

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: P521420

Luminaire Tested: SQ4-F-050U-100D-92765-1D-UNV-STD-W-4_3500K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521420
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-38)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-F-050U-100D-92765-1D-UNV-STD-W-4_3500K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6288.1 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

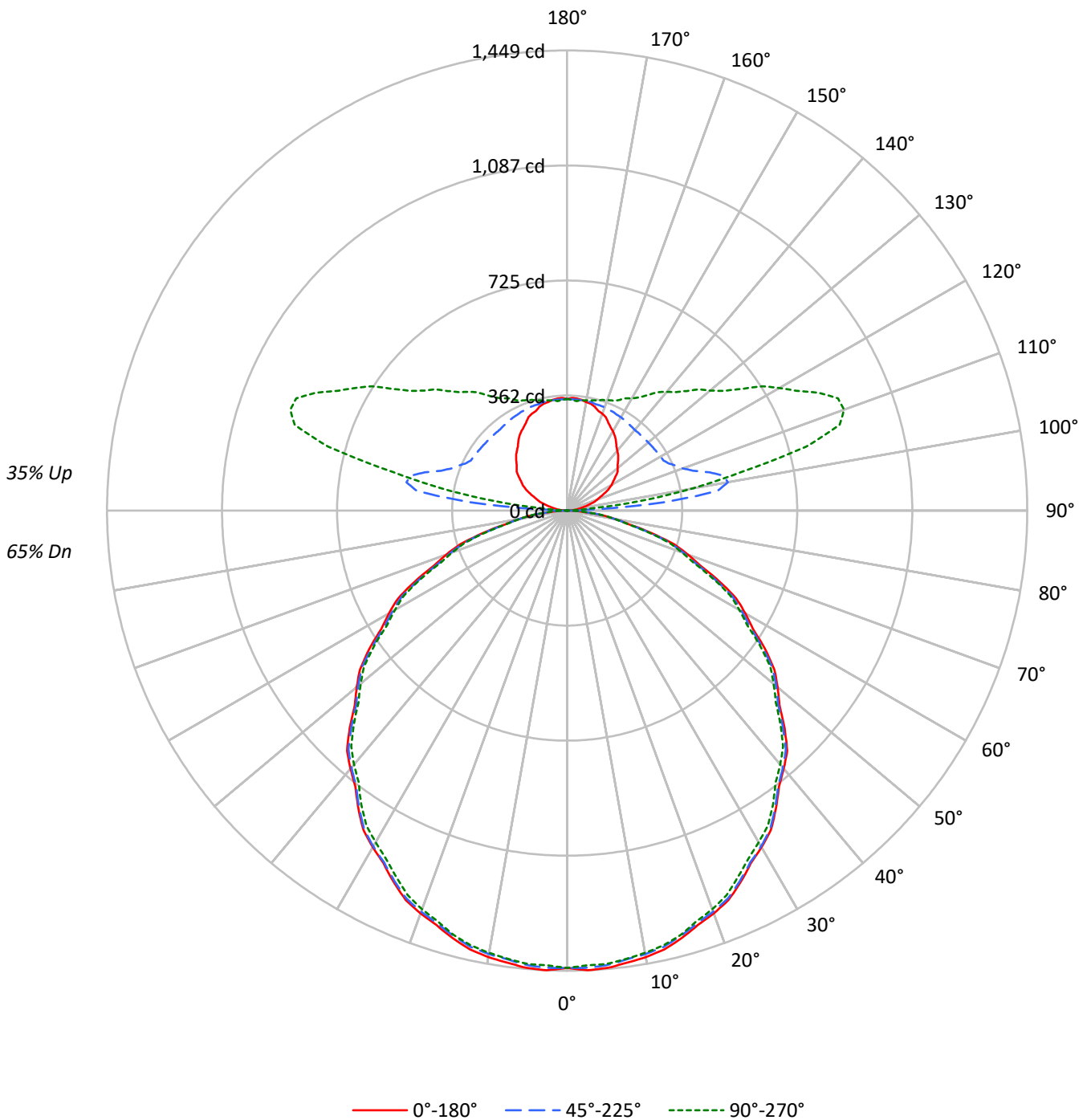
Input Watts (W): 58.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P521420

