

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: CORELITE

Report Number: P572150

Luminaire Tested: 24ID-40-L830-DBR

Issue Date: 10/5/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P572150  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2109-397-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/5/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: 24ID-40-L830-DBR  
Description: 4000 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN REGRESSED DOUBLE BARRELL LENS AND 3000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

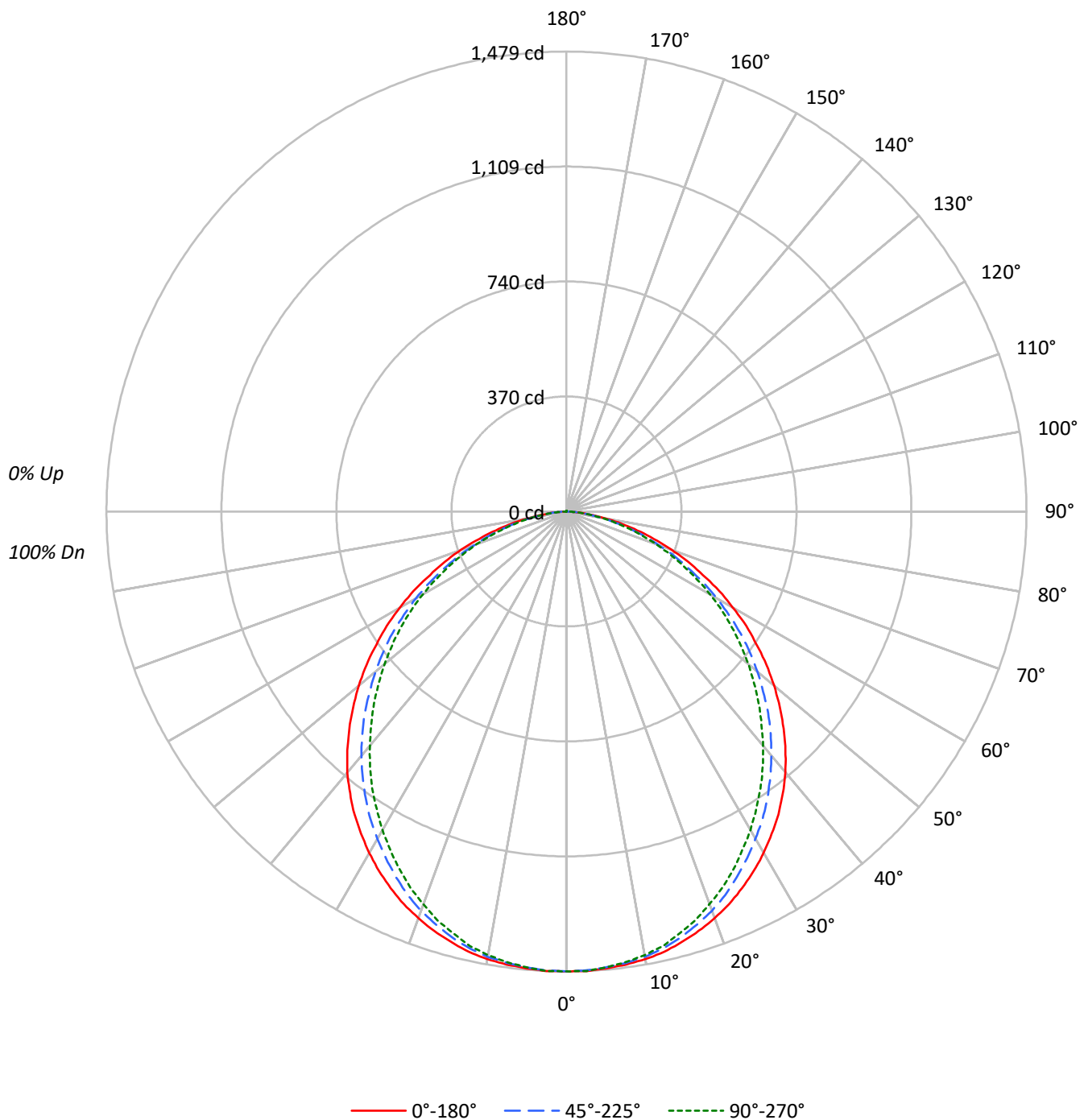
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3887.0 lumens  
Efficiency: N/A  
Efficacy: 110.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.19 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35.2  
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

