

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: PORTFOLIO

Report Number: P250176

Luminaire Tested: **LSR8B80D010 EC8B80940 8LBM0WH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P250176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13942)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B80D010 EC8B80940 8LBM0WH
Description: PORTFOLIO 8 INCH MEDIUM DISTRIBUTION 55 DEG CUTOFF RECESSED
DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH WHEAT TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7478.0 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 0.84 / 0.8 / 0.85
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

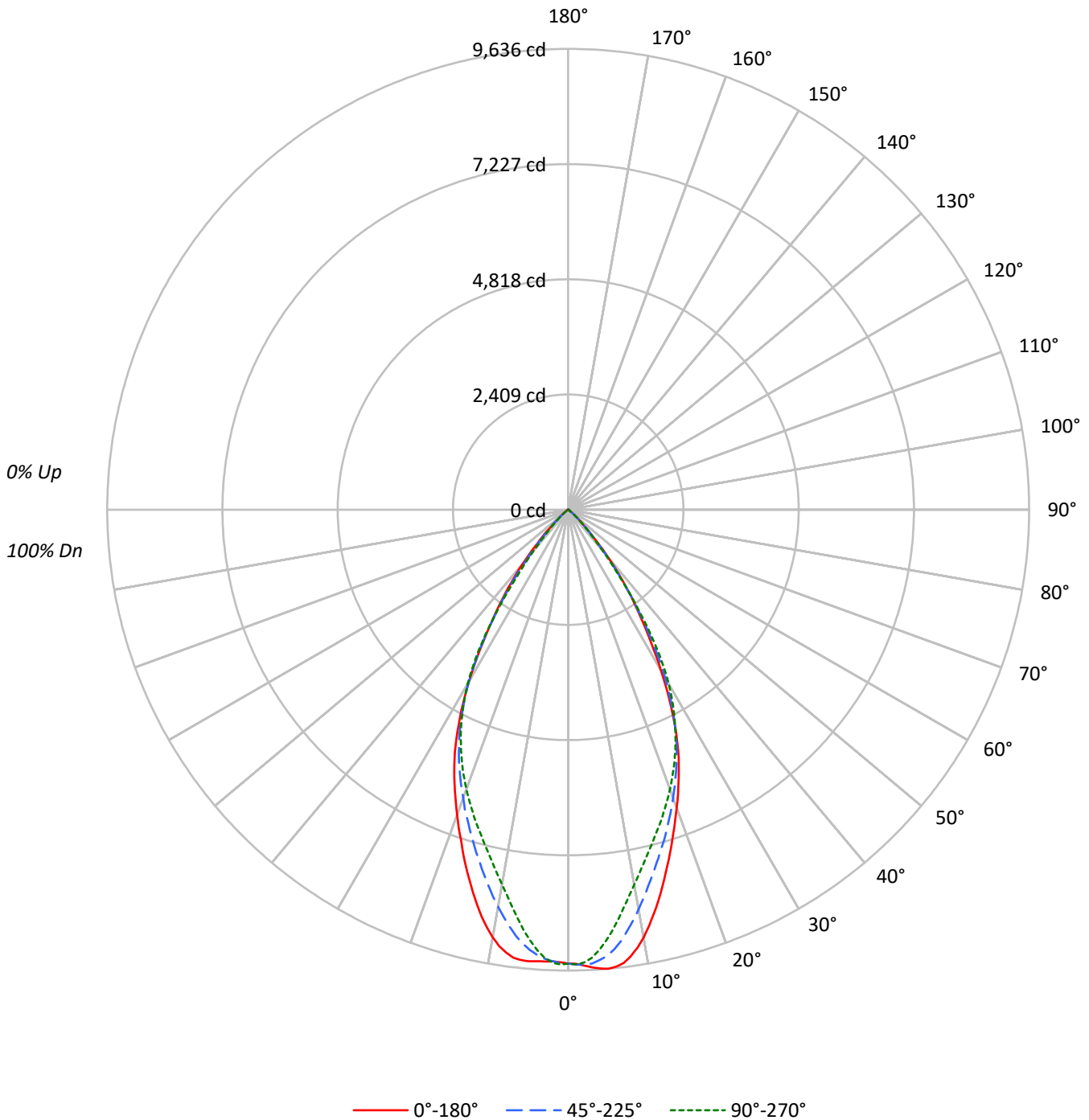
Input Watts (W): 74.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | |
| 1 | 114 | 111 | 108 | 106 | 111 | 109 | 107 | 105 | 105 | 103 | 101 | 101 | 100 | 98 | 98 | 97 | 96 | 94 | 94 | 94 | 94 | 94 | 94 | 94 | | |
| 2 | 108 | 103 | 99 | 96 | 106 | 102 | 98 | 95 | 98 | 95 | 93 | 95 | 93 | 91 | 93 | 91 | 89 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | | |
| 3 | 103 | 97 | 92 | 88 | 101 | 95 | 91 | 87 | 93 | 89 | 86 | 90 | 87 | 84 | 88 | 85 | 83 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | | |
| 4 | 98 | 90 | 85 | 81 | 96 | 89 | 84 | 80 | 87 | 83 | 79 | 85 | 81 | 78 | 83 | 80 | 77 | 76 | 76 | 76 | 76 | 76 | 76 | 76 | | |
| 5 | 93 | 85 | 79 | 75 | 91 | 84 | 78 | 74 | 82 | 77 | 74 | 80 | 76 | 73 | 79 | 75 | 72 | 71 | 71 | 71 | 71 | 71 | 71 | 71 | | |
| 6 | 88 | 80 | 74 | 69 | 87 | 79 | 73 | 69 | 77 | 72 | 69 | 76 | 72 | 68 | 75 | 71 | 68 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | | |
| 7 | 84 | 75 | 69 | 65 | 83 | 74 | 69 | 65 | 73 | 68 | 64 | 72 | 67 | 64 | 71 | 67 | 64 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | | |
| 8 | 80 | 71 | 65 | 61 | 79 | 70 | 64 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | | |
| 9 | 76 | 67 | 61 | 57 | 75 | 66 | 61 | 57 | 65 | 60 | 57 | 64 | 60 | 56 | 64 | 59 | 56 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | | |
| 10 | 73 | 63 | 57 | 54 | 72 | 63 | 57 | 54 | 62 | 57 | 53 | 61 | 56 | 53 | 60 | 56 | 53 | 52 | 52 | 52 | 52 | 52 | 52 | 52 | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|--------|
| 0° | 292643 | 292643 | 292643 |
| 5° | 298261 | 280193 | 293405 |
| 10° | 284369 | 249259 | 284297 |
| 15° | 251109 | 224813 | 255383 |
| 20° | 217612 | 204059 | 222760 |
| 25° | 183863 | 180722 | 190613 |
| 30° | 138190 | 149609 | 147640 |
| 35° | 92507 | 97803 | 100322 |
| 40° | 51827 | 44489 | 59443 |
| 45° | 20828 | 18311 | 24753 |
| 50° | 7196 | 6975 | 8525 |
| 55° | 1984 | 2360 | 2236 |
| 60° | 1141 | 1425 | 1283 |
| 65° | 1007 | 839 | 671 |
| 70° | 0 | 622 | 415 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 408 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 861.5 | 11.5 |
| 10°-20° | 2083.7 | 27.9 |
| 20°-30° | 2442.2 | 32.7 |
| 30°-40° | 1606.9 | 21.5 |
| 40°-50° | 419.3 | 5.6 |
| 50°-60° | 51.6 | 0.7 |
| 60°-70° | 10.7 | 0.1 |
| 70°-80° | 2.0 | 0.0 |
| 80°-90° | 0.1 | 0.0 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 5387.5 | 72.0 |
| 0°-40° | 6994.4 | 93.5 |
| 0°-60° | 7465.2 | 99.8 |
| 0°-90° | 7478.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 7478.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 9490 | 9490 | 9490 | 9490 | 9490 | |
| 5° | 9636 | 9361 | 9052 | 9239 | 9479 | 903 |
| 15° | 7866 | 7420 | 7042 | 7420 | 8000 | 2193 |
| 25° | 5404 | 5351 | 5312 | 5402 | 5602 | 2436 |
| 35° | 2457 | 2513 | 2598 | 2624 | 2665 | 1539 |
| 45° | 478 | 450 | 420 | 487 | 568 | 428 |
| 55° | 37 | 39 | 44 | 44 | 42 | 49 |
| 65° | 14 | 12 | 12 | 9 | 9 | 10 |
| 75° | 0 | 2 | 0 | 0 | 0 | 1 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P250176

CATALOG NUMBER: LSR8B80D010 EC8B80940 8LBM0WH

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 9490.2 | 9490.2 | 9490.2 | 9490.2 | 9490.2 | 9490.2 | 9490.2 | 9490.2 | 9490.2 |
| 1° | 9497.1 | 9511.0 | 9515.6 | 9529.5 | 9508.7 | 9494.9 | 9476.4 | 9462.5 | 9464.8 |
| 2° | 9538.7 | 9545.6 | 9520.2 | 9511.0 | 9474.1 | 9462.5 | 9448.7 | 9446.4 | 9448.7 |
| 3° | 9582.6 | 9568.7 | 9501.8 | 9439.5 | 9384.1 | 9377.2 | 9402.6 | 9439.5 | 9460.2 |
| 4° | 9617.2 | 9580.2 | 9439.5 | 9324.1 | 9236.4 | 9229.5 | 9331.0 | 9425.6 | 9464.8 |
