

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: P521588

Luminaire Tested: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_3000K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521588  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-39)  
Test Lab: INNOVATION CENTER  
Issue Date: 5-5-2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_3000K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 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: 9345.8 lumens  
Efficiency: N/A  
Efficacy: 106.1 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

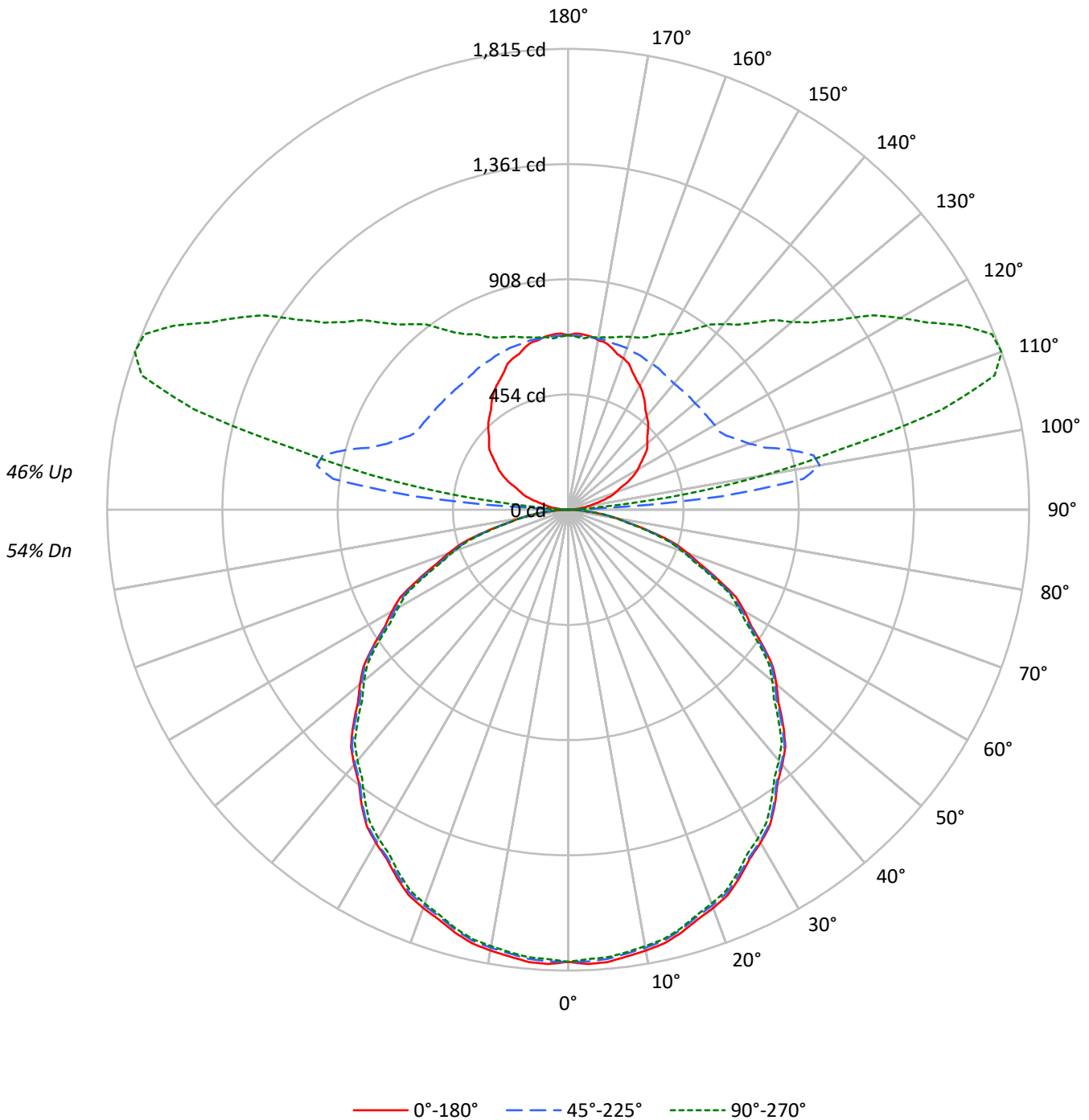
Input Watts (W): 88.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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CATALOG NUMBER: SQ4-F-100U-125D-92765-1D-UNV-STD-W-4\_3000K

### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |    | 20 |    |    |    |    |    |    |    |    | 20 |    |    |    |    |   |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |    | 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 | 50 | 30 | 10 | 0 |  |  |  |    |  |  |  |  |  |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 0   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 86 | 86 | 86 | 72 | 72 | 72 | 60 | 60 | 60 | 54 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 99  | 94  | 90  | 87  | 91  | 87  | 84  | 81  | 75 | 72 | 70 | 63 | 62 | 60 | 53 | 52 | 50 | 45 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 90  | 82  | 76  | 70  | 83  | 76  | 71  | 66  | 65 | 61 | 58 | 56 | 52 | 50 | 46 | 44 | 42 | 38 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 82  | 72  | 64  | 58  | 75  | 67  | 60  | 55  | 58 | 53 | 48 | 49 | 45 | 42 | 41 | 38 | 36 | 32 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 75  | 64  | 55  | 49  | 69  | 59  | 52  | 47  | 51 | 45 | 41 | 43 | 39 | 36 | 36 | 33 | 31 | 27 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 68  | 57  | 48  | 42  | 63  | 53  | 45  | 40  | 46 | 40 | 35 | 39 | 34 | 31 | 33 | 29 | 27 | 23 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 63  | 51  | 42  | 36  | 58  | 47  | 40  | 35  | 41 | 35 | 31 | 35 | 30 | 27 | 30 | 26 | 23 | 20 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 58  | 46  | 38  | 32  | 54  | 43  | 35  | 30  | 37 | 31 | 27 | 32 | 27 | 24 | 27 | 23 | 21 | 18 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 54  | 41  | 34  | 28  | 50  | 