

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: P519116

Luminaire Tested: **SQ4-WB-050U-100D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519116
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G2-2009-966-13)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-WB-050U-100D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

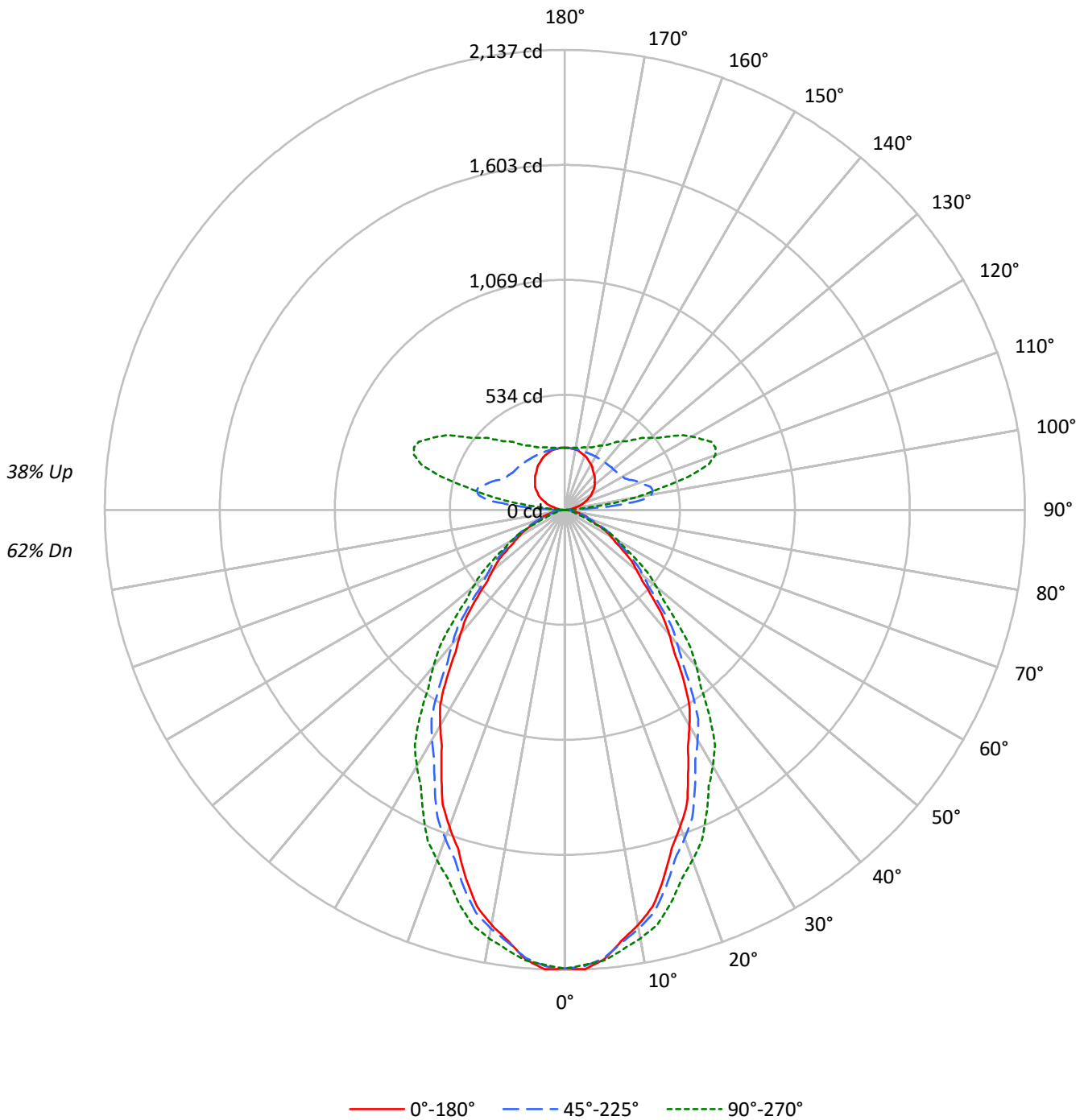
Lumens per Lamp: N/A
Luminaire Lumens: 4987.0 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 45.1
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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Luminous Intensity Polar Plot





