

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: P521802

Luminaire Tested: SQ4-WB-050U-125D-92765-1D-UNV-STD-W-4_6500K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521802
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2009-966-13)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-WB-050U-125D-92765-1D-UNV-STD-W-4_6500K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6991.8 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

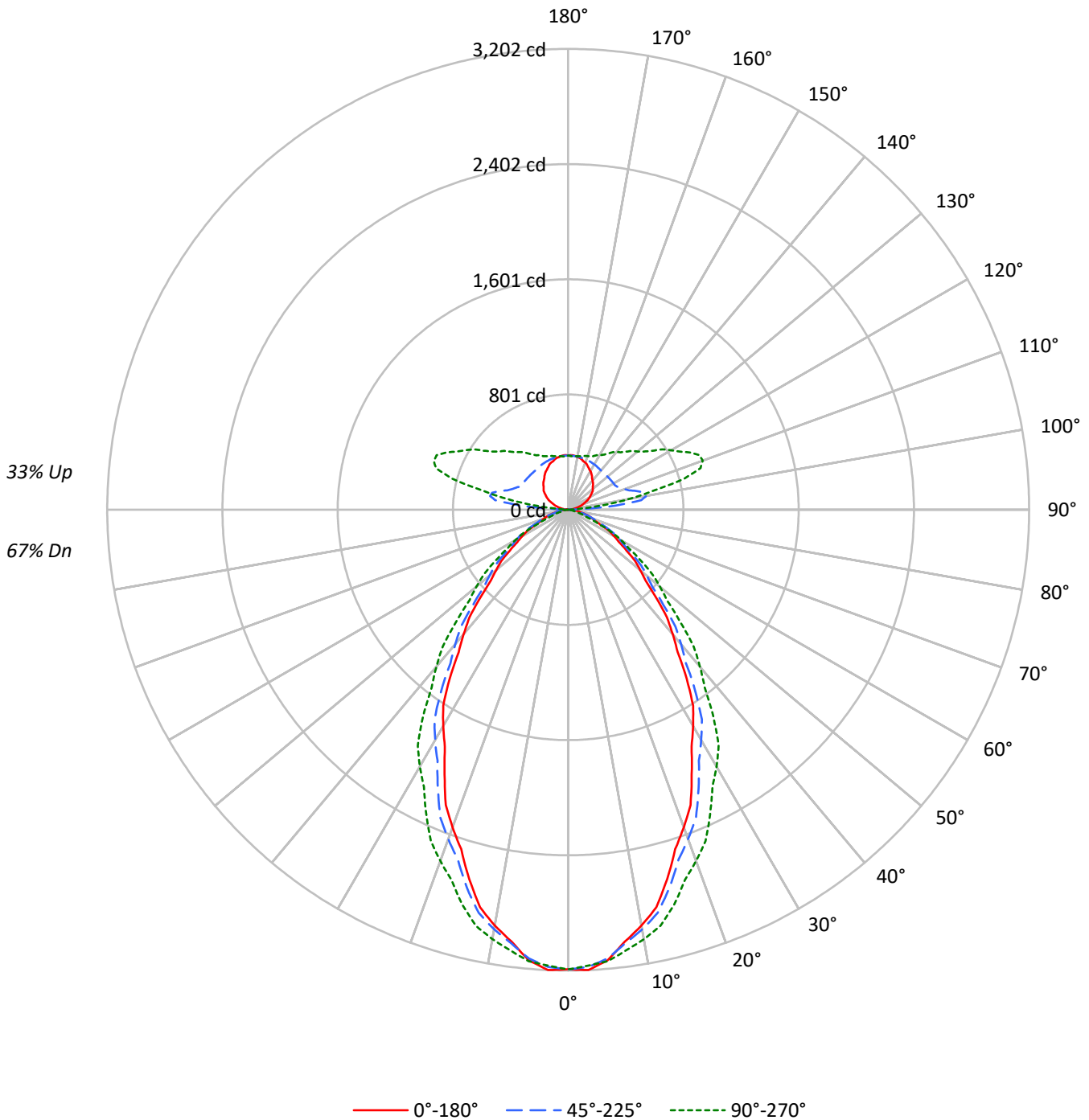
Input Watts (W): 71.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P521802

