

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: METALUX

Report Number: P894603

Luminaire Tested: 8TMB-14HL-FLTU-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-14HL-FLTU-UNV-L940
Description: 14000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 40
Light Source: -
Ballast/Driver: -

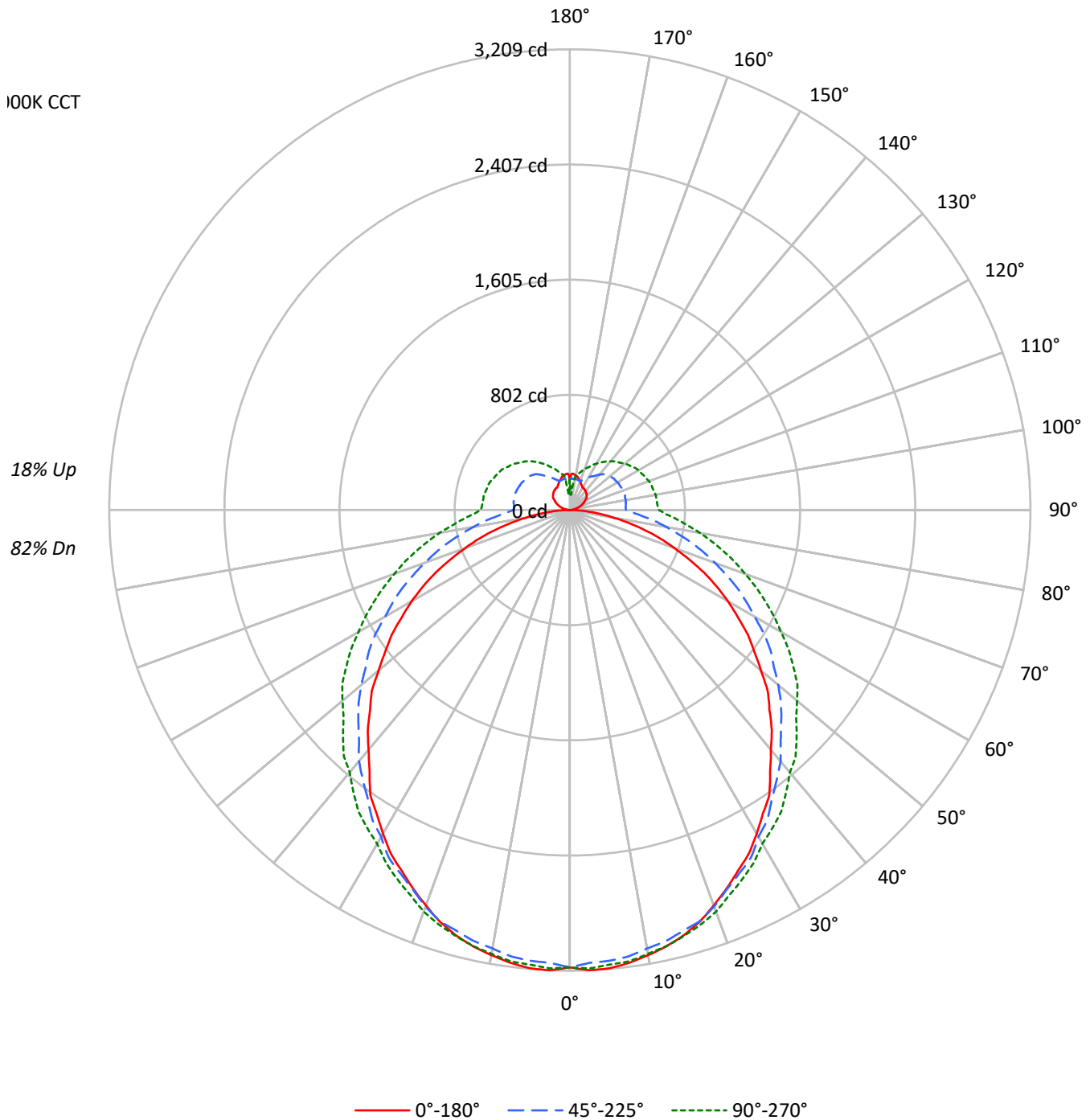
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11976.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 7.98' x H: 0.21')
CIE Type: Semi-Direct

