

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: P519949

Luminaire Tested: **SQ4-F-050U-100D-935-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P519949  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-100D-935-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

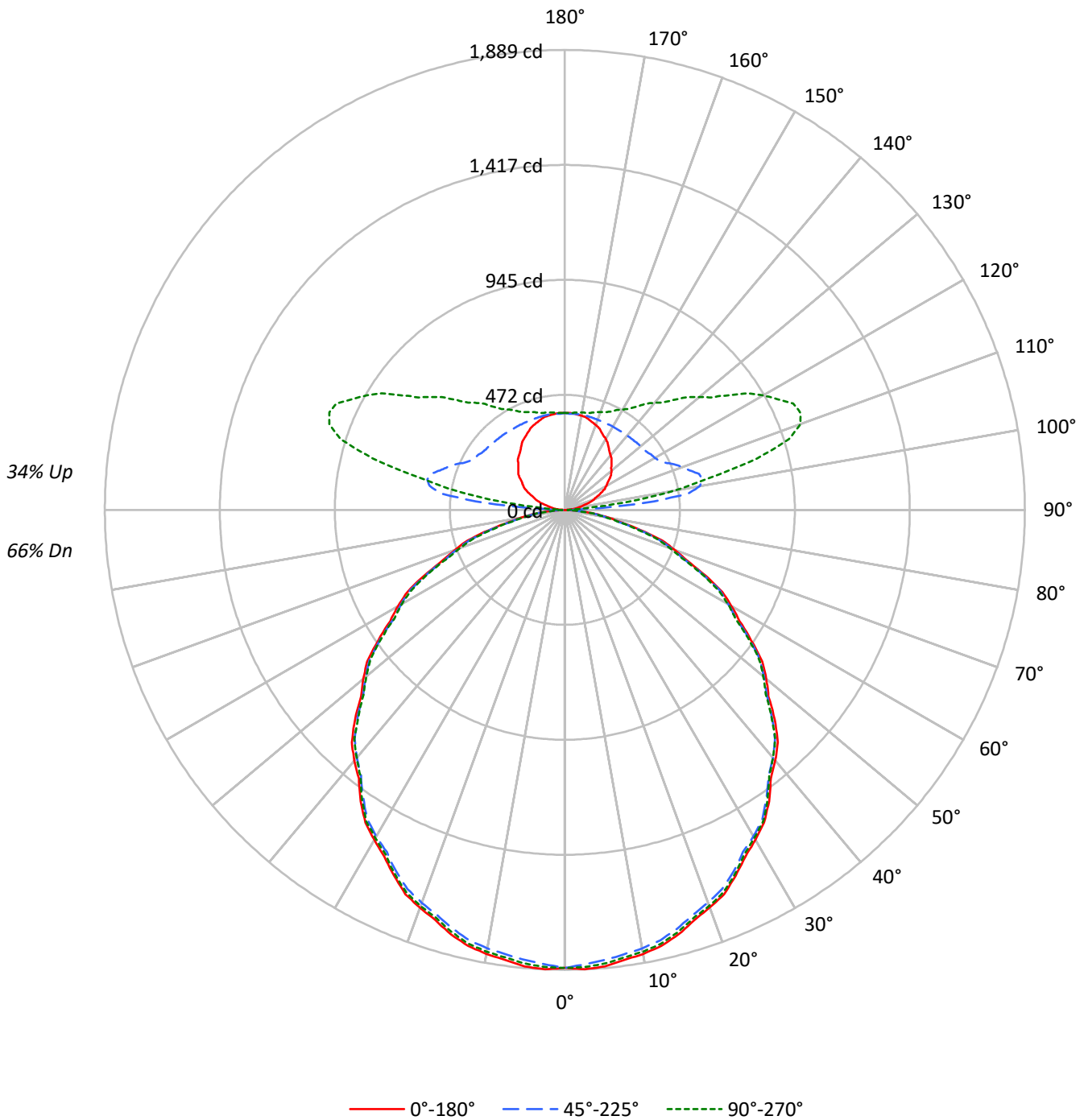
Lumens per Lamp: N/A  
Luminaire Lumens: 7729.4 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 70  
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   | 111 | 111 | 111 | 111 | 105 | 105 | 105 | 105 | 92 | 92 | 92 | 81 | 81 | 81 | 71 | 71 | 71 | 66 |
| 1   | 101 | 97  | 93  | 89  | 95  | 91  | 88  | 85  | 81 | 79 | 76 | 72 | 70 | 68 | 63 | 61 | 60 | 56 |
| 2   | 92  | 85  | 78  | 73  | 87  | 80  | 74  | 69  | 71 | 67 | 63 | 63 | 59 | 57 | 55 | 53 | 51 | 47 |
| 3   | 84  | 74  | 67  | 61  | 79  | 70  | 63  | 58  | 63 | 57 | 53 | 55 | 51 | 48 | 49 | 46 | 43 | 39 |
| 4   | 77  | 66  | 58  | 51  | 72  | 62  | 55  | 49  | 56 | 50 | 45 | 49 | 45 | 41 | 44 | 40 | 37 | 34 |
| 5   | 71  | 59  | 50  | 44  | 66  | 56  | 48  | 42  | 50 | 44 | 39 | 44 | 39 | 35 | 39 | 35 | 32 | 29 |
| 6   | 65  | 53  | 44  | 38  | 61  | 50  | 42  | 37  | 45 | 39 | 34 | 40 | 35 | 31 | 36 | 31 | 28 | 26 |
| 7   | 60  | 48  | 39  | 34  | 57  | 45  | 38  | 32  | 41 | 34 | 30 | 36 | 31 | 27 | 32 | 28 | 25 | 23 |
| 8   | 56  | 43  | 35  | 30  | 53  | 41  | 34  | 29  | 37 | 31 | 27 | 33 | 28 | 24 | 30 | 26 | 22 | 20 |
| 9   | 52  | 40  | 32  | 27  | 49  | 38  | 31  | 26  | 34 | 28 | 24 | 31 | 26 | 22 | 27 | 23 | 20 | 18 |
| 10  | 49  | 36  | 29  | 24  | 46  | 35  | 28  | 23  | 31 | 26 | 21 | 28 | 23 | 20 | 25 | 21 | 18 | 16 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11573 | 11573 | 11573 |
| 5°  | 11626 | 11466 | 11553 |
| 10° | 11566 | 11421 | 11510 |
| 15° | 11496 | 11340 | 11430 |
| 20° | 11377 | 11242 | 11336 |
| 25° | 11253 | 11121 | 11210 |
| 30° | 11116 | 10997 | 11052 |
| 35° | 10977 | 10840 | 10900 |
| 40° | 10794 | 10669 | 10680 |
| 45° | 10604 | 10458 | 10424 |
| 50° | 10331 | 10207 | 10182 |
| 55° | 10025 | 9915  | 9846  |
| 60° | 9722  | 9547  | 9515  |
