

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: P520242

Luminaire Tested: **SQ4-F-100U-100D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520242  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, 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-100U-100D-940-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

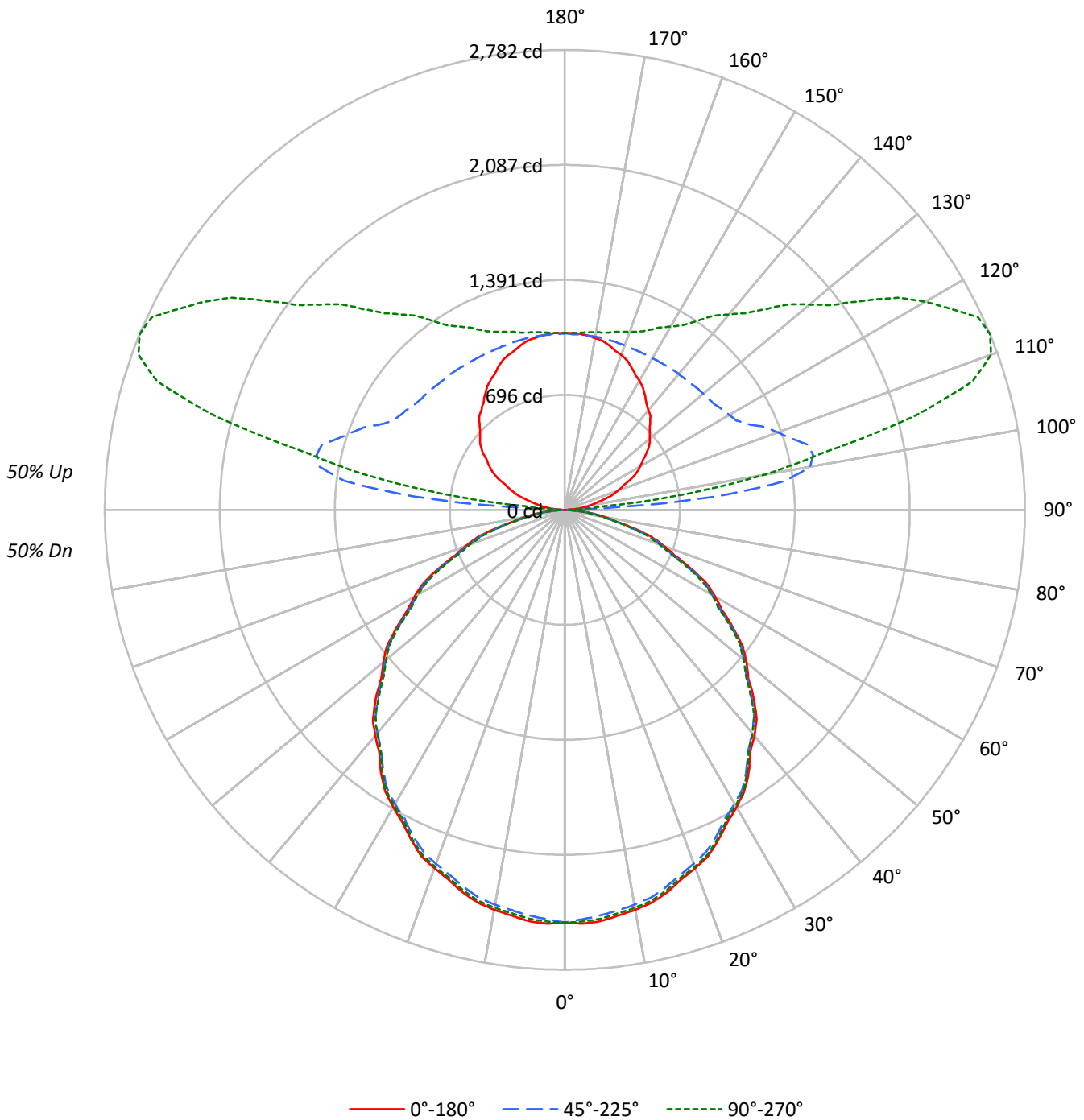
Lumens per Lamp: N/A  
Luminaire Lumens: 13753.9 lumens  
Efficiency: N/A  
Efficacy: 114.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 119.8  
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   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 | 50 |
| 1   | 98  | 93  | 89  | 86  | 90 | 86 | 83 | 80 | 73 | 70 | 68 | 61 | 59 | 57 | 49 | 48 | 47 | 42 |
| 2   | 89  | 81  | 75  | 70  | 82 | 75 | 70 | 65 | 64 | 60 | 56 | 53 | 50 | 48 | 43 | 41 | 39 | 35 |
| 3   | 81  | 71  | 64  | 58  | 74 | 66 | 60 | 55 | 56 | 51 | 47 | 47 | 43 | 40 | 38 | 36 | 33 | 29 |
| 4   | 74  | 63  | 55  | 49  | 68 | 59 | 52 | 46 | 50 | 44 | 40 | 42 | 38 | 34 | 34 | 31 | 29 | 25 |
| 5   | 68  | 56  | 48  | 42  | 62 | 52 | 45 | 40 | 44 | 39 | 35 | 37 | 33 | 30 | 31 | 27 | 25 | 22 |
| 6   | 63  | 50  | 42  | 36  | 57 | 47 | 40 | 34 | 40 | 34 | 30 | 34 | 29 | 26 | 28 | 24 | 22 | 19 |
| 7   | 58  | 45  | 37  | 32  | 53 | 42 | 35 | 30 | 36 | 31 | 26 | 31 | 26 | 23 | 25 | 22 | 19 | 17 |
| 8   | 54  | 41  | 33  | 28  | 49 | 38 | 31 | 27 | 33 | 27 | 23 | 28 | 24 | 20 | 23 | 20 | 17 | 15 |
| 9   | 50  | 38  | 30  | 25  | 46 | 35 | 28 | 24 | 30 | 25 | 21 | 26 | 21 | 18 | 21 | 18 | 16 | 14 |
| 10  | 47  | 34  | 27  | 22  | 43 | 32 | 26 | 21 | 28 | 23 | 19 | 24 | 19 | 17 | 20 | 17 | 14 | 12 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11514 | 11514 | 11514 |
| 5°  | 11566 | 11407 | 11495 |
| 10° | 11507 | 11363 | 11451 |
| 15° | 11438 | 11282 | 11372 |
| 20° | 11320 | 11185 | 11277 |
| 25° | 11196 | 11066 | 11152 |
| 30° | 11060 | 10941 | 10996 |
| 35° | 10921 | 10786 | 10844 |
| 40° | 10739 | 10616 | 10626 |
| 45° | 10550 | 10405 | 10372 |
| 50° | 10278 | 10155 | 10131 |
| 55° | 9975  | 9864  | 9796  |
| 60° | 9673  | 9499  | 9467  |
| 65° | 9200  | 8994  | 8919  |
