

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: P518716

Luminaire Tested: **SQ4-BB-100U-075D-840-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518716
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-075D-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

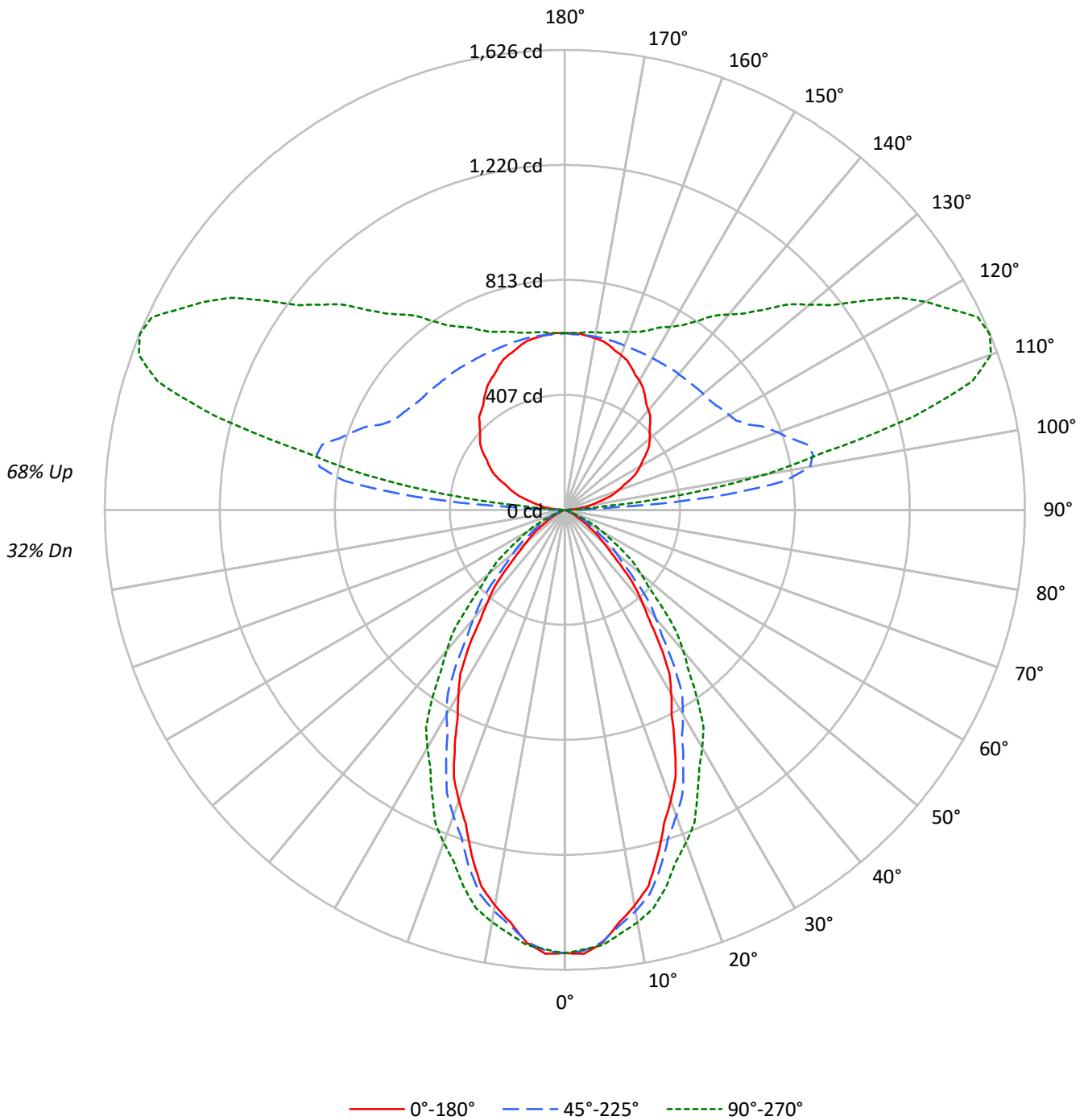
Lumens per Lamp: N/A
Luminaire Lumens: 5927.8 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 49.1
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 | 103 | 103 | 103 | 103 | 92 | 92 | 92 | 92 | 73 | 73 | 73 | 55 | 55 | 55 | 39 | 39 | 39 | 32 |
| 1 | 95 | 91 | 88 | 85 | 85 | 82 | 79 | 77 | 66 | 64 | 62 | 50 | 49 | 48 | 36 | 36 | 35 | 29 |
| 2 | 87 | 81 | 75 | 71 | 78 | 73 | 69 | 65 | 59 | 56 | 53 | 46 | 44 | 42 | 33 | 32 | 31 | 26 |
| 3 | 80 | 72 | 66 | 60 | 72 | 65 | 60 | 56 | 53 | 49 | 46 | 41 | 39 | 37 | 31 | 29 | 28 | 23 |
| 4 | 74 | 64 | 57 | 52 | 67 | 59 | 53 | 48 | 48 | 44 | 40 | 38 | 35 | 33 | 28 | 27 | 25 | 21 |
| 5 | 68 | 58 | 51 | 45 | 62 | 53 | 47 | 42 | 43 | 39 | 36 | 34 | 31 | 29 | 26 | 24 | 23 | 19 |
| 6 | 63 | 52 | 45 | 40 | 57 | 48 | 42 | 37 | 39 | 35 | 32 | 31 | 28 | 26 | 24 | 22 | 21 | 18 |
| 7 | 59 | 48 | 40 | 35 | 53 | 44 | 37 | 33 | 36 | 32 | 28 | 29 | 26 | 24 | 22 | 20 | 19 | 16 |
| 8 | 55 | 43 | 36 | 32 | 49 | 40 | 34 | 30 | 33 | 29 | 25 | 27 | 24 | 21 | 21 | 19 | 17 | 15 |
| 9 | 51 | 40 | 33 | 28 | 46 | 37 | 31 | 27 | 31 | 26 | 23 | 25 | 22 | 19 | 19 | 17 | 16 | 14 |
| 10 | 48 | 37 | 30 | 26 | 43 | 34 | 28 | 24 | 28 | 24 | 21 | 23 | 20 | 18 | 18 | 16 | 15 | 13 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 14461 | 14461 | 14461 |
| 5° | 14228 | 14193 | 14299 |
| 10° | 13314 | 13491 | 13867 |
| 15° | 12103 | 12487 | 13182 |
| 20° | 10743 | 11302 | 12293 |
| 25° | 9356 | 10098 | 11294 |
| 30° | 8014 | 8895 | 10349 |
| 35° | 6645 | 7550 | 9208 |
