

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: P1059352

Luminaire Tested: S123RDRP-S775D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059352  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDRP-S775D840-X4F0-XX-UDD-WVL-B  
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

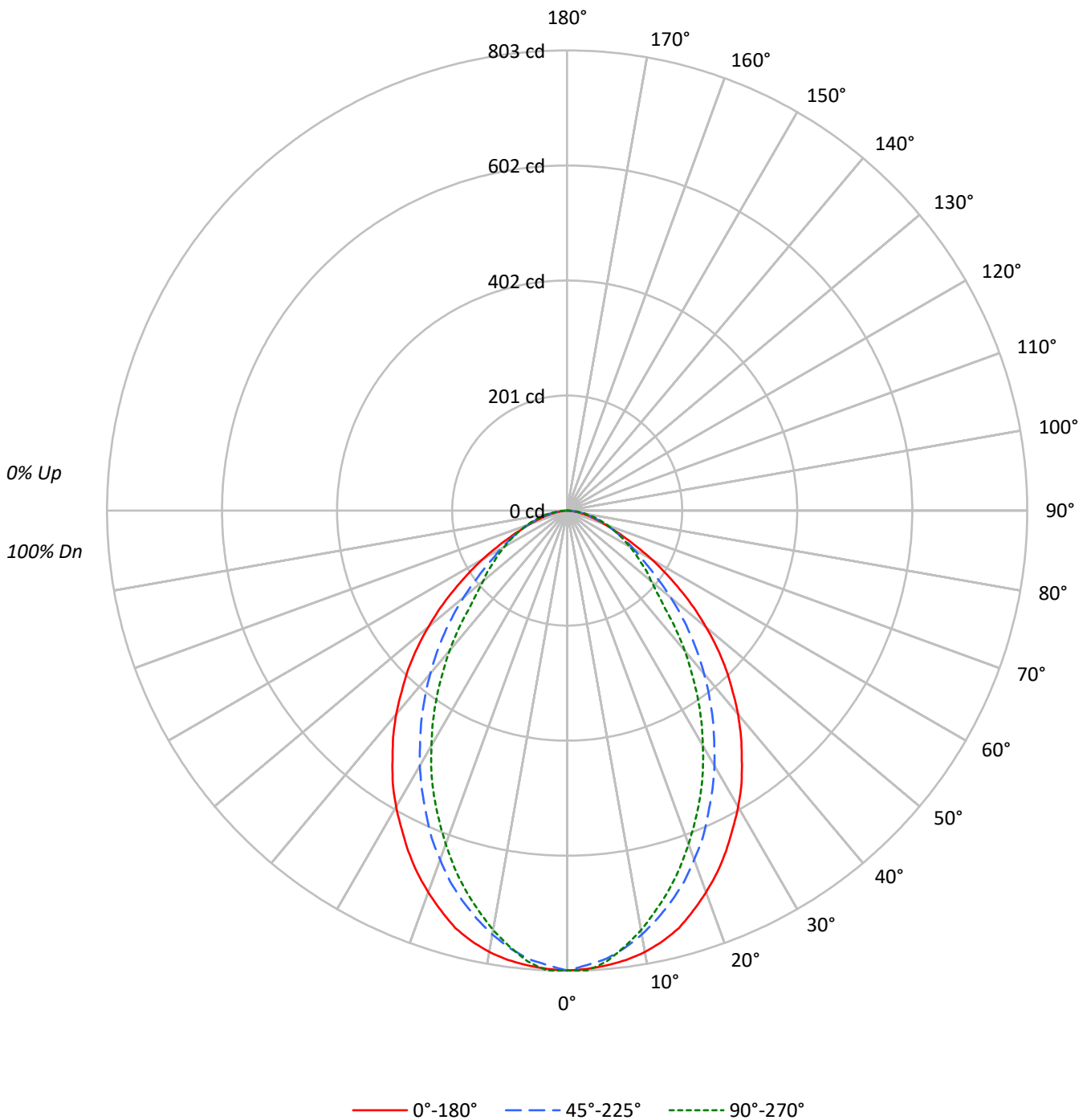
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1403.5 lumens  
Efficiency: N/A  
Efficacy: 54.4 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09  
Luminous Opening: Rectangular (W 0.23' 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

