

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: P854935

Luminaire Tested: SQ2-PP3-050U-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-050U-050D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

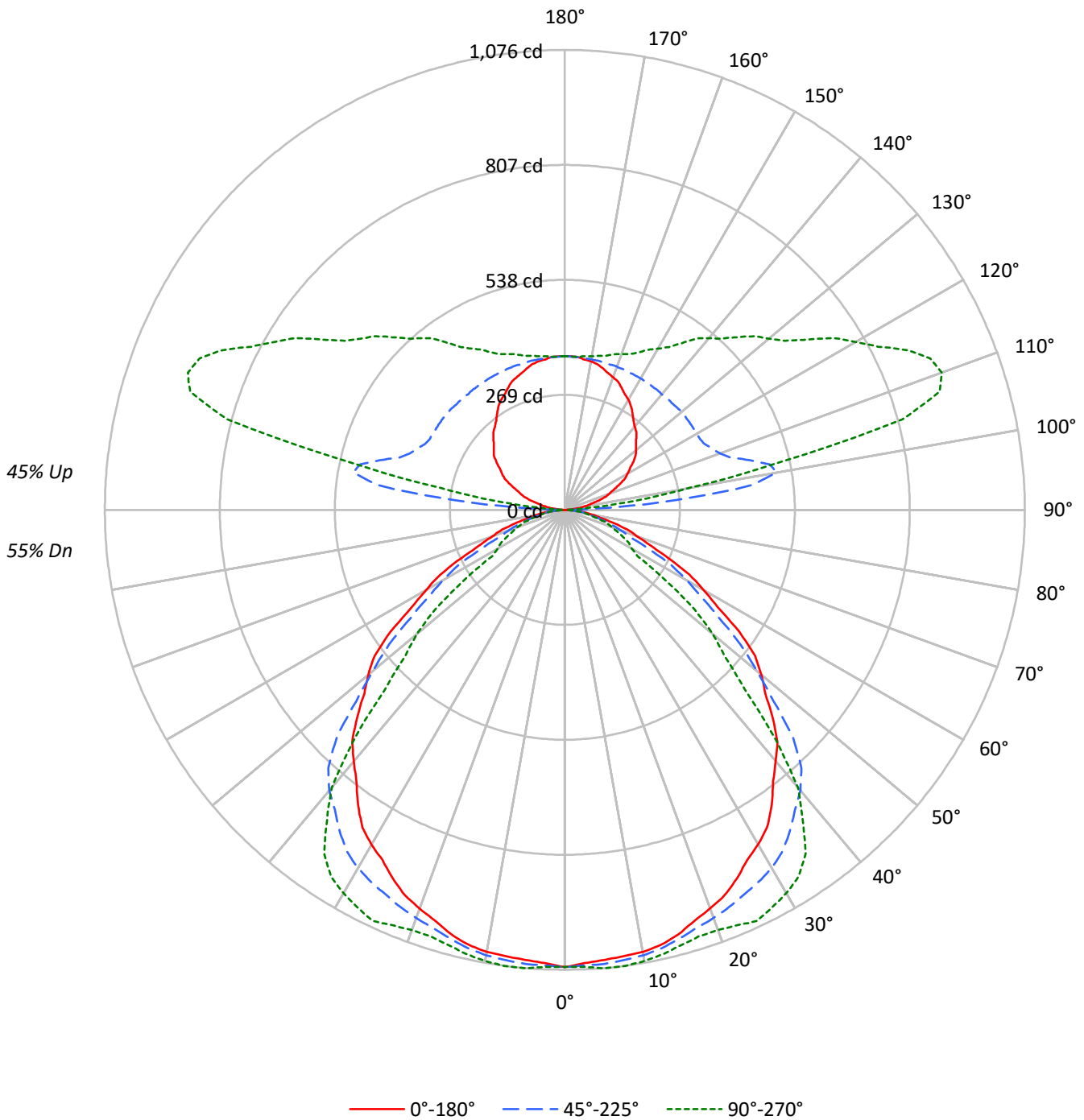
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4926.7 lumens  
Efficiency: N/A  
Efficacy: 151.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 32.6  
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 | 0  |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |
| 0   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 86 | 86 | 86 | 73 | 73 | 73 | 60 | 60 | 60 | 55 |
| 1   | 99  | 95  | 92  | 88  | 92  | 89  | 86  | 83  | 76 | 74 | 72 | 65 | 63 | 62 | 54 | 53 | 52 | 47 |
| 2   | 91  | 84  | 78  | 73  | 84  | 78  | 73  | 69  | 67 | 64 | 60 | 58 | 55 | 52 | 49 | 47 | 45 | 40 |
| 3   | 83  | 74  | 67  | 61  | 77  | 69  | 63  | 58  | 60 | 55 | 51 | 51 | 48 | 45 | 43 | 41 | 39 | 35 |
| 4   | 76  | 66  | 58  | 52  | 71  | 62  | 55  | 50  | 54 | 48 | 44 | 46 | 42 | 39 | 39 | 36 | 34 | 30 |
| 5   | 70  | 59  | 51  | 45  | 65  | 55  | 48  | 43  | 48 | 43 | 38 | 41 | 37 | 34 | 35 | 32 | 30 | 27 |
| 6   | 65  | 53  | 45  | 39  | 60  | 50  | 43  | 37  | 43 | 38 | 34 | 38 | 33 | 30 | 32 | 29 | 26 | 23 |
| 7   | 60  | 48  | 40  | 35  | 56  | 45  | 38  | 33  | 39 | 34 | 30 | 34 | 30 | 26 | 29 | 26 | 23 | 21 |
| 8   | 56  | 44  | 36  | 31  | 52  | 41  | 34  | 29  | 36 | 30 | 26 | 31 | 27 | 24 | 27 | 24 | 21 | 19 |
| 9   | 52  | 40  | 32  | 27  | 48  | 37  | 31  | 26  | 33 | 28 | 24 | 29 | 24 | 21 | 25 | 21 | 19 | 17 |
| 10  | 49  | 37  | 29  | 25  | 45  | 34  | 28  | 24  | 30 | 25 | 21 | 27 | 22 | 19 | 23 | 20 | 17 | 15 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17270 | 17270 | 17270 |
| 5°  | 17135 | 17280 | 17446 |
| 10° | 17221 | 17351 | 17572 |
| 15° | 17180 | 17349 | 17615 |
| 20° | 17057 | 17464 | 17969 |
| 25° | 16960 | 17685 | 18914 |
| 30° | 16863 | 18043 | 19309 |
| 35° | 16626 | 18096 | 19344 |
| 40° | 16181 | 18063 | 17873 |
| 45° | 15696 | 17246 | 13604 |
| 50° | 15081 | 14712 | 11331 |
| 55° | 14035 | 12380 | 8146  |
| 60° | 12084 | 10624 | 5842  |
| 65° | 10193 | 8206  | 5746  |
