

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: P518466

Luminaire Tested: **SQ4-BB-050U-100D-940-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518466
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-100D-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

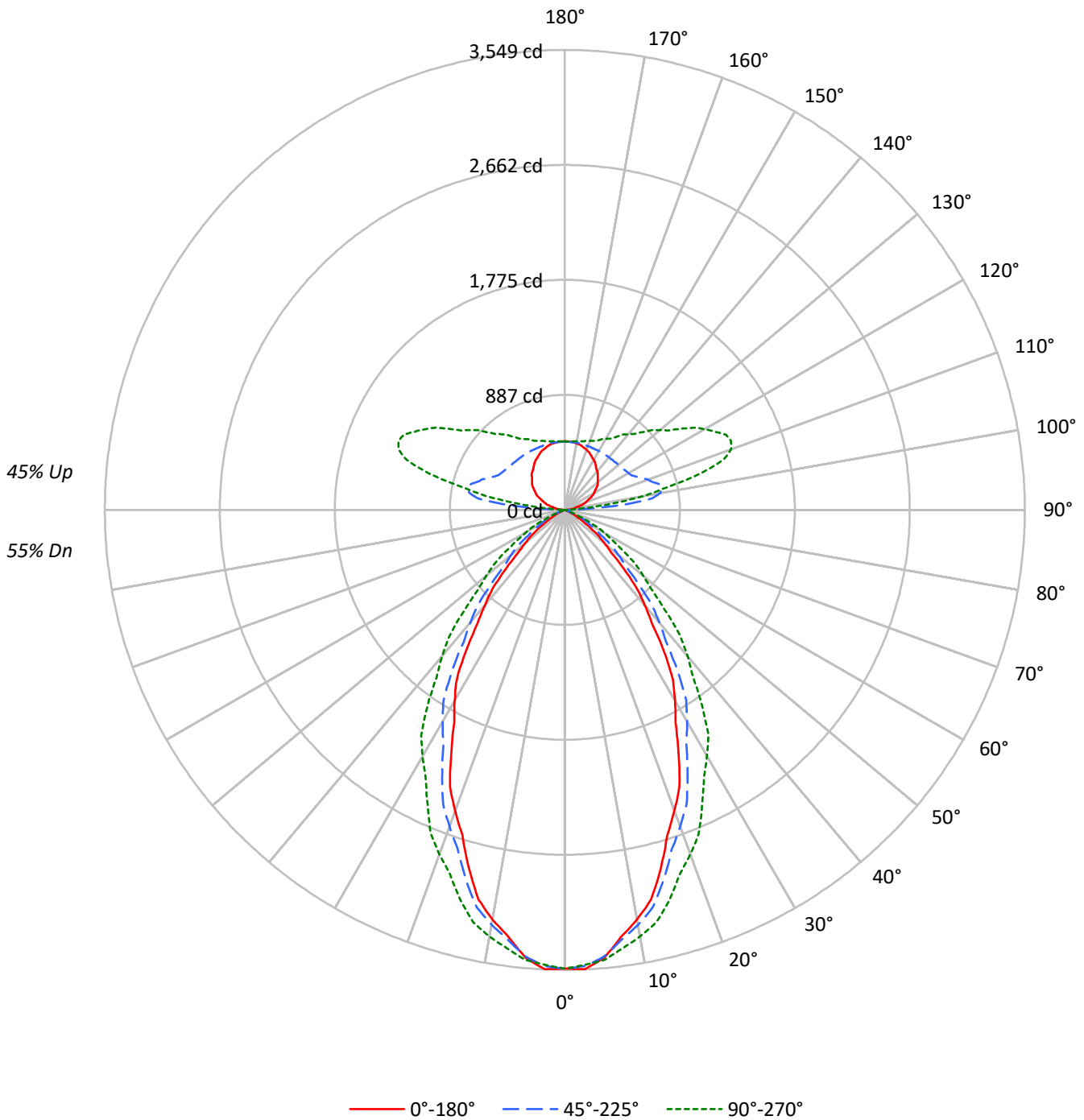
Lumens per Lamp: N/A
Luminaire Lumens: 7669.6 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 95.4
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 | 108 | 108 | 108 | 108 | 101 | 101 | 101 | 101 | 86 | 86 | 86 | 73 | 73 | 73 | 61 | 61 | 61 | 55 |
| 1 | 101 | 97 | 94 | 91 | 94 | 91 | 88 | 86 | 78 | 77 | 75 | 67 | 66 | 65 | 57 | 56 | 55 | 50 |
| 2 | 94 | 87 | 82 | 78 | 87 | 82 | 77 | 74 | 71 | 68 | 65 | 61 | 59 | 57 | 52 | 51 | 50 | 45 |
| 3 | 87 | 79 | 72 | 67 | 81 | 74 | 68 | 64 | 65 | 61 | 57 | 56 | 53 | 51 | 48 | 46 | 45 | 41 |
| 4 | 80 | 71 | 64 | 59 | 75 | 67 | 61 | 56 | 59 | 54 | 51 | 52 | 48 | 46 | 45 | 42 | 40 | 37 |
| 5 | 75 | 65 | 57 | 52 | 70 | 61 | 55 | 50 | 54 | 49 | 45 | 47 | 44 | 41 | 41 | 39 | 37 | 34 |
| 6 | 70 | 59 | 52 | 46 | 65 | 56 | 49 | 45 | 49 | 44 | 41 | 44 | 40 | 37 | 38 | 36 | 33 | 31 |
| 7 | 65 | 54 | 47 | 42 | 61 | 51 | 45 | 40 | 46 | 41 | 37 | 41 | 37 | 34 | 36 | 33 | 31 | 28 |
| 8 | 61 | 50 | 43 | 38 | 57 | 47 | 41 | 36 | 42 | 37 | 34 | 38 | 34 | 31 | 33 | 30 | 28 | 26 |
| 9 | 57 | 46 | 39 | 34 | 53 | 44 | 37 | 33 | 39 | 34 | 31 | 35 | 31 | 28 | 31 | 28 | 26 | 24 |
| 10 | 54 | 42 | 36 | 31 | 50 | 40 | 34 | 30 | 36 | 32 | 28 | 33 | 29 | 26 | 29 | 26 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16333 | 16333 | 16333 |
| 5° | 16070 | 16031 | 16150 |
