

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: P520433

Luminaire Tested: **SQ4-F-150U-100D-940-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520433  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, G3-1910-536-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-F-150U-100D-940-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

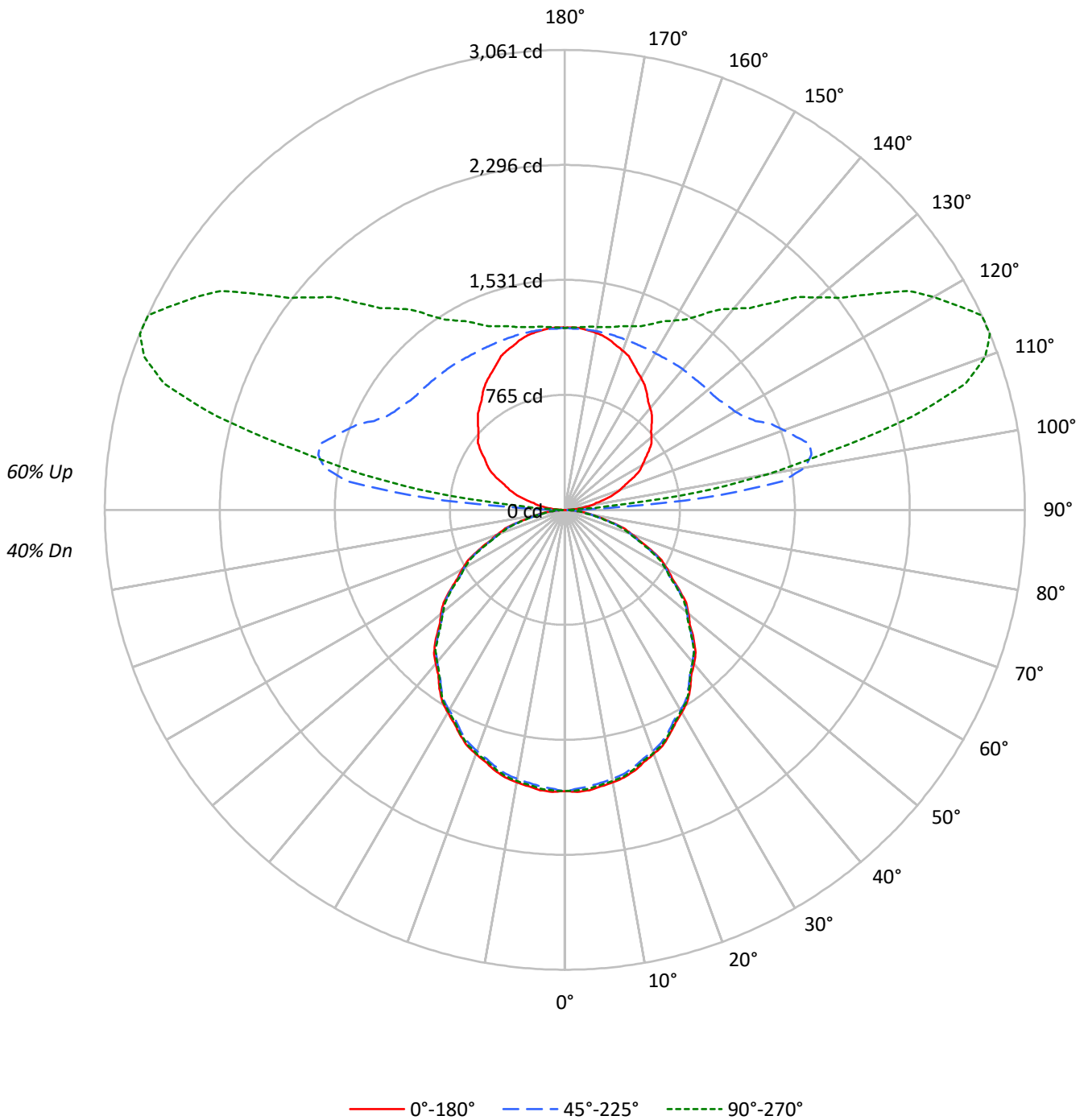
Lumens per Lamp: N/A  
Luminaire Lumens: 12919.7 lumens  
Efficiency: N/A  
Efficacy: 116.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 110.6  
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





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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   | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 78 | 78 | 78 | 61 | 61 | 61 | 47 | 47 | 47 | 40 |
| 1   | 95  | 91  | 87  | 84  | 87 | 83 | 80 | 77 | 68 | 66 | 64 | 54 | 52 | 51 | 41 | 40 | 39 | 33 |
| 2   | 87  | 80  | 73  | 68  | 79 | 73 | 67 | 63 | 59 | 56 | 52 | 47 | 45 | 42 | 36 | 34 | 33 | 28 |
| 3   | 79  | 70  | 63  | 57  | 72 | 64 | 57 | 52 | 52 | 48 | 44 | 42 | 39 | 36 | 32 | 30 | 28 | 23 |
| 4   | 72  | 62  | 54  | 48  | 65 | 56 | 50 | 44 | 46 | 41 | 37 | 37 | 33 | 31 | 28 | 26 | 24 | 20 |
| 5   | 66  | 55  | 47  | 41  | 60 | 50 | 43 | 38 | 41 | 36 | 32 | 33 | 29 | 26 | 26 | 23 | 21 | 17 |
| 6   | 61  | 49  | 41  | 35  | 55 | 45 | 38 | 33 | 37 | 32 | 28 | 30 | 26 | 23 | 23 | 20 | 18 | 15 |
| 7   | 56  | 44  | 36  | 31  | 51 | 41 | 34 | 29 | 34 | 28 | 24 | 27 | 23 | 20 | 21 | 18 | 16 | 13 |
| 8   | 52  | 40  | 32  | 27  | 47 | 37 | 30 | 25 | 31 | 25 | 22 | 25 | 21 | 18 | 19 | 17 | 14 | 12 |
| 9   | 48  | 36  | 29  | 24  | 44 | 34 | 27 | 22 | 28 | 23 | 19 | 23 | 19 | 16 | 18 | 15 | 13 | 11 |
| 10  | 45  | 33  | 26  | 21  | 41 | 31 | 24 | 20 | 26 | 21 | 17 | 21 | 17 | 15 | 16 | 14 | 12 | 10 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11514 | 11514 | 11514 |
| 5°  | 11566 | 11408 | 11495 |
| 10° | 11507 | 11363 | 11451 |
| 15° | 11438 | 11282 | 11372 |
| 20° | 11320 | 11185 | 11277 |
| 25° | 11196 | 11065 | 11153 |
| 30° | 11060 | 10941 | 10996 |
| 35° | 10921 | 10786 | 10843 |
| 40° | 10739 | 10616 | 10625 |
