



## **NFPA 285 TEST REPORT**

**Report No.:** H1152.01-121-24

**Test Date:** June 1, 2017

### **Rendered to:**

**ARCONIC ARCHITECTURAL PRODUCTS**  
Eastman, Georgia

**WALL SYSTEM:** Exterior Non-loadbearing Wall Assembly

**COMBUSTIBLE COMPONENTS:** 6 mm Reynobond® ACM with FR core Panel System attached to Technoform Hybrid Thermal Spacers with 4 in. thick Rmax® TSX-8500 Insulation and Grace Perm-A-Barrier® Vapor Permeable Air Barrier

### **This report contains in its entirety:**

|                        |          |
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| <b>Cover Page:</b>     | 1 page   |
| <b>Report Body:</b>    | 10 pages |
| <b>Graphical Data:</b> | 7 pages  |
| <b>Numerical Data:</b> | 21 pages |
| <b>Photographs:</b>    | 8 pages  |
| <b>Drawings:</b>       | 10 pages |

**1.0 Report Issued To:** Arconic Architectural Products  
50 Industrial Blvd.  
Eastman, Georgia 31023

**2.0 Test Laboratory:** Architectural Testing, Inc., an Intertek company (“Intertek-ATI”)  
130 Derry Court  
York, Pennsylvania 17406-8405  
717-764-7700

**3.0 Introduction:**

[Section 1.3.1, NFPA 285] The NFPA 285 test apparatus is used to evaluate the fire propagation characteristics of exterior non-load-bearing wall assemblies and panels used as components of curtain wall assemblies that are constructed using combustible materials or that incorporate combustible components within the wall assemblies as specified in the following:

- A. The ability of the wall assembly to resist flame propagation over the exterior face of the wall assembly.
- B. The ability of the wall assembly to resist vertical flame propagation within the combustible core or within other combustible components from one story to the next.
- C. The ability of the wall assembly to resist vertical flame propagation over the interior surface of the wall assembly from one story to the next.
- D. The ability of the wall assembly to resist lateral flame propagation from the compartment of fire origin to adjacent compartments or spaces.

**4.0 Project Summary:**

**4.1 Wall System:** Exterior Non-loadbearing Wall Assembly

**4.2 Combustible Components:** 6 mm Reynobond® ACM RB240FR with FR core 8. Rout and Return Rainscreen Panel System attached to Technoform Hybrid Thermal Spacers with 4 in. thick Rmax® TSX-8500 Insulation and Grace Perm-A-Barrier® Vapor Permeable Air Barrier

**4.3 Compliance Statement:** Results obtained are tested values and were secured by using the designated test method(s). The specimen(s) were tested and evaluated against the requirements of the standard. A summary of the results is listed in the Test Results section and the complete graphical test data is included in Appendix A of this report.

**4.4 Test Date:** 06/01/2017

**4.5 Test Location:** Intertek-ATI test facility in York, Pennsylvania.

**4.6 Test Sample Source:** The components of the test specimen were provided by the client except for the core wall components that were selected by the client were then assembled by Intertek-ATI personnel.

#### 4.0 Project Summary: (Continued)

**4.7 Test Method(s), Practices and/or Classifications:** NFPA 285 - *Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components, 2015*

#### 4.8 List of Official Observers:

| <u>Name</u>    | <u>Company</u>                 |
|----------------|--------------------------------|
| Thomas Rogers  | Arconic Architectural Products |
| William Green  | Technoform NA, Inc.            |
| Tim Feltman    | Intertek-ATI                   |
| Scott Gingrich | Intertek-ATI                   |
| Mark Dluzeski  | Intertek-ATI                   |

**5.0 Calibration Information:** The apparatus is considered to be under calibrated conditions when the time average temperatures and the time average heat flux readings obtained for a calibration wall match the requirements of Table 8.1.6 of NFPA 285. Calibration was performed on February 15, 2017. Table 1 shows the average burner flow and heat flux. Table 2 shows the time average temperatures obtained during the calibration test. The values are within the allowable ranges as specified in Table 8.1.6 ( $\pm 10\%$ ).

**Table 1** Average Burner Output Information

| Time Interval (min) | Room Burner (SCFM) | Window Burner (SCFM) | 2 FT Flux (W/cm <sup>2</sup> ) | 3 FT Flux (W/cm <sup>2</sup> ) | 4 FT Flux (W/cm <sup>2</sup> ) |
|---------------------|--------------------|----------------------|--------------------------------|--------------------------------|--------------------------------|
| 0:00-5:00           | 35.4               | 0.0                  | 1.1                            | 0.9                            | 0.8                            |
| 5:00-10:00          | 35.5               | 4.0                  | 2.0                            | 1.8                            | 1.7                            |
| 10:00-15:00         | 43.8               | 5.6                  | 2.7                            | 2.6                            | 2.3                            |
| 15:00-20:00         | 43.6               | 8.0                  | 2.9                            | 2.8                            | 2.8                            |
| 20:00-25:00         | 43.6               | 11.0                 | 3.1                            | 3.0                            | 2.8                            |
| 25:00-30:00         | 47.3               | 15.6                 | 3.6                            | 3.5                            | 3.5                            |

## 5.0 Calibration Information: (Continued)

**Table 2** Average Time Temperature Values for Calibration

| Time (min)  | Location       |                |          |          |          |          |          |          |
|-------------|----------------|----------------|----------|----------|----------|----------|----------|----------|
|             | Burn Room (°F) | Int. Wall (°F) | 1FT (°F) | 2FT (°F) | 3FT (°F) | 4FT (°F) | 5FT (°F) | 6FT (°F) |
| 0:00-5:00   | 1100           | 1033           | 633      | 756      | 679      | 610      | 560      | 484      |
| 5:00-10:00  | 1301           | 1260           | 829      | 1002     | 972      | 933      | 877      | 780      |
| 10:00-15:00 | 1466           | 1431           | 981      | 1129     | 1130     | 1070     | 1008     | 905      |
| 15:00-20:00 | 1512           | 1485           | 1009     | 1169     | 1181     | 1145     | 1107     | 1012     |
| 20:00-25:00 | 1536           | 1511           | 1043     | 1178     | 1202     | 1202     | 1162     | 1071     |
| 25:00-30:00 | 1605           | 1578           | 1090     | 1252     | 1302     | 1305     | 1236     | 1152     |

## 6.0 Test Specimen Description:

### Interior Cladding:

The interior surface of the wall was clad with National Gypsum Gold Bond® Fire Shield® 5/8 in. thick Type X gypsum board meeting ASTM C1396 and fastened to the core wall with #6 x 1-1/4 in. long flat head self-drilling screws with a nominal spacing of 8 inches on the perimeter and 12 inches in the field. Drywall orientation on the burn floor consisted of four pieces of Type X gypsum fastened to the core wall, parallel with the studs. Drywall orientation on the second floor consisted of vertically oriented sheets with the long dimension running parallel with the studs. Drywall orientation for the gaps above the top support angle and below the bottom support angle consisted of drywall that was oriented with the long dimension running perpendicular with the steel studs. All joints were taped with USG Sheetrock paper joint tape, and spackled with USG Sheetrock Joint Compound.

### Core Wall:

The core wall was 17 feet 6 inches tall and 13 feet 4 inches in width. The wall framing consisted of 6 inches deep, 18 gauge galvanized steel studs and galvanized steel track spaced 16 inches on center. The studs were connected to the track with #6 x 1/2 inch long self-drilling screws. Horizontal 16 gauge x 1-1/2 inches wide CRC galvanized steel bracing was fit into the knockouts of the studs and fastened to the studs every 4 feet above the window opening using ClarkDietrich FastBridge™ FB43 clips. The clips were attached to the studs with two #6 x 1/2 inch long button head self-drilling screws. Johns Manville MinWool® Safing pieces with a nominal density of 4.0 lbs./cu. ft. were installed per the manufacturer's installation instructions to fit into each stud cavity placed at the floor line. The safing length dimensions were no less than the apparatus floor slab thickness measuring 8 inches. On completion of the test assembly the perimeter of the assembly was covered with 0.019 inch thick aluminum trim coil.

## 6.0 Test Specimen Description: (Continued)

### Window Opening:

A 78 inch wide x 30 inch tall window opening was constructed with 18 gauge galvanized steel track centered on the vertical centerline of the wall assembly. The finished sill of the opening was 30 inches above the first story floor line. The steel track sections were mechanically fastened with #6 x 1/2 inch long self-drilling pan head fasteners at each corner. Upon completion of the exterior cladding, the window was flashed with 0.080 inch thick aluminum flashing.

### Exterior Sheathing:

1/2 inch thick USG Securock® Brand Glass-Mat sheathing panels meeting ASTM C1177 were placed horizontally across the exterior surface of the assembly. Sheathing vertical joints were offset 16 inches at each row. The gypsum board was fastened to the framing members with #6 x 1-1/4 inch bugle head fasteners spaced every 8 inches along the perimeter and every 12 inches in the field.

### Air/Water Barrier:

Upon completion of the installation of the exterior sheathing, Grace Perm-A-Barrier® Primer Plus was applied horizontally over the full exterior surface of the assembly in accordance with the manufacturer's recommended application rate of 450-500 square feet per gallon. Once applied, Grace Perm-A-Barrier® VPS was applied vertically over the full exterior surface of the assembly. The overlap of the horizontal rows was 2 inches. Excess material within the window opening was cut and adhered to the window opening framing with the excess then trimmed off.

### Exterior Insulation:

Upon completion of the Grace Perm-A-Barrier 4 in. thick Rmax® TSX-8500 insulation with dimensions of 48 inches wide x 96 inches long was placed over the full exterior surface of the assembly. The insulation boards were placed vertically on the core wall with the longest dimension running parallel with the steel studs. The insulation was retained against the wall using 5 inches long Firestone W56RAC4237 5 inches long heavy duty fasteners with 3 in. diameter firestone insulation washers nominally every 4 feet on each vertical framing member. The insulation joints were then covered with Nashua® 324A aluminum foil tape.

## 6.0 Test Specimen Description: (Continued)

### Exterior Cladding:

After the installation of the insulation, 3-3/4 inch thick Technoform TE Hybrid Thermal Spacers were attached to each vertical framing member with two 1/4-20 x 4 inch long hex washer head (HWH) #4 point Elco Dril-Flex® structural self-drilling fasteners per thermal spacer at pre-determined locations (reference drawings in Appendix D). 0.110 inch thick 6063-T6 x 4 inches long aluminum extrusions were placed over the thermal spacers before fastening. The previously installed insulation was cut way to allow the installation of the extrusions. The thermal spacers were spaced vertically at predetermined locations with regard to the exterior panel installation (reference drawings in Appendix D). Once the thermal spacers and insulation were installed, 6 mm thick Reynobond® ACM panels RB240FR with FR core 8 were then installed over the full exterior surface. The panel installation began with a continuous aluminum extrusion located at the assembly sill. The starter extrusion was fastened to the each of the Technoform Hybrid Thermal Spacers at the sill with #12-14 x 1-1/2 inch long Dril-Flex® structural self-drilling fasteners every 16 inches. The 6mm Reynobond® ACM with FR core panels were installed, using two 4 inches wide extruded aluminum H-clips. The first row of panels were placed on the aluminum extrusion and were attached to the Technoform Hybrid Thermal Spacers using two #12-14 x 1-1/2 inch long HWH #3 point ELCO Dril-Flex® Structural self-drilling fasteners through the H-clips. The 6 mm thick Reynobond® ACM RB160FR with FR Core splines were placed in the vertical and horizontal panel joints. The panel installation continued by placing the next row panels into the H-clips on the panel row below. The panel system utilized a nominal 1/2 inch reveal at the panel joints. The first panel row above the window opening header was placed on a starter extrusion and fastened to the Technoform Hybrid Thermal Spacer clips at the window opening header. Panel installation continued vertically to the assembly header/parapet. Vertical joint locations were located on the assembly centerline and at the vertical planes of the window opening jambs. Horizontal panel joints were located 36 inches, 72 inches, and 108 inches above the window opening header.

## 7.0 Instrumentation and Test Procedure:

**7.1 Instrumentation:** The wall assembly was instrumented with thermocouples in accordance with Figure 6.1 of the NFPA 285 test method. Thermocouples in the burn room were 18-gauge Type “K” TCs and 20-gauge Type “K” TCs were used on exterior façade and stud cavity air space. The window burner was positioned in the center of the opening and 3 in. from the exterior face of the wall assembly. The position of the window burner was determined by calibration of the ISMA on February 15, 2017.

**7.2 Test Procedure:** Testing was performed on June 01, 2017, in accordance with the NFPA 285 test method. Ambient conditions were 76°F and 37% relative humidity. An anemometer was used to verify airflow across test assembly was less than 4 ft./s as specified in the test method. Video recording, digital photographs, visual observations, and data collection were performed prior, during, and after testing was completed. Temperature data was recorded every 15 seconds.

## 8.0 Test Results:

The test was started at 04:05 PM with the burners on for 30 minutes. The burners were turned off and the specimen was allowed to burn for an additional 10 minutes after the test. All observations are recorded in the following table.

**Table 3** Test Observations

| <b>Time<br/>(min:sec)</b> | <b>Observations</b>   |
|---------------------------|---|
| 00:00                     | Ignition of the room burner.                                  |
| 01:35                     | Ignition of the interior first story gypsum board.            |
| 02:00                     | Paint on the panels above the window opening chars and burns. |
| 05:00                     | Ignition of the window burner.                                |
| 06:08                     | Panels above window header begins to swell.                   |
| 12:00                     | Panel paint at the 4 foot horizontal line begins to char.     |
| 16:00                     | Window header fallout.  |
| 17:00                     | Window header ignition.                                       |
| 17:22                     | Core falls from panel above the window opening.               |
| 20:00                     | Panel opens above the window header.                          |
| 22:00                     | Surface burning up to 2 feet above the window opening header. |
| 23:26                     | Surface burning up to 3 feet above the window opening header. |
| 24:56                     | Panel above the window header outer skin melts.               |
| 25:46                     | Surface burning up to 4 feet above the window opening header. |
| 30:00                     | The burners were extinguished.                                |
| 40:00                     | Test observations stopped.                                    |

## 8.0 Test Results: (Continued)

**Table 4** Test Requirements

| Test Requirements  | Test Observations  | Pass/Fail   |
|--|--|-------------|
| Flames did not reach 10 ft. above the window opening header.                   | Flames did not reach 10 ft. above the window opening header.                   | <b>PASS</b> |
| Flames did not reach a lateral distance of 5 ft. from the vertical centerline. | Flames did not reach a lateral distance of 5 ft. from the vertical centerline. | <b>PASS</b> |
| Flames did not propagate beyond the limits of the first story test room.       | Flames did not propagate beyond the limits of the first story test room.       | <b>PASS</b> |
| No visible flaming in the second story test room                               | No visible flaming in the second story test room.                              | <b>PASS</b> |
| TC's 11 and 14-17 (1000°F limit)   | TC's 11, and 14-17 did not exceed their 1000°F test limit.                     | <b>PASS</b> |
| TC's 18-19, 28, and 31-40 (1000°F limit)                                       | TC's 18-19, 28, and 31-40 did not exceed the 1000°F limit                      | <b>PASS</b> |
| TC's 55-67 (750°F above ambient)   | TC's 55-67 did not exceed 750°F above their ambient temperatures.              | <b>PASS</b> |
| TC's 49-54 (500°F above ambient)   | TC's 49-54 did not exceed 500°F above their ambient temperatures.              | <b>PASS</b> |



## 8.0 Test Results: (Continued)

### Description of Extent of Damage:

#### Interior Cladding:

The interior gypsum was still intact after the separation of the assembly from the test fixture. However, the area of the first floor (Fire Room) was heavily fatigued and showed significant flame damage.

#### Exterior Sheathing:

The exterior sheathing of the assembly showed minimal damage from the flame exposure. Damage was localized to the flame plume area above the window opening header.

#### Exterior Insulation:

Upon investigation after the test, visible discoloration of the exterior insulation was evident up to the third row of exterior cladding panels. The discoloration did not extend laterally beyond the vertical planes of the window opening jambs.

#### Exterior Cladding:

The first panel row above the window opening header were consumed through both aluminum facings and their cores (only the two panels in the flame plume). The second and third panel row above the window opening header showed charring to the panel exterior. The panel row at the header/parapet only exhibited surface burning up to 3 feet above the window opening header.

**The assembly tested and described in this report met the Conditions of Acceptance of NFPA 285.**

Intertek-ATI will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Intertek-ATI for the entire test record retention period.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For INTERTEK-ATI:

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Scott Gingrich  
Technician Team Lead– Fire Testing

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Ethan Grove  
Program Manager – Fire Testing

SDG:ddr

Attachments (pages): This report is complete only when all attachments listed are included.

- Appendix-A: Graphical Data (7)
- Appendix-B: Numerical Data (21)
- Appendix-C: Photographs (8)
- Appendix-D: Drawings (10)

### Revision Log

| <u>Rev. #</u> | <u>Date</u> | <u>Page(s)</u> | <u>Revision(s)</u>    |
|---------------|-------------|----------------|-----------------------|
| 0             | 7/24/2018   | N/A            | Original Report Issue |

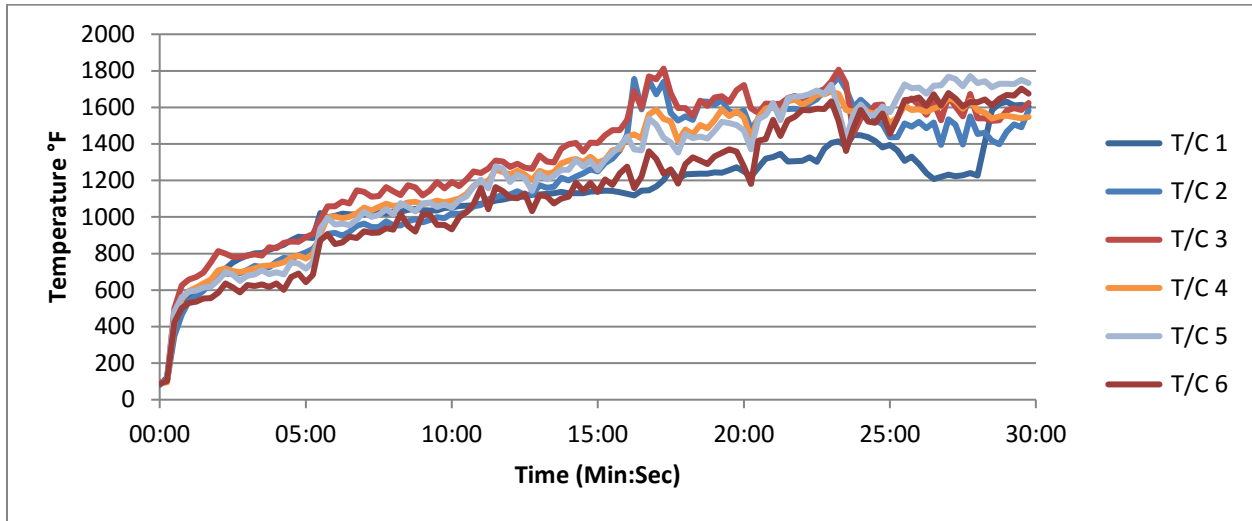
This report produced from controlled document template ATI 00587, revised 05/07/15.



