

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: P521631

Luminaire Tested: SQ4-F-125U-100D-92765-1D-UNV-STD-W-4_5000K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521631
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-125U-100D-92765-1D-UNV-STD-W-4_5000K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10040.3 lumens
Efficiency: N/A
Efficacy: 120.0 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: General Diffuse

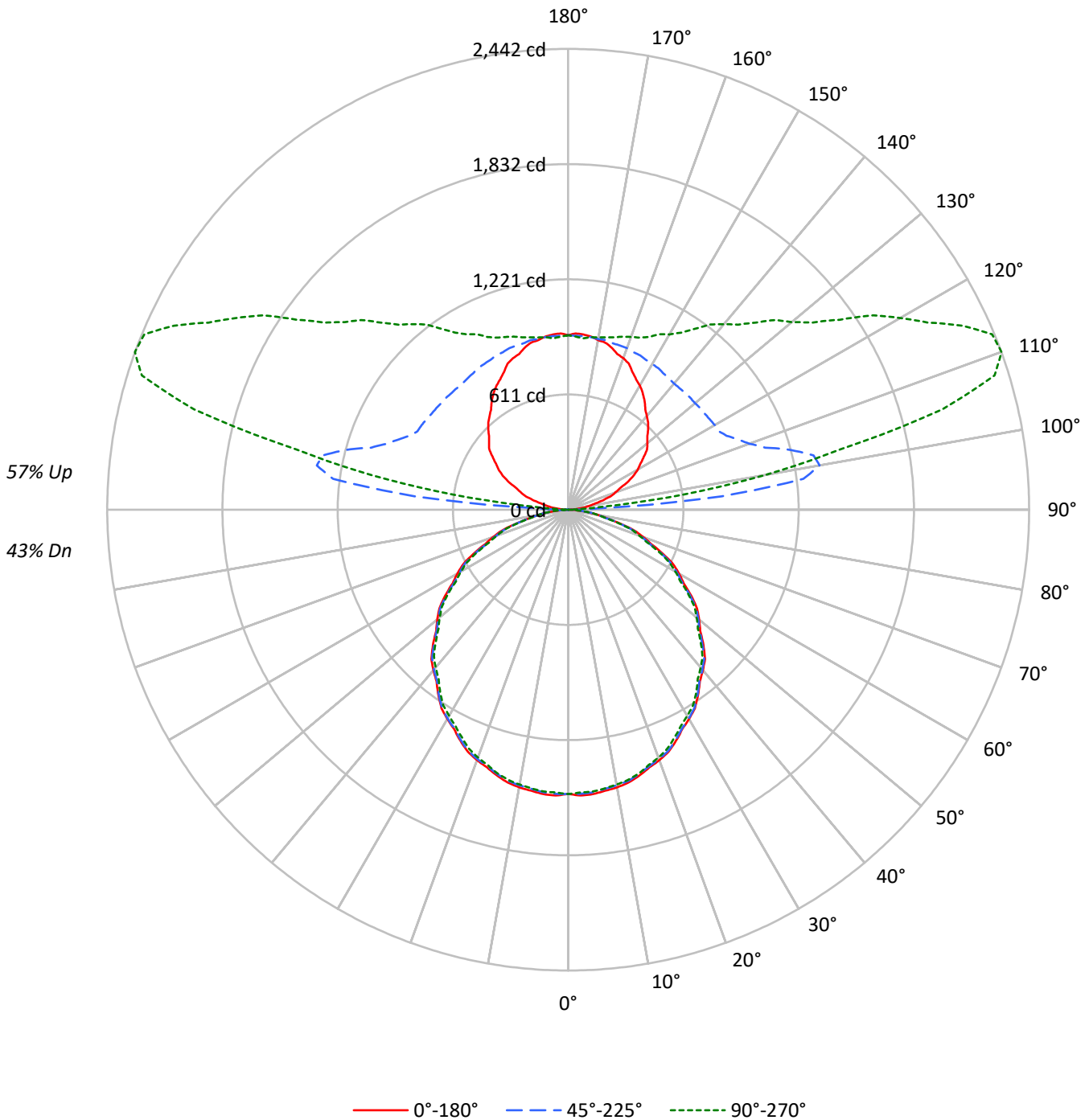
Input Watts (W): 83.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P521631

