

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: P621469

Luminaire Tested: VLT-F-075U-100D-830-UNV-STD-W-4

Issue Date: 9/2/2020

Test Information

Test Method: LM-79-2019
Report Number: P621469
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-075U-100D-830-UNV-STD-W-4
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE
FROSTED LENS
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

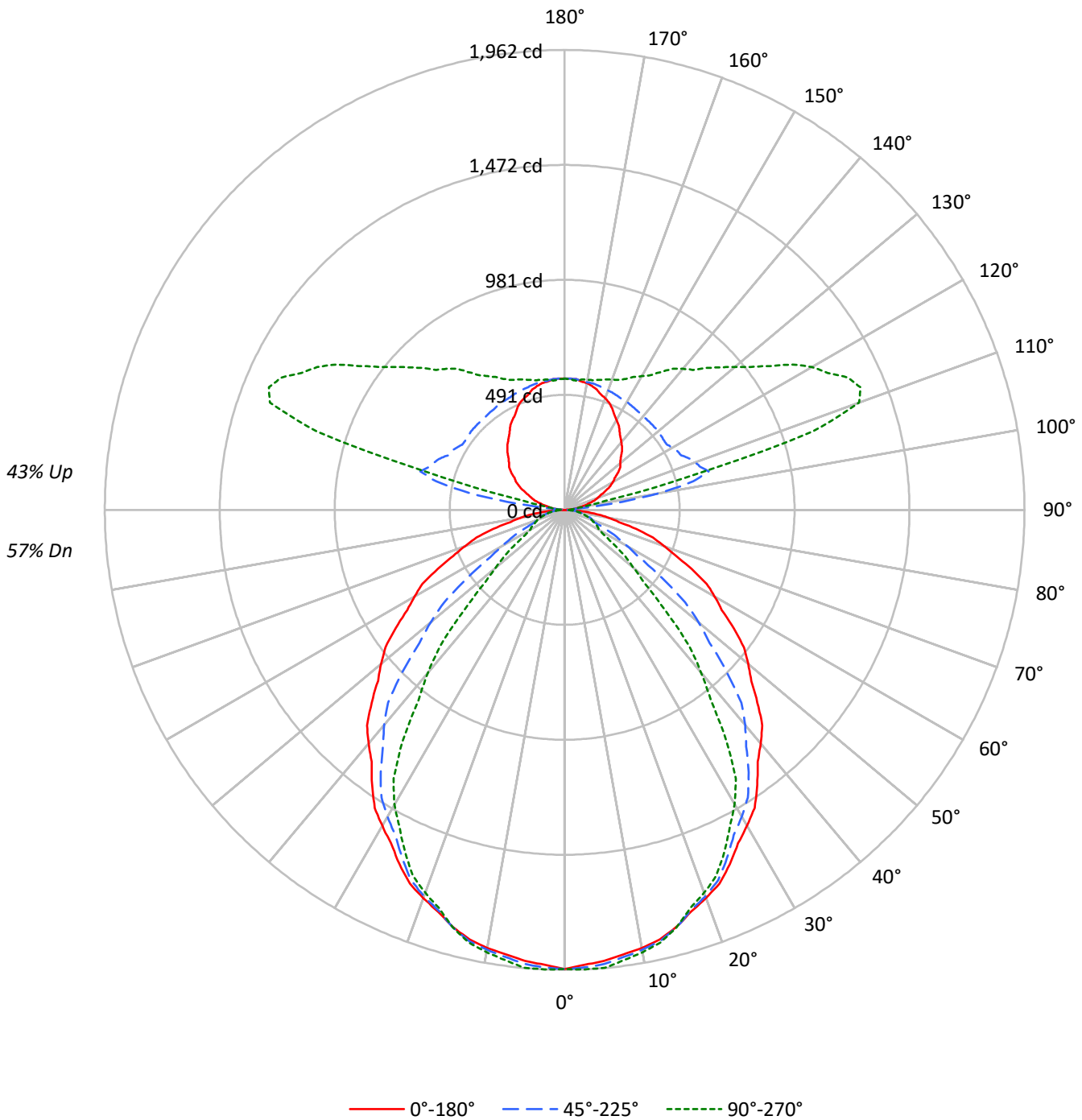
Lumens per Lamp: N/A
Luminaire Lumens: 7003.0 lumens
Efficiency: N/A
Efficacy: 140.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50
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 | |
| RC | 80 | | | | | | | | | 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 | 109 | 109 | 109 | 109 | 101 | 101 | 101 | 101 | 87 | 87 | 87 | 74 | 74 | 74 | 63 | 63 | 63 | 57 | |
| 1 | 100 | 96 | 92 | 89 | 93 | 90 | 87 | 84 | 78 | 75 | 73 | 67 | 65 | 64 | 57 | 55 | 54 | 50 | |
| 2 | 92 | 85 | 79 | 74 | 85 | 79 | 74 | 70 | 69 | 65 | 62 | 60 | 57 | 54 | 51 | 49 | 47 | 43 | |
| 3 | 84 | 75 | 68 | 63 | 78 | 71 | 65 | 60 | 62 | 57 | 53 | 53 | 50 | 47 | 46 | 43 | 41 | 37 | |
| 4 | 78 | 67 | 60 | 54 | 72 | 63 | 56 | 51 | 55 | 50 | 46 | 48 | 44 | 41 | 41 | 39 | 36 | 33 | |
| 5 | 72 | 60 | 53 | 47 | 67 | 57 | 50 | 45 | 50 | 45 | 40 | 44 | 39 | 36 | 38 | 35 | 32 | 29 | |
| 6 | 66 | 55 | 47 | 41 | 62 | 51 | 44 | 39 | 45 | 40 | 36 | 40 | 35 | 32 | 35 | 31 | 29 | 26 | |
| 7 | 61 | 50 | 42 | 36 | 57 | 47 | 40 | 35 | 41 | 36 | 32 | 36 | 32 | 29 | 32 | 28 | 26 | 23 | |
| 8 | 57 | 45 | 38 | 32 | 53 | 43 | 36 | 31 | 38 | 32 | 28 | 33 | 29 | 26 | 29 | 26 | 23 | 21 | |
| 9 | 53 | 41 | 34 | 29 | 50 | 39 | 33 | 28 | 35 | 29 | 26 | 31 | 27 | 23 | 27 | 24 | 21 | 19 | |
| 10 | 50 | 38 | 31 | 26 | 47 | 36 | 30 | 25 | 32 | 27 | 23 | 29 | 24 | 21 | 25 | 22 | 19 | 17 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 14058 | 14058 | 14058 |
| 5° | 13908 | 14010 | 14126 |
| 10° | 13833 | 13892 | 13966 |
| 15° | 13682 | 13697 | 13697 |
| 20° | 13462 | 13400 | 13276 |
| 25° | 13204 | 12980 | 12756 |
| 30° | 12896 | 12527 | 12024 |
