 | 4007 | 3973 |
| 70° | 3807 | 3715 | 3644 |
| 75° | 3401 | 3291 | 3223 |
| 80° | 2798 | 2696 | 2575 |
| 85° | 1658 | 1821 | 1856 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4699 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 78.7   | 1.1       |
| 10°-20°   | 224.1  | 3.2       |
| 20°-30°   | 336.5  | 4.9       |
| 30°-40°   | 401.6  | 5.8       |
| 40°-50°   | 411.7  | 6.0       |
| 50°-60°   | 366.6  | 5.3       |
| 60°-70°   | 273.3  | 4.0       |
| 70°-80°   | 148.0  | 2.1       |
| 80°-90°   | 35.1   | 0.5       |
| 90°-100°  | 334.3  | 4.8       |
| 100°-110° | 923.0  | 13.3      |
| 110°-120° | 951.9  | 13.8      |
| 120°-130° | 765.0  | 11.1      |
| 130°-140° | 601.2  | 8.7       |
| 140°-150° | 461.1  | 6.7       |
| 150°-160° | 331.4  | 4.8       |
| 160°-170° | 202.6  | 2.9       |
| 170°-180° | 68.3   | 1.0       |
| 0°-30°    | 639.3  | 9.2       |
| 0°-40°    | 1041.0 | 15.1      |
| 0°-60°    | 1819.3 | 26.3      |
| 0°-90°    | 2275.6 | 32.9      |
| 90°-120°  | 2209.3 | 32.0      |
| 90°-150°  | 4036.5 | 58.4      |
| 90°-180°  | 4639.0 | 67.1      |
| 0°-180°   | 6914.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|-----|-------|------|-------|------|------|
| 0°   | 834 | 834   | 834  | 834   | 834  |      |
| 5°   | 834 | 833   | 823  | 830   | 829  | 79   |
| 15°  | 800 | 797   | 789  | 796   | 796  | 225  |
| 25°  | 735 | 733   | 726  | 730   | 732  | 339  |
| 35°  | 648 | 645   | 640  | 641   | 643  | 404  |
| 45°  | 540 | 537   | 533  | 530   | 531  | 416  |
| 55°  | 414 | 415   | 410  | 406   | 407  | 371  |
| 65°  | 282 | 280   | 275  | 272   | 273  | 278  |
| 75°  | 143 | 141   | 138  | 136   | 136  | 152  |
| 85°  | 24  | 26    | 26   | 26    | 26   | 33   |
| 90°  | 2   | 4     | 9    | 10    | 11   | 4    |
| 95°  | 49  | 181   | 607  | 249   | 162  | 53   |
| 105° | 164 | 254   | 1016 | 1550  | 1460 | 175  |
| 115° | 295 | 356   | 818  | 1619  | 1841 | 290  |
| 125° | 404 | 460   | 741  | 1255  | 1472 | 360  |
| 135° | 487 | 539   | 721  | 1016  | 1146 | 377  |
| 145° | 564 | 603   | 712  | 865   | 931  | 353  |
| 155° | 636 | 658   | 706  | 776   | 801  | 293  |
| 165° | 689 | 698   | 709  | 737   | 742  | 194  |
| 175° | 714 | 715   | 710  | 721   | 718  | 68   |
| 180° | 714 | 714   | 714  | 714   | 714  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°    | 67.5°  | 90°    |
|--------|-------|-------|--------|--------|--------|
| 0°     | 833.8 | 833.8 | 833.8  | 833.8  | 833.8  |
| 2.5°   | 837.0 | 835.2 | 827.8  | 833.8  | 832.9  |
| 5°     | 834.4 | 832.7 | 822.9  | 830.3  | 829.2  |
| 7.5°   | 826.6 | 824.9 | 816.3  | 823.1  | 822.1  |
| 10°    | 820.6 | 819.0 | 810.3  | 817.2  | 816.6  |
| 12.5°  | 812.9 | 811.2 | 802.6  | 809.4  | 808.9  |
| 15°    | 800.0 | 797.2 | 789.2  | 795.5  | 795.5  |
| 17.5°  | 783.1 | 781.0 | 773.5  | 778.8  | 778.9  |
| 20°    | 770.3 | 768.6 | 761.1  | 766.9  | 767.4  |
| 22.5°  | 757.5 | 755.8 | 747.4  | 752.7  | 753.7  |
| 25°    | 734.8 | 733.1 | 726.2  | 730.3  | 731.9  |
| 27.5°  | 711.4 | 709.0 | 702.2  | 705.8  | 707.0  |
| 30°    | 693.6 | 692.5 | 686.2  | 687.9  | 689.6  |
| 32.5°  | 674.8 | 673.7 | 668.3  | 669.2  | 672.2  |