TEST NUMBER: P572150

CATALOG NUMBER: 24ID-40-L830-DBR

### Luminous Intensity Polar Plot



TEST NUMBER: P572150

CATALOG NUMBER: 24ID-40-L830-DBR

**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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 95  | 98  | 95  | 92  |  | 94  | 92  | 90  |  | 91  |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  |  | 83  | 79  | 75  |  | 80  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  |  | 74  | 68  | 64  |  | 71  |
| 4   | 84  | 72  | 63  | 57  | 81  | 71  | 63  | 56  | 68  | 61  | 56  |  | 66  | 60  | 55  |  | 64  |
| 5   | 77  | 64  | 56  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  |  | 59  | 53  | 48  |  | 57  |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 49  | 43  | 55  | 48  | 42  |  | 54  | 47  | 42  |  | 52  |
| 7   | 66  | 53  | 44  | 38  | 64  | 52  | 44  | 38  | 50  | 43  | 38  |  | 49  | 42  | 37  |  | 48  |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 34  |  | 45  | 38  | 33  |  | 44  |
| 9   | 57  | 44  | 36  | 31  | 56  | 44  | 36  | 31  | 42  | 35  | 30  |  | 41  | 35  | 30  |  | 40  |
| 10  | 54  | 41  | 33  | 28  | 53  | 40  | 33  | 28  | 39  | 32  | 28  |  | 38  | 32  | 27  |  | 37  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1990 | 1990 | 1990 |
| 5°  | 1992 | 1987 | 1987 |
| 10° | 1997 | 1987 | 1979 |
| 15° | 1997 | 1975 | 1957 |
| 20° | 1993 | 1957 | 1925 |
| 25° | 1984 | 1925 | 1886 |
| 30° | 1970 | 1888 | 1838 |
| 35° | 1952 | 1849 | 1787 |
| 40° | 1924 | 1801 | 1727 |
| 45° | 1879 | 1745 | 1665 |
| 50° | 1824 | 1677 | 1598 |
| 55° | 1750 | 1603 | 1523 |
| 60° | 1660 | 1502 | 1436 |
| 65° | 1541 | 1378 | 1324 |
| 70° | 1412 | 1240 | 1203 |
| 75° | 1224 | 1066 | 1037 |
| 80° | 986  | 838  | 838  |
| 85° | 499  | 528  | 499  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1879 cd/sqm

TEST NUMBER: P572150

CATALOG NUMBER: 24ID-40-L830-DBR

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 139.9  | 3.6       |
| 10°-20°   | 400.0  | 10.3      |
| 20°-30°   | 598.9  | 15.4      |
| 30°-40°   | 707.8  | 18.2      |
| 40°-50°   | 712.5  | 18.3      |
| 50°-60°   | 616.5  | 15.9      |
| 60°-70°   | 439.1  | 11.3      |
| 70°-80°   | 225.5  | 5.8       |
| 80°-90°   | 46.6   | 1.2       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.1    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1138.8 | 29.3      |
| 0°-40°    | 1846.6 | 47.5      |
| 0°-60°    | 3175.7 | 81.7      |
| 0°-90°    | 3886.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3887.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1479 | 1479  | 1479 | 1479  | 1479 |      |
| 5°   | 1475 | 1473  | 1471 | 1470  | 1471 | 140  |
| 15°  | 1433 | 1428  | 1418 | 1407  | 1405 | 405  |
| 25°  | 1337 | 1325  | 1297 | 1276  | 1270 | 616  |
| 35°  | 1188 | 1170  | 1126 | 1097  | 1088 | 743  |
| 45°  | 987  | 966   | 917  | 885   | 875  | 761  |
| 55°  | 746  | 725   | 684  | 655   | 649  | 668  |
| 65°  | 484  | 467   | 433  | 418   | 416  | 482  |
| 75°  | 235  | 224   | 205  | 198   | 199  | 251  |
| 85°  | 32   | 32    | 34   | 34    | 32   | 48   |
| 90°  | 0    | 0     | 0    | 0     | 0    | 2    |
| 95°  | 0    | 0     | 0    | 0     | 0    | 0    |
| 105° | 0    | 0     | 0    | 0     | 0    | 0    |
| 115° | 0    | 0     | 0    | 0     | 0    | 0    |
| 125° | 0    | 0     | 0    | 0     | 0    | 0    |
| 135° | 0    | 0     | 0    | 0     | 0    | 0    |
| 145° | 0    | 0     | 0    | 0     | 0    | 0    |
| 155° | 0    | 0     | 0    | 0     | 0    | 0    |
| 165° | 0    | 0     | 0    | 0     | 0    | 0    |
| 175° | 0    | 0     | 0    | 0     | 2    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P572150

