

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: P518415

Luminaire Tested: **SQ4-BB-050U-050D-940-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518415
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-050D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

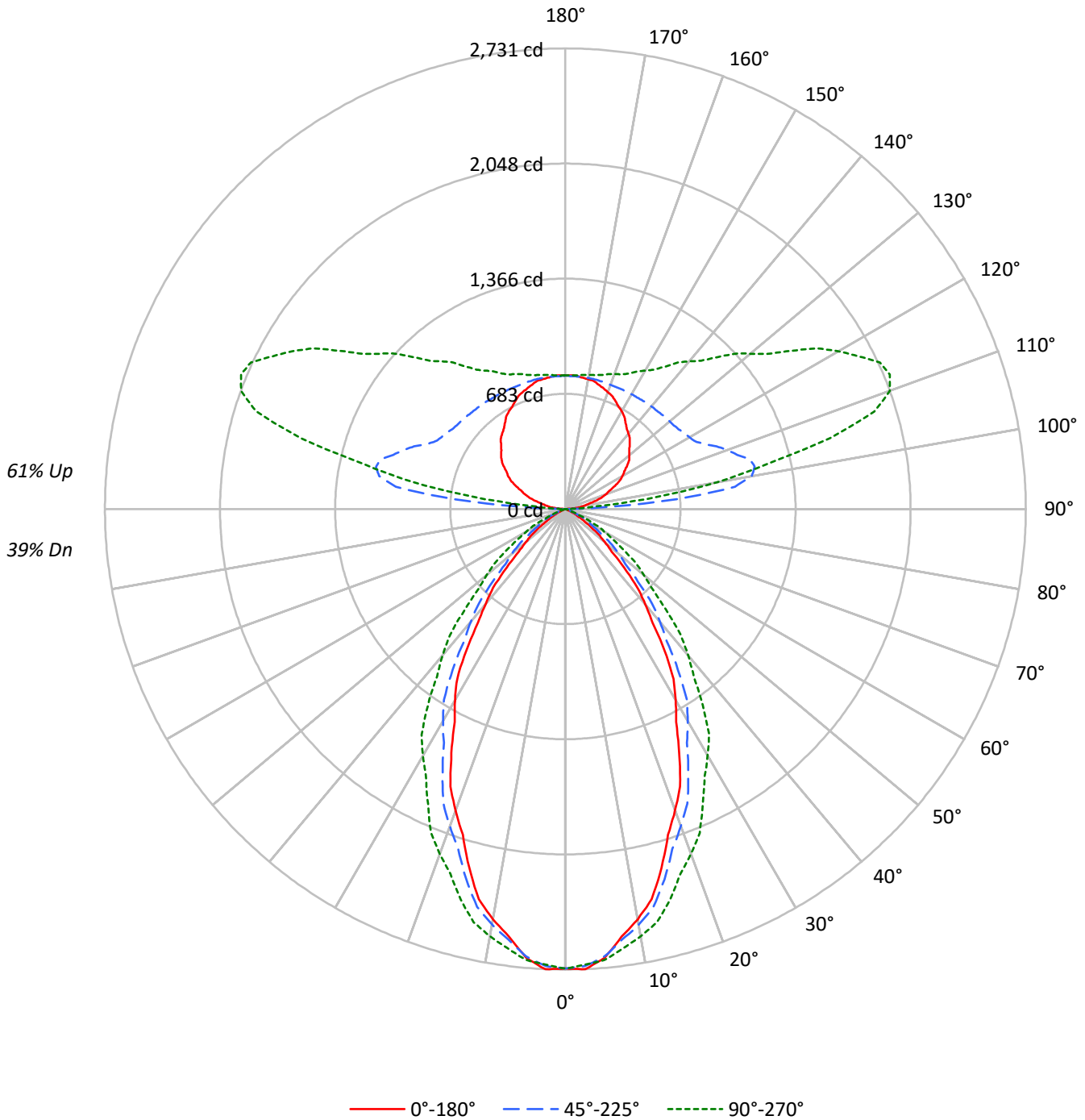
Lumens per Lamp: N/A
Luminaire Lumens: 8419.7 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 79.6
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 | 104 | 104 | 104 | 104 | 95 | 95 | 95 | 95 | 77 | 77 | 77 | 61 | 61 | 61 | 46 | 46 | 46 | 39 |
| 1 | 97 | 93 | 90 | 87 | 88 | 85 | 82 | 79 | 69 | 68 | 66 | 55 | 54 | 53 | 42 | 42 | 41 | 35 |
| 2 | 89 | 83 | 77 | 73 | 81 | 76 | 71 | 67 | 63 | 59 | 57 | 50 | 48 | 47 | 39 | 38 | 37 | 32 |
| 3 | 82 | 74 | 68 | 63 | 75 | 68 | 62 | 58 | 56 | 53 | 49 | 46 | 43 | 41 | 36 | 34 | 33 | 29 |
| 4 | 76 | 66 | 60 | 54 | 69 | 61 | 55 | 51 | 51 | 47 | 43 | 42 | 39 | 37 | 33 | 31 | 30 | 26 |
| 5 | 70 | 60 | 53 | 47 | 64 | 55 | 49 | 44 | 46 | 42 | 38 | 38 | 35 | 33 | 31 | 29 | 27 | 24 |
| 6 | 65 | 54 | 47 | 42 | 59 | 50 | 44 | 39 | 42 | 38 | 34 | 35 | 32 | 29 | 28 | 26 | 25 | 22 |
| 7 | 61 | 50 | 42 | 37 | 55 | 46 | 40 | 35 | 39 | 34 | 31 | 32 | 29 | 27 | 26 | 24 | 22 | 20 |
| 8 | 56 | 45 | 38 | 33 | 52 | 42 | 36 | 32 | 36 | 31 | 28 | 30 | 27 | 24 | 25 | 22 | 21 | 18 |
| 9 | 53 | 42 | 35 | 30 | 48 | 39 | 33 | 29 | 33 | 29 | 25 | 28 | 25 | 22 | 23 | 21 | 19 | 17 |
| 10 | 49 | 38 | 32 | 27 | 45 | 36 | 30 | 26 | 31 | 26 | 23 | 26 | 23 | 20 | 22 | 19 | 18 | 16 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 8380 | 8380 | 8380 |
| 5° | 8246 | 8225 | 8287 |
| 10° | 7715 | 7818 | 8036 |
| 15° | 7014 | 7236 | 7639 |
| 20° | 6226 | 6550 | 7124 |
| 25° | 5422 | 5851 | 6545 |
| 30° | 4644 | 5155 | 5997 |
| 35° | 3851 | 4375 | 5336 |
| 40° | 2959 | 3498 | 4547 |
| 45° | 2139 | 2649 | 3658 |
