

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: P621442

Luminaire Tested: VLT-F-050U-075D-930-UNV-STD-W-4

Issue Date: 9/2/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P621442  
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-050U-075D-930-UNV-STD-W-4  
Description: CORELITE VAULT SUSPENDED LED LUMINAIRE  
FROSTED LENS  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

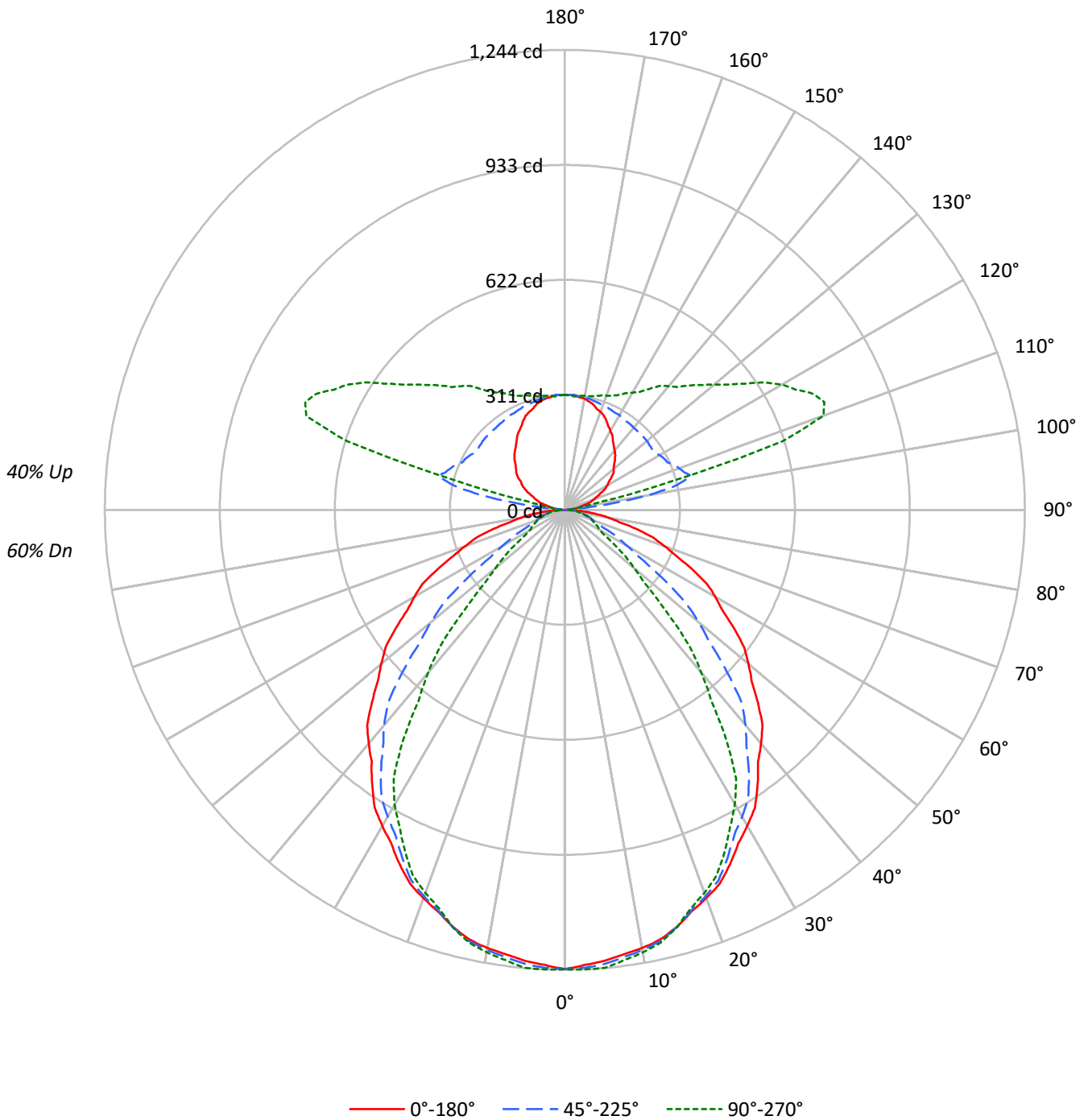
Lumens per Lamp: N/A  
Luminaire Lumens: 4206.5 lumens  
Efficiency: N/A  
Efficacy: 116.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.23  
Luminous Opening: Rectangular (W 0.38' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 36.2  
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  |     |     |     |     | 70  |     |     |    |    | 50 |    |    |    |    | 30 |    |    |  |  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |  |  |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |  |  |
| 0   | 110 | 110 | 110 | 110 | 102 | 102 | 102 | 102 | 89 | 89 | 89 | 77 | 77 | 77 | 66 | 66 | 66 | 60 |  |  |
| 1   | 101 | 97  | 93  | 90  | 94  | 91  | 88  | 85  | 79 | 77 | 75 | 69 | 67 | 66 | 59 | 58 | 57 | 52 |  |  |
| 2   | 93  | 86  | 80  | 75  | 86  | 80  | 75  | 71  | 71 | 67 | 63 | 62 | 59 | 56 | 53 | 51 | 49 | 45 |  |  |
| 3   | 85  | 76  | 69  | 64  | 79  | 72  | 65  | 60  | 63 | 58 | 54 | 55 | 52 | 49 | 48 | 45 | 43 | 39 |  |  |
| 4   | 78  | 68  | 60  | 55  | 73  | 64  | 57  | 52  | 57 | 51 | 47 | 50 | 46 | 42 | 43 | 40 | 38 | 35 |  |  |
| 5   | 72  | 61  | 53  | 47  | 67  | 58  | 51  | 45  | 51 | 46 | 41 | 45 | 41 | 37 | 40 | 36 | 34 | 31 |  |  |
| 6   | 67  | 55  | 47  | 42  | 62  | 52  | 45  | 40  | 46 | 41 | 37 | 41 | 37 | 33 | 36 | 33 | 30 | 27 |  |  |
| 7   | 62  | 50  | 42  | 37  | 58  | 47  | 40  | 35  | 42 | 37 | 33 | 38 | 33 | 30 | 33 | 30 | 27 | 24 |  |  |
| 8   | 58  | 46  | 38  | 33  | 54  | 43  | 36  | 32  | 39 | 33 | 29 | 35 | 30 | 27 | 31 | 27 | 24 | 22 |  |  |
| 9   | 54  | 42  | 35  | 30  | 51  | 40  | 33  | 29  | 36 | 30 | 26 | 32 | 28 | 24 | 28 | 25 | 22 | 20 |  |  |
| 10  | 51  | 39  | 32  | 27  | 47  | 37  | 30  | 26  | 33 | 28 | 24 | 30 | 25 | 22 | 27 | 23 | 20 | 18 |  |  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8916 | 8916 | 8916 |
| 5°  | 8821 | 8885 | 8959 |