| 40° | 5105 | 6036 | 7845 |
| 45° | 3690 | 4571 | 6313 |
| 50° | 2515 | 3406 | 5006 |
| 55° | 1634 | 2464 | 3891 |
| 60° | 937 | 1735 | 2812 |
| 65° | 249 | 1059 | 1423 |
| 70° | 121 | 326 | 410 |
| 75° | 53 | 29 | 0 |
| 80° | 43 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 143.0 | 2.4 |
| 10°-20° | 365.8 | 6.2 |
| 20°-30° | 458.0 | 7.7 |
| 30°-40° | 423.0 | 7.1 |
| 40°-50° | 284.2 | 4.8 |
| 50°-60° | 146.8 | 2.5 |
| 60°-70° | 46.0 | 0.8 |
| 70°-80° | 2.9 | 0.0 |
| 80°-90° | 1.4 | 0.0 |
| 90°-100° | 292.4 | 4.9 |
| 100°-110° | 807.2 | 13.6 |
| 110°-120° | 832.5 | 14.0 |
| 120°-130° | 669.0 | 11.3 |
| 130°-140° | 525.7 | 8.9 |
| 140°-150° | 403.2 | 6.8 |
| 150°-160° | 289.8 | 4.9 |
| 160°-170° | 177.2 | 3.0 |
| 170°-180° | 59.8 | 1.0 |
| 0°-30° | 966.8 | 16.3 |
| 0°-40° | 1389.8 | 23.4 |
| 0°-60° | 1820.8 | 30.7 |
| 0°-90° | 1871.1 | 31.6 |
| 90°-120° | 1932.1 | 32.6 |
| 90°-150° | 3530.0 | 59.5 |
| 90°-180° | 4057.0 | 68.4 |
| 0°-180° | 5927.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1567 | 1567 | 1567 | 1567 | 1567 | |
| 5° | 1536 | 1521 | 1532 | 1538 | 1544 | 142 |
| 15° | 1267 | 1263 | 1307 | 1351 | 1380 | 353 |
| 25° | 919 | 926 | 992 | 1060 | 1109 | 421 |
| 35° | 590 | 605 | 670 | 749 | 818 | 365 |
| 45° | 283 | 300 | 350 | 419 | 484 | 222 |
| 55° | 102 | 119 | 153 | 197 | 242 | 95 |
| 65° | 11 | 22 | 48 | 58 | 65 | 19 |
| 75° | 2 | 2 | 1 | 0 | 0 | 2 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 2 | 4 | 8 | 9 | 10 | 3 |
| 95° | 43 | 158 | 530 | 218 | 142 | 46 |
| 105° | 144 | 222 | 888 | 1356 | 1277 | 153 |
| 115° | 258 | 312 | 715 | 1416 | 1610 | 253 |
| 125° | 354 | 402 | 648 | 1097 | 1288 | 315 |
| 135° | 426 | 472 | 630 | 889 | 1002 | 329 |
| 145° | 494 | 528 | 622 | 756 | 814 | 309 |
| 155° | 556 | 575 | 617 | 679 | 700 | 256 |
| 165° | 602 | 610 | 620 | 644 | 649 | 170 |