CATALOG NUMBER: SQ4-WB-050U-125D-92765-1D-UNV-STD-W-4_6500K

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 | 111 | 111 | 111 | 111 | 105 | 105 | 105 | 105 | 93 | 93 | 93 | | 81 | 81 | 81 | | 71 | 71 | 71 | 67 |
| 1 | 103 | 99 | 96 | 93 | 97 | 94 | 91 | 88 | 83 | 81 | 79 | | 74 | 72 | 71 | | 65 | 64 | 63 | 59 |
| 2 | 95 | 88 | 83 | 78 | 90 | 84 | 79 | 75 | 75 | 71 | 68 | | 67 | 64 | 62 | | 60 | 57 | 56 | 52 |
| 3 | 88 | 79 | 73 | 67 | 83 | 75 | 69 | 65 | 68 | 63 | 59 | | 61 | 57 | 54 | | 54 | 52 | 49 | 46 |
| 4 | 81 | 71 | 64 | 59 | 77 | 68 | 61 | 56 | 61 | 56 | 52 | | 55 | 51 | 48 | | 50 | 47 | 44 | 41 |
| 5 | 75 | 65 | 57 | 52 | 71 | 62 | 55 | 50 | 56 | 50 | 46 | | 51 | 46 | 43 | | 46 | 42 | 39 | 37 |
| 6 | 70 | 59 | 51 | 46 | 66 | 56 | 49 | 44 | 51 | 46 | 41 | | 46 | 42 | 38 | | 42 | 38 | 36 | 33 |
| 7 | 65 | 54 | 46 | 41 | 62 | 51 | 45 | 40 | 47 | 41 | 37 | | 43 | 38 | 35 | | 39 | 35 | 32 | 30 |
| 8 | 61 | 49 | 42 | 37 | 58 | 47 | 41 | 36 | 43 | 38 | 34 | | 40 | 35 | 32 | | 36 | 32 | 30 | 28 |
| 9 | 57 | 46 | 38 | 34 | 54 | 44 | 37 | 33 | 40 | 35 | 31 | | 37 | 32 | 29 | | 34 | 30 | 27 | 25 |
| 10 | 54 | 42 | 35 | 31 | 51 | 41 | 34 | 30 | 37 | 32 | 28 | | 34 | 30 | 27 | | 32 | 28 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 29466 | 29466 | 29466 |
| 5° | 29098 | 28994 | 29162 |
| 10° | 27491 | 27740 | 28384 |
| 15° | 25379 | 25967 | 27132 |
| 20° | 23047 | 23913 | 25495 |
| 25° | 20671 | 21798 | 23752 |
| 30° | 18483 | 19692 | 21946 |
| 35° | 16163 | 17331 | 19808 |
| 40° | 13604 | 14684 | 17148 |
| 45° | 11226 | 12196 | 14317 |
| 50° | 9373 | 10218 | 11928 |
| 55° | 7957 | 8768 | 9851 |
| 60° | 6802 | 7602 | 7861 |
| 65° | 5414 | 6394 | 5078 |
| 70° | 4802 | 4990 | 3099 |
| 75° | 4445 | 4046 | 1900 |
| 80° | 4096 | 3725 | 1636 |
| 85° | 3705 | 3409 | 1334 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14317 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 292.9 | 4.2 |
| 10°-20° | 761.9 | 10.9 |
| 20°-30° | 986.9 | 14.1 |
| 30°-40° | 966.4 | 13.8 |
| 40°-50° | 739.8 | 10.6 |
| 50°-60° | 492.9 | 7.1 |
| 60°-70° | 269.0 | 3.8 |
| 70°-80° | 112.1 | 1.6 |
| 80°-90° | 31.7 | 0.5 |
| 90°-100° | 171.5 | 2.5 |
| 100°-110° | 488.0 | 7.0 |
| 110°-120° | 467.6 | 6.7 |
| 120°-130° | 370.1 | 5.3 |
| 130°-140° | 297.0 | 4.2 |
| 140°-150° | 232.5 | 3.3 |
| 150°-160° | 170.1 | 2.4 |
| 160°-170° | 105.4 | 1.5 |
| 170°-180° | 35.8 | 0.5 |
| 0°-30° | 2041.8 | 29.2 |
| 0°-40° | 3008.2 | 43.0 |
| 0°-60° | 4240.9 | 60.7 |
| 0°-90° | 4653.8 | 66.6 |
| 90°-120° | 1127.1 | 16.1 |
| 90°-150° | 2026.7 | 29.0 |
| 90°-180° | 2338.0 | 33.4 |
| 0°-180° | 6991.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3194 | 3194 | 3194 | 3194 | 3194 | |
| 5° | 3142 | 3110 | 3131 | 3138 | 3149 | 292 |
| 15° | 2657 | 2647 | 2719 | 2793 | 2840 | 742 |
| 25° | 2031 | 2036 | 2141 | 2235 | 2333 | 934 |
| 35° | 1435 | 1442 | 1539 | 1642 | 1759 | 892 |
| 45° | 860 | 877 | 935 | 1006 | 1097 | 671 |
| 55° | 495 | 515 | 545 | 566 | 612 | 449 |
| 65° | 248 | 269 | 293 | 256 | 233 | 258 |
| 75° | 125 | 125 | 114 | 78 | 53 | 133 |
| 85° | 35 | 35 | 32 | 21 | 13 | 38 |
| 90° | 0 | 0 | 0 | 0 | 0 | 2 |
| 95° | 19 | 74 | 332 | 115 | 71 | 21 |
| 105° | 76 | 115 | 497 | 878 | 835 | 80 |
| 115° | 141 | 170 | 377 | 799 | 938 | 139 |
| 125° | 199 | 221 | 360 | 597 | 714 | 178 |
| 135° | 243 | 264 | 356 | 504 | 570 | 188 |
| 145° | 287 | 302 | 358 | 437 | 476 | 179 |
| 155° | 328 | 335 | 367 | 395 | 411 | 151 |
| 165° | 362 | 364 | 371 | 379 | 385 | 102 |
| 175° | 379 | 377 | 376 | 374 | 371 | 36 |
| 180° | 376 | 376 | 376 | 376 | 376 | |

