

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: P564905

Luminaire Tested: **SQ4-PW1-100U-050D-830-1D-UNV-STD-W-12**

Issue Date: 7/30/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P564905  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G2-2106-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/30/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-PW1-100U-050D-830-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH PERCEIVE WAVES CONTINUOUS LENS.  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16836.1 lumens  
Efficiency: N/A  
Efficacy: 132.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.19 / 1.31  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

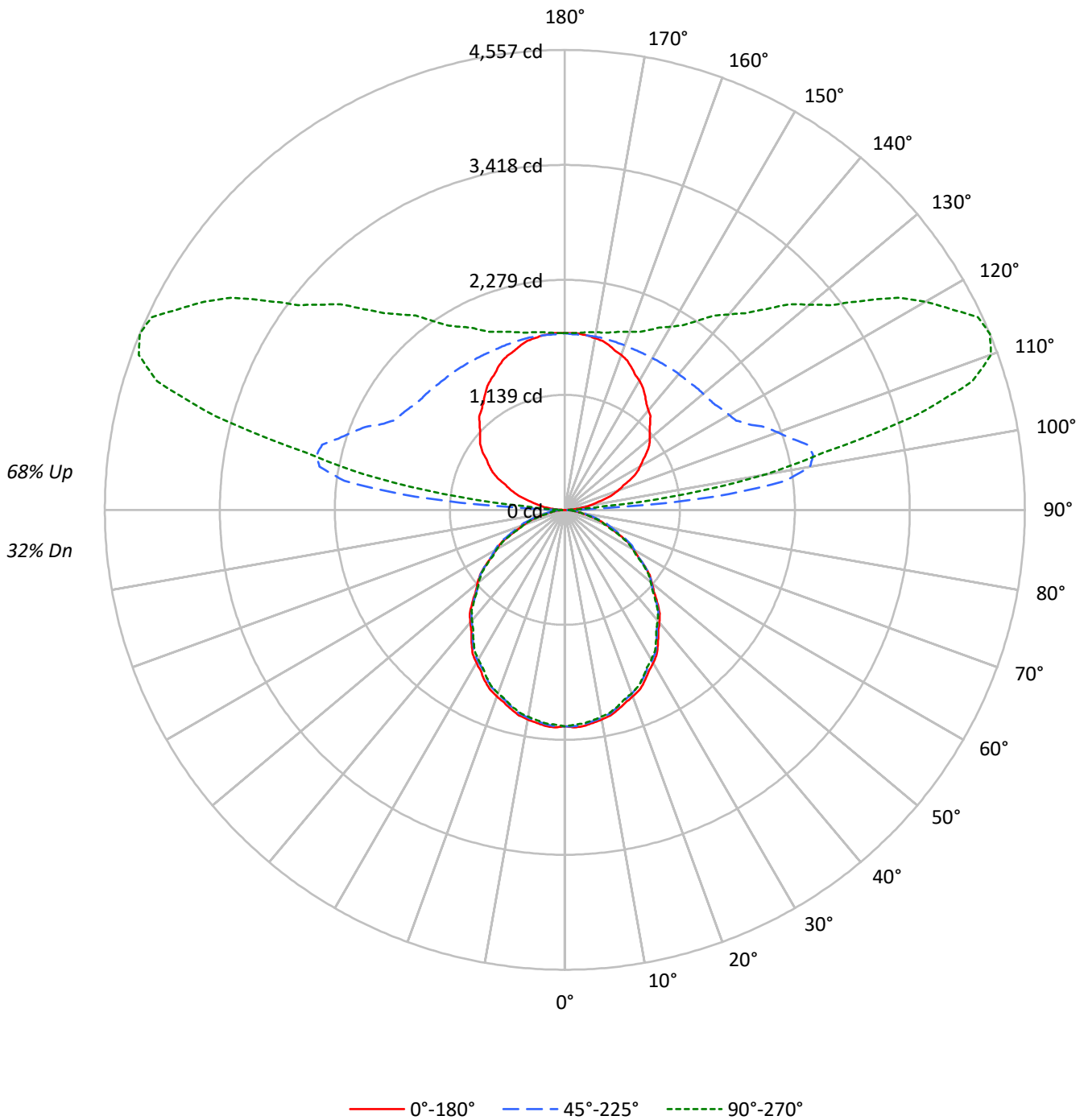
Input Watts (W): 127.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 56 | 56 | 56 | 40 | 40 | 40 | 32 |
| 1   | 94  | 90  | 86  | 83  | 84 | 81 | 78 | 75 | 64 | 62 | 60 | 49 | 48 | 47 | 35 | 35 | 34 | 27 |
| 2   | 86  | 78  | 72  | 67  | 77 | 71 | 66 | 62 | 57 | 53 | 50 | 43 | 41 | 39 | 31 | 30 | 29 | 23 |
| 3   | 78  | 69  | 62  | 56  | 70 | 62 | 56 | 51 | 50 | 46 | 42 | 38 | 35 | 33 | 28 | 26 | 24 | 20 |
| 4   | 71  | 61  | 53  | 47  | 64 | 55 | 49 | 43 | 44 | 40 | 36 | 34 | 31 | 28 | 25 | 23 | 21 | 17 |
| 5   | 65  | 54  | 46  | 40  | 59 | 49 | 42 | 37 | 39 | 35 | 31 | 31 | 27 | 24 | 22 | 20 | 18 | 15 |
| 6   | 60  | 48  | 41  | 35  | 54 | 44 | 37 | 32 | 35 | 30 | 27 | 28 | 24 | 21 | 20 | 18 | 16 | 13 |
| 7   | 55  | 44  | 36  | 31  | 50 | 40 | 33 | 28 | 32 | 27 | 23 | 25 | 21 | 19 | 18 | 16 | 14 | 11 |
| 8   | 51  | 39  | 32  | 27  | 46 | 36 | 29 | 25 | 29 | 24 | 21 | 23 | 19 | 17 | 17 | 15 | 13 | 10 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 26 | 22 | 27 | 22 | 18 | 21 | 17 | 15 | 16 | 13 | 11 | 9  |
| 10  | 45  | 33  | 26  | 21  | 40 | 30 | 24 | 20 | 24 | 20 | 17 | 19 | 16 | 13 | 14 | 12 | 10 | 8  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6599 | 6599 | 6599 |
| 5°  | 6642 | 6590 | 6560 |
| 10° | 6589 | 6536 | 6501 |
| 15° | 6519 | 6447 | 6423 |
| 20° | 6441 | 6342 | 6330 |
| 25° | 6351 | 6236 | 6217 |
| 30° | 6217 | 6123 | 6083 |
| 35° | 6040 | 5955 | 5920 |
| 40° | 5852 | 5761 | 5738 |
