

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: P518490

Luminaire Tested: **SQ4-BB-050U-125D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518490  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-125D-940-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

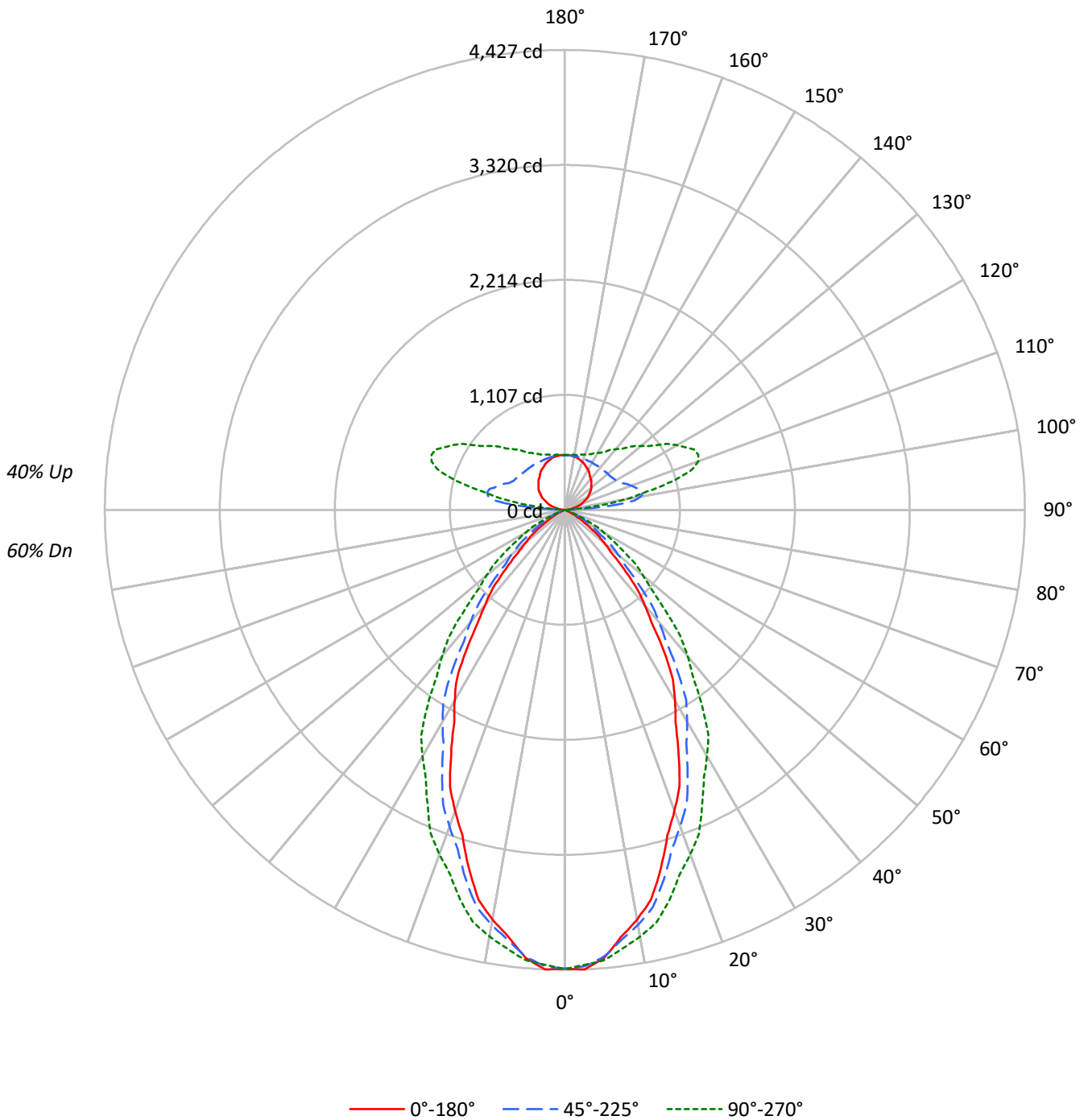
Lumens per Lamp: N/A  
Luminaire Lumens: 8715.2 lumens  
Efficiency: N/A  
Efficacy: 75.9 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 114.8  
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   | 110 | 110 | 110 | 110 | 102 | 102 | 102 | 102 | 89 | 89 | 89 | 77 | 77 | 77 | 66 | 66 | 66 | 60 |
| 1   | 102 | 99  | 96  | 93  | 96  | 93  | 90  | 88  | 81 | 79 | 78 | 71 | 70 | 68 | 61 | 61 | 60 | 55 |
| 2   | 95  | 89  | 84  | 79  | 89  | 84  | 79  | 76  | 74 | 71 | 68 | 65 | 63 | 61 | 57 | 55 | 54 | 50 |
| 3   | 88  | 80  | 74  | 69  | 83  | 76  | 70  | 66  | 67 | 63 | 60 | 60 | 57 | 54 | 52 | 50 | 48 | 45 |
| 4   | 82  | 73  | 66  | 61  | 77  | 69  | 63  | 58  | 61 | 57 | 53 | 55 | 51 | 48 | 48 | 46 | 44 | 41 |
| 5   | 76  | 66  | 59  | 54  | 72  | 63  | 56  | 52  | 56 | 51 | 48 | 50 | 47 | 44 | 45 | 42 | 40 | 37 |
| 6   | 71  | 60  | 53  | 48  | 67  | 57  | 51  | 46  | 52 | 47 | 43 | 47 | 43 | 40 | 42 | 39 | 36 | 34 |
| 7   | 66  | 55  | 48  | 43  | 62  | 53  | 46  | 42  | 48 | 43 | 39 | 43 | 39 | 36 | 39 | 36 | 33 | 31 |
| 8   | 62  | 51  | 44  | 39  | 59  | 49  | 42  | 38  | 44 | 39 | 35 | 40 | 36 | 33 | 36 | 33 | 31 | 29 |
| 9   | 58  | 47  | 40  | 36  | 55  | 45  | 39  | 35  | 41 | 36 | 33 | 37 | 33 | 30 | 34 | 31 | 28 | 26 |
| 10  | 55  | 44  | 37  | 33  | 52  | 42  | 36  | 32  | 38 | 33 | 30 | 35 | 31 | 28 | 32 | 29 | 26 | 24 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 20377 | 20377 | 20377 |
| 5°  | 20049 | 19999 | 20148 |
| 10° | 18759 | 19009 | 19539 |
| 15° | 17054 | 17595 | 18575 |
| 20° | 15138 | 15925 | 17320 |
| 25° | 13183 | 14227 | 15913 |
| 30° | 11292 | 12533 | 14581 |
| 35° | 9363  | 10639 | 12973 |
| 40° | 7194  | 8506  | 11054 |
| 45° | 5200  | 6441  | 8895  |
| 50° | 3542  | 4801  | 7055  |
| 55° | 2303  | 3472  | 5483  |