TEST NUMBER: P521802

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3193.7 | 3193.7 | 3193.7 | 3193.7 | 3193.7 |
| 2.5° | 3201.5 | 3173.0 | 3180.2 | 3180.0 | 3171.2 |
| 5° | 3141.8 | 3110.3 | 3130.6 | 3137.9 | 3148.8 |
| 7.5° | 3025.2 | 3001.4 | 3038.4 | 3065.8 | 3088.0 |
| 10° | 2934.4 | 2913.9 | 2961.0 | 3000.9 | 3029.7 |
| 12.5° | 2829.0 | 2811.8 | 2870.2 | 2923.8 | 2961.3 |
| 15° | 2657.0 | 2647.4 | 2718.6 | 2792.6 | 2840.5 |
| 17.5° | 2472.8 | 2468.2 | 2549.9 | 2636.2 | 2697.6 |
| 20° | 2347.3 | 2345.9 | 2435.5 | 2525.4 | 2596.7 |
| 22.5° | 2220.6 | 2223.6 | 2317.8 | 2411.3 | 2492.4 |
| 25° | 2030.6 | 2036.0 | 2141.3 | 2234.6 | 2333.2 |
| 27.5° | 1854.8 | 1857.3 | 1966.1 | 2064.6 | 2169.8 |
| 30° | 1734.9 | 1741.7 | 1848.4 | 1950.4 | 2060.0 |
| 32.5° | 1614.9 | 1622.9 | 1727.3 | 1832.7 | 1944.5 |
| 35° | 1435.0 | 1441.8 | 1538.7 | 1642.2 | 1758.7 |
| 37.5° | 1249.4 | 1258.8 | 1344.7 | 1442.6 | 1557.2 |
| 40° | 1129.5 | 1143.2 | 1219.2 | 1311.4 | 1423.8 |
| 42.5° | 1014.0 | 1031.0 | 1101.5 | 1189.0 | 1290.4 |
| 45° | 860.4 | 876.9 | 934.7 | 1005.5 | 1097.3 |
| 47.5° | 728.1 | 747.0 | 791.5 | 852.4 | 930.8 |
| 50° | 653.0 | 670.8 | 711.9 | 757.0 | 831.0 |
| 52.5° | 586.9 | 604.7 | 641.3 | 676.0 | 739.1 |
| 55° | 494.7 | 515.2 | 545.1 | 565.8 | 612.4 |
| 57.5° | 419.0 | 438.7 | 462.4 | 471.8 | 500.0 |
| 60° | 368.6 | 390.5 | 412.0 | 410.9 | 426.0 |
| 62.5° | 322.6 | 341.2 | 362.7 | 347.8 | 348.7 |
| 65° | 248.0 | 268.6 | 292.9 | 255.9 | 232.6 |
| 67.5° | 200.4 | 204.8 | 229.8 | 178.5 | 150.8 |
| 70° | 178.0 | 178.0 | 185.0 | 138.2 | 114.9 |
| 72.5° | 156.7 | 156.7 | 150.2 | 112.4 | 88.0 |
| 75° | 124.7 | 124.7 | 113.5 | 77.9 | 53.3 |
| 77.5° | 96.1 | 95.0 | 86.9 | 58.1 | 38.7 |
| 80° | 77.1 | 77.1 | 70.1 | 45.9 | 30.8 |
| 82.5° | 60.3 | 60.3 | 54.4 | 35.9 | 23.0 |
| 85° | 35.0 | 35.0 | 32.2 | 20.8 | 12.6 |
