

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: P854096

Luminaire Tested: SQ2-PP3-050U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854096  
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-100D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

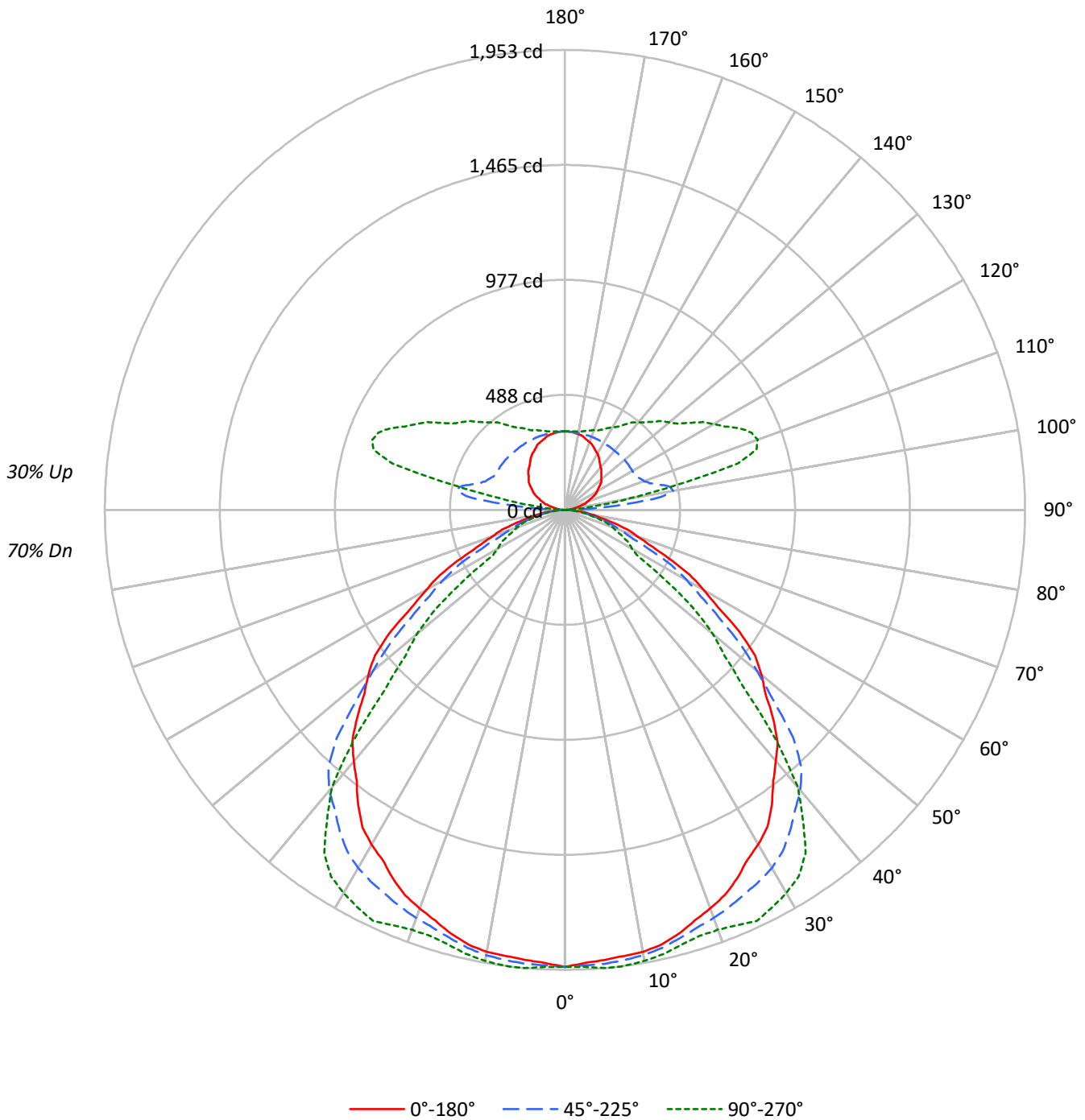
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6958.0 lumens  
Efficiency: N/A  
Efficacy: 132.8 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: Semi-Direct  
  
Input Watts (W): 52.4  
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 | 50 | 30 | 10 | 0  |   |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
| 0   | 112 | 112 | 112 | 112 | 106 | 106 | 106 | 106 | 95 | 95 | 95 | 84 | 84 | 84 | 75 | 75 | 75 | 70 |    |    |    |   |
| 1   | 103 | 99  | 95  | 92  | 97  | 94  | 91  | 88  | 84 | 82 | 80 | 75 | 74 | 72 | 67 | 66 | 65 | 61 |    |    |    |   |
| 2   | 94  | 87  | 81  | 76  | 89  | 83  | 78  | 73  | 75 | 71 | 67 | 67 | 64 | 61 | 60 | 58 | 56 | 52 |    |    |    |   |
| 3   | 87  | 77  | 70  | 64  | 82  | 74  | 67  | 62  | 66 | 61 | 57 | 60 | 56 | 52 | 54 | 51 | 48 | 45 |    |    |    |   |
| 4   | 80  | 69  | 61  | 55  | 75  | 66  | 59  | 53  | 59 | 54 | 49 | 54 | 49 | 45 | 48 | 45 | 42 | 39 |    |    |    |   |
| 5   | 73  | 62  | 54  | 48  | 69  | 59  | 52  | 46  | 54 | 47 | 43 | 49 | 44 | 40 | 44 | 40 | 37 | 34 |    |    |    |   |
| 6   | 68  | 56  | 47  | 42  | 64  | 53  | 46  | 40  | 48 | 42 | 38 | 44 | 39 | 35 | 40 | 36 | 33 | 30 |    |    |    |   |
| 7   | 63  | 50  | 42  | 37  | 59  | 48  | 41  | 36  | 44 | 38 | 33 | 40 | 35 | 31 | 37 | 32 | 29 | 27 |    |    |    |   |
| 8   | 58  | 46  | 38  | 33  | 55  | 44  | 37  | 32  | 40 | 34 | 30 | 37 | 32 | 28 | 34 | 29 | 26 | 24 |    |    |    |   |
| 9   | 54  | 42  | 34  | 29  | 52  | 40  | 33  | 29  | 37 | 31 | 27 | 34 | 29 | 25 | 31 | 27 | 24 | 22 |    |    |    |   |
| 10  | 51  | 39  | 31  | 26  | 48  | 37  | 30  | 26  | 34 | 28 | 24 | 31 | 26 | 23 | 29 | 25 | 21 | 20 |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 31336 | 31336 | 31336 |
| 5°  | 31091 | 31357 | 31655 |
| 10° | 31247 | 31483 | 31886 |
| 15° | 31173 | 31482 | 31962 |
| 20° | 30950 | 31691 | 32606 |
| 25° | 30775 | 32090 | 34321 |
| 30° | 30600 | 32742 | 35037 |
