

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

(formerly Eaton)

Brand: CORELITE

Report Number: P520316

Luminaire Tested: **SQ4-F-125U-100D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P520316
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-24, G3-1910-536-19)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-F-125U-100D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

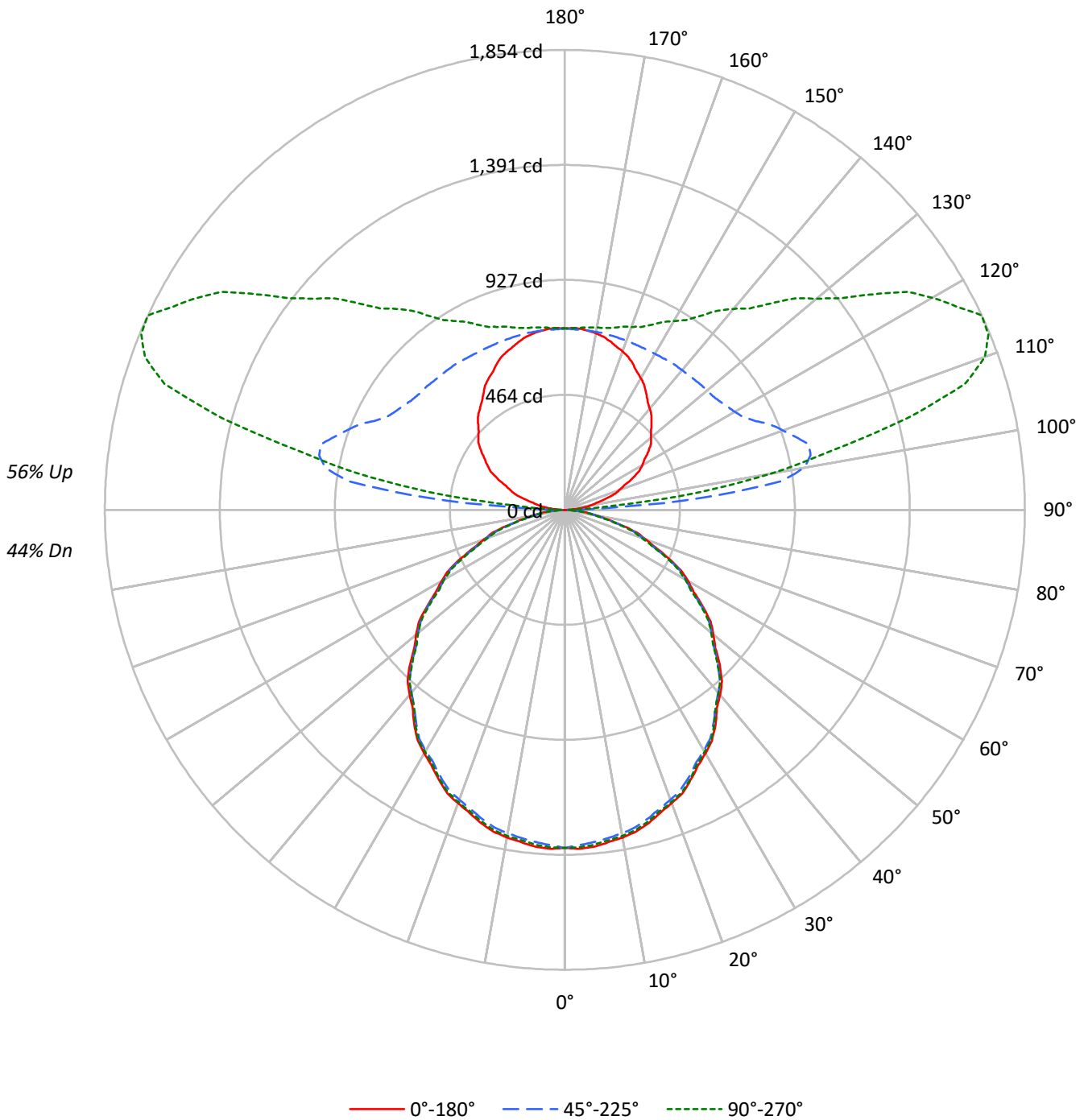
Lumens per Lamp: N/A
Luminaire Lumens: 8437.0 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 64.5
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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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 | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 80 | 80 | 80 | 65 | 65 | 65 | 51 | 51 | 51 | 44 |
| 1 | 96 | 92 | 88 | 85 | 88 | 84 | 81 | 78 | 70 | 68 | 66 | 57 | 55 | 54 | 45 | 44 | 43 | 37 |
| 2 | 88 | 80 | 74 | 69 | 80 | 74 | 69 | 64 | 61 | 58 | 54 | 50 | 47 | 45 | 39 | 38 | 36 | 31 |
| 3 | 80 | 71 | 63 | 57 | 73 | 65 | 59 | 53 | 54 | 49 | 45 | 44 | 41 | 38 | 35 | 32 | 30 | 26 |
| 4 | 73 | 62 | 54 | 48 | 67 | 57 | 50 | 45 | 48 | 43 | 39 | 39 | 35 | 32 | 31 | 28 | 26 | 22 |