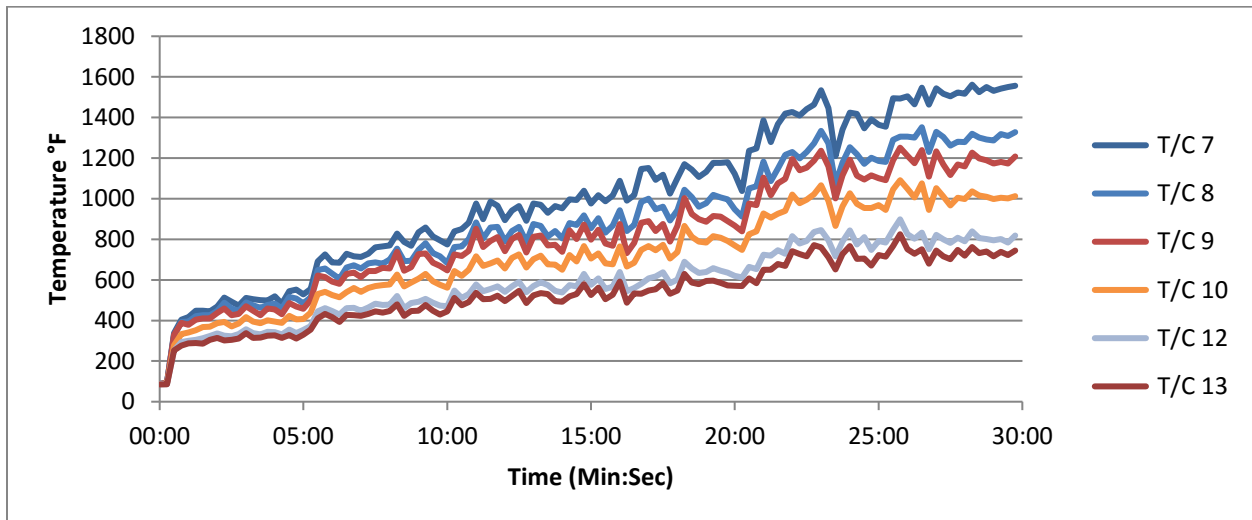
Test Report No.: H1152.01-121-24  
Report Date: 07/24/2017  
Test Record Retention End Date: 06/01/2021

## **Appendix A**

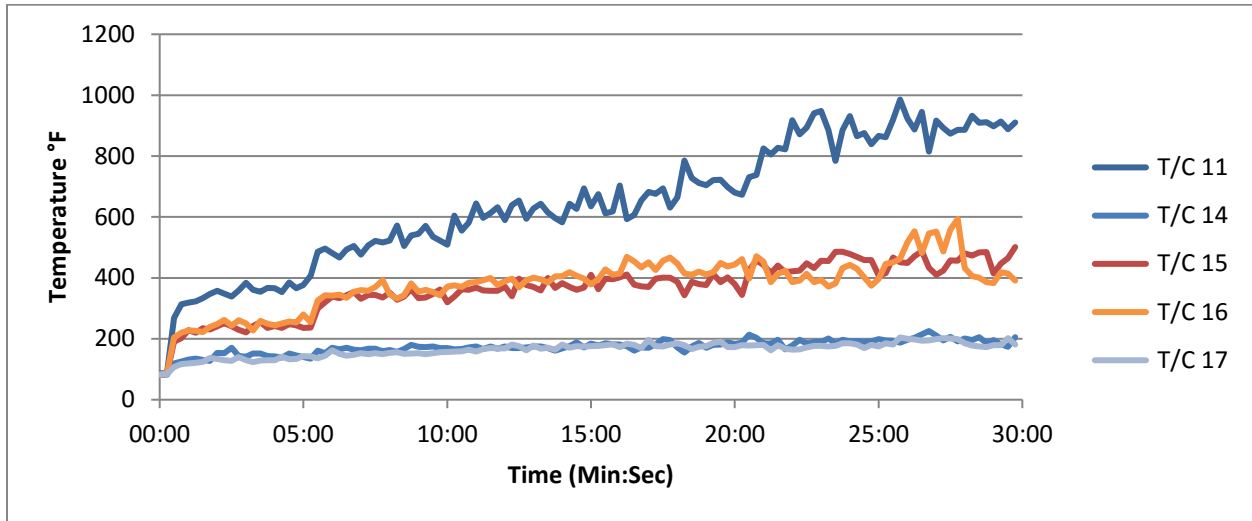
### **Graphs**



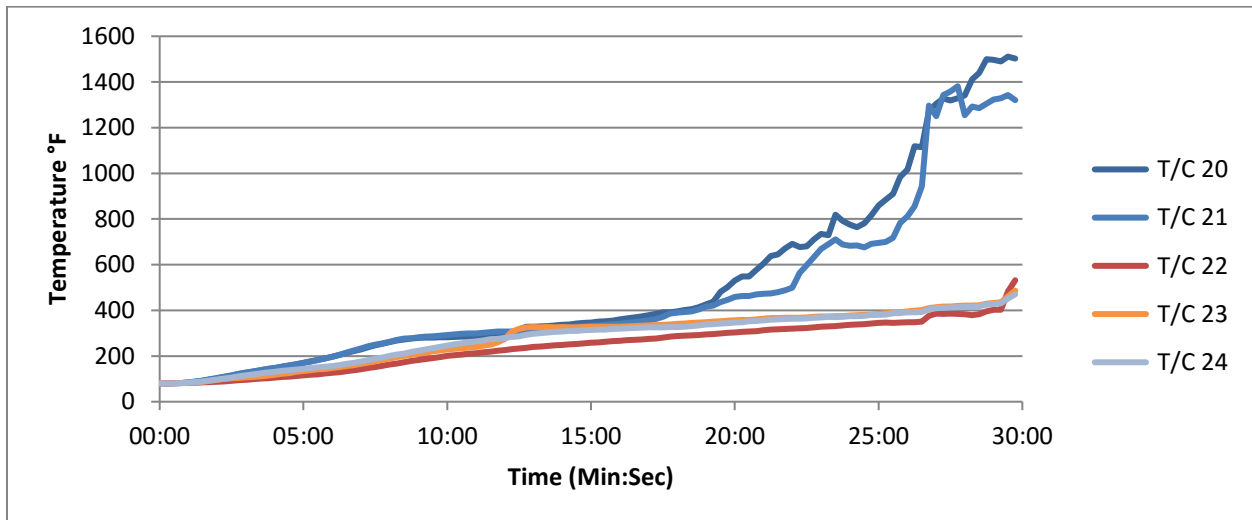
**Graph No. 1**  
**Assembly Centerline (Assembly Exterior)**



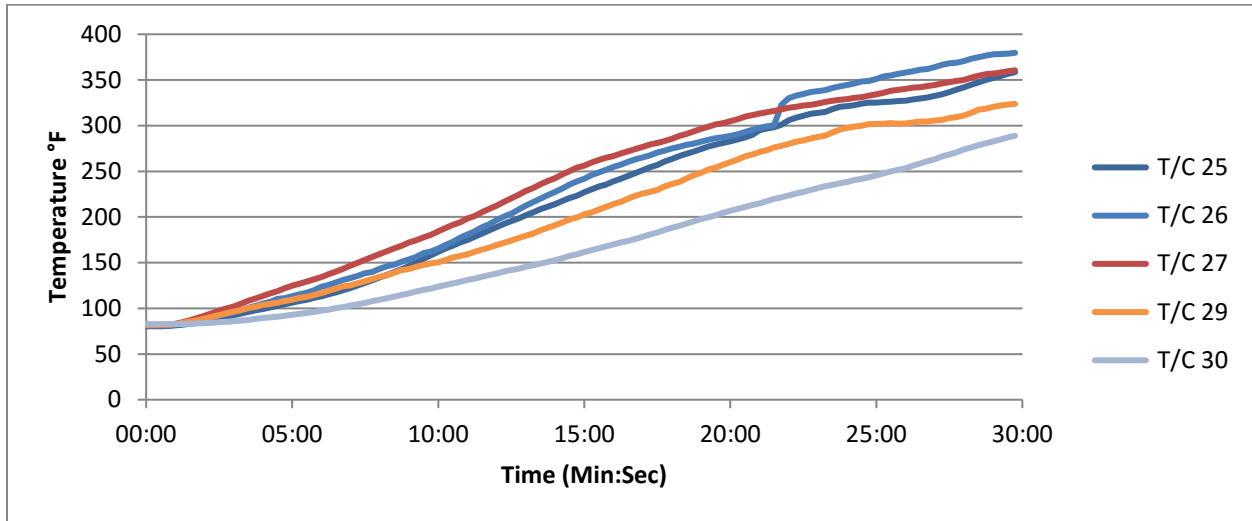
**Graph No. 2**  
**Assembly Centerline (Assembly Exterior)**



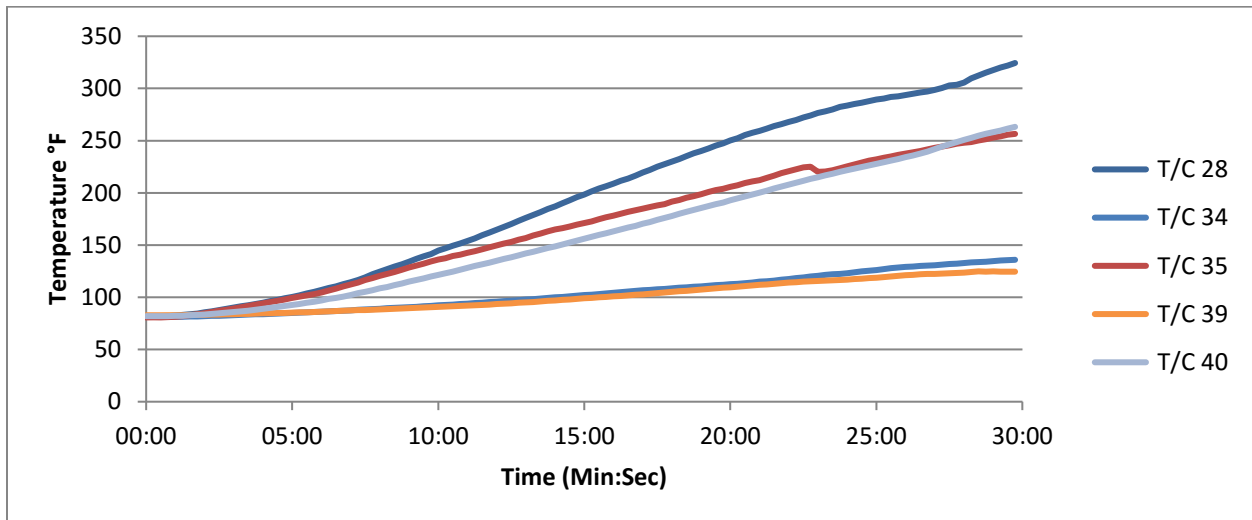
**Graph No. 3**  
**10 ft. above the Window Opening Header (Assembly Exterior)**



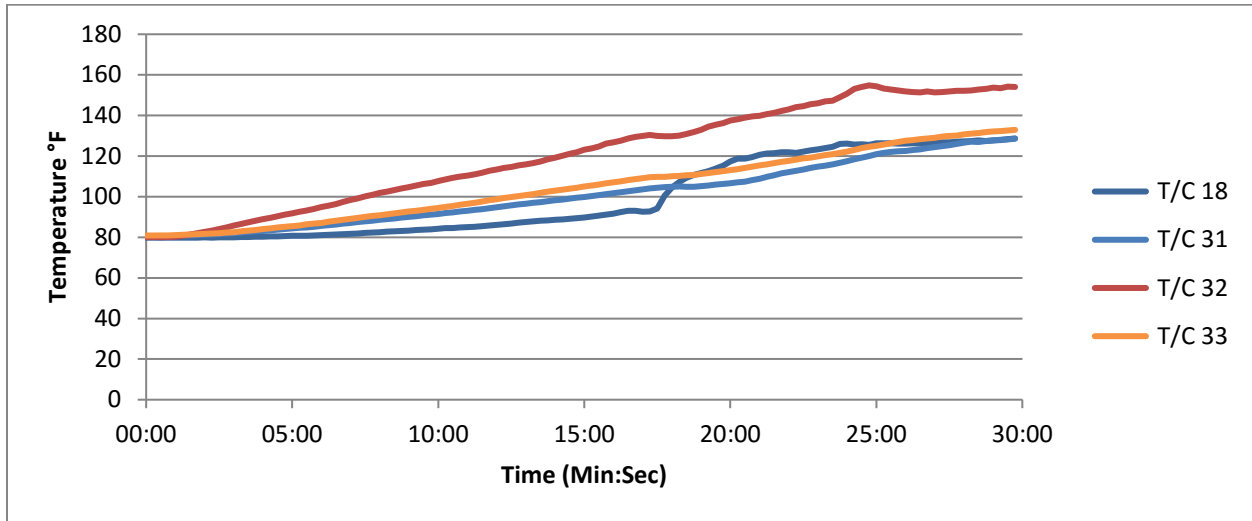
**Graph No. 4**  
**Assembly Centerline (Air Cavity Space)**



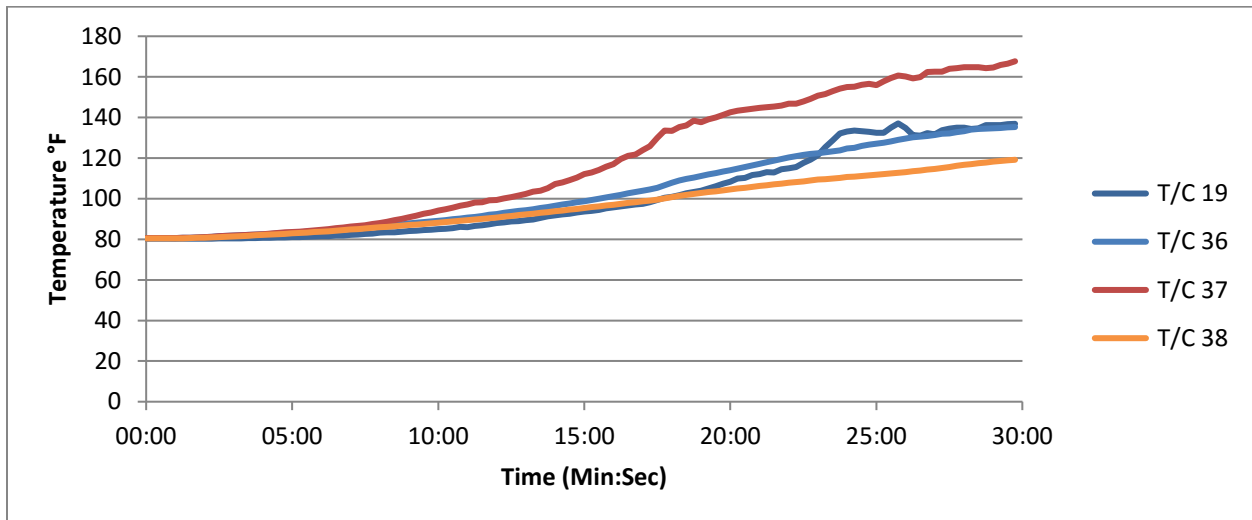
**Graph No. 5**  
**Assembly Centerline (Air Cavity Space)**



**Graph No. 6**  
**10 ft. above the Window Opening Header (Air Cavity Space)**

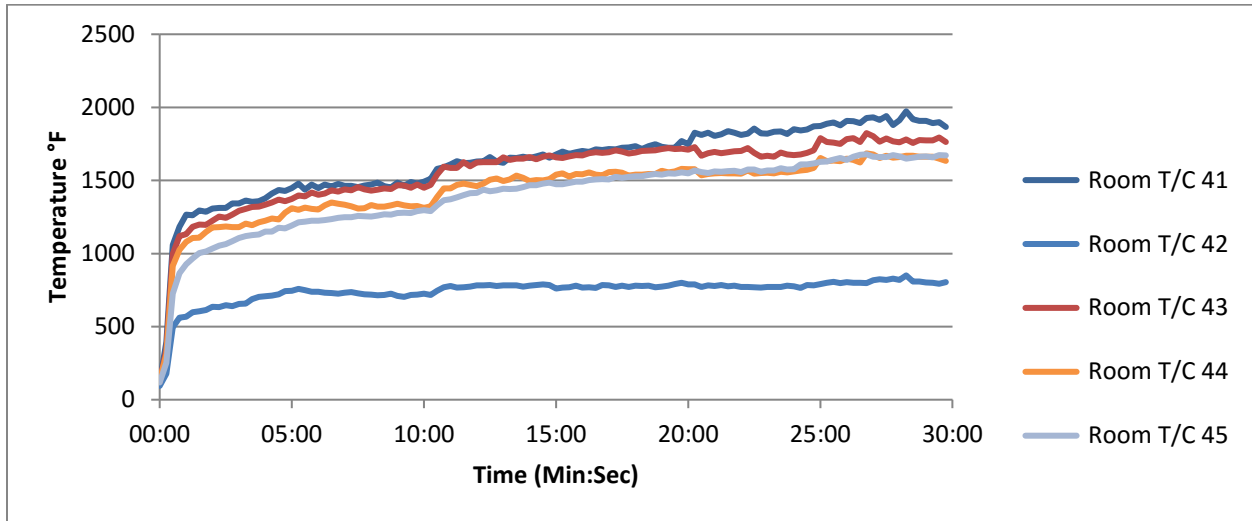


**Graph No. 7**  
**Left of Assembly Centerline (Air Cavity Space)**

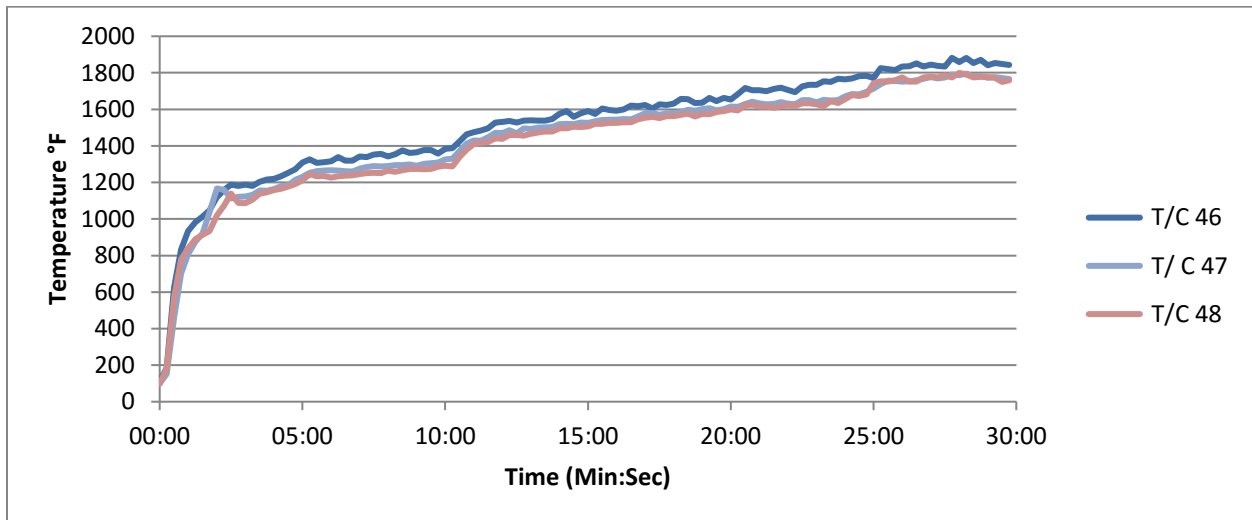


**Graph No. 8**  
**Right of Assembly Centerline (Air Cavity Space)**

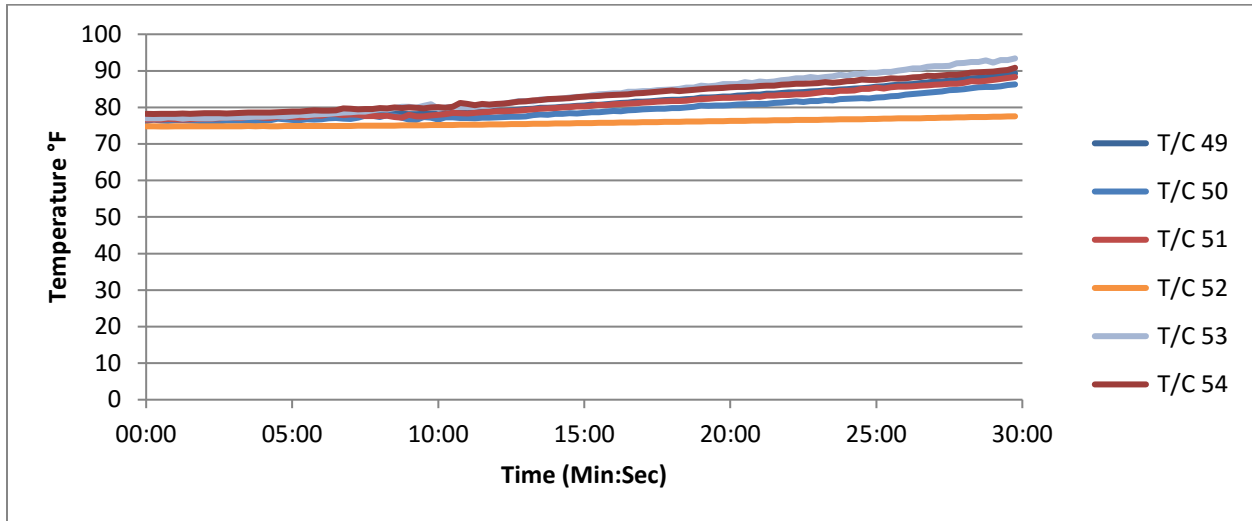




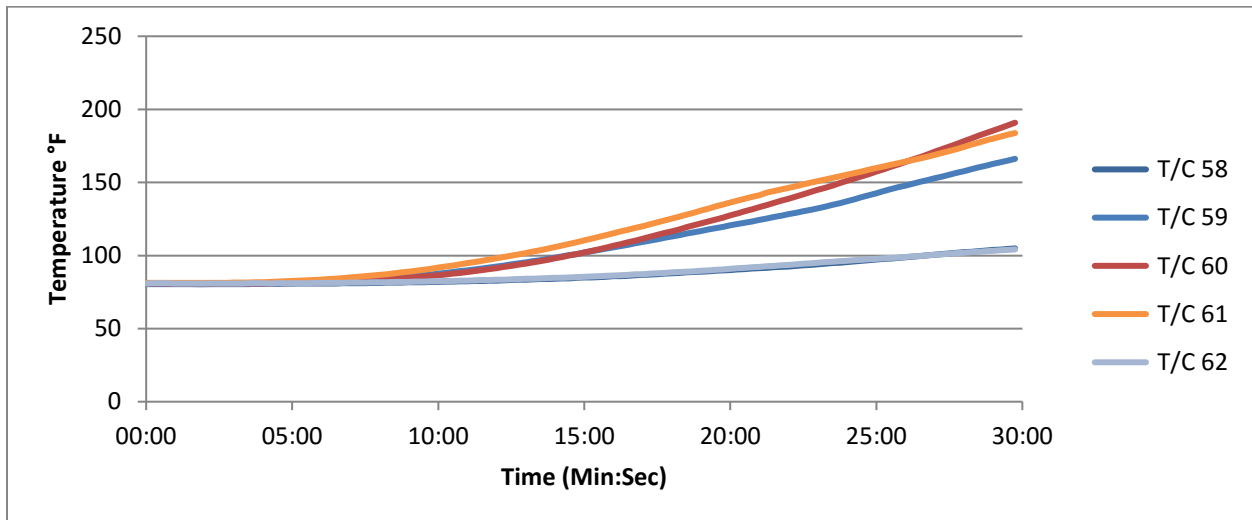
**Graph No. 12**  
**First-story Test Room Ceiling**



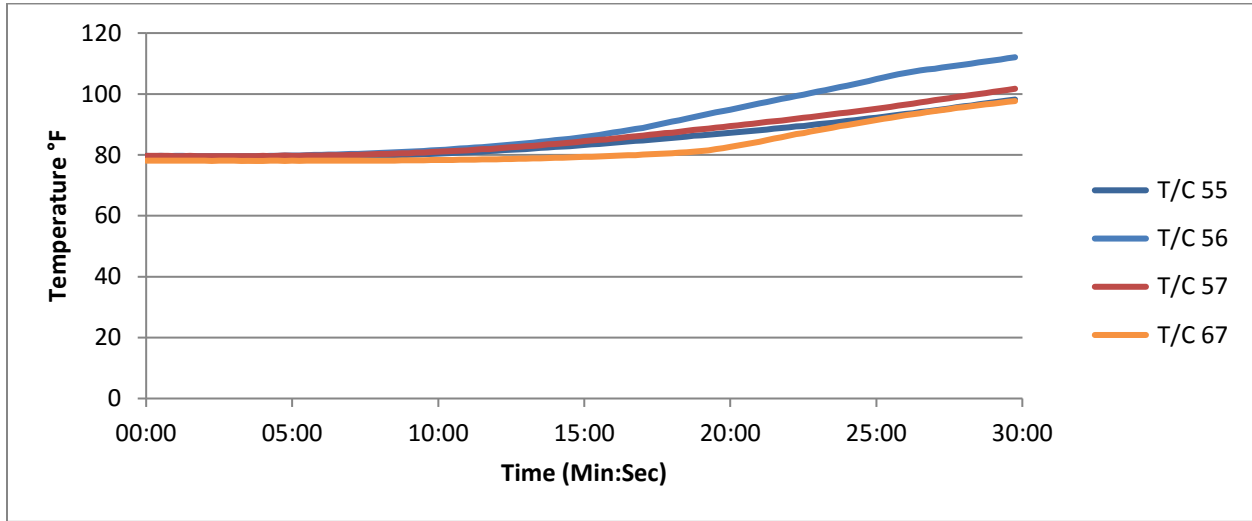
**Graph No. 13**  
**First-story Interior Wall Surface**



