

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-WB-150U-050D-927-1D-UNV-STD-W-4

Issue Date: 8/1/2024

**Test Information**

Test Method: LM-79-2019  
Report Number:  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-WB-150U-050D-927-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

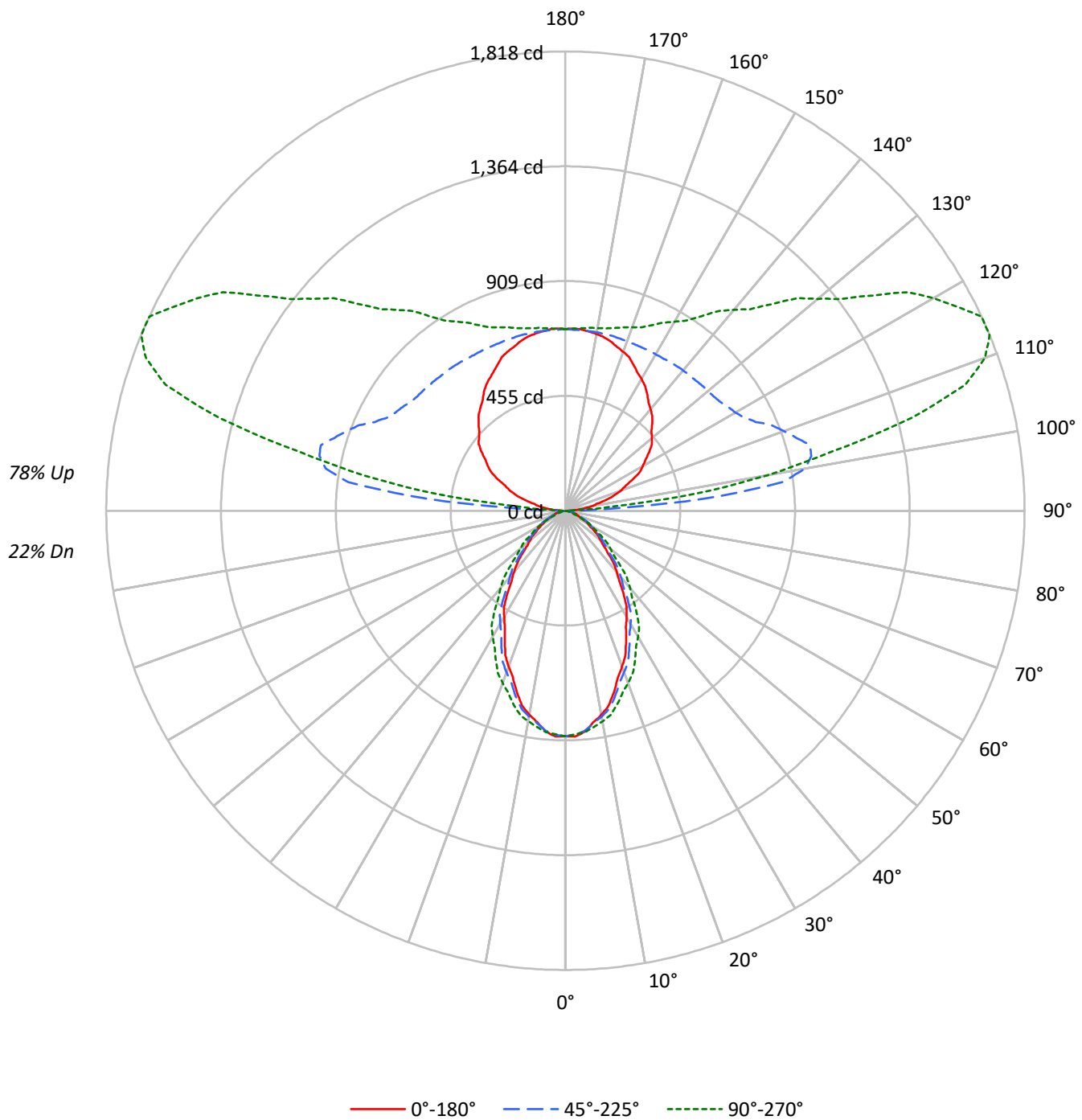
Lumens per Lamp: N/A  
Luminaire Lumens: 5940.5 lumens  
Efficiency: N/A  
Efficacy: 106.7 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 55.7  
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 | 89 | 89 | 89 | 89 | 68 | 68 | 68 | 48 | 48 | 48 | 30 | 30 | 30 |
| 1   | 92  | 88  | 84  | 81  | 81 | 78 | 75 | 73 | 60 | 58 | 56 | 43 | 42 | 41 | 27 | 27 | 26 |
| 2   | 84  | 77  | 72  | 67  | 74 | 69 | 64 | 60 | 53 | 50 | 47 | 38 | 37 | 35 | 25 | 24 | 23 |
| 3   | 77  | 68  | 62  | 56  | 68 | 61 | 56 | 51 | 47 | 43 | 40 | 34 | 32 | 30 | 22 | 21 | 20 |
| 4   | 71  | 61  | 54  | 48  | 63 | 54 | 48 | 44 | 42 | 38 | 35 | 31 | 28 | 26 | 20 | 19 | 18 |
| 5   | 65  | 54  | 47  | 41  | 57 | 49 | 42 | 38 | 38 | 34 | 30 | 28 | 25 | 23 | 19 | 17 | 16 |