Input Watts (W): 103.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 5.03
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





TEST NUMBER: P894603
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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 | 115 | 115 | 115 | 115 | 110 | 110 | 110 | 110 | 101 | 101 | 101 | 93 | 93 | 93 | 86 | 86 | 86 | 86 | 86 | 86 | 82 |
| 1 | 103 | 98 | 93 | 89 | 99 | 94 | 90 | 86 | 87 | 83 | 80 | 80 | 77 | 74 | 73 | 71 | 69 | 69 | 69 | 69 | 66 |
| 2 | 93 | 85 | 77 | 71 | 89 | 81 | 75 | 69 | 75 | 70 | 65 | 69 | 65 | 61 | 63 | 60 | 57 | 57 | 57 | 57 | 54 |
| 3 | 85 | 74 | 66 | 59 | 81 | 71 | 63 | 57 | 66 | 59 | 54 | 60 | 55 | 51 | 56 | 51 | 48 | 48 | 48 | 48 | 45 |
| 4 | 78 | 65 | 56 | 49 | 74 | 63 | 55 | 48 | 58 | 51 | 46 | 54 | 48 | 43 | 50 | 45 | 41 | 41 | 41 | 41 | 38 |
| 5 | 71 | 58 | 49 | 42 | 68 | 56 | 48 | 41 | 52 | 45 | 39 | 48 | 42 | 37 | 44 | 39 | 35 | 35 | 35 | 35 | 33 |
| 6 | 66 | 52 | 43 | 37 | 63 | 50 | 42 | 36 | 47 | 40 | 34 | 43 | 37 | 33 | 40 | 35 | 31 | 31 | 31 | 31 | 28 |
| 7 | 61 | 47 | 38 | 32 | 58 | 46 | 37 | 32 | 42 | 35 | 30 | 39 | 33 | 29 | 37 | 31 | 27 | 27 | 27 | 27 | 25 |
| 8 | 56 | 43 | 34 | 29 | 54 | 42 | 34 | 28 | 39 | 32 | 27 | 36 | 30 | 26 | 34 | 28 | 24 | 24 | 24 | 24 | 22 |
| 9 | 53 | 39 | 31 | 26 | 50 | 38 | 30 | 25 | 36 | 29 | 24 | 33 | 27 | 23 | 31 | 26 | 22 | 22 | 22 | 22 | 20 |
| 10 | 49 | 36 | 28 | 23 | 47 | 35 | 28 | 23 | 33 | 26 | 22 | 31 | 25 | 21 | 29 | 24 | 20 | 20 | 20 | 20 | 18 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11303 | 11303 | 11303 |
| 5° | 11386 | 10840 | 10804 |
| 10° | 11291 | 10426 | 10310 |
| 15° | 11188 | 10060 | 9840 |
| 20° | 10965 | 9672 | 9373 |
| 25° | 10724 | 9193 | 8856 |
| 30° | 10507 | 8725 | 8355 |
| 35° | 10310 | 8278 | 8033 |
| 40° | 9881 | 7895 | 7567 |
| 45° | 9618 | 7437 | 7243 |
| 50° | 9306 | 7052 | 6901 |
| 55° | 9034 | 6688 | 6596 |
| 60° | 8642 | 6185 | 6187 |
| 65° | 8195 | 5782 | 5802 |
| 70° | 7504 | 5280 | 5382 |
| 75° | 6787 | 4780 | 4984 |
| 80° | 5572 | 4231 | 4581 |
| 85° | 4192 | 3702 | 4203 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9618 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 301.7 | 2.5 |
| 10°-20° | 861.6 | 7.2 |
| 20°-30° | 1294.3 | 10.8 |
| 30°-40° | 1551.3 | 13.0 |
| 40°-50° | 1626.4 | 13.6 |
| 50°-60° | 1525.7 | 12.7 |
| 60°-70° | 1267.2 | 10.6 |
| 70°-80° | 906.1 | 7.6 |
| 80°-90° | 537.4 | 4.5 |
| 90°-100° | 394.2 | 3.3 |
| 100°-110° | 388.4 | 3.2 |
| 110°-120° | 362.3 | 3.0 |
| 120°-130° | 317.9 | 2.7 |
| 130°-140° | 256.0 | 2.1 |
| 140°-150° | 183.7 | 1.5 |
| 150°-160° | 116.8 | 1.0 |
| 160°-170° | 64.7 | 0.5 |
| 170°-180° | 20.4 | 0.2 |
| 0°-30° | 2457.7 | 20.5 |
| 0°-40° | 4009.0 | 33.5 |
| 0°-60° | 7161.0 | 59.8 |
| 0°-90° | 9871.7 | 82.4 |
| 90°-120° | 1144.8 | 9.6 |
| 90°-150° | 1902.5 | 15.9 |
| 90°-180° | 2104.0 | 17.6 |
| 0°-180° | 11976.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3186 | 3186 | 3186 | 3186 | 3186 | |
| 5° | 3204 | 3197 | 3152 | 3167 | 3179 | 304 |
| 15° | 3067 | 3048 | 3037 | 3059 | 3072 | 863 |
| 25° | 2772 | 2798 | 2793 | 2825 | 2840 | 1279 |
| 35° | 2424 | 2432 | 2454 | 2525 | 2566 | 1504 |
| 45° | 1967 | 2023 | 2084 | 2221 | 2234 | 1521 |
| 55° | 1515 | 1564 | 1708 | 1847 | 1901 | 1348 |
| 65° | 1031 | 1109 | 1288 | 1461 | 1503 | 1016 |
| 75° | 543 | 669 | 877 | 1058 | 1107 | 574 |
| 85° | 134 | 293 | 513 | 686 | 750 | 147 |
| 90° | 5 | 178 | 391 | 559 | 620 | 11 |
| 95° | 15 | 186 | 391 | 552 | 609 | 16 |
| 105° | 54 | 205 | 398 | 545 | 596 | 57 |
| 115° | 98 | 222 | 389 | 518 | 569 | 97 |
| 125° | 140 | 228 | 378 | 481 | 525 | 123 |
| 135° | 162 | 220 | 350 | 435 | 470 | 126 |
| 145° | 176 | 203 | 288 | 382 | 410 | 111 |
| 155° | 193 | 203 | 235 | 296 | 335 | 89 |
| 165° | 230 | 223 | 217 | 215 | 269 | 65 |
| 175° | 254 | 244 | 218 | 181 | 110 | 24 |
| 180° | 210 | 210 | 210 | 210 | 210 | |



