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Lewis Research Center
Cleveland, Ohio

NASA
National Aeronautics
and Space Administration

**Scientific and Technical
Information Branch**

Summary

Detailed flow surveys downstream of the corner turning vanes and downstream of the fan inlet guide vanes have been obtained in a 0.1-scale model of the NASA Lewis Research Center's proposed Altitude Wind Tunnel. Two turning vane designs were evaluated in both corners 1 and 2 (the corners between the test section and the drive fan). Corner 1 was tested with and without a simulated engine exhaust removal scoop. The tests were conducted at Mach numbers that corresponded to the test-section design Mach number of 0.80: 0.35 for corner 1 without the scoop, 0.41 for corner 1 with the scoop, and 0.24 for corner 2. Vane A was a controlled-diffusion airfoil and vane B was a circular-arc airfoil. The turning vane wakes were surveyed to determine the vane losses. For corner 1 the vane A turning vane configuration gave a lower loss coefficient than the vane B configuration (0.05 versus 0.08) in the regions where the flow regime should be representative of two-dimensional flow. Similar results were obtained in corner 2. When corner 1 was added to corner 2, the corner 2 vane losses increased slightly. For both vane sets the vane loss coefficient increased rapidly near the walls.

Introduction

It has been proposed that the NASA Lewis Research Center's inactive Altitude Wind Tunnel (AWT) be rehabilitated to meet the aeropropulsion needs of the future. The proposed tunnel would accommodate tests involving fuel-burning engines, adverse weather conditions, and acoustics at Mach numbers to 0.92. The original AWT became operational in 1944 and was used for aeropropulsion research until 1958. When the tunnel was converted to altitude test chambers for space research in the late 1950's, the tunnel internal components were removed. Therefore the proposed AWT would require all new internal components. In addition to a new high-speed leg (including settling chamber, contraction, test section, and diffuser) and heat exchanger, four new sets of turning vanes and a new two-stage fan drive system with variable inlet guide vanes (VIGV's) were proposed (fig. 1). In corner 1, immediately downstream of the test section (highest Mach number corner), an engine exhaust removal scoop would extend through the center of the turning vanes. The fan drive shaft fairing would extend through the corner 2 turning vanes. Corners 3 and 4 would be clean (i.e., no centerbody would pass through the vanes). The proposed tunnel features and the new tunnel components are described in detail in references 1 and 2.

Because of the magnitude of the proposed AWT rehabilitation a 0.1-scale modeling program was undertaken to ensure the technical soundness of the new component designs (refs. 3 to 5). The individual components were designed to be tested first separately and later collectively in order to evaluate how the various components interact. The overall aerodynamic performances of corners 1 and 2 are reported in references 6 and 7, respectively. The overall aerodynamic performance of the combined corner 1–corner 2 configuration is presented in reference 8. These results from the corner investigations are based on fixed radial rake measurements. To obtain more detailed information, specific flow conditions were examined by using traversing probes.

This report presents the detailed flow survey data at selected flows for corners 1 and 2 and the detailed flow survey data downstream of the fan VIGV's. For each corner the turning vane wakes were surveyed to determine the vane pressure losses and exit flow angles for both the controlled-diffusion and circular-arc vane airfoils. Corner 1 was tested at flows that corresponded to Mach numbers of about 0.35 without the simulated scoop and 0.41 with the simulated scoop. Corner 2 was tested at flows that corresponded to a Mach number of about 0.25. These values were based on the test-section design Mach number of 0.80. The vane losses for corner 2 were obtained with and without corner 1 installed. A detailed survey is also presented for the VIGV wakes with each turning vane set installed in corner 2 and the controlled-diffusion turning vanes and the simulated scoop installed in corner 1.

Apparatus and Procedure

Test Apparatus

The test configurations are described in detail in references 6 to 8. Each configuration was tested with the same inlet and the same exhaust piping; only the corner assemblies were changed. The inlet consisted of a bellmouth inlet, a honeycomb flow straightener, and a constant-diameter (82.296 cm) spool piece. The downstream exhaust section consisted of a choke-plate assembly that was connected to the NASA Lewis central altitude exhauster system.

The turning vanes in corner 1 (fig. 2) were evaluated first without and later with a simulated corner portion of the engine

exhaust removal scoop that included a downstream airfoil (figs. 3 and 4, respectively). The simulated scoop was supported at the inlet by a strut at the top and bottom. Turning vanes were also tested in the corner 2 configuration (figs. 5 and 6). Corners 1 and 2 were combined (figs. 7 and 8), and the turning vanes in corner 2 were reevaluated to determine how the upstream corner (corner 1) affected the performance of the corner 2 turning vanes. The bellmouth, flow straightener, and spool pieces were not part of the AWT design but were used to provide the flow to the AWT components. The VIGV performance was evaluated for the combined corner 1–corner 2 configuration (figs. 7 and 8).

Turning Vanes

For each corner two types of turning vanes were designed. One design, vane A, was a controlled-diffusion airfoil designed by an inverse method developed by Sanz (ref. 9). The other design, vane B, was a circular-arc airfoil designed by McFarland using the method described in reference 10. The detailed designs including coordinates are given in reference 6 (corner 1) and in reference 7 (corner 2). Since the vanes are set on the corner diagonal, the angle of flow entering and leaving the vanes should be 45°. The vane inlet and exit angles were designed for these conditions.

The corner 1 vane A (fig. 9(a)) had slightly different coordinates than the corner 2 vane A (fig. 10(a)) because of differences in the inlet Mach number (0.35 vs. 0.26) for the two corners. The corner 1 vane B (fig. 9(b)) and the corner 2 vane B (fig. 10(b)) had identical coordinates.

In references 6 and 7 several changes in vane setting angle and vane spacing are evaluated for vanes A in both corners. However, for this investigation vanes A and A10 in corner 1 and vanes A3 and A4 in corner 2 were used for the detailed flow surveys. Vane A10 was the same design as vane A except that the vanes were reset −5°. Vane A3 was the same design as vane A except that the vane nearest the outside corner was removed. Vane A4 was vane A3 reset −5°.

Fan Inlet Guide Vanes

The design of the fan variable inlet guide vanes is described in detail in reference 7. Briefly the 12 VIGV's had a stationary front portion and a variable trailing portion. The trailing-edge tips were designed to give approximately axial flow, whereas the hub regions turned the flow approximately 10° in the direction of fan rotation. The performances of the VIGV's were evaluated at three VIGV exit angles: 0°, 10°, and −10° (fig. 11).

Instrumentation

The airflow was determined from measurements on a choke plate located downstream of the vanes. Six removable plates and a fixed plate could be used to set seven specific flows. The choke-plate assembly was an arrangement of seven plates that tended to form a converging nozzle. To increase the flow, the last plate was removed and the preceding plates kept in place.

Downstream of the vane row surveys were made of the flow conditions (total and static pressure, total temperature, and flow angle) with spanwise traversing combination probes (fig. 12). Actuators mounted on top of and downstream of the corner (fig. 13) automatically nulled the probes to determine flow angle. For each vane set and configuration three areas were surveyed: the outside corner region, the middle region, and the inside corner region. Each survey was made across two turning vane passages. As can be seen from figures 14 to 18 some of the surveys for the inside and outside corner regions were not within the flow path. The reason is that rectangular regions were selected for ease of data reduction. When the probes were outside the flow path, the data were excluded.

To determine the total and static pressure and flow angle profiles downstream of the VIGV's, surveys were conducted with radially and circumferentially traversing actuators (fig. 19). For each data point four actuators were positioned at four circumferential locations around the casing (90° apart). They were mounted in a spool piece that could be rotated so that the conditions downstream of each VIGV could be surveyed. The one exception was the VIGV at 180°. At this location it was physically impossible to install the actuator between the casing and the floor. Behind each VIGV the combination probe (fig. 20) was moved to 10 radial and 13 circumferential positions to define the wakes.

Test Procedure

Turning vane surveys.—For a given configuration and flow point the actuator probes were set at the home position, which was normally midgap between two adjacent vanes. The actuators were traversed to 12 spanwise (radial) positions, or the distance along the vane span from the major axis to the outer wall. Total and static pressure, temperature, and flow angle data were recorded at each position. The flow was then terminated, and the probes were retracted and physically moved to another gapwise location, or the distance along the plane parallel to the major axis referenced from the midgap of the two adjacent vanes (increasing from the outside to the inside corner). After the same flow conditions had been established, the spanwise surveys were repeated. The probes were moved to 15 gapwise locations such that 2 vane wakes were surveyed at each of the 12 radial positions.

VIGV surveys.—The VIGV surveys were conducted at design conditions (Mach number, 0.34) only for the combined corner 1–corner 2 configuration. Both vanes A4 and vanes B were investigated in corner 2 to determine their effect on the VIGV's. Vanes A10 with the simulated scoop were in corner 1. The test procedure was the same for each vane set in corner 2. The flow survey regions are given in figure 21. For the VIGV exit angle of 0° the spool piece was positioned at ring position 1

(fig. 21(b)), and the probes were set at circumferential locations of 12°, 102°, 192°, and 282°. The probes were traversed radially to 10 positions from 5 to 95 percent of span. With the spool piece still at ring position 1 the probes were then circumferentially traversed to another circumferential angle, and the radial traverse procedure was repeated. The probes were traversed circumferentially 30° from their initial positions (in 13 steps) to determine the pressure profile behind an individual VIGV. The spool piece was then rotated 36° to ring position 2 (fig. 21(b)) and the probes were set to circumferential locations of 48°, 138°, 228°, and 318°. The radial and circumferential traversing procedure was repeated. Finally the spool piece was set to ring position 3 (fig. 21(b)), and the probes were set at circumferential locations of 75°, 255°, and 345°. (The bottom probe could not be installed.) At this position the top, inside corner, and outside corner VIGV's could be surveyed. At this last ring position the VIGV pressure and flow angle wakes were also investigated with the VIGV exit angles set at 10° and −10°.

Calculation Procedure

The airflow was calculated from Fliegner's formula (ref. 11) for a choked flow by using measured values of choke-plate assembly total pressure and total temperature. This calculated airflow agreed within 2 percent with the mass-averaged airflow calculated from limited cases in which very detailed surveys were made. The average Mach numbers and the velocity head were based on the calculated airflow. Total pressure, static pressure, total temperature, velocity head, and airflow were all corrected to standard-day conditions. For the corner 1 tests the standard-day conditions were based on the corner 1 inlet conditions. For the corner 2 tests and the combined corner 1–corner 2 tests the standard-day conditions were based on the VIGV conditions.

For the turning vane surveys the 15 gapwise values of total pressure behind the vanes were mass averaged over the two passages to obtain the average vane pressure at each radial position. In addition, for the outside and inside corner regions the average total pressure was calculated for each individual vane passage. Wake 1 was nearest the outside corner; wake 2 was nearest the inside corner. An average of the two highest gapwise total pressures behind the vane at each radial position was used as the upstream free-stream total pressure to calculate losses across the vane.

For the VIGV surveys the 13 circumferential values of total pressure behind each VIGV were mass averaged to obtain an average pressure at each radial position.

Symbols are defined in appendix A, and equations are given appendix B.

Results and Discussion

The results of this investigation are presented under five main topics: corner 1 vane performance without the simulated scoop; effect of the simulated scoop on corner 1 vane A10 performance; corner 2 vane performance without corner 1; corner 2 vane performance with corner 1; and VIGV performance. All the data are presented in tabular form. The corner 1 vane wake performance without the simulated scoop is presented for vane A in table 1, for vane A10 in table 2, and for vane B in table 3. The corner 1 vane A10 wake performance with the simulated scoop is presented in table 4. The corner 2 vane wake performance is presented in tables 5 and 6 for vane A3, in table 7 for vane A4, and in table 8 for vane B. For the combined corner 1–corner 2 test, vane A10 with the simulated scoop was always in corner 1. The corner 2 vane wake performance for this combination is presented in table 9 for vane A4 and in table 10 for vane B. The vane mass-averaged total pressures and loss coefficients for the various configurations are presented in table 11. The VIGV performance was also obtained with the combined-corners configuration, and the results are presented in table 12 for vane A4 and in table 13 for vane B.

Corner 1 Vane Performance Without Simulated Scoop

Vane wake distributions.—The gapwise distributions of total pressure and flow angle downstream of the corner 1 turning vanes are presented in figures 22 to 24 for vanes A, A10, and B, respectively. For each figure several radial locations are presented for the outside corner, middle, and inside corner regions. The trends were very similar for the three vane sets. For the middle region the vane wakes were about the same from the major axis (0.0 cm) to about 31 cm. This is an indication of the two-dimensionality of the flow in this region. From the 36-cm radial location to the outer wall (spanwise position of 38.6 cm) the wakes were essentially one vane gap wide. This suggests that flow separation on the suction surface was a probable result of wall interactions with the turning vanes (three-dimensional effects).

For both the inside and outside corner regions the vane furthest from the wall showed the two-dimensional wake effect, but it was difficult to determine the wake for the vane closest to the wall. This again indicates how the wall affected vane performance. Resetting vane A −5° (vane A10) reduced the pressure losses in the outside corner region significantly (cf. figs. 22(a) and 23(a)).

For the middle region the free-stream flow angle for vanes A (fig. 22(b)) in the two-dimensional flow regime was about 48.5°, an indication that the vanes overturned the flow. When the vanes were reset −5° (vane A10), the corresponding flow angle decreased to about 43.5° (fig. 23(b)), again an indication of two-dimensional flow in this region. In the outside corner region the free-stream flow angle was about 60.5° with vanes A and 56.5° with vanes A10. Both angles were considerably above the design value of 45°. In the inside corner region the free-stream flow angles were approximately 51.5° and 49.5° for vanes A and A10, respectively. Since there was not a one-to-one change in flow angle with vane setting angle and the

flow angles were significantly higher than design for the inside and outside corner regions and near the wall for the middle region, it is suspected that the interactions of the walls with the vanes (three-dimensional effects) influenced the flow angles.

For vane B in corner 1 (fig. 24) the free-stream flow angles were closer to each other and to the design value of 45°: approximately 49° in the outside corner region, 47° in the middle region, and 43.5° in the inside corner region. Vane B had a higher vane solidity than vane A because of the greater number of vanes B.

Vanes losses.—For each vane set the loss coefficient in the middle region of corner 1 (fig. 25) was essentially constant from the major axis to about 31 cm. Then the loss coefficient increased rapidly to the outer wall. The vane loss coefficients for vanes A and A10 were essentially the same value (0.05) in the two-dimensional regime. The two-dimensional vane loss coefficient for vanes B was 0.08. For the inside and outside corner regions where a vane wake profile could be defined across a single vane gap, the loss coefficients were about the same as the two-dimensional vane loss coefficients in the middle region (see table 11). As indicated in the pressure distribution plots of figures 22 and 23 for the outside corner region the losses were greater for vanes A than for vanes A10. This is also shown in the wake 1 loss coefficients for all the spanwise locations for the two vane sets (fig. 26(a)). For example, on the major axis the vane loss coefficients for wake 1 (closest to outside corner) were 0.33 and 0.18 for vanes A and A10, respectively. For wake 2 the vane loss coefficients for vanes A and A10 were essentially the same at the major axis and were equal to the two-dimensional vane loss coefficient for the middle region. For the inside corner region and the middle region near the outer wall the vane loss coefficient increased slightly when the vanes were reset −5° (see tables 11(a) and (c)).

The overall corner loss coefficients (measured from the upstream and downstream instrumentation rings shown in fig. 3) are reported in reference 6 to be 0.178 and 0.119 for vanes A and A10, respectively. The data presented in this report indicate that the significant reduction in the corner loss coefficient when the vanes were reset −5° was probably due to the decrease in the three-dimensional losses in the outside corner region that are associated with the vane interactions with the wall. The two-dimensional vane losses for vanes A and A10 were the same.

In reference 6 the overall corner loss coefficient for vanes B is 0.15, in contrast to 0.178 for vanes A, with the significant loss difference being located in the outside corner region. Tufts downstream of the corner (as well as static pressure distributions) indicate flow separation in the outside corner region for vanes A but no separation for vanes B (ref. 6). Comparing the vane losses in the outside corner region shows the vane losses for wake 1 to be about the same or less for vanes A than for vanes B (fig. 26(b)). This would suggest that the high outside corner losses for vanes A were caused by the flow between the vanes and the wall. As reference 6 indicates, the flow path along the major axis between vanes A and the outside wall gives the impression of a converging-diverging nozzle. This adverse geometry between the vanes and the wall causes the separated flow and subsequently higher corner loss for vanes A. The adverse geometry occurs in the outer half of the corner, with the region from about 225° to 315° (fig. 14) being the most severe. As reference 6 indicates, that region had high losses.

Effect of Simulated Scoop on Corner 1 Vane A10 Performance

Vane wake distributions.—Like the total pressures in both the outside and inside corner regions without the simulated scoop, total pressures downstream of the corner 1 turning vanes for vanes A10 with the simulated scoop decreased very rapidly as they approached the outer walls (fig. 27). The noticeable difference in the middle region with the simulated scoop (fig. 27(b)) in contrast to that region without the simulated scoop (fig. 23(b)) was that the vane total pressure wakes were essentially the width of one gap near the scoop wall as well as toward the upper wall. This indicated high separation on the suction surface. The presence of the scoop in the center contributed to the large three-dimensional loss just as did the presence of the outer wall. The two-dimensional region was confined to the span from about 13.22 to 33.57 cm.

For the middle region the free-stream flow angle in the two-dimensional flow regime was about 47.5° with the scoop in contrast to about 43.5° without the scoop. For the outside and inside corner regions there appeared to be more variation in the flow angle, especially near the wall.

Vane losses.—The vane loss coefficient in the middle region of corner 1 increased near the wall and near the centerbody scoop (fig. 28), as discussed earlier. The two-dimensional losses were higher with the scoop (0.08 versus 0.05). This may have been partly due to the inlet Mach number being about 0.41 with the scoop and about 0.35 without the scoop. The wake from the upstream scoop support strut may have been feeding through the vanes and affecting the vane losses.

Corner 2 Vane Performance Without Corner 1

Vane wake distributions.—The same trends were observed in the gapwise distribution of total pressure and flow angle downstream of the corner 2 turning vanes alone for vanes A3, A4, and B, respectively (figs. 29 to 31) as were observed for corner 1 with the scoop. Even though the shaft fairing centerbody crossed the flow path instead of being parallel to the wall as in the corner 1 configuration, the effects of the outer wall and the shaft fairing in the middle region were very similar. Between 17 and 37 cm the wakes were well defined and the flow appeared to be two dimensional. At either the wall or centerbody end the flow separated on the suction surface as a result of vane interaction with the other surface.

For the three vane sets the radial variation in flow angle was somewhat greater than in corner 1.

Vane loss coefficient.—The vane loss coefficient in the middle region of corner 2 (without corner 1) for vanes A3, A4, and B was essentially constant from 13 to 37 cm (fig. 32). Then the loss coefficient increased rapidly at both ends (to the outer wall and to the shaft fairing). The vane loss coefficients for vanes A3 and A4 were essentially the same in the two-dimensional flow regime. The vane loss coefficient of 0.06 was slightly higher than the vane A loss in corner 1. This may be partly due to the accuracy with which the pressures could be measured. The numerator of the loss coefficient is the difference in two values that are very close together. Since the inlet Mach number for corner 2 decreased to 0.24, the denominator decreased by a factor of 2 over that for corner 1. Therefore any error in the numerator resulted in a larger change in loss coefficient for corner 2. The vane B airfoils were identical in both corners 1 and 2, and the two-dimensional vane loss coefficients were essentially the same (0.08) for both corners.

Corner 2 Vane Performance With Corner 1

Vane wake distributions.—When the corner 2 turning vanes were tested with vane A10 and the simulated scoop in corner 1 (figs. 33 and 34), the noticeable difference from the curves without corner 1 present was in the total pressure distributions in the inside and outside regions. In both vane sets (A4 and B) the inside and outside corners had lower total pressures than the middle region. These lower values reflected the higher losses in the outer wall region of corner 1.

Vane loss coefficient.—The radial distribution trend in the vanes A4 and B loss coefficients for corner 2 with corner 1 (fig. 35) was the same as observed for corner 2 without corner 1. However, the magnitude of the loss coefficients was greater in the two-dimensional flow regime. The difference was partly due to the method of reducing the data. When corner 2 was tested without corner 1, the flow entering the corner was uniform and thus the use of the corner inlet velocity head in the loss coefficient equation gave a representative value especially in the two-dimensional flow regime. However, when corner 2 was tested behind corner 1, the flow entering corner 2 was distorted by the corner 1 turning vanes and the scoop (ref. 8). Therefore the local velocity could differ significantly from the average velocity.

To clarify this, the velocity distribution downstream of corner 2 with vanes B was plotted with and without corner 1 (fig. 36), using at each radial location the highest of the 15 circumferential values downstream of the vanes. Without corner 1 the velocity was constant except near the wall for the middle and inside regions. The outside region was influenced by the shaft fairing. With corner 1 the velocity near the major axis in both the inside and outside corners decreased. In the middle region the velocity was significantly higher in midpassage and lower at the wall and the centerbody. This indicated a shift in flow due to the distortion from corner 1. By assuming that the local velocity head varies as the square of the velocity ratio with and without corner 1, a new loss coefficient could be calculated. The new two-dimensional vane loss coefficients were 0.07 for vanes A4 and 0.10 for vanes B, in contrast to 0.08 and 0.12 in figure 35. These values differed only slightly from those obtained without corner 1.

VIGV Performance

For all VIGV tests vanes A10 with the simulated scoop were installed in corner 1. The locations of the individual VIGV's are very evident in the total pressure plots with vanes A4 and B in corner 2 at a VIGV angle of 0° (figs. 37 and 38, respectively). The VIGV wakes, which extended less than 4° circumferentially, had superimposed on them the more severe distortions generated by the upstream corners 1 and 2. For both vane sets in corner 2 the exit VIGV total pressure distributions were very similar. In the region around 90° (inside corner) the total pressures were low as a result of the low pressures along the horizontal centerline downstream of the corner 1 scoop, especially in the inside corner region. The low total pressures in the region around 270° (outside corner) were probably caused by the fan shaft fairing in corner 2.

Comparing the flow angle distributions in figures 37 and 38 indicates less circumferential variation in flow angle with vanes B in corner 2 than with vanes A4. This trend was evident at all three radial positions.

The effect of VIGV setting angle on total pressure and flow angle distributions downstream of the VIGV's was very similar with both vane sets A4 and B in corner 2 (figs. 39 and 40, respectively). For each vane set the total pressure wake location changed with angle, but the absolute pressures were relatively unchanged. The VIGV flow angle changed with setting angle, but in most cases it did not change by the same amount as the setting angle. This is probably a result of only having 12 VIGV's. In the tip region, in particular, the flow was not captured by the vanes.

From these results vanes B appeared to be a slightly better choice to be used in corner 2 than vanes A4. Although there were only local differences in the total pressure distributions between the two vane sets, vanes B clearly gave a more uniform flow angle out of the VIGV's. Since this flow angle would have to be ingested by the drive fan, vanes B were judged to be the better choice.

Summary of Results

Detailed flow surveys downstream of the corner turning vanes and downstream of the fan variable inlet guide vanes (VIGV's) have been obtained. Two different turning vane designs were evaluated in both corners 1 and 2 (the corners between the test section and the drive fan) of a 0.1-scale model of the NASA Lewis Research Center's proposed Altitude Wind

Tunnel (AWT). Vane A was a controlled-diffusion airfoil and vane B was a circular-arc airfoil. Corner 1 was tested both without and then with a simulated engine exhaust removal scoop that included a downstream airfoil fairing. The tests were conducted at flows that corresponded to the test-section design Mach number of 0.8. The turning vane wakes were surveyed to determine the vane pressure losses. The VIGV wakes were also surveyed. This investigation yielded the following principal results:

1. For corner 1 without the simulated scoop the loss coefficients in the middle of the corner (two-dimensional flow region) were 0.05 for vanes A and 0.08 for vanes B. Near the walls the vane loss coefficient for both vane sets increased rapidly.

2. For corner 1 with the simulated scoop the vane loss coefficient in the two-dimensional flow region for vanes A10 (vane A reset $-5°$ from design) was higher than without the scoop (0.08 vs. 0.05). With the scoop the corner Mach number increased to 0.41, from 0.35 without the scoop.

3. For corner 2 without corner 1 the two-dimensional vane loss coefficients were 0.06 and 0.08 for vanes A and B, respectively. The corner 2 inlet Mach number was 0.24. With corner 1 added to corner 2 the vane loss coefficients increased slightly.

4. The VIGV wakes extended less than $4°$ circumferentially and had superimposed on them the more severe distortion patterns generated by the upstream corners 1 and 2.

Lewis Research Center
National Aeronautics and Space Administration
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Appendix A
Symbols

A_{in} area at corner inlet, cm^2

A_s cross-sectional area of simulated scoop at corner 1 inlet, cm^2

ΔA_i incremental area at vane exit (spanwise element), cm^2

D spool diameter, cm

d_n nozzle plate diameter, cm

M_{in} Mach number at corner inlet, defined by eq. (B5)

P_n nozzle total pressure, N/cm^2

$P_{t,v,in}$ vane inlet total pressure (spanwise element), defined by eq. (B3), N/cm^2

$P_{t,v,av}$ mass-averaged vane exit total pressure (spanwise element), defined by eq. (B4), N/cm^2

$P_{t,v,i}$ individual vane exit total pressure (spanwise element), N/cm^2

P_T vane inlet total pressure, N/cm^2

$P_{s,in}$ static pressure at corner inlet, N/cm^2

q_{in} velocity head at corner inlet, N/cm^2

R gas constant

T_n nozzle total temperature, K

T_T vane inlet total temperature, K

V flow velocity, m/sec

W airflow, defined by eq. (B1), kg/sec

γ ratio of specific heats

θ circumferential location from top dead center (clockwise looking downstream), deg

ρ density, kg/m^3

ω_v vane loss coefficient, defined by eq. (B2)

Appendix B
Equations

Airflow

$$W = 0.04044 \frac{P_n}{T_n}\left(\frac{\pi}{4} d_n^2\right) \tag{B1}$$

Vane Loss Coefficient

$$\omega_v = \frac{P_{T,v,in} - P_{T,v,av}}{q_{in}} \tag{B2}$$

Vane Inlet Total Pressure

$$P_{T,v,in} = \frac{P_{T,v,i,highest} + P_{T,v,i,next\ highest}}{2}$$

Vane Exit Total Pressure

$$P_{T,v,av} = \frac{\sum_{i=1}^{15} \rho_i \Delta A_i V_i P_{T,v,i}}{\sum_{i=1}^{15} \rho_i \Delta A_i V_i} \tag{B4}$$

Inlet Mach Number

$$\frac{M_{in}}{(1 + 0.2M_{in}^2)^3} = \frac{W}{(A_{in} - A_s)P_T}\sqrt{\frac{RT_T}{\gamma}} \tag{B5}$$

Velocity Head

$$q_{in} = 0.7 P_{s,in} M_{in}^2 \tag{B6}$$

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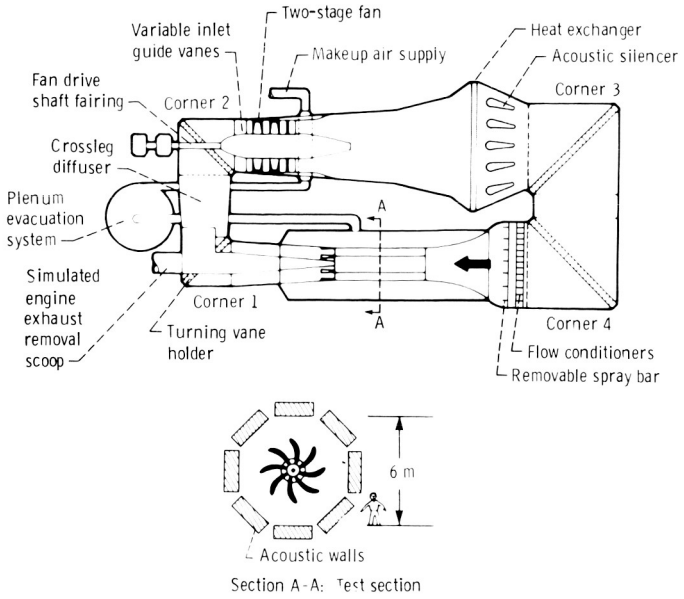


Mach number	0 to 0.9+
Altitude, m	0 to 17 000+
Total temperature, ^{o}C	-40 to 15
Test-section acoustic level, dB (OASPL)	120

Figure 1.—Capabilities of modified and rehabilitated AWT.

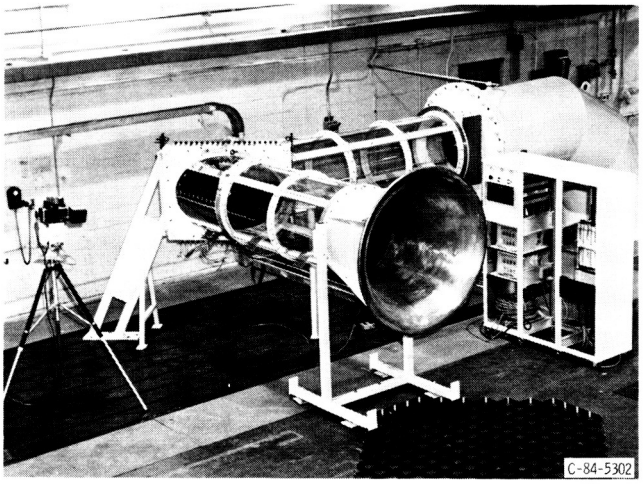


Figure 2.—Corner 1 test configuration.

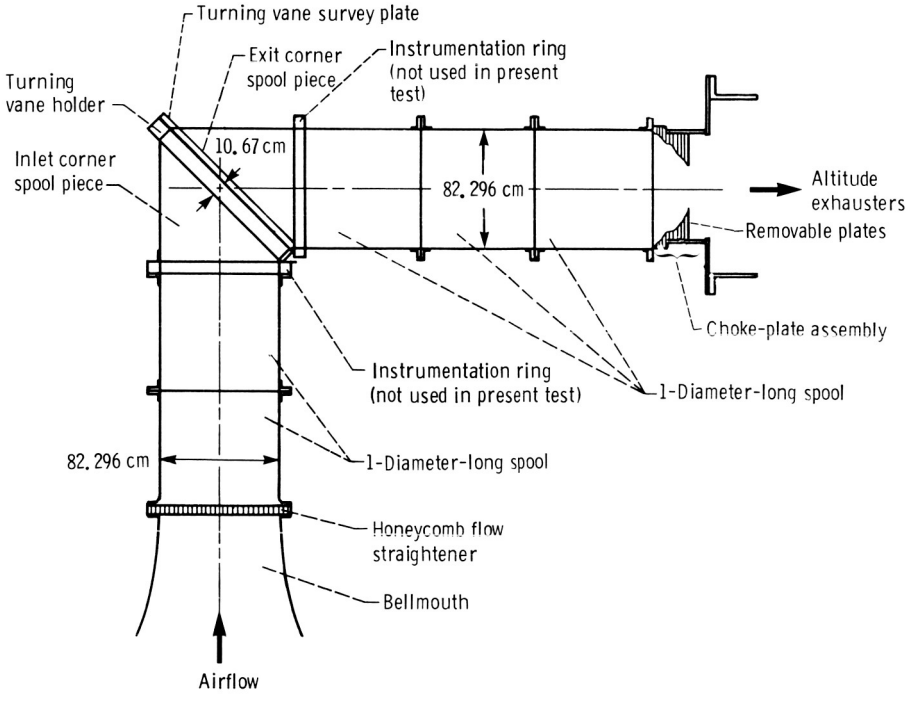


Figure 3.—Schematic of corner 1 test apparatus without simulated engine exhaust scoop.

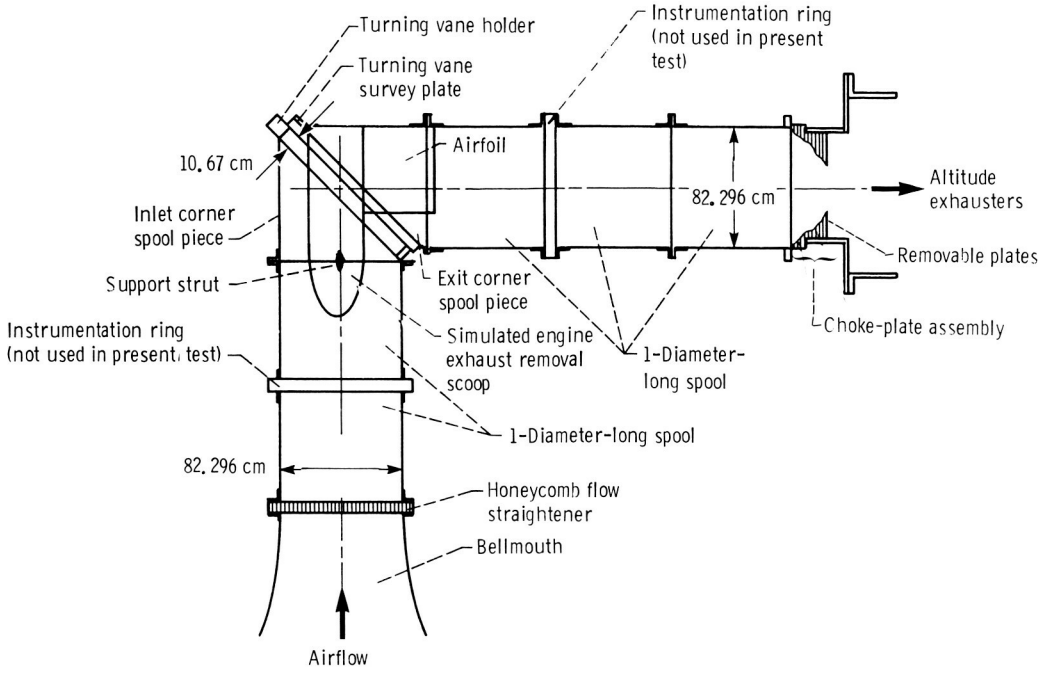


Figure 4.—Schematic of corner 1 test apparatus with simulated engine exhaust scoop.

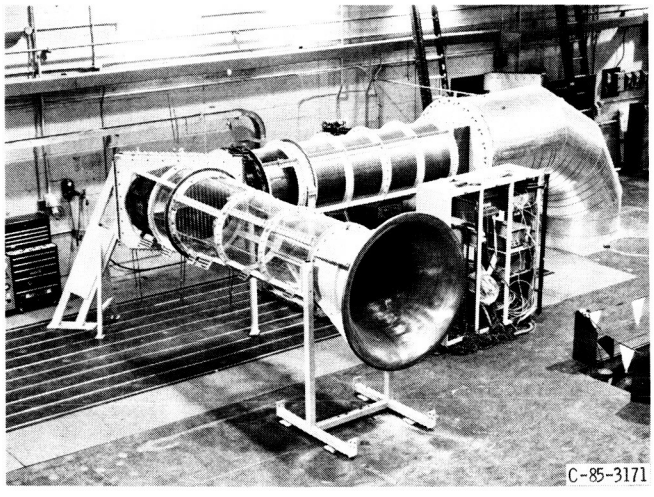


Figure 5.—Corner 2 test configuration.

