

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: P854340

Luminaire Tested: SQ2-WBM-050U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854340  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBM-050U-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

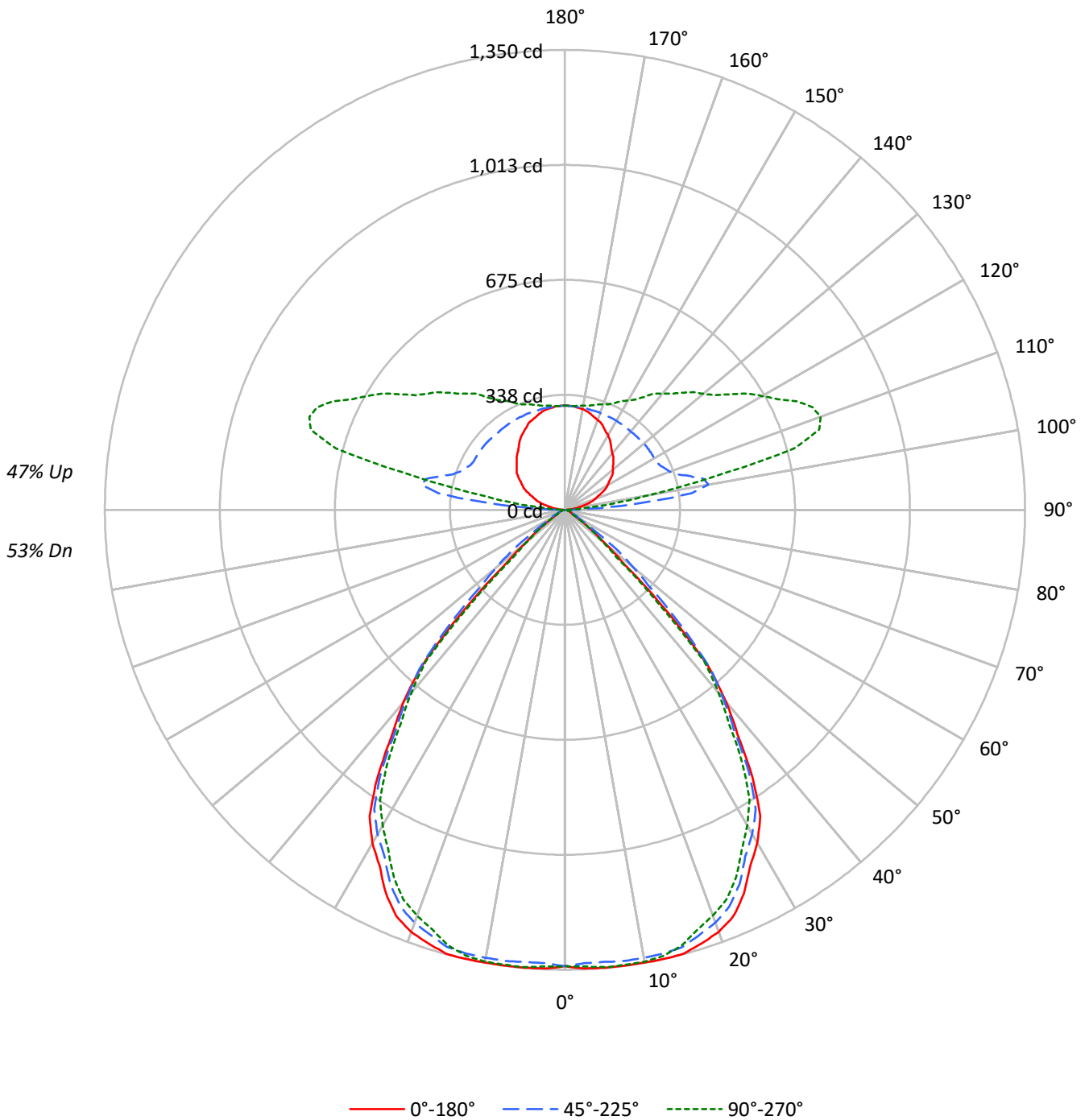
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4008.2 lumens  
Efficiency: N/A  
Efficacy: 121.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.19 / 1.17  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 32.9  
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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CATALOG NUMBER: SQ2-WBM-050U-050D-930-UNV-STD-W-4

### 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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 59 | 59 | 59 | 53 |    |    |    |   |
| 1   | 100 | 97  | 93  | 91  | 93  | 90  | 87  | 85  | 77 | 75 | 73 | 65 | 64 | 63 | 55 | 54 | 53 | 48 |    |    |    |   |
| 2   | 93  | 87  | 82  | 77  | 86  | 81  | 77  | 73  | 70 | 67 | 64 | 60 | 58 | 56 | 51 | 49 | 48 | 44 |    |    |    |   |
| 3   | 86  | 78  | 72  | 67  | 80  | 73  | 68  | 63  | 64 | 60 | 56 | 55 | 52 | 50 | 47 | 45 | 43 | 39 |    |    |    |   |
| 4   | 80  | 71  | 64  | 59  | 74  | 66  | 60  | 56  | 58 | 53 | 50 | 50 | 47 | 44 | 43 | 41 | 39 | 36 |    |    |    |   |
| 5   | 74  | 64  | 57  | 52  | 69  | 60  | 54  | 49  | 53 | 48 | 45 | 46 | 43 | 40 | 40 | 37 | 35 | 32 |    |    |    |   |
| 6   | 69  | 58  | 51  | 46  | 64  | 55  | 49  | 44  | 49 | 44 | 40 | 43 | 39 | 36 | 37 | 34 | 32 | 30 |    |    |    |   |
| 7   | 64  | 53  | 46  | 41  | 60  | 50  | 44  | 39  | 45 | 40 | 36 | 39 | 36 | 33 | 34 | 32 | 29 | 27 |    |    |    |   |
| 8   | 60  | 49  | 42  | 37  | 56  | 46  | 40  | 36  | 41 | 36 | 33 | 36 | 33 | 30 | 32 | 29 | 27 | 25 |    |    |    |   |
| 9   | 56  | 45  | 38  | 34  | 53  | 43  | 37  | 32  | 38 | 33 | 30 | 34 | 30 | 27 | 30 | 27 | 25 | 23 |    |    |    |   |
| 10  | 53  | 42  | 35  | 31  | 49  | 39  | 33  | 29  | 35 | 31 | 27 | 32 | 28 | 25 | 28 | 25 | 23 | 21 |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 21632 | 21632 | 21632 |
| 5°  | 21870 | 21590 | 21840 |
| 10° | 22123 | 21887 | 22076 |
| 15° | 22539 | 22218 | 22121 |
