

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: P688575

Luminaire Tested: SQ4R-PR1-050D-930-1-UNV-STD-W-4

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688575
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-930-1-UNV-STD-W-4
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS.
500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1596.8 lumens
Efficiency: N/A
Efficacy: 84.5 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

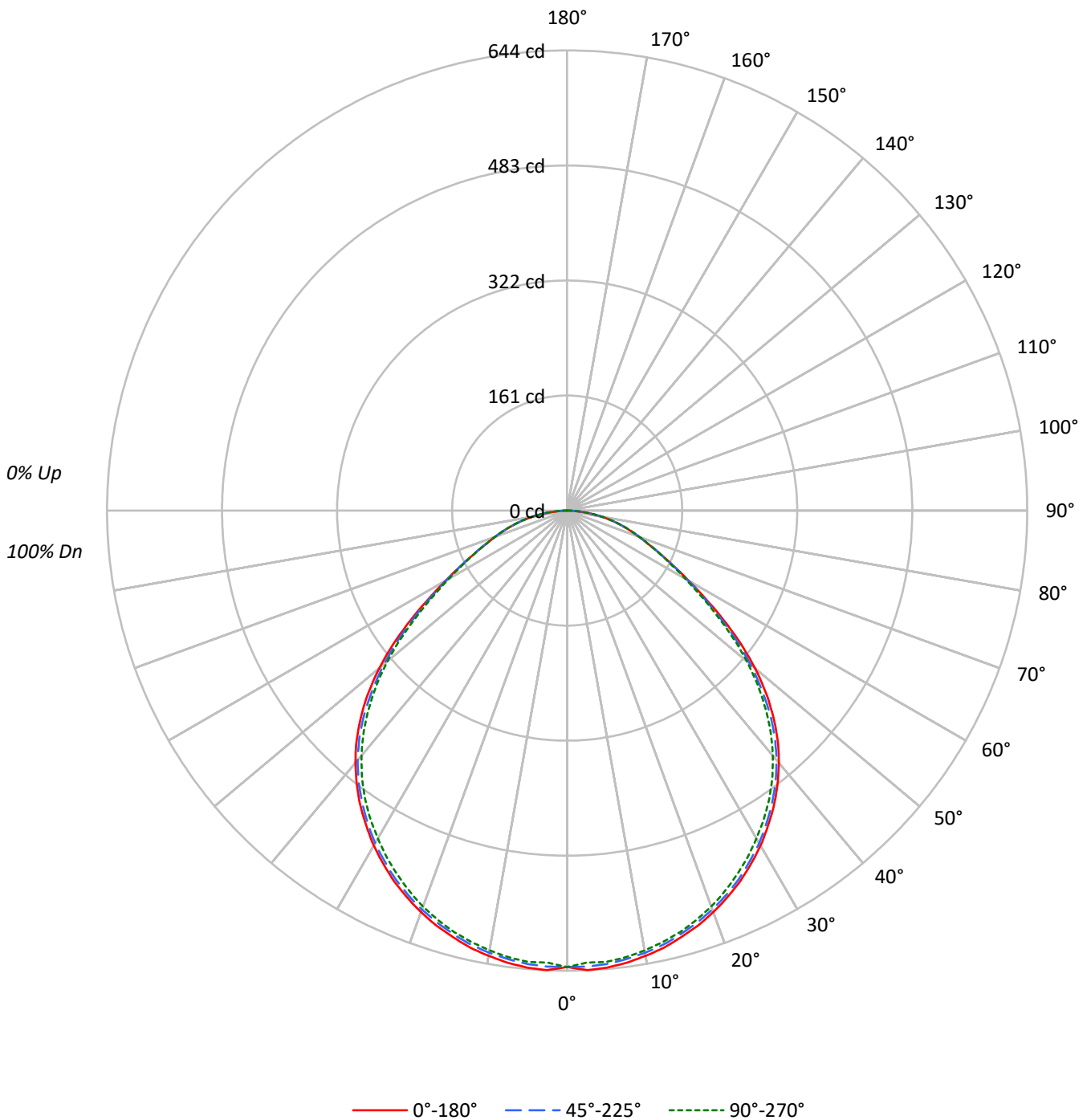
Input Watts (W): 18.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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 | 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° | 6149 | 6149 | 6149 |
| 5° | 6204 | 6157 | 6125 |
| 10° | 6185 | 6142 | 6110 |
| 15° | 6158 | 6120 | 6087 |
| 20° | 6127 | 6088 | 6043 |
| 25° | 6084 | 6043 | 5973 |
| 30° | 6019 | 5975 | 5890 |
| 35° | 5929 | 5878 | 5793 |
| 40° | 5794 | 5732 | 5628 |
| 45° | 5558 | 5461 | 5348 |
| 50° | 5142 | 5017 | 4919 |
| 55° | 4488 | 4386 | 4294 |
| 60° | 3782 | 3751 | 3676 |
| 65° | 3271 | 3283 | 3258 |
| 70° | 3003 | 3020 | 3020 |
| 75° | 2887 | 2887 | 2905 |
| 80° | 2717 | 2744 | 2717 |
| 85° | 2187 | 2430 | 2430 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5558 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 60.4 | 3.8 |
| 10°-20° | 172.9 | 10.8 |
| 20°-30° | 260.8 | 16.3 |
| 30°-40° | 310.8 | 19.5 |
| 40°-50° | 306.6 | 19.2 |
| 50°-60° | 233.9 | 14.6 |
| 60°-70° | 144.3 | 9.0 |
| 70°-80° | 82.3 | 5.2 |
| 80°-90° | 24.8 | 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° | 494.1 | 30.9 |
| 0°-40° | 804.9 | 50.4 |
| 0°-60° | 1345.4 | 84.3 |
| 0°-90° | 1596.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1596.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 639 | 639 | 639 | 639 | 639 | |
| 5° | 642 | 635 | 637 | 635 | 634 | 61 |
| 15° | 618 | 611 | 614 | 612 | 611 | 174 |
| 25° | 573 | 566 | 569 | 563 | 562 | 264 |
| 35° | 504 | 498 | 500 | 494 | 493 | 315 |
