

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P1055077

Luminaire Tested: SQ4R-FB-050D-940-1-UNV-STD-W-4

Issue Date: 7/23/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055077  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-892-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/23/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-FB-050D-940-1-UNV-STD-W-4  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH BATWING FROSTED CONTINUOUS ROLL LEN  
500 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

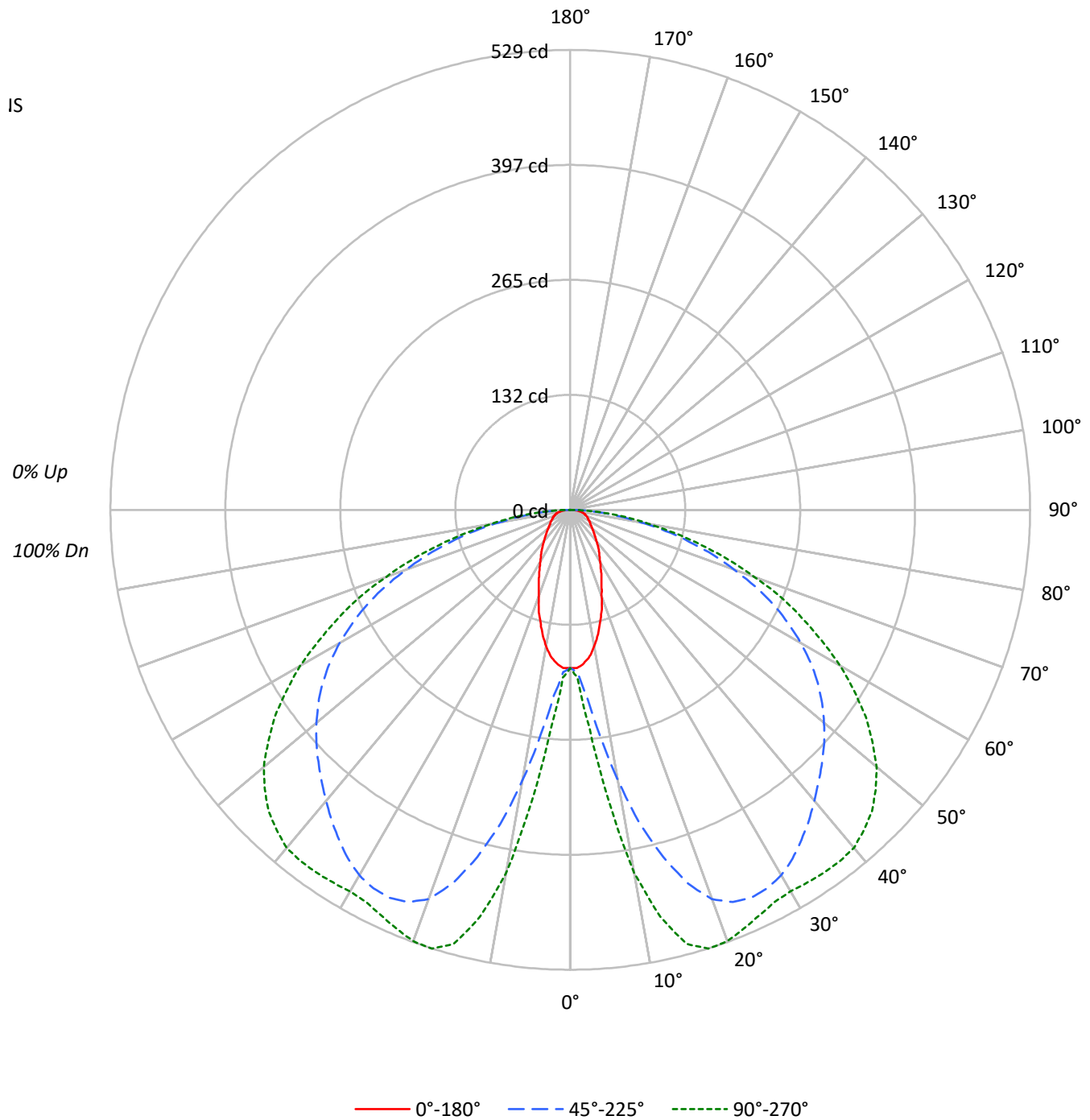
Lumens per Lamp: N/A  
Luminaire Lumens: 1408.4 lumens  
Efficiency: N/A  
Efficacy: 74.5 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.32  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 18.9  
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: SQ4R-FB-050D-940-1-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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  |  | 50  | 30  | 10  |  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  |  | 106 | 106 | 106 |  | 102 |
| 1   | 108 | 103 | 98  | 94  | 105 | 100 | 96  | 92  | 96  | 93  | 90  |  |  | 92  | 89  | 87  |  | 89  |
| 2   | 97  | 89  | 81  | 75  | 95  | 87  | 80  | 74  | 83  | 77  | 72  |  |  | 80  | 75  | 71  |  | 77  |
| 3   | 88  | 77  | 68  | 61  | 86  | 75  | 67  | 61  | 72  | 65  | 60  |  |  | 69  | 63  | 58  |  | 67  |
| 4   | 80  | 67  | 58  | 51  | 78  | 66  | 57  | 51  | 63  | 56  | 50  |  |  | 61  | 54  | 49  |  | 59  |
| 5   | 73  | 60  | 50  | 43  | 71  | 59  | 50  | 43  | 56  | 48  | 42  |  |  | 54  | 47  | 42  |  | 52  |
| 6   | 67  | 53  | 44  | 37  | 65  | 52  | 43  | 37  | 50  | 42  | 37  |  |  | 49  | 42  | 36  |  | 47  |
| 7   | 62  | 48  | 39  | 32  | 60  | 47  | 38  | 32  | 46  | 38  | 32  |  |  | 44  | 37  | 32  |  | 43  |
| 8   | 58  | 43  | 35  | 28  | 56  | 43  | 34  | 28  | 41  | 34  | 28  |  |  | 40  | 33  | 28  |  | 39  |
| 9   | 54  | 40  | 31  | 25  | 52  | 39  | 31  | 25  | 38  | 30  | 25  |  |  | 37  | 30  | 25  |  | 36  |
| 10  | 50  | 36  | 28  | 23  | 49  | 36  | 28  | 23  | 35  | 27  | 22  |  |  | 34  | 27  | 22  |  | 33  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1753 | 1753 | 1753 |
| 5°  | 1714 | 2071 | 2427 |
| 10° | 1556 | 3084 | 4143 |
| 15° | 1325 | 4119 | 5152 |
| 20° | 1080 | 4882 | 5409 |
| 25° | 902  | 5230 | 5466 |
| 30° | 761  | 5395 | 5635 |
| 35° | 675  | 5449 | 5986 |
| 40° | 588  | 5488 | 6378 |
| 45° | 534  | 5579 | 6680 |
| 50° | 491  | 5708 | 6891 |
| 55° | 472  | 5836 | 6966 |
| 60° | 485  | 5896 | 6909 |
| 65° | 506  | 5882 | 6707 |
| 70° | 543  | 5635 | 6345 |
| 75° | 610  | 5271 | 5814 |
| 80° | 682  | 4574 | 5062 |
| 85° | 652  | 3877 | 4330 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 55°