| 60° | 1321  | 2445  | 3963  |
| 65° | 350   | 1493  | 2006  |
| 70° | 173   | 461   | 576   |
| 75° | 77    | 37    | 0     |
| 80° | 56    | 0     | 0     |
| 85° | 0     | 0     | 0     |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 403.1  | 4.6       |
| 10°-20°   | 1030.9 | 11.8      |
| 20°-30°   | 1290.6 | 14.8      |
| 30°-40°   | 1192.0 | 13.7      |
| 40°-50°   | 801.0  | 9.2       |
| 50°-60°   | 413.7  | 4.7       |
| 60°-70°   | 129.6  | 1.5       |
| 70°-80°   | 8.2    | 0.1       |
| 80°-90°   | 2.2    | 0.0       |
| 90°-100°  | 253.2  | 2.9       |
| 100°-110° | 687.8  | 7.9       |
| 110°-120° | 707.2  | 8.1       |
| 120°-130° | 565.4  | 6.5       |
| 130°-140° | 444.3  | 5.1       |
| 140°-150° | 340.7  | 3.9       |
| 150°-160° | 245.0  | 2.8       |
| 160°-170° | 149.8  | 1.7       |
| 170°-180° | 50.5   | 0.6       |
| 0°-30°    | 2724.5 | 31.3      |
| 0°-40°    | 3916.6 | 44.9      |
| 0°-60°    | 5131.3 | 58.9      |
| 0°-90°    | 5271.2 | 60.5      |
| 90°-120°  | 1648.3 | 18.9      |
| 90°-150°  | 2998.6 | 34.4      |
| 90°-180°  | 3444.0 | 39.5      |
| 0°-180°   | 8715.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 4417 | 4417  | 4417 | 4417  | 4417 |      |
| 5°   | 4330 | 4286  | 4319 | 4334  | 4351 | 401  |
| 15°  | 3571 | 3558  | 3684 | 3808  | 3889 | 995  |
| 25°  | 2590 | 2611  | 2795 | 2986  | 3126 | 1187 |
| 35°  | 1663 | 1704  | 1889 | 2111  | 2304 | 1030 |
| 45°  | 797  | 845   | 987  | 1180  | 1363 | 626  |
| 55°  | 286  | 334   | 432  | 554   | 682  | 267  |
| 65°  | 32   | 61    | 137  | 165   | 184  | 54   |
| 75°  | 4    | 4     | 2    | 0     | 0    | 6    |
| 85°  | 0    | 0     | 0    | 0     | 0    | 0    |
| 90°  | 2    | 7     | 12   | 15    | 15   | 3    |
| 95°  | 37   | 138   | 441  | 192   | 129  | 40   |
| 105° | 122  | 190   | 756  | 1152  | 1084 | 130  |
| 115° | 217  | 264   | 606  | 1205  | 1372 | 214  |
| 125° | 298  | 340   | 548  | 923   | 1089 | 266  |
| 135° | 360  | 399   | 532  | 752   | 848  | 278  |
| 145° | 416  | 445   | 526  | 639   | 687  | 261  |
| 155° | 470  | 486   | 522  | 574   | 590  | 217  |