| 5 | 67 | 55 | 47 | 41 | 61 | 51 | 44 | 39 | 43 | 37 | 33 | 35 | 31 | 28 | 28 | 25 | 23 | 19 |
| 6 | 62 | 50 | 42 | 36 | 56 | 46 | 39 | 33 | 38 | 33 | 29 | 32 | 28 | 24 | 25 | 22 | 20 | 17 |
| 7 | 57 | 45 | 37 | 31 | 52 | 41 | 34 | 29 | 35 | 29 | 25 | 29 | 25 | 21 | 23 | 20 | 18 | 15 |
| 8 | 53 | 41 | 33 | 28 | 48 | 38 | 31 | 26 | 32 | 26 | 22 | 26 | 22 | 19 | 21 | 18 | 16 | 13 |
| 9 | 49 | 37 | 30 | 24 | 45 | 34 | 28 | 23 | 29 | 24 | 20 | 24 | 20 | 17 | 19 | 16 | 14 | 12 |
| 10 | 46 | 34 | 27 | 22 | 42 | 31 | 25 | 21 | 27 | 22 | 18 | 22 | 18 | 15 | 18 | 15 | 13 | 11 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 12573 | 12573 | 12573 |
| 5° | 12629 | 12455 | 12550 |
| 10° | 12564 | 12407 | 12502 |
| 15° | 12489 | 12319 | 12417 |
| 20° | 12359 | 12213 | 12314 |
| 25° | 12225 | 12082 | 12176 |
| 30° | 12076 | 11946 | 12006 |
| 35° | 11924 | 11777 | 11840 |
| 40° | 11726 | 11591 | 11602 |
| 45° | 11519 | 11361 | 11324 |
| 50° | 11223 | 11088 | 11062 |
| 55° | 10891 | 10771 | 10695 |
| 60° | 10562 | 10372 | 10337 |
| 65° | 10044 | 9820 | 9739 |
| 70° | 9334 | 9107 | 8929 |
| 75° | 8334 | 8067 | 7899 |
| 80° | 6859 | 6604 | 6312 |
| 85° | 4054 | 4457 | 4552 |