| 87.5° | 12.3 | 12.3 | 11.2 | 6.7 | 5.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 5.7 | 30.4 | 70.4 | 20.5 | 15.5 |
| 95° | 18.6 | 73.9 | 332.0 | 114.9 | 70.8 |
| 97.5° | 34.2 | 86.5 | 511.3 | 365.9 | 250.7 |
| 100° | 45.1 | 94.1 | 550.3 | 557.4 | 429.3 |
| 102.5° | 57.1 | 102.2 | 541.7 | 713.5 | 601.6 |
| 105° | 75.8 | 115.0 | 497.3 | 878.4 | 835.1 |
| 107.5° | 94.9 | 130.0 | 445.5 | 925.0 | 963.6 |
| 110° | 108.1 | 140.9 | 415.7 | 907.2 | 993.9 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 120.6 | 151.8 | 395.7 | 865.1 | 988.8 |
| 115° | 141.0 | 170.4 | 377.1 | 798.9 | 938.1 |
| 117.5° | 158.9 | 186.4 | 366.1 | 726.5 | 874.0 |
| 120° | 173.2 | 196.3 | 364.9 | 685.1 | 826.5 |
| 122.5° | 184.6 | 207.7 | 362.1 | 648.9 | 780.1 |
| 125° | 198.9 | 220.6 | 359.9 | 597.3 | 714.1 |
| 127.5° | 214.5 | 234.8 | 358.8 | 566.5 | 662.8 |
| 130° | 222.5 | 242.8 | 357.1 | 545.0 | 629.0 |
| 132.5° | 231.1 | 250.9 | 357.1 | 528.3 | 605.5 |
| 135° | 243.3 | 263.6 | 355.6 | 504.5 | 570.3 |
| 137.5° | 254.7 | 274.5 | 355.5 | 484.4 | 541.3 |
| 140° | 263.3 | 283.6 | 354.9 | 467.8 | 522.4 |
| 142.5° | 273.1 | 290.0 | 356.6 | 454.5 | 503.5 |
| 145° | 286.9 | 301.6 | 358.5 | 436.7 | 475.8 |
| 147.5° | 298.8 | 313.1 | 361.6 | 418.7 | 452.5 |
| 150° | 309.1 | 318.9 | 362.8 | 412.7 | 436.5 |
| 152.5° | 317.1 | 327.5 | 363.9 | 404.7 | 426.8 |
| 155° | 327.7 | 335.4 | 367.1 | 394.6 | 410.7 |
| 157.5° | 340.9 | 345.5 | 367.8 | 390.1 | 401.6 |
| 160° | 347.8 | 351.3 | 370.7 | 386.6 | 396.4 |
| 162.5° | 351.8 | 355.8 | 371.2 | 383.7 | 391.3 |
| 165° | 362.1 | 363.5 | 371.4 | 379.4 | 385.0 |
| 167.5° | 369.1 | 367.8 | 374.7 | 378.3 | 380.5 |
| 170° | 371.4 | 370.7 | 373.5 | 374.3 | 377.1 |
| 172.5° | 376.5 | 374.2 | 375.2 | 373.1 | 375.4 |
| 175° | 379.2 | 377.1 | 375.7 | 373.5 | 370.7 |
| 177.5° | 380.4 | 377.0 | 375.2 | 373.0 | 373.5 |
| 180° | 376.4 | 376.4 | 376.4 | 376.4 | 376.4 |

(END OF REPORT)