| 5° | 9635.6 | 9568.7 | 9361.0 | 9167.2 | 9051.9 | 9095.7 | 9238.7 | 9407.1 | 9478.7 |
| 6° | 9610.2 | 9511.0 | 9241.0 | 8982.6 | 8851.1 | 8908.8 | 9118.8 | 9363.3 | 9469.5 |
| 7° | 9545.6 | 9418.7 | 9086.5 | 8781.9 | 8620.4 | 8710.3 | 8978.0 | 9289.5 | 9434.9 |
| 8° | 9425.6 | 9273.3 | 8890.3 | 8548.8 | 8389.6 | 8491.1 | 8805.0 | 9183.3 | 9351.8 |
| 9° | 9268.7 | 9100.3 | 8696.5 | 8336.5 | 8165.8 | 8285.8 | 8625.0 | 9042.6 | 9236.4 |
| 10° | 9081.8 | 8901.8 | 8481.9 | 8115.1 | 7960.5 | 8073.5 | 8431.2 | 8878.8 | 9079.5 |
| 11° | 8862.6 | 8689.6 | 8267.3 | 7907.4 | 7759.7 | 7870.5 | 8237.3 | 8682.7 | 8899.5 |
| 12° | 8625.0 | 8465.8 | 8048.2 | 7706.6 | 7568.2 | 7674.3 | 8029.7 | 8479.6 | 8694.2 |
| 13° | 8387.3 | 8228.1 | 7835.9 | 7512.8 | 7385.9 | 7487.4 | 7826.6 | 8258.1 | 8472.7 |
| 14° | 8131.2 | 7985.8 | 7623.6 | 7328.2 | 7212.9 | 7309.7 | 7619.0 | 8034.3 | 8237.3 |
| 15° | 7865.8 | 7750.5 | 7420.5 | 7150.5 | 7042.1 | 7134.4 | 7420.5 | 7803.5 | 7999.7 |
| 16° | 7616.6 | 7510.5 | 7224.4 | 6975.2 | 6885.2 | 6959.0 | 7219.8 | 7572.8 | 7759.7 |
| 17° | 7362.8 | 7265.9 | 7028.2 | 6802.1 | 6721.4 | 6792.9 | 7014.4 | 7339.8 | 7508.2 |
| 18° | 7109.0 | 7028.2 | 6813.7 | 6619.9 | 6548.4 | 6612.9 | 6811.4 | 7104.4 | 7256.7 |
| 19° | 6873.7 | 6799.8 | 6617.6 | 6453.7 | 6389.1 | 6446.8 | 6633.7 | 6878.3 | 7030.6 |
| 20° | 6631.4 | 6571.4 | 6412.2 | 6278.4 | 6218.4 | 6271.4 | 6416.8 | 6654.5 | 6788.3 |
| 21° | 6398.3 | 6345.3 | 6206.8 | 6093.8 | 6045.3 | 6089.2 | 6223.0 | 6437.6 | 6555.2 |
| 22° | 6156.1 | 6126.1 | 6001.5 | 5906.9 | 5874.6 | 5902.3 | 6024.5 | 6209.2 | 6319.9 |
| 23° | 5918.4 | 5890.7 | 5796.1 | 5717.7 | 5690.0 | 5717.7 | 5826.1 | 5992.2 | 6091.5 |
| 24° | 5678.5 | 5648.5 | 5579.3 | 5528.4 | 5505.4 | 5528.4 | 5620.8 | 5761.5 | 5856.1 |
| 25° | 5403.9 | 5399.3 | 5350.8 | 5323.1 | 5311.6 | 5336.9 | 5401.6 | 5523.9 | 5602.3 |
| 26° | 5140.8 | 5127.0 | 5113.1 | 5108.5 | 5110.8 | 5124.7 | 5177.7 | 5270.0 | 5332.4 |
| 27° | 4817.8 | 4838.6 | 4859.3 | 4887.0 | 4896.2 | 4907.8 | 4933.2 | 5000.1 | 5046.2 |
| 28° | 4508.6 | 4547.8 | 4598.6 | 4654.0 | 4679.4 | 4679.4 | 4681.6 | 4718.6 | 4757.8 |
