

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: P845667

Luminaire Tested: SQ2R-WBM-100D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845667
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-100D-930-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, DISCREET OPTICS - WHITE BAFFLE, WIDE 80-DEGREE OPTIC
1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

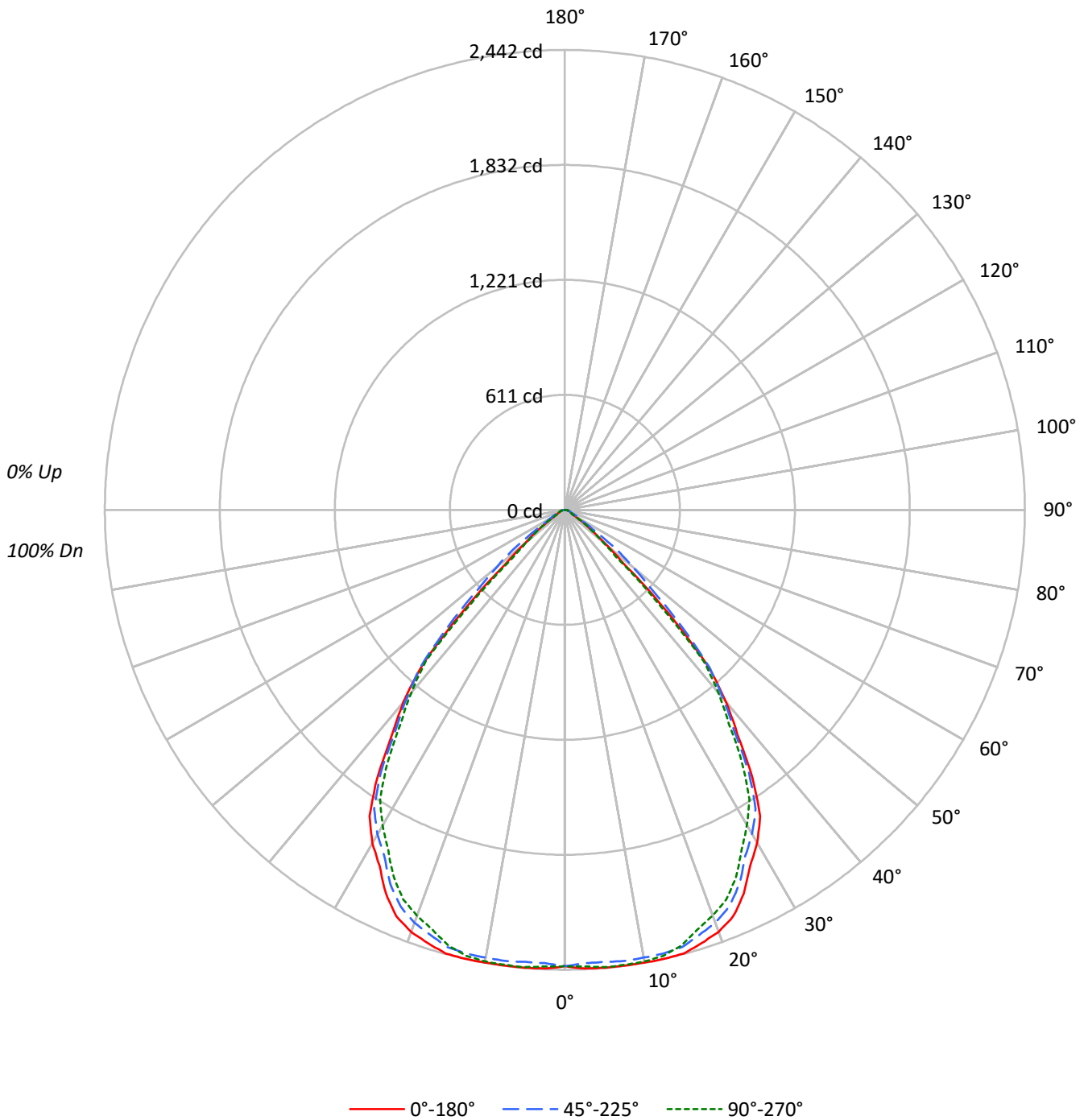
Lumens per Lamp: N/A
Luminaire Lumens: 3814.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.19 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.9
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 | 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 | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 94 | 93 | 91 | | | | 91 |
| 2 | 106 | 100 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 91 | 88 | 92 | 89 | 86 | 89 | 87 | 85 | 83 | | | | 83 |
| 3 | 99 | 92 | 86 | 81 | 97 | 90 | 85 | 80 | 87 | 83 | 79 | 85 | 81 | 78 | 83 | 79 | 77 | 75 | | | | 75 |
| 4 | 93 | 84 | 78 | 73 | 91 | 83 | 77 | 72 | 81 | 75 | 71 | 78 | 74 | 70 | 77 | 73 | 70 | 68 | | | | 68 |
| 5 | 87 | 77 | 70 | 65 | 85 | 76 | 70 | 65 | 74 | 69 | 64 | 73 | 68 | 64 | 71 | 67 | 63 | 62 | | | | 62 |
| 6 | 82 | 71 | 64 | 59 | 80 | 70 | 64 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 66 | 61 | 58 | 56 | | | | 56 |
| 7 | 77 | 66 | 59 | 54 | 75 | 65 | 59 | 54 | 64 | 58 | 54 | 63 | 57 | 53 | 61 | 57 | 53 | 51 | | | | 51 |
| 8 | 72 | 61 | 54 | 49 | 71 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 47 | | | | 47 |
| 9 | 68 | 57 | 50 | 45 | 67 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 43 | | | | 43 |
| 10 | 64 | 53 | 46 | 42 | 63 | 53 | 46 | 42 | 52 | 46 | 42 | 51 | 45 | 42 | 50 | 45 | 41 | 40 | | | | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 39126 | 39126 | 39126 |
| 5° | 39558 | 39050 | 39501 |
| 10° | 40015 | 39587 | 39930 |
| 15° | 40767 | 40186 | 40012 |
| 20° | 40979 | 40082 | 39395 |
| 25° | 40041 | 39049 | 38306 |
| 30° | 38076 | 37071 | 36066 |
| 35° | 34219 | 33569 | 32368 |
| 40° | 28123 | 27537 | 26730 |
| 45° | 17794 | 19979 | 16048 |
| 50° | 6905 | 11755 | 6335 |
| 55° | 3330 | 5337 | 3378 |
| 60° | 1573 | 2641 | 1460 |
| 65° | 1394 | 1528 | 1330 |
| 70° | 1397 | 1397 | 1312 |
| 75° | 1304 | 1410 | 1192 |
| 80° | 1292 | 1292 | 1134 |
