

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: P621411

Luminaire Tested: VLT-F-025U-050D-840-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621411
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2203-563-1)
Test Lab: INNOVATION CENTER
Issue Date: 9/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: VLT-F-025U-050D-840-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
FROSTED LENS
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

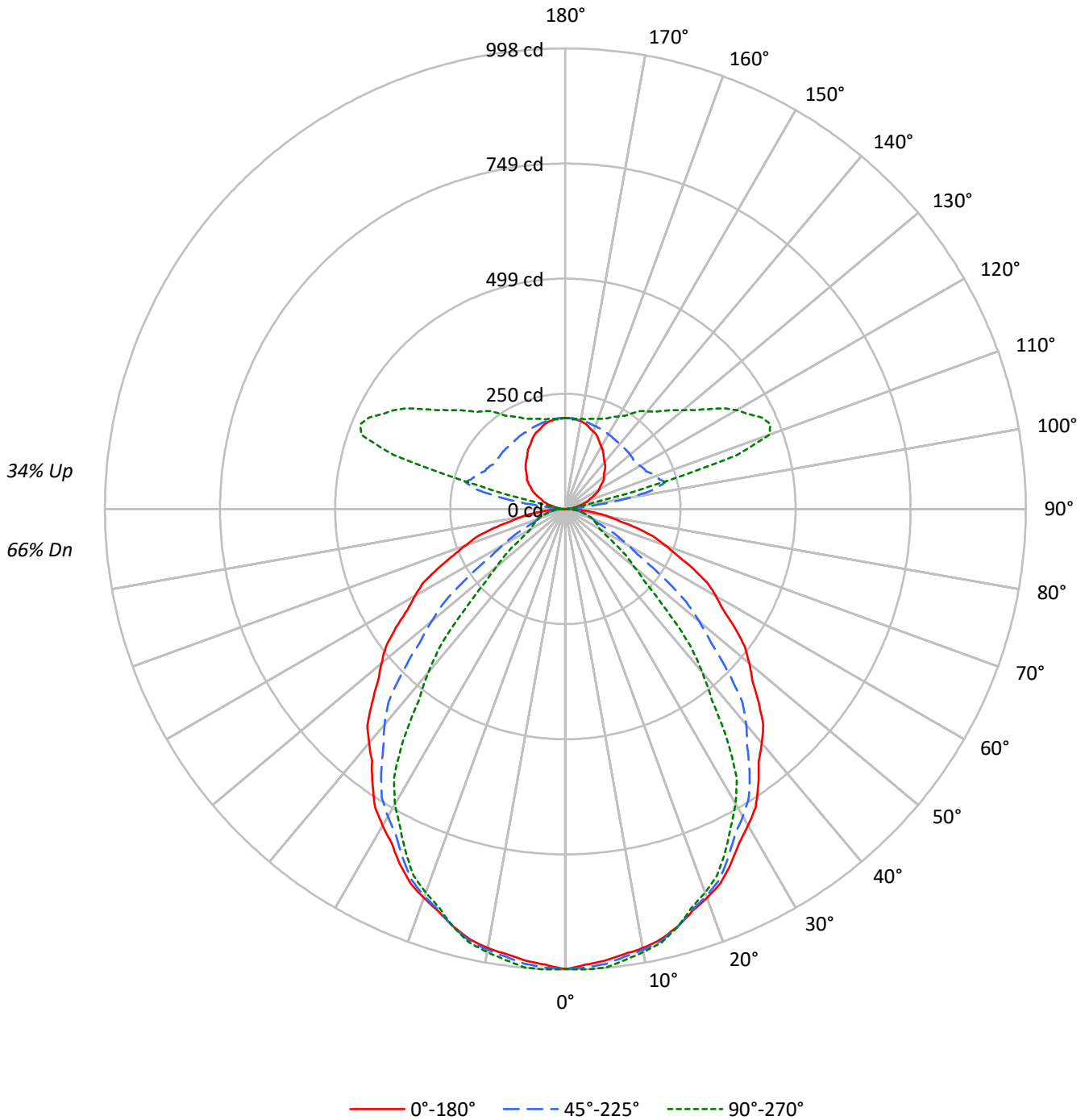
Lumens per Lamp: N/A
Luminaire Lumens: 3091.5 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 22.7
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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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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 81 | 81 | 81 | 71 | 71 | 71 | 66 |
| 1 | 102 | 98 | 95 | 91 | 96 | 93 | 89 | 87 | 82 | 80 | 78 | 73 | 71 | 69 | 64 | 63 | 61 | 57 |
| 2 | 94 | 87 | 81 | 76 | 88 | 82 | 77 | 73 | 73 | 69 | 66 | 65 | 62 | 59 | 57 | 55 | 53 | 49 |
| 3 | 86 | 77 | 70 | 65 | 81 | 73 | 67 | 62 | 65 | 61 | 57 | 58 | 55 | 51 | 52 | 49 | 46 | 43 |
| 4 | 79 | 69 | 61 | 56 | 75 | 66 | 59 | 53 | 59 | 53 | 49 | 53 | 48 | 45 | 47 | 44 | 41 | 38 |
| 5 | 73 | 62 | 54 | 48 | 69 | 59 | 52 | 47 | 53 | 47 | 43 | 48 | 43 | 40 | 43 | 39 | 36 | 33 |
| 6 | 68 | 56 | 48 | 43 | 64 | 53 | 46 | 41 | 48 | 42 | 38 | 44 | 39 | 35 | 39 | 35 | 32 | 30 |
| 7 | 63 | 51 | 43 | 38 | 59 | 49 | 42 | 37 | 44 | 38 | 34 | 40 | 35 | 32 | 36 | 32 | 29 | 27 |
| 8 | 59 | 47 | 39 | 34 | 55 | 45 | 38 | 33 | 41 | 35 | 31 | 37 | 32 | 28 | 33 | 29 | 26 | 24 |
| 9 | 55 | 43 | 35 | 30 | 52 | 41 | 34 | 30 | 37 | 32 | 28 | 34 | 29 | 26 | 31 | 27 | 24 | 22 |
| 10 | 51 | 40 | 32 | 28 | 49 | 38 | 31 | 27 | 35 | 29 | 25 | 32 | 27 | 24 | 29 | 25 | 22 | 20 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 7154 | 7154 | 7154 |
