

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: P854461

Luminaire Tested: SQ2-WBN-100U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854461  
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-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

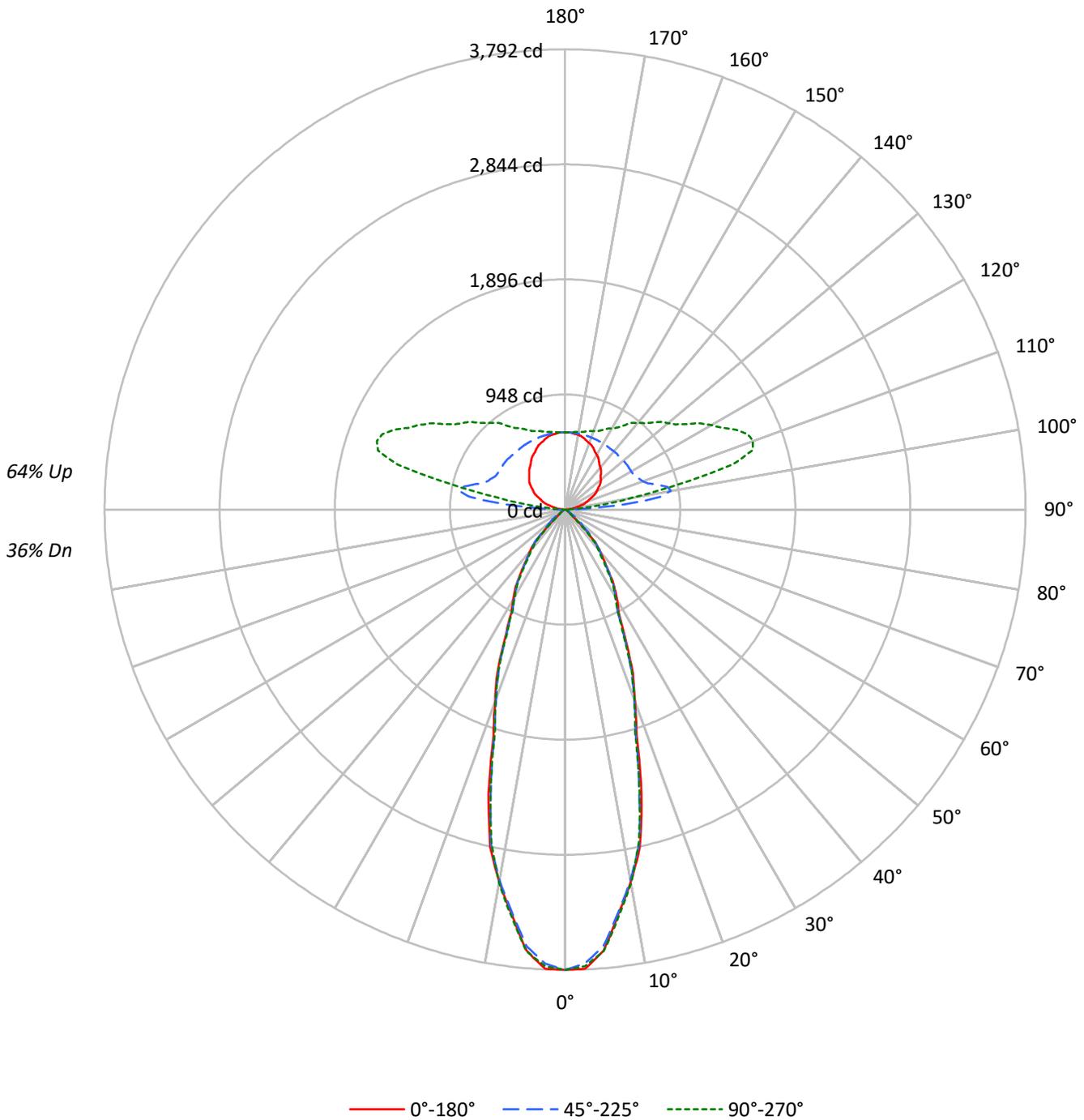
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6166.4 lumens  
Efficiency: N/A  
Efficacy: 121.6 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: Semi-Indirect  
  
Input Watts (W): 50.7  
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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CATALOG NUMBER: SQ2-WBN-100U-050D-935-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   | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 75 | 75 | 75 | 59 | 59 | 59 | 43 | 43 | 43 | 36 |    |    |    | 36 |
| 1   | 96  | 93  | 89  | 86  | 87 | 84 | 81 | 79 | 68 | 67 | 65 | 54 | 53 | 52 | 40 | 40 | 39 |    |    |    | 33 |    |
| 2   | 89  | 83  | 78  | 74  | 81 | 76 | 72 | 68 | 62 | 59 | 57 | 50 | 48 | 46 | 38 | 37 | 36 |    |    |    | 31 |    |
| 3   | 83  | 75  | 69  | 64  | 75 | 69 | 63 | 59 | 57 | 53 | 50 | 46 | 43 | 42 | 36 | 34 | 33 |    |    |    | 29 |    |
| 4   | 77  | 68  | 61  | 56  | 70 | 62 | 57 | 52 | 52 | 48 | 45 | 42 | 40 | 38 | 33 | 32 | 31 |    |    |    | 27 |    |
| 5   | 71  | 62  | 55  | 50  | 65 | 57 | 51 | 47 | 48 | 44 | 40 | 39 | 37 | 34 | 31 | 30 | 28 |    |    |    | 25 |    |
| 6   | 67  | 56  | 50  | 45  | 61 | 52 | 46 | 42 | 44 | 40 | 37 | 37 | 34 | 32 | 30 | 28 | 26 |    |    |    | 24 |    |
| 7   | 62  | 52  | 45  | 40  | 57 | 48 | 42 | 38 | 41 | 37 | 34 | 34 | 31 | 29 | 28 | 26 | 25 |    |    |    | 22 |    |
| 8   | 58  | 48  | 41  | 37  | 54 | 45 | 39 | 35 | 38 | 34 | 31 | 32 | 29 | 27 | 26 | 25 | 23 |    |    |    | 21 |    |
| 9   | 55  | 44  | 38  | 34  | 50 | 41 | 36 | 32 | 36 | 31 | 28 | 30 | 27 | 25 | 25 | 23 | 22 |    |    |    | 20 |    |
| 10  | 52  | 41  | 35  | 31  | 48 | 39 | 33 | 29 | 33 | 29 | 26 | 28 | 26 | 23 | 24 | 22 | 21 |    |    |    | 19 |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 61223 | 61223 | 61223 |
| 5°  | 59114 | 58525 | 59180 |
| 10° | 51096 | 50854 | 51218 |
| 15° | 40659 | 39378 | 39535 |
| 20° | 28883 | 28502 | 28711 |
