

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: P518497

Luminaire Tested: **SQ4-BB-075U-050D-835-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518497  
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-835-1D-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: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

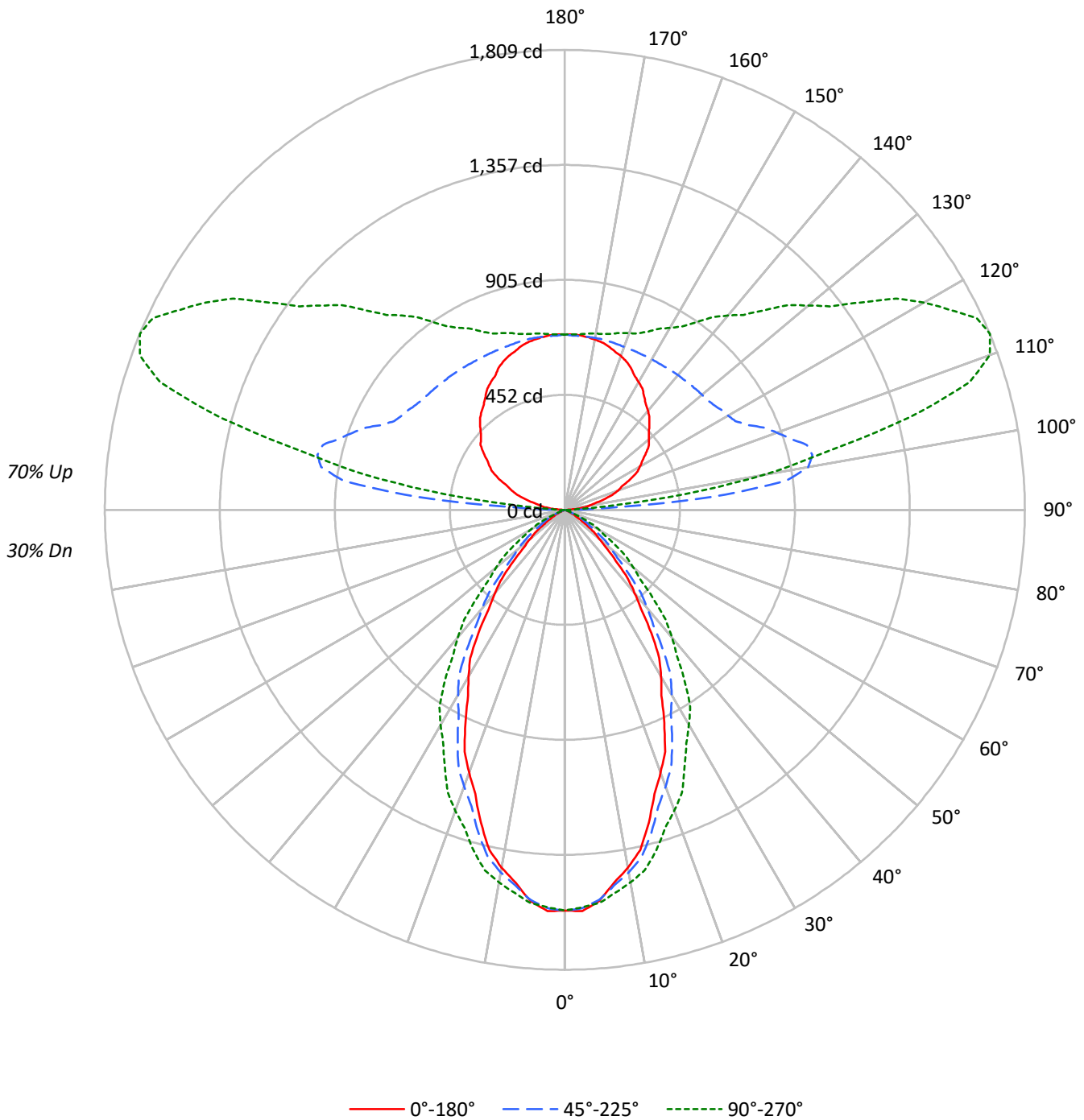
Lumens per Lamp: N/A  
Luminaire Lumens: 6372.6 lumens  
Efficiency: N/A  
Efficacy: 117.4 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Indirect

