

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: P521425

Luminaire Tested: SQ4-F-050U-100D-92765-1D-UNV-STD-W-4\_6500K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521425  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 5-5-2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-F-050U-100D-92765-1D-UNV-STD-W-4\_6500K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 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: 6735.3 lumens  
Efficiency: N/A  
Efficacy: 116.5 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Direct

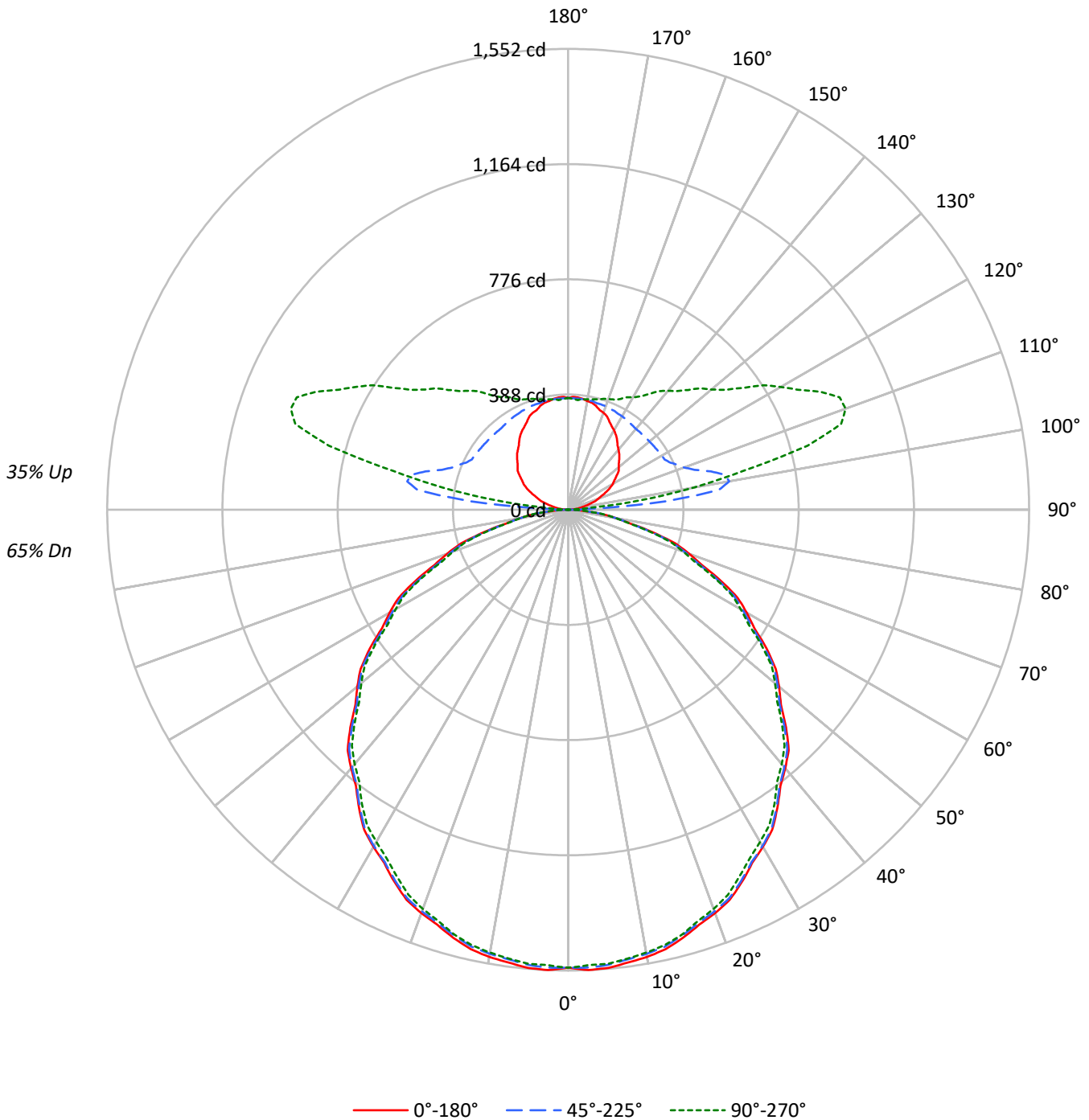
Input Watts (W): 57.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot



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

|     |     |     |     |     |     |     |     |     |    |    |    |  |    |    |    |  |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|--|----|----|----|--|----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20 |    |    |  | 20 |    |    |  | 20 |    |    |    |
| 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   | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 |  | 81 | 81 | 81 |  | 70 | 70 | 70 | 65 |
| 1   | 101 | 97  | 92  | 89  | 95  | 91  | 87  | 84  | 80 | 78 | 75 |  | 71 | 69 | 67 |  | 62 | 60 | 59 | 55 |
| 2   | 92  | 84  | 78  | 72  | 86  | 79  | 74  | 69  | 70 | 66 | 62 |  | 62 | 58 | 55 |  | 54 | 52 | 49 | 45 |
| 3   | 84  | 74  | 66  | 60  | 78  | 70  | 63  | 57  | 62 | 56 | 52 |  | 54 | 50 | 47 |  | 48 | 44 | 42 | 38 |
| 4   | 76  | 65  | 57  | 51  | 72  | 62  | 54  | 48  | 55 | 49 | 44 |  | 48 | 44 | 40 |  | 43 | 39 | 36 | 33 |
| 5   | 70  | 58  | 50  | 43  | 66  | 55  | 47  | 41  | 49 | 43 | 38 |  | 43 | 38 | 34 |  | 38 | 34 | 31 | 28 |
| 6   | 65  | 52  | 44  | 38  | 61  | 49  | 42  | 36  | 44 | 38 | 33 |  | 39 | 34 | 30 |  | 35 | 30 | 27 | 25 |
| 7   | 60  | 47  | 39  | 33  | 56  | 45  | 37  | 32  | 40 | 34 | 29 |  | 36 | 30 | 27 |  | 32 | 27 | 24 | 22 |
| 8   | 56  | 43  | 35  | 29  | 52  | 41  | 33  | 28  | 36 | 30 | 26 |  | 33 | 27 | 24 |  | 29 | 25 | 22 | 19 |
| 9   | 52  | 39  | 31  | 26  | 49  | 37  | 30  | 25  | 33 | 27 | 23 |  | 30 | 25 | 21 |  | 27 | 22 | 19 | 17 |