| 20° | 22656 | 22161 | 21780 |
| 25° | 22137 | 21590 | 21178 |
| 30° | 21052 | 20495 | 19939 |
| 35° | 18920 | 18559 | 17895 |
| 40° | 15548 | 15224 | 14779 |
| 45° | 9839  | 11047 | 8873  |
| 50° | 3818  | 6498  | 3504  |
| 55° | 1841  | 2950  | 1869  |
| 60° | 869   | 1460  | 807   |
| 65° | 772   | 844   | 734   |
| 70° | 774   | 774   | 727   |
| 75° | 717   | 780   | 661   |
| 80° | 716   | 716   | 623   |
| 85° | 704   | 704   | 537   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 11047 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 128.3  | 3.2       |
| 10°-20°   | 376.4  | 9.4       |
| 20°-30°   | 557.4  | 13.9      |
| 30°-40°   | 577.4  | 14.4      |
| 40°-50°   | 347.0  | 8.7       |
| 50°-60°   | 83.0   | 2.1       |
| 60°-70°   | 22.6   | 0.6       |
| 70°-80°   | 12.6   | 0.3       |
| 80°-90°   | 4.4    | 0.1       |
| 90°-100°  | 121.8  | 3.0       |
| 100°-110° | 386.3  | 9.6       |
| 110°-120° | 378.8  | 9.5       |
| 120°-130° | 308.3  | 7.7       |
| 130°-140° | 251.4  | 6.3       |
| 140°-150° | 196.0  | 4.9       |
| 150°-160° | 141.2  | 3.5       |
| 160°-170° | 86.3   | 2.2       |
| 170°-180° | 29.1   | 0.7       |
| 0°-30°    | 1062.1 | 26.5      |
| 0°-40°    | 1639.5 | 40.9      |
| 0°-60°    | 2069.5 | 51.6      |
| 0°-90°    | 2109.1 | 52.6      |
| 90°-120°  | 887.0  | 22.1      |
| 90°-150°  | 1642.6 | 41.0      |
| 90°-180°  | 1899.0 | 47.4      |
| 0°-180°   | 4008.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1340 | 1340  | 1340 | 1340  | 1340 |      |
| 5°   | 1349 | 1345  | 1332 | 1349  | 1348 | 129  |
| 15°  | 1348 | 1357  | 1329 | 1330  | 1323 | 380  |
| 25°  | 1243 | 1254  | 1212 | 1196  | 1189 | 568  |
| 35°  | 960  | 958   | 942  | 924   | 908  | 590  |
| 45°  | 431  | 484   | 484  | 458   | 389  | 329  |
| 55°  | 65   | 75    | 105  | 70    | 66   | 67   |
| 65°  | 20   | 21    | 22   | 20    | 19   | 21   |
| 75°  | 12   | 12    | 12   | 12    | 11   | 13   |
| 85°  | 4    | 4     | 4    | 4     | 3    | 4    |
| 90°  | 0    | 1     | 3    | 3     | 3    | 1    |
| 95°  | 16   | 49    | 221  | 82    | 53   | 19   |
| 105° | 67   | 95    | 381  | 725   | 695  | 71   |
| 115° | 120  | 143   | 308  | 639   | 752  | 119  |
