

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: P521659

Luminaire Tested: SQ4-F-150U-050D-92765-1D-UNV-STD-W-4\_6500K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521659  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-36)  
Test Lab: INNOVATION CENTER  
Issue Date: 5-5-2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-F-150U-050D-92765-1D-UNV-STD-W-4\_6500K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9322.9 lumens  
Efficiency: N/A  
Efficacy: 130.8 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

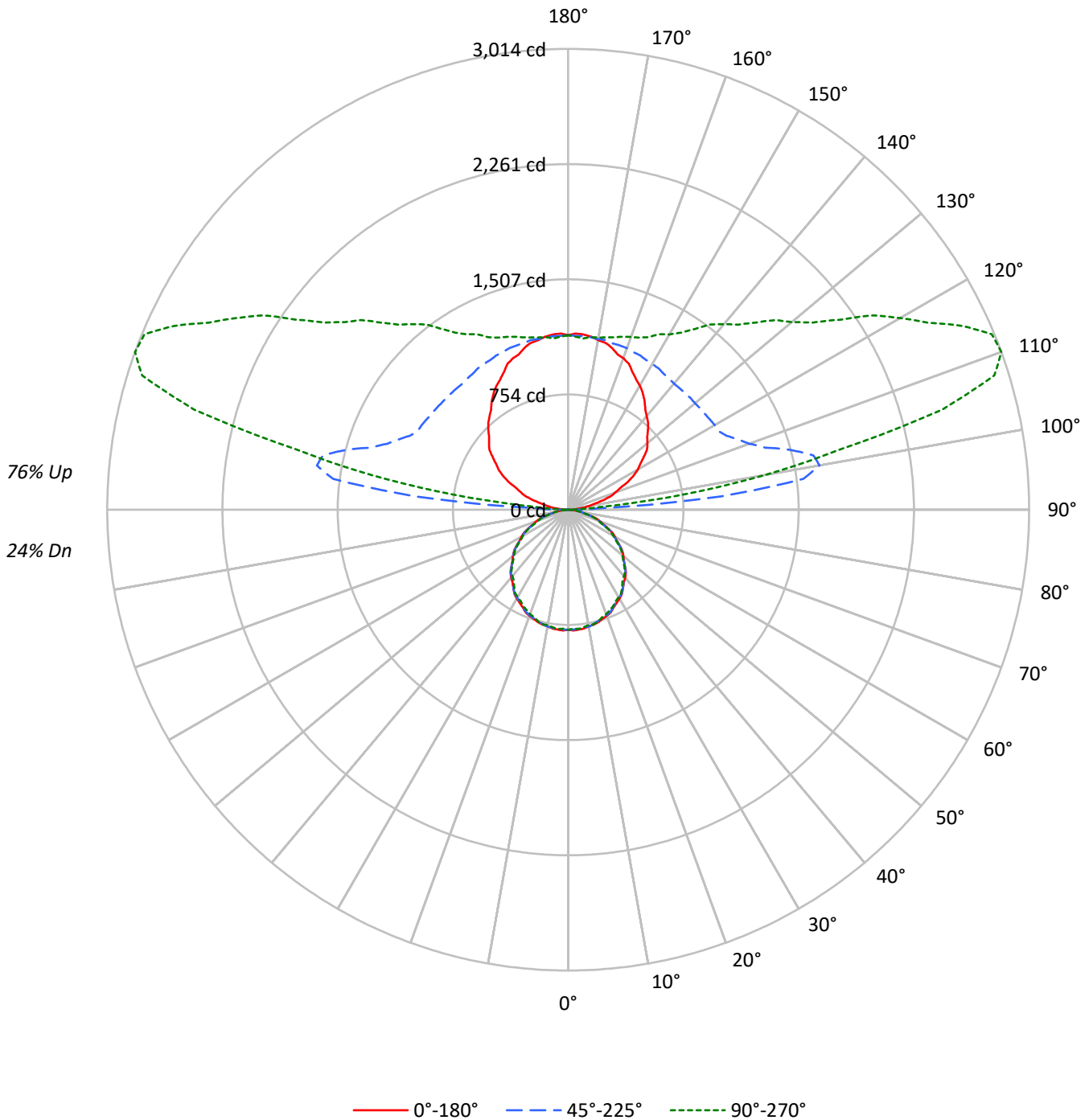
Input Watts (W): 71.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot



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

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20 |    |    |    | 20 |    |    | 20 |    |    | 20 |    |    | 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  |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 101 | 101 | 101 | 101 | 90 | 90 | 90 | 90 | 69 | 69 | 69 | 50 | 50 | 50 | 32 | 32 | 32 | 24 |
| 1   | 92  | 88  | 84  | 81  | 82 | 78 | 75 | 72 | 60 | 58 | 56 | 44 | 42 | 41 | 28 | 28 | 27 | 20 |
| 2   | 84  | 76  | 71  | 66  | 74 | 68 | 63 | 59 | 53 | 49 | 46 | 38 | 36 | 34 | 25 | 24 | 23 | 17 |
| 3   | 76  | 67  | 60  | 54  | 67 | 60 | 54 | 49 | 46 | 42 | 39 | 34 | 31 | 29 | 22 | 20 | 19 | 14 |
| 4   | 69  | 59  | 52  | 46  | 61 | 53 | 46 | 41 | 41 | 36 | 33 | 30 | 27 | 24 | 19 | 18 | 16 | 12 |
| 5   | 64  | 52  | 45  | 39  | 56 | 47 | 40 | 35 | 36 | 32 | 28 | 27 | 23 | 21 | 17 | 16 | 14 | 10 |
| 6   | 58  | 47  | 39  | 33  | 52 | 42 | 35 | 30 | 33 | 28 | 24 | 24 | 21 | 18 | 16 | 14 | 12 | 9  |
| 7   | 54  | 42  | 34  | 29  | 48 | 38 | 31 | 26 | 29 | 25 | 21 | 22 | 18 | 16 | 14 | 12 | 11 | 8  |
| 8   | 50  | 38  | 31  | 25  | 44 | 34 | 28 | 23 | 27 | 22 | 19 | 20 | 16 | 14 | 13 | 11 | 10 | 7  |
| 9   | 46  | 35  | 27  | 22  | 41 | 31 | 25 | 20 | 24 | 20 | 17 | 18 | 15 | 13 | 12 | 10 | 9  | 6  |
| 10  | 43  | 31  | 25  | 20  | 38 | 28 | 22 | 18 | 22 | 18 | 15 | 17 | 13 | 11 | 11 | 9  | 8  | 6  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7243 | 7243 | 7243 |
| 5°  | 7292 | 7242 | 7252 |
| 10° | 7255 | 7276 | 7185 |
| 15° | 7275 | 7203 | 7233 |
| 20° | 7246 | 7215 | 7141 |
