

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: P688726

Luminaire Tested: SQ4R-PH1-050D-92765-1-UNV-STD-W-4\_4500K

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688726  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-36)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-PH1-050D-92765-1-UNV-STD-W-4\_4500K  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS.  
500 LUMENS PER FOOT  
Light Source: 4500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1939.9 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.22 / 1.28  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

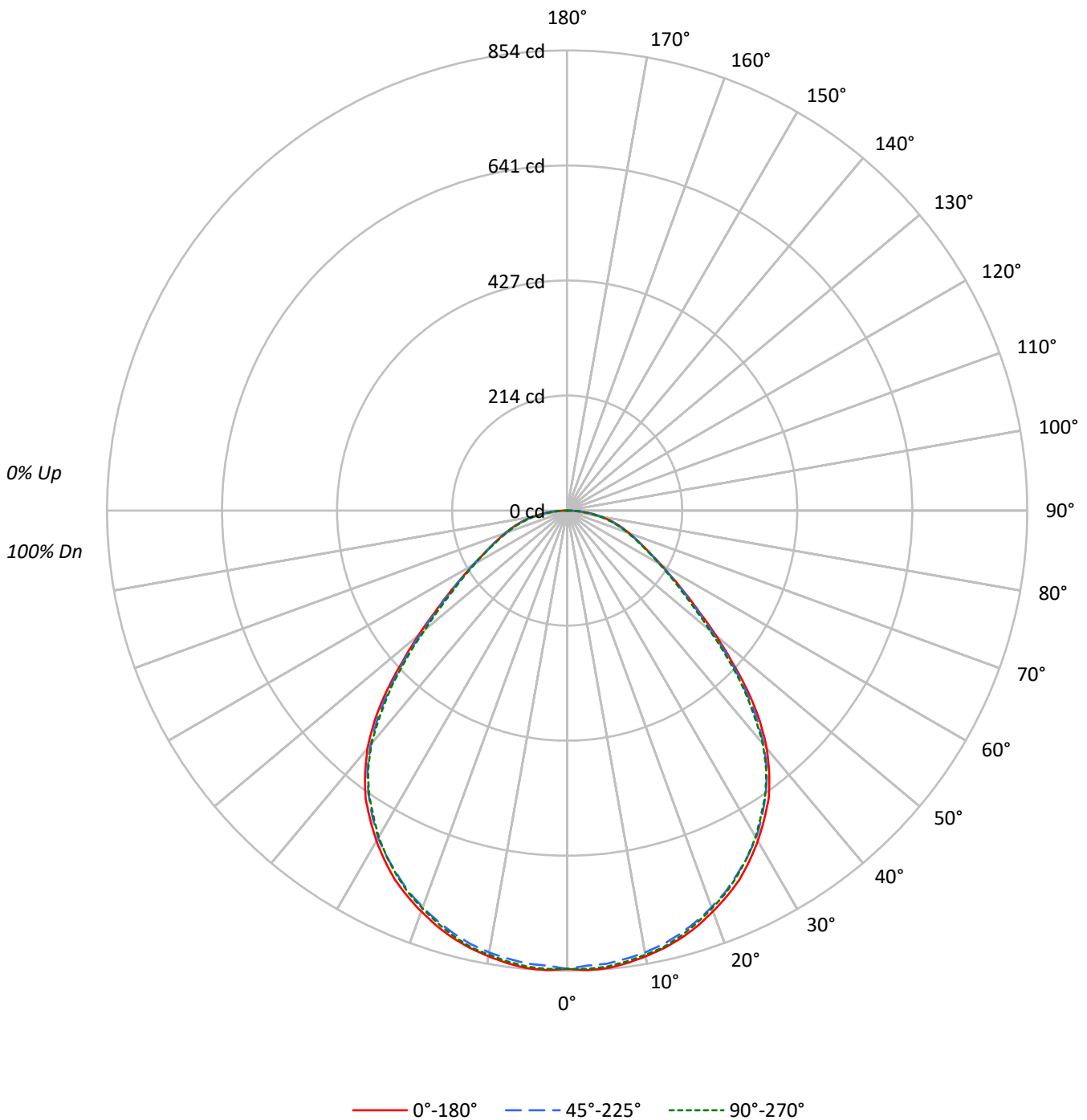
Input Watts (W): 21.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 | 100 |
| 1   | 110 | 105 | 102 | 98  | 107 | 103 | 100 | 96  | 99  | 96  | 93  |  | 95  | 93  | 91  |  | 92  | 90  | 88  | 86  |
| 2   | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  |  | 85  | 81  | 77  |  | 82  | 79  | 76  | 74  |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  |  | 76  | 71  | 67  |  | 73  | 69  | 66  | 64  |
| 4   | 86  | 75  | 66  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  |  | 69  | 63  | 58  |  | 66  | 62  | 57  | 55  |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  |  | 62  | 56  | 51  |  | 60  | 55  | 51  | 49  |
| 6   | 74  | 61  | 53  | 47  | 72  | 60  | 52  | 46  | 58  | 51  | 46  |  | 57  | 50  | 46  |  | 55  | 50  | 45  | 43  |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 41  | 53  | 46  | 41  |  | 52  | 46  | 41  |  | 51  | 45  | 41  | 39  |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 43  | 37  | 49  | 42  | 37  |  | 48  | 42  | 37  |  | 47  | 41  | 37  | 35  |
| 9   | 60  | 47  | 39  | 34  | 58  | 47  | 39  | 34  | 45  | 39  | 34  |  | 44  | 38  | 34  |  | 43  | 38  | 33  | 32  |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 35  | 31  |  | 41  | 35  | 31  |  | 40  | 35  | 31  | 29  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8188 | 8188 | 8188 |
| 5°  | 8240 | 8158 | 8209 |
| 10° | 8212 | 8139 | 8180 |
| 15° | 8184 | 8100 | 8142 |
| 20° | 8111 | 8025 | 8047 |
| 25° | 8031 | 7919 | 7941 |
| 30° | 7867 | 7797 | 7774 |
| 35° | 7663 | 7552 | 7539 |
| 40° | 7244 | 7126 | 7099 |
| 45° | 6462 | 6332 | 6262 |
| 50° | 5393 | 5284 | 5173 |
| 55° | 4493 | 4441 | 4336 |
| 60° | 3861 | 3882 | 3801 |
| 65° | 3540 | 3515 | 3467 |
| 70° | 3428 | 3398 | 3338 |
| 75° | 3474 | 3396 | 3318 |
| 80° | 3493 | 3432 | 3315 |
| 85° | 3358 | 3358 | 3126 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6462 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 80.7   | 4.2       |
| 10°-20°   | 230.4  | 11.9      |
| 20°-30°   | 345.2  | 17.8      |
| 30°-40°   | 401.7  | 20.7      |
| 40°-50°   | 357.3  | 18.4      |