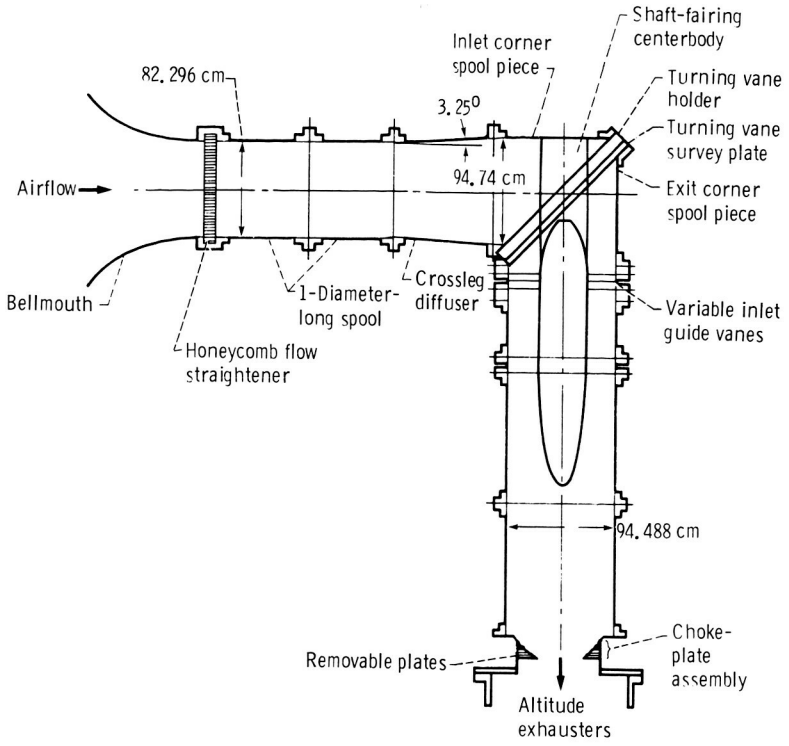


Figure 6.—Schematic of corner 2 test configuration.

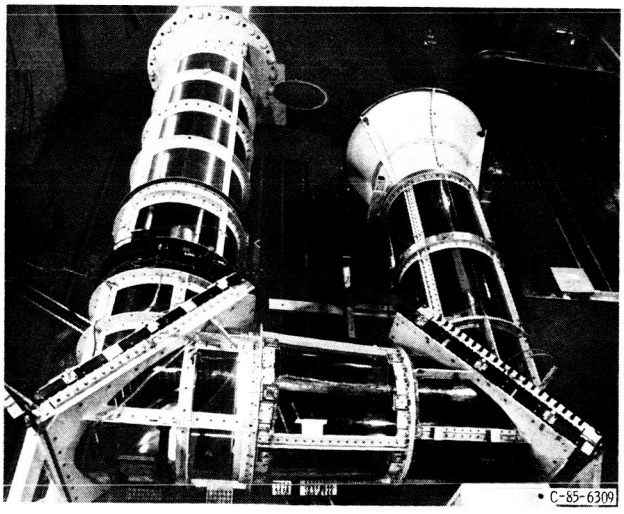


Figure 7.—Corner 1–corner 2 test configuration.

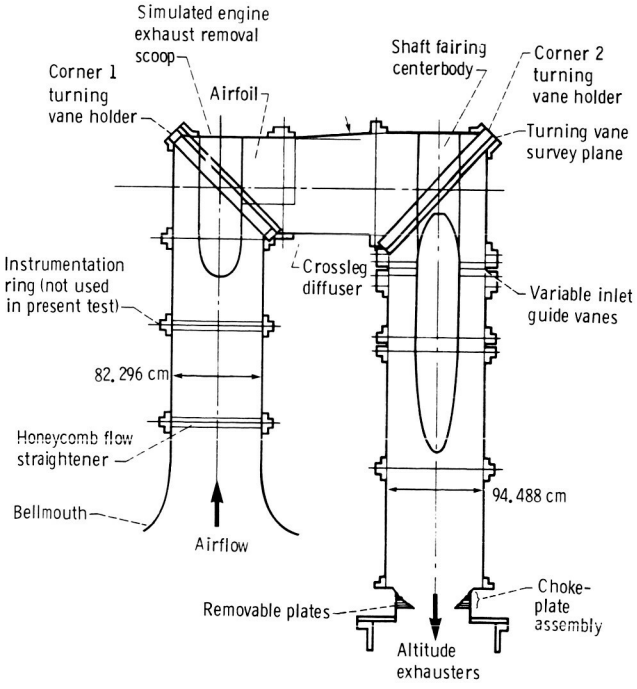
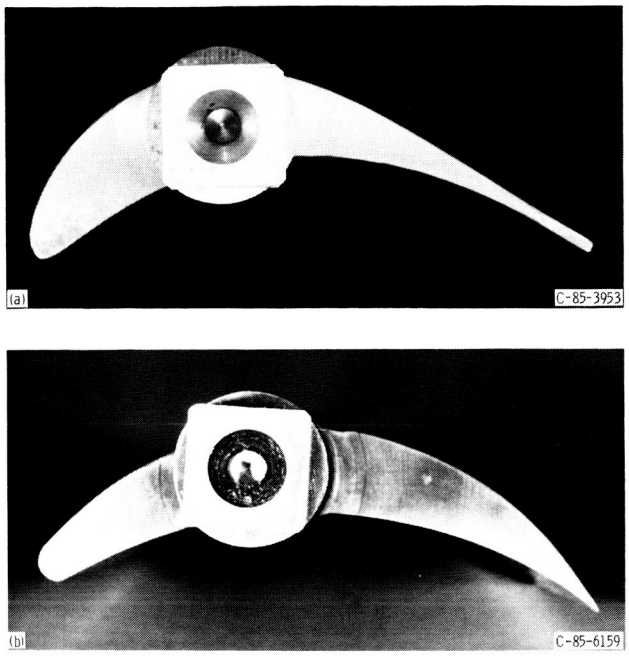
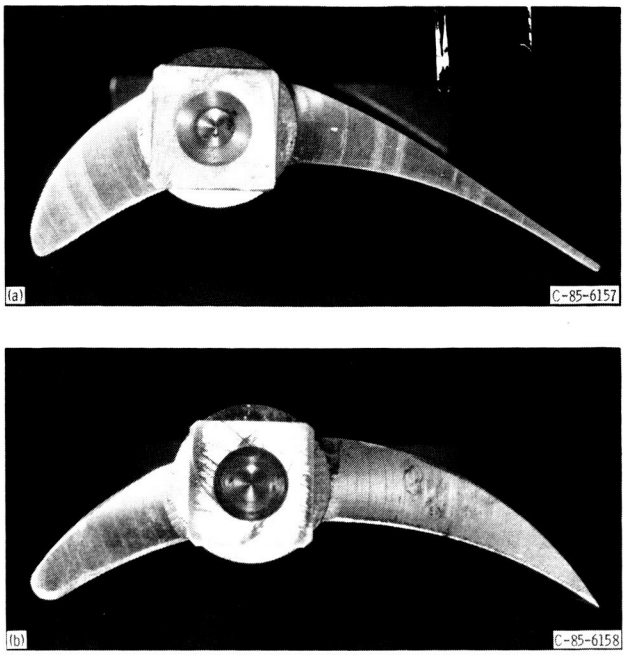


Figure 8.—Schematic of corner 1–corner 2 test configuration.



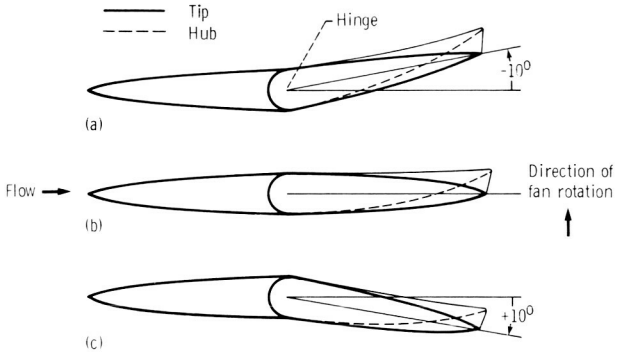
(a) Vane A.
(b) Vane B.

Figure 9.—Corner 1 turning vanes.



(a) Vane A.
(b) Vane B.

Figure 10.—Corner 2 turning vanes.



(a) Inlet guide vane angle, design minus 10°.
(b) Inlet guide vane angle, design.
(c) Inlet guide vane angle, design plus 10°.

Figure 11.—Typical fan variable inlet guide vane (total of 12).

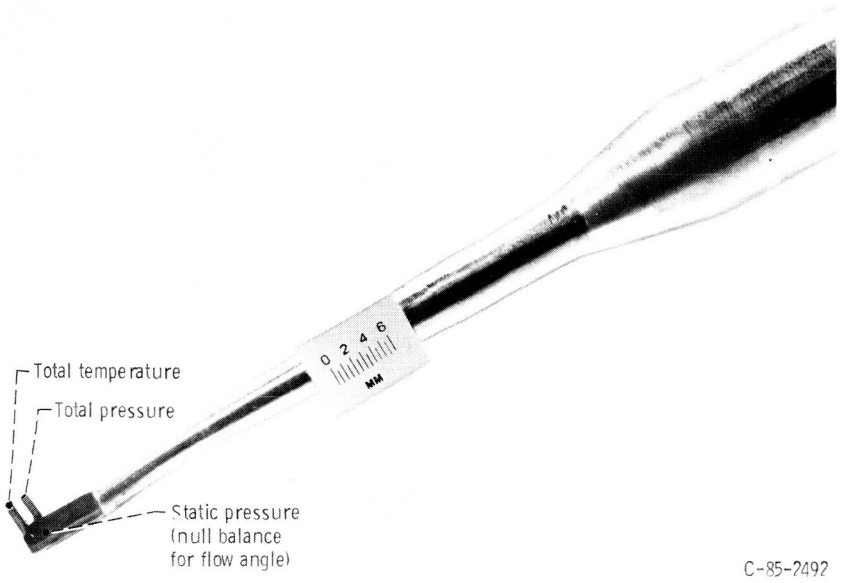


Figure 12.—Traversing combination survey probe.

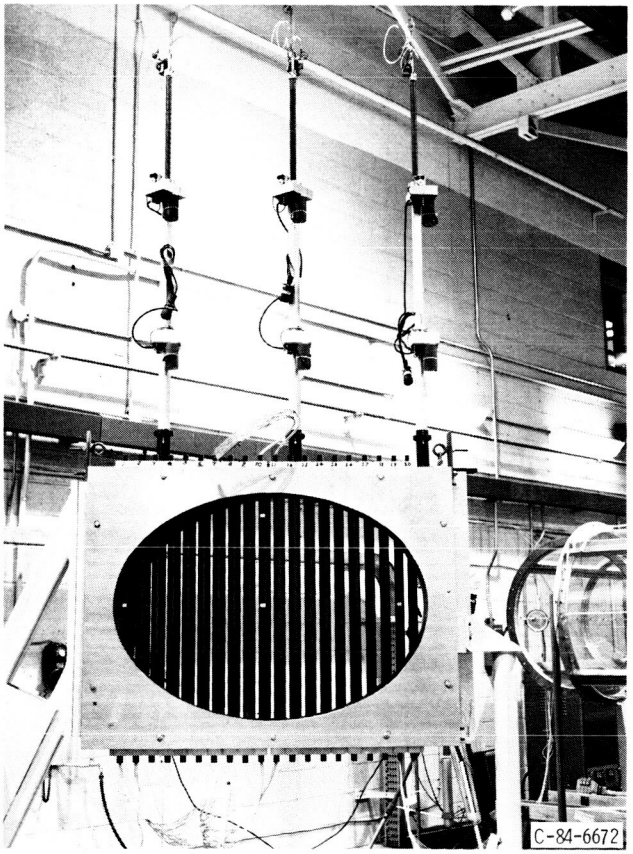
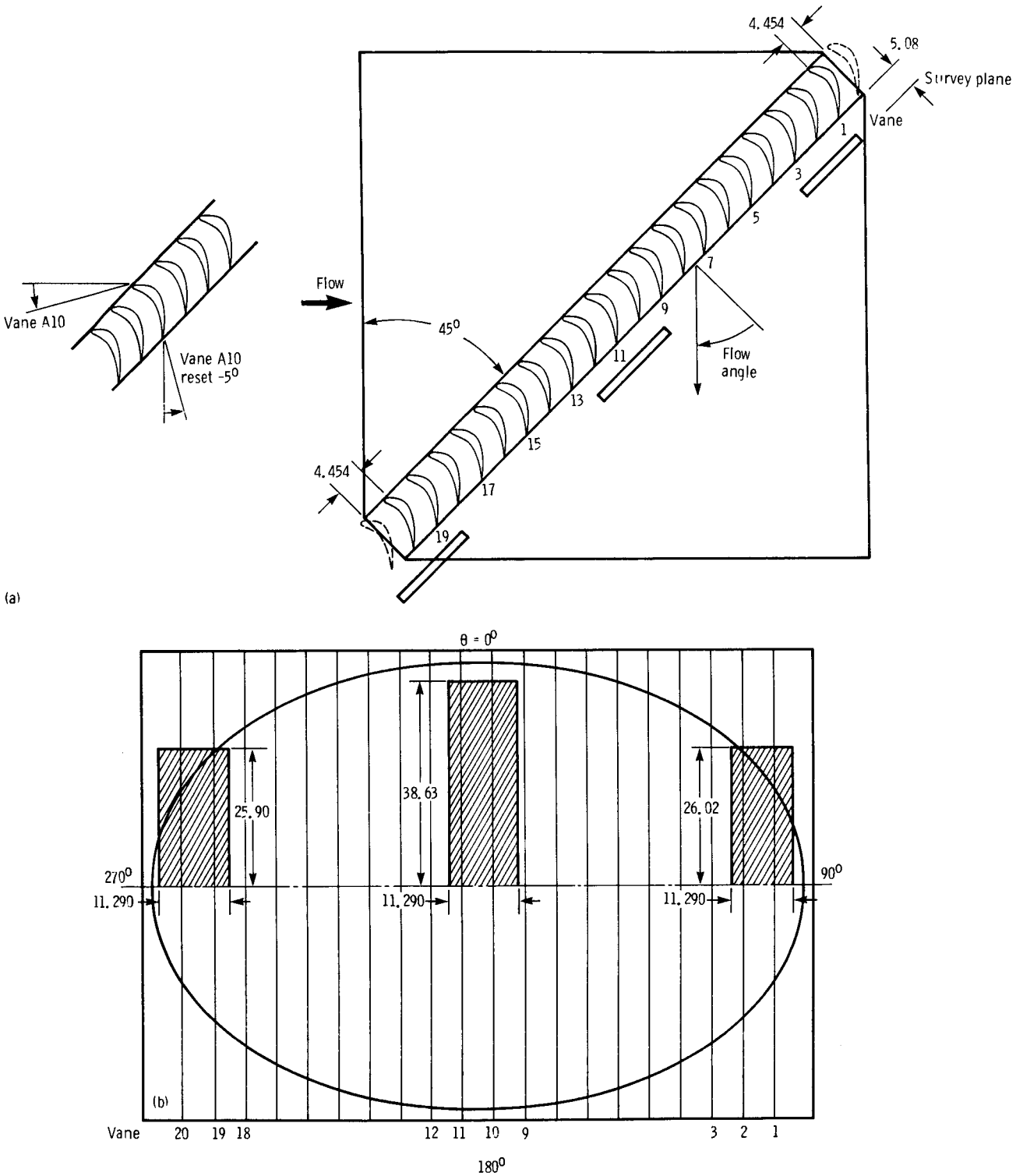
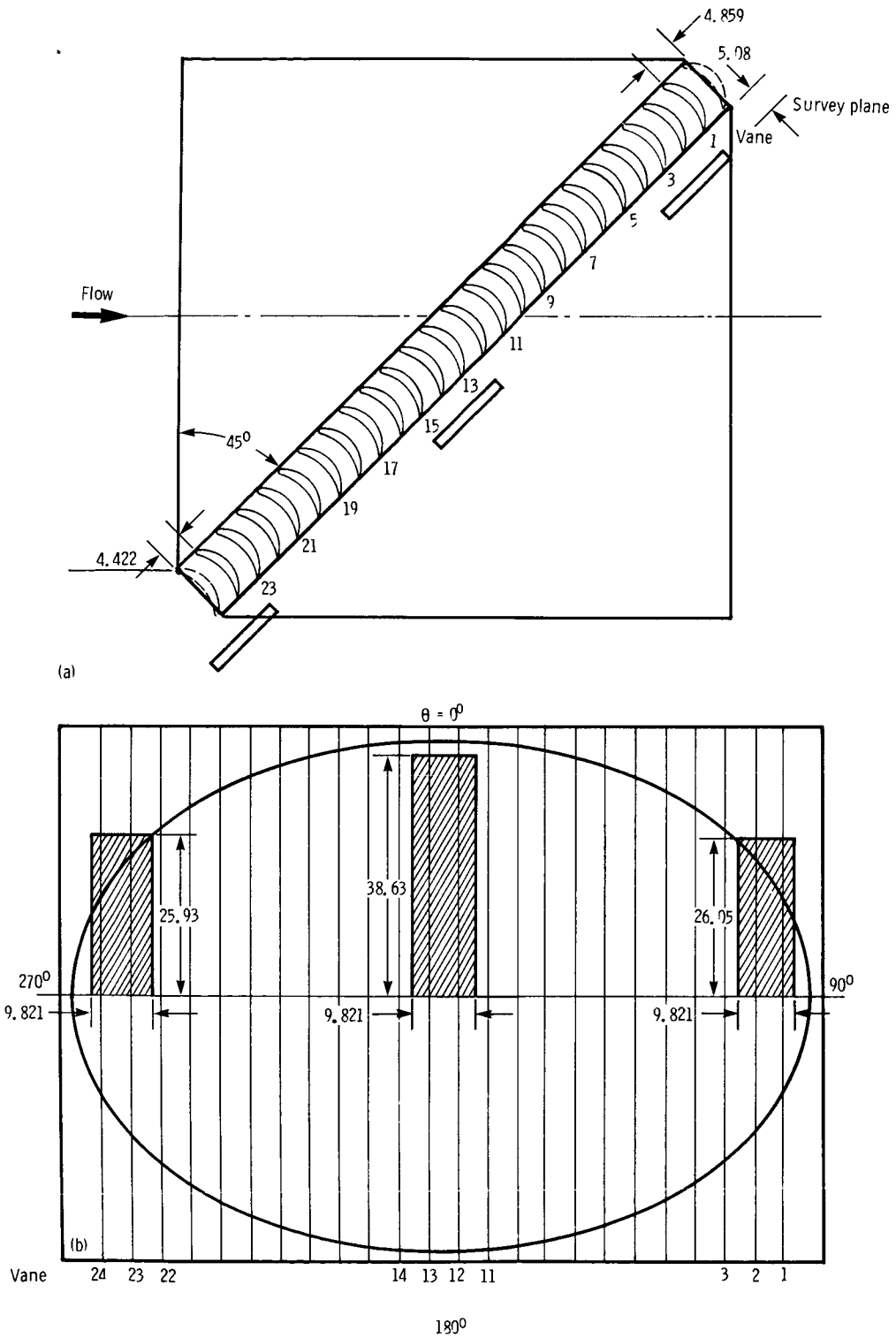


Figure 13.—Actuators mounted on top of and downstream of corner 1.



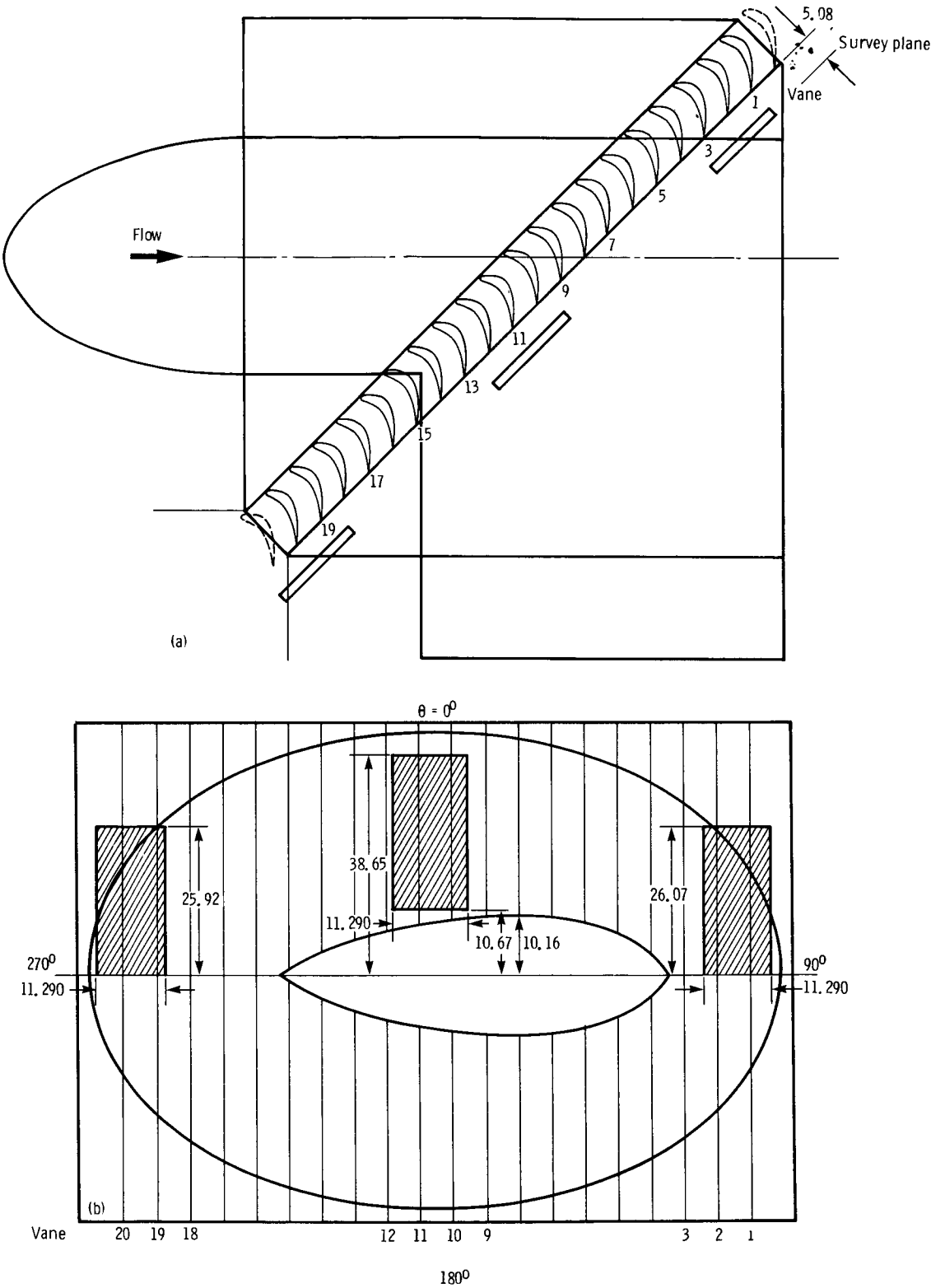
(a) Axial location of survey.
(b) Area of survey.

Figure 14.—Flow survey region for vanes A and A10 in corner 1. (Dimensions are in centimeters.)



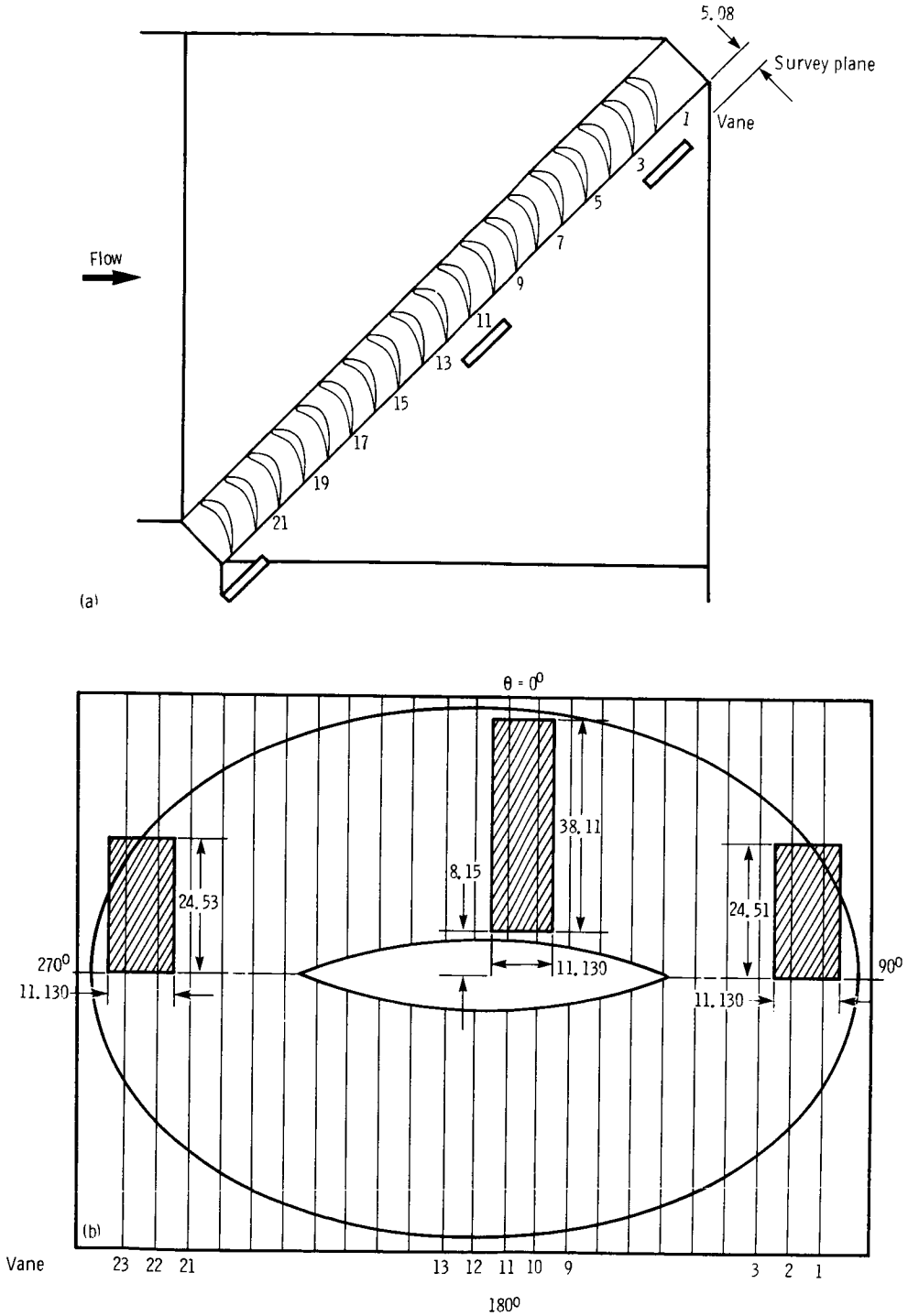
(a) Axial location of survey.
(b) Area of survey.

Figure 15.—Flow survey region for vanes B in corner 1. (Dimensions are in centimeters.)



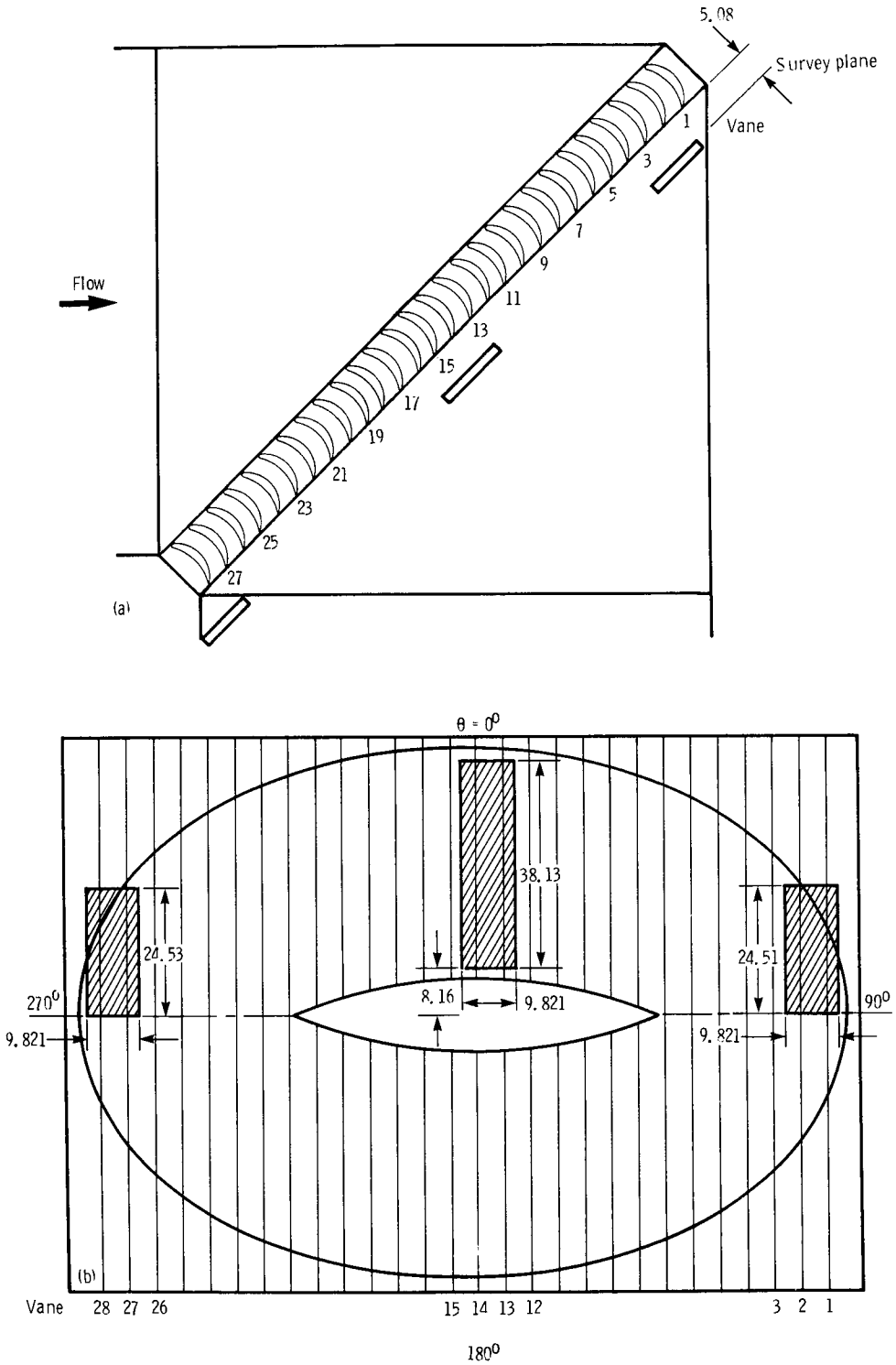
(a) Axial location of survey.
(b) Area of survey.

Figure 16.—Flow survey region for vanes A10 in corner 1 with simulated engine exhaust scoop. (Dimensions are in centimeters.)



(a) Axial location of survey.
(b) Area of survey.

Figure 17.—Flow survey region for vanes A3 and A4 in corner 2. (Dimensions are in centimeters.)



(a) Axial location of survey.
(b) Area of survey.

Figure 18.—Flow survey region for vanes B in corner 2. (Dimensions are in centimeters.)

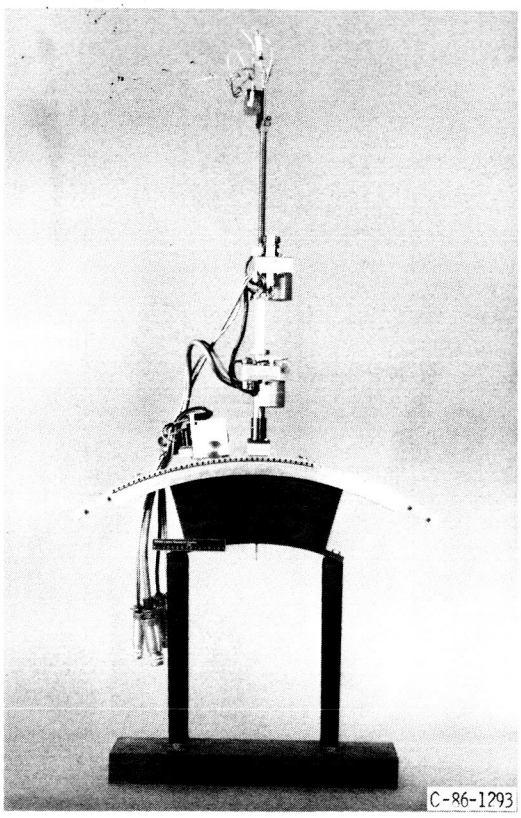


Figure 19.—Radial and circumferential actuators for surveying downstream of variable inlet guide vanes.