| 35° | 12553 | 11985 | 10549 |
| 40° | 12190 | 11223 | 8494 |
| 45° | 11810 | 9940 | 6162 |
| 50° | 11409 | 8315 | 4270 |
| 55° | 11015 | 6331 | 3190 |
| 60° | 10602 | 4386 | 2411 |
| 65° | 10137 | 3128 | 2474 |
| 70° | 9469 | 2633 | 2547 |
| 75° | 8753 | 2692 | 2581 |
| 80° | 7612 | 2843 | 2678 |
| 85° | 6167 | 3170 | 2668 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11810 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 184.6 | 2.6 |
| 10°-20° | 519.1 | 7.4 |
| 20°-30° | 755.1 | 10.8 |
| 30°-40° | 835.4 | 11.9 |
| 40°-50° | 717.2 | 10.2 |
| 50°-60° | 496.6 | 7.1 |
| 60°-70° | 295.9 | 4.2 |
| 70°-80° | 145.8 | 2.1 |
| 80°-90° | 46.3 | 0.7 |
| 90°-100° | 68.8 | 1.0 |
| 100°-110° | 490.4 | 7.0 |
| 110°-120° | 665.8 | 9.5 |
| 120°-130° | 541.9 | 7.7 |
| 130°-140° | 435.8 | 6.2 |
| 140°-150° | 343.6 | 4.9 |
| 150°-160° | 251.2 | 3.6 |
| 160°-170° | 156.1 | 2.2 |
| 170°-180° | 53.2 | 0.8 |
| 0°-30° | 1458.9 | 20.8 |
| 0°-40° | 2294.3 | 32.8 |
| 0°-60° | 3508.1 | 50.1 |
| 0°-90° | 3996.1 | 57.1 |
| 90°-120° | 1225.1 | 17.5 |
| 90°-150° | 2546.4 | 36.4 |
| 90°-180° | 3007.0 | 42.9 |
| 0°-180° | 7003.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1959 | 1959 | 1959 | 1959 | 1959 | |
| 5° | 1931 | 1960 | 1945 | 1943 | 1961 | 183 |
| 15° | 1842 | 1866 | 1844 | 1834 | 1844 | 519 |
| 25° | 1668 | 1680 | 1639 | 1611 | 1611 | 767 |
| 35° | 1433 | 1429 | 1368 | 1258 | 1204 | 895 |
| 45° | 1164 | 1144 | 980 | 708 | 607 | 898 |
| 55° | 880 | 843 | 506 | 291 | 255 | 787 |
| 65° | 597 | 480 | 184 | 148 | 146 | 591 |
| 75° | 316 | 138 | 97 | 95 | 93 | 333 |
| 85° | 75 | 37 | 38 | 34 | 32 | 87 |
| 90° | 0 | 3 | 7 | 11 | 11 | 5 |
| 95° | 28 | 52 | 28 | 32 | 39 | 31 |
| 105° | 109 | 168 | 637 | 814 | 539 | 115 |
| 115° | 194 | 235 | 549 | 1142 | 1334 | 192 |
| 125° | 278 | 316 | 518 | 905 | 1070 | 247 |
| 135° | 345 | 383 | 521 | 745 | 856 | 265 |
| 145° | 408 | 443 | 525 | 649 | 718 | 257 |
| 155° | 479 | 496 | 535 | 589 | 616 | 220 |
| 165° | 532 | 538 | 549 | 564 | 574 | 149 |
| 175° | 560 | 563 | 560 | 556 | 553 | 53 |
| 180° | 560 | 560 | 560 | 560 | 560 | |