| 50° | 1457 | 1974 | 2901 |
| 55° | 947 | 1428 | 2255 |
| 60° | 543 | 1006 | 1630 |
| 65° | 144 | 614 | 825 |
| 70° | 71 | 190 | 237 |
| 75° | 31 | 15 | 0 |
| 80° | 23 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 248.7 | 3.0 |
| 10°-20° | 636.0 | 7.6 |
| 20°-30° | 796.2 | 9.5 |
| 30°-40° | 735.4 | 8.7 |
| 40°-50° | 494.2 | 5.9 |
| 50°-60° | 255.2 | 3.0 |
| 60°-70° | 79.9 | 0.9 |
| 70°-80° | 5.0 | 0.1 |
| 80°-90° | 3.1 | 0.0 |
| 90°-100° | 379.8 | 4.5 |
| 100°-110° | 1031.8 | 12.3 |
| 110°-120° | 1060.8 | 12.6 |
| 120°-130° | 848.2 | 10.1 |
| 130°-140° | 666.4 | 7.9 |
| 140°-150° | 511.0 | 6.1 |
| 150°-160° | 367.5 | 4.4 |
| 160°-170° | 224.7 | 2.7 |
| 170°-180° | 75.7 | 0.9 |
| 0°-30° | 1680.8 | 20.0 |
| 0°-40° | 2416.2 | 28.7 |
| 0°-60° | 3165.6 | 37.6 |
| 0°-90° | 3253.8 | 38.6 |
| 90°-120° | 2472.4 | 29.4 |
| 90°-150° | 4498.0 | 53.4 |
| 90°-180° | 5166.0 | 61.4 |
| 0°-180° | 8419.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2725 | 2725 | 2725 | 2725 | 2725 | |
| 5° | 2671 | 2644 | 2664 | 2674 | 2684 | 248 |
| 15° | 2203 | 2195 | 2273 | 2349 | 2399 | 614 |
| 25° | 1598 | 1611 | 1724 | 1842 | 1929 | 733 |
| 35° | 1026 | 1052 | 1165 | 1303 | 1421 | 635 |
| 45° | 492 | 521 | 609 | 728 | 841 | 386 |
| 55° | 177 | 206 | 266 | 342 | 421 | 165 |
| 65° | 20 | 38 | 84 | 102 | 113 | 33 |
| 75° | 3 | 3 | 1 | 0 | 0 | 4 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 2 | 10 | 18 | 23 | 23 | 4 |
| 95° | 56 | 208 | 661 | 288 | 193 | 59 |
| 105° | 183 | 285 | 1135 | 1728 | 1626 | 195 |
| 115° | 326 | 395 | 908 | 1807 | 2058 | 321 |
| 125° | 448 | 510 | 822 | 1384 | 1633 | 399 |
| 135° | 539 | 599 | 799 | 1128 | 1272 | 417 |
| 145° | 623 | 668 | 789 | 958 | 1030 | 391 |
| 155° | 705 | 730 | 784 | 860 | 885 | 325 |
| 165° | 763 | 773 | 786 | 819 | 822 | 215 |
| 175° | 791 | 794 | 789 | 799 | 796 | 75 |
| 180° | 791 | 791 | 791 | 791 | 791 | |