| 5° | 7077 | 7129 | 7188 |
| 10° | 7039 | 7069 | 7106 |
| 15° | 6962 | 6970 | 6970 |
| 20° | 6850 | 6818 | 6755 |
| 25° | 6719 | 6604 | 6490 |
| 30° | 6562 | 6374 | 6118 |
| 35° | 6387 | 6099 | 5367 |
| 40° | 6203 | 5710 | 4322 |
| 45° | 6009 | 5058 | 3135 |
| 50° | 5806 | 4231 | 2172 |
| 55° | 5605 | 3222 | 1624 |
| 60° | 5395 | 2232 | 1227 |
| 65° | 5158 | 1591 | 1258 |
| 70° | 4817 | 1339 | 1297 |
| 75° | 4456 | 1370 | 1314 |
| 80° | 3872 | 1446 | 1364 |
| 85° | 3137 | 1614 | 1359 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6009 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 93.9 | 3.0 |
| 10°-20° | 264.2 | 8.5 |
| 20°-30° | 384.2 | 12.4 |
| 30°-40° | 425.1 | 13.8 |
| 40°-50° | 365.0 | 11.8 |
| 50°-60° | 252.7 | 8.2 |
| 60°-70° | 150.6 | 4.9 |
| 70°-80° | 74.2 | 2.4 |
| 80°-90° | 23.4 | 0.8 |
| 90°-100° | 24.2 | 0.8 |
| 100°-110° | 172.6 | 5.6 |
| 110°-120° | 234.3 | 7.6 |
| 120°-130° | 190.7 | 6.2 |
| 130°-140° | 153.4 | 5.0 |
| 140°-150° | 120.9 | 3.9 |
| 150°-160° | 88.4 | 2.9 |
| 160°-170° | 54.9 | 1.8 |
| 170°-180° | 18.7 | 0.6 |
| 0°-30° | 742.3 | 24.0 |
| 0°-40° | 1167.4 | 37.8 |
| 0°-60° | 1785.1 | 57.7 |
| 0°-90° | 2033.2 | 65.8 |
| 90°-120° | 431.2 | 13.9 |
| 90°-150° | 896.2 | 29.0 |
| 90°-180° | 1058.0 | 34.2 |
| 0°-180° | 3091.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 997 | 997 | 997 | 997 | 997 | |
| 5° | 982 | 998 | 990 | 989 | 998 | 93 |
| 15° | 937 | 949 | 938 | 933 | 938 | 264 |
| 25° | 849 | 855 | 834 | 820 | 820 | 390 |
| 35° | 729 | 727 | 696 | 640 | 613 | 456 |
| 45° | 592 | 582 | 498 | 360 | 309 | 457 |
| 55° | 448 | 429 | 258 | 148 | 130 | 400 |
| 65° | 304 | 244 | 94 | 75 | 74 | 301 |
| 75° | 161 | 70 | 49 | 48 | 47 | 170 |
| 85° | 38 | 19 | 20 | 18 | 16 | 44 |
| 90° | 0 | 1 | 2 | 4 | 4 | 2 |
| 95° | 10 | 18 | 10 | 11 | 14 | 11 |
| 105° | 38 | 59 | 224 | 286 | 190 | 40 |
| 115° | 68 | 83 | 193 | 402 | 470 | 68 |
