

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: NEO-RAY

Report Number: P998050

Luminaire Tested: SA2XXDIP-B1005D925UB30-4F0-XX-W2A-D4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P998050  
REPORT IS A COMBINATION OF REPORTS P983787 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXDIP-B1005D925UB30-4F0-XX-W2A-D4  
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

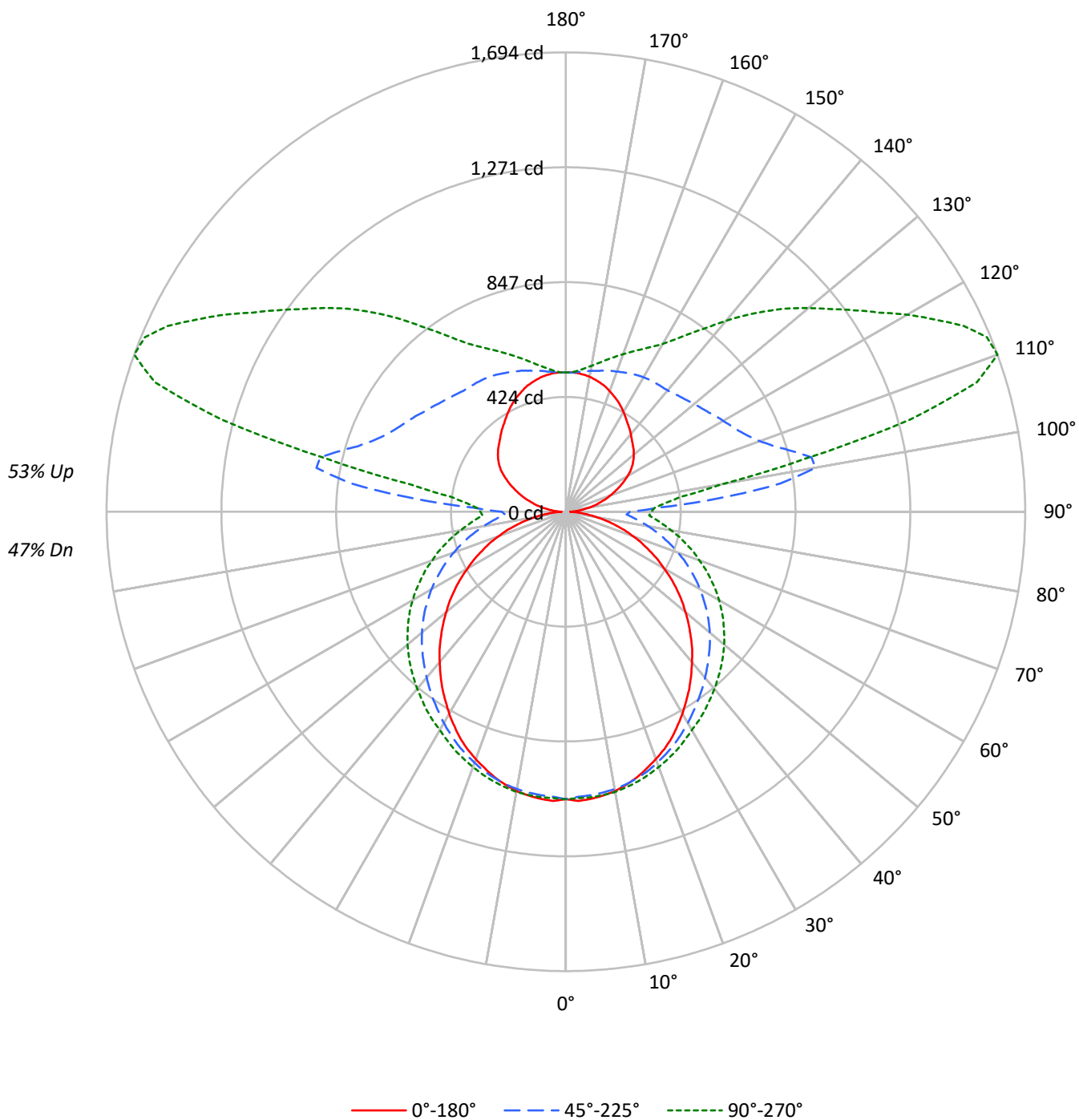
Lumens per Lamp: N/A  
Luminaire Lumens: 7629.1 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 89.8  
Input Voltage (V):  
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 |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 106 | 106 | 106 | 106 | 98 | 98 | 98 | 98 | 82 | 82 | 82 | 67 | 67 | 67 | 53 | 53 | 53 |
| 1   | 96  | 91  | 86  | 82  | 88 | 83 | 80 | 76 | 70 | 67 | 64 | 57 | 55 | 53 | 45 | 44 | 42 |
| 2   | 87  | 78  | 72  | 66  | 79 | 72 | 66 | 61 | 60 | 56 | 52 | 49 | 46 | 43 | 39 | 37 | 35 |
| 3   | 79  | 69  | 61  | 54  | 72 | 63 | 56 | 51 | 53 | 47 | 43 | 43 | 39 | 36 | 34 | 31 | 29 |
| 4   | 72  | 60  | 52  | 46  | 65 | 55 | 48 | 42 | 46 | 41 | 36 | 38 | 34 | 30 | 30 | 27 | 24 |
| 5   | 66  | 54  | 45  | 39  | 60 | 49 | 42 | 36 | 41 | 35 | 31 | 34 | 29 | 26 | 27 | 24 | 21 |
| 6   | 60  | 48  | 39  | 33  | 55 | 44 | 37 | 31 | 37 | 31 | 27 | 30 | 26 | 23 | 24 | 21 | 18 |
| 7   | 56  | 43  | 35  | 29  | 51 | 40 | 32 | 27 | 33 | 28 | 23 | 28 | 23 | 20 | 22 | 19 | 16 |
| 8   | 52  | 39  | 31  | 26  | 47 | 36 | 29 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 20 | 17 | 14 |
| 9   | 48  | 36  | 28  | 23  | 44 | 33 | 26 | 21 | 28 | 22 | 18 | 23 | 19 | 16 | 19 | 15 | 13 |
| 10  | 45  | 32  | 25  | 20  | 41 | 30 | 23 | 19 | 26 | 20 | 17 | 21 | 17 | 14 | 17 | 14 | 12 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16776 | 16776 | 16776 |
| 5°  | 16852 | 16061 | 15970 |
| 10° | 16739 | 15504 | 15278 |
| 15° | 16503 | 14928 | 14568 |
| 20° | 16206 | 14325 | 13895 |
| 25° | 15911 | 13746 | 13284 |
| 30° | 15499 | 13158 | 12680 |
| 35° | 15081 | 12591 | 12236 |
| 40° | 14643 | 12101 | 11794 |
| 45° | 14224 | 11657 | 11410 |
| 50° | 13774 | 11247 | 11030 |
| 55° | 13302 | 10812 | 10643 |
| 60° | 12723 | 10358 | 10237 |
