

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-100U-125D-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-WB-100U-125D-927-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

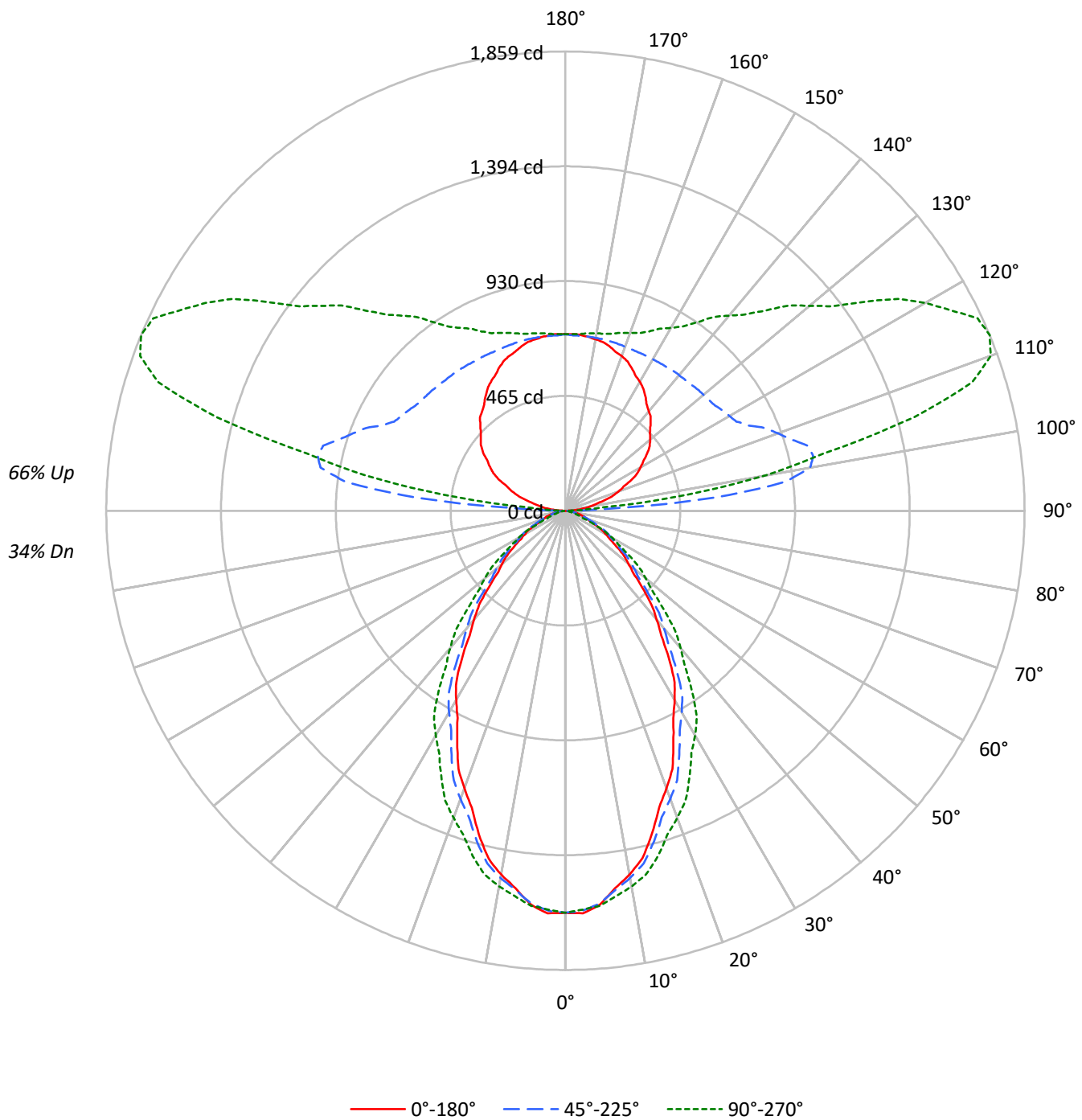
Lumens per Lamp: N/A  
Luminaire Lumens: 7011.9 lumens  
Efficiency: N/A  
Efficacy: 65.3 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 107.3  
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



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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 | 57 | 57 | 57 | 41 | 41 | 41 |
| 1   | 95  | 91  | 87  | 84  | 86 | 82 | 79 | 77 | 66 | 64 | 62 | 51 | 50 | 49 | 38 | 37 | 36 |
| 2   | 87  | 80  | 75  | 70  | 78 | 73 | 68 | 64 | 59 | 56 | 53 | 46 | 44 | 42 | 34 | 33 | 32 |
| 3   | 80  | 71  | 65  | 59  | 72 | 65 | 59 | 55 | 53 | 49 | 45 | 41 | 39 | 37 | 31 | 29 | 28 |
| 4   | 73  | 64  | 56  | 51  | 66 | 58 | 52 | 47 | 47 | 43 | 39 | 37 | 34 | 32 | 28 | 26 | 25 |
| 5   | 68  | 57  | 50  | 44  | 61 | 52 | 46 | 41 | 43 | 38 | 34 | 34 | 31 | 28 | 26 | 24 | 22 |
| 6   | 63  | 51  | 44  | 39  | 57 | 47 | 41 | 36 | 39 | 34 | 30 | 31 | 28 | 25 | 24 | 22 | 20 |
| 7   | 58  | 47  | 39  | 34  | 52 | 43 | 36 | 32 | 35 | 31 | 27 | 28 | 25 | 23 | 22 | 20 | 18 |
| 8   | 54  | 42  | 35  | 30  | 49 | 39 | 33 | 28 | 32 | 28 | 24 | 26 | 23 | 20 | 20 | 18 | 16 |
| 9   | 50  | 39  | 32  | 27  | 46 | 36 | 30 | 25 | 30 | 25 | 22 | 24 | 21 | 18 | 19 | 17 | 15 |
| 10  | 47  | 36  | 29  | 24  | 43 | 33 | 27 | 23 | 28 | 23 | 20 | 22 | 19 | 17 | 18 | 15 | 14 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10010 | 10010 | 10010 |
| 5°  | 9886  | 9850  | 9908  |
| 10° | 9340  | 9425  | 9643  |
| 15° | 8622  | 8822  | 9218  |
| 20° | 7830  | 8124  | 8662  |
| 25° | 7023  | 7406  | 8069  |
| 30° | 6279  | 6690  | 7456  |
| 35° | 5491  | 5888  | 6729  |
| 40° | 4622  | 4989  | 5826  |
| 45° | 3814  | 4143  | 4864  |
| 50° | 3185  | 3472  | 4052  |
