

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: P845530

Luminaire Tested: SQ2R-FB-100D-835-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845530
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-12)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-FB-100D-835-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, BATWING LENS
1000 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

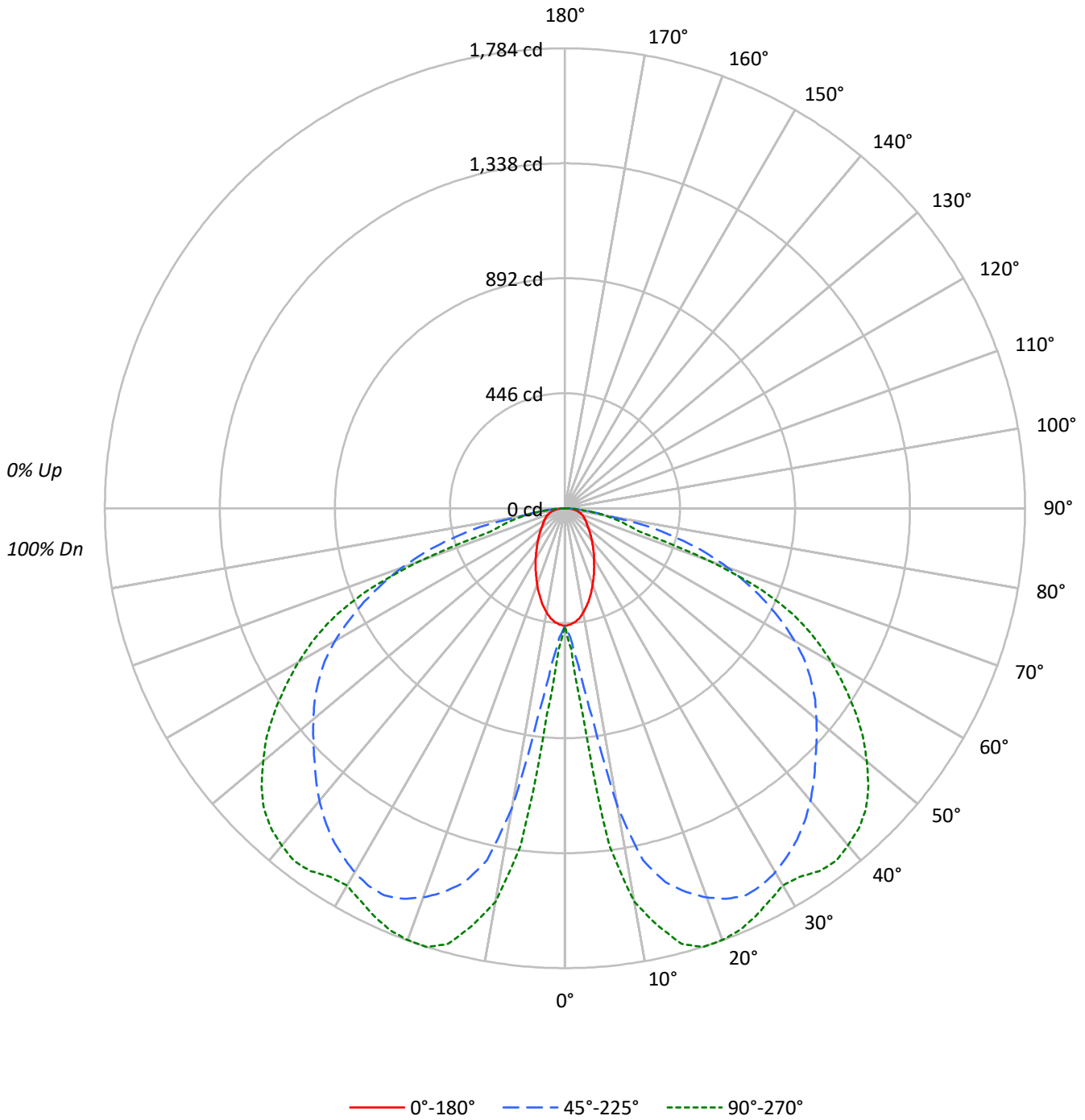
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4521.0 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 2.99 / 2.56
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9969
Total Harmonic Distortion (THDi): 0.066
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