| 10° | 15036 | 15237 | 15662 |
| 15° | 13670 | 14104 | 14889 |
| 20° | 12134 | 12765 | 13883 |
| 25° | 10567 | 11404 | 12756 |
| 30° | 9051 | 10046 | 11688 |
| 35° | 7505 | 8527 | 10399 |
| 40° | 5766 | 6818 | 8861 |
| 45° | 4168 | 5163 | 7129 |
| 50° | 2840 | 3847 | 5655 |
| 55° | 1846 | 2783 | 4395 |
| 60° | 1059 | 1960 | 3177 |
| 65° | 281 | 1196 | 1608 |
| 70° | 139 | 370 | 463 |
| 75° | 61 | 30 | 0 |
| 80° | 45 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 323.1 | 4.2 |
| 10°-20° | 826.3 | 10.8 |
| 20°-30° | 1034.5 | 13.5 |
| 30°-40° | 955.5 | 12.5 |
| 40°-50° | 642.1 | 8.4 |
| 50°-60° | 331.6 | 4.3 |
| 60°-70° | 103.9 | 1.4 |
| 70°-80° | 6.6 | 0.1 |
| 80°-90° | 2.2 | 0.0 |
| 90°-100° | 253.2 | 3.3 |
| 100°-110° | 687.8 | 9.0 |
| 110°-120° | 707.2 | 9.2 |
| 120°-130° | 565.4 | 7.4 |
| 130°-140° | 444.3 | 5.8 |
| 140°-150° | 340.7 | 4.4 |
| 150°-160° | 245.0 | 3.2 |
| 160°-170° | 149.8 | 2.0 |
| 170°-180° | 50.5 | 0.7 |
| 0°-30° | 2183.9 | 28.5 |
| 0°-40° | 3139.4 | 40.9 |
| 0°-60° | 4113.1 | 53.6 |
| 0°-90° | 4225.7 | 55.1 |
| 90°-120° | 1648.3 | 21.5 |
| 90°-150° | 2998.6 | 39.1 |
| 90°-180° | 3444.0 | 44.9 |
| 0°-180° | 7669.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3541 | 3541 | 3541 | 3541 | 3541 | |
| 5° | 3470 | 3435 | 3462 | 3474 | 3488 | 322 |
| 15° | 2862 | 2852 | 2953 | 3052 | 3118 | 797 |
| 25° | 2076 | 2093 | 2240 | 2394 | 2506 | 952 |
| 35° | 1333 | 1366 | 1514 | 1692 | 1846 | 826 |
| 45° | 639 | 677 | 791 | 946 | 1093 | 502 |
| 55° | 230 | 268 | 346 | 444 | 546 | 214 |
| 65° | 26 | 49 | 110 | 132 | 147 | 43 |
| 75° | 3 | 3 | 2 | 0 | 0 | 5 |
| 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 | |



