

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: P518501

Luminaire Tested: **SQ4-BB-075U-050D-840-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518501  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-22, G2-2009-966-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-BB-075U-050D-840-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

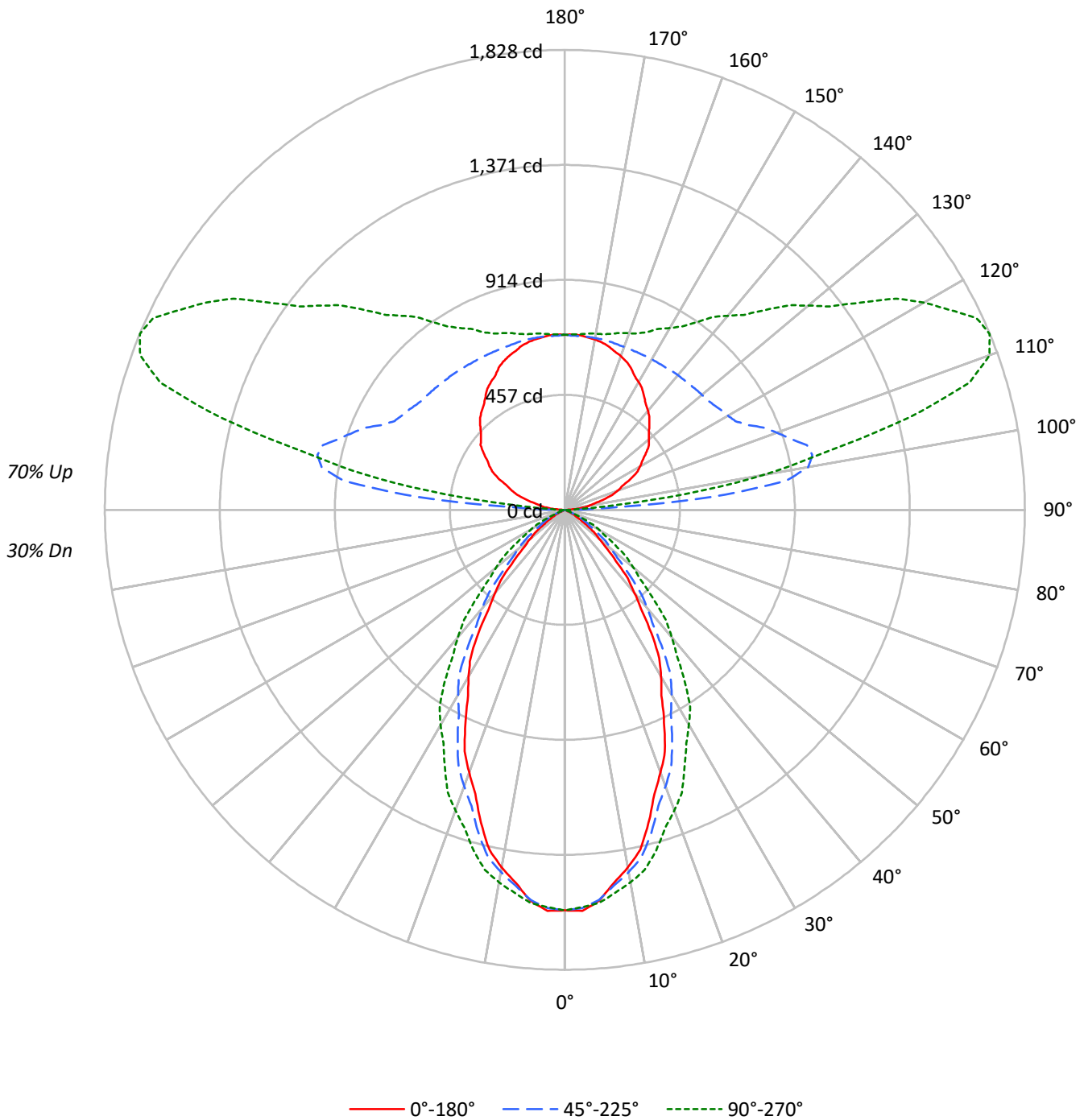
Lumens per Lamp: N/A  
Luminaire Lumens: 6436.7 lumens  
Efficiency: N/A  
Efficacy: 118.5 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 54.3  
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   | 102 | 102 | 102 | 102 | 92 | 92 | 92 | 92 | 72 | 72 | 72 | 54 | 54 | 54 | 37 | 37 | 37 | 30 |
| 1   | 94  | 90  | 87  | 84  | 84 | 81 | 79 | 76 | 64 | 63 | 61 | 49 | 48 | 47 | 35 | 34 | 33 | 27 |
| 2   | 87  | 80  | 75  | 70  | 78 | 72 | 68 | 64 | 58 | 55 | 52 | 44 | 42 | 41 | 32 | 31 | 30 | 24 |
| 3   | 80  | 71  | 65  | 60  | 72 | 65 | 59 | 55 | 52 | 48 | 45 | 40 | 38 | 36 | 29 | 28 | 27 | 22 |
| 4   | 73  | 64  | 57  | 52  | 66 | 58 | 52 | 47 | 47 | 43 | 39 | 36 | 34 | 32 | 27 | 25 | 24 | 20 |
| 5   | 68  | 57  | 50  | 45  | 61 | 52 | 46 | 41 | 42 | 38 | 35 | 33 | 30 | 28 | 25 | 23 | 22 | 18 |
| 6   | 63  | 52  | 45  | 39  | 56 | 47 | 41 | 36 | 39 | 34 | 31 | 30 | 27 | 25 | 23 | 21 | 20 | 16 |
| 7   | 58  | 47  | 40  | 35  | 52 | 43 | 37 | 32 | 35 | 31 | 27 | 28 | 25 | 23 | 21 | 19 | 18 | 15 |
| 8   | 54  | 43  | 36  | 31  | 49 | 39 | 33 | 29 | 32 | 28 | 25 | 26 | 23 | 21 | 20 | 18 | 16 | 14 |
| 9   | 51  | 39  | 33  | 28  | 46 | 36 | 30 | 26 | 30 | 25 | 22 | 24 | 21 | 19 | 18 | 16 | 15 | 13 |
| 10  | 47  | 36  | 30  | 25  | 43 | 33 | 27 | 24 | 28 | 23 | 20 | 22 | 19 | 17 | 17 | 15 | 14 | 12 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9792 | 9792 | 9792 |
| 5°  | 9634 | 9610 | 9682 |
| 10° | 9014 | 9135 | 9390 |
| 15° | 8195 | 8455 | 8926 |
| 20° | 7275 | 7652 | 8323 |
| 25° | 6335 | 6837 | 7647 |
| 30° | 5426 | 6023 | 7007 |
| 35° | 4499 | 5112 | 6235 |
| 40° | 3457 | 4088 | 5312 |
| 45° | 2499 | 3095 | 4274 |
| 50° | 1702 | 2307 | 3390 |
| 55° | 1107 | 1669 | 2635 |
