

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1175391

Luminaire Tested: S125RDRP-S850D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1175391  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-82)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/18/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S850D950-X4F0-XX-UDD-WVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

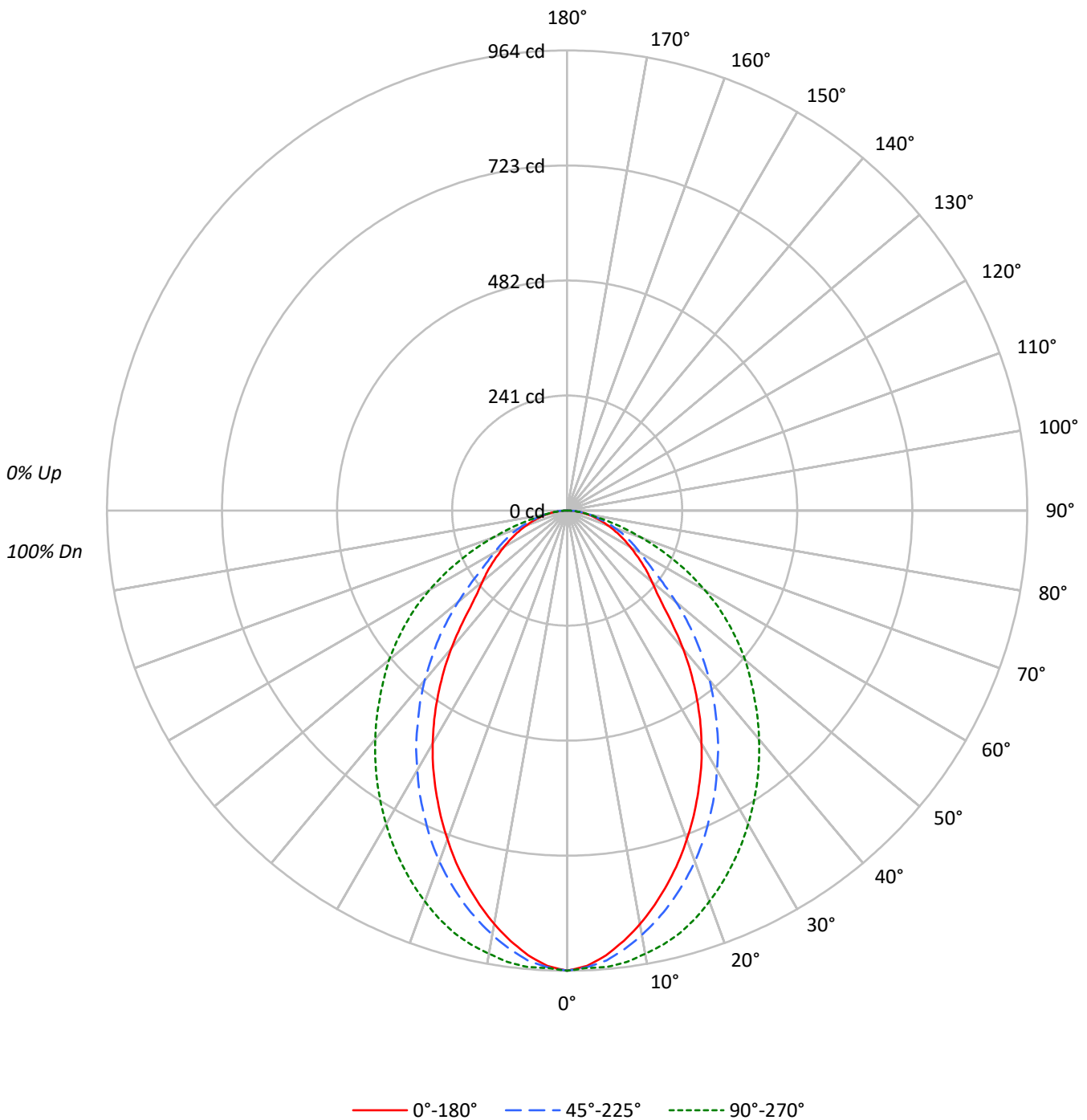
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1816.0 lumens  
Efficiency: N/A  
Efficacy: 70.4 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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





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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 | 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 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 88  | 86  |    |    |    |    |    |    |    |    |    |    |    | 86  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 86  | 82  | 89  | 84  | 80  | 85  | 81  | 78  | 82  | 79  | 76  | 74  |    |    |    |    |    |    |    |    |    |    |    | 74  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 93  | 84  | 76  | 71  | 91  | 82  | 75  | 70  | 79  | 73  | 69  | 77  | 72  | 68  | 74  | 70  | 66  | 64  |    |    |    |    |    |    |    |    |    |    |    | 64  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 66  | 61  | 72  | 65  | 60  | 69  | 64  | 59  | 67  | 62  | 58  | 56  |    |    |    |    |    |    |    |    |    |    |    | 56  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 80  | 68  | 60  | 54  | 78  | 67  | 59  | 53  | 65  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 52  | 50  |    |    |    |    |    |    |    |    |    |    |    | 50  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 74  | 62  | 54  | 48  | 72  | 61  | 53  | 47  | 59  | 52  | 47  | 58  | 51  | 47  | 56  | 51  | 46  | 44  |    |    |    |    |    |    |    |    |    |    |    | 44  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 69  | 57  | 48  | 43  | 68  | 56  | 48  | 43  | 54  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  | 40  |    |    |    |    |    |    |    |    |    |    |    | 40  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 65  | 52  | 44  | 39  | 63  | 51  | 44  | 39  | 50  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |    |    |    |    |    |    |    |    |    |    |    | 36  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 61  | 48  | 40  | 35  | 59  | 48  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 44  | 39  | 35  | 33  |    |    |    |    |    |    |    |    |    |    |    | 33  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 57  | 45  | 37  | 32  | 56  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 41  | 36  | 32  | 30  |    |    |    |    |    |    |    |    |    |    |    | 30  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6637 | 6637 | 6637 |