| 125° | 98 | 111 | 182 | 318 | 377 | 87 |
| 135° | 121 | 135 | 183 | 262 | 301 | 93 |
| 145° | 144 | 156 | 185 | 228 | 253 | 90 |
| 155° | 168 | 175 | 188 | 207 | 217 | 77 |
| 165° | 187 | 190 | 193 | 198 | 202 | 53 |
| 175° | 197 | 198 | 197 | 196 | 194 | 19 |
| 180° | 197 | 197 | 197 | 197 | 197 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 996.9 | 996.9 | 996.9 | 996.9 | 996.9 |
| 2.5° | 988.6 | 999.9 | 994.4 | 994.5 | 998.5 |
| 5° | 982.4 | 997.5 | 989.7 | 988.8 | 997.9 |
| 7.5° | 973.4 | 987.3 | 979.1 | 978.1 | 985.9 |
| 10° | 966.0 | 979.1 | 970.1 | 968.2 | 975.2 |
| 12.5° | 955.3 | 968.3 | 958.6 | 955.0 | 962.1 |
| 15° | 937.1 | 949.2 | 938.2 | 933.1 | 938.2 |
| 17.5° | 914.3 | 924.3 | 911.8 | 903.8 | 906.9 |
| 20° | 897.0 | 907.0 | 892.8 | 881.6 | 884.6 |
| 22.5° | 878.0 | 886.5 | 870.6 | 857.7 | 859.9 |
| 25° | 848.6 | 854.6 | 834.1 | 819.7 | 819.7 |
| 27.5° | 815.8 | 819.4 | 795.6 | 780.5 | 776.3 |
| 30° | 791.9 | 793.9 | 769.3 | 751.5 | 738.4 |
| 32.5° | 767.2 | 768.4 | 740.4 | 711.8 | 691.4 |
| 35° | 729.1 | 727.1 | 696.2 | 639.9 | 612.7 |
| 37.5° | 688.5 | 684.1 | 647.5 | 562.0 | 521.5 |
| 40° | 662.2 | 656.1 | 609.6 | 506.7 | 461.4 |
| 42.5° | 635.0 | 626.5 | 567.6 | 449.7 | 399.6 |
| 45° | 592.1 | 582.1 | 498.4 | 360.3 | 308.9 |
| 47.5° | 549.7 | 536.4 | 427.6 | 279.1 | 235.0 |
| 50° | 520.1 | 506.0 | 379.0 | 229.9 | 194.6 |
| 52.5° | 490.4 | 476.3 | 329.5 | 193.0 | 165.0 |
| 55° | 448.0 | 428.8 | 257.5 | 147.9 | 129.8 |
| 57.5° | 404.7 | 377.3 | 191.8 | 115.2 | 101.1 |
| 60° | 375.9 | 339.6 | 155.5 | 95.5 | 85.5 |
| 62.5° | 347.9 | 302.0 | 127.5 | 83.4 | 81.4 |
| 65° | 303.8 | 244.4 | 93.7 | 75.2 | 74.1 |
| 67.5° | 261.8 | 186.5 | 69.6 | 67.7 | 66.7 |
| 70° | 229.6 | 147.1 | 63.8 | 62.8 | 61.8 |
| 72.5° | 200.8 | 112.6 | 58.1 | 57.0 | 56.0 |
| 75° | 160.7 | 70.0 | 49.4 | 48.4 | 47.4 |
| 77.5° | 120.1 | 44.2 | 40.8 | 39.7 | 38.7 |