39  | 32  | 27  | 34 | 28 | 24 | 29 | 25 | 21 | 25 | 21 | 18 | 16 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 50  | 38  | 30  | 25  | 47  | 35  | 29  | 24  | 31 | 25 | 21 | 27 | 22 | 19 | 23 | 19 | 17 | 14 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 47  | 35  | 27  | 22  | 44  | 33  | 26  | 21  | 29 | 23 | 19 | 25 | 20 | 17 | 21 | 18 | 15 | 13 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16425 | 16425 | 16425 |
| 5°  | 16560 | 16452 | 16388 |
| 10° | 16514 | 16414 | 16349 |
| 15° | 16463 | 16361 | 16314 |
| 20° | 16387 | 16281 | 16204 |
| 25° | 16265 | 16175 | 16065 |
| 30° | 16137 | 16085 | 15917 |
| 35° | 15971 | 15916 | 15718 |
| 40° | 15785 | 15726 | 15537 |
| 45° | 15609 | 15507 | 15265 |
| 50° | 15362 | 15236 | 15054 |
| 55° | 15080 | 14939 | 14704 |
| 60° | 14795 | 14524 | 14271 |
| 65° | 14221 | 13922 | 13644 |
| 70° | 13515 | 13040 | 12881 |
| 75° | 12220 | 11871 | 11660 |
| 80° | 10068 | 10068 | 9909  |
| 85° | 7135  | 8162  | 8585  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15609 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 168.5  | 1.8       |
| 10°-20°   | 482.5  | 5.2       |
| 20°-30°   | 729.8  | 7.8       |
| 30°-40°   | 879.0  | 9.4       |
| 40°-50°   | 912.6  | 9.8       |
| 50°-60°   | 827.3  | 8.9       |
| 60°-70°   | 631.1  | 6.8       |
| 70°-80°   | 353.0  | 3.8       |
| 80°-90°   | 91.8   | 1.0       |
| 90°-100°  | 313.2  | 3.4       |
| 100°-110° | 891.3  | 9.5       |
| 110°-120° | 853.9  | 9.1       |
| 120°-130° | 675.9  | 7.2       |
| 130°-140° | 542.5  | 5.8       |
| 140°-150° | 424.7  | 4.5       |
| 150°-160° | 310.7  | 3.3       |
| 160°-170° | 192.5  | 2.1       |
| 170°-180° | 65.3   | 0.7       |
| 0°-30°    | 1380.8 | 14.8      |
| 0°-40°    | 2259.9 | 24.2      |
| 0°-60°    | 3999.8 | 42.8      |
| 0°-90°    | 5075.8 | 54.3      |
| 90°-120°  | 2058.5 | 22.0      |
| 90°-150°  | 3701.5 | 39.6      |
| 90°-180°  | 4270.0 | 45.7      |
| 0°-180°   | 9345.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1780 | 1780  | 1780 | 1780  | 1780 |      |
| 5°   | 1788 | 1770  | 1776 | 1771  | 1770 | 170  |
| 15°  | 1724 | 1706  | 1713 | 1711  | 1708 | 486  |
| 25°  | 1598 | 1581  | 1589 | 1577  | 1578 | 736  |
| 35°  | 1418 | 1406  | 1413 | 1397  | 1396 | 886  |
| 45°  | 1196 | 1190  | 1188 | 1174  | 1170 | 922  |
| 55°  | 938  | 936   | 929  | 917   | 914  | 837  |