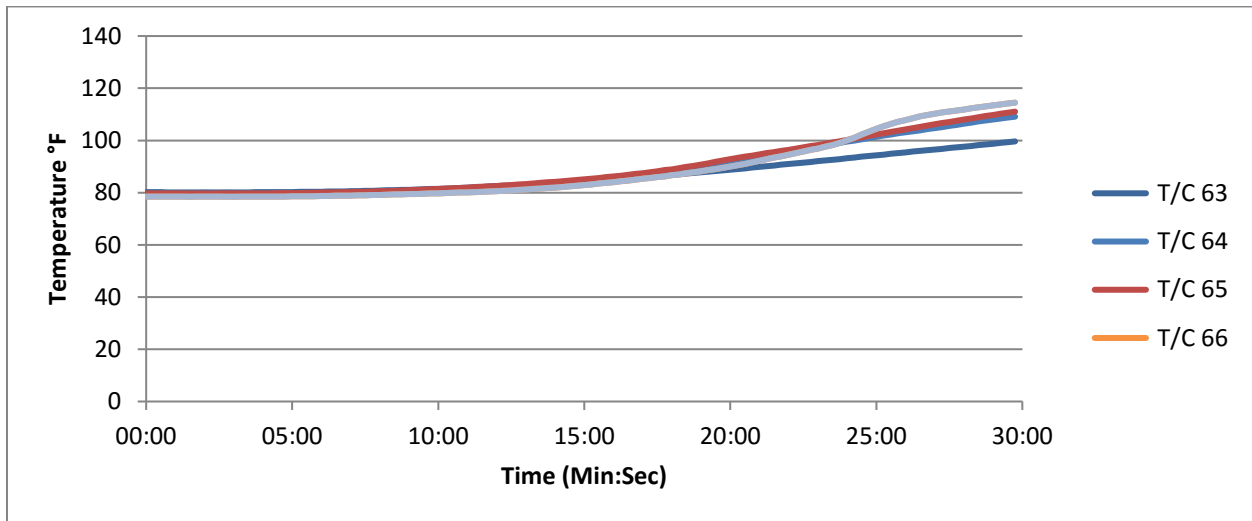
**Graph No. 14**  
**Second-story Interior Wall Surface**



**Graph No. 15**  
**10 ft. above the Window Opening Header (Combustible Insulation)**



**Graph No. 16**  
**Left of Assembly Centerline (Combustible Insulation)**



**Graph No. 17**  
**Right of Assembly Centerline (Combustible Insulation)**

**Appendix B**  
**Numerical Data**

| Time (Min:Sec) | Room Gas Flow | Window Gas Flow | T/C 1 | T/C 2 | T/C 3 | T/C 4 | T/C 5 | T/C 6 | T/C 7 | T/C 8 | T/C 9 |
|----------------|---------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 00:00          | 0.0           | 0.0             | 81    | 92    | 92    | 90    | 89    | 88    | 87    | 87    | 87    |
| 00:15          | 12.2          | 0.0             | 121   | 98    | 103   | 95    | 106   | 102   | 96    | 95    | 94    |
| 00:30          | 35.2          | 0.0             | 410   | 349   | 498   | 414   | 481   | 423   | 337   | 326   | 329   |
| 00:45          | 36.1          | 0.0             | 524   | 466   | 625   | 551   | 561   | 502   | 404   | 393   | 388   |
| 01:00          | 36.4          | 0.0             | 547   | 538   | 657   | 595   | 591   | 530   | 417   | 394   | 379   |
| 01:15          | 36.5          | 0.0             | 586   | 566   | 672   | 614   | 598   | 537   | 448   | 421   | 404   |
| 01:30          | 36.5          | 0.0             | 613   | 596   | 696   | 637   | 613   | 553   | 448   | 426   | 410   |
| 01:45          | 36.4          | 0.0             | 632   | 647   | 752   | 657   | 619   | 556   | 445   | 426   | 411   |
| 02:00          | 36.4          | 0.0             | 686   | 706   | 813   | 709   | 654   | 585   | 469   | 446   | 437   |
| 02:15          | 36.5          | 0.0             | 716   | 690   | 800   | 719   | 700   | 636   | 513   | 487   | 459   |
| 02:30          | 36.4          | 0.0             | 750   | 687   | 781   | 705   | 685   | 616   | 492   | 458   | 426   |
| 02:45          | 36.4          | 0.0             | 773   | 693   | 781   | 698   | 651   | 588   | 473   | 446   | 433   |
| 03:00          | 36.5          | 0.0             | 788   | 710   | 789   | 709   | 678   | 627   | 511   | 489   | 470   |
| 03:15          | 36.4          | 0.0             | 800   | 732   | 795   | 718   | 685   | 622   | 504   | 475   | 448   |
| 03:30          | 36.5          | 0.0             | 803   | 726   | 789   | 731   | 708   | 630   | 501   | 463   | 426   |
| 03:45          | 36.5          | 0.0             | 820   | 725   | 833   | 734   | 686   | 617   | 499   | 477   | 458   |
| 04:00          | 36.5          | 0.0             | 834   | 756   | 829   | 741   | 698   | 637   | 520   | 482   | 454   |
| 04:15          | 36.4          | 0.0             | 849   | 777   | 859   | 752   | 686   | 601   | 483   | 459   | 431   |
| 04:30          | 36.4          | 0.0             | 873   | 772   | 865   | 779   | 753   | 672   | 545   | 515   | 485   |
| 04:45          | 36.4          | 0.0             | 893   | 790   | 863   | 788   | 745   | 690   | 552   | 509   | 469   |
| 05:00          | 36.4          | 0.0             | 888   | 806   | 891   | 774   | 717   | 643   | 528   | 484   | 458   |
| 05:15          | 36.5          | 0.1             | 884   | 826   | 906   | 797   | 753   | 683   | 555   | 515   | 499   |
| 05:30          | 36.4          | 1.5             | 1021  | 876   | 986   | 907   | 936   | 874   | 691   | 649   | 622   |
| 05:45          | 36.5          | 4.6             | 1000  | 908   | 1058  | 999   | 993   | 904   | 725   | 656   | 614   |
| 06:00          | 36.5          | 4.1             | 1005  | 914   | 1059  | 1002  | 959   | 852   | 686   | 631   | 591   |
| 06:15          | 36.4          | 4.3             | 1019  | 897   | 1085  | 994   | 965   | 861   | 684   | 606   | 580   |
| 06:30          | 36.5          | 4.4             | 1014  | 919   | 1075  | 1001  | 955   | 892   | 729   | 661   | 629   |
| 06:45          | 36.5          | 4.4             | 1013  | 952   | 1146  | 1020  | 984   | 885   | 716   | 671   | 636   |
| 07:00          | 36.5          | 4.5             | 1016  | 964   | 1137  | 1052  | 1028  | 921   | 713   | 656   | 613   |
| 07:15          | 36.4          | 4.5             | 1019  | 945   | 1111  | 1035  | 1000  | 913   | 729   | 682   | 644   |
| 07:30          | 36.4          | 4.4             | 1025  | 945   | 1115  | 1054  | 1011  | 915   | 760   | 686   | 643   |
| 07:45          | 36.5          | 4.4             | 1021  | 975   | 1163  | 1073  | 1042  | 940   | 765   | 679   | 660   |
| 08:00          | 36.4          | 4.4             | 1028  | 955   | 1140  | 1060  | 1014  | 930   | 770   | 701   | 657   |
| 08:15          | 36.4          | 4.4             | 1028  | 953   | 1119  | 1065  | 1076  | 1016  | 828   | 754   | 738   |
| 08:30          | 36.5          | 4.4             | 1039  | 975   | 1175  | 1079  | 1054  | 952   | 788   | 692   | 645   |
| 08:45          | 36.4          | 4.4             | 1045  | 989   | 1162  | 1083  | 1030  | 921   | 768   | 694   | 663   |
| 09:00          | 36.4          | 4.4             | 1038  | 971   | 1118  | 1070  | 1075  | 1014  | 835   | 748   | 727   |
| 09:15          | 36.5          | 4.4             | 1036  | 983   | 1144  | 1075  | 1079  | 1013  | 857   | 780   | 731   |
| 09:30          | 36.4          | 4.4             | 1035  | 999   | 1192  | 1090  | 1055  | 957   | 813   | 732   | 684   |
| 09:45          | 36.5          | 4.4             | 1049  | 994   | 1157  | 1080  | 1069  | 957   | 795   | 717   | 669   |

| Time (Min:Sec) | Room Gas Flow | Window Gas Flow | T/C 1 | T/C 2 | T/C 3 | T/C 4 | T/C 5 | T/C 6 | T/C 7 | T/C 8 | T/C 9 |
|----------------|---------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 10:00          | 36.4          | 4.4             | 1051  | 1020  | 1191  | 1091  | 1051  | 933   | 774   | 684   | 647   |
| 10:15          | 36.8          | 4.5             | 1060  | 1017  | 1168  | 1101  | 1092  | 999   | 840   | 762   | 726   |
| 10:30          | 41.7          | 5.2             | 1062  | 1027  | 1205  | 1127  | 1113  | 1027  | 850   | 766   | 718   |
| 10:45          | 45.1          | 5.7             | 1064  | 1059  | 1250  | 1170  | 1167  | 1070  | 881   | 801   | 743   |
| 11:00          | 44.9          | 5.7             | 1072  | 1066  | 1241  | 1192  | 1204  | 1158  | 976   | 884   | 852   |
| 11:15          | 44.7          | 5.7             | 1077  | 1098  | 1265  | 1194  | 1156  | 1043  | 899   | 805   | 762   |
| 11:30          | 44.9          | 5.7             | 1090  | 1109  | 1309  | 1261  | 1277  | 1164  | 986   | 859   | 791   |
| 11:45          | 44.9          | 5.7             | 1096  | 1119  | 1304  | 1246  | 1264  | 1141  | 965   | 861   | 811   |
| 12:00          | 44.9          | 5.7             | 1105  | 1124  | 1273  | 1234  | 1192  | 1108  | 894   | 791   | 741   |
| 12:15          | 44.9          | 5.7             | 1111  | 1141  | 1291  | 1252  | 1232  | 1102  | 942   | 840   | 800   |
| 12:30          | 44.9          | 5.7             | 1112  | 1121  | 1270  | 1232  | 1213  | 1129  | 964   | 861   | 822   |
| 12:45          | 44.8          | 5.7             | 1121  | 1122  | 1263  | 1203  | 1143  | 1032  | 891   | 787   | 736   |
| 13:00          | 44.9          | 5.7             | 1124  | 1174  | 1337  | 1253  | 1240  | 1120  | 976   | 875   | 812   |
| 13:15          | 44.9          | 5.7             | 1126  | 1160  | 1304  | 1237  | 1206  | 1112  | 970   | 866   | 818   |
| 13:30          | 44.9          | 5.7             | 1131  | 1166  | 1299  | 1244  | 1225  | 1075  | 931   | 813   | 770   |
| 13:45          | 44.9          | 5.7             | 1137  | 1215  | 1373  | 1294  | 1258  | 1100  | 963   | 841   | 773   |
| 14:00          | 44.9          | 5.7             | 1130  | 1200  | 1399  | 1308  | 1258  | 1112  | 953   | 804   | 738   |
| 14:15          | 44.9          | 5.7             | 1130  | 1221  | 1405  | 1317  | 1313  | 1187  | 996   | 881   | 844   |
| 14:30          | 44.9          | 5.7             | 1130  | 1239  | 1358  | 1300  | 1275  | 1142  | 994   | 871   | 802   |
| 14:45          | 44.9          | 5.7             | 1139  | 1261  | 1406  | 1330  | 1307  | 1187  | 1038  | 918   | 873   |
| 15:00          | 44.9          | 5.7             | 1141  | 1250  | 1405  | 1297  | 1257  | 1138  | 977   | 854   | 798   |
| 15:15          | 44.9          | 5.9             | 1145  | 1294  | 1447  | 1314  | 1312  | 1205  | 1018  | 903   | 847   |
| 15:30          | 44.8          | 7.3             | 1143  | 1319  | 1474  | 1366  | 1350  | 1175  | 987   | 832   | 779   |
| 15:45          | 44.7          | 8.4             | 1135  | 1364  | 1475  | 1371  | 1388  | 1238  | 1016  | 867   | 768   |
| 16:00          | 44.6          | 8.5             | 1127  | 1451  | 1532  | 1438  | 1439  | 1276  | 1088  | 944   | 876   |
| 16:15          | 44.7          | 8.2             | 1118  | 1756  | 1689  | 1453  | 1370  | 1159  | 991   | 840   | 732   |
| 16:30          | 44.7          | 8.3             | 1144  | 1589  | 1598  | 1430  | 1366  | 1221  | 1017  | 871   | 782   |
| 16:45          | 44.7          | 8.3             | 1145  | 1748  | 1769  | 1561  | 1538  | 1360  | 1147  | 985   | 882   |
| 17:00          | 44.7          | 8.3             | 1167  | 1672  | 1754  | 1588  | 1506  | 1317  | 1151  | 999   | 889   |
| 17:15          | 44.7          | 8.1             | 1201  | 1740  | 1812  | 1536  | 1434  | 1236  | 1093  | 948   | 841   |
| 17:30          | 44.6          | 8.3             | 1260  | 1569  | 1678  | 1525  | 1408  | 1260  | 1118  | 961   | 876   |
| 17:45          | 44.8          | 8.4             | 1206  | 1527  | 1596  | 1416  | 1352  | 1183  | 1026  | 893   | 789   |
| 18:00          | 44.7          | 8.3             | 1233  | 1551  | 1596  | 1479  | 1454  | 1289  | 1101  | 942   | 866   |
| 18:15          | 44.8          | 8.3             | 1236  | 1531  | 1554  | 1452  | 1431  | 1327  | 1170  | 1045  | 1004  |
| 18:30          | 44.7          | 8.3             | 1238  | 1633  | 1636  | 1503  | 1440  | 1309  | 1143  | 1007  | 923   |
| 18:45          | 44.6          | 8.4             | 1236  | 1631  | 1608  | 1485  | 1430  | 1290  | 1106  | 961   | 898   |
| 19:00          | 44.7          | 8.3             | 1244  | 1613  | 1653  | 1529  | 1471  | 1332  | 1132  | 977   | 886   |
| 19:15          | 44.7          | 8.2             | 1243  | 1639  | 1661  | 1590  | 1520  | 1351  | 1176  | 1019  | 915   |
| 19:30          | 44.7          | 8.3             | 1257  | 1576  | 1630  | 1551  | 1514  | 1371  | 1176  | 1006  | 911   |
| 19:45          | 44.7          | 8.3             | 1272  | 1570  | 1694  | 1579  | 1504  | 1357  | 1179  | 997   | 890   |

| Time (Min:Sec) | Room Gas Flow | Window Gas Flow | T/C 1 | T/C 2 | T/C 3 | T/C 4 | T/C 5 | T/C 6 | T/C 7 | T/C 8 | T/C 9 |
|----------------|---------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20:00          | 44.7          | 8.2             | 1250  | 1583  | 1722  | 1546  | 1474  | 1275  | 1123  | 948   | 867   |
| 20:15          | 44.7          | 8.6             | 1222  | 1480  | 1594  | 1427  | 1369  | 1182  | 1037  | 911   | 838   |
| 20:30          | 44.8          | 10.4            | 1271  | 1537  | 1570  | 1546  | 1535  | 1417  | 1237  | 1050  | 977   |
| 20:45          | 44.8          | 11.2            | 1319  | 1588  | 1620  | 1594  | 1558  | 1426  | 1247  | 1062  | 969   |
| 21:00          | 44.7          | 11.2            | 1328  | 1599  | 1619  | 1601  | 1624  | 1531  | 1387  | 1183  | 1103  |
| 21:15          | 44.6          | 11.3            | 1345  | 1612  | 1619  | 1568  | 1530  | 1444  | 1279  | 1087  | 1017  |
| 21:30          | 44.7          | 11.3            | 1304  | 1591  | 1651  | 1633  | 1649  | 1529  | 1367  | 1148  | 1076  |
| 21:45          | 44.7          | 11.3            | 1305  | 1593  | 1662  | 1643  | 1659  | 1548  | 1418  | 1216  | 1098  |
| 22:00          | 44.7          | 11.2            | 1307  | 1583  | 1625  | 1615  | 1661  | 1586  | 1427  | 1229  | 1196  |
| 22:15          | 44.8          | 11.2            | 1327  | 1622  | 1653  | 1634  | 1673  | 1584  | 1410  | 1199  | 1141  |
| 22:30          | 44.6          | 11.2            | 1302  | 1646  | 1684  | 1670  | 1693  | 1593  | 1442  | 1230  | 1153  |
| 22:45          | 44.6          | 11.2            | 1373  | 1692  | 1699  | 1670  | 1673  | 1590  | 1464  | 1272  | 1187  |
| 23:00          | 44.7          | 11.2            | 1405  | 1720  | 1742  | 1687  | 1725  | 1633  | 1534  | 1334  | 1236  |
| 23:15          | 44.7          | 11.2            | 1414  | 1767  | 1806  | 1673  | 1581  | 1525  | 1447  | 1272  | 1159  |
| 23:30          | 44.7          | 11.2            | 1388  | 1699  | 1731  | 1586  | 1420  | 1362  | 1209  | 1073  | 1002  |
| 23:45          | 44.7          | 11.2            | 1448  | 1602  | 1456  | 1575  | 1562  | 1487  | 1341  | 1178  | 1114  |
| 24:00          | 44.7          | 11.2            | 1448  | 1642  | 1540  | 1611  | 1616  | 1585  | 1424  | 1253  | 1191  |
| 24:15          | 44.7          | 11.2            | 1437  | 1605  | 1566  | 1572  | 1558  | 1523  | 1418  | 1219  | 1114  |
| 24:30          | 44.7          | 11.2            | 1415  | 1529  | 1611  | 1566  | 1558  | 1516  | 1346  | 1172  | 1095  |
| 24:45          | 44.7          | 11.2            | 1381  | 1509  | 1615  | 1572  | 1605  | 1567  | 1390  | 1202  | 1116  |
| 25:00          | 44.7          | 11.2            | 1395  | 1437  | 1460  | 1510  | 1573  | 1455  | 1363  | 1186  | 1100  |
| 25:15          | 45.0          | 11.8            | 1365  | 1436  | 1542  | 1546  | 1653  | 1538  | 1354  | 1181  | 1092  |
| 25:30          | 47.4          | 14.8            | 1307  | 1512  | 1622  | 1608  | 1726  | 1639  | 1494  | 1290  | 1188  |
| 25:45          | 48.7          | 15.9            | 1330  | 1494  | 1649  | 1585  | 1704  | 1643  | 1493  | 1306  | 1251  |
| 26:00          | 48.5          | 16.0            | 1289  | 1522  | 1613  | 1589  | 1709  | 1653  | 1504  | 1306  | 1210  |
| 26:15          | 48.6          | 16.0            | 1241  | 1486  | 1560  | 1575  | 1675  | 1608  | 1464  | 1301  | 1174  |
| 26:30          | 48.5          | 16.0            | 1207  | 1517  | 1626  | 1594  | 1718  | 1671  | 1546  | 1352  | 1239  |
| 26:45          | 48.7          | 16.0            | 1220  | 1394  | 1530  | 1607  | 1720  | 1610  | 1463  | 1229  | 1108  |
| 27:00          | 48.6          | 16.0            | 1231  | 1535  | 1659  | 1652  | 1769  | 1678  | 1543  | 1329  | 1233  |
| 27:15          | 48.5          | 16.0            | 1223  | 1504  | 1606  | 1635  | 1756  | 1649  | 1517  | 1304  | 1168  |
| 27:30          | 48.5          | 16.0            | 1228  | 1396  | 1551  | 1593  | 1715  | 1605  | 1504  | 1262  | 1116  |
| 27:45          | 48.6          | 16.0            | 1241  | 1551  | 1673  | 1636  | 1771  | 1630  | 1523  | 1281  | 1169  |
| 28:00          | 48.6          | 16.0            | 1226  | 1454  | 1541  | 1584  | 1733  | 1628  | 1517  | 1278  | 1160  |
| 28:15          | 48.7          | 16.0            | 1410  | 1462  | 1539  | 1571  | 1744  | 1644  | 1562  | 1320  | 1227  |
| 28:30          | 48.6          | 16.0            | 1586  | 1417  | 1525  | 1539  | 1711  | 1610  | 1525  | 1301  | 1198  |
| 28:45          | 48.4          | 16.0            | 1619  | 1398  | 1529  | 1550  | 1728  | 1647  | 1550  | 1291  | 1188  |
| 29:00          | 48.6          | 16.0            | 1631  | 1467  | 1582  | 1554  | 1728  | 1667  | 1531  | 1287  | 1174  |
| 29:15          | 48.6          | 16.0            | 1610  | 1506  | 1596  | 1547  | 1727  | 1663  | 1541  | 1318  | 1181  |
| 29:30          | 48.6          | 15.9            | 1614  | 1490  | 1585  | 1541  | 1750  | 1703  | 1550  | 1309  | 1172  |
| 29:45          | 48.6          | 15.9            | 1604  | 1584  | 1624  | 1548  | 1733  | 1675  | 1556  | 1327  | 1208  |
| 30:00          | 48.6          | 16.0            | 1612  | 1513  | 1550  | 1524  | 1722  | 1678  | 1601  | 1387  | 1259  |