| 25° | 7164 | 7120 | 7077 |
| 30° | 7143 | 7097 | 7029 |
| 35° | 7034 | 7034 | 6925 |
| 40° | 6979 | 6914 | 6824 |
| 45° | 6849 | 6849 | 6751 |
| 50° | 6765 | 6719 | 6627 |
| 55° | 6651 | 6582 | 6478 |
| 60° | 6503 | 6385 | 6285 |
| 65° | 6244 | 6104 | 5986 |
| 70° | 5954 | 5751 | 5606 |
| 75° | 5308 | 5155 | 5080 |
| 80° | 4383 | 4325 | 4266 |
| 85° | 3176 | 3515 | 3515 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6849 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 74.3   | 0.8       |
| 10°-20°   | 213.0  | 2.3       |
| 20°-30°   | 321.8  | 3.5       |
| 30°-40°   | 387.5  | 4.2       |
| 40°-50°   | 401.8  | 4.3       |
| 50°-60°   | 364.3  | 3.9       |
| 60°-70°   | 276.9  | 3.0       |
| 70°-80°   | 154.2  | 1.7       |
| 80°-90°   | 39.8   | 0.4       |
| 90°-100°  | 520.1  | 5.6       |
| 100°-110° | 1479.7 | 15.9      |
| 110°-120° | 1417.7 | 15.2      |
| 120°-130° | 1122.1 | 12.0      |
| 130°-140° | 900.6  | 9.7       |
| 140°-150° | 705.1  | 7.6       |
| 150°-160° | 515.9  | 5.5       |
| 160°-170° | 319.6  | 3.4       |
| 170°-180° | 108.4  | 1.2       |
| 0°-30°    | 609.1  | 6.5       |
| 0°-40°    | 996.6  | 10.7      |
| 0°-60°    | 1762.7 | 18.9      |
| 0°-90°    | 2233.6 | 24.0      |
| 90°-120°  | 3417.5 | 36.7      |
| 90°-150°  | 6145.3 | 65.9      |
| 90°-180°  | 7089.0 | 76.0      |
| 0°-180°   | 9322.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 785  | 785   | 785  | 785   | 785  |      |
| 5°   | 787  | 778   | 782  | 783   | 783  | 75   |
| 15°  | 762  | 754   | 754  | 754   | 757  | 215  |
| 25°  | 704  | 698   | 699  | 695   | 695  | 326  |
| 35°  | 624  | 618   | 624  | 617   | 615  | 392  |
| 45°  | 525  | 522   | 525  | 515   | 517  | 406  |
| 55°  | 414  | 412   | 409  | 405   | 403  | 369  |
| 65°  | 286  | 285   | 280  | 276   | 274  | 283  |
| 75°  | 149  | 147   | 145  | 142   | 142  | 158  |
| 85°  | 30   | 32    | 33   | 34    | 33   | 37   |
| 90°  | 0    | 0     | 0    | 0     | 0    | 4    |
| 95°  | 56   | 224   | 1007 | 348   | 215  | 64   |
| 105° | 230  | 349   | 1508 | 2664  | 2532 | 243  |
| 115° | 427  | 516   | 1143 | 2422  | 2844 | 421  |
| 125° | 603  | 669   | 1091 | 1811  | 2165 | 540  |