| 65°  | 651  | 648   | 638  | 630   | 625  | 646  |
| 75°  | 343  | 337   | 333  | 328   | 327  | 362  |
| 85°  | 67   | 74    | 77   | 77    | 81   | 84   |
| 90°  | 0    | 0     | 0    | 0     | 0    | 4    |
| 95°  | 34   | 135   | 606  | 210   | 129  | 39   |
| 105° | 138  | 210   | 908  | 1604  | 1525 | 147  |
| 115° | 258  | 311   | 689  | 1459  | 1713 | 253  |
| 125° | 363  | 403   | 657  | 1091  | 1304 | 325  |
| 135° | 444  | 481   | 650  | 922   | 1042 | 343  |
| 145° | 524  | 551   | 655  | 798   | 869  | 327  |
| 155° | 599  | 613   | 670  | 721   | 750  | 277  |
| 165° | 661  | 664   | 678  | 693   | 703  | 186  |
| 175° | 693  | 689   | 686  | 682   | 677  | 66   |
| 180° | 687  | 687   | 687  | 687   | 687  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1780.3 | 1780.3 | 1780.3 | 1780.3 | 1780.3 |
| 2.5°   | 1791.2 | 1776.7 | 1781.1 | 1777.8 | 1771.7 |
| 5°     | 1788.1 | 1770.0 | 1776.4 | 1771.4 | 1769.5 |
| 7.5°   | 1774.4 | 1757.4 | 1762.9 | 1759.9 | 1757.6 |
| 10°    | 1762.7 | 1746.5 | 1752.0 | 1748.9 | 1745.1 |
| 12.5°  | 1749.4 | 1732.4 | 1738.7 | 1734.2 | 1732.6 |
| 15°    | 1723.6 | 1706.5 | 1712.9 | 1710.9 | 1708.0 |
| 17.5°  | 1692.4 | 1675.0 | 1681.6 | 1677.7 | 1675.4 |
| 20°    | 1669.0 | 1650.8 | 1658.2 | 1650.4 | 1650.4 |
| 22.5°  | 1642.4 | 1624.2 | 1633.2 | 1621.5 | 1623.8 |
| 25°    | 1597.7 | 1581.4 | 1588.9 | 1577.2 | 1578.1 |
| 27.5°  | 1549.0 | 1533.8 | 1543.4 | 1528.3 | 1527.7 |
| 30°    | 1514.7 | 1499.4 | 1509.8 | 1493.2 | 1494.1 |
| 32.5°  | 1476.4 | 1463.4 | 1472.3 | 1456.4 | 1455.9 |
| 35°    | 1418.0 | 1406.5 | 1413.1 | 1397.4 | 1395.5 |
| 37.5°  | 1354.3 | 1345.9 | 1348.6 | 1333.8 | 1333.0 |
| 40°    | 1310.6 | 1302.9 | 1305.7 | 1290.0 | 1290.0 |
| 42.5°  | 1266.0 | 1259.1 | 1261.1 | 1244.0 | 1244.0 |
| 45°    | 1196.3 | 1189.6 | 1188.5 | 1173.7 | 1169.9 |
| 47.5°  | 1121.9 | 1116.5 | 1113.1 | 1099.8 | 1098.1 |
| 50°    | 1070.3 | 1066.5 | 1061.5 | 1049.8 | 1048.8 |
| 52.5°  | 1016.4 | 1014.9 | 1009.2 | 996.7  | 995.7  |
| 55°    | 937.5  | 935.6  | 928.7  | 916.9  | 914.1  |
| 57.5°  | 854.9  | 853.0  | 844.9  | 833.3  | 830.5  |
| 60°    | 801.8  | 796.0  | 787.1  | 776.3  | 773.4  |
| 62.5°  | 743.9  | 737.5  | 728.5  | 718.5  | 718.0  |
| 65°    | 651.4  | 647.6  | 637.7  | 629.8  | 625.0  |
| 67.5°  | 564.3  | 555.7  | 545.9  | 539.4  | 538.5  |
| 70°    | 501.0  | 492.4  | 483.4  | 478.5  | 477.5  |
