

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: CORELITE

Report Number: P854293

Luminaire Tested: SQ2-PW1-100U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854293  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-100U-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

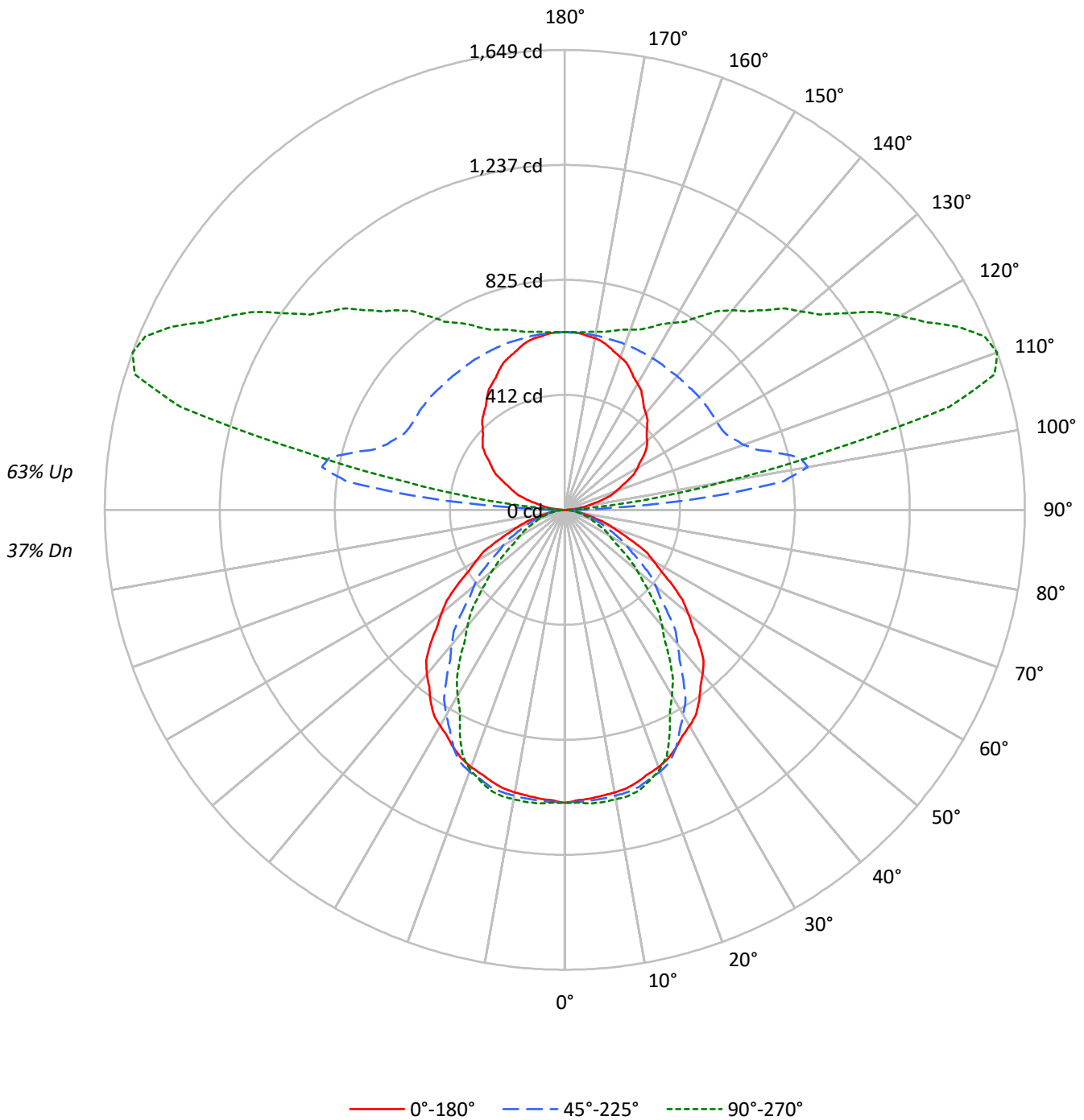
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6294.3 lumens  
Efficiency: N/A  
Efficacy: 124.9 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 50.4  
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 |    |    |    | 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 | 0  |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 76 | 76 | 76 | 59 | 59 | 59 | 44 | 44 | 44 | 37 |
| 1   | 95  | 91  | 88  | 84  | 86 | 83 | 80 | 77 | 67 | 65 | 63 | 53 | 52 | 50 | 40 | 39 | 38 | 32 |
| 2   | 87  | 80  | 74  | 70  | 79 | 73 | 68 | 64 | 59 | 56 | 53 | 47 | 45 | 43 | 35 | 34 | 33 | 28 |
| 3   | 80  | 71  | 64  | 58  | 72 | 65 | 59 | 54 | 53 | 49 | 45 | 42 | 39 | 37 | 32 | 30 | 28 | 24 |
| 4   | 73  | 63  | 55  | 50  | 66 | 57 | 51 | 46 | 47 | 42 | 39 | 38 | 34 | 32 | 29 | 27 | 25 | 21 |
| 5   | 67  | 56  | 48  | 43  | 61 | 51 | 45 | 40 | 42 | 37 | 33 | 34 | 30 | 28 | 26 | 24 | 22 | 18 |
| 6   | 62  | 50  | 43  | 37  | 56 | 46 | 39 | 34 | 38 | 33 | 29 | 31 | 27 | 24 | 24 | 21 | 19 | 16 |
| 7   | 57  | 45  | 38  | 33  | 52 | 42 | 35 | 30 | 35 | 30 | 26 | 28 | 24 | 22 | 22 | 19 | 17 | 15 |
| 8   | 53  | 41  | 34  | 29  | 48 | 38 | 31 | 27 | 32 | 27 | 23 | 26 | 22 | 19 | 20 | 17 | 16 | 13 |
| 9   | 49  | 38  | 30  | 26  | 45 | 35 | 28 | 24 | 29 | 24 | 21 | 24 | 20 | 17 | 18 | 16 | 14 | 12 |
| 10  | 46  | 35  | 28  | 23  | 42 | 32 | 26 | 22 | 27 | 22 | 19 | 22 | 18 | 16 | 17 | 15 | 13 | 11 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16953 | 16953 | 16953 |
| 5°  | 16840 | 16969 | 17131 |
| 10° | 16870 | 17067 | 17280 |
| 15° | 16866 | 17183 | 17384 |
| 20° | 16873 | 17165 | 17045 |
| 25° | 16782 | 16800 | 15838 |
| 30° | 16667 | 15828 | 14318 |
| 35° | 16537 | 14566 | 12930 |
| 40° | 16208 | 13278 | 11424 |
| 45° | 15573 | 11942 | 9978  |
| 50° | 14493 | 10675 | 8540  |
| 55° | 13258 | 9430  | 6925  |
| 60° | 11883 | 8202  | 5974  |