TEST NUMBER: P519116

CATALOG NUMBER: SQ4-WB-050U-100D-830-1D-UNV-STD-W-4

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 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 78 | 78 | 78 | 67 | 67 | 67 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | | | | | | | | | | | | | |
| 1 | 102 | 98 | 95 | 92 | 95 | 92 | 89 | 87 | 81 | 79 | 77 | 71 | 70 | 68 | 62 | 61 | 60 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | | | | | | | | | | | | | |
| 2 | 94 | 87 | 82 | 77 | 88 | 82 | 78 | 73 | 73 | 69 | 66 | 64 | 62 | 59 | 56 | 54 | 53 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | | | | | | | | | | | | | |
| 3 | 87 | 78 | 72 | 66 | 81 | 74 | 68 | 63 | 66 | 61 | 57 | 58 | 55 | 52 | 51 | 49 | 47 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | | | | | | | | | | | | |
| 4 | 80 | 70 | 63 | 58 | 75 | 67 | 60 | 55 | 60 | 54 | 50 | 53 | 49 | 46 | 47 | 44 | 41 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | | | | | | | | | | | | |
| 5 | 74 | 64 | 56 | 51 | 70 | 60 | 54 | 49 | 54 | 49 | 45 | 48 | 44 | 41 | 43 | 40 | 37 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | | | | | | | | | | | | |
| 6 | 69 | 58 | 50 | 45 | 65 | 55 | 48 | 43 | 50 | 44 | 40 | 44 | 40 | 37 | 40 | 36 | 34 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | | | | | | | | | | | | |
| 7 | 64 | 53 | 45 | 40 | 61 | 50 | 44 | 39 | 45 | 40 | 36 | 41 | 37 | 33 | 37 | 33 | 31 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 28 | | | | | | | | | | | | |
| 8 | 60 | 49 | 41 | 36 | 57 | 46 | 40 | 35 | 42 | 36 | 33 | 38 | 33 | 30 | 34 | 31 | 28 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | | | | | | | | | | | | |
| 9 | 56 | 45 | 38 | 33 | 53 | 43 | 36 | 32 | 39 | 33 | 30 | 35 | 31 | 28 | 32 | 28 | 26 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | | | | | | | | | | | | |
| 10 | 53 | 41 | 35 | 30 | 50 | 40 | 33 | 29 | 36 | 31 | 27 | 33 | 29 | 25 | 30 | 26 | 24 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19665 | 19665 | 19665 |
| 5° | 19419 | 19350 | 19462 |
| 10° | 18346 | 18513 | 18942 |
| 15° | 16937 | 17330 | 18107 |
| 20° | 15380 | 15959 | 17015 |
| 25° | 13795 | 14547 | 15851 |
| 30° | 12335 | 13141 | 14646 |
| 35° | 10787 | 11566 | 13220 |
| 40° | 9079 | 9799 | 11444 |
| 45° | 7492 | 8139 | 9555 |
| 50° | 6255 | 6819 | 7960 |
| 55° | 5310 | 5852 | 6574 |
| 60° | 4539 | 5074 | 5246 |
| 65° | 3613 | 4268 | 3388 |
| 70° | 3205 | 3329 | 2069 |
| 75° | 2966 | 2702 | 1265 |
| 80° | 2731 | 2487 | 1095 |
| 85° | 2477 | 2276 | 889 |