| 80° | 93.7 | 36.3 | 35.0 | 34.0 | 33.0 |
| 82.5° | 70.6 | 29.4 | 28.4 | 27.4 | 26.4 |
| 85° | 38.1 | 19.0 | 19.6 | 17.5 | 16.5 |
| 87.5° | 13.2 | 9.4 | 9.6 | 8.1 | 7.3 |
| 90° | 0.0 | 1.2 | 2.5 | 3.7 | 3.7 |
| 92.5° | 3.0 | 4.2 | 5.5 | 7.7 | 8.7 |
| 95° | 9.9 | 18.4 | 9.9 | 11.2 | 13.6 |
| 97.5° | 17.6 | 35.3 | 72.9 | 21.5 | 18.6 |
| 100° | 23.5 | 44.1 | 146.2 | 43.0 | 28.5 |
| 102.5° | 29.5 | 51.1 | 197.8 | 113.6 | 62.2 |
| 105° | 38.4 | 59.0 | 224.3 | 286.5 | 189.6 |
| 107.5° | 47.3 | 62.8 | 214.1 | 417.0 | 390.5 |
| 110° | 53.3 | 67.8 | 208.2 | 438.1 | 470.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 59.2 | 73.8 | 202.2 | 425.7 | 480.7 |
| 115° | 68.1 | 82.7 | 193.3 | 401.8 | 469.6 |
| 117.5° | 77.3 | 91.6 | 191.1 | 375.8 | 445.6 |
| 120° | 84.3 | 97.6 | 187.1 | 356.0 | 428.7 |
| 122.5° | 89.2 | 103.5 | 182.1 | 339.0 | 405.9 |
| 125° | 97.9 | 111.2 | 182.1 | 318.5 | 376.7 |
| 127.5° | 105.1 | 118.6 | 182.4 | 294.7 | 352.1 |
| 130° | 109.0 | 123.6 | 183.4 | 278.8 | 333.3 |
| 132.5° | 114.0 | 128.5 | 183.4 | 271.6 | 316.4 |
| 135° | 121.4 | 134.8 | 183.4 | 262.3 | 301.1 |
| 137.5° | 127.6 | 141.9 | 183.4 | 252.0 | 285.2 |
| 140° | 132.6 | 145.9 | 183.4 | 246.0 | 276.3 |
| 142.5° | 137.5 | 149.9 | 184.4 | 239.0 | 267.4 |
| 145° | 143.7 | 155.8 | 184.6 | 228.5 | 252.8 |
| 147.5° | 151.2 | 161.8 | 186.1 | 221.0 | 239.6 |
| 150° | 156.1 | 165.8 | 187.1 | 216.0 | 231.7 |
| 152.5° | 161.1 | 169.8 | 187.1 | 211.9 | 224.8 |
| 155° | 168.5 | 174.6 | 188.3 | 207.1 | 216.8 |
| 157.5° | 174.5 | 180.3 | 189.8 | 204.1 | 211.1 |
| 160° | 178.4 | 183.3 | 190.8 | 202.1 | 208.2 |
| 162.5° | 181.4 | 186.2 | 191.8 | 201.1 | 205.2 |
| 165° | 187.1 | 189.5 | 193.3 | 198.3 | 202.0 |
| 167.5° | 190.3 | 192.5 | 194.5 | 197.1 | 199.2 |
| 170° | 193.3 | 194.5 | 194.5 | 197.0 | 198.2 |
| 172.5° | 194.3 | 196.5 | 195.5 | 196.0 | 197.3 |
| 175° | 197.0 | 198.2 | 197.0 | 195.7 | 194.5 |
