

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: NEO-RAY

Report Number: P199551

Luminaire Tested: **S125-DIW-U2-LO-35-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P199551  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27900 P27900)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125-DIW-U2-LO-35-0048-1D-UDD-1-5-W  
Description: DEFINE 5-INCH DIRECT/INDIRECT WALL LED LUMINAIRE  
UPLIGHT LL2-3500K, SATIN WHITE DIFFUSER  
DOWNLIGHT LLO-3500K, SATIN WHITE DIFFUSER  
Light Source: -  
757G  
Ballast/Driver: ELECTRONIC DRIVERS

**Summary**

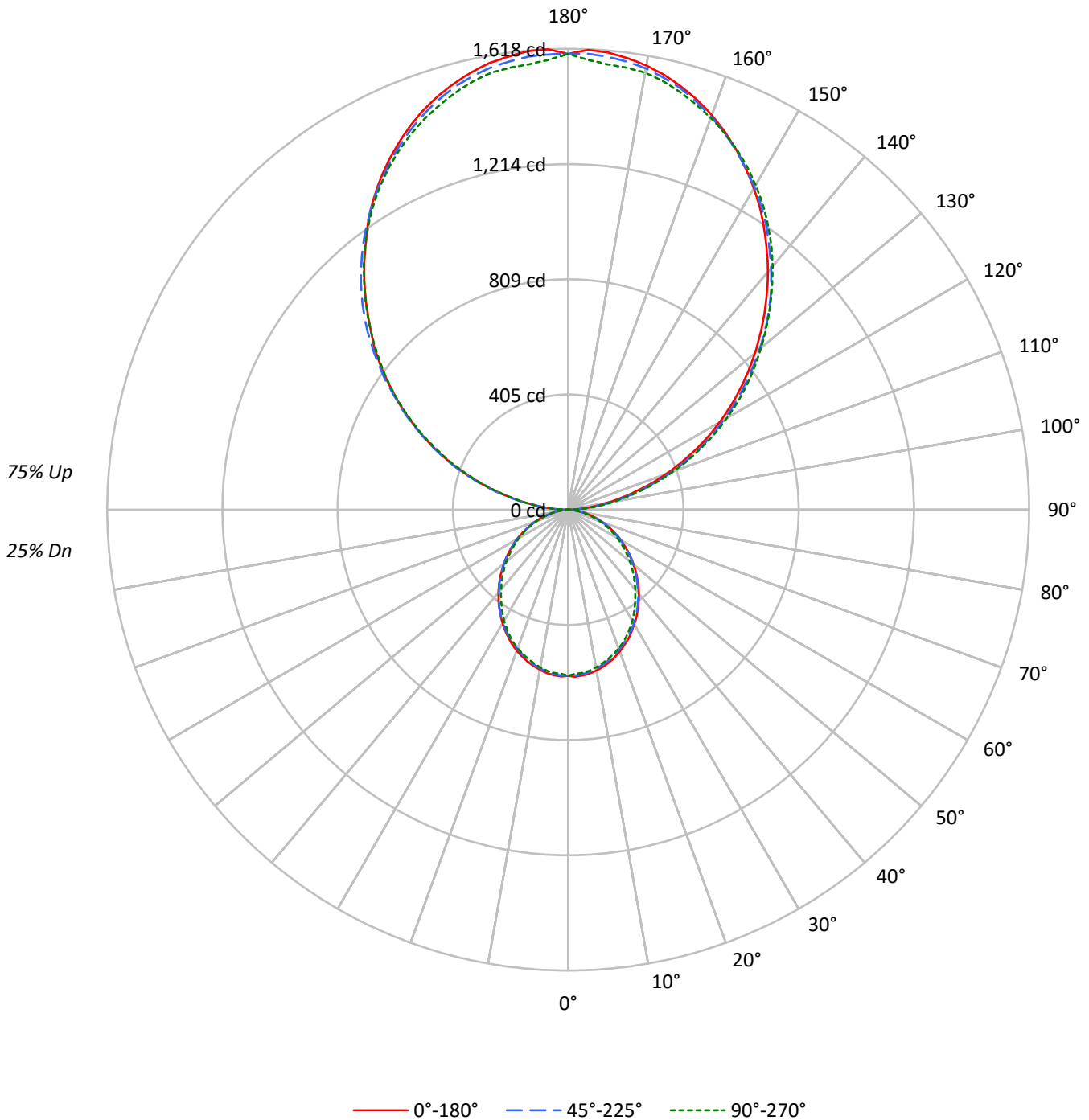
Lumens per Lamp: N/A  
Luminaire Lumens: 5766.2 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.16 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4.08' x H: 0.38')  
CIE Type: Semi-Indirect