| 175° | 624 | 625 | 621 | 630 | 628 | 59 |
| 180° | 624 | 624 | 624 | 624 | 624 | |

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CATALOG NUMBER: SQ4-BB-100U-075D-840-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1567.4 | 1567.4 | 1567.4 | 1567.4 | 1567.4 |
| 2.5° | 1571.1 | 1556.2 | 1560.1 | 1560.0 | 1555.9 |
| 5° | 1536.3 | 1520.8 | 1532.5 | 1538.0 | 1543.9 |
| 7.5° | 1471.4 | 1459.3 | 1481.9 | 1498.8 | 1511.2 |
| 10° | 1421.1 | 1410.7 | 1440.0 | 1463.2 | 1480.2 |
| 12.5° | 1362.8 | 1354.8 | 1390.3 | 1422.0 | 1443.8 |
| 15° | 1267.1 | 1262.7 | 1307.3 | 1351.2 | 1380.1 |
| 17.5° | 1164.6 | 1164.5 | 1215.4 | 1269.9 | 1304.7 |
| 20° | 1094.2 | 1096.5 | 1151.1 | 1211.2 | 1252.0 |
| 22.5° | 1023.9 | 1029.1 | 1087.4 | 1150.0 | 1196.8 |
| 25° | 919.1 | 926.5 | 991.9 | 1059.7 | 1109.4 |
| 27.5° | 818.4 | 829.2 | 898.0 | 968.5 | 1029.0 |
| 30° | 752.2 | 764.8 | 834.9 | 909.1 | 971.4 |
| 32.5° | 687.3 | 702.3 | 770.6 | 849.1 | 912.5 |
| 35° | 590.0 | 604.8 | 670.3 | 749.2 | 817.5 |
| 37.5° | 489.4 | 503.9 | 568.0 | 645.6 | 719.3 |
| 40° | 423.9 | 440.2 | 501.2 | 576.5 | 651.4 |
| 42.5° | 364.4 | 380.8 | 438.1 | 512.1 | 582.8 |
| 45° | 282.8 | 299.9 | 350.3 | 418.6 | 483.8 |
| 47.5° | 215.2 | 233.7 | 278.0 | 339.7 | 399.2 |
| 50° | 175.2 | 193.7 | 237.3 | 291.7 | 348.8 |
| 52.5° | 143.0 | 161.0 | 200.3 | 251.6 | 303.9 |
| 55° | 101.6 | 118.7 | 153.2 | 196.7 | 241.9 |
| 57.5° | 70.2 | 84.9 | 115.9 | 152.2 | 187.6 |
| 60° | 50.8 | 64.9 | 94.0 | 123.5 | 152.4 |
| 62.5° | 33.8 | 46.7 | 75.2 | 97.8 | 117.2 |
| 65° | 11.4 | 21.8 | 48.5 | 58.5 | 65.2 |
| 67.5° | 5.8 | 6.9 | 25.5 | 26.9 | 29.1 |
| 70° | 4.5 | 4.5 | 12.1 | 12.9 | 15.2 |
| 72.5° | 3.3 | 3.3 | 4.9 | 6.2 | 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° | 0.4 | 0.8 | 1.6 | 1.8 | 2.0 |
| 90° | 2.0 | 4.0 | 8.0 | 9.0 | 10.0 |
| 92.5° | 18.0 | 74.6 | 133.5 | 48.7 | 38.0 |
