

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: P688887

Luminaire Tested: SQ4R-PR1-050D-93050-1-UNV-STD-W-4_3500K

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688887
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-PR1-050D-93050-1-UNV-STD-W-4_3500K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS.
500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1881.7 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.23 / 1.34
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

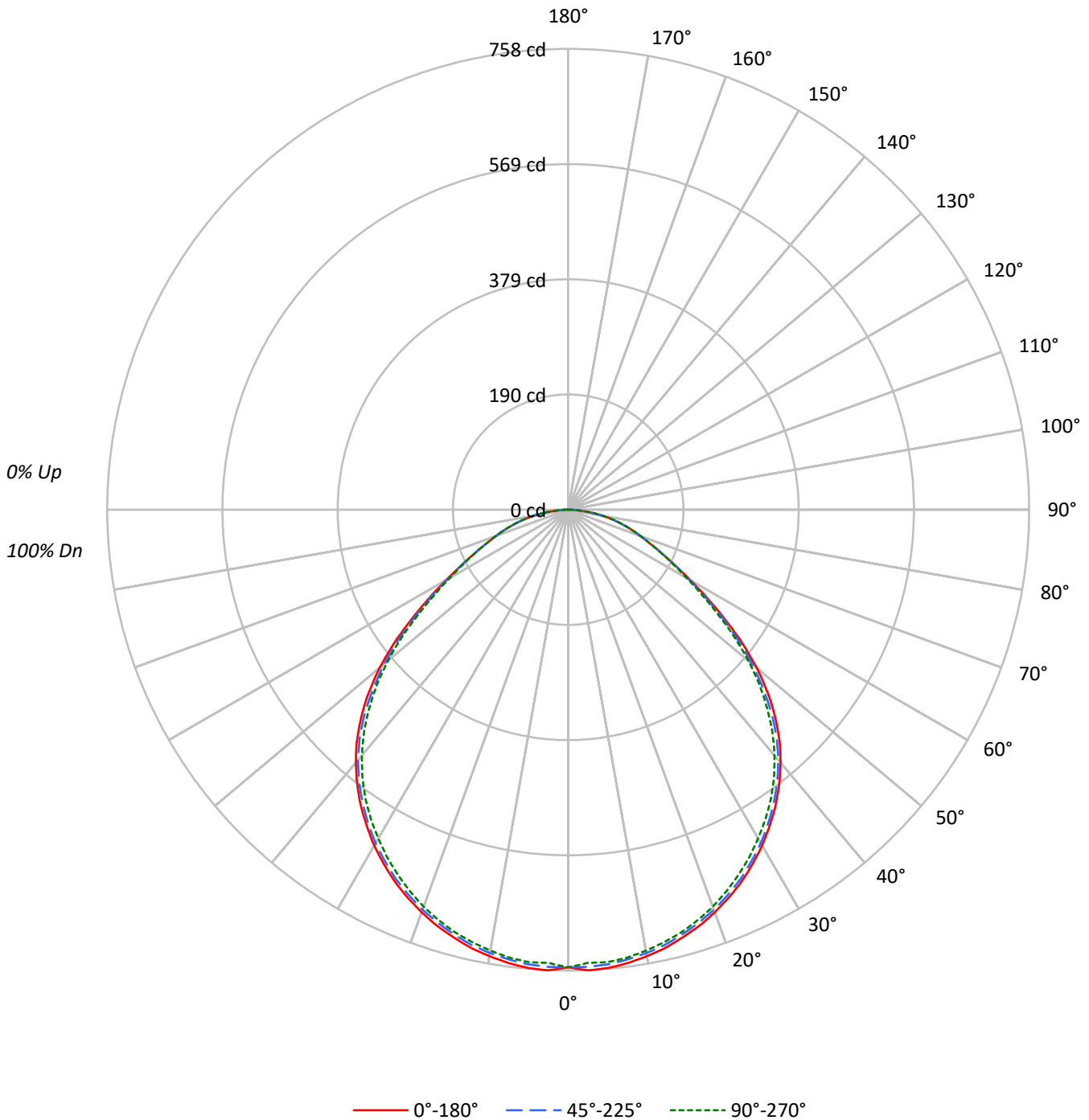
Input Watts (W): 21.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | |
| 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 | 101 | 98 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | | 95 | 92 | 90 | | 91 | 89 | 87 | 85 |
| 2 | 100 | 93 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | | 84 | 80 | 76 | | 81 | 78 | 75 | 72 |
| 3 | 92 | 82 | 74 | 68 | 90 | 80 | 73 | 68 | 78 | 71 | 66 | | 75 | 70 | 65 | | 72 | 68 | 64 | 62 |
| 4 | 85 | 73 | 65 | 58 | 82 | 72 | 64 | 58 | 69 | 63 | 57 | | 67 | 61 | 56 | | 65 | 60 | 56 | 54 |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 50 | 63 | 55 | 50 | | 61 | 54 | 49 | | 59 | 53 | 49 | 47 |
| 6 | 72 | 59 | 51 | 45 | 70 | 58 | 50 | 44 | 57 | 49 | 44 | | 55 | 49 | 44 | | 53 | 48 | 43 | 41 |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 39 | 52 | 44 | 39 | | 50 | 44 | 39 | | 49 | 43 | 39 | 37 |
| 8 | 63 | 49 | 41 | 36 | 61 | 49 | 41 | 35 | 47 | 40 | 35 | | 46 | 40 | 35 | | 45 | 39 | 35 | 33 |
| 9 | 58 | 45 | 37 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | | 43 | 36 | 32 | | 42 | 36 | 31 | 30 |
| 10 | 55 | 42 | 34 | 29 | 54 | 41 | 34 | 29 | 40 | 34 | 29 | | 40 | 33 | 29 | | 39 | 33 | 29 | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7247 | 7247 | 7247 |
| 5° | 7312 | 7256 | 7218 |
| 10° | 7289 | 7238 | 7200 |
| 15° | 7257 | 7211 | 7172 |
| 20° | 7220 | 7174 | 7120 |
| 25° | 7169 | 7121 | 7039 |
| 30° | 7092 | 7041 | 6940 |
| 35° | 6987 | 6926 | 6827 |
| 40° | 6828 | 6755 | 6632 |
| 45° | 6550 | 6435 | 6302 |
| 50° | 6060 | 5913 | 5798 |
| 55° | 5289 | 5170 | 5061 |
| 60° | 4457 | 4419 | 4332 |
| 65° | 3854 | 3870 | 3841 |
| 70° | 3541 | 3558 | 3558 |
| 75° | 3400 | 3400 | 3426 |
| 80° | 3199 | 3232 | 3199 |
| 85° | 2574 | 2861 | 2861 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6550 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 71.2 | 3.8 |
| 10°-20° | 203.8 | 10.8 |
| 20°-30° | 307.3 | 16.3 |
| 30°-40° | 366.3 | 19.5 |
| 40°-50° | 361.3 | 19.2 |
| 50°-60° | 275.6 | 14.6 |
