

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: P518760

Luminaire Tested: **SQ4-BB-100U-125D-835-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518760
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, 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-100U-125D-835-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

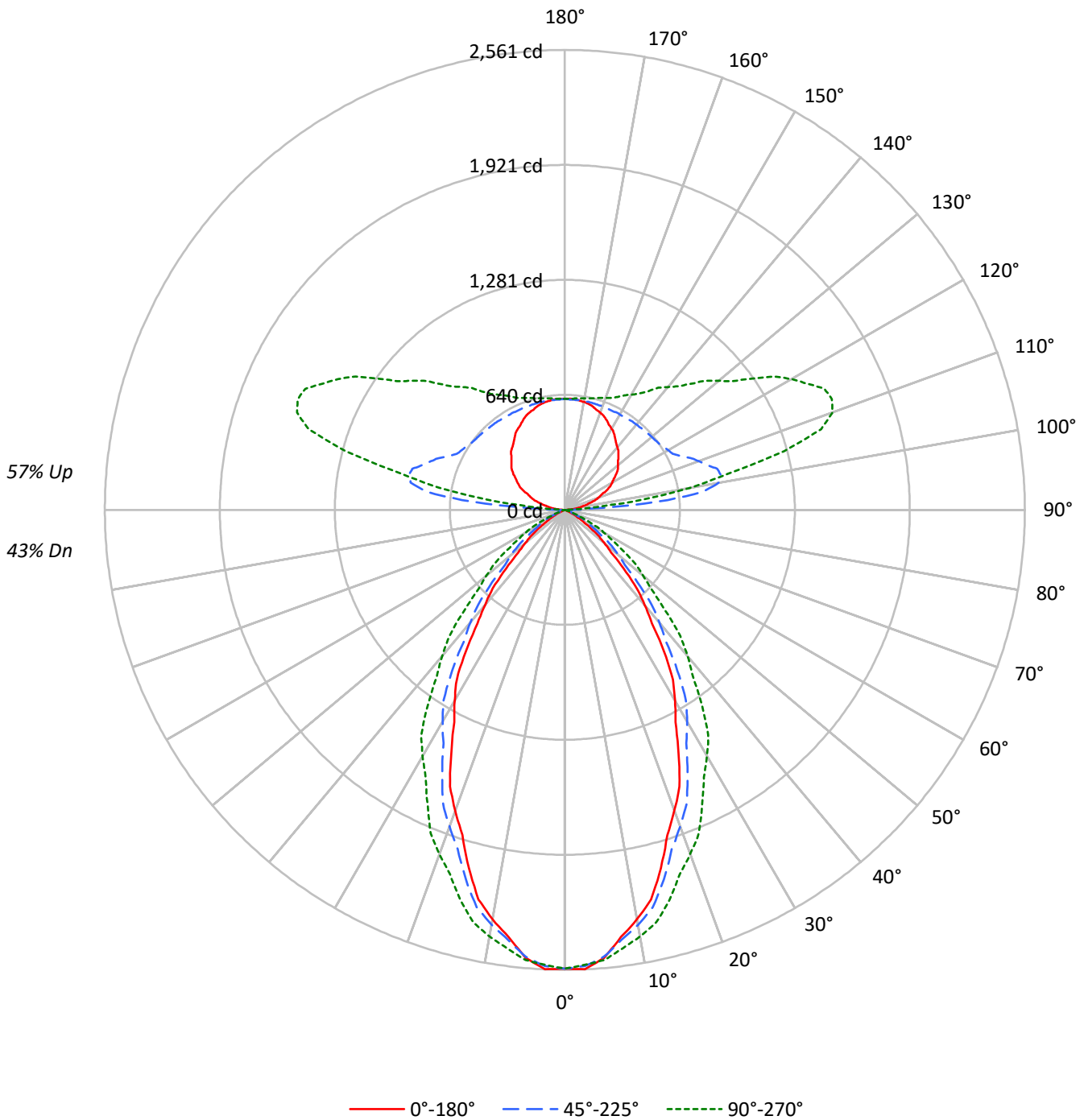
Lumens per Lamp: N/A
Luminaire Lumens: 7065.2 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 68.7
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 | 106 | 106 | 106 | 106 | 96 | 96 | 96 | 96 | 80 | 80 | 80 | 64 | 64 | 64 | 50 | 50 | 50 | 43 |
| 1 | 98 | 94 | 91 | 88 | 89 | 86 | 84 | 81 | 72 | 70 | 68 | 59 | 57 | 56 | 46 | 46 | 45 | 39 |
| 2 | 90 | 84 | 79 | 74 | 83 | 77 | 73 | 69 | 65 | 62 | 59 | 53 | 51 | 50 | 43 | 42 | 40 | 36 |
| 3 | 83 | 75 | 69 | 64 | 76 | 70 | 64 | 60 | 59 | 55 | 52 | 49 | 46 | 44 | 39 | 38 | 36 | 32 |
| 4 | 77 | 68 | 61 | 56 | 71 | 63 | 57 | 52 | 53 | 49 | 45 | 44 | 41 | 39 | 36 | 34 | 33 | 29 |
| 5 | 71 | 61 | 54 | 49 | 66 | 57 | 51 | 46 | 49 | 44 | 40 | 41 | 38 | 35 | 34 | 31 | 30 | 26 |
| 6 | 66 | 56 | 48 | 43 | 61 | 52 | 45 | 41 | 44 | 40 | 36 | 38 | 34 | 31 | 31 | 29 | 27 | 24 |
| 7 | 62 | 51 | 44 | 39 | 57 | 47 | 41 | 37 | 41 | 36 | 32 | 35 | 31 | 29 | 29 | 27 | 25 | 22 |
| 8 | 58 | 46 | 39 | 35 | 53 | 43 | 37 | 33 | 38 | 33 | 29 | 32 | 29 | 26 | 27 | 24 | 23 | 20 |
| 9 | 54 | 43 | 36 | 31 | 50 | 40 | 34 | 30 | 35 | 30 | 27 | 30 | 26 | 24 | 25 | 23 | 21 | 19 |
| 10 | 51 | 40 | 33 | 29 | 47 | 37 | 31 | 27 | 32 | 28 | 25 | 28 | 24 | 22 | 24 | 21 | 19 | 17 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 23571 | 23571 | 23571 |
| 5° | 23192 | 23134 | 23306 |
| 10° | 21699 | 21989 | 22603 |
| 15° | 19727 | 20353 | 21486 |
| 20° | 17511 | 18421 | 20035 |
| 25° | 15250 | 16458 | 18407 |
| 30° | 13062 | 14497 | 16868 |
| 35° | 10831 | 12306 | 15007 |
| 40° | 8321 | 9840 | 12787 |