TEST NUMBER: P518466

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3540.6 | 3540.6 | 3540.6 | 3540.6 | 3540.6 |
| 2.5° | 3548.8 | 3515.3 | 3524.2 | 3523.9 | 3514.6 |
| 5° | 3470.4 | 3435.2 | 3461.8 | 3474.1 | 3487.5 |
| 7.5° | 3323.7 | 3296.3 | 3347.4 | 3385.7 | 3413.5 |
| 10° | 3210.0 | 3186.6 | 3252.8 | 3305.1 | 3343.6 |
| 12.5° | 3078.5 | 3060.4 | 3140.5 | 3212.1 | 3261.4 |
| 15° | 2862.3 | 2852.2 | 2953.1 | 3052.2 | 3117.5 |
| 17.5° | 2630.7 | 2630.4 | 2745.5 | 2868.5 | 2947.2 |
| 20° | 2471.7 | 2476.8 | 2600.2 | 2735.9 | 2828.0 |
| 22.5° | 2312.8 | 2324.5 | 2456.3 | 2597.8 | 2703.3 |
| 25° | 2076.1 | 2092.8 | 2240.5 | 2393.8 | 2506.0 |
| 27.5° | 1848.6 | 1873.0 | 2028.4 | 2187.8 | 2324.4 |
| 30° | 1699.2 | 1727.7 | 1885.9 | 2053.6 | 2194.2 |
| 32.5° | 1552.6 | 1586.4 | 1740.7 | 1918.0 | 2061.3 |
| 35° | 1332.6 | 1366.1 | 1514.2 | 1692.4 | 1846.5 |
| 37.5° | 1105.5 | 1138.3 | 1283.0 | 1458.4 | 1624.9 |
| 40° | 957.5 | 994.4 | 1132.2 | 1302.2 | 1471.4 |
| 42.5° | 823.2 | 860.1 | 989.7 | 1156.8 | 1316.5 |
| 45° | 638.9 | 677.4 | 791.4 | 945.5 | 1092.8 |
| 47.5° | 486.1 | 528.0 | 628.0 | 767.4 | 901.7 |
| 50° | 395.7 | 437.6 | 536.1 | 659.0 | 787.9 |
| 52.5° | 323.1 | 363.6 | 452.6 | 568.3 | 686.5 |
| 55° | 229.5 | 268.1 | 346.0 | 444.3 | 546.4 |
| 57.5° | 158.6 | 191.8 | 261.7 | 343.7 | 423.8 |
| 60° | 114.8 | 146.6 | 212.4 | 279.0 | 344.3 |
| 62.5° | 76.4 | 105.5 | 169.9 | 220.9 | 264.8 |
| 65° | 25.7 | 49.1 | 109.6 | 132.2 | 147.3 |
| 67.5° | 13.0 | 15.7 | 57.6 | 60.8 | 65.8 |
| 70° | 10.3 | 10.3 | 27.4 | 29.2 | 34.3 |
| 72.5° | 7.5 | 7.5 | 11.0 | 14.1 | 15.1 |
| 75° | 3.4 | 3.4 | 1.7 | 0.0 | 0.0 |
| 77.5° | 1.7 | 1.7 | 1.4 | 0.0 | 0.0 |
| 80° | 1.7 | 1.7 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.3 | 0.3 | 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)