

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: P854142

Luminaire Tested: SQ2-PP3-125U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854142  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-125U-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

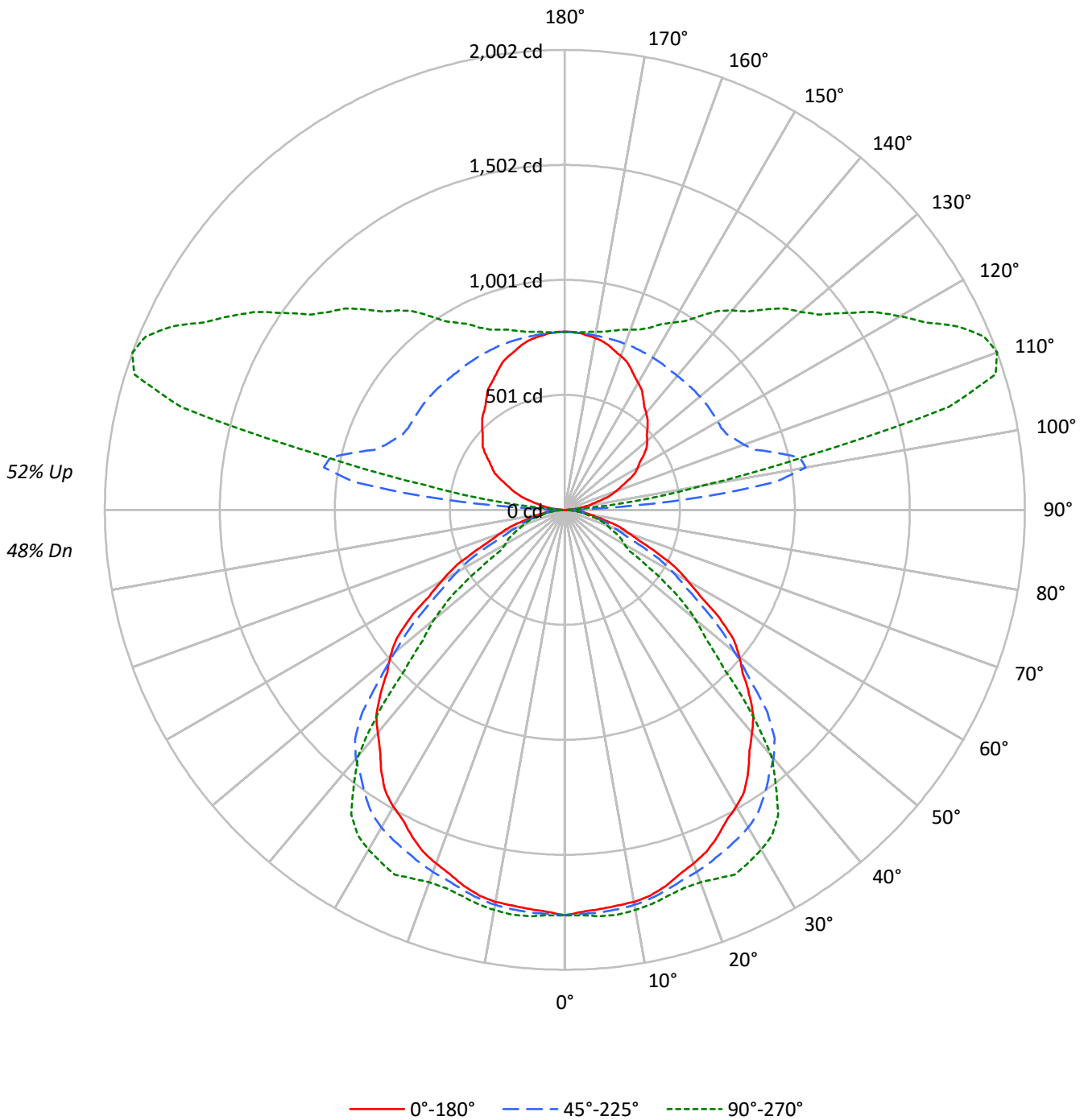
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9225.4 lumens  
Efficiency: N/A  
Efficacy: 113.2 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): 81.5  
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 | 0  |    |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 98 | 82 | 82 | 82 | 68 | 68 | 68 | 54 | 54 | 54 | 48 |    |    |    | 48 |
| 1   | 98  | 94  | 90  | 87  | 90 | 87 | 83 | 81 | 73 | 71 | 69 | 60 | 59 | 58 | 49 | 48 | 47 |    |    |    | 42 |    |
| 2   | 90  | 82  | 77  | 72  | 82 | 76 | 71 | 67 | 64 | 61 | 58 | 54 | 51 | 49 | 44 | 42 | 40 |    |    |    | 36 |    |
| 3   | 82  | 73  | 66  | 60  | 75 | 67 | 61 | 56 | 57 | 53 | 49 | 48 | 45 | 42 | 39 | 37 | 35 |    |    |    | 31 |    |
| 4   | 75  | 65  | 57  | 51  | 69 | 60 | 53 | 48 | 51 | 46 | 42 | 43 | 39 | 36 | 35 | 32 | 30 |    |    |    | 27 |    |
| 5   | 69  | 58  | 50  | 44  | 63 | 54 | 47 | 41 | 46 | 41 | 36 | 39 | 35 | 31 | 32 | 29 | 27 |    |    |    | 23 |    |
| 6   | 64  | 52  | 44  | 38  | 59 | 48 | 41 | 36 | 41 | 36 | 32 | 35 | 31 | 28 | 29 | 26 | 24 |    |    |    | 21 |    |
| 7   | 59  | 47  | 39  | 34  | 54 | 44 | 37 | 32 | 38 | 32 | 28 | 32 | 28 | 25 | 26 | 23 | 21 |    |    |    | 18 |    |
| 8   | 55  | 43  | 35  | 30  | 50 | 40 | 33 | 28 | 34 | 29 | 25 | 29 | 25 | 22 | 24 | 21 | 19 |    |    |    | 16 |    |
| 9   | 51  | 39  | 32  | 27  | 47 | 36 | 30 | 25 | 31 | 26 | 22 | 27 | 23 | 20 | 22 | 19 | 17 |    |    |    | 15 |    |
| 10  | 48  | 36  | 29  | 24  | 44 | 33 | 27 | 23 | 29 | 24 | 20 | 25 | 21 | 18 | 21 | 18 | 15 |    |    |    | 13 |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 28493 | 28493 | 28493 |
| 5°  | 28269 | 28511 | 28783 |
| 10° | 28412 | 28627 | 28994 |
| 15° | 28344 | 28625 | 29061 |
| 20° | 28142 | 28816 | 29649 |
| 25° | 27982 | 29179 | 31206 |
| 30° | 27824 | 29770 | 31858 |
| 35° | 27429 | 29857 | 31915 |
| 40° | 26698 | 29803 | 29489 |
| 45° | 25898 | 28453 | 22448 |