| 6   | 60  | 49  | 41  | 36  | 53 | 44 | 37 | 33 | 34 | 30 | 26 | 25 | 23 | 20 | 17 | 16 | 14 |
| 7   | 55  | 44  | 37  | 32  | 49 | 40 | 33 | 29 | 31 | 27 | 23 | 23 | 20 | 18 | 16 | 14 | 13 |
| 8   | 51  | 40  | 33  | 28  | 46 | 36 | 30 | 25 | 28 | 24 | 21 | 21 | 18 | 16 | 15 | 13 | 12 |
| 9   | 48  | 36  | 29  | 25  | 42 | 33 | 27 | 23 | 26 | 22 | 19 | 20 | 17 | 15 | 14 | 12 | 11 |
| 10  | 45  | 33  | 27  | 22  | 40 | 30 | 24 | 20 | 24 | 20 | 17 | 18 | 15 | 13 | 13 | 11 | 10 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8234 | 8234 | 8234 |
| 5°  | 8132 | 8103 | 8150 |
| 10° | 7683 | 7752 | 7932 |
| 15° | 7092 | 7257 | 7582 |
| 20° | 6441 | 6683 | 7125 |
| 25° | 5777 | 6092 | 6638 |
| 30° | 5165 | 5504 | 6133 |
| 35° | 4517 | 4843 | 5536 |
| 40° | 3802 | 4103 | 4792 |
| 45° | 3138 | 3408 | 4000 |
| 50° | 2619 | 2855 | 3333 |
| 55° | 2223 | 2450 | 2752 |
| 60° | 1901 | 2124 | 2198 |
| 65° | 1513 | 1788 | 1419 |
| 70° | 1341 | 1395 | 866  |
| 75° | 1244 | 1130 | 531  |
| 80° | 1142 | 1041 | 457  |
| 85° | 1037 | 953  | 371  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4000 cd/sqm

