

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: P701244

Luminaire Tested: SQ4P-PW1-100U-075D-B50-1D-UNV-

Issue Date: 8/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P701244  
REPORT IS A COMBINATION OF REPORTS P700096 AND P700246  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4P-PW1-100U-075D-B50-1D-UNV-  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, 1000 LUMENS PER FOOT UPLIGHT, 750 LU  
FOOT DOWNLIGHT

Light Source: -  
Ballast/Driver: -

**Summary**

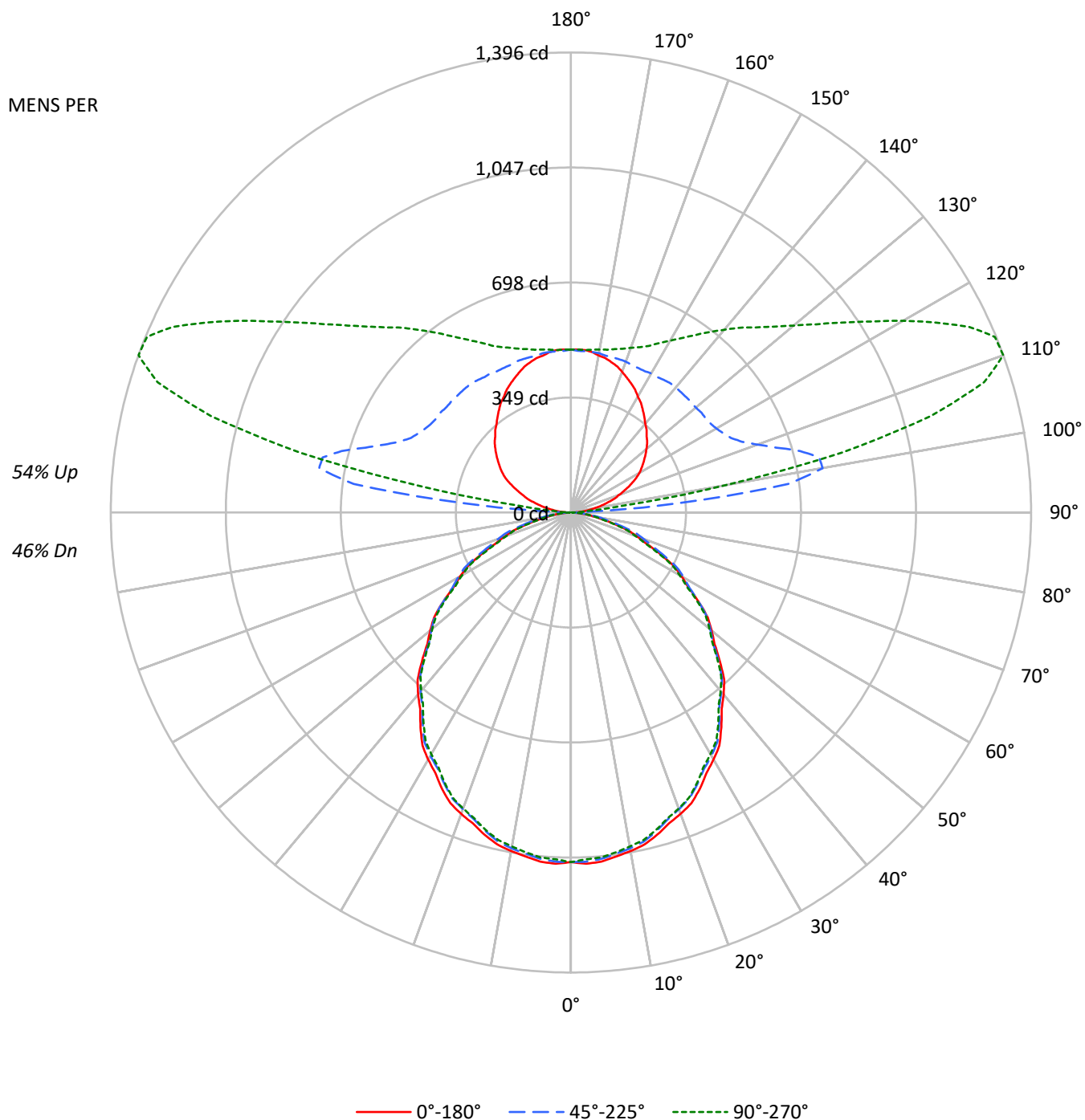
Lumens per Lamp: N/A  
Luminaire Lumens: 5911.5 lumens  
Efficiency: N/A  
Efficacy: 114.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.19 / 1.31  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 51.6  
Input Voltage (V): NR  
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 |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 81 | 81 | 81 | 66 | 66 | 66 | 52 | 52 | 52 |
| 1   | 97  | 93  | 89  | 85  | 89 | 85 | 82 | 79 | 71 | 69 | 67 | 58 | 57 | 55 | 46 | 45 | 44 |
| 2   | 88  | 81  | 75  | 70  | 81 | 75 | 69 | 65 | 62 | 59 | 55 | 51 | 48 | 46 | 41 | 39 | 37 |
| 3   | 81  | 71  | 64  | 58  | 74 | 66 | 59 | 54 | 55 | 50 | 47 | 45 | 42 | 39 | 36 | 34 | 32 |
| 4   | 74  | 63  | 55  | 49  | 67 | 58 | 51 | 46 | 49 | 44 | 40 | 40 | 37 | 33 | 32 | 30 | 27 |
| 5   | 68  | 56  | 48  | 42  | 62 | 52 | 45 | 39 | 44 | 38 | 34 | 36 | 32 | 29 | 29 | 26 | 24 |
| 6   | 62  | 50  | 42  | 37  | 57 | 47 | 39 | 34 | 39 | 34 | 30 | 33 | 29 | 25 | 26 | 23 | 21 |
| 7   | 58  | 45  | 38  | 32  | 53 | 42 | 35 | 30 | 36 | 30 | 26 | 30 | 26 | 22 | 24 | 21 | 19 |
| 8   | 53  | 41  | 34  | 28  | 49 | 38 | 31 | 27 | 33 | 27 | 23 | 27 | 23 | 20 | 22 | 19 | 17 |
| 9   | 50  | 38  | 30  | 25  | 46 | 35 | 28 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 20 | 17 | 15 |
| 10  | 46  | 34  | 27  | 23  | 43 | 32 | 26 | 21 | 27 | 22 | 19 | 23 | 19 | 16 | 19 | 16 | 14 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9786 | 9786 | 9786 |
| 5°  | 9850 | 9773 | 9730 |
| 10° | 9771 | 9694 | 9640 |
| 15° | 9669 | 9561 | 9525 |
| 20° | 9553 | 9405 | 9388 |
| 25° | 9420 | 9249 | 9219 |
| 30° | 9221 | 9081 | 9021 |
| 35° | 8959 | 8831 | 8778 |
