

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: P998968

Luminaire Tested: SA2XXDIP-B675D925UB50-4F0-XX-W2A-D4

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P998968  
REPORT IS A COMBINATION OF REPORTS P984714 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXDIP-B675D925UB50-4F0-XX-W2A-D4  
Description: Define 2 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

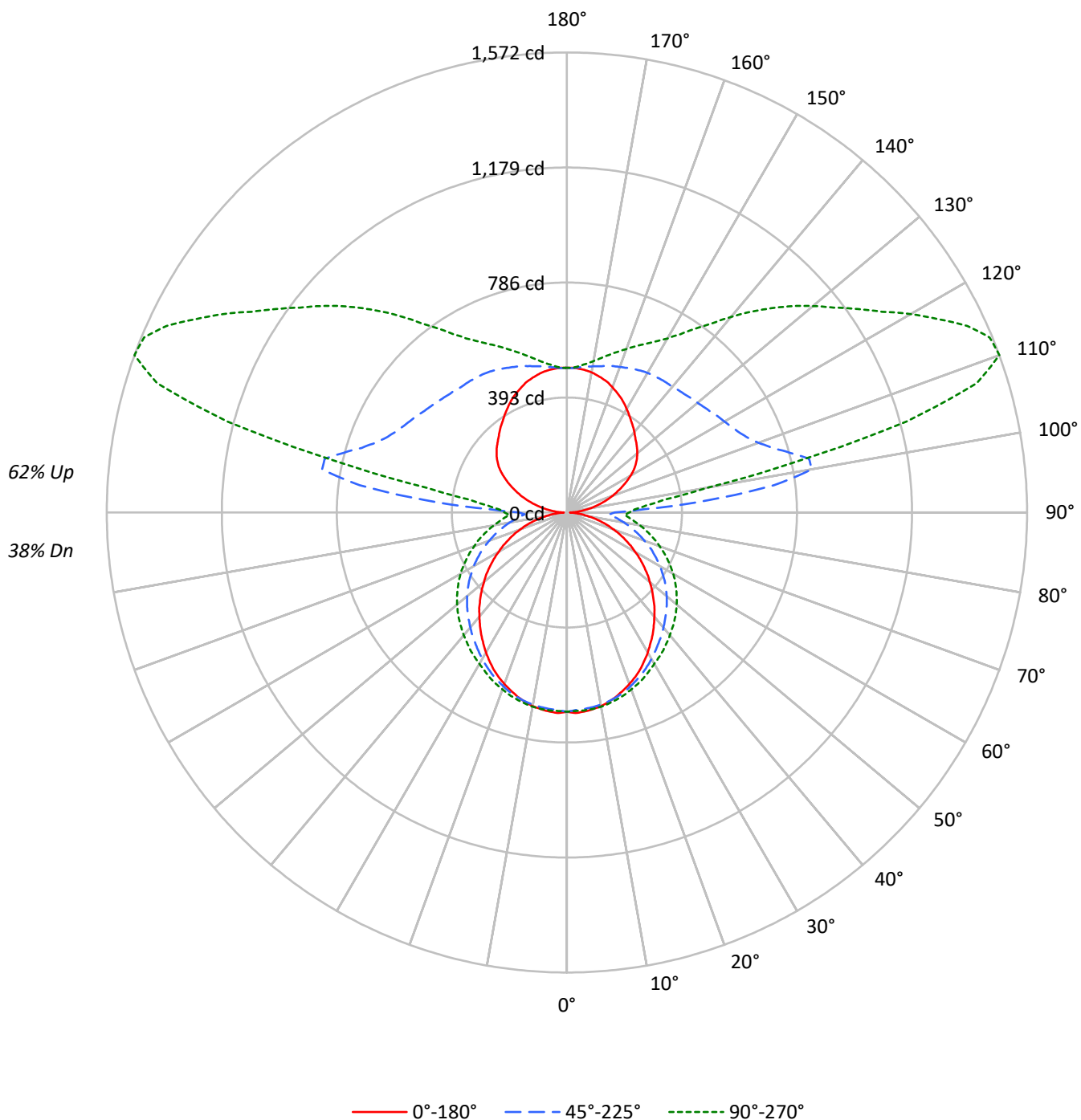
Lumens per Lamp: N/A  
Luminaire Lumens: 6046.0 lumens  
Efficiency: N/A  
Efficacy: 93.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 64.4  
Input Voltage (V):  
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

