

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

Brand: CORELITE

Report Number: P521107

Luminaire Tested: SQ4-BB-075U-100D-92765-1D-UNV-STD-W-4_3000K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521107
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2009-966-12)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-BB-075U-100D-92765-1D-UNV-STD-W-4_3000K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5679.1 lumens
Efficiency: N/A
Efficacy: 85.9 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

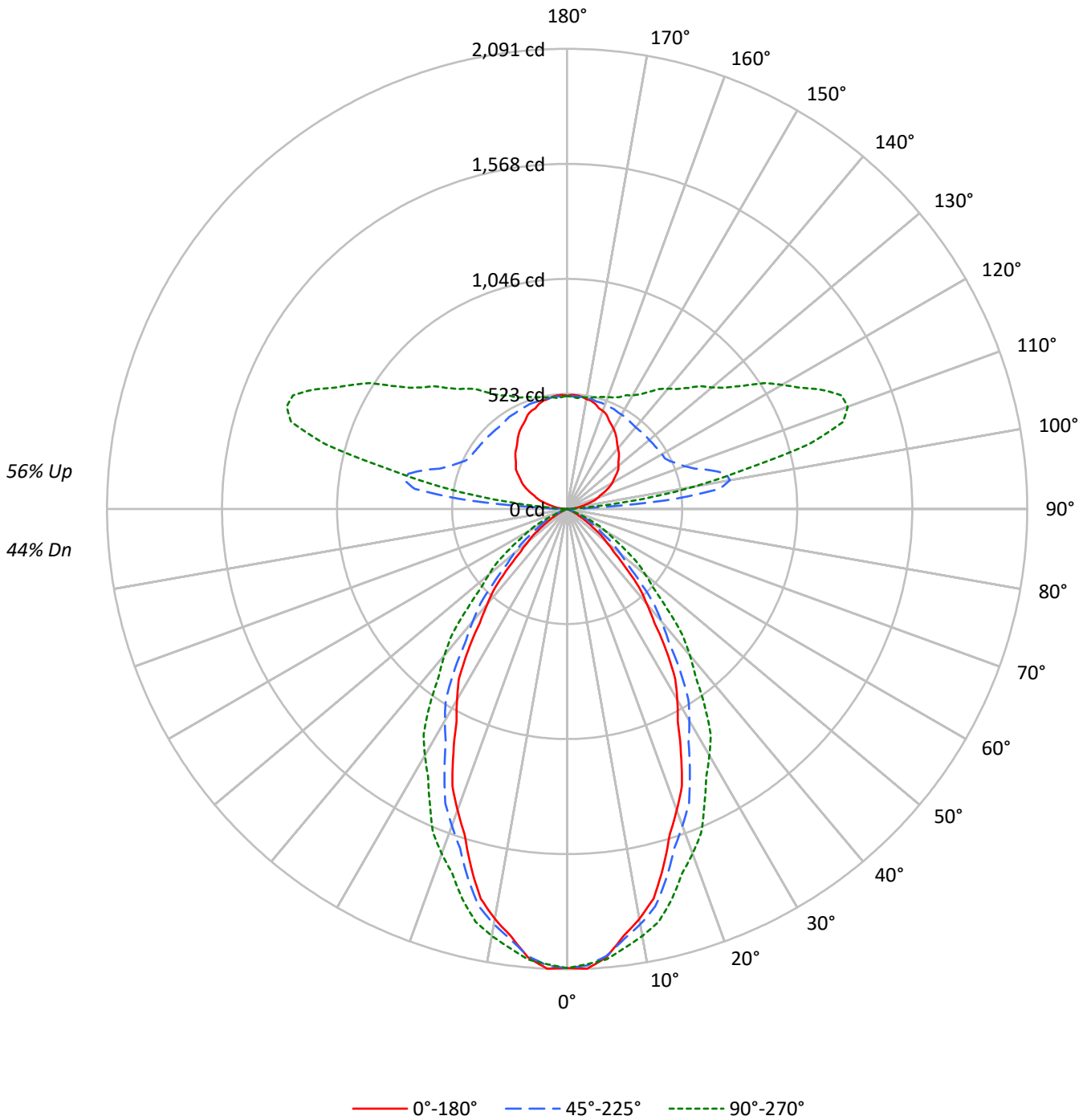
Input Watts (W): 66.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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CATALOG NUMBER: SQ4-BB-075U-100D-92765-1D-UNV-STD-W-4_3000K