| 60°-70° | 170.1 | 9.0 |
| 70°-80° | 96.9 | 5.2 |
| 80°-90° | 29.2 | 1.6 |
| 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° | 582.3 | 30.9 |
| 0°-40° | 948.6 | 50.4 |
| 0°-60° | 1585.5 | 84.3 |
| 0°-90° | 1881.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1881.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 753 | 753 | 753 | 753 | 753 | |
| 5° | 757 | 748 | 751 | 748 | 747 | 72 |
| 15° | 728 | 720 | 724 | 721 | 720 | 206 |
| 25° | 675 | 666 | 670 | 663 | 663 | 311 |
| 35° | 594 | 587 | 589 | 582 | 581 | 371 |
| 45° | 481 | 475 | 473 | 464 | 463 | 369 |
| 55° | 315 | 310 | 308 | 303 | 302 | 282 |
| 65° | 169 | 168 | 170 | 169 | 169 | 171 |
| 75° | 91 | 91 | 91 | 92 | 92 | 97 |
| 85° | 23 | 25 | 26 | 26 | 26 | 28 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 752.7 | 752.7 | 752.7 | 752.7 | 752.7 |
| 2.5° | 758.5 | 750.1 | 752.7 | 750.8 | 746.2 |
| 5° | 756.6 | 748.2 | 750.8 | 748.2 | 746.9 |
| 7.5° | 752.1 | 743.6 | 746.2 | 743.6 | 743.0 |
| 10° | 745.6 | 737.8 | 740.4 | 737.8 | 736.5 |
| 12.5° | 738.4 | 730.0 | 733.3 | 730.0 | 728.7 |
| 15° | 728.1 | 720.3 | 723.5 | 720.9 | 719.6 |
| 17.5° | 717.7 | 709.3 | 712.5 | 709.9 | 708.0 |
| 20° | 704.7 | 697.0 | 700.2 | 695.7 | 695.0 |
| 22.5° | 690.5 | 682.7 | 685.9 | 679.4 | 679.4 |
| 25° | 674.9 | 666.5 | 670.4 | 663.2 | 662.6 |
| 27.5° | 656.8 | 649.0 | 652.2 | 645.1 | 644.4 |
| 30° | 638.0 | 630.2 | 633.4 | 625.6 | 624.3 |
| 32.5° | 616.6 | 609.4 | 612.0 | 604.2 | 603.6 |
| 35° | 594.5 | 587.4 | 589.3 | 581.6 | 580.9 |
| 37.5° | 569.9 | 563.4 | 564.7 | 556.3 | 555.6 |
| 40° | 543.3 | 536.8 | 537.5 | 528.4 | 527.7 |
| 42.5° | 514.1 | 507.6 | 507.0 | 497.9 | 497.3 |
| 45° | 481.1 | 474.6 | 472.6 | 464.2 | 462.9 |
| 47.5° | 444.8 | 438.3 | 434.4 | 427.2 | 426.6 |
| 50° | 404.6 | 398.1 | 394.8 | 389.0 | 387.1 |
| 52.5° | 361.1 | 354.6 | 352.0 | 346.9 | 344.9 |
| 55° | 315.1 | 309.9 | 308.0 | 302.8 | 301.5 |
| 57.5° | 271.0 | 267.1 | 266.5 | 261.3 | 260.6 |
| 60° | 231.5 | 229.5 | 229.5 | 225.0 | 225.0 |
| 62.5° | 197.7 | 196.4 | 197.7 | 195.1 | 194.5 |
| 65° | 169.2 | 167.9 | 169.9 | 168.6 | 168.6 |
| 67.5° | 145.2 | 145.2 | 146.5 | 145.9 | 145.9 |
| 70° | 125.8 | 125.8 | 126.4 | 126.4 | 126.4 |
| 72.5° | 108.3 | 107.6 | 109.6 | 109.6 | 108.9 |
| 75° | 91.4 | 91.4 | 91.4 | 92.1 | 92.1 |
| 77.5° | 74.6 | 74.6 | 75.2 | 75.2 | 74.6 |
| 80° | 57.7 | 58.3 | 58.3 | 57.7 | 57.7 |
| 82.5° | 40.8 | 41.5 | 41.5 | 41.5 | 40.8 |
| 85° | 23.3 | 24.6 | 25.9 | 25.9 | 25.9 |
| 87.5° | 8.4 | 11.0 | 13.0 | 13.0 | 12.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)