

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: P1056416

Luminaire Tested: S125R3DR-S375D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056416  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-S375D835-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

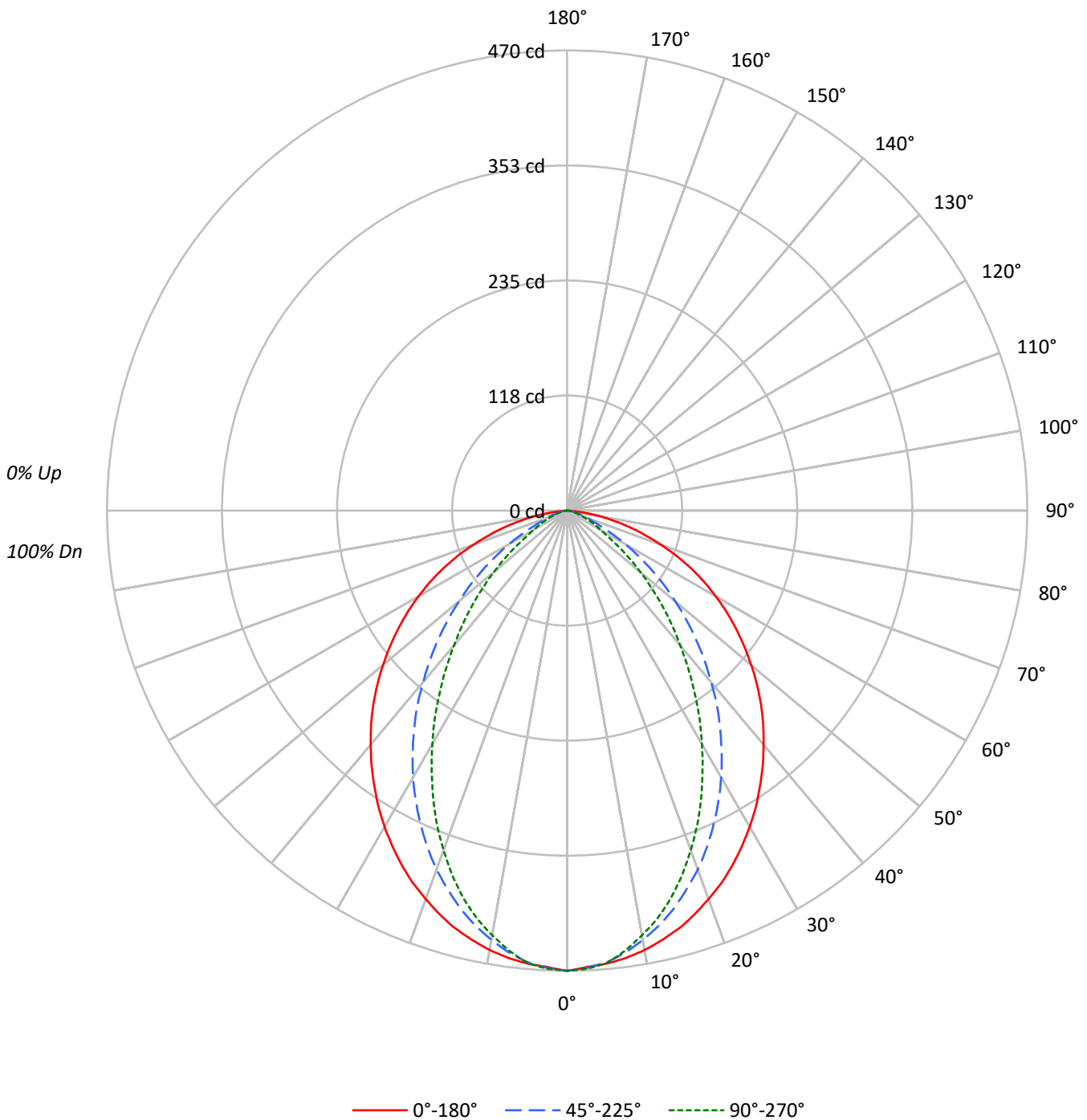
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 849.6 lumens  
Efficiency: N/A  
Efficacy: 67.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.6  
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 |    |     |  |  |  |  |  |  | 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 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 92  | 90  | 88  |    |    |    |    |    |    |    |    |    |    |    | 88  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 102 | 96  | 90  | 85  | 100 | 94  | 89  | 84  | 90  | 86  | 82  | 87  | 84  | 80  | 84  | 81  | 79  | 77  |    |    |    |    |    |    |    |    |    |    |    | 77  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 95  | 86  | 79  | 73  | 92  | 84  | 78  | 73  | 81  | 76  | 71  | 79  | 74  | 70  | 76  | 72  | 69  | 67  |    |    |    |    |    |    |    |    |    |    |    | 67  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 88  | 77  | 70  | 64  | 86  | 76  | 69  | 63  | 74  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 59  |    |    |    |    |    |    |    |    |    |    |    | 59  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 81  | 70  | 62  | 56  | 79  | 69  | 61  | 56  | 67  | 60  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 52  |    |    |    |    |    |    |    |    |    |    |    | 52  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 55  | 50  | 61  | 54  | 49  | 60  | 54  | 49  | 58  | 53  | 49  | 47  |    |    |    |    |    |    |    |    |    |    |    | 47  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 71  | 58  | 50  | 45  | 69  | 58  | 50  | 45  | 56  | 49  | 44  | 55  | 49  | 44  | 54  | 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  | 36  | 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°  | 3323 | 3323 | 3323 |
| 5°  | 3296 | 3286 | 3293 |
| 10° | 3271 | 3197 | 3162 |
| 15° | 3233 | 3080 | 2998 |
| 20° | 3176 | 2934 | 2777 |
| 25° | 3117 | 2760 | 2526 |
| 30° | 3045 | 2569 | 2249 |
| 35° | 2964 | 2352 | 1957 |
| 40° | 2880 | 2112 | 1655 |
| 45° | 2798 | 1863 | 1371 |
| 50° | 2700 | 1585 | 1077 |
| 55° | 2597 | 1288 | 783  |
| 60° | 2480 | 960  | 560  |
| 65° | 2330 | 634  | 437  |
| 70° | 2106 | 440  | 306  |
| 75° | 1830 | 284  | 238  |
| 80° | 1437 | 212  | 195  |
| 85° | 738  | 178  | 138  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2798 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 43.8   | 5.2       |