TEST NUMBER: P894603

CATALOG NUMBER: 8TMB-14HL-FLTU-UNV-L940

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3185.5 | 3185.5 | 3185.5 | 3185.5 | 3185.5 |
| 2.5° | 3209.2 | 3183.8 | 3156.7 | 3197.4 | 3195.7 |
| 5° | 3204.1 | 3197.4 | 3151.7 | 3166.9 | 3178.7 |
| 7.5° | 3180.4 | 3163.5 | 3136.4 | 3173.7 | 3170.3 |
| 10° | 3148.3 | 3128.0 | 3100.9 | 3122.9 | 3138.1 |
| 12.5° | 3112.7 | 3095.8 | 3077.2 | 3100.9 | 3111.0 |
| 15° | 3067.0 | 3048.4 | 3036.6 | 3058.6 | 3072.1 |
| 17.5° | 3007.8 | 3002.7 | 3004.4 | 3006.1 | 3028.1 |
| 20° | 2931.6 | 2935.0 | 2940.1 | 2970.5 | 2977.3 |
| 22.5° | 2853.8 | 2872.4 | 2858.8 | 2906.2 | 2902.8 |
| 25° | 2772.5 | 2797.9 | 2792.8 | 2825.0 | 2840.2 |
| 27.5° | 2699.7 | 2701.4 | 2731.9 | 2777.6 | 2772.5 |
| 30° | 2603.2 | 2632.0 | 2628.6 | 2684.5 | 2684.5 |
| 32.5° | 2505.1 | 2547.4 | 2560.9 | 2610.0 | 2626.9 |
| 35° | 2423.8 | 2432.3 | 2454.3 | 2525.4 | 2566.0 |
| 37.5° | 2291.8 | 2332.4 | 2368.0 | 2461.1 | 2476.3 |
| 40° | 2180.1 | 2220.7 | 2285.0 | 2393.4 | 2384.9 |
| 42.5° | 2083.6 | 2125.9 | 2173.3 | 2298.6 | 2329.0 |
| 45° | 1966.8 | 2022.7 | 2083.6 | 2220.7 | 2234.3 |
| 47.5° | 1872.0 | 1916.0 | 1995.6 | 2120.9 | 2137.8 |
| 50° | 1738.3 | 1809.4 | 1895.7 | 2041.3 | 2066.7 |
| 52.5° | 1619.8 | 1680.8 | 1790.8 | 1941.4 | 1999.0 |
| 55° | 1514.9 | 1564.0 | 1707.9 | 1846.6 | 1900.8 |
| 57.5° | 1386.3 | 1454.0 | 1604.6 | 1758.6 | 1807.7 |
| 60° | 1272.9 | 1338.9 | 1484.4 | 1660.5 | 1699.4 |
| 62.5° | 1152.7 | 1230.5 | 1387.9 | 1558.9 | 1602.9 |
| 65° | 1030.8 | 1108.7 | 1288.1 | 1460.7 | 1503.0 |
| 67.5° | 898.8 | 995.3 | 1178.1 | 1357.5 | 1401.5 |
| 70° | 775.2 | 880.2 | 1076.5 | 1255.9 | 1299.9 |
| 72.5° | 663.5 | 776.9 | 976.6 | 1161.1 | 1208.5 |
| 75° | 543.3 | 668.6 | 876.8 | 1057.9 | 1107.0 |
| 77.5° | 426.5 | 561.9 | 773.5 | 956.3 | 1013.9 |
| 80° | 313.1 | 462.1 | 683.8 | 859.9 | 920.8 |
| 82.5° | 220.0 | 372.4 | 600.9 | 773.5 | 829.4 |
| 85° | 133.7 | 292.8 | 512.9 | 685.5 | 749.8 |