CATALOG NUMBER: SQ4-F-050U-100D-92765-1D-UNV-STD-W-4_3500K

Luminous Intensity Polar Plot



TEST NUMBER: P521420

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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 | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 81 | 81 | 81 | 70 | 70 | 70 | 65 | | | | |
| 1 | 101 | 97 | 92 | 89 | 95 | 91 | 87 | 84 | 80 | 78 | 75 | 71 | 69 | 67 | 62 | 60 | 59 | 55 | | | | |
| 2 | 92 | 84 | 78 | 72 | 86 | 79 | 74 | 69 | 70 | 66 | 62 | 62 | 58 | 55 | 54 | 52 | 49 | 45 | | | | |
| 3 | 84 | 74 | 66 | 60 | 78 | 70 | 63 | 57 | 62 | 56 | 52 | 54 | 50 | 47 | 48 | 44 | 42 | 38 | | | | |
| 4 | 76 | 65 | 57 | 51 | 72 | 62 | 54 | 48 | 55 | 49 | 44 | 48 | 44 | 40 | 43 | 39 | 36 | 33 | | | | |
| 5 | 70 | 58 | 50 | 43 | 66 | 55 | 47 | 41 | 49 | 43 | 38 | 43 | 38 | 34 | 38 | 34 | 31 | 28 | | | | |
| 6 | 65 | 52 | 44 | 38 | 61 | 49 | 42 | 36 | 44 | 38 | 33 | 39 | 34 | 30 | 35 | 30 | 27 | 25 | | | | |
| 7 | 60 | 47 | 39 | 33 | 56 | 45 | 37 | 32 | 40 | 34 | 29 | 36 | 30 | 27 | 32 | 27 | 24 | 22 | | | | |
| 8 | 56 | 43 | 35 | 29 | 52 | 41 | 33 | 28 | 36 | 30 | 26 | 33 | 27 | 24 | 29 | 25 | 22 | 19 | | | | |
| 9 | 52 | 39 | 31 | 26 | 49 | 37 | 30 | 25 | 33 | 27 | 23 | 30 | 25 | 21 | 27 | 22 | 19 | 17 | | | | |
| 10 | 48 | 36 | 28 | 23 | 45 | 34 | 27 | 23 | 31 | 25 | 21 | 28 | 23 | 19 | 25 | 21 | 18 | 16 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13286 | 13286 | 13286 |
| 5° | 13392 | 13309 | 13272 |
| 10° | 13378 | 13285 | 13247 |
| 15° | 13315 | 13239 | 13210 |
| 20° | 13255 | 13196 | 13117 |
| 25° | 13153 | 13102 | 12959 |
| 30° | 13040 | 13008 | 12848 |
| 35° | 12908 | 12862 | 12727 |
| 40° | 12779 | 12730 | 12574 |
| 45° | 12630 | 12526 | 12382 |
| 50° | 12416 | 12330 | 12186 |
| 55° | 12241 | 12064 | 11919 |
| 60° | 11957 | 11717 | 11551 |
| 65° | 11570 | 11243 | 11068 |
| 70° | 10898 | 10547 | 10359 |
| 75° | 9839 | 9589 | 9447 |
| 80° | 8129 | 8129 | 8023 |
| 85° | 5716 | 6563 | 6775 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12630 cd/sqm

