

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: P855508

Luminaire Tested: SQ2-PP3-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855508
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-100D-830-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

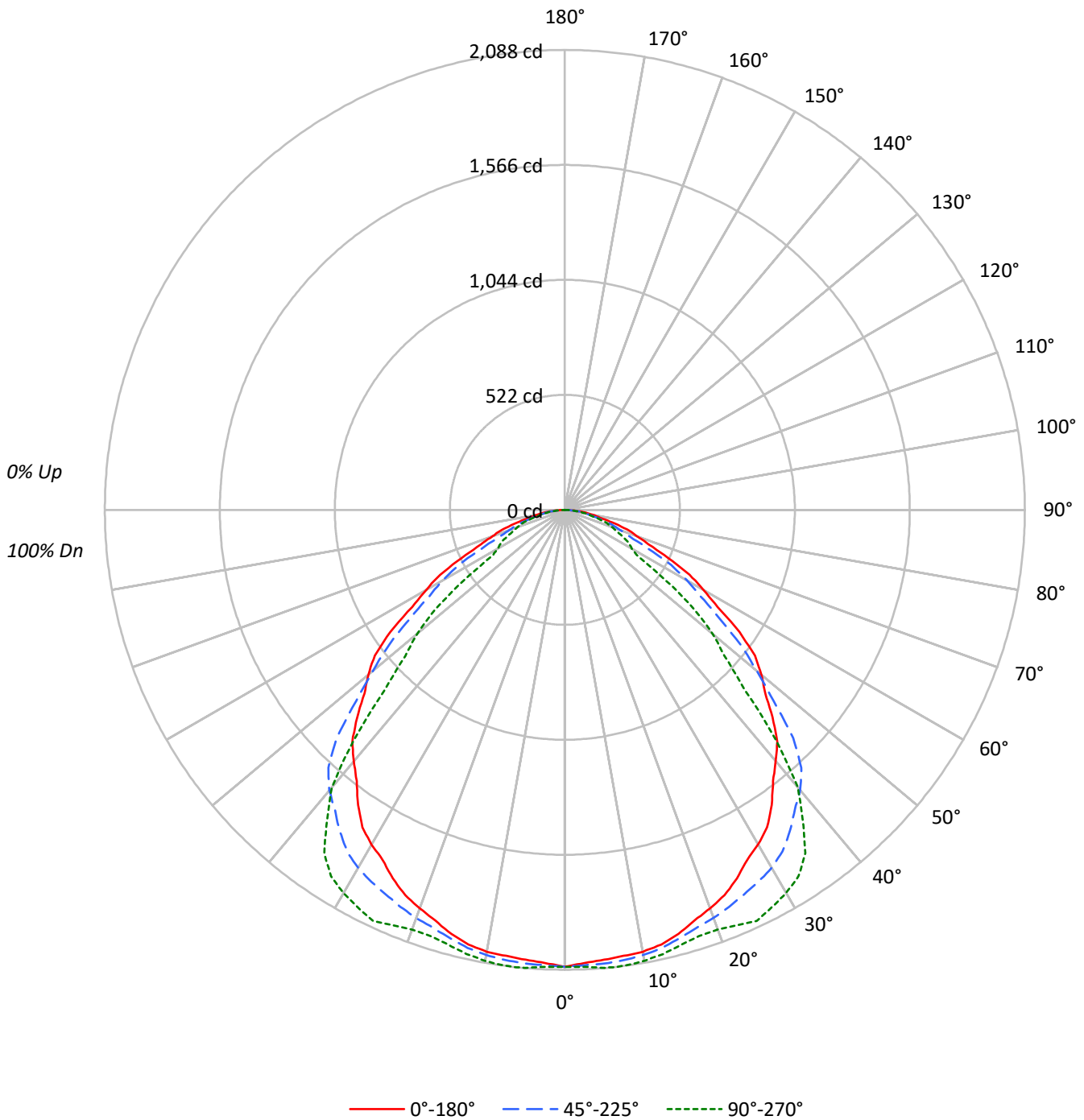
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5224.5 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
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

TEST NUMBER: P855508
CATALOG NUMBER: SQ2-PP3-100D-830-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P855508