TEST NUMBER: P518415

CATALOG NUMBER: SQ4-BB-050U-050D-940-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2725.0 | 2725.0 | 2725.0 | 2725.0 | 2725.0 |
| 2.5° | 2731.4 | 2705.6 | 2712.4 | 2712.2 | 2705.0 |
| 5° | 2671.0 | 2643.9 | 2664.4 | 2673.8 | 2684.2 |
| 7.5° | 2558.1 | 2537.0 | 2576.3 | 2605.8 | 2627.2 |
| 10° | 2470.6 | 2452.5 | 2503.5 | 2543.8 | 2573.4 |
| 12.5° | 2369.3 | 2355.4 | 2417.1 | 2472.2 | 2510.1 |
| 15° | 2203.0 | 2195.2 | 2272.8 | 2349.1 | 2399.4 |
| 17.5° | 2024.7 | 2024.5 | 2113.0 | 2207.8 | 2268.3 |
| 20° | 1902.4 | 1906.2 | 2001.3 | 2105.7 | 2176.6 |
| 22.5° | 1780.0 | 1789.1 | 1890.5 | 1999.4 | 2080.6 |
| 25° | 1597.8 | 1610.7 | 1724.4 | 1842.4 | 1928.7 |
| 27.5° | 1422.8 | 1441.6 | 1561.2 | 1683.8 | 1789.0 |
| 30° | 1307.8 | 1329.7 | 1451.5 | 1580.5 | 1688.8 |
| 32.5° | 1195.0 | 1221.0 | 1339.7 | 1476.2 | 1586.5 |
| 35° | 1025.7 | 1051.5 | 1165.4 | 1302.6 | 1421.2 |
| 37.5° | 850.9 | 876.1 | 987.4 | 1122.5 | 1250.6 |
| 40° | 737.0 | 765.3 | 871.4 | 1002.3 | 1132.5 |
| 42.5° | 633.6 | 662.0 | 761.7 | 890.3 | 1013.3 |
| 45° | 491.7 | 521.4 | 609.1 | 727.7 | 841.1 |
| 47.5° | 374.1 | 406.4 | 483.3 | 590.6 | 694.0 |
| 50° | 304.5 | 336.8 | 412.6 | 507.2 | 606.4 |
| 52.5° | 248.6 | 279.8 | 348.3 | 437.4 | 528.4 |
| 55° | 176.7 | 206.3 | 266.3 | 341.9 | 420.6 |
| 57.5° | 122.1 | 147.6 | 201.4 | 264.5 | 326.2 |
| 60° | 88.3 | 112.8 | 163.5 | 214.7 | 265.0 |
| 62.5° | 58.8 | 81.2 | 130.8 | 170.0 | 203.8 |
| 65° | 19.8 | 37.8 | 84.4 | 101.8 | 113.4 |
| 67.5° | 10.0 | 12.1 | 44.3 | 46.8 | 50.6 |
| 70° | 7.9 | 7.9 | 21.1 | 22.5 | 26.4 |
| 72.5° | 5.8 | 5.8 | 8.4 | 10.8 | 11.6 |
| 75° | 2.6 | 2.6 | 1.3 | 0.0 | 0.0 |
| 77.5° | 1.3 | 1.3 | 1.1 | 0.0 | 0.0 |
| 80° | 1.3 | 1.3 | 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° | 0.5 | 2.0 | 3.6 | 4.6 | 4.6 |
| 90° | 2.5 | 10.0 | 17.8 | 22.9 | 22.9 |
| 92.5° | 22.9 | 104.0 | 180.6 | 77.6 | 65.6 |
| 95° | 56.0 | 207.7 | 661.4 | 287.9 | 193.3 |
| 97.5° | 92.6 | 229.4 | 1014.0 | 788.9 | 554.1 |
| 100° | 117.0 | 243.9 | 1121.9 | 1137.3 | 918.4 |
| 102.5° | 141.4 | 258.4 | 1150.4 | 1406.5 | 1213.5 |
| 105° | 183.2 | 285.2 | 1134.6 | 1727.6 | 1625.6 |
| 107.5° | 226.4 | 316.5 | 1069.0 | 1893.4 | 1921.8 |
| 110° | 256.9 | 339.0 | 1020.2 | 1926.1 | 2047.9 |