TEST NUMBER: P998968

CATALOG NUMBER: SA2XXDIP-B675D925UB50-4F0-XX-W2A-D4

### Luminous Intensity Polar Plot



TEST NUMBER: P998968

CATALOG NUMBER: SA2XXDIP-B675D925UB50-4F0-XX-W2A-D4

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |
| RC  | 80  |     |     |     | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 104 | 104 | 104 | 104 | 95 | 95 | 95 | 95 | 77 | 77 | 77 | 60 | 60 | 60 | 45 | 45 | 45 |
| 1   | 94  | 89  | 85  | 81  | 85 | 81 | 77 | 74 | 66 | 63 | 61 | 51 | 50 | 48 | 38 | 37 | 36 |
| 2   | 85  | 77  | 71  | 65  | 77 | 70 | 65 | 60 | 57 | 53 | 49 | 44 | 42 | 39 | 33 | 31 | 29 |
| 3   | 77  | 67  | 60  | 54  | 70 | 61 | 55 | 49 | 50 | 45 | 41 | 39 | 35 | 32 | 29 | 26 | 24 |
| 4   | 71  | 59  | 51  | 45  | 64 | 54 | 47 | 41 | 44 | 39 | 34 | 34 | 31 | 27 | 26 | 23 | 21 |
| 5   | 65  | 53  | 44  | 38  | 58 | 48 | 41 | 35 | 39 | 34 | 29 | 31 | 27 | 24 | 23 | 20 | 18 |
| 6   | 59  | 47  | 39  | 33  | 53 | 43 | 36 | 30 | 35 | 29 | 25 | 28 | 24 | 20 | 21 | 18 | 16 |
| 7   | 55  | 42  | 34  | 29  | 49 | 39 | 32 | 26 | 32 | 26 | 22 | 25 | 21 | 18 | 19 | 16 | 14 |
| 8   | 51  | 38  | 30  | 25  | 46 | 35 | 28 | 23 | 29 | 23 | 20 | 23 | 19 | 16 | 17 | 14 | 12 |
| 9   | 47  | 35  | 27  | 22  | 43 | 32 | 25 | 21 | 26 | 21 | 17 | 21 | 17 | 14 | 16 | 13 | 11 |
| 10  | 44  | 32  | 25  | 20  | 40 | 29 | 23 | 18 | 24 | 19 | 15 | 19 | 15 | 13 | 15 | 12 | 10 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10778 | 10778 | 10778 |
| 5°  | 10827 | 10318 | 10260 |
| 10° | 10754 | 9961  | 9815  |
| 15° | 10602 | 9592  | 9359  |
| 20° | 10410 | 9202  | 8927  |
| 25° | 10222 | 8832  | 8535  |
| 30° | 9957  | 8454  | 8146  |
| 35° | 9689  | 8089  | 7860  |
| 40° | 9407  | 7774  | 7577  |
| 45° | 9138  | 7489  | 7329  |
| 50° | 8848  | 7225  | 7085  |
| 55° | 8545  | 6945  | 6838  |
| 60° | 8175  | 6655  | 6577  |
| 65° | 7789  | 6319  | 6275  |
| 70° | 7349  | 5960  | 5953  |
| 75° | 6791  | 5601  | 5646  |
| 80° | 5908  | 5226  | 5331  |
| 85° | 5015  | 4876  | 5058  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9138 cd/sqm

