

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: P688537

Luminaire Tested: SQ4R-PP3-050D-835-1-UNV-STD-W-4

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688537
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2103-172-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-PP3-050D-835-1-UNV-STD-W-4
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE PRISM CONTINUOUS LENS.
500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1988.2 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.22 / 1.33
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

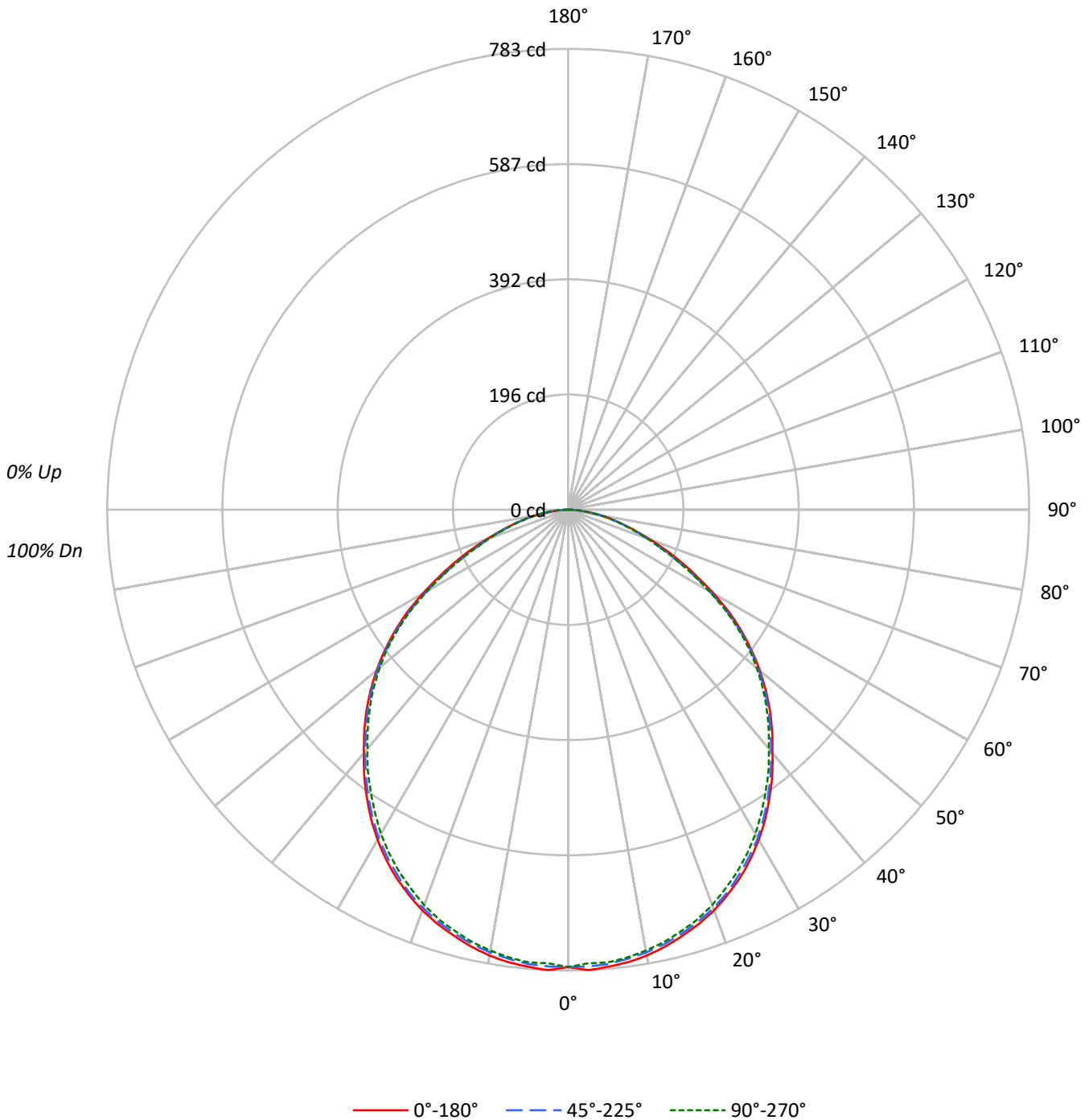
Input Watts (W): 18.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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 | 109 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 98 | 95 | 93 | | 95 | 92 | 90 | | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 86 | 80 | 97 | 90 | 84 | 79 | 87 | 82 | 77 | | 84 | 79 | 76 | | 81 | 77 | 74 | 72 |
| 3 | 92 | 81 | 74 | 67 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | | 74 | 69 | 64 | | 72 | 67 | 63 | 61 |
| 4 | 84 | 72 | 64 | 57 | 82 | 71 | 63 | 57 | 69 | 62 | 56 | | 66 | 60 | 56 | | 64 | 59 | 55 | 53 |
| 5 | 77 | 65 | 56 | 50 | 75 | 64 | 56 | 50 | 62 | 55 | 49 | | 60 | 53 | 48 | | 58 | 52 | 48 | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 49 | 43 | 56 | 49 | 43 | | 54 | 48 | 43 | | 53 | 47 | 42 | 40 |
| 7 | 66 | 53 | 45 | 39 | 65 | 52 | 44 | 39 | 51 | 44 | 38 | | 49 | 43 | 38 | | 48 | 42 | 38 | 36 |
| 8 | 62 | 49 | 40 | 35 | 60 | 48 | 40 | 34 | 47 | 39 | 34 | | 45 | 39 | 34 | | 44 | 38 | 34 | 32 |
| 9 | 58 | 45 | 37 | 31 | 56 | 44 | 36 | 31 | 43 | 36 | 31 | | 42 | 35 | 31 | | 41 | 35 | 31 | 29 |
| 10 | 54 | 41 | 34 | 28 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | | 39 | 33 | 28 | | 38 | 32 | 28 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7479 | 7479 | 7479 |
| 5° | 7534 | 7488 | 7462 |
| 10° | 7521 | 7468 | 7435 |
| 15° | 7471 | 7430 | 7390 |
| 20° | 7422 | 7380 | 7324 |
| 25° | 7334 | 7283 | 7211 |
| 30° | 7198 | 7160 | 7069 |
| 35° | 7009 | 6961 | 6873 |
| 40° | 6785 | 6743 | 6666 |
| 45° | 6601 | 6554 | 6489 |
| 50° | 6362 | 6322 | 6261 |
| 55° | 6034 | 5954 | 5908 |
| 60° | 5493 | 5335 | 5309 |
| 65° | 4839 | 4638 | 4622 |
| 70° | 4177 | 4006 | 4006 |
| 75° | 3597 | 3545 | 3497 |
| 80° | 3171 | 3210 | 3132 |
| 85° | 2485 | 2706 | 2706 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6601 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 73.5 | 3.7 |
| 10°-20° | 209.9 | 10.6 |
| 20°-30° | 314.4 | 15.8 |
| 30°-40° | 368.7 | 18.5 |
| 40°-50° | 369.8 | 18.6 |