| 10  | 48  | 36  | 28  | 23  | 45  | 34  | 27  | 23  | 31 | 25 | 21 |  | 28 | 23 | 19 |  | 25 | 21 | 18 | 16 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 14230 | 14230 | 14230 |
| 5°  | 14345 | 14255 | 14215 |
| 10° | 14330 | 14230 | 14190 |
| 15° | 14263 | 14180 | 14150 |
| 20° | 14197 | 14134 | 14050 |
| 25° | 14088 | 14033 | 13880 |
| 30° | 13968 | 13934 | 13762 |
| 35° | 13825 | 13777 | 13633 |
| 40° | 13688 | 13636 | 13469 |
| 45° | 13529 | 13417 | 13263 |
| 50° | 13298 | 13207 | 13053 |
| 55° | 13111 | 12921 | 12767 |
| 60° | 12808 | 12551 | 12372 |
| 65° | 12393 | 12042 | 11856 |
| 70° | 11672 | 11297 | 11095 |
| 75° | 10537 | 10270 | 10117 |
| 80° | 8708  | 8708  | 8591  |
| 85° | 6119  | 7029  | 7262  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13529 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 146.0  | 2.2       |
| 10°-20°   | 418.3  | 6.2       |
| 20°-30°   | 632.6  | 9.4       |
| 30°-40°   | 761.7  | 11.3      |
| 40°-50°   | 791.1  | 11.7      |
| 50°-60°   | 717.1  | 10.6      |
| 60°-70°   | 546.1  | 8.1       |
| 70°-80°   | 305.1  | 4.5       |
| 80°-90°   | 79.2   | 1.2       |
| 90°-100°  | 171.5  | 2.5       |
| 100°-110° | 488.0  | 7.2       |
| 110°-120° | 467.6  | 6.9       |
| 120°-130° | 370.1  | 5.5       |
| 130°-140° | 297.0  | 4.4       |
| 140°-150° | 232.5  | 3.5       |
| 150°-160° | 170.1  | 2.5       |
| 160°-170° | 105.4  | 1.6       |
| 170°-180° | 35.8   | 0.5       |
| 0°-30°    | 1196.9 | 17.8      |
| 0°-40°    | 1958.6 | 29.1      |
| 0°-60°    | 3466.9 | 51.5      |
| 0°-90°    | 4397.3 | 65.3      |
| 90°-120°  | 1127.1 | 16.7      |
| 90°-150°  | 2026.7 | 30.1      |
| 90°-180°  | 2338.0 | 34.7      |
| 0°-180°   | 6735.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1542 | 1542  | 1542 | 1542  | 1542 |      |
| 5°   | 1549 | 1534  | 1539 | 1535  | 1535 | 147  |
| 15°  | 1493 | 1480  | 1485 | 1481  | 1481 | 421  |
| 25°  | 1384 | 1372  | 1378 | 1368  | 1364 | 637  |
| 35°  | 1228 | 1220  | 1223 | 1211  | 1210 | 768  |
| 45°  | 1037 | 1031  | 1028 | 1018  | 1016 | 799  |
| 55°  | 815  | 812   | 803  | 794   | 794  | 727  |
| 65°  | 568  | 561   | 552  | 544   | 543  | 560  |
| 75°  | 296  | 291   | 288  | 284   | 284  | 313  |
| 85°  | 58   | 62    | 66   | 68    | 69   | 72   |
| 90°  | 0    | 0     | 0    | 0     | 0    | 3    |
