

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: P854466

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854466  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-100U-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

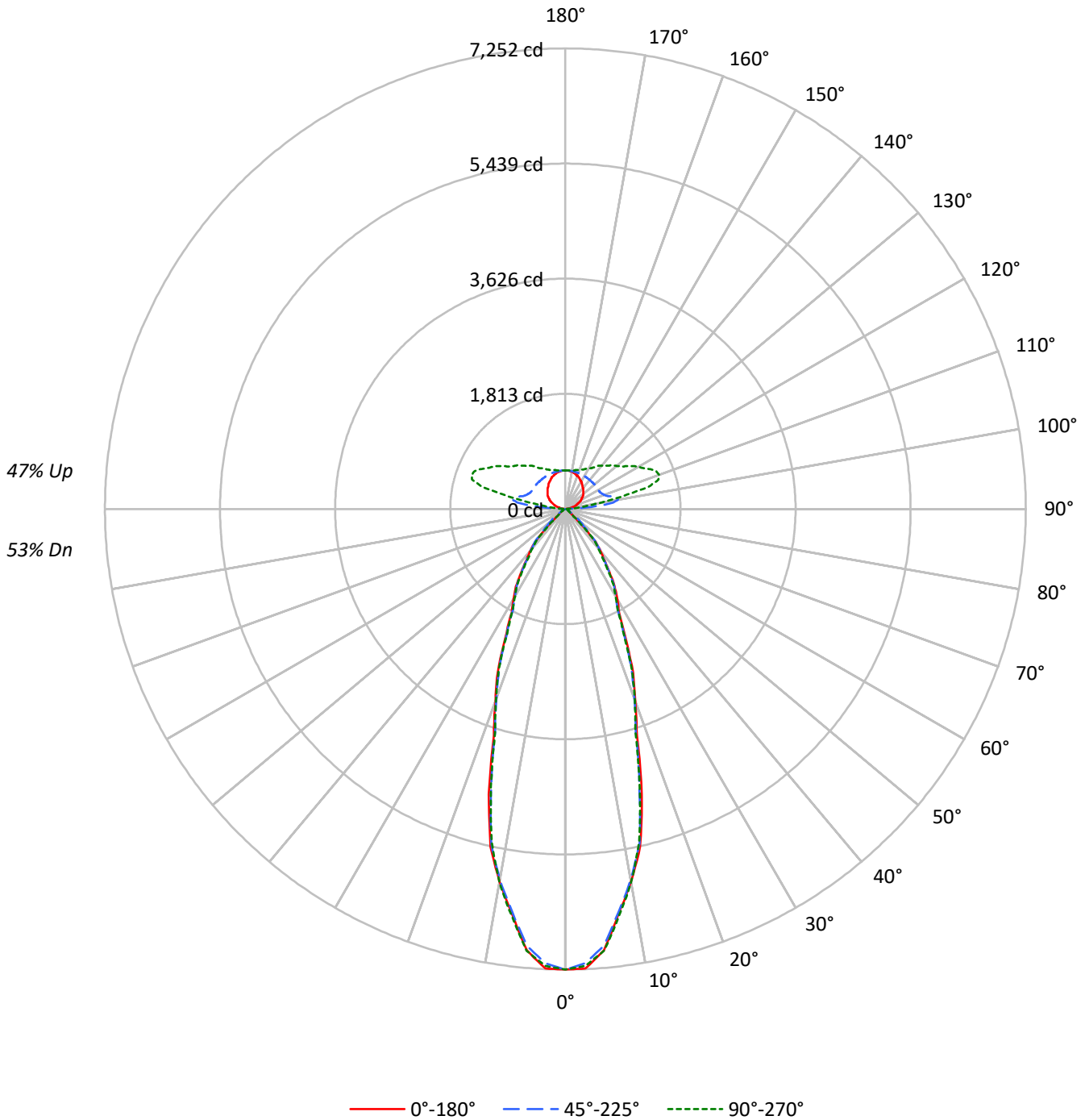
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7989.6 lumens  
Efficiency: N/A  
Efficacy: 113.0 lumens/watt  
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 70.7  
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 |    |    |  |  |
| RC  | 80  |     |     |     |     | 70  |     |     |    |    | 50 |    |    |    |    | 30 |    |    |  |  |
| 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 | 85 | 85 | 85 | 71 | 71 | 71 | 59 | 59 | 59 | 53 |  |  |
| 1   | 101 | 97  | 94  | 92  | 93  | 91  | 88  | 86  | 78 | 76 | 74 | 66 | 65 | 64 | 55 | 55 | 54 | 49 |  |  |
| 2   | 94  | 88  | 83  | 79  | 87  | 82  | 78  | 75  | 72 | 69 | 66 | 62 | 60 | 58 | 52 | 51 | 50 | 46 |  |  |
| 3   | 88  | 80  | 75  | 70  | 82  | 75  | 70  | 66  | 66 | 62 | 59 | 57 | 55 | 53 | 49 | 48 | 46 | 42 |  |  |
| 4   | 82  | 74  | 67  | 62  | 77  | 69  | 64  | 59  | 61 | 57 | 54 | 53 | 51 | 48 | 46 | 44 | 43 | 40 |  |  |
| 5   | 77  | 68  | 61  | 56  | 72  | 64  | 58  | 54  | 57 | 52 | 49 | 50 | 47 | 44 | 44 | 42 | 40 | 37 |  |  |
| 6   | 72  | 62  | 56  | 51  | 68  | 59  | 53  | 49  | 53 | 48 | 45 | 47 | 44 | 41 | 41 | 39 | 37 | 35 |  |  |
| 7   | 68  | 58  | 51  | 47  | 64  | 55  | 49  | 45  | 49 | 45 | 42 | 44 | 41 | 38 | 39 | 37 | 35 | 33 |  |  |
| 8   | 64  | 54  | 47  | 43  | 60  | 51  | 46  | 42  | 46 | 42 | 39 | 42 | 38 | 36 | 37 | 35 | 33 | 31 |  |  |
| 9   | 61  | 50  | 44  | 40  | 57  | 48  | 42  | 39  | 44 | 39 | 36 | 39 | 36 | 33 | 35 | 33 | 31 | 29 |  |  |
| 10  | 57  | 47  | 41  | 37  | 54  | 45  | 40  | 36  | 41 | 37 | 34 | 37 | 34 | 31 | 34 | 31 | 29 | 28 |  |  |

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

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 117086 | 117086 | 117086 |
| 5°  | 113051 | 111924 | 113175 |
| 10° | 97717  | 97253  | 97948  |
| 15° | 77758  | 75306  | 75607  |
| 20° | 55239  | 54508  | 54907  |
| 25° | 39740  | 38961  | 38687  |
| 30° | 30365  | 29548  | 29477  |