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°  | 9694 | 9694 | 9694 |
| 5°  | 9538 | 9515 | 9586 |
| 10° | 8924 | 9044 | 9296 |
| 15° | 8114 | 8371 | 8837 |
| 20° | 7202 | 7576 | 8240 |
| 25° | 6272 | 6769 | 7571 |
| 30° | 5372 | 5962 | 6938 |
| 35° | 4454 | 5062 | 6172 |
| 40° | 3422 | 4047 | 5259 |
| 45° | 2474 | 3064 | 4232 |
| 50° | 1685 | 2284 | 3357 |
| 55° | 1096 | 1651 | 2608 |
| 60° | 629  | 1164 | 1886 |
| 65° | 166  | 710  | 955  |
| 70° | 83   | 219  | 275  |
| 75° | 36   | 19   | 0    |
| 80° | 28   | 0    | 0    |
| 85° | 0    | 0    | 0    |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 143.8  | 2.3       |
| 10°-20°   | 367.8  | 5.8       |
| 20°-30°   | 460.5  | 7.2       |
| 30°-40°   | 425.3  | 6.7       |
| 40°-50°   | 285.8  | 4.5       |
| 50°-60°   | 147.6  | 2.3       |
| 60°-70°   | 46.2   | 0.7       |
| 70°-80°   | 2.9    | 0.0       |
| 80°-90°   | 1.8    | 0.0       |
| 90°-100°  | 325.1  | 5.1       |
| 100°-110° | 894.5  | 14.0      |
| 110°-120° | 923.3  | 14.5      |
| 120°-130° | 739.7  | 11.6      |
| 130°-140° | 581.0  | 9.1       |
| 140°-150° | 445.2  | 7.0       |
| 150°-160° | 320.1  | 5.0       |
| 160°-170° | 195.7  | 3.1       |
| 170°-180° | 66.0   | 1.0       |
| 0°-30°    | 972.2  | 15.3      |
| 0°-40°    | 1397.5 | 21.9      |
| 0°-60°    | 1831.0 | 28.7      |
| 0°-90°    | 1882.0 | 29.5      |
| 90°-120°  | 2142.9 | 33.6      |
| 90°-150°  | 3908.8 | 61.3      |
| 90°-180°  | 4491.0 | 70.5      |
| 0°-180°   | 6372.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1576 | 1576  | 1576 | 1576  | 1576 |      |
| 5°   | 1545 | 1529  | 1541 | 1546  | 1552 | 143  |
| 15°  | 1274 | 1270  | 1315 | 1359  | 1388 | 355  |
| 25°  | 924  | 932   | 997  | 1066  | 1116 | 424  |
| 35°  | 593  | 608   | 674  | 753   | 822  | 367  |
| 45°  | 284  | 302   | 352  | 421   | 486  | 223  |
| 55°  | 102  | 119   | 154  | 198   | 243  | 95   |
| 65°  | 11   | 22    | 49   | 59    | 66   | 19   |
| 75°  | 2    | 2     | 1    | 0     | 0    | 2    |
| 85°  | 0    | 0     | 0    | 0     | 0    | 0    |
| 90°  | 2    | 6     | 10   | 13    | 13   | 3    |
| 95°  | 48   | 178   | 575  | 246   | 157  | 51   |
| 105° | 160  | 246   | 986  | 1501  | 1401 | 169  |
| 115° | 283  | 345   | 790  | 1574  | 1786 | 279  |
| 125° | 390  | 445   | 717  | 1213  | 1421 | 348  |
| 135° | 471  | 522   | 697  | 981   | 1110 | 363  |
| 145° | 544  | 581   | 686  | 836   | 900  | 341  |
| 155° | 616  | 636   | 682  | 751   | 773  | 283  |
| 165° | 666  | 674   | 685  | 713   | 717  | 188  |
| 175° | 689  | 691   | 686  | 695   | 694  | 65   |
| 180° | 689  | 689   | 689  | 689   | 689  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1576.1 | 1576.1 | 1576.1 | 1576.1 | 1576.1 |
| 2.5°   | 1579.8 | 1564.9 | 1568.8 | 1568.7 | 1564.5 |
| 5°     | 1544.8 | 1529.2 | 1541.0 | 1546.5 | 1552.5 |
| 7.5°   | 1479.6 | 1467.3 | 1490.1 | 1507.2 | 1519.5 |
| 10°    | 1428.9 | 1418.5 | 1448.0 | 1471.3 | 1488.4 |
| 12.5°  | 1370.4 | 1362.3 | 1398.0 | 1429.9 | 1451.8 |
| 15°    | 1274.2 | 1269.7 | 1314.6 | 1358.7 | 1387.8 |
| 17.5°  | 1171.1 | 1170.9 | 1222.1 | 1276.9 | 1312.0 |
| 20°    | 1100.3 | 1102.5 | 1157.5 | 1217.9 | 1258.9 |
| 22.5°  | 1029.5 | 1034.8 | 1093.4 | 1156.4 | 1203.4 |