Input Watts (W): 52.3  
Input Voltage (V): NR  
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: 25 FT

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### Luminous Intensity Polar Plot





TEST NUMBER: P199551

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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   | 101 | 101 | 101 | 101 | 90 | 90 | 90 | 90 | 70 | 70 | 70 | 51 | 51 | 51 | 33 | 33 | 33 | 25 |
| 1   | 92  | 88  | 84  | 81  | 82 | 79 | 76 | 73 | 61 | 59 | 57 | 45 | 43 | 42 | 30 | 29 | 28 | 21 |
| 2   | 84  | 77  | 71  | 66  | 75 | 69 | 64 | 60 | 53 | 50 | 47 | 39 | 37 | 35 | 26 | 25 | 24 | 18 |
| 3   | 77  | 68  | 61  | 55  | 68 | 60 | 55 | 50 | 47 | 43 | 40 | 35 | 32 | 30 | 23 | 22 | 20 | 15 |
| 4   | 70  | 60  | 52  | 46  | 62 | 53 | 47 | 42 | 42 | 37 | 34 | 31 | 28 | 25 | 21 | 19 | 17 | 13 |
| 5   | 64  | 53  | 45  | 40  | 57 | 48 | 41 | 36 | 37 | 32 | 29 | 28 | 24 | 22 | 19 | 17 | 15 | 11 |
| 6   | 59  | 47  | 40  | 34  | 52 | 43 | 36 | 31 | 33 | 29 | 25 | 25 | 22 | 19 | 17 | 15 | 13 | 10 |
| 7   | 54  | 43  | 35  | 30  | 48 | 38 | 32 | 27 | 30 | 25 | 22 | 22 | 19 | 17 | 15 | 13 | 12 | 9  |
| 8   | 50  | 39  | 31  | 26  | 45 | 35 | 28 | 24 | 27 | 23 | 19 | 21 | 17 | 15 | 14 | 12 | 11 | 8  |
| 9   | 47  | 35  | 28  | 23  | 42 | 32 | 25 | 21 | 25 | 20 | 17 | 19 | 16 | 13 | 13 | 11 | 10 | 7  |
| 10  | 44  | 32  | 25  | 20  | 39 | 29 | 23 | 19 | 23 | 18 | 15 | 17 | 14 | 12 | 12 | 10 | 9  | 7  |

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

|     | 0°   | 90°  | 180° |
|-----|------|------|------|
| 0°  | 3690 | 3690 | 3690 |
| 5°  | 3680 | 3387 | 3674 |
| 10° | 3621 | 3116 | 3608 |
| 15° | 3548 | 2861 | 3525 |
| 20° | 3450 | 2628 | 3434 |
| 25° | 3347 | 2396 | 3318 |
| 30° | 3219 | 2165 | 3194 |
| 35° | 3095 | 1934 | 3059 |
| 40° | 2958 | 1723 | 2918 |
| 45° | 2813 | 1529 | 2772 |
| 50° | 2660 | 1344 | 2609 |
| 55° | 2495 | 1163 | 2436 |
| 60° | 2319 | 985  | 2255 |
| 65° | 2125 | 813  | 2049 |
| 70° | 1898 | 631  | 1808 |
| 75° | 1591 | 448  | 1482 |
| 80° | 1205 | 279  | 1102 |
| 85° | 719  | 122  | 630  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 54.8   | 1.0       |
| 10°-20°   | 153.9  | 2.7       |
| 20°-30°   | 226.2  | 3.9       |
| 30°-40°   | 261.2  | 4.5       |
| 40°-50°   | 258.9  | 4.5       |
| 50°-60°   | 224.6  | 3.9       |
| 60°-70°   | 164.0  | 2.8       |
| 70°-80°   | 89.6   | 1.6       |
| 80°-90°   | 23.3   | 0.4       |
| 90°-100°  | 79.2   | 1.4       |
| 100°-110° | 286.5  | 5.0       |
| 110°-120° | 509.8  | 8.8       |
| 120°-130° | 679.9  | 11.8      |
| 130°-140° | 769.1  | 13.3      |
| 140°-150° | 759.8  | 13.2      |
| 150°-160° | 643.4  | 11.2      |
| 160°-170° | 430.8  | 7.5       |
| 170°-180° | 151.2  | 2.6       |
| 0°-30°    | 434.9  | 7.5       |
| 0°-40°    | 696.2  | 12.1      |
| 0°-60°    | 1179.6 | 20.5      |
| 0°-90°    | 1456.6 | 25.3      |
| 90°-120°  | 875.5  | 15.2      |
| 90°-150°  | 3084.2 | 53.5      |
| 90°-180°  | 4310.0 | 74.7      |
| 0°-180°   | 5766.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|------|------|------|------|------|------|------|
| 0°   | 583  | 583  | 583  | 583  | 583  |      |
| 5°   | 584  | 580  | 575  | 579  | 583  | 55   |
| 15°  | 555  | 547  | 542  | 545  | 551  | 156  |
| 25°  | 500  | 493  | 487  | 491  | 496  | 230  |
| 35°  | 426  | 423  | 408  | 422  | 422  | 267  |
| 45°  | 343  | 339  | 325  | 337  | 338  | 265  |
| 55°  | 256  | 256  | 241  | 251  | 250  | 229  |
| 65°  | 170  | 168  | 159  | 164  | 164  | 168  |
| 75°  | 87   | 87   | 80   | 82   | 81   | 93   |
| 85°  | 20   | 21   | 19   | 19   | 18   | 23   |
| 90°  | 1    | 1    | 1    | 1    | 1    | 4    |
| 95°  | 55   | 65   | 72   | 76   | 70   | 62   |
| 105° | 243  | 262  | 272  | 282  | 277  | 260  |
| 115° | 489  | 509  | 517  | 528  | 525  | 484  |
| 125° | 735  | 753  | 766  | 777  | 768  | 657  |
| 135° | 974  | 998  | 1001 | 1021 | 999  | 752  |
| 145° | 1200 | 1213 | 1222 | 1229 | 1226 | 751  |
| 155° | 1395 | 1393 | 1397 | 1406 | 1415 | 642  |
| 165° | 1537 | 1530 | 1518 | 1537 | 1549 | 433  |
| 175° | 1611 | 1596 | 1570 | 1597 | 1616 | 153  |
| 180° | 1600 | 1600 | 1600 | 1600 | 1600 |      |