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CATALOG NUMBER: SQ4-F-050U-100D-92765-1D-UNV-STD-W-4_3500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 136.3 | 2.2 |
| 10°-20° | 390.5 | 6.2 |
| 20°-30° | 590.6 | 9.4 |
| 30°-40° | 711.2 | 11.3 |
| 40°-50° | 738.6 | 11.7 |
| 50°-60° | 669.5 | 10.6 |
| 60°-70° | 509.9 | 8.1 |
| 70°-80° | 284.9 | 4.5 |
| 80°-90° | 73.9 | 1.2 |
| 90°-100° | 160.1 | 2.5 |
| 100°-110° | 455.6 | 7.2 |
| 110°-120° | 436.5 | 6.9 |
| 120°-130° | 345.5 | 5.5 |
| 130°-140° | 277.3 | 4.4 |
| 140°-150° | 217.1 | 3.5 |
| 150°-160° | 158.8 | 2.5 |
| 160°-170° | 98.4 | 1.6 |
| 170°-180° | 33.4 | 0.5 |
| 0°-30° | 1117.4 | 17.8 |
| 0°-40° | 1828.6 | 29.1 |
| 0°-60° | 3236.7 | 51.5 |
| 0°-90° | 4105.3 | 65.3 |
| 90°-120° | 1052.2 | 16.7 |
| 90°-150° | 1892.1 | 30.1 |
| 90°-180° | 2183.0 | 34.7 |
| 0°-180° | 6288.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1440 | 1440 | 1440 | 1440 | 1440 | |
| 5° | 1446 | 1432 | 1437 | 1433 | 1433 | 137 |
| 15° | 1394 | 1381 | 1386 | 1383 | 1383 | 393 |
| 25° | 1292 | 1281 | 1287 | 1277 | 1273 | 595 |
| 35° | 1146 | 1139 | 1142 | 1131 | 1130 | 717 |
| 45° | 968 | 962 | 960 | 950 | 949 | 746 |
| 55° | 761 | 758 | 750 | 741 | 741 | 678 |
| 65° | 530 | 524 | 515 | 508 | 507 | 522 |
| 75° | 276 | 272 | 269 | 265 | 265 | 292 |
| 85° | 54 | 58 | 62 | 63 | 64 | 67 |
| 90° | 0 | 0 | 0 | 0 | 0 | 3 |
| 95° | 17 | 69 | 310 | 107 | 66 | 20 |
| 105° | 71 | 107 | 464 | 820 | 780 | 75 |
| 115° | 132 | 159 | 352 | 746 | 876 | 130 |
| 125° | 186 | 206 | 336 | 558 | 667 | 166 |
| 135° | 227 | 246 | 332 | 471 | 532 | 175 |
| 145° | 268 | 282 | 335 | 408 | 444 | 167 |
| 155° | 306 | 313 | 343 | 368 | 384 | 141 |
| 165° | 338 | 339 | 347 | 354 | 359 | 95 |
| 175° | 354 | 352 | 351 | 349 | 346 | 34 |
| 180° | 351 | 351 | 351 | 351 | 351 | |

TEST NUMBER: P521420

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1440.0 | 1440.0 | 1440.0 | 1440.0 | 1440.0 |
| 2.5° | 1448.8 | 1437.1 | 1440.8 | 1438.3 | 1433.6 |
| 5° | 1446.0 | 1432.3 | 1437.0 | 1433.0 | 1433.0 |
| 7.5° | 1436.0 | 1422.9 | 1426.0 | 1423.6 | 1423.6 |
| 10° | 1428.0 | 1413.3 | 1418.0 | 1414.0 | 1414.0 |
| 12.5° | 1415.2 | 1402.1 | 1406.8 | 1402.8 | 1402.0 |
| 15° | 1394.0 | 1381.3 | 1386.0 | 1383.0 | 1383.0 |
| 17.5° | 1368.4 | 1356.3 | 1362.4 | 1357.6 | 1356.0 |
| 20° | 1350.0 | 1336.3 | 1344.0 | 1336.0 | 1336.0 |
| 22.5° | 1327.6 | 1315.5 | 1322.4 | 1312.8 | 1311.2 |
| 25° | 1292.0 | 1281.2 | 1287.0 | 1276.9 | 1273.0 |
| 27.5° | 1252.0 | 1240.5 | 1249.0 | 1237.8 | 1235.6 |
| 30° | 1224.0 | 1213.2 | 1221.0 | 1208.9 | 1206.0 |
| 32.5° | 1193.6 | 1184.4 | 1189.8 | 1178.6 | 1176.4 |
| 35° | 1146.0 | 1139.2 | 1142.0 | 1131.0 | 1130.0 |
| 37.5° | 1095.4 | 1088.8 | 1091.4 | 1079.2 | 1078.4 |
| 40° | 1061.0 | 1055.1 | 1057.0 | 1044.0 | 1044.0 |
| 42.5° | 1025.8 | 1019.2 | 1019.4 | 1007.2 | 1006.4 |
| 45° | 968.0 | 962.1 | 960.0 | 950.0 | 949.0 |
| 47.5° | 906.6 | 903.9 | 900.6 | 890.6 | 890.6 |
| 50° | 865.0 | 863.0 | 859.0 | 849.0 | 849.0 |
| 52.5° | 822.6 | 821.4 | 815.8 | 807.4 | 805.8 |
| 55° | 761.0 | 758.1 | 750.0 | 741.0 | 741.0 |
| 57.5° | 693.6 | 691.3 | 682.2 | 675.0 | 673.2 |
| 60° | 648.0 | 644.1 | 635.0 | 627.0 | 626.0 |
| 62.5° | 600.8 | 597.7 | 587.8 | 580.6 | 578.8 |
| 65° | 530.0 | 524.1 | 515.0 | 508.0 | 507.0 |
| 67.5° | 455.2 | 448.6 | 440.6 | 434.8 | 432.8 |
| 70° | 404.0 | 398.1 | 391.0 | 386.0 | 384.0 |
| 72.5° | 353.6 | 347.7 | 341.4 | 338.0 | 337.6 |
| 75° | 276.0 | 272.1 | 269.0 | 265.0 | 265.0 |
| 77.5° | 200.2 | 197.9 | 196.2 | 194.2 | 194.2 |
| 80° | 153.0 | 153.0 | 153.0 | 151.0 | 151.0 |
| 82.5° | 109.8 | 112.1 | 113.8 | 112.6 | 112.6 |
| 85° | 54.0 | 57.9 | 62.0 | 63.0 | 64.0 |
| 87.5° | 15.2 | 19.9 | 24.8 | 25.6 | 26.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 5.3 | 28.3 | 65.7 | 19.1 | 14.4 |
| 95° | 17.4 | 69.0 | 310.0 | 107.3 | 66.1 |
| 97.5° | 31.9 | 80.8 | 477.4 | 341.6 | 234.1 |
| 100° | 42.1 | 87.8 | 513.7 | 520.4 | 400.8 |
| 102.5° | 53.3 | 95.4 | 505.7 | 666.1 | 561.7 |
| 105° | 70.8 | 107.4 | 464.3 | 820.1 | 779.6 |
| 107.5° | 88.6 | 121.4 | 415.9 | 863.5 | 899.6 |
| 110° | 100.9 | 131.6 | 388.1 | 846.9 | 927.9 |