| 25° | 20779 | 20373 | 20229 |
| 30° | 15877 | 15452 | 15413 |
| 35° | 12463 | 12252 | 11933 |
| 40° | 9442  | 9316  | 8861  |
| 45° | 5284  | 6314  | 4715  |
| 50° | 1859  | 3886  | 1640  |
| 55° | 1137  | 2120  | 1078  |
| 60° | 869   | 1108  | 804   |
| 65° | 798   | 821   | 745   |
| 70° | 760   | 760   | 699   |
| 75° | 711   | 711   | 674   |
| 80° | 623   | 623   | 623   |
| 85° | 630   | 500   | 500   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 6314 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 329.2  | 5.3       |
| 10°-20°   | 654.2  | 10.6      |
| 20°-30°   | 541.7  | 8.8       |
| 30°-40°   | 389.7  | 6.3       |
| 40°-50°   | 198.6  | 3.2       |
| 50°-60°   | 51.7   | 0.8       |
| 60°-70°   | 21.4   | 0.3       |
| 70°-80°   | 11.9   | 0.2       |
| 80°-90°   | 4.7    | 0.1       |
| 90°-100°  | 266.0  | 4.3       |
| 100°-110° | 804.4  | 13.0      |
| 110°-120° | 785.2  | 12.7      |
| 120°-130° | 641.7  | 10.4      |
| 130°-140° | 523.8  | 8.5       |
| 140°-150° | 407.7  | 6.6       |
| 150°-160° | 293.9  | 4.8       |
| 160°-170° | 179.9  | 2.9       |
| 170°-180° | 60.8   | 1.0       |
| 0°-30°    | 1525.1 | 24.7      |
| 0°-40°    | 1914.8 | 31.1      |
| 0°-60°    | 2165.0 | 35.1      |
| 0°-90°    | 2203.1 | 35.7      |
| 90°-120°  | 1855.6 | 30.1      |
| 90°-150°  | 3428.7 | 55.6      |
| 90°-180°  | 3963.0 | 64.3      |
| 0°-180°   | 6166.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 3792 | 3792  | 3792 | 3792  | 3792 |      |
| 5°   | 3647 | 3642  | 3611 | 3663  | 3651 | 329  |
| 15°  | 2432 | 2405  | 2356 | 2372  | 2365 | 660  |
| 25°  | 1166 | 1164  | 1144 | 1134  | 1136 | 549  |
| 35°  | 632  | 636   | 622  | 611   | 605  | 397  |
| 45°  | 231  | 266   | 276  | 257   | 206  | 185  |
| 55°  | 40   | 47    | 75   | 44    | 38   | 40   |
| 65°  | 21   | 22    | 22   | 20    | 20   | 21   |
| 75°  | 11   | 11    | 11   | 11    | 11   | 12   |
| 85°  | 3    | 3     | 3    | 3     | 3    | 4    |
| 90°  | 0    | 2     | 12   | 7     | 6    | 2    |
| 95°  | 33   | 104   | 502  | 185   | 117  | 39   |
| 105° | 140  | 197   | 790  | 1500  | 1426 | 147  |
| 115° | 249  | 297   | 639  | 1322  | 1553 | 246  |
| 125° | 348  | 386   | 630  | 1044  | 1229 | 309  |