TEST NUMBER: P199551

CATALOG NUMBER: S125-DIW-U2-LO-35-0048-1D-UDD-1-5-W

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  |
|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 0°     | 583.2 | 583.2 | 583.2 | 583.2 | 583.2 | 583.2  | 583.2 | 583.2  | 583.2 |
| 2.5°   | 587.1 | 581.0 | 582.5 | 581.4 | 576.4 | 580.7  | 582.1 | 580.0  | 586.4 |
| 5°     | 584.2 | 578.2 | 579.6 | 578.2 | 575.3 | 577.5  | 578.9 | 576.7  | 583.2 |
| 7.5°   | 580.0 | 573.5 | 574.6 | 573.2 | 570.3 | 572.1  | 573.9 | 571.8  | 578.2 |
| 10°    | 572.8 | 566.8 | 567.1 | 565.3 | 562.1 | 564.3  | 566.0 | 564.3  | 570.7 |
| 12.5°  | 564.6 | 558.2 | 558.2 | 555.3 | 552.5 | 554.3  | 556.8 | 555.3  | 561.8 |
| 15°    | 555.0 | 548.2 | 547.1 | 545.3 | 542.1 | 544.3  | 545.3 | 545.0  | 551.4 |
| 17.5°  | 543.2 | 536.1 | 534.6 | 534.3 | 530.4 | 533.2  | 533.6 | 532.5  | 540.3 |
| 20°    | 529.6 | 522.9 | 521.8 | 521.4 | 518.2 | 520.4  | 520.4 | 518.9  | 527.1 |
| 22.5°  | 514.6 | 508.2 | 507.9 | 507.2 | 503.6 | 506.1  | 506.1 | 503.9  | 512.2 |
| 25°    | 500.0 | 492.2 | 493.2 | 491.5 | 487.2 | 490.7  | 491.1 | 487.5  | 495.7 |
| 27.5°  | 481.8 | 475.7 | 477.9 | 474.7 | 469.0 | 473.6  | 475.7 | 470.4  | 479.0 |
| 30°    | 464.0 | 457.5 | 461.1 | 455.4 | 450.4 | 454.7  | 458.6 | 451.8  | 460.4 |
| 32.5°  | 446.5 | 439.0 | 443.3 | 436.1 | 429.0 | 434.3  | 440.8 | 434.3  | 441.1 |
| 35°    | 426.5 | 420.4 | 422.9 | 415.4 | 408.3 | 413.6  | 421.5 | 415.4  | 421.5 |
| 37.5°  | 406.5 | 401.5 | 403.3 | 394.4 | 387.2 | 392.6  | 400.8 | 396.2  | 401.5 |
| 40°    | 385.8 | 382.2 | 382.2 | 373.3 | 366.2 | 371.2  | 379.7 | 377.2  | 380.5 |
| 42.5°  | 364.4 | 363.0 | 360.1 | 352.3 | 345.5 | 350.5  | 358.7 | 358.0  | 359.4 |
| 45°    | 343.3 | 343.3 | 338.7 | 330.5 | 324.8 | 329.4  | 336.9 | 338.7  | 338.3 |
| 47.5°  | 321.6 | 323.4 | 319.4 | 310.5 | 304.1 | 308.7  | 315.5 | 318.7  | 315.1 |
| 50°    | 299.8 | 303.0 | 298.0 | 290.2 | 283.0 | 288.0  | 293.7 | 298.0  | 294.1 |