| 35° | 30167 | 32836 | 35100 |
| 40° | 29360 | 32777 | 32431 |
| 45° | 28483 | 31294 | 24688 |
| 50° | 27364 | 26693 | 20562 |
| 55° | 25470 | 22466 | 14784 |
| 60° | 21929 | 19278 | 10601 |
| 65° | 18499 | 14892 | 10426 |
| 70° | 15399 | 11717 | 9975  |
| 75° | 13057 | 10112 | 9345  |
| 80° | 11065 | 8777  | 8396  |
| 85° | 8744  | 7225  | 4557  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 31294 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 184.8  | 2.7       |
| 10°-20°   | 534.8  | 7.7       |
| 20°-30°   | 837.9  | 12.0      |
| 30°-40°   | 1033.6 | 14.9      |
| 40°-50°   | 973.2  | 14.0      |
| 50°-60°   | 689.0  | 9.9       |
| 60°-70°   | 392.6  | 5.6       |
| 70°-80°   | 194.2  | 2.8       |
| 80°-90°   | 47.9   | 0.7       |
| 90°-100°  | 132.7  | 1.9       |
| 100°-110° | 421.1  | 6.1       |
| 110°-120° | 412.9  | 5.9       |
| 120°-130° | 336.0  | 4.8       |
| 130°-140° | 273.9  | 3.9       |
| 140°-150° | 213.6  | 3.1       |
| 150°-160° | 153.9  | 2.2       |
| 160°-170° | 94.0   | 1.4       |
| 170°-180° | 31.7   | 0.5       |
| 0°-30°    | 1557.5 | 22.4      |
| 0°-40°    | 2591.2 | 37.2      |
| 0°-60°    | 4253.4 | 61.1      |
| 0°-90°    | 4888.2 | 70.3      |
| 90°-120°  | 966.7  | 13.9      |
| 90°-150°  | 1790.2 | 25.7      |
| 90°-180°  | 2070.0 | 29.7      |
| 0°-180°   | 6958.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1941 | 1941  | 1941 | 1941  | 1941 |      |
| 5°   | 1918 | 1952  | 1935 | 1939  | 1953 | 183  |
| 15°  | 1865 | 1891  | 1883 | 1902  | 1912 | 526  |
| 25°  | 1728 | 1772  | 1801 | 1874  | 1926 | 796  |
| 35°  | 1530 | 1573  | 1666 | 1761  | 1781 | 954  |
| 45°  | 1247 | 1342  | 1370 | 1161  | 1081 | 960  |
| 55°  | 905  | 959   | 798  | 601   | 525  | 798  |
| 65°  | 484  | 510   | 390  | 275   | 273  | 486  |
| 75°  | 209  | 231   | 162  | 152   | 150  | 227  |
| 85°  | 47   | 43    | 39   | 31    | 25   | 55   |
| 90°  | 0    | 1     | 3    | 3     | 3    | 3    |
| 95°  | 18   | 54    | 241  | 89    | 58   | 21   |
| 105° | 73   | 103   | 415  | 791   | 758  | 77   |
| 115° | 131  | 156   | 335  | 697   | 820  | 129  |
| 125° | 181  | 203   | 330  | 546   | 644  | 161  |
| 135° | 219  | 241   | 328  | 470   | 529  | 169  |