| Time (Min:Sec) | T/C 10 | T/C 11 | T/C 12 | T/C 13 | T/C 14 | T/C 15 | T/C 16 | T/C 17 | T/C 18 | T/C 19 | T/C 20 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 00:00          | 87     | 87     | 86     | 85     | 82     | 83     | 83     | 82     | 80     | 80     | 80     |
| 00:15          | 90     | 88     | 87     | 85     | 82     | 85     | 87     | 84     | 80     | 80     | 80     |
| 00:30          | 279    | 268    | 253    | 253    | 120    | 191    | 204    | 107    | 80     | 80     | 81     |
| 00:45          | 334    | 313    | 293    | 277    | 126    | 202    | 220    | 117    | 80     | 80     | 82     |
| 01:00          | 341    | 318    | 300    | 287    | 131    | 228    | 227    | 119    | 80     | 80     | 85     |
| 01:15          | 353    | 323    | 305    | 288    | 135    | 220    | 226    | 121    | 80     | 80     | 88     |
| 01:30          | 367    | 334    | 312    | 286    | 131    | 235    | 222    | 125    | 80     | 80     | 92     |
| 01:45          | 370    | 347    | 323    | 304    | 128    | 231    | 239    | 137    | 80     | 80     | 97     |
| 02:00          | 387    | 358    | 336    | 315    | 154    | 241    | 249    | 134    | 80     | 80     | 102    |
| 02:15          | 393    | 348    | 325    | 302    | 152    | 252    | 262    | 130    | 80     | 80     | 108    |
| 02:30          | 371    | 339    | 322    | 304    | 171    | 241    | 244    | 127    | 80     | 80     | 114    |
| 02:45          | 385    | 358    | 333    | 311    | 143    | 230    | 261    | 140    | 80     | 80     | 121    |
| 03:00          | 416    | 384    | 357    | 337    | 141    | 221    | 250    | 130    | 80     | 80     | 127    |
| 03:15          | 394    | 361    | 337    | 315    | 151    | 242    | 228    | 123    | 80     | 80     | 132    |
| 03:30          | 387    | 355    | 332    | 315    | 152    | 255    | 258    | 128    | 80     | 81     | 138    |
| 03:45          | 400    | 367    | 344    | 325    | 143    | 235    | 250    | 130    | 80     | 81     | 143    |
| 04:00          | 395    | 366    | 343    | 327    | 142    | 242    | 245    | 129    | 80     | 81     | 148    |
| 04:15          | 389    | 353    | 332    | 315    | 138    | 236    | 250    | 141    | 80     | 81     | 153    |
| 04:30          | 423    | 385    | 355    | 328    | 152    | 248    | 257    | 132    | 80     | 81     | 159    |
| 04:45          | 405    | 366    | 338    | 311    | 146    | 244    | 254    | 133    | 81     | 81     | 164    |
| 05:00          | 407    | 376    | 353    | 330    | 140    | 236    | 280    | 143    | 81     | 81     | 170    |
| 05:15          | 438    | 407    | 373    | 356    | 135    | 237    | 255    | 143    | 81     | 81     | 177    |
| 05:30          | 529    | 486    | 445    | 411    | 161    | 300    | 326    | 136    | 81     | 81     | 183    |
| 05:45          | 541    | 496    | 460    | 432    | 153    | 320    | 343    | 145    | 81     | 81     | 189    |
| 06:00          | 525    | 482    | 447    | 417    | 171    | 338    | 342    | 162    | 81     | 81     | 197    |
| 06:15          | 514    | 467    | 430    | 393    | 166    | 333    | 345    | 151    | 81     | 82     | 205    |
| 06:30          | 540    | 494    | 460    | 428    | 170    | 343    | 334    | 144    | 81     | 82     | 213    |
| 06:45          | 560    | 505    | 462    | 427    | 164    | 354    | 355    | 148    | 82     | 82     | 222    |
| 07:00          | 540    | 476    | 448    | 423    | 162    | 331    | 360    | 153    | 82     | 82     | 229    |
| 07:15          | 560    | 507    | 463    | 432    | 167    | 344    | 358    | 149    | 82     | 82     | 239    |
| 07:30          | 569    | 522    | 482    | 444    | 168    | 344    | 370    | 153    | 82     | 83     | 247    |
| 07:45          | 575    | 517    | 476    | 439    | 159    | 336    | 392    | 150    | 82     | 83     | 254    |
| 08:00          | 577    | 523    | 478    | 447    | 163    | 351    | 347    | 154    | 83     | 83     | 261    |
| 08:15          | 627    | 572    | 520    | 480    | 157    | 328    | 332    | 156    | 83     | 83     | 268    |
| 08:30          | 568    | 505    | 460    | 423    | 167    | 339    | 343    | 151    | 83     | 83     | 273    |
| 08:45          | 586    | 539    | 487    | 447    | 180    | 363    | 381    | 152    | 83     | 84     | 276    |
| 09:00          | 606    | 544    | 491    | 448    | 174    | 333    | 354    | 152    | 83     | 84     | 279    |
| 09:15          | 630    | 571    | 507    | 476    | 173    | 336    | 361    | 149    | 84     | 84     | 281    |
| 09:30          | 593    | 535    | 487    | 448    | 175    | 347    | 353    | 153    | 84     | 84     | 281    |
| 09:45          | 576    | 522    | 473    | 428    | 170    | 362    | 343    | 155    | 84     | 85     | 282    |



| Time (Min:Sec) | T/C 10 | T/C 11 | T/C 12 | T/C 13 | T/C 14 | T/C 15 | T/C 16 | T/C 17 | T/C 18 | T/C 19 | T/C 20 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10:00          | 561    | 509    | 470    | 445    | 170    | 320    | 371    | 157    | 84     | 85     | 282    |
| 10:15          | 644    | 604    | 548    | 512    | 166    | 339    | 376    | 158    | 84     | 85     | 283    |
| 10:30          | 619    | 555    | 511    | 475    | 167    | 363    | 370    | 159    | 85     | 86     | 284    |
| 10:45          | 649    | 581    | 529    | 491    | 171    | 360    | 384    | 164    | 85     | 86     | 285    |
| 11:00          | 715    | 645    | 577    | 536    | 175    | 368    | 386    | 158    | 85     | 86     | 284    |
| 11:15          | 668    | 597    | 544    | 504    | 167    | 359    | 392    | 166    | 85     | 87     | 283    |
| 11:30          | 681    | 613    | 555    | 507    | 175    | 358    | 400    | 170    | 86     | 87     | 285    |
| 11:45          | 695    | 631    | 568    | 522    | 167    | 358    | 377    | 168    | 86     | 87     | 288    |
| 12:00          | 656    | 590    | 540    | 495    | 175    | 371    | 389    | 168    | 86     | 88     | 288    |
| 12:15          | 708    | 639    | 568    | 521    | 170    | 339    | 397    | 181    | 86     | 88     | 290    |
| 12:30          | 726    | 654    | 591    | 545    | 169    | 398    | 370    | 176    | 87     | 89     | 317    |
| 12:45          | 661    | 594    | 539    | 486    | 172    | 376    | 392    | 162    | 87     | 89     | 328    |
| 13:00          | 702    | 627    | 570    | 524    | 175    | 370    | 401    | 177    | 87     | 89     | 328    |
| 13:15          | 719    | 644    | 589    | 535    | 174    | 359    | 396    | 168    | 88     | 90     | 330    |
| 13:30          | 677    | 615    | 574    | 530    | 169    | 400    | 385    | 170    | 88     | 90     | 331    |
| 13:45          | 675    | 597    | 546    | 496    | 161    | 368    | 405    | 164    | 88     | 91     | 334    |
| 14:00          | 650    | 583    | 539    | 492    | 168    | 383    | 406    | 182    | 89     | 92     | 336    |
| 14:15          | 722    | 644    | 575    | 519    | 176    | 370    | 419    | 171    | 89     | 92     | 338    |
| 14:30          | 691    | 626    | 568    | 530    | 188    | 361    | 407    | 176    | 89     | 93     | 342    |
| 14:45          | 767    | 694    | 629    | 580    | 171    | 368    | 397    | 175    | 89     | 93     | 344    |
| 15:00          | 705    | 635    | 576    | 525    | 184    | 410    | 379    | 176    | 90     | 94     | 347    |
| 15:15          | 731    | 675    | 608    | 562    | 178    | 363    | 397    | 177    | 90     | 94     | 351    |
| 15:30          | 682    | 612    | 556    | 505    | 186    | 398    | 428    | 179    | 91     | 95     | 352    |
| 15:45          | 676    | 618    | 567    | 527    | 182    | 395    | 410    | 182    | 91     | 95     | 355    |
| 16:00          | 766    | 704    | 638    | 592    | 181    | 402    | 415    | 173    | 92     | 96     | 361    |
| 16:15          | 666    | 593    | 544    | 488    | 176    | 412    | 469    | 184    | 92     | 96     | 365    |
| 16:30          | 684    | 607    | 560    | 533    | 161    | 378    | 454    | 180    | 93     | 97     | 369    |
| 16:45          | 747    | 654    | 580    | 531    | 171    | 372    | 434    | 169    | 93     | 97     | 373    |
| 17:00          | 766    | 682    | 607    | 548    | 170    | 370    | 451    | 197    | 93     | 98     | 379    |
| 17:15          | 746    | 676    | 616    | 553    | 182    | 398    | 426    | 176    | 93     | 98     | 385    |
| 17:30          | 773    | 694    | 638    | 583    | 199    | 400    | 456    | 175    | 94     | 99     | 391    |
| 17:45          | 705    | 631    | 584    | 532    | 195    | 401    | 467    | 181    | 100    | 100    | 391    |
| 18:00          | 736    | 664    | 601    | 548    | 172    | 387    | 447    | 186    | 105    | 101    | 396    |
| 18:15          | 866    | 786    | 689    | 630    | 155    | 343    | 414    | 179    | 107    | 102    | 401    |
| 18:30          | 813    | 728    | 656    | 587    | 175    | 387    | 410    | 167    | 109    | 103    | 405    |
| 18:45          | 788    | 711    | 634    | 578    | 186    | 379    | 421    | 173    | 111    | 103    | 414    |
| 19:00          | 784    | 704    | 638    | 595    | 171    | 376    | 412    | 176    | 112    | 104    | 426    |
| 19:15          | 816    | 721    | 658    | 596    | 180    | 412    | 419    | 186    | 113    | 105    | 438    |
| 19:30          | 808    | 722    | 645    | 586    | 181    | 386    | 449    | 191    | 114    | 106    | 481    |
| 19:45          | 792    | 698    | 635    | 572    | 188    | 402    | 438    | 172    | 115    | 107    | 502    |

| Time (Min:Sec) | T/C 10 | T/C 11 | T/C 12 | T/C 13 | T/C 14 | T/C 15 | T/C 16 | T/C 17 | T/C 18 | T/C 19 | T/C 20 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 20:00          | 769    | 680    | 619    | 571    | 183    | 380    | 444    | 172    | 117    | 108    | 530    |
| 20:15          | 747    | 673    | 613    | 570    | 188    | 344    | 462    | 179    | 119    | 110    | 548    |
| 20:30          | 825    | 731    | 664    | 608    | 214    | 425    | 397    | 178    | 119    | 110    | 548    |
| 20:45          | 838    | 738    | 653    | 583    | 204    | 458    | 471    | 179    | 120    | 112    | 578    |
| 21:00          | 927    | 826    | 725    | 650    | 185    | 442    | 453    | 180    | 121    | 112    | 605    |
| 21:15          | 907    | 806    | 719    | 649    | 184    | 416    | 386    | 163    | 121    | 113    | 637    |
| 21:30          | 926    | 827    | 746    | 678    | 197    | 441    | 413    | 179    | 121    | 113    | 645    |
| 21:45          | 940    | 822    | 729    | 668    | 165    | 418    | 424    | 168    | 122    | 114    | 672    |
| 22:00          | 1021   | 918    | 815    | 741    | 178    | 422    | 386    | 165    | 122    | 115    | 691    |
| 22:15          | 977    | 871    | 779    | 728    | 197    | 424    | 392    | 166    | 122    | 116    | 677    |
| 22:30          | 995    | 893    | 791    | 715    | 184    | 448    | 413    | 171    | 122    | 118    | 680    |
| 22:45          | 1021   | 940    | 835    | 771    | 189    | 433    | 386    | 177    | 123    | 119    | 711    |
| 23:00          | 1065   | 948    | 846    | 761    | 190    | 456    | 393    | 177    | 123    | 121    | 734    |
| 23:15          | 989    | 885    | 794    | 712    | 201    | 456    | 372    | 175    | 124    | 125    | 729    |
| 23:30          | 866    | 784    | 715    | 652    | 185    | 486    | 382    | 177    | 125    | 129    | 819    |
| 23:45          | 962    | 885    | 788    | 727    | 196    | 486    | 432    | 185    | 126    | 132    | 792    |
| 24:00          | 1027   | 932    | 844    | 766    | 192    | 478    | 443    | 186    | 126    | 133    | 776    |
| 24:15          | 974    | 866    | 774    | 704    | 192    | 469    | 430    | 181    | 126    | 134    | 764    |
| 24:30          | 953    | 875    | 810    | 705    | 190    | 458    | 402    | 170    | 126    | 133    | 781    |
| 24:45          | 955    | 839    | 747    | 670    | 192    | 459    | 374    | 180    | 126    | 133    | 816    |
| 25:00          | 969    | 866    | 791    | 722    | 199    | 408    | 397    | 175    | 126    | 132    | 859    |
| 25:15          | 944    | 862    | 784    | 715    | 195    | 415    | 446    | 185    | 126    | 132    | 884    |
| 25:30          | 1046   | 920    | 845    | 767    | 194    | 467    | 451    | 182    | 126    | 135    | 909    |
| 25:45          | 1091   | 985    | 898    | 825    | 188    | 451    | 463    | 205    | 126    | 137    | 984    |
| 26:00          | 1049   | 923    | 824    | 751    | 197    | 449    | 518    | 200    | 126    | 135    | 1016   |
| 26:15          | 1005   | 887    | 803    | 729    | 203    | 471    | 554    | 198    | 126    | 131    | 1119   |
| 26:30          | 1075   | 945    | 833    | 750    | 214    | 488    | 481    | 194    | 126    | 131    | 1115   |
| 26:45          | 944    | 815    | 750    | 680    | 225    | 433    | 546    | 195    | 127    | 132    | 1273   |
| 27:00          | 1052   | 917    | 821    | 744    | 211    | 410    | 552    | 199    | 127    | 132    | 1305   |
| 27:15          | 1011   | 892    | 799    | 716    | 195    | 424    | 487    | 202    | 127    | 134    | 1327   |
| 27:30          | 967    | 874    | 782    | 701    | 206    | 458    | 559    | 201    | 127    | 135    | 1319   |
| 27:45          | 1005   | 886    | 808    | 748    | 192    | 456    | 594    | 199    | 127    | 135    | 1328   |
| 28:00          | 998    | 886    | 790    | 718    | 201    | 480    | 432    | 185    | 127    | 135    | 1342   |
| 28:15          | 1036   | 933    | 839    | 762    | 196    | 474    | 406    | 178    | 127    | 134    | 1411   |
| 28:30          | 1015   | 909    | 806    | 731    | 205    | 483    | 400    | 175    | 128    | 135    | 1440   |
| 28:45          | 1009   | 911    | 802    | 740    | 186    | 484    | 386    | 173    | 127    | 136    | 1500   |
| 29:00          | 999    | 897    | 795    | 715    | 196    | 414    | 383    | 179    | 128    | 136    | 1497   |
| 29:15          | 1004   | 914    | 801    | 738    | 182    | 447    | 419    | 179    | 128    | 136    | 1490   |
| 29:30          | 1001   | 889    | 785    | 722    | 174    | 465    | 414    | 203    | 128    | 137    | 1511   |
| 29:45          | 1012   | 910    | 818    | 744    | 205    | 501    | 392    | 181    | 129    | 137    | 1503   |
| 30:00          | 1040   | 945    | 848    | 789    | 201    | 489    | 401    | 168    | 129    | 137    | 1505   |

| Time (Min:Sec) | T/C 21 | T/C 22 | T/C 23 | T/C 24 | T/C 25 | T/C 26 | T/C 27 | T/C 28 | T/C 29 | T/C 30 | T/C 31 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 00:00          | 81     | 81     | 80     | 80     | 80     | 81     | 81     | 82     | 82     | 83     | 81     |
| 00:15          | 81     | 81     | 80     | 80     | 80     | 81     | 81     | 82     | 82     | 83     | 81     |
| 00:30          | 81     | 81     | 80     | 80     | 80     | 81     | 81     | 82     | 82     | 83     | 80     |
| 00:45          | 82     | 81     | 81     | 81     | 81     | 81     | 82     | 82     | 82     | 83     | 81     |
| 01:00          | 85     | 82     | 83     | 83     | 81     | 82     | 83     | 82     | 83     | 83     | 81     |
| 01:15          | 88     | 83     | 85     | 86     | 82     | 83     | 85     | 83     | 84     | 83     | 81     |
| 01:30          | 93     | 84     | 88     | 89     | 83     | 84     | 87     | 84     | 86     | 83     | 81     |
| 01:45          | 98     | 86     | 92     | 93     | 84     | 86     | 89     | 85     | 87     | 83     | 81     |
| 02:00          | 104    | 87     | 95     | 97     | 86     | 87     | 92     | 86     | 89     | 84     | 81     |
| 02:15          | 110    | 89     | 99     | 102    | 87     | 90     | 95     | 87     | 91     | 84     | 81     |
| 02:30          | 116    | 92     | 102    | 106    | 89     | 92     | 97     | 88     | 93     | 85     | 82     |
| 02:45          | 122    | 94     | 104    | 111    | 91     | 94     | 100    | 89     | 95     | 85     | 82     |
| 03:00          | 128    | 96     | 107    | 115    | 92     | 96     | 102    | 90     | 96     | 86     | 82     |
| 03:15          | 132    | 99     | 109    | 119    | 94     | 98     | 105    | 91     | 98     | 87     | 82     |
| 03:30          | 138    | 101    | 111    | 124    | 96     | 101    | 108    | 92     | 100    | 87     | 83     |
| 03:45          | 144    | 103    | 114    | 128    | 98     | 103    | 111    | 94     | 102    | 88     | 83     |
| 04:00          | 148    | 105    | 118    | 131    | 99     | 105    | 114    | 95     | 104    | 89     | 83     |
| 04:15          | 154    | 108    | 122    | 135    | 101    | 107    | 116    | 96     | 105    | 90     | 83     |
| 04:30          | 158    | 110    | 126    | 138    | 103    | 111    | 119    | 98     | 106    | 91     | 84     |
| 04:45          | 163    | 113    | 131    | 140    | 104    | 111    | 122    | 99     | 108    | 92     | 84     |
| 05:00          | 169    | 115    | 134    | 144    | 106    | 113    | 125    | 100    | 109    | 93     | 84     |
| 05:15          | 176    | 117    | 137    | 147    | 108    | 115    | 127    | 102    | 111    | 94     | 85     |
| 05:30          | 183    | 120    | 141    | 150    | 109    | 117    | 129    | 104    | 113    | 95     | 85     |
| 05:45          | 189    | 123    | 144    | 153    | 111    | 120    | 132    | 105    | 115    | 96     | 85     |
| 06:00          | 197    | 126    | 147    | 157    | 113    | 124    | 134    | 107    | 117    | 97     | 86     |
| 06:15          | 205    | 129    | 152    | 161    | 115    | 125    | 137    | 109    | 119    | 99     | 86     |
| 06:30          | 215    | 133    | 156    | 165    | 117    | 128    | 140    | 110    | 121    | 100    | 86     |
| 06:45          | 224    | 137    | 160    | 170    | 120    | 131    | 143    | 113    | 124    | 101    | 87     |
| 07:00          | 233    | 142    | 166    | 176    | 123    | 133    | 147    | 114    | 125    | 103    | 87     |
| 07:15          | 243    | 147    | 172    | 182    | 125    | 136    | 150    | 117    | 128    | 105    | 87     |
| 07:30          | 250    | 152    | 177    | 188    | 128    | 138    | 153    | 119    | 130    | 106    | 88     |
| 07:45          | 256    | 157    | 184    | 194    | 131    | 140    | 156    | 122    | 132    | 108    | 88     |
| 08:00          | 263    | 163    | 190    | 200    | 134    | 143    | 159    | 125    | 135    | 110    | 89     |
| 08:15          | 271    | 168    | 195    | 206    | 137    | 146    | 163    | 127    | 137    | 111    | 89     |
| 08:30          | 277    | 173    | 200    | 211    | 140    | 148    | 166    | 130    | 139    | 113    | 89     |
| 08:45          | 278    | 178    | 204    | 217    | 143    | 151    | 169    | 132    | 142    | 115    | 90     |
| 09:00          | 282    | 183    | 210    | 224    | 146    | 154    | 172    | 134    | 143    | 116    | 90     |
| 09:15          | 285    | 187    | 215    | 229    | 150    | 156    | 174    | 137    | 145    | 118    | 90     |
| 09:30          | 287    | 192    | 220    | 234    | 154    | 161    | 178    | 139    | 148    | 120    | 91     |
| 09:45          | 289    | 196    | 224    | 239    | 158    | 162    | 181    | 142    | 149    | 122    | 91     |