TEST NUMBER: P1059352

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-WVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1059352

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-WVL-B

**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   | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98  | 100 | 98  | 95  | 96  | 94  | 92  | 93  | 91  | 89  | 88  |    |    |    |    |    |    |    |    |    |    |    | 88  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 102 | 95  | 89  | 84  | 100 | 93  | 88  | 83  | 90  | 85  | 81  | 87  | 83  | 80  | 84  | 81  | 78  | 76  |    |    |    |    |    |    |    |    |    |    |    | 76  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 94  | 85  | 78  | 73  | 92  | 84  | 77  | 72  | 81  | 75  | 71  | 78  | 73  | 69  | 76  | 72  | 68  | 66  |    |    |    |    |    |    |    |    |    |    |    | 66  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 87  | 77  | 69  | 63  | 85  | 76  | 68  | 63  | 73  | 67  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 58  |    |    |    |    |    |    |    |    |    |    |    | 58  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 81  | 70  | 62  | 56  | 79  | 69  | 61  | 56  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 54  | 52  |    |    |    |    |    |    |    |    |    |    |    | 52  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 55  | 50  | 61  | 54  | 49  | 59  | 53  | 49  | 58  | 53  | 48  | 47  |    |    |    |    |    |    |    |    |    |    |    | 47  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 71  | 58  | 50  | 45  | 69  | 58  | 50  | 45  | 56  | 49  | 44  | 55  | 49  | 44  | 53  | 48  | 44  | 42  |    |    |    |    |    |    |    |    |    |    |    | 42  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 66  | 54  | 46  | 41  | 65  | 53  | 46  | 41  | 52  | 45  | 40  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |    |    |    |    |    |    |    |    |    | 38  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 62  | 50  | 42  | 37  | 61  | 49  | 42  | 37  | 48  | 41  | 37  | 47  | 41  | 37  | 46  | 41  | 37  | 35  |    |    |    |    |    |    |    |    |    |    |    | 35  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 58  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32  |    |    |    |    |    |    |    |    |    |    |    | 32  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9423 | 9423 | 9423 |
| 5°  | 9391 | 9254 | 9311 |
| 10° | 9327 | 8958 | 8866 |
| 15° | 9169 | 8570 | 8336 |
| 20° | 8858 | 8099 | 7738 |
| 25° | 8497 | 7547 | 7123 |
| 30° | 8095 | 6971 | 6422 |
| 35° | 7618 | 6346 | 5682 |
| 40° | 7111 | 5692 | 4893 |
| 45° | 6518 | 5028 | 4020 |
| 50° | 5780 | 4317 | 3489 |
| 55° | 4917 | 3613 | 3198 |
| 60° | 4009 | 3149 | 2966 |
| 65° | 3056 | 2787 | 2759 |
| 70° | 2383 | 2482 | 2582 |
| 75° | 1924 | 2232 | 2405 |
| 80° | 1434 | 1826 | 2218 |
| 85° | 781  | 1172 | 1954 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6518 cd/sqm