| 25°    | 924.2  | 931.6  | 997.4  | 1065.6 | 1115.5 |
| 27.5°  | 822.9  | 833.8  | 903.0  | 973.9  | 1034.7 |
| 30°    | 756.4  | 769.1  | 839.5  | 914.1  | 976.8  |
| 32.5°  | 691.1  | 706.2  | 774.9  | 853.8  | 917.6  |
| 35°    | 593.2  | 608.1  | 674.1  | 753.4  | 822.0  |
| 37.5°  | 492.1  | 506.7  | 571.1  | 649.2  | 723.3  |
| 40°    | 426.2  | 442.6  | 504.0  | 579.7  | 655.0  |
| 42.5°  | 366.5  | 382.9  | 440.6  | 514.9  | 586.1  |
| 45°    | 284.4  | 301.6  | 352.3  | 420.9  | 486.5  |
| 47.5°  | 216.4  | 235.0  | 279.5  | 341.6  | 401.4  |
| 50°    | 176.1  | 194.8  | 238.7  | 293.3  | 350.8  |
| 52.5°  | 143.8  | 161.9  | 201.5  | 253.0  | 305.6  |
| 55°    | 102.2  | 119.3  | 154.0  | 197.8  | 243.2  |
| 57.5°  | 70.6   | 85.4   | 116.5  | 153.0  | 188.6  |
| 60°    | 51.1   | 65.3   | 94.6   | 124.2  | 153.3  |
| 62.5°  | 34.0   | 47.0   | 75.6   | 98.4   | 117.9  |
| 65°    | 11.4   | 21.9   | 48.8   | 58.9   | 65.6   |
| 67.5°  | 5.8    | 7.0    | 25.6   | 27.0   | 29.3   |
| 70°    | 4.6    | 4.6    | 12.2   | 13.0   | 15.3   |
| 72.5°  | 3.4    | 3.4    | 4.9    | 6.3    | 6.7    |
| 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    | 2.6    | 2.6    |
| 90°    | 1.5    | 5.8    | 10.3   | 13.2   | 13.2   |
| 92.5°  | 20.2   | 86.5   | 149.9  | 57.6   | 47.2   |
| 95°    | 48.4   | 177.5  | 574.9  | 245.8  | 156.9  |
| 97.5°  | 78.9   | 196.8  | 877.3  | 676.0  | 477.0  |
| 100°   | 101.2  | 208.8  | 972.4  | 981.5  | 800.8  |
| 102.5° | 122.3  | 223.0  | 997.0  | 1217.7 | 1051.9 |
| 105°   | 159.9  | 245.9  | 985.6  | 1501.0 | 1400.6 |
| 107.5° | 195.7  | 274.2  | 929.6  | 1639.8 | 1669.6 |
| 110°   | 221.5  | 293.2  | 887.3  | 1674.3 | 1777.6 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 244.9 | 314.3 | 845.1 | 1652.1 | 1809.3 |
| 115°   | 283.1 | 344.7 | 790.5 | 1574.1 | 1786.4 |
| 117.5° | 319.4 | 376.2 | 755.9 | 1464.8 | 1704.8 |
| 120°   | 341.7 | 396.2 | 740.7 | 1382.8 | 1630.9 |
| 122.5° | 361.7 | 416.2 | 730.1 | 1311.0 | 1546.4 |
| 125°   | 390.1 | 444.6 | 717.2 | 1213.2 | 1421.2 |
| 127.5° | 417.1 | 469.0 | 708.7 | 1131.7 | 1314.1 |
| 130°   | 431.2 | 484.3 | 704.0 | 1083.2 | 1249.6 |
| 132.5° | 447.6 | 500.7 | 700.5 | 1040.6 | 1190.9 |
| 135°   | 470.8 | 522.4 | 696.7 | 981.2  | 1110.3 |
| 137.5° | 492.5 | 540.4 | 693.4 | 933.2  | 1039.6 |
| 140°   | 508.9 | 553.4 | 692.3 | 901.2  | 997.3  |
| 142.5° | 523.0 | 564.0 | 689.9 | 872.8  | 955.1  |
| 145°   | 544.1 | 581.4 | 686.4 | 836.0  | 900.5  |
| 147.5° | 566.7 | 598.8 | 684.6 | 803.4  | 855.1  |
| 150°   | 580.8 | 609.5 | 683.5 | 785.6  | 825.7  |
| 152.5° | 593.7 | 620.1 | 682.3 | 770.2  | 803.4  |
| 155°   | 616.0 | 636.1 | 682.0 | 751.4  | 772.9  |
| 157.5° | 632.1 | 648.5 | 682.0 | 736.0  | 750.9  |
| 160°   | 643.9 | 656.8 | 682.0 | 727.7  | 739.2  |
| 162.5° | 653.2 | 663.9 | 683.2 | 720.6  | 729.8  |
| 165°   | 665.9 | 674.5 | 684.9 | 712.9  | 717.2  |
| 167.5° | 674.7 | 681.3 | 686.4 | 706.4  | 707.5  |
| 170°   | 680.5 | 684.8 | 686.4 | 704.0  | 704.0  |
| 172.5° | 685.2 | 687.2 | 686.4 | 700.4  | 699.3  |
| 175°   | 689.3 | 690.8 | 686.4 | 695.2  | 693.7  |
| 177.5° | 690.5 | 690.5 | 685.8 | 692.8  | 690.5  |
| 180°   | 689.3 | 689.3 | 689.3 | 689.3  | 689.3  |

(END OF REPORT)