

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: P845545

Luminaire Tested: SQ2R-PC3-050D-935-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845545
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-6)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PC3-050D-935-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

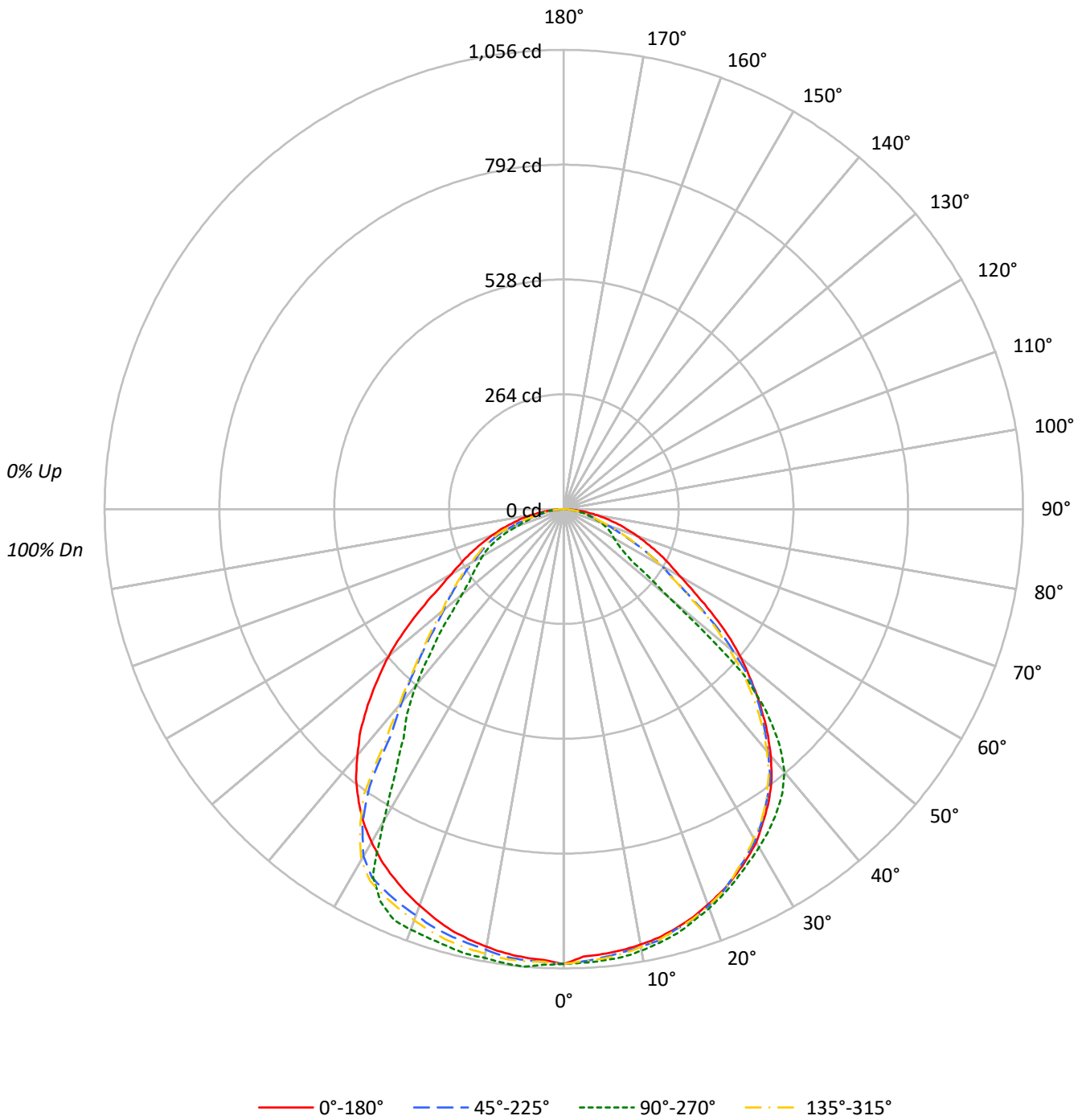
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2345.1 lumens
Efficiency: N/A
Efficacy: 131.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.21 / 1.25
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9973
Total Harmonic Distortion (THDi): 0.0531
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P845545
CATALOG NUMBER: SQ2R-PC3-050D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845545