TEST NUMBER: P518415

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 283.4 | 361.5 | 971.3 | 1899.0 | 2082.5 |
| 115° | 325.6 | 395.3 | 908.2 | 1806.9 | 2058.1 |
| 117.5° | 365.3 | 432.0 | 868.0 | 1676.3 | 1959.4 |
| 120° | 391.8 | 456.5 | 849.7 | 1588.8 | 1869.9 |
| 122.5° | 414.2 | 478.8 | 837.5 | 1501.0 | 1772.2 |
| 125° | 447.7 | 509.9 | 821.7 | 1384.5 | 1633.3 |
| 127.5° | 477.8 | 539.5 | 813.1 | 1296.2 | 1509.6 |
| 130° | 496.1 | 555.8 | 809.0 | 1240.8 | 1432.3 |
| 132.5° | 514.4 | 574.1 | 804.9 | 1193.4 | 1363.1 |
| 135° | 539.3 | 599.0 | 798.8 | 1127.7 | 1272.0 |
| 137.5° | 566.3 | 620.5 | 795.8 | 1069.7 | 1191.1 |
| 140° | 582.6 | 634.8 | 793.7 | 1032.8 | 1142.3 |
| 142.5° | 598.9 | 647.1 | 791.7 | 1003.9 | 1095.5 |
| 145° | 623.3 | 668.1 | 788.6 | 958.2 | 1030.3 |
| 147.5° | 650.8 | 689.1 | 786.1 | 922.2 | 978.9 |
| 150° | 669.1 | 701.4 | 786.1 | 901.6 | 946.4 |
| 152.5° | 683.3 | 711.7 | 784.1 | 883.1 | 919.9 |
| 155° | 704.7 | 729.6 | 783.6 | 860.4 | 885.3 |
| 157.5° | 725.6 | 745.0 | 783.6 | 845.0 | 864.0 |
| 160° | 737.8 | 755.2 | 783.6 | 834.8 | 849.7 |
| 162.5° | 750.0 | 763.4 | 785.6 | 826.5 | 837.5 |
| 165° | 763.2 | 773.2 | 786.1 | 819.2 | 821.7 |
| 167.5° | 776.9 | 781.9 | 788.6 | 810.6 | 812.6 |
| 170° | 781.0 | 786.0 | 788.6 | 806.5 | 806.5 |
| 172.5° | 785.1 | 788.1 | 788.6 | 802.4 | 802.4 |
| 175° | 791.2 | 793.7 | 788.6 | 798.8 | 796.3 |
| 177.5° | 793.2 | 793.2 | 787.1 | 795.2 | 791.2 |
| 180° | 791.2 | 791.2 | 791.2 | 791.2 | 791.2 |

(END OF REPORT)