| 135° | 738  | 799   | 1078 | 1530  | 1729 | 569  |
| 145° | 870  | 915   | 1087 | 1324  | 1443 | 544  |
| 155° | 994  | 1017  | 1113 | 1197  | 1245 | 459  |
| 165° | 1098 | 1102  | 1126 | 1150  | 1167 | 309  |
| 175° | 1150 | 1144  | 1139 | 1132  | 1124 | 109  |
| 180° | 1141 | 1141  | 1141 | 1141  | 1141 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°    | 67.5°  | 90°    |
|--------|-------|-------|--------|--------|--------|
| 0°     | 785.1 | 785.1 | 785.1  | 785.1  | 785.1  |
| 2.5°   | 791.1 | 782.8 | 784.3  | 785.0  | 779.1  |
| 5°     | 787.3 | 777.9 | 781.9  | 783.0  | 783.0  |
| 7.5°   | 783.9 | 776.5 | 779.1  | 775.9  | 775.5  |
| 10°    | 774.4 | 771.3 | 776.6  | 769.0  | 766.9  |
| 12.5°  | 770.1 | 765.3 | 766.3  | 764.8  | 766.9  |
| 15°    | 761.6 | 754.2 | 754.1  | 754.1  | 757.3  |
| 17.5°  | 748.3 | 738.9 | 745.1  | 738.4  | 737.6  |
| 20°    | 738.0 | 728.6 | 734.8  | 727.3  | 727.3  |
| 22.5°  | 727.7 | 716.6 | 722.8  | 712.7  | 710.2  |
| 25°    | 703.7 | 698.5 | 699.4  | 695.2  | 695.2  |
| 27.5°  | 686.8 | 675.3 | 679.1  | 673.1  | 673.5  |
| 30°    | 670.5 | 659.0 | 666.2  | 657.7  | 659.8  |
| 32.5°  | 654.2 | 646.9 | 650.8  | 641.5  | 645.2  |
| 35°    | 624.5 | 618.2 | 624.5  | 616.9  | 614.8  |
| 37.5°  | 598.3 | 591.8 | 593.8  | 589.0  | 583.8  |
| 40°    | 579.5 | 572.1 | 574.1  | 567.7  | 566.6  |
| 42.5°  | 558.9 | 554.1 | 554.4  | 548.9  | 549.5  |
| 45°    | 524.9 | 521.7 | 524.9  | 515.3  | 517.4  |
| 47.5°  | 494.4 | 490.7 | 490.4  | 484.0  | 486.5  |
| 50°    | 471.3 | 469.2 | 468.1  | 461.7  | 461.7  |
| 52.5°  | 447.3 | 445.2 | 444.1  | 439.4  | 438.5  |
| 55°    | 413.5 | 412.4 | 409.2  | 404.8  | 402.7  |
| 57.5°  | 376.4 | 374.3 | 372.5  | 368.0  | 366.3  |
| 60°    | 352.4 | 350.3 | 346.0  | 340.6  | 340.6  |
| 62.5°  | 325.8 | 323.7 | 318.6  | 316.5  | 313.2  |
| 65°    | 286.0 | 284.9 | 279.6  | 276.3  | 274.2  |
| 67.5°  | 246.4 | 243.0 | 240.6  | 236.5  | 234.4  |
| 70°    | 220.7 | 216.5 | 213.2  | 209.9  | 207.8  |
| 72.5°  | 192.4 | 189.0 | 185.7  | 184.2  | 181.2  |
| 75°    | 148.9 | 146.8 | 144.6  | 142.5  | 142.5  |
| 77.5°  | 108.2 | 107.6 | 105.4  | 105.4  | 104.3  |
| 80°    | 82.5  | 83.5  | 81.4   | 81.4   | 80.3   |
| 82.5°  | 59.3  | 60.4  | 60.0   | 60.8   | 59.8   |