| 125° | 166  | 186   | 303  | 501   | 590  | 148  |
| 135° | 201  | 221   | 301  | 431   | 486  | 155  |
| 145° | 235  | 252   | 301  | 372   | 405  | 147  |
| 155° | 267  | 277   | 302  | 332   | 345  | 123  |
| 165° | 291  | 294   | 303  | 314   | 317  | 82   |
| 175° | 305  | 304   | 305  | 307   | 306  | 29   |
| 180° | 306  | 306   | 306  | 306   | 306  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1339.8 | 1339.8 | 1339.8 | 1339.8 | 1339.8 |
| 2.5°   | 1347.5 | 1343.0 | 1332.1 | 1344.3 | 1341.3 |
| 5°     | 1349.4 | 1344.7 | 1332.1 | 1349.4 | 1347.5 |
| 7.5°   | 1349.4 | 1346.4 | 1335.7 | 1350.1 | 1347.3 |
| 10°    | 1349.4 | 1349.4 | 1335.0 | 1349.3 | 1346.5 |
| 12.5°  | 1350.2 | 1353.9 | 1334.2 | 1344.7 | 1340.4 |
| 15°    | 1348.4 | 1356.9 | 1329.2 | 1330.0 | 1323.4 |
| 17.5°  | 1334.0 | 1347.2 | 1309.0 | 1301.3 | 1292.3 |
| 20°    | 1318.6 | 1331.8 | 1289.8 | 1275.2 | 1267.6 |
| 22.5°  | 1291.7 | 1305.6 | 1260.5 | 1246.7 | 1238.4 |
| 25°    | 1242.6 | 1253.9 | 1211.9 | 1196.3 | 1188.8 |
| 27.5°  | 1177.6 | 1182.7 | 1146.3 | 1131.7 | 1123.4 |
| 30°    | 1129.2 | 1128.2 | 1099.3 | 1080.8 | 1069.5 |
| 32.5°  | 1066.8 | 1068.1 | 1041.6 | 1023.8 | 1008.7 |
| 35°    | 959.9  | 958.0  | 941.6  | 923.9  | 907.9  |
| 37.5°  | 832.3  | 833.7  | 816.2  | 797.4  | 791.2  |
| 40°    | 737.7  | 740.5  | 722.3  | 702.1  | 701.2  |
| 42.5°  | 622.3  | 643.2  | 630.0  | 608.9  | 605.0  |
| 45°    | 430.9  | 483.5  | 483.8  | 458.2  | 388.6  |
| 47.5°  | 239.7  | 305.5  | 344.9  | 272.0  | 203.3  |
| 50°    | 152.0  | 195.2  | 258.7  | 163.0  | 139.5  |
| 52.5°  | 108.1  | 129.5  | 191.8  | 116.2  | 101.8  |
| 55°    | 65.4   | 74.8   | 104.8  | 70.1   | 66.4   |
| 57.5°  | 40.0   | 48.3   | 61.4   | 47.5   | 39.6   |
| 60°    | 26.9   | 34.5   | 45.2   | 30.6   | 25.0   |
| 62.5°  | 23.9   | 26.1   | 35.2   | 24.6   | 22.7   |
| 65°    | 20.2   | 21.1   | 22.1   | 20.2   | 19.2   |
| 67.5°  | 17.9   | 18.8   | 18.7   | 17.9   | 16.9   |
| 70°    | 16.4   | 17.3   | 16.4   | 16.3   | 15.4   |
| 72.5°  | 14.8   | 15.0   | 14.8   | 14.0   | 13.8   |
| 75°    | 11.5   | 12.5   | 12.5   | 11.5   | 10.6   |
| 77.5°  | 9.2    | 10.0   | 9.2    | 9.2    | 8.3    |
| 80°    | 7.7    | 7.7    | 7.7    | 7.7    | 6.7    |