| 10° | 8772 | 8810 | 8857 |
| 15° | 8677 | 8687 | 8687 |
| 20° | 8538 | 8498 | 8419 |
| 25° | 8374 | 8232 | 8090 |
| 30° | 8178 | 7945 | 7626 |
| 35° | 7960 | 7601 | 6690 |
| 40° | 7731 | 7117 | 5386 |
| 45° | 7489 | 6304 | 3908 |
| 50° | 7236 | 5273 | 2708 |
| 55° | 6985 | 4015 | 2023 |
| 60° | 6724 | 2781 | 1528 |
| 65° | 6429 | 1983 | 1569 |
| 70° | 6005 | 1670 | 1616 |
| 75° | 5551 | 1708 | 1636 |
| 80° | 4827 | 1802 | 1698 |
| 85° | 3911 | 2009 | 1688 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7489 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 117.1  | 2.8       |
| 10°-20°   | 329.2  | 7.8       |
| 20°-30°   | 478.9  | 11.4      |
| 30°-40°   | 529.8  | 12.6      |
| 40°-50°   | 454.9  | 10.8      |
| 50°-60°   | 314.9  | 7.5       |
| 60°-70°   | 187.7  | 4.5       |
| 70°-80°   | 92.5   | 2.2       |
| 80°-90°   | 29.2   | 0.7       |
| 90°-100°  | 38.3   | 0.9       |
| 100°-110° | 272.7  | 6.5       |
| 110°-120° | 370.3  | 8.8       |
| 120°-130° | 301.4  | 7.2       |
| 130°-140° | 242.4  | 5.8       |
| 140°-150° | 191.1  | 4.5       |
| 150°-160° | 139.7  | 3.3       |
| 160°-170° | 86.8   | 2.1       |
| 170°-180° | 29.6   | 0.7       |
| 0°-30°    | 925.2  | 22.0      |
| 0°-40°    | 1455.0 | 34.6      |
| 0°-60°    | 2224.8 | 52.9      |
| 0°-90°    | 2534.2 | 60.2      |
| 90°-120°  | 681.3  | 16.2      |
| 90°-150°  | 1416.2 | 33.7      |
| 90°-180°  | 1672.0 | 39.7      |
| 0°-180°   | 4206.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1242 | 1242  | 1242 | 1242  | 1242 |      |
| 5°   | 1224 | 1243  | 1234 | 1232  | 1244 | 116  |
| 15°  | 1168 | 1183  | 1169 | 1163  | 1169 | 329  |
| 25°  | 1058 | 1065  | 1040 | 1022  | 1022 | 487  |
| 35°  | 909  | 906   | 868  | 798   | 764  | 568  |
| 45°  | 738  | 726   | 621  | 449   | 385  | 569  |
| 55°  | 558  | 534   | 321  | 184   | 162  | 499  |
| 65°  | 379  | 305   | 117  | 94    | 92   | 375  |
| 75°  | 200  | 87    | 62   | 60    | 59   | 211  |
| 85°  | 48   | 24    | 24   | 22    | 20   | 55   |
| 90°  | 0    | 2     | 4    | 6     | 6    | 3    |
| 95°  | 16   | 29    | 16   | 18    | 22   | 18   |
| 105° | 61   | 93    | 354  | 453   | 300  | 64   |
| 115° | 108  | 131   | 305  | 635   | 742  | 107  |
| 125° | 155  | 176   | 288  | 503   | 595  | 137  |