| 50°-60°   | 239.9  | 12.4      |
| 60°-70°   | 155.0  | 8.0       |
| 70°-80°   | 96.6   | 5.0       |
| 80°-90°   | 33.1   | 1.7       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 656.3  | 33.8      |
| 0°-40°    | 1058.0 | 54.5      |
| 0°-60°    | 1655.1 | 85.3      |
| 0°-90°    | 1939.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1939.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 850 | 850   | 850 | 850   | 850 |      |
| 5°  | 853 | 850   | 844 | 850   | 849 | 81   |
| 15° | 821 | 819   | 813 | 818   | 817 | 231  |
| 25° | 756 | 753   | 746 | 750   | 748 | 348  |
| 35° | 652 | 649   | 643 | 643   | 642 | 405  |
| 45° | 475 | 472   | 465 | 459   | 460 | 363  |
| 55° | 268 | 268   | 265 | 260   | 258 | 243  |
| 65° | 155 | 156   | 154 | 153   | 152 | 156  |
| 75° | 93  | 92    | 91  | 91    | 89  | 98   |
| 85° | 30  | 32    | 30  | 29    | 28  | 34   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 850.5 | 850.5 | 850.5 | 850.5 | 850.5 |
| 2.5°  | 853.6 | 851.5 | 845.2 | 852.6 | 851.5 |
| 5°    | 852.6 | 850.5 | 844.2 | 850.5 | 849.4 |
| 7.5°  | 847.3 | 846.3 | 838.9 | 846.3 | 844.2 |
| 10°   | 840.0 | 840.0 | 832.6 | 838.9 | 836.8 |
| 12.5° | 831.6 | 830.5 | 824.2 | 830.5 | 829.5 |
| 15°   | 821.1 | 819.0 | 812.7 | 817.9 | 816.9 |
| 17.5° | 807.4 | 806.4 | 799.0 | 804.3 | 802.2 |
| 20°   | 791.7 | 789.6 | 783.3 | 787.5 | 785.4 |
| 22.5° | 774.9 | 772.8 | 766.5 | 769.6 | 768.6 |
| 25°   | 756.0 | 752.8 | 745.5 | 749.7 | 747.6 |
| 27.5° | 732.9 | 731.8 | 724.5 | 726.6 | 724.5 |
| 30°   | 707.7 | 706.6 | 701.4 | 701.4 | 699.3 |
| 32.5° | 680.4 | 681.4 | 673.0 | 674.1 | 669.9 |
| 35°   | 652.0 | 648.9 | 642.6 | 642.6 | 641.5 |
| 37.5° | 616.3 | 614.2 | 609.0 | 607.9 | 606.9 |
| 40°   | 576.4 | 574.3 | 567.0 | 564.9 | 564.9 |
| 42.5° | 529.2 | 527.1 | 519.7 | 516.6 | 512.4 |
| 45°   | 474.6 | 472.5 | 465.1 | 458.8 | 459.9 |
| 47.5° | 413.7 | 415.8 | 408.4 | 403.2 | 402.1 |
| 50°   | 360.1 | 359.1 | 352.8 | 349.6 | 345.4 |
| 52.5° | 308.7 | 309.7 | 304.5 | 302.4 | 297.1 |
| 55°   | 267.7 | 267.7 | 264.6 | 260.4 | 258.3 |
| 57.5° | 231.0 | 233.1 | 229.9 | 227.8 | 225.7 |
| 60°   | 200.5 | 201.6 | 201.6 | 197.4 | 197.4 |
| 62.5° | 175.3 | 176.4 | 175.3 | 173.2 | 173.2 |
| 65°   | 155.4 | 156.4 | 154.3 | 153.3 | 152.2 |
| 67.5° | 137.5 | 138.6 | 137.5 | 136.5 | 134.4 |
| 70°   | 121.8 | 121.8 | 120.7 | 120.7 | 118.6 |
| 72.5° | 108.1 | 107.1 | 106.0 | 106.0 | 105.0 |
| 75°   | 93.4  | 92.4  | 91.3  | 91.3  | 89.2  |
| 77.5° | 78.7  | 77.7  | 77.7  | 75.6  | 74.5  |
| 80°   | 63.0  | 63.0  | 61.9  | 60.9  | 59.8  |
| 82.5° | 48.3  | 47.2  | 46.2  | 45.1  | 44.1  |
| 85°   | 30.4  | 31.5  | 30.4  | 29.4  | 28.3  |
| 87.5° | 13.6  | 14.7  | 14.7  | 14.7  | 13.6  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)