

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: P520231

Luminaire Tested: **SQ4-F-100U-100D-930-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520231  
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-930-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

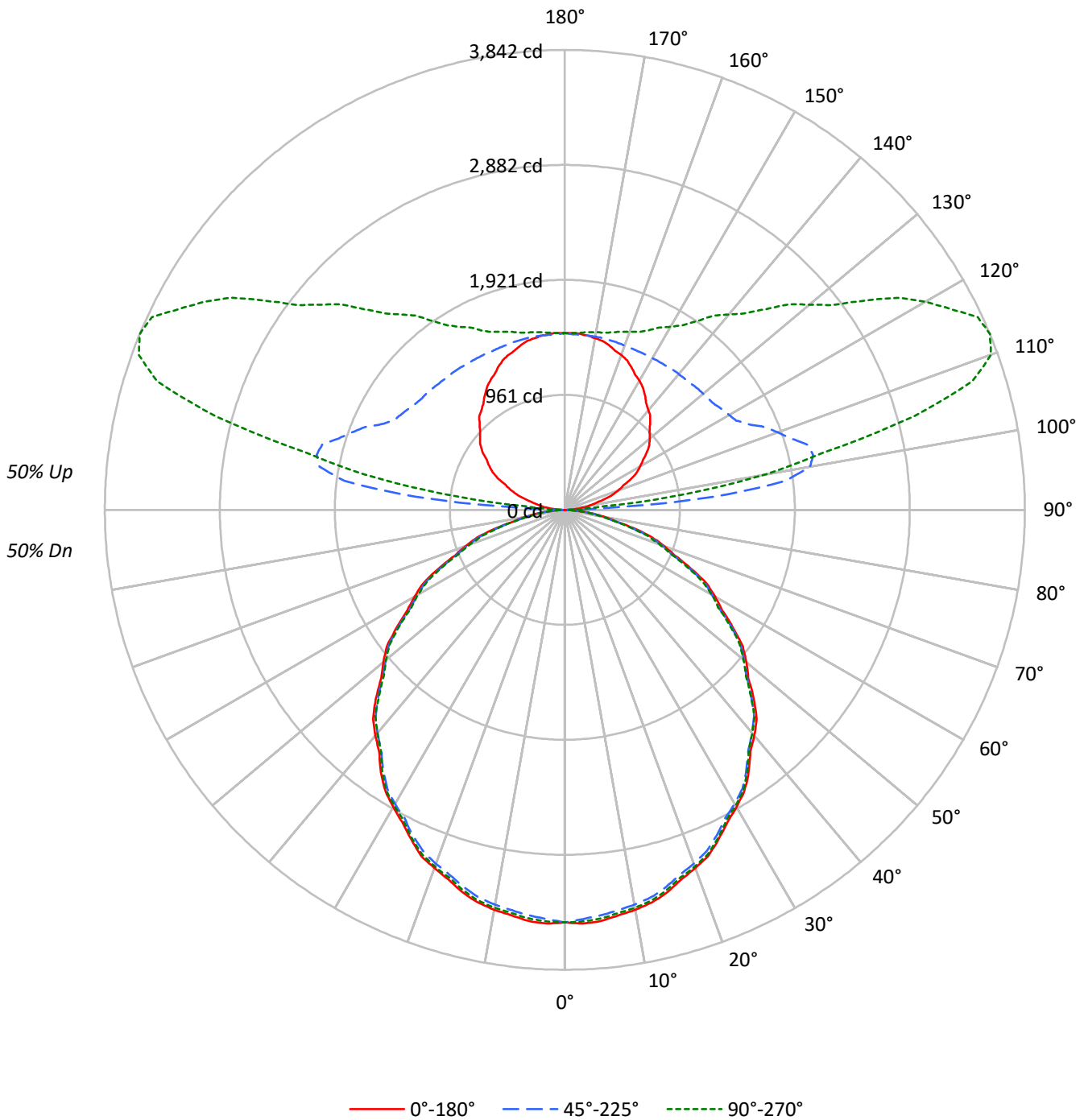
Lumens per Lamp: N/A  
Luminaire Lumens: 18990.7 lumens  
Efficiency: N/A  
Efficacy: 103.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 183.6  
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   | 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°  | 10599 | 10599 | 10599 |
| 5°  | 10647 | 10501 | 10581 |
| 10° | 10592 | 10460 | 10541 |
| 15° | 10528 | 10385 | 10468 |
| 20° | 10420 | 10296 | 10381 |
| 25° | 10306 | 10185 | 10266 |
| 30° | 10180 | 10071 | 10122 |
| 35° | 10053 | 9928  | 9982  |
| 40° | 9885  | 9772  | 9781  |
| 45° | 9711  | 9578  | 9547  |
| 50° | 9461  | 9348  | 9325  |
| 55° | 9182  | 9081  | 9017  |
| 60° | 8904  | 8743  | 8715  |
| 65° | 8468  | 8280  | 8210  |
| 70° | 7870  | 7678  | 7529  |
| 75° | 7026  | 6802  | 6661  |
| 80° | 5781  | 5572  | 5320  |
| 85° | 3423  | 3754  | 3839  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 325.3   | 1.7       |
| 10°-20°   | 926.3   | 4.9       |
| 20°-30°   | 1391.0  | 7.3       |
| 30°-40°   | 1660.1  | 8.7       |
| 40°-50°   | 1701.6  | 9.0       |
| 50°-60°   | 1515.2  | 8.0       |
| 60°-70°   | 1129.5  | 5.9       |
| 70°-80°   | 611.5   | 3.2       |
| 80°-90°   | 142.2   | 0.7       |
| 90°-100°  | 691.0   | 3.6       |
| 100°-110° | 1907.8  | 10.0      |
| 110°-120° | 1967.5  | 10.4      |
| 120°-130° | 1581.1  | 8.3       |
| 130°-140° | 1242.6  | 6.5       |
| 140°-150° | 953.0   | 5.0       |
| 150°-160° | 684.9   | 3.6       |
| 160°-170° | 418.9   | 2.2       |
| 170°-180° | 141.2   | 0.7       |
| 0°-30°    | 2642.6  | 13.9      |