| 135° | 192  | 213   | 290  | 414   | 476  | 148  |
| 145° | 227  | 246   | 292  | 361   | 399  | 143  |
| 155° | 266  | 276   | 298  | 327   | 343  | 122  |
| 165° | 296  | 300   | 305  | 313   | 319  | 83   |
| 175° | 311  | 313   | 311  | 309   | 307  | 29   |
| 180° | 311  | 311   | 311  | 311   | 311  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1242.5 | 1242.5 | 1242.5 | 1242.5 | 1242.5 |
| 2.5°   | 1232.2 | 1246.2 | 1239.4 | 1239.5 | 1244.5 |
| 5°     | 1224.5 | 1243.3 | 1233.5 | 1232.4 | 1243.7 |
| 7.5°   | 1213.2 | 1230.5 | 1220.4 | 1219.1 | 1228.8 |
| 10°    | 1203.9 | 1220.3 | 1209.1 | 1206.7 | 1215.5 |
| 12.5°  | 1190.6 | 1206.9 | 1194.7 | 1190.3 | 1199.1 |
| 15°    | 1168.0 | 1183.1 | 1169.3 | 1163.0 | 1169.3 |
| 17.5°  | 1139.5 | 1152.1 | 1136.4 | 1126.5 | 1130.3 |
| 20°    | 1118.0 | 1130.5 | 1112.8 | 1098.8 | 1102.5 |
| 22.5°  | 1094.3 | 1104.9 | 1085.1 | 1069.0 | 1071.7 |
| 25°    | 1057.6 | 1065.2 | 1039.7 | 1021.7 | 1021.7 |
| 27.5°  | 1016.8 | 1021.3 | 991.7  | 972.8  | 967.5  |
| 30°    | 987.0  | 989.5  | 958.8  | 936.6  | 920.3  |
| 32.5°  | 956.2  | 957.7  | 922.9  | 887.1  | 861.8  |
| 35°    | 908.7  | 906.2  | 867.7  | 797.6  | 763.7  |
| 37.5°  | 858.2  | 852.6  | 807.1  | 700.4  | 650.0  |
| 40°    | 825.3  | 817.8  | 759.8  | 631.5  | 575.0  |
| 42.5°  | 791.4  | 780.9  | 707.5  | 560.5  | 498.0  |
| 45°    | 738.0  | 725.5  | 621.2  | 449.1  | 385.1  |
| 47.5°  | 685.1  | 668.6  | 532.9  | 347.9  | 292.9  |
| 50°    | 648.2  | 630.6  | 472.3  | 286.5  | 242.6  |
| 52.5°  | 611.2  | 593.6  | 410.7  | 240.5  | 205.6  |
| 55°    | 558.3  | 534.5  | 320.9  | 184.3  | 161.7  |
| 57.5°  | 504.4  | 470.3  | 239.0  | 143.6  | 126.0  |
| 60°    | 468.5  | 423.3  | 193.8  | 119.1  | 106.5  |
| 62.5°  | 433.6  | 376.3  | 158.9  | 103.9  | 101.4  |
| 65°    | 378.6  | 304.6  | 116.8  | 93.7   | 92.4   |
| 67.5°  | 326.3  | 232.4  | 86.8   | 84.4   | 83.2   |
| 70°    | 286.2  | 183.3  | 79.6   | 78.3   | 77.0   |
| 72.5°  | 250.3  | 140.3  | 72.4   | 71.1   | 69.8   |
| 75°    | 200.2  | 87.3   | 61.6   | 60.3   | 59.0   |
| 77.5°  | 149.7  | 55.0   | 50.8   | 49.5   | 48.3   |
| 80°    | 116.8  | 45.3   | 43.6   | 42.3   | 41.1   |
| 82.5°  | 88.0   | 36.6   | 35.4   | 34.1   | 32.9   |