| 95°  | 19   | 74    | 332  | 115   | 71   | 21   |
| 105° | 76   | 115   | 497  | 878   | 835  | 80   |
| 115° | 141  | 170   | 377  | 799   | 938  | 139  |
| 125° | 199  | 221   | 360  | 597   | 714  | 178  |
| 135° | 243  | 264   | 356  | 504   | 570  | 188  |
| 145° | 287  | 302   | 358  | 437   | 476  | 179  |
| 155° | 328  | 335   | 367  | 395   | 411  | 151  |
| 165° | 362  | 364   | 371  | 379   | 385  | 102  |
| 175° | 379  | 377   | 376  | 374   | 371  | 36   |
| 180° | 376  | 376   | 376  | 376   | 376  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1542.4 | 1542.4 | 1542.4 | 1542.4 | 1542.4 |
| 2.5°   | 1551.9 | 1539.3 | 1543.3 | 1540.6 | 1535.6 |
| 5°     | 1548.9 | 1534.2 | 1539.2 | 1534.9 | 1534.9 |
| 7.5°   | 1538.1 | 1524.1 | 1527.4 | 1524.9 | 1524.9 |
| 10°    | 1529.6 | 1513.9 | 1518.9 | 1514.6 | 1514.6 |
| 12.5°  | 1515.9 | 1501.8 | 1506.9 | 1502.6 | 1501.7 |
| 15°    | 1493.2 | 1479.5 | 1484.6 | 1481.4 | 1481.4 |
| 17.5°  | 1465.7 | 1452.7 | 1459.3 | 1454.1 | 1452.5 |
| 20°    | 1446.0 | 1431.4 | 1439.6 | 1431.0 | 1431.0 |
| 22.5°  | 1422.0 | 1409.0 | 1416.5 | 1406.1 | 1404.5 |
| 25°    | 1383.9 | 1372.4 | 1378.5 | 1367.7 | 1363.5 |
| 27.5°  | 1341.1 | 1328.7 | 1337.8 | 1325.8 | 1323.5 |
| 30°    | 1311.1 | 1299.5 | 1307.9 | 1294.9 | 1291.8 |
| 32.5°  | 1278.5 | 1268.7 | 1274.4 | 1262.4 | 1260.1 |
| 35°    | 1227.5 | 1220.2 | 1223.2 | 1211.4 | 1210.4 |
| 37.5°  | 1173.3 | 1166.2 | 1169.0 | 1155.9 | 1155.1 |
| 40°    | 1136.5 | 1130.2 | 1132.2 | 1118.3 | 1118.3 |
| 42.5°  | 1098.8 | 1091.6 | 1091.9 | 1078.8 | 1078.0 |
| 45°    | 1036.9 | 1030.6 | 1028.3 | 1017.6 | 1016.5 |
| 47.5°  | 971.1  | 968.2  | 964.7  | 953.9  | 953.9  |
| 50°    | 926.5  | 924.4  | 920.1  | 909.4  | 909.4  |
| 52.5°  | 881.1  | 879.9  | 873.8  | 864.8  | 863.1  |
| 55°    | 815.1  | 812.0  | 803.3  | 793.7  | 793.7  |
| 57.5°  | 742.9  | 740.4  | 730.7  | 723.0  | 721.1  |
| 60°    | 694.1  | 689.9  | 680.2  | 671.6  | 670.5  |
| 62.5°  | 643.5  | 640.2  | 629.6  | 621.9  | 620.0  |
| 65°    | 567.7  | 561.4  | 551.6  | 544.1  | 543.1  |
| 67.5°  | 487.6  | 480.5  | 471.9  | 465.7  | 463.6  |
| 70°    | 432.7  | 426.5  | 418.8  | 413.4  | 411.3  |
| 72.5°  | 378.8  | 372.5  | 365.7  | 362.0  | 361.6  |
| 75°    | 295.6  | 291.4  | 288.1  | 283.8  | 283.8  |