| 82.5°  | 6.2    | 6.2    | 6.2    | 6.1    | 5.2    |
| 85°    | 3.8    | 3.8    | 3.8    | 3.8    | 2.9    |
| 87.5°  | 1.5    | 1.7    | 2.1    | 1.3    | 1.3    |
| 90°    | 0.0    | 0.9    | 2.9    | 2.9    | 2.9    |
| 92.5°  | 5.4    | 21.4   | 68.3   | 22.7   | 16.0   |
| 95°    | 16.3   | 49.3   | 221.2  | 82.0   | 52.9   |
| 97.5°  | 30.4   | 63.9   | 374.7  | 234.1  | 143.7  |
| 100°   | 40.4   | 72.4   | 427.0  | 389.3  | 252.9  |
| 102.5° | 51.2   | 81.6   | 417.8  | 571.7  | 437.6  |
| 105°   | 67.3   | 94.6   | 380.8  | 725.4  | 695.3  |
| 107.5° | 83.5   | 108.7  | 345.6  | 741.4  | 782.1  |
| 110°   | 94.2   | 118.7  | 327.9  | 723.0  | 798.2  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 105.0 | 128.0 | 317.9 | 691.1 | 786.7 |
| 115°   | 120.2 | 142.8 | 307.7 | 639.2 | 752.1 |
| 117.5° | 135.0 | 156.5 | 303.7 | 589.2 | 703.0 |
| 120°   | 144.3 | 164.9 | 302.9 | 558.4 | 668.4 |
| 122.5° | 153.5 | 173.4 | 302.9 | 533.6 | 636.1 |
| 125°   | 166.4 | 186.1 | 302.9 | 501.2 | 590.5 |
| 127.5° | 177.7 | 196.7 | 302.9 | 476.0 | 552.2 |
| 130°   | 184.6 | 204.4 | 302.9 | 461.3 | 529.9 |
| 132.5° | 191.6 | 211.3 | 302.2 | 449.6 | 511.4 |
| 135°   | 201.0 | 220.7 | 301.0 | 431.1 | 485.7 |
| 137.5° | 210.2 | 230.9 | 300.8 | 413.5 | 462.2 |
| 140°   | 216.4 | 237.1 | 300.1 | 401.1 | 445.3 |
| 142.5° | 224.1 | 244.0 | 300.8 | 388.7 | 429.9 |
| 145°   | 234.7 | 252.5 | 301.0 | 372.0 | 404.9 |
| 147.5° | 245.2 | 260.5 | 301.2 | 357.2 | 384.1 |
| 150°   | 252.9 | 265.2 | 302.0 | 348.6 | 370.3 |
| 152.5° | 259.1 | 269.8 | 302.0 | 341.6 | 359.5 |
| 155°   | 267.4 | 276.8 | 302.0 | 332.1 | 345.3 |
| 157.5° | 276.2 | 282.6 | 302.9 | 326.2 | 335.3 |
| 160°   | 280.8 | 286.5 | 302.9 | 322.3 | 329.9 |
| 162.5° | 285.4 | 289.6 | 302.9 | 319.2 | 324.5 |
| 165°   | 291.4 | 294.2 | 302.9 | 314.5 | 317.4 |
| 167.5° | 297.0 | 297.7 | 303.9 | 311.3 | 313.7 |
| 170°   | 300.1 | 300.1 | 303.9 | 309.7 | 310.6 |
| 172.5° | 301.6 | 302.3 | 303.9 | 308.1 | 308.3 |
| 175°   | 304.9 | 303.9 | 304.9 | 306.8 | 305.8 |
| 177.5° | 305.8 | 305.1 | 305.1 | 306.6 | 305.1 |
| 180°   | 305.8 | 305.8 | 305.8 | 305.8 | 305.8 |

