

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: P854403

Luminaire Tested: SQ2-WBM-150U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854403  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBM-150U-075D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

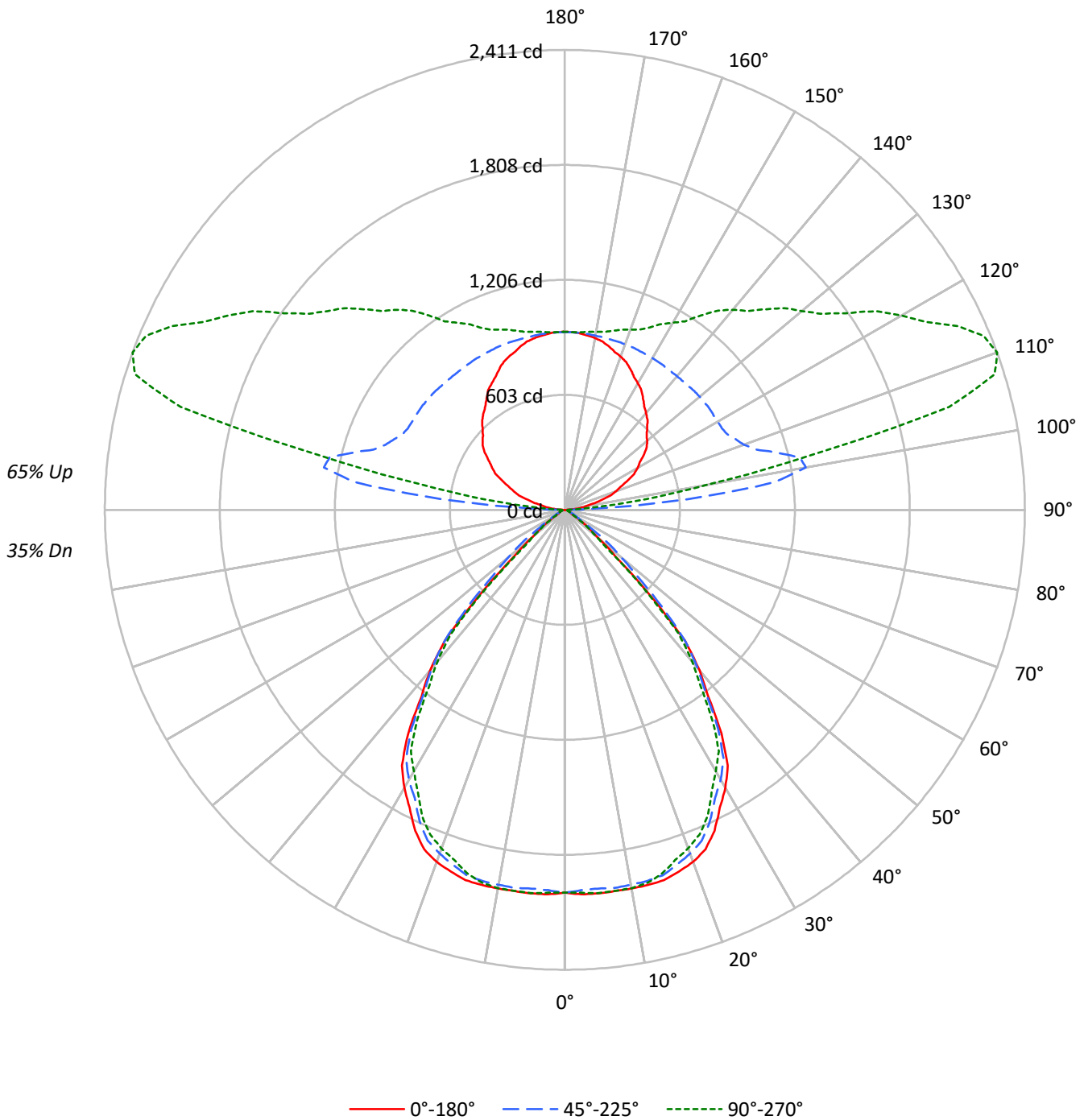
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8897.3 lumens  
Efficiency: N/A  
Efficacy: 105.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 84.2  
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 | 75 | 75 | 75 | 58 | 58 | 58 | 43 | 43 | 43 | 35 |
| 1   | 96  | 92  | 89  | 86  | 87 | 84 | 81 | 78 | 68 | 66 | 64 | 53 | 52 | 51 | 40 | 39 | 38 | 32 |
| 2   | 88  | 82  | 77  | 72  | 80 | 75 | 70 | 66 | 61 | 58 | 55 | 48 | 46 | 45 | 36 | 35 | 34 | 29 |
| 3   | 81  | 73  | 67  | 62  | 74 | 67 | 61 | 57 | 55 | 51 | 48 | 44 | 41 | 39 | 34 | 32 | 31 | 26 |
| 4   | 75  | 66  | 59  | 53  | 68 | 60 | 54 | 50 | 50 | 45 | 42 | 40 | 37 | 35 | 31 | 29 | 28 | 24 |
| 5   | 69  | 59  | 52  | 47  | 63 | 54 | 48 | 43 | 45 | 41 | 37 | 37 | 34 | 31 | 29 | 27 | 25 | 22 |
| 6   | 64  | 54  | 46  | 41  | 58 | 49 | 43 | 38 | 41 | 37 | 33 | 34 | 30 | 28 | 26 | 24 | 23 | 20 |
| 7   | 60  | 49  | 41  | 36  | 54 | 45 | 39 | 34 | 38 | 33 | 30 | 31 | 28 | 25 | 24 | 22 | 21 | 18 |
| 8   | 56  | 44  | 37  | 33  | 51 | 41 | 35 | 31 | 35 | 30 | 27 | 28 | 25 | 23 | 23 | 21 | 19 | 17 |
| 9   | 52  | 41  | 34  | 29  | 47 | 38 | 32 | 28 | 32 | 27 | 24 | 26 | 23 | 21 | 21 | 19 | 17 | 15 |
| 10  | 49  | 37  | 31  | 26  | 44 | 35 | 29 | 25 | 29 | 25 | 22 | 24 | 21 | 19 | 20 | 18 | 16 | 14 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 32411 | 32411 | 32411 |
| 5°  | 32707 | 32302 | 32692 |
| 10° | 33037 | 32723 | 33023 |
| 15° | 33588 | 33153 | 32991 |
| 20° | 33747 | 32953 | 32459 |
| 25° | 33054 | 32076 | 31545 |
| 30° | 31362 | 30464 | 29496 |
| 35° | 28206 | 27618 | 26613 |
| 40° | 23123 | 22778 | 21905 |
| 45° | 14458 | 16459 | 13579 |
| 50° | 5657  | 9595  | 5172  |
| 55° | 2790  | 4470  | 2764  |
| 60° | 1305  | 2144  | 1182  |
| 65° | 1177  | 1249  | 1104  |
| 70° | 1138  | 1180  | 1090  |
| 75° | 1142  | 1142  | 1023  |