Luminous Intensity Polar Plot



TEST NUMBER: P521107

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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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 80 | 80 | 80 | 65 | 65 | 65 | 50 | 50 | 50 | 44 | | | | |
| 1 | 98 | 94 | 91 | 88 | 90 | 87 | 84 | 81 | 72 | 70 | 69 | 59 | 58 | 57 | 47 | 46 | 46 | 40 | | | | |
| 2 | 91 | 84 | 79 | 75 | 83 | 78 | 73 | 69 | 65 | 62 | 59 | 54 | 52 | 50 | 43 | 42 | 41 | 36 | | | | |
| 3 | 84 | 75 | 69 | 64 | 77 | 70 | 64 | 60 | 59 | 55 | 52 | 49 | 46 | 44 | 40 | 38 | 37 | 33 | | | | |
| 4 | 77 | 68 | 61 | 56 | 71 | 63 | 57 | 52 | 54 | 49 | 46 | 45 | 42 | 39 | 37 | 35 | 33 | 30 | | | | |
| 5 | 72 | 61 | 54 | 49 | 66 | 57 | 51 | 46 | 49 | 44 | 41 | 41 | 38 | 35 | 34 | 32 | 30 | 27 | | | | |
| 6 | 67 | 56 | 49 | 43 | 61 | 52 | 46 | 41 | 45 | 40 | 36 | 38 | 34 | 32 | 32 | 29 | 27 | 24 | | | | |
| 7 | 62 | 51 | 44 | 39 | 57 | 48 | 41 | 37 | 41 | 36 | 33 | 35 | 31 | 29 | 29 | 27 | 25 | 22 | | | | |
| 8 | 58 | 47 | 40 | 35 | 53 | 44 | 37 | 33 | 38 | 33 | 30 | 32 | 29 | 26 | 27 | 25 | 23 | 21 | | | | |
| 9 | 54 | 43 | 36 | 32 | 50 | 40 | 34 | 30 | 35 | 30 | 27 | 30 | 27 | 24 | 26 | 23 | 21 | 19 | | | | |
| 10 | 51 | 40 | 33 | 29 | 47 | 37 | 31 | 27 | 33 | 28 | 25 | 28 | 25 | 22 | 24 | 21 | 20 | 18 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19245 | 19245 | 19245 |
| 5° | 18935 | 18888 | 19029 |
| 10° | 17717 | 17953 | 18454 |
| 15° | 16107 | 16617 | 17543 |
| 20° | 14297 | 15041 | 16358 |
| 25° | 12451 | 13437 | 15030 |
| 30° | 10665 | 11836 | 13772 |
| 35° | 8843 | 10048 | 12252 |
| 40° | 6794 | 8033 | 10440 |
| 45° | 4911 | 6083 | 8400 |
| 50° | 3346 | 4534 | 6663 |
| 55° | 2175 | 3278 | 5178 |
| 60° | 1247 | 2308 | 3742 |
| 65° | 330 | 1410 | 1895 |
| 70° | 165 | 434 | 545 |
| 75° | 71 | 36 | 0 |
| 80° | 53 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8400 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 190.4 | 3.4 |
| 10°-20° | 486.8 | 8.6 |
| 20°-30° | 609.4 | 10.7 |
| 30°-40° | 562.9 | 9.9 |
| 40°-50° | 378.3 | 6.7 |
| 50°-60° | 195.4 | 3.4 |
| 60°-70° | 61.2 | 1.1 |
| 70°-80° | 3.9 | 0.1 |
| 80°-90° | 0.1 | 0.0 |
| 90°-100° | 234.1 | 4.1 |
| 100°-110° | 666.0 | 11.7 |
| 110°-120° | 638.1 | 11.2 |
| 120°-130° | 505.0 | 8.9 |
| 130°-140° | 405.4 | 7.1 |
| 140°-150° | 317.4 | 5.6 |
| 150°-160° | 232.2 | 4.1 |
| 160°-170° | 143.8 | 2.5 |
| 170°-180° | 48.8 | 0.9 |
| 0°-30° | 1286.6 | 22.7 |
| 0°-40° | 1849.5 | 32.6 |
| 0°-60° | 2423.1 | 42.7 |
| 0°-90° | 2488.3 | 43.8 |
| 90°-120° | 1538.2 | 27.1 |
| 90°-150° | 2766.0 | 48.7 |
| 90°-180° | 3191.0 | 56.2 |
| 0°-180° | 5679.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2086 | 2086 | 2086 | 2086 | 2086 | |
| 5° | 2044 | 2024 | 2039 | 2047 | 2055 | 190 |
| 15° | 1686 | 1680 | 1740 | 1798 | 1837 | 470 |
| 25° | 1223 | 1233 | 1320 | 1410 | 1476 | 561 |
| 35° | 785 | 805 | 892 | 997 | 1088 | 486 |
| 45° | 376 | 399 | 466 | 557 | 644 | 296 |
| 55° | 135 | 158 | 204 | 262 | 322 | 126 |
| 65° | 15 | 29 | 65 | 78 | 87 | 26 |
| 75° | 2 | 2 | 1 | 0 | 0 | 3 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 1 |
| 95° | 25 | 101 | 453 | 157 | 97 | 29 |
| 105° | 104 | 157 | 679 | 1199 | 1140 | 110 |
| 115° | 192 | 232 | 515 | 1090 | 1280 | 189 |
| 125° | 272 | 301 | 491 | 815 | 975 | 243 |
| 135° | 332 | 360 | 485 | 689 | 778 | 256 |
| 145° | 392 | 412 | 489 | 596 | 649 | 245 |
| 155° | 447 | 458 | 501 | 539 | 560 | 207 |
| 165° | 494 | 496 | 507 | 518 | 525 | 139 |
| 175° | 518 | 515 | 513 | 510 | 506 | 49 |
| 180° | 514 | 514 | 514 | 514 | 514 | |