| 165° | 509  | 515   | 524  | 546   | 548  | 144  |
| 175° | 528  | 529   | 526  | 532   | 531  | 50   |
| 180° | 528  | 528   | 528  | 528   | 528  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 4417.1 | 4417.1 | 4417.1 | 4417.1 | 4417.1 |
| 2.5°   | 4427.4 | 4385.6 | 4396.6 | 4396.3 | 4384.6 |
| 5°     | 4329.5 | 4285.6 | 4318.8 | 4334.1 | 4350.9 |
| 7.5°   | 4146.6 | 4112.3 | 4176.0 | 4223.9 | 4258.5 |
| 10°    | 4004.7 | 3975.4 | 4058.1 | 4123.3 | 4171.3 |
| 12.5°  | 3840.5 | 3818.0 | 3917.9 | 4007.3 | 4068.8 |
| 15°    | 3570.9 | 3558.3 | 3684.1 | 3807.8 | 3889.3 |
| 17.5°  | 3281.9 | 3281.5 | 3425.1 | 3578.6 | 3676.9 |
| 20°    | 3083.6 | 3089.9 | 3243.9 | 3413.2 | 3528.1 |
| 22.5°  | 2885.3 | 2900.0 | 3064.4 | 3240.9 | 3372.6 |
| 25°    | 2590.0 | 2610.9 | 2795.1 | 2986.4 | 3126.4 |
| 27.5°  | 2306.2 | 2336.7 | 2530.6 | 2729.4 | 2899.9 |
| 30°    | 2119.9 | 2155.4 | 2352.8 | 2561.9 | 2737.4 |
| 32.5°  | 1936.9 | 1979.1 | 2171.6 | 2392.8 | 2571.6 |
| 35°    | 1662.6 | 1704.3 | 1889.1 | 2111.4 | 2303.6 |
| 37.5°  | 1379.2 | 1420.1 | 1600.6 | 1819.4 | 2027.1 |
| 40°    | 1194.6 | 1240.5 | 1412.5 | 1624.6 | 1835.6 |
| 42.5°  | 1027.0 | 1073.0 | 1234.7 | 1443.1 | 1642.5 |
| 45°    | 797.1  | 845.1  | 987.3  | 1179.5 | 1363.4 |
| 47.5°  | 606.5  | 658.7  | 783.4  | 957.3  | 1124.9 |
| 50°    | 493.6  | 545.9  | 668.9  | 822.1  | 983.0  |
| 52.5°  | 403.0  | 453.6  | 564.6  | 709.0  | 856.5  |
| 55°    | 286.4  | 334.4  | 431.7  | 554.2  | 681.7  |
| 57.5°  | 197.9  | 239.3  | 326.5  | 428.8  | 528.7  |
| 60°    | 143.2  | 182.9  | 265.0  | 348.0  | 429.5  |
| 62.5°  | 95.3   | 131.7  | 212.0  | 275.6  | 330.4  |
| 65°    | 32.1   | 61.3   | 136.8  | 165.0  | 183.8  |
| 67.5°  | 16.2   | 19.6   | 71.8   | 75.8   | 82.1   |
| 70°    | 12.8   | 12.8   | 34.2   | 36.5   | 42.7   |
| 72.5°  | 9.4    | 9.4    | 13.7   | 17.6   | 18.8   |
| 75°    | 4.3    | 4.3    | 2.1    | 0.0    | 0.0    |
| 77.5°  | 2.1    | 2.1    | 1.7    | 0.0    | 0.0    |
| 80°    | 2.1    | 2.1    | 0.0    | 0.0    | 0.0    |
| 82.5°  | 0.4    | 0.4    | 0.0    | 0.0    | 0.0    |