| 85°    | 47.5   | 23.6   | 24.4   | 21.8   | 20.5   |
| 87.5°  | 16.4   | 11.8   | 12.1   | 10.4   | 9.4    |
| 90°    | 0.0    | 1.9    | 3.9    | 5.9    | 5.9    |
| 92.5°  | 4.7    | 6.6    | 8.6    | 12.2   | 13.7   |
| 95°    | 15.7   | 29.1   | 15.7   | 17.7   | 21.5   |
| 97.5°  | 27.8   | 55.8   | 115.1  | 34.0   | 29.4   |
| 100°   | 37.2   | 69.7   | 231.0  | 68.0   | 45.0   |
| 102.5° | 46.6   | 80.7   | 312.5  | 179.5  | 98.3   |
| 105°   | 60.7   | 93.2   | 354.4  | 452.7  | 299.6  |
| 107.5° | 74.8   | 99.3   | 338.3  | 658.9  | 617.1  |
| 110°   | 84.2   | 107.2  | 328.9  | 692.3  | 744.0  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 93.6  | 116.6 | 319.5 | 672.7 | 759.7 |
| 115°   | 107.7 | 130.7 | 305.4 | 634.8 | 742.0 |
| 117.5° | 122.2 | 144.8 | 301.9 | 593.8 | 704.1 |
| 120°   | 133.1 | 154.2 | 295.6 | 562.6 | 677.4 |
| 122.5° | 141.0 | 163.6 | 287.8 | 535.7 | 641.4 |
| 125°   | 154.7 | 175.7 | 287.8 | 503.3 | 595.2 |
| 127.5° | 166.0 | 187.5 | 288.2 | 465.7 | 556.4 |
| 130°   | 172.3 | 195.3 | 289.8 | 440.5 | 526.7 |
| 132.5° | 180.1 | 203.1 | 289.8 | 429.2 | 500.0 |
| 135°   | 191.9 | 212.9 | 289.8 | 414.5 | 475.8 |
| 137.5° | 201.7 | 224.3 | 289.8 | 398.2 | 450.7 |
| 140°   | 209.5 | 230.6 | 289.8 | 388.7 | 436.6 |
| 142.5° | 217.3 | 236.9 | 291.3 | 377.7 | 422.5 |
| 145°   | 227.1 | 246.3 | 291.7 | 361.1 | 399.4 |
| 147.5° | 238.9 | 255.7 | 294.1 | 349.2 | 378.7 |
| 150°   | 246.7 | 262.0 | 295.6 | 341.2 | 366.1 |
| 152.5° | 254.5 | 268.3 | 295.6 | 334.9 | 355.2 |
| 155°   | 266.3 | 275.8 | 297.6 | 327.3 | 342.6 |
| 157.5° | 275.7 | 284.9 | 299.9 | 322.5 | 333.6 |
| 160°   | 281.9 | 289.6 | 301.5 | 319.4 | 328.9 |
| 162.5° | 286.6 | 294.3 | 303.1 | 317.7 | 324.2 |
| 165°   | 295.6 | 299.5 | 305.4 | 313.4 | 319.1 |
| 167.5° | 300.7 | 304.2 | 307.4 | 311.4 | 314.8 |
| 170°   | 305.4 | 307.3 | 307.4 | 311.3 | 313.3 |
| 172.5° | 307.0 | 310.4 | 309.0 | 309.8 | 311.7 |
| 175°   | 311.3 | 313.2 | 311.3 | 309.3 | 307.4 |
| 177.5° | 311.3 | 312.8 | 311.3 | 311.3 | 309.7 |
| 180°   | 311.3 | 311.3 | 311.3 | 311.3 | 311.3 |

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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 | 16.13            | 17.03 | 17.01 | 17.92 | 19.04 | 8.37           | 9.27  | 9.24  | 10.15 | 11.28 |