| 0°-40°    | 4302.6  | 22.7      |
| 0°-60°    | 7519.4  | 39.6      |
| 0°-90°    | 9402.7  | 49.5      |
| 90°-120°  | 4566.4  | 24.0      |
| 90°-150°  | 8343.0  | 43.9      |
| 90°-180°  | 9588.0  | 50.5      |
| 0°-180°   | 18990.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 3446 | 3446  | 3446 | 3446  | 3446 |      |
| 5°   | 3449 | 3442  | 3401 | 3432  | 3427 | 327  |
| 15°  | 3307 | 3295  | 3262 | 3288  | 3288 | 932  |
| 25°  | 3037 | 3030  | 3002 | 3018  | 3025 | 1399 |
| 35°  | 2678 | 2666  | 2644 | 2650  | 2659 | 1671 |
| 45°  | 2233 | 2221  | 2202 | 2190  | 2195 | 1718 |
| 55°  | 1712 | 1715  | 1694 | 1677  | 1682 | 1533 |
| 65°  | 1164 | 1159  | 1138 | 1126  | 1128 | 1151 |
| 75°  | 591  | 584   | 572  | 561   | 561  | 630  |
| 85°  | 97   | 106   | 106  | 109   | 109  | 136  |
| 90°  | 5    | 9     | 19   | 21    | 24   | 10   |
| 95°  | 102  | 374   | 1254 | 515   | 335  | 109  |
| 105° | 340  | 525   | 2099 | 3204  | 3017 | 362  |
| 115° | 609  | 736   | 1690 | 3347  | 3806 | 599  |
| 125° | 836  | 951   | 1532 | 2593  | 3043 | 744  |
| 135° | 1006 | 1114  | 1490 | 2100  | 2368 | 778  |
| 145° | 1166 | 1247  | 1471 | 1788  | 1924 | 730  |
| 155° | 1315 | 1359  | 1459 | 1604  | 1655 | 606  |
| 165° | 1424 | 1442  | 1466 | 1523  | 1535 | 401  |
| 175° | 1476 | 1478  | 1469 | 1490  | 1485 | 140  |
| 180° | 1476 | 1476  | 1476 | 1476  | 1476 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 3446.3 | 3446.3 | 3446.3 | 3446.3 | 3446.3 |
| 2.5°   | 3459.6 | 3452.1 | 3421.7 | 3446.3 | 3442.5 |
| 5°     | 3448.7 | 3441.7 | 3401.4 | 3432.0 | 3427.4 |
| 7.5°   | 3416.6 | 3409.6 | 3373.9 | 3402.2 | 3398.0 |
| 10°    | 3391.9 | 3384.9 | 3349.4 | 3377.7 | 3375.3 |
| 12.5°  | 3359.8 | 3352.8 | 3317.2 | 3345.5 | 3343.2 |
| 15°    | 3306.8 | 3295.2 | 3261.8 | 3287.8 | 3287.8 |