TEST NUMBER: P621469

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1959.1 | 1959.1 | 1959.1 | 1959.1 | 1959.1 |
| 2.5° | 1942.9 | 1965.1 | 1954.2 | 1954.4 | 1962.3 |
| 5° | 1930.8 | 1960.4 | 1944.9 | 1943.3 | 1961.1 |
| 7.5° | 1913.0 | 1940.3 | 1924.3 | 1922.2 | 1937.6 |
| 10° | 1898.4 | 1924.1 | 1906.5 | 1902.7 | 1916.6 |
| 12.5° | 1877.3 | 1903.1 | 1883.8 | 1876.8 | 1890.7 |
| 15° | 1841.7 | 1865.5 | 1843.7 | 1833.8 | 1843.7 |
| 17.5° | 1796.8 | 1816.6 | 1791.9 | 1776.3 | 1782.2 |
| 20° | 1762.8 | 1782.6 | 1754.7 | 1732.6 | 1738.5 |
| 22.5° | 1725.5 | 1742.2 | 1711.0 | 1685.6 | 1689.9 |
| 25° | 1667.7 | 1679.5 | 1639.3 | 1611.0 | 1611.0 |
| 27.5° | 1603.3 | 1610.4 | 1563.6 | 1533.9 | 1525.6 |
| 30° | 1556.3 | 1560.3 | 1511.8 | 1476.8 | 1451.1 |
| 32.5° | 1507.8 | 1510.1 | 1455.2 | 1398.8 | 1358.8 |
| 35° | 1432.9 | 1428.9 | 1368.1 | 1257.6 | 1204.2 |
| 37.5° | 1353.2 | 1344.4 | 1272.6 | 1104.4 | 1024.9 |
| 40° | 1301.3 | 1289.5 | 1198.1 | 995.7 | 906.7 |
| 42.5° | 1247.9 | 1231.3 | 1115.6 | 883.8 | 785.3 |
| 45° | 1163.7 | 1143.9 | 979.5 | 708.1 | 607.2 |
| 47.5° | 1080.3 | 1054.2 | 840.3 | 548.5 | 461.8 |
| 50° | 1022.0 | 994.3 | 744.8 | 451.8 | 382.5 |
| 52.5° | 963.8 | 936.1 | 647.6 | 379.2 | 324.2 |
| 55° | 880.4 | 842.8 | 506.0 | 290.6 | 255.0 |
| 57.5° | 795.4 | 741.6 | 376.8 | 226.4 | 198.7 |
| 60° | 738.7 | 667.5 | 305.6 | 187.8 | 168.0 |
| 62.5° | 683.7 | 593.4 | 250.6 | 163.8 | 159.9 |
| 65° | 597.0 | 480.3 | 184.2 | 147.7 | 145.7 |
| 67.5° | 514.5 | 366.4 | 136.8 | 133.1 | 131.1 |
| 70° | 451.3 | 289.1 | 125.5 | 123.4 | 121.4 |
| 72.5° | 394.7 | 221.3 | 114.1 | 112.1 | 110.1 |
| 75° | 315.7 | 137.6 | 97.1 | 95.1 | 93.1 |
| 77.5° | 236.0 | 86.8 | 80.1 | 78.1 | 76.1 |
| 80° | 184.2 | 71.4 | 68.8 | 66.7 | 64.8 |
| 82.5° | 138.8 | 57.7 | 55.9 | 53.8 | 51.8 |
| 85° | 74.9 | 37.3 | 38.5 | 34.4 | 32.4 |
| 87.5° | 25.9 | 18.7 | 19.2 | 16.6 | 15.1 |