| 45° | 408 | 403 | 401 | 394 | 393 | 313 |
| 55° | 267 | 263 | 261 | 257 | 256 | 240 |
| 65° | 144 | 142 | 144 | 143 | 143 | 145 |
| 75° | 78 | 78 | 78 | 78 | 78 | 82 |
| 85° | 20 | 21 | 22 | 22 | 22 | 23 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 638.7 | 638.7 | 638.7 | 638.7 | 638.7 |
| 2.5° | 643.7 | 636.5 | 638.7 | 637.1 | 633.2 |
| 5° | 642.0 | 634.9 | 637.1 | 634.9 | 633.8 |
| 7.5° | 638.2 | 631.0 | 633.2 | 631.0 | 630.5 |
| 10° | 632.7 | 626.1 | 628.3 | 626.1 | 625.0 |
| 12.5° | 626.6 | 619.5 | 622.2 | 619.5 | 618.4 |
| 15° | 617.8 | 611.2 | 614.0 | 611.8 | 610.7 |
| 17.5° | 609.0 | 601.9 | 604.6 | 602.4 | 600.8 |
| 20° | 598.0 | 591.4 | 594.2 | 590.3 | 589.8 |
| 22.5° | 585.9 | 579.3 | 582.1 | 576.6 | 576.6 |
| 25° | 572.7 | 565.6 | 568.9 | 562.8 | 562.3 |
| 27.5° | 557.3 | 550.7 | 553.5 | 547.4 | 546.9 |
| 30° | 541.4 | 534.7 | 537.5 | 530.9 | 529.8 |
| 32.5° | 523.2 | 517.1 | 519.3 | 512.7 | 512.2 |
| 35° | 504.5 | 498.4 | 500.1 | 493.5 | 492.9 |
| 37.5° | 483.6 | 478.1 | 479.2 | 472.0 | 471.5 |
| 40° | 461.0 | 455.5 | 456.1 | 448.4 | 447.8 |
| 42.5° | 436.3 | 430.8 | 430.2 | 422.5 | 422.0 |
| 45° | 408.2 | 402.7 | 401.1 | 393.9 | 392.8 |
| 47.5° | 377.4 | 371.9 | 368.6 | 362.6 | 362.0 |
| 50° | 343.3 | 337.8 | 335.0 | 330.1 | 328.4 |
| 52.5° | 306.4 | 300.9 | 298.7 | 294.3 | 292.7 |
| 55° | 267.4 | 263.0 | 261.3 | 256.9 | 255.8 |
| 57.5° | 230.0 | 226.7 | 226.1 | 221.7 | 221.2 |
| 60° | 196.4 | 194.8 | 194.8 | 190.9 | 190.9 |
| 62.5° | 167.8 | 166.7 | 167.8 | 165.6 | 165.0 |
| 65° | 143.6 | 142.5 | 144.1 | 143.0 | 143.0 |
| 67.5° | 123.2 | 123.2 | 124.3 | 123.8 | 123.8 |
| 70° | 106.7 | 106.7 | 107.3 | 107.3 | 107.3 |
| 72.5° | 91.9 | 91.3 | 93.0 | 93.0 | 92.4 |
| 75° | 77.6 | 77.6 | 77.6 | 78.1 | 78.1 |
| 77.5° | 63.3 | 63.3 | 63.8 | 63.8 | 63.3 |
| 80° | 49.0 | 49.5 | 49.5 | 49.0 | 49.0 |
| 82.5° | 34.7 | 35.2 | 35.2 | 35.2 | 34.7 |
| 85° | 19.8 | 20.9 | 22.0 | 22.0 | 22.0 |
| 87.5° | 7.2 | 9.4 | 11.0 | 11.0 | 10.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)