TEST NUMBER: P520316

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 128.6 | 1.5 |
| 10°-20° | 366.2 | 4.3 |
| 20°-30° | 550.0 | 6.5 |
| 30°-40° | 656.4 | 7.8 |
| 40°-50° | 672.8 | 8.0 |
| 50°-60° | 599.1 | 7.1 |
| 60°-70° | 446.6 | 5.3 |
| 70°-80° | 241.8 | 2.9 |
| 80°-90° | 56.7 | 0.7 |
| 90°-100° | 341.9 | 4.1 |
| 100°-110° | 921.1 | 10.9 |
| 110°-120° | 966.7 | 11.5 |
| 120°-130° | 784.4 | 9.3 |
| 130°-140° | 615.2 | 7.3 |
| 140°-150° | 472.3 | 5.6 |
| 150°-160° | 339.6 | 4.0 |
| 160°-170° | 207.5 | 2.5 |
| 170°-180° | 70.0 | 0.8 |
| 0°-30° | 1044.8 | 12.4 |
| 0°-40° | 1701.2 | 20.2 |
| 0°-60° | 2973.1 | 35.2 |
| 0°-90° | 3718.2 | 44.1 |
| 90°-120° | 2229.8 | 26.4 |
| 90°-150° | 4101.7 | 48.6 |
| 90°-180° | 4719.0 | 55.9 |
| 0°-180° | 8437.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1363 | 1363 | 1363 | 1363 | 1363 | |
| 5° | 1364 | 1361 | 1345 | 1357 | 1355 | 129 |
| 15° | 1308 | 1303 | 1290 | 1300 | 1300 | 368 |
| 25° | 1201 | 1198 | 1187 | 1193 | 1196 | 553 |
| 35° | 1059 | 1054 | 1046 | 1048 | 1051 | 661 |
| 45° | 883 | 878 | 871 | 866 | 868 | 679 |
| 55° | 677 | 678 | 670 | 663 | 665 | 606 |
| 65° | 460 | 458 | 450 | 445 | 446 | 455 |
| 75° | 234 | 231 | 226 | 222 | 222 | 249 |
| 85° | 38 | 42 | 42 | 43 | 43 | 54 |
| 90° | 2 | 6 | 11 | 12 | 12 | 5 |
| 95° | 52 | 186 | 561 | 287 | 198 | 54 |
| 105° | 170 | 265 | 1019 | 1524 | 1430 | 179 |
| 115° | 301 | 368 | 848 | 1639 | 1854 | 296 |
| 125° | 411 | 472 | 762 | 1287 | 1515 | 367 |
| 135° | 494 | 552 | 740 | 1039 | 1176 | 382 |
| 145° | 572 | 616 | 731 | 888 | 954 | 359 |
| 155° | 649 | 673 | 724 | 797 | 822 | 299 |
| 165° | 704 | 712 | 727 | 756 | 760 | 199 |
| 175° | 732 | 731 | 728 | 738 | 737 | 70 |
| 180° | 731 | 731 | 731 | 731 | 731 | |