| 65° | 12122 | 9838  | 9768  |
| 70° | 11442 | 9278  | 9266  |
| 75° | 10567 | 8720  | 8791  |
| 80° | 9197  | 8135  | 8300  |
| 85° | 7811  | 7586  | 7873  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14224 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 100.5  | 1.3       |
| 10°-20°   | 288.2  | 3.8       |
| 20°-30°   | 436.6  | 5.7       |
| 30°-40°   | 531.7  | 7.0       |
| 40°-50°   | 572.0  | 7.5       |
| 50°-60°   | 555.5  | 7.3       |
| 60°-70°   | 485.2  | 6.4       |
| 70°-80°   | 373.4  | 4.9       |
| 80°-90°   | 253.4  | 3.3       |
| 90°-100°  | 380.8  | 5.0       |
| 100°-110° | 830.1  | 10.9      |
| 110°-120° | 823.2  | 10.8      |
| 120°-130° | 654.9  | 8.6       |
| 130°-140° | 508.5  | 6.7       |
| 140°-150° | 372.7  | 4.9       |
| 150°-160° | 259.7  | 3.4       |
| 160°-170° | 152.9  | 2.0       |
| 170°-180° | 49.7   | 0.7       |
| 0°-30°    | 825.2  | 10.8      |
| 0°-40°    | 1356.9 | 17.8      |
| 0°-60°    | 2484.5 | 32.6      |
| 0°-90°    | 3596.4 | 47.1      |
| 90°-120°  | 2034.1 | 26.7      |
| 90°-150°  | 3570.3 | 46.8      |
| 90°-180°  | 4033.0 | 52.9      |
| 0°-180°   | 7629.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1060 | 1060  | 1060 | 1060  | 1060 |      |
| 5°   | 1063 | 1058  | 1049 | 1058  | 1057 | 101  |
| 15°  | 1014 | 1017  | 1017 | 1031  | 1029 | 286  |
| 25°  | 922  | 932   | 946  | 965   | 969  | 424  |
| 35°  | 794  | 820   | 849  | 883   | 894  | 496  |
| 45°  | 651  | 693   | 746  | 794   | 810  | 503  |
| 55°  | 499  | 554   | 634  | 690   | 710  | 447  |
| 65°  | 341  | 416   | 507  | 570   | 590  | 339  |
| 75°  | 189  | 275   | 373  | 439   | 459  | 200  |
| 85°  | 55   | 150   | 249  | 313   | 335  | 58   |
| 90°  | 16   | 118   | 236  | 296   | 315  | 13   |
| 95°  | 47   | 169   | 564  | 381   | 366  | 45   |
| 105° | 128  | 234   | 864  | 1494  | 1316 | 137  |
| 115° | 218  | 291   | 705  | 1402  | 1620 | 216  |
| 125° | 300  | 354   | 641  | 1118  | 1296 | 267  |
| 135° | 349  | 416   | 599  | 910   | 1046 | 270  |
| 145° | 397  | 456   | 579  | 728   | 803  | 250  |
| 155° | 452  | 488   | 562  | 636   | 661  | 208  |
| 165° | 492  | 507   | 538  | 571   | 580  | 139  |
| 175° | 513  | 513   | 518  | 524   | 523  | 49   |