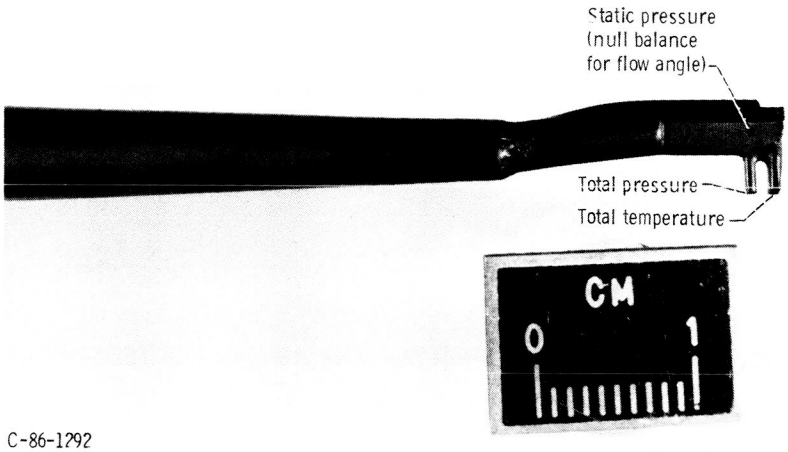
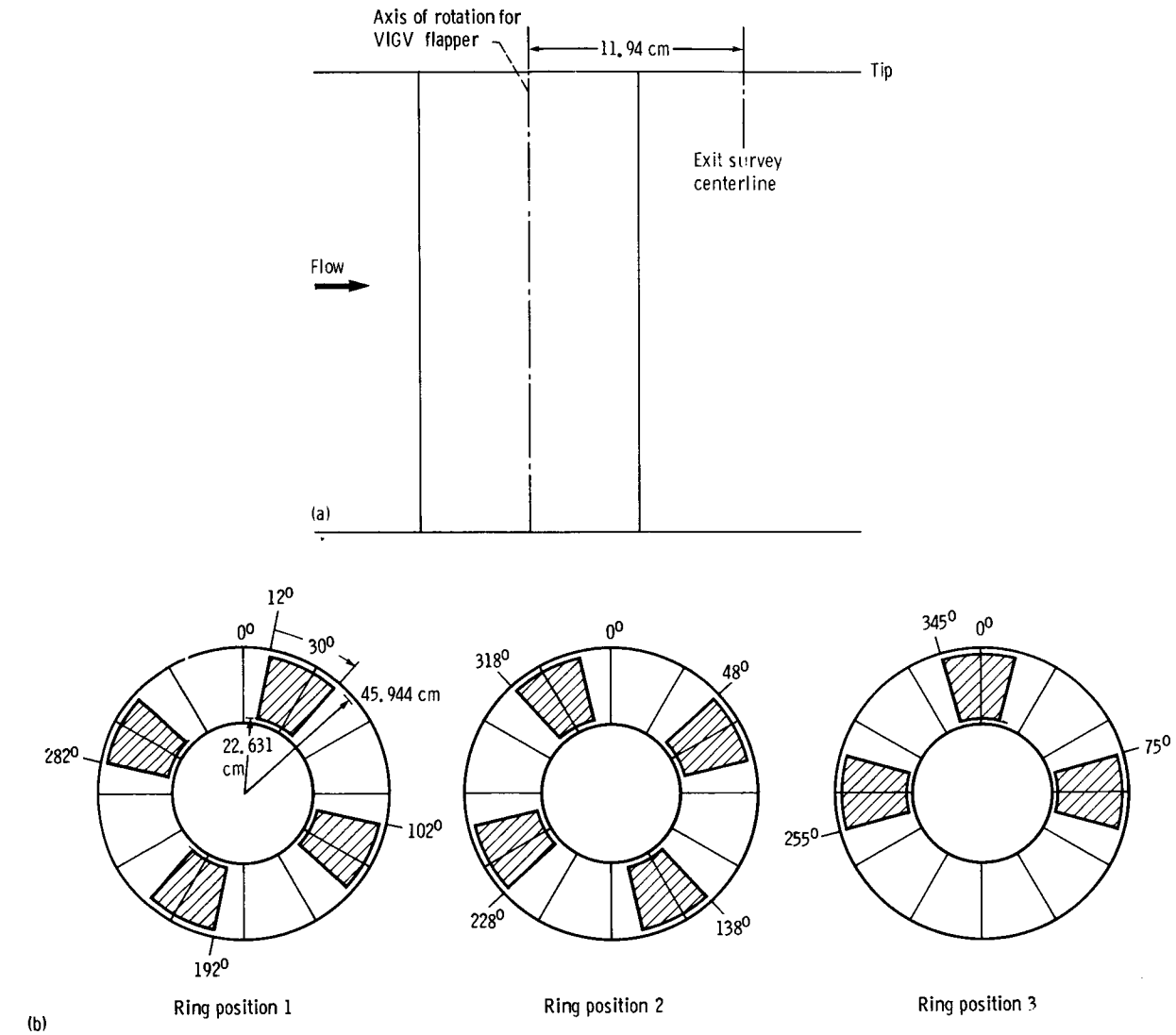
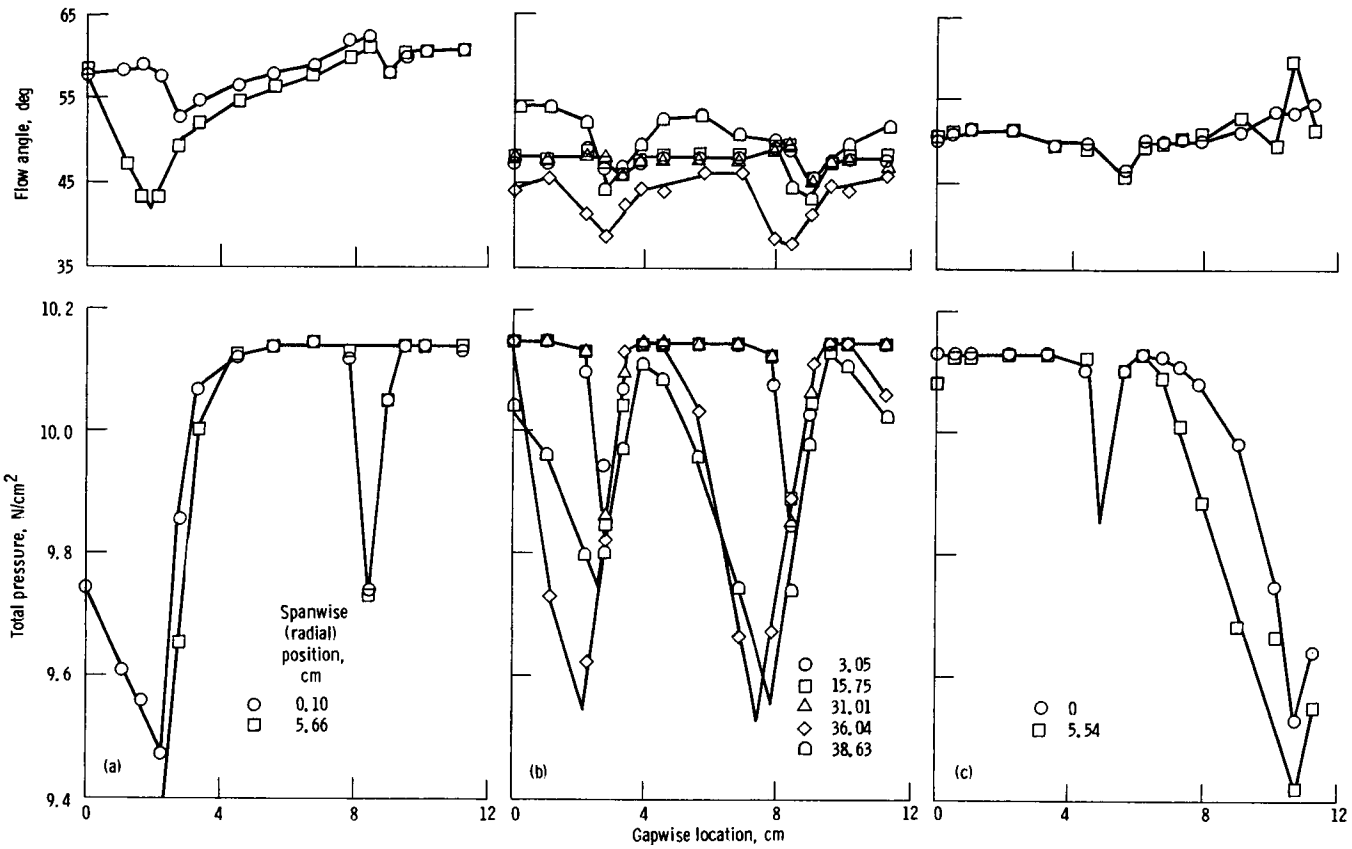


Figure 20.—Combination probe for surveying downstream of variable inlet guide vanes.



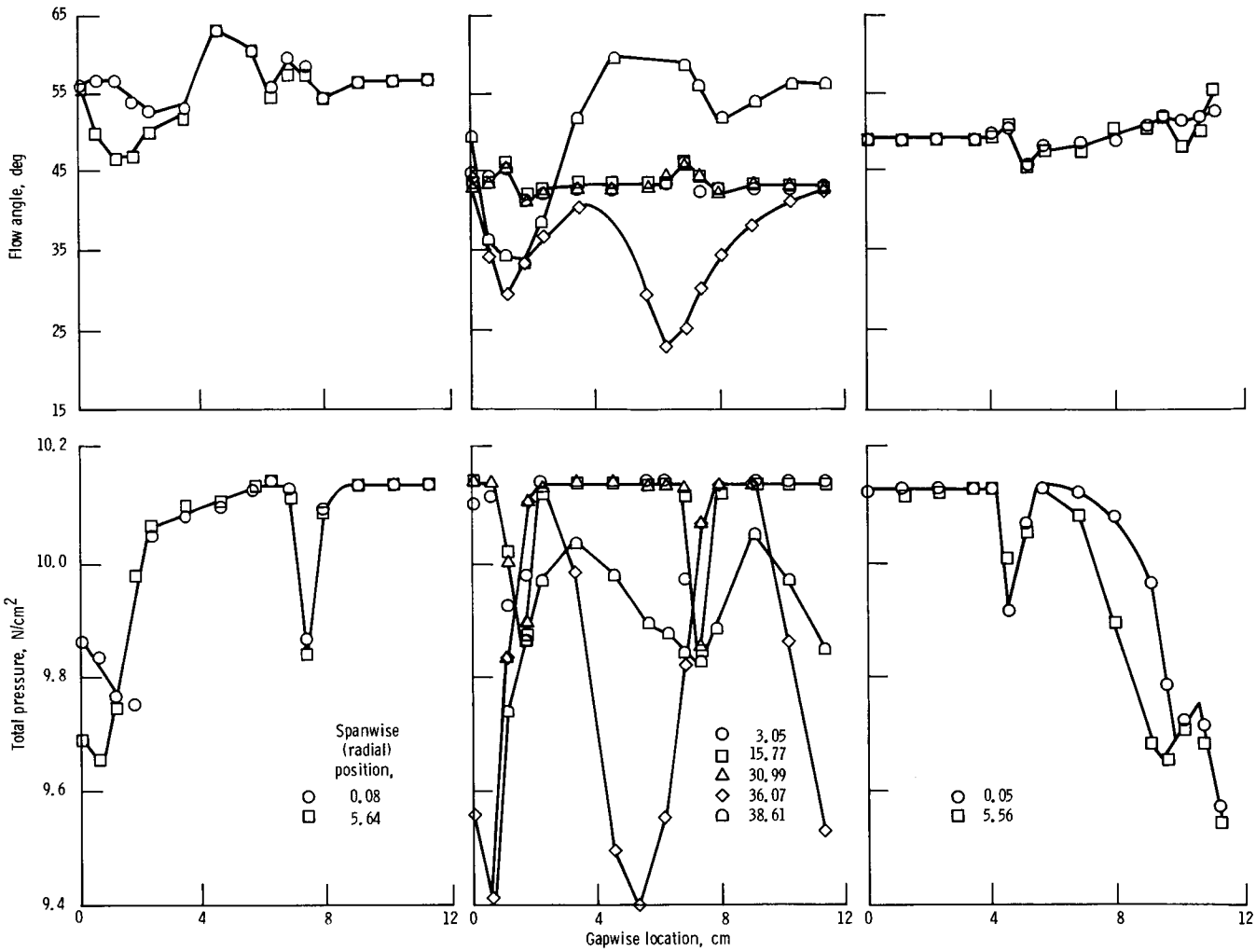
(a) Axial location of survey.
(b) Area of survey.

Figure 21.—Flow survey region downstream of variable inlet guide vanes.



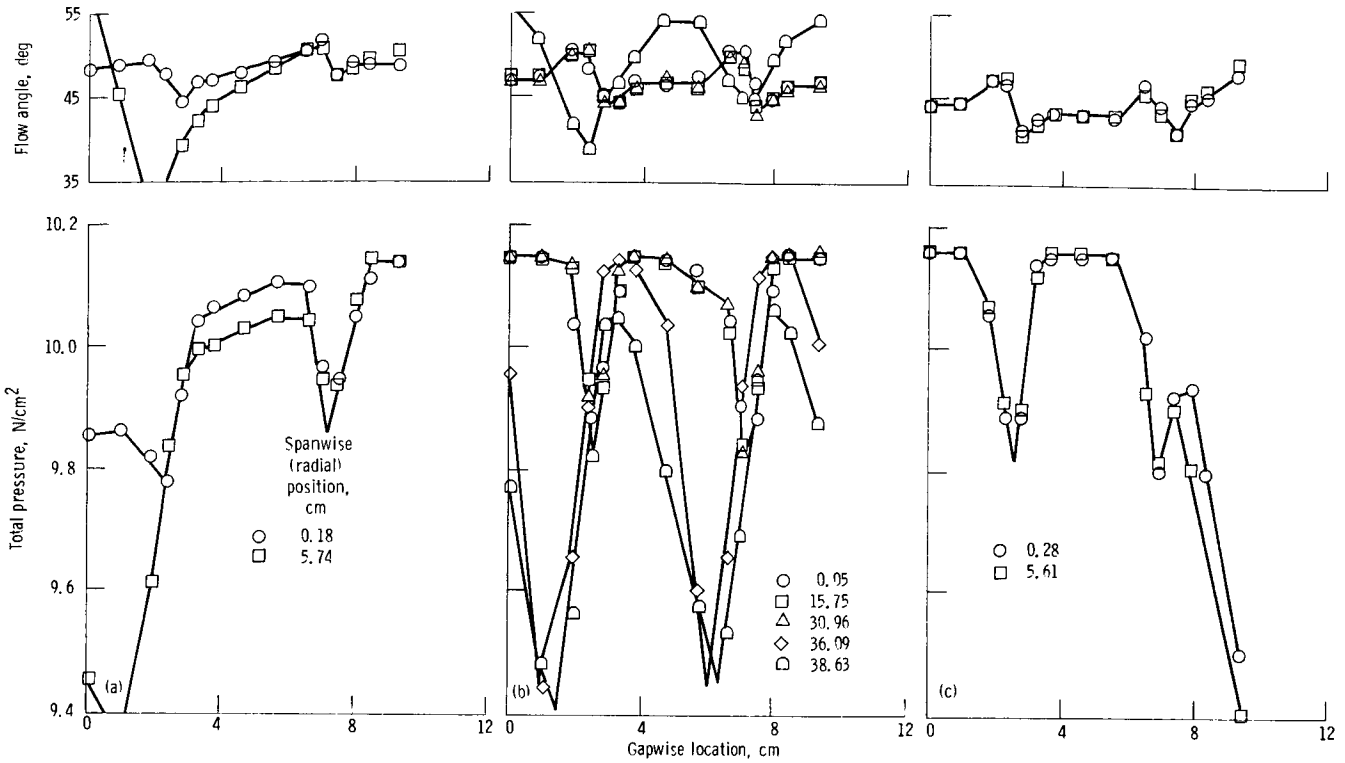
(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 22.—Gapwise distribution of total pressure and flow angle downstream of turning vanes in corner 1—vanes A. Airflow, 72.59 kg/sec; inlet Mach number, 0.35.



(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 23.—Gapwise distribution of total pressure and flow angle downstream of turning vanes in corner 1—vanes A10. Airflow, 72.89 kg/sec; inlet Mach number, 0.35.



(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 24.—Gapwise distribution of total pressure and flow angle downstream of turning vanes in corner 1—vanes B. Airflow, 72.58 kg/sec; inlet Mach number, 0.35.

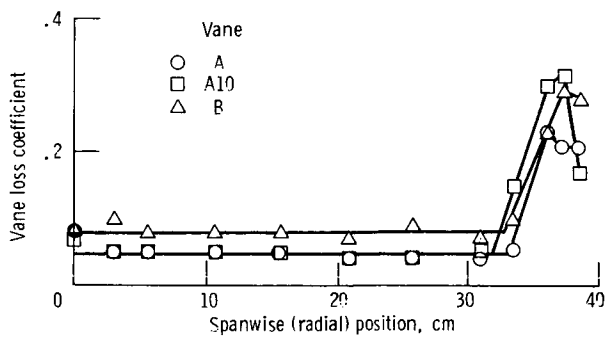
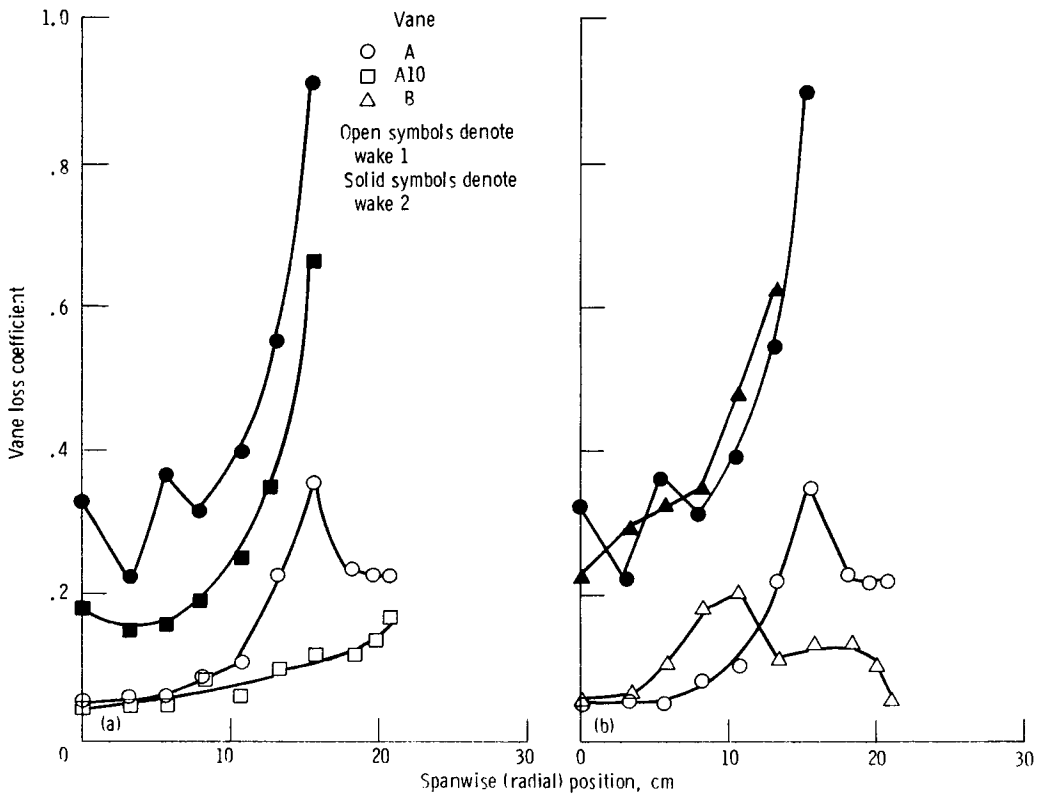
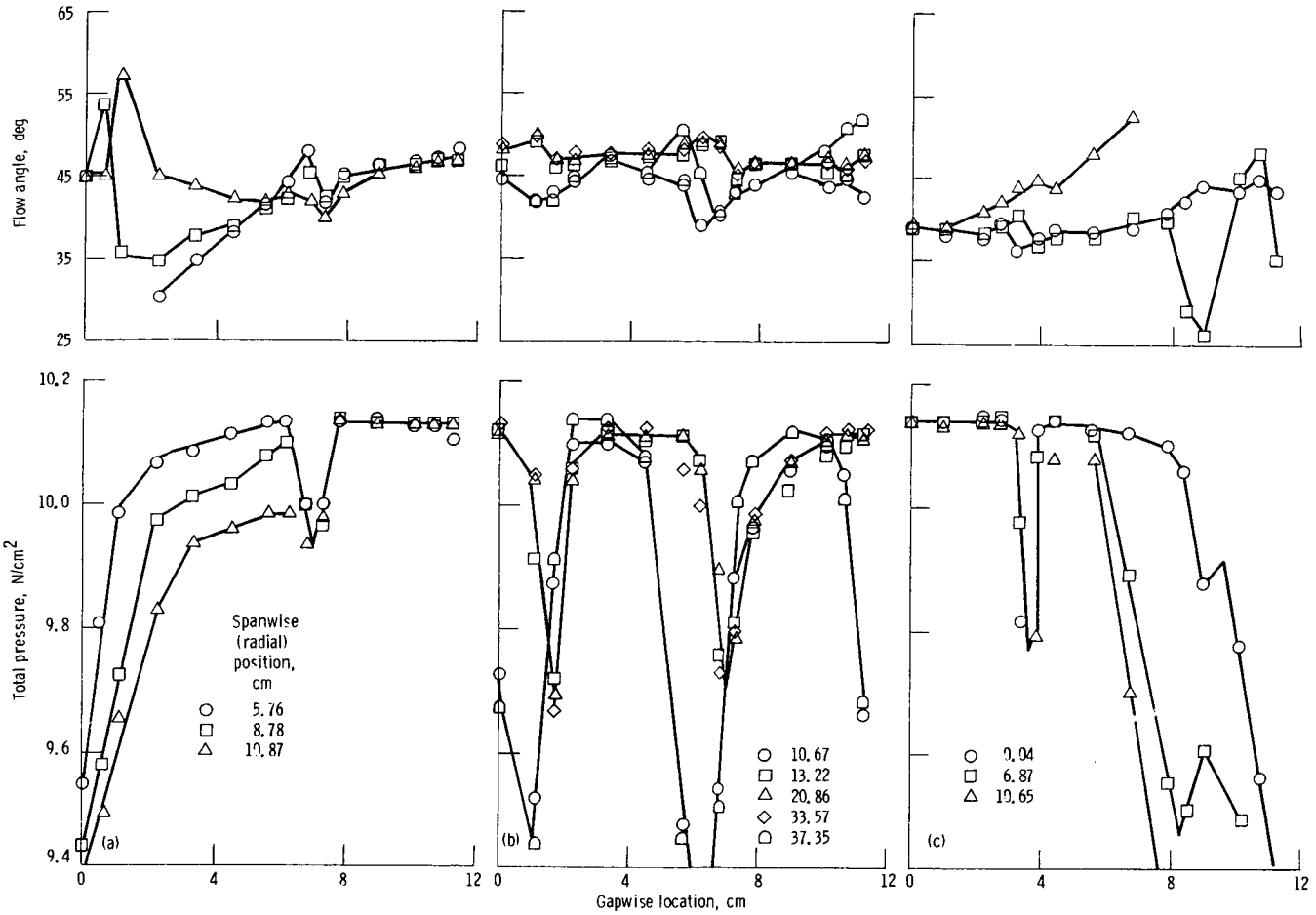


Figure 25.—Vane loss coefficients in middle region of corner 1. Nominal airflow, 73 kg/sec; inlet Mach number, 0.35.



(a) Vanes A and A10. (b) Vanes A and B.

Figure 26.—Vane loss coefficients in outside region of corner 1. Nominal airflow, 73 kg/sec; inlet Mach number, 0.35.



(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 27.—Gapwise distribution of total pressure and flow angle downstream of turning vanes in corner 1—vanes A10 with simulated engine exhaust scoop. Airflow, 73.24 kg/sec; inlet Mach number, 0.41.

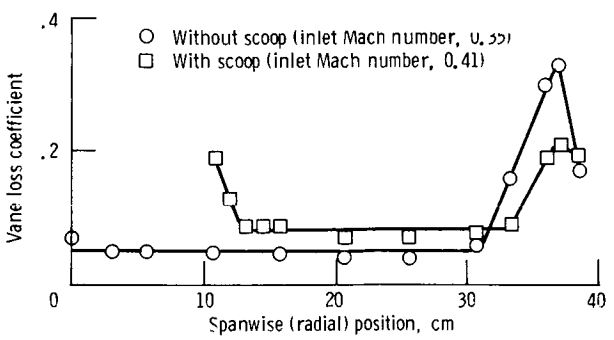
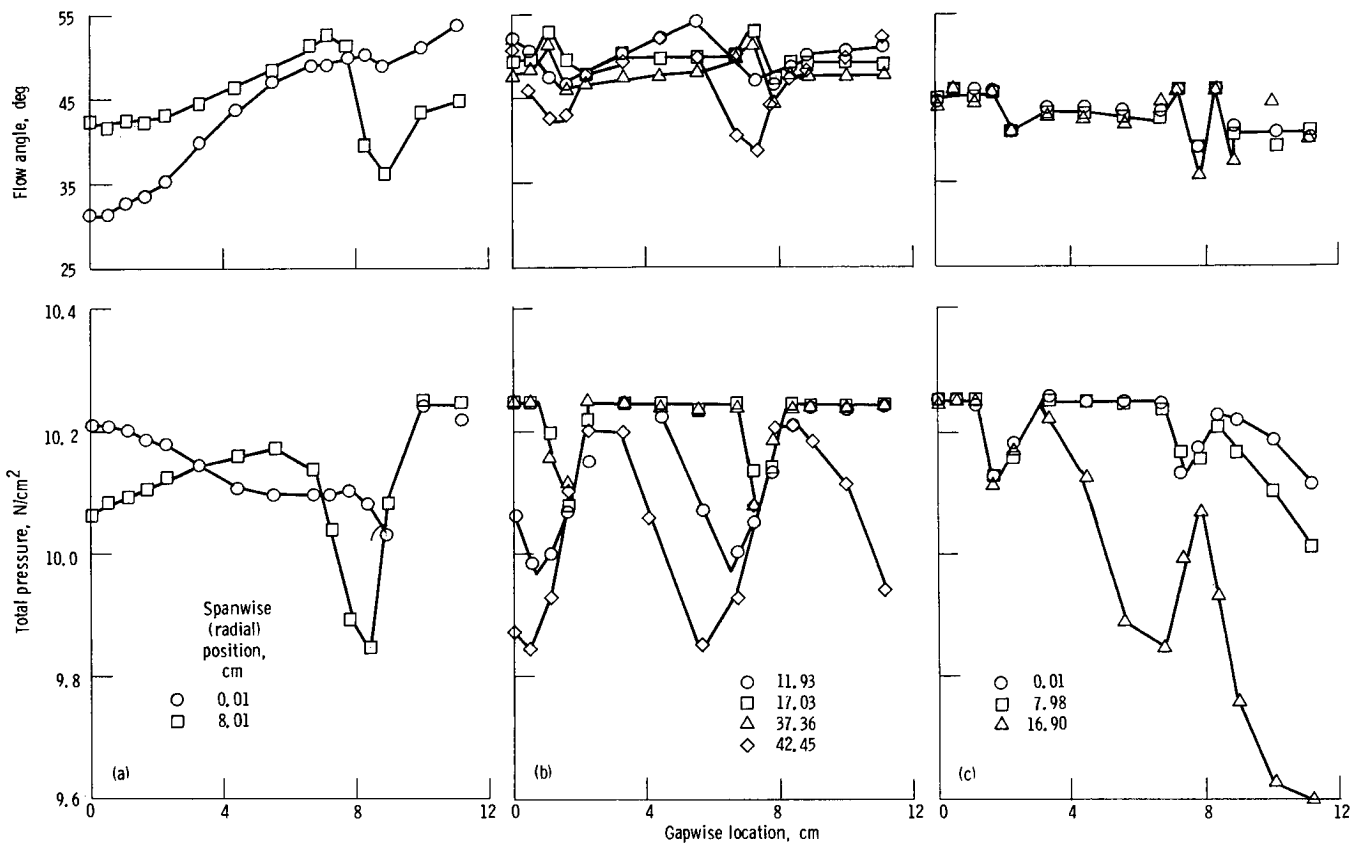
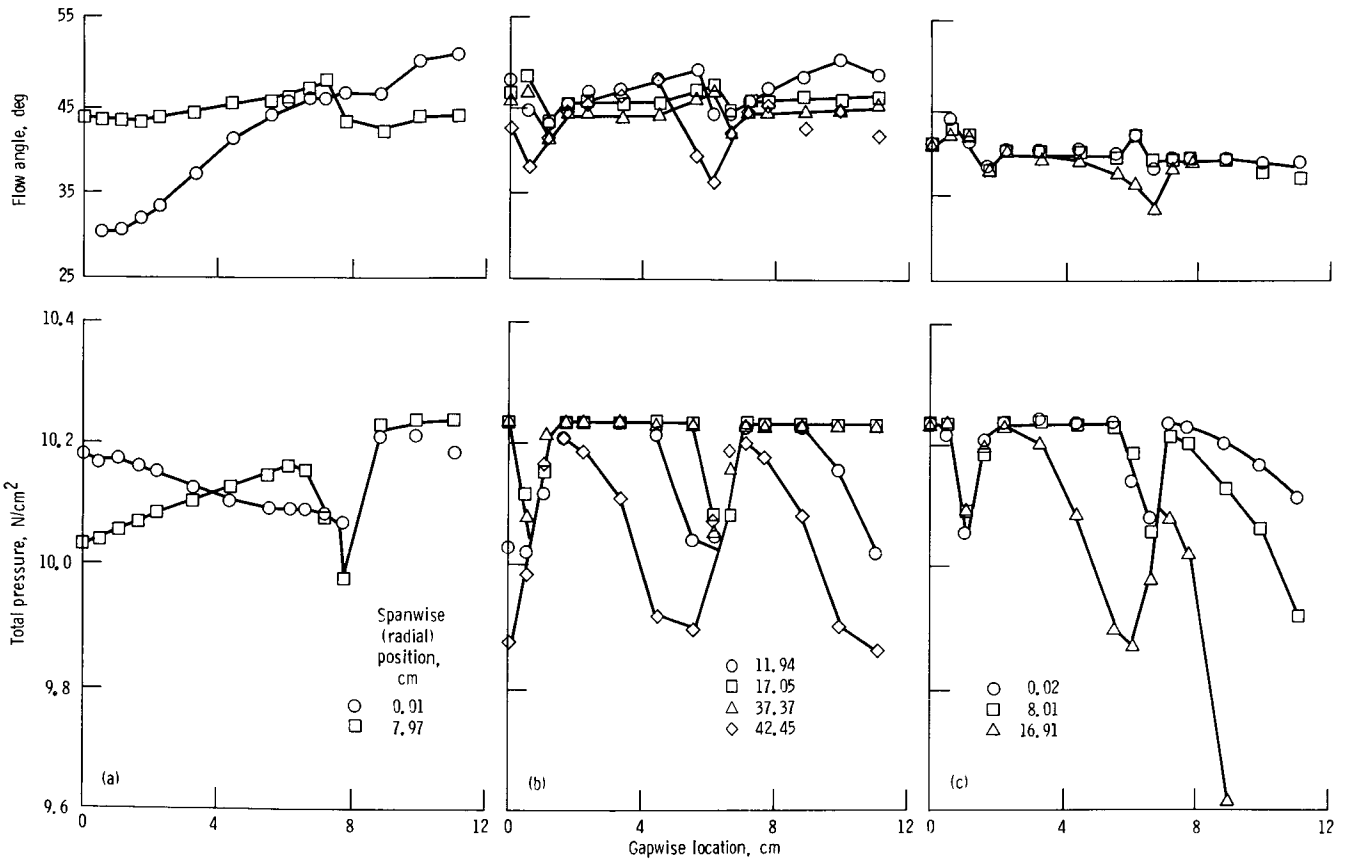


Figure 28.—Effect of simulated scoop on vane loss coefficient in middle region of corner 1—vanes A10. Nominal airflow, 73 kg/sec.



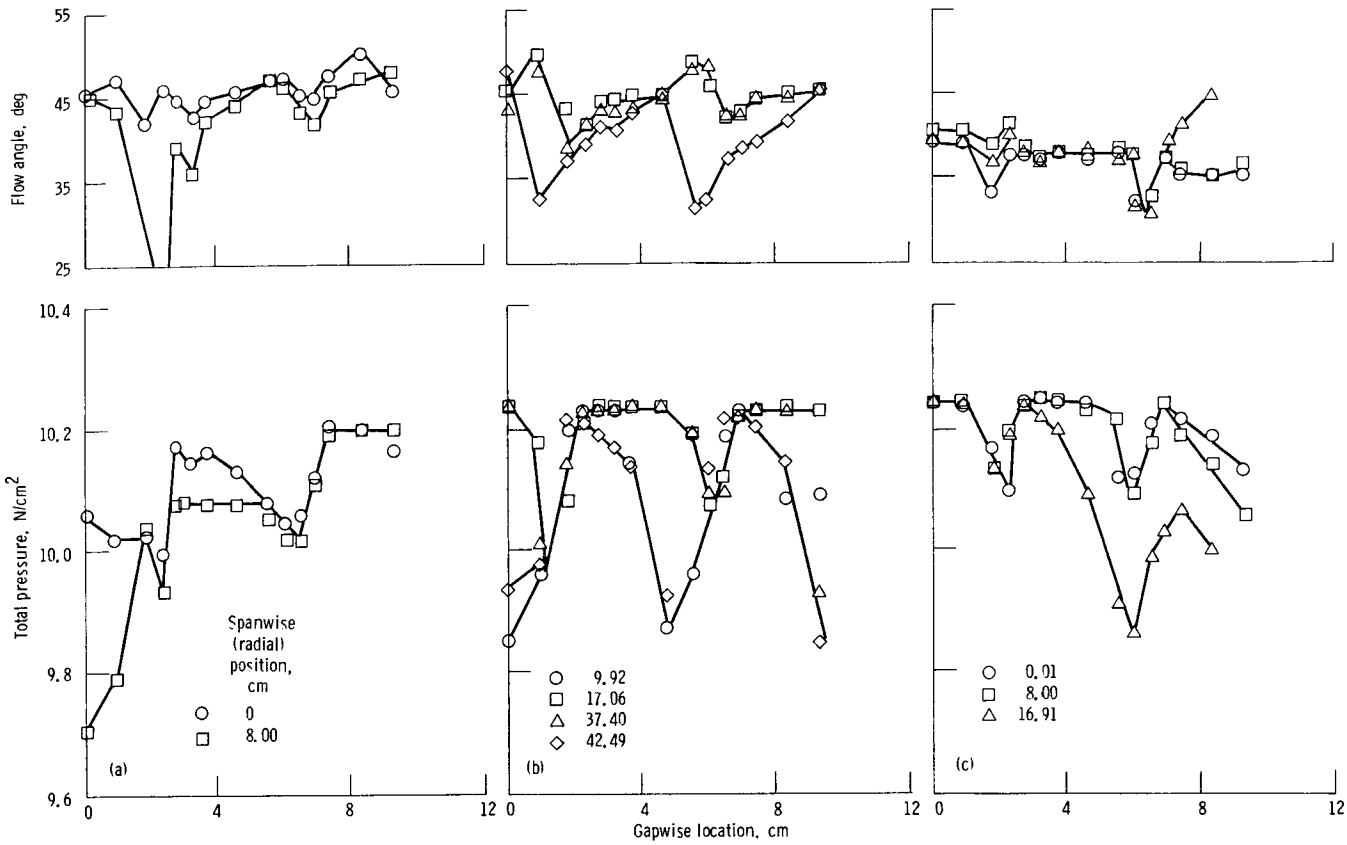
(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 29.—Gapwise distribution of total pressure and flow angle downstream of turning vanes in corner 2 (without corner 1)—vanes A3. Airflow, 69.45 kg/sec; inlet Mach number, 0.24.



(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 30.—Gapwise distribution of total pressure and flow angle downstream of turning vanes in corner 2 (without corner 1)—vanes A4. Airflow, 69.52 kg/sec; inlet Mach number, 0.24.



(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 31.—Gapwise distribution of total pressure and flow angle downstream of turning vanes in corner 2 (without corner 1)—vanes B. Airflow, 68.98 kg/sec; inlet Mach number, 0.24.