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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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 94 | 91 | 92 | 90 | 89 | 87 | | | | 87 |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 80 | 77 | 75 | | | | 75 |
| 3 | 93 | 84 | 77 | 71 | 91 | 83 | 76 | 70 | 80 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 67 | 65 | | | | 65 |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 69 | 64 | 59 | 67 | 63 | 59 | 57 | | | | 57 |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 54 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 50 | | | | 50 |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 46 | 44 | | | | 44 |
| 7 | 69 | 57 | 48 | 43 | 67 | 56 | 48 | 42 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 40 | | | | 40 |
| 8 | 65 | 52 | 44 | 38 | 63 | 51 | 44 | 38 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 38 | 36 | | | | 36 |
| 9 | 60 | 48 | 40 | 35 | 59 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 34 | 44 | 38 | 34 | 33 | | | | 33 |
| 10 | 57 | 44 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 31 | 41 | 35 | 31 | 30 | | | | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 16889 | 16889 | 16889 | 16889 |
| 5° | 16645 | 16888 | 16775 | 17115 |
| 10° | 16674 | 16903 | 16756 | 17182 |
| 15° | 16682 | 16883 | 16749 | 17384 |
| 20° | 16632 | 16787 | 16667 | 17680 |
| 25° | 16586 | 16728 | 16604 | 17744 |
| 30° | 16500 | 16742 | 16481 | 15400 |
| 35° | 16202 | 16813 | 16202 | 12654 |
| 40° | 15618 | 16651 | 15555 | 11129 |
| 45° | 14591 | 15047 | 14545 | 9202 |
| 50° | 13388 | 7937 | 13212 | 7661 |
| 55° | 11654 | 4588 | 11260 | 7122 |
| 60° | 9946 | 4295 | 9623 | 6975 |
| 65° | 9207 | 4393 | 8902 | 6609 |
| 70° | 8450 | 4296 | 8214 | 5240 |
| 75° | 7735 | 3868 | 7486 | 4741 |
| 80° | 6881 | 3440 | 6509 | 4742 |
| 85° | 5187 | 1853 | 4817 | 2408 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 15047 cd/sqm