Luminance: 6966 cd/sqm

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CATALOG NUMBER: SQ4R-FB-050D-940-1-UNV-STD-W-4

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 23.5   | 1.7       |
| 10°-20°   | 104.4  | 7.4       |
| 20°-30°   | 182.6  | 13.0      |
| 30°-40°   | 235.0  | 16.7      |
| 40°-50°   | 262.5  | 18.6      |
| 50°-60°   | 251.4  | 17.9      |
| 60°-70°   | 199.2  | 14.1      |
| 70°-80°   | 117.1  | 8.3       |
| 80°-90°   | 32.5   | 2.3       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 310.5  | 22.0      |
| 0°-40°    | 545.5  | 38.7      |
| 0°-60°    | 1059.4 | 75.2      |
| 0°-90°    | 1408.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1408.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 182 | 182   | 182 | 182   | 182 |      |
| 5°  | 177 | 190   | 214 | 242   | 251 | 16   |
| 15° | 133 | 245   | 413 | 501   | 517 | 37   |
| 25° | 85  | 278   | 492 | 514   | 515 | 39   |
| 35° | 57  | 266   | 464 | 490   | 509 | 36   |
| 45° | 39  | 212   | 410 | 470   | 491 | 30   |
| 55° | 28  | 135   | 348 | 404   | 415 | 26   |
| 65° | 22  | 71    | 258 | 290   | 294 | 22   |
| 75° | 16  | 44    | 142 | 156   | 156 | 17   |
| 85° | 6   | 14    | 35  | 39    | 39  | 7    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