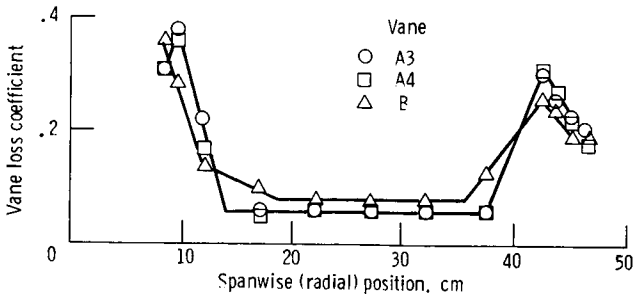
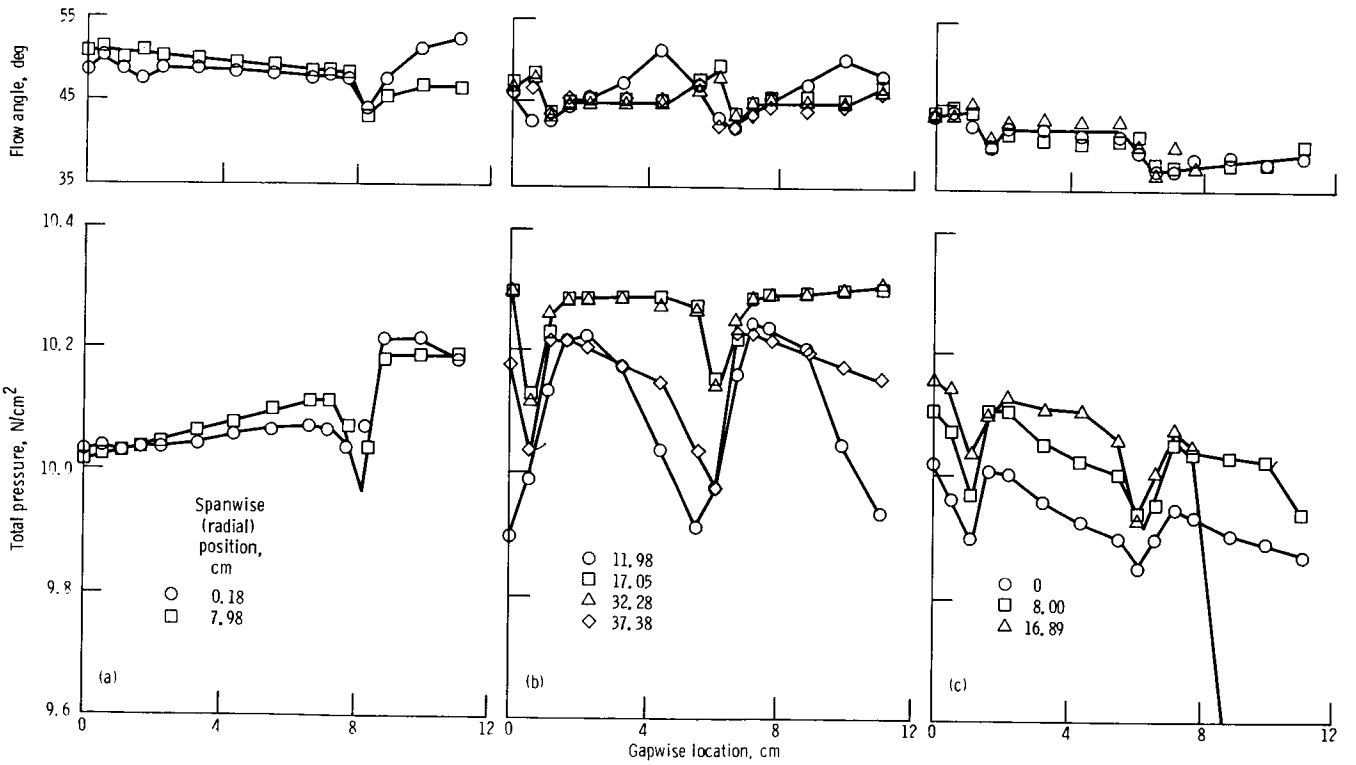
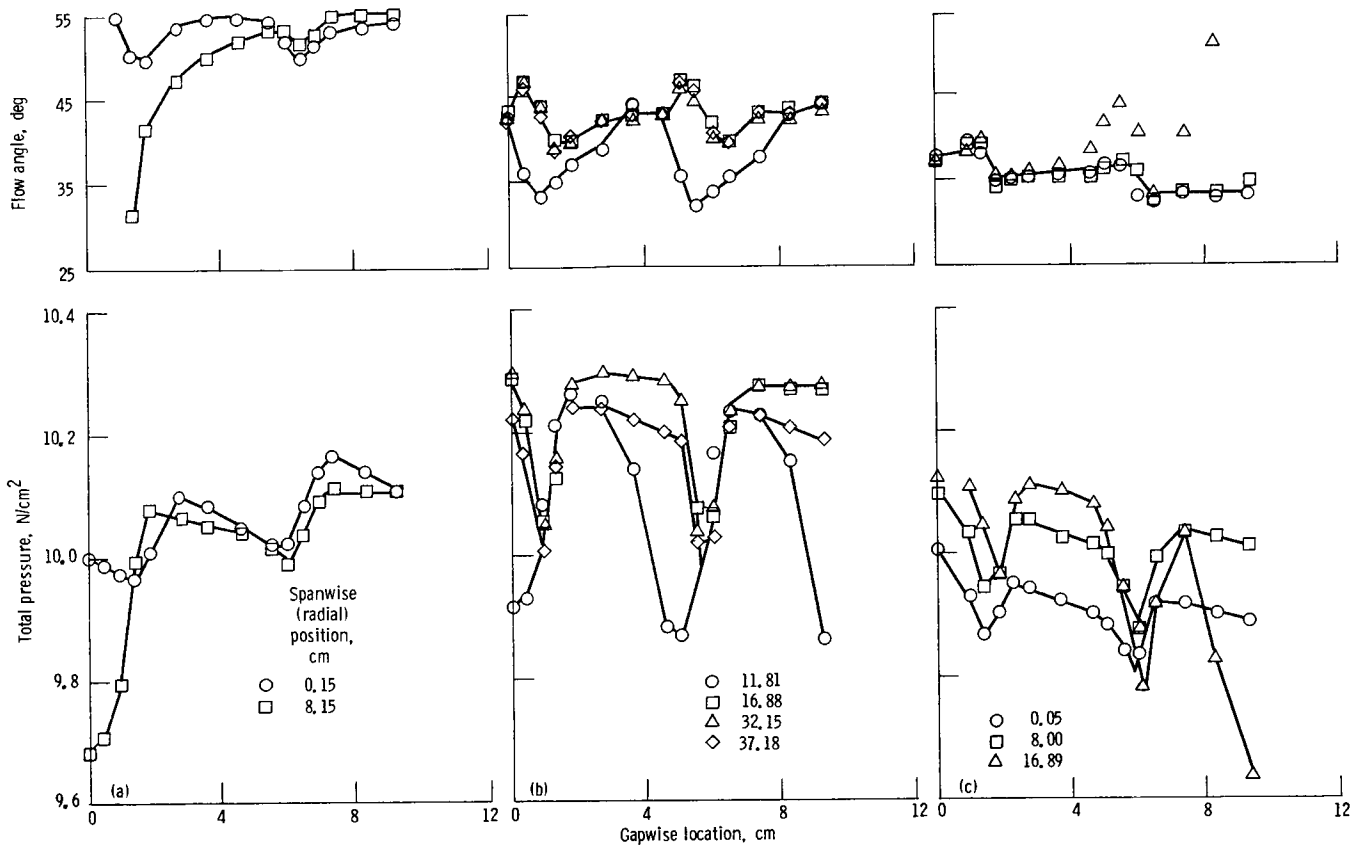


Figure 32.—Vane loss coefficients in middle region of corner 2—without corner 1. Nominal airflow, 69 kg/sec; nominal inlet Mach number, 0.24.



(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 33.—Gapwise distribution of total pressure and flow angle downstream of turning vanes—vanes A4 in corner 2 and vanes A10 with simulated engine exhaust scoop in corner 1. Airflow, 73.09 kg/sec; inlet Mach number, 0.26.



(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 34.—Gapwise distribution of total pressure and flow angle downstream of turning vanes—vanes B in corner 2 and vanes A10 with simulated engine exhaust scoop in corner 1. Airflow, 73.19 kg/sec; inlet Mach number, 0.26.

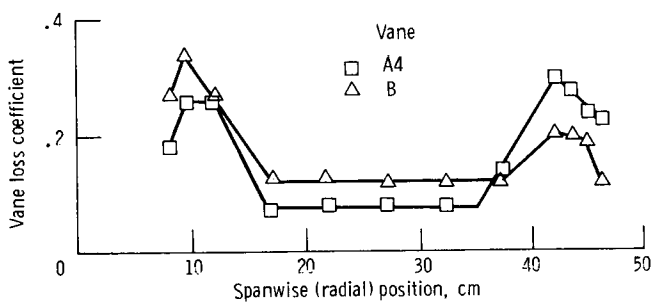
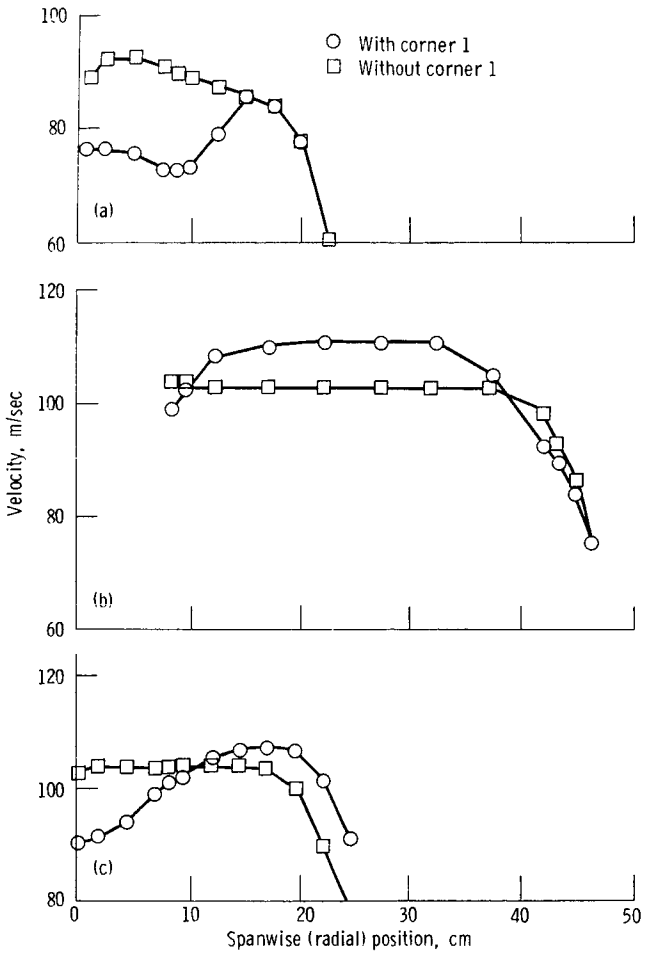
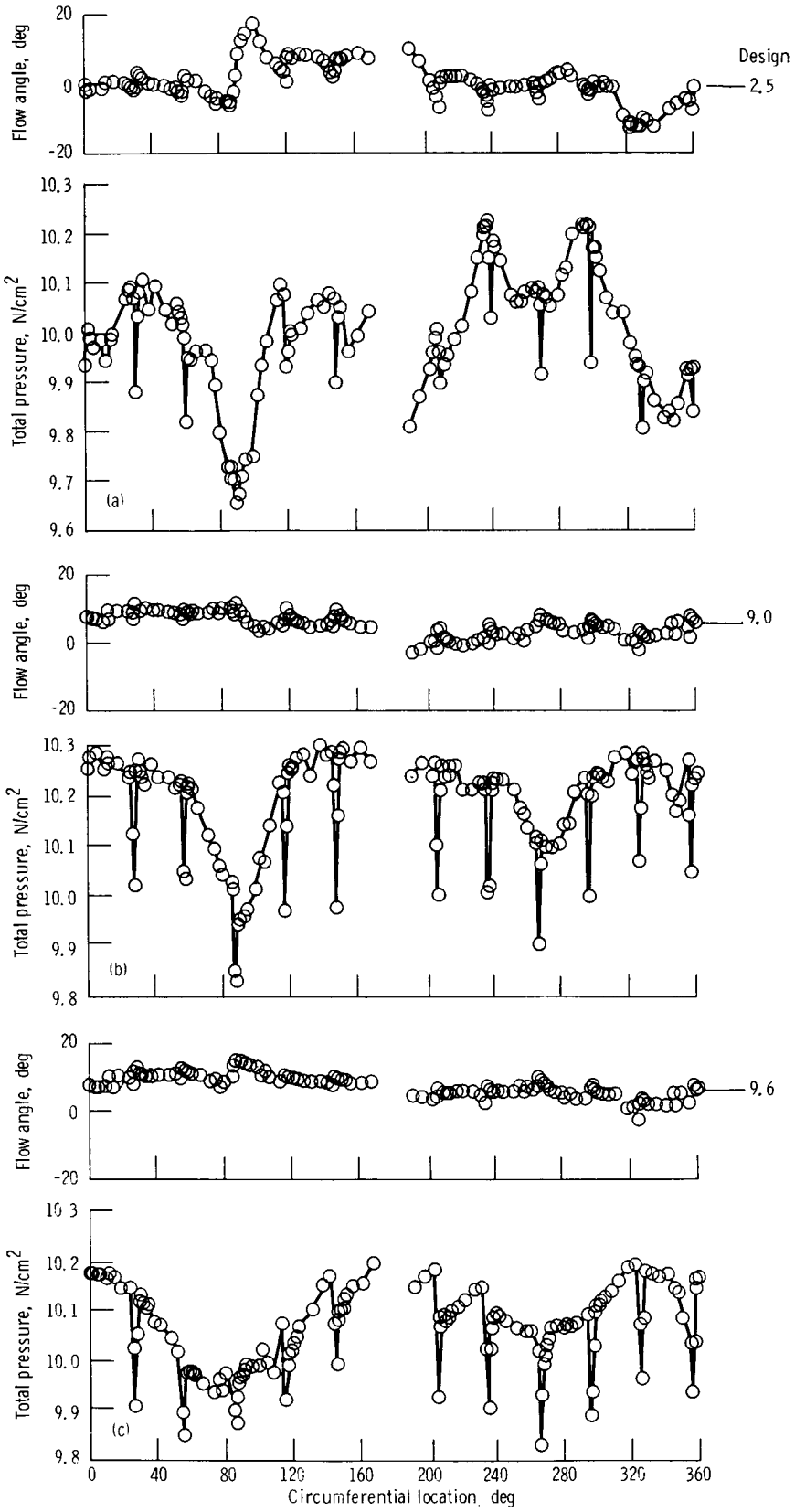


Figure 35.—Vane loss coefficients in middle region of corner 2—vanes A10 with simulated engine exhaust scoop in corner 1. Nominal airflow, 73 kg/sec; nominal inlet Mach number, 0.26.



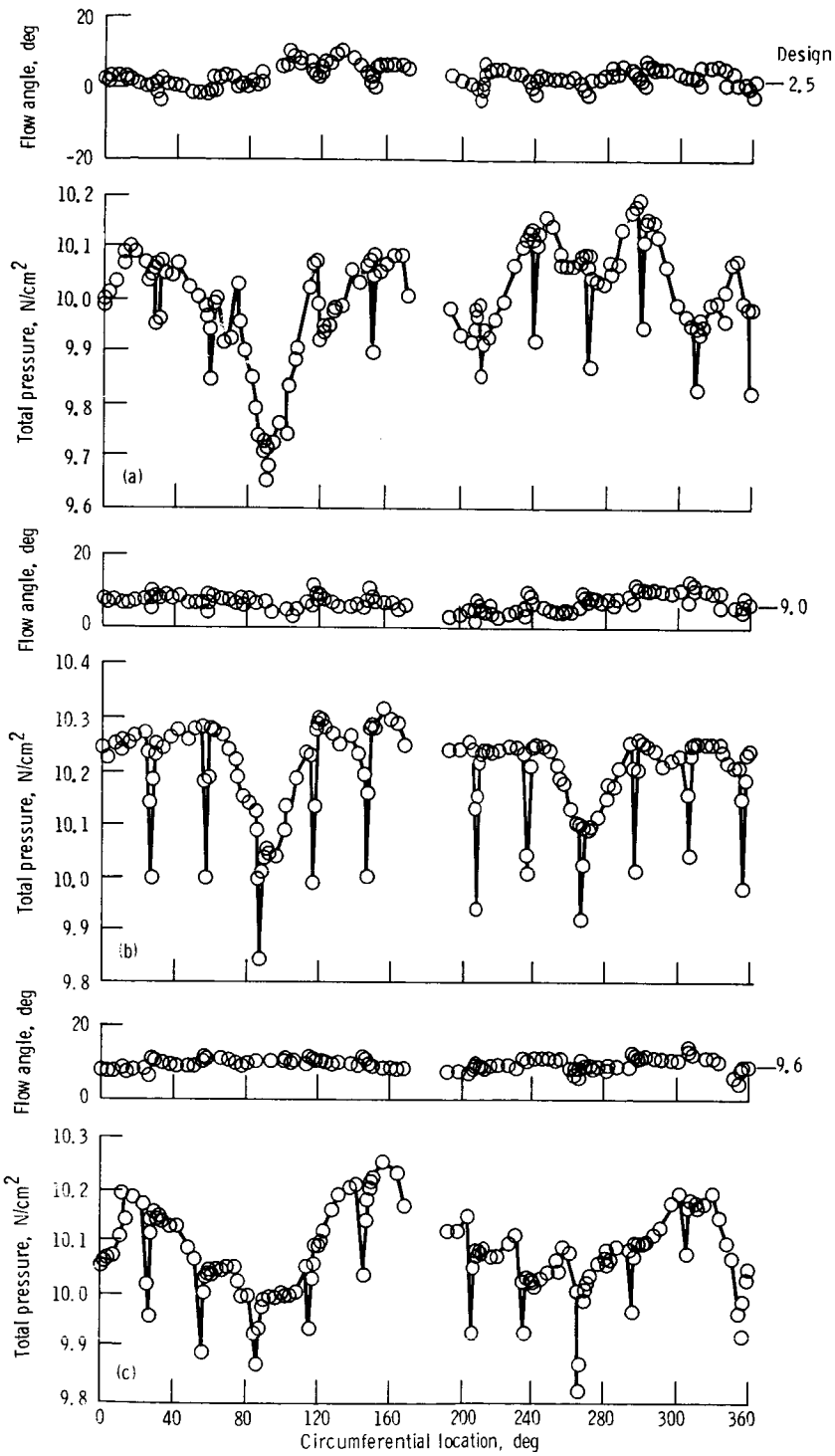
(a) Outside corner. (b) Middle. (c) Inside corner.

Figure 36.—Effect of corner 1 on radial distribution of velocity downstream of turning vanes—vanes B in corner 2 and vanes A10 with simulated engine exhaust scoop in corner 1. Nominal airflow, 73 kg/sec; nominal Mach number, 0.25.



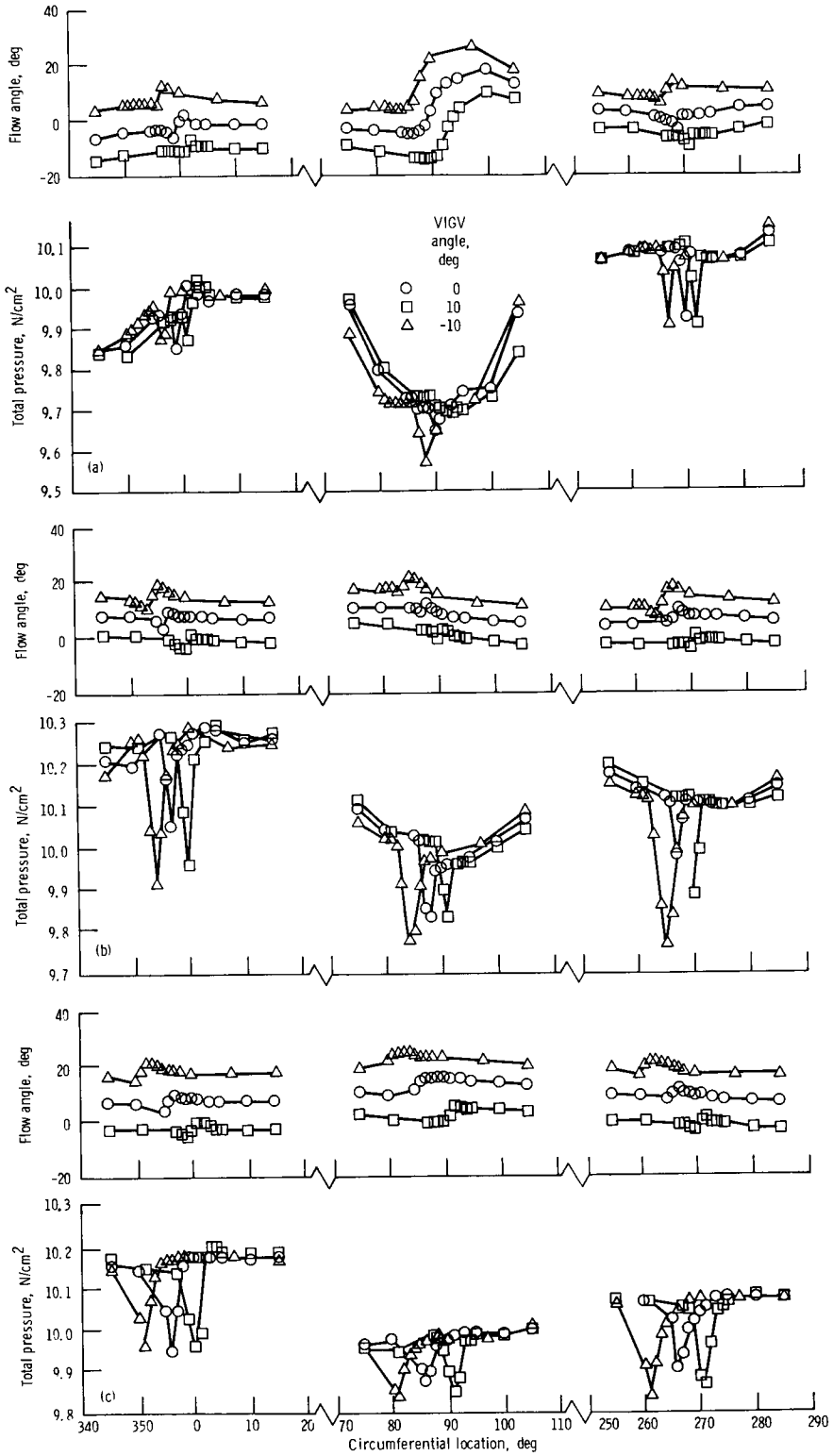
(a) 10 Percent. (b) 50 Percent. (c) 90 Percent.

Figure 37.—Distribution of total pressure and flow angle downstream of inlet guide vanes at three spanwise (radial) positions (percent of span from tip)—vanes A10 with simulated engine exhaust scoop in corner 1 and vanes A4 in corner 2. Nominal airflow, 73 kg/sec; VIGV inlet Mach number, 0.34.



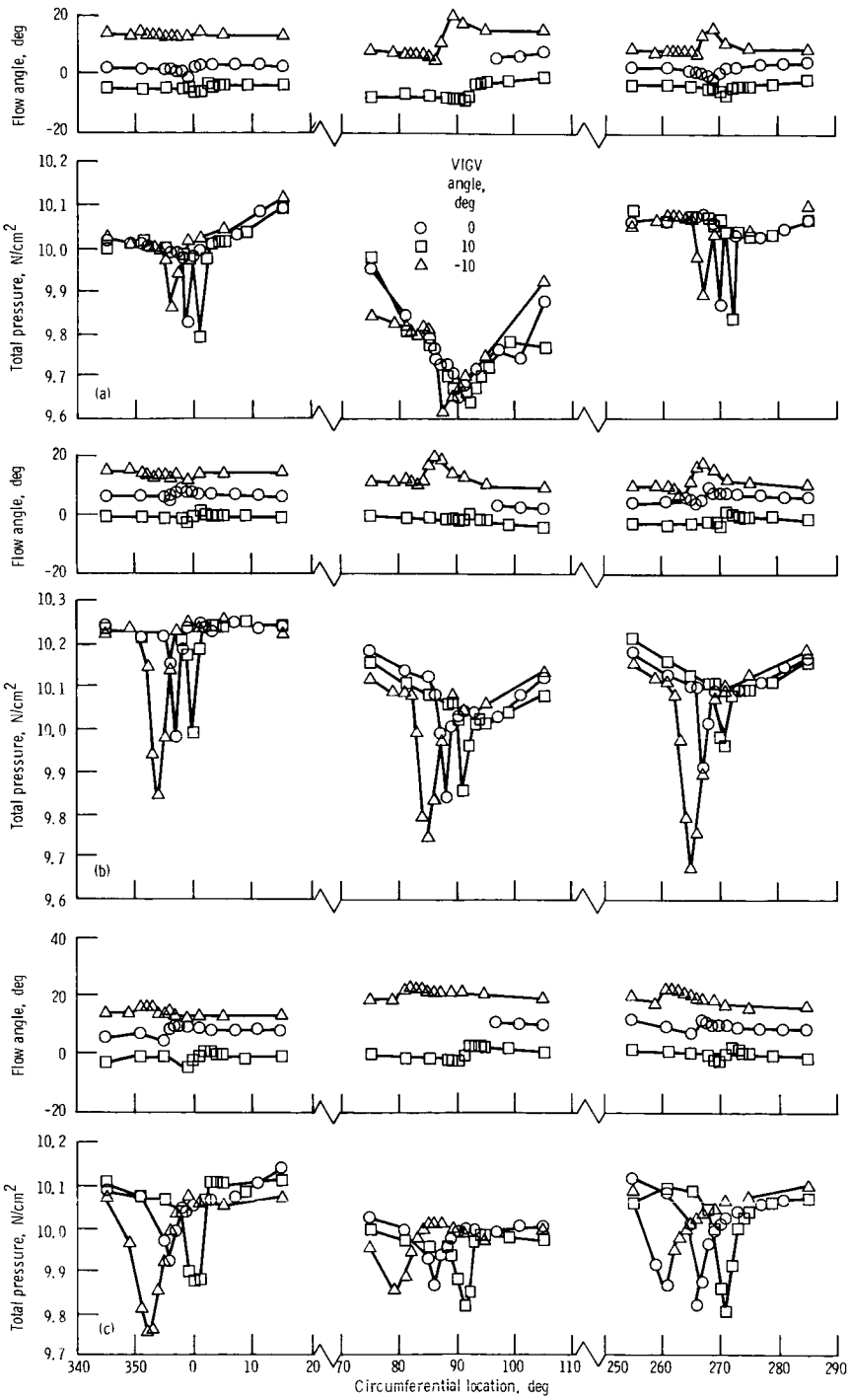
(a) 10 Percent. (b) 50 Percent. (c) 90 Percent.

Figure 38.—Distribution of total pressure and flow angle downstream of inlet guide vanes at three spanwise (radial) positions (percent of span from tip)—vanes A10 with simulated engine exhaust scoop in corner 1 and vanes B in corner 2. Nominal airflow, 73 kg/sec; VIGV inlet Mach number, 0.34.



(a) 10 Percent. (b) 50 Percent. (c) 90 Percent.

Figure 39.—Effect of VIGV angle on pressure and flow angle distributions downstream of inlet guide vanes—vanes A10 with simulated engine exhaust scoop in corner 1 and vanes A4 in corner 2. Nominal airflow, 73 kg/sec; VIGV inlet Mach number, 0.34.



(a) 10 Percent. (b) 50 Percent. (c) 90 Percent.

Figure 40.—Effect of VIGV angle on pressure and flow angle distributions downstream of inlet guide vanes—vanes A10 with simulated engine exhaust scoop in corner 1 and vanes B in corner 2. Nominal airflow, 73 kg/sec; VIGV inlet Mach number, 0.34.

TABLE 1.—VANE EXIT SURVEY FOR VANE A IN CORNER 1

[Airflow, 72.59 kg/sec.]

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 26.02 cm					
1	0.00	*****	*****	*****	0.0
2	1.13	*****	*****	*****	0.0
3	1.70	*****	*****	*****	0.0
4	2.26	*****	*****	*****	0.0
5	2.83	*****	*****	*****	0.0
6	3.39	*****	*****	*****	0.0
7	4.52	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	8.48	*****	*****	*****	0.0
12	9.04	8.88	8.79	75.8	41.6
13	9.61	8.95	8.81	83.6	51.1
14	10.17	8.96	8.82	90.2	51.0
15	11.30	8.91	8.91	64.6	0.0
Radial position, 23.47 cm					
1	0.00	*****	*****	*****	0.0
2	1.13	*****	*****	*****	0.0
3	1.70	*****	*****	*****	0.0
4	2.26	*****	*****	*****	0.0
5	2.83	*****	*****	*****	0.0
6	3.39	*****	*****	*****	0.0
7	4.52	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.78	8.69	8.69	45.0	0.0
10	7.91	8.93	8.75	50.9	57.7
11	8.48	9.20	8.77	58.5	89.8
12	9.04	9.32	8.75	65.1	102.9
13	9.61	9.32	8.74	73.0	103.7
14	10.17	9.22	8.76	80.7	91.6
15	11.30	8.93	8.92	64.6	13.2
Radial position, 20.90 cm					
1	0.00	*****	*****	*****	0.0
2	1.13	*****	*****	*****	0.0
3	1.70	*****	*****	*****	0.0
4	2.26	*****	*****	*****	0.0
5	2.83	*****	*****	*****	0.0
6	3.39	*****	*****	*****	0.0
7	4.52	8.71	8.71	46.1	0.0
8	5.65	8.72	8.72	56.0	0.0
9	6.78	8.69	8.69	45.0	0.0
10	7.91	9.16	8.76	45.3	85.6
11	8.48	9.57	8.70	49.9	125.0
12	9.04	9.75	8.63	53.9	141.2
13	9.61	9.80	8.60	57.7	146.6
14	10.17	9.73	8.66	61.4	138.1
15	11.30	9.34	8.84	64.4	95.6

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 19.58 cm					
1	0.00	*****	*****	*****	0.0
2	1.13	*****	*****	*****	0.0
3	1.70	*****	*****	*****	0.0
4	2.26	*****	*****	*****	0.0
5	2.83	8.88	8.70	74.9	59.1
6	3.39	8.90	8.69	83.2	63.8
7	4.52	8.76	8.76	63.9	0.0
8	5.65	8.68	8.68	56.0	0.0
9	6.78	8.69	8.69	45.0	0.0
10	7.91	9.24	8.76	42.5	94.7
11	8.48	9.68	8.66	46.7	135.5
12	9.04	9.88	8.58	50.7	152.2
13	9.61	9.96	8.56	53.5	157.5
14	10.17	9.96	8.60	55.3	155.5
15	11.30	9.80	8.75	58.9	136.3
Radial position, 18.35 cm					
1	0.00	*****	*****	*****	0.0
2	1.13	*****	*****	*****	0.0
3	1.70	8.97	8.68	43.8	74.6
4	2.26	9.15	8.66	52.6	95.2
5	2.83	9.18	8.63	66.6	101.0
6	3.39	9.07	8.61	74.5	92.6
7	4.52	8.62	8.62	47.2	0.0
8	5.65	8.64	8.64	56.0	0.0
9	6.78	8.68	8.68	45.0	0.0
10	7.91	9.27	8.75	39.8	97.0
11	8.48	9.73	8.65	45.2	139.3
12	9.04	9.92	8.55	49.5	155.6
13	9.61	10.00	8.52	52.2	161.7
14	10.17	10.04	8.55	53.5	161.9
15	11.30	10.07	8.67	55.3	156.8
Radial position, 15.82 cm					
1	0.00	8.57	8.57	45.2	0.0
2	1.13	8.52	8.52	57.9	0.0
3	1.70	9.18	8.60	35.7	103.2
4	2.26	9.43	8.52	41.1	128.8
5	2.83	9.61	8.46	48.8	144.6
6	3.39	9.60	8.49	54.4	142.3
7	4.52	9.20	8.67	65.9	99.1
8	5.65	8.89	8.75	65.9	50.8
9	6.78	8.88	8.81	41.7	36.5
10	7.91	9.41	8.77	38.8	107.5
11	8.48	9.81	8.66	44.5	143.1
12	9.04	10.01	8.55	48.3	160.4
13	9.61	10.09	8.50	51.4	167.4
14	10.17	10.12	8.51	53.3	168.0
15	11.30	10.12	8.61	55.6	162.7

TABLE 1.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 13.29 cm					
1	0.00	8.53	8.51	45.2	19.1
2	1.13	8.56	8.54	57.8	15.8
3	1.70	8.95	8.66	30.5	74.3
4	2.26	9.25	8.60	37.5	110.0
5	2.83	9.65	8.47	44.6	146.4
6	3.39	9.80	8.43	48.3	157.3
7	4.52	9.90	8.51	53.3	157.0
8	5.65	9.92	8.63	56.7	151.2
9	6.78	9.79	8.71	59.1	138.9
10	7.91	9.54	8.72	54.5	121.7
11	8.48	9.83	8.63	51.3	145.9
12	9.04	10.05	8.54	53.8	162.9
13	9.61	10.11	8.51	56.1	167.7
14	10.17	10.11	8.51	57.3	167.9
15	11.30	10.11	8.54	58.7	166.0
Radial position, 10.74 cm					
1	0.00	8.54	8.54	45.2	0.0
2	1.13	8.58	8.58	57.9	0.0
3	1.70	8.90	8.68	32.6	63.8
4	2.26	9.14	8.69	39.6	90.6
5	2.83	9.78	8.55	46.7	148.1
6	3.39	9.94	8.48	50.5	161.3
7	4.52	10.00	8.47	53.5	164.4
8	5.65	10.04	8.52	54.8	164.1
9	6.78	10.10	8.53	56.5	165.8
10	7.91	10.02	8.61	60.0	158.0
11	8.48	9.63	8.64	58.6	133.8
12	9.04	10.02	8.50	55.3	164.2
13	9.61	10.14	8.49	58.3	170.2
14	10.17	10.14	8.49	58.8	169.8
15	11.30	10.13	8.55	59.1	166.5
Radial position, 8.19 cm					
1	0.00	8.58	8.58	45.2	0.0
2	1.13	8.64	8.64	57.9	0.0
3	1.70	8.85	8.73	53.9	46.2
4	2.26	9.19	8.73	45.0	92.1
5	2.83	9.75	8.63	45.6	141.8
6	3.39	9.99	8.47	49.8	164.1
7	4.52	10.08	8.45	53.2	169.2
8	5.65	10.11	8.47	55.1	170.2
9	6.78	10.13	8.47	57.1	170.5
10	7.91	10.07	8.50	61.1	166.2
11	8.48	9.44	8.70	59.3	116.1
12	9.04	10.06	8.51	55.6	165.5
13	9.61	10.14	8.46	59.0	171.5
14	10.17	10.14	8.47	59.6	171.4
15	11.30	10.14	8.50	60.0	169.5

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 5.67 cm					
1	0.00	9.08	8.70	58.1	83.4
2	1.13	9.10	8.76	47.2	78.7
3	1.70	9.39	8.75	43.0	107.4
4	2.26	9.66	8.70	44.3	130.8
5	2.83	10.00	8.61	49.1	156.7
6	3.39	10.08	8.51	52.3	166.4
7	4.52	10.12	8.49	54.8	169.4
8	5.65	10.13	8.52	56.3	168.4
9	6.78	10.14	8.51	57.7	169.2
10	7.91	10.13	8.49	59.8	170.1
11	8.48	9.73	8.64	61.2	139.8
12	9.04	10.05	8.53	58.0	164.0
13	9.61	10.14	8.47	60.2	171.3
14	10.17	10.14	8.46	60.5	171.5
15	11.30	10.13	8.48	60.8	170.1
Radial position, 3.13 cm					
1	0.00	9.91	8.47	58.7	160.2
2	1.13	9.94	8.54	59.3	157.5
3	1.70	9.76	8.63	61.9	142.2
4	2.26	9.61	8.64	61.3	132.4
5	2.83	9.76	8.58	54.6	145.3
6	3.39	10.07	8.45	57.1	168.9
7	4.52	10.12	8.45	58.2	171.0
8	5.65	10.13	8.48	58.6	170.3
9	6.78	10.14	8.51	59.3	169.3
10	7.91	10.13	8.46	61.1	171.5
11	8 48	9.74	8.64	62.0	140.3
12	9.04	10.06	8.52	58.0	164.9
13	9.61	10.13	8.47	60.0	171.0
14	10.17	10.13	8.47	60.9	171.2
15	11.30	10.13	8.48	61.2	170.3
Radial position, 0.10 cm					
1	0.00	9.74	8.35	57.8	158.8
2	1.13	9.61	8.43	58.4	146.5
3	1.70	9.56	8.52	58.9	137.6
4	2.26	9.47	8.57	57.6	128.1
5	2.83	9.85	8.54	52.8	153.1
6	3.39	10.06	8.40	54.7	171.8
7	4.52	10.12	8.41	56.4	173.2
8	5.65	10.13	8.45	57.7	172.1
9	6.78	10.14	8.47	58.9	171.2
10	7.91	10.12	8.46	61.8	170.4
11	8.48	9.74	8.63	62.1	140.3
12	9.04	10.05	8.64	58.1	157.5
13	9.61	10.13	8.63	60.0	162.1
14	10.17	10.13	8.46	60.7	171.4
15	11.30	10.13	8.46	60.9	171.4

TABLE 1.—Continued.

