

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-PR1-100U-050D-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)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-PR1-100U-050D-927-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

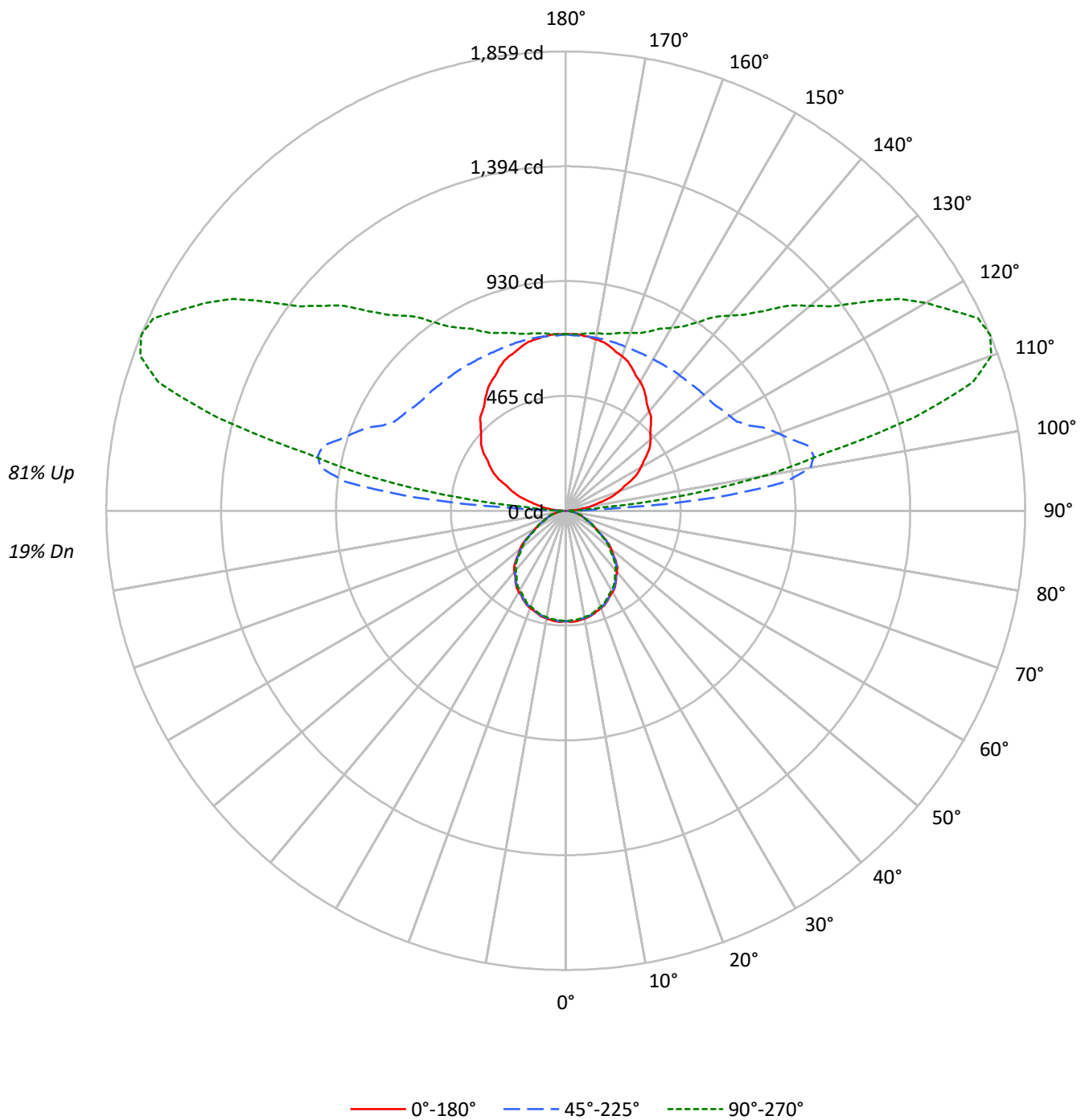
Lumens per Lamp: N/A  
Luminaire Lumens: 5759.3 lumens  
Efficiency: N/A  
Efficacy: 89.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 64.3  
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



TEST NUMBER:

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

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |
| RC  | 80  |     |     |     | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 100 | 100 | 100 | 100 | 88 | 88 | 88 | 88 | 66 | 66 | 66 | 46 | 46 | 46 | 28 | 28 | 28 |
| 1   | 91  | 87  | 83  | 80  | 80 | 77 | 74 | 71 | 58 | 56 | 54 | 41 | 40 | 39 | 25 | 24 | 24 |
| 2   | 83  | 76  | 70  | 65  | 73 | 67 | 63 | 58 | 51 | 48 | 45 | 36 | 34 | 32 | 22 | 21 | 20 |
| 3   | 76  | 67  | 60  | 54  | 67 | 59 | 54 | 49 | 45 | 41 | 38 | 32 | 29 | 27 | 20 | 18 | 17 |
| 4   | 69  | 59  | 52  | 46  | 61 | 52 | 46 | 41 | 40 | 36 | 32 | 28 | 26 | 23 | 18 | 16 | 15 |
| 5   | 63  | 52  | 45  | 39  | 56 | 47 | 40 | 35 | 36 | 31 | 28 | 25 | 23 | 20 | 16 | 14 | 13 |
| 6   | 58  | 47  | 39  | 34  | 51 | 42 | 35 | 30 | 32 | 27 | 24 | 23 | 20 | 18 | 14 | 13 | 11 |
| 7   | 54  | 42  | 35  | 29  | 47 | 38 | 31 | 27 | 29 | 24 | 21 | 21 | 18 | 16 | 13 | 11 | 10 |
| 8   | 50  | 38  | 31  | 26  | 44 | 34 | 28 | 23 | 26 | 22 | 18 | 19 | 16 | 14 | 12 | 10 | 9  |
| 9   | 46  | 35  | 27  | 23  | 41 | 31 | 25 | 21 | 24 | 19 | 16 | 17 | 14 | 12 | 11 | 9  | 8  |
| 10  | 43  | 31  | 25  | 20  | 38 | 28 | 22 | 18 | 22 | 18 | 15 | 16 | 13 | 11 | 10 | 9  | 7  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2753 | 2753 | 2753 |
| 5°  | 2778 | 2757 | 2743 |
| 10° | 2769 | 2750 | 2736 |
| 15° | 2757 | 2740 | 2725 |
| 20° | 2743 | 2726 | 2705 |
| 25° | 2724 | 2706 | 2674 |
| 30° | 2695 | 2675 | 2637 |
| 35° | 2655 | 2632 | 2594 |
| 40° | 2594 | 2566 | 2520 |
| 45° | 2489 | 2445 | 2395 |
| 50° | 2302 | 2247 | 2203 |
| 55° | 2010 | 1963 | 1923 |
| 60° | 1693 | 1679 | 1646 |
| 65° | 1464 | 1470 | 1458 |
| 70° | 1345 | 1352 | 1352 |
| 75° | 1293 | 1293 | 1302 |
| 80° | 1215 | 1229 | 1215 |
| 85° | 981  | 1087 | 1087 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2489 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 42.3   | 0.7       |
| 10°-20°   | 121.1  | 2.1       |
| 20°-30°   | 182.7  | 3.2       |
| 30°-40°   | 217.7  | 3.8       |
| 40°-50°   | 214.6  | 3.7       |
| 50°-60°   | 164.0  | 2.8       |
| 60°-70°   | 101.5  | 1.8       |
| 70°-80°   | 57.7   | 1.0       |
| 80°-90°   | 19.0   | 0.3       |
| 90°-100°  | 334.3  | 5.8       |
| 100°-110° | 923.0  | 16.0      |
| 110°-120° | 951.9  | 16.5      |
| 120°-130° | 765.0  | 13.3      |
| 130°-140° | 601.2  | 10.4      |
| 140°-150° | 461.1  | 8.0       |
| 150°-160° | 331.4  | 5.8       |
| 160°-170° | 202.6  | 3.5       |
| 170°-180° | 68.3   | 1.2       |
| 0°-30°    | 346.1  | 6.0       |
| 0°-40°    | 563.8  | 9.8       |
| 0°-60°    | 942.4  | 16.4      |
| 0°-90°    | 1120.5 | 19.5      |
| 90°-120°  | 2209.3 | 38.4      |
| 90°-150°  | 4036.5 | 70.1      |
| 90°-180°  | 4639.0 | 80.5      |
| 0°-180°   | 5759.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|-----|-------|------|-------|------|------|
| 0°   | 448 | 448   | 448  | 448   | 448  |      |
| 5°   | 450 | 445   | 446  | 445   | 444  | 43   |
| 15°  | 433 | 428   | 430  | 429   | 428  | 122  |
| 25°  | 401 | 396   | 399  | 394   | 394  | 185  |
| 35°  | 354 | 349   | 350  | 346   | 346  | 221  |
| 45°  | 286 | 282   | 281  | 276   | 275  | 219  |
| 55°  | 187 | 184   | 183  | 180   | 179  | 168  |
| 65°  | 101 | 100   | 101  | 100   | 100  | 102  |
| 75°  | 54  | 54    | 54   | 55    | 55   | 57   |
| 85°  | 14  | 15    | 15   | 15    | 15   | 16   |
| 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  |      |