| 40° | 8680 | 8544 | 8510 |
| 45° | 8341 | 8232 | 8194 |
| 50° | 7996 | 7930 | 7874 |
| 55° | 7621 | 7621 | 7502 |
| 60° | 7160 | 7296 | 7038 |
| 65° | 6549 | 6875 | 6388 |
| 70° | 5770 | 6328 | 5624 |
| 75° | 4934 | 5664 | 4795 |
| 80° | 3825 | 4771 | 3879 |
| 85° | 2467 | 3673 | 3260 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 8341 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 99.9   | 1.7       |
| 10°-20°   | 282.0  | 4.8       |
| 20°-30°   | 418.3  | 7.1       |
| 30°-40°   | 489.5  | 8.3       |
| 40°-50°   | 487.3  | 8.2       |
| 50°-60°   | 420.8  | 7.1       |
| 60°-70°   | 302.9  | 5.1       |
| 70°-80°   | 158.8  | 2.7       |
| 80°-90°   | 40.6   | 0.7       |
| 90°-100°  | 196.9  | 3.3       |
| 100°-110° | 685.2  | 11.6      |
| 110°-120° | 663.7  | 11.2      |
| 120°-130° | 520.7  | 8.8       |
| 130°-140° | 412.1  | 7.0       |
| 140°-150° | 318.0  | 5.4       |
| 150°-160° | 228.0  | 3.9       |
| 160°-170° | 139.4  | 2.4       |
| 170°-180° | 47.2   | 0.8       |
| 0°-30°    | 800.3  | 13.5      |
| 0°-40°    | 1289.7 | 21.8      |
| 0°-60°    | 2197.9 | 37.2      |
| 0°-90°    | 2700.2 | 45.7      |
| 90°-120°  | 1545.9 | 26.2      |
| 90°-150°  | 2796.7 | 47.3      |
| 90°-180°  | 3211.0 | 54.3      |
| 0°-180°   | 5911.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1061 | 1061  | 1061 | 1061  | 1061 |      |
| 5°   | 1064 | 1052  | 1055 | 1052  | 1051 | 101  |
| 15°  | 1012 | 999   | 1001 | 999   | 997  | 285  |
| 25°  | 925  | 910   | 908  | 903   | 906  | 425  |
| 35°  | 795  | 784   | 784  | 777   | 779  | 497  |
| 45°  | 639  | 634   | 631  | 629   | 628  | 493  |
| 55°  | 474  | 473   | 474  | 467   | 466  | 423  |
| 65°  | 300  | 309   | 315  | 303   | 293  | 297  |
| 75°  | 138  | 151   | 159  | 148   | 134  | 148  |
| 85°  | 23   | 31    | 35   | 33    | 31   | 31   |
| 90°  | 7    | 11    | 11   | 7     | 4    | 5    |
| 95°  | 33   | 114   | 332  | 85    | 52   | 35   |
| 105° | 114  | 162   | 720  | 1215  | 1130 | 120  |
| 115° | 199  | 240   | 535  | 1130  | 1333 | 197  |
| 125° | 270  | 332   | 498  | 842   | 1004 | 241  |
| 135° | 325  | 366   | 495  | 702   | 794  | 252  |