(b) Middle

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 38.63 cm					
1	0.00	10.05	9.24	54.5	117.8
2	1.13	9.93	9.16	54.3	115.1
3	2.26	9.80	9.12	52.6	109.2
4	2.83	9.81	9.13	45.0	108.7
5	3.39	9.97	9.19	47.0	116.3
6	3.96	10.11	9.21	49.9	124.1
7	4.52	10.09	9.21	52.7	122.3
8	5.65	9.96	9.14	53.5	119.2
9	6.78	9.86	9.11	51.3	114.3
10	7.91	9.75	9.15	50.7	102.8
11	8.48	9.74	9.18	44.4	98.8
12	9.04	9.98	9.23	43.7	113.6
13	9.61	10.13	9.31	48.3	118.1
14	10.17	10.11	9.30	50.1	117.4
15	11.30	10.03	9.21	52.2	118.1
Radial position, 37.36 cm					
1	0.00	10.12	9.15	47.6	129.1
2	1.13	9.93	9.08	51.6	120.6
3	2.26	9.72	9.10	49.5	104.2
4	2.83	9.87	9.12	41.2	114.1
5	3.39	10.10	9.16	44.0	127.1
6	3.96	10.14	9.11	45.2	132.5
7	4.52	10.12	9.12	46.5	130.5
8	5.65	10.04	9.08	48.3	128.3
9	6.78	9.78	9.06	49.8	111.8
10	7.91	9.73	9.13	48.2	102.5
11	8.48	9.77	9.16	43.9	103.2
12	9.04	10.06	9.18	44.4	122.8
13	9.61	10.14	9.22	46.5	125.5
14	10.17	10.14	9.21	46.9	125.8
15	11.30	9.96	9.11	51.7	120.9
Radial position, 36.05 cm					
1	0.00	10.14	9.07	44.4	135.2
2	1.13	9.73	9.09	46.0	105.3
3	2.26	9.63	9.10	41.8	96.3
4	2.83	9.82	9.10	39.1	112.1
5	3.39	10.13	9.08	42.7	133.6
6	3.96	10.14	9.03	44.8	138.2
7	4.52	10.15	9.05	44.5	136.8
8	5.65	10.03	9.06	46.5	129.5
9	6.78	9.66	9.12	46.8	97.6
10	7.91	9.68	9.11	39.1	99.6
11	8.48	9.89	9.14	38.6	114.4
12	9.04	10.10	9.11	41.7	130.3
13	9.61	10.14	9.11	45.2	132.8
14	10.17	10.14	9.11	45.0	132.9
15	11.30	10.06	9.10	46.5	129.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 33.55 cm					
1	0.00	10.14	9.00	46.4	140.1
2	1.13	10.14	9.07	47.0	135.7
3	2.26	10.13	9.19	48.8	126.8
4	2.83	9.84	9.11	42.6	113.1
5	3.39	10.08	9.05	46.3	133.3
6	3.96	10.14	8.97	47.4	142.3
7	4.52	10.14	8.99	47.4	141.0
8	5.65	10.14	9.01	46.6	139.6
9	6.78	10.14	9.08	47.6	134.8
10	7.91	10.06	9.17	50.1	124.0
11	8.48	9.77	9.14	46.3	105.0
12	9.04	10.12	9.05	45.6	135.5
13	9.61	10.14	8.99	47.2	140.6
14	10.17	10.14	8.99	46.8	140.5
15	11.30	10.14	9.00	46.7	140.0
Radial position, 31.02 cm					
1	0.00	10.14	8.99	48.4	140.5
2	1.13	10.14	9.01	48.3	139.4
3	2.26	10.13	9.04	48.9	136.7
4	2.83	9.86	9.08	48.5	116.3
5	3.39	10.10	9.04	46.3	134.8
6	3.96	10.14	8.97	47.9	142.0
7	4.52	10.14	8.98	47.8	141.2
8	5.65	10.14	8.97	47.8	141.9
9	6.78	10.14	8.99	48.1	140.9
10	7.91	10.12	9.05	49.2	136.1
11	8.48	9.85	9.08	49.7	115.7
12	9.04	10.06	9.05	45.8	132.2
13	9.61	10.14	8.98	47.8	141.5
14	10.17	10.14	8.98	48.2	141.5
15	11.30	10.14	8.97	48.0	142.0
Radial position, 25.92 cm					
1	0.00	10.14	8.97	48.1	141.5
2	1.13	10.14	8.98	47.9	141.2
3	2.26	10.13	9.00	49.0	139.0
4	2.83	9.84	9.09	48.6	114.1
5	3.39	10.09	9.07	46.7	132.7
6	3.96	10.14	8.95	47.9	143.2
7	4.52	10.14	8.95	48.2	142.9
8	5.65	10.14	8.95	48.5	142.8
9	6.78	10.14	8.97	48.6	142.0
10	7.91	10.13	8.99	49.5	139.7
11	8.48	9.92	9.07	50.5	121.3
12	9.04	10.04	9.06	46.5	130.1
13	9.61	10.14	8.97	48.5	141.7
14	10.17	10.14	8.96	48.7	142.3
15	11.30	10.14	8.96	48.8	142.3

TABLE 1.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 20.85 cm					
1	0.00	10.14	8.99	48.8	140.0
2	1.13	10.14	8.97	48.4	141.4
3	2.26	10.13	9.02	49.4	137.8
4	2.83	9.84	9.09	48.8	114.5
5	3.39	10.06	9.07	46.5	130.7
6	3.96	10.14	8.99	48.3	140.1
7	4.52	10.14	8.99	48.6	140.4
8	5.65	10.14	8.98	48.4	141.1
9	6.78	10.13	8.95	48.6	142.9
10	7.91	10.12	9.01	49.5	138.2
11	8.48	9.92	9.09	50.4	120.4
12	9.04	10.04	9.08	46.7	129.1
13	9.61	10.14	9.00	48.6	139.8
14	10.17	10.14	9.00	48.6	140.1
15	11.30	10.14	8.99	48.8	140.1
Radial position, 15.76 cm					
1	0.00	10.14	9.00	48.3	139.8
2	1.13	10.14	9.00	48.1	139.8
3	2.26	10.13	9.03	49.3	137.4
4	2.83	9.84	9.10	47.9	114.1
5	3.39	10.04	9.08	46.4	128.5
6	3.96	10.14	8.99	48.2	140.1
7	4.52	10.14	9.00	48.7	139.6
8	5.65	10.13	9.00	48.7	139.6
9	6.78	10.14	8.98	48.8	140.8
10	7.91	10.12	9.02	49.4	138.0
11	8.48	9.89	9.09	50.0	118.3
12	9.04	10.04	9.08	46.4	129.1
13	9.61	10.14	9.00	48.5	139.5
14	10.17	10.14	9.00	48.6	139.5
15	11.30	10.14	9.01	48.7	139.3
Radial position, 10.70 cm					
1	0.00	10.14	9.00	48.5	139.8
2	1.13	10.14	9.00	48.4	139.7
3	2.26	10.12	9.04	49.4	136.6
4	2.83	9.86	9.09	46.7	115.7
5	3.39	10.06	9.08	46.4	129.7
6	3.96	10.14	8.99	48.1	140.7
7	4.52	10.14	9.00	48.5	140.0
8	5.65	10.14	9.00	48.7	139.9
9	6.78	10.14	8.99	48.6	140.4
10	7.91	10.11	9.03	49.7	136.2
11	8.48	9.88	9.09	49.7	117.0
12	9.04	10.03	9.08	46.6	128.5
13	9.61	10.14	9.01	48.8	139.4
14	10.17	10.14	9.01	48.8	139.2
15	11.30	10.14	9.01	49.0	139.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 5.59 cm					
1	0.00	10.14	9.00	48.3	139.7
2	1.13	10.14	9.00	48.4	139.7
3	2.26	10.11	9.05	49.6	134.6
4	2.83	9.90	9.09	46.2	117.9
5	3.39	10.07	9.08	46.2	130.6
6	3.96	10.14	8.99	48.1	140.4
7	4.52	10.14	9.00	48.3	139.5
8	5.65	10.14	9.01	48.7	139.5
9	6.78	10.14	8.99	48.7	140.2
10	7.91	10.07	9.03	50.0	133.8
11	8.48	9.82	9.09	49.2	112.5
12	9.04	9.98	9.09	46.6	123.8
13	9.61	10.13	9.01	49.2	138.5
14	10.17	10.13	9.01	49.0	138.6
15	11.30	10.14	9.02	48.8	138.8
Radial position, 3.05 cm					
1	0.00	10.14	9.00	47.5	140.1
2	1.13	10.14	9.00	47.4	139.8
3	2.26	10.09	9.05	49.8	133.5
4	2.83	9.94	9.09	46.7	121.4
5	3.39	10.07	9.08	46.5	130.1
6	3.96	10.14	8.99	47.4	140.5
7	4.52	10.14	9.00	48.2	139.5
8	5.65	10.14	9.01	48.2	139.4
9	6.78	10.14	9.00	48.3	140.2
10	7.91	10.07	9.03	49.9	133.9
11	8.48	9.84	9.09	49.2	114.5
12	9.04	10.03	9.08	46.3	127.8
13	9.61	10.14	9.00	48.1	139.6
14	10.17	10.14	9.01	48.1	139.4
15	11.30	10.14	9.02	48.3	138.8
Radial position, 0.03 cm					
1	0.00	10.11	9.02	51.5	136.6
2	1.13	10.09	9.01	51.6	136.5
3	2.26	10.09	9.05	50.9	133.2
4	2.83	9.92	9.08	46.8	120.3
5	3.39	9.90	9.08	48.2	119.2
6	3.96	10.14	8.99	48.8	140.2
7	4.52	10.09	9.00	49.7	136.8
8	5.65	10.13	9.01	48.5	138.4
9	6.78	10.10	9.00	49.7	137.7
10	7.91	10.04	9.07	50.4	129.6
11	8.48	9.87	9.09	49.6	115.6
12	9.04	9.97	9.06	47.2	125.6
13	9.61	10.11	9.03	50.1	136.1
14	10.17	10.10	9.03	50.7	135.9
15	11.30	10.09	9.03	50.6	134.8

TABLE 1.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 25.90 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	2.26	*****	*****	*****	0.0
5	3.39	*****	*****	*****	0.0
6	4.52	*****	*****	*****	0.0
7	5.65	*****	*****	*****	0.0
8	6.22	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.35	*****	*****	*****	0.0
11	7.91	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
Radial position, 23.39 cm					
1	0.00	9.86	9.20	61.2	106.8
2	0.57	9.88	9.25	73.4	104.6
3	1.13	9.91	9.22	70.0	108.5
4	2.26	*****	*****	*****	0.0
5	3.39	*****	*****	*****	0.0
6	4.52	*****	*****	*****	0.0
7	5.65	*****	*****	*****	0.0
8	6.22	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.35	*****	*****	*****	0.0
11	7.91	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
Radial position, 20.84 cm					
1	0.00	9.92	9.18	40.8	113.3
2	0.57	10.03	9.25	54.7	115.8
3	1.13	10.09	9.26	51.2	119.1
4	2.26	9.99	9.25	58.2	112.5
5	3.39	9.77	9.23	69.8	96.7
6	4.52	9.28	9.24	47.0	28.0
7	5.65	*****	*****	*****	0.0
8	6.22	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.35	*****	*****	*****	0.0
11	7.91	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 19.55 cm					
1	0.00	9.67	9.06	54.0	103.6
2	0.57	10.09	9.22	58.2	122.3
3	1.13	10.10	9.19	55.8	124.6
4	2.26	10.05	9.23	60.9	118.3
5	3.39	9.92	9.24	65.4	108.5
6	4.52	9.72	9.21	71.1	94.0
7	5.65	*****	*****	*****	0.0
8	6.22	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.35	*****	*****	*****	0.0
11	7.91	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
Radial position, 18.28 cm					
1	0.00	9.78	9.07	54.0	111.0
2	0.57	10.08	9.16	61.2	126.0
3	1.13	10.12	9.12	58.7	131.1
4	2.26	9.97	9.14	64.2	119.3
5	3.39	9.65	9.14	68.5	94.9
6	4.52	9.64	9.18	62.2	89.9
7	5.65	9.42	9.23	59.0	58.4
8	6.22	9.39	9.24	72.3	50.4
9	6.78	*****	*****	*****	0.0
10	7.35	*****	*****	*****	0.0
11	7.91	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
Radial position, 15.75 cm					
1	0.00	10.11	9.02	49.2	136.4
2	0.57	9.98	9.04	50.2	127.4
3	1.13	10.11	8.99	49.8	138.8
4	2.26	9.71	9.12	48.9	101.4
5	3.39	9.56	9.13	19.3	87.2
6	4.52	9.96	9.17	24.9	117.2
7	5.65	9.97	9.26	39.4	110.1
8	6.22	9.88	9.26	49.4	103.5
9	6.78	9.69	9.25	57.8	88.0
10	7.35	9.46	9.25	63.0	62.0
11	7.91	9.42	9.26	69.4	53.3
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0

TABLE 1.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 13.17 cm					
1	0.00	10.07	8.98	50.3	137.0
2	0.57	10.11	8.97	50.3	139.7
3	1.13	10.11	8.93	50.8	142.4
4	2.26	10.10	9.07	51.0	132.6
5	3.39	9.97	9.14	54.4	119.2
6	4.52	9.67	9.11	57.8	99.4
7	5.65	9.68	9.09	48.9	101.5
8	6.22	9.86	9.14	50.4	112.4
9	6.78	9.97	9.19	53.2	116.0
10	7.35	9.94	9.24	57.2	109.3
11	7.91	9.85	9.27	60.3	99.6
12	9.04	9.78	9.29	67.7	92.6
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
Radial position, 10.63 cm					
1	0.00	10.06	9.02	50.6	133.7
2	0.57	10.11	8.93	51.7	142.1
3	1.13	10.11	8.94	51.7	142.1
4	2.26	10.11	8.97	51.5	139.8
5	3.39	10.11	9.13	50.6	129.4
6	4.52	9.88	9.10	53.6	116.2
7	5.65	9.77	9.10	50.0	108.1
8	6.22	9.97	9.10	56.9	122.7
9	6.78	9.99	9.10	60.7	124.3
10	7.35	9.85	9.11	63.9	113.1
11	7.91	9.65	9.15	64.5	93.4
12	9.04	9.43	9.19	64.1	66.4
13	10.17	9.47	9.23	62.2	65.5
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
Radial position, 8.11 cm					
1	0.00	10.06	9.04	50.3	132.7
2	0.57	10.12	8.96	51.3	140.6
3	1.13	10.12	8.97	51.5	140.3
4	2.26	10.12	8.96	51.3	141.0
5	3.39	10.12	9.00	49.5	138.2
6	4.52	10.11	9.07	50.2	133.4
7	5.65	10.08	9.06	47.0	132.0
8	6.22	10.09	9.04	51.6	133.8
9	6.78	9.98	9.07	52.2	125.4
10	7.35	9.79	9.12	52.1	108.4
11	7.91	9.61	9.16	50.7	89.6
12	9.04	9.48	9.21	41.9	69.2
13	10.17	9.45	9.25	44.7	60.6
14	10.74	9.24	9.24	45.1	0.0
15	11.30	9.35	9.26	45.0	38.4

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 5.54 cm					
1	0.00	10.08	9.04	50.2	133.2
2	0.57	10.12	8.98	51.4	139.6
3	1.13	10.12	8.99	51.6	138.7
4	2.26	10.12	8.98	51.6	139.4
5	3.39	10.12	9.00	49.8	138.4
6	4.52	10.12	9.18	49.2	126.4
7	5.65	10.10	9.03	45.7	135.7
8	6.22	10.12	9.01	49.5	137.8
9	6.78	10.09	9.01	49.7	136.0
10	7.35	10.01	9.06	50.0	128.4
11	7.91	9.89	9.13	51.2	114.8
12	9.04	9.69	9.17	52.9	95.6
13	10.17	9.67	9.21	49.5	90.1
14	10.74	9.42	9.28	60.4	49.5
15	11.30	9.55	9.27	56.4	70.1
Radial position, 3.03 cm					
1	0.00	10.09	9.06	50.8	132.9
2	0.57	10.12	9.01	51.6	138.0
3	1.13	10.12	9.02	51.8	137.6
4	2.26	10.12	9.00	51.6	138.3
5	3.39	10.12	9.01	49.8	137.8
6	4.52	10.12	9.04	49.9	135.9
7	5.65	10.10	9.03	46.4	135.6
8	6.22	10.12	8.99	49.9	139.0
9	6.78	10.12	8.98	49.8	139.9
10	7.35	10.09	8.99	49.6	137.3
11	7.91	10.04	9.06	50.1	129.5
12	9.04	9.81	9.14	52.6	107.6
13	10.17	9.60	9.16	52.0	87.9
14	10.74	9.51	9.28	56.4	63.1
15	11.30	9.63	9.24	53.1	82.8
Radial position, 0 cm					
1	0.00	10.13	9.06	50.0	134.9
2	0.57	10.13	9.02	51.0	137.3
3	1.13	10.13	9.03	51.4	137.2
4	2.26	10.13	9.02	51.3	137.8
5	3.39	10.13	9.02	49.6	137.8
6	4.52	10.10	9.07	50.3	133.2
7	5.65	10.11	9.03	46.7	136.0
8	6.22	10.13	8.99	50.1	139.4
9	6.78	10.12	8.97	50.1	140.7
10	7.35	10.11	8.96	50.3	140.0
11	7.91	10.08	8.99	50.1	136.9
12	9.04	9.98	9.10	51.4	123.2
13	10.17	9.75	9.14	53.8	103.1
14	10.74	9.53	9.27	53.5	67.4
15	11.30	9.64	9.21	54.3	86.5

TABLE 2.—VANE EXIT SURVEY FOR VANE A10 IN CORNER 1

[Airflow, 72.19 kg/sec.]

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 25.99 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	1.70	*****	*****	*****	0.0
5	2.26	*****	*****	*****	0.0
6	3.39	*****	*****	*****	0.0
7	4.52	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.22	*****	*****	*****	0.0
10	6.78	*****	*****	*****	0.0
11	7.35	*****	*****	*****	0.0
12	7.91	*****	*****	*****	0.0
13	9.04	9.25	9.22	54.4	24.7
14	10.17	9.28	9.24	56.6	26.5
15	11.30	9.28	9.26	56.6	20.1
Radial position, 23.46 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	1.70	*****	*****	*****	0.0
5	2.26	*****	*****	*****	0.0
6	3.39	*****	*****	*****	0.0
7	4.52	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.22	9.20	9.20	54.1	0.0
10	6.78	9.27	9.22	58.7	28.7
11	7.35	9.37	9.21	64.9	53.5
12	7 91	9.51	9.20	66.8	73.8
13	9.04	9.60	9.18	75.1	86.2
14	10.17	9.42	9.22	86.8	60.4
15	11.30	9.27	9.27	56.5	0.0
Radial position, 20.92 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	1.70	*****	*****	*****	0.0
5	2.26	*****	*****	*****	0.0
6	3.39	*****	*****	*****	0.0
7	4.52	9.20	9.20	53.9	0.0
8	5.65	9.24	9.24	61.1	0.0
9	6.22	9.26	9.25	45.0	10.3
10	6.78	9.44	9.23	51.4	61.1
11	7.35	9.63	9.20	51.2	87.0
12	7.91	9.81	9.14	53.8	108.0
13	9.04	9.87	9.11	59.4	115.0
14	10.17	9.62	9.24	64.7	82.2
15	11.30	9.43	9.29	50.6	50.1

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 19.65 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	1.70	*****	*****	*****	0.0
5	2.26	*****	*****	*****	0.0
6	3.39	9.35	9.19	89.7	52.5
7	4.52	9.24	9.24	53.9	0.0
8	5.65	9.25	9.25	61.1	0.0
9	6.22	9.28	9.27	45.0	15.2
10	6.78	9.50	9.23	49.1	68.7
11	7.35	9.69	9.19	49.4	93.6
12	7.91	9.86	9.13	52.0	113.0
13	9.04	9.96	9.08	54.8	124.0
14	10.17	9.91	9.20	57.1	110.9
15	11.30	9.69	9.27	57.5	85.9
Radial position, 18.35 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	1.70	9.33	9.18	56.9	51.3
5	2.26	9.47	9.18	67.8	71.9
6	3.39	9.46	9.16	82.7	73.2
7	4.52	9.24	9.24	53.9	0.0
8	5.65	9.24	9.24	61.2	0.0
9	6.22	9.31	9.25	47.0	32.0
10	6.78	9.62	9.23	42.4	82.7
11	7.35	9.81	9.18	45.4	104.9
12	7.91	9.96	9.12	48.7	121.0
13	9.04	10.01	9.05	52.0	128.6
14	10.17	10.04	9.14	52.6	124.4
15	11.30	9.98	9.21	55.7	115.2
Radial position, 15.83 cm					
1	0.00	9.09	9.09	60.1	0.0
2	0.57	9.13	9.13	38.6	6.0
3	1.13	9.29	9.15	40.0	50.2
4	1.70	9.48	9.15	56.9	76.1
5	2.26	9.74	9.12	50.6	104.4
6	3.39	9.74	9.13	59.0	103.9
7	4.52	9.48	9.23	63.4	65.8
8	5.65	9.39	9.28	61.2	44.9
9	6.22	9.53	9.27	39.0	68.0
10	6.78	9.81	9.22	39.7	101.4
11	7.35	10.00	9.14	42.6	121.6
12	7.91	10.10	9.08	46.2	132.3
13	9.04	10.13	9.05	49.6	136.0
14	10.17	10.13	9.08	51.6	134.3
15	11.30	10.13	9.13	53.0	130.5

TABLE 2.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 13.30 cm					
1	0.00	9.11	9.11	60.1	0.0
2	0.57	9.35	9.19	24.4	54.0
3	1.13	9.63	9.21	33.8	85.9
4	1.70	9.84	9.17	43.2	108.1
5	2.26	9.89	9.12	50.0	115.8
6	3.39	9.89	9.08	53.1	118.4
7	4.52	9.92	9.03	63.2	124.2
8	5.65	9.97	9.18	61.1	117.2
9	6.22	9.89	9.19	55.9	110.0
10	6.78	9.78	9.19	51.7	100.8
11	7.35	9.95	9.14	47.7	118.4
12	7.91	10.14	9.10	50.7	133.3
13	9.04	10.12	9.06	53.0	135.0
14	10.17	10.12	9.06	54.2	134.9
15	11.30	10.11	9.07	55.7	133.9
Radial position, 10.73 cm					
1	0.00	9.18	9.18	60.1	0.0
2	0.57	9.23	9.22	46.6	10.3
3	1.13	9.39	9.25	39.3	50.9
4	1.70	9.76	9.21	41.3	97.9
5	2.26	9.97	9.14	46.9	119.9
6	3.39	10.00	9.10	49.5	124.4
7	4.52	9.99	9.06	63.2	127.1
8	5.65	10.06	9.10	61.1	128.7
9	6.22	10.10	9.12	53.4	129.5
10	6.78	10.03	9.14	56.5	123.9
11	7.35	9.81	9.15	54.5	107.4
12	7.91	10.11	9.09	52.5	132.5
13	9.04	10.14	9.07	54.5	135.2
14	10.17	10.14	9.08	55.1	135.0
15	11.30	10.14	9.08	55.6	134.4
Radial position, 8.18 cm					
1	0.00	9.22	9.22	47.5	0.0
2	0.57	9.41	9.25	35.0	53.5
3	1.13	9.71	9.25	35.1	90.1
4	1.70	9.95	9.20	41.7	114.4
5	2.26	10.02	9.13	46.7	124.1
6	3.39	10.06	9.10	49.6	128.4
7	4.52	10.06	9.07	63.2	130.6
8	5.65	10.11	9.06	61.1	134.4
9	6.22	10.13	9.06	54.5	135.5
10	6.78	9.76	9.19	60.2	100.4
11	7.35	9.64	9.21	53.3	87.1
12	7.91	10.12	9.13	52.9	130.1
13	9.04	10.14	9.08	55.4	134.4
14	10.17	10.14	9.08	55.9	134.5
15	11.30	10.14	9.08	56.2	134.3

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 5.64 cm					
1	0.00	9.69	9.28	56.2	84.7
2	0.57	9.65	9.29	50.5	79.3
3	1.13	9.74	9.26	47.2	91.6
4	1.70	9.98	9.20	47.5	115.6
5	2.26	10.07	9.16	50.6	124.6
6	3.39	10.10	9.12	52.1	129.3
7	4.52	10.11	9.08	63.2	132.8
8	5.65	10.13	9.06	60.9	135.3
9	6.22	10.14	9.07	54.9	135.5
10	6.78	10.11	9.13	57.5	130.2
11	7.35	9.84	9.18	57.3	107.4
12	7.91	10.09	9.14	54.3	127.6
13	9.04	10.14	9.10	56.3	133.5
14	10.17	10.14	9.09	56.4	133.8
15	11.30	10.14	9.09	56.7	133.9
Radial position, 3.11 cm					
1	0.00	9.89	9.17	56.7	111.7
2	0.57	9.88	9.20	57.3	108.4
3	1.13	9.83	9.21	58.2	104.1
4	1.70	9.77	9.20	54.5	99.6
5	2.26	10.06	9.14	54.2	125.2
6	3.39	10.09	9.11	54.7	129.5
7	4.52	10.11	9.08	63.2	133.3
8	5.65	10.14	9.06	60.9	135.6
9	6.22	10.14	9.08	56.1	135.3
10	6.78	10.13	9.11	58.9	132.3
11	7.35	9.85	9.17	57.9	108.7
12	7.91	10.10	9.13	54.3	128.8
13	9.04	10.14	9.11	56.8	132.6
14	10.17	10.14	9.11	56.9	132.9
15	11.30	10.14	9.10	56.8	133.2
Radial position, 0.08 cm					
1	0.00	9.86	9.13	56.4	112.5
2	0.57	9.83	9.15	57.0	108.8
3	1.13	9.76	9.17	57.0	101.8
4	1.70	9.75	9.18	54.1	100.2
5	2.26	10.04	9.12	53.2	125.7
6	3.39	10.08	9.10	53.9	129.6
7	4.52	10.10	9.08	63.2	132.5
8	5.65	10.13	9.06	60.7	135.3
9	6.22	10.14	9.08	56.1	134.9
10	6.78	10.11	9.12	59.6	130.2
11	7.35	9.87	9.18	58.4	109.6
12	7.91	10.09	9.21	54.7	123.2
13	9.04	10.13	9.10	56.4	133.1
14	10.17	10.14	9.10	56.6	132.9
15	11.30	10.14	9.10	56.8	133.0

TABLE 2.—Continued.

(b) Middle.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 38.61 cm					
1	0.00	9.39	9.22	49.7	54.9
2	0.57	9.35	9.22	36.4	48.9
3	1.13	9.74	9.25	34.2	93.1
4	1.70	9.87	9.25	33.7	103.8
5	2.26	9.97	9.27	38.9	109.9
6	3.39	10.04	9.29	51.4	113.4
7	4.52	9.98	9.27	59.7	110.4
8	5.65	9.89	9.26	62.6	104.4
9	6.22	9.88	9.26	60.9	103.4
10	6.78	9.85	9.28	59.0	99.4
11	7.35	9.83	9.28	56.2	97.4
12	7.91	9.88	9.31	51.6	99.5
13	9.04	10.05	9.32	54.1	111.4
14	10.17	9.97	9.28	56.4	108.3
15	11.30	9.85	9.27	56.5	100.5
Radial position, 37.35 cm					
1	0.00	9.46	9.24	34.6	62.2
2	0.57	9.48	9.21	23.5	69.9
3	1.13	9.98	9.26	26.8	111.4
4	1.70	10.05	9.28	31.3	115.0
5	2.26	10.14	9.34	36.5	117.0
6	3.39	9.94	9.24	45.9	110.2
7	4.52	9.53	9.20	56.8	76.3
8	5.65	9.42	9.22	43.0	59.8
9	6.22	9.54	9.22	39.2	75.6
10	6.78	9.80	9.25	31.4	97.9
11	7.35	10.00	9.26	34.9	112.3
12	7.91	10.10	9.31	40.2	116.5
13	9.04	10.08	9.25	45.0	119.1
14	10.17	9.77	9.21	50.3	99.0
15	11.30	9.54	9.23	48.7	74.3
Radial position, 36.08 cm					
1	0.00	9.55	9.25	44.5	73.2
2	0.57	9.41	9.22	34.2	58.2
3	1.13	9.83	9.20	29.3	104.6
4	1.70	10.09	9.20	33.2	123.3
5	2.26	10.14	9.26	36.8	122.7
6	3.39	9.98	9.21	40.4	115.6
7	4.52	9.49	9.23	56.9	68.3
8	5.65	9.39	9.24	29.5	52.2
9	6.22	9.55	9.22	23.1	76.8
10	6.78	9.82	9.24	25.4	100.3
11	7.35	10.07	9.26	30.3	117.9
12	7.91	10.14	9.26	34.7	122.0
13	9.04	10.14	9.20	37.6	126.5
14	10.17	9.86	9.25	41.6	102.8
15	11.30	9.53	9.26	42.8	68.4

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 33.53 cm					
1	0.00	10.14	9.30	40.5	119.1
2	0.57	9.76	9.25	40.9	94.5
3	1.13	9.70	9.24	44.1	89.1
4	1.70	9.91	9.15	35.0	114.5
5	2.26	10.14	9.14	39.5	130.8
6	3.39	10.15	9.13	39.2	131.6
7	4.52	10.08	9.24	40.5	119.9
8	5.65	9.79	9.28	40.7	94.3
9	6.22	9.61	9.25	37.1	79.4
10	6.78	9.73	9.25	34.1	91.7
11	7.35	9.94	9.19	34.2	113.5
12	7.91	10.11	9.16	37.6	127.8
13	9.04	10.14	9.14	39.8	131.1
14	10.17	10.14	9.19	40.2	127.5
15	11.30	10.14	9.28	41.5	120.8
Radial position, 31.00 cm					
1	0.00	10.14	9.22	42.8	125.3
2	0.57	10.14	9.27	42.8	121.8
3	1.13	10.00	9.21	45.4	116.1
4	1.70	9.89	9.21	40.5	109.0
5	2.26	10.13	9.13	42.1	130.6
6	3.39	10.14	9.10	42.7	133.1
7	4.52	10.14	9.14	42.5	130.5
8	5.65	10.14	9.22	42.8	125.2
9	6.22	10.07	9.22	44.7	120.8
10	6.78	9.79	9.23	44.7	98.8
11	7.35	9.83	9.21	36.9	104.7
12	7.91	10.13	9.15	40.3	129.6
13	9.04	10.14	9.12	41.6	132.0
14	10.17	10.14	9.13	42.0	131.7
15	11.30	10.14	9.19	42.5	127.7
Radial position, 25.95 cm					
1	0.00	10.14	9.17	43.6	128.4
2	0.57	10.14	9.17	43.7	128.4
3	1.13	10.04	9.20	45.9	119.8
4	1.70	9.88	9.22	41.5	106.5
5	2.26	10.12	9.16	42.4	128.5
6	3.39	10.13	9.11	43.3	132.3
7	4.52	10.14	9.11	43.6	132.5
8	5.65	10.14	9.12	43.8	131.8
9	6.22	10.14	9.11	44.0	132.3
10	6.78	10.13	9.15	45.1	129.3
11	7.35	9.85	9.21	44.6	105.6
12	7.91	10.11	9.17	42.2	127.2
13	9.04	10.14	9.12	43.6	132.1
14	10.17	10.14	9.12	43.5	132.2
15	11.30	10.14	9.14	43.4	130.7

TABLE 2.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 20.87 cm			
1	0.00	10.14	9.12	43.7	131.5
2	0.57	10.14	9.14	43.8	130.7
3	1.13	10.04	9.21	46.0	119.3
4	1.70	9.87	9.23	42.2	104.9
5	2.26	10.12	9.19	42.5	125.8
6	3.39	10.14	9.14	43.9	130.3
7	4.52	10.13	9.12	44.0	131.3
8	5.65	10.13	9.12	44.0	131.3
9	6.22	10.13	9.11	43.9	132.4
10	6.78	10.12	9.16	45.1	128.1
11	7.35	9.85	9.22	44.2	104.4
12	7.91	10.12	9.17	42.5	127.2
13	9.04	10.13	9.14	43.7	130.5
14	10.17	10.13	9.12	43.5	131.8
15	11.30	10.14	9.11	43.5	132.5
		Radial position, 15.78 cm			
1	0.00	10.14	9.16	43.6	129.4
2	0.57	10.14	9.17	43.8	128.8
3	1.13	10.02	9.22	46.1	117.0
4	1.70	9.87	9.24	42.1	104.3
5	2.26	10.12	9.20	42.6	125.7
6	3.39	10.14	9.16	43.6	129.2
7	4.52	10.14	9.15	43.6	129.7
8	5.65	10.14	9.15	43.8	129.8
9	6.22	10.14	9.13	43.8	131.0
10	6.78	10.11	9.18	45.2	126.7
11	7.35	9.85	9.22	44.2	104.0
12	7.91	10.12	9.18	42.3	126.8
13	9.04	10.14	9.15	43.7	129.9
14	10.17	10.14	9.14	43.7	130.3
15	11.30	10.14	9.14	43.5	130.6
		Radial position, 10.69 cm			
1	0.00	10.14	9.16	43.5	129.1
2	0.57	10.14	9.18	43.9	128.1
3	1.13	9.94	9.23	45.8	110.9
4	1.70	9.92	9.24	41.0	107.9
5	2.26	10.14	9.19	42.8	127.7
6	3.39	10.14	9.16	43.5	129.3
7	4.52	10.14	9.16	43.7	129.6
8	5.65	10.14	9.16	43.8	129.5
9	6.22	10.14	9.14	43.9	130.6
10	6.78	10.07	9.20	45.9	121.8
11	7.35	9.84	9.23	43.8	103.5
12	7.91	10.13	9.18	42.7	127.7
13	9.04	10.14	9.15	43.7	130.0
14	10.17	10.14	9.15	43.7	130.3
15	11.30	10.14	9.15	43.4	130.3

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 5.59 cm			
1	0.00	10.14	9.16	43.2	129.1
2	0.57	10.14	9.18	44.0	127.6
3	1.13	9.91	9.24	45.2	107.7
4	1.70	9.93	9.24	40.9	109.0
5	2.26	10.14	9.18	42.9	128.0
6	3.39	10.14	9.16	43.4	129.3
7	4.52	10.14	9.16	43.4	129.5
8	5.65	10.14	9.16	43.6	128.9
9	6.22	10.14	9.15	43.9	129.8
10	6.78	9.99	9.24	46.4	113.5
11	7.35	9.84	9.23	42.9	102.4
12	7.91	10.14	9.17	42.7	128.3
13	9.04	10.14	9.15	43.8	129.7
14	10.17	10.13	9.15	43.9	129.2
15	11.30	10.13	9.15	43.8	129.3
		Radial position, 3.06 cm			
1	0.00	9.79	9.19	50.6	102.2
2	1.13	9.75	9.21	70.3	97.4
3	2.26	*****	*****	*****	0.0
4	3.39	*****	*****	*****	0.0
5	3.96	*****	*****	*****	0.0
6	4.52	*****	*****	*****	0.0
7	5.09	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	9.04	*****	*****	*****	0.0
12	9.61	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
		Radial position, 0 cm			
1	0.00	*****	*****	*****	0.0
2	1.13	*****	*****	*****	0.0
3	2.26	*****	*****	*****	0.0
4	3.39	*****	*****	*****	0.0
5	3.96	*****	*****	*****	0.0
6	4.52	*****	*****	*****	0.0
7	5.09	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	9.04	*****	*****	*****	0.0
12	9.61	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0

TABLE 2.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 25.89 cm					
1	0.00	10.10	9.17	44.9	126.3
2	0.57	10.11	9.20	44.4	125.1
3	1.13	9.92	9.23	45.2	108.9
4	1.70	9.97	9.24	41.1	112.1
5	2.26	10.14	9.18	42.6	128.4
6	3.39	10.14	9.16	42.5	129.4
7	4.52	10.14	9.16	42.7	129.3
8	5.65	10.14	9.17	43.2	129.0
9	6.22	10.14	9.15	43.6	129.9
10	6.78	9.97	9.21	46.0	114.0
11	7.35	9.85	9.23	42.5	103.5
12	7.91	10.14	9.17	42.7	128.5
13	9.04	10.14	9.15	43.0	130.1
14	10.17	10.14	9.15	42.9	130.3
15	11.30	10.14	9.15	43.1	130.2
Radial position, 23.37 cm					
1	0.00	10.14	9.16	43.5	129.6
2	0.57	10.12	9.19	44.7	126.4
3	1.13	9.90	9.23	45.0	107.7
4	1.70	9.93	9.23	41.6	109.5
5	2.26	10.14	9.20	43.1	126.4
6	3.39	10.14	9.17	43.3	129.1
7	4.52	10.14	9.16	43.6	129.1
8	5.65	10.10	9.17	44.1	126.2
9	6.22	10.11	9.16	44.2	127.2
10	6.78	9.95	9.22	45.6	112.1
11	7.35	9.88	9.22	42.3	106.9
12	7.91	10.13	9.14	43.1	129.5
13	9.04	10.10	9.15	45.1	127.3
14	10.17	10.10	9.16	45.7	126.2
15	11.30	10.11	9.17	45.2	126.9
Radial position, 20.82 cm					
1	0.00	10.10	9.25	50.6	120.7
2	1.13	10.06	9.25	55.9	118.0
3	2.26	9.95	9.22	63.6	112.1
4	3.39	9.68	9.19	77.9	93.5
5	3.96	9.49	9.18	82.7	74.2
6	4.52	9.35	9.17	89.5	56.7
7	5.09	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	9.04	*****	*****	*****	0.0
12	9.61	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 19.52 cm					
1	0.00	10.07	9.17	52.1	124.4
2	1.13	10.09	9.22	57.8	122.3
3	2.26	9.93	9.20	63.7	112.9
4	3.39	9.81	9.19	67.9	103.8
5	3.96	9.78	9.18	70.7	102.0
6	4.52	9.63	9.18	76.3	89.7
7	5.09	9.34	9.20	50.4	49.1
8	5.65	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	9.04	*****	*****	*****	0.0
12	9.61	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
Radial position, 18.28 cm					
1	0.00	10.13	9.09	53.6	133.2
2	1.13	10.08	9.16	57.3	125.7
3	2.26	9.69	9.10	64.1	102.1
4	3.39	9.46	9.13	65.1	77.0
5	3.96	9.47	9.14	63.6	76.6
6	4.52	9.52	9.16	67.0	79.1
7	5.09	9.46	9.18	50.4	70.8
8	5.65	9.45	9.20	74.9	67.3
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	9.04	*****	*****	*****	0.0
12	9.61	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
Radial position, 15.75 cm					
1	0.00	10.12	8.94	48.3	142.5
2	1.13	10.07	8.97	47.7	137.4
3	2.26	9.54	9.15	42.7	82.6
4	3.39	9.55	9.12	23.1	86.6
5	3.96	9.76	9.14	23.0	104.7
6	4.52	10.03	9.21	30.4	118.8
7	5.09	9.99	9.24	50.4	113.1
8	5.65	9.94	9.25	43.8	109.1
9	6.78	9.44	9.24	54.4	59.6
10	7.91	9.30	9.25	59.8	29.2
11	9.04	*****	*****	*****	0.0
12	9.61	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0