| 70° | 8488  | 6458  | 5500  |
| 75° | 7193  | 5571  | 5147  |
| 80° | 6100  | 4835  | 4621  |
| 85° | 4817  | 3983  | 2519  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 17246 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 101.8  | 2.1       |
| 10°-20°   | 294.7  | 6.0       |
| 20°-30°   | 461.8  | 9.4       |
| 30°-40°   | 569.6  | 11.6      |
| 40°-50°   | 536.3  | 10.9      |
| 50°-60°   | 379.7  | 7.7       |
| 60°-70°   | 216.4  | 4.4       |
| 70°-80°   | 107.1  | 2.2       |
| 80°-90°   | 26.6   | 0.5       |
| 90°-100°  | 143.2  | 2.9       |
| 100°-110° | 454.2  | 9.2       |
| 110°-120° | 445.4  | 9.0       |
| 120°-130° | 362.4  | 7.4       |
| 130°-140° | 295.5  | 6.0       |
| 140°-150° | 230.4  | 4.7       |
| 150°-160° | 166.0  | 3.4       |
| 160°-170° | 101.4  | 2.1       |
| 170°-180° | 34.2   | 0.7       |
| 0°-30°    | 858.4  | 17.4      |
| 0°-40°    | 1428.0 | 29.0      |
| 0°-60°    | 2344.1 | 47.6      |
| 0°-90°    | 2694.1 | 54.7      |
| 90°-120°  | 1042.7 | 21.2      |
| 90°-150°  | 1931.0 | 39.2      |
| 90°-180°  | 2233.0 | 45.3      |
| 0°-180°   | 4926.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1070 | 1070  | 1070 | 1070  | 1070 |      |
| 5°   | 1057 | 1076  | 1066 | 1069  | 1076 | 101  |
| 15°  | 1028 | 1042  | 1038 | 1048  | 1054 | 290  |
| 25°  | 952  | 976   | 993  | 1033  | 1062 | 438  |
| 35°  | 844  | 867   | 918  | 970   | 981  | 526  |
| 45°  | 687  | 739   | 755  | 640   | 596  | 529  |
| 55°  | 499  | 528   | 440  | 332   | 289  | 440  |
| 65°  | 267  | 281   | 215  | 152   | 150  | 268  |
| 75°  | 115  | 128   | 89   | 84    | 82   | 125  |
| 85°  | 26   | 24    | 22   | 17    | 14   | 30   |
| 90°  | 0    | 1     | 3    | 3     | 3    | 2    |
| 95°  | 19   | 58    | 260  | 96    | 62   | 22   |
| 105° | 79   | 111   | 448  | 853   | 817  | 83   |
| 115° | 141  | 168   | 362  | 751   | 884  | 139  |
| 125° | 196  | 219   | 356  | 589   | 694  | 174  |
| 135° | 236  | 260   | 354  | 507   | 571  | 182  |
| 145° | 276  | 297   | 354  | 437   | 476  | 173  |
| 155° | 314  | 325   | 355  | 390   | 406  | 145  |
| 165° | 343  | 346   | 356  | 370   | 373  | 97   |
| 175° | 358  | 357   | 358  | 361   | 360  | 34   |