| 35° | 23836  | 23430  | 22821  |
| 40° | 18059  | 17814  | 16946  |
| 45° | 10104  | 12072  | 9017   |
| 50° | 3554   | 7433   | 3135   |
| 55° | 2173   | 4056   | 2063   |
| 60° | 1663   | 2118   | 1537   |
| 65° | 1524   | 1574   | 1425   |
| 70° | 1459   | 1459   | 1336   |
| 75° | 1366   | 1366   | 1285   |
| 80° | 1199   | 1199   | 1199   |
| 85° | 1186   | 945    | 945    |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 12072 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 629.5  | 7.9       |
| 10°-20°   | 1251.1 | 15.7      |
| 20°-30°   | 1036.1 | 13.0      |
| 30°-40°   | 745.3  | 9.3       |
| 40°-50°   | 379.7  | 4.8       |
| 50°-60°   | 98.9   | 1.2       |
| 60°-70°   | 41.0   | 0.5       |
| 70°-80°   | 22.8   | 0.3       |
| 80°-90°   | 7.8    | 0.1       |
| 90°-100°  | 253.5  | 3.2       |
| 100°-110° | 766.7  | 9.6       |
| 110°-120° | 748.4  | 9.4       |
| 120°-130° | 611.6  | 7.7       |
| 130°-140° | 499.2  | 6.2       |
| 140°-150° | 388.6  | 4.9       |
| 150°-160° | 280.2  | 3.5       |
| 160°-170° | 171.5  | 2.1       |
| 170°-180° | 57.9   | 0.7       |
| 0°-30°    | 2916.6 | 36.5      |
| 0°-40°    | 3661.9 | 45.8      |
| 0°-60°    | 4140.5 | 51.8      |
| 0°-90°    | 4212.1 | 52.7      |
| 90°-120°  | 1768.6 | 22.1      |
| 90°-150°  | 3268.0 | 40.9      |
| 90°-180°  | 3778.0 | 47.3      |
| 0°-180°   | 7989.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 7252 | 7252  | 7252 | 7252  | 7252 |      |
| 5°   | 6975 | 6965  | 6906 | 7006  | 6983 | 629  |
| 15°  | 4652 | 4599  | 4505 | 4537  | 4523 | 1263 |
| 25°  | 2231 | 2227  | 2187 | 2168  | 2172 | 1049 |
| 35°  | 1209 | 1217  | 1189 | 1169  | 1158 | 759  |
| 45°  | 442  | 509   | 529  | 492   | 395  | 354  |
| 55°  | 77   | 90    | 144  | 83    | 73   | 76   |
| 65°  | 40   | 41    | 41   | 39    | 37   | 40   |
| 75°  | 22   | 22    | 22   | 21    | 21   | 23   |
| 85°  | 6    | 6     | 5    | 6     | 5    | 7    |
| 90°  | 0    | 2     | 11   | 7     | 6    | 2    |
| 95°  | 31   | 100   | 478  | 177   | 112  | 37   |
| 105° | 133  | 187   | 753  | 1430  | 1359 | 140  |
| 115° | 237  | 283   | 609  | 1260  | 1480 | 235  |
| 125° | 332  | 368   | 600  | 995   | 1171 | 295  |
| 135° | 397  | 439   | 596  | 858   | 965  | 308  |