| 180° | 514  | 514   | 514  | 514   | 514  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1059.8 | 1059.8 | 1059.8 | 1059.8 | 1059.8 |
| 2.5°   | 1067.5 | 1062.9 | 1052.2 | 1059.8 | 1056.8 |
| 5°     | 1062.9 | 1058.3 | 1049.1 | 1058.3 | 1056.8 |
| 7.5°   | 1055.2 | 1052.2 | 1044.5 | 1055.2 | 1053.7 |
| 10°    | 1046.0 | 1042.9 | 1038.3 | 1050.6 | 1049.1 |
| 12.5°  | 1030.7 | 1032.2 | 1029.1 | 1041.4 | 1039.9 |
| 15°    | 1013.8 | 1016.8 | 1016.8 | 1030.7 | 1029.1 |
| 17.5°  | 992.3  | 998.4  | 1003.0 | 1016.8 | 1016.8 |
| 20°    | 970.8  | 978.4  | 984.6  | 1001.5 | 1001.5 |
| 22.5°  | 947.7  | 956.9  | 966.1  | 983.0  | 986.1  |
| 25°    | 921.6  | 932.4  | 946.2  | 964.6  | 969.2  |
| 27.5°  | 890.9  | 907.8  | 923.1  | 946.2  | 949.3  |
| 30°    | 860.2  | 880.1  | 900.1  | 924.7  | 929.3  |
| 32.5°  | 826.4  | 849.4  | 874.0  | 903.2  | 912.4  |
| 35°    | 794.1  | 820.2  | 849.4  | 883.2  | 894.0  |
| 37.5°  | 758.8  | 788.0  | 824.8  | 861.7  | 872.5  |
| 40°    | 723.5  | 757.3  | 798.7  | 838.7  | 852.5  |
| 42.5°  | 689.7  | 723.5  | 772.6  | 817.2  | 831.0  |
| 45°    | 651.3  | 692.7  | 746.5  | 794.1  | 809.5  |
| 47.5°  | 614.4  | 658.9  | 720.4  | 769.5  | 786.4  |
| 50°    | 576.0  | 623.6  | 692.7  | 745.0  | 761.9  |
| 52.5°  | 539.1  | 589.8  | 663.6  | 717.3  | 735.7  |
| 55°    | 499.2  | 554.5  | 634.4  | 689.7  | 709.6  |
| 57.5°  | 460.8  | 522.2  | 602.1  | 662.0  | 682.0  |
| 60°    | 419.3  | 485.4  | 572.9  | 631.3  | 652.8  |
| 62.5°  | 382.5  | 451.6  | 539.1  | 602.1  | 622.1  |
| 65°    | 341.0  | 416.3  | 506.9  | 569.9  | 589.8  |
| 67.5°  | 304.1  | 382.5  | 474.6  | 537.6  | 559.1  |
| 70°    | 264.2  | 344.1  | 439.3  | 505.3  | 523.8  |
| 72.5°  | 227.3  | 310.3  | 407.0  | 471.6  | 494.6  |
| 75°    | 188.9  | 274.9  | 373.3  | 439.3  | 459.3  |
| 77.5°  | 152.1  | 241.2  | 341.0  | 407.0  | 428.5  |
| 80°    | 115.2  | 208.9  | 308.7  | 373.3  | 394.8  |
| 82.5°  | 84.5   | 176.6  | 278.0  | 342.5  | 362.5  |
| 85°    | 55.3   | 150.5  | 248.8  | 313.3  | 334.8  |
| 87.5°  | 33.8   | 126.0  | 224.3  | 287.2  | 307.2  |
| 90°    | 16.4   | 117.8  | 236.4  | 296.3  | 315.2  |
| 92.5°  | 28.6   | 142.2  | 341.0  | 319.0  | 327.6  |