TEST NUMBER: P998968

CATALOG NUMBER: SA2XXDIP-B675D925UB50-4F0-XX-W2A-D4

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 64.5   | 1.1       |
| 10°-20°   | 185.1  | 3.1       |
| 20°-30°   | 280.5  | 4.6       |
| 30°-40°   | 341.6  | 5.6       |
| 40°-50°   | 367.5  | 6.1       |
| 50°-60°   | 356.9  | 5.9       |
| 60°-70°   | 311.7  | 5.2       |
| 70°-80°   | 239.9  | 4.0       |
| 80°-90°   | 163.8  | 2.7       |
| 90°-100°  | 311.2  | 5.1       |
| 100°-110° | 758.1  | 12.5      |
| 110°-120° | 765.2  | 12.7      |
| 120°-130° | 615.1  | 10.2      |
| 130°-140° | 482.8  | 8.0       |
| 140°-150° | 357.4  | 5.9       |
| 150°-160° | 249.8  | 4.1       |
| 160°-170° | 147.1  | 2.4       |
| 170°-180° | 47.8   | 0.8       |
| 0°-30°    | 530.2  | 8.8       |
| 0°-40°    | 871.7  | 14.4      |
| 0°-60°    | 1596.1 | 26.4      |
| 0°-90°    | 2311.5 | 38.2      |
| 90°-120°  | 1834.4 | 30.3      |
| 90°-150°  | 3289.8 | 54.4      |
| 90°-180°  | 3734.0 | 61.8      |
| 0°-180°   | 6046.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90°  | Flux |
|------|-----|-------|-----|-------|------|------|
| 0°   | 681 | 681   | 681 | 681   | 681  |      |
| 5°   | 683 | 680   | 674 | 680   | 679  | 65   |
| 15°  | 651 | 653   | 653 | 662   | 661  | 183  |
| 25°  | 592 | 599   | 608 | 620   | 623  | 272  |
| 35°  | 510 | 527   | 546 | 567   | 574  | 319  |
| 45°  | 418 | 445   | 480 | 510   | 520  | 323  |
| 55°  | 321 | 356   | 408 | 443   | 456  | 287  |
| 65°  | 219 | 267   | 326 | 366   | 379  | 218  |
| 75°  | 121 | 177   | 240 | 282   | 295  | 128  |
| 85°  | 36  | 97    | 160 | 201   | 215  | 37   |
| 90°  | 11  | 80    | 163 | 201   | 213  | 9    |
| 95°  | 41  | 136   | 486 | 292   | 271  | 41   |
| 105° | 121 | 208   | 789 | 1378  | 1201 | 129  |
| 115° | 208 | 273   | 648 | 1305  | 1509 | 206  |
| 125° | 287 | 339   | 600 | 1045  | 1212 | 256  |
| 135° | 336 | 400   | 570 | 859   | 987  | 259  |
| 145° | 382 | 439   | 557 | 697   | 767  | 240  |
| 155° | 434 | 469   | 541 | 611   | 636  | 200  |
| 165° | 473 | 487   | 518 | 549   | 558  | 133  |
| 175° | 493 | 494   | 498 | 504   | 503  | 47   |
| 180° | 494 | 494   | 494 | 494   | 494  |      |