TEST NUMBER: P520316

CATALOG NUMBER: SQ4-F-125U-100D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1362.7 | 1362.7 | 1362.7 | 1362.7 | 1362.7 |
| 2.5° | 1367.8 | 1365.0 | 1352.9 | 1362.6 | 1361.1 |
| 5° | 1363.6 | 1360.8 | 1344.8 | 1356.9 | 1355.1 |
| 7.5° | 1350.9 | 1348.1 | 1334.0 | 1345.2 | 1343.6 |
| 10° | 1341.1 | 1338.4 | 1324.3 | 1335.5 | 1334.5 |
| 12.5° | 1328.4 | 1325.6 | 1311.6 | 1322.7 | 1321.9 |
| 15° | 1307.5 | 1302.8 | 1289.7 | 1300.0 | 1300.0 |
| 17.5° | 1279.7 | 1276.3 | 1264.1 | 1272.7 | 1272.8 |
| 20° | 1258.8 | 1256.1 | 1243.9 | 1253.2 | 1254.2 |
| 22.5° | 1237.8 | 1235.2 | 1221.4 | 1230.0 | 1231.7 |
| 25° | 1200.9 | 1198.1 | 1186.8 | 1193.4 | 1196.1 |
| 27.5° | 1162.6 | 1158.7 | 1147.6 | 1153.4 | 1155.4 |
| 30° | 1133.5 | 1131.7 | 1121.3 | 1124.2 | 1127.0 |
| 32.5° | 1102.8 | 1101.0 | 1092.2 | 1093.6 | 1098.5 |
| 35° | 1058.7 | 1054.1 | 1045.6 | 1047.5 | 1051.2 |
| 37.5° | 1006.5 | 1004.3 | 996.0 | 995.0 | 998.5 |
| 40° | 973.6 | 969.9 | 962.4 | 960.5 | 963.3 |
| 42.5° | 937.6 | 934.0 | 924.9 | 923.1 | 926.6 |
| 45° | 882.8 | 878.3 | 870.7 | 866.1 | 867.9 |
| 47.5° | 821.5 | 821.5 | 813.7 | 808.3 | 811.0 |
| 50° | 781.9 | 781.9 | 772.5 | 767.9 | 770.7 |
| 52.5° | 740.7 | 741.4 | 731.3 | 728.8 | 728.0 |
| 55° | 677.1 | 678.0 | 669.6 | 663.2 | 664.9 |
| 57.5° | 615.8 | 613.7 | 604.0 | 599.6 | 600.6 |
| 60° | 572.4 | 569.6 | 562.1 | 555.7 | 560.2 |
| 62.5° | 528.2 | 526.9 | 519.4 | 512.2 | 511.6 |
| 65° | 460.1 | 458.3 | 449.8 | 445.2 | 446.1 |
| 67.5° | 392.5 | 390.2 | 382.6 | 375.8 | 378.2 |
| 70° | 346.0 | 346.0 | 337.6 | 333.8 | 331.0 |
| 72.5° | 303.4 | 299.7 | 293.5 | 288.2 | 286.1 |
| 75° | 233.8 | 231.1 | 226.3 | 221.6 | 221.6 |
| 77.5° | 170.2 | 167.8 | 164.8 | 161.6 | 160.7 |
| 80° | 129.1 | 128.1 | 124.3 | 123.4 | 118.8 |
| 82.5° | 90.9 | 90.8 | 88.5 | 86.0 | 85.8 |
| 85° | 38.3 | 42.0 | 42.1 | 43.0 | 43.0 |
| 87.5° | 7.1 | 12.2 | 12.7 | 11.4 | 11.4 |
| 90° | 1.9 | 5.5 | 11.1 | 12.1 | 12.1 |
| 92.5° | 22.7 | 80.2 | 158.7 | 76.4 | 53.1 |
| 95° | 52.1 | 186.0 | 560.6 | 286.6 | 198.3 |
| 97.5° | 83.3 | 212.9 | 879.2 | 734.5 | 553.8 |
| 100° | 107.1 | 223.6 | 980.5 | 1025.9 | 851.0 |
| 102.5° | 130.1 | 238.7 | 1014.0 | 1244.2 | 1100.7 |
| 105° | 170.4 | 265.1 | 1018.7 | 1524.1 | 1430.2 |
| 107.5° | 208.4 | 292.9 | 975.3 | 1667.9 | 1692.1 |
| 110° | 233.8 | 313.9 | 935.8 | 1712.5 | 1800.9 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 260.5 | 334.8 | 897.8 | 1702.7 | 1847.8 |
| 115° | 300.8 | 368.1 | 848.3 | 1639.1 | 1853.9 |
| 117.5° | 337.5 | 400.6 | 809.9 | 1537.6 | 1776.9 |
| 120° | 361.3 | 422.3 | 790.6 | 1464.7 | 1710.6 |
| 122.5° | 382.2 | 442.4 | 776.4 | 1390.2 | 1635.3 |
| 125° | 410.7 | 471.7 | 761.7 | 1287.4 | 1515.0 |
| 127.5° | 438.0 | 498.1 | 752.4 | 1196.7 | 1400.0 |
| 130° | 454.4 | 514.5 | 748.6 | 1144.7 | 1323.2 |
| 132.5° | 470.8 | 530.2 | 745.0 | 1099.0 | 1262.9 |
| 135° | 494.4 | 551.8 | 740.2 | 1038.6 | 1176.1 |
| 137.5° | 516.9 | 572.0 | 737.9 | 987.4 | 1100.3 |
| 140° | 532.6 | 585.4 | 735.6 | 955.8 | 1057.8 |
| 142.5° | 549.0 | 598.1 | 734.1 | 926.4 | 1012.4 |
| 145° | 571.7 | 616.3 | 731.0 | 887.9 | 953.6 |
| 147.5° | 596.3 | 635.1 | 727.8 | 855.6 | 907.2 |
| 150° | 612.8 | 646.4 | 726.3 | 835.3 | 878.1 |
| 152.5° | 627.7 | 657.0 | 725.5 | 818.8 | 853.5 |
| 155° | 649.1 | 672.7 | 724.4 | 796.8 | 822.2 |
| 157.5° | 667.8 | 686.3 | 724.6 | 781.3 | 798.4 |
| 160° | 679.7 | 695.2 | 725.3 | 772.2 | 784.9 |
| 162.5° | 690.2 | 702.7 | 726.1 | 764.7 | 773.8 |
| 165° | 703.9 | 712.1 | 727.2 | 756.2 | 759.9 |
| 167.5° | 715.2 | 719.9 | 728.2 | 749.6 | 751.1 |
| 170° | 722.6 | 724.4 | 728.2 | 745.9 | 745.9 |
| 172.5° | 727.0 | 727.4 | 728.9 | 742.1 | 742.1 |
| 175° | 731.9 | 731.0 | 728.2 | 738.4 | 736.6 |
| 177.5° | 733.9 | 732.5 | 728.7 | 734.6 | 733.2 |
| 180° | 731.0 | 731.0 | 731.0 | 731.0 | 731.0 |

(END OF REPORT)