| 85°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5°  | 0.3    | 1.3    | 2.4    | 3.1    | 3.1    |
| 90°    | 1.7    | 6.7    | 11.9   | 15.3   | 15.3   |
| 92.5°  | 15.3   | 69.3   | 120.4  | 51.7   | 43.8   |
| 95°    | 37.3   | 138.5  | 441.0  | 191.9  | 128.9  |
| 97.5°  | 61.7   | 152.9  | 676.0  | 525.9  | 369.4  |
| 100°   | 78.0   | 162.6  | 747.9  | 758.2  | 612.3  |
| 102.5° | 94.3   | 172.2  | 766.9  | 937.7  | 809.0  |
| 105°   | 122.1  | 190.1  | 756.4  | 1151.7 | 1083.8 |
| 107.5° | 150.9  | 211.0  | 712.7  | 1262.3 | 1281.2 |
| 110°   | 171.3  | 226.0  | 680.1  | 1284.0 | 1365.3 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 188.9 | 241.0 | 647.5 | 1266.0 | 1388.4 |
| 115°   | 217.1 | 263.5 | 605.5 | 1204.6 | 1372.1 |
| 117.5° | 243.5 | 288.0 | 578.7 | 1117.6 | 1306.3 |
| 120°   | 261.2 | 304.3 | 566.5 | 1059.2 | 1246.6 |
| 122.5° | 276.1 | 319.2 | 558.3 | 1000.7 | 1181.4 |
| 125°   | 298.5 | 340.0 | 547.8 | 923.0  | 1088.8 |
| 127.5° | 318.5 | 359.6 | 542.0 | 864.1  | 1006.4 |
| 130°   | 330.7 | 370.5 | 539.3 | 827.2  | 954.9  |
| 132.5° | 342.9 | 382.7 | 536.6 | 795.6  | 908.7  |
| 135°   | 359.6 | 399.4 | 532.5 | 751.8  | 848.0  |
| 137.5° | 377.5 | 413.7 | 530.5 | 713.1  | 794.1  |
| 140°   | 388.4 | 423.2 | 529.2 | 688.5  | 761.5  |
| 142.5° | 399.2 | 431.4 | 527.8 | 669.3  | 730.3  |
| 145°   | 415.5 | 445.4 | 525.8 | 638.8  | 686.9  |
| 147.5° | 433.8 | 459.4 | 524.1 | 614.8  | 652.6  |
| 150°   | 446.1 | 467.6 | 524.1 | 601.1  | 630.9  |
| 152.5° | 455.6 | 474.5 | 522.7 | 588.7  | 613.3  |
| 155°   | 469.8 | 486.4 | 522.4 | 573.6  | 590.2  |
| 157.5° | 483.7 | 496.6 | 522.4 | 563.4  | 576.0  |
| 160°   | 491.8 | 503.5 | 522.4 | 556.5  | 566.5  |
| 162.5° | 500.0 | 508.9 | 523.7 | 551.0  | 558.3  |
| 165°   | 508.8 | 515.4 | 524.1 | 546.2  | 547.8  |
| 167.5° | 518.0 | 521.3 | 525.8 | 540.4  | 541.7  |
| 170°   | 520.7 | 524.0 | 525.8 | 537.6  | 537.6  |
| 172.5° | 523.4 | 525.4 | 525.8 | 534.9  | 534.9  |
| 175°   | 527.5 | 529.1 | 525.8 | 532.5  | 530.9  |
| 177.5° | 528.8 | 528.8 | 524.7 | 530.1  | 527.5  |
| 180°   | 527.5 | 527.5 | 527.5 | 527.5  | 527.5  |

(END OF REPORT)