| 45° | 10550 | 10404 | 10372 |
| 50° | 10279 | 10156 | 10131 |
| 55° | 9975  | 9866  | 9796  |
| 60° | 9673  | 9498  | 9467  |
| 65° | 9200  | 8994  | 8919  |
| 70° | 8549  | 8341  | 8179  |
| 75° | 7633  | 7388  | 7236  |
| 80° | 6280  | 6053  | 5781  |
| 85° | 3719  | 4086  | 4171  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 176.7   | 1.4       |
| 10°-20°   | 503.1   | 3.9       |
| 20°-30°   | 755.6   | 5.8       |
| 30°-40°   | 901.7   | 7.0       |
| 40°-50°   | 924.3   | 7.2       |
| 50°-60°   | 823.1   | 6.4       |
| 60°-70°   | 613.5   | 4.7       |
| 70°-80°   | 332.2   | 2.6       |
| 80°-90°   | 78.1    | 0.6       |
| 90°-100°  | 563.1   | 4.4       |
| 100°-110° | 1522.4  | 11.8      |
| 110°-120° | 1600.6  | 12.4      |
| 120°-130° | 1300.1  | 10.1      |
| 130°-140° | 1019.8  | 7.9       |
| 140°-150° | 782.7   | 6.1       |
| 150°-160° | 562.9   | 4.4       |
| 160°-170° | 343.9   | 2.7       |
| 170°-180° | 115.9   | 0.9       |
| 0°-30°    | 1435.4  | 11.1      |
| 0°-40°    | 2337.1  | 18.1      |
| 0°-60°    | 4084.4  | 31.6      |
| 0°-90°    | 5108.3  | 39.5      |
| 90°-120°  | 3686.0  | 28.5      |
| 90°-150°  | 6788.7  | 52.5      |
| 90°-180°  | 7811.0  | 60.5      |
| 0°-180°   | 12919.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1872 | 1872  | 1872 | 1872  | 1872 |      |
| 5°   | 1873 | 1870  | 1848 | 1864  | 1862 | 178  |
| 15°  | 1796 | 1790  | 1772 | 1786  | 1786 | 506  |
| 25°  | 1650 | 1646  | 1630 | 1640  | 1643 | 760  |
| 35°  | 1454 | 1448  | 1436 | 1439  | 1444 | 908  |
| 45°  | 1213 | 1207  | 1196 | 1190  | 1192 | 933  |
| 55°  | 930  | 932   | 920  | 911   | 914  | 833  |
| 65°  | 632  | 630   | 618  | 612   | 613  | 625  |
| 75°  | 321  | 318   | 311  | 304   | 304  | 342  |
| 85°  | 53   | 58    | 58   | 59    | 59   | 74   |
| 90°  | 3    | 8     | 17   | 18    | 17   | 7    |
| 95°  | 87   | 307   | 936  | 485   | 288  | 91   |
| 105° | 283  | 437   | 1689 | 2491  | 2389 | 298  |
| 115° | 498  | 609   | 1401 | 2711  | 3061 | 492  |
| 125° | 682  | 782   | 1262 | 2130  | 2503 | 608  |
| 135° | 818  | 915   | 1228 | 1720  | 1947 | 632  |
| 145° | 951  | 1022  | 1212 | 1472  | 1584 | 595  |