| 65° | 10392 | 7068  | 5310  |
| 70° | 8497  | 6279  | 4815  |
| 75° | 6613  | 5427  | 4429  |
| 80° | 4928  | 4649  | 3905  |
| 85° | 3335  | 3520  | 2223  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15573 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 100.0  | 1.6       |
| 10°-20°   | 289.7  | 4.6       |
| 20°-30°   | 426.3  | 6.8       |
| 30°-40°   | 466.1  | 7.4       |
| 40°-50°   | 418.1  | 6.6       |
| 50°-60°   | 311.9  | 5.0       |
| 60°-70°   | 197.1  | 3.1       |
| 70°-80°   | 97.6   | 1.6       |
| 80°-90°   | 24.0   | 0.4       |
| 90°-100°  | 266.0  | 4.2       |
| 100°-110° | 804.4  | 12.8      |
| 110°-120° | 785.2  | 12.5      |
| 120°-130° | 641.7  | 10.2      |
| 130°-140° | 523.8  | 8.3       |
| 140°-150° | 407.7  | 6.5       |
| 150°-160° | 293.9  | 4.7       |
| 160°-170° | 179.9  | 2.9       |
| 170°-180° | 60.8   | 1.0       |
| 0°-30°    | 816.0  | 13.0      |
| 0°-40°    | 1282.1 | 20.4      |
| 0°-60°    | 2012.2 | 32.0      |
| 0°-90°    | 2330.9 | 37.0      |
| 90°-120°  | 1855.6 | 29.5      |
| 90°-150°  | 3428.7 | 54.5      |
| 90°-180°  | 3963.0 | 63.0      |
| 0°-180°   | 6294.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1050 | 1050  | 1050 | 1050  | 1050 |      |
| 5°   | 1039 | 1056  | 1047 | 1048  | 1057 | 99   |
| 15°  | 1009 | 1029  | 1028 | 1035  | 1040 | 285  |
| 25°  | 942  | 962   | 943  | 904   | 889  | 434  |
| 35°  | 839  | 830   | 739  | 675   | 656  | 523  |
| 45°  | 682  | 627   | 523  | 458   | 437  | 523  |
| 55°  | 471  | 426   | 335  | 263   | 246  | 421  |
| 65°  | 272  | 250   | 185  | 149   | 139  | 270  |
| 75°  | 106  | 114   | 87   | 73    | 71   | 117  |
| 85°  | 18   | 23    | 19   | 13    | 12   | 23   |
| 90°  | 0    | 2     | 12   | 7     | 6    | 2    |
| 95°  | 33   | 104   | 502  | 185   | 117  | 39   |
| 105° | 140  | 197   | 790  | 1500  | 1426 | 147  |
| 115° | 249  | 297   | 639  | 1322  | 1553 | 246  |
| 125° | 348  | 386   | 630  | 1044  | 1229 | 309  |
| 135° | 417  | 461   | 626  | 900   | 1013 | 323  |
| 145° | 487  | 523   | 626  | 774   | 847  | 305  |
| 155° | 555  | 573   | 630  | 694   | 721  | 255  |
| 165° | 607  | 614   | 633  | 657   | 665  | 171  |