| 10°-20°   | 119.0  | 14.0      |
| 20°-30°   | 164.6  | 19.4      |
| 30°-40°   | 174.4  | 20.5      |
| 40°-50°   | 152.2  | 17.9      |
| 50°-60°   | 108.3  | 12.7      |
| 60°-70°   | 60.2   | 7.1       |
| 70°-80°   | 23.1   | 2.7       |
| 80°-90°   | 4.0    | 0.5       |
| 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°    | 327.4  | 38.5      |
| 0°-40°    | 501.8  | 59.1      |
| 0°-60°    | 762.3  | 89.7      |
| 0°-90°    | 849.6  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 849.6  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 470 | 470   | 470 | 470   | 470 |      |
| 5°  | 464 | 468   | 463 | 462   | 464 | 44   |
| 15° | 442 | 438   | 421 | 412   | 410 | 124  |
| 25° | 400 | 386   | 354 | 332   | 324 | 184  |
| 35° | 343 | 320   | 272 | 239   | 227 | 215  |
| 45° | 280 | 246   | 186 | 149   | 137 | 216  |
| 55° | 211 | 169   | 104 | 72    | 64  | 188  |
| 65° | 139 | 91    | 38  | 28    | 26  | 138  |
| 75° | 67  | 26    | 10  | 9     | 9   | 71   |
| 85° | 9   | 3     | 2   | 2     | 2   | 14   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 470.1 | 470.1 | 470.1 | 470.1 | 470.1 |
| 2.5°  | 466.6 | 471.4 | 467.5 | 467.9 | 468.3 |
| 5°    | 464.4 | 467.9 | 463.1 | 461.8 | 464.0 |
| 7.5°  | 460.9 | 463.6 | 455.3 | 452.2 | 453.5 |
| 10°   | 455.7 | 456.6 | 445.3 | 440.9 | 440.5 |
| 12.5° | 449.2 | 447.9 | 434.0 | 427.0 | 426.6 |
| 15°   | 441.8 | 437.9 | 420.9 | 411.8 | 409.6 |
| 17.5° | 432.6 | 426.6 | 405.7 | 393.9 | 390.4 |
| 20°   | 422.2 | 413.9 | 390.0 | 374.8 | 369.1 |
| 22.5° | 411.8 | 400.4 | 372.6 | 353.4 | 347.3 |
| 25°   | 399.6 | 386.1 | 353.9 | 332.1 | 323.8 |
| 27.5° | 386.5 | 370.4 | 334.7 | 309.5 | 299.5 |
| 30°   | 373.0 | 354.3 | 314.7 | 286.4 | 275.5 |
| 32.5° | 358.7 | 337.3 | 293.8 | 262.9 | 251.6 |
| 35°   | 343.4 | 319.9 | 272.5 | 239.4 | 226.8 |
| 37.5° | 328.2 | 302.1 | 251.6 | 216.3 | 203.3 |
| 40°   | 312.1 | 283.8 | 228.9 | 192.8 | 179.3 |
| 42.5° | 296.4 | 265.1 | 207.6 | 170.6 | 158.4 |
| 45°   | 279.9 | 246.4 | 186.3 | 148.9 | 137.1 |
| 47.5° | 262.9 | 226.8 | 165.0 | 128.4 | 116.6 |
| 50°   | 245.5 | 207.6 | 144.1 | 108.4 | 97.9  |
| 52.5° | 228.1 | 188.5 | 124.5 | 89.2  | 80.1  |
| 55°   | 210.7 | 168.9 | 104.5 | 72.3  | 63.5  |
| 57.5° | 193.3 | 149.7 | 85.7  | 56.6  | 48.7  |
| 60°   | 175.4 | 130.1 | 67.9  | 41.8  | 39.6  |
| 62.5° | 157.6 | 111.0 | 52.7  | 34.4  | 32.6  |
| 65°   | 139.3 | 91.4  | 37.9  | 27.9  | 26.1  |
| 67.5° | 121.0 | 73.6  | 27.4  | 21.3  | 20.0  |
| 70°   | 101.9 | 56.1  | 21.3  | 16.1  | 14.8  |
| 72.5° | 83.6  | 40.5  | 15.2  | 11.8  | 11.3  |
| 75°   | 67.0  | 26.1  | 10.4  | 8.7   | 8.7   |