| 70° | 8549  | 8342  | 8180  |
| 75° | 7632  | 7390  | 7236  |
| 80° | 6280  | 6054  | 5781  |
| 85° | 3716  | 4081  | 4171  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 235.6   | 1.7       |
| 10°-20°   | 670.8   | 4.9       |
| 20°-30°   | 1007.4  | 7.3       |
| 30°-40°   | 1202.3  | 8.7       |
| 40°-50°   | 1232.3  | 9.0       |
| 50°-60°   | 1097.4  | 8.0       |
| 60°-70°   | 818.0   | 5.9       |
| 70°-80°   | 442.9   | 3.2       |
| 80°-90°   | 103.0   | 0.7       |
| 90°-100°  | 500.5   | 3.6       |
| 100°-110° | 1381.7  | 10.0      |
| 110°-120° | 1425.0  | 10.4      |
| 120°-130° | 1145.1  | 8.3       |
| 130°-140° | 899.9   | 6.5       |
| 140°-150° | 690.2   | 5.0       |
| 150°-160° | 496.0   | 3.6       |
| 160°-170° | 303.4   | 2.2       |
| 170°-180° | 102.3   | 0.7       |
| 0°-30°    | 1913.8  | 13.9      |
| 0°-40°    | 3116.1  | 22.7      |
| 0°-60°    | 5445.9  | 39.6      |
| 0°-90°    | 6809.8  | 49.5      |
| 90°-120°  | 3307.2  | 24.0      |
| 90°-150°  | 6042.4  | 43.9      |
| 90°-180°  | 6944.0  | 50.5      |
| 0°-180°   | 13753.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2496 | 2496  | 2496 | 2496  | 2496 |      |
| 5°   | 2498 | 2493  | 2463 | 2486  | 2482 | 237  |
| 15°  | 2395 | 2386  | 2362 | 2381  | 2381 | 675  |
| 25°  | 2200 | 2195  | 2174 | 2186  | 2191 | 1014 |
| 35°  | 1939 | 1931  | 1915 | 1919  | 1926 | 1211 |
| 45°  | 1617 | 1609  | 1595 | 1586  | 1590 | 1244 |
| 55°  | 1240 | 1242  | 1226 | 1215  | 1218 | 1110 |
| 65°  | 843  | 840   | 824  | 815   | 817  | 834  |
| 75°  | 428  | 423   | 415  | 406   | 406  | 456  |
| 85°  | 70   | 77    | 77   | 79    | 79   | 98   |
| 90°  | 4    | 7     | 14   | 15    | 17   | 7    |
| 95°  | 74   | 271   | 908  | 373   | 243  | 79   |
| 105° | 246  | 380   | 1520 | 2321  | 2185 | 262  |
| 115° | 441  | 533   | 1224 | 2424  | 2756 | 434  |
| 125° | 605  | 689   | 1110 | 1878  | 2204 | 539  |
| 135° | 728  | 807   | 1079 | 1521  | 1715 | 564  |
| 145° | 845  | 903   | 1065 | 1295  | 1394 | 529  |
| 155° | 952  | 984   | 1057 | 1162  | 1199 | 439  |
| 165° | 1031 | 1044  | 1062 | 1103  | 1112 | 291  |
