

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
(formerly Eaton)

Brand: CORELITE

Report Number: P519570

Luminaire Tested: **SQ4-WB-150U-050D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519570
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, G2-2009-966-13)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-WB-150U-050D-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

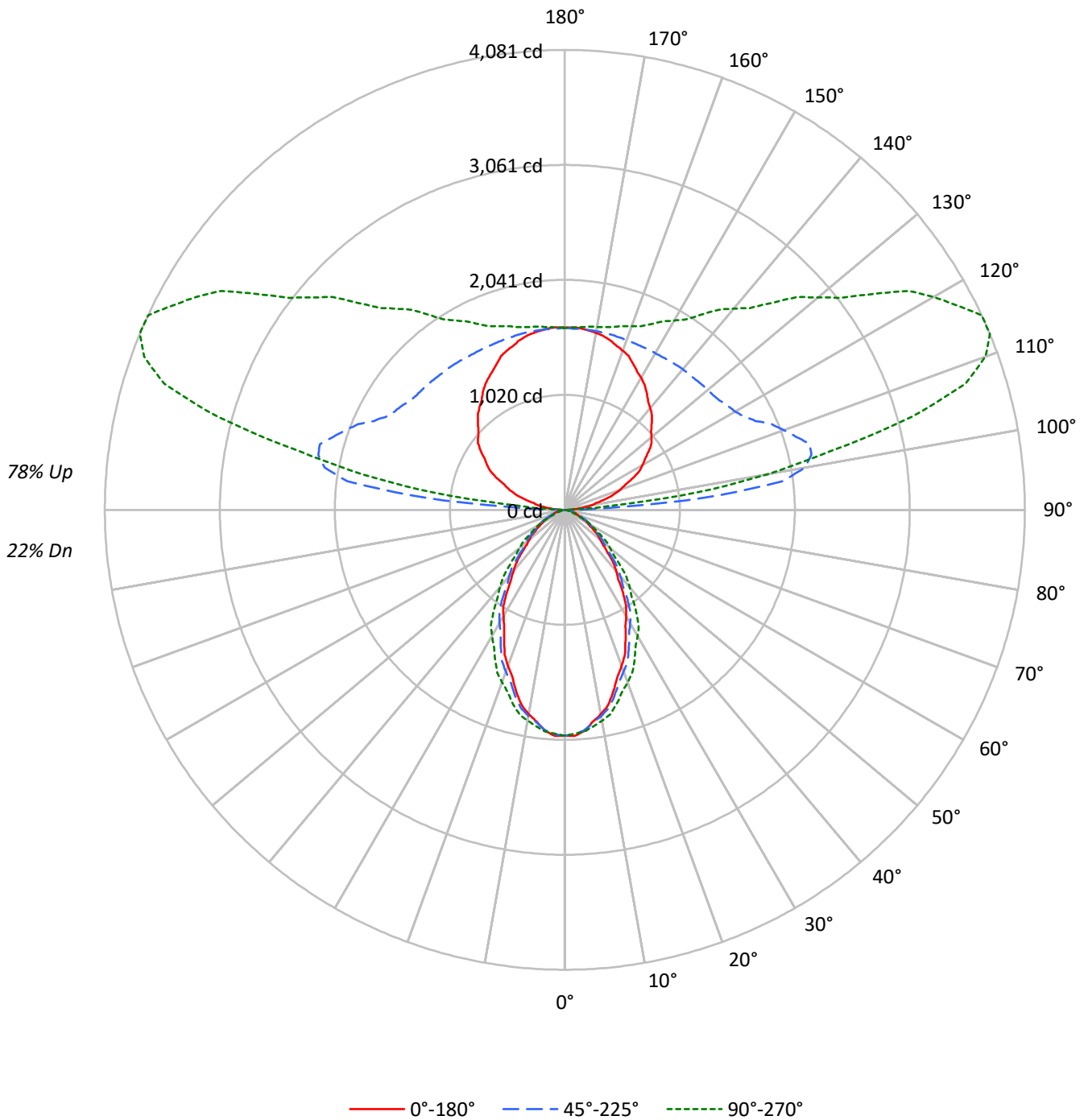
Lumens per Lamp: N/A
Luminaire Lumens: 13337.6 lumens
Efficiency: N/A
Efficacy: 119.2 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 111.9
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 100 | 100 | 100 | 100 | 89 | 89 | 89 | 89 | 68 | 68 | 68 | 48 | 48 | 48 | 30 | 30 | 30 | 22 |
| 1 | 92 | 88 | 84 | 81 | 81 | 78 | 75 | 73 | 60 | 58 | 56 | 43 | 42 | 41 | 27 | 27 | 26 | 19 |
| 2 | 84 | 77 | 72 | 67 | 74 | 69 | 64 | 60 | 53 | 50 | 47 | 38 | 37 | 35 | 25 | 24 | 23 | 17 |
| 3 | 77 | 68 | 62 | 56 | 68 | 61 | 56 | 51 | 47 | 43 | 40 | 34 | 32 | 30 | 22 | 21 | 20 | 15 |
| 4 | 71 | 61 | 54 | 48 | 63 | 54 | 48 | 44 | 42 | 38 | 35 | 31 | 28 | 26 | 20 | 19 | 18 | 13 |
| 5 | 65 | 54 | 47 | 41 | 57 | 49 | 42 | 38 | 38 | 34 | 30 | 28 | 25 | 23 | 19 | 17 | 16 | 12 |
| 6 | 60 | 49 | 41 | 36 | 53 | 44 | 37 | 33 | 34 | 30 | 26 | 25 | 23 | 20 | 17 | 16 | 14 | 11 |
| 7 | 55 | 44 | 37 | 32 | 49 | 40 | 33 | 29 | 31 | 27 | 23 | 23 | 20 | 18 | 16 | 14 | 13 | 10 |
| 8 | 51 | 40 | 33 | 28 | 46 | 36 | 30 | 25 | 28 | 24 | 21 | 21 | 18 | 16 | 15 | 13 | 12 | 9 |
| 9 | 48 | 36 | 29 | 25 | 42 | 33 | 27 | 23 | 26 | 22 | 19 | 20 | 17 | 15 | 14 | 12 | 11 | 8 |
| 10 | 45 | 33 | 27 | 22 | 40 | 30 | 24 | 20 | 24 | 20 | 17 | 18 | 15 | 13 | 13 | 11 | 10 | 8 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9241 | 9241 | 9241 |
| 5° | 9126 | 9093 | 9146 |
| 10° | 8622 | 8700 | 8902 |
| 15° | 7959 | 8144 | 8509 |
| 20° | 7228 | 7500 | 7996 |
| 25° | 6483 | 6836 | 7449 |
| 30° | 5797 | 6176 | 6883 |
| 35° | 5069 | 5435 | 6212 |
| 40° | 4267 | 4605 | 5378 |
