

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: CORELITE

Report Number: P521066

Luminaire Tested: **SQ4-BB-050U-100D-93050-1D-UNV-STD-W-4 (5000K)**

Issue Date: 5/5/2021

Test Information

Test Method: LM-79-08
Report Number: P521066
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-50,
Test Lab: INNOVATION CENTER
Issue Date: 5/5/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-BB-050U-100D-93050-1D-UNV-STD-W-4 (5000K)
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K/5000K CCT, 90 CRI LEDS, TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

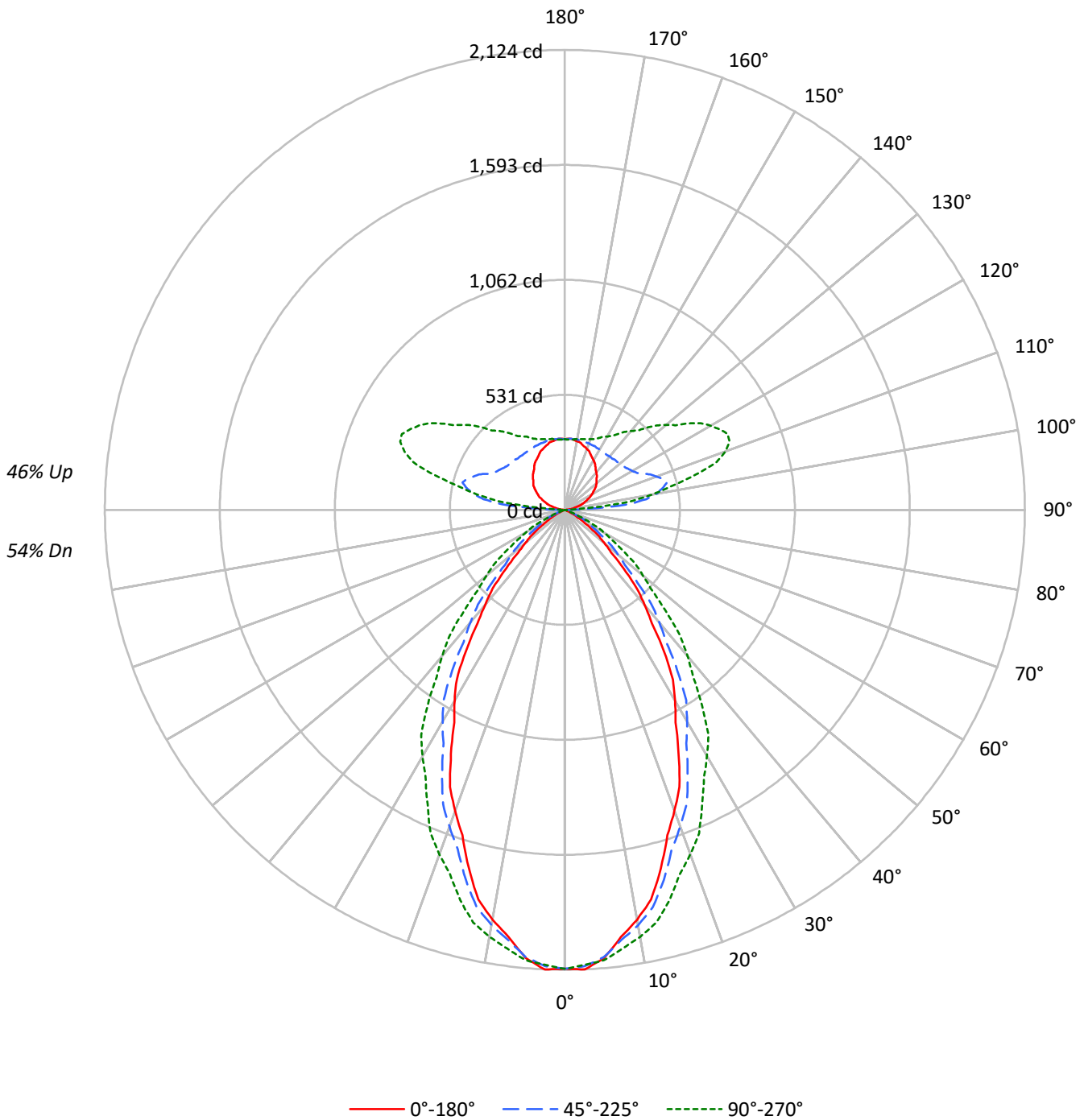
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4640.8 lumens
Efficiency: N/A
Efficacy: 79.5 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): 58.4
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: P521066
CATALOG NUMBER: SQ4-BB-050U-100D-93050-1D-UNV-STD-W-4 (5000K)