| Time (Min:Sec) | T/C 21 | T/C 22 | T/C 23 | T/C 24 | T/C 25 | T/C 26 | T/C 27 | T/C 28 | T/C 29 | T/C 30 | T/C 31 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10:00          | 291    | 200    | 228    | 246    | 162    | 166    | 184    | 145    | 151    | 124    | 92     |
| 10:15          | 294    | 204    | 232    | 251    | 165    | 169    | 188    | 147    | 153    | 125    | 92     |
| 10:30          | 297    | 207    | 235    | 255    | 168    | 173    | 191    | 149    | 156    | 127    | 92     |
| 10:45          | 299    | 210    | 238    | 262    | 172    | 177    | 194    | 152    | 157    | 129    | 93     |
| 11:00          | 299    | 212    | 240    | 264    | 175    | 181    | 198    | 154    | 159    | 131    | 93     |
| 11:15          | 302    | 216    | 245    | 269    | 178    | 184    | 201    | 156    | 162    | 133    | 93     |
| 11:30          | 305    | 220    | 250    | 273    | 182    | 189    | 205    | 159    | 164    | 135    | 94     |
| 11:45          | 307    | 223    | 260    | 276    | 185    | 192    | 209    | 162    | 166    | 136    | 94     |
| 12:00          | 308    | 227    | 276    | 279    | 189    | 197    | 213    | 165    | 169    | 138    | 95     |
| 12:15          | 307    | 230    | 308    | 284    | 192    | 200    | 216    | 168    | 172    | 140    | 95     |
| 12:30          | 309    | 233    | 318    | 287    | 196    | 204    | 220    | 170    | 174    | 142    | 96     |
| 12:45          | 309    | 236    | 325    | 294    | 198    | 208    | 224    | 173    | 177    | 143    | 96     |
| 13:00          | 311    | 239    | 327    | 298    | 202    | 212    | 229    | 176    | 179    | 145    | 97     |
| 13:15          | 316    | 242    | 325    | 300    | 205    | 216    | 232    | 179    | 182    | 147    | 97     |
| 13:30          | 319    | 244    | 326    | 303    | 208    | 220    | 236    | 182    | 186    | 149    | 97     |
| 13:45          | 321    | 247    | 326    | 305    | 211    | 224    | 239    | 185    | 188    | 151    | 98     |
| 14:00          | 323    | 249    | 326    | 307    | 214    | 228    | 242    | 187    | 191    | 153    | 98     |
| 14:15          | 326    | 251    | 326    | 309    | 218    | 231    | 247    | 190    | 194    | 155    | 99     |
| 14:30          | 328    | 253    | 326    | 310    | 221    | 235    | 250    | 193    | 197    | 157    | 99     |
| 14:45          | 331    | 256    | 327    | 312    | 223    | 239    | 254    | 196    | 200    | 159    | 99     |
| 15:00          | 332    | 258    | 328    | 314    | 227    | 242    | 256    | 198    | 203    | 162    | 100    |
| 15:15          | 334    | 260    | 328    | 315    | 230    | 246    | 260    | 201    | 205    | 164    | 100    |
| 15:30          | 337    | 262    | 328    | 316    | 234    | 249    | 263    | 204    | 208    | 166    | 101    |
| 15:45          | 340    | 265    | 328    | 318    | 236    | 252    | 265    | 206    | 211    | 168    | 101    |
| 16:00          | 341    | 267    | 329    | 320    | 239    | 255    | 267    | 209    | 214    | 170    | 102    |
| 16:15          | 345    | 269    | 330    | 321    | 242    | 257    | 269    | 212    | 217    | 172    | 102    |
| 16:30          | 348    | 271    | 331    | 322    | 245    | 260    | 272    | 214    | 220    | 174    | 103    |
| 16:45          | 352    | 273    | 332    | 323    | 248    | 263    | 274    | 217    | 223    | 176    | 103    |
| 17:00          | 357    | 275    | 334    | 326    | 251    | 265    | 277    | 219    | 226    | 178    | 104    |
| 17:15          | 362    | 276    | 335    | 326    | 254    | 268    | 279    | 222    | 227    | 181    | 104    |
| 17:30          | 372    | 280    | 336    | 325    | 257    | 270    | 281    | 225    | 230    | 183    | 104    |
| 17:45          | 386    | 285    | 338    | 326    | 261    | 273    | 283    | 227    | 233    | 186    | 105    |
| 18:00          | 390    | 287    | 341    | 327    | 264    | 275    | 286    | 230    | 236    | 188    | 105    |
| 18:15          | 392    | 289    | 342    | 328    | 267    | 277    | 289    | 232    | 238    | 190    | 105    |
| 18:30          | 396    | 291    | 345    | 331    | 269    | 279    | 291    | 235    | 242    | 193    | 105    |
| 18:45          | 404    | 292    | 347    | 334    | 272    | 280    | 294    | 238    | 246    | 195    | 105    |
| 19:00          | 416    | 294    | 348    | 338    | 275    | 283    | 297    | 240    | 248    | 198    | 105    |
| 19:15          | 421    | 296    | 350    | 340    | 277    | 285    | 299    | 243    | 252    | 200    | 105    |
| 19:30          | 436    | 299    | 352    | 342    | 279    | 286    | 301    | 245    | 254    | 202    | 106    |
| 19:45          | 447    | 301    | 354    | 344    | 281    | 288    | 303    | 247    | 257    | 205    | 106    |

| Time (Min:Sec) | T/C 21 | T/C 22 | T/C 23 | T/C 24 | T/C 25 | T/C 26 | T/C 27 | T/C 28 | T/C 29 | T/C 30 | T/C 31 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 20:00          | 459    | 303    | 356    | 346    | 283    | 289    | 305    | 250    | 260    | 207    | 107    |
| 20:15          | 463    | 306    | 357    | 348    | 285    | 290    | 307    | 252    | 263    | 209    | 107    |
| 20:30          | 463    | 307    | 358    | 351    | 287    | 293    | 310    | 255    | 266    | 211    | 107    |
| 20:45          | 470    | 309    | 360    | 353    | 290    | 295    | 311    | 258    | 269    | 213    | 108    |
| 21:00          | 472    | 313    | 364    | 356    | 295    | 297    | 313    | 260    | 271    | 215    | 109    |
| 21:15          | 475    | 315    | 366    | 359    | 297    | 299    | 315    | 262    | 273    | 217    | 110    |
| 21:30          | 480    | 317    | 367    | 360    | 298    | 300    | 316    | 264    | 276    | 220    | 111    |
| 21:45          | 488    | 319    | 367    | 361    | 301    | 323    | 318    | 266    | 278    | 221    | 111    |
| 22:00          | 500    | 319    | 367    | 363    | 306    | 330    | 319    | 268    | 280    | 223    | 112    |
| 22:15          | 563    | 321    | 367    | 363    | 309    | 333    | 321    | 270    | 282    | 226    | 113    |
| 22:30          | 597    | 323    | 369    | 365    | 311    | 335    | 322    | 272    | 284    | 228    | 113    |
| 22:45          | 633    | 325    | 371    | 367    | 313    | 337    | 323    | 274    | 286    | 230    | 114    |
| 23:00          | 669    | 328    | 373    | 369    | 314    | 338    | 324    | 276    | 288    | 232    | 115    |
| 23:15          | 690    | 330    | 374    | 371    | 315    | 339    | 326    | 278    | 289    | 234    | 115    |
| 23:30          | 711    | 331    | 374    | 371    | 318    | 341    | 327    | 280    | 293    | 235    | 116    |
| 23:45          | 688    | 334    | 375    | 372    | 321    | 343    | 328    | 282    | 296    | 237    | 117    |
| 24:00          | 683    | 337    | 377    | 374    | 321    | 345    | 329    | 284    | 298    | 238    | 117    |
| 24:15          | 684    | 338    | 379    | 375    | 322    | 346    | 330    | 285    | 299    | 240    | 118    |
| 24:30          | 676    | 340    | 381    | 376    | 324    | 348    | 331    | 286    | 300    | 242    | 119    |
| 24:45          | 691    | 343    | 382    | 380    | 325    | 349    | 333    | 288    | 302    | 244    | 120    |
| 25:00          | 695    | 345    | 385    | 380    | 325    | 351    | 334    | 289    | 302    | 245    | 121    |
| 25:15          | 700    | 346    | 386    | 382    | 326    | 354    | 336    | 290    | 302    | 248    | 122    |
| 25:30          | 717    | 345    | 389    | 386    | 326    | 355    | 338    | 292    | 303    | 250    | 122    |
| 25:45          | 783    | 347    | 392    | 389    | 327    | 357    | 339    | 293    | 302    | 252    | 122    |
| 26:00          | 812    | 349    | 395    | 391    | 327    | 358    | 340    | 294    | 302    | 254    | 123    |
| 26:15          | 855    | 348    | 398    | 391    | 329    | 359    | 341    | 295    | 303    | 256    | 123    |
| 26:30          | 943    | 351    | 401    | 393    | 330    | 361    | 342    | 296    | 304    | 259    | 123    |
| 26:45          | 1297   | 376    | 409    | 404    | 331    | 362    | 343    | 297    | 305    | 261    | 124    |
| 27:00          | 1250   | 386    | 414    | 410    | 333    | 364    | 345    | 299    | 305    | 263    | 124    |
| 27:15          | 1343   | 384    | 416    | 410    | 334    | 366    | 346    | 301    | 306    | 266    | 125    |
| 27:30          | 1358   | 385    | 417    | 412    | 337    | 368    | 348    | 303    | 308    | 269    | 125    |
| 27:45          | 1381   | 385    | 419    | 414    | 340    | 369    | 349    | 304    | 309    | 271    | 126    |
| 28:00          | 1255   | 383    | 421    | 416    | 342    | 371    | 350    | 306    | 311    | 274    | 127    |
| 28:15          | 1292   | 378    | 421    | 416    | 345    | 373    | 352    | 310    | 314    | 276    | 127    |
| 28:30          | 1284   | 383    | 423    | 418    | 347    | 375    | 355    | 312    | 318    | 279    | 127    |
| 28:45          | 1305   | 396    | 429    | 425    | 350    | 377    | 356    | 315    | 318    | 281    | 127    |
| 29:00          | 1323   | 402    | 432    | 428    | 352    | 378    | 357    | 318    | 321    | 283    | 128    |
| 29:15          | 1329   | 403    | 435    | 430    | 354    | 379    | 358    | 320    | 322    | 285    | 128    |
| 29:30          | 1342   | 483    | 461    | 451    | 357    | 379    | 359    | 322    | 323    | 287    | 128    |
| 29:45          | 1321   | 532    | 486    | 470    | 359    | 380    | 361    | 324    | 324    | 289    | 129    |
| 30:00          | 1329   | 578    | 504    | 487    | 360    | 381    | 362    | 326    | 324    | 291    | 129    |

| Time (Min:Sec) | T/C 32 | T/C 33 | T/C 34 | T/C 35 | T/C 36 | T/C 37 | T/C 38 | T/C 39 | T/C 40 | Room T/C 41 | Room T/C 42 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|-------------|
| 00:00          | 80     | 81     | 81     | 81     | 81     | 81     | 80     | 83     | 82     | 120         | 94          |
| 00:15          | 80     | 81     | 81     | 81     | 81     | 81     | 80     | 83     | 82     | 395         | 177         |
| 00:30          | 80     | 81     | 81     | 81     | 81     | 81     | 80     | 83     | 82     | 1058        | 497         |
| 00:45          | 80     | 81     | 81     | 81     | 81     | 81     | 80     | 83     | 82     | 1184        | 560         |
| 01:00          | 80     | 81     | 81     | 81     | 81     | 81     | 80     | 83     | 82     | 1265        | 568         |
| 01:15          | 81     | 81     | 81     | 82     | 81     | 81     | 81     | 83     | 82     | 1261        | 599         |
| 01:30          | 81     | 81     | 82     | 83     | 81     | 81     | 81     | 83     | 83     | 1296        | 605         |
| 01:45          | 82     | 81     | 82     | 84     | 81     | 81     | 81     | 83     | 83     | 1286        | 614         |
| 02:00          | 83     | 82     | 82     | 85     | 81     | 81     | 81     | 83     | 84     | 1307        | 636         |
| 02:15          | 83     | 82     | 82     | 86     | 81     | 81     | 81     | 83     | 84     | 1311        | 633         |
| 02:30          | 84     | 82     | 82     | 87     | 81     | 82     | 81     | 84     | 85     | 1311        | 646         |
| 02:45          | 85     | 82     | 83     | 88     | 82     | 82     | 81     | 84     | 85     | 1342        | 639         |
| 03:00          | 86     | 83     | 83     | 89     | 82     | 82     | 81     | 84     | 86     | 1343        | 655         |
| 03:15          | 87     | 83     | 83     | 91     | 82     | 82     | 82     | 84     | 87     | 1363        | 656         |
| 03:30          | 87     | 83     | 83     | 92     | 82     | 82     | 82     | 84     | 87     | 1354        | 688         |
| 03:45          | 88     | 84     | 84     | 93     | 82     | 82     | 82     | 84     | 88     | 1358        | 704         |
| 04:00          | 89     | 84     | 84     | 94     | 83     | 83     | 82     | 85     | 89     | 1378        | 708         |
| 04:15          | 90     | 84     | 84     | 95     | 83     | 83     | 82     | 85     | 90     | 1411        | 711         |
| 04:30          | 90     | 85     | 84     | 97     | 83     | 83     | 82     | 85     | 91     | 1434        | 721         |
| 04:45          | 91     | 85     | 85     | 98     | 83     | 83     | 83     | 85     | 92     | 1429        | 744         |
| 05:00          | 92     | 86     | 85     | 99     | 83     | 84     | 83     | 85     | 93     | 1449        | 745         |
| 05:15          | 93     | 86     | 85     | 101    | 84     | 84     | 83     | 85     | 94     | 1478        | 758         |
| 05:30          | 93     | 86     | 86     | 102    | 84     | 84     | 83     | 86     | 95     | 1436        | 749         |
| 05:45          | 94     | 87     | 86     | 103    | 84     | 84     | 84     | 86     | 96     | 1472        | 739         |
| 06:00          | 95     | 87     | 86     | 105    | 84     | 85     | 84     | 86     | 97     | 1447        | 739         |
| 06:15          | 96     | 88     | 86     | 106    | 84     | 85     | 84     | 86     | 98     | 1471        | 732         |
| 06:30          | 96     | 88     | 87     | 108    | 85     | 85     | 84     | 87     | 100    | 1458        | 729         |
| 06:45          | 97     | 89     | 87     | 110    | 85     | 86     | 85     | 87     | 101    | 1476        | 725         |
| 07:00          | 98     | 89     | 88     | 112    | 85     | 86     | 85     | 87     | 102    | 1463        | 732         |
| 07:15          | 99     | 90     | 88     | 114    | 86     | 87     | 85     | 88     | 104    | 1464        | 737         |
| 07:30          | 100    | 90     | 88     | 116    | 86     | 87     | 85     | 88     | 105    | 1455        | 728         |
| 07:45          | 101    | 91     | 89     | 119    | 86     | 87     | 86     | 88     | 107    | 1464        | 722         |
| 08:00          | 102    | 91     | 89     | 120    | 86     | 88     | 86     | 88     | 108    | 1471        | 719         |
| 08:15          | 103    | 91     | 89     | 122    | 87     | 89     | 86     | 89     | 110    | 1485        | 715         |
| 08:30          | 103    | 92     | 90     | 124    | 87     | 89     | 86     | 89     | 112    | 1461        | 716         |
| 08:45          | 104    | 92     | 90     | 126    | 87     | 90     | 87     | 89     | 113    | 1452        | 725         |
| 09:00          | 105    | 93     | 91     | 128    | 88     | 91     | 87     | 90     | 115    | 1486        | 710         |
| 09:15          | 105    | 93     | 91     | 130    | 88     | 92     | 87     | 90     | 117    | 1464        | 703         |
| 09:30          | 106    | 94     | 91     | 132    | 88     | 93     | 88     | 90     | 118    | 1490        | 717         |
| 09:45          | 107    | 94     | 92     | 134    | 89     | 93     | 88     | 90     | 120    | 1478        | 720         |

| Time (Min:Sec) | T/C 32 | T/C 33 | T/C 34 | T/C 35 | T/C 36 | T/C 37 | T/C 38 | T/C 39 | T/C 40 | Room T/C 41 | Room T/C 42 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|-------------|
| 10:00          | 108    | 95     | 92     | 136    | 89     | 94     | 88     | 91     | 121    | 1492        | 725         |
| 10:15          | 109    | 95     | 93     | 137    | 89     | 95     | 88     | 91     | 123    | 1512        | 718         |
| 10:30          | 109    | 95     | 93     | 139    | 90     | 96     | 89     | 91     | 125    | 1579        | 745         |
| 10:45          | 110    | 96     | 94     | 141    | 90     | 97     | 89     | 92     | 126    | 1590        | 770         |
| 11:00          | 110    | 96     | 94     | 143    | 91     | 97     | 89     | 92     | 128    | 1611        | 778         |
| 11:15          | 111    | 97     | 94     | 144    | 91     | 98     | 90     | 92     | 130    | 1632        | 768         |
| 11:30          | 112    | 98     | 95     | 146    | 91     | 98     | 90     | 93     | 131    | 1620        | 769         |
| 11:45          | 113    | 98     | 95     | 148    | 92     | 99     | 90     | 93     | 133    | 1621        | 773         |
| 12:00          | 113    | 99     | 96     | 150    | 92     | 99     | 91     | 93     | 135    | 1629        | 783         |
| 12:15          | 114    | 99     | 96     | 151    | 93     | 100    | 91     | 94     | 137    | 1631        | 781         |
| 12:30          | 115    | 100    | 97     | 153    | 94     | 101    | 91     | 94     | 138    | 1660        | 785         |
| 12:45          | 115    | 100    | 97     | 155    | 94     | 102    | 92     | 95     | 140    | 1630        | 777         |
| 13:00          | 116    | 101    | 98     | 157    | 94     | 102    | 92     | 95     | 142    | 1621        | 781         |
| 13:15          | 117    | 101    | 98     | 159    | 95     | 103    | 93     | 96     | 144    | 1656        | 782         |
| 13:30          | 117    | 102    | 99     | 161    | 95     | 104    | 93     | 96     | 145    | 1653        | 781         |
| 13:45          | 118    | 102    | 99     | 163    | 96     | 105    | 93     | 96     | 147    | 1662        | 775         |
| 14:00          | 119    | 103    | 100    | 165    | 97     | 107    | 94     | 97     | 149    | 1653        | 781         |
| 14:15          | 120    | 103    | 100    | 166    | 97     | 108    | 94     | 97     | 151    | 1665        | 784         |
| 14:30          | 121    | 104    | 101    | 168    | 98     | 109    | 95     | 98     | 152    | 1678        | 789         |
| 14:45          | 122    | 104    | 101    | 170    | 98     | 110    | 95     | 98     | 154    | 1657        | 785         |
| 15:00          | 123    | 105    | 102    | 171    | 99     | 112    | 95     | 99     | 156    | 1677        | 761         |
| 15:15          | 124    | 106    | 103    | 173    | 99     | 113    | 96     | 99     | 158    | 1696        | 767         |
| 15:30          | 125    | 106    | 103    | 175    | 100    | 114    | 96     | 100    | 160    | 1681        | 770         |
| 15:45          | 126    | 107    | 104    | 177    | 101    | 116    | 97     | 100    | 161    | 1693        | 779         |
| 16:00          | 127    | 107    | 104    | 178    | 101    | 117    | 97     | 101    | 163    | 1701        | 766         |
| 16:15          | 128    | 108    | 105    | 180    | 102    | 120    | 97     | 101    | 165    | 1696        | 769         |
| 16:30          | 129    | 108    | 106    | 182    | 103    | 121    | 98     | 102    | 167    | 1713        | 764         |
| 16:45          | 129    | 109    | 106    | 183    | 103    | 122    | 98     | 102    | 168    | 1709        | 785         |
| 17:00          | 130    | 109    | 107    | 185    | 104    | 124    | 99     | 103    | 170    | 1714        | 782         |
| 17:15          | 130    | 110    | 107    | 186    | 105    | 126    | 99     | 103    | 172    | 1712        | 772         |
| 17:30          | 130    | 110    | 108    | 188    | 105    | 130    | 100    | 104    | 174    | 1724        | 781         |
| 17:45          | 130    | 110    | 108    | 189    | 107    | 134    | 100    | 105    | 176    | 1726        | 772         |
| 18:00          | 130    | 110    | 109    | 192    | 108    | 133    | 101    | 105    | 178    | 1734        | 780         |
| 18:15          | 130    | 110    | 109    | 193    | 109    | 135    | 101    | 106    | 180    | 1714        | 779         |
| 18:30          | 131    | 111    | 110    | 195    | 110    | 136    | 102    | 106    | 182    | 1734        | 779         |
| 18:45          | 132    | 111    | 110    | 197    | 110    | 138    | 102    | 107    | 184    | 1749        | 768         |
| 19:00          | 133    | 111    | 111    | 199    | 111    | 138    | 103    | 107    | 185    | 1730        | 773         |
| 19:15          | 135    | 112    | 111    | 201    | 112    | 139    | 103    | 108    | 187    | 1723        | 779         |
| 19:30          | 135    | 112    | 112    | 203    | 113    | 140    | 104    | 109    | 189    | 1723        | 790         |
| 19:45          | 136    | 113    | 112    | 204    | 113    | 141    | 104    | 109    | 191    | 1769        | 799         |

