

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: P688838

Luminaire Tested: SQ4R-PP3-100D-93050-1-UNV-STD-W-4_5000K

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688838
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-PP3-100D-93050-1-UNV-STD-W-4_5000K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE PRISM CONTINUOUS LENS.
1000 LUMENS PER FOOT
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4105.7 lumens
Efficiency: N/A
Efficacy: 88.9 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

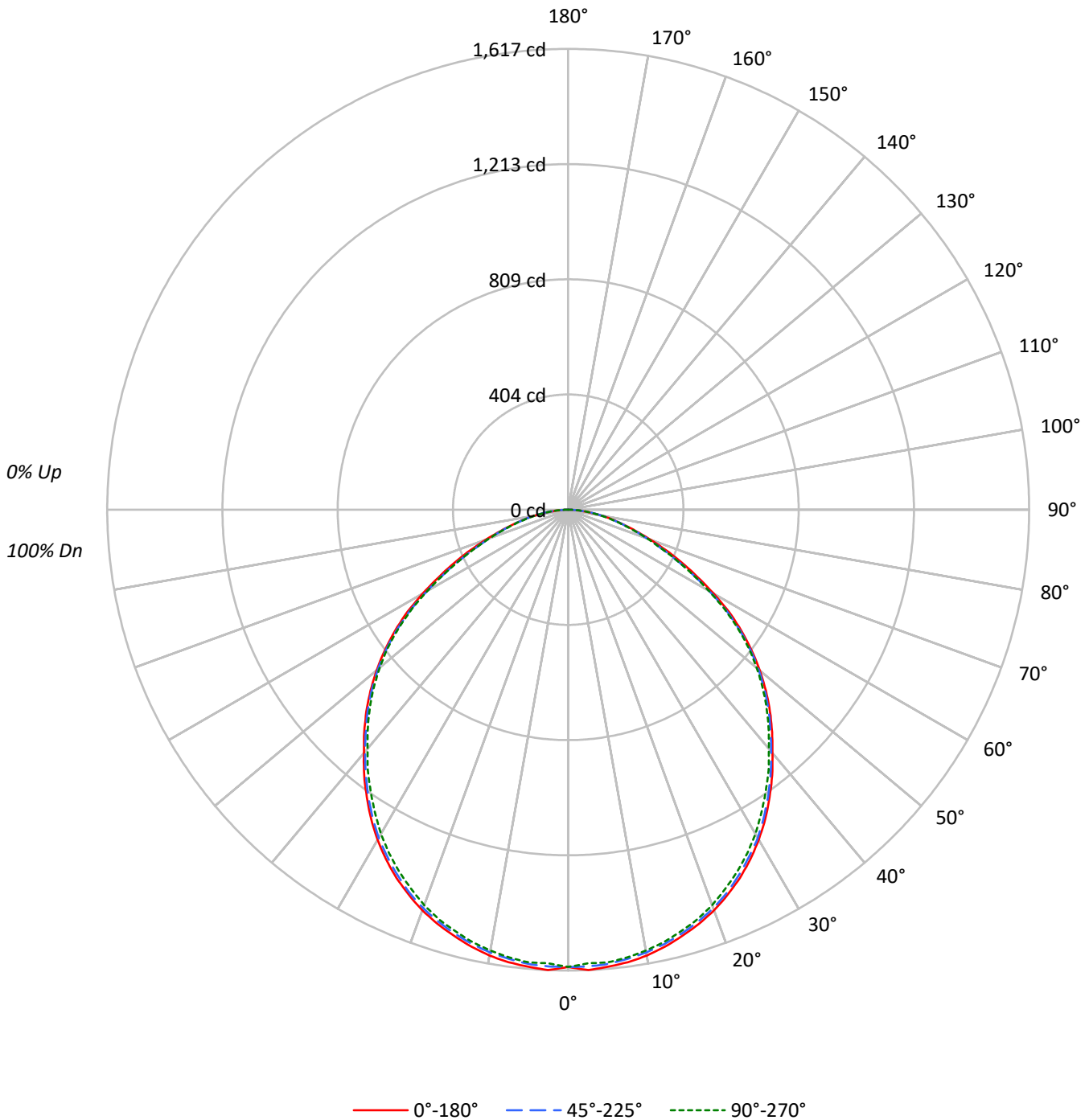
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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CATALOG NUMBER: SQ4R-PP3-100D-93050-1-UNV-STD-W-4_5000K

