

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: P853700

Luminaire Tested: SQ2-F-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853700
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

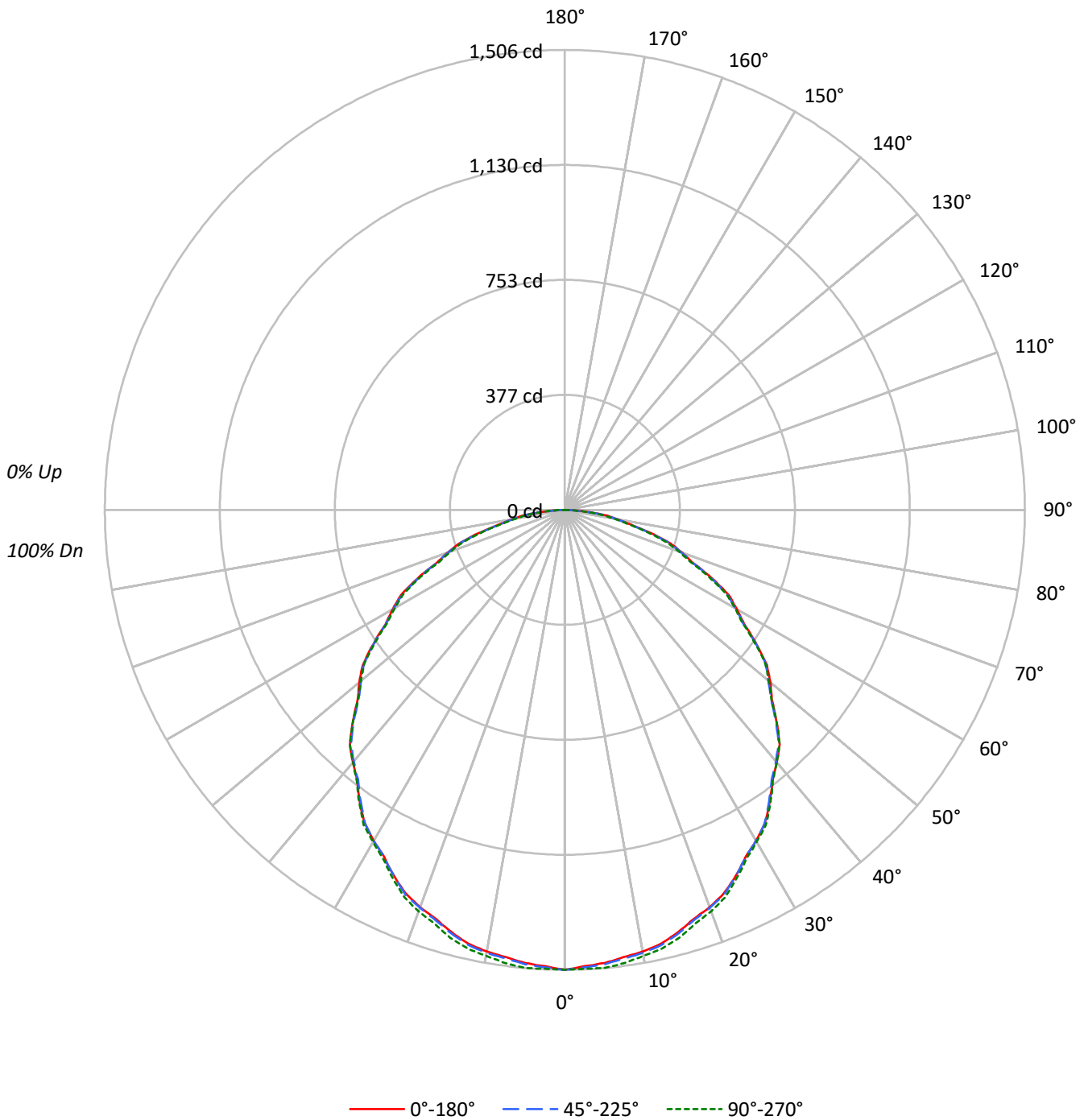
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4227.3 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
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: 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