| 95°    | 46.9   | 169.4  | 563.9  | 381.2  | 366.0  |
| 97.5°  | 62.2   | 189.0  | 797.2  | 516.2  | 429.9  |
| 100°   | 86.9   | 205.0  | 934.1  | 794.8  | 581.0  |
| 102.5° | 108.0  | 220.0  | 928.2  | 1186.0 | 904.6  |
| 105°   | 128.2  | 234.0  | 864.2  | 1494.5 | 1316.2 |
| 107.5° | 151.9  | 248.0  | 804.0  | 1598.2 | 1589.5 |
| 110°   | 174.1  | 262.6  | 761.2  | 1567.2 | 1693.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 195.8 | 277.7 | 728.8 | 1492.6 | 1681.0 |
| 115°   | 218.5 | 291.2 | 704.7 | 1402.3 | 1620.2 |
| 117.5° | 240.7 | 306.4 | 686.0 | 1317.0 | 1534.8 |
| 120°   | 262.5 | 321.0 | 669.9 | 1238.0 | 1454.0 |
| 122.5° | 283.2 | 337.6 | 656.8 | 1175.4 | 1367.1 |
| 125°   | 299.5 | 353.8 | 641.0 | 1117.8 | 1296.0 |
| 127.5° | 314.3 | 370.5 | 628.9 | 1065.4 | 1227.4 |
| 130°   | 327.2 | 386.8 | 617.7 | 1014.2 | 1168.7 |
| 132.5° | 339.0 | 402.6 | 607.5 | 961.4  | 1109.6 |
| 135°   | 349.3 | 416.4 | 598.8 | 909.8  | 1046.4 |
| 137.5° | 360.1 | 428.3 | 591.1 | 857.4  | 983.8  |
| 140°   | 373.0 | 437.6 | 584.0 | 810.1  | 919.1  |
| 142.5° | 385.8 | 446.6 | 580.9 | 765.8  | 856.0  |
| 145°   | 397.2 | 456.4 | 578.9 | 728.0  | 803.3  |
| 147.5° | 411.0 | 464.4 | 576.0 | 695.0  | 754.0  |
| 150°   | 424.8 | 472.2 | 573.0 | 671.8  | 714.3  |
| 152.5° | 438.7 | 480.2 | 568.1 | 653.5  | 685.6  |
| 155°   | 451.5 | 487.6 | 562.2 | 635.8  | 660.9  |
| 157.5° | 462.4 | 493.5 | 556.2 | 619.0  | 639.2  |
| 160°   | 473.2 | 499.4 | 550.3 | 602.2  | 618.5  |
| 162.5° | 484.1 | 503.8 | 545.4 | 586.3  | 598.7  |
| 165°   | 492.0 | 506.8 | 538.4 | 571.0  | 579.9  |
| 167.5° | 498.9 | 509.8 | 532.5 | 557.2  | 562.2  |
| 170°   | 505.8 | 511.3 | 527.6 | 544.4  | 546.3  |
| 172.5° | 509.8 | 512.8 | 521.6 | 533.0  | 533.5  |
| 175°   | 512.8 | 513.2 | 517.7 | 524.1  | 522.6  |
| 177.5° | 514.7 | 513.7 | 513.7 | 517.7  | 514.7  |
| 180°   | 513.7 | 513.7 | 513.7 | 513.7  | 513.7  |

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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 | 14.74            | 15.62 | 15.71 | 16.61 | 17.92 | 17.81          | 18.70 | 18.79 | 19.69 | 21.00 |
|                 | 3H   | 16.20            | 17.00 | 17.18 | 18.00 | 19.33 | 20.40          | 21.20 | 21.39 | 22.20 | 23.53 |