| 145° | 256  | 275   | 328  | 405   | 441  | 160  |
| 155° | 291  | 302   | 329  | 362   | 376  | 134  |
| 165° | 318  | 321   | 330  | 343   | 346  | 90   |
| 175° | 332  | 331   | 332  | 334   | 333  | 31   |
| 180° | 333  | 333   | 333  | 333   | 333  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1940.8 | 1940.8 | 1940.8 | 1940.8 | 1940.8 |
| 2.5°   | 1926.0 | 1953.3 | 1935.9 | 1939.3 | 1942.5 |
| 5°     | 1918.3 | 1952.4 | 1934.7 | 1939.1 | 1953.1 |
| 7.5°   | 1910.9 | 1945.8 | 1928.5 | 1935.9 | 1953.1 |
| 10°    | 1905.9 | 1936.0 | 1920.3 | 1930.9 | 1944.9 |
| 12.5°  | 1891.2 | 1919.7 | 1905.5 | 1919.4 | 1931.8 |
| 15°    | 1864.9 | 1891.0 | 1883.4 | 1902.1 | 1912.1 |
| 17.5°  | 1829.2 | 1860.9 | 1860.8 | 1887.3 | 1897.7 |
| 20°    | 1801.3 | 1839.4 | 1844.4 | 1877.7 | 1897.7 |
| 22.5°  | 1771.8 | 1816.3 | 1824.7 | 1874.7 | 1909.2 |
| 25°    | 1727.5 | 1771.6 | 1801.3 | 1874.3 | 1926.5 |
| 27.5°  | 1675.8 | 1719.5 | 1780.8 | 1862.6 | 1903.9 |
| 30°    | 1641.3 | 1683.4 | 1756.2 | 1841.2 | 1879.3 |
| 32.5°  | 1598.6 | 1642.3 | 1720.1 | 1811.5 | 1846.4 |
| 35°    | 1530.5 | 1572.6 | 1665.9 | 1760.7 | 1780.8 |
| 37.5°  | 1452.1 | 1499.9 | 1604.4 | 1657.3 | 1658.5 |
| 40°    | 1393.0 | 1455.2 | 1555.1 | 1564.8 | 1538.7 |
| 42.5°  | 1335.6 | 1415.4 | 1486.2 | 1442.9 | 1327.0 |
| 45°    | 1247.4 | 1341.7 | 1370.5 | 1161.4 | 1081.2 |
| 47.5°  | 1153.4 | 1246.5 | 1200.6 | 974.1  | 918.7  |
| 50°    | 1089.4 | 1177.7 | 1062.7 | 870.7  | 818.6  |
| 52.5°  | 1017.2 | 1095.8 | 939.6  | 771.7  | 692.2  |
| 55°    | 904.8  | 958.9  | 798.1  | 601.4  | 525.2  |
| 57.5°  | 769.4  | 807.5  | 682.4  | 451.5  | 366.0  |
| 60°    | 679.1  | 709.2  | 597.0  | 370.4  | 328.3  |
| 62.5°  | 597.0  | 623.9  | 508.4  | 321.8  | 306.9  |
| 65°    | 484.2  | 510.3  | 389.8  | 274.9  | 272.9  |
| 67.5°  | 385.3  | 413.8  | 299.1  | 240.0  | 237.6  |
| 70°    | 326.2  | 356.3  | 248.2  | 215.3  | 211.3  |
| 72.5°  | 277.0  | 305.5  | 210.5  | 189.1  | 186.7  |
| 75°    | 209.3  | 231.3  | 162.1  | 151.8  | 149.8  |
| 77.5°  | 151.8  | 165.9  | 120.6  | 115.3  | 113.2  |
| 80°    | 119.0  | 125.0  | 94.4   | 92.3   | 90.3   |
| 82.5°  | 89.5   | 87.4   | 71.4   | 69.3   | 65.7   |
| 85°    | 47.2   | 43.2   | 39.0   | 30.6   | 24.6   |