| 135° | 417  | 461   | 626  | 900   | 1013 | 323  |
| 145° | 487  | 523   | 626  | 774   | 847  | 305  |
| 155° | 555  | 573   | 630  | 694   | 721  | 255  |
| 165° | 607  | 614   | 633  | 657   | 665  | 171  |
| 175° | 635  | 635   | 636  | 641   | 639  | 60   |
| 180° | 637  | 637   | 637  | 637   | 637  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 3791.9 | 3791.9 | 3791.9 | 3791.9 | 3791.9 |
| 2.5°   | 3786.0 | 3779.7 | 3743.5 | 3773.5 | 3766.1 |
| 5°     | 3647.3 | 3642.1 | 3611.0 | 3663.2 | 3651.4 |
| 7.5°   | 3360.9 | 3365.4 | 3347.2 | 3393.3 | 3380.7 |
| 10°    | 3116.6 | 3128.4 | 3101.8 | 3168.7 | 3124.0 |
| 12.5°  | 2847.0 | 2839.3 | 2820.8 | 2831.2 | 2806.5 |
| 15°    | 2432.4 | 2404.8 | 2355.8 | 2372.4 | 2365.2 |
| 17.5°  | 1959.3 | 1969.9 | 1927.4 | 1925.6 | 1917.4 |
| 20°    | 1681.0 | 1684.3 | 1658.8 | 1672.3 | 1671.0 |
| 22.5°  | 1457.2 | 1457.8 | 1425.3 | 1444.9 | 1433.1 |
| 25°    | 1166.4 | 1164.5 | 1143.6 | 1133.5 | 1135.5 |
| 27.5°  | 956.6  | 948.4  | 932.6  | 939.2  | 934.4  |
| 30°    | 851.6  | 845.0  | 828.8  | 832.7  | 826.7  |
| 32.5°  | 757.4  | 757.7  | 741.0  | 739.1  | 734.7  |
| 35°    | 632.3  | 636.3  | 621.6  | 611.3  | 605.4  |
| 37.5°  | 520.7  | 524.3  | 511.9  | 497.0  | 492.0  |
| 40°    | 448.0  | 450.6  | 442.0  | 424.4  | 420.4  |
| 42.5°  | 368.9  | 380.0  | 371.5  | 354.8  | 346.2  |
| 45°    | 231.4  | 266.3  | 276.5  | 257.2  | 206.5  |
| 47.5°  | 117.0  | 165.3  | 197.2  | 145.7  | 95.9   |
| 50°    | 74.0   | 107.5  | 154.7  | 87.6   | 65.3   |
| 52.5°  | 56.8   | 74.0   | 123.5  | 64.7   | 52.3   |
| 55°    | 40.4   | 46.9   | 75.3   | 43.6   | 38.3   |
| 57.5°  | 31.2   | 34.9   | 45.1   | 33.0   | 29.7   |
| 60°    | 26.9   | 29.5   | 34.3   | 28.2   | 24.9   |
| 62.5°  | 24.2   | 25.8   | 27.8   | 23.9   | 22.7   |
| 65°    | 20.9   | 21.5   | 21.5   | 20.2   | 19.5   |
| 67.5°  | 17.8   | 18.4   | 18.3   | 17.6   | 17.0   |
| 70°    | 16.1   | 16.8   | 16.1   | 15.5   | 14.8   |
| 72.5°  | 14.0   | 14.6   | 14.0   | 13.8   | 13.2   |
| 75°    | 11.4   | 11.4   | 11.4   | 10.8   | 10.8   |
| 77.5°  | 8.9    | 9.0    | 8.3    | 8.3    | 7.8    |
| 80°    | 6.7    | 7.4    | 6.7    | 6.7    | 6.7    |
| 82.5°  | 5.7    | 5.8    | 5.1    | 5.1    | 5.1    |