Luminous Intensity Polar Plot





TEST NUMBER: P521066

CATALOG NUMBER: SQ4-BB-050U-100D-93050-1D-UNV-STD-W-4 (5000K)

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 | 100 | 100 | 100 | 100 | 86 | 86 | 86 | 72 | 72 | 72 | 60 | 60 | 60 | 54 |
| 1 | 101 | 97 | 94 | 91 | 94 | 91 | 88 | 85 | 78 | 76 | 74 | 67 | 65 | 64 | 56 | 55 | 55 | 50 |
| 2 | 93 | 87 | 82 | 78 | 87 | 81 | 77 | 73 | 71 | 68 | 65 | 61 | 59 | 57 | 52 | 50 | 49 | 45 |
| 3 | 87 | 78 | 72 | 67 | 80 | 74 | 68 | 64 | 64 | 60 | 57 | 56 | 53 | 51 | 48 | 46 | 44 | 41 |
| 4 | 80 | 71 | 64 | 59 | 75 | 67 | 61 | 56 | 59 | 54 | 51 | 51 | 48 | 45 | 44 | 42 | 40 | 37 |
| 5 | 75 | 64 | 57 | 52 | 69 | 61 | 54 | 50 | 54 | 49 | 45 | 47 | 43 | 41 | 41 | 38 | 36 | 33 |
| 6 | 69 | 59 | 51 | 46 | 65 | 55 | 49 | 44 | 49 | 44 | 41 | 43 | 40 | 37 | 38 | 35 | 33 | 30 |
| 7 | 65 | 54 | 47 | 42 | 60 | 51 | 44 | 40 | 45 | 40 | 37 | 40 | 36 | 33 | 35 | 32 | 30 | 28 |
| 8 | 61 | 49 | 42 | 38 | 57 | 47 | 41 | 36 | 42 | 37 | 33 | 37 | 33 | 31 | 33 | 30 | 28 | 26 |
| 9 | 57 | 46 | 39 | 34 | 53 | 43 | 37 | 33 | 39 | 34 | 31 | 35 | 31 | 28 | 31 | 28 | 26 | 24 |
| 10 | 53 | 42 | 36 | 31 | 50 | 40 | 34 | 30 | 36 | 31 | 28 | 33 | 29 | 26 | 29 | 26 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19555 | 19555 | 19555 |
| 5° | 19241 | 19192 | 19335 |
| 10° | 18003 | 18242 | 18752 |
| 15° | 16367 | 16885 | 17825 |
| 20° | 14528 | 15283 | 16621 |
| 25° | 12652 | 13653 | 15272 |
| 30° | 10837 | 12028 | 13993 |
| 35° | 8986 | 10210 | 12450 |
| 40° | 6904 | 8163 | 10608 |
| 45° | 4991 | 6181 | 8536 |
| 50° | 3400 | 4607 | 6771 |
| 55° | 2210 | 3331 | 5262 |
| 60° | 1268 | 2347 | 3803 |
| 65° | 336 | 1432 | 1925 |
| 70° | 167 | 442 | 553 |
| 75° | 75 | 36 | 0 |
| 80° | 53 | 0 | 0 |
| 85° | 0 | 0 | 0 |



TEST NUMBER: P521066

CATALOG NUMBER: SQ4-BB-050U-100D-93050-1D-UNV-STD-W-4 (5000K)