|                 | 4H   | 16.68            | 17.44 | 17.67 | 18.44 | 19.78 | 21.66          | 22.42 | 22.65 | 23.42 | 24.76 |
|                 | 6H   | 16.96            | 17.67 | 17.97 | 18.67 | 20.02 | 22.96          | 23.66 | 23.96 | 24.67 | 26.02 |
|                 | 8H   | 17.02            | 17.69 | 18.03 | 18.72 | 20.06 | 23.62          | 24.29 | 24.63 | 25.31 | 26.66 |
|                 | 12H  | 17.04            | 17.68 | 18.06 | 18.70 | 20.07 | 24.34          | 24.98 | 25.36 | 26.00 | 27.37 |
| 4H              | 2H   | 15.79            | 16.55 | 16.79 | 17.56 | 18.89 | 18.15          | 18.91 | 19.15 | 19.91 | 21.25 |
|                 | 3H   | 17.50            | 18.14 | 18.51 | 19.18 | 20.53 | 20.94          | 21.58 | 21.95 | 22.61 | 23.96 |
|                 | 4H   | 18.12            | 18.72 | 19.14 | 19.74 | 21.11 | 22.36          | 22.95 | 23.37 | 23.97 | 25.35 |
|                 | 6H   | 18.54            | 19.06 | 19.57 | 20.10 | 21.47 | 23.83          | 24.34 | 24.85 | 25.39 | 26.76 |
|                 | 8H   | 18.65            | 19.13 | 19.68 | 20.17 | 21.56 | 24.58          | 25.07 | 25.61 | 26.11 | 27.49 |
|                 | 12H  | 18.69            | 19.13 | 19.74 | 20.19 | 21.58 | 25.41          | 25.85 | 26.46 | 26.91 | 28.30 |
| 8H              | 4H   | 18.92            | 19.40 | 19.94 | 20.44 | 21.82 | 22.50          | 22.99 | 23.53 | 24.03 | 25.41 |
|                 | 6H   | 19.55            | 19.96 | 20.60 | 21.04 | 22.42 | 24.13          | 24.54 | 25.18 | 25.62 | 27.00 |
|                 | 8H   | 19.77            | 20.13 | 20.83 | 21.20 | 22.60 | 25.02          | 25.38 | 26.08 | 26.45 | 27.85 |
|                 | 12H  | 19.91            | 20.23 | 20.97 | 21.29 | 22.73 | 26.02          | 26.34 | 27.08 | 27.40 | 28.84 |
| 12H             | 4H   | 19.11            | 19.56 | 20.16 | 20.61 | 22.00 | 22.48          | 22.92 | 23.52 | 23.97 | 25.36 |
|                 | 6H   | 19.88            | 20.25 | 20.94 | 21.31 | 22.71 | 24.16          | 24.52 | 25.22 | 25.59 | 26.98 |
|                 | 8H   | 20.19            | 20.51 | 21.25 | 21.57 | 23.01 | 25.09          | 25.41 | 26.15 | 26.47 | 27.91 |

END OF REPORT