| 45° | 6015 | 7450 | 10290 |
| 50° | 4098 | 5553 | 8161 |
| 55° | 2664 | 4017 | 6342 |
| 60° | 1528 | 2829 | 4584 |
| 65° | 404 | 1727 | 2321 |
| 70° | 200 | 534 | 666 |
| 75° | 89 | 43 | 0 |
| 80° | 64 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 233.2 | 3.3 |
| 10°-20° | 596.2 | 8.4 |
| 20°-30° | 746.4 | 10.6 |
| 30°-40° | 689.5 | 9.8 |
| 40°-50° | 463.3 | 6.6 |
| 50°-60° | 239.3 | 3.4 |
| 60°-70° | 74.9 | 1.1 |
| 70°-80° | 4.7 | 0.1 |
| 80°-90° | 1.4 | 0.0 |
| 90°-100° | 289.5 | 4.1 |
| 100°-110° | 799.1 | 11.3 |
| 110°-120° | 824.2 | 11.7 |
| 120°-130° | 662.3 | 9.4 |
| 130°-140° | 520.5 | 7.4 |
| 140°-150° | 399.2 | 5.7 |
| 150°-160° | 286.9 | 4.1 |
| 160°-170° | 175.5 | 2.5 |
| 170°-180° | 59.2 | 0.8 |
| 0°-30° | 1575.8 | 22.3 |
| 0°-40° | 2265.3 | 32.1 |
| 0°-60° | 2967.9 | 42.0 |
| 0°-90° | 3048.9 | 43.2 |
| 90°-120° | 1912.8 | 27.1 |
| 90°-150° | 3494.8 | 49.5 |
| 90°-180° | 4016.0 | 56.8 |
| 0°-180° | 7065.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2555 | 2555 | 2555 | 2555 | 2555 | |
| 5° | 2504 | 2479 | 2498 | 2507 | 2516 | 232 |
| 15° | 2065 | 2058 | 2131 | 2202 | 2250 | 575 |
| 25° | 1498 | 1510 | 1617 | 1727 | 1808 | 687 |
| 35° | 962 | 986 | 1093 | 1221 | 1332 | 596 |
| 45° | 461 | 489 | 571 | 682 | 789 | 362 |
| 55° | 166 | 193 | 250 | 321 | 394 | 155 |
| 65° | 18 | 36 | 79 | 95 | 106 | 31 |
| 75° | 2 | 2 | 1 | 0 | 0 | 4 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 2 | 4 | 8 | 9 | 10 | 3 |
| 95° | 42 | 157 | 525 | 216 | 140 | 45 |
| 105° | 142 | 220 | 879 | 1342 | 1264 | 152 |
| 115° | 255 | 308 | 708 | 1402 | 1594 | 251 |
| 125° | 350 | 398 | 642 | 1086 | 1275 | 312 |
| 135° | 421 | 467 | 624 | 880 | 992 | 326 |
| 145° | 489 | 522 | 616 | 749 | 806 | 306 |
| 155° | 551 | 569 | 611 | 672 | 693 | 254 |
| 165° | 596 | 604 | 614 | 638 | 643 | 168 |
| 175° | 618 | 619 | 615 | 624 | 622 | 59 |
| 180° | 618 | 618 | 618 | 618 | 618 | |