| 80° | 1069  | 1069  | 986   |
| 85° | 1074  | 889   | 889   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 16459 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 191.9  | 2.2       |
| 10°-20°   | 561.2  | 6.3       |
| 20°-30°   | 829.8  | 9.3       |
| 30°-40°   | 858.6  | 9.6       |
| 40°-50°   | 516.4  | 5.8       |
| 50°-60°   | 123.6  | 1.4       |
| 60°-70°   | 33.8   | 0.4       |
| 70°-80°   | 18.9   | 0.2       |
| 80°-90°   | 7.0    | 0.1       |
| 90°-100°  | 355.3  | 4.0       |
| 100°-110° | 1163.6 | 13.1      |
| 110°-120° | 1150.4 | 12.9      |
| 120°-130° | 940.4  | 10.6      |
| 130°-140° | 767.4  | 8.6       |
| 140°-150° | 597.2  | 6.7       |
| 150°-160° | 430.0  | 4.8       |
| 160°-170° | 263.1  | 3.0       |
| 170°-180° | 88.9   | 1.0       |
| 0°-30°    | 1582.9 | 17.8      |
| 0°-40°    | 2441.5 | 27.4      |
| 0°-60°    | 3081.5 | 34.6      |
| 0°-90°    | 3141.1 | 35.3      |
| 90°-120°  | 2669.3 | 30.0      |
| 90°-150°  | 4974.2 | 55.9      |
| 90°-180°  | 5756.0 | 64.7      |
| 0°-180°   | 8897.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2007 | 2007  | 2007 | 2007  | 2007 |      |
| 5°   | 2018 | 2011  | 1993 | 2020  | 2017 | 192  |
| 15°  | 2009 | 2024  | 1983 | 1983  | 1974 | 566  |
| 25°  | 1855 | 1870  | 1800 | 1781  | 1771 | 848  |
| 35°  | 1431 | 1429  | 1401 | 1369  | 1350 | 878  |
| 45°  | 633  | 719   | 721  | 685   | 595  | 490  |
| 55°  | 99   | 111   | 159  | 106   | 98   | 99   |
| 65°  | 31   | 32    | 33   | 31    | 29   | 31   |
| 75°  | 18   | 18    | 18   | 17    | 16   | 19   |
| 85°  | 6    | 6     | 5    | 5     | 5    | 6    |
| 90°  | 1    | 3     | 8    | 7     | 8    | 3    |
| 95°  | 50   | 144   | 646  | 230   | 150  | 57   |
| 105° | 202  | 288   | 1155 | 2194  | 2085 | 213  |
| 115° | 364  | 435   | 938  | 1939  | 2276 | 360  |
| 125° | 507  | 565   | 925  | 1529  | 1796 | 451  |
| 135° | 611  | 675   | 917  | 1319  | 1487 | 472  |
| 145° | 714  | 766   | 915  | 1134  | 1243 | 447  |
| 155° | 814  | 841   | 921  | 1015  | 1054 | 375  |
| 165° | 888  | 897   | 925  | 961   | 971  | 250  |
| 175° | 929  | 929   | 930  | 936   | 934  | 88   |