| 177.5° | 197.0 | 198.0 | 197.0 | 197.0 | 196.0 |
| 180° | 197.0 | 197.0 | 197.0 | 197.0 | 197.0 |



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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 | 15.82 | 16.78 | 16.65 | 17.61 | 18.64 | 8.06 | 9.01 | 8.88 | 9.85 | 10.88 |
| | 3H | 17.33 | 18.18 | 18.16 | 19.02 | 20.08 | 9.42 | 10.27 | 10.25 | 11.11 | 12.17 |
| | 4H | 17.84 | 18.64 | 18.69 | 19.50 | 20.57 | 10.08 | 10.88 | 10.93 | 11.73 | 12.80 |
| | 6H | 18.25 | 18.98 | 19.11 | 19.84 | 20.92 | 10.67 | 11.41 | 11.54 | 12.27 | 13.35 |
| | 8H | 18.38 | 19.08 | 19.25 | 19.96 | 21.04 | 10.90 | 11.60 | 11.77 | 12.48 | 13.56 |
| | 12H | 18.46 | 19.13 | 19.34 | 20.00 | 21.11 | 11.07 | 11.74 | 11.95 | 12.61 | 13.72 |
| 4H | 2H | 15.67 | 16.47 | 16.52 | 17.32 | 18.39 | 8.69 | 9.49 | 9.54 | 10.34 | 11.41 |
| | 3H | 17.31 | 17.97 | 18.18 | 18.86 | 19.94 | 10.25 | 10.91 | 11.11 | 11.80 | 12.88 |
| | 4H | 17.90 | 18.51 | 18.78 | 19.39 | 20.50 | 11.05 | 11.65 | 11.93 | 12.53 | 13.64 |
| | 6H | 18.40 | 18.92 | 19.30 | 19.83 | 20.94 | 11.79 | 12.31 | 12.69 | 13.22 | 14.33 |
| | 8H | 18.59 | 19.08 | 19.49 | 19.98 | 21.10 | 12.09 | 12.57 | 12.98 | 13.47 | 14.60 |
| | 12H | 18.72 | 19.16 | 19.64 | 20.08 | 21.21 | 12.31 | 12.74 | 13.22 | 13.66 | 14.80 |
| 8H | 4H | 17.83 | 18.31 | 18.72 | 19.21 | 20.34 | 11.51 | 11.99 | 12.40 | 12.89 | 14.02 |
| | 6H | 18.37 | 18.77 | 19.29 | 19.71 | 20.84 | 12.39 | 12.79 | 13.32 | 13.74 | 14.86 |
| | 8H | 18.60 | 18.96 | 19.53 | 19.89 | 21.04 | 12.79 | 13.14 | 13.72 | 14.08 | 15.22 |
| | 12H | 18.79 | 19.11 | 19.73 | 20.03 | 21.23 | 13.11 | 13.43 | 14.05 | 14.35 | 15.55 |
| 12H | 4H | 17.78 | 18.22 | 18.70 | 19.14 | 20.27 | 11.56 | 12.00 | 12.47 | 12.91 | 14.05 |
| | 6H | 18.34 | 18.69 | 19.27 | 19.63 | 20.77 | 12.51 | 12.86 | 13.44 | 13.80 | 14.94 |
| | 8H | 18.58 | 18.90 | 19.52 | 19.82 | 21.02 | 12.96 | 13.27 | 13.89 | 14.19 | 15.39 |