

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: P853674

Luminaire Tested: SQ2-F-050U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853674  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-050U-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

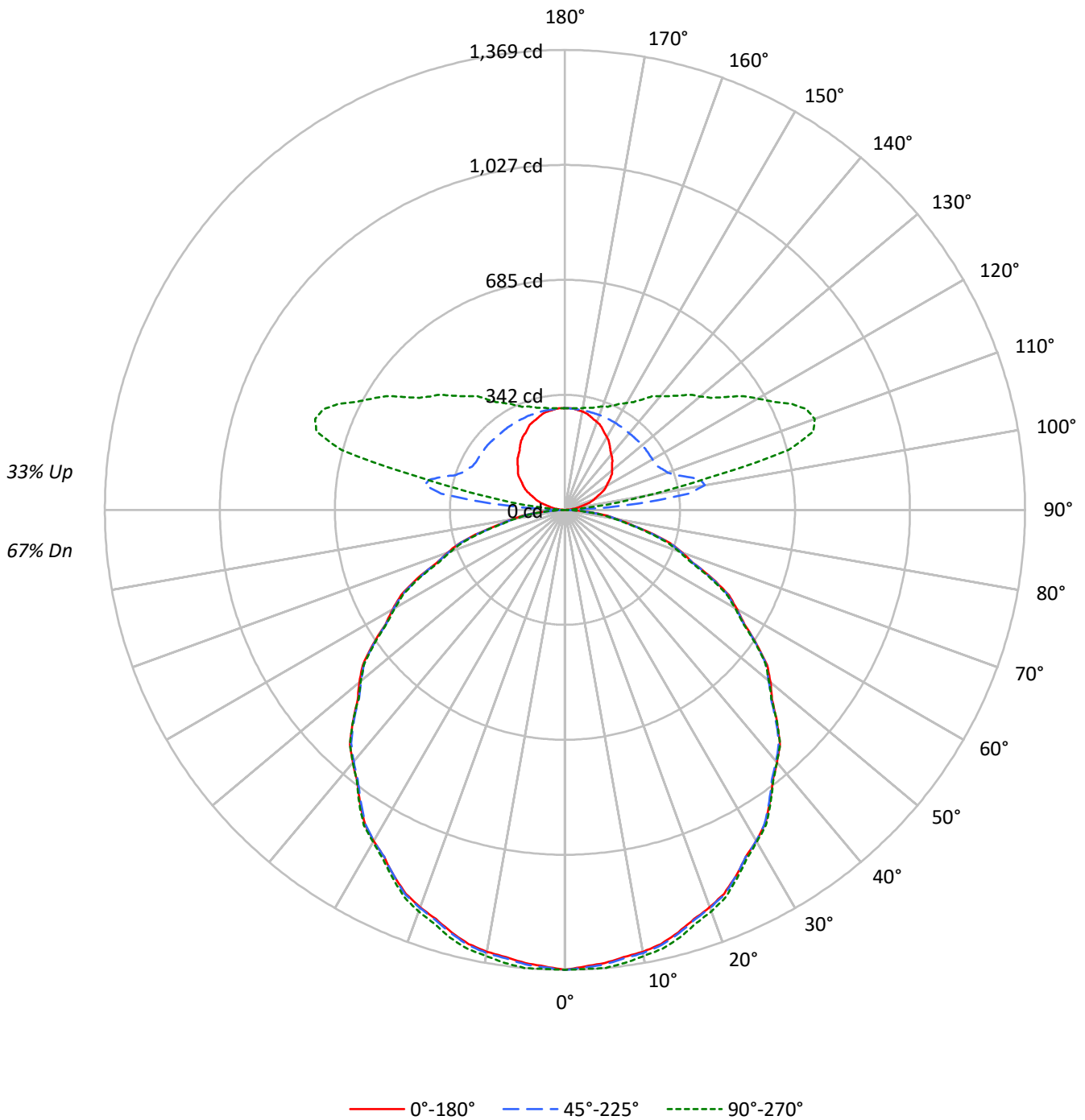
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5726.1 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 52.4  
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

TEST NUMBER: P853674

CATALOG NUMBER: SQ2-F-050U-100D-930-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P853674