Luminous Intensity Polar Plot



TEST NUMBER: P688838

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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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 109 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 98 | 95 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 | | | | 85 |
| 2 | 100 | 92 | 86 | 80 | 97 | 90 | 84 | 79 | 87 | 82 | 77 | 84 | 79 | 76 | 81 | 77 | 74 | 72 | | | | 72 |
| 3 | 92 | 81 | 74 | 67 | 89 | 80 | 73 | 67 | 77 | 71 | 66 | 74 | 69 | 64 | 72 | 67 | 63 | 61 | | | | 61 |
| 4 | 84 | 72 | 64 | 57 | 82 | 71 | 63 | 57 | 69 | 62 | 56 | 66 | 60 | 56 | 64 | 59 | 55 | 53 | | | | 53 |
| 5 | 77 | 65 | 56 | 50 | 75 | 64 | 56 | 50 | 62 | 55 | 49 | 60 | 53 | 48 | 58 | 52 | 48 | 46 | | | | 46 |
| 6 | 72 | 59 | 50 | 44 | 70 | 58 | 49 | 43 | 56 | 49 | 43 | 54 | 48 | 43 | 53 | 47 | 42 | 40 | | | | 40 |
| 7 | 66 | 53 | 45 | 39 | 65 | 52 | 44 | 39 | 51 | 44 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 | | | | 36 |
| 8 | 62 | 49 | 40 | 35 | 60 | 48 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 | | | | 32 |
| 9 | 58 | 45 | 37 | 31 | 56 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 29 | | | | 29 |
| 10 | 54 | 41 | 34 | 28 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 | | | | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 15444 | 15444 | 15444 |
| 5° | 15557 | 15463 | 15408 |
| 10° | 15531 | 15421 | 15353 |
| 15° | 15429 | 15344 | 15260 |
| 20° | 15326 | 15240 | 15125 |
| 25° | 15144 | 15039 | 14890 |
| 30° | 14864 | 14785 | 14598 |
| 35° | 14475 | 14376 | 14194 |
| 40° | 14012 | 13924 | 13764 |
| 45° | 13629 | 13533 | 13400 |
| 50° | 13140 | 13056 | 12930 |
| 55° | 12459 | 12295 | 12201 |
| 60° | 11343 | 11018 | 10964 |
| 65° | 9994 | 9577 | 9545 |
| 70° | 8628 | 8270 | 8270 |
| 75° | 7425 | 7320 | 7216 |
| 80° | 6548 | 6625 | 6470 |
| 85° | 5125 | 5589 | 5589 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13629 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 151.8 | 3.7 |
| 10°-20° | 433.4 | 10.6 |
| 20°-30° | 649.2 | 15.8 |
| 30°-40° | 761.3 | 18.5 |
| 40°-50° | 763.7 | 18.6 |
| 50°-60° | 652.1 | 15.9 |
| 60°-70° | 423.8 | 10.3 |
| 70°-80° | 212.2 | 5.2 |
| 80°-90° | 58.2 | 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° | 1234.3 | 30.1 |
| 0°-40° | 1995.7 | 48.6 |
| 0°-60° | 3411.5 | 83.1 |
| 0°-90° | 4105.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4105.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1604 | 1604 | 1604 | 1604 | 1604 | |
| 5° | 1610 | 1594 | 1600 | 1594 | 1594 | 153 |
| 15° | 1548 | 1532 | 1540 | 1534 | 1531 | 437 |
| 25° | 1426 | 1409 | 1416 | 1403 | 1402 | 656 |
| 35° | 1232 | 1219 | 1223 | 1209 | 1208 | 770 |
| 45° | 1001 | 994 | 994 | 984 | 984 | 771 |
| 55° | 742 | 740 | 732 | 728 | 727 | 661 |
| 65° | 439 | 430 | 420 | 418 | 419 | 437 |
| 75° | 200 | 200 | 197 | 195 | 194 | 216 |
| 85° | 46 | 51 | 51 | 51 | 51 | 55 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P688838

