

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: P688964

Luminaire Tested: SQ4R-PW1-050D-93050-1-UNV-STD-W-4_3000K

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688964
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-35)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-PW1-050D-93050-1-UNV-STD-W-4_3000K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE WAVES 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: 1919.9 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

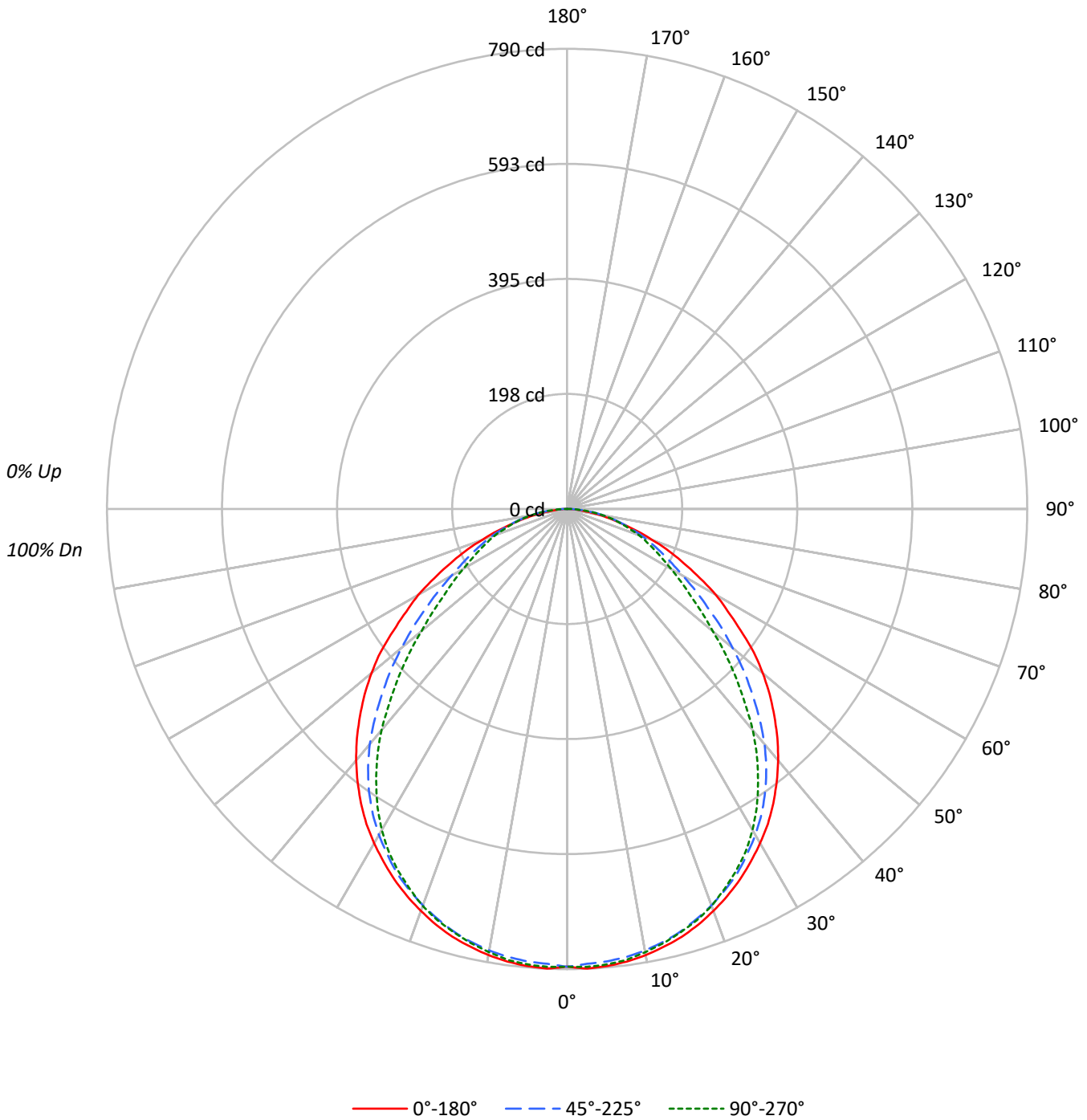
Input Watts (W): 21.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P688964