TEST NUMBER: P1055077

CATALOG NUMBER: SQ4R-FB-050D-940-1-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 10°   | 20°   | 22.5° | 30°   | 40°   | 45°   | 50°   | 60°   | 67.5° | 70°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 182.1 | 182.1 | 182.1 | 182.1 | 182.1 | 182.1 | 182.1 | 182.1 | 182.1 | 182.1 | 182.1 |
| 2.5°  | 182.1 | 182.1 | 183.2 | 183.8 | 185.0 | 185.6 | 186.7 | 187.9 | 191.4 | 192.0 | 193.2 |
| 5°    | 177.4 | 179.7 | 187.3 | 190.2 | 198.4 | 209.6 | 214.3 | 221.9 | 237.7 | 242.3 | 245.3 |
| 7.5°  | 170.3 | 175.6 | 194.3 | 199.0 | 219.5 | 248.8 | 261.1 | 277.5 | 302.6 | 314.9 | 324.9 |
| 10°   | 159.2 | 170.3 | 203.7 | 214.8 | 248.2 | 292.7 | 315.5 | 338.4 | 376.4 | 393.4 | 399.8 |
| 12.5° | 146.9 | 165.1 | 213.7 | 228.9 | 276.9 | 341.9 | 369.4 | 394.5 | 437.9 | 460.7 | 464.2 |
| 15°   | 132.9 | 157.5 | 223.0 | 245.3 | 307.3 | 382.8 | 413.3 | 444.3 | 484.7 | 501.1 | 505.2 |
| 17.5° | 120.6 | 151.6 | 231.8 | 255.2 | 330.7 | 419.7 | 450.7 | 476.5 | 509.3 | 520.4 | 523.3 |
| 20°   | 105.4 | 142.2 | 237.7 | 268.1 | 355.3 | 446.6 | 476.5 | 496.4 | 518.7 | 525.7 | 526.8 |
| 22.5° | 94.2  | 132.3 | 241.2 | 272.8 | 371.7 | 463.0 | 488.2 | 504.0 | 519.2 | 521.6 | 522.2 |
| 25°   | 84.9  | 121.2 | 240.6 | 278.1 | 385.8 | 473.0 | 492.3 | 504.0 | 512.8 | 514.0 | 514.0 |
| 27.5° | 76.1  | 108.9 | 238.3 | 279.2 | 396.3 | 475.3 | 490.6 | 498.7 | 502.8 | 505.2 | 505.2 |
| 30°   | 68.5  | 97.2  | 232.4 | 276.9 | 401.0 | 473.0 | 485.3 | 489.4 | 493.5 | 497.0 | 498.7 |
| 32.5° | 62.6  | 86.1  | 223.6 | 272.2 | 401.6 | 467.1 | 475.9 | 478.3 | 484.1 | 492.3 | 495.2 |
| 35°   | 57.4  | 74.9  | 213.7 | 265.8 | 398.1 | 457.8 | 463.6 | 466.0 | 477.7 | 490.0 | 494.1 |
| 37.5° | 52.1  | 66.7  | 200.8 | 254.6 | 392.8 | 446.6 | 450.7 | 454.8 | 473.0 | 487.6 | 492.3 |
| 40°   | 46.8  | 59.7  | 185.6 | 242.3 | 384.6 | 433.2 | 436.7 | 443.1 | 467.1 | 484.1 | 488.8 |
| 42.5° | 42.7  | 53.9  | 169.2 | 229.5 | 374.1 | 418.0 | 423.2 | 432.6 | 460.1 | 478.3 | 483.5 |
| 45°   | 39.2  | 48.0  | 151.6 | 211.9 | 360.6 | 402.2 | 409.8 | 422.6 | 451.9 | 469.5 | 474.2 |
| 47.5° | 35.7  | 43.9  | 133.5 | 193.8 | 346.0 | 386.4 | 396.3 | 410.9 | 440.8 | 457.8 | 461.9 |
| 50°   | 32.8  | 39.8  | 115.3 | 174.4 | 330.2 | 369.4 | 381.1 | 396.3 | 426.7 | 442.6 | 447.8 |
| 52.5° | 30.4  | 36.3  | 98.3  | 155.1 | 312.0 | 351.8 | 365.3 | 381.1 | 409.8 | 425.0 | 428.5 |
| 55°   | 28.1  | 33.4  | 83.7  | 134.6 | 293.3 | 333.1 | 347.7 | 362.9 | 391.0 | 403.9 | 406.3 |
| 57.5° | 26.9  | 31.0  | 71.4  | 115.3 | 273.4 | 312.0 | 328.4 | 342.4 | 368.8 | 378.7 | 381.1 |
| 60°   | 25.2  | 29.3  | 62.1  | 98.9  | 251.7 | 292.1 | 306.2 | 320.2 | 342.4 | 350.6 | 352.4 |
| 62.5° | 23.4  | 28.1  | 55.0  | 83.1  | 229.5 | 268.7 | 282.7 | 295.6 | 314.4 | 320.2 | 322.5 |
| 65°   | 22.2  | 26.9  | 49.8  | 71.4  | 206.6 | 244.1 | 258.2 | 269.3 | 284.5 | 290.4 | 291.5 |
| 67.5° | 21.1  | 25.8  | 45.7  | 61.5  | 183.8 | 219.5 | 230.1 | 240.6 | 252.3 | 258.2 | 258.7 |
| 70°   | 19.3  | 24.6  | 42.1  | 54.4  | 160.4 | 191.4 | 200.2 | 211.3 | 220.7 | 223.6 | 225.4 |
| 72.5° | 18.1  | 22.8  | 39.8  | 49.2  | 136.4 | 164.5 | 172.7 | 179.1 | 187.3 | 190.2 | 190.2 |
| 75°   | 16.4  | 20.5  | 37.5  | 43.9  | 111.8 | 134.6 | 141.7 | 148.1 | 154.5 | 155.7 | 154.0 |
| 77.5° | 14.6  | 18.1  | 32.2  | 36.9  | 87.2  | 106.5 | 112.4 | 115.9 | 121.2 | 122.3 | 122.9 |
| 80°   | 12.3  | 15.8  | 25.2  | 28.7  | 63.2  | 78.4  | 82.5  | 85.5  | 90.1  | 90.1  | 91.3  |
| 82.5° | 9.4   | 12.3  | 18.1  | 20.5  | 42.7  | 53.9  | 57.4  | 59.1  | 62.1  | 62.1  | 62.1  |
| 85°   | 5.9   | 7.6   | 11.7  | 13.5  | 25.8  | 32.8  | 35.1  | 35.7  | 38.0  | 38.6  | 38.6  |
| 87.5° | 2.9   | 4.1   | 7.6   | 8.2   | 13.5  | 17.0  | 17.0  | 18.1  | 18.1  | 17.6  | 17.0  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