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 193.4 | 4.2 |
| 10°-20° | 494.7 | 10.7 |
| 20°-30° | 619.3 | 13.3 |
| 30°-40° | 572.0 | 12.3 |
| 40°-50° | 384.4 | 8.3 |
| 50°-60° | 198.5 | 4.3 |
| 60°-70° | 62.2 | 1.3 |
| 70°-80° | 3.9 | 0.1 |
| 80°-90° | 0.1 | 0.0 |
| 90°-100° | 168.2 | 3.6 |
| 100°-110° | 406.5 | 8.8 |
| 110°-120° | 433.5 | 9.3 |
| 120°-130° | 351.1 | 7.6 |
| 130°-140° | 271.8 | 5.9 |
| 140°-150° | 207.4 | 4.5 |
| 150°-160° | 150.1 | 3.2 |
| 160°-170° | 92.5 | 2.0 |
| 170°-180° | 31.3 | 0.7 |
| 0°-30° | 1307.3 | 28.2 |
| 0°-40° | 1879.3 | 40.5 |
| 0°-60° | 2462.2 | 53.1 |
| 0°-90° | 2528.4 | 54.5 |
| 90°-120° | 1008.1 | 21.7 |
| 90°-150° | 1838.5 | 39.6 |
| 90°-180° | 2112.0 | 45.5 |
| 0°-180° | 4640.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2120 | 2120 | 2120 | 2120 | 2120 | |
| 5° | 2078 | 2056 | 2072 | 2080 | 2088 | 193 |
| 15° | 1714 | 1707 | 1768 | 1827 | 1866 | 477 |
| 25° | 1243 | 1253 | 1341 | 1433 | 1500 | 570 |
| 35° | 798 | 818 | 906 | 1013 | 1105 | 494 |
| 45° | 382 | 406 | 474 | 566 | 654 | 300 |
| 55° | 137 | 160 | 207 | 266 | 327 | 128 |
| 65° | 15 | 29 | 66 | 79 | 88 | 26 |
| 75° | 2 | 2 | 1 | 0 | 0 | 3 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 1 |
| 95° | 17 | 84 | 288 | 187 | 131 | 19 |
| 105° | 65 | 112 | 488 | 632 | 624 | 69 |
| 115° | 119 | 152 | 392 | 744 | 830 | 117 |
| 125° | 169 | 195 | 341 | 592 | 695 | 151 |
| 135° | 208 | 232 | 327 | 467 | 537 | 161 |
| 145° | 246 | 264 | 321 | 397 | 428 | 154 |
| 155° | 282 | 294 | 325 | 351 | 364 | 130 |
| 165° | 312 | 316 | 329 | 334 | 339 | 88 |
| 175° | 330 | 328 | 330 | 327 | 326 | 31 |
| 180° | 326 | 326 | 326 | 326 | 326 | |



TEST NUMBER: P521066

CATALOG NUMBER: SQ4-BB-050U-100D-93050-1D-UNV-STD-W-4 (5000K)

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2119.5 | 2119.5 | 2119.5 | 2119.5 | 2119.5 |
| 2.5° | 2124.4 | 2104.4 | 2109.7 | 2109.5 | 2103.9 |
| 5° | 2077.5 | 2056.4 | 2072.3 | 2079.7 | 2087.7 |
| 7.5° | 1989.7 | 1973.3 | 2003.8 | 2026.8 | 2043.4 |
| 10° | 1921.6 | 1907.6 | 1947.2 | 1978.5 | 2001.6 |
| 12.5° | 1842.9 | 1832.0 | 1880.0 | 1922.9 | 1952.4 |
| 15° | 1713.5 | 1707.4 | 1767.8 | 1827.1 | 1866.2 |
| 17.5° | 1574.8 | 1574.6 | 1643.5 | 1717.2 | 1764.3 |
| 20° | 1479.7 | 1482.7 | 1556.6 | 1637.8 | 1692.9 |
| 22.5° | 1384.5 | 1391.5 | 1470.4 | 1555.1 | 1618.3 |
| 25° | 1242.8 | 1252.8 | 1341.2 | 1433.0 | 1500.2 |
| 27.5° | 1106.6 | 1121.3 | 1214.3 | 1309.7 | 1391.5 |
| 30° | 1017.2 | 1034.2 | 1129.0 | 1229.3 | 1313.5 |
| 32.5° | 929.4 | 949.7 | 1042.0 | 1148.1 | 1234.0 |
| 35° | 797.8 | 817.8 | 906.5 | 1013.1 | 1105.4 |
| 37.5° | 661.8 | 681.4 | 768.0 | 873.0 | 972.7 |
| 40° | 573.2 | 595.3 | 677.8 | 779.6 | 880.8 |
| 42.5° | 492.8 | 514.9 | 592.5 | 692.5 | 788.1 |
| 45° | 382.5 | 405.5 | 473.7 | 566.0 | 654.2 |
| 47.5° | 291.0 | 316.1 | 375.9 | 459.4 | 539.8 |
| 50° | 236.9 | 261.9 | 321.0 | 394.5 | 471.7 |
| 52.5° | 193.4 | 217.7 | 270.9 | 340.2 | 411.0 |
| 55° | 137.4 | 160.5 | 207.1 | 265.9 | 327.1 |
| 57.5° | 95.0 | 114.8 | 156.7 | 205.8 | 253.7 |
| 60° | 68.7 | 87.8 | 127.2 | 167.0 | 206.1 |
| 62.5° | 45.7 | 63.2 | 101.7 | 132.3 | 158.5 |
| 65° | 15.4 | 29.4 | 65.6 | 79.2 | 88.2 |
| 67.5° | 7.8 | 9.4 | 34.5 | 36.4 | 39.4 |
| 70° | 6.2 | 6.2 | 16.4 | 17.5 | 20.5 |
| 72.5° | 4.5 | 4.5 | 6.6 | 8.4 | 9.0 |
| 75° | 2.1 | 2.1 | 1.0 | 0.0 | 0.0 |
| 77.5° | 1.0 | 1.0 | 0.8 | 0.0 | 0.0 |
| 80° | 1.0 | 1.0 | 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° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 5.5 | 45.5 | 107.2 | 52.1 | 35.4 |
| 95° | 16.6 | 84.1 | 288.1 | 187.4 | 131.3 |
| 97.5° | 29.4 | 93.2 | 379.5 | 365.6 | 313.8 |
| 100° | 39.4 | 98.8 | 429.8 | 453.7 | 411.1 |
| 102.5° | 48.8 | 103.9 | 463.0 | 527.1 | 501.8 |
| 105° | 65.0 | 112.2 | 488.5 | 632.1 | 623.9 |
| 107.5° | 80.8 | 122.1 | 473.5 | 716.3 | 735.3 |
| 110° | 91.9 | 130.4 | 449.1 | 752.6 | 788.4 |