CATALOG NUMBER: SQ2-PP3-100D-830-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | |
| RC | 80 | | | | | 70 | | | | | 50 | | | | | 30 | | | | |
| 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 | 110 | 106 | 102 | 99 | 107 | 104 | 100 | 97 | 99 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 | | |
| 2 | 101 | 94 | 88 | 82 | 99 | 92 | 86 | 81 | 88 | 84 | 80 | 85 | 81 | 78 | 82 | 79 | 76 | 74 | | |
| 3 | 93 | 83 | 76 | 70 | 91 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 74 | 69 | 66 | 64 | | |
| 4 | 86 | 74 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 | | |
| 5 | 79 | 67 | 59 | 52 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 50 | 48 | | |
| 6 | 73 | 61 | 52 | 46 | 71 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 55 | 49 | 45 | 43 | | |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 46 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | |
| 8 | 63 | 50 | 42 | 37 | 62 | 50 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | |
| 9 | 59 | 46 | 38 | 33 | 58 | 46 | 38 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 31 | | |
| 10 | 56 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 40 | 34 | 30 | 28 | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 33495 | 33495 | 33495 |
| 5° | 33232 | 33516 | 33836 |
| 10° | 33401 | 33652 | 34083 |
| 15° | 33320 | 33650 | 34165 |
| 20° | 33082 | 33874 | 34854 |
| 25° | 32895 | 34301 | 36685 |
| 30° | 32708 | 34998 | 37449 |
| 35° | 32244 | 35096 | 37517 |
| 40° | 31386 | 35036 | 34665 |
| 45° | 30446 | 33449 | 26389 |
| 50° | 29248 | 28535 | 21979 |
| 55° | 27220 | 24014 | 15803 |
| 60° | 23441 | 20605 | 11328 |
| 65° | 19771 | 15916 | 11144 |
| 70° | 16461 | 12529 | 10664 |
| 75° | 13949 | 10805 | 9987 |
| 80° | 11827 | 9382 | 8963 |
| 85° | 9337 | 7725 | 4872 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 33449 cd/sqm

TEST NUMBER: P855508

CATALOG NUMBER: SQ2-PP3-100D-830-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 197.5 | 3.8 |
| 10°-20° | 571.7 | 10.9 |
| 20°-30° | 895.6 | 17.1 |
| 30°-40° | 1104.8 | 21.1 |
| 40°-50° | 1040.2 | 19.9 |
| 50°-60° | 736.5 | 14.1 |
| 60°-70° | 419.7 | 8.0 |
| 70°-80° | 207.6 | 4.0 |
| 80°-90° | 50.8 | 1.0 |
| 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° | 1664.8 | 31.9 |
| 0°-40° | 2769.7 | 53.0 |
| 0°-60° | 4546.4 | 87.0 |
| 0°-90° | 5224.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5224.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2074 | 2074 | 2074 | 2074 | 2074 | |
| 5° | 2050 | 2087 | 2068 | 2073 | 2088 | 195 |
| 15° | 1993 | 2021 | 2013 | 2033 | 2044 | 562 |
| 25° | 1846 | 1894 | 1925 | 2003 | 2059 | 850 |
| 35° | 1636 | 1681 | 1781 | 1882 | 1903 | 1020 |
| 45° | 1333 | 1434 | 1465 | 1241 | 1156 | 1026 |
| 55° | 967 | 1025 | 853 | 643 | 561 | 853 |
| 65° | 518 | 545 | 417 | 294 | 292 | 520 |
| 75° | 224 | 247 | 173 | 162 | 160 | 242 |
| 85° | 50 | 46 | 42 | 33 | 26 | 61 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P855508

CATALOG NUMBER: SQ2-PP3-100D-830-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2074.5 | 2074.5 | 2074.5 | 2074.5 | 2074.5 |
| 2.5° | 2058.8 | 2088.0 | 2069.3 | 2072.8 | 2076.3 |
| 5° | 2050.4 | 2086.8 | 2067.9 | 2072.7 | 2087.7 |
| 7.5° | 2042.5 | 2079.8 | 2061.4 | 2069.3 | 2087.7 |
| 10° | 2037.3 | 2069.4 | 2052.6 | 2063.9 | 2078.9 |
| 12.5° | 2021.5 | 2051.9 | 2036.9 | 2051.6 | 2064.9 |
| 15° | 1993.4 | 2021.3 | 2013.1 | 2033.1 | 2043.9 |
| 17.5° | 1955.2 | 1989.1 | 1989.0 | 2017.3 | 2028.5 |
| 20° | 1925.4 | 1966.2 | 1971.5 | 2007.0 | 2028.5 |
| 22.5° | 1893.8 | 1941.4 | 1950.4 | 2003.8 | 2040.8 |
| 25° | 1846.5 | 1893.6 | 1925.4 | 2003.4 | 2059.2 |
| 27.5° | 1791.2 | 1838.0 | 1903.4 | 1990.8 | 2035.0 |
| 30° | 1754.4 | 1799.4 | 1877.2 | 1968.0 | 2008.7 |
| 32.5° | 1708.7 | 1755.5 | 1838.5 | 1936.3 | 1973.7 |
| 35° | 1635.9 | 1680.9 | 1780.6 | 1882.1 | 1903.4 |
| 37.5° | 1552.1 | 1603.3 | 1714.8 | 1771.5 | 1772.7 |
| 40° | 1489.1 | 1555.5 | 1662.3 | 1672.6 | 1644.7 |
| 42.5° | 1427.7 | 1512.9 | 1588.6 | 1542.3 | 1418.4 |
| 45° | 1333.4 | 1434.1 | 1464.9 | 1241.4 | 1155.7 |
| 47.5° | 1232.9 | 1332.3 | 1283.3 | 1041.2 | 982.0 |
| 50° | 1164.4 | 1258.9 | 1136.0 | 930.7 | 875.0 |
| 52.5° | 1087.2 | 1171.3 | 1004.4 | 824.8 | 739.9 |
| 55° | 967.0 | 1025.0 | 853.1 | 642.9 | 561.4 |
| 57.5° | 822.3 | 863.1 | 729.4 | 482.6 | 391.2 |
| 60° | 725.9 | 758.0 | 638.1 | 396.0 | 350.8 |
| 62.5° | 638.1 | 666.9 | 543.4 | 343.9 | 328.1 |
| 65° | 517.5 | 545.4 | 416.6 | 293.9 | 291.7 |
| 67.5° | 411.9 | 442.3 | 319.7 | 256.5 | 253.9 |
| 70° | 348.7 | 380.8 | 265.4 | 230.2 | 225.9 |
| 72.5° | 296.0 | 326.5 | 225.0 | 202.2 | 199.6 |
| 75° | 223.6 | 247.3 | 173.2 | 162.2 | 160.1 |
| 77.5° | 162.2 | 177.3 | 128.9 | 123.2 | 121.1 |
| 80° | 127.2 | 133.6 | 100.9 | 98.6 | 96.4 |
| 82.5° | 95.7 | 93.5 | 76.3 | 74.1 | 70.2 |
| 85° | 50.4 | 46.1 | 41.7 | 32.8 | 26.3 |
| 87.5° | 15.8 | 15.8 | 7.0 | 5.3 | 5.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P855508