CATALOG NUMBER: 24ID-40-L830-DBR

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1479.0 | 1479.0 | 1479.0 | 1479.0 | 1479.0 |
| 2.5°   | 1479.0 | 1477.1 | 1477.1 | 1475.2 | 1479.0 |
| 5°     | 1475.2 | 1473.3 | 1471.4 | 1469.5 | 1471.4 |
| 7.5°   | 1469.5 | 1465.7 | 1463.8 | 1460.0 | 1461.9 |
| 10°    | 1461.9 | 1458.1 | 1454.3 | 1448.6 | 1448.6 |
| 12.5°  | 1450.5 | 1446.7 | 1439.1 | 1431.5 | 1431.5 |
| 15°    | 1433.4 | 1427.7 | 1418.2 | 1406.8 | 1404.9 |
| 17.5°  | 1414.4 | 1406.8 | 1393.6 | 1380.3 | 1378.4 |
| 20°    | 1391.7 | 1384.1 | 1367.0 | 1349.9 | 1344.2 |
| 22.5°  | 1367.0 | 1357.5 | 1334.7 | 1315.7 | 1310.0 |
| 25°    | 1336.6 | 1325.2 | 1296.7 | 1275.8 | 1270.1 |
| 27.5°  | 1304.3 | 1289.1 | 1256.9 | 1234.1 | 1226.5 |
| 30°    | 1268.2 | 1253.1 | 1215.1 | 1192.3 | 1182.8 |
| 32.5°  | 1228.4 | 1211.3 | 1173.3 | 1144.8 | 1135.3 |
| 35°    | 1188.5 | 1169.5 | 1125.9 | 1097.4 | 1087.9 |
| 37.5°  | 1142.9 | 1122.1 | 1076.5 | 1046.1 | 1036.6 |
| 40°    | 1095.5 | 1074.6 | 1025.2 | 994.9  | 983.5  |
| 42.5°  | 1042.3 | 1021.4 | 972.1  | 939.8  | 928.4  |
| 45°    | 987.3  | 966.4  | 917.0  | 884.7  | 875.2  |
| 47.5°  | 930.3  | 905.6  | 858.2  | 827.8  | 818.3  |
| 50°    | 871.4  | 846.8  | 801.2  | 770.8  | 763.2  |
| 52.5°  | 810.7  | 786.0  | 742.3  | 712.0  | 706.3  |
| 55°    | 746.1  | 725.3  | 683.5  | 655.0  | 649.3  |
| 57.5°  | 685.4  | 662.6  | 618.9  | 598.1  | 592.4  |
| 60°    | 617.0  | 598.1  | 558.2  | 539.2  | 533.5  |
| 62.5°  | 554.4  | 535.4  | 495.5  | 474.6  | 472.7  |
| 65°    | 484.1  | 467.0  | 432.9  | 417.7  | 415.8  |
| 67.5°  | 423.4  | 404.4  | 375.9  | 360.7  | 360.7  |
| 70°    | 358.8  | 341.7  | 315.2  | 305.7  | 305.7  |
| 72.5°  | 294.3  | 282.9  | 260.1  | 250.6  | 252.5  |
| 75°    | 235.4  | 224.0  | 205.0  | 197.5  | 199.4  |
| 77.5°  | 180.4  | 167.1  | 155.7  | 150.0  | 151.9  |
| 80°    | 127.2  | 117.7  | 108.2  | 106.3  | 108.2  |
| 82.5°  | 75.9   | 70.2   | 68.3   | 68.3   | 68.3   |
| 85°    | 32.3   | 32.3   | 34.2   | 34.2   | 32.3   |
| 87.5°  | 13.3   | 11.4   | 11.4   | 13.3   | 13.3   |
| 90°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 92.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 95°    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 97.5°  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 100°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 102.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 105°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 107.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 110°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

