

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: P518463

Luminaire Tested: **SQ4-BB-050U-100D-940-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518463
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-12
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

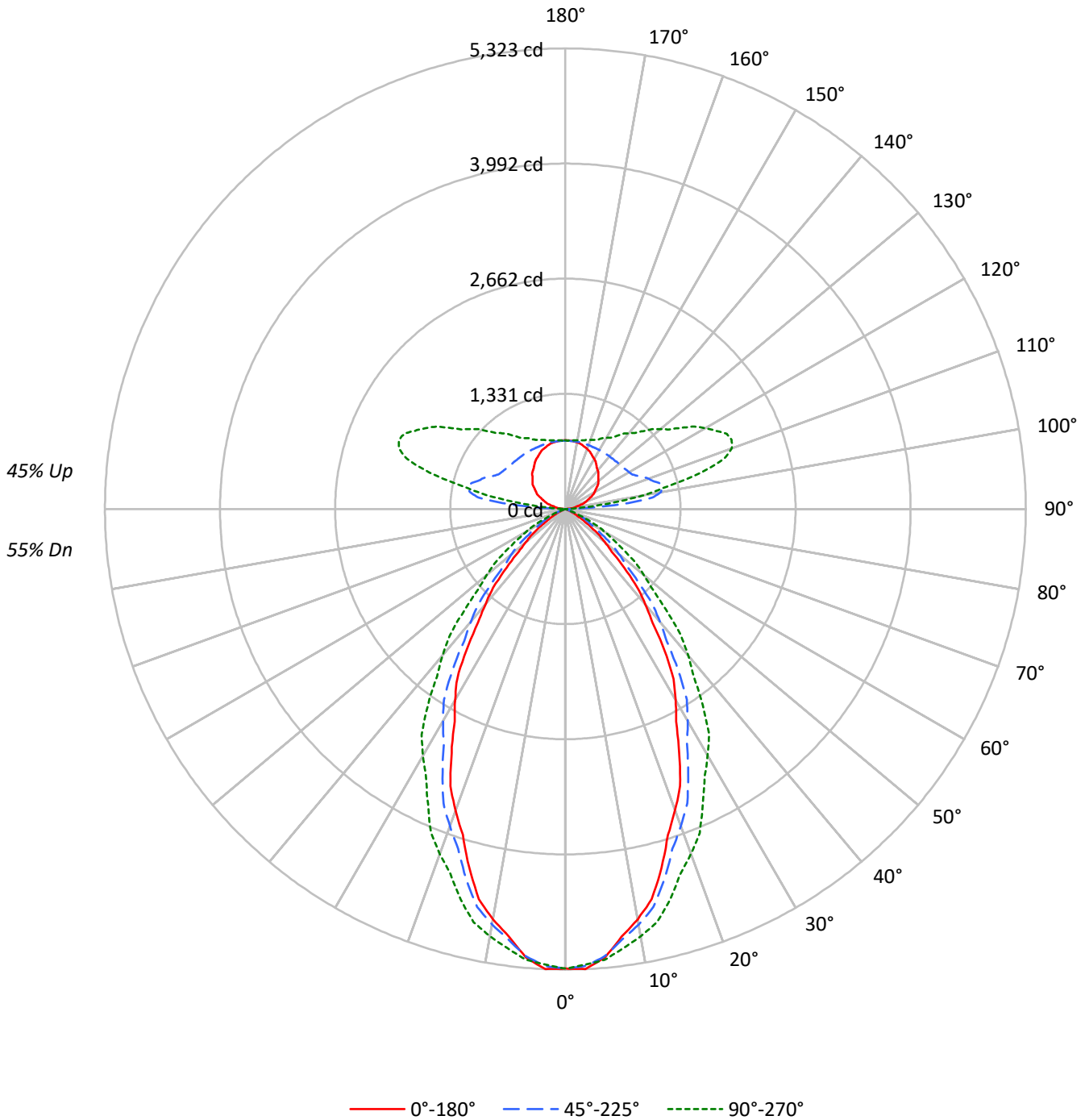
Lumens per Lamp: N/A
Luminaire Lumens: 11504.4 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 134.4
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



TEST NUMBER: P518463
CATALOG NUMBER: SQ4-BB-050U-100D-940-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P518463

CATALOG NUMBER: SQ4-BB-050U-100D-940-1D-UNV-STD-W-12

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 | 16149 |
| 10° | 15036 | 15237 | 15662 |
| 15° | 13670 | 14103 | 14889 |
| 20° | 12134 | 12765 | 13883 |
| 25° | 10567 | 11404 | 12756 |
| 30° | 9051 | 10046 | 11688 |
| 35° | 7505 | 8527 | 10399 |
| 40° | 5766 | 6818 | 8861 |
| 45° | 4168 | 5163 | 7130 |
| 50° | 2840 | 3848 | 5655 |
| 55° | 1846 | 2783 | 4395 |
| 60° | 1059 | 1960 | 3176 |
| 65° | 280 | 1196 | 1608 |
| 70° | 138 | 370 | 462 |
| 75° | 61 | 31 | 0 |
| 80° | 46 | 0 | 0 |
| 85° | 0 | 0 | 0 |