| 50° | 24882 | 24272 | 18696 |
| 55° | 23159 | 20428 | 13444 |
| 60° | 19940 | 17531 | 9639  |
| 65° | 16821 | 13540 | 9478  |
| 70° | 14002 | 10655 | 9069  |
| 75° | 11871 | 9195  | 8497  |
| 80° | 10060 | 7978  | 7634  |
| 85° | 7947  | 6558  | 4150  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 28453 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 168.0  | 1.8       |
| 10°-20°   | 486.3  | 5.3       |
| 20°-30°   | 761.9  | 8.3       |
| 30°-40°   | 939.9  | 10.2      |
| 40°-50°   | 884.9  | 9.6       |
| 50°-60°   | 626.5  | 6.8       |
| 60°-70°   | 357.0  | 3.9       |
| 70°-80°   | 176.6  | 1.9       |
| 80°-90°   | 44.0   | 0.5       |
| 90°-100°  | 296.4  | 3.2       |
| 100°-110° | 964.9  | 10.5      |
| 110°-120° | 954.5  | 10.3      |
| 120°-130° | 780.0  | 8.5       |
| 130°-140° | 637.5  | 6.9       |
| 140°-150° | 496.5  | 5.4       |
| 150°-160° | 357.9  | 3.9       |
| 160°-170° | 218.8  | 2.4       |
| 170°-180° | 73.8   | 0.8       |
| 0°-30°    | 1416.2 | 15.4      |
| 0°-40°    | 2356.1 | 25.5      |
| 0°-60°    | 3867.5 | 41.9      |
| 0°-90°    | 4445.2 | 48.2      |
| 90°-120°  | 2215.8 | 24.0      |
| 90°-150°  | 4129.8 | 44.8      |
| 90°-180°  | 4780.0 | 51.8      |
| 0°-180°   | 9225.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1765 | 1765  | 1765 | 1765  | 1765 |      |
| 5°   | 1744 | 1775  | 1759 | 1763  | 1776 | 166  |
| 15°  | 1696 | 1719  | 1712 | 1730  | 1739 | 478  |
| 25°  | 1571 | 1611  | 1638 | 1704  | 1752 | 723  |
| 35°  | 1392 | 1430  | 1515 | 1601  | 1619 | 868  |
| 45°  | 1134 | 1220  | 1246 | 1056  | 983  | 873  |
| 55°  | 823  | 872   | 726  | 547   | 478  | 726  |
| 65°  | 440  | 464   | 354  | 250   | 248  | 442  |
| 75°  | 190  | 210   | 147  | 138   | 136  | 206  |
| 85°  | 43   | 39    | 35   | 28    | 22   | 50   |
| 90°  | 0    | 3     | 7    | 6     | 6    | 4    |
| 95°  | 40   | 122   | 543  | 194   | 119  | 47   |
| 105° | 164  | 237   | 956  | 1826  | 1729 | 175  |
| 115° | 303  | 362   | 779  | 1605  | 1888 | 300  |
| 125° | 421  | 470   | 768  | 1267  | 1493 | 375  |
| 135° | 509  | 562   | 764  | 1093  | 1233 | 393  |
| 145° | 595  | 638   | 762  | 942   | 1031 | 372  |
| 155° | 678  | 701   | 767  | 843   | 875  | 313  |