| Time (Min:Sec) | T/C 32 | T/C 33 | T/C 34 | T/C 35 | T/C 36 | T/C 37 | T/C 38 | T/C 39 | T/C 40 | Room T/C 41 | Room T/C 42 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|-------------|
| 20:00          | 138    | 113    | 113    | 206    | 114    | 142    | 105    | 110    | 193    | 1749        | 789         |
| 20:15          | 138    | 114    | 113    | 207    | 115    | 143    | 105    | 110    | 195    | 1827        | 788         |
| 20:30          | 139    | 114    | 114    | 209    | 116    | 144    | 105    | 111    | 197    | 1810        | 771         |
| 20:45          | 140    | 115    | 114    | 211    | 116    | 144    | 106    | 111    | 198    | 1828        | 783         |
| 21:00          | 140    | 115    | 115    | 212    | 117    | 145    | 106    | 112    | 200    | 1804        | 778         |
| 21:15          | 141    | 116    | 115    | 214    | 118    | 145    | 107    | 112    | 202    | 1815        | 784         |
| 21:30          | 141    | 117    | 116    | 216    | 119    | 145    | 107    | 113    | 204    | 1838        | 775         |
| 21:45          | 142    | 117    | 117    | 219    | 120    | 146    | 107    | 114    | 206    | 1827        | 780         |
| 22:00          | 143    | 118    | 117    | 221    | 120    | 147    | 108    | 114    | 208    | 1811        | 772         |
| 22:15          | 144    | 118    | 118    | 222    | 121    | 147    | 108    | 114    | 210    | 1821        | 771         |
| 22:30          | 145    | 119    | 119    | 224    | 122    | 148    | 109    | 115    | 211    | 1855        | 770         |
| 22:45          | 145    | 119    | 120    | 225    | 122    | 149    | 109    | 115    | 213    | 1822        | 767         |
| 23:00          | 146    | 120    | 121    | 220    | 122    | 151    | 109    | 116    | 215    | 1820        | 771         |
| 23:15          | 147    | 120    | 121    | 221    | 123    | 152    | 110    | 116    | 217    | 1833        | 772         |
| 23:30          | 147    | 121    | 122    | 222    | 123    | 153    | 110    | 116    | 218    | 1836        | 771         |
| 23:45          | 149    | 122    | 122    | 223    | 124    | 154    | 110    | 117    | 220    | 1819        | 780         |
| 24:00          | 151    | 122    | 123    | 225    | 125    | 155    | 111    | 117    | 222    | 1850        | 776         |
| 24:15          | 153    | 123    | 124    | 227    | 125    | 155    | 111    | 117    | 223    | 1842        | 765         |
| 24:30          | 154    | 124    | 125    | 229    | 126    | 156    | 111    | 118    | 225    | 1848        | 784         |
| 24:45          | 155    | 125    | 126    | 231    | 127    | 157    | 111    | 118    | 226    | 1870        | 782         |
| 25:00          | 154    | 125    | 126    | 232    | 127    | 156    | 112    | 119    | 228    | 1872        | 790         |
| 25:15          | 153    | 126    | 127    | 234    | 128    | 158    | 112    | 119    | 229    | 1889        | 799         |
| 25:30          | 153    | 126    | 128    | 235    | 128    | 159    | 112    | 120    | 231    | 1895        | 807         |
| 25:45          | 152    | 127    | 128    | 236    | 129    | 161    | 113    | 120    | 233    | 1876        | 797         |
| 26:00          | 152    | 128    | 129    | 238    | 130    | 160    | 113    | 121    | 234    | 1907        | 804         |
| 26:15          | 152    | 128    | 130    | 239    | 130    | 159    | 114    | 122    | 236    | 1905        | 799         |
| 26:30          | 151    | 128    | 130    | 240    | 131    | 160    | 114    | 122    | 238    | 1892        | 800         |
| 26:45          | 152    | 129    | 130    | 242    | 131    | 162    | 114    | 122    | 240    | 1927        | 798         |
| 27:00          | 151    | 129    | 131    | 243    | 131    | 163    | 115    | 123    | 242    | 1932        | 817         |
| 27:15          | 152    | 130    | 131    | 244    | 132    | 163    | 115    | 123    | 244    | 1915        | 824         |
| 27:30          | 152    | 130    | 132    | 246    | 132    | 164    | 116    | 123    | 246    | 1940        | 820         |
| 27:45          | 152    | 130    | 132    | 247    | 133    | 164    | 116    | 123    | 249    | 1879        | 828         |
| 28:00          | 152    | 131    | 133    | 248    | 133    | 165    | 117    | 124    | 251    | 1911        | 818         |
| 28:15          | 152    | 131    | 133    | 249    | 134    | 165    | 117    | 124    | 253    | 1973        | 850         |
| 28:30          | 153    | 131    | 134    | 250    | 134    | 165    | 117    | 125    | 255    | 1919        | 809         |
| 28:45          | 153    | 132    | 134    | 251    | 134    | 164    | 118    | 125    | 257    | 1908        | 808         |
| 29:00          | 154    | 132    | 135    | 253    | 135    | 165    | 118    | 125    | 258    | 1908        | 803         |
| 29:15          | 153    | 132    | 135    | 254    | 135    | 166    | 119    | 125    | 260    | 1893        | 801         |
| 29:30          | 154    | 133    | 136    | 256    | 135    | 166    | 119    | 125    | 261    | 1898        | 793         |
| 29:45          | 154    | 133    | 136    | 256    | 135    | 168    | 119    | 125    | 263    | 1866        | 805         |
| 30:00          | 154    | 133    | 136    | 258    | 136    | 169    | 119    | 125    | 265    | 1897        | 802         |



| Time (Min:Sec) | Room T/C 43 | Room T/C 44 | Room T/C 45 | T/C 46 | T/ C 47 | T/C 48 | T/C 49 | T/C 50 | T/C 51 | T/C 52 | T/C 53 |
|----------------|-------------|-------------|-------------|--------|---------|--------|--------|--------|--------|--------|--------|
| 00:00          | 122         | 133         | 118         | 111    | 101     | 98     | 77     | 76     | 77     | 75     | 77     |
| 00:15          | 340         | 311         | 252         | 184    | 151     | 182    | 77     | 77     | 77     | 75     | 77     |
| 00:30          | 996         | 915         | 725         | 623    | 458     | 569    | 77     | 76     | 77     | 75     | 77     |
| 00:45          | 1120        | 1024        | 865         | 832    | 701     | 779    | 77     | 76     | 77     | 75     | 77     |
| 01:00          | 1133        | 1080        | 927         | 933    | 808     | 840    | 77     | 76     | 77     | 75     | 77     |
| 01:15          | 1184        | 1105        | 966         | 982    | 876     | 890    | 77     | 76     | 77     | 75     | 77     |
| 01:30          | 1197        | 1108        | 1004        | 1012   | 920     | 913    | 78     | 76     | 77     | 75     | 77     |
| 01:45          | 1196        | 1147        | 1014        | 1049   | 1037    | 935    | 77     | 76     | 77     | 75     | 77     |
| 02:00          | 1225        | 1179        | 1034        | 1119   | 1167    | 1020   | 77     | 76     | 77     | 75     | 77     |
| 02:15          | 1252        | 1180        | 1054        | 1159   | 1161    | 1073   | 77     | 76     | 77     | 75     | 77     |
| 02:30          | 1244        | 1185        | 1065        | 1189   | 1113    | 1138   | 77     | 76     | 77     | 75     | 77     |
| 02:45          | 1265        | 1181        | 1085        | 1181   | 1122    | 1089   | 78     | 76     | 77     | 75     | 77     |
| 03:00          | 1292        | 1181        | 1107        | 1188   | 1123    | 1086   | 77     | 76     | 77     | 75     | 77     |
| 03:15          | 1305        | 1204        | 1120        | 1181   | 1133    | 1105   | 78     | 76     | 77     | 75     | 77     |
| 03:30          | 1319        | 1194        | 1125        | 1204   | 1156    | 1139   | 78     | 76     | 77     | 75     | 77     |
| 03:45          | 1321        | 1213        | 1131        | 1215   | 1155    | 1146   | 78     | 76     | 77     | 75     | 77     |
| 04:00          | 1333        | 1224        | 1150        | 1220   | 1164    | 1158   | 78     | 76     | 77     | 75     | 77     |
| 04:15          | 1350        | 1240        | 1150        | 1234   | 1180    | 1165   | 78     | 76     | 77     | 75     | 78     |
| 04:30          | 1368        | 1233        | 1177        | 1253   | 1185    | 1177   | 78     | 77     | 77     | 75     | 78     |
| 04:45          | 1357        | 1279        | 1172        | 1272   | 1214    | 1192   | 78     | 77     | 78     | 75     | 78     |
| 05:00          | 1372        | 1310        | 1193        | 1309   | 1229    | 1211   | 78     | 77     | 77     | 75     | 78     |
| 05:15          | 1398        | 1298        | 1214        | 1326   | 1253    | 1246   | 78     | 77     | 77     | 75     | 78     |
| 05:30          | 1390        | 1315        | 1217        | 1308   | 1261    | 1234   | 78     | 77     | 77     | 75     | 78     |
| 05:45          | 1418        | 1305        | 1224        | 1311   | 1265    | 1234   | 78     | 77     | 78     | 75     | 78     |
| 06:00          | 1401        | 1300        | 1224        | 1315   | 1266    | 1227   | 78     | 77     | 78     | 75     | 78     |
| 06:15          | 1411        | 1330        | 1229        | 1338   | 1265    | 1234   | 78     | 77     | 78     | 75     | 78     |
| 06:30          | 1433        | 1349        | 1235        | 1318   | 1262    | 1236   | 78     | 77     | 78     | 75     | 78     |
| 06:45          | 1423        | 1341        | 1244        | 1319   | 1260    | 1239   | 78     | 77     | 78     | 75     | 79     |
| 07:00          | 1440        | 1334        | 1249        | 1342   | 1276    | 1246   | 78     | 77     | 78     | 75     | 79     |
| 07:15          | 1433        | 1322        | 1248        | 1339   | 1284    | 1251   | 78     | 77     | 78     | 75     | 79     |
| 07:30          | 1454        | 1308        | 1258        | 1353   | 1289    | 1253   | 78     | 78     | 78     | 75     | 79     |
| 07:45          | 1439        | 1310        | 1255        | 1356   | 1288    | 1251   | 78     | 78     | 78     | 75     | 79     |
| 08:00          | 1430        | 1332        | 1253        | 1342   | 1290    | 1265   | 78     | 77     | 78     | 75     | 79     |
| 08:15          | 1437        | 1320        | 1259        | 1355   | 1294    | 1258   | 78     | 78     | 78     | 75     | 79     |
| 08:30          | 1445        | 1321        | 1268        | 1375   | 1294    | 1266   | 78     | 78     | 77     | 75     | 80     |
| 08:45          | 1441        | 1329        | 1267        | 1361   | 1298    | 1274   | 78     | 77     | 77     | 75     | 80     |
| 09:00          | 1468        | 1341        | 1277        | 1364   | 1292    | 1273   | 78     | 77     | 78     | 75     | 80     |
| 09:15          | 1465        | 1330        | 1279        | 1377   | 1301    | 1272   | 78     | 77     | 77     | 75     | 80     |
| 09:30          | 1451        | 1324        | 1276        | 1377   | 1306    | 1274   | 78     | 77     | 78     | 75     | 80     |
| 09:45          | 1472        | 1325        | 1290        | 1358   | 1308    | 1286   | 78     | 77     | 78     | 75     | 81     |

| Time (Min:Sec) | Room T/C 43 | Room T/C 44 | Room T/C 45 | T/C 46 | T/ C 47 | T/C 48 | T/C 49 | T/C 50 | T/C 51 | T/C 52 | T/C 53 |
|----------------|-------------|-------------|-------------|--------|---------|--------|--------|--------|--------|--------|--------|
| 10:00          | 1449        | 1312        | 1297        | 1384   | 1327    | 1291   | 78     | 77     | 78     | 75     | 80     |
| 10:15          | 1470        | 1323        | 1291        | 1388   | 1329    | 1288   | 78     | 77     | 78     | 75     | 80     |
| 10:30          | 1539        | 1387        | 1330        | 1425   | 1371    | 1338   | 78     | 77     | 79     | 75     | 80     |
| 10:45          | 1594        | 1446        | 1364        | 1462   | 1413    | 1379   | 79     | 77     | 78     | 75     | 80     |
| 11:00          | 1587        | 1445        | 1371        | 1475   | 1429    | 1410   | 79     | 77     | 78     | 75     | 80     |
| 11:15          | 1585        | 1471        | 1385        | 1485   | 1428    | 1417   | 79     | 77     | 78     | 75     | 80     |
| 11:30          | 1624        | 1479        | 1399        | 1496   | 1448    | 1421   | 79     | 77     | 79     | 75     | 80     |
| 11:45          | 1596        | 1469        | 1413        | 1527   | 1472    | 1441   | 79     | 77     | 79     | 75     | 80     |
| 12:00          | 1624        | 1461        | 1415        | 1531   | 1470    | 1438   | 79     | 77     | 79     | 75     | 81     |
| 12:15          | 1625        | 1478        | 1436        | 1536   | 1486    | 1459   | 79     | 77     | 79     | 75     | 81     |
| 12:30          | 1624        | 1504        | 1426        | 1527   | 1469    | 1460   | 79     | 77     | 79     | 75     | 81     |
| 12:45          | 1626        | 1513        | 1433        | 1538   | 1495    | 1455   | 79     | 77     | 79     | 75     | 82     |
| 13:00          | 1659        | 1496        | 1442        | 1540   | 1493    | 1466   | 80     | 78     | 79     | 75     | 82     |
| 13:15          | 1641        | 1508        | 1441        | 1538   | 1500    | 1474   | 80     | 78     | 79     | 75     | 82     |
| 13:30          | 1650        | 1533        | 1444        | 1538   | 1501    | 1478   | 80     | 78     | 80     | 76     | 82     |
| 13:45          | 1650        | 1518        | 1454        | 1546   | 1503    | 1479   | 80     | 78     | 80     | 76     | 82     |
| 14:00          | 1660        | 1496        | 1467        | 1575   | 1520    | 1497   | 80     | 78     | 80     | 76     | 82     |
| 14:15          | 1645        | 1503        | 1468        | 1591   | 1520    | 1496   | 80     | 78     | 80     | 76     | 82     |
| 14:30          | 1661        | 1501        | 1479        | 1559   | 1520    | 1504   | 80     | 78     | 80     | 76     | 83     |
| 14:45          | 1671        | 1509        | 1486        | 1578   | 1527    | 1503   | 80     | 78     | 80     | 76     | 83     |
| 15:00          | 1658        | 1541        | 1474        | 1592   | 1525    | 1507   | 81     | 78     | 80     | 76     | 83     |
| 15:15          | 1654        | 1549        | 1474        | 1575   | 1535    | 1520   | 81     | 79     | 80     | 76     | 83     |
| 15:30          | 1665        | 1527        | 1482        | 1604   | 1542    | 1521   | 81     | 79     | 81     | 76     | 84     |
| 15:45          | 1674        | 1545        | 1491        | 1595   | 1544    | 1526   | 81     | 79     | 81     | 76     | 84     |
| 16:00          | 1672        | 1541        | 1491        | 1593   | 1543    | 1526   | 81     | 79     | 81     | 76     | 84     |
| 16:15          | 1687        | 1555        | 1502        | 1599   | 1546    | 1530   | 81     | 79     | 81     | 76     | 84     |
| 16:30          | 1693        | 1539        | 1506        | 1620   | 1545    | 1529   | 81     | 79     | 81     | 76     | 84     |
| 16:45          | 1689        | 1535        | 1509        | 1617   | 1561    | 1545   | 82     | 79     | 81     | 76     | 84     |
| 17:00          | 1694        | 1557        | 1507        | 1625   | 1579    | 1554   | 82     | 79     | 81     | 76     | 84     |
| 17:15          | 1706        | 1558        | 1525        | 1606   | 1580    | 1559   | 82     | 80     | 81     | 76     | 84     |
| 17:30          | 1698        | 1553        | 1518        | 1628   | 1570    | 1552   | 82     | 80     | 82     | 76     | 85     |
| 17:45          | 1685        | 1533        | 1525        | 1624   | 1578    | 1563   | 82     | 80     | 82     | 76     | 85     |
| 18:00          | 1690        | 1540        | 1528        | 1631   | 1580    | 1562   | 82     | 80     | 82     | 76     | 85     |
| 18:15          | 1701        | 1541        | 1530        | 1657   | 1584    | 1570   | 82     | 80     | 82     | 76     | 85     |
| 18:30          | 1703        | 1543        | 1538        | 1656   | 1598    | 1577   | 82     | 80     | 82     | 76     | 85     |
| 18:45          | 1706        | 1544        | 1544        | 1634   | 1592    | 1561   | 82     | 80     | 82     | 76     | 85     |
| 19:00          | 1715        | 1566        | 1539        | 1636   | 1602    | 1576   | 83     | 80     | 82     | 76     | 86     |
| 19:15          | 1722        | 1555        | 1548        | 1662   | 1606    | 1573   | 83     | 80     | 82     | 76     | 86     |
| 19:30          | 1715        | 1562        | 1547        | 1644   | 1595    | 1586   | 83     | 80     | 82     | 76     | 86     |
| 19:45          | 1717        | 1580        | 1555        | 1663   | 1601    | 1590   | 83     | 81     | 83     | 76     | 86     |

| Time (Min:Sec) | Room T/C 43 | Room T/C 44 | Room T/C 45 | T/C 46 | T/ C 47 | T/C 48 | T/C 49 | T/C 50 | T/C 51 | T/C 52 | T/C 53 |
|----------------|-------------|-------------|-------------|--------|---------|--------|--------|--------|--------|--------|--------|
| 20:00          | 1711        | 1577        | 1549        | 1653   | 1615    | 1599   | 83     | 81     | 83     | 76     | 86     |
| 20:15          | 1727        | 1578        | 1568        | 1684   | 1613    | 1595   | 83     | 81     | 83     | 76     | 86     |
| 20:30          | 1668        | 1536        | 1558        | 1716   | 1629    | 1623   | 83     | 81     | 83     | 76     | 87     |
| 20:45          | 1687        | 1543        | 1552        | 1704   | 1641    | 1625   | 83     | 81     | 83     | 76     | 87     |
| 21:00          | 1694        | 1548        | 1561        | 1705   | 1633    | 1615   | 83     | 81     | 83     | 76     | 87     |
| 21:15          | 1686        | 1550        | 1559        | 1700   | 1628    | 1616   | 84     | 81     | 83     | 76     | 87     |
| 21:30          | 1693        | 1548        | 1563        | 1712   | 1629    | 1608   | 84     | 81     | 83     | 76     | 87     |
| 21:45          | 1699        | 1548        | 1565        | 1718   | 1640    | 1617   | 84     | 81     | 83     | 76     | 87     |
| 22:00          | 1702        | 1547        | 1557        | 1706   | 1632    | 1622   | 84     | 81     | 83     | 76     | 88     |
| 22:15          | 1722        | 1568        | 1574        | 1694   | 1627    | 1619   | 84     | 82     | 84     | 77     | 88     |
| 22:30          | 1688        | 1545        | 1575        | 1725   | 1650    | 1633   | 84     | 82     | 84     | 77     | 88     |
| 22:45          | 1663        | 1550        | 1560        | 1734   | 1651    | 1633   | 84     | 82     | 84     | 77     | 88     |
| 23:00          | 1668        | 1553        | 1568        | 1734   | 1638    | 1628   | 84     | 82     | 84     | 77     | 88     |
| 23:15          | 1663        | 1549        | 1569        | 1754   | 1653    | 1616   | 85     | 82     | 84     | 77     | 88     |
| 23:30          | 1692        | 1558        | 1583        | 1750   | 1648    | 1646   | 85     | 82     | 84     | 77     | 88     |
| 23:45          | 1677        | 1555        | 1575        | 1767   | 1651    | 1635   | 85     | 82     | 84     | 77     | 89     |
| 24:00          | 1673        | 1562        | 1576        | 1764   | 1671    | 1656   | 85     | 82     | 85     | 77     | 89     |
| 24:15          | 1678        | 1569        | 1610        | 1769   | 1684    | 1679   | 85     | 82     | 85     | 77     | 89     |
| 24:30          | 1688        | 1572        | 1609        | 1782   | 1683    | 1673   | 85     | 82     | 85     | 77     | 89     |
| 24:45          | 1706        | 1585        | 1617        | 1783   | 1697    | 1681   | 85     | 82     | 85     | 77     | 89     |
| 25:00          | 1789        | 1654        | 1626        | 1772   | 1713    | 1743   | 86     | 83     | 85     | 77     | 89     |
| 25:15          | 1764        | 1632        | 1629        | 1825   | 1737    | 1754   | 86     | 83     | 85     | 77     | 90     |
| 25:30          | 1758        | 1636        | 1643        | 1821   | 1756    | 1752   | 86     | 83     | 85     | 77     | 90     |
| 25:45          | 1750        | 1631        | 1653        | 1815   | 1756    | 1759   | 86     | 83     | 86     | 77     | 90     |
| 26:00          | 1782        | 1649        | 1641        | 1835   | 1752    | 1774   | 86     | 83     | 86     | 77     | 90     |
| 26:15          | 1789        | 1641        | 1662        | 1837   | 1754    | 1753   | 86     | 84     | 86     | 77     | 91     |
| 26:30          | 1762        | 1622        | 1675        | 1852   | 1759    | 1752   | 87     | 84     | 86     | 77     | 91     |
| 26:45          | 1824        | 1685        | 1679        | 1834   | 1767    | 1774   | 87     | 84     | 86     | 77     | 91     |
| 27:00          | 1803        | 1677        | 1662        | 1845   | 1777    | 1778   | 87     | 84     | 86     | 77     | 91     |
| 27:15          | 1765        | 1653        | 1660        | 1837   | 1769    | 1775   | 87     | 84     | 86     | 77     | 91     |
| 27:30          | 1787        | 1668        | 1660        | 1833   | 1775    | 1787   | 87     | 85     | 86     | 77     | 91     |
| 27:45          | 1767        | 1657        | 1674        | 1882   | 1790    | 1775   | 88     | 85     | 87     | 77     | 92     |
| 28:00          | 1762        | 1659        | 1665        | 1859   | 1787    | 1800   | 88     | 85     | 87     | 77     | 92     |
| 28:15          | 1781        | 1670        | 1649        | 1881   | 1796    | 1791   | 88     | 85     | 87     | 77     | 92     |
| 28:30          | 1756        | 1668        | 1656        | 1853   | 1780    | 1775   | 88     | 85     | 87     | 77     | 92     |
| 28:45          | 1776        | 1662        | 1663        | 1871   | 1782    | 1779   | 88     | 86     | 87     | 77     | 93     |
| 29:00          | 1774        | 1662        | 1665        | 1841   | 1773    | 1776   | 89     | 86     | 87     | 77     | 92     |
| 29:15          | 1775        | 1663        | 1659        | 1853   | 1776    | 1772   | 89     | 86     | 88     | 77     | 93     |
| 29:30          | 1793        | 1649        | 1673        | 1849   | 1770    | 1750   | 89     | 86     | 88     | 78     | 93     |
| 29:45          | 1763        | 1634        | 1670        | 1843   | 1767    | 1758   | 89     | 86     | 88     | 78     | 93     |
| 30:00          | 1758        | 1649        | 1663        | 1822   | 1763    | 1763   | 90     | 86     | 89     | 78     | 94     |