| 155° | 1073 | 1115  | 1201 | 1321  | 1364 | 495  |
| 165° | 1169 | 1180  | 1206 | 1254  | 1260 | 329  |
| 175° | 1213 | 1212  | 1208 | 1223  | 1221 | 115  |
| 180° | 1212 | 1212  | 1212 | 1212  | 1212 |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1872.0 | 1872.0 | 1872.0 | 1872.0 | 1872.0 |
| 2.5°   | 1879.2 | 1875.1 | 1858.6 | 1872.0 | 1869.9 |
| 5°     | 1873.2 | 1869.5 | 1847.6 | 1864.2 | 1861.7 |
| 7.5°   | 1855.8 | 1852.0 | 1832.6 | 1848.1 | 1845.8 |
| 10°    | 1842.4 | 1838.7 | 1819.3 | 1834.7 | 1833.4 |
| 12.5°  | 1825.0 | 1821.2 | 1801.8 | 1817.3 | 1816.0 |
| 15°    | 1796.2 | 1789.9 | 1771.8 | 1785.9 | 1785.9 |
| 17.5°  | 1758.1 | 1753.4 | 1736.5 | 1748.4 | 1748.6 |
| 20°    | 1729.4 | 1725.6 | 1708.8 | 1721.7 | 1722.9 |
| 22.5°  | 1700.5 | 1696.8 | 1678.0 | 1689.8 | 1692.1 |
| 25°    | 1649.7 | 1646.0 | 1630.4 | 1639.5 | 1643.3 |
| 27.5°  | 1597.3 | 1591.8 | 1576.5 | 1584.5 | 1587.3 |
| 30°    | 1557.2 | 1554.7 | 1540.5 | 1544.4 | 1548.2 |
| 32.5°  | 1515.1 | 1512.6 | 1500.4 | 1502.4 | 1509.1 |
| 35°    | 1454.4 | 1448.1 | 1436.4 | 1439.1 | 1444.1 |
| 37.5°  | 1382.7 | 1379.7 | 1368.3 | 1366.9 | 1371.7 |
| 40°    | 1337.5 | 1332.5 | 1322.1 | 1319.6 | 1323.3 |
| 42.5°  | 1288.2 | 1283.1 | 1270.7 | 1268.3 | 1273.0 |
| 45°    | 1212.9 | 1206.6 | 1196.1 | 1189.8 | 1192.4 |
| 47.5°  | 1128.5 | 1128.5 | 1117.7 | 1110.4 | 1114.2 |
| 50°    | 1074.2 | 1074.2 | 1061.3 | 1054.9 | 1058.7 |
| 52.5°  | 1017.6 | 1018.6 | 1004.7 | 1001.3 | 1000.1 |
| 55°    | 930.2  | 931.5  | 920.0  | 911.0  | 913.5  |
| 57.5°  | 846.0  | 843.2  | 829.7  | 823.9  | 825.2  |
| 60°    | 786.3  | 782.6  | 772.1  | 763.3  | 769.6  |
| 62.5°  | 725.7  | 723.9  | 713.6  | 703.6  | 702.8  |
| 65°    | 632.1  | 629.7  | 618.0  | 611.6  | 612.8  |
| 67.5°  | 539.1  | 536.1  | 525.5  | 516.3  | 519.6  |
| 70°    | 475.4  | 475.4  | 463.8  | 458.6  | 454.8  |
| 72.5°  | 416.8  | 411.8  | 403.2  | 395.9  | 393.2  |
| 75°    | 321.2  | 317.5  | 310.9  | 304.5  | 304.5  |
| 77.5°  | 233.8  | 230.6  | 226.4  | 221.9  | 220.8  |
| 80°    | 177.3  | 176.1  | 170.9  | 169.4  | 163.2  |
| 82.5°  | 124.8  | 124.6  | 121.6  | 118.2  | 117.9  |
| 85°    | 52.7   | 57.7   | 57.9   | 59.1   | 59.1   |
