

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: P845662

Luminaire Tested: SQ2R-WBM-050D-935-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845662
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P559733)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-WBM-050D-935-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, DISCREET OPTICS - WHITE BAFFLE, WIDE 80-DEGREE OPTIC
500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

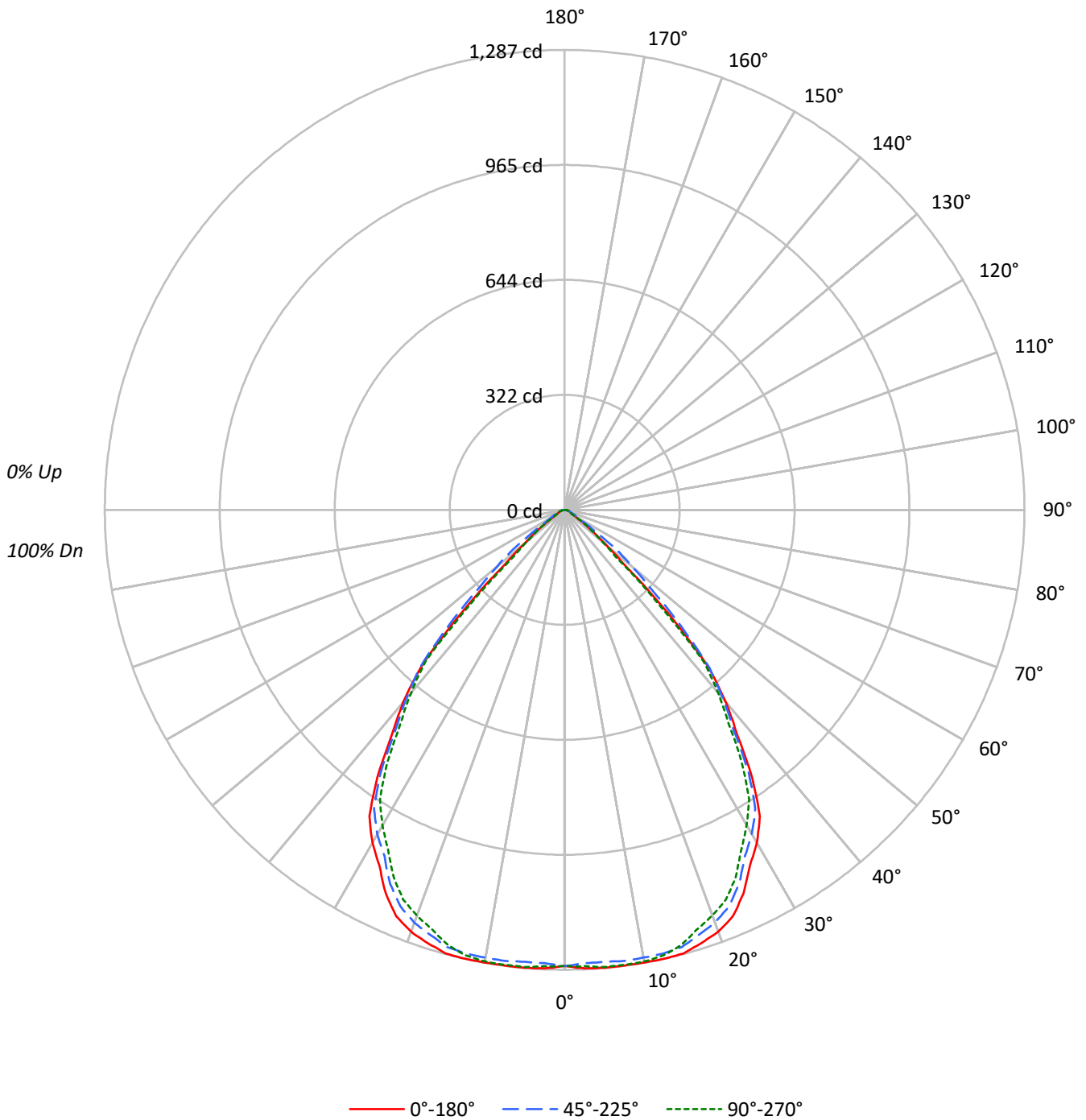
Lumens per Lamp: N/A
Luminaire Lumens: 2009.8 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.19 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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 | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 94 | 93 | 91 |
| 2 | 106 | 100 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 91 | 88 | 92 | 89 | 86 | 89 | 87 | 85 | 83 |
| 3 | 99 | 92 | 86 | 81 | 97 | 90 | 85 | 80 | 87 | 83 | 79 | 85 | 81 | 78 | 83 | 79 | 77 | 75 |
| 4 | 93 | 84 | 78 | 73 | 91 | 83 | 77 | 72 | 81 | 75 | 71 | 78 | 74 | 70 | 77 | 73 | 70 | 68 |
| 5 | 87 | 77 | 70 | 65 | 85 | 76 | 70 | 65 | 74 | 69 | 64 | 73 | 68 | 64 | 71 | 67 | 63 | 62 |
| 6 | 82 | 71 | 64 | 59 | 80 | 70 | 64 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 66 | 61 | 58 | 56 |
| 7 | 77 | 66 | 59 | 54 | 75 | 65 | 59 | 54 | 64 | 58 | 54 | 63 | 57 | 53 | 61 | 57 | 53 | 51 |
| 8 | 72 | 61 | 54 | 49 | 71 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 47 |
| 9 | 68 | 57 | 50 | 45 | 67 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 43 |
| 10 | 64 | 53 | 46 | 42 | 63 | 53 | 46 | 42 | 52 | 46 | 42 | 51 | 45 | 42 | 50 | 45 | 41 | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 20617 | 20617 | 20617 |
| 5° | 20844 | 20577 | 20815 |
| 10° | 21086 | 20859 | 21040 |
| 15° | 21483 | 21175 | 21083 |
| 20° | 21594 | 21122 | 20759 |
| 25° | 21098 | 20576 | 20184 |
| 30° | 20064 | 19535 | 19003 |
| 35° | 18031 | 17688 | 17055 |
| 40° | 14819 | 14509 | 14086 |
| 45° | 9378 | 10529 | 8455 |
| 50° | 3637 | 6194 | 3338 |
| 55° | 1754 | 2812 | 1782 |
| 60° | 830 | 1392 | 769 |
| 65° | 737 | 806 | 699 |
| 70° | 736 | 736 | 694 |
| 75° | 686 | 742 | 630 |
| 80° | 679 | 679 | 595 |