| 175° | 1069 | 1070  | 1064 | 1079  | 1076 | 102  |
| 180° | 1069 | 1069  | 1069 | 1069  | 1069 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2496.0 | 2496.0 | 2496.0 | 2496.0 | 2496.0 |
| 2.5°   | 2505.6 | 2500.2 | 2478.1 | 2495.9 | 2493.2 |
| 5°     | 2497.7 | 2492.7 | 2463.4 | 2485.6 | 2482.3 |
| 7.5°   | 2474.4 | 2469.3 | 2443.6 | 2464.1 | 2461.0 |
| 10°    | 2456.5 | 2451.6 | 2425.7 | 2446.2 | 2444.6 |
| 12.5°  | 2433.3 | 2428.2 | 2402.4 | 2423.0 | 2421.3 |
| 15°    | 2394.9 | 2386.5 | 2362.3 | 2381.2 | 2381.2 |
| 17.5°  | 2344.2 | 2337.8 | 2315.5 | 2331.2 | 2331.5 |
| 20°    | 2305.8 | 2300.8 | 2278.4 | 2295.5 | 2297.2 |
| 22.5°  | 2267.5 | 2262.4 | 2237.3 | 2253.1 | 2256.1 |
| 25°    | 2199.6 | 2194.6 | 2174.0 | 2186.1 | 2191.0 |
| 27.5°  | 2129.7 | 2122.3 | 2101.9 | 2112.6 | 2116.4 |
| 30°    | 2076.3 | 2072.9 | 2054.0 | 2059.2 | 2064.3 |
| 32.5°  | 2020.1 | 2016.7 | 2000.6 | 2003.1 | 2012.2 |
| 35°    | 1939.2 | 1930.8 | 1915.3 | 1918.8 | 1925.6 |
| 37.5°  | 1843.6 | 1839.7 | 1824.4 | 1822.5 | 1828.9 |
| 40°    | 1783.3 | 1776.6 | 1762.8 | 1759.5 | 1764.5 |
| 42.5°  | 1717.6 | 1710.9 | 1694.2 | 1690.9 | 1697.4 |
| 45°    | 1617.1 | 1608.8 | 1594.9 | 1586.4 | 1589.8 |
| 47.5°  | 1504.8 | 1504.8 | 1490.4 | 1480.6 | 1485.6 |
| 50°    | 1432.1 | 1432.1 | 1415.0 | 1406.6 | 1411.6 |
| 52.5°  | 1356.7 | 1358.1 | 1339.6 | 1335.1 | 1333.4 |
| 55°    | 1240.3 | 1242.0 | 1226.5 | 1214.6 | 1218.0 |
| 57.5°  | 1127.9 | 1124.2 | 1106.4 | 1098.4 | 1100.1 |
| 60°    | 1048.4 | 1043.4 | 1029.6 | 1017.8 | 1026.1 |
| 62.5°  | 967.5  | 965.3  | 951.5  | 938.1  | 937.0  |
| 65°    | 842.8  | 839.5  | 824.0  | 815.4  | 817.1  |
| 67.5°  | 718.8  | 714.8  | 700.6  | 688.4  | 692.8  |
| 70°    | 633.8  | 633.8  | 618.5  | 611.4  | 606.5  |
| 72.5°  | 555.8  | 549.0  | 537.5  | 527.9  | 524.2  |
| 75°    | 428.2  | 423.3  | 414.6  | 406.0  | 406.0  |
| 77.5°  | 311.8  | 307.5  | 301.8  | 296.0  | 294.3  |
| 80°    | 236.4  | 234.7  | 227.9  | 225.9  | 217.6  |
| 82.5°  | 166.6  | 166.2  | 162.1  | 157.6  | 157.2  |
| 85°    | 70.2   | 76.9   | 77.1   | 78.8   | 78.8   |
| 87.5°  | 13.0   | 21.7   | 21.9   | 19.5   | 19.9   |