CATALOG NUMBER: SQ4R-PP3-100D-93050-1-UNV-STD-W-4_5000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1604.2 | 1604.2 | 1604.2 | 1604.2 | 1604.2 |
| 2.5° | 1616.9 | 1600.0 | 1604.2 | 1601.4 | 1593.0 |
| 5° | 1609.8 | 1594.4 | 1600.0 | 1594.4 | 1594.4 |
| 7.5° | 1601.4 | 1584.5 | 1590.1 | 1584.5 | 1584.5 |
| 10° | 1588.7 | 1571.9 | 1577.5 | 1571.9 | 1570.5 |
| 12.5° | 1570.5 | 1553.6 | 1560.6 | 1553.6 | 1553.6 |
| 15° | 1548.0 | 1532.5 | 1539.5 | 1533.9 | 1531.1 |
| 17.5° | 1524.1 | 1507.2 | 1515.6 | 1508.6 | 1507.2 |
| 20° | 1495.9 | 1479.1 | 1487.5 | 1476.3 | 1476.3 |
| 22.5° | 1462.2 | 1445.3 | 1455.2 | 1439.7 | 1439.7 |
| 25° | 1425.6 | 1408.8 | 1415.8 | 1403.2 | 1401.7 |
| 27.5° | 1383.5 | 1366.6 | 1373.6 | 1359.6 | 1359.6 |
| 30° | 1337.1 | 1321.6 | 1330.0 | 1314.6 | 1313.2 |
| 32.5° | 1286.5 | 1272.4 | 1278.0 | 1262.6 | 1261.1 |
| 35° | 1231.6 | 1219.0 | 1223.2 | 1209.1 | 1207.7 |
| 37.5° | 1175.4 | 1161.3 | 1166.9 | 1154.3 | 1154.3 |
| 40° | 1114.9 | 1106.5 | 1107.9 | 1098.1 | 1095.2 |
| 42.5° | 1058.7 | 1048.8 | 1050.3 | 1040.4 | 1040.4 |
| 45° | 1001.0 | 994.0 | 994.0 | 984.2 | 984.2 |
| 47.5° | 940.6 | 935.0 | 933.6 | 925.1 | 925.1 |
| 50° | 877.3 | 873.1 | 871.7 | 864.7 | 863.3 |
| 52.5° | 811.2 | 809.8 | 804.2 | 798.6 | 798.6 |
| 55° | 742.3 | 739.5 | 732.5 | 728.3 | 726.9 |
| 57.5° | 669.2 | 663.6 | 656.6 | 649.6 | 651.0 |
| 60° | 589.1 | 583.5 | 572.2 | 569.4 | 569.4 |
| 62.5° | 511.8 | 504.7 | 493.5 | 489.3 | 492.1 |
| 65° | 438.7 | 430.2 | 420.4 | 417.6 | 419.0 |
| 67.5° | 371.2 | 362.7 | 351.5 | 351.5 | 350.1 |
| 70° | 306.5 | 302.3 | 293.8 | 293.8 | 293.8 |
| 72.5° | 248.9 | 247.4 | 241.8 | 241.8 | 240.4 |
| 75° | 199.6 | 199.6 | 196.8 | 195.4 | 194.0 |
| 77.5° | 157.5 | 157.5 | 156.1 | 154.7 | 151.8 |
| 80° | 118.1 | 120.9 | 119.5 | 118.1 | 116.7 |
| 82.5° | 81.5 | 84.4 | 84.4 | 81.5 | 81.5 |
| 85° | 46.4 | 50.6 | 50.6 | 50.6 | 50.6 |
| 87.5° | 15.5 | 21.1 | 22.5 | 22.5 | 23.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)