CATALOG NUMBER: SQ4-F-125U-100D-92765-1D-UNV-STD-W-4_5000K

Luminous Intensity Polar Plot



TEST NUMBER: P521631

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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 | 105 | 105 | 105 | 105 | 96 | 96 | 96 | 96 | 79 | 79 | 79 | 64 | 64 | 64 | 49 | 49 | 49 | 43 |
| 1 | 96 | 92 | 88 | 84 | 88 | 84 | 81 | 78 | 69 | 67 | 65 | 56 | 54 | 53 | 44 | 43 | 42 | 36 |
| 2 | 87 | 80 | 74 | 69 | 79 | 73 | 68 | 63 | 61 | 57 | 53 | 49 | 46 | 44 | 38 | 36 | 35 | 30 |
| 3 | 80 | 70 | 63 | 57 | 72 | 64 | 58 | 53 | 53 | 49 | 45 | 43 | 40 | 37 | 34 | 31 | 29 | 25 |
| 4 | 73 | 62 | 54 | 48 | 66 | 57 | 50 | 45 | 47 | 42 | 38 | 38 | 35 | 31 | 30 | 27 | 25 | 21 |
| 5 | 67 | 55 | 47 | 41 | 61 | 51 | 43 | 38 | 42 | 37 | 33 | 34 | 30 | 27 | 27 | 24 | 22 | 18 |
| 6 | 61 | 49 | 41 | 35 | 56 | 45 | 38 | 33 | 38 | 32 | 28 | 31 | 27 | 24 | 24 | 21 | 19 | 16 |
| 7 | 57 | 44 | 36 | 31 | 51 | 41 | 34 | 29 | 34 | 29 | 25 | 28 | 24 | 21 | 22 | 19 | 17 | 14 |
| 8 | 52 | 40 | 32 | 27 | 48 | 37 | 30 | 25 | 31 | 26 | 22 | 26 | 21 | 18 | 20 | 17 | 15 | 13 |
| 9 | 49 | 37 | 29 | 24 | 44 | 34 | 27 | 23 | 28 | 23 | 20 | 23 | 19 | 17 | 19 | 16 | 14 | 11 |
| 10 | 45 | 33 | 26 | 22 | 42 | 31 | 25 | 20 | 26 | 21 | 18 | 22 | 18 | 15 | 17 | 14 | 12 | 10 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 13899 | 13899 | 13899 |
| 5° | 14011 | 13923 | 13885 |
| 10° | 13996 | 13898 | 13859 |
| 15° | 13930 | 13850 | 13820 |
| 20° | 13866 | 13805 | 13723 |
| 25° | 13759 | 13706 | 13558 |
| 30° | 13642 | 13609 | 13442 |
| 35° | 13503 | 13456 | 13315 |
| 40° | 13369 | 13318 | 13154 |
| 45° | 13214 | 13104 | 12954 |
| 50° | 12988 | 12899 | 12749 |
| 55° | 12806 | 12621 | 12469 |
| 60° | 12509 | 12258 | 12084 |
| 65° | 12105 | 11763 | 11579 |
| 70° | 11403 | 11036 | 10836 |
| 75° | 10291 | 10031 | 9881 |
| 80° | 8506 | 8506 | 8395 |
| 85° | 5981 | 6870 | 7093 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13214 cd/sqm