| 85° | 1297 | 1297 | 963 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 19979 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 232.1 | 6.1 |
| 10°-20° | 680.8 | 17.8 |
| 20°-30° | 1008.1 | 26.4 |
| 30°-40° | 1044.3 | 27.4 |
| 40°-50° | 627.7 | 16.5 |
| 50°-60° | 150.1 | 3.9 |
| 60°-70° | 40.9 | 1.1 |
| 70°-80° | 22.8 | 0.6 |
| 80°-90° | 7.3 | 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° | 1921.0 | 50.4 |
| 0°-40° | 2965.3 | 77.7 |
| 0°-60° | 3743.1 | 98.1 |
| 0°-90° | 3814.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3814.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2423 | 2423 | 2423 | 2423 | 2423 | |
| 5° | 2441 | 2432 | 2409 | 2441 | 2437 | 233 |
| 15° | 2439 | 2454 | 2404 | 2406 | 2394 | 687 |
| 25° | 2248 | 2268 | 2192 | 2164 | 2150 | 1028 |
| 35° | 1736 | 1733 | 1703 | 1671 | 1642 | 1068 |
| 45° | 779 | 875 | 875 | 829 | 703 | 596 |
| 55° | 118 | 135 | 190 | 127 | 120 | 121 |
| 65° | 36 | 38 | 40 | 36 | 35 | 37 |
| 75° | 21 | 23 | 23 | 21 | 19 | 23 |
| 85° | 7 | 7 | 7 | 7 | 5 | 8 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: SQ2R-WBM-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2423.3 | 2423.3 | 2423.3 | 2423.3 | 2423.3 |
| 2.5° | 2437.2 | 2429.0 | 2409.4 | 2431.5 | 2426.1 |
| 5° | 2440.7 | 2432.2 | 2409.4 | 2440.7 | 2437.2 |
| 7.5° | 2440.7 | 2435.3 | 2416.0 | 2441.9 | 2436.9 |
| 10° | 2440.7 | 2440.7 | 2414.6 | 2440.5 | 2435.5 |
| 12.5° | 2442.1 | 2448.9 | 2413.2 | 2432.2 | 2424.3 |
| 15° | 2438.9 | 2454.2 | 2404.1 | 2405.5 | 2393.7 |
| 17.5° | 2412.8 | 2436.7 | 2367.6 | 2353.7 | 2337.3 |
| 20° | 2385.0 | 2408.8 | 2332.8 | 2306.4 | 2292.8 |
| 22.5° | 2336.3 | 2361.5 | 2279.9 | 2254.9 | 2239.9 |
| 25° | 2247.6 | 2267.9 | 2191.9 | 2163.7 | 2150.2 |
| 27.5° | 2130.0 | 2139.2 | 2073.3 | 2046.8 | 2031.9 |
| 30° | 2042.3 | 2040.6 | 1988.4 | 1954.8 | 1934.5 |
| 32.5° | 1929.6 | 1932.0 | 1884.0 | 1851.6 | 1824.5 |
| 35° | 1736.1 | 1732.7 | 1703.1 | 1671.1 | 1642.2 |
| 37.5° | 1505.5 | 1507.9 | 1476.2 | 1442.3 | 1431.0 |
| 40° | 1334.3 | 1339.3 | 1306.5 | 1269.9 | 1268.2 |
| 42.5° | 1125.5 | 1163.3 | 1139.4 | 1101.4 | 1094.2 |
| 45° | 779.3 | 874.7 | 875.0 | 828.8 | 702.8 |
| 47.5° | 433.5 | 552.5 | 623.8 | 492.0 | 367.8 |
| 50° | 274.9 | 353.1 | 468.0 | 294.7 | 252.2 |
| 52.5° | 195.5 | 234.3 | 346.9 | 210.3 | 184.1 |
| 55° | 118.3 | 135.3 | 189.6 | 126.8 | 120.0 |