TEST NUMBER: P518463

CATALOG NUMBER: SQ4-BB-050U-100D-940-1D-UNV-STD-W-12

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 484.7 | 4.2 |
| 10°-20° | 1239.5 | 10.8 |
| 20°-30° | 1551.7 | 13.5 |
| 30°-40° | 1433.3 | 12.5 |
| 40°-50° | 963.1 | 8.4 |
| 50°-60° | 497.4 | 4.3 |
| 60°-70° | 155.8 | 1.4 |
| 70°-80° | 9.8 | 0.1 |
| 80°-90° | 3.2 | 0.0 |
| 90°-100° | 379.8 | 3.3 |
| 100°-110° | 1031.8 | 9.0 |
| 110°-120° | 1060.8 | 9.2 |
| 120°-130° | 848.2 | 7.4 |
| 130°-140° | 666.4 | 5.8 |
| 140°-150° | 511.0 | 4.4 |
| 150°-160° | 367.5 | 3.2 |
| 160°-170° | 224.7 | 2.0 |
| 170°-180° | 75.7 | 0.7 |
| 0°-30° | 3275.8 | 28.5 |
| 0°-40° | 4709.1 | 40.9 |
| 0°-60° | 6169.6 | 53.6 |
| 0°-90° | 6338.5 | 55.1 |
| 90°-120° | 2472.4 | 21.5 |
| 90°-150° | 4498.0 | 39.1 |
| 90°-180° | 5166.0 | 44.9 |
| 0°-180° | 11504.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 5311 | 5311 | 5311 | 5311 | 5311 | |
| 5° | 5206 | 5153 | 5193 | 5211 | 5231 | 483 |
| 15° | 4293 | 4278 | 4430 | 4578 | 4676 | 1196 |
| 25° | 3114 | 3139 | 3361 | 3591 | 3759 | 1428 |
| 35° | 1999 | 2049 | 2271 | 2539 | 2770 | 1238 |
| 45° | 958 | 1016 | 1187 | 1418 | 1639 | 753 |
| 55° | 344 | 402 | 519 | 666 | 820 | 321 |
| 65° | 38 | 74 | 164 | 198 | 221 | 65 |
| 75° | 5 | 5 | 3 | 0 | 0 | 7 |
| 85° | 0 | 0 | 0 | 0 | 0 | 1 |
| 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: P518463

CATALOG NUMBER: SQ4-BB-050U-100D-940-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 5310.9 | 5310.9 | 5310.9 | 5310.9 | 5310.9 |
| 2.5° | 5323.2 | 5273.0 | 5286.2 | 5285.9 | 5271.8 |
| 5° | 5205.5 | 5152.8 | 5192.7 | 5211.1 | 5231.2 |
| 7.5° | 4985.6 | 4944.4 | 5021.1 | 5078.5 | 5120.2 |
| 10° | 4815.0 | 4779.8 | 4879.2 | 4957.6 | 5015.4 |
| 12.5° | 4617.7 | 4590.5 | 4710.7 | 4818.2 | 4892.1 |
| 15° | 4293.4 | 4278.3 | 4429.6 | 4578.3 | 4676.3 |
| 17.5° | 3946.0 | 3945.5 | 4118.2 | 4302.8 | 4420.9 |
| 20° | 3707.6 | 3715.1 | 3900.3 | 4103.9 | 4242.0 |
| 22.5° | 3469.2 | 3486.8 | 3684.5 | 3896.7 | 4055.0 |
| 25° | 3114.1 | 3139.2 | 3360.7 | 3590.7 | 3759.0 |
| 27.5° | 2772.9 | 2809.5 | 3042.7 | 3281.6 | 3486.6 |
| 30° | 2548.8 | 2591.5 | 2828.9 | 3080.3 | 3291.4 |
| 32.5° | 2328.9 | 2379.6 | 2611.0 | 2876.9 | 3092.0 |
| 35° | 1999.0 | 2049.2 | 2271.3 | 2538.7 | 2769.8 |
| 37.5° | 1658.3 | 1707.5 | 1924.5 | 2187.6 | 2437.3 |
| 40° | 1436.3 | 1491.5 | 1698.4 | 1953.4 | 2207.1 |
| 42.5° | 1234.8 | 1290.1 | 1484.6 | 1735.1 | 1974.8 |
| 45° | 958.4 | 1016.2 | 1187.0 | 1418.2 | 1639.3 |
| 47.5° | 729.2 | 792.0 | 941.9 | 1151.0 | 1352.5 |
| 50° | 593.5 | 656.3 | 804.2 | 988.5 | 1181.9 |
| 52.5° | 484.6 | 545.4 | 678.8 | 852.4 | 1029.8 |
| 55° | 344.3 | 402.1 | 519.0 | 666.4 | 819.6 |
| 57.5° | 237.9 | 287.7 | 392.6 | 515.6 | 635.7 |
| 60° | 172.1 | 219.9 | 318.6 | 418.5 | 516.4 |
| 62.5° | 114.6 | 158.3 | 254.9 | 331.4 | 397.2 |
| 65° | 38.5 | 73.7 | 164.4 | 198.4 | 221.0 |
| 67.5° | 19.5 | 23.5 | 86.3 | 91.1 | 98.7 |
| 70° | 15.4 | 15.4 | 41.1 | 43.9 | 51.4 |
| 72.5° | 11.3 | 11.3 | 16.4 | 21.1 | 22.6 |
| 75° | 5.1 | 5.1 | 2.6 | 0.0 | 0.0 |
| 77.5° | 2.6 | 2.6 | 2.1 | 0.0 | 0.0 |
| 80° | 2.6 | 2.6 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.5 | 0.5 | 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: P518463

CATALOG NUMBER: SQ4-BB-050U-100D-940-1D-UNV-STD-W-12

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)