TEST NUMBER: P521066

CATALOG NUMBER: SQ4-BB-050U-100D-93050-1D-UNV-STD-W-4 (5000K)

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 103.0 | 138.8 | 427.6 | 761.5 | 822.7 |
| 115° | 118.8 | 152.0 | 392.5 | 744.1 | 829.9 |
| 117.5° | 134.6 | 165.8 | 371.9 | 704.0 | 804.6 |
| 120° | 145.1 | 174.2 | 358.6 | 672.6 | 778.0 |
| 122.5° | 156.2 | 183.0 | 350.3 | 640.5 | 744.3 |
| 125° | 169.3 | 195.0 | 340.6 | 591.7 | 695.1 |
| 127.5° | 182.3 | 206.5 | 333.9 | 550.4 | 641.2 |
| 130° | 190.0 | 213.7 | 331.7 | 521.6 | 610.8 |
| 132.5° | 197.2 | 221.9 | 328.4 | 500.9 | 576.5 |
| 135° | 208.0 | 232.3 | 326.8 | 466.6 | 536.9 |
| 137.5° | 218.2 | 242.7 | 322.0 | 443.4 | 496.4 |
| 140° | 225.9 | 248.2 | 322.0 | 426.7 | 475.4 |
| 142.5° | 233.7 | 256.0 | 319.2 | 412.2 | 453.3 |
| 145° | 246.0 | 264.2 | 320.6 | 396.6 | 427.7 |
| 147.5° | 257.5 | 275.2 | 319.8 | 378.7 | 404.4 |
| 150° | 264.6 | 280.2 | 322.0 | 370.8 | 391.1 |
| 152.5° | 272.4 | 287.4 | 321.4 | 362.5 | 380.6 |
| 155° | 281.9 | 294.1 | 324.8 | 351.3 | 364.1 |
| 157.5° | 293.4 | 303.8 | 324.1 | 347.0 | 354.6 |
| 160° | 297.8 | 306.6 | 326.8 | 341.5 | 346.9 |
| 162.5° | 305.0 | 312.7 | 325.7 | 339.8 | 343.0 |
| 165° | 311.6 | 316.4 | 328.9 | 333.8 | 338.6 |
| 167.5° | 319.8 | 322.9 | 328.1 | 333.5 | 333.6 |
| 170° | 322.0 | 324.0 | 330.3 | 329.7 | 333.0 |
| 172.5° | 325.9 | 327.3 | 328.6 | 330.1 | 328.1 |
| 175° | 329.6 | 328.2 | 329.6 | 326.8 | 326.1 |
| 177.5° | 328.9 | 328.9 | 327.8 | 326.6 | 323.9 |
| 180° | 326.1 | 326.1 | 326.1 | 326.1 | 326.1 |

(END OF REPORT)