| 87.5° | 59.2 | 226.8 | 443.5 | 614.4 | 672.0 |
| 90° | 5.1 | 177.7 | 391.0 | 558.6 | 619.5 |
| 92.5° | 10.2 | 181.1 | 389.3 | 551.8 | 612.7 |
| 95° | 15.2 | 186.2 | 391.0 | 551.8 | 609.3 |
| 97.5° | 22.0 | 193.0 | 394.4 | 551.8 | 607.7 |
| 100° | 32.2 | 196.3 | 396.1 | 551.8 | 607.7 |
| 102.5° | 42.3 | 201.4 | 394.4 | 543.3 | 600.9 |
| 105° | 54.2 | 204.8 | 397.8 | 545.0 | 595.8 |
| 107.5° | 66.0 | 208.2 | 397.8 | 536.6 | 594.1 |
| 110° | 77.9 | 213.3 | 394.4 | 531.5 | 587.3 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 88.0 | 218.3 | 392.7 | 521.3 | 575.5 |
| 115° | 98.2 | 221.7 | 389.3 | 517.9 | 568.7 |
| 117.5° | 108.3 | 223.4 | 387.6 | 509.5 | 558.6 |
| 120° | 116.8 | 226.8 | 384.2 | 499.3 | 553.5 |
| 122.5° | 126.9 | 228.5 | 379.1 | 489.2 | 543.3 |
| 125° | 140.5 | 228.5 | 377.5 | 480.7 | 524.7 |
| 127.5° | 147.3 | 230.2 | 370.7 | 470.5 | 516.2 |
| 130° | 154.0 | 225.1 | 367.3 | 458.7 | 502.7 |
| 132.5° | 159.1 | 223.4 | 358.8 | 446.9 | 485.8 |
| 135° | 162.5 | 220.0 | 350.4 | 435.0 | 470.5 |
| 137.5° | 167.6 | 215.0 | 338.5 | 426.5 | 460.4 |
| 140° | 171.0 | 211.6 | 321.6 | 409.6 | 443.5 |
| 142.5° | 174.3 | 206.5 | 304.7 | 394.4 | 426.5 |
| 145° | 176.0 | 203.1 | 287.7 | 382.5 | 409.6 |
| 147.5° | 181.1 | 198.0 | 277.6 | 367.3 | 391.0 |
| 150° | 179.4 | 194.7 | 262.4 | 348.7 | 372.4 |
| 152.5° | 184.5 | 199.7 | 248.8 | 323.3 | 357.1 |
| 155° | 193.0 | 203.1 | 235.3 | 296.2 | 335.1 |
| 157.5° | 201.4 | 209.9 | 225.1 | 272.5 | 318.2 |
| 160° | 213.3 | 213.3 | 213.3 | 253.9 | 304.7 |
| 162.5° | 220.0 | 220.0 | 215.0 | 231.9 | 286.1 |
| 165° | 230.2 | 223.4 | 216.7 | 215.0 | 269.1 |
| 167.5° | 240.4 | 226.8 | 220.0 | 208.2 | 257.3 |
| 170° | 242.0 | 231.9 | 218.3 | 196.3 | 248.8 |
| 172.5° | 248.8 | 237.0 | 216.7 | 186.2 | 193.0 |
| 175° | 253.9 | 243.7 | 218.3 | 181.1 | 110.0 |
| 177.5° | 252.2 | 243.7 | 223.4 | 181.1 | 106.6 |
| 180° | 209.9 | 209.9 | 209.9 | 209.9 | 209.9 |