TEST NUMBER: P845530

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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 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 84 | | | | 84 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 | | | | 69 |
| 3 | 89 | 78 | 70 | 63 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 65 | 60 | 68 | 64 | 59 | 57 | | | | 57 |
| 4 | 81 | 69 | 60 | 53 | 79 | 67 | 59 | 52 | 65 | 58 | 52 | 63 | 56 | 51 | 60 | 55 | 50 | 48 | | | | 48 |
| 5 | 74 | 61 | 52 | 45 | 72 | 60 | 51 | 45 | 58 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 43 | 41 | | | | 41 |
| 6 | 68 | 54 | 45 | 39 | 66 | 53 | 45 | 38 | 52 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 35 | | | | 35 |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 33 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 31 | | | | 31 |
| 8 | 58 | 44 | 36 | 30 | 57 | 44 | 35 | 29 | 42 | 35 | 29 | 41 | 34 | 29 | 40 | 34 | 29 | 27 | | | | 27 |
| 9 | 54 | 40 | 32 | 26 | 53 | 40 | 32 | 26 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 24 | | | | 24 |
| 10 | 51 | 37 | 29 | 23 | 49 | 37 | 29 | 23 | 36 | 28 | 23 | 35 | 28 | 23 | 34 | 28 | 23 | 21 | | | | 21 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|-------|-------|
| 0° | 7371 | 7371 | 7371 |
| 5° | 7186 | 9961 | 13055 |
| 10° | 6730 | 19289 | 25406 |
| 15° | 6091 | 25095 | 29242 |
| 20° | 5393 | 27606 | 30624 |
| 25° | 4771 | 29523 | 31126 |
| 30° | 4215 | 30404 | 31510 |
| 35° | 3765 | 30934 | 33874 |
| 40° | 3423 | 31228 | 35993 |
| 45° | 3158 | 31373 | 37689 |
| 50° | 2977 | 31978 | 38373 |
| 55° | 2905 | 32808 | 38677 |
| 60° | 2977 | 33241 | 38485 |
| 65° | 3102 | 32787 | 37398 |
| 70° | 3210 | 31704 | 28287 |
| 75° | 3562 | 28478 | 15608 |
| 80° | 3673 | 14691 | 14486 |
| 85° | 3668 | 10170 | 6095 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 55°
 Luminance: 38677 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 75.2 | 1.7 |
| 10°-20° | 350.4 | 7.8 |
| 20°-30° | 616.9 | 13.6 |
| 30°-40° | 797.8 | 17.6 |
| 40°-50° | 880.0 | 19.5 |
| 50°-60° | 820.8 | 18.2 |
| 60°-70° | 635.2 | 14.1 |
| 70°-80° | 290.3 | 6.4 |
| 80°-90° | 54.3 | 1.2 |
| 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° | 1042.5 | 23.1 |
| 0°-40° | 1840.3 | 40.7 |
| 0°-60° | 3541.2 | 78.3 |
| 0°-90° | 4521.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4521.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|------|-------|------|------|
| 0° | 456 | 456 | 456 | 456 | 456 | |
| 5° | 443 | 509 | 615 | 748 | 806 | 41 |
| 15° | 364 | 726 | 1501 | 1679 | 1749 | 102 |
| 25° | 268 | 981 | 1657 | 1730 | 1747 | 123 |
| 35° | 191 | 948 | 1569 | 1622 | 1719 | 120 |
| 45° | 138 | 726 | 1374 | 1576 | 1651 | 107 |
| 55° | 103 | 432 | 1166 | 1339 | 1374 | 93 |
| 65° | 81 | 244 | 858 | 961 | 979 | 80 |
| 75° | 57 | 149 | 456 | 246 | 250 | 59 |
| 85° | 20 | 44 | 55 | 37 | 33 | 22 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P845530

