

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: P855507

Luminaire Tested: SQ2-PP3-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855507
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-835-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

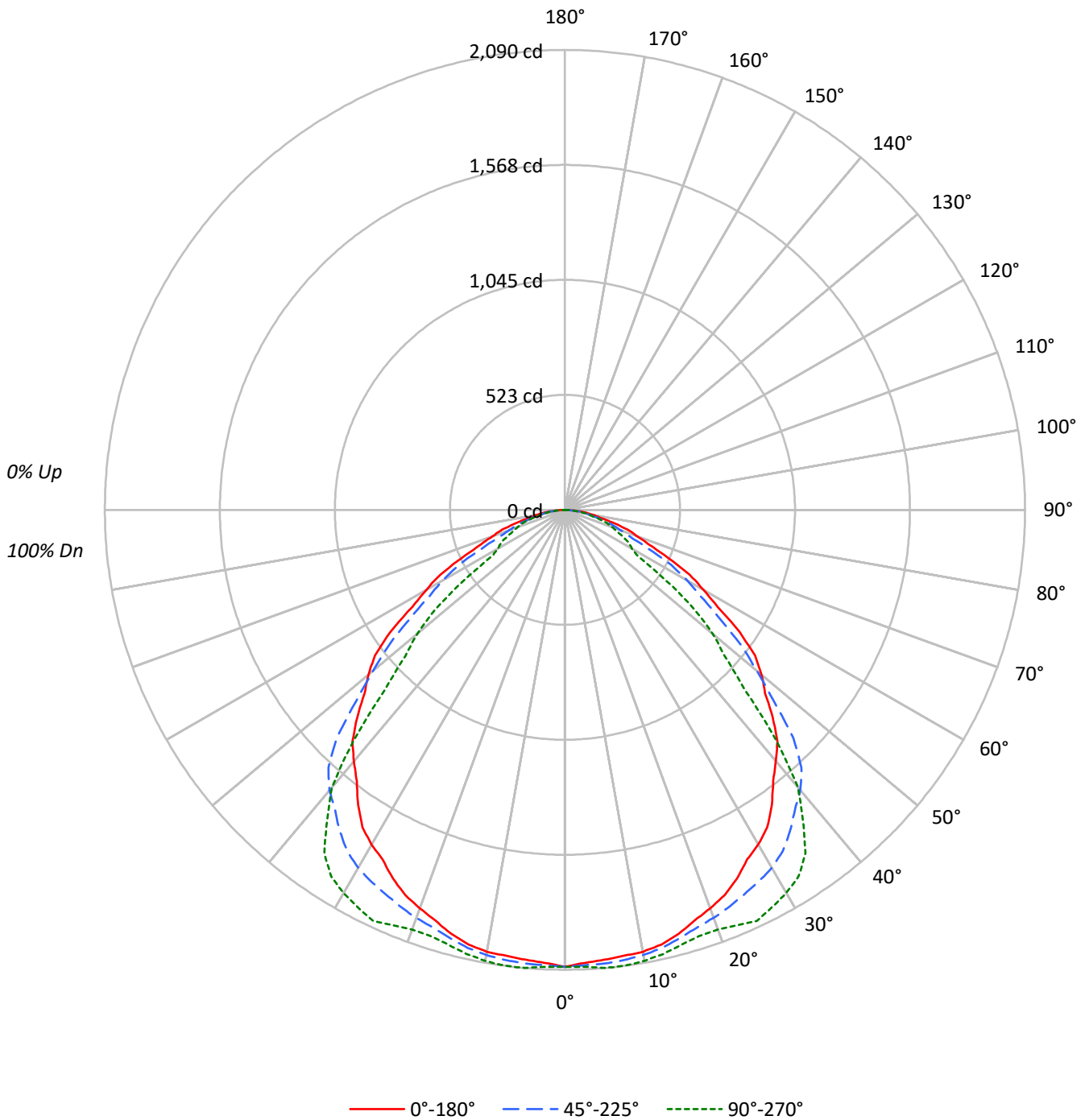
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5229.2 lumens
Efficiency: N/A
Efficacy: 139.1 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

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Luminous Intensity Polar Plot