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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 | 16.17 | 17.50 | 16.79 | 18.13 | 18.84 | 18.76 | 20.09 | 19.38 | 20.72 | 21.43 |
| | 3H | 17.60 | 18.81 | 18.23 | 19.45 | 20.20 | 21.16 | 22.37 | 21.79 | 23.00 | 23.75 |
| | 4H | 18.07 | 19.21 | 18.71 | 19.86 | 20.62 | 22.30 | 23.45 | 22.95 | 24.10 | 24.86 |
| | 6H | 18.33 | 19.40 | 18.99 | 20.06 | 20.83 | 23.46 | 24.52 | 24.12 | 25.18 | 25.96 |
| | 8H | 18.39 | 19.40 | 19.06 | 20.09 | 20.87 | 24.04 | 25.06 | 24.71 | 25.74 | 26.52 |
| | 12H | 18.40 | 19.37 | 19.08 | 20.05 | 20.86 | 24.68 | 25.65 | 25.35 | 26.33 | 27.14 |
| 4H | 2H | 17.06 | 18.20 | 17.71 | 18.85 | 19.61 | 19.11 | 20.25 | 19.75 | 20.90 | 21.66 |
| | 3H | 18.71 | 19.68 | 19.37 | 20.37 | 21.15 | 21.71 | 22.69 | 22.37 | 23.37 | 24.16 |
| | 4H | 19.29 | 20.18 | 19.97 | 20.87 | 21.69 | 23.02 | 23.91 | 23.69 | 24.60 | 25.41 |
| | 6H | 19.67 | 20.45 | 20.36 | 21.17 | 21.99 | 24.34 | 25.13 | 25.04 | 25.84 | 26.66 |
| | 8H | 19.76 | 20.49 | 20.46 | 21.21 | 22.04 | 25.02 | 25.76 | 25.72 | 26.47 | 27.30 |
| | 12H | 19.80 | 20.47 | 20.52 | 21.20 | 22.04 | 25.76 | 26.43 | 26.48 | 27.17 | 28.01 |
| 8H | 4H | 19.93 | 20.67 | 20.63 | 21.38 | 22.21 | 23.17 | 23.90 | 23.87 | 24.62 | 25.45 |
| | 6H | 20.47 | 21.09 | 21.19 | 21.84 | 22.68 | 24.64 | 25.26 | 25.37 | 26.01 | 26.85 |
| | 8H | 20.63 | 21.19 | 21.38 | 21.95 | 22.80 | 25.44 | 25.99 | 26.18 | 26.75 | 27.60 |
| | 12H | 20.74 | 21.23 | 21.48 | 21.98 | 22.89 | 26.34 | 26.83 | 27.08 | 27.58 | 28.49 |
| 12H | 4H | 20.10 | 20.76 | 20.82 | 21.50 | 22.34 | 23.16 | 23.82 | 23.88 | 24.56 | 25.40 |
| | 6H | 20.72 | 21.28 | 21.46 | 22.04 | 22.89 | 24.66 | 25.22 | 25.40 | 25.97 | 26.82 |
| | 8H | 20.97 | 21.46 | 21.71 | 22.21 | 23.12 | 25.51 | 26.00 | 26.25 | 26.75 | 27.66 |