

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: NEO-RAY

Report Number: P645165

Luminaire Tested: OMN4DIP-SR4F0-75D50U935-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



**Test Information**

Test Method: LM-79-2019  
Report Number: P645165  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: OMN4DIP-SR4F0-75D50U935-FLLOOB-1DUDD-WW  
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE  
DOWNLIGHT - FLAT FROSTED LENS - 750 LUMENS PER FOOT  
UPLIGHT - BATWING OPTIC - 500 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

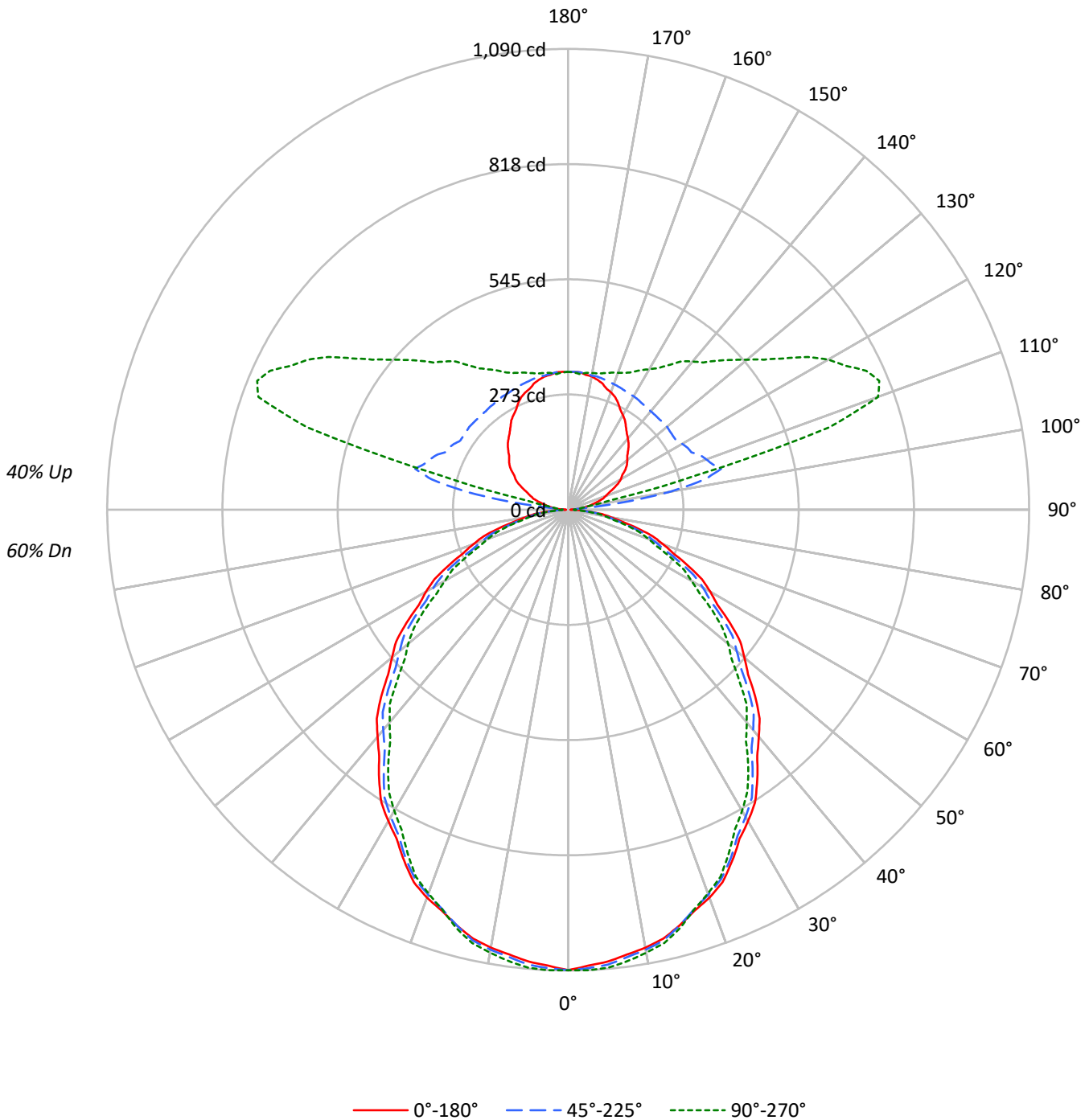
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4409.7 lumens  
Efficiency: N/A  
Efficacy: 121.1 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 36.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P645165

