

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: P1062087

Luminaire Tested: S125RDR-H610D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062087  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H610D830-X4F0-XX-UDD-SVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

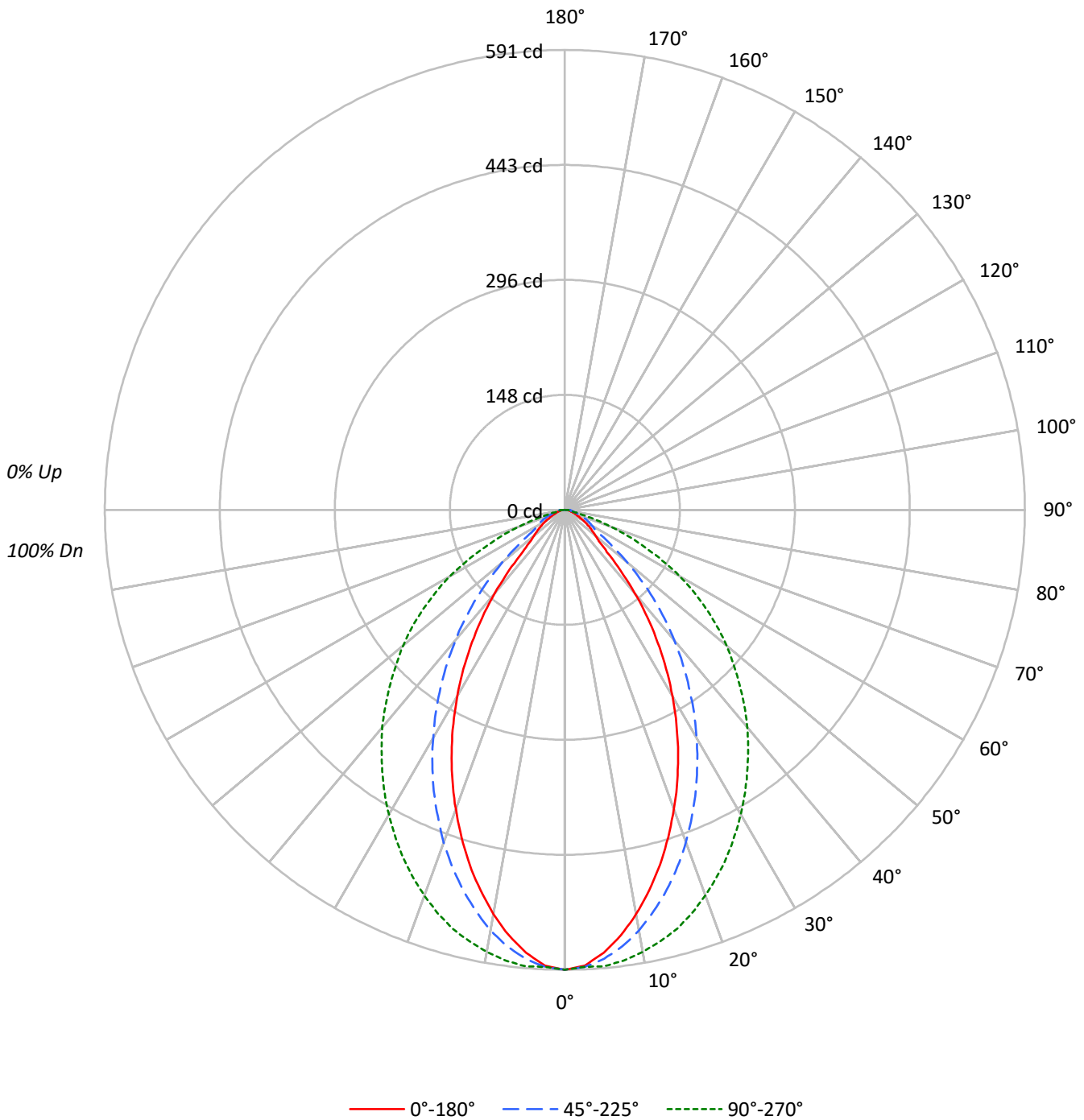
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 856.1 lumens  
Efficiency: N/A  
Efficacy: 49.2 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
Input Voltage (V): 120  
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: 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 |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 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 |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 111 | 108 | 104 | 101 | 109 | 105 | 103 | 100 | 101 | 99  | 97  | 98  | 96  | 94  | 94  | 92  | 91  | 89  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 104 | 97  | 92  | 87  | 101 | 95  | 90  | 86  | 92  | 88  | 84  | 89  | 85  | 82  | 86  | 83  | 81  | 79  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 96  | 88  | 81  | 76  | 94  | 86  | 80  | 76  | 84  | 79  | 74  | 81  | 77  | 73  | 79  | 75  | 72  | 70  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 90  | 80  | 73  | 67  | 88  | 79  | 72  | 67  | 76  | 71  | 66  | 74  | 69  | 65  | 72  | 68  | 64  | 62  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 84  | 73  | 66  | 60  | 82  | 72  | 65  | 60  | 70  | 64  | 59  | 68  | 63  | 59  | 66  | 62  | 58  | 56  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 78  | 67  | 59  | 54  | 77  | 66  | 59  | 54  | 64  | 58  | 53  | 63  | 57  | 53  | 61  | 56  | 53  | 51  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 73  | 62  | 54  | 49  | 72  | 61  | 54  | 49  | 60  | 53  | 49  | 58  | 53  | 48  | 57  | 52  | 48  | 46  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 69  | 57  | 50  | 45  | 68  | 57  | 50  | 45  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 42  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 65  | 53  | 46  | 41  | 64  | 53  | 46  | 41  | 52  | 45  | 41  | 51  | 45  | 41  | 50  | 44  | 40  | 39  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 61  | 50  | 43  | 38  | 60  | 49  | 42  | 38  | 48  | 42  | 38  | 47  | 42  | 38  | 46  | 41  | 37  | 36  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4069 | 4069 | 4069 |
| 5°  | 3951 | 4002 | 4067 |
| 10° | 3689 | 3838 | 4031 |
| 15° | 3367 | 3604 | 3971 |
| 20° | 3000 | 3332 | 3866 |
| 25° | 2615 | 3025 | 3741 |
| 30° | 2197 | 2691 | 3595 |
| 35° | 1747 | 2338 | 3437 |
| 40° | 1259 | 1965 | 3280 |
| 45° | 746  | 1560 | 3089 |
| 50° | 552  | 1110 | 2906 |
| 55° | 467  | 687  | 2661 |
| 60° | 380  | 554  | 2344 |
| 65° | 297  | 512  | 1852 |