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CATALOG NUMBER: SQ4-F-125U-100D-92765-1D-UNV-STD-W-4_5000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 142.6 | 1.4 |
| 10°-20° | 408.6 | 4.1 |
| 20°-30° | 617.8 | 6.2 |
| 30°-40° | 744.0 | 7.4 |
| 40°-50° | 772.7 | 7.7 |
| 50°-60° | 700.4 | 7.0 |
| 60°-70° | 533.4 | 5.3 |
| 70°-80° | 298.0 | 3.0 |
| 80°-90° | 77.3 | 0.8 |
| 90°-100° | 421.5 | 4.2 |
| 100°-110° | 1199.2 | 11.9 |
| 110°-120° | 1149.0 | 11.4 |
| 120°-130° | 909.4 | 9.1 |
| 130°-140° | 729.9 | 7.3 |
| 140°-150° | 571.4 | 5.7 |
| 150°-160° | 418.1 | 4.2 |
| 160°-170° | 259.0 | 2.6 |
| 170°-180° | 87.9 | 0.9 |
| 0°-30° | 1169.0 | 11.6 |
| 0°-40° | 1913.0 | 19.1 |
| 0°-60° | 3386.1 | 33.7 |
| 0°-90° | 4294.9 | 42.8 |
| 90°-120° | 2769.7 | 27.6 |
| 90°-150° | 4980.4 | 49.6 |
| 90°-180° | 5745.0 | 57.2 |
| 0°-180° | 10040.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1506 | 1506 | 1506 | 1506 | 1506 | |
| 5° | 1513 | 1498 | 1503 | 1499 | 1499 | 144 |
| 15° | 1458 | 1445 | 1450 | 1447 | 1447 | 411 |
| 25° | 1352 | 1340 | 1346 | 1336 | 1332 | 623 |
| 35° | 1199 | 1192 | 1195 | 1183 | 1182 | 750 |
| 45° | 1013 | 1007 | 1004 | 994 | 993 | 780 |
| 55° | 796 | 793 | 785 | 775 | 775 | 710 |
| 65° | 554 | 548 | 539 | 531 | 530 | 547 |
| 75° | 289 | 285 | 281 | 277 | 277 | 306 |
| 85° | 56 | 61 | 65 | 66 | 67 | 71 |
| 90° | 0 | 0 | 0 | 0 | 0 | 4 |
| 95° | 46 | 182 | 816 | 282 | 174 | 52 |
| 105° | 186 | 283 | 1222 | 2159 | 2052 | 197 |
| 115° | 346 | 419 | 927 | 1963 | 2305 | 341 |
| 125° | 489 | 542 | 884 | 1468 | 1755 | 438 |
| 135° | 598 | 648 | 874 | 1240 | 1402 | 461 |
| 145° | 705 | 741 | 881 | 1073 | 1169 | 440 |
| 155° | 805 | 824 | 902 | 970 | 1009 | 372 |
| 165° | 890 | 893 | 913 | 932 | 946 | 250 |
| 175° | 932 | 927 | 923 | 918 | 911 | 88 |
| 180° | 925 | 925 | 925 | 925 | 925 | |

TEST NUMBER: P521631

CATALOG NUMBER: SQ4-F-125U-100D-92765-1D-UNV-STD-W-4_5000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1506.5 | 1506.5 | 1506.5 | 1506.5 | 1506.5 |
| 2.5° | 1515.7 | 1503.4 | 1507.3 | 1504.7 | 1499.8 |
| 5° | 1512.8 | 1498.4 | 1503.3 | 1499.2 | 1499.2 |
| 7.5° | 1502.3 | 1488.6 | 1491.8 | 1489.3 | 1489.3 |
| 10° | 1493.9 | 1478.6 | 1483.5 | 1479.3 | 1479.3 |
| 12.5° | 1480.5 | 1466.8 | 1471.7 | 1467.5 | 1466.7 |
| 15° | 1458.4 | 1445.1 | 1450.0 | 1446.9 | 1446.9 |
| 17.5° | 1431.6 | 1418.9 | 1425.3 | 1420.2 | 1418.6 |
| 20° | 1412.3 | 1398.0 | 1406.0 | 1397.7 | 1397.7 |
| 22.5° | 1388.9 | 1376.2 | 1383.5 | 1373.4 | 1371.7 |
| 25° | 1351.6 | 1340.4 | 1346.4 | 1335.9 | 1331.8 |
| 27.5° | 1309.8 | 1297.7 | 1306.7 | 1294.9 | 1292.6 |
| 30° | 1280.5 | 1269.3 | 1277.4 | 1264.7 | 1261.7 |
| 32.5° | 1248.7 | 1239.1 | 1244.7 | 1233.0 | 1230.7 |
| 35° | 1198.9 | 1191.7 | 1194.7 | 1183.2 | 1182.2 |
| 37.5° | 1146.0 | 1139.0 | 1141.8 | 1129.0 | 1128.2 |
| 40° | 1110.0 | 1103.8 | 1105.8 | 1092.2 | 1092.2 |
| 42.5° | 1073.2 | 1066.2 | 1066.5 | 1053.7 | 1052.9 |
| 45° | 1012.7 | 1006.6 | 1004.3 | 993.8 | 992.8 |
| 47.5° | 948.5 | 945.6 | 942.2 | 931.7 | 931.7 |
| 50° | 904.9 | 902.9 | 898.7 | 888.2 | 888.2 |
| 52.5° | 860.6 | 859.4 | 853.5 | 844.6 | 843.0 |
| 55° | 796.1 | 793.1 | 784.6 | 775.2 | 775.2 |
| 57.5° | 725.6 | 723.2 | 713.7 | 706.1 | 704.3 |
| 60° | 677.9 | 673.8 | 664.3 | 655.9 | 654.9 |
| 62.5° | 628.5 | 625.3 | 614.9 | 607.4 | 605.5 |
| 65° | 554.5 | 548.3 | 538.8 | 531.4 | 530.4 |
| 67.5° | 476.2 | 469.3 | 460.9 | 454.8 | 452.8 |
| 70° | 422.7 | 416.5 | 409.1 | 403.8 | 401.7 |
| 72.5° | 369.9 | 363.8 | 357.2 | 353.6 | 353.2 |
| 75° | 288.7 | 284.7 | 281.4 | 277.2 | 277.2 |
| 77.5° | 209.4 | 207.0 | 205.3 | 203.2 | 203.2 |
| 80° | 160.1 | 160.1 | 160.1 | 158.0 | 158.0 |
| 82.5° | 114.9 | 117.3 | 119.1 | 117.8 | 117.8 |
| 85° | 56.5 | 60.6 | 64.9 | 65.9 | 67.0 |
| 87.5° | 15.9 | 20.8 | 25.9 | 26.8 | 27.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 14.1 | 74.6 | 173.0 | 50.4 | 38.0 |
| 95° | 45.7 | 181.5 | 815.9 | 282.4 | 174.1 |
| 97.5° | 84.1 | 212.7 | 1256.6 | 899.2 | 616.2 |
| 100° | 110.8 | 231.1 | 1352.2 | 1369.7 | 1055.1 |
| 102.5° | 140.3 | 251.0 | 1331.1 | 1753.2 | 1478.5 |
| 105° | 186.4 | 282.7 | 1222.1 | 2158.7 | 2052.1 |
| 107.5° | 233.2 | 319.5 | 1094.8 | 2273.0 | 2367.9 |
| 110° | 265.5 | 346.3 | 1021.6 | 2229.2 | 2442.4 |