| 175° | 635  | 635   | 636  | 641   | 639  | 60   |
| 180° | 637  | 637   | 637  | 637   | 637  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1050.0 | 1050.0 | 1050.0 | 1050.0 | 1050.0 |
| 2.5°   | 1042.8 | 1056.1 | 1047.6 | 1048.5 | 1050.8 |
| 5°     | 1039.0 | 1055.6 | 1047.0 | 1048.2 | 1057.0 |
| 7.5°   | 1033.8 | 1050.6 | 1044.2 | 1047.8 | 1056.4 |
| 10°    | 1029.0 | 1046.6 | 1041.0 | 1046.2 | 1054.0 |
| 12.5°  | 1022.6 | 1041.0 | 1037.0 | 1043.0 | 1050.8 |
| 15°    | 1009.0 | 1028.6 | 1028.0 | 1035.1 | 1040.0 |
| 17.5°  | 993.2  | 1012.8 | 1011.8 | 1013.7 | 1016.0 |
| 20°    | 982.0  | 1001.6 | 999.0  | 992.0  | 992.0  |
| 22.5°  | 966.0  | 987.1  | 980.6  | 961.5  | 955.2  |
| 25°    | 942.0  | 962.5  | 943.0  | 903.7  | 889.0  |
| 27.5°  | 914.0  | 930.6  | 891.4  | 835.5  | 815.2  |
| 30°    | 894.0  | 906.7  | 849.0  | 787.6  | 768.0  |
| 32.5°  | 873.2  | 878.1  | 805.8  | 741.9  | 720.8  |
| 35°    | 839.0  | 830.2  | 739.0  | 674.6  | 656.0  |
| 37.5°  | 798.6  | 772.4  | 674.8  | 607.3  | 586.8  |
| 40°    | 769.0  | 731.9  | 630.0  | 562.5  | 542.0  |
| 42.5°  | 736.2  | 689.7  | 587.6  | 520.1  | 498.8  |
| 45°    | 682.0  | 627.3  | 523.0  | 457.5  | 437.0  |
| 47.5°  | 621.0  | 566.6  | 462.6  | 399.2  | 381.6  |
| 50°    | 577.0  | 524.2  | 425.0  | 361.5  | 340.0  |
| 52.5°  | 532.2  | 484.9  | 388.2  | 322.9  | 293.6  |
| 55°    | 471.0  | 426.0  | 335.0  | 262.6  | 246.0  |
| 57.5°  | 408.0  | 369.1  | 286.8  | 221.1  | 207.4  |
| 60°    | 368.0  | 333.8  | 254.0  | 198.7  | 185.0  |
| 62.5°  | 329.6  | 299.3  | 222.0  | 177.9  | 166.6  |
| 65°    | 272.0  | 249.5  | 185.0  | 148.8  | 139.0  |
| 67.5°  | 216.0  | 203.5  | 153.8  | 122.1  | 115.6  |
| 70°    | 180.0  | 176.1  | 133.0  | 106.9  | 102.0  |
| 72.5°  | 148.8  | 150.4  | 113.0  | 92.5   | 89.2   |
| 75°    | 106.0  | 113.8  | 87.0   | 73.0   | 71.0   |
| 77.5°  | 72.2   | 83.9   | 64.4   | 54.0   | 52.4   |
| 80°    | 53.0   | 64.7   | 50.0   | 42.0   | 42.0   |
| 82.5°  | 37.0   | 46.4   | 35.6   | 31.6   | 31.6   |
| 85°    | 18.0   | 22.9   | 19.0   | 13.0   | 12.0   |
| 87.5°  | 4.8    | 7.5    | 5.6    | 3.8    | 3.6    |
| 90°    | 0.0    | 2.0    | 12.0   | 7.0    | 6.0    |
| 92.5°  | 11.2   | 45.2   | 162.4  | 53.8   | 38.8   |