TEST NUMBER: P998968

CATALOG NUMBER: SA2XXDIP-B675D925UB50-4F0-XX-W2A-D4

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 0°     | 680.9 | 680.9 | 680.9 | 680.9  | 680.9  |
| 2.5°   | 685.8 | 682.9 | 675.9 | 680.9  | 678.9  |
| 5°     | 682.9 | 679.9 | 674.0 | 679.9  | 678.9  |
| 7.5°   | 677.9 | 675.9 | 671.0 | 677.9  | 676.9  |
| 10°    | 672.0 | 670.0 | 667.1 | 675.0  | 674.0  |
| 12.5°  | 662.1 | 663.1 | 661.1 | 669.0  | 668.1  |
| 15°    | 651.3 | 653.3 | 653.3 | 662.1  | 661.1  |
| 17.5°  | 637.5 | 641.4 | 644.4 | 653.3  | 653.3  |
| 20°    | 623.6 | 628.6 | 632.5 | 643.4  | 643.4  |
| 22.5°  | 608.8 | 614.8 | 620.7 | 631.5  | 633.5  |
| 25°    | 592.1 | 599.0 | 607.9 | 619.7  | 622.7  |
| 27.5°  | 572.3 | 583.2 | 593.1 | 607.9  | 609.8  |
| 30°    | 552.6 | 565.4 | 578.3 | 594.0  | 597.0  |
| 32.5°  | 530.9 | 545.7 | 561.5 | 580.2  | 586.1  |
| 35°    | 510.2 | 526.9 | 545.7 | 567.4  | 574.3  |
| 37.5°  | 487.5 | 506.2 | 529.9 | 553.6  | 560.5  |
| 40°    | 464.8 | 486.5 | 513.1 | 538.8  | 547.7  |
| 42.5°  | 443.1 | 464.8 | 496.4 | 525.0  | 533.8  |
| 45°    | 418.4 | 445.0 | 479.6 | 510.2  | 520.0  |
| 47.5°  | 394.7 | 423.3 | 462.8 | 494.4  | 505.2  |
| 50°    | 370.0 | 400.6 | 445.0 | 478.6  | 489.4  |
| 52.5°  | 346.4 | 378.9 | 426.3 | 460.8  | 472.7  |
| 55°    | 320.7 | 356.2 | 407.5 | 443.1  | 455.9  |
| 57.5°  | 296.0 | 335.5 | 386.8 | 425.3  | 438.1  |
| 60°    | 269.4 | 311.8 | 368.1 | 405.6  | 419.4  |
| 62.5°  | 245.7 | 290.1 | 346.4 | 386.8  | 399.6  |
| 65°    | 219.1 | 267.4 | 325.6 | 366.1  | 378.9  |
| 67.5°  | 195.4 | 245.7 | 304.9 | 345.4  | 359.2  |
| 70°    | 169.7 | 221.0 | 282.2 | 324.7  | 336.5  |
| 72.5°  | 146.0 | 199.3 | 261.5 | 302.9  | 317.7  |
| 75°    | 121.4 | 176.6 | 239.8 | 282.2  | 295.0  |
| 77.5°  | 97.7  | 154.9 | 219.1 | 261.5  | 275.3  |
| 80°    | 74.0  | 134.2 | 198.3 | 239.8  | 253.6  |
| 82.5°  | 54.3  | 113.5 | 178.6 | 220.1  | 232.9  |
| 85°    | 35.5  | 96.7  | 159.9 | 201.3  | 215.1  |
| 87.5°  | 21.7  | 80.9  | 144.1 | 184.5  | 197.4  |
| 90°    | 10.9  | 79.9  | 162.6 | 200.6  | 213.0  |
| 92.5°  | 23.2  | 106.4 | 267.7 | 227.4  | 229.7  |
| 95°    | 41.2  | 136.0 | 486.0 | 291.6  | 271.1  |
| 97.5°  | 56.3  | 157.1 | 713.8 | 425.3  | 336.4  |
| 100°   | 80.1  | 175.5 | 849.3 | 697.2  | 486.2  |
| 102.5° | 100.9 | 192.4 | 847.2 | 1077.4 | 801.3  |
| 105°   | 120.8 | 208.4 | 789.0 | 1377.9 | 1201.1 |
| 107.5° | 143.6 | 224.3 | 734.6 | 1481.6 | 1467.8 |
| 110°   | 165.4 | 240.8 | 696.3 | 1455.6 | 1572.1 |

TEST NUMBER: P998968

CATALOG NUMBER: SA2XXDIP-B675D925UB50-4F0-XX-W2A-D4

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 186.3 | 257.2 | 668.5 | 1387.5 | 1563.3 |
| 115°   | 208.2 | 272.8 | 648.3 | 1304.6 | 1508.8 |
| 117.5° | 230.1 | 289.3 | 633.8 | 1225.9 | 1430.6 |
| 120°   | 251.0 | 305.2 | 621.2 | 1153.8 | 1356.2 |
| 122.5° | 270.9 | 322.7 | 611.5 | 1097.1 | 1277.0 |
| 125°   | 287.0 | 339.3 | 599.9 | 1045.0 | 1212.1 |
| 127.5° | 301.3 | 355.9 | 591.0 | 998.6  | 1150.1 |
| 130°   | 313.7 | 371.6 | 583.2 | 952.8  | 1097.5 |
| 132.5° | 325.1 | 386.8 | 576.4 | 905.5  | 1044.1 |
| 135°   | 335.5 | 400.1 | 570.5 | 859.2  | 986.8  |
| 137.5° | 345.9 | 411.4 | 565.5 | 812.4  | 930.5  |
| 140°   | 358.3 | 421.0 | 560.7 | 770.3  | 872.2  |
| 142.5° | 370.6 | 429.5 | 558.7 | 730.6  | 814.9  |
| 145°   | 382.0 | 439.0 | 556.8 | 697.2  | 767.2  |
| 147.5° | 395.3 | 446.6 | 553.9 | 668.0  | 723.2  |
| 150°   | 408.6 | 454.2 | 551.1 | 646.2  | 687.0  |
| 152.5° | 421.9 | 461.8 | 546.3 | 628.6  | 659.4  |
| 155°   | 434.2 | 468.9 | 540.6 | 611.4  | 635.7  |
| 157.5° | 444.7 | 474.6 | 534.9 | 595.3  | 614.8  |
| 160°   | 455.1 | 480.3 | 529.2 | 579.2  | 594.8  |
| 162.5° | 465.6 | 484.6 | 524.5 | 563.9  | 575.8  |
| 165°   | 473.2 | 487.4 | 517.8 | 549.2  | 557.7  |
| 167.5° | 479.8 | 490.3 | 512.1 | 535.9  | 540.6  |
| 170°   | 486.5 | 491.7 | 507.4 | 523.6  | 525.4  |
| 172.5° | 490.3 | 493.2 | 501.7 | 512.6  | 513.1  |
| 175°   | 493.1 | 493.6 | 497.9 | 504.0  | 502.6  |
| 177.5° | 495.0 | 494.1 | 494.1 | 497.9  | 495.0  |
| 180°   | 494.1 | 494.1 | 494.1 | 494.1  | 494.1  |