| 70° | 254  | 443  | 1240 |
| 75° | 234  | 383  | 500  |
| 80° | 250  | 397  | 349  |
| 85° | 300  | 592  | 395  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3089 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 54.5   | 6.4       |
| 10°-20°   | 143.1  | 16.7      |
| 20°-30°   | 187.0  | 21.8      |
| 30°-40°   | 182.2  | 21.3      |
| 40°-50°   | 136.6  | 16.0      |
| 50°-60°   | 85.7   | 10.0      |
| 60°-70°   | 44.6   | 5.2       |
| 70°-80°   | 16.1   | 1.9       |
| 80°-90°   | 6.4    | 0.7       |
| 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°    | 384.5  | 44.9      |
| 0°-40°    | 566.7  | 66.2      |
| 0°-60°    | 789.0  | 92.2      |
| 0°-90°    | 856.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 856.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 591 | 591   | 591 | 591   | 591 |      |
| 5°  | 572 | 579   | 579 | 584   | 588 | 53   |
| 15° | 472 | 486   | 506 | 537   | 557 | 132  |
| 25° | 344 | 363   | 398 | 452   | 492 | 157  |
| 35° | 208 | 230   | 278 | 352   | 409 | 129  |
| 45° | 77  | 99    | 160 | 248   | 317 | 64   |
| 55° | 39  | 41    | 57  | 150   | 222 | 35   |
| 65° | 18  | 20    | 31  | 60    | 114 | 19   |
| 75° | 9   | 12    | 14  | 15    | 19  | 10   |
| 85° | 4   | 6     | 8   | 7     | 5   | 4    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 591.0 | 591.0 | 591.0 | 591.0 | 591.0 |
| 2.5°  | 586.0 | 591.6 | 587.9 | 587.9 | 587.9 |
| 5°    | 571.6 | 579.1 | 579.1 | 583.5 | 588.5 |
| 7.5°  | 551.5 | 560.2 | 565.9 | 576.6 | 584.1 |
| 10°   | 527.6 | 538.3 | 548.9 | 566.5 | 576.6 |
| 12.5° | 500.6 | 513.1 | 528.2 | 552.7 | 567.8 |
| 15°   | 472.3 | 486.1 | 505.6 | 537.0 | 557.1 |
| 17.5° | 441.5 | 457.9 | 481.1 | 518.8 | 543.3 |
| 20°   | 409.5 | 425.8 | 454.7 | 497.4 | 527.6 |
| 22.5° | 377.5 | 395.1 | 426.5 | 474.8 | 510.6 |
| 25°   | 344.2 | 363.0 | 398.2 | 452.2 | 492.4 |
| 27.5° | 310.3 | 329.7 | 368.7 | 429.0 | 472.3 |
| 30°   | 276.4 | 296.5 | 338.5 | 403.9 | 452.2 |
| 32.5° | 242.4 | 263.8 | 308.4 | 378.1 | 430.9 |
| 35°   | 207.9 | 229.9 | 278.2 | 352.4 | 408.9 |
| 37.5° | 174.6 | 196.6 | 248.1 | 326.0 | 386.9 |
| 40°   | 140.1 | 163.9 | 218.6 | 299.6 | 364.9 |
| 42.5° | 106.1 | 130.6 | 189.1 | 273.2 | 341.0 |
| 45°   | 76.6  | 99.2  | 160.2 | 247.5 | 317.2 |
| 47.5° | 59.0  | 71.6  | 130.6 | 221.1 | 293.9 |
| 50°   | 51.5  | 55.3  | 103.6 | 196.6 | 271.3 |
| 52.5° | 44.6  | 47.1  | 77.9  | 174.0 | 246.8 |
| 55°   | 38.9  | 40.8  | 57.2  | 149.5 | 221.7 |
| 57.5° | 32.7  | 35.2  | 45.2  | 125.6 | 196.0 |
| 60°   | 27.6  | 28.9  | 40.2  | 103.6 | 170.2 |
| 62.5° | 22.6  | 23.9  | 35.8  | 81.7  | 141.3 |
| 65°   | 18.2  | 19.5  | 31.4  | 60.3  | 113.7 |
| 67.5° | 15.1  | 15.7  | 26.4  | 42.7  | 87.3  |
| 70°   | 12.6  | 13.2  | 22.0  | 29.5  | 61.6  |