| 72.5°  | 437.7  | 430.6  | 422.5  | 417.6  | 417.4  |
| 75°    | 342.8  | 337.0  | 333.0  | 328.1  | 327.1  |
| 77.5°  | 248.8  | 247.3  | 245.7  | 240.4  | 240.4  |
| 80°    | 189.5  | 189.5  | 189.5  | 186.5  | 186.5  |
| 82.5°  | 136.3  | 140.1  | 140.2  | 138.9  | 138.9  |
| 85°    | 67.4   | 74.1   | 77.1   | 77.2   | 81.1   |
| 87.5°  | 18.8   | 25.6   | 30.5   | 31.3   | 33.6   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 10.5   | 55.4   | 128.6  | 37.4   | 28.2   |
| 95°    | 34.0   | 134.9  | 606.4  | 209.9  | 129.4  |
| 97.5°  | 62.5   | 158.1  | 933.9  | 668.3  | 457.9  |
| 100°   | 82.3   | 171.8  | 1005.0 | 1018.0 | 784.1  |
| 102.5° | 104.3  | 186.6  | 989.3  | 1303.0 | 1098.8 |
| 105°   | 138.5  | 210.1  | 908.3  | 1604.4 | 1525.1 |
| 107.5° | 173.3  | 237.4  | 813.7  | 1689.3 | 1759.9 |
| 110°   | 197.3  | 257.4  | 759.3  | 1656.8 | 1815.3 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 220.3 | 277.3 | 722.7 | 1579.9 | 1805.9 |
| 115°   | 257.5 | 311.1 | 688.7 | 1459.0 | 1713.3 |
| 117.5° | 290.1 | 340.5 | 668.6 | 1326.9 | 1596.2 |
| 120°   | 316.3 | 358.4 | 666.5 | 1251.3 | 1509.5 |
| 122.5° | 337.2 | 379.3 | 661.3 | 1185.0 | 1424.8 |
| 125°   | 363.3 | 402.9 | 657.4 | 1090.9 | 1304.3 |
| 127.5° | 391.8 | 428.9 | 655.3 | 1034.6 | 1210.4 |
| 130°   | 406.4 | 443.5 | 652.1 | 995.4  | 1148.8 |
| 132.5° | 422.1 | 458.2 | 652.1 | 964.8  | 1105.9 |
| 135°   | 444.3 | 481.4 | 649.5 | 921.5  | 1041.6 |
| 137.5° | 465.3 | 501.3 | 649.3 | 884.8  | 988.5  |
| 140°   | 480.9 | 518.0 | 648.2 | 854.4  | 954.0  |
| 142.5° | 498.7 | 529.6 | 651.4 | 830.1  | 919.5  |
| 145°   | 524.1 | 550.9 | 654.8 | 797.5  | 869.1  |
| 147.5° | 545.8 | 571.8 | 660.5 | 764.6  | 826.5  |
| 150°   | 564.6 | 582.5 | 662.6 | 753.8  | 797.2  |
| 152.5° | 579.2 | 598.1 | 664.7 | 739.0  | 779.4  |
| 155°   | 598.6 | 612.6 | 670.4 | 720.8  | 750.2  |
| 157.5° | 622.6 | 631.0 | 671.7 | 712.5  | 733.4  |
| 160°   | 635.1 | 641.5 | 677.0 | 706.1  | 724.0  |
| 162.5° | 642.5 | 649.9 | 678.0 | 700.8  | 714.6  |
| 165°   | 661.3 | 663.8 | 678.3 | 692.9  | 703.1  |
| 167.5° | 674.1 | 671.8 | 684.3 | 690.9  | 695.0  |
| 170°   | 678.3 | 677.0 | 682.2 | 683.6  | 688.7  |
| 172.5° | 687.7 | 683.3 | 685.3 | 681.5  | 685.6  |
| 175°   | 692.7 | 688.8 | 686.1 | 682.1  | 677.0  |
| 177.5° | 694.7 | 688.6 | 685.3 | 681.2  | 682.2  |
| 180°   | 687.4 | 687.4 | 687.4 | 687.4  | 687.4  |

(END OF REPORT)