| 55° | 2703  | 2979  | 3347  |
| 60° | 2310  | 2583  | 2671  |
| 65° | 1840  | 2173  | 1725  |
| 70° | 1631  | 1696  | 1054  |
| 75° | 1511  | 1374  | 644   |
| 80° | 1392  | 1265  | 556   |
| 85° | 1263  | 1157  | 452   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4864 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 149.3  | 2.1       |
| 10°-20°   | 388.3  | 5.5       |
| 20°-30°   | 503.0  | 7.2       |
| 30°-40°   | 492.5  | 7.0       |
| 40°-50°   | 377.0  | 5.4       |
| 50°-60°   | 251.2  | 3.6       |
| 60°-70°   | 137.1  | 2.0       |
| 70°-80°   | 57.1   | 0.8       |
| 80°-90°   | 17.6   | 0.3       |
| 90°-100°  | 334.3  | 4.8       |
| 100°-110° | 923.0  | 13.2      |
| 110°-120° | 951.9  | 13.6      |
| 120°-130° | 765.0  | 10.9      |
| 130°-140° | 601.2  | 8.6       |
| 140°-150° | 461.1  | 6.6       |
| 150°-160° | 331.4  | 4.7       |
| 160°-170° | 202.6  | 2.9       |
| 170°-180° | 68.3   | 1.0       |
| 0°-30°    | 1040.5 | 14.8      |
| 0°-40°    | 1533.0 | 21.9      |
| 0°-60°    | 2161.2 | 30.8      |
| 0°-90°    | 2373.1 | 33.8      |
| 90°-120°  | 2209.3 | 31.5      |
| 90°-150°  | 4036.5 | 57.6      |
| 90°-180°  | 4639.0 | 66.2      |
| 0°-180°   | 7011.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1628 | 1628  | 1628 | 1628  | 1628 |      |
| 5°   | 1601 | 1585  | 1595 | 1599  | 1605 | 149  |
| 15°  | 1354 | 1349  | 1385 | 1423  | 1448 | 378  |
| 25°  | 1035 | 1038  | 1091 | 1139  | 1189 | 476  |
| 35°  | 731  | 735   | 784  | 837   | 896  | 455  |
| 45°  | 438  | 447   | 476  | 512   | 559  | 342  |
| 55°  | 252  | 263   | 278  | 288   | 312  | 229  |
| 65°  | 126  | 137   | 149  | 130   | 118  | 131  |
| 75°  | 64   | 64    | 58   | 40    | 27   | 68   |
| 85°  | 18   | 18    | 16   | 11    | 6    | 19   |
| 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°     | 1627.5 | 1627.5 | 1627.5 | 1627.5 | 1627.5 |
| 2.5°   | 1631.5 | 1617.0 | 1620.7 | 1620.6 | 1616.1 |