TEST NUMBER: P1059352

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-WVL-B

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 74.5   | 5.3       |
| 10°-20°   | 200.4  | 14.3      |
| 20°-30°   | 272.4  | 19.4      |
| 30°-40°   | 282.4  | 20.1      |
| 40°-50°   | 238.2  | 17.0      |
| 50°-60°   | 169.1  | 12.0      |
| 60°-70°   | 103.3  | 7.4       |
| 70°-80°   | 51.4   | 3.7       |
| 80°-90°   | 11.7   | 0.8       |
| 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°    | 547.3  | 39.0      |
| 0°-40°    | 829.8  | 59.1      |
| 0°-60°    | 1237.1 | 88.1      |
| 0°-90°    | 1403.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1403.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 802 | 802   | 802 | 802   | 802 |      |
| 5°  | 797 | 797   | 785 | 790   | 790 | 76   |
| 15° | 754 | 740   | 705 | 692   | 686 | 212  |
| 25° | 656 | 627   | 582 | 561   | 550 | 301  |
| 35° | 531 | 491   | 443 | 412   | 396 | 332  |
| 45° | 392 | 351   | 303 | 261   | 242 | 301  |
| 55° | 240 | 215   | 176 | 161   | 156 | 216  |
| 65° | 110 | 106   | 100 | 100   | 99  | 112  |
| 75° | 42  | 45    | 49  | 51    | 53  | 46   |
| 85° | 6   | 7     | 9   | 12    | 14  | 8    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



TEST NUMBER: P1059352

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-WVL-B

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 802.5 | 802.5 | 802.5 | 802.5 | 802.5 |
| 2.5°  | 800.5 | 801.5 | 793.8 | 802.5 | 803.4 |
| 5°    | 796.7 | 796.7 | 785.1 | 789.9 | 789.9 |
| 7.5°  | 790.9 | 788.9 | 769.7 | 769.7 | 767.7 |
| 10°   | 782.2 | 776.4 | 751.3 | 746.5 | 743.6 |
| 12.5° | 769.7 | 760.0 | 729.1 | 720.5 | 714.7 |
| 15°   | 754.2 | 739.8 | 705.0 | 692.5 | 685.7 |
| 17.5° | 732.0 | 717.6 | 679.0 | 661.6 | 653.9 |
| 20°   | 708.9 | 687.7 | 648.1 | 630.8 | 619.2 |
| 22.5° | 683.8 | 656.8 | 618.2 | 597.0 | 584.5 |
| 25°   | 655.8 | 626.9 | 582.5 | 561.3 | 549.8 |
| 27.5° | 625.9 | 594.1 | 548.8 | 524.7 | 513.1 |
| 30°   | 597.0 | 560.4 | 514.1 | 487.1 | 473.6 |
| 32.5° | 566.2 | 524.7 | 477.4 | 449.4 | 435.9 |
| 35°   | 531.4 | 490.9 | 442.7 | 411.8 | 396.4 |
| 37.5° | 498.6 | 457.2 | 407.0 | 374.2 | 356.9 |
| 40°   | 463.9 | 422.4 | 371.3 | 337.6 | 319.2 |
| 42.5° | 427.3 | 387.7 | 337.6 | 298.0 | 280.7 |
| 45°   | 392.5 | 351.1 | 302.8 | 261.4 | 242.1 |
| 47.5° | 354.9 | 316.4 | 269.1 | 226.7 | 213.2 |
| 50°   | 316.4 | 280.7 | 236.3 | 197.7 | 191.0 |
| 52.5° | 278.7 | 248.8 | 203.5 | 178.4 | 175.5 |
| 55°   | 240.2 | 215.1 | 176.5 | 161.1 | 156.2 |
| 57.5° | 204.5 | 186.1 | 151.4 | 143.7 | 141.8 |
| 60°   | 170.7 | 155.3 | 134.1 | 129.2 | 126.3 |
| 62.5° | 137.9 | 129.2 | 116.7 | 114.8 | 112.8 |
| 65°   | 110.0 | 106.1 | 100.3 | 100.3 | 99.3  |
| 67.5° | 86.8  | 86.8  | 85.8  | 87.8  | 86.8  |
| 70°   | 69.4  | 70.4  | 72.3  | 74.3  | 75.2  |
| 72.5° | 55.0  | 57.9  | 59.8  | 62.7  | 63.7  |
| 75°   | 42.4  | 45.3  | 49.2  | 51.1  | 53.0  |
| 77.5° | 30.9  | 33.8  | 37.6  | 40.5  | 42.4  |
| 80°   | 21.2  | 23.1  | 27.0  | 30.9  | 32.8  |
| 82.5° | 13.5  | 14.5  | 17.4  | 21.2  | 23.1  |
| 85°   | 5.8   | 6.8   | 8.7   | 12.5  | 14.5  |
| 87.5° | 0.0   | 0.0   | 1.0   | 3.9   | 6.8   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