| 145° | 380  | 406   | 491  | 606   | 657  | 238  |
| 155° | 432  | 447   | 484  | 539   | 558  | 199  |
| 165° | 473  | 476   | 487  | 510   | 513  | 133  |
| 175° | 495  | 495   | 491  | 498   | 495  | 47   |
| 180° | 495  | 495   | 495  | 495   | 495  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1060.7 | 1060.7 | 1060.7 | 1060.7 | 1060.7 |
| 2.5°   | 1066.8 | 1058.0 | 1060.7 | 1058.5 | 1053.3 |
| 5°     | 1063.6 | 1051.7 | 1055.2 | 1052.4 | 1050.6 |
| 7.5°   | 1052.8 | 1041.9 | 1044.3 | 1041.4 | 1040.3 |
| 10°    | 1043.0 | 1032.1 | 1034.7 | 1030.9 | 1029.0 |
| 12.5°  | 1031.9 | 1020.1 | 1022.8 | 1018.9 | 1017.9 |
| 15°    | 1012.3 | 999.3  | 1001.0 | 999.1  | 997.2  |
| 17.5°  | 989.3  | 976.5  | 976.7  | 973.7  | 973.3  |
| 20°    | 973.0  | 959.3  | 957.9  | 954.2  | 956.2  |
| 22.5°  | 955.1  | 940.6  | 939.3  | 934.1  | 936.7  |
| 25°    | 925.3  | 909.8  | 908.5  | 902.9  | 905.6  |
| 27.5°  | 890.9  | 875.7  | 875.7  | 867.8  | 870.6  |
| 30°    | 865.5  | 850.8  | 852.4  | 843.1  | 846.8  |
| 32.5°  | 838.5  | 825.4  | 826.2  | 817.0  | 820.6  |
| 35°    | 795.4  | 784.5  | 784.1  | 776.7  | 779.4  |
| 37.5°  | 751.2  | 741.6  | 740.0  | 735.8  | 736.4  |
| 40°    | 720.7  | 712.4  | 709.4  | 706.6  | 706.6  |
| 42.5°  | 688.4  | 681.0  | 677.9  | 675.8  | 675.2  |
| 45°    | 639.3  | 633.8  | 630.9  | 629.0  | 628.0  |
| 47.5°  | 590.6  | 585.6  | 583.0  | 581.8  | 580.8  |
| 50°    | 557.1  | 553.4  | 552.5  | 549.5  | 548.6  |
| 52.5°  | 523.4  | 521.2  | 520.2  | 516.7  | 515.7  |
| 55°    | 473.8  | 473.1  | 473.8  | 467.3  | 466.4  |
| 57.5°  | 422.2  | 423.7  | 426.8  | 417.9  | 415.7  |
| 60°    | 388.0  | 391.5  | 395.4  | 385.1  | 381.4  |
| 62.5°  | 352.6  | 358.6  | 364.0  | 352.1  | 346.8  |
| 65°    | 300.0  | 309.1  | 314.9  | 302.6  | 292.6  |
| 67.5°  | 249.2  | 260.5  | 267.4  | 254.2  | 242.8  |
| 70°    | 213.9  | 226.9  | 234.6  | 221.2  | 208.5  |
| 72.5°  | 183.4  | 197.6  | 203.9  | 191.3  | 178.5  |
| 75°    | 138.4  | 151.1  | 158.9  | 148.2  | 134.5  |
| 77.5°  | 98.2   | 110.2  | 116.6  | 107.5  | 96.1   |
| 80°    | 72.0   | 84.7   | 89.8   | 82.0   | 73.0   |
| 82.5°  | 51.0   | 61.7   | 65.1   | 60.5   | 54.2   |