| Time (Min:Sec) | T/C 54 | T/C 55 | T/C 56 | T/C 57 | T/C 58 | T/C 59 | T/C 60 | T/C 61 | T/C 62 | T/C 63 | T/C 64 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 00:00          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 00:15          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 00:30          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 00:45          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 01:00          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 01:15          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 01:30          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 01:45          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 02:00          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 02:15          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 02:30          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 02:45          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 03:00          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 03:15          | 78     | 79     | 80     | 80     | 81     | 80     | 81     | 81     | 81     | 80     | 80     |
| 03:30          | 79     | 79     | 80     | 80     | 81     | 80     | 81     | 82     | 81     | 80     | 80     |
| 03:45          | 79     | 79     | 80     | 80     | 81     | 81     | 81     | 82     | 81     | 80     | 80     |
| 04:00          | 79     | 79     | 80     | 80     | 81     | 81     | 81     | 82     | 81     | 80     | 80     |
| 04:15          | 79     | 79     | 80     | 80     | 81     | 81     | 81     | 82     | 81     | 80     | 80     |
| 04:30          | 79     | 79     | 80     | 80     | 81     | 81     | 81     | 82     | 81     | 80     | 80     |
| 04:45          | 79     | 79     | 80     | 80     | 81     | 81     | 81     | 82     | 81     | 80     | 80     |
| 05:00          | 79     | 79     | 80     | 80     | 81     | 81     | 81     | 83     | 81     | 80     | 80     |
| 05:15          | 79     | 79     | 80     | 80     | 81     | 81     | 81     | 83     | 81     | 80     | 80     |
| 05:30          | 79     | 79     | 80     | 80     | 81     | 81     | 81     | 83     | 81     | 80     | 80     |
| 05:45          | 79     | 79     | 80     | 80     | 81     | 82     | 81     | 83     | 81     | 80     | 80     |
| 06:00          | 79     | 79     | 80     | 80     | 81     | 82     | 82     | 84     | 81     | 80     | 80     |
| 06:15          | 79     | 79     | 80     | 80     | 81     | 82     | 82     | 84     | 81     | 80     | 80     |
| 06:30          | 79     | 79     | 80     | 80     | 81     | 82     | 82     | 84     | 81     | 80     | 80     |
| 06:45          | 80     | 79     | 80     | 80     | 81     | 83     | 82     | 85     | 81     | 81     | 80     |
| 07:00          | 80     | 80     | 80     | 80     | 81     | 83     | 82     | 85     | 81     | 81     | 80     |
| 07:15          | 79     | 80     | 80     | 80     | 81     | 83     | 83     | 85     | 81     | 81     | 80     |
| 07:30          | 80     | 80     | 80     | 80     | 81     | 83     | 83     | 86     | 82     | 81     | 80     |
| 07:45          | 80     | 80     | 81     | 80     | 81     | 84     | 83     | 86     | 82     | 81     | 80     |
| 08:00          | 80     | 80     | 81     | 80     | 81     | 84     | 83     | 87     | 82     | 81     | 80     |
| 08:15          | 80     | 80     | 81     | 80     | 82     | 84     | 84     | 87     | 82     | 81     | 80     |
| 08:30          | 80     | 80     | 81     | 80     | 81     | 85     | 84     | 88     | 82     | 81     | 80     |
| 08:45          | 80     | 80     | 81     | 81     | 82     | 85     | 84     | 88     | 82     | 81     | 80     |
| 09:00          | 80     | 80     | 81     | 81     | 82     | 86     | 85     | 89     | 82     | 81     | 80     |
| 09:15          | 80     | 80     | 81     | 81     | 82     | 86     | 85     | 90     | 82     | 81     | 80     |
| 09:30          | 80     | 80     | 81     | 81     | 82     | 87     | 86     | 90     | 82     | 81     | 80     |
| 09:45          | 80     | 80     | 81     | 81     | 82     | 87     | 86     | 91     | 82     | 81     | 80     |

| Time (Min:Sec) | T/C 54 | T/C 55 | T/C 56 | T/C 57 | T/C 58 | T/C 59 | T/C 60 | T/C 61 | T/C 62 | T/C 63 | T/C 64 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10:00          | 80     | 80     | 82     | 81     | 82     | 88     | 87     | 92     | 82     | 81     | 81     |
| 10:15          | 80     | 80     | 82     | 81     | 82     | 88     | 87     | 92     | 82     | 82     | 81     |
| 10:30          | 80     | 81     | 82     | 81     | 82     | 89     | 88     | 93     | 83     | 82     | 81     |
| 10:45          | 81     | 81     | 82     | 81     | 82     | 89     | 88     | 94     | 83     | 82     | 81     |
| 11:00          | 81     | 81     | 82     | 82     | 82     | 90     | 89     | 95     | 83     | 82     | 81     |
| 11:15          | 81     | 81     | 82     | 82     | 83     | 91     | 89     | 96     | 83     | 82     | 81     |
| 11:30          | 81     | 81     | 83     | 82     | 83     | 91     | 90     | 96     | 83     | 82     | 81     |
| 11:45          | 81     | 81     | 83     | 82     | 83     | 92     | 91     | 97     | 83     | 82     | 81     |
| 12:00          | 81     | 81     | 83     | 82     | 83     | 92     | 91     | 98     | 83     | 82     | 81     |
| 12:15          | 81     | 82     | 83     | 82     | 83     | 93     | 92     | 99     | 84     | 83     | 82     |
| 12:30          | 81     | 82     | 83     | 82     | 83     | 94     | 93     | 100    | 84     | 83     | 82     |
| 12:45          | 82     | 82     | 84     | 83     | 83     | 95     | 94     | 101    | 84     | 83     | 82     |
| 13:00          | 82     | 82     | 84     | 83     | 84     | 95     | 94     | 102    | 84     | 83     | 82     |
| 13:15          | 82     | 82     | 84     | 83     | 84     | 96     | 95     | 103    | 84     | 83     | 82     |
| 13:30          | 82     | 82     | 84     | 83     | 84     | 97     | 96     | 104    | 84     | 83     | 82     |
| 13:45          | 82     | 82     | 85     | 83     | 84     | 98     | 97     | 105    | 85     | 84     | 83     |
| 14:00          | 82     | 83     | 85     | 84     | 84     | 99     | 98     | 106    | 85     | 84     | 83     |
| 14:15          | 82     | 83     | 85     | 84     | 84     | 99     | 99     | 107    | 85     | 84     | 83     |
| 14:30          | 83     | 83     | 85     | 84     | 84     | 100    | 100    | 108    | 85     | 84     | 83     |
| 14:45          | 83     | 83     | 86     | 84     | 85     | 101    | 101    | 109    | 85     | 84     | 83     |
| 15:00          | 83     | 83     | 86     | 84     | 85     | 102    | 102    | 110    | 85     | 84     | 83     |
| 15:15          | 83     | 83     | 86     | 85     | 85     | 103    | 103    | 112    | 86     | 85     | 84     |
| 15:30          | 83     | 84     | 87     | 85     | 85     | 104    | 104    | 113    | 86     | 85     | 84     |
| 15:45          | 83     | 84     | 87     | 85     | 85     | 105    | 105    | 114    | 86     | 85     | 84     |
| 16:00          | 83     | 84     | 87     | 85     | 86     | 106    | 107    | 115    | 86     | 85     | 85     |
| 16:15          | 83     | 84     | 88     | 86     | 86     | 107    | 108    | 116    | 87     | 85     | 85     |
| 16:30          | 84     | 84     | 88     | 86     | 86     | 107    | 109    | 118    | 87     | 86     | 85     |
| 16:45          | 84     | 85     | 89     | 86     | 87     | 108    | 110    | 119    | 87     | 86     | 85     |
| 17:00          | 84     | 85     | 89     | 86     | 87     | 109    | 111    | 120    | 87     | 86     | 86     |
| 17:15          | 84     | 85     | 89     | 87     | 87     | 110    | 113    | 121    | 88     | 86     | 86     |
| 17:30          | 84     | 85     | 90     | 87     | 87     | 111    | 114    | 123    | 88     | 86     | 86     |
| 17:45          | 84     | 85     | 90     | 87     | 88     | 112    | 115    | 124    | 88     | 87     | 87     |
| 18:00          | 85     | 86     | 91     | 87     | 88     | 113    | 117    | 125    | 88     | 87     | 87     |
| 18:15          | 84     | 86     | 91     | 88     | 88     | 114    | 118    | 127    | 89     | 87     | 88     |
| 18:30          | 85     | 86     | 92     | 88     | 88     | 115    | 119    | 128    | 89     | 87     | 88     |
| 18:45          | 85     | 86     | 92     | 88     | 89     | 116    | 121    | 129    | 89     | 88     | 89     |
| 19:00          | 85     | 86     | 93     | 88     | 89     | 117    | 122    | 131    | 90     | 88     | 89     |
| 19:15          | 85     | 87     | 93     | 89     | 89     | 118    | 123    | 132    | 90     | 88     | 90     |
| 19:30          | 85     | 87     | 94     | 89     | 90     | 119    | 125    | 134    | 90     | 88     | 90     |
| 19:45          | 85     | 87     | 94     | 89     | 90     | 120    | 126    | 135    | 91     | 89     | 91     |

| Time (Min:Sec) | T/C 54 | T/C 55 | T/C 56 | T/C 57 | T/C 58 | T/C 59 | T/C 60 | T/C 61 | T/C 62 | T/C 63 | T/C 64 |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 20:00          | 86     | 87     | 95     | 89     | 90     | 121    | 127    | 136    | 91     | 89     | 91     |
| 20:15          | 86     | 88     | 95     | 90     | 90     | 122    | 129    | 137    | 91     | 89     | 92     |
| 20:30          | 86     | 88     | 96     | 90     | 91     | 122    | 130    | 139    | 92     | 89     | 92     |
| 20:45          | 86     | 88     | 96     | 90     | 91     | 123    | 132    | 140    | 92     | 90     | 93     |
| 21:00          | 86     | 88     | 97     | 90     | 91     | 124    | 133    | 141    | 92     | 90     | 94     |
| 21:15          | 86     | 88     | 97     | 91     | 92     | 125    | 135    | 143    | 93     | 90     | 94     |
| 21:30          | 86     | 89     | 98     | 91     | 92     | 126    | 136    | 144    | 93     | 90     | 95     |
| 21:45          | 86     | 89     | 98     | 91     | 92     | 127    | 137    | 145    | 93     | 91     | 95     |
| 22:00          | 86     | 89     | 99     | 92     | 93     | 128    | 139    | 146    | 94     | 91     | 96     |
| 22:15          | 87     | 89     | 99     | 92     | 93     | 129    | 140    | 147    | 94     | 91     | 96     |
| 22:30          | 87     | 89     | 100    | 92     | 93     | 130    | 142    | 149    | 94     | 92     | 97     |
| 22:45          | 87     | 90     | 100    | 92     | 94     | 131    | 143    | 150    | 95     | 92     | 97     |
| 23:00          | 87     | 90     | 101    | 93     | 94     | 132    | 145    | 151    | 95     | 92     | 98     |
| 23:15          | 87     | 90     | 101    | 93     | 94     | 133    | 146    | 152    | 95     | 92     | 98     |
| 23:30          | 87     | 91     | 102    | 93     | 95     | 135    | 148    | 153    | 96     | 93     | 99     |
| 23:45          | 87     | 91     | 102    | 94     | 95     | 136    | 150    | 154    | 96     | 93     | 99     |
| 24:00          | 87     | 91     | 103    | 94     | 96     | 137    | 151    | 155    | 96     | 93     | 100    |
| 24:15          | 87     | 91     | 103    | 94     | 96     | 139    | 153    | 156    | 97     | 93     | 100    |
| 24:30          | 88     | 92     | 104    | 95     | 96     | 140    | 154    | 158    | 97     | 94     | 100    |
| 24:45          | 87     | 92     | 104    | 95     | 97     | 141    | 156    | 159    | 97     | 94     | 101    |
| 25:00          | 88     | 92     | 105    | 95     | 97     | 143    | 157    | 160    | 98     | 94     | 101    |
| 25:15          | 88     | 93     | 105    | 95     | 98     | 144    | 159    | 161    | 98     | 95     | 102    |
| 25:30          | 88     | 93     | 106    | 96     | 98     | 145    | 161    | 162    | 98     | 95     | 102    |
| 25:45          | 88     | 93     | 106    | 96     | 98     | 147    | 162    | 163    | 99     | 95     | 103    |
| 26:00          | 88     | 93     | 107    | 97     | 99     | 148    | 164    | 164    | 99     | 95     | 103    |
| 26:15          | 88     | 94     | 107    | 97     | 99     | 149    | 166    | 165    | 99     | 96     | 104    |
| 26:30          | 88     | 94     | 108    | 97     | 100    | 150    | 167    | 166    | 100    | 96     | 104    |
| 26:45          | 89     | 94     | 108    | 98     | 100    | 152    | 169    | 168    | 100    | 96     | 104    |
| 27:00          | 89     | 95     | 108    | 98     | 101    | 153    | 171    | 169    | 100    | 97     | 105    |
| 27:15          | 89     | 95     | 109    | 98     | 101    | 154    | 173    | 170    | 101    | 97     | 105    |
| 27:30          | 89     | 95     | 109    | 99     | 102    | 155    | 175    | 171    | 101    | 97     | 106    |
| 27:45          | 89     | 96     | 109    | 99     | 102    | 157    | 176    | 173    | 102    | 97     | 106    |
| 28:00          | 89     | 96     | 110    | 99     | 102    | 158    | 178    | 174    | 102    | 98     | 106    |
| 28:15          | 89     | 96     | 110    | 100    | 103    | 159    | 180    | 176    | 102    | 98     | 107    |
| 28:30          | 90     | 97     | 110    | 100    | 103    | 160    | 182    | 177    | 103    | 98     | 107    |
| 28:45          | 90     | 97     | 111    | 100    | 103    | 161    | 184    | 179    | 103    | 98     | 108    |
| 29:00          | 90     | 97     | 111    | 101    | 104    | 163    | 185    | 180    | 103    | 99     | 108    |
| 29:15          | 90     | 98     | 111    | 101    | 104    | 164    | 187    | 181    | 104    | 99     | 108    |
| 29:30          | 90     | 98     | 112    | 101    | 105    | 165    | 189    | 183    | 104    | 99     | 109    |
| 29:45          | 91     | 98     | 112    | 102    | 105    | 166    | 191    | 184    | 104    | 100    | 109    |
| 30:00          | 91     | 98     | 112    | 102    | 105    | 167    | 193    | 185    | 104    | 100    | 109    |

| Time (Min:Sec) | T/C 65 | T/C 66 | T/C 67 |
|----------------|--------|--------|--------|
| 00:00          | 80     | 78     | 78     |
| 00:15          | 80     | 78     | 78     |
| 00:30          | 80     | 78     | 78     |
| 00:45          | 80     | 78     | 78     |
| 01:00          | 80     | 78     | 78     |
| 01:15          | 80     | 78     | 78     |
| 01:30          | 80     | 78     | 78     |
| 01:45          | 80     | 78     | 78     |
| 02:00          | 80     | 78     | 78     |
| 02:15          | 80     | 78     | 78     |
| 02:30          | 80     | 78     | 78     |
| 02:45          | 80     | 78     | 78     |
| 03:00          | 80     | 78     | 78     |
| 03:15          | 80     | 78     | 78     |
| 03:30          | 80     | 78     | 78     |
| 03:45          | 80     | 78     | 78     |
| 04:00          | 80     | 78     | 78     |
| 04:15          | 80     | 78     | 78     |
| 04:30          | 80     | 79     | 78     |
| 04:45          | 80     | 79     | 78     |
| 05:00          | 80     | 79     | 78     |
| 05:15          | 80     | 79     | 78     |
| 05:30          | 80     | 79     | 78     |
| 05:45          | 80     | 79     | 78     |
| 06:00          | 80     | 79     | 78     |
| 06:15          | 80     | 79     | 78     |
| 06:30          | 80     | 79     | 78     |
| 06:45          | 80     | 79     | 78     |
| 07:00          | 80     | 79     | 78     |
| 07:15          | 80     | 79     | 78     |
| 07:30          | 80     | 79     | 78     |
| 07:45          | 80     | 79     | 78     |
| 08:00          | 81     | 79     | 78     |
| 08:15          | 81     | 79     | 78     |
| 08:30          | 81     | 79     | 78     |
| 08:45          | 81     | 79     | 78     |
| 09:00          | 81     | 79     | 78     |
| 09:15          | 81     | 80     | 78     |
| 09:30          | 81     | 80     | 78     |
| 09:45          | 81     | 80     | 78     |

| Time (Min:Sec) | T/C 65 | T/C 66 | T/C 67 |
|----------------|--------|--------|--------|
| 10:00          | 81     | 80     | 78     |
| 10:15          | 82     | 80     | 78     |
| 10:30          | 82     | 80     | 78     |
| 10:45          | 82     | 80     | 78     |
| 11:00          | 82     | 80     | 78     |
| 11:15          | 82     | 80     | 78     |
| 11:30          | 82     | 80     | 78     |
| 11:45          | 82     | 81     | 79     |
| 12:00          | 83     | 81     | 79     |
| 12:15          | 83     | 81     | 79     |
| 12:30          | 83     | 81     | 79     |
| 12:45          | 83     | 81     | 79     |
| 13:00          | 83     | 81     | 79     |
| 13:15          | 84     | 81     | 79     |
| 13:30          | 84     | 82     | 79     |
| 13:45          | 84     | 82     | 79     |
| 14:00          | 84     | 82     | 79     |
| 14:15          | 84     | 82     | 79     |
| 14:30          | 85     | 82     | 79     |
| 14:45          | 85     | 83     | 79     |
| 15:00          | 85     | 83     | 79     |
| 15:15          | 85     | 83     | 79     |
| 15:30          | 86     | 83     | 79     |
| 15:45          | 86     | 84     | 80     |
| 16:00          | 86     | 84     | 80     |
| 16:15          | 87     | 84     | 80     |
| 16:30          | 87     | 85     | 80     |
| 16:45          | 87     | 85     | 80     |
| 17:00          | 87     | 85     | 80     |
| 17:15          | 88     | 86     | 80     |
| 17:30          | 88     | 86     | 80     |
| 17:45          | 89     | 86     | 80     |
| 18:00          | 89     | 87     | 81     |
| 18:15          | 89     | 87     | 81     |
| 18:30          | 90     | 87     | 81     |
| 18:45          | 90     | 88     | 81     |
| 19:00          | 91     | 88     | 81     |
| 19:15          | 91     | 89     | 82     |
| 19:30          | 92     | 89     | 82     |
| 19:45          | 92     | 90     | 82     |



| Time<br>(Min:Sec) | T/C 65 | T/C 66 | T/C 67 |
|-------------------|--------|--------|--------|
| 20:00             | 93     | 90     | 83     |
| 20:15             | 93     | 91     | 83     |
| 20:30             | 94     | 91     | 83     |
| 20:45             | 94     | 92     | 84     |
| 21:00             | 95     | 92     | 84     |
| 21:15             | 95     | 93     | 85     |
| 21:30             | 96     | 93     | 85     |
| 21:45             | 96     | 94     | 86     |
| 22:00             | 96     | 95     | 86     |
| 22:15             | 97     | 95     | 87     |
| 22:30             | 97     | 96     | 87     |
| 22:45             | 98     | 96     | 88     |
| 23:00             | 98     | 97     | 88     |
| 23:15             | 99     | 98     | 89     |
| 23:30             | 99     | 98     | 89     |
| 23:45             | 100    | 99     | 89     |
| 24:00             | 100    | 100    | 90     |
| 24:15             | 101    | 101    | 90     |
| 24:30             | 101    | 102    | 91     |
| 24:45             | 102    | 103    | 91     |
| 25:00             | 102    | 104    | 91     |
| 25:15             | 103    | 105    | 92     |
| 25:30             | 103    | 106    | 92     |
| 25:45             | 104    | 107    | 93     |
| 26:00             | 104    | 108    | 93     |
| 26:15             | 105    | 109    | 93     |
| 26:30             | 105    | 109    | 94     |
| 26:45             | 106    | 110    | 94     |
| 27:00             | 106    | 110    | 94     |
| 27:15             | 107    | 111    | 95     |
| 27:30             | 107    | 111    | 95     |
| 27:45             | 108    | 111    | 95     |
| 28:00             | 108    | 112    | 96     |
| 28:15             | 108    | 112    | 96     |
| 28:30             | 109    | 113    | 96     |
| 28:45             | 109    | 113    | 97     |
| 29:00             | 110    | 113    | 97     |
| 29:15             | 110    | 114    | 97     |
| 29:30             | 111    | 114    | 97     |
| 29:45             | 111    | 114    | 98     |
| 30:00             | 111    | 115    | 98     |

## **Appendix C**

### **Photographs**



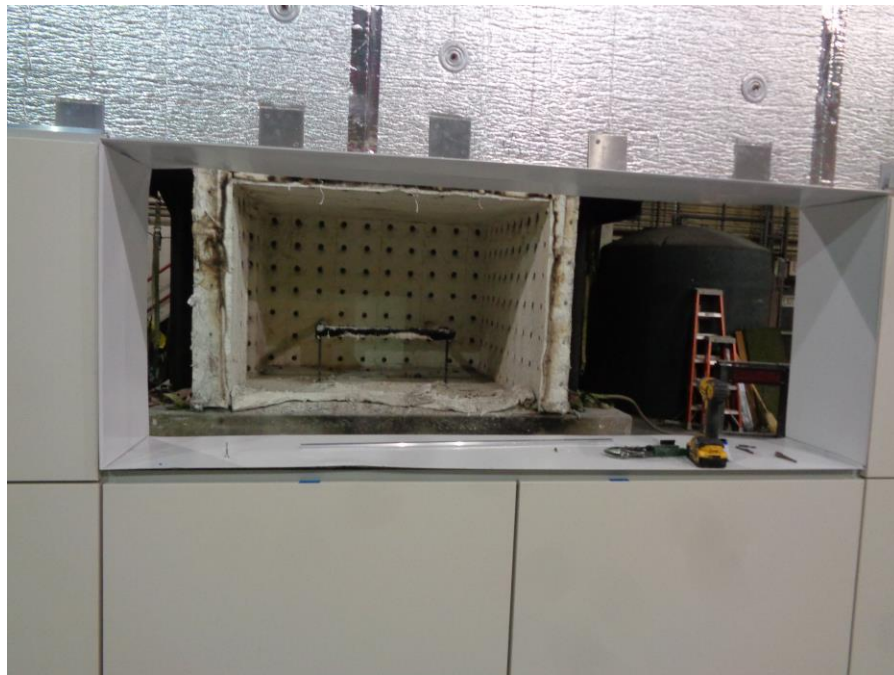
**Photo No. 1**  
**Core Wall Construction**