CATALOG NUMBER: SQ2R-FB-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|--------|--------|--------|
| 0° | 456.5 | 456.5 | 456.5 | 456.5 | 456.5 |
| 2.5° | 452.2 | 476.3 | 502.6 | 533.4 | 546.5 |
| 5° | 443.4 | 509.2 | 614.6 | 748.5 | 805.5 |
| 7.5° | 430.2 | 550.9 | 823.1 | 1194.0 | 1321.4 |
| 10° | 410.5 | 597.0 | 1176.5 | 1488.2 | 1549.6 |
| 12.5° | 388.5 | 658.5 | 1398.2 | 1593.5 | 1657.2 |
| 15° | 364.4 | 726.5 | 1501.3 | 1679.1 | 1749.4 |
| 17.5° | 340.2 | 801.2 | 1560.6 | 1742.8 | 1784.5 |
| 20° | 313.9 | 880.2 | 1606.7 | 1758.1 | 1782.3 |
| 22.5° | 289.7 | 939.4 | 1639.6 | 1745.0 | 1771.3 |
| 25° | 267.8 | 981.1 | 1657.2 | 1729.6 | 1747.2 |
| 27.5° | 245.8 | 996.5 | 1650.6 | 1701.1 | 1716.4 |
| 30° | 226.1 | 992.1 | 1630.8 | 1666.0 | 1690.1 |
| 32.5° | 208.5 | 978.9 | 1602.3 | 1635.2 | 1694.5 |
| 35° | 191.0 | 948.2 | 1569.4 | 1622.1 | 1718.6 |
| 37.5° | 175.6 | 904.3 | 1527.7 | 1628.6 | 1725.2 |
| 40° | 162.4 | 853.8 | 1481.6 | 1628.6 | 1707.7 |
| 42.5° | 149.3 | 794.6 | 1428.9 | 1606.7 | 1685.7 |
| 45° | 138.3 | 726.5 | 1374.0 | 1576.0 | 1650.6 |
| 47.5° | 127.3 | 651.9 | 1323.5 | 1538.6 | 1595.7 |
| 50° | 118.5 | 575.1 | 1273.1 | 1483.8 | 1527.7 |
| 52.5° | 109.7 | 500.4 | 1222.6 | 1417.9 | 1457.4 |
| 55° | 103.2 | 432.4 | 1165.5 | 1338.9 | 1374.0 |
| 57.5° | 96.6 | 370.9 | 1104.1 | 1255.5 | 1284.0 |
| 60° | 92.2 | 322.7 | 1029.4 | 1163.3 | 1191.8 |
| 62.5° | 85.6 | 278.8 | 946.0 | 1066.7 | 1093.1 |
| 65° | 81.2 | 243.6 | 858.2 | 961.4 | 978.9 |
| 67.5° | 74.6 | 215.1 | 766.0 | 840.7 | 823.1 |
| 70° | 68.0 | 195.3 | 671.6 | 693.6 | 599.2 |
| 72.5° | 63.7 | 173.4 | 568.5 | 502.6 | 302.9 |
| 75° | 57.1 | 149.3 | 456.5 | 245.8 | 250.2 |
| 77.5° | 48.3 | 120.7 | 335.8 | 197.5 | 201.9 |
| 80° | 39.5 | 94.4 | 158.0 | 153.6 | 155.8 |
| 82.5° | 30.7 | 68.0 | 96.6 | 103.2 | 98.8 |
| 85° | 19.8 | 43.9 | 54.9 | 37.3 | 32.9 |
| 87.5° | 8.8 | 19.8 | 11.0 | 11.0 | 11.0 |
| 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 | 17.84 | 19.52 | 18.20 | 19.84 | 20.15 | 26.49 | 28.17 | 26.85 | 28.49 | 28.80 |
| | 3H | 18.62 | 20.15 | 19.00 | 20.47 | 20.83 | 28.18 | 29.70 | 28.55 | 30.02 | 30.38 |
| | 4H | 18.96 | 20.39 | 19.36 | 20.74 | 21.12 | 28.39 | 29.83 | 28.79 | 30.17 | 30.55 |
| | 6H | 19.22 | 20.55 | 19.63 | 20.91 | 21.30 | 28.52 | 29.85 | 28.93 | 30.21 | 30.60 |
| | 8H | 19.30 | 20.57 | 19.72 | 20.95 | 21.35 | 28.55 | 29.82 | 28.97 | 30.21 | 30.60 |
| | 12H | 19.35 | 20.57 | 19.78 | 20.95 | 21.38 | 28.55 | 29.76 | 28.98 | 30.14 | 30.57 |
| 4H | 2H | 22.27 | 23.71 | 22.67 | 24.05 | 24.43 | 27.03 | 28.46 | 27.43 | 28.81 | 29.19 |
| | 3H | 23.29 | 24.49 | 23.69 | 24.88 | 25.28 | 28.93 | 30.14 | 29.34 | 30.53 | 30.93 |
| | 4H | 23.61 | 24.69 | 24.04 | 25.10 | 25.54 | 29.21 | 30.29 | 29.64 | 30.70 | 31.14 |
| | 6H | 23.79 | 24.74 | 24.24 | 25.18 | 25.63 | 29.40 | 30.35 | 29.86 | 30.79 | 31.24 |
| | 8H | 23.83 | 24.72 | 24.29 | 25.16 | 25.62 | 29.45 | 30.33 | 29.91 | 30.77 | 31.24 |
| | 12H | 23.86 | 24.66 | 24.34 | 25.13 | 25.60 | 29.46 | 30.26 | 29.94 | 30.73 | 31.20 |
| 8H | 4H | 24.84 | 25.73 | 25.30 | 26.17 | 26.63 | 29.40 | 30.28 | 29.86 | 30.72 | 31.19 |
| | 6H | 25.12 | 25.85 | 25.62 | 26.34 | 26.82 | 29.64 | 30.37 | 30.13 | 30.86 | 31.33 |
| | 8H | 25.21 | 25.86 | 25.71 | 26.37 | 26.85 | 29.71 | 30.37 | 30.22 | 30.87 | 31.36 |
| | 12H | 25.27 | 25.85 | 25.78 | 26.34 | 26.90 | 29.74 | 30.32 | 30.25 | 30.81 | 31.37 |
| 12H | 4H | 24.90 | 25.70 | 25.38 | 26.17 | 26.64 | 29.39 | 30.18 | 29.87 | 30.66 | 31.13 |
| | 6H | 25.23 | 25.88 | 25.73 | 26.39 | 26.87 | 29.63 | 30.29 | 30.14 | 30.79 | 31.28 |
| | 8H | 25.37 | 25.95 | 25.88 | 26.44 | 27.00 | 29.74 | 30.32 | 30.25 | 30.81 | 31.37 |