| 17.5°  | 3236.7 | 3228.0 | 3197.0 | 3218.8 | 3219.3 |
| 20°    | 3183.8 | 3176.9 | 3146.0 | 3169.6 | 3171.9 |
| 22.5°  | 3130.8 | 3123.9 | 3089.2 | 3111.0 | 3115.1 |
| 25°    | 3037.1 | 3030.1 | 3001.6 | 3018.3 | 3025.3 |
| 27.5°  | 2940.6 | 2930.5 | 2902.3 | 2917.1 | 2922.1 |
| 30°    | 2866.8 | 2862.2 | 2836.0 | 2843.4 | 2850.3 |
| 32.5°  | 2789.3 | 2784.6 | 2762.2 | 2765.9 | 2778.4 |
| 35°    | 2677.6 | 2666.0 | 2644.5 | 2649.5 | 2658.7 |
| 37.5°  | 2545.6 | 2540.1 | 2519.1 | 2516.5 | 2525.2 |
| 40°    | 2462.3 | 2453.1 | 2434.0 | 2429.4 | 2436.3 |
| 42.5°  | 2371.5 | 2362.2 | 2339.3 | 2334.8 | 2343.6 |
| 45°    | 2232.9 | 2221.3 | 2202.1 | 2190.4 | 2195.1 |
| 47.5°  | 2077.8 | 2077.8 | 2057.8 | 2044.3 | 2051.2 |
| 50°    | 1977.5 | 1977.5 | 1953.8 | 1942.1 | 1949.0 |
| 52.5°  | 1873.3 | 1875.2 | 1849.7 | 1843.5 | 1841.1 |
| 55°    | 1712.5 | 1714.8 | 1693.6 | 1677.2 | 1681.7 |
| 57.5°  | 1557.4 | 1552.2 | 1527.6 | 1516.8 | 1519.0 |
| 60°    | 1447.6 | 1440.7 | 1421.5 | 1405.3 | 1416.9 |
| 62.5°  | 1335.9 | 1332.8 | 1313.7 | 1295.2 | 1293.8 |
| 65°    | 1163.7 | 1159.2 | 1137.8 | 1126.0 | 1128.2 |
| 67.5°  | 992.5  | 987.0  | 967.4  | 950.5  | 956.5  |
| 70°    | 875.2  | 875.2  | 853.9  | 844.3  | 837.3  |
| 72.5°  | 767.3  | 758.1  | 742.2  | 728.8  | 723.8  |
| 75°    | 591.3  | 584.4  | 572.4  | 560.6  | 560.6  |
| 77.5°  | 430.5  | 424.5  | 416.7  | 408.7  | 406.3  |
| 80°    | 326.4  | 324.1  | 314.6  | 312.0  | 300.4  |
| 82.5°  | 229.9  | 229.5  | 223.7  | 217.6  | 217.2  |
| 85°    | 97.0   | 106.2  | 106.4  | 108.8  | 108.8  |
| 87.5°  | 17.9   | 30.0   | 30.3   | 27.0   | 27.4   |
| 90°    | 4.7    | 9.3    | 18.9   | 21.3   | 23.6   |
| 92.5°  | 42.5   | 176.4  | 315.5  | 115.1  | 89.7   |
| 95°    | 101.5  | 373.9  | 1253.7 | 515.4  | 335.2  |
| 97.5°  | 168.1  | 418.8  | 1857.2 | 1429.8 | 1035.5 |
| 100°   | 217.2  | 445.7  | 2080.0 | 2094.8 | 1702.3 |