TEST NUMBER: P853700

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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 | | | | |
| 1 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 84 | | | | |
| 2 | 99 | 90 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 72 | 70 | | | | |
| 3 | 90 | 79 | 71 | 65 | 88 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | 69 | 65 | 61 | 59 | | | | |
| 4 | 82 | 70 | 61 | 55 | 80 | 69 | 61 | 54 | 66 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 | | | | |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 43 | | | | |
| 6 | 70 | 57 | 48 | 41 | 68 | 56 | 47 | 41 | 54 | 46 | 41 | 52 | 45 | 40 | 50 | 44 | 40 | 38 | | | | |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 35 | 33 | | | | |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 | | | | |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 | | | | |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 24314 | 24314 | 24314 |
| 5° | 24141 | 24208 | 24407 |
| 10° | 24082 | 24150 | 24319 |
| 15° | 23936 | 24005 | 24246 |
| 20° | 23794 | 23830 | 24041 |
| 25° | 23575 | 23575 | 23721 |
| 30° | 23332 | 23332 | 23409 |
| 35° | 23049 | 22969 | 23130 |
| 40° | 22744 | 22658 | 22744 |
| 45° | 22393 | 22299 | 22393 |
| 50° | 22057 | 21851 | 21901 |
| 55° | 21540 | 21484 | 21368 |
| 60° | 21003 | 20870 | 20734 |
| 65° | 20378 | 20145 | 19908 |
| 70° | 19176 | 19081 | 18694 |
| 75° | 18047 | 17661 | 17149 |
| 80° | 16020 | 15639 | 15072 |
| 85° | 12931 | 11782 | 11023 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 22530 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 142.3 | 3.4 |
| 10°-20° | 406.7 | 9.6 |
| 20°-30° | 611.9 | 14.5 |
| 30°-40° | 732.2 | 17.3 |
| 40°-50° | 755.5 | 17.9 |
| 50°-60° | 681.5 | 16.1 |
| 60°-70° | 520.1 | 12.3 |
| 70°-80° | 299.0 | 7.1 |
| 80°-90° | 78.0 | 1.8 |
| 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° | 1161.0 | 27.5 |
| 0°-40° | 1893.2 | 44.8 |
| 0°-60° | 3330.2 | 78.8 |
| 0°-90° | 4227.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4227.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1506 | 1506 | 1506 | 1506 | 1506 | |
| 5° | 1490 | 1510 | 1494 | 1496 | 1506 | 141 |
| 15° | 1432 | 1450 | 1436 | 1442 | 1450 | 404 |
| 25° | 1323 | 1337 | 1323 | 1326 | 1332 | 609 |
| 35° | 1169 | 1177 | 1165 | 1170 | 1174 | 731 |
| 45° | 981 | 987 | 977 | 979 | 981 | 757 |
| 55° | 765 | 769 | 763 | 759 | 759 | 684 |
| 65° | 533 | 531 | 527 | 523 | 521 | 524 |
| 75° | 289 | 287 | 283 | 277 | 275 | 305 |
| 85° | 70 | 66 | 64 | 58 | 60 | 83 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1505.9 | 1505.9 | 1505.9 | 1505.9 | 1505.9 |
| 2.5° | 1496.0 | 1513.7 | 1499.3 | 1502.6 | 1504.2 |
| 5° | 1489.5 | 1509.5 | 1493.6 | 1495.8 | 1505.9 |
| 7.5° | 1477.1 | 1498.8 | 1481.2 | 1485.2 | 1496.4 |
| 10° | 1468.9 | 1489.0 | 1473.0 | 1475.3 | 1483.3 |
| 12.5° | 1455.8 | 1475.9 | 1459.9 | 1463.8 | 1471.8 |
| 15° | 1432.0 | 1450.1 | 1436.1 | 1442.5 | 1450.5 |
| 17.5° | 1404.5 | 1423.8 | 1408.2 | 1413.7 | 1420.5 |
| 20° | 1384.8 | 1400.9 | 1386.9 | 1389.2 | 1399.2 |