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CATALOG NUMBER: SQ4R-FB-050D-940-1-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

|       | 80°   | 90°   |
|-------|-------|-------|
| 0°    | 182.1 | 182.1 |
| 2.5°  | 194.3 | 193.2 |
| 5°    | 250.0 | 251.1 |
| 7.5°  | 336.6 | 336.0 |
| 10°   | 418.5 | 423.8 |
| 12.5° | 478.3 | 479.4 |
| 15°   | 514.6 | 516.9 |
| 17.5° | 528.6 | 529.2 |
| 20°   | 529.2 | 528.0 |
| 22.5° | 522.7 | 521.6 |
| 25°   | 515.1 | 514.6 |
| 27.5° | 508.1 | 508.7 |
| 30°   | 505.2 | 506.9 |
| 32.5° | 505.2 | 508.1 |
| 35°   | 506.4 | 509.3 |
| 37.5° | 505.8 | 509.3 |
| 40°   | 503.4 | 507.5 |
| 42.5° | 497.0 | 499.9 |
| 45°   | 487.0 | 490.6 |
| 47.5° | 474.2 | 476.5 |
| 50°   | 457.8 | 460.1 |
| 52.5° | 437.3 | 437.9 |
| 55°   | 412.7 | 415.0 |
| 57.5° | 386.4 | 386.9 |
| 60°   | 357.1 | 358.8 |
| 62.5° | 326.1 | 326.1 |
| 65°   | 293.3 | 294.4 |
| 67.5° | 259.3 | 262.3 |
| 70°   | 224.8 | 225.4 |
| 72.5° | 190.8 | 190.8 |
| 75°   | 155.7 | 156.3 |
| 77.5° | 122.3 | 122.3 |
| 80°   | 90.7  | 91.3  |
| 82.5° | 62.6  | 63.8  |
| 85°   | 39.2  | 39.2  |
| 87.5° | 18.1  | 16.4  |
| 90°   | 0.0   | 0.0   |