| 95° | 43.0 | 158.2 | 530.5 | 218.0 | 141.9 |
| 97.5° | 71.1 | 177.2 | 785.8 | 605.0 | 438.1 |
| 100° | 91.9 | 188.6 | 880.1 | 886.3 | 720.3 |
| 102.5° | 111.9 | 201.6 | 898.5 | 1095.1 | 937.6 |
| 105° | 143.9 | 222.0 | 888.1 | 1355.8 | 1276.7 |
| 107.5° | 177.8 | 247.4 | 838.5 | 1481.5 | 1510.4 |
| 110° | 201.8 | 264.3 | 800.2 | 1508.6 | 1602.3 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 223.4 | 283.5 | 764.2 | 1487.2 | 1625.5 |
| 115° | 257.7 | 311.5 | 715.3 | 1416.0 | 1610.3 |
| 117.5° | 287.7 | 341.2 | 683.1 | 1315.7 | 1536.8 |
| 120° | 307.7 | 360.4 | 670.3 | 1247.8 | 1470.5 |
| 122.5° | 326.9 | 377.3 | 659.9 | 1184.4 | 1395.4 |
| 125° | 353.6 | 402.5 | 648.3 | 1097.2 | 1287.7 |
| 127.5° | 376.4 | 425.2 | 641.5 | 1023.5 | 1187.8 |
| 130° | 391.6 | 440.4 | 638.3 | 978.4 | 1127.8 |
| 132.5° | 406.0 | 452.5 | 635.1 | 940.5 | 1075.9 |
| 135° | 425.6 | 471.5 | 630.3 | 888.7 | 1002.0 |
| 137.5° | 447.5 | 489.3 | 628.0 | 845.1 | 941.8 |
| 140° | 459.5 | 500.5 | 626.4 | 816.1 | 901.1 |
| 142.5° | 473.1 | 511.0 | 624.8 | 790.3 | 865.1 |
| 145° | 493.5 | 527.7 | 622.4 | 756.5 | 814.2 |
| 147.5° | 513.1 | 543.0 | 620.2 | 728.1 | 772.8 |
| 150° | 527.5 | 551.9 | 619.4 | 711.1 | 747.2 |
| 152.5° | 538.6 | 561.5 | 618.6 | 696.6 | 726.4 |
| 155° | 556.4 | 575.0 | 617.4 | 678.8 | 700.3 |
| 157.5° | 572.8 | 587.1 | 617.6 | 665.8 | 680.5 |
| 160° | 582.4 | 595.1 | 618.4 | 658.6 | 669.3 |
| 162.5° | 590.4 | 601.5 | 619.2 | 652.1 | 660.5 |
| 165° | 602.4 | 610.2 | 620.4 | 644.4 | 649.3 |
| 167.5° | 611.6 | 616.3 | 621.4 | 639.8 | 641.3 |
| 170° | 616.4 | 620.3 | 621.4 | 637.3 | 637.3 |
| 172.5° | 620.4 | 622.7 | 621.4 | 634.1 | 633.3 |
| 175° | 624.4 | 625.3 | 621.4 | 630.3 | 628.4 |
| 177.5° | 626.0 | 625.2 | 621.2 | 626.7 | 625.2 |
| 180° | 624.4 | 624.4 | 624.4 | 624.4 | 624.4 |

(END OF REPORT)