TEST NUMBER:

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°    | 67.5°  | 90°    |
|--------|-------|-------|--------|--------|--------|
| 0°     | 447.6 | 447.6 | 447.6  | 447.6  | 447.6  |
| 2.5°   | 450.4 | 446.5 | 447.6  | 446.7  | 444.6  |
| 5°     | 450.0 | 445.1 | 446.5  | 444.9  | 444.2  |
| 7.5°   | 446.5 | 441.7 | 443.1  | 441.5  | 441.1  |
| 10°    | 443.4 | 438.9 | 440.3  | 438.8  | 438.0  |
| 12.5°  | 440.0 | 435.2 | 436.9  | 435.1  | 434.3  |
| 15°    | 433.0 | 428.5 | 430.3  | 428.7  | 428.0  |
| 17.5°  | 425.3 | 420.5 | 422.3  | 420.5  | 419.5  |
| 20°    | 419.1 | 414.6 | 416.4  | 413.7  | 413.3  |
| 22.5°  | 412.3 | 407.8 | 409.6  | 406.0  | 405.9  |
| 25°    | 401.4 | 396.5 | 398.7  | 394.4  | 394.0  |
| 27.5°  | 388.3 | 383.8 | 385.6  | 381.3  | 380.9  |
| 30°    | 379.4 | 374.9 | 376.7  | 372.1  | 371.3  |
| 32.5°  | 369.2 | 365.0 | 366.5  | 361.9  | 361.4  |
| 35°    | 353.6 | 349.4 | 350.5  | 345.8  | 345.5  |
| 37.5°  | 335.8 | 332.0 | 332.6  | 327.5  | 327.1  |
| 40°    | 323.1 | 319.3 | 319.6  | 314.2  | 313.8  |
| 42.5°  | 309.2 | 305.5 | 305.1  | 299.7  | 299.4  |
| 45°    | 286.1 | 282.3 | 281.1  | 276.0  | 275.3  |
| 47.5°  | 259.7 | 255.9 | 253.6  | 249.5  | 249.0  |
| 50°    | 240.6 | 236.8 | 234.8  | 231.3  | 230.2  |
| 52.5°  | 219.9 | 216.2 | 214.5  | 211.3  | 210.1  |
| 55°    | 187.4 | 184.4 | 183.1  | 180.0  | 179.3  |
| 57.5°  | 156.5 | 154.4 | 154.1  | 151.1  | 150.8  |
| 60°    | 137.6 | 136.5 | 136.5  | 133.8  | 133.8  |
| 62.5°  | 121.6 | 120.8 | 121.4  | 119.6  | 119.3  |
| 65°    | 100.6 | 99.9  | 101.0  | 100.2  | 100.2  |
| 67.5°  | 84.1  | 84.1  | 84.7   | 84.4   | 84.4   |
| 70°    | 74.8  | 74.8  | 75.2   | 75.2   | 75.2   |
| 72.5°  | 66.5  | 66.2  | 67.2   | 67.2   | 66.9   |
| 75°    | 54.4  | 54.4  | 54.4   | 54.8   | 54.8   |
| 77.5°  | 42.3  | 42.4  | 42.7   | 42.6   | 42.3   |
| 80°    | 34.3  | 34.7  | 34.7   | 34.3   | 34.3   |
| 82.5°  | 26.3  | 26.7  | 26.7   | 26.6   | 26.3   |
| 85°    | 13.9  | 14.6  | 15.4   | 15.4   | 15.4   |
| 87.5°  | 4.5   | 6.1   | 8.0    | 8.2    | 8.1    |
| 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)