TEST NUMBER: P855507

CATALOG NUMBER: SQ2-PP3-100D-835-UNV-STD-W-4

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 33525 | 33525 | 33525 |
| 5° | 33263 | 33546 | 33867 |
| 10° | 33431 | 33682 | 34115 |
| 15° | 33351 | 33680 | 34195 |
| 20° | 33112 | 33905 | 34885 |
| 25° | 32924 | 34331 | 36718 |
| 30° | 32738 | 35029 | 37483 |
| 35° | 32274 | 35130 | 37552 |
| 40° | 31413 | 35068 | 34697 |
| 45° | 30474 | 33479 | 26414 |
| 50° | 29276 | 28560 | 21999 |
| 55° | 27246 | 24034 | 15817 |
| 60° | 23460 | 20625 | 11341 |
| 65° | 19790 | 15931 | 11156 |
| 70° | 16475 | 12538 | 10674 |
| 75° | 13961 | 10817 | 9994 |
| 80° | 11836 | 9382 | 8973 |
| 85° | 9355 | 7744 | 4891 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 33479 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 197.7 | 3.8 |
| 10°-20° | 572.2 | 10.9 |
| 20°-30° | 896.4 | 17.1 |
| 30°-40° | 1105.8 | 21.1 |
| 40°-50° | 1041.2 | 19.9 |
| 50°-60° | 737.2 | 14.1 |
| 60°-70° | 420.0 | 8.0 |
| 70°-80° | 207.8 | 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° | 1666.3 | 31.9 |
| 0°-40° | 2772.2 | 53.0 |
| 0°-60° | 4550.6 | 87.0 |
| 0°-90° | 5229.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5229.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2076 | 2076 | 2076 | 2076 | 2076 | |
| 5° | 2052 | 2089 | 2070 | 2075 | 2090 | 196 |
| 15° | 1995 | 2023 | 2015 | 2035 | 2046 | 562 |
| 25° | 1848 | 1895 | 1927 | 2005 | 2061 | 851 |
| 35° | 1637 | 1682 | 1782 | 1884 | 1905 | 1021 |
| 45° | 1335 | 1435 | 1466 | 1243 | 1157 | 1027 |
| 55° | 968 | 1026 | 854 | 644 | 562 | 854 |
| 65° | 518 | 546 | 417 | 294 | 292 | 520 |
| 75° | 224 | 248 | 173 | 162 | 160 | 243 |
| 85° | 50 | 46 | 42 | 33 | 26 | 61 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P855507