| 145° | 464  | 498   | 596  | 738   | 807  | 291  |
| 155° | 529  | 546   | 600  | 662   | 687  | 243  |
| 165° | 578  | 585   | 603  | 626   | 634  | 163  |
| 175° | 605  | 605   | 606  | 611   | 609  | 57   |
| 180° | 607  | 607   | 607  | 607   | 607  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 7251.8 | 7251.8 | 7251.8 | 7251.8 | 7251.8 |
| 2.5°   | 7240.5 | 7228.4 | 7159.2 | 7216.5 | 7202.4 |
| 5°     | 6975.2 | 6965.1 | 6905.7 | 7005.6 | 6982.9 |
| 7.5°   | 6427.4 | 6436.0 | 6401.2 | 6489.4 | 6465.3 |
| 10°    | 5960.2 | 5982.8 | 5931.9 | 6059.9 | 5974.3 |
| 12.5°  | 5444.6 | 5430.0 | 5394.7 | 5414.4 | 5367.1 |
| 15°    | 4651.9 | 4599.0 | 4505.2 | 4537.0 | 4523.2 |
| 17.5°  | 3747.0 | 3767.3 | 3686.0 | 3682.5 | 3666.9 |
| 20°    | 3214.9 | 3221.2 | 3172.4 | 3198.1 | 3195.6 |
| 22.5°  | 2786.7 | 2788.0 | 2725.8 | 2763.3 | 2740.7 |
| 25°    | 2230.7 | 2227.0 | 2187.0 | 2167.8 | 2171.6 |
| 27.5°  | 1829.4 | 1813.8 | 1783.6 | 1796.2 | 1786.9 |
| 30°    | 1628.7 | 1616.1 | 1584.9 | 1592.4 | 1581.1 |
| 32.5°  | 1448.6 | 1449.1 | 1417.2 | 1413.4 | 1405.1 |
| 35°    | 1209.3 | 1216.8 | 1188.7 | 1169.1 | 1157.8 |
| 37.5°  | 995.7  | 1002.8 | 979.0  | 950.5  | 940.9  |
| 40°    | 856.8  | 861.8  | 845.2  | 811.6  | 804.0  |
| 42.5°  | 705.5  | 726.6  | 710.4  | 678.6  | 662.0  |
| 45°    | 442.5  | 509.2  | 528.7  | 491.8  | 394.9  |
| 47.5°  | 223.8  | 316.2  | 377.2  | 278.5  | 183.4  |
| 50°    | 141.5  | 205.7  | 295.9  | 167.6  | 124.8  |
| 52.5°  | 108.6  | 141.5  | 236.2  | 123.7  | 100.1  |
| 55°    | 77.2   | 89.8   | 144.1  | 83.4   | 73.3   |
| 57.5°  | 59.7   | 66.7   | 86.2   | 63.2   | 56.9   |
| 60°    | 51.5   | 56.5   | 65.6   | 53.9   | 47.6   |
| 62.5°  | 46.3   | 49.3   | 53.3   | 45.7   | 43.5   |
| 65°    | 39.9   | 41.1   | 41.2   | 38.6   | 37.3   |
| 67.5°  | 34.0   | 35.2   | 35.0   | 33.7   | 32.4   |
| 70°    | 30.9   | 32.1   | 30.9   | 29.6   | 28.3   |
| 72.5°  | 26.8   | 28.0   | 26.8   | 26.5   | 25.2   |
| 75°    | 21.9   | 21.9   | 21.9   | 20.6   | 20.6   |
| 77.5°  | 17.0   | 17.2   | 16.0   | 15.9   | 14.9   |
| 80°    | 12.9   | 14.1   | 12.9   | 12.9   | 12.9   |
| 82.5°  | 10.8   | 11.1   | 9.8    | 9.8    | 9.8    |