| 95°    | 33.0   | 104.3  | 501.9  | 185.4  | 117.0  |
| 97.5°  | 63.8   | 132.8  | 791.0  | 523.4  | 318.7  |
| 100°   | 83.0   | 150.4  | 883.8  | 854.4  | 573.8  |
| 102.5° | 104.6  | 169.7  | 864.6  | 1198.4 | 955.3  |
| 105°   | 140.0  | 196.7  | 789.8  | 1499.9 | 1425.6 |
| 107.5° | 173.6  | 227.7  | 717.8  | 1529.7 | 1615.8 |
| 110°   | 195.9  | 247.8  | 681.8  | 1492.2 | 1648.6 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 217.5 | 267.8 | 660.2 | 1429.1 | 1627.0 |
| 115°   | 248.9 | 296.8 | 638.8 | 1321.9 | 1552.6 |
| 117.5° | 280.1 | 325.5 | 631.2 | 1221.4 | 1457.6 |
| 120°   | 300.9 | 343.9 | 628.8 | 1162.8 | 1389.6 |
| 122.5° | 320.1 | 360.8 | 628.8 | 1111.3 | 1320.8 |
| 125°   | 347.9 | 386.0 | 629.8 | 1043.9 | 1228.7 |
| 127.5° | 370.5 | 410.0 | 628.8 | 993.1  | 1150.7 |
| 130°   | 384.9 | 426.0 | 628.8 | 964.0  | 1106.7 |
| 132.5° | 397.7 | 439.5 | 628.0 | 937.3  | 1069.1 |
| 135°   | 416.9 | 460.9 | 625.8 | 900.3  | 1012.7 |
| 137.5° | 438.3 | 480.1 | 625.8 | 860.7  | 964.9  |
| 140°   | 451.9 | 492.9 | 625.8 | 835.0  | 933.8  |
| 142.5° | 465.5 | 505.0 | 625.0 | 811.5  | 897.8  |
| 145°   | 486.9 | 523.0 | 625.8 | 774.4  | 846.8  |
| 147.5° | 508.3 | 539.0 | 627.0 | 743.9  | 799.4  |
| 150°   | 521.9 | 550.2 | 627.8 | 726.9  | 773.8  |
| 152.5° | 534.7 | 559.9 | 628.6 | 712.3  | 750.6  |
| 155°   | 554.9 | 573.4 | 629.8 | 694.4  | 720.8  |
| 157.5° | 572.4 | 587.5 | 631.0 | 681.2  | 699.6  |
| 160°   | 582.8 | 595.6 | 631.8 | 673.1  | 686.8  |
| 162.5° | 593.2 | 602.8 | 632.6 | 665.9  | 677.2  |
| 165°   | 606.8 | 613.7 | 632.8 | 657.0  | 664.8  |
| 167.5° | 618.4 | 622.0 | 634.0 | 650.1  | 653.4  |
| 170°   | 624.8 | 626.8 | 634.8 | 646.8  | 647.8  |
| 172.5° | 628.8 | 630.0 | 634.8 | 643.6  | 643.8  |
| 175°   | 634.8 | 634.8 | 635.8 | 640.8  | 638.8  |
| 177.5° | 637.6 | 636.8 | 636.0 | 638.4  | 636.8  |
| 180°   | 636.8 | 636.8 | 636.8 | 636.8  | 636.8  |

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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 | 15.54            | 16.27 | 16.61 | 17.34 | 18.78 | 12.03          | 12.76 | 13.09 | 13.82 | 15.27 |
|                 | 3H   | 16.85            | 17.50 | 17.93 | 18.58 | 20.04 | 13.22          | 13.87 | 14.30 | 14.95 | 16.41 |