TEST NUMBER: P519116

CATALOG NUMBER: SQ4-WB-050U-100D-830-1D-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 195.5 | 3.9 |
| 10°-20° | 508.5 | 10.2 |
| 20°-30° | 658.6 | 13.2 |
| 30°-40° | 645.0 | 12.9 |
| 40°-50° | 493.7 | 9.9 |
| 50°-60° | 329.0 | 6.6 |
| 60°-70° | 179.5 | 3.6 |
| 70°-80° | 74.8 | 1.5 |
| 80°-90° | 22.3 | 0.4 |
| 90°-100° | 138.2 | 2.8 |
| 100°-110° | 375.5 | 7.5 |
| 110°-120° | 386.1 | 7.7 |
| 120°-130° | 308.7 | 6.2 |
| 130°-140° | 242.5 | 4.9 |
| 140°-150° | 186.0 | 3.7 |
| 150°-160° | 133.7 | 2.7 |
| 160°-170° | 81.8 | 1.6 |
| 170°-180° | 27.6 | 0.6 |
| 0°-30° | 1362.6 | 27.3 |
| 0°-40° | 2007.6 | 40.3 |
| 0°-60° | 2830.3 | 56.8 |
| 0°-90° | 3106.9 | 62.3 |
| 90°-120° | 899.8 | 18.0 |
| 90°-150° | 1637.0 | 32.8 |
| 90°-180° | 1880.0 | 37.7 |
| 0°-180° | 4987.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2131 | 2131 | 2131 | 2131 | 2131 | |
| 5° | 2097 | 2076 | 2089 | 2094 | 2101 | 195 |
| 15° | 1773 | 1767 | 1814 | 1864 | 1896 | 495 |
| 25° | 1355 | 1359 | 1429 | 1491 | 1557 | 623 |
| 35° | 958 | 962 | 1027 | 1096 | 1174 | 595 |
| 45° | 574 | 585 | 624 | 671 | 732 | 448 |
| 55° | 330 | 344 | 364 | 378 | 409 | 299 |
| 65° | 166 | 179 | 196 | 171 | 155 | 172 |
| 75° | 83 | 83 | 76 | 52 | 36 | 89 |
| 85° | 23 | 23 | 22 | 14 | 8 | 25 |
| 90° | 1 | 4 | 6 | 8 | 8 | 3 |
| 95° | 20 | 76 | 241 | 105 | 70 | 22 |
| 105° | 67 | 104 | 413 | 629 | 592 | 71 |
| 115° | 118 | 144 | 330 | 658 | 749 | 117 |
| 125° | 163 | 186 | 299 | 504 | 594 | 145 |
| 135° | 196 | 218 | 291 | 410 | 463 | 152 |
| 145° | 227 | 243 | 287 | 349 | 375 | 142 |
| 155° | 256 | 266 | 285 | 313 | 322 | 118 |
| 165° | 278 | 281 | 286 | 298 | 299 | 78 |
| 175° | 288 | 289 | 287 | 291 | 290 | 27 |
| 180° | 288 | 288 | 288 | 288 | 288 | |

TEST NUMBER: P519116

CATALOG NUMBER: SQ4-WB-050U-100D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2131.4 | 2131.4 | 2131.4 | 2131.4 | 2131.4 |
| 2.5° | 2136.6 | 2117.6 | 2122.4 | 2122.2 | 2116.4 |
| 5° | 2096.8 | 2075.7 | 2089.3 | 2094.1 | 2101.4 |
| 7.5° | 2018.9 | 2003.0 | 2027.7 | 2046.0 | 2060.8 |
| 10° | 1958.3 | 1944.6 | 1976.1 | 2002.7 | 2021.9 |
| 12.5° | 1888.0 | 1876.5 | 1915.5 | 1951.2 | 1976.3 |
| 15° | 1773.2 | 1766.8 | 1814.3 | 1863.7 | 1895.7 |
| 17.5° | 1650.3 | 1647.2 | 1701.7 | 1759.3 | 1800.3 |
| 20° | 1566.5 | 1565.6 | 1625.4 | 1685.4 | 1733.0 |
| 22.5° | 1481.9 | 1484.0 | 1546.8 | 1609.2 | 1663.4 |
| 25° | 1355.1 | 1358.8 | 1429.0 | 1491.3 | 1557.1 |
| 27.5° | 1237.9 | 1239.5 | 1312.1 | 1377.9 | 1448.1 |
| 30° | 1157.8 | 1162.4 | 1233.5 | 1301.6 | 1374.8 |
| 32.5° | 1077.7 | 1083.0 | 1152.7 | 1223.1 | 1297.7 |
| 35° | 957.7 | 962.2 | 1026.9 | 1096.0 | 1173.7 |
| 37.5° | 833.8 | 840.1 | 897.4 | 962.8 | 1039.2 |
| 40° | 753.8 | 762.9 | 813.6 | 875.2 | 950.2 |
| 42.5° | 676.7 | 688.1 | 735.1 | 793.5 | 861.1 |
| 45° | 574.2 | 585.2 | 623.8 | 671.0 | 732.3 |
| 47.5° | 485.9 | 498.6 | 528.2 | 568.9 | 621.2 |
| 50° | 435.8 | 447.7 | 475.1 | 505.2 | 554.6 |
| 52.5° | 391.7 | 403.6 | 428.0 | 451.2 | 493.2 |
| 55° | 330.1 | 343.8 | 363.8 | 377.6 | 408.7 |
| 57.5° | 279.6 | 292.8 | 308.6 | 314.8 | 333.7 |
| 60° | 246.0 | 260.6 | 275.0 | 274.2 | 284.3 |
| 62.5° | 215.3 | 227.7 | 242.0 | 232.1 | 232.7 |
| 65° | 165.5 | 179.2 | 195.5 | 170.8 | 155.2 |
| 67.5° | 133.7 | 136.7 | 153.4 | 119.1 | 100.6 |
| 70° | 118.8 | 118.8 | 123.4 | 92.2 | 76.7 |
| 72.5° | 104.6 | 104.6 | 100.3 | 75.0 | 58.7 |
| 75° | 83.2 | 83.2 | 75.8 | 52.0 | 35.5 |
| 77.5° | 64.2 | 63.4 | 58.0 | 38.8 | 25.8 |
| 80° | 51.4 | 51.4 | 46.8 | 30.6 | 20.6 |
| 82.5° | 40.2 | 40.2 | 36.3 | 23.9 | 15.3 |
| 85° | 23.4 | 23.4 | 21.5 | 13.9 | 8.4 |
| 87.5° | 8.4 | 9.0 | 8.8 | 6.1 | 5.4 |
| 90° | 0.9 | 3.6 | 6.5 | 8.3 | 8.3 |
| 92.5° | 8.3 | 37.8 | 65.7 | 28.2 | 23.9 |
| 95° | 20.4 | 75.6 | 240.7 | 104.8 | 70.4 |
| 97.5° | 33.7 | 83.5 | 369.1 | 287.1 | 201.7 |
| 100° | 42.6 | 88.8 | 408.3 | 413.9 | 334.3 |
| 102.5° | 51.5 | 94.0 | 418.7 | 511.9 | 441.7 |
| 105° | 66.7 | 103.8 | 413.0 | 628.8 | 591.7 |
| 107.5° | 82.4 | 115.2 | 389.1 | 689.1 | 699.4 |
| 110° | 93.5 | 123.4 | 371.3 | 701.0 | 745.4 |