| 65° | 9246  | 9040  | 8965  |
| 70° | 8593  | 8384  | 8222  |
| 75° | 7671  | 7427  | 7274  |
| 80° | 6312  | 6082  | 5809  |
| 85° | 3733  | 4107  | 4192  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 177.6  | 2.3       |
| 10°-20°   | 505.7  | 6.5       |
| 20°-30°   | 759.4  | 9.8       |
| 30°-40°   | 906.3  | 11.7      |
| 40°-50°   | 929.0  | 12.0      |
| 50°-60°   | 827.2  | 10.7      |
| 60°-70°   | 616.7  | 8.0       |
| 70°-80°   | 333.9  | 4.3       |
| 80°-90°   | 77.5   | 1.0       |
| 90°-100°  | 190.9  | 2.5       |
| 100°-110° | 518.5  | 6.7       |
| 110°-120° | 533.1  | 6.9       |
| 120°-130° | 426.2  | 5.5       |
| 130°-140° | 334.9  | 4.3       |
| 140°-150° | 256.8  | 3.3       |
| 150°-160° | 184.7  | 2.4       |
| 160°-170° | 112.9  | 1.5       |
| 170°-180° | 38.1   | 0.5       |
| 0°-30°    | 1442.7 | 18.7      |
| 0°-40°    | 2349.0 | 30.4      |
| 0°-60°    | 4105.2 | 53.1      |
| 0°-90°    | 5133.3 | 66.4      |
| 90°-120°  | 1242.5 | 16.1      |
| 90°-150°  | 2260.4 | 29.2      |
| 90°-180°  | 2596.0 | 33.6      |
| 0°-180°   | 7729.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1882 | 1882  | 1882 | 1882  | 1882 |      |
| 5°   | 1883 | 1879  | 1857 | 1874  | 1871 | 179  |
| 15°  | 1805 | 1799  | 1781 | 1795  | 1795 | 509  |
| 25°  | 1658 | 1654  | 1639 | 1648  | 1652 | 764  |
| 35°  | 1462 | 1456  | 1444 | 1446  | 1452 | 913  |
| 45°  | 1219 | 1213  | 1202 | 1196  | 1198 | 938  |
| 55°  | 935  | 936   | 925  | 916   | 918  | 837  |
| 65°  | 635  | 633   | 621  | 615   | 616  | 628  |
| 75°  | 323  | 319   | 312  | 306   | 306  | 344  |
| 85°  | 53   | 58    | 58   | 59    | 59   | 74   |
| 90°  | 1    | 5     | 9    | 12    | 12   | 3    |
| 95°  | 28   | 104   | 332  | 145   | 97   | 30   |
| 105° | 92   | 143   | 570  | 868   | 817  | 98   |
| 115° | 164  | 199   | 456  | 908   | 1034 | 161  |
| 125° | 225  | 256   | 413  | 696   | 821  | 201  |
| 135° | 271  | 301   | 401  | 567   | 639  | 210  |
| 145° | 313  | 336   | 396  | 482   | 518  | 197  |
| 155° | 354  | 367   | 394  | 432   | 445  | 163  |
| 165° | 384  | 389   | 395  | 412   | 413  | 108  |