| 87.5°  | 14.8   | 15.0   | 7.2    | 5.6    | 5.6    |
| 90°    | 0.0    | 1.0    | 3.1    | 3.1    | 3.1    |
| 92.5°  | 5.9    | 23.3   | 74.4   | 24.8   | 17.4   |
| 95°    | 17.8   | 53.7   | 241.1  | 89.4   | 57.6   |
| 97.5°  | 33.1   | 69.6   | 408.3  | 255.2  | 156.6  |
| 100°   | 44.0   | 78.9   | 465.4  | 424.3  | 275.7  |
| 102.5° | 55.8   | 89.0   | 455.3  | 623.0  | 476.9  |
| 105°   | 73.4   | 103.1  | 415.1  | 790.6  | 757.8  |
| 107.5° | 91.0   | 118.4  | 376.7  | 808.0  | 852.3  |
| 110°   | 102.7  | 129.4  | 357.4  | 787.9  | 869.9  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 114.5 | 139.5 | 346.5 | 753.2 | 857.4 |
| 115°   | 131.0 | 155.6 | 335.4 | 696.6 | 819.6 |
| 117.5° | 147.2 | 170.5 | 331.0 | 642.2 | 766.2 |
| 120°   | 157.2 | 179.8 | 330.2 | 608.5 | 728.4 |
| 122.5° | 167.3 | 189.0 | 330.2 | 581.5 | 693.2 |
| 125°   | 181.3 | 202.8 | 330.2 | 546.2 | 643.5 |
| 127.5° | 193.7 | 214.4 | 330.2 | 518.8 | 601.8 |
| 130°   | 201.2 | 222.8 | 330.2 | 502.7 | 577.5 |
| 132.5° | 208.8 | 230.3 | 329.3 | 490.0 | 557.4 |
| 135°   | 219.1 | 240.6 | 328.1 | 469.9 | 529.3 |
| 137.5° | 229.1 | 251.7 | 327.8 | 450.6 | 503.7 |
| 140°   | 235.8 | 258.4 | 327.0 | 437.1 | 485.3 |
| 142.5° | 244.2 | 265.9 | 327.8 | 423.6 | 468.5 |
| 145°   | 255.7 | 275.2 | 328.1 | 405.4 | 441.3 |
| 147.5° | 267.3 | 283.9 | 328.3 | 389.3 | 418.6 |
| 150°   | 275.7 | 289.0 | 329.1 | 380.0 | 403.5 |
| 152.5° | 282.4 | 294.0 | 329.1 | 372.3 | 391.8 |
| 155°   | 291.4 | 301.6 | 329.1 | 361.9 | 376.3 |
| 157.5° | 301.0 | 308.0 | 330.2 | 355.5 | 365.4 |
| 160°   | 306.0 | 312.2 | 330.2 | 351.3 | 359.5 |
| 162.5° | 311.1 | 315.6 | 330.2 | 347.9 | 353.6 |
| 165°   | 317.6 | 320.7 | 330.2 | 342.8 | 345.9 |
| 167.5° | 323.7 | 324.5 | 331.2 | 339.2 | 341.9 |
| 170°   | 327.0 | 327.0 | 331.2 | 337.5 | 338.5 |
| 172.5° | 328.7 | 329.5 | 331.2 | 335.8 | 336.0 |
| 175°   | 332.3 | 331.2 | 332.3 | 334.3 | 333.3 |
| 177.5° | 333.3 | 332.5 | 332.5 | 334.1 | 332.5 |
| 180°   | 333.3 | 333.3 | 333.3 | 333.3 | 333.3 |

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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 | 21.22            | 22.25 | 21.99 | 23.04 | 23.99 | 17.62          | 18.65 | 18.39 | 19.43 | 20.38 |