|                 | 3H   | 17.63            | 18.43 | 18.52 | 19.33 | 20.48 | 9.73           | 10.53 | 10.61 | 11.43 | 12.57 |
|                 | 4H   | 18.15            | 18.90 | 19.05 | 19.81 | 20.96 | 10.38          | 11.14 | 11.28 | 12.04 | 13.20 |
|                 | 6H   | 18.55            | 19.24 | 19.46 | 20.15 | 21.32 | 10.97          | 11.67 | 11.89 | 12.58 | 13.75 |
|                 | 8H   | 18.68            | 19.34 | 19.60 | 20.27 | 21.44 | 11.20          | 11.86 | 12.12 | 12.79 | 13.96 |
|                 | 12H  | 18.76            | 19.39 | 19.69 | 20.31 | 21.50 | 11.36          | 11.99 | 12.29 | 12.91 | 14.11 |
| 4H              | 2H   | 15.97            | 16.73 | 16.88 | 17.63 | 18.79 | 8.99           | 9.75  | 9.90  | 10.65 | 11.81 |
|                 | 3H   | 17.61            | 18.24 | 18.53 | 19.17 | 20.34 | 10.55          | 11.17 | 11.47 | 12.11 | 13.28 |
|                 | 4H   | 18.20            | 18.77 | 19.13 | 19.70 | 20.90 | 11.34          | 11.91 | 12.27 | 12.84 | 14.04 |
|                 | 6H   | 18.70            | 19.19 | 19.64 | 20.14 | 21.34 | 12.08          | 12.57 | 13.03 | 13.53 | 14.73 |
|                 | 8H   | 18.88            | 19.34 | 19.83 | 20.29 | 21.50 | 12.38          | 12.83 | 13.32 | 13.78 | 14.99 |
|                 | 12H  | 19.02            | 19.43 | 19.98 | 20.39 | 21.61 | 12.59          | 13.01 | 13.56 | 13.97 | 15.19 |
| 8H              | 4H   | 18.12            | 18.58 | 19.07 | 19.53 | 20.74 | 11.80          | 12.26 | 12.74 | 13.21 | 14.42 |
|                 | 6H   | 18.66            | 19.04 | 19.63 | 20.03 | 21.24 | 12.68          | 13.06 | 13.65 | 14.05 | 15.26 |
|                 | 8H   | 18.89            | 19.23 | 19.87 | 20.21 | 21.43 | 13.08          | 13.41 | 14.06 | 14.39 | 15.62 |
|                 | 12H  | 19.08            | 19.38 | 20.06 | 20.35 | 21.63 | 13.40          | 13.69 | 14.38 | 14.66 | 15.94 |
| 12H             | 4H   | 18.07            | 18.48 | 19.04 | 19.45 | 20.67 | 11.85          | 12.26 | 12.81 | 13.23 | 14.44 |
|                 | 6H   | 18.63            | 18.96 | 19.61 | 19.94 | 21.17 | 12.80          | 13.13 | 13.78 | 14.11 | 15.34 |
|                 | 8H   | 18.87            | 19.17 | 19.85 | 20.14 | 21.42 | 13.24          | 13.54 | 14.22 | 14.51 | 15.79 |