CATALOG NUMBER: SQ4R-PW1-050D-93050-1-UNV-STD-W-4_3000K

Luminous Intensity Polar Plot



TEST NUMBER: P688964

CATALOG NUMBER: SQ4R-PW1-050D-93050-1-UNV-STD-W-4_3000K

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 | 99 | 96 | 93 | | 95 | 92 | 90 | | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 86 | 81 | 98 | 91 | 85 | 80 | 87 | 82 | 78 | | 84 | 80 | 76 | | 81 | 77 | 74 | 72 |
| 3 | 92 | 82 | 74 | 68 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | | 75 | 69 | 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 | 59 | 50 | 44 | 57 | 49 | 44 | | 55 | 49 | 44 | | 54 | 48 | 43 | 41 |
| 7 | 67 | 54 | 46 | 40 | 65 | 53 | 45 | 40 | 52 | 45 | 39 | | 50 | 44 | 39 | | 49 | 43 | 39 | 37 |
| 8 | 63 | 50 | 41 | 36 | 61 | 49 | 41 | 36 | 48 | 40 | 35 | | 46 | 40 | 35 | | 45 | 39 | 35 | 33 |
| 9 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 44 | 37 | 32 | | 43 | 36 | 32 | | 42 | 36 | 32 | 30 |
| 10 | 55 | 42 | 34 | 29 | 54 | 42 | 34 | 29 | 41 | 34 | 29 | | 40 | 33 | 29 | | 39 | 33 | 29 | 27 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7565 | 7565 | 7565 |
| 5° | 7613 | 7535 | 7584 |
| 10° | 7603 | 7524 | 7553 |
| 15° | 7580 | 7489 | 7499 |
| 20° | 7523 | 7420 | 7430 |
| 25° | 7456 | 7338 | 7285 |
| 30° | 7365 | 7186 | 7074 |
| 35° | 7253 | 6968 | 6718 |
| 40° | 7083 | 6626 | 6232 |
| 45° | 6848 | 6119 | 5584 |
| 50° | 6565 | 5552 | 4886 |
| 55° | 6103 | 4933 | 4322 |
| 60° | 5678 | 4415 | 3966 |
| 65° | 5039 | 4096 | 3750 |
| 70° | 4377 | 3896 | 3696 |
| 75° | 3608 | 3683 | 3530 |
| 80° | 2855 | 3471 | 3471 |
| 85° | 2121 | 3126 | 3237 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6848 cd/sqm

TEST NUMBER: P688964

CATALOG NUMBER: SQ4R-PW1-050D-93050-1-UNV-STD-W-4_3000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 74.6 | 3.9 |
| 10°-20° | 212.9 | 11.1 |
| 20°-30° | 319.0 | 16.6 |
| 30°-40° | 370.6 | 19.3 |
| 40°-50° | 349.7 | 18.2 |
| 50°-60° | 272.8 | 14.2 |
| 60°-70° | 185.2 | 9.6 |
| 70°-80° | 104.3 | 5.4 |
| 80°-90° | 31.0 | 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° | 606.4 | 31.6 |
| 0°-40° | 977.0 | 50.9 |
| 0°-60° | 1599.5 | 83.3 |
| 0°-90° | 1919.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1919.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 786 | 786 | 786 | 786 | 786 | |
| 5° | 788 | 786 | 780 | 786 | 785 | 75 |
| 15° | 760 | 758 | 751 | 756 | 752 | 214 |
| 25° | 702 | 699 | 691 | 689 | 686 | 323 |
| 35° | 617 | 611 | 593 | 580 | 572 | 385 |
| 45° | 503 | 488 | 449 | 421 | 410 | 388 |
| 55° | 364 | 342 | 294 | 266 | 258 | 327 |
| 65° | 221 | 201 | 180 | 169 | 165 | 221 |
| 75° | 97 | 101 | 99 | 95 | 95 | 105 |
| 85° | 19 | 27 | 28 | 28 | 29 | 23 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P688964