| 85°    | 23.3   | 30.7   | 34.7   | 32.7   | 30.8   |
| 87.5°  | 6.0    | 11.1   | 14.2   | 14.2   | 14.9   |
| 90°    | 7.4    | 11.0   | 11.0   | 7.4    | 3.7    |
| 92.5°  | 18.5   | 55.4   | 51.7   | 22.2   | 18.5   |
| 95°    | 33.2   | 114.4  | 332.4  | 84.9   | 51.7   |
| 97.5°  | 51.7   | 129.3  | 664.7  | 302.8  | 162.5  |
| 100°   | 70.2   | 136.6  | 775.4  | 727.4  | 469.0  |
| 102.5° | 92.3   | 147.7  | 771.7  | 1022.9 | 841.9  |
| 105°   | 114.4  | 162.5  | 720.0  | 1214.9 | 1130.0 |
| 107.5° | 136.6  | 181.0  | 653.6  | 1299.8 | 1314.6 |
| 110°   | 155.1  | 199.4  | 601.9  | 1288.8 | 1395.8 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 177.3 | 217.8 | 561.3 | 1222.2 | 1392.1 |
| 115°   | 199.4 | 240.0 | 535.4 | 1130.0 | 1333.0 |
| 117.5° | 221.5 | 265.9 | 520.7 | 1045.0 | 1248.1 |
| 120°   | 240.0 | 288.0 | 509.6 | 963.7  | 1163.2 |
| 122.5° | 254.8 | 310.2 | 502.2 | 897.3  | 1078.3 |
| 125°   | 269.5 | 332.4 | 498.5 | 841.9  | 1004.4 |
| 127.5° | 284.4 | 347.1 | 498.5 | 801.3  | 937.9  |
| 130°   | 299.1 | 354.5 | 494.8 | 760.7  | 882.5  |
| 132.5° | 313.9 | 358.2 | 494.8 | 731.2  | 834.5  |
| 135°   | 324.9 | 365.6 | 494.8 | 701.6  | 793.9  |
| 137.5° | 339.7 | 372.9 | 494.8 | 675.7  | 760.7  |
| 140°   | 350.8 | 384.0 | 494.8 | 649.9  | 723.7  |
| 142.5° | 365.6 | 395.1 | 494.8 | 624.1  | 690.5  |
| 145°   | 380.3 | 406.2 | 491.1 | 605.6  | 657.3  |
| 147.5° | 395.1 | 417.3 | 487.4 | 587.1  | 627.8  |
| 150°   | 406.2 | 428.3 | 487.4 | 568.6  | 601.9  |
| 152.5° | 421.0 | 439.5 | 483.7 | 550.2  | 579.8  |
| 155°   | 432.0 | 446.8 | 483.7 | 539.1  | 557.6  |
| 157.5° | 443.1 | 457.9 | 483.7 | 528.1  | 542.8  |
| 160°   | 454.2 | 465.3 | 487.4 | 520.7  | 531.7  |
| 162.5° | 465.3 | 472.7 | 487.4 | 513.2  | 520.7  |
| 165°   | 472.7 | 476.4 | 487.4 | 509.6  | 513.2  |
| 167.5° | 480.0 | 483.7 | 487.4 | 505.9  | 505.9  |
| 170°   | 483.7 | 487.4 | 491.1 | 502.2  | 502.2  |
| 172.5° | 491.1 | 491.1 | 491.1 | 498.5  | 498.5  |
| 175°   | 494.8 | 494.8 | 491.1 | 498.5  | 494.8  |
| 177.5° | 494.8 | 494.8 | 491.1 | 498.5  | 494.8  |
| 180°   | 494.8 | 494.8 | 494.8 | 494.8  | 494.8  |

(END OF REPORT)