| 45° | 5624 | 5551 | 5526 |
| 50° | 5391 | 5346 | 5310 |
| 55° | 5139 | 5139 | 5058 |
| 60° | 4826 | 4919 | 4745 |
| 65° | 4416 | 4636 | 4307 |
| 70° | 3893 | 4267 | 3791 |
| 75° | 3325 | 3819 | 3234 |
| 80° | 2579 | 3214 | 2612 |
| 85° | 1669 | 2470 | 2202 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 202.1   | 1.2       |
| 10°-20°   | 570.5   | 3.4       |
| 20°-30°   | 846.2   | 5.0       |
| 30°-40°   | 990.2   | 5.9       |
| 40°-50°   | 985.8   | 5.9       |
| 50°-60°   | 851.2   | 5.1       |
| 60°-70°   | 612.7   | 3.6       |
| 70°-80°   | 321.3   | 1.9       |
| 80°-90°   | 83.3    | 0.5       |
| 90°-100°  | 819.7   | 4.9       |
| 100°-110° | 2262.9  | 13.4      |
| 110°-120° | 2333.8  | 13.9      |
| 120°-130° | 1875.4  | 11.1      |
| 130°-140° | 1473.9  | 8.8       |
| 140°-150° | 1130.4  | 6.7       |
| 150°-160° | 812.4   | 4.8       |
| 160°-170° | 496.8   | 3.0       |
| 170°-180° | 167.5   | 1.0       |
| 0°-30°    | 1618.8  | 9.6       |
| 0°-40°    | 2608.9  | 15.5      |
| 0°-60°    | 4445.9  | 26.4      |
| 0°-90°    | 5463.2  | 32.4      |
| 90°-120°  | 5416.4  | 32.2      |
| 90°-150°  | 9896.1  | 58.8      |
| 90°-180°  | 11373.0 | 67.6      |
| 0°-180°   | 16836.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2146 | 2146  | 2146 | 2146  | 2146 |      |
| 5°   | 2152 | 2128  | 2134 | 2129  | 2125 | 204  |
| 15°  | 2048 | 2022  | 2025 | 2021  | 2017 | 577  |
| 25°  | 1872 | 1840  | 1838 | 1826  | 1832 | 861  |
| 35°  | 1609 | 1587  | 1586 | 1571  | 1577 | 1006 |
| 45°  | 1293 | 1282  | 1276 | 1272  | 1270 | 998  |
| 55°  | 958  | 957   | 958  | 945   | 943  | 855  |
| 65°  | 607  | 625   | 637  | 612   | 592  | 601  |
| 75°  | 280  | 306   | 321  | 300   | 272  | 300  |
| 85°  | 47   | 62    | 70   | 66    | 62   | 62   |
| 90°  | 6    | 11    | 22   | 25    | 28   | 10   |
| 95°  | 120  | 444   | 1487 | 611   | 398  | 129  |
| 105° | 403  | 622   | 2490 | 3801  | 3579 | 429  |
| 115° | 722  | 873   | 2005 | 3970  | 4514 | 710  |
| 125° | 991  | 1128  | 1818 | 3076  | 3610 | 882  |
| 135° | 1193 | 1322  | 1767 | 2491  | 2809 | 923  |
| 145° | 1384 | 1479  | 1745 | 2121  | 2282 | 866  |