| 5°     | 1601.1 | 1585.0 | 1595.4 | 1599.1 | 1604.7 |
| 7.5°   | 1541.7 | 1529.5 | 1548.4 | 1562.4 | 1573.7 |
| 10°    | 1495.4 | 1484.9 | 1509.0 | 1529.3 | 1544.0 |
| 12.5°  | 1441.7 | 1432.9 | 1462.7 | 1490.0 | 1509.1 |
| 15°    | 1354.0 | 1349.1 | 1385.4 | 1423.1 | 1447.6 |
| 17.5°  | 1260.2 | 1257.8 | 1299.5 | 1343.4 | 1374.7 |
| 20°    | 1196.2 | 1195.5 | 1241.2 | 1287.0 | 1323.3 |
| 22.5°  | 1131.6 | 1133.2 | 1181.2 | 1228.8 | 1270.2 |
| 25°    | 1034.8 | 1037.6 | 1091.2 | 1138.8 | 1189.0 |
| 27.5°  | 945.2  | 946.5  | 1001.9 | 1052.2 | 1105.8 |
| 30°    | 884.1  | 887.6  | 942.0  | 993.9  | 1049.8 |
| 32.5°  | 823.0  | 827.0  | 880.3  | 934.0  | 990.9  |
| 35°    | 731.3  | 734.8  | 784.1  | 836.9  | 896.2  |
| 37.5°  | 636.7  | 641.5  | 685.3  | 735.2  | 793.6  |
| 40°    | 575.6  | 582.6  | 621.3  | 668.3  | 725.6  |
| 42.5°  | 516.8  | 525.4  | 561.3  | 605.9  | 657.6  |
| 45°    | 438.5  | 446.9  | 476.3  | 512.4  | 559.2  |
| 47.5°  | 371.1  | 380.7  | 403.3  | 434.4  | 474.3  |
| 50°    | 332.8  | 341.9  | 362.8  | 385.8  | 423.5  |
| 52.5°  | 299.1  | 308.2  | 326.8  | 344.5  | 376.6  |
| 55°    | 252.1  | 262.6  | 277.8  | 288.3  | 312.1  |
| 57.5°  | 213.5  | 223.6  | 235.7  | 240.4  | 254.8  |
| 60°    | 187.8  | 199.0  | 210.0  | 209.4  | 217.1  |
| 62.5°  | 164.4  | 173.9  | 184.8  | 177.3  | 177.7  |
| 65°    | 126.4  | 136.9  | 149.3  | 130.4  | 118.5  |
| 67.5°  | 102.1  | 104.4  | 117.1  | 90.9   | 76.8   |
| 70°    | 90.7   | 90.7   | 94.3   | 70.4   | 58.6   |
| 72.5°  | 79.8   | 79.8   | 76.6   | 57.3   | 44.8   |
| 75°    | 63.6   | 63.6   | 57.8   | 39.7   | 27.1   |
| 77.5°  | 49.0   | 48.4   | 44.3   | 29.6   | 19.7   |
| 80°    | 39.3   | 39.3   | 35.7   | 23.4   | 15.7   |
| 82.5°  | 30.7   | 30.7   | 27.7   | 18.3   | 11.7   |
| 85°    | 17.9   | 17.9   | 16.4   | 10.6   | 6.4    |
| 87.5°  | 6.7    | 7.2    | 7.5    | 5.5    | 5.1    |
| 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)