| 102.5° | 264.4  | 476.4  | 2123.6 | 2588.2 | 2216.0 |
| 105°   | 340.0  | 524.7  | 2098.9 | 3204.4 | 3017.4 |
| 107.5° | 420.2  | 584.6  | 1981.9 | 3501.5 | 3569.9 |
| 110°   | 476.9  | 624.7  | 1891.2 | 3565.5 | 3787.1 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 527.9  | 670.1  | 1806.2 | 3515.0 | 3841.9 |
| 115°   | 609.2  | 736.1  | 1690.5 | 3346.6 | 3806.0 |
| 117.5° | 680.0  | 806.5  | 1614.5 | 3109.6 | 3632.2 |
| 120°   | 727.2  | 851.8  | 1584.2 | 2949.1 | 3475.4 |
| 122.5° | 772.6  | 891.7  | 1559.7 | 2799.3 | 3297.9 |
| 125°   | 835.8  | 951.2  | 1532.3 | 2593.2 | 3043.4 |
| 127.5° | 889.6  | 1005.0 | 1516.3 | 2418.9 | 2807.3 |
| 130°   | 925.5  | 1041.0 | 1508.8 | 2312.4 | 2665.6 |
| 132.5° | 959.5  | 1069.4 | 1501.1 | 2222.9 | 2542.9 |
| 135°   | 1005.8 | 1114.4 | 1489.9 | 2100.3 | 2368.1 |
| 137.5° | 1057.8 | 1156.6 | 1484.1 | 1997.4 | 2226.0 |
| 140°   | 1086.1 | 1183.0 | 1480.4 | 1928.8 | 2129.7 |
| 142.5° | 1118.2 | 1207.7 | 1476.6 | 1867.8 | 2044.6 |
| 145°   | 1166.4 | 1247.1 | 1471.0 | 1788.0 | 1924.2 |
| 147.5° | 1212.6 | 1283.3 | 1465.7 | 1720.7 | 1826.5 |
| 150°   | 1246.6 | 1304.4 | 1463.8 | 1680.7 | 1766.1 |
| 152.5° | 1273.0 | 1327.1 | 1462.0 | 1646.4 | 1717.0 |
| 155°   | 1315.1 | 1359.0 | 1459.1 | 1604.3 | 1655.1 |
| 157.5° | 1353.8 | 1387.6 | 1459.6 | 1573.7 | 1608.4 |
| 160°   | 1376.5 | 1406.5 | 1461.5 | 1556.5 | 1581.9 |
| 162.5° | 1395.4 | 1421.7 | 1463.4 | 1541.3 | 1561.1 |
| 165°   | 1423.7 | 1442.2 | 1466.2 | 1523.1 | 1534.7 |
| 167.5° | 1445.4 | 1456.5 | 1468.6 | 1512.1 | 1515.8 |
| 170°   | 1456.7 | 1466.0 | 1468.6 | 1506.4 | 1506.4 |
| 172.5° | 1466.2 | 1471.8 | 1468.6 | 1498.8 | 1496.9 |
| 175°   | 1475.6 | 1478.0 | 1468.6 | 1489.7 | 1485.1 |
| 177.5° | 1479.5 | 1477.6 | 1468.1 | 1481.3 | 1477.5 |
| 180°   | 1475.6 | 1475.6 | 1475.6 | 1475.6 | 1475.6 |

(END OF REPORT)