| 165° | 740  | 747   | 769  | 798   | 807  | 209  |
| 175° | 772  | 772   | 772  | 778   | 776  | 73   |
| 180° | 775  | 775   | 775  | 775   | 775  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1764.7 | 1764.7 | 1764.7 | 1764.7 | 1764.7 |
| 2.5°   | 1751.3 | 1776.1 | 1760.3 | 1763.3 | 1766.2 |
| 5°     | 1744.2 | 1775.2 | 1759.1 | 1763.2 | 1775.9 |
| 7.5°   | 1737.5 | 1769.2 | 1753.5 | 1760.2 | 1775.9 |
| 10°    | 1733.0 | 1760.4 | 1746.1 | 1755.7 | 1768.5 |
| 12.5°  | 1719.6 | 1745.5 | 1732.6 | 1745.2 | 1756.5 |
| 15°    | 1695.7 | 1719.4 | 1712.5 | 1729.5 | 1738.6 |
| 17.5°  | 1663.3 | 1692.1 | 1692.0 | 1716.1 | 1725.6 |
| 20°    | 1637.9 | 1672.5 | 1677.1 | 1707.3 | 1725.6 |
| 22.5°  | 1611.0 | 1651.5 | 1659.1 | 1704.6 | 1736.0 |
| 25°    | 1570.7 | 1610.9 | 1637.9 | 1704.3 | 1751.7 |
| 27.5°  | 1523.7 | 1563.5 | 1619.2 | 1693.6 | 1731.2 |
| 30°    | 1492.4 | 1530.7 | 1596.8 | 1674.1 | 1708.8 |
| 32.5°  | 1453.6 | 1493.3 | 1564.0 | 1647.2 | 1678.9 |
| 35°    | 1391.6 | 1429.9 | 1514.8 | 1601.0 | 1619.2 |
| 37.5°  | 1320.4 | 1363.8 | 1458.8 | 1507.0 | 1508.0 |
| 40°    | 1266.7 | 1323.2 | 1414.0 | 1422.8 | 1399.1 |
| 42.5°  | 1214.4 | 1287.0 | 1351.3 | 1312.0 | 1206.6 |
| 45°    | 1134.2 | 1219.9 | 1246.1 | 1056.1 | 983.1  |
| 47.5°  | 1048.8 | 1133.4 | 1091.7 | 885.7  | 835.4  |
| 50°    | 990.6  | 1070.8 | 966.3  | 791.7  | 744.3  |
| 52.5°  | 924.9  | 996.4  | 854.4  | 701.6  | 629.4  |
| 55°    | 822.7  | 871.9  | 725.7  | 546.9  | 477.6  |
| 57.5°  | 699.6  | 734.2  | 620.5  | 410.5  | 332.8  |
| 60°    | 617.5  | 644.8  | 542.9  | 336.8  | 298.5  |
| 62.5°  | 542.9  | 567.3  | 462.3  | 292.6  | 279.1  |
| 65°    | 440.3  | 464.0  | 354.4  | 249.9  | 248.1  |
| 67.5°  | 350.3  | 376.2  | 272.0  | 218.2  | 216.0  |
| 70°    | 296.6  | 324.0  | 225.7  | 195.8  | 192.1  |
| 72.5°  | 251.8  | 277.7  | 191.4  | 171.9  | 169.8  |
| 75°    | 190.3  | 210.3  | 147.4  | 138.0  | 136.2  |
| 77.5°  | 138.0  | 150.8  | 109.7  | 104.8  | 103.0  |
| 80°    | 108.2  | 113.7  | 85.8   | 83.9   | 82.1   |
| 82.5°  | 81.3   | 79.5   | 64.9   | 63.0   | 59.7   |
| 85°    | 42.9   | 39.3   | 35.4   | 27.9   | 22.4   |
| 87.5°  | 13.4   | 14.0   | 7.3    | 5.6    | 5.6    |
| 90°    | 0.0    | 2.8    | 6.7    | 5.7    | 5.7    |