| 85°    | 6.4    | 6.4    | 5.1    | 6.4    | 5.1    |
| 87.5°  | 2.1    | 2.4    | 4.3    | 3.4    | 3.2    |
| 90°    | 0.0    | 1.9    | 11.4   | 6.6    | 5.7    |
| 92.5°  | 10.7   | 43.1   | 154.7  | 51.3   | 37.0   |
| 95°    | 31.4   | 99.5   | 478.3  | 176.7  | 111.5  |
| 97.5°  | 60.8   | 126.6  | 753.9  | 498.9  | 303.8  |
| 100°   | 79.1   | 143.4  | 842.3  | 814.3  | 546.9  |
| 102.5° | 99.7   | 161.7  | 824.0  | 1142.2 | 910.5  |
| 105°   | 133.4  | 187.4  | 752.8  | 1429.6 | 1358.8 |
| 107.5° | 165.4  | 217.0  | 684.1  | 1458.0 | 1540.0 |
| 110°   | 186.8  | 236.1  | 649.8  | 1422.2 | 1571.2 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 207.3 | 255.2 | 629.3 | 1362.1 | 1550.7 |
| 115°   | 237.3 | 282.9 | 608.9 | 1259.9 | 1479.8 |
| 117.5° | 267.0 | 310.2 | 601.6 | 1164.2 | 1389.3 |
| 120°   | 286.8 | 327.8 | 599.3 | 1108.3 | 1324.5 |
| 122.5° | 305.1 | 343.9 | 599.3 | 1059.2 | 1258.9 |
| 125°   | 331.6 | 367.9 | 600.3 | 995.0  | 1171.1 |
| 127.5° | 353.1 | 390.8 | 599.3 | 946.5  | 1096.7 |
| 130°   | 366.8 | 406.0 | 599.3 | 918.8  | 1054.8 |
| 132.5° | 379.0 | 418.9 | 598.6 | 893.4  | 1019.0 |
| 135°   | 397.3 | 439.3 | 596.5 | 858.1  | 965.2  |
| 137.5° | 417.7 | 457.6 | 596.5 | 820.4  | 919.7  |
| 140°   | 430.7 | 469.8 | 596.5 | 795.9  | 890.0  |
| 142.5° | 443.6 | 481.3 | 595.7 | 773.5  | 855.7  |
| 145°   | 464.0 | 498.5 | 596.5 | 738.1  | 807.1  |
| 147.5° | 484.4 | 513.7 | 597.6 | 709.0  | 761.9  |
| 150°   | 497.4 | 524.4 | 598.4 | 692.8  | 737.5  |
| 152.5° | 509.6 | 533.6 | 599.2 | 678.9  | 715.4  |
| 155°   | 528.8 | 546.5 | 600.3 | 661.8  | 687.0  |
| 157.5° | 545.6 | 559.9 | 601.4 | 649.3  | 666.8  |
| 160°   | 555.5 | 567.6 | 602.2 | 641.6  | 654.6  |
| 162.5° | 565.4 | 574.6 | 603.0 | 634.7  | 645.5  |
| 165°   | 578.4 | 584.9 | 603.2 | 626.2  | 633.6  |
| 167.5° | 589.4 | 592.8 | 604.3 | 619.6  | 622.8  |
| 170°   | 595.5 | 597.4 | 605.1 | 616.5  | 617.4  |
| 172.5° | 599.3 | 600.5 | 605.1 | 613.4  | 613.6  |
| 175°   | 605.1 | 605.1 | 606.0 | 610.7  | 608.9  |
| 177.5° | 607.7 | 607.0 | 606.2 | 608.5  | 607.0  |
| 180°   | 607.0 | 607.0 | 607.0 | 607.0  | 607.0  |



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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 | 3.71             | 4.40 | 4.68 | 5.36 | 6.61 | 3.32           | 4.01 | 4.29 | 4.97 | 6.22 |