TEST NUMBER: P521107

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2085.9 | 2085.9 | 2085.9 | 2085.9 | 2085.9 |
| 2.5° | 2090.7 | 2071.0 | 2076.2 | 2076.1 | 2070.5 |
| 5° | 2044.5 | 2023.8 | 2039.4 | 2046.7 | 2054.6 |
| 7.5° | 1958.1 | 1941.9 | 1972.0 | 1994.6 | 2011.0 |
| 10° | 1891.1 | 1877.3 | 1916.3 | 1947.1 | 1969.8 |
| 12.5° | 1813.6 | 1802.9 | 1850.1 | 1892.4 | 1921.4 |
| 15° | 1686.3 | 1680.3 | 1739.7 | 1798.1 | 1836.6 |
| 17.5° | 1549.8 | 1549.6 | 1617.4 | 1689.9 | 1736.3 |
| 20° | 1456.2 | 1459.1 | 1531.9 | 1611.8 | 1666.1 |
| 22.5° | 1362.5 | 1369.4 | 1447.1 | 1530.4 | 1592.6 |
| 25° | 1223.1 | 1232.9 | 1319.9 | 1410.2 | 1476.4 |
| 27.5° | 1089.1 | 1103.5 | 1195.0 | 1288.9 | 1369.4 |
| 30° | 1001.1 | 1017.8 | 1111.0 | 1209.8 | 1292.7 |
| 32.5° | 914.7 | 934.6 | 1025.5 | 1129.9 | 1214.4 |
| 35° | 785.1 | 804.8 | 892.1 | 997.1 | 1087.8 |
| 37.5° | 651.3 | 670.6 | 755.8 | 859.2 | 957.3 |
| 40° | 564.1 | 585.8 | 667.0 | 767.2 | 866.8 |
| 42.5° | 485.0 | 506.7 | 583.1 | 681.5 | 775.6 |
| 45° | 376.4 | 399.1 | 466.2 | 557.0 | 643.8 |
| 47.5° | 286.4 | 311.1 | 369.9 | 452.1 | 531.2 |
| 50° | 233.1 | 257.8 | 315.9 | 388.2 | 464.2 |
| 52.5° | 190.3 | 214.2 | 266.6 | 334.8 | 404.5 |
| 55° | 135.2 | 157.9 | 203.8 | 261.7 | 321.9 |
| 57.5° | 93.4 | 113.0 | 154.2 | 202.5 | 249.7 |
| 60° | 67.6 | 86.4 | 125.1 | 164.4 | 202.8 |
| 62.5° | 45.0 | 62.2 | 100.1 | 130.2 | 156.0 |
| 65° | 15.1 | 29.0 | 64.6 | 77.9 | 86.8 |
| 67.5° | 7.7 | 9.2 | 33.9 | 35.8 | 38.8 |
| 70° | 6.1 | 6.1 | 16.1 | 17.2 | 20.2 |
| 72.5° | 4.4 | 4.4 | 6.5 | 8.3 | 8.9 |
| 75° | 2.0 | 2.0 | 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° | 7.8 | 41.4 | 96.1 | 28.0 | 21.1 |
| 95° | 25.4 | 100.8 | 453.1 | 156.8 | 96.7 |