| 180° | 360  | 360   | 360  | 360   | 360  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1069.6 | 1069.6 | 1069.6 | 1069.6 | 1069.6 |
| 2.5°   | 1061.4 | 1076.5 | 1066.9 | 1068.7 | 1070.5 |
| 5°     | 1057.2 | 1075.9 | 1066.2 | 1068.7 | 1076.4 |
| 7.5°   | 1053.1 | 1072.3 | 1062.8 | 1066.9 | 1076.4 |
| 10°    | 1050.4 | 1067.0 | 1058.3 | 1064.2 | 1071.8 |
| 12.5°  | 1042.2 | 1057.9 | 1050.1 | 1057.7 | 1064.6 |
| 15°    | 1027.8 | 1042.1 | 1037.9 | 1048.2 | 1053.8 |
| 17.5°  | 1008.1 | 1025.6 | 1025.5 | 1040.1 | 1045.8 |
| 20°    | 992.7  | 1013.7 | 1016.4 | 1034.8 | 1045.8 |
| 22.5°  | 976.4  | 1001.0 | 1005.6 | 1033.2 | 1052.2 |
| 25°    | 952.0  | 976.3  | 992.7  | 1033.0 | 1061.7 |
| 27.5°  | 923.5  | 947.6  | 981.4  | 1026.5 | 1049.2 |
| 30°    | 904.5  | 927.7  | 967.8  | 1014.6 | 1035.7 |
| 32.5°  | 881.0  | 905.1  | 947.9  | 998.4  | 1017.6 |
| 35°    | 843.5  | 866.6  | 918.1  | 970.3  | 981.4  |
| 37.5°  | 800.3  | 826.6  | 884.2  | 913.3  | 914.0  |
| 40°    | 767.7  | 802.0  | 857.0  | 862.3  | 848.0  |
| 42.5°  | 736.0  | 780.0  | 819.0  | 795.2  | 731.3  |
| 45°    | 687.4  | 739.4  | 755.3  | 640.1  | 595.8  |
| 47.5°  | 635.6  | 687.0  | 661.7  | 536.8  | 506.3  |
| 50°    | 600.4  | 649.0  | 585.7  | 479.8  | 451.1  |
| 52.5°  | 560.6  | 603.9  | 517.8  | 425.2  | 381.5  |
| 55°    | 498.6  | 528.5  | 439.8  | 331.5  | 289.4  |
| 57.5°  | 424.0  | 445.0  | 376.1  | 248.9  | 201.7  |
| 60°    | 374.2  | 390.9  | 329.0  | 204.1  | 180.9  |
| 62.5°  | 329.0  | 343.8  | 280.2  | 177.3  | 169.1  |
| 65°    | 266.8  | 281.2  | 214.8  | 151.5  | 150.4  |
| 67.5°  | 212.3  | 228.1  | 164.8  | 132.3  | 130.9  |
| 70°    | 179.8  | 196.4  | 136.8  | 118.7  | 116.5  |
| 72.5°  | 152.6  | 168.4  | 116.0  | 104.2  | 102.9  |
| 75°    | 115.3  | 127.5  | 89.3   | 83.7   | 82.5   |
| 77.5°  | 83.7   | 91.4   | 66.5   | 63.5   | 62.4   |
| 80°    | 65.6   | 68.9   | 52.0   | 50.9   | 49.7   |
| 82.5°  | 49.3   | 48.2   | 39.3   | 38.2   | 36.2   |
| 85°    | 26.0   | 23.7   | 21.5   | 16.8   | 13.6   |
| 87.5°  | 8.1    | 8.4    | 4.3    | 3.4    | 3.4    |
| 90°    | 0.0    | 1.1    | 3.4    | 3.4    | 3.4    |