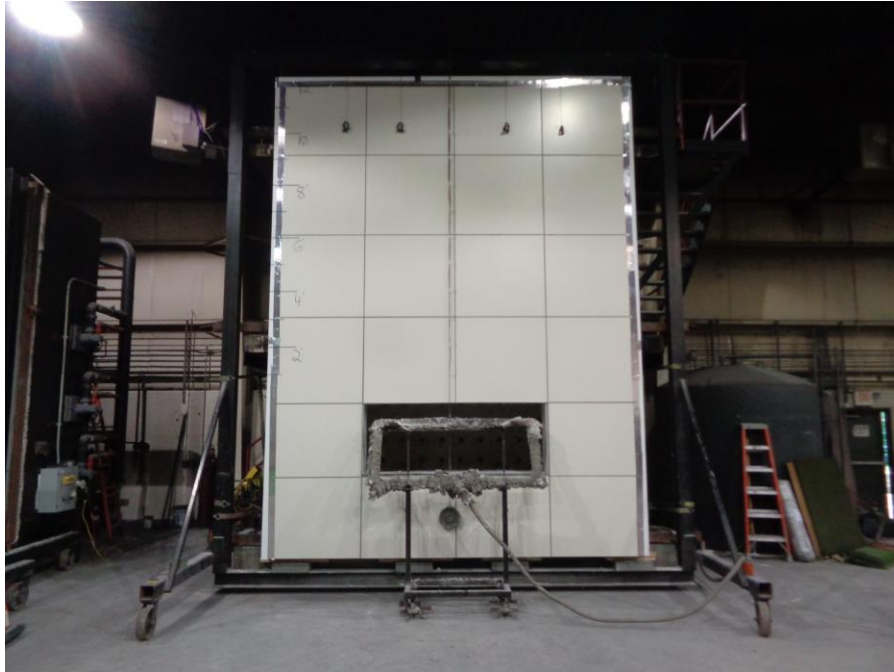
**Photo No. 2**  
**Installation of Grace Perm-A-Barrier® VP**



**Photo No. 3**  
**Installed Insulation and Technoform TE Hybrid Thermal Spacers**



**Photo No. 4**  
**Installation of Exterior Cladding**



**Photo No. 5**  
**Complete Assembly (Pre-test)**



**Photo No. 6**  
**Interior First Story (Pre-test)**



**Photo No. 7**  
**Interior Second Story (Pre-test)**



**Photo No. 8**  
**Ignition of the Interior Burner**



**Photo No. 9**  
**Ignition of the Window Opening Burner**



**Photo No. 10**  
**Flame Propagation (During Test)**



**Photo No. 11**  
**Burners Extinguished**



**Photo No. 12**  
**Exterior Cladding Burn Pattern (Post-test)**





**Photo No. 13**  
**Interior First and Second Story Burn Pattern (Post-test)**



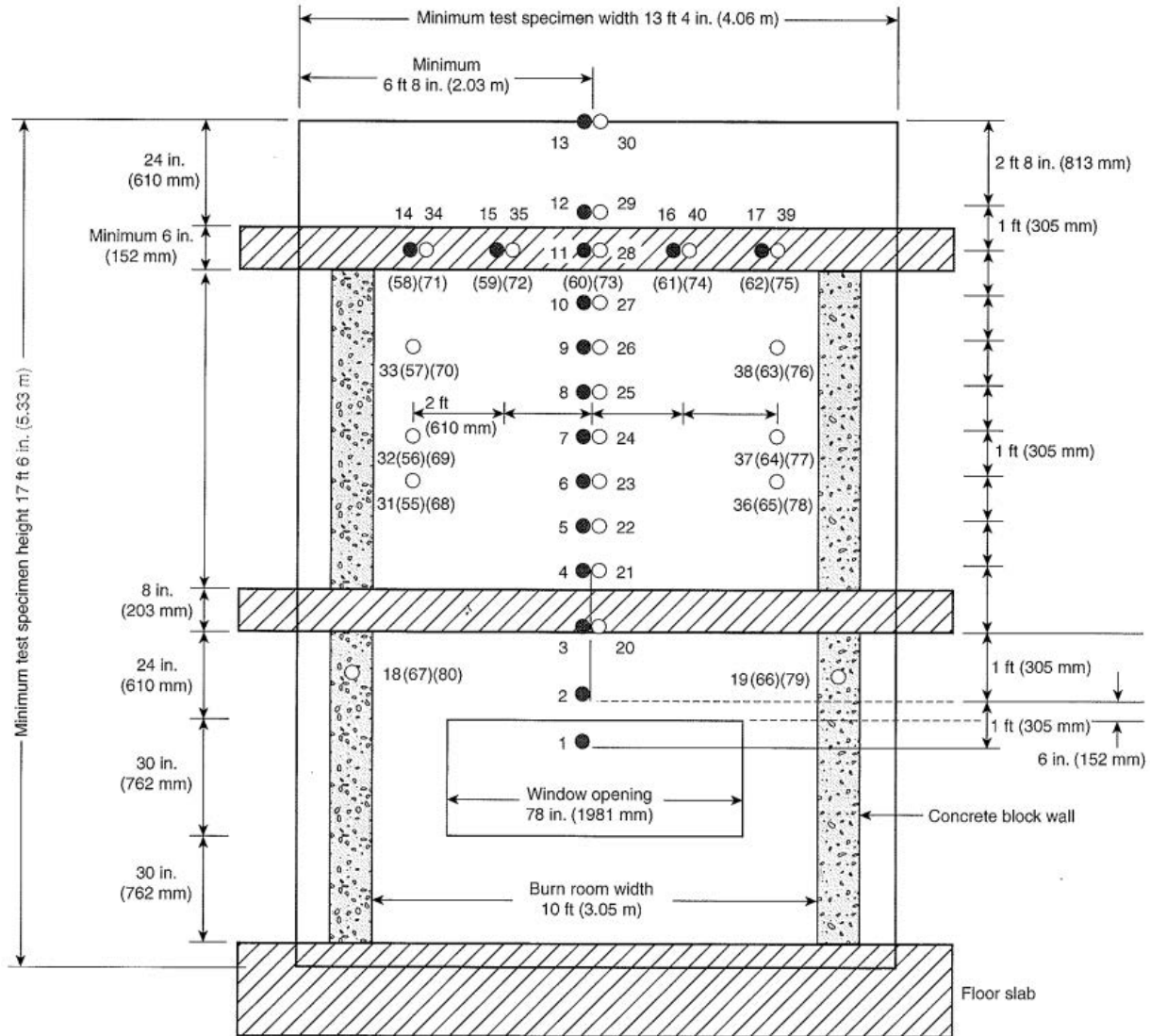
**Photo No. 14**  
**Exterior Cladding Removed & Burn Pattern of Insulation (Post-test)**



**Photo No. 15**  
**Exterior Insulation Removed & Burn Pattern of AV Barrier (Post-test)**

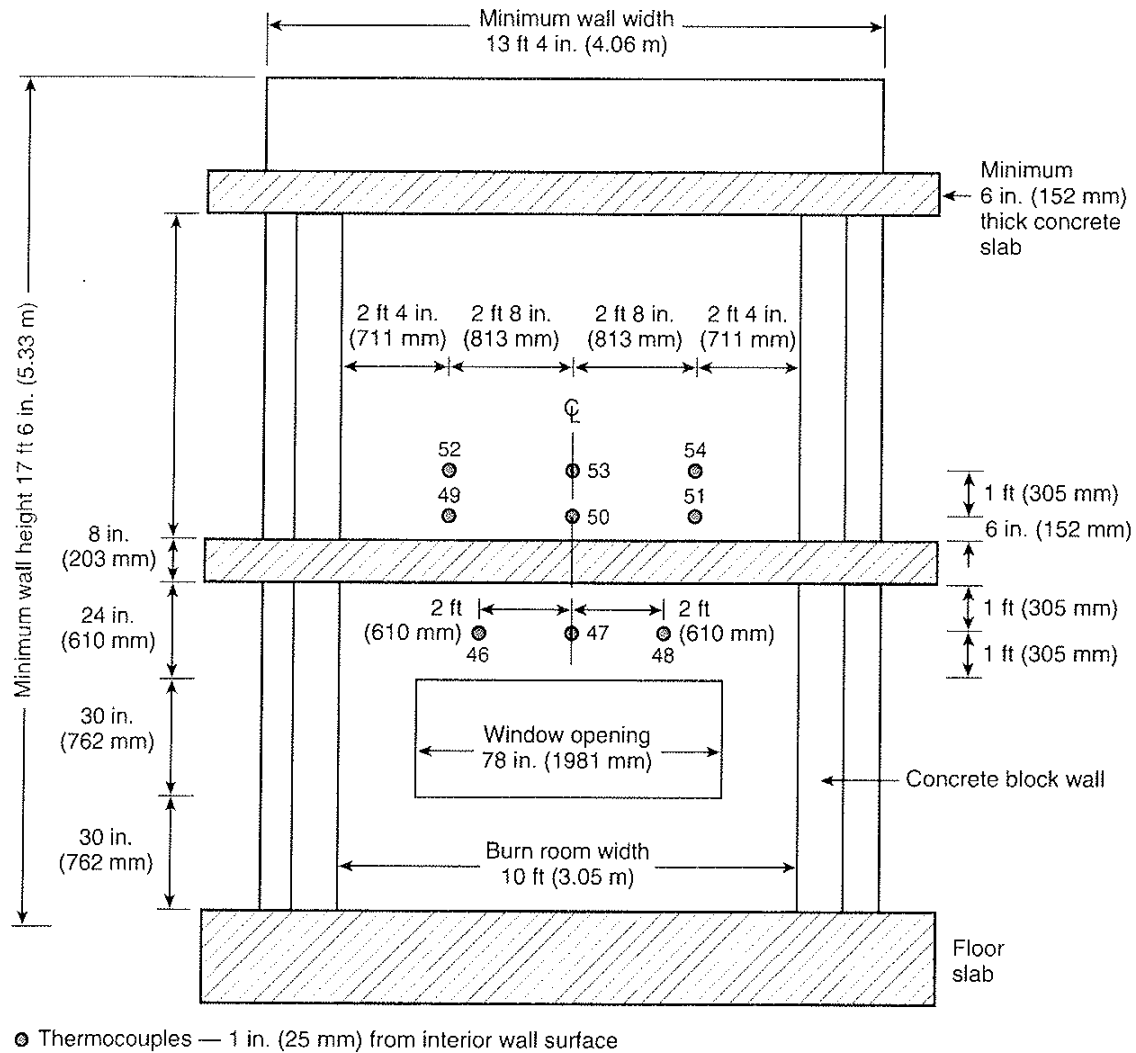
## **Appendix C**

### **Drawings**

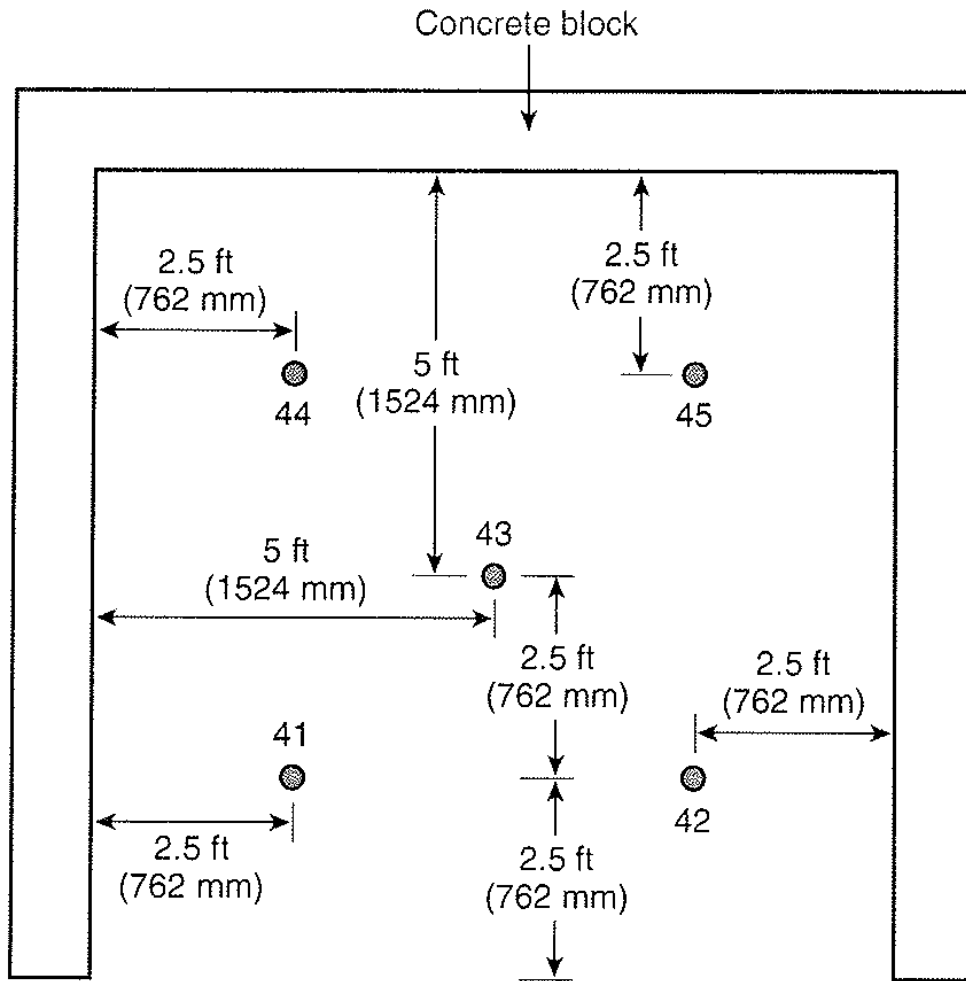


- Thermocouples — 1 in. (25 mm) from exterior wall surface
- Thermocouples — In the wall cavity air space or the insulation, or both, as shown in Figure 6.1(b) Details A through I.
- ( ) Thermocouples — Additional thermocouples in the insulation or the stud cavity, or both, where required for the test specimen construction being tested, as shown in Figure 6.1(b) Details C through I.

**FIGURE 6.1(a) Front View of Test Specimen Superimposed over Test Apparatus Thermocouple Locations.**

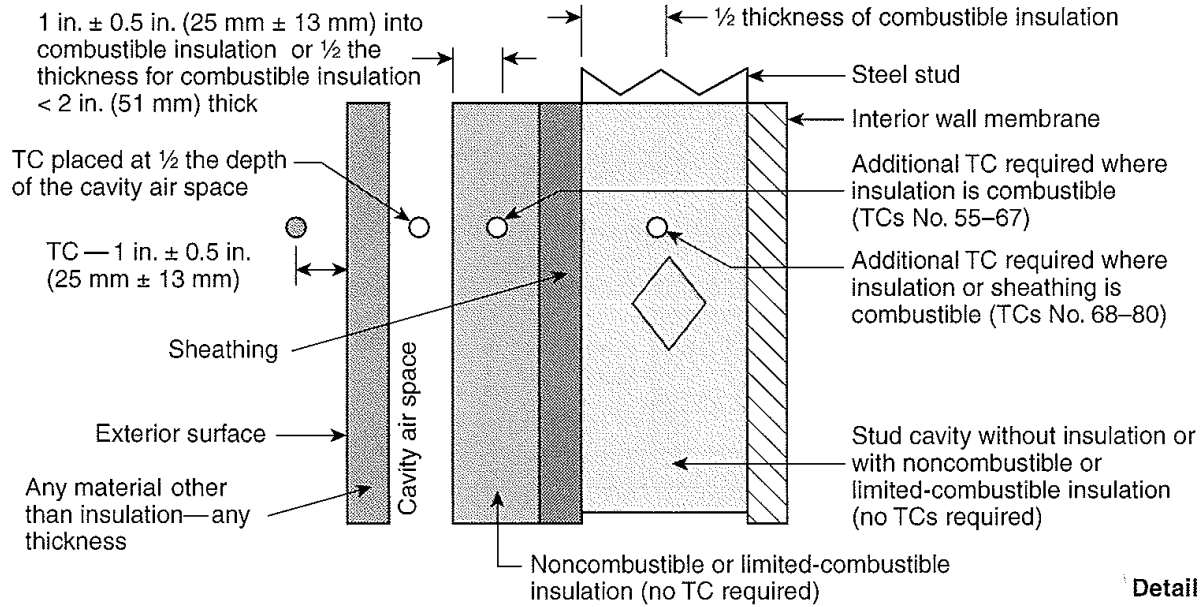


**FIGURE 6.1(c) Interior View of the Test Specimen. Instrumentation arrangement.**

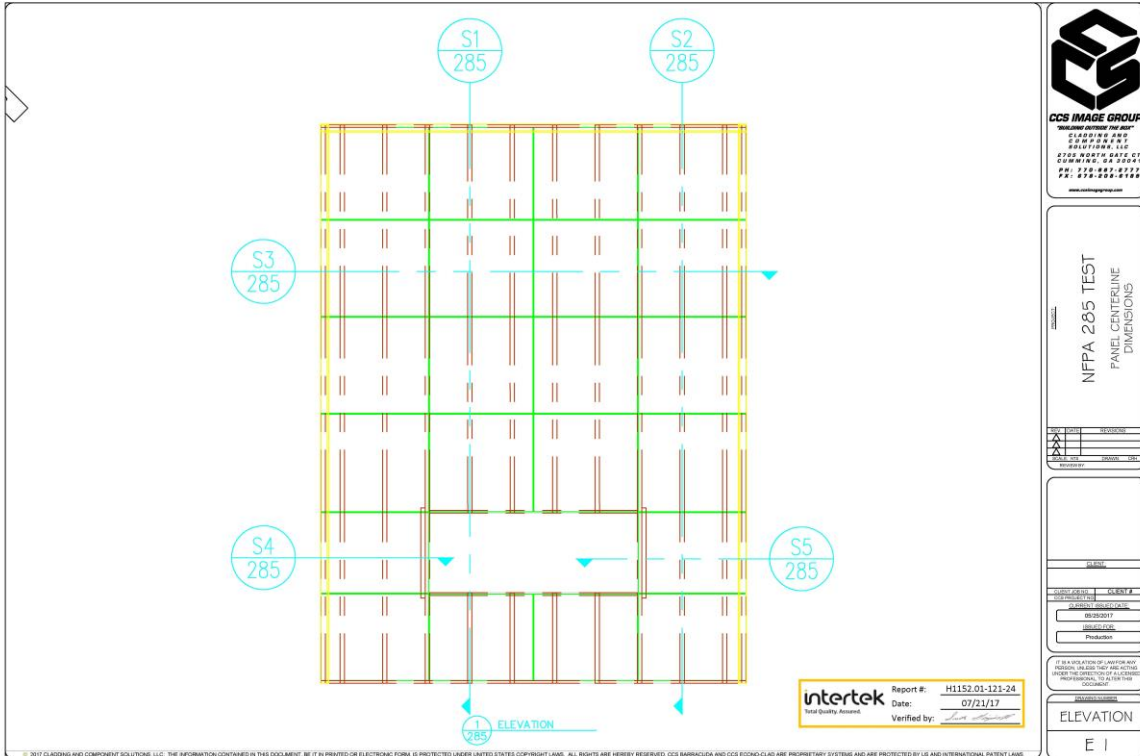


● Thermocouples (5) inside burn room 6 in. (152 mm) below ceiling

**FIGURE 6.1(d) Plan View — First-Story Test Room. Instrumentation arrangement.**



**Detail H**




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 1000 W. NORTH WALK CT  
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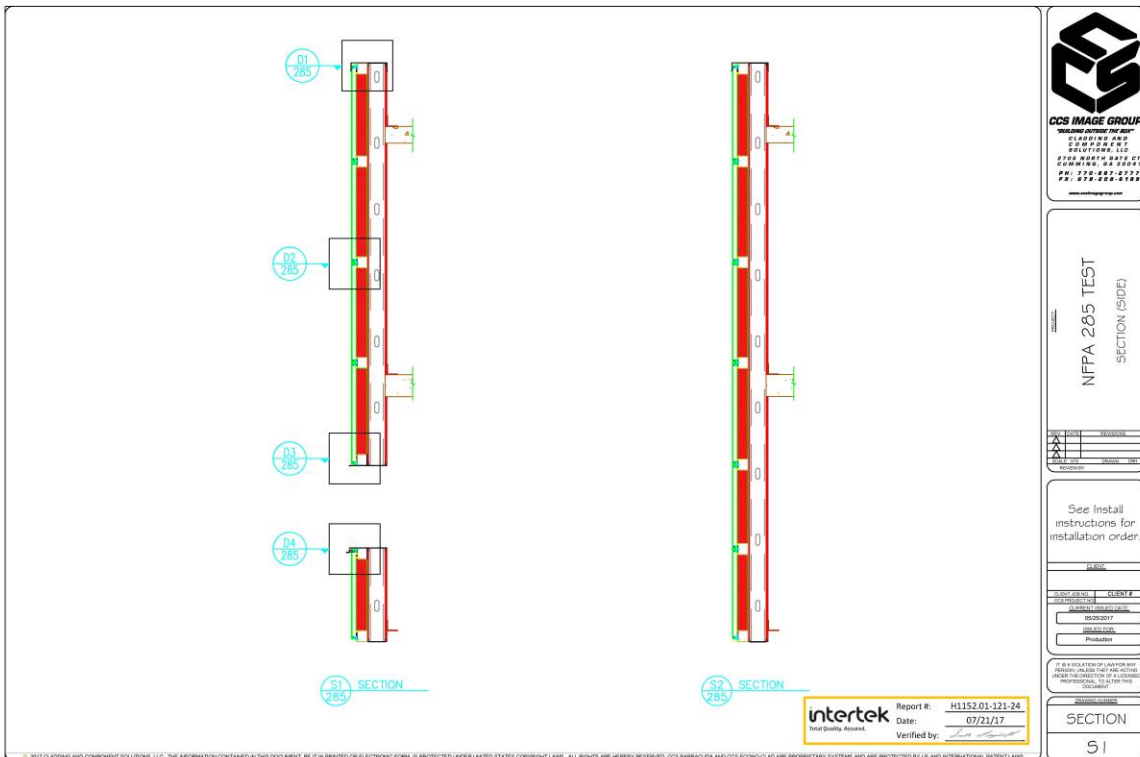
**NFPA 285 TEST**  
 PANEL CENTERLINE  
 DIMENSIONS

|     |      |             |
|-----|------|-------------|
| REV | DATE | DESCRIPTION |
| 1   |      |             |
| 2   |      |             |
| 3   |      |             |

DATE: 05/23/2017  
 PROJECT: Production

IF A QUALITY ASSURANCE GROUP HAS BEEN APPOINTED FOR THIS PROJECT, THE TEST SHOULD BE CONDUCTED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL, AS SET FORTH IN THE DOCUMENT.

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**NFPA 285 TEST**  
 SECTION (SIDE)

|     |      |             |
|-----|------|-------------|
| REV | DATE | DESCRIPTION |
| 1   |      |             |
| 2   |      |             |
| 3   |      |             |

DATE: 05/23/2017  
 PROJECT: Production

See install instructions for installation order.

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**SECTION**  
 S I