| 52.5°  | 278.0 | 282.0 | 276.6 | 269.1 | 262.0 | 266.6  | 272.3 | 277.3  | 272.3 |
| 55°    | 255.9 | 260.5 | 255.5 | 247.7 | 240.9 | 245.2  | 250.9 | 255.9  | 249.8 |
| 57.5°  | 234.1 | 238.4 | 234.1 | 226.3 | 219.9 | 223.8  | 229.8 | 233.8  | 228.4 |
| 60°    | 212.4 | 217.0 | 212.7 | 205.2 | 199.2 | 202.4  | 208.1 | 212.0  | 206.6 |
| 62.5°  | 190.9 | 194.9 | 190.2 | 184.2 | 179.5 | 180.9  | 186.3 | 190.9  | 185.2 |
| 65°    | 169.9 | 173.5 | 168.5 | 163.1 | 159.2 | 159.9  | 164.5 | 167.0  | 163.8 |
| 67.5°  | 149.2 | 153.1 | 147.8 | 142.8 | 138.1 | 139.5  | 143.5 | 147.0  | 143.1 |
| 70°    | 128.5 | 132.4 | 126.7 | 122.4 | 118.5 | 119.2  | 122.4 | 126.3  | 122.4 |
| 72.5°  | 108.1 | 111.4 | 107.4 | 102.4 | 99.6  | 100.3  | 102.1 | 105.6  | 101.7 |
| 75°    | 87.4  | 91.0  | 86.7  | 82.8  | 79.9  | 80.7   | 81.7  | 84.6   | 81.4  |
| 77.5°  | 68.2  | 70.7  | 67.8  | 64.6  | 62.8  | 63.2   | 63.5  | 65.7   | 62.8  |
| 80°    | 50.3  | 52.5  | 50.7  | 48.2  | 46.8  | 46.8   | 46.8  | 48.5   | 46.0  |
| 82.5°  | 34.3  | 36.4  | 35.0  | 33.2  | 32.1  | 31.1   | 31.8  | 33.2   | 31.1  |
| 85°    | 20.3  | 22.1  | 21.4  | 19.6  | 18.9  | 18.2   | 18.9  | 19.6   | 17.8  |
| 87.5°  | 9.3   | 10.7  | 9.6   | 7.9   | 7.1   | 6.4    | 6.4   | 7.5    | 6.1   |
| 90°    | 0.7   | 1.8   | 1.4   | 1.1   | 0.7   | 0.7    | 1.1   | 1.4    | 0.7   |
| 92.5°  | 19.0  | 26.0  | 26.0  | 23.0  | 28.0  | 32.0   | 39.0  | 39.0   | 34.0  |
| 95°    | 55.0  | 62.0  | 65.0  | 67.0  | 72.0  | 74.0   | 76.0  | 76.0   | 70.0  |
| 97.5°  | 94.0  | 104.0 | 106.0 | 109.0 | 115.0 | 116.0  | 119.0 | 120.0  | 113.0 |
| 100°   | 138.0 | 150.0 | 152.0 | 156.0 | 163.0 | 164.0  | 168.0 | 170.0  | 163.0 |
| 102.5° | 188.0 | 202.0 | 205.0 | 208.0 | 213.0 | 217.0  | 222.0 | 225.0  | 217.0 |
| 105°   | 243.0 | 260.0 | 262.0 | 266.0 | 272.0 | 276.0  | 282.0 | 284.0  | 277.0 |
| 107.5° | 304.0 | 317.0 | 323.0 | 325.0 | 331.0 | 335.0  | 343.0 | 344.0  | 338.0 |
| 110°   | 364.0 | 376.0 | 384.0 | 386.0 | 392.0 | 396.0  | 404.0 | 404.0  | 399.0 |