CATALOG NUMBER: SQ2-F-050U-100D-930-UNV-STD-W-4

**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 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 111 | 111 | 111 | 111 | 105 | 105 | 105 | 105 | 93 | 93 | 93 | 82 | 82 | 82 | 72 | 72 | 72 | 67 |    |    |
| 1   | 101 | 97  | 93  | 89  | 95  | 91  | 88  | 85  | 81 | 79 | 76 | 72 | 70 | 68 | 63 | 62 | 60 | 56 |    |    |
| 2   | 92  | 84  | 78  | 73  | 87  | 80  | 74  | 69  | 71 | 67 | 63 | 63 | 59 | 56 | 55 | 53 | 50 | 47 |    |    |
| 3   | 84  | 74  | 66  | 60  | 79  | 70  | 63  | 58  | 62 | 57 | 52 | 55 | 51 | 48 | 49 | 46 | 43 | 39 |    |    |
| 4   | 77  | 65  | 57  | 51  | 72  | 62  | 55  | 49  | 55 | 49 | 45 | 49 | 44 | 41 | 44 | 40 | 37 | 34 |    |    |
| 5   | 70  | 58  | 50  | 44  | 66  | 55  | 48  | 42  | 50 | 43 | 38 | 44 | 39 | 35 | 39 | 35 | 32 | 29 |    |    |
| 6   | 65  | 52  | 44  | 38  | 61  | 50  | 42  | 36  | 45 | 38 | 34 | 40 | 35 | 31 | 35 | 31 | 28 | 25 |    |    |
| 7   | 60  | 47  | 39  | 33  | 56  | 45  | 37  | 32  | 40 | 34 | 30 | 36 | 31 | 27 | 32 | 28 | 25 | 22 |    |    |
| 8   | 56  | 43  | 35  | 29  | 52  | 41  | 33  | 28  | 37 | 31 | 26 | 33 | 28 | 24 | 30 | 25 | 22 | 20 |    |    |
| 9   | 52  | 39  | 32  | 26  | 49  | 37  | 30  | 25  | 34 | 28 | 24 | 31 | 25 | 22 | 27 | 23 | 20 | 18 |    |    |
| 10  | 49  | 36  | 29  | 24  | 46  | 34  | 28  | 23  | 31 | 25 | 21 | 28 | 23 | 20 | 25 | 21 | 18 | 16 |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 22107 | 22107 | 22107 |
| 5°  | 21950 | 22011 | 22191 |
| 10° | 21899 | 21959 | 22112 |
| 15° | 21765 | 21827 | 22046 |
| 20° | 21636 | 21667 | 21859 |
| 25° | 21435 | 21435 | 21569 |
| 30° | 21215 | 21215 | 21285 |
| 35° | 20958 | 20885 | 21031 |
| 40° | 20681 | 20603 | 20681 |
| 45° | 20361 | 20276 | 20361 |
| 50° | 20055 | 19869 | 19914 |
| 55° | 19586 | 19533 | 19429 |
| 60° | 19094 | 18975 | 18855 |
| 65° | 18529 | 18315 | 18101 |
| 70° | 17438 | 17349 | 16995 |
| 75° | 16407 | 16057 | 15596 |
| 80° | 14570 | 14226 | 13705 |
| 85° | 11745 | 10708 | 10022 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 20486 cd/sqm