| 72.5° | 10.7  | 12.6  | 17.6  | 21.4  | 38.9  |
| 75°   | 8.8   | 11.9  | 14.4  | 15.1  | 18.8  |
| 77.5° | 7.5   | 11.3  | 11.9  | 11.9  | 10.7  |
| 80°   | 6.3   | 9.4   | 10.0  | 9.4   | 8.8   |
| 82.5° | 5.0   | 7.5   | 8.2   | 8.2   | 6.9   |
| 85°   | 3.8   | 6.3   | 7.5   | 6.9   | 5.0   |
| 87.5° | 2.5   | 5.7   | 6.3   | 5.7   | 3.8   |
| 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 | 4.80             | 6.15 | 5.16 | 6.46  | 6.78  | 14.41          | 15.76 | 14.77 | 16.07 | 16.39 |
|                 | 3H   | 5.66             | 6.86 | 6.04 | 7.19  | 7.55  | 15.25          | 16.45 | 15.63 | 16.78 | 17.14 |
|                 | 4H   | 6.08             | 7.20 | 6.48 | 7.55  | 7.93  | 15.32          | 16.44 | 15.72 | 16.79 | 17.17 |
|                 | 6H   | 6.51             | 7.54 | 6.92 | 7.91  | 8.30  | 15.30          | 16.33 | 15.72 | 16.70 | 17.10 |
|                 | 8H   | 6.68             | 7.66 | 7.11 | 8.05  | 8.45  | 15.29          | 16.27 | 15.72 | 16.66 | 17.06 |
|                 | 12H  | 6.85             | 7.78 | 7.28 | 8.16  | 8.59  | 15.28          | 16.21 | 15.71 | 16.59 | 17.02 |
| 4H              | 2H   | 5.76             | 6.88 | 6.16 | 7.23  | 7.61  | 14.27          | 15.39 | 14.67 | 15.74 | 16.12 |
|                 | 3H   | 6.81             | 7.73 | 7.23 | 8.13  | 8.54  | 15.18          | 16.10 | 15.59 | 16.50 | 16.90 |
|                 | 4H   | 7.37             | 8.19 | 7.81 | 8.61  | 9.06  | 15.28          | 16.10 | 15.72 | 16.52 | 16.96 |
|                 | 6H   | 7.97             | 8.68 | 8.43 | 9.13  | 9.59  | 15.31          | 16.02 | 15.77 | 16.46 | 16.93 |
|                 | 8H   | 8.21             | 8.87 | 8.68 | 9.32  | 9.79  | 15.31          | 15.97 | 15.78 | 16.42 | 16.89 |
|                 | 12H  | 8.44             | 9.02 | 8.92 | 9.50  | 9.98  | 15.32          | 15.91 | 15.81 | 16.39 | 16.86 |
| 8H              | 4H   | 7.84             | 8.50 | 8.31 | 8.95  | 9.42  | 15.21          | 15.87 | 15.67 | 16.31 | 16.78 |
|                 | 6H   | 8.65             | 9.19 | 9.16 | 9.69  | 10.17 | 15.26          | 15.80 | 15.76 | 16.30 | 16.78 |
|                 | 8H   | 9.03             | 9.52 | 9.55 | 10.03 | 10.52 | 15.29          | 15.78 | 15.81 | 16.29 | 16.79 |
|                 | 12H  | 9.43             | 9.85 | 9.94 | 10.35 | 10.92 | 15.36          | 15.79 | 15.87 | 16.28 | 16.85 |
| 12H             | 4H   | 7.89             | 8.48 | 8.38 | 8.96  | 9.44  | 15.17          | 15.76 | 15.66 | 16.24 | 16.71 |
|                 | 6H   | 8.78             | 9.26 | 9.30 | 9.78  | 10.27 | 15.23          | 15.71 | 15.75 | 16.23 | 16.72 |
|                 | 8H   | 9.26             | 9.69 | 9.78 | 10.19 | 10.76 | 15.30          | 15.73 | 15.81 | 16.22 | 16.79 |