TABLE 2.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 13.20 cm			
1	0.00	10.11	8.91	49.2	143.8
2	1.13	10.11	8.92	48.6	142.8
3	2.26	10.08	9.11	50.6	129.1
4	3.39	9.81	9.13	57.9	109.2
5	3.96	9.70	9.12	60.1	101.0
6	4.52	9.56	9.10	57.1	90.3
7	5.09	9.61	9.08	49.2	97.4
8	5.65	9.79	9.12	47.1	107.7
9	6.78	9.97	9.26	55.0	111.1
10	7.91	9.82	9.28	62.2	96.6
11	9.04	9.73	9.28	71.4	88.9
12	9.61	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
		Radial position, 10.64 cm			
1	0.00	10.11	8.91	49.7	143.7
2	1.13	10.11	8.91	49.5	143.7
3	2.26	10.11	9.02	49.6	136.8
4	3.39	10.07	9.11	51.4	128.5
5	3.96	9.98	9.12	53.4	121.9
6	4.52	9.75	9.12	55.0	104.8
7	5.09	9.71	9.11	51.8	102.3
8	5.65	9.95	9.10	53.2	120.8
9	6.78	9.90	9.11	61.5	117.3
10	7.91	9.52	9.15	64.3	80.8
11	9.04	9.40	9.17	63.8	64.5
12	9.61	9.42	9.18	63.2	64.8
13	10.17	9.46	9.23	63.3	64.4
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
		Radial position, 8.11 cm			
1	0.00	10.11	8.94	49.6	141.7
2	1.13	10.11	8.94	49.5	141.8
3	2.26	10.12	8.96	49.3	140.9
4	3.39	10.12	9.02	49.1	137.3
5	3.96	10.12	9.06	49.5	135.0
6	4.52	9.97	9.09	51.5	123.3
7	5.09	10.02	9.07	46.9	127.6
8	5.65	10.12	9.03	48.8	136.3
9	6.78	9.87	9.10	48.9	115.3
10	7.91	9.47	9.18	45.9	71.6
11	9.04	9.47	9.21	33.9	68.8
12	9.61	9.53	9.23	38.7	73.1
13	10.17	9.51	9.26	44.5	67.3
14	10.74	9.47	9.26	48.1	61.2
15	11.30	9.40	9.27	52.5	47.8

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 5.56 cm			
1	0.00	10.12	9.01	49.3	137.9
2	1.13	10.13	9.01	49.2	138.0
3	2.26	10.13	9.01	49.4	138.3
4	3.39	10.13	9.01	49.4	138.4
5	3.96	10.13	9.02	50.0	138.0
6	4.52	9.91	9.11	50.7	117.5
7	5.09	10.07	9.05	46.1	132.4
8	5.65	10.13	8.99	48.5	139.3
9	6.78	10.12	8.97	48.8	140.6
10	7.91	10.08	9.01	49.3	135.9
11	9.04	9.97	9.12	51.1	120.5
12	9.61	9.78	9.14	52.3	105.5
13	10.17	9.72	9.15	51.7	100.4
14	10.74	9.71	9.16	52.2	98.3
15	11.30	9.57	9.24	52.9	76.7
		Radial position, 3.06 cm			
1	0.00	10.12	9.00	49.6	138.4
2	1.13	10.12	9.00	49.4	138.7
3	2.26	10.12	9.00	49.6	138.7
4	3.39	10.12	9.01	49.4	138.4
5	3.96	10.13	9.01	49.7	138.0
6	4.52	9.98	9.09	51.1	123.4
7	5.09	10.05	9.05	46.3	131.4
8	5.65	10.13	9.00	48.4	139.1
9	6.78	10.12	8.98	48.4	139.6
10	7.91	10.03	9.11	49.3	125.8
11	9.04	9.78	9.15	52.5	104.9
12	9.61	9.61	9.16	51.8	89.5
13	10.17	9.59	9.18	49.3	85.3
14	10.74	9.64	9.19	49.6	88.4
15	11.30	9.59	9.25	54.3	77.7
		Radial position, 0.04 cm			
1	0.00	10.12	8.98	49.2	140.0
2	1.13	10.12	8.97	49.3	140.4
3	2.26	10.12	8.99	49.3	139.0
4	3.39	10.12	9.00	49.5	138.7
5	3.96	10.13	9.04	49.7	136.6
6	4.52	10.01	9.17	51.3	119.9
7	5.09	10.05	9.04	45.6	132.1
8	5.65	10.13	9.00	47.7	138.7
9	6.78	10.08	9.03	47.8	134.0
10	7.91	9.90	9.16	50.8	112.9
11	9.04	9.68	9.18	52.1	94.0
12	9.61	9.65	9.18	48.7	91.2
13	10.17	9.71	9.21	48.5	93.7
14	10.74	9.68	9.24	50.5	88.5
15	11.30	9.54	9.27	55.8	68.6

TABLE 3.—VANE EXIT SURVEY FOR VANE B IN CORNER 1

[Airflow, 73.58 kg/sec.]

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 26.05 cm					
1	0.00	*****	*****	*****	0.0
2	0.93	*****	*****	*****	0.0
3	1.86	*****	*****	*****	0.0
4	2.33	*****	*****	*****	0.0
5	2.79	*****	*****	*****	0.0
6	3.26	*****	*****	*****	0.0
7	3.73	*****	*****	*****	0.0
8	4.66	*****	*****	*****	0.0
9	5.59	*****	*****	*****	0.0
10	6.52	*****	*****	*****	0.0
11	6.98	*****	*****	*****	0.0
12	7.45	*****	*****	*****	0.0
13	7.91	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
Radial position, 23.56 cm					
1	0.00	*****	*****	*****	0.0
2	0.93	*****	*****	*****	0.0
3	1.86	*****	*****	*****	0.0
4	2.33	*****	*****	*****	0.0
5	2.79	*****	*****	*****	0.0
6	3.26	*****	*****	*****	0.0
7	3.73	*****	*****	*****	0.0
8	4.66	*****	*****	*****	0.0
9	5.59	*****	*****	*****	0.0
10	6.52	*****	*****	*****	0.0
11	6.98	9.21	9.21	46.9	0.0
12	7.45	9.21	9.21	50.9	0.0
13	7.91	9.20	9.20	51.5	0.0
14	8.38	9.26	9.24	8.3	17.2
15	9.31	9.36	9.30	51.5	32.3
Radial position, 21.01 cm					
1	0.00	*****	*****	*****	0.0
2	0.93	*****	*****	*****	0.0
3	1.86	*****	*****	*****	0.0
4	2.33	*****	*****	*****	0.0
5	2.79	*****	*****	*****	0.0
6	3.26	*****	*****	*****	0.0
7	3.73	*****	*****	*****	0.0
8	4.66	9.22	9.22	45.2	0.0
9	5.59	9.24	9.24	48.0	0.0
10	6.52	9.41	9.27	35.7	49.6
11	6.98	9.49	9.27	45.6	61.6
12	7.45	9.54	9.27	53.8	67.8
13	7.91	9.54	9.29	51.5	67.5
14	8.38	9.53	9.30	63.9	63.5
15	9.31	9.39	9.31	64.9	37.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 19.70 cm					
1	0.00	*****	*****	*****	0.0
2	0.93	*****	*****	*****	0.0
3	1.86	*****	*****	*****	0.0
4	2.33	*****	*****	*****	0.0
5	2.79	*****	*****	*****	0.0
6	3.26	*****	*****	*****	0.0
7	3.73	9.23	9.23	44.9	0.0
8	4.66	9.22	9.22	45.2	0.0
9	5.59	9.22	9.22	48.0	0.0
10	6.52	9.45	9.26	29.3	58.0
11	6.98	9.57	9.27	38.0	72.3
12	7.45	9.66	9.28	45.9	81.5
13	7.91	9.69	9.29	51.6	83.3
14	8.38	9.62	9.31	56.3	73.5
15	9.31	9.41	9.33	55.4	37.3
Radial position, 18.46 cm					
1	0.00	*****	*****	*****	0.0
2	0.93	*****	*****	*****	0.0
3	1.86	*****	*****	*****	0.0
4	2.33	*****	*****	*****	0.0
5	2.79	9.24	9.24	49.0	0.0
6	3.26	9.23	9.23	48.1	0.0
7	3.73	9.23	9.23	44.9	0.0
8	4.66	9.21	9.21	45.2	0.0
9	5.59	9.19	9.19	48.0	0.0
10	6.52	9.42	9.26	25.8	53.3
11	6.98	9.56	9.27	34.4	71.9
12	7.45	9.70	9.28	41.8	85.6
13	7.91	9.77	9.28	46.7	91.3
14	8.38	9.75	9.31	50.9	87.4
15	9.31	9.53	9.34	49.7	56.6
Radial position, 15.87 cm					
1	0.00	*****	*****	*****	0.0
2	0.93	*****	*****	*****	0.0
3	1.86	9.23	9.23	48.6	0.0
4	2.33	9.23	9.23	45.0	0.0
5	2.79	9.24	9.24	45.3	0.0
6	3.26	9.25	9.24	48.1	11.4
7	3.73	9.23	9.23	44.9	0.0
8	4.66	9.22	9.22	45.2	0.0
9	5.59	9.23	9.23	48.0	0.0
10	6.52	9.49	9.27	25.2	61.2
11	6.98	9.70	9.28	31.9	86.1
12	7.45	9.85	9.28	38.8	99.4
13	7.91	9.94	9.27	43.7	107.0
14	8.38	9.93	9.28	45.4	105.4
15	9.31	9.88	9.30	48.6	99.8

TABLE 3.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 13.40 cm					
1	0.00	9.23	9.23	59.7	0.0
2	0.93	9.24	9.24	48.6	0.0
3	1.86	9.64	9.28	34.5	78.5
4	2.33	9.66	9.26	45.7	83.7
5	2.79	9.56	9.25	55.6	73.7
6	3.26	9.39	9.23	63.2	53.8
7	3.73	9.29	9.23	68.0	30.8
8	4.66	9.20	9.20	45.2	0.0
9	5.59	9.23	9.23	48.0	0.0
10	6.52	9.67	9.29	22.9	81.4
11	6.98	9.91	9.29	31.0	103.6
12	7.45	10.03	9.27	37.0	113.4
13	7.91	10.07	9.26	39.8	117.7
14	8.38	10.07	9.26	41.8	117.3
15	9.31	10.09	9.29	45.0	115.9
Radial position, 10.82 cm					
1	0.00	9.16	9.16	59.7	0.0
2	0.93	9.19	9.19	48.6	0.0
3	1.86	9.56	9.29	22.1	69.7
4	2.33	9.74	9.26	32.6	91.6
5	2.79	9.83	9.25	38.5	99.8
6	3.26	9.84	9.27	42.5	99.4
7	3.73	9.78	9.30	45.9	91.8
8	4.66	9.55	9.32	47.6	63.6
9	5.59	9.44	9.32	27.7	46.1
10	6.52	9.82	9.34	27.7	91.1
11	6.98	10.00	9.30	33.9	110.1
12	7.45	10.10	9.27	38.6	119.6
13	7.91	10.13	9.24	41.0	122.5
14	8.38	10.13	9.25	43.2	122.9
15	9.31	10.13	9.27	45.5	120.8
Radial position, 8.29 cm					
1	0.00	9.16	9.16	45.0	0.0
2	0.93	9.23	9.23	48.6	0.0
3	1.86	9.57	9.32	17.4	65.9
4	2.33	9.76	9.31	30.7	88.3
5	2.79	9.91	9.30	37.9	101.8
6	3.26	9.93	9.29	42.8	105.2
7	3.73	9.93	9.30	43.9	103.9
8	4.66	9.94	9.33	47.1	102.3
9	5.59	9.90	9.33	50.6	99.2
10	6.52	9.78	9.31	48.2	89.9
11	6.98	9.80	9.29	41.9	93.2
12	7.45	9.98	9.26	41.4	111.0
13	7.91	10.14	9.23	44.4	124.8
14	8.38	10.14	9.24	46.8	123.7
15	9.31	10.15	9.25	48.2	123.7

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 5.74 cm					
1	0.00	9.45	9.32	72.3	48.6
2	0.93	9.36	9.35	45.3	12.0
3	1.86	9.61	9.35	27.3	67.5
4	2.33	9.83	9.34	33.7	91.9
5	2.79	9.95	9.31	39.3	105.0
6	3.26	9.99	9.30	42.0	109.0
7	3.73	10.00	9.30	43.9	109.2
8	4.66	10.02	9.31	46.0	110.4
9	5.59	10.05	9.30	48.2	112.4
10	6.52	10.04	9.30	50.6	112.4
11	6.98	9.94	9.30	50.8	104.7
12	7.45	9.94	9.30	47.6	104.3
13	7.91	10.07	9.25	48.2	118.4
14	8.38	10.14	9.24	49.7	123.8
15	9.31	10.14	9.25	50.5	122.8
Radial position, 3.18 cm					
1	0.00	9.50	9.35	49.9	51.6
2	0.93	9.49	9.37	30.5	46.0
3	1.86	9.71	9.37	28.1	77.9
4	2.33	9.89	9.35	34.3	96.1
5	2.79	10.01	9.33	39.3	107.6
6	3.26	10.05	9.30	42.5	112.4
7	3.73	10.06	9.30	43.9	114.4
8	4.66	10.09	9.29	46.0	116.4
9	5.59	10.11	9.28	48.0	118.7
10	6.52	10.11	9.30	50.7	117.2
11	6.98	10.04	9.30	52.9	112.3
12	7.45	9.95	9.29	51.5	106.3
13	7.91	10.04	9.26	49.9	116.4
14	8.38	10.14	9.23	50.4	125.5
15	9.31	10.14	9.23	50.3	125.6
Radial position, 0.18 cm					
1	0.00	9.85	9.32	48.3	95.8
2	0.93	9.86	9.34	48.9	94.7
3	1.86	9.82	9.34	49.5	90.4
4	2.33	9.77	9.33	47.8	87.2
5	2.79	9.91	9.32	44.7	101.0
6	3.26	10.04	9.28	47.1	113.6
7	3.73	10.06	9.28	47.2	115.1
8	4.66	10.08	9.27	47.7	117.1
9	5.59	10.10	9.25	48.9	121.0
10	6.52	10.09	9.28	50.6	118.7
11	6.98	9.96	9.30	51.7	106.7
12	7.45	9.94	9.30	47.8	104.7
13	7.91	10.05	9.26	49.2	116.2
14	8.38	10.11	9.23	48.9	122.0
15	9.31	10.13	9.21	48.8	124.7

TABLE 3.—Continued.

(b) Middle

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 38.63 cm					
1	0.00	9.77	9.18	56.7	102.1
2	0.93	9.48	9.24	51.9	65.3
3	1.86	9.56	9.25	41.9	74.5
4	2.33	9.82	9.23	38.8	101.0
5	2.79	10.04	9.20	44.4	120.1
6	3.26	10.05	9.19	46.6	121.6
7	3.73	10.00	9.17	49.4	119.5
8	4.66	9.80	9.14	53.9	106.9
9	5.59	9.57	9.18	53.9	82.4
10	6.52	9.53	9.21	47.5	75.2
11	6.98	9.69	9.21	44.4	92.1
12	7.45	9.94	9.20	44.2	113.1
13	7.91	10.06	9.21	49.3	120.2
14	8.38	10.03	9.20	51.8	118.9
15	9.31	9.88	9.16	54.3	111.9
Radial position, 37.34 cm					
1	0.00	9.71	9.22	53.7	92.6
2	0.93	9.37	9.28	41.5	33.3
3	1.86	9.63	9.25	33.7	81.8
4	2.33	9.89	9.20	35.4	108.8
5	2.79	10.10	9.13	40.6	129.2
6	3.26	10.11	9.12	42.4	129.9
7	3.73	10.06	9.11	43.8	128.6
8	4.66	9.79	9.19	50.4	101.4
9	5.59	9.42	9.26	47.8	54.6
10	6.52	9.58	9.23	36.4	78.7
11	6.98	9.89	9.19	36.7	110.0
12	7.45	10.07	9.14	41.4	126.4
13	7.91	10.11	9.11	45.1	131.5
14	8.38	10.06	9.09	46.9	129.5
15	9.31	9.75	9.17	53.3	100.8
Radial position, 36.09 cm					
1	0.00	9.95	9.21	46.7	112.4
2	0.93	9.43	9.28	41.7	51.4
3	1.86	9.65	9.25	35.5	83.4
4	2.33	9.90	9.19	35.9	110.8
5	2.79	10.11	9.08	39.8	132.9
6	3.26	10.14	9.06	40.5	135.8
7	3.73	10.12	9.06	41.7	134.6
8	4.66	10.03	9.16	44.7	122.8
9	5.59	9.60	9.25	46.8	78.0
10	6.52	9.66	9.22	37.2	88.0
11	6.98	9.94	9.15	38.1	116.7
12	7.45	10.11	9.08	40.0	132.2
13	7.91	10.15	9.05	41.8	137.0
14	8.38	10.14	9.04	42.5	137.0
15	9.31	10.00	9.15	46.7	121.2

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 33.55 cm					
1	0.00	10.15	9.10	43.8	134.2
2	0.93	10.09	9.22	48.3	121.5
3	1.86	9.79	9.19	44.3	101.8
4	2.33	9.86	9.15	39.9	111.5
5	2.79	10.13	9.04	42.2	136.9
6	3.26	10.15	9.02	42.6	138.7
7	3.73	10.15	9.00	43.2	140.6
8	4.66	10.13	9.03	43.6	136.9
9	5.59	10.09	9.17	45.6	125.5
10	6.52	9.76	9.17	43.8	101.3
11	6.98	9.94	9.11	39.4	119.5
12	7.45	10.12	9.02	40.9	138.1
13	7.91	10.15	8.97	43.2	142.3
14	8.38	10.15	8.96	43.4	142.7
15	9.31	10.15	9.03	44.6	138.3
Radial position, 30.97 cm					
1	0.00	10.14	9.00	46.6	140.5
2	0.93	10.14	9.08	46.9	135.3
3	1.86	10.13	9.08	49.7	134.6
4	2.33	9.91	9.12	50.4	116.9
5	2.79	9.95	9.08	44.0	123.3
6	3.26	10.12	9.02	44.5	137.9
7	3.73	10.14	8.98	46.1	141.0
8	4.66	10.14	8.98	47.2	140.7
9	5.59	10.10	9.04	46.2	135.2
10	6.52	10.07	9.08	49.2	130.2
11	6.98	9.84	9.10	49.1	113.3
12	7.45	9.96	9.05	43.2	125.1
13	7.91	10.14	8.98	44.8	140.7
14	8.38	10.15	8.95	45.3	143.9
15	9.31	10.15	8.95	46.1	143.4
Radial position, 25.94 cm					
1	0.00	10.14	8.98	47.2	141.4
2	0.93	10.14	8.98	46.8	141.4
3	1.86	10.06	9.03	49.6	133.2
4	2.33	9.85	9.11	48.0	113.5
5	2.79	9.95	9.07	44.1	124.0
6	3.26	10.09	9.03	44.7	135.0
7	3.73	10.12	8.98	46.0	139.7
8	4.66	10.08	8.98	47.0	138.3
9	5.59	10.10	8.98	46.2	138.9
10	6.52	10.06	9.04	50.0	133.2
11	6.98	9.87	9.11	48.6	114.8
12	7.45	9.92	9.08	44.5	121.2
13	7.91	10.12	9.00	44.9	139.0
14	8.38	10.14	8.95	45.6	142.8
15	9.31	10.14	8.95	45.8	143.3

TABLE 3.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 20.84 cm					
1	0.00	10.14	8.96	47.1	143.2
2	0.93	10.14	8.96	47.6	142.3
3	1.86	10.11	9.00	49.6	138.7
4	2.33	9.91	9.10	49.8	118.4
5	2.79	9.95	9.08	44.9	122.8
6	3.26	10.10	9.04	44.1	135.7
7	3.73	10.14	8.99	46.6	141.1
8	4.66	10.13	8.96	46.7	142.4
9	5.59	10.09	8.98	46.6	138.2
10	6.52	10.05	9.03	49.4	132.4
11	6.98	9.85	9.10	48.7	115.2
12	7.45	9.94	9.07	44.4	122.8
13	7.91	10.13	9.00	44.3	139.1
14	8.38	10.14	8.96	45.9	142.4
15	9.31	10.14	8.93	46.5	144.1
Radial position, 15.75 cm					
1	0.00	10.14	8.98	47.4	141.8
2	0.93	10.14	8.98	47.6	141.5
3	1.86	10.12	9.01	49.9	138.4
4	2.33	9.94	9.09	50.5	121.4
5	2.79	9.93	9.09	45.3	121.1
6	3.26	10.09	9.04	44.0	134.4
7	3.73	10.14	8.99	45.9	140.8
8	4.66	10.13	8.98	46.8	140.6
9	5.59	10.10	9.00	46.1	138.2
10	6.52	10.02	9.03	49.8	130.9
11	6.98	9.84	9.10	48.5	113.3
12	7.45	9.93	9.08	44.2	121.5
13	7.91	10.12	9.00	45.2	139.4
14	8.38	10.14	8.97	46.4	141.8
15	9.31	10.14	8.96	47.1	142.5
Radial position, 10.69 cm					
1	0.00	10.14	8.98	47.3	141.5
2	0.93	10.14	8.98	47.5	141.7
3	1.86	10.11	9.02	50.2	137.1
4	2.33	9.92	9.10	50.2	119.8
5	2.79	9.92	9.09	45.4	120.0
6	3.26	10.08	9.05	44.5	133.2
7	3.73	10.14	8.99	45.7	141.4
8	4.66	10.14	8.97	46.5	142.4
9	5.59	10.10	8.99	47.0	138.7
10	6.52	10.04	9.03	49.7	132.5
11	6.98	9.88	9.09	49.2	117.1
12	7.45	9.90	9.08	45.6	119.7
13	7.91	10.12	9.01	44.6	138.5
14	8.38	10.14	8.96	46.4	143.0
15	9.31	10.15	8.96	46.7	143.1

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 5.57 cm					
1	0.00	10.14	8.98	47.3	141.5
2	0.93	10.14	8.98	47.4	141.9
3	1.86	10.07	9.04	50.4	133.8
4	2.33	9.89	9.11	49.7	116.8
5	2.79	9.95	9.09	44.8	122.6
6	3.26	10.09	9.05	44.2	134.5
7	3.73	10.14	8.99	46.4	140.6
8	4.66	10.11	8.99	47.1	138.6
9	5.59	10.09	9.00	47.5	137.1
10	6.52	10.07	9.04	50.0	133.3
11	6.98	9.92	9.09	49.9	120.1
12	7.45	9.88	9.08	46.3	117.8
13	7.91	10.12	9.01	44.3	139.0
14	8.38	10.15	8.96	45.9	142.9
15	9.31	10.15	8.95	46.4	144.1
Radial position, 3.03 cm					
1	0.00	10.14	8.98	46.7	142.2
2	0.93	10.14	8.98	47.7	141.7
3	1.86	10.04	9.04	50.3	131.3
4	2.33	9.88	9.11	48.8	115.9
5	2.79	9.96	9.09	44.9	123.5
6	3.26	10.07	9.05	44.9	133.2
7	3.73	10.11	9.00	46.8	138.6
8	4.66	10.10	8.99	46.2	137.9
9	5.59	10.11	8.99	45.8	139.6
10	6.52	9.89	9.08	48.8	118.8
11	6.98	9.83	9.10	46.2	112.9
12	7.45	9.93	9.08	44.2	122.1
13	7.91	10.11	9.00	45.0	138.5
14	8.38	10.15	8.97	46.4	142.9
15	9.31	10.15	8.95	46.6	143.4
Radial position, −0.05 cm					
1	0.00	10.14	8.98	46.8	141.7
2	0.93	10.14	8.98	47.2	142.1
3	1.86	10.03	9.05	50.4	130.4
4	2.33	9.88	9.10	48.4	116.1
5	2.79	9.96	9.08	44.8	123.9
6	3.26	10.09	9.04	44.4	134.4
7	3.73	10.15	8.98	46.8	141.8
8	4.66	10.14	8.97	46.4	142.2
9	5.59	10.12	8.98	47.2	140.3
10	6.52	10.04	9.04	50.5	131.8
11	6.98	9.90	9.09	50.2	119.0
12	7.45	9.88	9.09	46.7	117.5
13	7.91	10.08	9.02	44.6	135.6
14	8.38	10.14	8.96	46.4	142.7
15	9.31	10.14	8.95	46.0	143.6

TABLE 3.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 25.93 cm					
1	0.00	*****	*****	*****	0.0
2	0.93	*****	*****	*****	0.0
3	1.86	*****	*****	*****	0.0
4	2.33	*****	*****	*****	0.0
5	2.79	*****	*****	*****	0.0
6	3.26	*****	*****	*****	0.0
7	3.73	*****	*****	*****	0.0
8	4.66	*****	*****	*****	0.0
9	5.59	*****	*****	*****	0.0
10	6.52	*****	*****	*****	0.0
11	6.98	*****	*****	*****	0.0
12	7.45	*****	*****	*****	0.0
13	7.91	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
Radial position, 23.40 cm					
1	0.00	10.00	9.19	52.4	119.9
2	0.93	*****	*****	*****	0.0
3	1.86	*****	*****	*****	0.0
4	2.33	*****	*****	*****	0.0
5	2.79	*****	*****	*****	0.0
6	3.26	*****	*****	*****	0.0
7	3.73	*****	*****	*****	0.0
8	4.66	*****	*****	*****	0.0
9	5.59	*****	*****	*****	0.0
10	6.52	*****	*****	*****	0.0
11	6.98	*****	*****	*****	0.0
12	7.45	*****	*****	*****	0.0
13	7.91	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
Radial position, 20.85 cm					
1	0.00	10.00	9.00	58.2	132.0
2	0.93	9.50	9.12	56.6	83.7
3	1.86	9.50	9.11	48.8	84.5
4	2.33	9.60	9.16	36.9	89.9
5	2.79	*****	*****	*****	0.0
6	3.26	*****	*****	*****	0.0
7	3.73	*****	*****	*****	0.0
8	4.66	*****	*****	*****	0.0
9	5.59	*****	*****	*****	0.0
10	6.52	*****	*****	*****	0.0
11	6.98	*****	*****	*****	0.0
12	7.45	*****	*****	*****	0.0
13	7.91	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 19.57 cm					
1	0.00	9.97	8.99	53.7	133.4
2	0.93	9.44	9.11	50.5	77.5
3	1.86	9.61	9.09	32.6	96.5
4	2.33	9.44	9.12	41.5	76.4
5	2.79	9.80	9.09	44.3	111.7
6	3.26	9.69	9.09	48.8	102.8
7	3.73	*****	*****	*****	0.0
8	4.66	*****	*****	*****	0.0
9	5.59	*****	*****	*****	0.0
10	6.52	*****	*****	*****	0.0
11	6.98	*****	*****	*****	0.0
12	7.45	*****	*****	*****	0.0
13	7.91	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
Radial position, 18.31 cm					
1	0.00	10.08	8.95	49.0	140.7
2	0.93	9.76	9.09	54.7	109.8
3	1.86	9.38	9.09	45.5	73.3
4	2.33	9.52	9.10	37.5	87.3
5	2.79	9.75	9.03	40.9	114.1
6	3.26	9.73	9.04	50.0	112.2
7	3.73	9.75	9.08	50.7	109.2
8	4.66	*****	*****	*****	0.0
9	5.59	*****	*****	*****	0.0
10	6.52	*****	*****	*****	0.0
11	6.98	*****	*****	*****	0.0
12	7.45	*****	*****	*****	0.0
13	7.91	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
Radial position, 15.78 cm					
1	0.00	10.14	8.85	45.3	151.3
2	0.93	10.13	8.99	46.0	141.7
3	1.86	9.72	9.09	47.6	105.6
4	2.33	9.82	9.04	34.0	119.1
5	2.79	10.02	8.96	39.3	137.6
6	3.26	10.01	8.97	43.0	135.8
7	3.73	9.90	9.00	46.3	125.6
8	4.66	9.36	9.09	51.7	69.9
9	5.59	9.16	9.11	50.9	29.7
10	6.52	*****	*****	*****	0.0
11	6.98	*****	*****	*****	0.0
12	7.45	*****	*****	*****	0.0
13	7.91	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0

TABLE 3.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 13.21 cm					
1	0.00	10.14	8.87	45.2	150.1
2	0.93	10.14	8.90	44.8	146.8
3	1.86	10.09	9.03	47.0	137.1
4	2.33	9.75	9.04	45.4	111.4
5	2.79	10.00	8.97	39.4	135.0
6	3.26	10.13	8.91	42.0	147.4
7	3.73	10.12	8.92	42.3	146.2
8	4.66	9.94	9.09	44.5	123.0
9	5.59	9.54	9.15	37.2	84.3
10	6.52	9.63	9.15	30.8	93.0
11	6.98	9.58	9.14	43.1	89.3
12	7.45	*****	*****	*****	0.0
13	7.91	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
Radial position, 10.68 cm					
1	0.00	10.15	8.90	44.9	148.8
2	0.93	10.14	8.91	44.7	148.9
3	1.86	10.10	8.99	46.8	139.9
4	2.33	9.95	9.03	48.4	128.6
5	2.79	9.94	9.01	40.6	127.9
6	3.26	10.11	8.94	42.3	143.8
7	3.73	10.14	8.88	43.4	148.2
8	4.66	10.13	8.95	43.9	142.3
9	5.59	10.02	9.07	46.1	130.2
10	6.52	9.63	9.07	48.9	101.1
11	6.98	9.64	9.06	41.9	102.0
12	7.45	9.56	9.09	41.2	92.0
13	7.91	9.87	9.03	44.7	122.6
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
Radial position, 8.12 cm					
1	0.00	10.15	8.92	44.8	146.8
2	0.93	10.15	8.93	44.5	146.2
3	1.86	10.06	9.02	47.0	134.0
4	2.33	9.89	9.05	46.9	122.9
5	2.79	9.92	9.03	40.2	126.5
6	3.26	10.10	8.97	42.0	140.0
7	3.73	10.14	8.89	43.4	149.3
8	4.66	10.14	8.87	43.9	150.7
9	5.59	10.13	8.93	44.5	145.6
10	6.52	9.94	9.03	48.3	126.6
11	6.98	9.77	9.01	46.3	117.6
12	7.45	9.85	8.98	43.2	124.0
13	7.91	9.88	8.97	47.2	126.7
14	8.38	9.76	9.02	49.6	115.6
15	9.31	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 5.60 cm					
1	0.00	10.15	8.93	44.9	146.1
2	0.93	10.15	8.94	44.6	146.2
3	1.86	10.06	9.03	47.2	135.2
4	2.33	9.91	9.07	47.3	122.2
5	2.79	9.89	9.06	41.0	120.6
6	3.26	10.11	8.98	42.0	142.2
7	3.73	10.15	8.91	43.5	148.4
8	4.66	10.15	8.88	43.6	149.5
9	5.59	10.14	8.87	43.5	148.7
10	6.52	9.92	8.98	45.9	128.5
11	6.98	9.81	8.99	43.5	121.4
12	7.45	9.89	8.97	41.7	129.2
13	7.91	9.80	8.99	45.5	121.1
14	8.38	9.65	9.04	46.3	105.5
15	9.31	9.40	9.11	49.8	73.4
Radial position, 3.06 cm					
1	0.00	10.15	8.94	44.7	146.1
2	0.93	10.15	8.95	44.7	144.9
3	1.86	10.04	9.04	47.2	132.2
4	2.33	9.87	9.08	46.2	119.3
5	2.79	9.91	9.06	40.3	123.4
6	3.26	10.13	8.97	42.0	141.7
7	3.73	10.15	8.91	42.9	146.3
8	4.66	10.15	8.87	42.6	149.0
9	5.59	10.14	8.88	42.7	150.3
10	6.52	9.78	9.02	42.5	117.3
11	6.98	9.73	9.08	40.0	108.4
12	7.45	9.96	9.05	39.1	127.0
13	7.91	9.89	8.98	42.8	126.4
14	8.38	9.74	9.03	44.6	111.8
15	9.31	9.45	9.11	47.8	77.9
Radial position, 0.27 cm					
1	0.00	10.15	8.94	44.1	145.9
2	0.93	10.15	8.95	44.6	145.6
3	1.86	10.04	9.05	47.5	132.1
4	2.33	9.88	9.09	46.9	117.2
5	2.79	9.88	9.07	41.3	121.1
6	3.26	10.13	8.96	42.7	143.1
7	3.73	10.15	8.91	43.5	147.8
8	4.66	10.14	8.88	43.2	150.8
9	5.59	10.14	8.89	43.1	147.3
10	6.52	10.01	8.97	47.2	134.6
11	6.98	9.79	8.98	44.7	119.9
12	7.45	9.91	8.95	41.4	130.6
13	7.91	9.93	8.93	44.8	134.4
14	8.38	9.79	9.00	45.7	119.7
15	9.31	9.50	9.11	48.1	83.3

TABLE 4.—VANE EXIT SURVEY FOR VANE A10 IN CORNER 1 WITH SIMULATED ENGINE EXHAUST SCOOP

[Airflow, 73.24 kg/sec.]