| 90° | 0.0 | 3.4 | 7.0 | 10.6 | 10.6 |
| 92.5° | 8.4 | 11.9 | 15.5 | 21.9 | 24.6 |
| 95° | 28.2 | 52.3 | 28.2 | 31.8 | 38.7 |
| 97.5° | 50.0 | 100.3 | 207.0 | 61.1 | 52.8 |
| 100° | 66.9 | 125.4 | 415.4 | 122.3 | 81.0 |
| 102.5° | 83.8 | 145.1 | 561.9 | 322.7 | 176.7 |
| 105° | 109.1 | 167.7 | 637.2 | 814.0 | 538.6 |
| 107.5° | 134.5 | 178.5 | 608.4 | 1184.7 | 1109.7 |
| 110° | 151.4 | 192.7 | 591.5 | 1244.9 | 1337.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 168.3 | 209.6 | 574.6 | 1209.7 | 1366.0 |
| 115° | 193.6 | 234.9 | 549.2 | 1141.5 | 1334.3 |
| 117.5° | 219.7 | 260.3 | 542.9 | 1067.7 | 1266.0 |
| 120° | 239.4 | 277.3 | 531.6 | 1011.6 | 1218.1 |
| 122.5° | 253.5 | 294.1 | 517.5 | 963.3 | 1153.3 |
| 125° | 278.1 | 316.0 | 517.5 | 905.0 | 1070.3 |
| 127.5° | 298.5 | 337.1 | 518.2 | 837.4 | 1000.5 |
| 130° | 309.8 | 351.1 | 521.0 | 792.1 | 947.0 |
| 132.5° | 323.9 | 365.2 | 521.0 | 771.8 | 899.2 |
| 135° | 345.0 | 382.9 | 521.0 | 745.3 | 855.5 |
| 137.5° | 362.6 | 403.2 | 521.0 | 716.1 | 810.4 |
| 140° | 376.7 | 414.6 | 521.0 | 699.0 | 785.1 |
| 142.5° | 390.8 | 425.9 | 523.9 | 679.2 | 759.7 |
| 145° | 408.4 | 442.8 | 524.6 | 649.4 | 718.2 |
| 147.5° | 429.5 | 459.8 | 528.8 | 627.9 | 680.9 |
| 150° | 443.6 | 471.1 | 531.6 | 613.6 | 658.3 |
| 152.5° | 457.7 | 482.5 | 531.6 | 602.1 | 638.6 |
| 155° | 478.8 | 496.0 | 535.1 | 588.6 | 616.1 |
| 157.5° | 495.7 | 512.2 | 539.4 | 579.9 | 599.9 |
| 160° | 507.0 | 520.7 | 542.2 | 574.2 | 591.5 |
| 162.5° | 515.4 | 529.2 | 545.0 | 571.3 | 583.0 |
| 165° | 531.6 | 538.5 | 549.2 | 563.5 | 573.9 |
| 167.5° | 540.8 | 547.0 | 552.7 | 559.9 | 566.1 |
| 170° | 549.2 | 552.7 | 552.7 | 559.9 | 563.3 |
| 172.5° | 552.0 | 558.2 | 555.5 | 557.0 | 560.5 |
| 175° | 559.8 | 563.2 | 559.8 | 556.2 | 552.7 |
| 177.5° | 559.8 | 562.5 | 559.8 | 559.7 | 557.0 |
| 180° | 559.8 | 559.8 | 559.8 | 559.8 | 559.8 |