TEST NUMBER: P1059352  
 CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-WVL-B

**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 | 16.60            | 18.05 | 16.97 | 18.37 | 18.68 | 14.70          | 16.15 | 15.06 | 16.46 | 16.78 |
|                 | 3H   | 17.50            | 18.79 | 17.88 | 19.12 | 19.49 | 16.27          | 17.57 | 16.65 | 17.90 | 18.26 |
|                 | 4H   | 17.78            | 18.99 | 18.18 | 19.34 | 19.72 | 16.87          | 18.08 | 17.27 | 18.43 | 18.81 |
|                 | 6H   | 17.93            | 19.05 | 18.34 | 19.42 | 19.81 | 17.32          | 18.44 | 17.73 | 18.80 | 19.20 |
|                 | 8H   | 17.95            | 19.02 | 18.38 | 19.41 | 19.81 | 17.47          | 18.53 | 17.89 | 18.92 | 19.32 |
|                 | 12H  | 17.95            | 18.96 | 18.38 | 19.35 | 19.78 | 17.57          | 18.58 | 18.00 | 18.96 | 19.39 |
| 4H              | 2H   | 16.85            | 18.06 | 17.25 | 18.41 | 18.79 | 15.24          | 16.45 | 15.64 | 16.80 | 17.18 |
|                 | 3H   | 17.96            | 18.96 | 18.37 | 19.36 | 19.76 | 17.01          | 18.02 | 17.43 | 18.42 | 18.82 |
|                 | 4H   | 18.35            | 19.25 | 18.78 | 19.66 | 20.10 | 17.73          | 18.62 | 18.16 | 19.04 | 19.48 |
|                 | 6H   | 18.59            | 19.37 | 19.05 | 19.81 | 20.28 | 18.30          | 19.08 | 18.76 | 19.52 | 19.98 |
|                 | 8H   | 18.63            | 19.36 | 19.10 | 19.81 | 20.27 | 18.49          | 19.22 | 18.95 | 19.66 | 20.13 |
|                 | 12H  | 18.64            | 19.29 | 19.13 | 19.77 | 20.24 | 18.63          | 19.27 | 19.11 | 19.75 | 20.23 |
| 8H              | 4H   | 18.51            | 19.23 | 18.97 | 19.68 | 20.15 | 17.94          | 18.66 | 18.40 | 19.11 | 19.58 |
|                 | 6H   | 18.82            | 19.42 | 19.32 | 19.91 | 20.39 | 18.61          | 19.21 | 19.11 | 19.70 | 20.18 |
|                 | 8H   | 18.90            | 19.43 | 19.41 | 19.94 | 20.43 | 18.87          | 19.40 | 19.38 | 19.92 | 20.41 |
|                 | 12H  | 18.93            | 19.41 | 19.44 | 19.90 | 20.47 | 19.08          | 19.55 | 19.59 | 20.04 | 20.61 |
| 12H             | 4H   | 18.51            | 19.16 | 18.99 | 19.64 | 20.11 | 17.93          | 18.58 | 18.42 | 19.06 | 19.53 |
|                 | 6H   | 18.83            | 19.37 | 19.35 | 19.88 | 20.37 | 18.62          | 19.16 | 19.14 | 19.67 | 20.16 |
|                 | 8H   | 18.95            | 19.42 | 19.46 | 19.92 | 20.48 | 18.92          | 19.40 | 19.43 | 19.89 | 20.46 |