| 180° | 933  | 933   | 933  | 933   | 933  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2007.4 | 2007.4 | 2007.4 | 2007.4 | 2007.4 |
| 2.5°   | 2017.4 | 2012.2 | 1995.9 | 2012.7 | 2009.0 |
| 5°     | 2018.0 | 2011.4 | 1993.0 | 2019.9 | 2017.1 |
| 7.5°   | 2015.9 | 2013.1 | 1999.0 | 2019.3 | 2014.9 |
| 10°    | 2015.1 | 2016.1 | 1995.9 | 2017.0 | 2014.2 |
| 12.5°  | 2014.4 | 2022.1 | 1992.8 | 2009.2 | 2002.6 |
| 15°    | 2009.4 | 2024.4 | 1983.4 | 1983.2 | 1973.7 |
| 17.5°  | 1988.0 | 2005.9 | 1951.0 | 1936.0 | 1924.5 |
| 20°    | 1964.1 | 1982.0 | 1917.9 | 1893.8 | 1889.1 |
| 22.5°  | 1926.4 | 1945.8 | 1877.1 | 1850.6 | 1842.9 |
| 25°    | 1855.4 | 1870.4 | 1800.5 | 1781.0 | 1770.7 |
| 27.5°  | 1760.7 | 1769.0 | 1703.3 | 1681.1 | 1666.8 |
| 30°    | 1682.2 | 1685.9 | 1634.0 | 1604.7 | 1582.1 |
| 32.5°  | 1589.0 | 1592.8 | 1547.0 | 1519.3 | 1501.2 |
| 35°    | 1431.0 | 1429.1 | 1401.2 | 1369.0 | 1350.2 |
| 37.5°  | 1233.3 | 1236.0 | 1213.9 | 1188.4 | 1169.4 |
| 40°    | 1097.1 | 1098.9 | 1080.7 | 1044.0 | 1039.3 |
| 42.5°  | 930.8  | 959.0  | 934.4  | 905.8  | 883.8  |
| 45°    | 633.2  | 718.8  | 720.8  | 685.1  | 594.7  |
| 47.5°  | 357.6  | 455.1  | 511.4  | 408.8  | 299.1  |
| 50°    | 225.2  | 291.1  | 382.0  | 242.6  | 205.9  |
| 52.5°  | 159.7  | 193.2  | 288.1  | 170.7  | 151.3  |
| 55°    | 99.1   | 111.4  | 158.8  | 105.7  | 98.2   |
| 57.5°  | 58.9   | 71.5   | 90.3   | 71.5   | 59.7   |
| 60°    | 40.4   | 50.8   | 66.4   | 46.9   | 36.6   |
| 62.5°  | 35.0   | 39.4   | 52.5   | 37.1   | 33.5   |
| 65°    | 30.8   | 31.7   | 32.7   | 30.8   | 28.9   |
| 67.5°  | 27.1   | 28.1   | 27.3   | 27.1   | 25.4   |
| 70°    | 24.1   | 25.0   | 25.0   | 24.0   | 23.1   |
| 72.5°  | 21.7   | 22.7   | 21.9   | 21.7   | 20.0   |
| 75°    | 18.3   | 18.3   | 18.3   | 17.3   | 16.4   |
| 77.5°  | 13.9   | 14.8   | 13.9   | 13.8   | 12.9   |
| 80°    | 11.5   | 12.5   | 11.5   | 11.5   | 10.6   |
| 82.5°  | 9.2    | 9.4    | 9.2    | 9.2    | 8.3    |
| 85°    | 5.8    | 5.8    | 4.8    | 4.8    | 4.8    |
| 87.5°  | 1.7    | 2.9    | 3.1    | 2.9    | 3.1    |
| 90°    | 1.0    | 2.8    | 7.7    | 6.7    | 7.7    |