TEST NUMBER: P518760

CATALOG NUMBER: SQ4-BB-100U-125D-835-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2554.8 | 2554.8 | 2554.8 | 2554.8 | 2554.8 |
| 2.5° | 2560.7 | 2536.5 | 2542.9 | 2542.8 | 2536.0 |
| 5° | 2504.1 | 2478.7 | 2497.9 | 2506.8 | 2516.5 |
| 7.5° | 2398.3 | 2378.5 | 2415.4 | 2443.0 | 2463.1 |
| 10° | 2316.2 | 2299.3 | 2347.1 | 2384.8 | 2412.6 |
| 12.5° | 2221.3 | 2208.3 | 2266.0 | 2317.8 | 2353.3 |
| 15° | 2065.3 | 2058.1 | 2130.8 | 2202.4 | 2249.5 |
| 17.5° | 1898.2 | 1898.0 | 1981.0 | 2069.8 | 2126.6 |
| 20° | 1783.5 | 1787.1 | 1876.2 | 1974.1 | 2040.6 |
| 22.5° | 1668.8 | 1677.3 | 1772.4 | 1874.5 | 1950.6 |
| 25° | 1498.0 | 1510.1 | 1616.7 | 1727.3 | 1808.2 |
| 27.5° | 1333.9 | 1351.5 | 1463.6 | 1578.6 | 1677.2 |
| 30° | 1226.1 | 1246.6 | 1360.8 | 1481.8 | 1583.3 |
| 32.5° | 1120.3 | 1144.7 | 1256.0 | 1383.9 | 1487.4 |
| 35° | 961.6 | 985.8 | 1092.6 | 1221.2 | 1332.4 |
| 37.5° | 797.7 | 821.4 | 925.7 | 1052.3 | 1172.5 |
| 40° | 690.9 | 717.5 | 817.0 | 939.6 | 1061.7 |
| 42.5° | 594.0 | 620.6 | 714.1 | 834.7 | 950.0 |
| 45° | 461.0 | 488.8 | 571.0 | 682.2 | 788.6 |
| 47.5° | 350.8 | 381.0 | 453.1 | 553.7 | 650.6 |
| 50° | 285.5 | 315.7 | 386.9 | 475.5 | 568.6 |
| 52.5° | 233.1 | 262.4 | 326.5 | 410.1 | 495.4 |
| 55° | 165.6 | 193.4 | 249.7 | 320.6 | 394.3 |
| 57.5° | 114.5 | 138.4 | 188.9 | 248.0 | 305.8 |
| 60° | 82.8 | 105.8 | 153.3 | 201.3 | 248.4 |
| 62.5° | 55.1 | 76.2 | 122.6 | 159.4 | 191.1 |
| 65° | 18.5 | 35.5 | 79.1 | 95.4 | 106.3 |
| 67.5° | 9.4 | 11.3 | 41.5 | 43.8 | 47.5 |
| 70° | 7.4 | 7.4 | 19.8 | 21.1 | 24.7 |
| 72.5° | 5.4 | 5.4 | 7.9 | 10.2 | 10.9 |
| 75° | 2.5 | 2.5 | 1.2 | 0.0 | 0.0 |
| 77.5° | 1.2 | 1.2 | 1.0 | 0.0 | 0.0 |
| 80° | 1.2 | 1.2 | 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° | 0.4 | 0.8 | 1.6 | 1.8 | 2.0 |
| 90° | 2.0 | 3.9 | 7.9 | 8.9 | 9.9 |
| 92.5° | 17.8 | 73.9 | 132.1 | 48.2 | 37.6 |
| 95° | 42.5 | 156.6 | 525.2 | 215.9 | 140.4 |
| 97.5° | 70.4 | 175.4 | 778.0 | 599.0 | 433.8 |
| 100° | 91.0 | 186.7 | 871.3 | 877.5 | 713.1 |
| 102.5° | 110.8 | 199.5 | 889.5 | 1084.2 | 928.3 |
| 105° | 142.4 | 219.8 | 879.2 | 1342.3 | 1264.0 |
| 107.5° | 176.0 | 244.9 | 830.2 | 1466.8 | 1495.4 |
| 110° | 199.8 | 261.7 | 792.2 | 1493.5 | 1586.4 |