| 155° | 1560 | 1612  | 1731 | 1903  | 1963 | 719  |
| 165° | 1689 | 1711  | 1739 | 1807  | 1820 | 476  |
| 175° | 1750 | 1753  | 1742 | 1767  | 1762 | 166  |
| 180° | 1750 | 1750  | 1750 | 1750  | 1750 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2145.8 | 2145.8 | 2145.8 | 2145.8 | 2145.8 |
| 2.5°   | 2157.9 | 2140.2 | 2145.8 | 2141.1 | 2130.7 |
| 5°     | 2151.5 | 2127.5 | 2134.5 | 2128.7 | 2125.1 |
| 7.5°   | 2129.6 | 2107.4 | 2112.6 | 2106.5 | 2104.3 |
| 10°    | 2109.9 | 2087.7 | 2092.9 | 2085.3 | 2081.6 |
| 12.5°  | 2087.2 | 2063.6 | 2068.7 | 2061.1 | 2058.9 |
| 15°    | 2047.5 | 2021.7 | 2024.8 | 2021.0 | 2017.3 |
| 17.5°  | 2001.4 | 1975.2 | 1975.7 | 1969.6 | 1968.9 |
| 20°    | 1968.1 | 1940.4 | 1937.9 | 1930.4 | 1934.1 |
| 22.5°  | 1931.8 | 1902.6 | 1900.1 | 1889.6 | 1894.8 |
| 25°    | 1871.7 | 1840.3 | 1837.7 | 1826.5 | 1832.0 |
| 27.5°  | 1802.1 | 1771.1 | 1771.1 | 1755.4 | 1761.3 |
| 30°    | 1750.7 | 1721.1 | 1724.2 | 1705.5 | 1712.9 |
| 32.5°  | 1696.3 | 1669.6 | 1671.3 | 1652.6 | 1660.0 |
| 35°    | 1608.9 | 1586.7 | 1586.2 | 1571.2 | 1576.8 |
| 37.5°  | 1519.7 | 1500.1 | 1497.0 | 1488.3 | 1489.8 |
| 40°    | 1457.7 | 1441.0 | 1435.0 | 1429.3 | 1429.3 |
| 42.5°  | 1392.6 | 1377.5 | 1371.5 | 1367.3 | 1365.8 |
| 45°    | 1293.2 | 1282.1 | 1276.2 | 1272.3 | 1270.5 |
| 47.5°  | 1194.9 | 1184.5 | 1179.4 | 1176.7 | 1174.8 |
| 50°    | 1126.8 | 1119.4 | 1117.4 | 1111.6 | 1109.8 |
| 52.5°  | 1058.7 | 1054.3 | 1052.3 | 1045.1 | 1043.2 |
| 55°    | 958.5  | 956.7  | 958.5  | 945.3  | 943.4  |
| 57.5°  | 854.2  | 857.1  | 863.3  | 845.4  | 840.9  |
| 60°    | 784.6  | 792.0  | 799.7  | 778.8  | 771.4  |
| 62.5°  | 713.5  | 725.3  | 736.2  | 712.1  | 701.8  |
| 65°    | 606.9  | 625.4  | 637.1  | 612.1  | 591.8  |
| 67.5°  | 504.0  | 527.0  | 541.1  | 514.1  | 491.2  |
| 70°    | 433.0  | 458.8  | 474.5  | 447.5  | 421.6  |
| 72.5°  | 370.9  | 399.8  | 412.5  | 387.0  | 361.1  |
| 75°    | 279.8  | 305.7  | 321.4  | 300.0  | 272.2  |
| 77.5°  | 198.5  | 222.9  | 235.9  | 217.3  | 194.4  |
| 80°    | 145.6  | 171.5  | 181.5  | 166.0  | 147.5  |
| 82.5°  | 103.2  | 124.7  | 131.6  | 122.2  | 109.7  |
| 85°    | 47.3   | 62.1   | 70.0   | 66.1   | 62.4   |