|                 | 3H   | 22.33            | 23.25 | 23.11 | 24.04 | 25.03 | 18.74          | 19.65 | 19.52 | 20.45 | 21.43 |
|                 | 4H   | 22.68            | 23.55 | 23.48 | 24.35 | 25.34 | 19.21          | 20.07 | 20.01 | 20.87 | 21.87 |
|                 | 6H   | 22.90            | 23.70 | 23.72 | 24.51 | 25.52 | 19.56          | 20.36 | 20.37 | 21.17 | 22.18 |
|                 | 8H   | 22.96            | 23.72 | 23.78 | 24.55 | 25.56 | 19.65          | 20.41 | 20.47 | 21.24 | 22.25 |
|                 | 12H  | 22.98            | 23.70 | 23.81 | 24.52 | 25.56 | 19.67          | 20.39 | 20.50 | 21.22 | 22.25 |
| 4H              | 2H   | 21.35            | 22.22 | 22.16 | 23.02 | 24.01 | 18.35          | 19.22 | 19.16 | 20.02 | 21.02 |
|                 | 3H   | 22.68            | 23.39 | 23.49 | 24.23 | 25.24 | 19.62          | 20.33 | 20.44 | 21.17 | 22.18 |
|                 | 4H   | 23.16            | 23.81 | 23.99 | 24.64 | 25.68 | 20.18          | 20.83 | 21.01 | 21.67 | 22.71 |
|                 | 6H   | 23.50            | 24.06 | 24.35 | 24.92 | 25.97 | 20.63          | 21.19 | 21.48 | 22.05 | 23.10 |
|                 | 8H   | 23.60            | 24.12 | 24.45 | 24.98 | 26.03 | 20.75          | 21.28 | 21.60 | 22.13 | 23.19 |
|                 | 12H  | 23.64            | 24.11 | 24.51 | 24.99 | 26.05 | 20.79          | 21.26 | 21.66 | 22.14 | 23.20 |
| 8H              | 4H   | 23.19            | 23.71 | 24.04 | 24.57 | 25.62 | 20.47          | 20.99 | 21.32 | 21.84 | 22.90 |
|                 | 6H   | 23.62            | 24.06 | 24.50 | 24.95 | 26.01 | 21.02          | 21.45 | 21.90 | 22.35 | 23.40 |
|                 | 8H   | 23.78            | 24.16 | 24.67 | 25.06 | 26.13 | 21.20          | 21.59 | 22.09 | 22.48 | 23.55 |
|                 | 12H  | 23.87            | 24.21 | 24.76 | 25.10 | 26.23 | 21.28          | 21.62 | 22.17 | 22.51 | 23.63 |
| 12H             | 4H   | 23.15            | 23.62 | 24.02 | 24.50 | 25.56 | 20.48          | 20.95 | 21.35 | 21.83 | 22.89 |
|                 | 6H   | 23.61            | 24.00 | 24.50 | 24.89 | 25.96 | 21.07          | 21.45 | 21.96 | 22.35 | 23.42 |
|                 | 8H   | 23.79            | 24.13 | 24.68 | 25.01 | 26.14 | 21.29          | 21.62 | 22.18 | 22.51 | 23.64 |