TEST NUMBER: P853674

CATALOG NUMBER: SQ2-F-050U-100D-930-UNV-STD-W-4

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 129.4  | 2.3       |
| 10°-20°   | 369.8  | 6.5       |
| 20°-30°   | 556.4  | 9.7       |
| 30°-40°   | 665.8  | 11.6      |
| 40°-50°   | 686.9  | 12.0      |
| 50°-60°   | 619.7  | 10.8      |
| 60°-70°   | 472.9  | 8.3       |
| 70°-80°   | 271.9  | 4.7       |
| 80°-90°   | 71.3   | 1.2       |
| 90°-100°  | 120.7  | 2.1       |
| 100°-110° | 382.8  | 6.7       |
| 110°-120° | 375.4  | 6.6       |
| 120°-130° | 305.5  | 5.3       |
| 130°-140° | 249.1  | 4.3       |
| 140°-150° | 194.2  | 3.4       |
| 150°-160° | 139.9  | 2.4       |
| 160°-170° | 85.5   | 1.5       |
| 170°-180° | 28.9   | 0.5       |
| 0°-30°    | 1055.7 | 18.4      |
| 0°-40°    | 1721.4 | 30.1      |
| 0°-60°    | 3028.0 | 52.9      |
| 0°-90°    | 3844.1 | 67.1      |
| 90°-120°  | 879.0  | 15.4      |
| 90°-150°  | 1627.7 | 28.4      |
| 90°-180°  | 1882.0 | 32.9      |
| 0°-180°   | 5726.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1369 | 1369  | 1369 | 1369  | 1369 |      |
| 5°   | 1354 | 1373  | 1358 | 1360  | 1369 | 129  |
| 15°  | 1302 | 1318  | 1306 | 1312  | 1319 | 367  |
| 25°  | 1203 | 1216  | 1203 | 1205  | 1211 | 554  |
| 35°  | 1063 | 1071  | 1060 | 1063  | 1067 | 665  |
| 45°  | 892  | 897   | 888  | 890   | 892  | 688  |
| 55°  | 696  | 700   | 694  | 690   | 690  | 622  |
| 65°  | 485  | 483   | 479  | 476   | 474  | 477  |
| 75°  | 263  | 261   | 257  | 252   | 250  | 277  |
| 85°  | 63   | 60    | 58   | 52    | 54   | 73   |
| 90°  | 0    | 1     | 3    | 3     | 3    | 3    |
| 95°  | 16   | 49    | 219  | 81    | 52   | 19   |
| 105° | 67   | 94    | 377  | 719   | 689  | 70   |
| 115° | 119  | 142   | 305  | 633   | 745  | 118  |
| 125° | 165  | 184   | 300  | 497   | 585  | 147  |
| 135° | 199  | 219   | 298  | 427   | 481  | 154  |
| 145° | 232  | 250   | 298  | 369   | 401  | 146  |
| 155° | 265  | 274   | 299  | 329   | 342  | 122  |
| 165° | 289  | 292   | 300  | 312   | 314  | 81   |
| 175° | 302  | 301   | 302  | 304   | 303  | 29   |
| 180° | 303  | 303   | 303  | 303   | 303  |      |