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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 | 17.44 | 18.31 | 18.35 | 19.23 | 20.40 | 9.68 | 10.55 | 10.58 | 11.46 | 12.64 |
| | 3H | 18.94 | 19.72 | 19.86 | 20.64 | 21.84 | 11.03 | 11.81 | 11.95 | 12.73 | 13.93 |
| | 4H | 19.45 | 20.19 | 20.39 | 21.12 | 22.32 | 11.69 | 12.42 | 12.62 | 13.35 | 14.56 |
| | 6H | 19.85 | 20.52 | 20.79 | 21.46 | 22.68 | 12.28 | 12.95 | 13.22 | 13.89 | 15.11 |
| | 8H | 19.98 | 20.62 | 20.93 | 21.58 | 22.79 | 12.50 | 13.14 | 13.45 | 14.10 | 15.31 |
| | 12H | 20.06 | 20.67 | 21.02 | 21.62 | 22.86 | 12.67 | 13.28 | 13.62 | 14.23 | 15.47 |
| 4H | 2H | 17.28 | 18.01 | 18.21 | 18.94 | 20.15 | 10.30 | 11.03 | 11.23 | 11.96 | 13.17 |
| | 3H | 18.91 | 19.52 | 19.86 | 20.48 | 21.70 | 11.85 | 12.46 | 12.80 | 13.42 | 14.64 |
| | 4H | 19.50 | 20.06 | 20.46 | 21.01 | 22.26 | 12.65 | 13.20 | 13.60 | 14.15 | 15.40 |
| | 6H | 20.00 | 20.47 | 20.97 | 21.45 | 22.70 | 13.38 | 13.86 | 14.35 | 14.84 | 16.09 |
| | 8H | 20.18 | 20.63 | 21.16 | 21.60 | 22.86 | 13.68 | 14.12 | 14.65 | 15.09 | 16.35 |
| | 12H | 20.31 | 20.71 | 21.30 | 21.70 | 22.97 | 13.89 | 14.29 | 14.88 | 15.29 | 16.55 |
| 8H | 4H | 19.42 | 19.87 | 20.39 | 20.84 | 22.10 | 13.10 | 13.54 | 14.07 | 14.52 | 15.78 |
| | 6H | 19.96 | 20.32 | 20.95 | 21.34 | 22.60 | 13.98 | 14.35 | 14.98 | 15.36 | 16.62 |
| | 8H | 20.19 | 20.52 | 21.20 | 21.52 | 22.79 | 14.38 | 14.70 | 15.38 | 15.70 | 16.98 |
| | 12H | 20.38 | 20.67 | 21.39 | 21.66 | 22.98 | 14.70 | 14.98 | 15.70 | 15.98 | 17.30 |
| 12H | 4H | 19.37 | 19.77 | 20.36 | 20.76 | 22.03 | 13.15 | 13.55 | 14.14 | 14.54 | 15.80 |
| | 6H | 19.93 | 20.25 | 20.93 | 21.26 | 22.53 | 14.10 | 14.42 | 15.10 | 15.42 | 16.70 |
| | 8H | 20.17 | 20.46 | 21.18 | 21.45 | 22.78 | 14.54 | 14.83 | 15.55 | 15.82 | 17.14 |