TEST NUMBER: P519116

CATALOG NUMBER: SQ4-WB-050U-100D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 103.1 | 131.6 | 353.5 | 691.1 | 757.9 |
| 115° | 118.5 | 143.9 | 330.5 | 657.6 | 749.1 |
| 117.5° | 133.0 | 157.2 | 315.9 | 610.1 | 713.1 |
| 120° | 142.6 | 166.1 | 309.3 | 578.2 | 680.5 |
| 122.5° | 150.7 | 174.3 | 304.8 | 546.3 | 645.0 |
| 125° | 163.0 | 185.6 | 299.1 | 503.9 | 594.4 |
| 127.5° | 173.9 | 196.3 | 295.9 | 471.8 | 549.4 |
| 130° | 180.6 | 202.3 | 294.4 | 451.6 | 521.3 |
| 132.5° | 187.2 | 208.9 | 293.0 | 434.4 | 496.1 |
| 135° | 196.3 | 218.0 | 290.7 | 410.4 | 463.0 |
| 137.5° | 206.1 | 225.8 | 289.6 | 389.3 | 433.5 |
| 140° | 212.0 | 231.0 | 288.9 | 375.9 | 415.7 |
| 142.5° | 218.0 | 235.5 | 288.1 | 365.4 | 398.7 |
| 145° | 226.8 | 243.1 | 287.0 | 348.7 | 375.0 |
| 147.5° | 236.8 | 250.8 | 286.1 | 335.6 | 356.3 |
| 150° | 243.5 | 255.3 | 286.1 | 328.1 | 344.4 |
| 152.5° | 248.7 | 259.0 | 285.4 | 321.4 | 334.8 |
| 155° | 256.5 | 265.5 | 285.2 | 313.2 | 322.2 |
| 157.5° | 264.1 | 271.1 | 285.2 | 307.6 | 314.4 |
| 160° | 268.5 | 274.9 | 285.2 | 303.8 | 309.3 |
| 162.5° | 273.0 | 277.8 | 285.9 | 300.8 | 304.8 |
| 165° | 277.8 | 281.4 | 286.1 | 298.2 | 299.1 |
| 167.5° | 282.8 | 284.6 | 287.0 | 295.0 | 295.7 |
| 170° | 284.3 | 286.1 | 287.0 | 293.5 | 293.5 |
| 172.5° | 285.7 | 286.8 | 287.0 | 292.0 | 292.0 |
| 175° | 288.0 | 288.9 | 287.0 | 290.7 | 289.8 |
| 177.5° | 288.7 | 288.7 | 286.5 | 289.4 | 288.0 |
| 180° | 288.0 | 288.0 | 288.0 | 288.0 | 288.0 |

(END OF REPORT)