|                 | 3H   | 4.75             | 5.37 | 5.74 | 6.34 | 7.61 | 4.32           | 4.93 | 5.30 | 5.90 | 7.17 |
|                 | 4H   | 5.18             | 5.76 | 6.18 | 6.73 | 8.01 | 4.74           | 5.32 | 5.74 | 6.29 | 7.57 |
|                 | 6H   | 5.49             | 6.02 | 6.50 | 7.00 | 8.29 | 5.07           | 5.61 | 6.08 | 6.58 | 7.87 |
|                 | 8H   | 5.59             | 6.09 | 6.60 | 7.09 | 8.37 | 5.17           | 5.68 | 6.19 | 6.67 | 7.96 |
|                 | 12H  | 5.65             | 6.13 | 6.67 | 7.12 | 8.42 | 5.22           | 5.70 | 6.24 | 6.69 | 7.99 |
| 4H              | 2H   | 3.92             | 4.51 | 4.93 | 5.48 | 6.76 | 3.59           | 4.17 | 4.60 | 5.15 | 6.43 |
|                 | 3H   | 5.22             | 5.70 | 6.23 | 6.70 | 7.99 | 4.84           | 5.32 | 5.85 | 6.32 | 7.61 |
|                 | 4H   | 5.78             | 6.22 | 6.80 | 7.21 | 8.53 | 5.39           | 5.83 | 6.41 | 6.83 | 8.14 |
|                 | 6H   | 6.23             | 6.61 | 7.26 | 7.63 | 8.94 | 5.86           | 6.23 | 6.88 | 7.25 | 8.56 |
|                 | 8H   | 6.39             | 6.74 | 7.42 | 7.75 | 9.07 | 6.01           | 6.36 | 7.04 | 7.37 | 8.70 |
|                 | 12H  | 6.49             | 6.80 | 7.53 | 7.83 | 9.16 | 6.09           | 6.41 | 7.13 | 7.43 | 8.76 |
| 8H              | 4H   | 5.92             | 6.27 | 6.95 | 7.28 | 8.61 | 5.58           | 5.92 | 6.60 | 6.93 | 8.26 |
|                 | 6H   | 6.51             | 6.79 | 7.56 | 7.85 | 9.17 | 6.16           | 6.45 | 7.21 | 7.50 | 8.83 |
|                 | 8H   | 6.75             | 7.00 | 7.81 | 8.04 | 9.39 | 6.41           | 6.65 | 7.46 | 7.69 | 9.04 |
|                 | 12H  | 6.94             | 7.16 | 8.00 | 8.19 | 9.58 | 6.57           | 6.79 | 7.63 | 7.82 | 9.21 |
| 12H             | 4H   | 5.90             | 6.21 | 6.94 | 7.24 | 8.57 | 5.56           | 5.87 | 6.60 | 6.90 | 8.23 |
|                 | 6H   | 6.53             | 6.78 | 7.59 | 7.82 | 9.16 | 6.20           | 6.45 | 7.26 | 7.49 | 8.83 |
|                 | 8H   | 6.80             | 7.02 | 7.86 | 8.05 | 9.44 | 6.47           | 6.69 | 7.52 | 7.72 | 9.11 |