| 77.5°  | 214.4  | 211.9  | 210.2  | 208.0  | 208.0  |
| 80°    | 163.9  | 163.9  | 163.9  | 161.7  | 161.7  |
| 82.5°  | 117.6  | 120.1  | 121.9  | 120.6  | 120.6  |
| 85°    | 57.8   | 62.0   | 66.4   | 67.5   | 68.6   |
| 87.5°  | 16.3   | 21.3   | 26.6   | 27.4   | 28.3   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 5.7    | 30.4   | 70.4   | 20.5   | 15.5   |
| 95°    | 18.6   | 73.9   | 332.0  | 114.9  | 70.8   |
| 97.5°  | 34.2   | 86.5   | 511.3  | 365.9  | 250.7  |
| 100°   | 45.1   | 94.1   | 550.3  | 557.4  | 429.3  |
| 102.5° | 57.1   | 102.2  | 541.7  | 713.5  | 601.6  |
| 105°   | 75.8   | 115.0  | 497.3  | 878.4  | 835.1  |
| 107.5° | 94.9   | 130.0  | 445.5  | 925.0  | 963.6  |
| 110°   | 108.1  | 140.9  | 415.7  | 907.2  | 993.9  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 120.6 | 151.8 | 395.7 | 865.1 | 988.8 |
| 115°   | 141.0 | 170.4 | 377.1 | 798.9 | 938.1 |
| 117.5° | 158.9 | 186.4 | 366.1 | 726.5 | 874.0 |
| 120°   | 173.2 | 196.3 | 364.9 | 685.1 | 826.5 |
| 122.5° | 184.6 | 207.7 | 362.1 | 648.9 | 780.1 |
| 125°   | 198.9 | 220.6 | 359.9 | 597.3 | 714.1 |
| 127.5° | 214.5 | 234.8 | 358.8 | 566.5 | 662.8 |
| 130°   | 222.5 | 242.8 | 357.1 | 545.0 | 629.0 |
| 132.5° | 231.1 | 250.9 | 357.1 | 528.3 | 605.5 |
| 135°   | 243.3 | 263.6 | 355.6 | 504.5 | 570.3 |
| 137.5° | 254.7 | 274.5 | 355.5 | 484.4 | 541.3 |
| 140°   | 263.3 | 283.6 | 354.9 | 467.8 | 522.4 |
| 142.5° | 273.1 | 290.0 | 356.6 | 454.5 | 503.5 |
| 145°   | 286.9 | 301.6 | 358.5 | 436.7 | 475.8 |
| 147.5° | 298.8 | 313.1 | 361.6 | 418.7 | 452.5 |
| 150°   | 309.1 | 318.9 | 362.8 | 412.7 | 436.5 |
| 152.5° | 317.1 | 327.5 | 363.9 | 404.7 | 426.8 |
| 155°   | 327.7 | 335.4 | 367.1 | 394.6 | 410.7 |
| 157.5° | 340.9 | 345.5 | 367.8 | 390.1 | 401.6 |
| 160°   | 347.8 | 351.3 | 370.7 | 386.6 | 396.4 |
| 162.5° | 351.8 | 355.8 | 371.2 | 383.7 | 391.3 |
| 165°   | 362.1 | 363.5 | 371.4 | 379.4 | 385.0 |
| 167.5° | 369.1 | 367.8 | 374.7 | 378.3 | 380.5 |
| 170°   | 371.4 | 370.7 | 373.5 | 374.3 | 377.1 |
| 172.5° | 376.5 | 374.2 | 375.2 | 373.1 | 375.4 |
| 175°   | 379.2 | 377.1 | 375.7 | 373.5 | 370.7 |
| 177.5° | 380.4 | 377.0 | 375.2 | 373.0 | 373.5 |
| 180°   | 376.4 | 376.4 | 376.4 | 376.4 | 376.4 |

(END OF REPORT)