CATALOG NUMBER: SQ2-PP3-100D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2076.4 | 2076.4 | 2076.4 | 2076.4 | 2076.4 |
| 2.5° | 2060.6 | 2089.8 | 2071.2 | 2074.7 | 2078.2 |
| 5° | 2052.3 | 2088.7 | 2069.8 | 2074.6 | 2089.6 |
| 7.5° | 2044.4 | 2081.7 | 2063.2 | 2071.2 | 2089.6 |
| 10° | 2039.1 | 2071.3 | 2054.4 | 2065.7 | 2080.8 |
| 12.5° | 2023.3 | 2053.7 | 2038.7 | 2053.4 | 2066.8 |
| 15° | 1995.2 | 2023.1 | 2014.9 | 2035.0 | 2045.7 |
| 17.5° | 1957.0 | 1990.9 | 1990.8 | 2019.1 | 2030.3 |
| 20° | 1927.1 | 1968.0 | 1973.3 | 2008.8 | 2030.3 |
| 22.5° | 1895.5 | 1943.2 | 1952.1 | 2005.6 | 2042.7 |
| 25° | 1848.1 | 1895.3 | 1927.1 | 2005.2 | 2061.1 |
| 27.5° | 1792.8 | 1839.6 | 1905.2 | 1992.6 | 2036.9 |
| 30° | 1756.0 | 1801.0 | 1878.9 | 1969.8 | 2010.5 |
| 32.5° | 1710.3 | 1757.1 | 1840.2 | 1938.1 | 1975.4 |
| 35° | 1637.4 | 1682.4 | 1782.3 | 1883.8 | 1905.2 |
| 37.5° | 1553.5 | 1604.7 | 1716.4 | 1773.1 | 1774.3 |
| 40° | 1490.4 | 1556.9 | 1663.8 | 1674.1 | 1646.2 |
| 42.5° | 1429.0 | 1514.3 | 1590.0 | 1543.7 | 1419.7 |
| 45° | 1334.6 | 1435.4 | 1466.2 | 1242.6 | 1156.8 |
| 47.5° | 1234.0 | 1333.6 | 1284.4 | 1042.1 | 982.8 |
| 50° | 1165.5 | 1260.0 | 1137.0 | 931.6 | 875.8 |
| 52.5° | 1088.2 | 1172.4 | 1005.3 | 825.5 | 740.6 |
| 55° | 967.9 | 1026.0 | 853.8 | 643.5 | 561.9 |
| 57.5° | 823.1 | 863.9 | 730.0 | 483.0 | 391.6 |
| 60° | 726.5 | 758.7 | 638.7 | 396.3 | 351.2 |
| 62.5° | 638.7 | 667.5 | 543.9 | 344.3 | 328.4 |
| 65° | 518.0 | 545.9 | 417.0 | 294.1 | 292.0 |
| 67.5° | 412.3 | 442.7 | 320.0 | 256.8 | 254.2 |
| 70° | 349.0 | 381.1 | 265.6 | 230.4 | 226.1 |
| 72.5° | 296.3 | 326.8 | 225.2 | 202.3 | 199.7 |
| 75° | 223.8 | 247.5 | 173.4 | 162.4 | 160.2 |
| 77.5° | 162.4 | 177.4 | 129.0 | 123.4 | 121.2 |
| 80° | 127.3 | 133.8 | 100.9 | 98.7 | 96.5 |
| 82.5° | 95.7 | 93.6 | 76.4 | 74.1 | 70.3 |
| 85° | 50.5 | 46.2 | 41.8 | 32.8 | 26.4 |
| 87.5° | 15.8 | 15.8 | 7.0 | 5.3 | 5.3 |
| 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 | 23.64 | 25.17 | 24.01 | 25.48 | 25.80 | 20.04 | 21.56 | 20.41 | 21.88 | 22.19 |
| | 3H | 24.79 | 26.15 | 25.17 | 26.48 | 26.84 | 21.20 | 22.56 | 21.57 | 22.89 | 23.25 |
| | 4H | 25.16 | 26.44 | 25.56 | 26.79 | 27.17 | 21.69 | 22.96 | 22.09 | 23.31 | 23.69 |
| | 6H | 25.41 | 26.59 | 25.82 | 26.95 | 27.34 | 22.07 | 23.24 | 22.48 | 23.61 | 24.00 |
| | 8H | 25.48 | 26.60 | 25.90 | 26.99 | 27.39 | 22.17 | 23.29 | 22.60 | 23.68 | 24.08 |
| | 12H | 25.51 | 26.58 | 25.94 | 26.96 | 27.39 | 22.20 | 23.28 | 22.63 | 23.66 | 24.09 |
| 4H | 2H | 23.83 | 25.11 | 24.23 | 25.46 | 25.84 | 20.83 | 22.11 | 21.23 | 22.46 | 22.84 |
| | 3H | 25.20 | 26.26 | 25.61 | 26.66 | 27.06 | 22.15 | 23.20 | 22.56 | 23.60 | 24.00 |
| | 4H | 25.70 | 26.65 | 26.13 | 27.06 | 27.50 | 22.73 | 23.67 | 23.16 | 24.09 | 24.53 |
| | 6H | 26.07 | 26.89 | 26.53 | 27.34 | 27.80 | 23.20 | 24.02 | 23.66 | 24.46 | 24.92 |
| | 8H | 26.18 | 26.95 | 26.64 | 27.39 | 27.86 | 23.33 | 24.10 | 23.80 | 24.54 | 25.01 |
| | 12H | 26.24 | 26.93 | 26.72 | 27.41 | 27.88 | 23.39 | 24.07 | 23.87 | 24.55 | 25.02 |
| 8H | 4H | 25.76 | 26.53 | 26.23 | 26.98 | 27.44 | 23.04 | 23.81 | 23.51 | 24.26 | 24.72 |
| | 6H | 26.22 | 26.85 | 26.71 | 27.34 | 27.82 | 23.61 | 24.25 | 24.11 | 24.74 | 25.21 |
| | 8H | 26.37 | 26.95 | 26.89 | 27.46 | 27.94 | 23.80 | 24.37 | 24.31 | 24.88 | 25.37 |
| | 12H | 26.49 | 26.99 | 27.00 | 27.49 | 28.05 | 23.90 | 24.40 | 24.41 | 24.90 | 25.46 |
| 12H | 4H | 25.75 | 26.44 | 26.23 | 26.92 | 27.39 | 23.08 | 23.77 | 23.56 | 24.25 | 24.72 |
| | 6H | 26.21 | 26.78 | 26.72 | 27.29 | 27.78 | 23.66 | 24.24 | 24.18 | 24.75 | 25.23 |
| | 8H | 26.40 | 26.91 | 26.91 | 27.40 | 27.97 | 23.90 | 24.41 | 24.41 | 24.90 | 25.46 |