TEST NUMBER: P853674

CATALOG NUMBER: SQ2-F-050U-100D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1369.2 | 1369.2 | 1369.2 | 1369.2 | 1369.2 |
| 2.5°   | 1360.3 | 1376.3 | 1363.3 | 1366.3 | 1367.8 |
| 5°     | 1354.3 | 1372.6 | 1358.1 | 1360.1 | 1369.2 |
| 7.5°   | 1343.1 | 1362.8 | 1346.9 | 1350.4 | 1360.7 |
| 10°    | 1335.7 | 1353.9 | 1339.4 | 1341.4 | 1348.7 |
| 12.5°  | 1323.7 | 1342.0 | 1327.5 | 1331.0 | 1338.3 |
| 15°    | 1302.1 | 1318.5 | 1305.8 | 1311.6 | 1318.9 |
| 17.5°  | 1277.1 | 1294.6 | 1280.4 | 1285.4 | 1291.6 |
| 20°    | 1259.2 | 1273.8 | 1261.0 | 1263.1 | 1272.2 |
| 22.5°  | 1236.8 | 1251.4 | 1240.2 | 1240.7 | 1248.4 |
| 25°    | 1203.2 | 1216.0 | 1203.2 | 1205.2 | 1210.7 |
| 27.5°  | 1164.8 | 1175.7 | 1164.8 | 1166.8 | 1171.5 |
| 30°    | 1137.9 | 1148.9 | 1137.9 | 1139.8 | 1141.7 |
| 32.5°  | 1108.1 | 1117.6 | 1106.6 | 1108.6 | 1113.3 |
| 35°    | 1063.3 | 1070.6 | 1059.6 | 1063.4 | 1067.0 |
| 37.5°  | 1015.6 | 1021.0 | 1011.8 | 1013.8 | 1017.0 |
| 40°    | 981.2  | 986.7  | 977.5  | 979.4  | 981.2  |
| 42.5°  | 946.9  | 950.9  | 941.7  | 943.6  | 946.9  |
| 45°    | 891.7  | 897.2  | 888.0  | 889.9  | 891.7  |
| 47.5°  | 835.7  | 839.0  | 831.2  | 829.8  | 833.1  |
| 50°    | 798.4  | 800.2  | 791.0  | 791.0  | 792.8  |
| 52.5°  | 758.1  | 759.9  | 753.6  | 750.7  | 752.5  |
| 55°    | 695.8  | 699.5  | 693.9  | 690.2  | 690.2  |
| 57.5°  | 633.1  | 636.4  | 629.4  | 627.5  | 627.2  |
| 60°    | 591.3  | 593.2  | 587.6  | 585.7  | 583.9  |
| 62.5°  | 549.6  | 549.9  | 544.3  | 542.4  | 540.6  |
| 65°    | 485.0  | 483.2  | 479.4  | 475.6  | 473.8  |
| 67.5°  | 412.6  | 414.5  | 410.8  | 404.8  | 404.8  |
| 70°    | 369.4  | 371.2  | 367.5  | 360.0  | 360.0  |
| 72.5°  | 327.6  | 326.5  | 324.2  | 318.2  | 315.3  |
| 75°    | 263.0  | 261.2  | 257.4  | 251.8  | 250.0  |
| 77.5°  | 198.5  | 196.7  | 194.8  | 187.7  | 189.2  |
| 80°    | 156.7  | 154.9  | 153.0  | 147.4  | 147.4  |
| 82.5°  | 119.4  | 116.1  | 114.2  | 108.6  | 108.6  |
| 85°    | 63.4   | 59.8   | 57.8   | 52.3   | 54.1   |
| 87.5°  | 17.9   | 16.6   | 15.5   | 12.5   | 12.5   |
| 90°    | 0.0    | 0.9    | 2.9    | 2.9    | 2.9    |
| 92.5°  | 5.3    | 21.2   | 67.7   | 22.5   | 15.8   |
| 95°    | 16.2   | 48.8   | 219.2  | 81.3   | 52.4   |
| 97.5°  | 30.1   | 63.3   | 371.3  | 232.0  | 142.4  |
| 100°   | 40.0   | 71.7   | 423.1  | 385.8  | 250.6  |
| 102.5° | 50.7   | 80.9   | 414.0  | 566.5  | 433.6  |
| 105°   | 66.7   | 93.7   | 377.4  | 718.8  | 689.0  |
| 107.5° | 82.7   | 107.7  | 342.5  | 734.7  | 775.0  |
| 110°   | 93.4   | 117.6  | 325.0  | 716.5  | 791.0  |



TEST NUMBER: P853674

CATALOG NUMBER: SQ2-F-050U-100D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 104.1 | 126.8 | 315.1 | 684.9 | 779.6 |
| 115°   | 119.1 | 141.5 | 305.0 | 633.4 | 745.3 |
| 117.5° | 133.8 | 155.0 | 301.0 | 583.9 | 696.7 |
| 120°   | 143.0 | 163.5 | 300.2 | 553.3 | 662.3 |
| 122.5° | 152.1 | 171.9 | 300.2 | 528.8 | 630.3 |
| 125°   | 164.9 | 184.4 | 300.2 | 496.6 | 585.2 |
| 127.5° | 176.1 | 194.9 | 300.2 | 471.7 | 547.2 |
| 130°   | 183.0 | 202.5 | 300.2 | 457.1 | 525.1 |
| 132.5° | 189.8 | 209.4 | 299.4 | 445.5 | 506.8 |
| 135°   | 199.2 | 218.7 | 298.3 | 427.2 | 481.3 |
| 137.5° | 208.3 | 228.8 | 298.1 | 409.8 | 458.0 |
| 140°   | 214.4 | 234.9 | 297.3 | 397.4 | 441.2 |
| 142.5° | 222.1 | 241.8 | 298.1 | 385.2 | 426.0 |
| 145°   | 232.5 | 250.2 | 298.3 | 368.6 | 401.2 |
| 147.5° | 243.0 | 258.1 | 298.5 | 354.0 | 380.6 |
| 150°   | 250.6 | 262.8 | 299.2 | 345.5 | 366.9 |
| 152.5° | 256.7 | 267.4 | 299.2 | 338.5 | 356.2 |
| 155°   | 264.9 | 274.3 | 299.2 | 329.1 | 342.1 |
| 157.5° | 273.7 | 280.0 | 300.2 | 323.3 | 332.2 |
| 160°   | 278.3 | 283.9 | 300.2 | 319.4 | 326.9 |
| 162.5° | 282.9 | 287.0 | 300.2 | 316.3 | 321.5 |
| 165°   | 288.8 | 291.6 | 300.2 | 311.7 | 314.5 |
| 167.5° | 294.3 | 295.0 | 301.2 | 308.5 | 310.9 |
| 170°   | 297.3 | 297.3 | 301.2 | 306.9 | 307.8 |
| 172.5° | 298.9 | 299.6 | 301.2 | 305.4 | 305.5 |
| 175°   | 302.1 | 301.2 | 302.1 | 304.0 | 303.1 |
| 177.5° | 303.1 | 302.3 | 302.3 | 303.8 | 302.3 |
| 180°   | 303.1 | 303.1 | 303.1 | 303.1 | 303.1 |