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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 | 8.15             | 9.87  | 8.52  | 10.18 | 10.50 | 20.48          | 22.19 | 20.84 | 22.51 | 22.82 |
|                 | 3H   | 9.09             | 10.65 | 9.46  | 10.97 | 11.33 | 22.39          | 23.95 | 22.76 | 24.27 | 24.63 |
|                 | 4H   | 9.56             | 11.04 | 9.96  | 11.38 | 11.75 | 23.08          | 24.55 | 23.48 | 24.90 | 25.27 |
|                 | 6H   | 10.05            | 11.42 | 10.46 | 11.78 | 12.17 | 23.57          | 24.93 | 23.98 | 25.30 | 25.69 |
|                 | 8H   | 10.25            | 11.56 | 10.67 | 11.95 | 12.35 | 23.72          | 25.03 | 24.14 | 25.42 | 25.81 |
|                 | 12H  | 10.39            | 11.65 | 10.82 | 12.03 | 12.46 | 23.82          | 25.08 | 24.25 | 25.46 | 25.89 |
| 4H              | 2H   | 15.49            | 16.96 | 15.88 | 17.31 | 17.68 | 20.99          | 22.46 | 21.39 | 22.81 | 23.18 |
|                 | 3H   | 17.42            | 18.67 | 17.83 | 19.06 | 19.46 | 23.17          | 24.41 | 23.58 | 24.81 | 25.21 |
|                 | 4H   | 17.62            | 18.74 | 18.05 | 19.15 | 19.59 | 24.01          | 25.14 | 24.44 | 25.55 | 25.98 |
|                 | 6H   | 17.74            | 18.72 | 18.19 | 19.16 | 19.61 | 24.64          | 25.62 | 25.09 | 26.06 | 26.51 |
|                 | 8H   | 17.76            | 18.69 | 18.22 | 19.13 | 19.59 | 24.84          | 25.76 | 25.29 | 26.20 | 26.67 |
|                 | 12H  | 17.79            | 18.62 | 18.27 | 19.10 | 19.56 | 24.99          | 25.82 | 25.47 | 26.30 | 26.76 |
| 8H              | 4H   | 19.27            | 20.20 | 19.73 | 20.64 | 21.10 | 24.25          | 25.18 | 24.71 | 25.62 | 26.08 |
|                 | 6H   | 19.72            | 20.49 | 20.21 | 20.97 | 21.45 | 25.00          | 25.78 | 25.49 | 26.26 | 26.73 |
|                 | 8H   | 19.80            | 20.50 | 20.31 | 21.00 | 21.48 | 25.28          | 25.97 | 25.78 | 26.47 | 26.96 |
|                 | 12H  | 19.84            | 20.46 | 20.35 | 20.95 | 21.50 | 25.50          | 26.12 | 26.01 | 26.61 | 27.16 |
| 12H             | 4H   | 19.48            | 20.32 | 19.96 | 20.79 | 21.26 | 24.26          | 25.09 | 24.74 | 25.57 | 26.03 |
|                 | 6H   | 20.06            | 20.75 | 20.56 | 21.26 | 21.74 | 25.03          | 25.72 | 25.53 | 26.23 | 26.71 |
|                 | 8H   | 20.27            | 20.88 | 20.77 | 21.37 | 21.93 | 25.36          | 25.98 | 25.87 | 26.46 | 27.02 |