CATALOG NUMBER: SQ4R-PW1-050D-93050-1-UNV-STD-W-4_3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 785.8 | 785.8 | 785.8 | 785.8 | 785.8 |
| 2.5° | 789.8 | 787.8 | 781.7 | 787.8 | 786.8 |
| 5° | 787.8 | 785.8 | 779.7 | 785.8 | 784.8 |
| 7.5° | 783.7 | 782.7 | 775.7 | 781.7 | 780.7 |
| 10° | 777.7 | 776.7 | 769.6 | 774.7 | 772.6 |
| 12.5° | 769.6 | 768.6 | 761.5 | 765.6 | 763.5 |
| 15° | 760.5 | 757.5 | 751.4 | 755.5 | 752.4 |
| 17.5° | 748.4 | 745.4 | 738.3 | 741.3 | 740.3 |
| 20° | 734.3 | 731.2 | 724.2 | 727.2 | 725.2 |
| 22.5° | 719.1 | 716.1 | 708.0 | 709.0 | 706.0 |
| 25° | 701.9 | 698.9 | 690.8 | 688.8 | 685.8 |
| 27.5° | 682.7 | 680.7 | 668.6 | 666.6 | 663.6 |
| 30° | 662.5 | 659.5 | 646.4 | 642.3 | 636.3 |
| 32.5° | 641.3 | 635.3 | 621.1 | 613.1 | 606.0 |
| 35° | 617.1 | 611.0 | 592.9 | 579.7 | 571.6 |
| 37.5° | 590.8 | 581.7 | 561.5 | 543.4 | 535.3 |
| 40° | 563.6 | 553.5 | 527.2 | 503.0 | 495.9 |
| 42.5° | 534.3 | 522.2 | 488.8 | 463.6 | 451.5 |
| 45° | 503.0 | 487.8 | 449.4 | 421.2 | 410.1 |
| 47.5° | 471.7 | 452.5 | 411.1 | 380.8 | 368.6 |
| 50° | 438.3 | 415.1 | 370.7 | 338.3 | 326.2 |
| 52.5° | 404.0 | 378.7 | 333.3 | 300.0 | 290.9 |
| 55° | 363.6 | 342.4 | 293.9 | 265.6 | 257.5 |
| 57.5° | 327.2 | 304.0 | 261.6 | 237.3 | 231.3 |
| 60° | 294.9 | 266.6 | 229.3 | 211.1 | 206.0 |
| 62.5° | 257.5 | 232.3 | 203.0 | 188.9 | 183.8 |
| 65° | 221.2 | 201.0 | 179.8 | 168.7 | 164.6 |
| 67.5° | 189.9 | 172.7 | 158.6 | 149.5 | 147.5 |
| 70° | 155.5 | 146.4 | 138.4 | 131.3 | 131.3 |
| 72.5° | 126.2 | 123.2 | 118.2 | 114.1 | 111.1 |
| 75° | 97.0 | 101.0 | 99.0 | 94.9 | 94.9 |
| 77.5° | 73.7 | 79.8 | 80.8 | 78.8 | 79.8 |
| 80° | 51.5 | 60.6 | 62.6 | 61.6 | 62.6 |
| 82.5° | 32.3 | 43.4 | 45.4 | 45.4 | 46.5 |
| 85° | 19.2 | 27.3 | 28.3 | 28.3 | 29.3 |
| 87.5° | 8.1 | 13.1 | 14.1 | 14.1 | 14.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)