TEST NUMBER: P845545

CATALOG NUMBER: SQ2R-PC3-050D-935-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 99.2 | 4.2 |
| 10°-20° | 286.5 | 12.2 |
| 20°-30° | 437.8 | 18.7 |
| 30°-40° | 494.8 | 21.1 |
| 40°-50° | 432.5 | 18.4 |
| 50°-60° | 286.2 | 12.2 |
| 60°-70° | 187.0 | 8.0 |
| 70°-80° | 97.9 | 4.2 |
| 80°-90° | 23.1 | 1.0 |
| 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° | 823.6 | 35.1 |
| 0°-40° | 1318.4 | 56.2 |
| 0°-60° | 2037.1 | 86.9 |
| 0°-90° | 2345.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2345.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1046 | 1046 | 1046 | 1046 | 1046 | |
| 5° | 1027 | 1042 | 1035 | 1056 | 1027 | 98 |
| 15° | 998 | 1010 | 1002 | 1040 | 998 | 282 |
| 25° | 931 | 939 | 932 | 996 | 931 | 429 |
| 35° | 822 | 853 | 822 | 642 | 822 | 512 |
| 45° | 639 | 659 | 637 | 403 | 639 | 492 |
| 55° | 414 | 163 | 400 | 253 | 414 | 372 |
| 65° | 241 | 115 | 233 | 173 | 241 | 239 |
| 75° | 124 | 62 | 120 | 76 | 124 | 132 |
| 85° | 28 | 10 | 26 | 13 | 28 | 34 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|------|-------|------|--------|------|--------|------|--------|------|
| 0° | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 |
| 2.5° | 1030 | 1056 | 1041 | 1040 | 1044 | 1045 | 1040 | 1051 | 1038 | 1052 | 1042 |
| 5° | 1027 | 1053 | 1035 | 1033 | 1042 | 1039 | 1038 | 1048 | 1035 | 1046 | 1041 |
| 7.5° | 1023 | 1047 | 1028 | 1027 | 1039 | 1035 | 1031 | 1043 | 1030 | 1042 | 1038 |
| 10° | 1017 | 1038 | 1022 | 1023 | 1031 | 1027 | 1023 | 1033 | 1022 | 1037 | 1029 |
| 12.5° | 1009 | 1030 | 1015 | 1012 | 1021 | 1014 | 1014 | 1022 | 1013 | 1029 | 1022 |
| 15° | 998 | 1019 | 1000 | 1002 | 1010 | 1003 | 1001 | 1011 | 1002 | 1018 | 1015 |
| 17.5° | 985 | 1003 | 989 | 990 | 993 | 990 | 988 | 996 | 987 | 1004 | 1006 |
| 20° | 968 | 989 | 971 | 971 | 977 | 969 | 971 | 978 | 970 | 990 | 994 |
| 22.5° | 951 | 971 | 954 | 954 | 959 | 948 | 953 | 958 | 952 | 974 | 983 |
| 25° | 931 | 947 | 928 | 934 | 939 | 929 | 928 | 936 | 932 | 954 | 970 |
| 27.5° | 909 | 923 | 905 | 913 | 918 | 911 | 902 | 912 | 910 | 935 | 955 |
| 30° | 885 | 898 | 880 | 891 | 898 | 888 | 874 | 883 | 884 | 913 | 921 |
| 32.5° | 853 | 866 | 849 | 867 | 877 | 863 | 847 | 852 | 856 | 885 | 862 |
| 35° | 822 | 828 | 815 | 838 | 853 | 836 | 812 | 818 | 822 | 855 | 780 |
| 37.5° | 785 | 785 | 780 | 805 | 825 | 800 | 774 | 777 | 785 | 813 | 650 |
| 40° | 741 | 735 | 730 | 763 | 790 | 757 | 726 | 727 | 738 | 745 | 579 |
| 42.5° | 692 | 685 | 683 | 718 | 734 | 707 | 675 | 676 | 692 | 651 | 513 |
| 45° | 639 | 636 | 634 | 658 | 659 | 642 | 619 | 624 | 637 | 562 | 454 |
| 47.5° | 585 | 583 | 582 | 563 | 559 | 547 | 559 | 570 | 581 | 469 | 400 |
| 50° | 533 | 519 | 511 | 441 | 316 | 434 | 492 | 511 | 526 | 409 | 360 |
| 52.5° | 476 | 464 | 439 | 337 | 200 | 335 | 431 | 455 | 464 | 372 | 330 |
| 55° | 414 | 414 | 360 | 216 | 163 | 227 | 354 | 407 | 400 | 333 | 296 |
| 57.5° | 355 | 367 | 299 | 145 | 144 | 145 | 297 | 362 | 342 | 302 | 268 |
| 60° | 308 | 326 | 259 | 129 | 133 | 127 | 254 | 322 | 298 | 269 | 237 |
| 62.5° | 273 | 288 | 214 | 118 | 125 | 116 | 215 | 287 | 264 | 245 | 216 |
| 65° | 241 | 256 | 169 | 108 | 115 | 106 | 174 | 254 | 233 | 218 | 197 |
| 67.5° | 207 | 221 | 134 | 98 | 103 | 97 | 140 | 221 | 202 | 192 | 172 |
| 70° | 179 | 195 | 102 | 88 | 91 | 87 | 109 | 191 | 174 | 170 | 147 |
| 72.5° | 151 | 164 | 79 | 78 | 77 | 76 | 80 | 163 | 147 | 140 | 114 |
| 75° | 124 | 133 | 65 | 65 | 62 | 63 | 65 | 133 | 120 | 114 | 81 |
| 77.5° | 98 | 105 | 53 | 51 | 48 | 48 | 52 | 102 | 95 | 88 | 54 |
| 80° | 74 | 76 | 40 | 38 | 37 | 37 | 40 | 74 | 70 | 63 | 42 |
| 82.5° | 50 | 42 | 27 | 28 | 27 | 27 | 26 | 43 | 47 | 32 | 31 |
| 85° | 28 | 19 | 17 | 13 | 10 | 11 | 16 | 18 | 26 | 17 | 20 |
| 87.5° | 10 | 8 | 3 | 4 | 3 | 3 | 3 | 8 | 8 | 6 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P845545