| 85°    | 30.0  | 32.1  | 33.2   | 34.3   | 33.2   |
| 87.5°  | 8.6   | 11.1  | 12.9   | 13.7   | 13.7   |
| 90°    | 0.0   | 0.0   | 0.0    | 0.0    | 0.0    |
| 92.5°  | 17.4  | 92.0  | 213.5  | 62.1   | 46.9   |
| 95°    | 56.4  | 224.0 | 1006.8 | 348.5  | 214.8  |
| 97.5°  | 103.7 | 262.4 | 1550.5 | 1109.5 | 760.3  |
| 100°   | 136.7 | 285.2 | 1668.5 | 1690.1 | 1301.8 |
| 102.5° | 173.1 | 309.8 | 1642.5 | 2163.3 | 1824.3 |
| 105°   | 230.0 | 348.8 | 1508.0 | 2663.6 | 2532.1 |
| 107.5° | 287.7 | 394.2 | 1350.9 | 2804.6 | 2921.8 |
| 110°   | 327.6 | 427.3 | 1260.6 | 2750.7 | 3013.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 365.8  | 460.4  | 1199.9 | 2623.0 | 2998.1 |
| 115°   | 427.4  | 516.5  | 1143.4 | 2422.3 | 2844.5 |
| 117.5° | 481.7  | 565.3  | 1110.0 | 2202.9 | 2650.1 |
| 120°   | 525.1  | 595.1  | 1106.6 | 2077.5 | 2506.0 |
| 122.5° | 559.8  | 629.8  | 1097.9 | 1967.4 | 2365.4 |
| 125°   | 603.2  | 669.0  | 1091.4 | 1811.1 | 2165.4 |
| 127.5° | 650.5  | 712.0  | 1087.9 | 1717.7 | 2009.6 |
| 130°   | 674.8  | 736.3  | 1082.7 | 1652.6 | 1907.2 |
| 132.5° | 700.8  | 760.6  | 1082.7 | 1601.8 | 1836.0 |
| 135°   | 737.7  | 799.2  | 1078.4 | 1529.8 | 1729.3 |
| 137.5° | 772.4  | 832.2  | 1077.9 | 1468.9 | 1641.2 |
| 140°   | 798.5  | 860.0  | 1076.2 | 1418.4 | 1583.9 |
| 142.5° | 828.0  | 879.3  | 1081.4 | 1378.1 | 1526.6 |
| 145°   | 870.1  | 914.6  | 1087.0 | 1324.1 | 1442.9 |
| 147.5° | 906.1  | 949.4  | 1096.6 | 1269.5 | 1372.1 |
| 150°   | 937.3  | 967.0  | 1100.1 | 1251.4 | 1323.5 |
| 152.5° | 961.6  | 993.0  | 1103.5 | 1227.0 | 1294.0 |
| 155°   | 993.7  | 1017.1 | 1113.1 | 1196.6 | 1245.4 |
| 157.5° | 1033.7 | 1047.7 | 1115.2 | 1182.9 | 1217.7 |
| 160°   | 1054.5 | 1065.1 | 1123.9 | 1172.3 | 1202.0 |
| 162.5° | 1066.6 | 1078.9 | 1125.7 | 1163.5 | 1186.4 |
| 165°   | 1097.9 | 1102.1 | 1126.1 | 1150.3 | 1167.3 |
| 167.5° | 1119.1 | 1115.3 | 1136.1 | 1147.1 | 1153.9 |
| 170°   | 1126.1 | 1124.0 | 1132.6 | 1135.0 | 1143.4 |
| 172.5° | 1141.7 | 1134.5 | 1137.8 | 1131.4 | 1138.2 |
| 175°   | 1150.0 | 1143.6 | 1139.1 | 1132.4 | 1123.9 |
| 177.5° | 1153.4 | 1143.2 | 1137.8 | 1130.9 | 1132.6 |
| 180°   | 1141.3 | 1141.3 | 1141.3 | 1141.3 | 1141.3 |

(END OF REPORT)