CATALOG NUMBER: OMN4DIP-SR4F0-75D50U935-FLLOOB-1DUDD-WW

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

|     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |    | 20 |    |    |    |    |    |    |    |    | 20 |    |    |    |    |   |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |    | 70 |    |    |    |    |    |    |    |    | 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   | 110 | 110 | 110 | 110 | 102 | 102 | 102 | 102 | 89 | 89 | 89 | 77 | 77 | 77 | 65 | 65 | 65 | 60 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 100 | 96  | 92  | 88  | 93  | 90  | 86  | 83  | 78 | 76 | 73 | 68 | 66 | 64 | 58 | 56 | 55 | 51 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 91  | 84  | 78  | 72  | 85  | 78  | 73  | 68  | 69 | 64 | 61 | 59 | 56 | 54 | 51 | 49 | 47 | 43 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 83  | 74  | 66  | 60  | 78  | 69  | 63  | 57  | 61 | 56 | 51 | 53 | 49 | 46 | 45 | 42 | 40 | 36 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 76  | 65  | 57  | 51  | 71  | 61  | 54  | 49  | 54 | 48 | 44 | 47 | 43 | 39 | 41 | 37 | 35 | 31 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 70  | 58  | 50  | 44  | 65  | 55  | 48  | 42  | 48 | 43 | 38 | 42 | 38 | 34 | 37 | 33 | 30 | 27 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 65  | 53  | 44  | 38  | 60  | 49  | 42  | 37  | 44 | 38 | 33 | 38 | 34 | 30 | 33 | 30 | 27 | 24 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 60  | 48  | 39  | 34  | 56  | 45  | 38  | 32  | 40 | 34 | 29 | 35 | 30 | 27 | 31 | 27 | 24 | 21 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 56  | 43  | 35  | 30  | 52  | 41  | 34  | 29  | 36 | 30 | 26 | 32 | 27 | 24 | 28 | 24 | 21 | 19 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 52  | 40  | 32  | 27  | 49  | 37  | 31  | 26  | 33 | 28 | 24 | 30 | 25 | 21 | 26 | 22 | 19 | 17 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 49  | 36  | 29  | 24  | 45  | 34  | 28  | 23  | 31 | 25 | 21 | 27 | 23 | 20 | 24 | 20 | 18 | 16 |    |    |    |    |    |   |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17584 | 17584 | 17584 |
| 5°  | 17387 | 17507 | 17627 |
| 10° | 17247 | 17321 | 17443 |
| 15° | 17016 | 17016 | 17115 |
| 20° | 16778 | 16651 | 16600 |
| 25° | 16340 | 16208 | 15996 |
| 30° | 15856 | 15636 | 15333 |
| 35° | 15362 | 14982 | 14633 |
| 40° | 14773 | 14334 | 13835 |
| 45° | 14278 | 13737 | 13061 |
| 50° | 13659 | 13064 | 12393 |
| 55° | 13140 | 12470 | 11721 |
| 60° | 12536 | 11867 | 10863 |
| 65° | 11889 | 11037 | 10189 |
| 70° | 11264 | 10211 | 9512  |
| 75° | 10536 | 9339  | 8871  |
| 80° | 9642  | 8545  | 8126  |
| 85° | 9059  | 7966  | 7410  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14278 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 102.4  | 2.3       |
| 10°-20°   | 287.5  | 6.5       |
| 20°-30°   | 418.0  | 9.5       |
| 30°-40°   | 475.5  | 10.8      |
| 40°-50°   | 463.6  | 10.5      |
| 50°-60°   | 395.7  | 9.0       |
| 60°-70°   | 287.6  | 6.5       |
| 70°-80°   | 162.6  | 3.7       |
| 80°-90°   | 50.8   | 1.2       |
| 90°-100°  | 46.4   | 1.1       |
| 100°-110° | 289.3  | 6.6       |
| 110°-120° | 390.2  | 8.8       |
| 120°-130° | 317.1  | 7.2       |
| 130°-140° | 254.1  | 5.8       |
| 140°-150° | 200.3  | 4.5       |
| 150°-160° | 146.4  | 3.3       |
| 160°-170° | 90.9   | 2.1       |
| 170°-180° | 31.0   | 0.7       |
| 0°-30°    | 808.0  | 18.3      |
| 0°-40°    | 1283.5 | 29.1      |
| 0°-60°    | 2142.8 | 48.6      |
| 0°-90°    | 2643.9 | 60.0      |
| 90°-120°  | 726.0  | 16.5      |
| 90°-150°  | 1497.5 | 34.0      |
| 90°-180°  | 1766.0 | 40.0      |
| 0°-180°   | 4409.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1089 | 1089  | 1089 | 1089  | 1089 |      |
| 5°   | 1073 | 1089  | 1080 | 1079  | 1088 | 102  |
| 15°  | 1018 | 1031  | 1018 | 1017  | 1024 | 287  |
| 25°  | 917  | 926   | 910  | 894   | 898  | 422  |
| 35°  | 779  | 782   | 760  | 742   | 742  | 487  |
| 45°  | 625  | 622   | 602  | 581   | 572  | 481  |
| 55°  | 467  | 465   | 443  | 422   | 416  | 417  |
| 65°  | 311  | 308   | 289  | 271   | 267  | 309  |
| 75°  | 169  | 163   | 150  | 144   | 142  | 179  |
| 85°  | 49   | 43    | 43   | 42    | 40   | 52   |
| 90°  | 6    | 9     | 13   | 14    | 14   | 7    |
| 95°  | 28   | 36    | 21   | 23    | 26   | 27   |
| 105° | 71   | 102   | 374  | 476   | 314  | 76   |
| 115° | 117  | 140   | 322  | 665   | 778  | 117  |
| 125° | 165  | 187   | 303  | 528   | 624  | 146  |
| 135° | 201  | 223   | 304  | 434   | 499  | 155  |
| 145° | 238  | 258   | 306  | 378   | 419  | 149  |
| 155° | 279  | 289   | 312  | 343   | 359  | 128  |
| 165° | 310  | 314   | 320  | 328   | 334  | 87   |
| 175° | 326  | 328   | 326  | 324   | 322  | 31   |
| 180° | 326  | 326   | 326  | 326   | 326  |      |