| 45° | 3521 | 3825 | 4490 |
| 50° | 2940 | 3204 | 3741 |
| 55° | 2496 | 2750 | 3089 |
| 60° | 2133 | 2384 | 2465 |
| 65° | 1698 | 2005 | 1593 |
| 70° | 1505 | 1565 | 972 |
| 75° | 1394 | 1269 | 595 |
| 80° | 1283 | 1166 | 513 |
| 85° | 1164 | 1069 | 418 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 183.7 | 1.4 |
| 10°-20° | 477.9 | 3.6 |
| 20°-30° | 619.0 | 4.6 |
| 30°-40° | 606.2 | 4.5 |
| 40°-50° | 464.0 | 3.5 |
| 50°-60° | 309.2 | 2.3 |
| 60°-70° | 168.7 | 1.3 |
| 70°-80° | 70.3 | 0.5 |
| 80°-90° | 23.3 | 0.2 |
| 90°-100° | 750.7 | 5.6 |
| 100°-110° | 2029.9 | 15.2 |
| 110°-120° | 2134.1 | 16.0 |
| 120°-130° | 1733.5 | 13.0 |
| 130°-140° | 1359.8 | 10.2 |
| 140°-150° | 1043.6 | 7.8 |
| 150°-160° | 750.6 | 5.6 |
| 160°-170° | 458.5 | 3.4 |
| 170°-180° | 154.6 | 1.2 |
| 0°-30° | 1280.7 | 9.6 |
| 0°-40° | 1886.9 | 14.1 |
| 0°-60° | 2660.1 | 19.9 |
| 0°-90° | 2922.4 | 21.9 |
| 90°-120° | 4914.7 | 36.8 |
| 90°-150° | 9051.5 | 67.9 |
| 90°-180° | 10415.0 | 78.1 |
| 0°-180° | 13337.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2003 | 2003 | 2003 | 2003 | 2003 | |
| 5° | 1971 | 1951 | 1964 | 1968 | 1975 | 183 |
| 15° | 1666 | 1660 | 1705 | 1752 | 1782 | 465 |
| 25° | 1274 | 1277 | 1343 | 1402 | 1464 | 586 |
| 35° | 900 | 904 | 965 | 1030 | 1103 | 560 |
| 45° | 540 | 550 | 586 | 631 | 688 | 421 |
| 55° | 310 | 323 | 342 | 355 | 384 | 281 |
| 65° | 156 | 168 | 184 | 160 | 146 | 162 |
| 75° | 78 | 78 | 71 | 49 | 33 | 84 |
| 85° | 22 | 22 | 20 | 13 | 8 | 24 |
| 90° | 4 | 10 | 23 | 24 | 23 | 9 |
| 95° | 116 | 409 | 1248 | 646 | 384 | 122 |
| 105° | 377 | 583 | 2252 | 3322 | 3186 | 397 |
| 115° | 664 | 812 | 1868 | 3615 | 4081 | 656 |
| 125° | 909 | 1042 | 1683 | 2840 | 3337 | 811 |
| 135° | 1090 | 1220 | 1638 | 2294 | 2596 | 843 |
| 145° | 1268 | 1363 | 1615 | 1963 | 2113 | 793 |
| 155° | 1431 | 1487 | 1602 | 1761 | 1819 | 660 |
| 165° | 1558 | 1573 | 1608 | 1671 | 1680 | 439 |
| 175° | 1617 | 1616 | 1610 | 1631 | 1628 | 154 |
| 180° | 1615 | 1615 | 1615 | 1615 | 1615 | |