TEST NUMBER:

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 81.9   | 1.4       |
| 10°-20°   | 212.9  | 3.6       |
| 20°-30°   | 275.8  | 4.6       |
| 30°-40°   | 270.1  | 4.5       |
| 40°-50°   | 206.7  | 3.5       |
| 50°-60°   | 137.7  | 2.3       |
| 60°-70°   | 75.2   | 1.3       |
| 70°-80°   | 31.3   | 0.5       |
| 80°-90°   | 10.4   | 0.2       |
| 90°-100°  | 334.3  | 5.6       |
| 100°-110° | 904.0  | 15.2      |
| 110°-120° | 950.4  | 16.0      |
| 120°-130° | 772.0  | 13.0      |
| 130°-140° | 605.6  | 10.2      |
| 140°-150° | 464.8  | 7.8       |
| 150°-160° | 334.3  | 5.6       |
| 160°-170° | 204.2  | 3.4       |
| 170°-180° | 68.8   | 1.2       |
| 0°-30°    | 570.6  | 9.6       |
| 0°-40°    | 840.7  | 14.2      |
| 0°-60°    | 1185.2 | 20.0      |
| 0°-90°    | 1302.1 | 21.9      |
| 90°-120°  | 2188.8 | 36.8      |
| 90°-150°  | 4031.1 | 67.9      |
| 90°-180°  | 4638.0 | 78.1      |
| 0°-180°   | 5940.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|-----|-------|------|-------|------|------|
| 0°   | 892 | 892   | 892  | 892   | 892  |      |
| 5°   | 878 | 869   | 875  | 877   | 880  | 82   |
| 15°  | 742 | 740   | 760  | 780   | 794  | 207  |
| 25°  | 568 | 569   | 598  | 624   | 652  | 261  |
| 35°  | 401 | 403   | 430  | 459   | 492  | 249  |
| 45°  | 240 | 245   | 261  | 281   | 307  | 188  |
| 55°  | 138 | 144   | 152  | 158   | 171  | 125  |
| 65°  | 69  | 75    | 82   | 72    | 65   | 72   |
| 75°  | 35  | 35    | 32   | 22    | 15   | 37   |
| 85°  | 10  | 10    | 9    | 6     | 4    | 11   |
| 90°  | 2   | 5     | 10   | 11    | 10   | 4    |
| 95°  | 52  | 182   | 556  | 288   | 171  | 54   |
| 105° | 168 | 260   | 1003 | 1479  | 1419 | 177  |
| 115° | 296 | 362   | 832  | 1610  | 1818 | 292  |
| 125° | 405 | 464   | 750  | 1265  | 1486 | 361  |
| 135° | 486 | 543   | 730  | 1021  | 1156 | 375  |
| 145° | 564 | 607   | 719  | 874   | 941  | 353  |
| 155° | 637 | 662   | 713  | 784   | 810  | 294  |
| 165° | 694 | 701   | 716  | 744   | 748  | 195  |
| 175° | 720 | 719   | 717  | 726   | 725  | 68   |
| 180° | 719 | 719   | 719  | 719   | 719  |      |

TEST NUMBER:

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°    | 67.5°  | 90°    |
|--------|-------|-------|--------|--------|--------|
| 0°     | 892.5 | 892.5 | 892.5  | 892.5  | 892.5  |
| 2.5°   | 894.7 | 886.8 | 888.8  | 888.7  | 886.3  |
| 5°     | 878.0 | 869.2 | 874.9  | 876.9  | 880.0  |
| 7.5°   | 845.4 | 838.8 | 849.1  | 856.8  | 863.0  |
| 10°    | 820.1 | 814.3 | 827.5  | 838.7  | 846.7  |
| 12.5°  | 790.6 | 785.8 | 802.1  | 817.1  | 827.6  |
| 15°    | 742.5 | 739.8 | 759.8  | 780.4  | 793.8  |
| 17.5°  | 691.1 | 689.8 | 712.6  | 736.7  | 753.9  |
| 20°    | 656.0 | 655.6 | 680.7  | 705.8  | 725.7  |
| 22.5°  | 620.6 | 621.4 | 647.8  | 673.9  | 696.6  |
| 25°    | 567.5 | 569.0 | 598.4  | 624.5  | 652.1  |
| 27.5°  | 518.4 | 519.0 | 549.5  | 577.0  | 606.4  |
| 30°    | 484.8 | 486.8 | 516.6  | 545.1  | 575.7  |
| 32.5°  | 451.3 | 453.5 | 482.7  | 512.2  | 543.4  |
| 35°    | 401.0 | 402.9 | 430.0  | 458.9  | 491.5  |
| 37.5°  | 349.2 | 351.8 | 375.8  | 403.2  | 435.2  |
| 40°    | 315.7 | 319.5 | 340.7  | 366.5  | 397.9  |
| 42.5°  | 283.4 | 288.1 | 307.8  | 332.3  | 360.6  |
| 45°    | 240.5 | 245.1 | 261.2  | 281.0  | 306.6  |
| 47.5°  | 203.5 | 208.8 | 221.2  | 238.2  | 260.1  |
| 50°    | 182.5 | 187.5 | 198.9  | 211.6  | 232.2  |
| 52.5°  | 164.0 | 169.0 | 179.2  | 188.9  | 206.5  |
| 55°    | 138.2 | 144.0 | 152.3  | 158.1  | 171.1  |
| 57.5°  | 117.1 | 122.6 | 129.2  | 131.8  | 139.7  |
| 60°    | 103.0 | 109.1 | 115.1  | 114.8  | 119.1  |
| 62.5°  | 90.2  | 95.4  | 101.4  | 97.2   | 97.4   |
| 65°    | 69.3  | 75.1  | 81.9   | 71.5   | 65.0   |
| 67.5°  | 56.0  | 57.2  | 64.2   | 49.9   | 42.1   |
| 70°    | 49.7  | 49.7  | 51.7   | 38.6   | 32.1   |
| 72.5°  | 43.8  | 43.8  | 42.0   | 31.4   | 24.6   |
| 75°    | 34.9  | 34.9  | 31.7   | 21.8   | 14.9   |
| 77.5°  | 26.9  | 26.6  | 24.3   | 16.2   | 10.8   |
| 80°    | 21.5  | 21.5  | 19.6   | 12.8   | 8.6    |
| 82.5°  | 16.8  | 16.8  | 15.2   | 10.0   | 6.4    |
| 85°    | 9.8   | 9.8   | 9.0    | 5.8    | 3.5    |
| 87.5°  | 3.8   | 4.4   | 5.1    | 4.0    | 3.6    |
| 90°    | 1.5   | 4.6   | 10.1   | 10.8   | 10.1   |
| 92.5°  | 22.0  | 80.1  | 158.1  | 68.6   | 49.7   |
| 95°    | 51.9  | 182.1 | 556.0  | 287.8  | 171.1  |
| 97.5°  | 83.3  | 208.9 | 866.7  | 717.3  | 526.8  |
| 100°   | 106.9 | 219.7 | 963.4  | 1004.7 | 812.4  |
| 102.5° | 128.6 | 234.7 | 997.4  | 1222.6 | 1078.8 |
| 105°   | 168.0 | 259.7 | 1002.9 | 1479.3 | 1418.7 |
| 107.5° | 204.6 | 288.2 | 959.0  | 1639.4 | 1659.6 |
| 110°   | 233.1 | 308.8 | 920.0  | 1682.4 | 1768.0 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 258.5 | 329.4 | 884.1 | 1673.8 | 1817.5 |
| 115°   | 295.8 | 361.7 | 831.7 | 1610.1 | 1817.5 |
| 117.5° | 332.4 | 394.2 | 797.2 | 1512.7 | 1747.9 |
| 120°   | 354.7 | 415.3 | 776.7 | 1442.8 | 1682.8 |
| 122.5° | 375.7 | 435.1 | 764.3 | 1367.8 | 1609.7 |
| 125°   | 405.0 | 464.1 | 749.6 | 1265.0 | 1486.1 |
| 127.5° | 432.0 | 490.0 | 741.0 | 1181.1 | 1375.5 |
| 130°   | 446.8 | 506.7 | 737.2 | 1129.2 | 1304.9 |
| 132.5° | 462.3 | 521.5 | 733.5 | 1082.4 | 1244.2 |
| 135°   | 485.6 | 543.1 | 729.5 | 1021.4 | 1156.2 |
| 137.5° | 508.9 | 563.3 | 726.1 | 971.9  | 1081.7 |
| 140°   | 525.1 | 575.8 | 724.9 | 940.0  | 1037.7 |
| 142.5° | 540.5 | 588.2 | 722.4 | 911.3  | 996.8  |
| 145°   | 564.5 | 607.0 | 719.4 | 874.3  | 940.9  |
| 147.5° | 586.4 | 623.9 | 716.0 | 840.8  | 892.0  |
| 150°   | 602.5 | 635.8 | 714.8 | 822.6  | 863.5  |
| 152.5° | 617.4 | 646.4 | 714.2 | 805.7  | 839.3  |
| 155°   | 637.3 | 662.3 | 713.2 | 784.3  | 810.0  |
| 157.5° | 658.1 | 675.5 | 713.4 | 769.4  | 786.3  |
| 160°   | 669.9 | 684.3 | 714.0 | 760.0  | 772.1  |
| 162.5° | 679.2 | 691.1 | 714.6 | 752.5  | 761.6  |
| 165°   | 693.9 | 700.7 | 716.3 | 744.3  | 748.1  |
| 167.5° | 703.9 | 708.6 | 716.5 | 737.3  | 739.1  |
| 170°   | 710.1 | 712.4 | 717.1 | 734.1  | 734.1  |
| 172.5° | 715.1 | 715.5 | 717.1 | 730.4  | 729.8  |
| 175°   | 720.2 | 719.4 | 717.1 | 726.4  | 724.9  |
| 177.5° | 721.9 | 720.1 | 717.0 | 723.1  | 721.3  |
| 180°   | 719.4 | 719.4 | 719.4 | 719.4  | 719.4  |

(END OF REPORT)