TEST NUMBER: P645165

CATALOG NUMBER: OMN4DIP-SR4F0-75D50U935-FLLOOB-1DUDD-WW

**CANDELA DISTRIBUTION (FULL):**

|        | 0°            | 22.5°         | 45°           | 67.5°         | 90°           |
|--------|---------------|---------------|---------------|---------------|---------------|
| 0°     | 1089.1        | <i>1089.1</i> | 1089.1        | 1089.1        | 1089.1        |
| 2.5°   | <i>1079.6</i> | <i>1093.5</i> | <i>1085.5</i> | <i>1085.6</i> | <i>1090.3</i> |
| 5°     | 1072.8        | <i>1088.7</i> | 1080.2        | 1078.9        | 1087.6        |
| 7.5°   | 1061.5        | <i>1077.2</i> | 1067.2        | 1065.6        | 1076.9        |
| 10°    | 1052.0        | <i>1066.5</i> | 1056.5        | 1053.8        | 1063.9        |
| 12.5°  | 1039.0        | <i>1053.5</i> | 1043.5        | 1039.5        | 1049.7        |
| 15°    | 1018.0        | <i>1031.0</i> | 1018.0        | 1016.6        | 1023.9        |
| 17.5°  | 994.3         | <i>1005.6</i> | 990.4         | 985.5         | 991.0         |
| 20°    | 976.5         | <i>986.6</i>  | 969.1         | 961.8         | 966.1         |
| 22.5°  | 954.0         | <i>964.1</i>  | 945.4         | 934.5         | 940.0         |
| 25°    | 917.2         | <i>925.9</i>  | 909.8         | 893.6         | 897.9         |
| 27.5°  | 877.8         | <i>884.5</i>  | 868.3         | 851.7         | 853.2         |
| 30°    | 850.5         | <i>854.9</i>  | 838.7         | 820.9         | 822.4         |
| 32.5°  | 822.1         | <i>825.3</i>  | 807.9         | 788.9         | 789.2         |
| 35°    | 779.4         | <i>782.3</i>  | 760.1         | 742.4         | 742.4         |
| 37.5°  | 734.1         | <i>735.8</i>  | 712.1         | 692.8         | 690.8         |
| 40°    | 700.9         | <i>703.8</i>  | 680.1         | 660.8         | 656.4         |
| 42.5°  | 670.0         | <i>670.6</i>  | 649.3         | 629.9         | 624.4         |
| 45°    | 625.3         | <i>622.4</i>  | 601.6         | 580.6         | 572.0         |
| 47.5°  | 577.0         | <i>577.0</i>  | 553.3         | 532.4         | 524.2         |
| 50°    | 543.8         | <i>543.8</i>  | 520.1         | 499.2         | 493.4         |
| 52.5°  | 513.0         | <i>511.8</i>  | 489.3         | 468.3         | 460.2         |
| 55°    | 466.8         | <i>465.3</i>  | 443.0         | 422.2         | 416.4         |
| 57.5°  | 417.9         | <i>417.9</i>  | 397.1         | 374.7         | 368.4         |
| 60°    | 388.2         | <i>388.2</i>  | 367.5         | 345.1         | 336.4         |
| 62.5°  | 356.2         | <i>355.1</i>  | 334.3         | 314.3         | 309.1         |
| 65°    | 311.2         | <i>308.3</i>  | 288.9         | 271.1         | 266.7         |
| 67.5°  | 268.2         | <i>265.3</i>  | 244.8         | 230.5         | 227.6         |
| 70°    | 238.6         | <i>235.7</i>  | 216.3         | 204.4         | 201.5         |