| 92.5°  | 13.7   | 49.3   | 157.6  | 52.0   | 40.0   |
| 95°    | 40.0   | 122.0  | 543.2  | 193.7  | 119.1  |
| 97.5°  | 75.3   | 158.8  | 921.9  | 561.5  | 342.7  |
| 100°   | 98.2   | 180.2  | 1064.5 | 949.2  | 615.6  |
| 102.5° | 124.1  | 203.1  | 1047.0 | 1404.3 | 1067.7 |
| 105°   | 163.9  | 236.6  | 955.9  | 1825.6 | 1728.7 |
| 107.5° | 207.0  | 275.4  | 869.3  | 1862.2 | 1964.9 |
| 110°   | 238.2  | 300.7  | 828.2  | 1816.8 | 2002.2 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 264.2 | 325.9 | 802.2 | 1734.9 | 1974.0 |
| 115°   | 303.1 | 361.8 | 778.6 | 1604.6 | 1887.9 |
| 117.5° | 343.1 | 396.0 | 769.4 | 1485.3 | 1767.2 |
| 120°   | 365.9 | 418.1 | 767.2 | 1411.9 | 1684.9 |
| 122.5° | 388.1 | 439.5 | 767.9 | 1348.2 | 1602.6 |
| 125°   | 421.2 | 469.7 | 768.1 | 1266.9 | 1493.3 |
| 127.5° | 449.6 | 499.2 | 767.9 | 1206.0 | 1394.8 |
| 130°   | 467.9 | 518.2 | 767.2 | 1171.3 | 1339.9 |
| 132.5° | 483.9 | 536.5 | 766.4 | 1139.0 | 1297.2 |
| 135°   | 508.9 | 562.0 | 764.3 | 1093.4 | 1233.2 |
| 137.5° | 533.3 | 586.8 | 762.2 | 1047.1 | 1171.2 |
| 140°   | 550.8 | 602.1 | 761.4 | 1015.7 | 1133.1 |
| 142.5° | 567.6 | 616.6 | 761.4 | 985.7  | 1090.4 |
| 145°   | 594.7 | 638.5 | 762.4 | 941.7  | 1031.1 |
| 147.5° | 621.0 | 659.0 | 763.7 | 904.2  | 973.4  |
| 150°   | 638.5 | 672.1 | 765.3 | 881.9  | 940.6  |
| 152.5° | 656.0 | 683.6 | 766.0 | 864.9  | 911.6  |
| 155°   | 678.5 | 700.9 | 767.2 | 843.2  | 874.8  |
| 157.5° | 699.9 | 715.9 | 768.3 | 827.1  | 849.3  |
| 160°   | 712.8 | 725.9 | 769.1 | 817.1  | 834.8  |
| 162.5° | 724.3 | 734.3 | 769.1 | 808.6  | 821.9  |
| 165°   | 740.5 | 747.0 | 769.1 | 797.9  | 807.2  |
| 167.5° | 751.9 | 756.0 | 769.3 | 789.8  | 794.6  |
| 170°   | 759.5 | 761.4 | 770.0 | 784.4  | 786.2  |
| 172.5° | 764.9 | 766.0 | 771.5 | 781.3  | 780.9  |
| 175°   | 771.9 | 771.9 | 771.9 | 777.6  | 775.7  |
| 177.5° | 774.8 | 774.0 | 773.3 | 777.0  | 774.0  |
| 180°   | 774.8 | 774.8 | 774.8 | 774.8  | 774.8  |

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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 | 19.01            | 19.82 | 19.99 | 20.81 | 22.11 | 15.40          | 16.22 | 16.38 | 17.21 | 18.51 |