| 85°    | 3.4    | 3.4    | 2.7    | 3.3    | 2.7    |
| 87.5°  | 1.1    | 1.5    | 3.5    | 2.5    | 2.3    |
| 90°    | 0.0    | 2.0    | 12.0   | 7.0    | 6.0    |
| 92.5°  | 11.2   | 45.2   | 162.4  | 53.8   | 38.8   |
| 95°    | 33.0   | 104.3  | 501.9  | 185.4  | 117.0  |
| 97.5°  | 63.8   | 132.8  | 791.0  | 523.4  | 318.7  |
| 100°   | 83.0   | 150.4  | 883.8  | 854.4  | 573.8  |
| 102.5° | 104.6  | 169.7  | 864.6  | 1198.4 | 955.3  |
| 105°   | 140.0  | 196.7  | 789.8  | 1499.9 | 1425.6 |
| 107.5° | 173.6  | 227.7  | 717.8  | 1529.7 | 1615.8 |
| 110°   | 195.9  | 247.8  | 681.8  | 1492.2 | 1648.6 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 217.5 | 267.8 | 660.2 | 1429.1 | 1627.0 |
| 115°   | 248.9 | 296.8 | 638.8 | 1321.9 | 1552.6 |
| 117.5° | 280.1 | 325.5 | 631.2 | 1221.4 | 1457.6 |
| 120°   | 300.9 | 343.9 | 628.8 | 1162.8 | 1389.6 |
| 122.5° | 320.1 | 360.8 | 628.8 | 1111.3 | 1320.8 |
| 125°   | 347.9 | 386.0 | 629.8 | 1043.9 | 1228.7 |
| 127.5° | 370.5 | 410.0 | 628.8 | 993.1  | 1150.7 |
| 130°   | 384.9 | 426.0 | 628.8 | 964.0  | 1106.7 |
| 132.5° | 397.7 | 439.5 | 628.0 | 937.3  | 1069.1 |
| 135°   | 416.9 | 460.9 | 625.8 | 900.3  | 1012.7 |
| 137.5° | 438.3 | 480.1 | 625.8 | 860.7  | 964.9  |
| 140°   | 451.9 | 492.9 | 625.8 | 835.0  | 933.8  |
| 142.5° | 465.5 | 505.0 | 625.0 | 811.5  | 897.8  |
| 145°   | 486.9 | 523.0 | 625.8 | 774.4  | 846.8  |
| 147.5° | 508.3 | 539.0 | 627.0 | 743.9  | 799.4  |
| 150°   | 521.9 | 550.2 | 627.8 | 726.9  | 773.8  |
| 152.5° | 534.7 | 559.9 | 628.6 | 712.3  | 750.6  |
| 155°   | 554.9 | 573.4 | 629.8 | 694.4  | 720.8  |
| 157.5° | 572.4 | 587.5 | 631.0 | 681.2  | 699.6  |
| 160°   | 582.8 | 595.6 | 631.8 | 673.1  | 686.8  |
| 162.5° | 593.2 | 602.8 | 632.6 | 665.9  | 677.2  |
| 165°   | 606.8 | 613.7 | 632.8 | 657.0  | 664.8  |
| 167.5° | 618.4 | 622.0 | 634.0 | 650.1  | 653.4  |
| 170°   | 624.8 | 626.8 | 634.8 | 646.8  | 647.8  |
| 172.5° | 628.8 | 630.0 | 634.8 | 643.6  | 643.8  |
| 175°   | 634.8 | 634.8 | 635.8 | 640.8  | 638.8  |
| 177.5° | 637.6 | 636.8 | 636.0 | 638.4  | 636.8  |
| 180°   | 636.8 | 636.8 | 636.8 | 636.8  | 636.8  |