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CATALOG NUMBER: SQ4-F-125U-100D-92765-1D-UNV-STD-W-4_5000K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 296.5 | 373.2 | 972.4 | 2125.8 | 2429.8 |
| 115° | 346.4 | 418.6 | 926.7 | 1963.1 | 2305.3 |
| 117.5° | 390.4 | 458.1 | 899.6 | 1785.3 | 2147.7 |
| 120° | 425.5 | 482.3 | 896.8 | 1683.7 | 2031.0 |
| 122.5° | 453.7 | 510.4 | 889.8 | 1594.5 | 1917.0 |
| 125° | 488.8 | 542.1 | 884.5 | 1467.8 | 1754.9 |
| 127.5° | 527.2 | 577.0 | 881.7 | 1392.1 | 1628.7 |
| 130° | 546.9 | 596.7 | 877.5 | 1339.3 | 1545.7 |
| 132.5° | 568.0 | 616.5 | 877.5 | 1298.2 | 1488.0 |
| 135° | 597.9 | 647.7 | 873.9 | 1239.8 | 1401.5 |
| 137.5° | 626.0 | 674.5 | 873.6 | 1190.5 | 1330.1 |
| 140° | 647.1 | 697.0 | 872.2 | 1149.5 | 1283.6 |
| 142.5° | 671.0 | 712.6 | 876.4 | 1116.9 | 1237.2 |
| 145° | 705.1 | 741.2 | 881.0 | 1073.1 | 1169.4 |
| 147.5° | 734.3 | 769.4 | 888.7 | 1028.8 | 1112.0 |
| 150° | 759.6 | 783.7 | 891.5 | 1014.2 | 1072.6 |
| 152.5° | 779.3 | 804.8 | 894.3 | 994.4 | 1048.7 |
| 155° | 805.4 | 824.3 | 902.1 | 969.8 | 1009.3 |
| 157.5° | 837.7 | 849.1 | 903.8 | 958.6 | 986.8 |
| 160° | 854.6 | 863.2 | 910.9 | 950.1 | 974.2 |
| 162.5° | 864.4 | 874.4 | 912.3 | 942.9 | 961.5 |
| 165° | 889.8 | 893.2 | 912.6 | 932.3 | 946.0 |
| 167.5° | 907.0 | 903.9 | 920.7 | 929.6 | 935.1 |
| 170° | 912.6 | 910.9 | 917.9 | 919.8 | 926.7 |
| 172.5° | 925.3 | 919.4 | 922.1 | 917.0 | 922.5 |
| 175° | 932.0 | 926.8 | 923.2 | 917.7 | 910.9 |
| 177.5° | 934.8 | 926.5 | 922.1 | 916.5 | 917.9 |
| 180° | 924.9 | 924.9 | 924.9 | 924.9 | 924.9 |

(END OF REPORT)