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 26.07 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	2.26	*****	*****	*****	0.0
5	3.39	*****	*****	*****	0.0
6	4.52	*****	*****	*****	0.0
7	5.65	*****	*****	*****	0.0
8	6.22	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.35	*****	*****	*****	0.0
11	7.91	*****	*****	*****	0.0
12	9.04	9.48	9.48	45.2	0.0
13	10.17	9.50	9.46	45.3	26.1
14	10.74	9.63	9.44	83.0	57.7
15	11.30	9.67	9.42	75.9	65.8
Radial position, 23.55 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	2.26	*****	*****	*****	0.0
5	3.39	*****	*****	*****	0.0
6	4.52	*****	*****	*****	0.0
7	5.65	*****	*****	*****	0.0
8	6.22	9.48	9.48	45.0	4.7
9	6.78	9.49	9.47	44.8	18.5
10	7.35	9.52	9.47	45.1	30.1
11	7.91	9.64	9.45	85.9	57.1
12	9.04	9.69	9.42	74.4	68.8
13	10.17	9.79	9.40	68.8	81.8
14	10.74	9.81	9.39	67.3	85.1
15	11.30	9.75	9.37	64.6	81.3
Radial position, 20.98 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	2.26	*****	*****	*****	0.0
5	3.39	*****	*****	*****	0.0
6	4.52	9.48	9.48	45.0	3.3
7	5.65	9.54	9.48	45.6	31.3
8	6.22	9.54	9.47	44.0	36.3
9	6.78	9.56	9.46	44.8	41.5
10	7.35	9.65	9.44	71.3	60.5
11	7.91	9.71	9.42	62.7	70.3
12	9.04	9.92	9.38	57.1	96.4
13	10.17	9.92	9.33	56.7	99.7
14	10.74	9.85	9.32	55.4	94.9
15	11.30	9.73	9.32	52.6	84.7

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 18.43 cm					
1	0.00	*****	*****	*****	0.0
2	0.57	*****	*****	*****	0.0
3	1.13	*****	*****	*****	0.0
4	2.26	9.50	9.45	45.2	28.4
5	3.39	9.49	9.45	45.0	25.8
6	4.52	9.50	9.46	45.3	25.4
7	5.65	9.58	9.48	45.2	42.8
8	6.22	9.64	9.46	67.4	56.4
9	6.78	9.65	9.44	53.7	60.6
10	7.35	9.79	9.43	45.9	79.2
11	7.91	9.95	9.40	44.5	97.3
12	9.04	10.07	9.33	45.5	112.5
13	10.17	10.08	9.28	44.2	116.7
14	10.74	10.08	9.27	44.0	116.6
15	11.30	10.05	9.30	45.3	112.8
Radial position, 15.91 cm					
1	0.00	9.55	9.44	83.4	44.6
2	0.57	9.55	9.43	88.5	47.1
3	1.13	9.42	9.41	45.2	14.0
4	2.26	9.41	9.41	45.2	0.0
5	3.39	9.69	9.44	81.5	64.9
6	4.52	9.74	9.43	65.2	72.8
7	5.65	9.69	9.44	55.0	66.3
8	6.22	9.67	9.43	45.5	65.4
9	6.78	9.76	9.42	37.7	76.4
10	7.35	9.96	9.40	37.6	97.7
11	7.91	10.10	9.36	40.7	111.2
12	9.04	10.14	9.30	42.7	118.4
13	10.17	10.13	9.27	43.6	121.4
14	10.74	10.13	9.25	44.4	122.1
15	11.30	10.14	9.24	45.3	124.1
Radial position, 13.35 cm					
1	0.00	9.42	9.42	89.2	0.0
2	0.57	9.51	9.43	89.2	36.3
3	1.13	9.48	9.43	45.2	29.8
4	2.26	9.69	9.45	62.6	64.4
5	3.39	9.80	9.41	54.8	81.8
6	4.52	9.86	9.40	50.2	89.1
7	5.65	9.85	9.40	47.7	88.2
8	6.22	9.82	9.41	45.5	84.4
9	6.78	9.79	9.40	40.3	82.3
10	7.35	9.99	9.39	36.9	101.7
11	7.91	10.14	9.38	41.3	112.9
12	9.04	10.14	9.36	43.4	115.0
13	10.17	10.14	9.33	44.8	116.7
14	10.74	10.14	9.31	45.5	118.1
15	11.30	10.14	9.29	46.1	119.7

TABLE 4.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 12.07 cm					
1	0.00	9.35	9.35	45.1	0.0
2	0.57	9.43	9.43	45.7	0.0
3	1.13	9.61	9.48	70.4	48.1
4	2.26	9.76	9.47	53.0	70.7
5	3.39	9.88	9.43	48.2	88.2
6	4.52	9.91	9.40	45.2	93.0
7	5.65	9.92	9.40	44.1	94.1
8	6.22	9.89	9.41	43.3	91.7
9	6.78	9.84	9.41	40.4	86.5
10	7.35	10.00	9.39	37.5	101.2
11	7.91	10.14	9.38	41.9	112.8
12	9.04	10.14	9.37	44.2	113.4
13	10.17	10.14	9.35	45.4	115.9
14	10.74	10.14	9.33	46.2	117.3
15	11.30	10.14	9.31	46.6	118.4
Radial position, 10.87 cm					
1	0.00	9.38	9.38	45.1	0.0
2	0.57	9.48	9.46	45.0	20.4
3	1.13	9.64	9.51	59.1	48.1
4	2.26	9.82	9.48	45.2	76.3
5	3.39	9.93	9.45	43.9	90.7
6	4.52	9.95	9.43	42.1	94.9
7	5.65	9.99	9.42	42.1	98.1
8	6.22	9.99	9.42	42.7	97.8
9	6.78	9.93	9.43	42.1	92.5
10	7.35	9.98	9.41	39.9	98.7
11	7.91	10.14	9.39	42.8	112.5
12	9.04	10.14	9.37	45.0	114.6
13	10.17	10.14	9.33	46.0	116.3
14	10.74	10.14	9.31	46.4	117.8
15	11.30	10.14	9.29	47.0	120.1
Radial position, 9.56 cm					
1	0.00	9.40	9.40	45.1	0.0
2	0.57	9.58	9.49	74.0	40.1
3	1.13	9.66	9.51	49.1	51.2
4	2.26	9.90	9.49	40.1	84.1
5	3.39	9.97	9.47	40.8	92.5
6	4.52	10.00	9.47	40.3	95.3
7	5.65	10.04	9.46	41.4	99.1
8	6.22	10.06	9.45	42.5	102.0
9	6.78	10.00	9.46	43.7	95.6
10	7.35	9.97	9.44	41.3	94.2
11	7.91	10.14	9.42	43.6	109.4
12	9.04	10.14	9.39	45.7	112.0
13	10.17	10.14	9.35	46.3	115.7
14	10.74	10.14	9.33	46.6	117.8
15	11.30	10.14	9.30	46.7	119.3

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 8.28 cm					
1	0.00	9.42	9.42	45.1	0.0
2	0.57	9.56	9.48	54.0	39.2
3	1.13	9.71	9.52	35.7	58.2
4	2.26	9.97	9.51	34.9	87.5
5	3.39	10.01	9.51	37.9	91.7
6	4.52	10.03	9.52	39.0	93.4
7	5.65	10.08	9.50	41.1	99.1
8	6.22	10.10	9.50	42.5	100.3
9	6.78	10.01	9.50	45.3	92.5
10	7.35	9.96	9.50	42.5	89.5
11	7.91	10.14	9.47	44.6	106.4
12	9.04	10.14	9.43	46.3	109.5
13	10.17	10.14	9.38	46.5	112.5
14	10.74	10.13	9.35	47.0	114.5
15	11.30	10.14	9.33	47.0	117.9
Radial position, 6.99 cm					
1	0.00	9.45	9.45	45.1	0.0
2	0.57	9.61	9.49	23.8	44.5
3	1.13	9.82	9.54	24.7	69.5
4	2.26	10.03	9.55	32.0	89.7
5	3.39	10.04	9.56	36.4	90.3
6	4.52	10.08	9.57	38.1	93.0
7	5.65	10.12	9.56	41.3	96.8
8	6.22	10.12	9.56	43.1	97.7
9	6.78	10.00	9.55	47.4	87.7
10	7.35	9.97	9.55	41.6	84.1
11	7.91	10.14	9.52	44.9	101.5
12	9.04	10.14	9.48	46.4	105.0
13	10.17	10.13	9.43	46.6	109.0
14	10.74	10.13	9.40	47.0	112.3
15	11.30	10.13	9.36	47.9	114.3
Radial position, 5.76 cm					
1	0.00	9.53	9.53	45.1	0.0
2	0.57	9.80	9.59	3.4	60.3
3	1.13	9.99	9.61	18.9	79.2
4	2.26	10.07	9.61	30.6	87.9
5	3.39	10.09	9.62	35.0	88.4
6	4.52	10.12	9.62	38.2	90.7
7	5.65	10.14	9.61	41.9	93.3
8	6.22	10.14	9.61	44.2	94.3
9	6.78	10.00	9.61	48.1	80.8
10	7.35	10.00	9.62	41.8	80.8
11	7.91	10.14	9.58	45.2	96.7
12	9.04	10.14	9.54	46.2	100.2
13	10.17	10.13	9.49	47.0	103.9
14	10.74	10.13	9.45	47.3	107.0
15	11.30	10.11	9.39	48.3	110.8

TABLE 4.—Continued.

(b) Middle

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 38.65 cm					
1	0.00	9.81	8.54	51.2	150.7
2	1.13	9.55	8.56	44.8	133.5
3	1.70	9.80	8.53	43.2	150.4
4	2.26	10.13	8.58	47.1	164.5
5	3.39	10.11	8.54	48.3	165.7
6	4.52	10.01	8.53	50.0	161.6
7	5.65	9.79	8.55	52.1	148.7
8	6.22	9.62	8.56	50.3	137.8
9	6.78	9.56	8.55	44.1	135.6
10	7.35	9.89	8.62	45.7	150.9
11	7.91	10.05	8.67	49.1	154.9
12	9.04	10.07	8.68	52.5	155.7
13	10.17	9.99	8.68	54.6	152.2
14	10.74	9.94	8.68	54.8	149.5
15	11.30	9.84	8.66	54.7	144.0
Radial position, 37.35 cm					
1	0.00	9.68	8.53	48.8	143.5
2	1.13	9.43	8.60	41.7	122.7
3	1.70	9.91	8.45	42.2	160.7
4	2.26	10.14	8.41	44.9	173.9
5	3.39	10.14	8.38	46.8	176.0
6	4.52	10.08	8.39	45.8	172.9
7	5.65	9.44	8.56	50.7	126.6
8	6.22	9.28	8.62	45.9	110.4
9	6.78	9.49	8.55	41.5	130.0
10	7.35	10.00	8.43	43.0	166.7
11	7.91	10.07	8.45	46.3	169.4
12	9.04	10.12	8.46	47.4	170.7
13	10.17	10.09	8.50	48.4	167.1
14	10.74	10.01	8.49	51.6	163.7
15	11.30	9.67	8.50	52.6	145.8
Radial position, 36.09 cm					
1	0.00	10.08	8.41	45.1	171.4
2	1.13	9.34	8.64	47.2	113.1
3	1.70	9.57	8.56	43.5	135.3
4	2.26	10.10	8.34	45.7	176.3
5	3.39	10.14	8.28	46.2	180.7
6	4.52	10.11	8.28	45.6	180.2
7	5.65	9.72	8.54	45.3	145.5
8	6.22	9.33	8.63	45.2	112.8
9	6.78	9.28	8.62	44.3	109.9
10	7.35	9.82	8.47	42.7	155.5
11	7.91	10.06	8.37	44.9	173.6
12	9.04	10.13	8.30	44.9	179.8
13	10.17	10.13	8.33	45.5	177.8
14	10.74	10.03	8.37	45.8	171.5
15	11.30	9.45	8.57	46.9	126.1

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 33.57 cm					
1	0.00	10.13	8.27	49.2	181.9
2	1.13	10.04	8.43	50.4	168.8
3	1.70	9.65	8.49	46.8	145.1
4	2.26	10.06	8.24	48.4	180.4
5	3.39	10.13	8.18	48.2	186.4
6	4.52	10.13	8.17	47.7	186.9
7	5.65	10.06	8.31	48.0	176.1
8	6.22	9.99	8.48	50.5	163.5
9	6.78	9.72	8.50	49.0	148.5
10	7.35	9.79	8.42	44.8	156.9
11	7.91	9.98	8.27	47.8	174.9
12	9.04	10.08	8.19	47.7	183.4
13	10.17	10.12	8.15	46.8	187.7
14	10.74	10.13	8.17	46.3	187.2
15	11.30	10.13	8.25	47.2	182.5
Radial position, 31.01 cm					
1	0.00	10.12	8.20	48.9	185.0
2	1.13	10.04	8.28	50.6	177.7
3	1.70	9.70	8.44	47.7	150.6
4	2.26	10.04	8.20	47.5	181.0
5	3.39	10.12	8.19	48.8	185.0
6	4.52	10.12	8.15	48.8	186.5
7	5.65	10.09	8.19	47.7	184.1
8	6.22	10.03	8.32	48.4	174.1
9	6.78	9.77	8.42	49.7	155.2
10	7.35	9.84	8.38	44.7	162.0
11	7.91	10.02	8.23	46.9	179.5
12	9.04	10.11	8.14	47.3	188.1
13	10.17	10.12	8.12	46.9	189.0
14	10.74	10.13	8.12	47.3	189.1
15	11.30	10.13	8.15	47.6	187.1
Radial position, 25.93 cm					
1	0.00	10.11	8.12	48.9	188.2
2	1.13	10.05	8.17	49.2	183.2
3	1.70	9.69	8.38	46.8	154.1
4	2.26	10.03	8.16	47.7	183.5
5	3.39	10.11	8.05	49.1	192.4
6	4.52	10.11	8.07	48.2	191.1
7	5.65	10.08	8.12	48.6	187.2
8	6.22	10.02	8.17	50.0	182.2
9	6.78	9.89	8.27	50.6	171.1
10	7.35	9.79	8.35	46.9	161.0
11	7.91	9.99	8.18	47.7	180.4
12	9.04	10.10	8.07	47.6	190.5
13	10.17	10.11	8.08	47.9	191.5
14	10.74	10.11	8.09	46.9	191.0
15	11.30	10.11	8.11	48.9	189.5

TABLE 4.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 20.86 cm					
1	0.00	10.12	8.01	48.4	194.9
2	1.13	10.04	8.12	50.2	186.3
3	1.70	9.68	8.33	47.2	156.9
4	2.26	10.04	8.08	47.0	188.5
5	3.39	10.11	7.97	48.1	196.7
6	4.52	10.11	7.96	48.3	196.7
7	5.65	10.10	8.00	49.1	194.7
8	6.22	10.06	8.08	50.2	188.6
9	6.78	9.89	8.23	49.9	173.4
10	7.35	9.78	8.32	46.0	162.8
11	7.91	9.97	8.15	47.0	181.4
12	9.04	10.07	8.05	47.1	190.4
13	10.17	10.11	8.01	47.4	193.9
14	10.74	10.11	8.02	46.7	193.6
15	11.30	10.11	8.02	48.2	194.1
Radial position, 15.75 cm					
1	0.00	10.12	7.94	47.6	198.2
2	1.13	9.96	8.08	49.3	185.3
3	1.70	9.71	8.24	45.9	164.0
4	2.26	10.05	7.99	46.3	192.6
5	3.39	10.11	7.90	47.3	199.9
6	4.52	10.11	7.89	48.1	200.2
7	5.65	10.11	7.93	47.6	198.2
8	6.22	10.08	8.00	49.1	193.7
9	6.78	9.83	8.19	50.0	172.6
10	7.35	9.79	8.25	45.7	167.6
11	7.91	9.95	8.09	48.0	183.6
12	9.04	10.01	8.04	48.3	188.3
13	10.17	10.07	7.99	47.8	194.1
14	10.74	10.10	7.99	47.8	195.2
15	11.30	10.12	7.98	48.3	196.3
Radial position, 14.50 cm					
1	0.00	10.12	7.91	47.7	199.8
2	1.13	9.94	8.07	49.4	184.2
3	1.70	9.72	8.21	45.9	165.9
4	2.26	10.06	7.96	46.2	195.2
5	3.39	10.11	7.87	48.3	201.9
6	4.52	10.11	7.87	47.5	201.4
7	5.65	10.11	7.90	47.7	200.2
8	6.22	10.08	7.98	50.2	194.4
9	6.78	9.81	8.19	48.9	171.4
10	7.35	9.79	8.23	46.0	169.0
11	7.91	9.95	8.07	48.5	184.6
12	9.04	10.02	8.02	48.3	190.1
13	10.17	10.08	7.97	47.1	195.0
14	10.74	10.11	7.97	48.5	196.3
15	11.30	10.11	7.96	47.4	197.5

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 13.22 cm					
1	0.00	10.12	7.87	46.4	201.4
2	1.13	9.91	8.07	49.3	182.7
3	1.70	9.71	8.18	46.1	167.3
4	2.26	10.06	7.93	46.5	196.5
5	3.39	10.11	7.84	47.8	203.0
6	4.52	10.11	7.84	47.6	202.7
7	5.65	10.11	7.89	47.3	200.1
8	6.22	10.07	7.98	49.1	194.9
9	6.78	9.75	8.20	49.3	168.1
10	7.35	9.80	8.21	45.0	170.2
11	7.91	9.95	8.05	46.9	185.5
12	9.04	10.02	7.99	46.9	191.8
13	10.17	10.09	7.95	46.3	196.5
14	10.74	10.10	7.95	46.2	197.7
15	11.30	10.12	7.95	47.9	197.7
Radial position, 11.92 cm					
1	0.00	10.11	7.87	45.4	201.6
2	1.13	9.59	8.20	48.2	159.7
3	1.70	9.66	8.18	45.7	166.0
4	2.26	10.06	7.88	46.0	198.6
5	3.39	10.10	7.80	46.2	205.1
6	4.52	10.10	7.83	46.4	203.0
7	5.65	10.06	7.92	47.0	197.3
8	6.22	9.90	8.08	49.0	182.1
9	6.78	9.51	8.30	47.5	149.4
10	7.35	9.81	8.19	44.2	172.1
11	7.91	9.95	8.02	46.6	187.3
12	9.04	10.03	7.95	46.8	193.9
13	10.17	10.10	7.93	44.3	198.3
14	10.74	10.11	7.94	45.2	197.6
15	11.30	10.12	7.94	46.9	198.3
Radial position, 10.67 cm					
1	0.00	9.71	8.06	44.8	174.2
2	1.13	9.47	8.36	41.9	143.0
3	1.70	9.87	8.11	43.4	179.0
4	2.26	10.10	7.86	44.4	201.5
5	3.39	10.10	7.76	47.7	206.2
6	4.52	10.07	7.80	44.9	203.7
7	5.65	9.47	8.27	44.3	148.9
8	6.22	9.36	8.44	39.4	130.6
9	6.78	9.53	8.38	40.6	145.6
10	7.35	9.88	8.15	43.6	177.1
11	7.91	9.96	8.01	44.3	188.3
12	9.04	10.06	7.90	45.7	197.9
13	10.17	10.10	7.89	44.1	199.9
14	10.74	10.06	7.96	45.1	195.2
15	11.30	9.66	8.22	43.1	162.4

TABLE 4.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 25.92 cm			
1	0.00	*****	*****	*****	0.0
2	1.13	*****	*****	*****	0.0
3	2.26	*****	*****	*****	0.0
4	2.83	*****	*****	*****	0.0
5	3.39	*****	*****	*****	0.0
6	3.96	*****	*****	*****	0.0
7	4.52	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	8.48	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
		Radial position, 23.41 cm			
1	0.00	10.01	9.04	44.9	129.5
2	1.13	9.75	9.03	66.3	112.8
3	2.26	*****	*****	*****	0.0
4	2.83	*****	*****	*****	0.0
5	3.39	*****	*****	*****	0.0
6	3.96	*****	*****	*****	0.0
7	4.52	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	8.48	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
		Radial position, 20.82 cm			
1	0.00	10.13	9.00	44.4	139.1
2	1.13	10.07	9.09	49.6	129.6
3	2.26	9.98	9.05	44.9	126.1
4	2.83	9.87	9.04	59.8	120.1
5	3.39	9.55	9.02	63.7	97.7
6	3.96	9.19	9.00	64.9	59.5
7	4.52	*****	*****	*****	0.0
8	5.65	*****	*****	*****	0.0
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	8.48	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 18.28 cm			
1	0.00	10.14	8.90	44.6	145.8
2	1.13	9.81	8.80	49.1	133.4
3	2.26	9.05	8.78	51.6	71.3
4	2.83	9.09	8.80	42.9	73.5
5	3.39	9.37	8.82	35.2	100.2
6	3.96	9.65	8.86	40.8	118.1
7	4.52	9.67	8.94	47.4	113.5
8	5.65	9.41	9.03	55.2	81.9
9	6.78	*****	*****	*****	0.0
10	7.91	*****	*****	*****	0.0
11	8.48	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
		Radial position, 15.74 cm			
1	0.00	10.14	8.76	37.2	154.6
2	1.13	9.99	8.84	37.9	141.5
3	2.26	9.61	8.86	41.1	115.0
4	2.83	9.50	8.84	40.1	108.6
5	3.39	9.62	8.88	32.1	114.7
6	3.96	10.06	9.01	33.0	134.3
7	4.52	10.11	9.11	38.0	130.9
8	5.65	9.99	9.09	44.9	125.1
9	6.78	9.43	8.99	57.0	88.0
10	7.91	9.31	9.02	66.9	72.4
11	8.48	*****	*****	*****	0.0
12	9.04	*****	*****	*****	0.0
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
		Radial position, 13.24 cm			
1	0.00	10.14	8.73	39.3	156.2
2	1.13	10.14	8.79	39.7	152.8
3	2.26	10.10	8.95	42.3	141.0
4	2.83	10.01	8.93	45.4	137.1
5	3.39	9.80	8.87	48.7	127.7
6	3.96	9.56	8.80	46.9	116.7
7	4.52	9.75	8.81	41.1	128.9
8	5.65	10.12	8.99	47.8	139.5
9	6.78	9.96	9.03	51.4	127.3
10	7.91	9.79	9.07	57.8	112.3
11	8.48	9.52	9.06	61.8	90.5
12	9.04	9.25	9.08	45.0	55.6
13	10.17	*****	*****	*****	0.0
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0

TABLE 4.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 10.65 cm					
1	0.00	10.14	8.77	39.6	154.1
2	1.13	10.14	8.77	39.8	154.0
3	2.26	10.14	8.88	41.6	147.6
4	2.83	10.14	8.92	42.8	144.9
5	3.39	10.12	8.93	44.1	143.4
6	3.96	9.78	8.88	45.0	126.4
7	4.52	10.08	8.78	44.2	150.5
8	5.65	10.08	8.82	48.3	148.0
9	6.78	9.70	8.86	52.9	121.2
10	7.91	9.29	8.91	59.3	84.0
11	8.48	9.20	8.93	61.3	70.7
12	9.04	9.23	8.93	59.2	73.3
13	10.17	9.38	9.01	60.8	81.4
14	10.74	*****	*****	*****	0.0
15	11.30	*****	*****	*****	0.0
Radial position, 8.16 cm					
1	0.00	10.14	8.81	39.2	151.9
2	1.13	10.14	8.81	39.1	151.5
3	2.26	10.15	8.82	39.4	151.4
4	2.83	10.14	8.84	40.2	150.1
5	3.39	10.02	8.86	41.6	142.0
6	3.96	10.03	8.82	37.9	145.5
7	4.52	10.14	8.84	39.5	149.6
8	5.65	10.09	8.84	39.5	146.8
9	6.78	9.58	8.92	38.1	108.9
10	7.91	9.34	8.97	24.6	81.3
11	8.48	9.50	8.97	24.4	97.2
12	9.04	9.51	9.00	30.3	95.3
13	10.17	9.23	9.04	36.5	59.5
14	10.74	9.16	9.06	35.1	42.1
15	11.30	8.99	8.99	44.2	0.0
Radial position, 6.87 cm					
1	0.00	10.14	8.83	39.1	150.7
2	1.13	10.14	8.82	38.8	150.6
3	2.26	10.14	8.83	38.9	150.6
4	2.83	10.15	8.84	39.7	150.1
5	3.39	9.97	8.89	41.0	137.6
6	3.96	10.08	8.84	37.0	146.8
7	4.52	10.14	8.82	38.4	151.1
8	5.65	10.12	8.84	38.2	148.8
9	6.78	9.88	8.93	40.9	129.4
10	7.91	9.54	8.96	40.4	102.5
11	8.48	9.50	8.96	34.3	97.8
12	9.04	9.60	8.98	31.5	104.8
13	10.17	9.48	9.07	45.7	85.8
14	10.74	9.28	9.06	48.9	63.5
15	11.30	9.08	9.06	35.9	18.6

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 5.60 cm					
1	0.00	10.14	8.84	39.0	149.5
2	1.13	10.14	8.83	38.7	150.4
3	2.26	10.14	8.85	38.8	149.5
4	2.83	10.14	8.86	39.5	149.0
5	3.39	9.95	8.91	40.7	134.5
6	3.96	10.09	8.86	36.6	146.5
7	4.52	10.14	8.82	37.7	151.4
8	5.65	10.14	8.81	37.5	151.3
9	6.78	10.02	8.92	39.5	138.4
10	7.91	9.70	8.95	42.6	114.8
11	8.48	9.58	8.95	40.4	106.4
12	9.04	9.60	8.95	35.9	107.3
13	10.17	9.60	9.05	43.4	99.1
14	10.74	9.36	9.06	49.2	73.5
15	11.30	9.21	9.06	49.0	52.5
Radial position, 3.09 cm					
1	0.00	10.14	8.86	38.9	148.5
2	1.13	10.14	8.85	38.5	148.9
3	2.26	10.14	8.84	38.3	149.7
4	2.83	10.14	8.86	39.4	148.3
5	3.39	9.88	8.94	40.4	128.2
6	3.96	10.11	8.88	36.8	145.4
7	4.52	10.14	8.84	37.8	150.0
8	5.65	10.14	8.80	37.7	152.2
9	6.78	10.13	8.86	38.3	148.4
10	7.91	9.95	8.97	42.0	130.4
11	8.48	9.73	8.97	43.9	116.3
12	9.04	9.59	8.95	40.7	106.8
13	10.17	9.76	8.99	41.8	117.2
14	10.74	9.57	9.06	46.4	95.1
15	11.30	9.31	9.08	47.3	64.9
Radial position, 0.04 cm					
1	0.00	10.14	8.88	38.8	147.3
2	1.13	10.14	8.87	38.3	148.4
3	2.26	10.15	8.85	38.2	149.5
4	2.83	10.14	8.88	39.8	147.1
5	3.39	9.81	8.96	39.3	122.1
6	3.96	10.13	8.90	36.7	145.9
7	4.52	10.15	8.84	38.0	149.7
8	5.65	10.13	8.82	38.8	150.4
9	6.78	10.12	8.82	39.4	150.3
10	7.91	10.10	8.93	41.2	142.0
11	8.48	10.06	8.99	42.6	135.6
12	9.04	9.88	8.97	44.6	125.6
13	10.17	9.77	8.96	44.0	119.3
14	10.74	9.55	9.02	45.5	96.9
15	11.30	9.33	9.06	44.0	69.7

TABLE 5.—VANE EXIT SURVEY FOR VANE A3 IN CORNER 2 WITHOUT CORNER 1—AIRFLOW, 69.45 kg/sec

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.51 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	*****	*****	*****	0.0
3	1.12	*****	*****	*****	0.0
4	1.68	*****	*****	*****	0.0
5	2.24	*****	*****	*****	0.0
6	3.33	*****	*****	*****	0.0
7	4.44	9.53	9.53	40.2	0.0
8	5.56	9.57	9.57	43.5	0.0
9	6.68	9.56	9.56	47.1	0.0
10	7.24	9.54	9.54	33.8	0.0
11	7.79	9.59	9.57	48.9	17.1
12	8.35	9.59	9.57	49.1	20.9
13	8.91	9.61	9.56	49.9	28.9
14	10.02	9.72	9.57	51.5	51.0
15	11.13	9.82	9.58	62.7	63.6
Radial position, 21.96 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	*****	*****	*****	0.0
3	1.12	*****	*****	*****	0.0
4	1.68	*****	*****	*****	0.0
5	2.24	9.46	9.46	32.2	0.0
6	3.33	9.46	9.46	35.6	0.0
7	4.44	9.49	9.49	40.2	0.0
8	5.56	9.51	9.51	43.5	0.0
9	6.68	9.53	9.53	47.1	0.0
10	7.24	9.52	9.52	33.8	0.0
11	7.79	9.55	9.54	48.9	14.7
12	8.35	9.57	9.53	49.2	26.9
13	8.91	9.76	9.54	35.2	60.4
14	10.02	10.01	9.56	46.5	87.1
15	11.13	9.96	9.55	53.4	82.4
Radial position, 19.45 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	9.51	9.50	35.6	15.7
3	1.12	9.52	9.50	31.3	18.6
4	1.68	9.54	9.50	43.6	28.7
5	2.24	9.45	9.45	32.2	0.0
6	3.33	9.43	9.43	35.6	0.0
7	4.44	9.43	9.43	40.2	0.0
8	5.56	9.44	9.44	43.6	0.0
9	6.68	9.46	9.46	47.0	0.0
10	7.24	9.46	9.46	33.8	0.0
11	7.79	9.48	9.48	48.9	0.0
12	8.35	9.71	9.52	16.1	58.4
13	8.91	9.99	9.54	32.7	87.6
14	10.02	10.10	9.54	42.5	97.2
15	11.13	10.09	9.54	45.0	96.4

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 16.89 cm					
1	0.00	9.68	9.56	61.0	46.2
2	0.56	9.57	9.50	35.6	34.0
3	1.12	9.49	9.48	31.3	15.7
4	1.68	9.45	9.45	43.7	0.0
5	2.24	9.43	9.43	32.2	0.0
6	3.33	9.43	9.43	35.6	0.0
7	4.44	9.43	9.43	40.2	0.0
8	5.56	9.44	9.44	43.6	0.0
9	6.68	9.44	9.44	47.0	0.0
10	7.24	9.44	9.44	33.8	0.0
11	7.79	9.45	9.45	48.9	0.0
12	8.35	9.75	9.49	13.3	65.9
13	8.91	10.06	9.53	30.6	94.3
14	10.02	10.14	9.52	39.8	102.0
15	11.13	10.14	9.52	41.7	102.2
Radial position, 14.33 cm					
1	0.00	10.00	9.63	30.5	78.6
2	0.56	9.98	9.57	30.0	83.3
3	1.12	9.91	9.55	32.1	79.0
4	1.68	9.85	9.53	32.3	73.1
5	2.24	9.69	9.51	32.2	55.7
6	3.33	9.50	9.48	35.6	22.3
7	4.44	9.44	9.44	40.2	0.0
8	5.56	9.43	9.43	43.6	0.0
9	6.68	9.45	9.45	47.1	0.0
10	7.24	9.45	9.45	33.8	0.0
11	7.79	9.46	9.46	48.9	0.0
12	8.35	9.72	9.51	12.9	59.5
13	8.91	10.12	9.53	29.9	99.5
14	10.02	10.19	9.53	37.4	104.9
15	11.13	10.20	9.53	39.5	106.0
Radial position, 11.81 cm					
1	0.00	10.07	9.67	36.8	81.4
2	0.56	10.07	9.62	35.9	86.6
3	1.12	10.08	9.59	36.4	90.7
4	1.68	10.08	9.56	36.4	93.7
5	2.24	10.09	9.55	37.3	94.7
6	3.33	10.01	9.53	40.9	89.5
7	4.44	9.76	9.50	44.3	66.9
8	5.56	9.54	9.49	43.6	31.1
9	6.68	9.50	9.50	47.1	0.0
10	7.24	9.50	9.50	33.8	0.0
11	7.79	9.54	9.53	48.9	13.0
12	8.35	9.84	9.56	14.8	69.1
13	8.91	10.19	9.56	30.8	102.8
14	10.02	10.23	9.57	37.3	104.9
15	11.13	10.24	9.56	40.1	106.6

TABLE 5.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 9.27 cm			
1	0.00	10.07	9.68	40.6	80.8
2	0.56	10.08	9.65	39.9	85.0
3	1.12	10.10	9.63	40.6	88.4
4	1.68	10.11	9.60	40.8	91.8
5	2.24	10.12	9.58	41.8	95.2
6	3.33	10.14	9.55	43.8	99.1
7	4.44	10.14	9.55	46.5	99.3
8	5.56	10.10	9.56	50.7	94.7
9	6.68	9.95	9.58	53.4	78.8
10	7.24	9.84	9.59	51.0	66.1
11	7.79	9.76	9.59	43.7	54.1
12	8.35	9.84	9.61	29.4	63.5
13	8.91	10.13	9.60	34.3	94.4
14	10.02	10.24	9.59	41.5	104.5
15	11.13	10.25	9.58	43.2	105.6
		Radial position, 8.01 cm			
1	0.00	10.06	9.69	42.4	79.4
2	0.56	10.08	9.66	41.6	83.6
3	1.12	10.09	9.64	42.4	86.6
4	1.68	10.10	9.62	42.3	90.0
5	2.24	10.12	9.60	43.1	93.4
6	3.33	10.15	9.56	44.6	98.7
7	4.44	10.16	9.55	46.3	100.6
8	5.56	10.17	9.57	48.5	99.7
9	6.68	10.14	9.61	51.5	94.2
10	7.24	10.04	9.61	52.6	84.3
11	7.79	9.90	9.62	51.4	69.0
12	8.35	9.84	9.62	39.7	61.3
13	8.91	10.08	9.62	36.4	87.5
14	10.02	10.25	9.60	43.6	103.8
15	11.13	10.25	9.59	44.7	104.8
		Radial position, 6.74 cm			
1	0.00	10.05	9.69	43.8	78.2
2	0.56	10.07	9.67	43.0	82.1
3	1.12	10.08	9.65	43.6	84.9
4	1.68	10.09	9.63	43.3	87.9
5	2.24	10.12	9.62	44.2	91.5
6	3.33	10.15	9.59	45.2	96.8
7	4.44	10.16	9.56	46.1	100.2
8	5.56	10.18	9.57	47.4	101.3
9	6.68	10.20	9.60	48.9	99.8
10	7.24	10.17	9.62	50.1	95.2
11	7.79	10.04	9.64	51.7	81.8
12	8.35	9.90	9.64	45.9	66.6
13	8.91	10.03	9.63	37.8	82.0
14	10.02	10.25	9.61	45.1	103.2
15	11.13	10.25	9.60	45.8	103.9

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 4.18 cm			
1	0.00	10.10	9.70	39.8	81.7
2	0.56	10.11	9.68	39.1	84.9
3	1.12	10.13	9.67	40.0	87.7
4	1.68	10.14	9.65	39.9	90.3
5	2.24	10.16	9.64	40.7	92.8
6	3.33	10.19	9.62	41.8	97.5
7	4.44	10.21	9.60	42.7	100.5
8	5.56	10.22	9.59	44.3	102.6
9	6.68	10.23	9.59	46.1	103.2
10	7.24	10.24	9.61	47.1	102.3
11	7.79	10.21	9.64	49.7	97.8
12	8.35	10.11	9.66	51.0	86.8
13	8.91	9.95	9.65	47.2	71.1
14	10.02	10.25	9.61	47.9	102.8
15	11.13	10.25	9.60	46.7	104.1
		Radial position, 1.66 cm			
1	0.00	10.18	9.70	33.3	90.0
2	0.56	10.20	9.68	32.6	93.3
3	1.12	10.21	9.66	33.3	95.5
4	1.68	10.22	9.65	33.3	97.6
5	2.24	10.23	9.64	34.3	99.3
6	3.33	10.24	9.62	36.3	101.3
7	4.44	10.22	9.61	38.3	101.0
8	5.56	10.18	9.60	41.4	98.3
9	6.68	10.14	9.62	44.4	93.7
10	7.24	10.13	9.62	45.7	92.1
11	7.79	10.10	9.64	48.7	87.4
12	8.35	10.05	9.65	50.5	81.8
13	8.91	10.00	9.66	48.9	75.4
14	10.02	10.24	9.61	49.7	103.1
15	11.13	10.23	9.59	50.1	103.3
		Radial position, −0.01 cm			
1	0.00	10.20	9.68	31.5	93.6
2	0.56	10.20	9.66	31.5	95.2
3	1.12	10.20	9.65	32.9	95.8
4	1.68	10.18	9.63	33.8	96.1
5	2.24	10.18	9.62	35.5	95.9
6	3.33	10.14	9.62	40.0	92.9
7	4.44	10.11	9.62	43.6	90.1
8	5.56	10.09	9.63	47.1	87.9
9	6.68	10.10	9.64	48.8	87.1
10	7.24	10.10	9.64	49.0	87.1
11	7.79	10.10	9.65	49.7	86.5
12	8.35	10.08	9.66	50.2	84.4
13	8.91	10.03	9.66	49.0	79.3
14	10.02	10.24	9.63	51.1	100.8
15	11.13	10.22	9.62	53.9	100.2

TABLE 5.—Continued.