| 72.5°  | 210.1         | <i>206.1</i>  | 189.1         | 179.5         | 176.6         |
| 75°    | 168.9         | <i>163.1</i>  | 149.7         | 143.7         | 142.2         |
| 77.5°  | 129.8         | <i>119.9</i>  | 114.4         | 110.2         | 108.8         |
| 80°    | 103.7         | <i>95.0</i>   | 91.9          | 88.9          | 87.4          |
| 82.5°  | 81.2          | <i>72.5</i>   | 71.7          | 69.9          | 68.5          |
| 85°    | 48.9          | <i>43.1</i>   | 43.0          | 41.5          | 40.0          |
| 87.5°  | 21.3          | <i>18.6</i>   | 19.2          | 19.3          | 19.3          |
| 90°    | 5.9           | <i>9.4</i>    | 13.0          | 13.6          | 13.6          |
| 92.5°  | 15.6          | <i>14.4</i>   | 15.5          | 19.0          | 19.4          |
| 95°    | 28.3          | <i>36.5</i>   | 20.9          | 23.0          | 25.5          |
| 97.5°  | 39.5          | <i>64.5</i>   | 124.8         | 38.2          | 32.3          |
| 100°   | 49.4          | <i>79.1</i>   | 245.1         | 72.7          | 48.7          |
| 102.5° | 58.0          | <i>89.4</i>   | 330.4         | 189.5         | 103.3         |
| 105°   | 71.0          | <i>102.2</i>  | 374.3         | 475.9         | 313.9         |
| 107.5° | 85.5          | <i>108.6</i>  | 357.5         | 691.9         | 646.7         |
| 110°   | 94.2          | <i>116.8</i>  | 347.7         | 727.0         | 779.7         |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 104.0 | 126.6 | 337.8 | 706.5 | 796.1 |
| 115°   | 117.3 | 139.9 | 321.6 | 665.3 | 777.6 |
| 117.5° | 132.5 | 154.7 | 317.9 | 622.3 | 737.8 |
| 120°   | 144.0 | 164.6 | 311.3 | 589.6 | 709.9 |
| 122.5° | 151.0 | 174.4 | 303.1 | 561.4 | 672.2 |
| 125°   | 165.1 | 187.1 | 303.1 | 527.5 | 623.8 |
| 127.5° | 175.5 | 199.1 | 303.5 | 488.0 | 583.1 |
| 130°   | 182.0 | 206.1 | 305.2 | 461.7 | 551.9 |
| 132.5° | 189.1 | 213.1 | 304.0 | 449.8 | 524.0 |
| 135°   | 201.1 | 223.1 | 303.7 | 434.4 | 498.6 |
| 137.5° | 211.3 | 235.0 | 303.7 | 417.4 | 472.3 |
| 140°   | 219.5 | 241.6 | 303.7 | 407.4 | 457.6 |
| 142.5° | 227.8 | 248.2 | 305.3 | 395.8 | 442.8 |
| 145°   | 238.0 | 258.1 | 305.7 | 378.4 | 418.6 |
| 147.5° | 250.3 | 268.0 | 308.2 | 365.9 | 396.8 |
| 150°   | 258.5 | 274.6 | 309.8 | 357.6 | 383.7 |
| 152.5° | 266.7 | 281.2 | 309.8 | 350.9 | 372.2 |
| 155°   | 279.0 | 289.1 | 311.9 | 343.0 | 359.1 |
| 157.5° | 288.9 | 298.5 | 314.3 | 338.0 | 349.6 |
| 160°   | 295.5 | 303.5 | 316.0 | 334.7 | 344.7 |
| 162.5° | 300.4 | 308.4 | 317.6 | 333.0 | 339.8 |
| 165°   | 309.8 | 313.8 | 320.1 | 328.4 | 334.4 |
| 167.5° | 315.2 | 318.8 | 322.1 | 326.3 | 329.9 |
| 170°   | 320.1 | 322.1 | 322.1 | 326.3 | 328.3 |
| 172.5° | 321.7 | 325.3 | 323.8 | 324.6 | 326.7 |
| 175°   | 326.2 | 328.2 | 326.2 | 324.1 | 322.1 |
| 177.5° | 326.2 | 327.8 | 326.2 | 326.2 | 324.6 |
| 180°   | 326.2 | 326.2 | 326.2 | 326.2 | 326.2 |

(END OF REPORT)