TEST NUMBER: P572150

CATALOG NUMBER: 24ID-40-L830-DBR

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 115°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 117.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 120°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 122.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 125°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 127.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 130°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 132.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 135°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 137.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 140°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 142.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 145°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 147.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 150°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 152.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 155°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 157.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 160°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 162.5° | 1.9 | 0.0   | 1.9 | 1.9   | 1.9 |
| 165°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 167.5° | 0.0 | 0.0   | 0.0 | 1.9   | 0.0 |
| 170°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 172.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 175°   | 0.0 | 0.0   | 0.0 | 0.0   | 1.9 |
| 177.5° | 0.0 | 0.0   | 1.9 | 1.9   | 1.9 |
| 180°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |

TEST NUMBER: P572150

CATALOG NUMBER: 24ID-40-L830-DBR

**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 | 14.12            | 15.72 | 14.48 | 16.04 | 16.35 | 13.35          | 14.95 | 13.72 | 15.27 | 15.58 |
|                 | 3H   | 15.74            | 17.19 | 16.12 | 17.51 | 17.88 | 14.91          | 16.35 | 15.28 | 16.68 | 17.04 |
|                 | 4H   | 16.30            | 17.65 | 16.69 | 18.00 | 18.38 | 15.43          | 16.78 | 15.83 | 17.13 | 17.51 |
|                 | 6H   | 16.65            | 17.90 | 17.06 | 18.27 | 18.66 | 15.76          | 17.01 | 16.17 | 17.38 | 17.77 |
|                 | 8H   | 16.73            | 17.92 | 17.15 | 18.31 | 18.71 | 15.84          | 17.04 | 16.26 | 17.43 | 17.83 |
|                 | 12H  | 16.75            | 17.90 | 17.18 | 18.28 | 18.71 | 15.87          | 17.02 | 16.30 | 17.40 | 17.83 |
| 4H              | 2H   | 14.58            | 15.94 | 14.98 | 16.29 | 16.66 | 13.96          | 15.32 | 14.36 | 15.67 | 16.04 |
|                 | 3H   | 16.42            | 17.55 | 16.83 | 17.95 | 18.35 | 15.71          | 16.84 | 16.12 | 17.24 | 17.64 |
|                 | 4H   | 17.08            | 18.10 | 17.52 | 18.52 | 18.96 | 16.33          | 17.35 | 16.76 | 17.77 | 18.20 |
|                 | 6H   | 17.54            | 18.43 | 18.00 | 18.87 | 19.33 | 16.76          | 17.65 | 17.21 | 18.09 | 18.55 |
|                 | 8H   | 17.65            | 18.48 | 18.11 | 18.92 | 19.39 | 16.87          | 17.70 | 17.33 | 18.14 | 18.61 |
|                 | 12H  | 17.69            | 18.44 | 18.17 | 18.91 | 19.38 | 16.92          | 17.67 | 17.40 | 18.15 | 18.62 |
| 8H              | 4H   | 17.27            | 18.10 | 17.73 | 18.55 | 19.01 | 16.59          | 17.42 | 17.05 | 17.86 | 18.33 |
|                 | 6H   | 17.81            | 18.49 | 18.30 | 18.98 | 19.46 | 17.10          | 17.79 | 17.59 | 18.28 | 18.75 |
|                 | 8H   | 17.95            | 18.57 | 18.46 | 19.08 | 19.56 | 17.25          | 17.87 | 17.77 | 18.38 | 18.87 |
|                 | 12H  | 18.03            | 18.57 | 18.54 | 19.06 | 19.63 | 17.35          | 17.89 | 17.86 | 18.38 | 18.95 |
| 12H             | 4H   | 17.28            | 18.02 | 17.76 | 18.50 | 18.97 | 16.61          | 17.35 | 17.09 | 17.83 | 18.30 |
|                 | 6H   | 17.82            | 18.43 | 18.33 | 18.94 | 19.43 | 17.13          | 17.74 | 17.64 | 18.25 | 18.74 |
|                 | 8H   | 18.00            | 18.55 | 18.51 | 19.04 | 19.60 | 17.32          | 17.87 | 17.83 | 18.36 | 18.92 |

END OF REPORT