| 29° | 4201.7 | 4243.2 | 4324.0 | 4407.1 | 4441.7 | 4437.1 | 4418.6 | 4434.7 | 4457.8 |
| 30° | 3881.0 | 3934.1 | 4042.5 | 4151.0 | 4201.7 | 4183.3 | 4148.7 | 4132.5 | 4146.4 |
| 31° | 3567.2 | 3620.3 | 3740.3 | 3857.9 | 3924.8 | 3904.1 | 3844.1 | 3832.6 | 3839.5 |
| 32° | 3267.3 | 3320.3 | 3431.0 | 3555.6 | 3631.8 | 3604.1 | 3541.8 | 3523.4 | 3525.7 |
| 33° | 2976.5 | 3018.1 | 3119.6 | 3235.0 | 3297.2 | 3290.3 | 3239.5 | 3216.5 | 3218.8 |
| 34° | 2701.9 | 2736.6 | 2812.7 | 2900.4 | 2960.4 | 2958.0 | 2921.1 | 2923.4 | 2930.4 |
| 35° | 2457.4 | 2475.8 | 2512.7 | 2561.2 | 2598.1 | 2618.8 | 2623.5 | 2641.9 | 2665.0 |
| 37.5° | 1857.5 | 1864.3 | 1820.5 | 1772.0 | 1762.8 | 1822.8 | 1926.7 | 2016.7 | 2051.3 |
| 40° | 1287.5 | 1271.4 | 1216.0 | 1130.6 | 1105.2 | 1172.2 | 1303.7 | 1430.6 | 1476.7 |
| 42.5° | 800.7 | 793.7 | 759.1 | 694.5 | 671.5 | 710.7 | 809.9 | 906.8 | 952.9 |
| 45° | 477.6 | 468.4 | 449.9 | 424.6 | 419.9 | 436.1 | 486.8 | 542.2 | 567.6 |
| 47.5° | 274.6 | 272.3 | 260.7 | 251.5 | 249.2 | 260.7 | 283.8 | 316.1 | 323.0 |
| 50° | 150.0 | 147.7 | 145.4 | 145.4 | 145.4 | 152.3 | 163.8 | 173.0 | 177.7 |
| 52.5° | 73.8 | 76.2 | 73.8 | 76.2 | 78.5 | 83.0 | 80.7 | 90.0 | 90.0 |
| 55° | 36.9 | 34.6 | 39.2 | 43.9 | 43.9 | 43.9 | 43.9 | 43.9 | 41.6 |
| 57.5° | 27.7 | 30.0 | 25.4 | 27.7 | 25.4 | 25.4 | 23.1 | 25.4 | 27.7 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|------|-------|------|-------|------|--------|------|--------|------|
| 60° | 18.5 | 16.1 | 18.5 | 20.8 | 23.1 | 20.8 | 16.1 | 18.5 | 20.8 |
| 62.5° | 9.2 | 9.2 | 9.2 | 13.8 | 20.8 | 16.1 | 13.8 | 11.5 | 11.5 |
| 65° | 13.8 | 9.2 | 11.5 | 13.8 | 11.5 | 11.5 | 9.2 | 11.5 | 9.2 |
| 67.5° | 6.9 | 11.5 | 6.9 | 4.6 | 6.9 | 9.2 | 6.9 | 4.6 | 4.6 |
| 70° | 0.0 | 2.3 | 2.3 | 6.9 | 6.9 | 6.9 | 6.9 | 4.6 | 4.6 |
| 72.5° | 2.3 | 2.3 | 2.3 | 4.6 | 2.3 | 4.6 | 2.3 | 2.3 | 4.6 |
| 75° | 0.0 | 0.0 | 2.3 | 2.3 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 |
| 77.5° | 2.3 | 0.0 | 2.3 | 2.3 | 0.0 | 0.0 | 0.0 | 2.3 | 0.0 |
| 80° | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)