| 85° | 685 | 685 | 519 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10529 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 122.3 | 6.1 |
| 10°-20° | 358.7 | 17.8 |
| 20°-30° | 531.2 | 26.4 |
| 30°-40° | 550.3 | 27.4 |
| 40°-50° | 330.8 | 16.5 |
| 50°-60° | 79.1 | 3.9 |
| 60°-70° | 21.6 | 1.1 |
| 70°-80° | 12.0 | 0.6 |
| 80°-90° | 3.9 | 0.2 |
| 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° | 1012.3 | 50.4 |
| 0°-40° | 1562.6 | 77.7 |
| 0°-60° | 1972.4 | 98.1 |
| 0°-90° | 2009.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2009.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1277 | 1277 | 1277 | 1277 | 1277 | |
| 5° | 1286 | 1282 | 1270 | 1286 | 1284 | 123 |
| 15° | 1285 | 1293 | 1267 | 1268 | 1261 | 362 |
| 25° | 1184 | 1195 | 1155 | 1140 | 1133 | 542 |
| 35° | 915 | 913 | 897 | 881 | 865 | 563 |
| 45° | 411 | 461 | 461 | 437 | 370 | 314 |
| 55° | 62 | 71 | 100 | 67 | 63 | 64 |
| 65° | 19 | 20 | 21 | 19 | 18 | 20 |
| 75° | 11 | 12 | 12 | 11 | 10 | 12 |
| 85° | 4 | 4 | 4 | 4 | 3 | 4 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1276.9 | 1276.9 | 1276.9 | 1276.9 | 1276.9 |
| 2.5° | 1284.3 | 1279.9 | 1269.6 | 1281.2 | 1278.4 |
| 5° | 1286.1 | 1281.6 | 1269.6 | 1286.1 | 1284.3 |
| 7.5° | 1286.1 | 1283.2 | 1273.1 | 1286.7 | 1284.1 |
| 10° | 1286.1 | 1286.1 | 1272.3 | 1286.0 | 1283.3 |
| 12.5° | 1286.8 | 1290.4 | 1271.6 | 1281.6 | 1277.5 |
| 15° | 1285.2 | 1293.2 | 1266.8 | 1267.6 | 1261.3 |
| 17.5° | 1271.4 | 1284.0 | 1247.6 | 1240.3 | 1231.6 |
| 20° | 1256.8 | 1269.3 | 1229.3 | 1215.3 | 1208.2 |
| 22.5° | 1231.1 | 1244.4 | 1201.4 | 1188.2 | 1180.3 |
| 25° | 1184.3 | 1195.1 | 1155.0 | 1140.2 | 1133.0 |
| 27.5° | 1122.4 | 1127.2 | 1092.5 | 1078.6 | 1070.7 |
| 30° | 1076.2 | 1075.3 | 1047.8 | 1030.1 | 1019.3 |
| 32.5° | 1016.8 | 1018.1 | 992.8 | 975.7 | 961.4 |
| 35° | 914.8 | 913.0 | 897.4 | 880.6 | 865.3 |
| 37.5° | 793.3 | 794.6 | 777.9 | 760.0 | 754.1 |
| 40° | 703.1 | 705.7 | 688.4 | 669.2 | 668.3 |
| 42.5° | 593.1 | 613.0 | 600.4 | 580.3 | 576.6 |
| 45° | 410.7 | 460.9 | 461.1 | 436.7 | 370.3 |
| 47.5° | 228.4 | 291.1 | 328.7 | 259.2 | 193.8 |
| 50° | 144.8 | 186.1 | 246.6 | 155.3 | 132.9 |
| 52.5° | 103.0 | 123.5 | 182.8 | 110.8 | 97.0 |
| 55° | 62.3 | 71.3 | 99.9 | 66.8 | 63.3 |