| 92.5°  | 16.3   | 59.4   | 182.5  | 59.3   | 47.5   |
| 95°    | 49.8   | 144.5  | 646.0  | 230.1  | 149.5  |
| 97.5°  | 90.5   | 190.6  | 1108.4 | 670.5  | 415.6  |
| 100°   | 118.9  | 214.4  | 1282.4 | 1145.2 | 759.1  |
| 102.5° | 151.1  | 244.4  | 1263.3 | 1687.5 | 1308.1 |
| 105°   | 202.2  | 288.5  | 1155.0 | 2194.3 | 2084.7 |
| 107.5° | 252.7  | 331.8  | 1049.3 | 2241.7 | 2362.3 |
| 110°   | 285.6  | 362.5  | 998.7  | 2186.6 | 2410.6 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 317.1 | 391.7 | 968.1 | 2090.6 | 2377.6 |
| 115°   | 364.2 | 435.4 | 938.4 | 1939.0 | 2276.4 |
| 117.5° | 410.0 | 476.6 | 927.0 | 1790.0 | 2132.6 |
| 120°   | 439.9 | 502.7 | 924.0 | 1703.1 | 2036.8 |
| 122.5° | 466.8 | 528.1 | 924.0 | 1628.2 | 1937.9 |
| 125°   | 507.0 | 565.1 | 924.9 | 1529.1 | 1796.2 |
| 127.5° | 541.2 | 600.4 | 923.8 | 1456.0 | 1688.5 |
| 130°   | 562.6 | 622.6 | 923.0 | 1411.8 | 1621.7 |
| 132.5° | 581.8 | 643.3 | 920.7 | 1373.8 | 1564.2 |
| 135°   | 610.6 | 675.2 | 917.3 | 1318.8 | 1486.6 |
| 137.5° | 640.8 | 704.9 | 915.2 | 1261.5 | 1413.2 |
| 140°   | 662.3 | 724.2 | 914.4 | 1225.3 | 1368.7 |
| 142.5° | 683.8 | 741.9 | 914.4 | 1186.7 | 1316.6 |
| 145°   | 714.1 | 766.5 | 915.3 | 1134.4 | 1243.1 |
| 147.5° | 745.9 | 789.6 | 916.7 | 1089.0 | 1171.1 |
| 150°   | 765.8 | 804.2 | 918.2 | 1062.6 | 1132.0 |
| 152.5° | 785.8 | 819.7 | 919.0 | 1040.9 | 1098.2 |
| 155°   | 813.7 | 840.9 | 921.1 | 1015.0 | 1054.3 |
| 157.5° | 838.9 | 858.5 | 923.2 | 994.6  | 1023.1 |
| 160°   | 855.0 | 870.9 | 924.0 | 983.0  | 1005.4 |
| 162.5° | 868.8 | 881.7 | 924.0 | 973.6  | 990.1  |
| 165°   | 888.5 | 896.9 | 924.9 | 960.6  | 970.9  |
| 167.5° | 905.2 | 909.3 | 926.1 | 950.6  | 956.2  |
| 170°   | 914.4 | 916.3 | 926.8 | 945.1  | 947.0  |
| 172.5° | 921.3 | 922.4 | 929.1 | 941.2  | 941.6  |
| 175°   | 928.8 | 928.8 | 929.7 | 936.4  | 934.5  |
| 177.5° | 932.6 | 931.8 | 931.1 | 935.6  | 932.6  |
| 180°   | 932.6 | 932.6 | 932.6 | 932.6  | 932.6  |



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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 | 3.40             | 4.05 | 4.50 | 5.13 | 6.60 | 3.05           | 3.70 | 4.15 | 4.78 | 6.26 |