| 22.5° | 1360.2 | 1376.3 | 1363.9 | 1364.5 | 1372.9 |
| 25° | 1323.3 | 1337.3 | 1323.3 | 1325.5 | 1331.5 |
| 27.5° | 1281.0 | 1293.0 | 1281.0 | 1283.2 | 1288.4 |
| 30° | 1251.5 | 1263.5 | 1251.5 | 1253.6 | 1255.6 |
| 32.5° | 1218.6 | 1229.1 | 1217.0 | 1219.2 | 1224.4 |
| 35° | 1169.4 | 1177.4 | 1165.3 | 1169.5 | 1173.5 |
| 37.5° | 1116.9 | 1122.9 | 1112.8 | 1114.9 | 1118.5 |
| 40° | 1079.1 | 1085.2 | 1075.0 | 1077.1 | 1079.1 |
| 42.5° | 1041.4 | 1045.8 | 1035.6 | 1037.8 | 1041.4 |
| 45° | 980.7 | 986.7 | 976.6 | 978.7 | 980.7 |
| 47.5° | 919.1 | 922.7 | 914.2 | 912.6 | 916.2 |
| 50° | 878.1 | 880.1 | 869.9 | 869.9 | 871.9 |
| 52.5° | 833.8 | 835.8 | 828.8 | 825.6 | 827.6 |
| 55° | 765.2 | 769.3 | 763.2 | 759.1 | 759.1 |
| 57.5° | 696.3 | 699.9 | 692.2 | 690.1 | 689.7 |
| 60° | 650.4 | 652.4 | 646.3 | 644.2 | 642.1 |
| 62.5° | 604.4 | 604.8 | 598.7 | 596.6 | 594.6 |
| 65° | 533.4 | 531.4 | 527.3 | 523.1 | 521.1 |
| 67.5° | 453.8 | 455.8 | 451.8 | 445.2 | 445.2 |
| 70° | 406.2 | 408.2 | 404.2 | 396.0 | 396.0 |
| 72.5° | 360.3 | 359.1 | 356.6 | 349.9 | 346.7 |
| 75° | 289.3 | 287.3 | 283.1 | 276.9 | 274.9 |
| 77.5° | 218.3 | 216.3 | 214.2 | 206.4 | 208.0 |
| 80° | 172.3 | 170.3 | 168.2 | 162.1 | 162.1 |
| 82.5° | 131.3 | 127.7 | 125.6 | 119.4 | 119.4 |
| 85° | 69.8 | 65.7 | 63.6 | 57.5 | 59.5 |
| 87.5° | 19.7 | 18.1 | 16.4 | 13.1 | 13.1 |
| 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 | 22.85 | 24.49 | 23.22 | 24.81 | 25.12 | 22.77 | 24.41 | 23.14 | 24.73 | 25.04 |
| | 3H | 24.68 | 26.17 | 25.06 | 26.50 | 26.86 | 24.57 | 26.05 | 24.94 | 26.38 | 26.74 |
| | 4H | 25.38 | 26.78 | 25.77 | 27.12 | 27.50 | 25.22 | 26.62 | 25.62 | 26.97 | 27.35 |
| | 6H | 25.88 | 27.18 | 26.29 | 27.55 | 27.94 | 25.70 | 27.00 | 26.11 | 27.36 | 27.75 |
| | 8H | 26.04 | 27.28 | 26.47 | 27.67 | 28.07 | 25.84 | 27.08 | 26.27 | 27.47 | 27.87 |
| | 12H | 26.14 | 27.33 | 26.57 | 27.71 | 28.14 | 25.92 | 27.11 | 26.35 | 27.49 | 27.92 |
| 4H | 2H | 23.49 | 24.89 | 23.89 | 25.24 | 25.61 | 23.43 | 24.83 | 23.82 | 25.17 | 25.55 |
| | 3H | 25.54 | 26.72 | 25.95 | 27.11 | 27.51 | 25.43 | 26.61 | 25.84 | 27.01 | 27.41 |
| | 4H | 26.36 | 27.43 | 26.79 | 27.84 | 28.27 | 26.22 | 27.28 | 26.65 | 27.70 | 28.13 |
| | 6H | 27.00 | 27.92 | 27.45 | 28.37 | 28.82 | 26.82 | 27.75 | 27.27 | 28.19 | 28.64 |
| | 8H | 27.20 | 28.07 | 27.66 | 28.51 | 28.98 | 27.00 | 27.87 | 27.46 | 28.31 | 28.78 |
| | 12H | 27.34 | 28.12 | 27.82 | 28.60 | 29.07 | 27.11 | 27.90 | 27.59 | 28.37 | 28.84 |
| 8H | 4H | 26.67 | 27.54 | 27.13 | 27.98 | 28.45 | 26.55 | 27.42 | 27.01 | 27.86 | 28.32 |
| | 6H | 27.42 | 28.15 | 27.92 | 28.63 | 29.11 | 27.26 | 27.98 | 27.75 | 28.47 | 28.94 |
| | 8H | 27.70 | 28.35 | 28.21 | 28.85 | 29.34 | 27.51 | 28.15 | 28.01 | 28.66 | 29.15 |
| | 12H | 27.90 | 28.48 | 28.41 | 28.97 | 29.53 | 27.68 | 28.25 | 28.18 | 28.74 | 29.30 |
| 12H | 4H | 26.70 | 27.48 | 27.18 | 27.96 | 28.43 | 26.58 | 27.36 | 27.06 | 27.84 | 28.31 |
| | 6H | 27.47 | 28.12 | 27.98 | 28.63 | 29.11 | 27.31 | 27.96 | 27.82 | 28.47 | 28.96 |
| | 8H | 27.80 | 28.38 | 28.31 | 28.87 | 29.43 | 27.62 | 28.19 | 28.12 | 28.68 | 29.24 |