| 175° | 398  | 399   | 396  | 401   | 400  | 38   |
| 180° | 398  | 398   | 398  | 398   | 398  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1881.6 | 1881.6 | 1881.6 | 1881.6 | 1881.6 |
| 2.5°   | 1888.8 | 1884.7 | 1868.1 | 1881.5 | 1879.5 |
| 5°     | 1882.9 | 1879.0 | 1857.0 | 1873.7 | 1871.2 |
| 7.5°   | 1865.2 | 1861.5 | 1842.0 | 1857.5 | 1855.2 |
| 10°    | 1851.8 | 1848.1 | 1828.6 | 1844.0 | 1842.8 |
| 12.5°  | 1834.3 | 1830.4 | 1811.0 | 1826.5 | 1825.2 |
| 15°    | 1805.4 | 1799.0 | 1780.8 | 1795.0 | 1795.0 |
| 17.5°  | 1767.1 | 1762.3 | 1745.4 | 1757.3 | 1757.5 |
| 20°    | 1738.2 | 1734.4 | 1717.5 | 1730.5 | 1731.8 |
| 22.5°  | 1709.3 | 1705.5 | 1686.6 | 1698.5 | 1700.7 |
| 25°    | 1658.1 | 1654.4 | 1638.7 | 1647.8 | 1651.7 |
| 27.5°  | 1605.4 | 1599.9 | 1584.5 | 1592.5 | 1595.3 |
| 30°    | 1565.1 | 1562.6 | 1548.4 | 1552.3 | 1556.1 |
| 32.5°  | 1522.8 | 1520.2 | 1508.0 | 1510.0 | 1516.9 |
| 35°    | 1461.9 | 1455.5 | 1443.7 | 1446.5 | 1451.6 |
| 37.5°  | 1389.8 | 1386.8 | 1375.4 | 1373.9 | 1378.6 |
| 40°    | 1344.3 | 1339.3 | 1328.8 | 1326.3 | 1330.1 |
| 42.5°  | 1294.7 | 1289.7 | 1277.2 | 1274.7 | 1279.4 |
| 45°    | 1219.1 | 1212.8 | 1202.3 | 1195.9 | 1198.4 |
| 47.5°  | 1134.4 | 1134.4 | 1123.5 | 1116.1 | 1119.9 |
| 50°    | 1079.6 | 1079.6 | 1066.7 | 1060.3 | 1064.1 |
| 52.5°  | 1022.7 | 1023.8 | 1009.8 | 1006.5 | 1005.2 |
| 55°    | 934.9  | 936.2  | 924.6  | 915.6  | 918.2  |
| 57.5°  | 850.2  | 847.5  | 834.0  | 828.0  | 829.3  |
| 60°    | 790.3  | 786.5  | 776.1  | 767.2  | 773.5  |
| 62.5°  | 729.3  | 727.6  | 717.3  | 707.2  | 706.4  |
| 65°    | 635.3  | 632.8  | 621.1  | 614.7  | 616.0  |
| 67.5°  | 541.9  | 538.8  | 528.2  | 519.0  | 522.3  |
| 70°    | 477.8  | 477.8  | 466.2  | 460.9  | 457.2  |
| 72.5°  | 418.9  | 413.9  | 405.2  | 397.9  | 395.1  |
| 75°    | 322.8  | 319.0  | 312.5  | 306.1  | 306.1  |
| 77.5°  | 235.0  | 231.8  | 227.5  | 223.1  | 221.8  |
| 80°    | 178.2  | 177.0  | 171.7  | 170.3  | 164.0  |
| 82.5°  | 125.5  | 125.2  | 122.2  | 118.8  | 118.5  |
| 85°    | 52.9   | 58.0   | 58.2   | 59.4   | 59.4   |