| 92.5°  | 6.3    | 25.1   | 80.3   | 26.7   | 18.8   |
| 95°    | 19.2   | 57.9   | 260.0  | 96.4   | 62.2   |
| 97.5°  | 35.7   | 75.1   | 440.5  | 275.2  | 168.9  |
| 100°   | 47.5   | 85.0   | 502.0  | 457.6  | 297.4  |
| 102.5° | 60.2   | 96.0   | 491.2  | 672.1  | 514.4  |
| 105°   | 79.1   | 111.1  | 447.7  | 852.7  | 817.3  |
| 107.5° | 98.1   | 127.8  | 406.4  | 871.6  | 919.3  |
| 110°   | 110.8  | 139.5  | 385.5  | 849.9  | 938.3  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 123.5 | 150.4 | 373.8 | 812.5 | 924.8 |
| 115°   | 141.3 | 167.9 | 361.8 | 751.4 | 884.0 |
| 117.5° | 158.7 | 184.0 | 357.1 | 692.6 | 826.4 |
| 120°   | 169.6 | 193.9 | 356.2 | 656.3 | 785.7 |
| 122.5° | 180.5 | 203.9 | 356.2 | 627.3 | 747.7 |
| 125°   | 195.6 | 218.8 | 356.2 | 589.2 | 694.1 |
| 127.5° | 208.9 | 231.2 | 356.2 | 559.7 | 649.1 |
| 130°   | 217.1 | 240.3 | 356.2 | 542.3 | 622.9 |
| 132.5° | 225.2 | 248.4 | 355.2 | 528.5 | 601.3 |
| 135°   | 236.3 | 259.5 | 353.9 | 506.8 | 571.0 |
| 137.5° | 247.2 | 271.5 | 353.7 | 486.1 | 543.4 |
| 140°   | 254.4 | 278.7 | 352.8 | 471.5 | 523.5 |
| 142.5° | 263.4 | 286.8 | 353.7 | 456.9 | 505.4 |
| 145°   | 275.9 | 296.9 | 353.9 | 437.2 | 476.0 |
| 147.5° | 288.3 | 306.2 | 354.1 | 419.9 | 451.6 |
| 150°   | 297.4 | 311.7 | 355.0 | 409.9 | 435.3 |
| 152.5° | 304.6 | 317.1 | 355.0 | 401.6 | 422.6 |
| 155°   | 314.3 | 325.4 | 355.0 | 390.4 | 405.9 |
| 157.5° | 324.7 | 332.2 | 356.2 | 383.5 | 394.1 |
| 160°   | 330.1 | 336.7 | 356.2 | 378.9 | 387.8 |
| 162.5° | 335.6 | 340.4 | 356.2 | 375.3 | 381.5 |
| 165°   | 342.6 | 345.9 | 356.2 | 369.7 | 373.1 |
| 167.5° | 349.1 | 350.0 | 357.3 | 365.9 | 368.8 |
| 170°   | 352.8 | 352.8 | 357.3 | 364.1 | 365.2 |
| 172.5° | 354.6 | 355.5 | 357.3 | 362.3 | 362.5 |
| 175°   | 358.4 | 357.3 | 358.4 | 360.6 | 359.5 |
| 177.5° | 359.5 | 358.6 | 358.6 | 360.3 | 358.6 |
| 180°   | 359.5 | 359.5 | 359.5 | 359.5 | 359.5 |

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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 | 17.87            | 18.74 | 18.79 | 19.67 | 20.88 | 14.26          | 15.13 | 15.19 | 16.07 | 17.28 |
|                 | 3H   | 18.96            | 19.74 | 19.90 | 20.69 | 21.92 | 15.37          | 16.15 | 16.30 | 17.09 | 18.32 |