TEST NUMBER: P519570

CATALOG NUMBER: SQ4-WB-150U-050D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2003.2 | 2003.2 | 2003.2 | 2003.2 | 2003.2 |
| 2.5° | 2008.1 | 1990.2 | 1994.7 | 1994.6 | 1989.1 |
| 5° | 1970.7 | 1950.9 | 1963.6 | 1968.2 | 1975.1 |
| 7.5° | 1897.5 | 1882.6 | 1905.8 | 1923.0 | 1936.9 |
| 10° | 1840.6 | 1827.7 | 1857.3 | 1882.3 | 1900.3 |
| 12.5° | 1774.5 | 1763.6 | 1800.3 | 1833.9 | 1857.5 |
| 15° | 1666.5 | 1660.5 | 1705.2 | 1751.6 | 1781.7 |
| 17.5° | 1551.0 | 1548.1 | 1599.4 | 1653.5 | 1692.0 |
| 20° | 1472.3 | 1471.4 | 1527.7 | 1584.1 | 1628.7 |
| 22.5° | 1392.8 | 1394.7 | 1453.8 | 1512.5 | 1563.3 |
| 25° | 1273.6 | 1277.1 | 1343.1 | 1401.6 | 1463.5 |
| 27.5° | 1163.4 | 1165.0 | 1233.2 | 1295.0 | 1361.0 |
| 30° | 1088.2 | 1092.5 | 1159.4 | 1223.3 | 1292.1 |
| 32.5° | 1012.9 | 1017.9 | 1083.4 | 1149.5 | 1219.7 |
| 35° | 900.1 | 904.4 | 965.1 | 1030.1 | 1103.1 |
| 37.5° | 783.7 | 789.5 | 843.5 | 904.9 | 976.7 |
| 40° | 708.5 | 717.0 | 764.7 | 822.6 | 893.0 |
| 42.5° | 636.0 | 646.7 | 690.9 | 745.8 | 809.4 |
| 45° | 539.7 | 550.0 | 586.3 | 630.7 | 688.2 |
| 47.5° | 456.7 | 468.6 | 496.4 | 534.7 | 583.8 |
| 50° | 409.6 | 420.8 | 446.5 | 474.8 | 521.2 |
| 52.5° | 368.1 | 379.3 | 402.2 | 424.0 | 463.6 |
| 55° | 310.3 | 323.2 | 341.9 | 354.9 | 384.1 |
| 57.5° | 262.8 | 275.2 | 290.1 | 295.9 | 313.6 |
| 60° | 231.2 | 244.9 | 258.4 | 257.8 | 267.2 |
| 62.5° | 202.3 | 214.0 | 227.5 | 218.2 | 218.7 |
| 65° | 155.6 | 168.5 | 183.7 | 160.5 | 145.9 |
| 67.5° | 125.7 | 128.4 | 144.2 | 111.9 | 94.6 |
| 70° | 111.6 | 111.6 | 116.0 | 86.7 | 72.1 |
| 72.5° | 98.3 | 98.3 | 94.2 | 70.5 | 55.2 |
| 75° | 78.2 | 78.2 | 71.2 | 48.9 | 33.4 |
| 77.5° | 60.3 | 59.6 | 54.5 | 36.5 | 24.3 |
| 80° | 48.3 | 48.3 | 43.9 | 28.8 | 19.3 |
| 82.5° | 37.8 | 37.8 | 34.1 | 22.5 | 14.4 |
| 85° | 22.0 | 22.0 | 20.2 | 13.1 | 7.9 |
| 87.5° | 8.4 | 9.8 | 11.6 | 9.1 | 8.0 |
| 90° | 3.5 | 10.3 | 22.6 | 24.3 | 22.6 |
| 92.5° | 49.4 | 180.0 | 355.1 | 154.1 | 111.6 |
| 95° | 116.5 | 408.9 | 1248.5 | 646.1 | 384.3 |
| 97.5° | 187.1 | 469.0 | 1946.1 | 1610.6 | 1182.8 |
| 100° | 240.0 | 493.3 | 2163.2 | 2255.9 | 1824.1 |
| 102.5° | 288.7 | 527.0 | 2239.7 | 2745.3 | 2422.3 |
| 105° | 377.3 | 583.1 | 2251.8 | 3321.6 | 3185.6 |
| 107.5° | 459.4 | 647.1 | 2153.4 | 3681.2 | 3726.4 |
| 110° | 523.4 | 693.4 | 2065.8 | 3777.7 | 3969.9 |