| 5°  | 6464 | 6538 | 6634 |
| 10° | 6150 | 6310 | 6590 |
| 15° | 5780 | 6043 | 6527 |
| 20° | 5372 | 5732 | 6386 |
| 25° | 4936 | 5371 | 6217 |
| 30° | 4476 | 4990 | 6030 |
| 35° | 3961 | 4588 | 5832 |
| 40° | 3397 | 4170 | 5619 |
| 45° | 2789 | 3713 | 5402 |
| 50° | 2481 | 3191 | 5215 |
| 55° | 2289 | 2672 | 4950 |
| 60° | 2107 | 2433 | 4586 |
| 65° | 1960 | 2292 | 4053 |
| 70° | 1828 | 2142 | 3312 |
| 75° | 1719 | 1982 | 2482 |
| 80° | 1622 | 1816 | 1784 |
| 85° | 1485 | 1809 | 1485 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5402 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 89.2   | 4.9       |
| 10°-20°   | 240.5  | 13.2      |
| 20°-30°   | 330.9  | 18.2      |
| 30°-40°   | 351.0  | 19.3      |
| 40°-50°   | 307.2  | 16.9      |
| 50°-60°   | 235.7  | 13.0      |
| 60°-70°   | 157.0  | 8.6       |
| 70°-80°   | 80.5   | 4.4       |
| 80°-90°   | 23.9   | 1.3       |
| 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°    | 660.7  | 36.4      |
| 0°-40°    | 1011.7 | 55.7      |
| 0°-60°    | 1554.6 | 85.6      |
| 0°-90°    | 1816.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1816.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 964 | 964   | 964 | 964   | 964 |      |
| 5°  | 935 | 948   | 946 | 952   | 960 | 88   |
| 15° | 811 | 830   | 848 | 888   | 916 | 227  |
| 25° | 650 | 672   | 707 | 767   | 818 | 298  |
| 35° | 471 | 493   | 546 | 626   | 694 | 294  |
| 45° | 286 | 310   | 381 | 476   | 555 | 226  |
| 55° | 191 | 195   | 223 | 331   | 412 | 171  |
| 65° | 120 | 121   | 141 | 185   | 249 | 120  |
| 75° | 65  | 69    | 74  | 79    | 93  | 69   |
| 85° | 19  | 21    | 23  | 22    | 19  | 21   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 963.9 | 963.9 | 963.9 | 963.9 | 963.9 |
| 2.5°  | 954.9 | 964.7 | 957.4 | 958.2 | 959.0 |
| 5°    | 935.3 | 947.6 | 945.9 | 952.5 | 959.8 |
| 7.5°  | 909.1 | 922.2 | 926.3 | 942.6 | 954.1 |
| 10°   | 879.6 | 894.4 | 902.6 | 927.1 | 942.6 |
| 12.5° | 846.1 | 863.3 | 876.4 | 908.3 | 931.2 |
| 15°   | 810.9 | 829.7 | 847.7 | 887.8 | 915.6 |
| 17.5° | 773.3 | 792.1 | 815.8 | 861.6 | 895.2 |
| 20°   | 733.2 | 753.6 | 782.3 | 831.4 | 871.5 |
| 22.5° | 692.3 | 713.5 | 746.3 | 800.3 | 846.1 |
| 25°   | 649.7 | 671.8 | 707.0 | 766.7 | 818.3 |
| 27.5° | 608.0 | 628.4 | 669.3 | 733.2 | 789.6 |
| 30°   | 563.0 | 584.2 | 627.6 | 698.0 | 758.5 |
| 32.5° | 518.0 | 539.2 | 589.2 | 662.8 | 726.6 |
| 35°   | 471.3 | 493.4 | 545.8 | 626.0 | 693.9 |
| 37.5° | 424.7 | 447.6 | 505.7 | 588.3 | 660.3 |
| 40°   | 378.0 | 402.6 | 464.0 | 550.7 | 625.2 |
| 42.5° | 330.6 | 356.8 | 421.4 | 513.9 | 590.8 |
| 45°   | 286.4 | 310.1 | 381.3 | 476.2 | 554.8 |
| 47.5° | 254.5 | 268.4 | 338.8 | 437.8 | 520.4 |
| 50°   | 231.6 | 238.1 | 297.9 | 401.0 | 486.9 |
| 52.5° | 211.1 | 215.2 | 257.8 | 366.6 | 450.0 |
| 55°   | 190.7 | 194.7 | 222.6 | 330.6 | 412.4 |
| 57.5° | 171.0 | 173.5 | 196.4 | 294.6 | 374.8 |
| 60°   | 153.0 | 154.7 | 176.7 | 258.6 | 333.0 |