CATALOG NUMBER: SQ2-PP3-100D-830-UNV-STD-W-4

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 | 23.64 | 25.16 | 24.01 | 25.48 | 25.79 | 20.04 | 21.56 | 20.40 | 21.87 | 22.19 |
| | 3H | 24.79 | 26.15 | 25.16 | 26.48 | 26.84 | 21.19 | 22.55 | 21.57 | 22.88 | 23.24 |
| | 4H | 25.16 | 26.43 | 25.56 | 26.78 | 27.16 | 21.69 | 22.96 | 22.08 | 23.31 | 23.69 |
| | 6H | 25.41 | 26.58 | 25.82 | 26.95 | 27.34 | 22.06 | 23.24 | 22.47 | 23.61 | 24.00 |
| | 8H | 25.47 | 26.59 | 25.90 | 26.98 | 27.38 | 22.17 | 23.29 | 22.59 | 23.68 | 24.08 |
| | 12H | 25.51 | 26.58 | 25.94 | 26.96 | 27.39 | 22.20 | 23.27 | 22.63 | 23.65 | 24.08 |
| 4H | 2H | 23.83 | 25.11 | 24.23 | 25.45 | 25.83 | 20.83 | 22.11 | 21.23 | 22.46 | 22.83 |
| | 3H | 25.20 | 26.25 | 25.61 | 26.65 | 27.05 | 22.14 | 23.20 | 22.55 | 23.60 | 24.00 |
| | 4H | 25.70 | 26.64 | 26.13 | 27.06 | 27.50 | 22.72 | 23.67 | 23.15 | 24.08 | 24.52 |
| | 6H | 26.07 | 26.89 | 26.53 | 27.33 | 27.79 | 23.20 | 24.02 | 23.65 | 24.46 | 24.92 |
| | 8H | 26.17 | 26.94 | 26.64 | 27.39 | 27.85 | 23.33 | 24.10 | 23.79 | 24.54 | 25.01 |
| | 12H | 26.24 | 26.92 | 26.72 | 27.40 | 27.87 | 23.38 | 24.07 | 23.87 | 24.55 | 25.02 |
| 8H | 4H | 25.76 | 26.53 | 26.22 | 26.97 | 27.44 | 23.04 | 23.81 | 23.50 | 24.25 | 24.72 |
| | 6H | 26.21 | 26.85 | 26.71 | 27.34 | 27.82 | 23.61 | 24.24 | 24.10 | 24.73 | 25.21 |
| | 8H | 26.37 | 26.94 | 26.89 | 27.45 | 27.94 | 23.79 | 24.37 | 24.31 | 24.88 | 25.36 |
| | 12H | 26.48 | 26.99 | 26.99 | 27.48 | 28.05 | 23.89 | 24.40 | 24.40 | 24.89 | 25.46 |
| 12H | 4H | 25.75 | 26.43 | 26.23 | 26.91 | 27.38 | 23.08 | 23.76 | 23.56 | 24.24 | 24.71 |
| | 6H | 26.20 | 26.78 | 26.72 | 27.28 | 27.77 | 23.66 | 24.23 | 24.17 | 24.74 | 25.23 |
| | 8H | 26.40 | 26.91 | 26.91 | 27.40 | 27.96 | 23.90 | 24.40 | 24.41 | 24.89 | 25.46 |