| 50°-60° | 315.8 | 15.9 |
| 60°-70° | 205.2 | 10.3 |
| 70°-80° | 102.8 | 5.2 |
| 80°-90° | 28.2 | 1.4 |
| 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° | 597.7 | 30.1 |
| 0°-40° | 966.4 | 48.6 |
| 0°-60° | 1652.0 | 83.1 |
| 0°-90° | 1988.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1988.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 777 | 777 | 777 | 777 | 777 | |
| 5° | 780 | 772 | 775 | 772 | 772 | 74 |
| 15° | 750 | 742 | 746 | 743 | 741 | 212 |
| 25° | 690 | 682 | 686 | 680 | 679 | 318 |
| 35° | 596 | 590 | 592 | 586 | 585 | 373 |
| 45° | 485 | 481 | 481 | 477 | 477 | 373 |
| 55° | 360 | 358 | 355 | 353 | 352 | 320 |
| 65° | 212 | 208 | 204 | 202 | 203 | 212 |
| 75° | 97 | 97 | 95 | 95 | 94 | 104 |
| 85° | 22 | 24 | 24 | 24 | 24 | 27 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 776.8 | 776.8 | 776.8 | 776.8 | 776.8 |
| 2.5° | 783.0 | 774.8 | 776.8 | 775.5 | 771.4 |
| 5° | 779.6 | 772.1 | 774.8 | 772.1 | 772.1 |
| 7.5° | 775.5 | 767.3 | 770.0 | 767.3 | 767.3 |
| 10° | 769.3 | 761.2 | 763.9 | 761.2 | 760.5 |
| 12.5° | 760.5 | 752.3 | 755.7 | 752.3 | 752.3 |
| 15° | 749.6 | 742.1 | 745.5 | 742.8 | 741.4 |
| 17.5° | 738.0 | 729.9 | 733.9 | 730.5 | 729.9 |
| 20° | 724.4 | 716.2 | 720.3 | 714.9 | 714.9 |
| 22.5° | 708.1 | 699.9 | 704.7 | 697.2 | 697.2 |
| 25° | 690.4 | 682.2 | 685.6 | 679.5 | 678.8 |
| 27.5° | 669.9 | 661.8 | 665.2 | 658.4 | 658.4 |
| 30° | 647.5 | 640.0 | 644.1 | 636.6 | 635.9 |
| 32.5° | 623.0 | 616.2 | 618.9 | 611.4 | 610.7 |
| 35° | 596.4 | 590.3 | 592.3 | 585.5 | 584.8 |
| 37.5° | 569.2 | 562.4 | 565.1 | 559.0 | 559.0 |
| 40° | 539.9 | 535.8 | 536.5 | 531.7 | 530.4 |
| 42.5° | 512.7 | 507.9 | 508.6 | 503.8 | 503.8 |
| 45° | 484.8 | 481.4 | 481.4 | 476.6 | 476.6 |
| 47.5° | 455.5 | 452.8 | 452.1 | 448.0 | 448.0 |
| 50° | 424.8 | 422.8 | 422.1 | 418.7 | 418.0 |
| 52.5° | 392.8 | 392.2 | 389.4 | 386.7 | 386.7 |
| 55° | 359.5 | 358.1 | 354.7 | 352.7 | 352.0 |
| 57.5° | 324.1 | 321.4 | 317.9 | 314.5 | 315.2 |
| 60° | 285.3 | 282.5 | 277.1 | 275.7 | 275.7 |
| 62.5° | 247.8 | 244.4 | 239.0 | 236.9 | 238.3 |
| 65° | 212.4 | 208.3 | 203.6 | 202.2 | 202.9 |
| 67.5° | 179.7 | 175.7 | 170.2 | 170.2 | 169.5 |
| 70° | 148.4 | 146.4 | 142.3 | 142.3 | 142.3 |
| 72.5° | 120.5 | 119.8 | 117.1 | 117.1 | 116.4 |
| 75° | 96.7 | 96.7 | 95.3 | 94.6 | 94.0 |
| 77.5° | 76.3 | 76.3 | 75.6 | 74.9 | 73.5 |
| 80° | 57.2 | 58.6 | 57.9 | 57.2 | 56.5 |
| 82.5° | 39.5 | 40.9 | 40.9 | 39.5 | 39.5 |
| 85° | 22.5 | 24.5 | 24.5 | 24.5 | 24.5 |
| 87.5° | 7.5 | 10.2 | 10.9 | 10.9 | 11.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)