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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 | 0.00             | 0.25 | 0.72 | 1.33 | 2.80 | 0.00           | 0.00 | 0.34 | 0.95 | 2.42 |
|                 | 3H   | 0.66             | 1.22 | 1.77 | 2.31 | 3.80 | 0.24           | 0.80 | 1.35 | 1.88 | 3.38 |
|                 | 4H   | 1.08             | 1.62 | 2.20 | 2.70 | 4.20 | 0.66           | 1.19 | 1.78 | 2.28 | 3.78 |
|                 | 6H   | 1.39             | 1.88 | 2.52 | 2.97 | 4.48 | 0.99           | 1.48 | 2.11 | 2.57 | 4.07 |
|                 | 8H   | 1.49             | 1.95 | 2.62 | 3.06 | 4.56 | 1.09           | 1.55 | 2.22 | 2.65 | 4.15 |
|                 | 12H  | 1.56             | 2.00 | 2.69 | 3.09 | 4.62 | 1.13           | 1.57 | 2.27 | 2.67 | 4.19 |
| 4H              | 2H   | 0.00             | 0.36 | 0.96 | 1.45 | 2.95 | 0.00           | 0.04 | 0.63 | 1.13 | 2.62 |
|                 | 3H   | 1.13             | 1.57 | 2.25 | 2.68 | 4.19 | 0.75           | 1.19 | 1.88 | 2.31 | 3.81 |
|                 | 4H   | 1.69             | 2.09 | 2.82 | 3.19 | 4.72 | 1.31           | 1.71 | 2.44 | 2.82 | 4.35 |
|                 | 6H   | 2.14             | 2.48 | 3.27 | 3.61 | 5.13 | 1.77           | 2.11 | 2.90 | 3.24 | 4.76 |
|                 | 8H   | 2.29             | 2.62 | 3.43 | 3.73 | 5.27 | 1.92           | 2.24 | 3.06 | 3.36 | 4.90 |
|                 | 12H  | 2.40             | 2.69 | 3.55 | 3.82 | 5.36 | 2.00           | 2.29 | 3.15 | 3.42 | 4.96 |
| 8H              | 4H   | 1.83             | 2.15 | 2.96 | 3.27 | 4.80 | 1.49           | 1.81 | 2.63 | 2.93 | 4.46 |
|                 | 6H   | 2.41             | 2.68 | 3.57 | 3.84 | 5.37 | 2.07           | 2.34 | 3.23 | 3.50 | 5.03 |
|                 | 8H   | 2.66             | 2.89 | 3.82 | 4.03 | 5.58 | 2.31           | 2.54 | 3.48 | 3.68 | 5.24 |
|                 | 12H  | 2.85             | 3.05 | 4.02 | 4.19 | 5.78 | 2.48           | 2.68 | 3.64 | 3.82 | 5.41 |
| 12H             | 4H   | 1.80             | 2.09 | 2.95 | 3.22 | 4.76 | 1.47           | 1.76 | 2.62 | 2.89 | 4.43 |
|                 | 6H   | 2.44             | 2.67 | 3.60 | 3.81 | 5.36 | 2.11           | 2.34 | 3.27 | 3.48 | 5.03 |
|                 | 8H   | 2.71             | 2.91 | 3.87 | 4.04 | 5.63 | 2.37           | 2.57 | 3.54 | 3.71 | 5.30 |