| 87.5°  | 9.8    | 16.8   | 17.7   | 16.0   | 15.7   |
| 90°    | 2.6    | 7.7    | 17.0   | 18.2   | 17.0   |
| 92.5°  | 37.0   | 135.0  | 266.3  | 115.6  | 83.7   |
| 95°    | 87.4   | 306.7  | 936.4  | 484.6  | 288.2  |
| 97.5°  | 140.3  | 351.8  | 1459.6 | 1207.9 | 887.1  |
| 100°   | 180.0  | 370.0  | 1622.4 | 1692.0 | 1368.0 |
| 102.5° | 216.5  | 395.3  | 1679.8 | 2059.0 | 1816.7 |
| 105°   | 283.0  | 437.3  | 1688.8 | 2491.2 | 2389.2 |
| 107.5° | 344.6  | 485.3  | 1615.1 | 2760.9 | 2794.8 |
| 110°   | 392.5  | 520.1  | 1549.3 | 2833.3 | 2977.4 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 435.3  | 554.7  | 1488.9 | 2818.9 | 3060.8 |
| 115°   | 498.2  | 609.1  | 1400.6 | 2711.4 | 3060.8 |
| 117.5° | 559.7  | 663.7  | 1342.5 | 2547.5 | 2943.5 |
| 120°   | 597.3  | 699.4  | 1308.1 | 2429.7 | 2834.0 |
| 122.5° | 632.8  | 732.8  | 1287.2 | 2303.5 | 2710.8 |
| 125°   | 682.1  | 781.6  | 1262.4 | 2130.3 | 2502.7 |
| 127.5° | 727.4  | 825.1  | 1247.8 | 1988.9 | 2316.5 |
| 130°   | 752.5  | 853.3  | 1241.6 | 1901.6 | 2197.5 |
| 132.5° | 778.5  | 878.3  | 1235.3 | 1822.8 | 2095.3 |
| 135°   | 817.7  | 914.6  | 1228.5 | 1720.1 | 1947.1 |
| 137.5° | 857.1  | 948.6  | 1222.8 | 1636.7 | 1821.6 |
| 140°   | 884.3  | 969.7  | 1220.7 | 1583.1 | 1747.6 |
| 142.5° | 910.3  | 990.6  | 1216.5 | 1534.6 | 1678.7 |
| 145°   | 950.8  | 1022.2 | 1211.6 | 1472.4 | 1584.5 |
| 147.5° | 987.5  | 1050.8 | 1205.8 | 1415.9 | 1502.1 |
| 150°   | 1014.6 | 1070.8 | 1203.8 | 1385.2 | 1454.2 |
| 152.5° | 1039.7 | 1088.7 | 1202.7 | 1356.9 | 1413.4 |
| 155°   | 1073.3 | 1115.4 | 1201.1 | 1320.8 | 1364.1 |
| 157.5° | 1108.3 | 1137.6 | 1201.3 | 1295.7 | 1324.3 |
| 160°   | 1128.1 | 1152.4 | 1202.5 | 1279.8 | 1300.2 |
| 162.5° | 1143.7 | 1163.9 | 1203.5 | 1267.2 | 1282.5 |
| 165°   | 1168.6 | 1180.0 | 1206.4 | 1253.5 | 1259.8 |
| 167.5° | 1185.5 | 1193.4 | 1206.6 | 1241.6 | 1244.7 |
| 170°   | 1195.9 | 1199.7 | 1207.7 | 1236.4 | 1236.4 |
| 172.5° | 1204.3 | 1205.1 | 1207.7 | 1230.0 | 1229.0 |
| 175°   | 1212.8 | 1211.6 | 1207.7 | 1223.3 | 1220.7 |
| 177.5° | 1215.7 | 1212.7 | 1207.4 | 1217.7 | 1214.7 |
| 180°   | 1211.6 | 1211.6 | 1211.6 | 1211.6 | 1211.6 |

(END OF REPORT)