| 97.5° | 46.7 | 118.1 | 697.9 | 499.4 | 342.2 |
| 100° | 61.5 | 128.4 | 751.0 | 760.7 | 585.9 |
| 102.5° | 77.9 | 139.4 | 739.3 | 973.7 | 821.1 |
| 105° | 103.5 | 157.0 | 678.7 | 1198.9 | 1139.7 |
| 107.5° | 129.5 | 177.4 | 608.0 | 1262.3 | 1315.0 |
| 110° | 147.5 | 192.3 | 567.4 | 1238.0 | 1356.5 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 164.6 | 207.2 | 540.0 | 1180.6 | 1349.4 |
| 115° | 192.4 | 232.5 | 514.7 | 1090.3 | 1280.3 |
| 117.5° | 216.8 | 254.4 | 499.6 | 991.5 | 1192.8 |
| 120° | 236.3 | 267.8 | 498.0 | 935.1 | 1127.9 |
| 122.5° | 252.0 | 283.5 | 494.1 | 885.5 | 1064.7 |
| 125° | 271.5 | 301.1 | 491.2 | 815.2 | 974.6 |
| 127.5° | 292.8 | 320.5 | 489.7 | 773.1 | 904.5 |
| 130° | 303.7 | 331.4 | 487.3 | 743.8 | 858.4 |
| 132.5° | 315.4 | 342.4 | 487.3 | 721.0 | 826.4 |
| 135° | 332.0 | 359.7 | 485.4 | 688.6 | 778.3 |
| 137.5° | 347.7 | 374.6 | 485.2 | 661.1 | 738.7 |
| 140° | 359.4 | 387.1 | 484.4 | 638.4 | 712.9 |
| 142.5° | 372.7 | 395.8 | 486.7 | 620.3 | 687.1 |
| 145° | 391.6 | 411.7 | 489.3 | 595.9 | 649.4 |
| 147.5° | 407.8 | 427.3 | 493.6 | 571.4 | 617.6 |
| 150° | 421.9 | 435.2 | 495.1 | 563.2 | 595.7 |
| 152.5° | 432.8 | 446.9 | 496.7 | 552.3 | 582.4 |
| 155° | 447.3 | 457.8 | 501.0 | 538.6 | 560.5 |
| 157.5° | 465.2 | 471.5 | 502.0 | 532.4 | 548.0 |
| 160° | 474.6 | 479.4 | 505.9 | 527.6 | 541.0 |
| 162.5° | 480.1 | 485.6 | 506.6 | 523.7 | 534.0 |
| 165° | 494.1 | 496.1 | 506.8 | 517.8 | 525.4 |
| 167.5° | 503.7 | 502.0 | 511.3 | 516.3 | 519.3 |
| 170° | 506.8 | 505.9 | 509.8 | 510.8 | 514.7 |
| 172.5° | 513.9 | 510.6 | 512.1 | 509.3 | 512.3 |
| 175° | 517.6 | 514.7 | 512.7 | 509.7 | 505.9 |
| 177.5° | 519.1 | 514.6 | 512.1 | 509.0 | 509.8 |
| 180° | 513.7 | 513.7 | 513.7 | 513.7 | 513.7 |

(END OF REPORT)