| 35°    | 647.8 | 645.0 | 639.8  | 641.0  | 643.2  |
| 37.5°  | 615.9 | 614.5 | 609.5  | 608.8  | 611.0  |
| 40°    | 595.7 | 593.5 | 588.9  | 587.8  | 589.4  |
| 42.5°  | 573.8 | 571.5 | 566.0  | 564.9  | 567.0  |
| 45°    | 540.2 | 537.4 | 532.8  | 529.9  | 531.1  |
| 47.5°  | 502.7 | 502.7 | 497.9  | 494.6  | 496.3  |
| 50°    | 478.4 | 478.4 | 472.7  | 469.9  | 471.6  |
| 52.5°  | 453.2 | 453.7 | 447.5  | 446.0  | 445.5  |
| 55°    | 414.3 | 414.9 | 409.7  | 405.8  | 406.9  |
| 57.5°  | 376.8 | 375.6 | 369.6  | 367.0  | 367.5  |
| 60°    | 350.2 | 348.6 | 343.9  | 340.0  | 342.8  |
| 62.5°  | 323.2 | 322.4 | 317.8  | 313.4  | 313.0  |
| 65°    | 281.6 | 280.4 | 275.3  | 272.4  | 273.0  |
| 67.5°  | 240.1 | 238.8 | 234.1  | 230.0  | 231.4  |
| 70°    | 211.7 | 211.7 | 206.6  | 204.3  | 202.6  |
| 72.5°  | 185.6 | 183.4 | 179.6  | 176.3  | 175.1  |
| 75°    | 143.1 | 141.4 | 138.5  | 135.6  | 135.6  |
| 77.5°  | 104.2 | 102.7 | 100.8  | 98.9   | 98.3   |
| 80°    | 79.0  | 78.4  | 76.1   | 75.5   | 72.7   |
| 82.5°  | 55.6  | 55.5  | 54.1   | 52.6   | 52.5   |
| 85°    | 23.5  | 25.7  | 25.8   | 26.3   | 26.3   |
| 87.5°  | 4.6   | 7.7   | 8.2    | 7.6    | 7.8    |
| 90°    | 2.3   | 4.5   | 9.1    | 10.3   | 11.4   |
| 92.5°  | 20.6  | 85.3  | 152.6  | 55.7   | 43.4   |
| 95°    | 49.1  | 180.9 | 606.6  | 249.3  | 162.2  |
| 97.5°  | 81.3  | 202.6 | 898.5  | 691.8  | 501.0  |
| 100°   | 105.1 | 215.7 | 1006.4 | 1013.5 | 823.6  |
| 102.5° | 127.9 | 230.5 | 1027.4 | 1252.2 | 1072.2 |
| 105°   | 164.5 | 253.8 | 1015.5 | 1550.3 | 1459.9 |
| 107.5° | 203.3 | 282.9 | 958.9  | 1694.1 | 1727.2 |
| 110°   | 230.7 | 302.2 | 915.0  | 1725.0 | 1832.3 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 255.4 | 324.2 | 873.9 | 1700.6 | 1858.8 |
| 115°   | 294.7 | 356.1 | 817.9 | 1619.1 | 1841.4 |
| 117.5° | 329.0 | 390.2 | 781.1 | 1504.5 | 1757.3 |
| 120°   | 351.8 | 412.1 | 766.5 | 1426.8 | 1681.5 |
| 122.5° | 373.8 | 431.4 | 754.6 | 1354.3 | 1595.6 |
| 125°   | 404.4 | 460.2 | 741.4 | 1254.6 | 1472.4 |
| 127.5° | 430.4 | 486.3 | 733.6 | 1170.3 | 1358.2 |
| 130°   | 447.8 | 503.6 | 729.9 | 1118.8 | 1289.7 |
| 132.5° | 464.2 | 517.4 | 726.3 | 1075.5 | 1230.3 |
| 135°   | 486.6 | 539.1 | 720.8 | 1016.2 | 1145.7 |
| 137.5° | 511.8 | 559.6 | 718.1 | 966.4  | 1077.0 |
| 140°   | 525.5 | 572.4 | 716.2 | 933.2  | 1030.4 |
| 142.5° | 541.0 | 584.3 | 714.4 | 903.7  | 989.2  |
| 145°   | 564.3 | 603.4 | 711.7 | 865.1  | 931.0  |
| 147.5° | 586.7 | 620.9 | 709.1 | 832.5  | 883.7  |
| 150°   | 603.1 | 631.1 | 708.2 | 813.1  | 854.4  |
| 152.5° | 615.9 | 642.1 | 707.3 | 796.5  | 830.7  |
| 155°   | 636.3 | 657.5 | 705.9 | 776.2  | 800.8  |
| 157.5° | 655.0 | 671.3 | 706.2 | 761.4  | 778.1  |
| 160°   | 666.0 | 680.5 | 707.1 | 753.1  | 765.3  |
| 162.5° | 675.1 | 687.8 | 708.0 | 745.7  | 755.3  |
| 165°   | 688.8 | 697.7 | 709.4 | 736.9  | 742.5  |
| 167.5° | 699.3 | 704.7 | 710.5 | 731.6  | 733.4  |
| 170°   | 704.8 | 709.3 | 710.5 | 728.8  | 728.8  |
| 172.5° | 709.4 | 712.1 | 710.5 | 725.1  | 724.2  |
| 175°   | 713.9 | 715.1 | 710.5 | 720.7  | 718.5  |
| 177.5° | 715.8 | 714.9 | 710.3 | 716.6  | 714.9  |
| 180°   | 713.9 | 713.9 | 713.9 | 713.9  | 713.9  |

(END OF REPORT)