| 57.5° | 38.1 | 46.0 | 58.5 | 45.3 | 37.8 |
| 60° | 25.7 | 32.8 | 43.1 | 29.2 | 23.8 |
| 62.5° | 22.7 | 24.8 | 33.6 | 23.5 | 21.6 |
| 65° | 19.3 | 20.2 | 21.1 | 19.3 | 18.3 |
| 67.5° | 17.1 | 18.0 | 17.8 | 17.1 | 16.1 |
| 70° | 15.6 | 16.5 | 15.6 | 15.6 | 14.7 |
| 72.5° | 14.1 | 14.3 | 14.1 | 13.4 | 13.2 |
| 75° | 11.0 | 11.9 | 11.9 | 11.0 | 10.1 |
| 77.5° | 8.8 | 9.5 | 8.8 | 8.8 | 7.9 |
| 80° | 7.3 | 7.3 | 7.3 | 7.3 | 6.4 |
| 82.5° | 5.9 | 5.9 | 5.9 | 5.9 | 5.0 |
| 85° | 3.7 | 3.7 | 3.7 | 3.7 | 2.8 |
| 87.5° | 1.5 | 1.5 | 1.5 | 0.7 | 0.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|------|------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X=2H | Y=2H | 7.63 | 8.81 | 7.99 | 9.12 | 9.44 | 7.23 | 8.41 | 7.59 | 8.72 | 9.03 |
| | 3H | 8.17 | 9.21 | 8.55 | 9.54 | 9.91 | 7.77 | 8.81 | 8.15 | 9.14 | 9.51 |
| | 4H | 8.44 | 9.40 | 8.84 | 9.75 | 10.14 | 8.03 | 8.99 | 8.43 | 9.34 | 9.72 |
| | 6H | 8.66 | 9.54 | 9.08 | 9.91 | 10.31 | 8.23 | 9.11 | 8.65 | 9.48 | 9.88 |
| | 8H | 8.75 | 9.57 | 9.18 | 9.97 | 10.37 | 8.30 | 9.13 | 8.73 | 9.52 | 9.93 |
| | 12H | 8.80 | 9.60 | 9.24 | 9.98 | 10.41 | 8.33 | 9.12 | 8.77 | 9.51 | 9.94 |
| 4H | 2H | 7.69 | 8.65 | 8.09 | 9.00 | 9.39 | 7.32 | 8.28 | 7.72 | 8.63 | 9.02 |
| | 3H | 8.45 | 9.22 | 8.86 | 9.63 | 10.03 | 8.09 | 8.86 | 8.50 | 9.27 | 9.67 |
| | 4H | 8.84 | 9.53 | 9.28 | 9.95 | 10.40 | 8.46 | 9.15 | 8.90 | 9.57 | 10.02 |
| | 6H | 9.20 | 9.79 | 9.66 | 10.24 | 10.71 | 8.80 | 9.39 | 9.27 | 9.84 | 10.31 |
| | 8H | 9.32 | 9.88 | 9.80 | 10.33 | 10.80 | 8.91 | 9.47 | 9.39 | 9.91 | 10.39 |
| | 12H | 9.43 | 9.91 | 9.92 | 10.40 | 10.88 | 8.99 | 9.47 | 9.48 | 9.96 | 10.43 |
| 8H | 4H | 8.94 | 9.49 | 9.41 | 9.94 | 10.41 | 8.59 | 9.14 | 9.06 | 9.59 | 10.06 |
| | 6H | 9.40 | 9.85 | 9.90 | 10.35 | 10.83 | 9.04 | 9.49 | 9.55 | 9.99 | 10.48 |
| | 8H | 9.60 | 10.00 | 10.12 | 10.52 | 11.01 | 9.23 | 9.64 | 9.76 | 10.16 | 10.65 |
| | 12H | 9.79 | 10.14 | 10.30 | 10.64 | 11.22 | 9.39 | 9.75 | 9.91 | 10.25 | 10.82 |
| 12H | 4H | 8.92 | 9.40 | 9.41 | 9.89 | 10.37 | 8.58 | 9.06 | 9.07 | 9.55 | 10.02 |
| | 6H | 9.41 | 9.81 | 9.93 | 10.33 | 10.82 | 9.06 | 9.47 | 9.59 | 9.98 | 10.48 |
| | 8H | 9.66 | 10.02 | 10.18 | 10.51 | 11.09 | 9.31 | 9.67 | 9.83 | 10.16 | 10.74 |