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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 | 3.85             | 4.59 | 4.82 | 5.54 | 6.79 | 3.44           | 4.18 | 4.41 | 5.14 | 6.38 |
|                 | 3H   | 4.37             | 5.01 | 5.34 | 5.98 | 7.25 | 3.96           | 4.61 | 4.94 | 5.58 | 6.85 |
|                 | 4H   | 4.61             | 5.22 | 5.60 | 6.20 | 7.47 | 4.19           | 4.81 | 5.19 | 5.78 | 7.06 |
|                 | 6H   | 4.82             | 5.38 | 5.82 | 6.36 | 7.65 | 4.38           | 4.95 | 5.39 | 5.92 | 7.21 |
|                 | 8H   | 4.90             | 5.43 | 5.90 | 6.42 | 7.71 | 4.44           | 4.97 | 5.45 | 5.96 | 7.25 |
|                 | 12H  | 4.94             | 5.45 | 5.95 | 6.43 | 7.74 | 4.46           | 4.97 | 5.47 | 5.95 | 7.26 |
| 4H              | 2H   | 3.86             | 4.47 | 4.86 | 5.45 | 6.72 | 3.49           | 4.10 | 4.49 | 5.07 | 6.35 |
|                 | 3H   | 4.59             | 5.09 | 5.60 | 6.10 | 7.39 | 4.22           | 4.73 | 5.23 | 5.73 | 7.02 |
|                 | 4H   | 4.98             | 5.44 | 5.99 | 6.43 | 7.75 | 4.59           | 5.05 | 5.60 | 6.04 | 7.36 |
|                 | 6H   | 5.32             | 5.71 | 6.34 | 6.73 | 8.05 | 4.92           | 5.31 | 5.94 | 6.33 | 7.64 |
|                 | 8H   | 5.45             | 5.82 | 6.47 | 6.83 | 8.15 | 5.03           | 5.40 | 6.05 | 6.41 | 7.73 |
|                 | 12H  | 5.54             | 5.87 | 6.58 | 6.89 | 8.22 | 5.09           | 5.42 | 6.13 | 6.45 | 7.78 |
| 8H              | 4H   | 5.06             | 5.43 | 6.08 | 6.44 | 7.76 | 4.71           | 5.07 | 5.73 | 6.08 | 7.41 |
|                 | 6H   | 5.53             | 5.83 | 6.57 | 6.88 | 8.20 | 5.17           | 5.47 | 6.21 | 6.52 | 7.84 |
|                 | 8H   | 5.74             | 6.00 | 6.79 | 7.04 | 8.38 | 5.37           | 5.63 | 6.42 | 6.67 | 8.01 |
|                 | 12H  | 5.91             | 6.14 | 6.96 | 7.17 | 8.56 | 5.51           | 5.74 | 6.56 | 6.77 | 8.16 |
| 12H             | 4H   | 5.03             | 5.36 | 6.07 | 6.39 | 7.72 | 4.68           | 5.01 | 5.72 | 6.04 | 7.37 |
|                 | 6H   | 5.55             | 5.81 | 6.60 | 6.85 | 8.19 | 5.20           | 5.46 | 6.25 | 6.50 | 7.84 |
|                 | 8H   | 5.79             | 6.02 | 6.84 | 7.05 | 8.44 | 5.43           | 5.66 | 6.48 | 6.69 | 8.08 |