TEST NUMBER: P519570

CATALOG NUMBER: SQ4-WB-150U-050D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 580.4 | 739.6 | 1985.1 | 3758.4 | 4081.1 |
| 115° | 664.3 | 812.2 | 1867.6 | 3615.3 | 4081.1 |
| 117.5° | 746.3 | 885.1 | 1790.0 | 3396.5 | 3924.6 |
| 120° | 796.4 | 932.4 | 1744.1 | 3239.6 | 3778.6 |
| 122.5° | 843.7 | 977.0 | 1716.3 | 3071.4 | 3614.4 |
| 125° | 909.4 | 1042.1 | 1683.2 | 2840.4 | 3336.9 |
| 127.5° | 969.9 | 1100.2 | 1663.8 | 2652.0 | 3088.6 |
| 130° | 1003.3 | 1137.6 | 1655.4 | 2535.6 | 2930.0 |
| 132.5° | 1038.1 | 1171.1 | 1647.1 | 2430.5 | 2793.7 |
| 135° | 1090.3 | 1219.5 | 1638.0 | 2293.5 | 2596.1 |
| 137.5° | 1142.8 | 1264.9 | 1630.4 | 2182.3 | 2428.9 |
| 140° | 1179.0 | 1292.9 | 1627.6 | 2110.8 | 2330.1 |
| 142.5° | 1213.7 | 1320.8 | 1622.0 | 2046.2 | 2238.3 |
| 145° | 1267.6 | 1362.9 | 1615.4 | 1963.1 | 2112.7 |
| 147.5° | 1316.7 | 1401.0 | 1607.8 | 1887.9 | 2002.8 |
| 150° | 1352.8 | 1427.7 | 1605.0 | 1847.0 | 1938.8 |
| 152.5° | 1386.2 | 1451.5 | 1603.6 | 1809.1 | 1884.6 |
| 155° | 1431.1 | 1487.2 | 1601.5 | 1761.1 | 1818.9 |
| 157.5° | 1477.7 | 1516.8 | 1601.9 | 1727.6 | 1765.7 |
| 160° | 1504.1 | 1536.4 | 1603.2 | 1706.5 | 1733.7 |
| 162.5° | 1525.0 | 1551.9 | 1604.6 | 1689.6 | 1710.0 |
| 165° | 1558.0 | 1573.3 | 1608.5 | 1671.3 | 1679.8 |
| 167.5° | 1580.6 | 1591.2 | 1608.8 | 1655.5 | 1659.6 |
| 170° | 1594.5 | 1599.6 | 1610.2 | 1648.5 | 1648.5 |
| 172.5° | 1605.7 | 1606.7 | 1610.2 | 1640.1 | 1638.7 |
| 175° | 1617.2 | 1615.5 | 1610.2 | 1631.0 | 1627.6 |
| 177.5° | 1621.0 | 1616.9 | 1609.9 | 1623.7 | 1619.6 |
| 180° | 1615.4 | 1615.4 | 1615.4 | 1615.4 | 1615.4 |

(END OF REPORT)