|                 | 3H   | 3.89             | 4.47 | 5.00 | 5.56 | 7.05 | 3.55           | 4.13 | 4.66 | 5.22 | 6.72 |
|                 | 4H   | 4.15             | 4.70 | 5.27 | 5.79 | 7.29 | 3.79           | 4.34 | 4.91 | 5.43 | 6.93 |
|                 | 6H   | 4.38             | 4.88 | 5.50 | 5.97 | 7.48 | 4.00           | 4.50 | 5.12 | 5.59 | 7.10 |
|                 | 8H   | 4.45             | 4.93 | 5.58 | 6.04 | 7.54 | 4.06           | 4.54 | 5.19 | 5.64 | 7.15 |
|                 | 12H  | 4.50             | 4.95 | 5.63 | 6.05 | 7.58 | 4.09           | 4.54 | 5.22 | 5.64 | 7.17 |
| 4H              | 2H   | 3.39             | 3.94 | 4.52 | 5.03 | 6.53 | 3.08           | 3.63 | 4.20 | 4.71 | 6.22 |
|                 | 3H   | 4.10             | 4.55 | 5.23 | 5.67 | 7.18 | 3.80           | 4.25 | 4.92 | 5.37 | 6.88 |
|                 | 4H   | 4.50             | 4.91 | 5.63 | 6.02 | 7.55 | 4.17           | 4.59 | 5.30 | 5.69 | 7.22 |
|                 | 6H   | 4.87             | 5.23 | 6.01 | 6.35 | 7.88 | 4.51           | 4.87 | 5.65 | 6.00 | 7.52 |
|                 | 8H   | 5.01             | 5.34 | 6.15 | 6.46 | 8.00 | 4.63           | 4.96 | 5.77 | 6.08 | 7.62 |
|                 | 12H  | 5.10             | 5.40 | 6.25 | 6.53 | 8.08 | 4.70           | 4.99 | 5.85 | 6.13 | 7.67 |
| 8H              | 4H   | 4.58             | 4.91 | 5.71 | 6.03 | 7.57 | 4.28           | 4.61 | 5.41 | 5.73 | 7.27 |
|                 | 6H   | 5.08             | 5.36 | 6.24 | 6.52 | 8.05 | 4.75           | 5.02 | 5.90 | 6.18 | 7.72 |
|                 | 8H   | 5.31             | 5.55 | 6.47 | 6.69 | 8.25 | 4.95           | 5.19 | 6.11 | 6.33 | 7.89 |
|                 | 12H  | 5.49             | 5.70 | 6.65 | 6.83 | 8.43 | 5.08           | 5.29 | 6.24 | 6.43 | 8.02 |
| 12H             | 4H   | 4.55             | 4.85 | 5.70 | 5.98 | 7.52 | 4.25           | 4.55 | 5.40 | 5.68 | 7.23 |
|                 | 6H   | 5.10             | 5.34 | 6.27 | 6.48 | 8.04 | 4.78           | 5.02 | 5.94 | 6.16 | 7.72 |
|                 | 8H   | 5.35             | 5.56 | 6.52 | 6.70 | 8.29 | 5.00           | 5.21 | 6.16 | 6.35 | 7.94 |