| 60° | 635  | 1175 | 1904 |
| 65° | 169  | 718  | 963  |
| 70° | 83   | 221  | 277  |
| 75° | 36   | 19   | 0    |
| 80° | 28   | 0    | 0    |
| 85° | 0    | 0    | 0    |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 145.3  | 2.3       |
| 10°-20°   | 371.5  | 5.8       |
| 20°-30°   | 465.1  | 7.2       |
| 30°-40°   | 429.6  | 6.7       |
| 40°-50°   | 288.7  | 4.5       |
| 50°-60°   | 149.1  | 2.3       |
| 60°-70°   | 46.7   | 0.7       |
| 70°-80°   | 2.9    | 0.0       |
| 80°-90°   | 1.8    | 0.0       |
| 90°-100°  | 328.4  | 5.1       |
| 100°-110° | 903.5  | 14.0      |
| 110°-120° | 932.6  | 14.5      |
| 120°-130° | 747.2  | 11.6      |
| 130°-140° | 586.8  | 9.1       |
| 140°-150° | 449.7  | 7.0       |
| 150°-160° | 323.3  | 5.0       |
| 160°-170° | 197.7  | 3.1       |
| 170°-180° | 66.6   | 1.0       |
| 0°-30°    | 982.0  | 15.3      |
| 0°-40°    | 1411.6 | 21.9      |
| 0°-60°    | 1849.4 | 28.7      |
| 0°-90°    | 1900.9 | 29.5      |
| 90°-120°  | 2164.4 | 33.6      |
| 90°-150°  | 3948.2 | 61.3      |
| 90°-180°  | 4536.0 | 70.5      |
| 0°-180°   | 6436.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1592 | 1592  | 1592 | 1592  | 1592 |      |
| 5°   | 1560 | 1545  | 1556 | 1562  | 1568 | 145  |
| 15°  | 1287 | 1282  | 1328 | 1372  | 1402 | 358  |
| 25°  | 934  | 941   | 1007 | 1076  | 1127 | 428  |
| 35°  | 599  | 614   | 681  | 761   | 830  | 371  |
| 45°  | 287  | 305   | 356  | 425   | 491  | 226  |
| 55°  | 103  | 120   | 156  | 200   | 246  | 96   |
| 65°  | 12   | 22    | 49   | 60    | 66   | 20   |
| 75°  | 2    | 2     | 1    | 0     | 0    | 2    |
| 85°  | 0    | 0     | 0    | 0     | 0    | 0    |
| 90°  | 2    | 6     | 10   | 13    | 13   | 3    |
| 95°  | 49   | 179   | 581  | 248   | 158  | 52   |
| 105° | 162  | 248   | 996  | 1516  | 1415 | 170  |
| 115° | 286  | 348   | 798  | 1590  | 1804 | 282  |
| 125° | 394  | 449   | 724  | 1226  | 1436 | 352  |
| 135° | 476  | 528   | 704  | 991   | 1121 | 367  |
| 145° | 550  | 587   | 693  | 844   | 910  | 345  |
| 155° | 622  | 642   | 689  | 759   | 781  | 286  |