| 87.5°  | 13.2   | 24.7   | 33.2   | 33.8   | 35.9   |
| 90°    | 5.6    | 11.1   | 22.4   | 25.3   | 28.0   |
| 92.5°  | 50.4   | 209.2  | 374.2  | 136.5  | 106.4  |
| 95°    | 120.4  | 443.5  | 1487.1 | 611.3  | 397.7  |
| 97.5°  | 199.4  | 496.8  | 2202.9 | 1696.0 | 1228.3 |
| 100°   | 257.7  | 528.7  | 2467.3 | 2484.7 | 2019.2 |
| 102.5° | 313.7  | 565.0  | 2518.8 | 3070.0 | 2628.6 |
| 105°   | 403.3  | 622.3  | 2489.7 | 3800.9 | 3579.1 |
| 107.5° | 498.5  | 693.5  | 2350.8 | 4153.4 | 4234.5 |
| 110°   | 565.7  | 741.0  | 2243.3 | 4229.2 | 4492.1 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 626.2  | 794.9  | 2142.4 | 4169.3 | 4557.1 |
| 115°   | 722.5  | 873.2  | 2005.2 | 3969.6 | 4514.5 |
| 117.5° | 806.6  | 956.6  | 1915.0 | 3688.4 | 4308.4 |
| 120°   | 862.6  | 1010.4 | 1879.2 | 3498.1 | 4122.4 |
| 122.5° | 916.3  | 1057.6 | 1850.1 | 3320.4 | 3911.8 |
| 125°   | 991.4  | 1128.3 | 1817.6 | 3076.0 | 3609.9 |
| 127.5° | 1055.3 | 1192.2 | 1798.5 | 2869.3 | 3329.9 |
| 130°   | 1097.8 | 1234.7 | 1789.6 | 2742.9 | 3161.8 |
| 132.5° | 1138.2 | 1268.5 | 1780.6 | 2636.7 | 3016.2 |
| 135°   | 1193.0 | 1321.7 | 1767.2 | 2491.3 | 2809.0 |
| 137.5° | 1254.7 | 1371.9 | 1760.4 | 2369.3 | 2640.4 |
| 140°   | 1288.3 | 1403.3 | 1756.0 | 2287.9 | 2526.1 |
| 142.5° | 1326.4 | 1432.6 | 1751.5 | 2215.5 | 2425.3 |
| 145°   | 1383.5 | 1479.3 | 1744.8 | 2120.9 | 2282.5 |
| 147.5° | 1438.4 | 1522.2 | 1738.6 | 2041.1 | 2166.5 |
| 150°   | 1478.7 | 1547.2 | 1736.4 | 1993.5 | 2094.8 |
| 152.5° | 1510.1 | 1574.1 | 1734.1 | 1952.8 | 2036.6 |
| 155°   | 1559.9 | 1611.9 | 1730.8 | 1903.0 | 1963.2 |
| 157.5° | 1605.8 | 1645.8 | 1731.3 | 1866.7 | 1907.8 |
| 160°   | 1632.7 | 1668.3 | 1733.6 | 1846.3 | 1876.4 |
| 162.5° | 1655.1 | 1686.4 | 1735.8 | 1828.2 | 1851.7 |
| 165°   | 1688.7 | 1710.7 | 1739.2 | 1806.7 | 1820.4 |
| 167.5° | 1714.5 | 1727.7 | 1742.0 | 1793.6 | 1798.0 |
| 170°   | 1728.0 | 1738.9 | 1742.0 | 1786.8 | 1786.8 |
| 172.5° | 1739.2 | 1745.7 | 1742.0 | 1777.8 | 1775.6 |
| 175°   | 1750.4 | 1753.1 | 1742.0 | 1767.0 | 1761.6 |
| 177.5° | 1754.8 | 1752.6 | 1741.4 | 1757.0 | 1752.6 |
| 180°   | 1750.4 | 1750.4 | 1750.4 | 1750.4 | 1750.4 |

(END OF REPORT)