TEST NUMBER: P199551

CATALOG NUMBER: S125-DIW-U2-LO-35-0048-1D-UDD-1-5-W

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 426.0  | 439.0  | 446.0  | 448.0  | 455.0  | 458.0  | 466.0  | 467.0  | 462.0  |
| 115°   | 489.0  | 501.0  | 509.0  | 511.0  | 517.0  | 521.0  | 528.0  | 530.0  | 525.0  |
| 117.5° | 552.0  | 564.0  | 570.0  | 574.0  | 581.0  | 584.0  | 588.0  | 591.0  | 586.0  |
| 120°   | 613.0  | 625.0  | 630.0  | 636.0  | 643.0  | 646.0  | 652.0  | 650.0  | 647.0  |
| 122.5° | 675.0  | 686.0  | 691.0  | 698.0  | 706.0  | 707.0  | 711.0  | 710.0  | 708.0  |
| 125°   | 735.0  | 744.0  | 753.0  | 757.0  | 766.0  | 766.0  | 777.0  | 768.0  | 768.0  |
| 127.5° | 796.0  | 803.0  | 815.0  | 817.0  | 825.0  | 826.0  | 839.0  | 826.0  | 829.0  |
| 130°   | 856.0  | 861.0  | 877.0  | 877.0  | 883.0  | 885.0  | 902.0  | 884.0  | 888.0  |
| 132.5° | 915.0  | 919.0  | 938.0  | 936.0  | 942.0  | 944.0  | 963.0  | 942.0  | 941.0  |
| 135°   | 974.0  | 976.0  | 998.0  | 995.0  | 1001.0 | 1004.0 | 1021.0 | 998.0  | 999.0  |
| 137.5° | 1032.0 | 1031.0 | 1054.0 | 1053.0 | 1059.0 | 1061.0 | 1077.0 | 1050.0 | 1057.0 |
| 140°   | 1091.0 | 1084.0 | 1108.0 | 1110.0 | 1116.0 | 1118.0 | 1129.0 | 1108.0 | 1114.0 |
| 142.5° | 1145.0 | 1142.0 | 1160.0 | 1163.0 | 1171.0 | 1171.0 | 1181.0 | 1160.0 | 1168.0 |
| 145°   | 1200.0 | 1193.0 | 1213.0 | 1213.0 | 1222.0 | 1221.0 | 1229.0 | 1215.0 | 1226.0 |
| 147.5° | 1254.0 | 1245.0 | 1262.0 | 1263.0 | 1271.0 | 1271.0 | 1278.0 | 1264.0 | 1278.0 |
| 150°   | 1303.0 | 1295.0 | 1307.0 | 1308.0 | 1316.0 | 1315.0 | 1322.0 | 1315.0 | 1327.0 |
| 152.5° | 1350.0 | 1342.0 | 1350.0 | 1349.0 | 1359.0 | 1356.0 | 1365.0 | 1359.0 | 1373.0 |
| 155°   | 1395.0 | 1386.0 | 1393.0 | 1389.0 | 1397.0 | 1396.0 | 1406.0 | 1404.0 | 1415.0 |
| 157.5° | 1436.0 | 1426.0 | 1432.0 | 1427.0 | 1432.0 | 1433.0 | 1444.0 | 1443.0 | 1455.0 |
| 160°   | 1474.0 | 1464.0 | 1468.0 | 1459.0 | 1464.0 | 1465.0 | 1479.0 | 1479.0 | 1491.0 |
| 162.5° | 1508.0 | 1497.0 | 1501.0 | 1487.0 | 1492.0 | 1492.0 | 1510.0 | 1510.0 | 1522.0 |
| 165°   | 1537.0 | 1527.0 | 1530.0 | 1513.0 | 1518.0 | 1519.0 | 1537.0 | 1538.0 | 1549.0 |
| 167.5° | 1563.0 | 1552.0 | 1553.0 | 1537.0 | 1541.0 | 1542.0 | 1558.0 | 1560.0 | 1573.0 |
| 170°   | 1583.0 | 1573.0 | 1573.0 | 1555.0 | 1558.0 | 1559.0 | 1576.0 | 1579.0 | 1592.0 |
| 172.5° | 1599.0 | 1588.0 | 1586.0 | 1567.0 | 1565.0 | 1570.0 | 1587.0 | 1593.0 | 1605.0 |
| 175°   | 1611.0 | 1599.0 | 1596.0 | 1577.0 | 1570.0 | 1580.0 | 1597.0 | 1602.0 | 1616.0 |
| 177.5° | 1616.0 | 1604.0 | 1602.0 | 1582.0 | 1581.0 | 1584.0 | 1600.0 | 1606.0 | 1618.0 |
| 180°   | 1600.0 | 1600.0 | 1600.0 | 1600.0 | 1600.0 | 1600.0 | 1600.0 | 1600.0 | 1600.0 |

(END OF REPORT)