| 165° | 673  | 681   | 692  | 720   | 724  | 190  |
| 175° | 696  | 698   | 693  | 702   | 701  | 66   |
| 180° | 696  | 696   | 696  | 696   | 696  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1592.0 | 1592.0 | 1592.0 | 1592.0 | 1592.0 |
| 2.5°   | 1595.7 | 1580.6 | 1584.6 | 1584.5 | 1580.3 |
| 5°     | 1560.4 | 1544.6 | 1556.5 | 1562.1 | 1568.1 |
| 7.5°   | 1494.5 | 1482.1 | 1505.1 | 1522.3 | 1534.8 |
| 10°    | 1443.3 | 1432.8 | 1462.6 | 1486.1 | 1503.4 |
| 12.5°  | 1384.2 | 1376.0 | 1412.0 | 1444.3 | 1466.4 |
| 15°    | 1287.0 | 1282.5 | 1327.8 | 1372.4 | 1401.7 |
| 17.5°  | 1182.8 | 1182.7 | 1234.4 | 1289.8 | 1325.2 |
| 20°    | 1111.4 | 1113.6 | 1169.1 | 1230.2 | 1271.6 |
| 22.5°  | 1039.9 | 1045.2 | 1104.4 | 1168.1 | 1215.5 |
| 25°    | 933.5  | 941.0  | 1007.4 | 1076.3 | 1126.8 |
| 27.5°  | 831.2  | 842.2  | 912.0  | 983.7  | 1045.1 |
| 30°    | 764.0  | 776.8  | 848.0  | 923.3  | 986.6  |
| 32.5°  | 698.1  | 713.3  | 782.7  | 862.4  | 926.8  |
| 35°    | 599.2  | 614.3  | 680.8  | 761.0  | 830.3  |
| 37.5°  | 497.1  | 511.8  | 576.9  | 655.7  | 730.6  |
| 40°    | 430.5  | 447.1  | 509.1  | 585.5  | 661.6  |
| 42.5°  | 370.1  | 386.7  | 445.0  | 520.1  | 592.0  |
| 45°    | 287.3  | 304.6  | 355.8  | 425.1  | 491.4  |
| 47.5°  | 218.6  | 237.4  | 282.3  | 345.0  | 405.4  |
| 50°    | 177.9  | 196.7  | 241.1  | 296.3  | 354.3  |
| 52.5°  | 145.3  | 163.5  | 203.5  | 255.5  | 308.7  |
| 55°    | 103.2  | 120.5  | 155.6  | 199.8  | 245.7  |
| 57.5°  | 71.3   | 86.2   | 117.7  | 154.5  | 190.5  |
| 60°    | 51.6   | 65.9   | 95.5   | 125.4  | 154.8  |
| 62.5°  | 34.4   | 47.5   | 76.4   | 99.3   | 119.1  |
| 65°    | 11.6   | 22.1   | 49.3   | 59.5   | 66.2   |
| 67.5°  | 5.9    | 7.1    | 25.9   | 27.3   | 29.6   |
| 70°    | 4.6    | 4.6    | 12.3   | 13.1   | 15.4   |
| 72.5°  | 3.4    | 3.4    | 4.9    | 6.3    | 6.8    |
| 75°    | 1.5    | 1.5    | 0.8    | 0.0    | 0.0    |
| 77.5°  | 0.8    | 0.8    | 0.6    | 0.0    | 0.0    |
| 80°    | 0.8    | 0.8    | 0.0    | 0.0    | 0.0    |
| 82.5°  | 0.2    | 0.2    | 0.0    | 0.0    | 0.0    |