CATALOG NUMBER: SQ2R-PC3-050D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 0° | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 |
| 2.5° | 1043 | 1049 | 1048 | 1042 | 1055 | 1030 |
| 5° | 1044 | 1056 | 1050 | 1044 | 1052 | 1027 |
| 7.5° | 1039 | 1053 | 1046 | 1043 | 1051 | 1023 |
| 10° | 1036 | 1048 | 1042 | 1038 | 1046 | 1017 |
| 12.5° | 1033 | 1047 | 1039 | 1034 | 1039 | 1009 |
| 15° | 1025 | 1040 | 1035 | 1027 | 1027 | 998 |
| 17.5° | 1019 | 1034 | 1029 | 1018 | 1013 | 985 |
| 20° | 1015 | 1029 | 1022 | 1006 | 998 | 968 |
| 22.5° | 1006 | 1022 | 1011 | 994 | 983 | 951 |
| 25° | 990 | 996 | 995 | 980 | 962 | 931 |
| 27.5° | 948 | 951 | 954 | 964 | 944 | 909 |
| 30° | 875 | 826 | 887 | 932 | 922 | 885 |
| 32.5° | 737 | 721 | 757 | 873 | 893 | 853 |
| 35° | 661 | 642 | 672 | 801 | 860 | 822 |
| 37.5° | 592 | 592 | 600 | 673 | 823 | 785 |
| 40° | 543 | 528 | 550 | 590 | 767 | 741 |
| 42.5° | 464 | 459 | 473 | 520 | 682 | 692 |
| 45° | 409 | 403 | 416 | 461 | 590 | 639 |
| 47.5° | 367 | 345 | 374 | 411 | 500 | 585 |
| 50° | 328 | 305 | 333 | 365 | 424 | 533 |
| 52.5° | 294 | 273 | 301 | 336 | 385 | 476 |
| 55° | 259 | 253 | 266 | 303 | 347 | 414 |
| 57.5° | 230 | 232 | 234 | 274 | 312 | 355 |
| 60° | 212 | 216 | 215 | 246 | 283 | 308 |
| 62.5° | 194 | 196 | 196 | 221 | 255 | 273 |
| 65° | 173 | 173 | 175 | 203 | 231 | 241 |
| 67.5° | 150 | 146 | 153 | 179 | 205 | 207 |
| 70° | 118 | 111 | 123 | 155 | 183 | 179 |
| 72.5° | 85 | 89 | 87 | 122 | 157 | 151 |
| 75° | 70 | 76 | 71 | 87 | 128 | 124 |
| 77.5° | 59 | 64 | 59 | 56 | 103 | 98 |
| 80° | 47 | 51 | 47 | 43 | 76 | 74 |
| 82.5° | 34 | 35 | 34 | 32 | 50 | 50 |
| 85° | 16 | 13 | 18 | 21 | 20 | 28 |
| 87.5° | 3 | 3 | 3 | 4 | 11 | 10 |
| 90° | 0 | 0 | 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 | 20.05 | 21.53 | 20.41 | 21.85 | 22.16 | 17.55 | 19.03 | 17.91 | 19.35 | 19.66 |
| | 3H | 21.68 | 23.01 | 22.06 | 23.34 | 23.71 | 19.03 | 20.36 | 19.41 | 20.69 | 21.05 |
| | 4H | 22.28 | 23.53 | 22.68 | 23.88 | 24.26 | 19.48 | 20.73 | 19.88 | 21.08 | 21.46 |
| | 6H | 22.72 | 23.87 | 23.13 | 24.23 | 24.63 | 19.87 | 21.02 | 20.28 | 21.39 | 21.78 |
| | 8H | 22.84 | 23.94 | 23.27 | 24.33 | 24.73 | 19.99 | 21.08 | 20.42 | 21.47 | 21.87 |
| | 12H | 22.90 | 23.95 | 23.34 | 24.33 | 24.76 | 20.03 | 21.07 | 20.46 | 21.46 | 21.89 |
| 4H | 2H | 20.31 | 21.56 | 20.71 | 21.91 | 22.29 | 18.36 | 19.60 | 18.76 | 19.95 | 20.33 |
| | 3H | 22.21 | 23.24 | 22.62 | 23.64 | 24.04 | 20.00 | 21.03 | 20.41 | 21.43 | 21.84 |
| | 4H | 22.96 | 23.88 | 23.39 | 24.30 | 24.74 | 20.51 | 21.44 | 20.94 | 21.85 | 22.29 |
| | 6H | 23.54 | 24.35 | 24.00 | 24.79 | 25.25 | 20.98 | 21.79 | 21.44 | 22.23 | 22.69 |
| | 8H | 23.72 | 24.47 | 24.18 | 24.91 | 25.38 | 21.13 | 21.88 | 21.60 | 22.33 | 22.80 |
| | 12H | 23.81 | 24.48 | 24.30 | 24.96 | 25.44 | 21.20 | 21.87 | 21.68 | 22.35 | 22.82 |
| 8H | 4H | 23.03 | 23.78 | 23.49 | 24.22 | 24.69 | 20.82 | 21.57 | 21.29 | 22.02 | 22.49 |
| | 6H | 23.71 | 24.33 | 24.21 | 24.83 | 25.30 | 21.37 | 21.99 | 21.87 | 22.48 | 22.96 |
| | 8H | 23.95 | 24.51 | 24.47 | 25.02 | 25.51 | 21.57 | 22.13 | 22.09 | 22.64 | 23.13 |
| | 12H | 24.10 | 24.59 | 24.61 | 25.08 | 25.65 | 21.68 | 22.18 | 22.19 | 22.67 | 23.23 |
| 12H | 4H | 23.01 | 23.68 | 23.49 | 24.16 | 24.63 | 20.86 | 21.53 | 21.34 | 22.01 | 22.48 |
| | 6H | 23.70 | 24.25 | 24.21 | 24.76 | 25.25 | 21.42 | 21.97 | 21.93 | 22.49 | 22.97 |
| | 8H | 23.97 | 24.47 | 24.48 | 24.96 | 25.52 | 21.66 | 22.16 | 22.18 | 22.65 | 23.22 |