-----



TEST NUMBER: P853674

CATALOG NUMBER: SQ2-F-050U-100D-930-UNV-STD-W-4

**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 | 20.17            | 21.22 | 20.96 | 22.04 | 23.04 | 20.09          | 21.14 | 20.88 | 21.96 | 22.96 |
|                 | 3H   | 21.96            | 22.91 | 22.76 | 23.74 | 24.77 | 21.84          | 22.79 | 22.64 | 23.62 | 24.65 |
|                 | 4H   | 22.63            | 23.52 | 23.45 | 24.36 | 25.40 | 22.47          | 23.37 | 23.30 | 24.21 | 25.25 |
|                 | 6H   | 23.11            | 23.93 | 23.94 | 24.78 | 25.83 | 22.92          | 23.75 | 23.76 | 24.59 | 25.65 |
|                 | 8H   | 23.25            | 24.04 | 24.09 | 24.90 | 25.96 | 23.05          | 23.84 | 23.89 | 24.70 | 25.75 |
|                 | 12H  | 23.33            | 24.08 | 24.18 | 24.94 | 26.02 | 23.11          | 23.86 | 23.96 | 24.71 | 25.80 |
| 4H              | 2H   | 20.74            | 21.64 | 21.57 | 22.47 | 23.51 | 20.68          | 21.57 | 21.50 | 22.41 | 23.45 |
|                 | 3H   | 22.74            | 23.49 | 23.58 | 24.36 | 25.42 | 22.63          | 23.39 | 23.47 | 24.25 | 25.31 |
|                 | 4H   | 23.54            | 24.23 | 24.39 | 25.09 | 26.18 | 23.40          | 24.08 | 24.25 | 24.95 | 26.03 |
|                 | 6H   | 24.14            | 24.73 | 25.01 | 25.62 | 26.71 | 23.96          | 24.55 | 24.83 | 25.44 | 26.53 |
|                 | 8H   | 24.33            | 24.89 | 25.21 | 25.77 | 26.87 | 24.13          | 24.69 | 25.00 | 25.57 | 26.67 |
|                 | 12H  | 24.45            | 24.95 | 25.34 | 25.85 | 26.96 | 24.22          | 24.72 | 25.11 | 25.62 | 26.73 |
| 8H              | 4H   | 23.80            | 24.36 | 24.68 | 25.24 | 26.34 | 23.68          | 24.23 | 24.55 | 25.12 | 26.22 |
|                 | 6H   | 24.53            | 24.99 | 25.43 | 25.92 | 27.02 | 24.36          | 24.82 | 25.26 | 25.75 | 26.85 |
|                 | 8H   | 24.80            | 25.21 | 25.71 | 26.13 | 27.25 | 24.61          | 25.01 | 25.52 | 25.93 | 27.05 |
|                 | 12H  | 24.98            | 25.34 | 25.89 | 26.25 | 27.42 | 24.75          | 25.11 | 25.66 | 26.02 | 27.19 |
| 12H             | 4H   | 23.81            | 24.31 | 24.70 | 25.21 | 26.32 | 23.69          | 24.19 | 24.58 | 25.09 | 26.20 |
|                 | 6H   | 24.58            | 24.98 | 25.48 | 25.90 | 27.02 | 24.42          | 24.82 | 25.33 | 25.74 | 26.86 |
|                 | 8H   | 24.88            | 25.24 | 25.79 | 26.15 | 27.32 | 24.69          | 25.05 | 25.60 | 25.96 | 27.13 |