| 85°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5°  | 0.3    | 1.2    | 2.1    | 2.7    | 2.7    |
| 90°    | 1.5    | 5.8    | 10.4   | 13.3   | 13.3   |
| 92.5°  | 20.4   | 87.4   | 151.4  | 58.1   | 47.7   |
| 95°    | 48.9   | 179.3  | 580.7  | 248.3  | 158.5  |
| 97.5°  | 79.7   | 198.8  | 886.2  | 682.8  | 481.8  |
| 100°   | 102.2  | 210.9  | 982.2  | 991.4  | 808.8  |
| 102.5° | 123.5  | 225.2  | 1007.1 | 1229.9 | 1062.5 |
| 105°   | 161.5  | 248.4  | 995.5  | 1516.1 | 1414.7 |
| 107.5° | 197.6  | 277.0  | 938.9  | 1656.3 | 1686.4 |
| 110°   | 223.7  | 296.1  | 896.3  | 1691.2 | 1795.5 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 247.4 | 317.5 | 853.6 | 1668.7 | 1827.5 |
| 115°   | 285.9 | 348.2 | 798.5 | 1590.0 | 1804.4 |
| 117.5° | 322.7 | 380.0 | 763.5 | 1479.5 | 1722.0 |
| 120°   | 345.2 | 400.2 | 748.1 | 1396.7 | 1647.3 |
| 122.5° | 365.3 | 420.4 | 737.4 | 1324.2 | 1562.0 |
| 125°   | 394.1 | 449.1 | 724.4 | 1225.5 | 1435.5 |
| 127.5° | 421.3 | 473.7 | 715.8 | 1143.1 | 1327.3 |
| 130°   | 435.5 | 489.1 | 711.1 | 1094.1 | 1262.2 |
| 132.5° | 452.1 | 505.7 | 707.5 | 1051.1 | 1202.9 |
| 135°   | 475.5 | 527.7 | 703.7 | 991.1  | 1121.4 |
| 137.5° | 497.5 | 545.8 | 700.4 | 942.5  | 1050.0 |
| 140°   | 514.0 | 559.0 | 699.2 | 910.3  | 1007.4 |
| 142.5° | 528.3 | 569.7 | 696.9 | 881.5  | 964.7  |
| 145°   | 549.6 | 587.3 | 693.3 | 844.4  | 909.6  |
| 147.5° | 572.4 | 604.9 | 691.5 | 811.5  | 863.7  |
| 150°   | 586.6 | 615.6 | 690.3 | 793.5  | 834.0  |
| 152.5° | 599.7 | 626.3 | 689.2 | 777.9  | 811.5  |
| 155°   | 622.2 | 642.5 | 688.9 | 759.0  | 780.7  |
| 157.5° | 638.5 | 655.0 | 688.9 | 743.4  | 758.5  |
| 160°   | 650.3 | 663.4 | 688.9 | 735.0  | 746.6  |
| 162.5° | 659.8 | 670.5 | 690.0 | 727.9  | 737.1  |
| 165°   | 672.6 | 681.2 | 691.8 | 720.1  | 724.4  |
| 167.5° | 681.4 | 688.1 | 693.3 | 713.5  | 714.6  |
| 170°   | 687.4 | 691.7 | 693.3 | 711.1  | 711.1  |
| 172.5° | 692.1 | 694.1 | 693.3 | 707.5  | 706.3  |
| 175°   | 696.3 | 697.7 | 693.3 | 702.2  | 700.7  |
| 177.5° | 697.4 | 697.4 | 692.7 | 699.8  | 697.4  |
| 180°   | 696.3 | 696.3 | 696.3 | 696.3  | 696.3  |

(END OF REPORT)