|                 | 3H   | 20.10            | 20.83 | 21.09 | 21.82 | 23.15 | 16.50          | 17.23 | 17.50 | 18.23 | 19.55 |
|                 | 4H   | 20.44            | 21.13 | 21.44 | 22.13 | 23.46 | 16.97          | 17.65 | 17.97 | 18.65 | 19.98 |
|                 | 6H   | 20.65            | 21.29 | 21.67 | 22.29 | 23.63 | 17.31          | 17.94 | 18.32 | 18.95 | 20.29 |
|                 | 8H   | 20.70            | 21.30 | 21.72 | 22.32 | 23.66 | 17.39          | 18.00 | 18.41 | 19.02 | 20.36 |
|                 | 12H  | 20.71            | 21.29 | 21.74 | 22.30 | 23.66 | 17.41          | 17.98 | 18.43 | 18.99 | 20.36 |
| 4H              | 2H   | 19.11            | 19.80 | 20.12 | 20.80 | 22.13 | 16.11          | 16.80 | 17.12 | 17.80 | 19.13 |
|                 | 3H   | 20.42            | 20.99 | 21.43 | 22.02 | 23.36 | 17.36          | 17.93 | 18.38 | 18.96 | 20.30 |
|                 | 4H   | 20.89            | 21.41 | 21.91 | 22.43 | 23.80 | 17.91          | 18.43 | 18.94 | 19.45 | 20.82 |
|                 | 6H   | 21.22            | 21.67 | 22.26 | 22.71 | 24.08 | 18.35          | 18.80 | 19.39 | 19.84 | 21.20 |
|                 | 8H   | 21.32            | 21.73 | 22.35 | 22.77 | 24.15 | 18.47          | 18.89 | 19.51 | 19.92 | 21.30 |
|                 | 12H  | 21.35            | 21.73 | 22.40 | 22.78 | 24.16 | 18.50          | 18.87 | 19.55 | 19.93 | 21.31 |
| 8H              | 4H   | 20.90            | 21.32 | 21.94 | 22.36 | 23.73 | 18.18          | 18.60 | 19.22 | 19.64 | 21.01 |
|                 | 6H   | 21.33            | 21.68 | 22.39 | 22.76 | 24.13 | 18.73          | 19.07 | 19.79 | 20.15 | 21.52 |
|                 | 8H   | 21.49            | 21.79 | 22.56 | 22.86 | 24.25 | 18.91          | 19.21 | 19.98 | 20.28 | 21.67 |
|                 | 12H  | 21.57            | 21.84 | 22.64 | 22.90 | 24.34 | 18.98          | 19.25 | 20.05 | 20.31 | 21.75 |
| 12H             | 4H   | 20.86            | 21.24 | 21.91 | 22.29 | 23.67 | 18.19          | 18.56 | 19.24 | 19.62 | 21.00 |
|                 | 6H   | 21.32            | 21.62 | 22.39 | 22.69 | 24.08 | 18.78          | 19.08 | 19.85 | 20.15 | 21.54 |
|                 | 8H   | 21.49            | 21.76 | 22.56 | 22.82 | 24.25 | 18.98          | 19.25 | 20.06 | 20.31 | 21.75 |