TEST NUMBER: P998968

CATALOG NUMBER: SA2XXDIP-B675D925UB50-4F0-XX-W2A-D4

**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 | 12.29            | 13.09 | 13.33 | 14.14 | 15.57 | 15.36          | 16.16 | 16.41 | 17.22 | 18.64 |
|                 | 3H   | 13.74            | 14.47 | 14.80 | 15.53 | 16.97 | 17.95          | 18.67 | 19.00 | 19.73 | 21.18 |
|                 | 4H   | 14.22            | 14.91 | 15.28 | 15.97 | 17.42 | 19.20          | 19.89 | 20.26 | 20.95 | 22.40 |
|                 | 6H   | 14.50            | 15.13 | 15.57 | 16.20 | 17.67 | 20.49          | 21.13 | 21.57 | 22.20 | 23.66 |
|                 | 8H   | 14.56            | 15.16 | 15.63 | 16.25 | 17.71 | 21.15          | 21.76 | 22.23 | 22.84 | 24.30 |
|                 | 12H  | 14.57            | 15.15 | 15.65 | 16.23 | 17.71 | 21.87          | 22.45 | 22.96 | 23.53 | 25.01 |
| 4H              | 2H   | 13.33            | 14.02 | 14.40 | 15.08 | 16.54 | 15.69          | 16.37 | 16.76 | 17.44 | 18.89 |
|                 | 3H   | 15.04            | 15.62 | 16.11 | 16.71 | 18.17 | 18.47          | 19.05 | 19.55 | 20.15 | 21.61 |
|                 | 4H   | 15.65            | 16.19 | 16.74 | 17.27 | 18.76 | 19.89          | 20.42 | 20.97 | 21.51 | 22.99 |
|                 | 6H   | 16.07            | 16.53 | 17.16 | 17.64 | 19.11 | 21.35          | 21.82 | 22.44 | 22.92 | 24.40 |
|                 | 8H   | 16.17            | 16.61 | 17.26 | 17.71 | 19.20 | 22.11          | 22.54 | 23.20 | 23.64 | 25.14 |
|                 | 12H  | 16.21            | 16.61 | 17.32 | 17.72 | 19.22 | 22.93          | 23.33 | 24.04 | 24.44 | 25.94 |
| 8H              | 4H   | 16.44            | 16.88 | 17.53 | 17.97 | 19.47 | 20.03          | 20.46 | 21.12 | 21.56 | 23.06 |
|                 | 6H   | 17.07            | 17.44 | 18.18 | 18.57 | 20.07 | 21.65          | 22.02 | 22.77 | 23.16 | 24.65 |
|                 | 8H   | 17.29            | 17.61 | 18.41 | 18.73 | 20.24 | 22.54          | 22.87 | 23.66 | 23.99 | 25.50 |
|                 | 12H  | 17.42            | 17.71 | 18.55 | 18.82 | 20.37 | 23.53          | 23.82 | 24.66 | 24.94 | 26.48 |
| 12H             | 4H   | 16.64            | 17.03 | 17.74 | 18.14 | 19.64 | 20.00          | 20.40 | 21.11 | 21.51 | 23.01 |
|                 | 6H   | 17.40            | 17.73 | 18.52 | 18.85 | 20.36 | 21.68          | 22.00 | 22.80 | 23.12 | 24.63 |
|                 | 8H   | 17.71            | 17.99 | 18.83 | 19.11 | 20.65 | 22.60          | 22.89 | 23.73 | 24.01 | 25.55 |