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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 112.6 | 141.8 | 369.4 | 807.6 | 923.1 |
| 115° | 131.6 | 159.0 | 352.1 | 745.8 | 875.8 |
| 117.5° | 148.3 | 174.0 | 341.8 | 678.3 | 815.9 |
| 120° | 161.7 | 183.2 | 340.7 | 639.6 | 771.6 |
| 122.5° | 172.4 | 193.9 | 338.0 | 605.8 | 728.3 |
| 125° | 185.7 | 206.0 | 336.0 | 557.6 | 666.7 |
| 127.5° | 200.3 | 219.2 | 335.0 | 528.9 | 618.7 |
| 130° | 207.8 | 226.7 | 333.4 | 508.8 | 587.2 |
| 132.5° | 215.8 | 234.2 | 333.4 | 493.2 | 565.3 |
| 135° | 227.1 | 246.1 | 332.0 | 471.0 | 532.4 |
| 137.5° | 237.8 | 256.2 | 331.9 | 452.3 | 505.3 |
| 140° | 245.8 | 264.8 | 331.3 | 436.7 | 487.7 |
| 142.5° | 254.9 | 270.7 | 333.0 | 424.3 | 470.0 |
| 145° | 267.9 | 281.6 | 334.7 | 407.7 | 444.2 |
| 147.5° | 279.0 | 292.3 | 337.6 | 390.9 | 422.5 |
| 150° | 288.6 | 297.7 | 338.7 | 385.3 | 407.5 |
| 152.5° | 296.1 | 305.7 | 339.8 | 377.8 | 398.4 |
| 155° | 306.0 | 313.1 | 342.7 | 368.4 | 383.5 |
| 157.5° | 318.3 | 322.6 | 343.4 | 364.2 | 374.9 |
| 160° | 324.7 | 327.9 | 346.0 | 361.0 | 370.1 |
| 162.5° | 328.4 | 332.2 | 346.6 | 358.2 | 365.3 |
| 165° | 338.0 | 339.3 | 346.7 | 354.2 | 359.4 |
| 167.5° | 344.6 | 343.4 | 349.8 | 353.2 | 355.3 |
| 170° | 346.7 | 346.1 | 348.7 | 349.4 | 352.1 |
| 172.5° | 351.5 | 349.3 | 350.3 | 348.4 | 350.5 |
| 175° | 354.1 | 352.1 | 350.7 | 348.7 | 346.0 |
| 177.5° | 355.1 | 352.0 | 350.3 | 348.2 | 348.7 |
| 180° | 351.4 | 351.4 | 351.4 | 351.4 | 351.4 |

(END OF REPORT)