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CATALOG NUMBER: SQ4-BB-100U-125D-835-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 221.1 | 280.7 | 756.6 | 1472.4 | 1609.3 |
| 115° | 255.2 | 308.4 | 708.1 | 1401.9 | 1594.3 |
| 117.5° | 284.8 | 337.8 | 676.3 | 1302.6 | 1521.5 |
| 120° | 304.6 | 356.8 | 663.6 | 1235.3 | 1455.8 |
| 122.5° | 323.6 | 373.5 | 653.3 | 1172.6 | 1381.5 |
| 125° | 350.1 | 398.5 | 641.9 | 1086.3 | 1274.8 |
| 127.5° | 372.7 | 421.0 | 635.1 | 1013.3 | 1175.9 |
| 130° | 387.7 | 436.0 | 632.0 | 968.6 | 1116.6 |
| 132.5° | 401.9 | 448.0 | 628.8 | 931.1 | 1065.2 |
| 135° | 421.3 | 466.8 | 624.1 | 879.8 | 992.0 |
| 137.5° | 443.1 | 484.5 | 621.7 | 836.7 | 932.4 |
| 140° | 454.9 | 495.6 | 620.1 | 808.0 | 892.1 |
| 142.5° | 468.4 | 505.9 | 618.5 | 782.4 | 856.5 |
| 145° | 488.6 | 522.4 | 616.2 | 749.0 | 806.0 |
| 147.5° | 508.0 | 537.5 | 614.0 | 720.8 | 765.1 |
| 150° | 522.2 | 546.4 | 613.2 | 704.0 | 739.8 |
| 152.5° | 533.3 | 555.9 | 612.4 | 689.6 | 719.2 |
| 155° | 550.9 | 569.3 | 611.2 | 672.0 | 693.3 |
| 157.5° | 567.1 | 581.2 | 611.4 | 659.2 | 673.7 |
| 160° | 576.6 | 589.2 | 612.2 | 652.0 | 662.6 |
| 162.5° | 584.5 | 595.5 | 613.0 | 645.6 | 653.9 |
| 165° | 596.4 | 604.1 | 614.2 | 638.0 | 642.9 |
| 167.5° | 605.5 | 610.1 | 615.2 | 633.4 | 634.9 |
| 170° | 610.2 | 614.1 | 615.2 | 631.0 | 631.0 |
| 172.5° | 614.2 | 616.5 | 615.2 | 627.8 | 627.0 |
| 175° | 618.1 | 619.1 | 615.2 | 624.0 | 622.1 |
| 177.5° | 619.7 | 618.9 | 615.0 | 620.5 | 618.9 |
| 180° | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 |

(END OF REPORT)