| 77.5° | 50.5  | 15.7  | 7.4   | 6.5   | 6.5   |
| 80°   | 35.3  | 9.1   | 5.2   | 4.8   | 4.8   |
| 82.5° | 21.3  | 4.8   | 3.5   | 3.0   | 3.0   |
| 85°   | 9.1   | 2.6   | 2.2   | 1.7   | 1.7   |
| 87.5° | 1.7   | 0.9   | 0.9   | 0.9   | 0.9   |
| 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 | 15.33            | 16.78 | 15.70 | 17.09 | 17.41 | 7.97           | 9.42  | 8.34  | 9.73  | 10.05 |
|                 | 3H   | 16.89            | 18.18 | 17.27 | 18.51 | 18.87 | 8.53           | 9.82  | 8.91  | 10.15 | 10.51 |
|                 | 4H   | 17.41            | 18.62 | 17.81 | 18.97 | 19.35 | 8.66           | 9.86  | 9.06  | 10.21 | 10.59 |
|                 | 6H   | 17.75            | 18.86 | 18.17 | 19.23 | 19.62 | 8.72           | 9.83  | 9.14  | 10.20 | 10.59 |
|                 | 8H   | 17.83            | 18.89 | 18.26 | 19.28 | 19.68 | 8.73           | 9.78  | 9.16  | 10.17 | 10.57 |
|                 | 12H  | 17.86            | 18.86 | 18.29 | 19.25 | 19.68 | 8.72           | 9.72  | 9.15  | 10.10 | 10.53 |
| 4H              | 2H   | 15.23            | 16.43 | 15.63 | 16.78 | 17.16 | 8.54           | 9.74  | 8.94  | 10.09 | 10.47 |
|                 | 3H   | 16.90            | 17.88 | 17.31 | 18.29 | 18.69 | 9.21           | 10.20 | 9.62  | 10.60 | 11.00 |
|                 | 4H   | 17.45            | 18.33 | 17.88 | 18.75 | 19.19 | 9.37           | 10.25 | 9.80  | 10.67 | 11.11 |
|                 | 6H   | 17.84            | 18.60 | 18.30 | 19.05 | 19.51 | 9.48           | 10.24 | 9.94  | 10.69 | 11.15 |
|                 | 8H   | 17.94            | 18.66 | 18.41 | 19.10 | 19.57 | 9.49           | 10.20 | 9.95  | 10.65 | 11.12 |
|                 | 12H  | 17.99            | 18.62 | 18.47 | 19.10 | 19.58 | 9.49           | 10.12 | 9.97  | 10.60 | 11.08 |
| 8H              | 4H   | 17.35            | 18.06 | 17.82 | 18.51 | 18.98 | 9.64           | 10.35 | 10.10 | 10.79 | 11.26 |
|                 | 6H   | 17.74            | 18.32 | 18.24 | 18.81 | 19.29 | 9.77           | 10.35 | 10.27 | 10.85 | 11.33 |
|                 | 8H   | 17.84            | 18.37 | 18.36 | 18.88 | 19.37 | 9.79           | 10.32 | 10.31 | 10.83 | 11.32 |
|                 | 12H  | 17.91            | 18.37 | 18.42 | 18.86 | 19.43 | 9.81           | 10.28 | 10.33 | 10.77 | 11.34 |
| 12H             | 4H   | 17.31            | 17.95 | 17.80 | 18.43 | 18.90 | 9.65           | 10.28 | 10.13 | 10.76 | 11.24 |
|                 | 6H   | 17.68            | 18.21 | 18.20 | 18.72 | 19.21 | 9.78           | 10.31 | 10.30 | 10.82 | 11.31 |
|                 | 8H   | 17.81            | 18.27 | 18.32 | 18.77 | 19.34 | 9.84           | 10.30 | 10.35 | 10.79 | 11.36 |