|                 | 4H   | 19.31            | 20.04 | 20.26 | 20.99 | 22.23 | 15.83          | 16.57 | 16.78 | 17.52 | 18.75 |
|                 | 6H   | 19.52            | 20.20 | 20.48 | 21.15 | 22.40 | 16.18          | 16.85 | 17.14 | 17.81 | 19.06 |
|                 | 8H   | 19.57            | 20.21 | 20.54 | 21.19 | 22.43 | 16.26          | 16.91 | 17.23 | 17.88 | 19.13 |
|                 | 12H  | 19.59            | 20.20 | 20.56 | 21.16 | 22.44 | 16.28          | 16.89 | 17.25 | 17.86 | 19.13 |
| 4H              | 2H   | 17.98            | 18.71 | 18.93 | 19.66 | 20.90 | 14.98          | 15.71 | 15.93 | 16.66 | 17.90 |
|                 | 3H   | 19.29            | 19.89 | 20.25 | 20.87 | 22.13 | 16.23          | 16.84 | 17.20 | 17.82 | 19.07 |
|                 | 4H   | 19.76            | 20.31 | 20.74 | 21.29 | 22.57 | 16.79          | 17.34 | 17.76 | 18.31 | 19.59 |
|                 | 6H   | 20.10            | 20.57 | 21.09 | 21.57 | 22.85 | 17.23          | 17.70 | 18.21 | 18.70 | 19.98 |
|                 | 8H   | 20.19            | 20.64 | 21.18 | 21.63 | 22.92 | 17.35          | 17.79 | 18.34 | 18.78 | 20.07 |
|                 | 12H  | 20.23            | 20.63 | 21.24 | 21.64 | 22.93 | 17.38          | 17.78 | 18.38 | 18.78 | 20.08 |
| 8H              | 4H   | 19.78            | 20.22 | 20.77 | 21.22 | 22.51 | 17.06          | 17.50 | 18.05 | 18.49 | 19.78 |
|                 | 6H   | 20.21            | 20.58 | 21.22 | 21.61 | 22.90 | 17.61          | 17.97 | 18.62 | 19.01 | 20.29 |
|                 | 8H   | 20.37            | 20.69 | 21.39 | 21.71 | 23.02 | 17.79          | 18.11 | 18.81 | 19.14 | 20.44 |
|                 | 12H  | 20.46            | 20.74 | 21.48 | 21.75 | 23.11 | 17.86          | 18.15 | 18.89 | 19.16 | 20.52 |
| 12H             | 4H   | 19.74            | 20.14 | 20.75 | 21.15 | 22.44 | 17.07          | 17.47 | 18.07 | 18.48 | 19.77 |
|                 | 6H   | 20.20            | 20.52 | 21.22 | 21.55 | 22.85 | 17.66          | 17.98 | 18.68 | 19.00 | 20.31 |
|                 | 8H   | 20.37            | 20.66 | 21.40 | 21.67 | 23.02 | 17.87          | 18.15 | 18.89 | 19.17 | 20.52 |