| 57.5° | 72.4 | 87.3 | 111.0 | 85.9 | 71.7 |
| 60° | 48.7 | 62.3 | 81.8 | 55.5 | 45.2 |
| 62.5° | 43.1 | 47.1 | 63.7 | 44.5 | 41.1 |
| 65° | 36.5 | 38.3 | 40.0 | 36.5 | 34.8 |
| 67.5° | 32.4 | 34.1 | 33.7 | 32.4 | 30.6 |
| 70° | 29.6 | 31.3 | 29.6 | 29.6 | 27.8 |
| 72.5° | 26.8 | 27.1 | 26.8 | 25.4 | 25.1 |
| 75° | 20.9 | 22.6 | 22.6 | 20.9 | 19.1 |
| 77.5° | 16.7 | 18.1 | 16.7 | 16.7 | 15.0 |
| 80° | 13.9 | 13.9 | 13.9 | 13.9 | 12.2 |
| 82.5° | 11.1 | 11.1 | 11.1 | 11.1 | 9.4 |
| 85° | 7.0 | 7.0 | 7.0 | 7.0 | 5.2 |
| 87.5° | 2.8 | 2.8 | 2.8 | 1.4 | 1.4 |
| 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 | 9.86 | 11.04 | 10.22 | 11.35 | 11.66 | 9.45 | 10.63 | 9.82 | 10.95 | 11.26 |
| | 3H | 10.40 | 11.43 | 10.78 | 11.77 | 12.13 | 10.00 | 11.03 | 10.38 | 11.37 | 11.73 |
| | 4H | 10.67 | 11.62 | 11.07 | 11.98 | 12.36 | 10.25 | 11.21 | 10.66 | 11.56 | 11.95 |
| | 6H | 10.89 | 11.77 | 11.31 | 12.14 | 12.54 | 10.46 | 11.34 | 10.87 | 11.71 | 12.10 |
| | 8H | 10.97 | 11.80 | 11.41 | 12.19 | 12.60 | 10.52 | 11.35 | 10.96 | 11.74 | 12.15 |
| | 12H | 11.03 | 11.82 | 11.47 | 12.21 | 12.64 | 10.56 | 11.35 | 10.99 | 11.73 | 12.16 |
| 4H | 2H | 9.91 | 10.87 | 10.32 | 11.23 | 11.61 | 9.55 | 10.51 | 9.95 | 10.86 | 11.25 |
| | 3H | 10.67 | 11.45 | 11.09 | 11.85 | 12.26 | 10.31 | 11.09 | 10.73 | 11.49 | 11.90 |
| | 4H | 11.07 | 11.76 | 11.50 | 12.18 | 12.62 | 10.69 | 11.38 | 11.12 | 11.80 | 12.24 |
| | 6H | 11.42 | 12.02 | 11.89 | 12.46 | 12.93 | 11.03 | 11.62 | 11.49 | 12.07 | 12.54 |
| | 8H | 11.55 | 12.11 | 12.03 | 12.55 | 13.03 | 11.14 | 11.69 | 11.61 | 12.14 | 12.61 |
| | 12H | 11.66 | 12.14 | 12.15 | 12.63 | 13.10 | 11.21 | 11.70 | 11.70 | 12.18 | 12.66 |
| 8H | 4H | 11.16 | 11.72 | 11.64 | 12.16 | 12.64 | 10.81 | 11.37 | 11.29 | 11.81 | 12.29 |
| | 6H | 11.63 | 12.08 | 12.13 | 12.58 | 13.06 | 11.27 | 11.72 | 11.78 | 12.22 | 12.70 |
| | 8H | 11.83 | 12.23 | 12.35 | 12.75 | 13.24 | 11.46 | 11.87 | 11.99 | 12.38 | 12.88 |
| | 12H | 12.02 | 12.37 | 12.53 | 12.87 | 13.44 | 11.62 | 11.97 | 12.13 | 12.47 | 13.05 |
| 12H | 4H | 11.15 | 11.63 | 11.64 | 12.12 | 12.59 | 10.80 | 11.29 | 11.29 | 11.77 | 12.25 |
| | 6H | 11.63 | 12.04 | 12.16 | 12.56 | 13.05 | 11.29 | 11.69 | 11.82 | 12.21 | 12.71 |
| | 8H | 11.89 | 12.25 | 12.41 | 12.74 | 13.32 | 11.54 | 11.89 | 12.06 | 12.39 | 12.97 |