|                 | 4H   | 17.22            | 17.84 | 18.31 | 18.91 | 20.39 | 13.66          | 14.28 | 14.75 | 15.36 | 16.83 |
|                 | 6H   | 17.42            | 17.98 | 18.51 | 19.06 | 20.55 | 13.97          | 14.54 | 15.07 | 15.62 | 17.10 |
|                 | 8H   | 17.45            | 17.99 | 18.55 | 19.08 | 20.56 | 14.05          | 14.59 | 15.15 | 15.68 | 17.16 |
|                 | 12H  | 17.44            | 17.95 | 18.54 | 19.04 | 20.54 | 14.05          | 14.57 | 15.16 | 15.65 | 17.15 |
| 4H              | 2H   | 15.63            | 16.25 | 16.72 | 17.32 | 18.79 | 12.69          | 13.31 | 13.79 | 14.39 | 15.86 |
|                 | 3H   | 17.16            | 17.67 | 18.26 | 18.78 | 20.26 | 14.07          | 14.58 | 15.17 | 15.69 | 17.17 |
|                 | 4H   | 17.66            | 18.13 | 18.77 | 19.23 | 20.73 | 14.61          | 15.08 | 15.72 | 16.17 | 17.68 |
|                 | 6H   | 17.99            | 18.39 | 19.10 | 19.51 | 21.01 | 15.01          | 15.41 | 16.12 | 16.53 | 18.03 |
|                 | 8H   | 18.06            | 18.44 | 19.18 | 19.55 | 21.06 | 15.11          | 15.49 | 16.22 | 16.59 | 18.11 |
|                 | 12H  | 18.07            | 18.41 | 19.20 | 19.53 | 21.05 | 15.13          | 15.47 | 16.26 | 16.59 | 18.11 |
| 8H              | 4H   | 17.69            | 18.07 | 18.81 | 19.18 | 20.69 | 14.93          | 15.30 | 16.04 | 16.41 | 17.93 |
|                 | 6H   | 18.12            | 18.43 | 19.26 | 19.58 | 21.10 | 15.43          | 15.74 | 16.56 | 16.89 | 18.40 |
|                 | 8H   | 18.27            | 18.54 | 19.41 | 19.67 | 21.20 | 15.59          | 15.86 | 16.73 | 16.99 | 18.53 |
|                 | 12H  | 18.33            | 18.57 | 19.47 | 19.70 | 21.26 | 15.65          | 15.89 | 16.79 | 17.01 | 18.58 |
| 12H             | 4H   | 17.65            | 17.99 | 18.78 | 19.11 | 20.63 | 14.94          | 15.28 | 16.07 | 16.40 | 17.92 |
|                 | 6H   | 18.12            | 18.39 | 19.26 | 19.52 | 21.05 | 15.49          | 15.77 | 16.64 | 16.90 | 18.43 |
|                 | 8H   | 18.27            | 18.51 | 19.42 | 19.64 | 21.21 | 15.67          | 15.91 | 16.82 | 17.04 | 18.61 |