| 90°    | 3.5    | 6.7    | 13.7   | 15.4   | 17.1   |
| 92.5°  | 30.8   | 127.7  | 228.4  | 83.4   | 65.0   |
| 95°    | 73.5   | 270.8  | 908.0  | 373.2  | 242.9  |
| 97.5°  | 121.8  | 303.3  | 1345.0 | 1035.6 | 750.0  |
| 100°   | 157.3  | 322.9  | 1506.5 | 1517.2 | 1232.9 |
| 102.5° | 191.5  | 345.0  | 1537.9 | 1874.5 | 1605.0 |
| 105°   | 246.2  | 380.0  | 1520.1 | 2320.8 | 2185.4 |
| 107.5° | 304.4  | 423.4  | 1435.4 | 2536.0 | 2585.5 |
| 110°   | 345.4  | 452.5  | 1369.7 | 2582.3 | 2742.8 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 382.3  | 485.3  | 1308.1 | 2545.8 | 2782.5 |
| 115°   | 441.2  | 533.1  | 1224.4 | 2423.8 | 2756.5 |
| 117.5° | 492.4  | 584.1  | 1169.3 | 2252.1 | 2630.6 |
| 120°   | 526.7  | 617.0  | 1147.4 | 2135.8 | 2517.1 |
| 122.5° | 559.5  | 645.8  | 1129.6 | 2027.3 | 2388.5 |
| 125°   | 605.3  | 688.9  | 1109.8 | 1878.1 | 2204.2 |
| 127.5° | 644.3  | 727.9  | 1098.1 | 1751.9 | 2033.1 |
| 130°   | 670.3  | 753.9  | 1092.7 | 1674.7 | 1930.6 |
| 132.5° | 694.9  | 774.6  | 1087.2 | 1609.9 | 1841.6 |
| 135°   | 728.5  | 807.0  | 1079.0 | 1521.1 | 1715.1 |
| 137.5° | 766.1  | 837.7  | 1074.9 | 1446.6 | 1612.1 |
| 140°   | 786.6  | 856.8  | 1072.1 | 1397.0 | 1542.4 |
| 142.5° | 809.9  | 874.7  | 1069.4 | 1352.8 | 1480.9 |
| 145°   | 844.7  | 903.3  | 1065.3 | 1295.0 | 1393.6 |
| 147.5° | 878.2  | 929.4  | 1061.5 | 1246.2 | 1322.9 |
| 150°   | 902.9  | 944.7  | 1060.1 | 1217.2 | 1279.1 |
| 152.5° | 922.1  | 961.1  | 1058.9 | 1192.3 | 1243.4 |
| 155°   | 952.4  | 984.2  | 1056.8 | 1161.9 | 1198.7 |
| 157.5° | 980.5  | 1004.9 | 1057.1 | 1139.8 | 1164.8 |
| 160°   | 996.9  | 1018.7 | 1058.5 | 1127.3 | 1145.7 |
| 162.5° | 1010.6 | 1029.7 | 1059.8 | 1116.2 | 1130.7 |
| 165°   | 1031.2 | 1044.5 | 1061.9 | 1103.1 | 1111.5 |
| 167.5° | 1046.9 | 1054.9 | 1063.6 | 1095.2 | 1097.8 |
| 170°   | 1055.1 | 1061.7 | 1063.6 | 1091.0 | 1091.0 |
| 172.5° | 1061.9 | 1065.9 | 1063.6 | 1085.5 | 1084.1 |
| 175°   | 1068.8 | 1070.4 | 1063.6 | 1078.9 | 1075.6 |
| 177.5° | 1071.4 | 1070.1 | 1063.2 | 1072.8 | 1070.1 |
| 180°   | 1068.8 | 1068.8 | 1068.8 | 1068.8 | 1068.8 |

(END OF REPORT)