| 62.5° | 136.7 | 137.5 | 157.9 | 221.8 | 291.3 |
| 65°   | 120.3 | 121.1 | 140.7 | 184.9 | 248.8 |
| 67.5° | 105.6 | 105.6 | 124.4 | 151.4 | 207.8 |
| 70°   | 90.8  | 90.8  | 106.4 | 122.7 | 164.5 |
| 72.5° | 77.7  | 79.4  | 90.0  | 99.0  | 128.5 |
| 75°   | 64.6  | 68.7  | 74.5  | 78.6  | 93.3  |
| 77.5° | 52.4  | 57.3  | 59.7  | 61.4  | 62.2  |
| 80°   | 40.9  | 44.2  | 45.8  | 46.6  | 45.0  |
| 82.5° | 30.3  | 32.7  | 33.5  | 33.5  | 31.1  |
| 85°   | 18.8  | 21.3  | 22.9  | 22.1  | 18.8  |
| 87.5° | 9.0   | 12.3  | 13.1  | 11.5  | 9.0   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 13.19            | 14.69 | 13.56 | 15.00 | 15.32 | 17.22          | 18.72 | 17.58 | 19.03 | 19.34 |
|                 | 3H   | 14.78            | 16.12 | 15.16 | 16.45 | 16.81 | 18.60          | 19.95 | 18.98 | 20.28 | 20.64 |
|                 | 4H   | 15.42            | 16.68 | 15.82 | 17.03 | 17.41 | 19.01          | 20.27 | 19.41 | 20.62 | 21.00 |
|                 | 6H   | 15.93            | 17.09 | 16.34 | 17.46 | 17.85 | 19.22          | 20.38 | 19.63 | 20.75 | 21.14 |
|                 | 8H   | 16.11            | 17.22 | 16.54 | 17.61 | 18.01 | 19.27          | 20.38 | 19.70 | 20.77 | 21.17 |
|                 | 12H  | 16.24            | 17.30 | 16.67 | 17.68 | 18.11 | 19.31          | 20.37 | 19.74 | 20.75 | 21.18 |
| 4H              | 2H   | 13.96            | 15.22 | 14.36 | 15.57 | 15.95 | 17.35          | 18.61 | 17.75 | 18.96 | 19.33 |
|                 | 3H   | 15.74            | 16.79 | 16.15 | 17.19 | 17.59 | 18.92          | 19.96 | 19.33 | 20.36 | 20.76 |
|                 | 4H   | 16.51            | 17.45 | 16.94 | 17.87 | 18.31 | 19.43          | 20.37 | 19.86 | 20.78 | 21.22 |
|                 | 6H   | 17.15            | 17.97 | 17.61 | 18.41 | 18.87 | 19.75          | 20.57 | 20.21 | 21.01 | 21.47 |
|                 | 8H   | 17.38            | 18.15 | 17.84 | 18.59 | 19.06 | 19.85          | 20.62 | 20.32 | 21.06 | 21.53 |
|                 | 12H  | 17.55            | 18.24 | 18.03 | 18.71 | 19.19 | 19.92          | 20.61 | 20.41 | 21.09 | 21.56 |
| 8H              | 4H   | 16.89            | 17.66 | 17.36 | 18.10 | 18.57 | 19.53          | 20.29 | 19.99 | 20.74 | 21.20 |
|                 | 6H   | 17.67            | 18.30 | 18.17 | 18.80 | 19.27 | 19.94          | 20.58 | 20.44 | 21.07 | 21.55 |
|                 | 8H   | 17.99            | 18.56 | 18.50 | 19.07 | 19.55 | 20.10          | 20.67 | 20.62 | 21.18 | 21.67 |
|                 | 12H  | 18.25            | 18.75 | 18.76 | 19.24 | 19.81 | 20.24          | 20.74 | 20.75 | 21.24 | 21.80 |
| 12H             | 4H   | 16.93            | 17.62 | 17.42 | 18.10 | 18.57 | 19.52          | 20.21 | 20.01 | 20.69 | 21.16 |
|                 | 6H   | 17.75            | 18.31 | 18.26 | 18.82 | 19.31 | 19.96          | 20.53 | 20.47 | 21.04 | 21.52 |
|                 | 8H   | 18.13            | 18.63 | 18.64 | 19.12 | 19.69 | 20.17          | 20.67 | 20.68 | 21.16 | 21.73 |