| 87.5°  | 9.5    | 16.3   | 16.2   | 14.8   | 14.8   |
| 90°    | 1.3    | 5.0    | 8.9    | 11.5   | 11.5   |
| 92.5°  | 11.5   | 52.3   | 90.8   | 39.0   | 33.0   |
| 95°    | 28.2   | 104.4  | 332.5  | 144.6  | 97.1   |
| 97.5°  | 46.5   | 115.3  | 509.6  | 396.4  | 278.5  |
| 100°   | 58.8   | 122.6  | 563.8  | 571.5  | 461.5  |
| 102.5° | 71.0   | 129.8  | 578.2  | 706.8  | 609.9  |
| 105°   | 92.0   | 143.3  | 570.2  | 868.2  | 816.9  |
| 107.5° | 113.8  | 159.1  | 537.3  | 951.6  | 965.8  |
| 110°   | 129.1  | 170.4  | 512.7  | 967.9  | 1029.2 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°    |
|--------|-------|-------|-------|-------|--------|
| 112.5° | 142.4 | 181.6 | 488.1 | 954.3 | 1046.5 |
| 115°   | 163.7 | 198.6 | 456.4 | 908.1 | 1034.3 |
| 117.5° | 183.6 | 217.1 | 436.2 | 842.4 | 984.7  |
| 120°   | 196.8 | 229.4 | 427.1 | 798.5 | 939.7  |
| 122.5° | 208.1 | 240.6 | 420.9 | 754.3 | 890.6  |
| 125°   | 225.0 | 256.3 | 412.9 | 695.8 | 820.8  |
| 127.5° | 240.1 | 271.1 | 408.6 | 651.4 | 758.6  |
| 130°   | 249.3 | 279.3 | 406.5 | 623.5 | 719.8  |
| 132.5° | 258.5 | 288.5 | 404.5 | 599.8 | 685.0  |
| 135°   | 271.0 | 301.1 | 401.4 | 566.8 | 639.2  |
| 137.5° | 284.6 | 311.9 | 399.9 | 537.5 | 598.6  |
| 140°   | 292.8 | 319.0 | 398.9 | 519.0 | 574.1  |
| 142.5° | 301.0 | 325.2 | 397.9 | 504.5 | 550.5  |
| 145°   | 313.2 | 335.7 | 396.3 | 481.5 | 517.8  |
| 147.5° | 327.1 | 346.3 | 395.1 | 463.5 | 492.0  |
| 150°   | 336.3 | 352.5 | 395.1 | 453.1 | 475.6  |
| 152.5° | 343.5 | 357.7 | 394.1 | 443.8 | 462.3  |
| 155°   | 354.1 | 366.6 | 393.8 | 432.5 | 444.9  |
| 157.5° | 364.6 | 374.4 | 393.8 | 424.7 | 434.2  |
| 160°   | 370.7 | 379.6 | 393.8 | 419.5 | 427.1  |
| 162.5° | 376.9 | 383.7 | 394.8 | 415.4 | 420.9  |
| 165°   | 383.6 | 388.6 | 395.1 | 411.7 | 412.9  |
| 167.5° | 390.5 | 393.0 | 396.3 | 407.3 | 408.3  |
| 170°   | 392.5 | 395.0 | 396.3 | 405.3 | 405.3  |
| 172.5° | 394.6 | 396.0 | 396.3 | 403.2 | 403.2  |
| 175°   | 397.6 | 398.9 | 396.3 | 401.4 | 400.2  |
| 177.5° | 398.6 | 398.6 | 395.6 | 399.6 | 397.6  |
| 180°   | 397.6 | 397.6 | 397.6 | 397.6 | 397.6  |

(END OF REPORT)