(b) Middle

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 46.26 cm					
1	0.00	10.05	9.80	63.7	65.3
2	0.56	10.03	9.79	64.1	63.2
3	1.12	9.96	9.77	63.8	56.7
4	1.68	9.91	9.77	58.9	48.5
5	2.24	9.96	9.78	55.0	55.8
6	3.33	10.12	9.81	60.0	72.0
7	4.44	10.10	9.80	64.4	70.2
8	5.56	10.01	9.78	66.4	62.1
9	6.68	9.86	9.77	58.4	37.9
10	7.24	9.90	9.78	48.1	44.7
11	7.79	10.02	9.80	47.1	61.6
12	8.35	10.09	9.81	52.9	68.2
13	8.91	10.13	9.82	59.3	71.5
14	10.02	10.10	9.82	63.9	68.8
15	11.13	10.07	9.81	66.4	65.0
Radial position, 45.00 cm					
1	0.00	10.03	9.73	60.2	70.7
2	0.56	9.99	9.72	59.4	66.9
3	1.12	9.95	9.74	57.8	59.7
4	1.68	9.94	9.74	53.6	58.1
5	2.24	10.03	9.75	52.9	69.2
6	3.33	10.16	9.75	58.2	82.1
7	4.44	10.11	9.74	59.0	77.7
8	5.56	10.06	9.75	57.9	72.4
9	6.68	10.01	9.77	58.3	63.2
10	7.24	9.97	9.77	55.6	58.7
11	7.79	10.03	9.76	51.2	67.2
12	8.35	10.14	9.77	53.2	78.5
13	8.91	10.16	9.78	55.9	79.8
14	10.02	10.10	9.77	57.0	74.1
15	11.13	10.05	9.75	55.6	70.5
Radial position, 43.72 cm					
1	0.00	9.92	9.71	56.6	59.1
2	0.56	9.89	9.72	53.1	53.2
3	1.12	9.90	9.73	49.6	53.6
4	1.68	10.00	9.73	47.5	67.6
5	2.24	10.13	9.73	49.6	81.4
6	3.33	10.17	9.71	54.3	87.1
7	4.44	10.10	9.70	56.9	81.0
8	5.56	9.99	9.71	57.1	68.7
9	6.68	9.99	9.73	52.6	65.6
10	7.24	10.00	9.73	50.9	66.4
11	7.79	10.10	9.73	50.2	78.5
12	8.35	10.18	9.73	52.7	86.7
13	8.91	10.17	9.73	54.4	85.2
14	10.02	10.11	9.72	53.9	80.0
15	11.13	10.05	9.72	53.5	74.8

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 42.45 cm					
1	0.00	9.87	9.73	50.8	49.8
2	0.56	9.84	9.73	46.1	43.8
3	1.12	9.93	9.73	42.9	57.3
4	1.68	10.10	9.72	43.1	79.1
5	2.24	10.20	9.71	46.4	89.3
6	3.33	10.19	9.70	49.4	90.6
7	4.44	10.05	9.70	52.3	75.7
8	5.56	9.85	9.72	49.5	47.0
9	6.68	9.93	9.72	40.6	59.0
10	7.24	10.08	9.73	39.1	76.6
11	7.79	10.21	9.72	44.3	89.3
12	8.35	10.21	9.71	47.6	90.8
13	8.91	10.18	9.70	48.2	89.1
14	10.02	10.11	9.70	50.0	82.4
15	11.13	9.94	9.70	52.3	63.0
Radial position, 37.36 cm					
1	0.00	10.25	9.69	47.6	96.0
2	0.56	10.25	9.69	48.3	95.1
3	1.12	10.15	9.69	51.2	87.7
4	1.68	10.11	9.68	46.2	84.8
5	2.24	10.24	9.66	46.8	97.8
6	3.33	10.25	9.65	47.6	98.8
7	4.44	10.24	9.66	47.8	97.8
8	5.56	10.24	9.70	48.2	94.2
9	6.68	10.24	9.73	50.0	91.4
10	7.24	10.08	9.71	51.7	78.5
11	7.79	10.18	9.69	44.7	90.2
12	8.35	10.24	9.67	47.8	96.3
13	8.91	10.24	9.67	47.8	97.0
14	10.02	10.24	9.67	47.9	96.8
15	11.13	10.24	9.69	47.9	95.2
Radial position, 32.29 cm					
1	0.00	10.25	9.65	48.7	98.7
2	0.56	10.25	9.66	48.9	98.6
3	1.12	10.20	9.67	52.1	93.0
4	1.68	10.08	9.68	47.4	81.6
5	2.24	10.24	9.67	47.0	96.8
6	3.33	10.25	9.66	48.5	98.5
7	4.44	10.24	9.66	48.8	97.9
8	5.56	10.24	9.66	49.0	97.0
9	6.68	10.24	9.67	49.6	96.6
10	7.24	10.13	9.70	52.1	85.1
11	7.79	10.19	9.69	46.6	90.5
12	8.35	10.24	9.68	48.5	96.1
13	8.91	10.24	9.67	48.8	96.6
14	10.02	10.24	9.67	49.0	96.6
15	11.13	10.24	9.68	48.8	96.4

TABLE 5.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 27.17 cm					
1	0.00	10.25	9.65	48.7	99.2
2	0.56	10.25	9.65	49.1	98.8
3	1.12	10.20	9.68	52.6	93.2
4	1.68	10.09	9.68	48.4	81.5
5	2.24	10.23	9.68	47.2	95.2
6	3.33	10.25	9.67	49.2	97.3
7	4.44	10.24	9.67	48.9	97.0
8	5.56	10.24	9.67	49.2	96.8
9	6.68	10.24	9.67	49.7	96.4
10	7.24	10.12	9.70	52.0	83.6
11	7.79	10.18	9.70	46.3	89.7
12	8.35	10.24	9.68	48.7	95.6
13	8.91	10.24	9.68	49.0	96.1
14	10.02	10.24	9.68	48.8	95.9
15	11.13	10.25	9.68	48.8	96.1
Radial position, 22.12 cm					
1	0.00	10.24	9.65	48.9	98.6
2	0.56	10.24	9.66	49.0	98.2
3	1.12	10.19	9.67	52.4	92.4
4	1.68	10.08	9.68	48.4	81.7
5	2.24	10.23	9.68	47.4	95.0
6	3.33	10.25	9.67	49.0	97.5
7	4.44	10.24	9.67	49.5	96.6
8	5.56	10.24	9.67	49.7	96.2
9	6.68	10.24	9.68	50.1	95.8
10	7.24	10.14	9.70	52.6	84.8
11	7.79	10.17	9.70	46.8	87.6
12	8.35	10.24	9.69	49.2	95.4
13	8.91	10.24	9.69	49.3	95.4
14	10.02	10.24	9.69	49.6	95.4
15	11.13	10.24	9.69	49.1	95.2
Radial position, 17.03 cm					
1	0.00	10.25	9.64	49.3	99.6
2	0.56	10.25	9.65	49.6	99.2
3	1.12	10.19	9.67	52.9	93.5
4	1.68	10.08	9.67	49.5	81.6
5	2.24	10.22	9.67	47.6	95.2
6	3.33	10.25	9.67	49.7	97.4
7	4.44	10.24	9.67	49.7	97.3
8	5.56	10.24	9.67	49.9	96.5
9	6.68	10.24	9.68	50.8	96.4
10	7.24	10.14	9.70	53.1	85.2
11	7.79	10.14	9.70	47.5	85.9
12	8.35	10.24	9.69	49.3	95.7
13	8.91	10.24	9.68	49.5	96.1
14	10.02	10.25	9.69	49.6	95.8
15	11.13	10.25	9.69	49.3	95.7

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 11.93 cm					
1	0.00	10.06	9.67	52.3	80.8
2	0.56	9.98	9.68	50.5	70.7
3	1.12	10.00	9.69	47.6	71.5
4	1.68	10.07	9.68	46.9	80.0
5	2.24	10.15	9.68	47.8	88.0
6	3.33	10.25	9.66	50.6	98.1
7	4.44	10.23	9.67	52.3	96.2
8	5.56	10.07	9.70	54.3	79.3
9	6.68	10.01	9.71	50.5	69.6
10	7.24	10.05	9.72	47.2	74.4
11	7.79	10.15	9.71	46.9	85.3
12	8.35	10.21	9.69	48.6	92.6
13	8.91	10.24	9.68	50.2	95.9
14	10.02	10.24	9.68	50.9	96.1
15	11.13	10.24	9.68	51.4	95.6
Radial position, 9.42 cm					
1	0.00	9.93	9.71	59.7	59.7
2	0.56	9.89	9.72	58.1	53.4
3	1.12	9.89	9.72	54.8	52.9
4	1.68	9.94	9.72	52.5	60.9
5	2.24	10.05	9.71	51.4	75.3
6	3.33	10.23	9.66	55.0	96.3
7	4.44	10.14	9.70	60.9	85.4
8	5.56	9.91	9.75	64.0	51.3
9	6.68	9.85	9.76	51.7	40.1
10	7.24	9.93	9.75	48.1	54.8
11	7.79	10.05	9.73	48.0	72.2
12	8.35	10.16	9.71	50.1	86.8
13	8.91	10.23	9.68	52.6	95.3
14	10.02	10.20	9.69	56.5	91.5
15	11.13	9.97	9.73	60.2	62.6
Radial position, 8.15 cm					
1	0.00	10.08	9.72	62.1	77.5
2	0.56	10.03	9.72	62.8	71.7
3	1.12	9.97	9.72	62.0	63.9
4	1.68	9.96	9.72	60.0	63.3
5	2.24	10.00	9.71	57.6	68.7
6	3.33	10.19	9.67	56.8	92.9
7	4.44	10.22	9.69	61.1	93.0
8	5.56	10.04	9.75	65.6	69.1
9	6.68	9.87	9.76	57.8	43.5
10	7.24	9.91	9.75	51.3	50.3
11	7.79	10.01	9.74	49.8	66.4
12	8.35	10.14	9.71	51.3	83.9
13	8.91	10.23	9.68	54.0	94.5
14	10.02	10.23	9.69	58.3	94.5
15	11.13	10.08	9.74	62.3	74.3

TABLE 5.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.49 cm					
1	0.00	9.91	9.60	49.9	72.1
2	0.56	9.88	9.60	46.4	68.2
3	1.12	9.95	9.62	39.3	74.3
4	1.68	10.05	9.66	46.4	81.0
5	2.24	10.10	9.69	43.4	83.1
6	3.33	10.07	9.70	52.4	78.6
7	4.44	10.03	9.69	57.4	75.3
8	5.56	9.95	9.66	65.7	69.2
9	6.68	9.60	9.60	45.0	0.0
10	7.24	*****	*****	*****	0.0
11	7.79	*****	*****	*****	0.0
12	8.35	*****	*****	*****	0.0
13	8.91	*****	*****	*****	0.0
14	10.02	*****	*****	*****	0.0
15	11.13	*****	*****	*****	0.0
Radial position, 21.97 cm					
1	0.00	10.14	9.64	43.9	90.8
2	0.56	10.08	9.66	46.4	84.1
3	1.12	9.99	9.63	48.8	77.5
4	1.68	9.94	9.59	46.4	77.0
5	2.24	9.96	9.58	46.3	79.8
6	3.33	10.18	9.67	49.5	92.1
7	4.44	10.12	9.70	54.1	83.5
8	5.56	10.06	9.69	59.6	78.0
9	6.68	9.96	9.67	45.0	68.8
10	7.24	9.82	9.66	46.4	51.5
11	7.79	9.86	9.64	77.2	60.9
12	8.35	9.67	9.65	46.4	17.2
13	8.91	9.58	9.58	39.6	0.0
14	10.02	*****	*****	*****	0.0
15	11.13	*****	*****	*****	0.0
Radial position, 19.45 cm					
1	0.00	10.24	9.64	43.7	99.6
2	0.56	10.23	9.69	46.4	94.0
3	1.12	10.22	9.71	45.8	92.2
4	1.68	10.09	9.64	46.4	86.5
5	2.24	10.03	9.62	44.9	83.3
6	3.33	10.20	9.60	48.6	100.0
7	4.44	10.08	9.64	51.5	85.6
8	5.56	9.83	9.59	51.1	63.3
9	6.68	9.90	9.59	45.0	72.2
10	7.24	9.94	9.61	46.4	75.5
11	7.79	9.84	9.61	60.1	62.5
12	8.35	9.65	9.59	46.4	31.7
13	8.91	9.63	9.60	39.6	22.5
14	10.02	9.62	9.61	45.6	9.5
15	11.13	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 16.90 cm					
1	0.00	10.24	9.62	44.2	101.3
2	0.56	10.24	9.64	46.4	99.7
3	1.12	10.25	9.65	44.5	99.2
4	1.68	10.12	9.63	46.4	89.7
5	2.24	10.17	9.62	41.2	95.8
6	3.33	10.23	9.62	43.1	100.0
7	4.44	10.13	9.62	42.8	91.8
8	5.56	9.89	9.60	42.3	69.8
9	6.68	9.85	9.59	45.0	67.0
10	7.24	10.00	9.65	46.4	76.8
11	7.79	10.07	9.66	34.4	82.8
12	8.35	9.94	9.65	46.4	69.5
13	8.91	9.76	9.64	38.1	44.9
14	10.02	9.63	9.63	45.6	0.0
15	11.13	9.60	9.60	41.1	0.0
Radial position, 14.38 cm					
1	0.00	10.25	9.63	44.2	101.3
2	0.56	10.25	9.64	46.4	99.9
3	1.12	10.25	9.63	44.4	100.8
4	1.68	10.12	9.64	46.4	89.4
5	2.24	10.18	9.63	41.1	95.2
6	3.33	10.25	9.61	43.2	102.3
7	4.44	10.22	9.61	43.0	100.6
8	5.56	10.17	9.66	45.0	91.8
9	6.68	10.05	9.63	48.5	83.4
10	7.24	9.96	9.60	46.4	77.3
11	7.79	9.94	9.59	44.3	76.5
12	8.35	10.07	9.61	46.4	88.2
13	8.91	10.10	9.67	48.3	85.0
14	10.02	10.05	9.70	52.6	75.8
15	11.13	9.98	9.70	57.4	69.3
Radial position, 11.83 cm					
1	0.00	10.25	9.64	44.6	100.6
2	0.56	10.25	9.65	46.4	99.5
3	1.12	10.25	9.64	44.7	99.9
4	1.68	10.13	9.65	46.4	89.2
5	2.24	10.17	9.64	41.2	93.9
6	3.33	10.25	9.62	43.4	102.0
7	4.44	10.25	9.61	42.7	102.5
8	5.56	10.23	9.62	43.0	99.9
9	6.68	10.18	9.64	44.3	94.1
10	7.24	10.07	9.64	46.4	84.3
11	7.79	10.05	9.62	42.3	84.4
12	8.35	10.16	9.61	46.4	95.5
13	8.91	10.11	9.61	47.0	91.0
14	10.02	9.96	9.61	46.7	76.0
15	11.13	9.74	9.59	44.0	51.4

TABLE 5.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 9.28 cm			
1	0.00	10.25	9.65	44.8	99.8
2	0.56	10.25	9.65	46.4	99.4
3	1.12	10.25	9.65	44.8	99.7
4	1.68	10.11	9.66	46.4	87.2
5	2.24	10.18	9.65	40.8	93.3
6	3.33	10.25	9.64	43.6	100.6
7	4.44	10.25	9.63	43.3	101.3
8	5.56	10.24	9.62	43.1	100.9
9	6.68	10.22	9.63	42.9	98.7
10	7.24	10.15	9.65	46.4	91.0
11	7.79	10.13	9.63	40.3	91.2
12	8.35	10.19	9.63	46.4	96.8
13	8.91	10.15	9.63	42.6	93.2
14	10.02	10.09	9.62	41.4	87.7
15	11.13	9.99	9.65	42.8	75.1
		Radial position, 7.98 cm			
1	0.00	10.25	9.65	45.0	99.5
2	0.56	10.25	9.65	46.4	99.3
3	1.12	10.25	9.65	45.1	99.4
4	1.68	10.13	9.66	46.4	87.9
5	2.24	10.15	9.65	41.4	91.3
6	3.33	10.25	9.64	43.8	100.3
7	4.44	10.25	9.63	43.6	100.8
8	5.56	10.25	9.63	43.1	100.7
9	6.68	10.24	9.64	42.9	99.3
10	7.24	10.17	9.65	46.4	92.4
11	7.79	10.16	9.64	39.6	92.8
12	8.35	10.21	9.64	46.4	97.1
13	8.91	10.17	9.63	41.4	94.4
14	10.02	10.11	9.62	40.0	89.6
15	11.13	10.02	9.63	41.7	80.1
		Radial position, 6.75 cm			
1	0.00	10.25	9.65	45.0	99.1
2	0.56	10.25	9.66	46.4	99.0
3	1.12	10.25	9.66	45.3	99.0
4	1.68	10.11	9.66	46.4	86.6
5	2.24	10.16	9.66	41.2	91.5
6	3.33	10.25	9.65	44.0	99.6
7	4.44	10.25	9.64	43.7	100.2
8	5.56	10.25	9.63	43.2	100.5
9	6.68	10.25	9.64	43.1	99.6
10	7.24	10.17	9.66	46.4	92.1
11	7.79	10.17	9.64	39.2	93.3
12	8.35	10.22	9.65	46.4	97.0
13	8.91	10.19	9.64	41.0	95.9
14	10.02	10.13	9.62	39.7	91.9
15	11.13	10.05	9.62	40.7	84.5

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 4.23 cm			
1	0.00	10.25	9.66	45.2	98.5
2	0.56	10.25	9.66	46.4	98.2
3	1.12	10.25	9.66	45.6	98.1
4	1.68	10.12	9.66	46.4	86.5
5	2.24	10.17	9.66	41.6	91.9
6	3.33	10.25	9.66	44.4	99.2
7	4.44	10.25	9.65	44.0	99.6
8	5.56	10.25	9.64	43.6	99.8
9	6.68	10.25	9.65	43.4	99.3
10	7.24	10.18	9.66	46.4	92.3
11	7.79	10.17	9.65	39.3	93.0
12	8.35	10.24	9.66	46.4	97.6
13	8.91	10.22	9.64	42.0	97.3
14	10.02	10.17	9.63	41.1	94.6
15	11.13	10.10	9.61	41.1	89.8
		Radial position, 1.68 cm			
1	0.00	10.25	9.66	45.3	98.5
2	0.56	10.25	9.67	46.4	98.0
3	1.12	10.25	9.67	45.9	97.8
4	1.68	10.08	9.67	46.4	83.1
5	2.24	10.19	9.66	41.2	93.2
6	3.33	10.26	9.66	44.4	99.0
7	4.44	10.25	9.66	44.1	99.2
8	5.56	10.25	9.65	43.7	99.4
9	6.68	10.25	9.65	43.6	98.9
10	7.24	10.16	9.67	46.4	90.1
11	7.79	10.19	9.65	39.1	94.2
12	8.35	10.24	9.66	46.4	97.5
13	8.91	10.23	9.65	41.7	97.7
14	10.02	10.18	9.63	41.1	95.6
15	11.13	10.11	9.62	41.0	90.7
		Radial position, 0.01 cm			
1	0.00	10.25	9.66	45.3	98.3
2	0.56	10.25	9.67	46.4	98.0
3	1.12	10.25	9.67	46.1	97.3
4	1.68	10.09	9.67	46.4	83.5
5	2.24	10.18	9.66	41.5	92.6
6	3.33	10.26	9.66	44.2	98.8
7	4.44	10.25	9.66	44.1	98.8
8	5.56	10.25	9.66	43.8	99.0
9	6.68	10.25	9.66	43.7	98.3
10	7.24	10.14	9.67	46.4	88.1
11	7.79	10.18	9.65	39.7	93.1
12	8.35	10.23	9.67	46.4	96.8
13	8.91	10.22	9.65	42.3	97.3
14	10.02	10.19	9.64	41.5	95.4
15	11.13	10.12	9.62	41.1	91.5

TABLE 6.—VANE EXIT SURVEY FOR VANE A3 IN CORNER 2 WITHOUT CORNER 1—AIRFLOW, 35.53 kg/sec

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.48 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	*****	*****	*****	0.0
3	1.12	*****	*****	*****	0.0
4	1.68	*****	*****	*****	0.0
5	2.24	*****	*****	*****	0.0
6	3.33	*****	*****	*****	0.0
7	4.44	9.98	9.98	32.2	0.0
8	5.56	9.98	9.98	36.2	0.0
9	6.68	9.99	9.99	40.4	0.0
10	7.24	9.98	9.98	27.2	0.0
11	7.79	9.99	9.99	42.4	0.0
12	8.35	10.00	10.00	42.5	7.1
13	8.91	10.01	10.00	43.8	11.5
14	10.02	10.03	10.00	40.4	23.3
15	11.13	10.05	10.00	43.8	27.4
Radial position, 21.99 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	*****	*****	*****	0.0
3	1.12	*****	*****	*****	0.0
4	1.68	*****	*****	*****	0.0
5	2.24	9.96	9.96	26.9	0.0
6	3.33	9.96	9.96	28.8	0.0
7	4.44	9.97	9.97	32.2	0.0
8	5.56	9.98	9.98	36.2	0.0
9	6.68	9.98	9.98	40.4	0.0
10	7.24	9.98	9.98	27.2	0.0
11	7.79	9.98	9.98	42.5	0.0
12	8.35	10.00	9.99	42.6	12.9
13	8.91	10.04	9.99	30.7	27.1
14	10.02	10.10	10.00	39.5	40.3
15	11.13	10.09	10.00	46.3	38.6
Radial position, 19.43 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	10.00	9.98	47.6	16.5
3	1.12	9.98	9.98	25.3	7.8
4	1.68	9.97	9.97	26.2	0.0
5	2.24	9.96	9.96	26.8	0.0
6	3.33	9.96	9.96	28.8	0.0
7	4.44	9.97	9.97	32.2	0.0
8	5.56	9.97	9.97	36.2	0.0
9	6.68	9.97	9.97	40.4	0.0
10	7.24	9.96	9.96	27.2	0.0
11	7.79	9.96	9.96	42.5	0.0
12	8.35	10.03	9.99	23.6	26.3
13	8.91	10.09	9.99	24.8	40.5
14	10.02	10.12	10.00	38.7	45.3
15	11.13	10.12	10.00	41.7	45.3

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg,	Velocity, m/sec
Radial position, 16.89 cm					
1	0.00	10.05	10.01	49.5	26.1
2	0.56	10.02	9.99	47.6	24.6
3	1.12	9.98	9.97	25.3	13.1
4	1.68	9.97	9.97	26.2	0.0
5	2.24	9.96	9.96	26.8	0.0
6	3.33	9.96	9.96	28.8	0.0
7	4.44	9.96	9.96	32.2	0.0
8	5.56	9.97	9.97	36.3	0.0
9	6.68	9.97	9.97	40.5	0.0
10	7.24	9.96	9.96	27.2	0.0
11	7.79	9.96	9.96	42.5	0.0
12	8.35	10.03	9.98	3.7	30.0
13	8.91	10.11	9.99	24.7	44.1
14	10.02	10.13	9.99	36.4	47.7
15	11.13	10.13	9.99	38.6	47.3
Radial position, 14.35 cm					
1	0.00	10.11	10.02	29.5	37.7
2	0.56	10.11	10.01	27.6	41.6
3	1.12	10.10	9.99	25.3	41.8
4	1.68	10.09	9.99	26.2	39.1
5	2.24	10.06	9.99	26.8	34.9
6	3.33	10.00	9.98	28.8	18.5
7	4.44	9.97	9.97	32.2	0.0
8	5.56	9.96	9.96	36.3	0.0
9	6.68	9.97	9.97	40.5	0.0
10	7.24	9.96	9.96	27.2	0.0
11	7.79	9.96	9.96	42.5	0.0
12	8.35	10.04	9.99	8.0	29.3
13	8.91	10.11	9.99	23.6	44.6
14	10.02	10.14	10.00	34.6	49.0
15	11.13	10.15	10.00	37.1	49.4
Radial position, 11.81 cm					
1	0.00	10.11	10.03	29.7	37.5
2	0.56	10.10	10.02	34.4	37.9
3	1.12	10.12	10.00	31.0	42.8
4	1.68	10.12	10.00	31.6	43.7
5	2.24	10.12	9.99	32.0	45.0
6	3.33	10.11	10.00	31.9	43.8
7	4.44	10.08	9.99	35.5	38.4
8	5.56	10.01	9.98	36.3	20.5
9	6.68	9.99	9.98	40.5	10.2
10	7.24	9.98	9.98	27.2	0.0
11	7.79	9.98	9.98	42.5	0.0
12	8.35	10.07	10.00	4.7	34.3
13	8.91	10.12	10.01	24.6	42.3
14	10.02	10.15	10.01	33.6	48.8
15	11.13	10.16	10.01	36.1	49.8

TABLE 6.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 9.28 cm			
1	0.00	10.11	10.03	32.7	36.9
2	0.56	10.11	10.02	35.4	39.0
3	1.12	10.12	10.01	33.8	41.5
4	1.68	10.12	10.01	34.7	41.9
5	2.24	10.12	10.00	35.7	44.8
6	3.33	10.13	10.00	37.7	46.4
7	4.44	10.13	10.00	39.8	47.4
8	5.56	10.13	10.00	43.5	45.4
9	6.68	10.11	10.01	44.2	41.4
10	7.24	10.08	10.01	41.6	32.9
11	7.79	10.04	10.00	42.5	24.5
12	8.35	10.06	10.01	20.9	27.8
13	8.91	10.10	10.01	25.7	38.0
14	10.02	10.16	10.01	36.7	48.5
15	11.13	10.16	10.01	38.5	49.7
		Radial position, 8.01 cm			
1	0.00	10.11	10.03	34.2	36.1
2	0.56	10.11	10.02	35.5	39.2
3	1.12	10.12	10.02	35.1	40.5
4	1.68	10.12	10.01	36.1	40.8
5	2.24	10.12	10.00	36.2	44.2
6	3.33	10.13	10.00	38.8	46.0
7	4.44	10.13	10.00	40.3	47.4
8	5.56	10.14	10.00	43.6	47.0
9	6.68	10.14	10.01	44.6	45.9
10	7.24	10.11	10.02	43.7	39.6
11	7.79	10.07	10.01	42.2	31.1
12	8.35	10.06	10.01	28.9	27.4
13	8.91	10.10	10.02	27.0	37.0
14	10.02	10.16	10.01	38.5	48.9
15	11.13	10.16	10.01	40.1	49.5
		Radial position, 6.76 cm			
1	0.00	10.10	10.03	34.9	35.5
2	0.56	10.12	10.02	35.1	39.2
3	1.12	10.11	10.02	35.9	39.7
4	1.68	10.11	10.02	36.7	40.0
5	2.24	10.12	10.01	36.7	42.9
6	3.33	10.13	10.01	39.0	45.2
7	4.44	10.14	10.00	40.5	46.9
8	5.56	10.14	10.00	43.6	47.7
9	6.68	10.15	10.01	44.7	47.8
10	7.24	10.13	10.01	44.0	44.4
11	7.79	10.10	10.02	43.3	37.4
12	8.35	10.07	10.02	35.6	30.3
13	8.91	10.09	10.02	27.4	35.7
14	10.02	10.16	10.01	40.1	48.8
15	11.13	10.16	10.01	41.3	49.2

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 4.18 cm			
1	0.00	10.12	10.03	33.1	38.0
2	0.56	10.13	10.03	32.5	40.7
3	1.12	10.13	10.02	34.1	41.9
4	1.68	10.13	10.02	34.7	42.3
5	2.24	10.13	10.02	36.0	44.1
6	3.33	10.14	10.01	37.8	46.1
7	4.44	10.15	10.01	39.0	47.8
8	5.56	10.15	10.01	41.5	48.4
9	6.68	10.16	10.01	43.8	49.0
10	7.24	10.14	10.01	43.9	46.1
11	7.79	10.11	10.02	43.6	40.0
12	8.35	10.10	10.02	40.3	34.8
13	8.91	10.07	10.02	32.3	29.8
14	10.02	10.16	10.01	42.2	48.6
15	11.13	10.16	10.01	42.8	49.2
		Radial position, 1.66 cm			
1	0.00	10.14	10.03	26.8	43.1
2	0.56	10.15	10.03	27.3	44.5
3	1.12	10.15	10.02	27.9	45.9
4	1.68	10.15	10.02	28.4	46.4
5	2.24	10.16	10.02	29.8	47.8
6	3.33	10.16	10.01	32.3	48.3
7	4.44	10.15	10.01	34.8	47.9
8	5.56	10.14	10.01	38.4	45.9
9	6.68	10.13	10.02	41.8	43.4
10	7.24	10.12	10.02	43.0	41.0
11	7.79	10.11	10.02	43.6	37.4
12	8.35	10.10	10.03	40.7	35.7
13	8.91	10.09	10.03	36.5	31.7
14	10.02	10.15	10.02	42.6	47.4
15	11.13	10.16	10.01	45.6	48.7
		Radial position, 0.01 cm			
1	0.00	10.15	10.03	25.5	44.4
2	0.56	10.15	10.02	26.3	45.2
3	1.12	10.15	10.02	26.9	45.9
4	1.68	10.14	10.02	27.2	45.2
5	2.24	10.14	10.01	28.7	45.8
6	3.33	10.13	10.01	32.0	44.0
7	4.44	10.13	10.02	35.9	42.7
8	5.56	10.12	10.02	40.3	41.5
9	6.68	10.13	10.02	42.0	42.0
10	7.24	10.12	10.02	42.5	40.3
11	7.79	10.12	10.02	43.7	39.7
12	8.35	10.12	10.03	42.1	40.1
13	8.91	10.10	10.02	40.2	36.0
14	10.02	10.15	10.02	43.5	46.7
15	11.13	10.16	10.02	47.5	47.5

TABLE 6.—Continued.

(b) Middle

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec	Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 46.26 cm						Radial position, 42.45 cm					
1	0.00	10.11	10.05	60.3	30.9	1	0.00	10.07	10 04	46.7	24.2
2	0.56	10.11	10.06	60.2	29.0	2	0.56	10.06	10.04	41.5	20.3
3	1.12	10.10	10.05	59.6	28.1	3	1.12	10.09	10.04	38.0	27.7
4	1.68	10.08	10.05	53.6	23.1	4	1.68	10.13	10.04	40.6	37.8
5	2.24	10.10	10.05	49.4	28.3	5	2.24	10.15	10.04	44.6	43.8
6	3.33	10.13	10.06	57.5	33.6	6	3.33	10.14	10.03	47.2	43.0
7	4.44	10.12	10.06	61.6	32.5	7	4.44	10.11	10.03	49.3	36.6
8	5.56	10.11	10.05	60.6	31.2	8	5.56	10.07	10.04	46.0	23.9
9	6.68	10.07	10.05	54.7	18.5	9	6.68	10.08	10.04	36.1	27.6
10	7.24	10.07	10.05	45.0	20.1	10	7.24	10.11	10.04	35.8	34.8
11	7.79	10.11	10.05	42.5	29.8	11	7.79	10.15	10.04	42.2	43.4
12	8.35	10.12	10.06	50.3	32.6	12	8.35	10.15	10.04	45.7	43.1
13	8.91	10.13	10.06	56.7	33.4	13	8.91	10.14	10.03	46.4	42.3
14	10.02	10.12	10.06	60.9	32.1	14	10.02	10.12	10.03	46.8	38.9
15	11.13	10.12	10.06	62.1	31.0	15	11.13	10.09	10.03	48.9	29.8
Radial position, 44.98 cm						Radial position, 37.38 cm					
1	0.00	10.10	10.04	57.0	32.8	1	0.00	10.16	10.03	46.2	45.3
2	0.56	10.10	10.04	55.7	30.5	2	0.56	10.16	10.04	47.1	44.3
3	1.12	10.09	10.04	53.4	28.7	3	1.12	10.13	10.03	47.7	40.3
4	1.68	10.09	10.04	49.1	27.0	4	1.68	10.12	10.03	43.3	39.4
5	2.24	10.12	10.04	48.8	34.6	5	2.24	10.16	10.03	43.8	47.3
6	3.33	10.14	10.04	55.2	38.9	6	3.33	10.16	10.02	45.6	47.1
7	4.44	10.12	10.04	56.7	36.3	7	4.44	10.16	10.03	46.0	46.7
8	5.56	10.12	10.04	55.3	34.8	8	5.56	10.16	10.04	46.8	45.3
9	6.68	10.10	10.05	54.2	30.0	9	6.68	10.15	10.04	49.0	42.0
10	7.24	10.09	10.05	51.6	26.9	10	7.24	10.11	10.03	48.6	36.4
11	7.79	10.11	10.04	47.6	31.8	11	7.79	10.14	10.03	42.1	42.7
12	8.35	10.14	10.05	50.3	38.0	12	8.35	10.16	10.03	45.7	45.9
13	8.91	10.14	10.05	54.3	37.3	13	8.91	10.16	10.03	46.1	46.1
14	10.02	10.12	10.05	54.8	34.7	14	10.02	10.16	10.03	46.1	45.7
15	11.13	10.11	10.04	53.1	33.3	15	11.13	10.16	10.03	46.7	45.5
Radial position, 43.72 cm						Radial position, 32.30 cm					
1	0.00	10.08	10.03	52.7	27.7	1	0.00	10.16	10.02	47.1	47.0
2	0.56	10.07	10.04	48.9	24.3	2	0.56	10.16	10.03	47.3	46.6
3	1.12	10.08	10.04	44.9	26.0	3	1.12	10.15	10.03	49.7	44.3
4	1.68	10.10	10.04	43.3	31.7	4	1.68	10.12	10.03	45.2	38.6
5	2.24	10.14	10.04	47.1	40.2	5	2.24	10.16	10.03	44.2	46.7
6	3.33	10.14	10.04	52.2	41.5	6	3.33	10.16	10.02	46.4	46.9
7	4.44	10.12	10.03	53.8	38.6	7	4.44	10.16	10.03	46.7	46.7
8	5.56	10.10	10.03	54.5	34.2	8	5.56	10.16	10.03	47.2	46.9
9	6.68	10.10	10.04	49.7	30.4	9	6.68	10.15	10.03	49.1	45.8
10	7.24	10.10	10.04	47.0	30.4	10	7.24	10.13	10.03	49.4	40.3
11	7.79	10.12	10.04	47.2	37.4	11	7.79	10.14	10.03	44.4	41.9
12	8.35	10.15	10.04	50.7	41.6	12	8.35	10.16	10.03	46.6	45.7
13	8.91	10.14	10.04	52.3	40.3	13	8.91	10.16	10.03	47.3	45.8
14	10.02	10.13	10.04	51.5	38.5	14	10.02	10.16	10.03	47.2	45.7
15	11.13	10.11	10.04	51.7	35.3	15	11.13	10.16	10.03	46.9	45.7

TABLE 6.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 27.21 cm					
1	0.00	10.16	10.02	46.7	47.1
2	0.56	10.16	10.03	47.2	46.6
3	1.12	10.16	10.03	50.0	45.7
4	1.68	10.12	10.03	45.5	38.6
5	2.24	10.16	10.03	44.1	46.1
6	3.33	10.16	10.03	46.9	46.5
7	4.44	10.16	10.03	47.1	46.3
8	5.56	10.16	10.03	47.0	46.8
9	6.68	10.16	10.03	49.3	45.3
10	7.24	10.13	10.03	49.9	40.4
11	7.79	10.14	10.03	43.9	41.8
12	8.35	10.16	10.03	46.3	45.4
13	3.91	10.16	10.03	47.2	45.6
14	10.02	10.16	10.03	47.2	45.3
15	11.13	10.16	10.03	47.0	45.7
Radial position, 22.13 cm					
1	0.00	10.16	10.02	47.2	46.7
2	0.56	10.16	10.03	47.5	46.2
3	1.12	10.15	10.03	50.3	44.4
4	1.68	10.12	10.03	46.3	38.0
5	2.24	10.16	10.03	43.9	45.9
6	3.33	10.16	10.03	47.3	46.3
7	4.44	10.16	10.03	47.5	46.1
8	5.56	10.16	10.03	47.8	46.4
9	6.68	10.16	10.03	49.1	45.5
10	7.24	10.14	10.03	50.5	41.3
11	7.79	10.13	10.03	44.8	40.3
12	8.35	10.16	10.03	46.7	45.3
13	8.91	10.16	10.03	47.7	45.3
14	10.02	10.16	10.03	47.5	45.5
15	11.13	10.16	10.03	47.4	45.3
Radial position, 17.02 cm					
1	0.00	10.16	10.02	47.5	47.2
2	0.56	10.16	10.03	47.8	46.8
3	1.12	10.15	10.03	50.7	45.0
4	1.68	10.12	10.03	47.3	38.2
5	2.24	10.16	10.03	44.3	45.6
6	3.33	10.16	10.03	47.8	46.5
7	4.44	10.16	10.03	48.0	46.4
8	5.56	10.16	10.03	48.3	46.6
9	6.68	10.16	10.03	49.5	45.7
10	7.24	10.14	10.03	51.1	41.9
11	7.79	10.13	10.03	45.4	40.0
12	8.35	10.16	10.03	46.5	45.4
13	8.91	10.16	10.03	48.1	45.6
14	10.02	10.16	10.03	48.0	45.7
15	11.13	10.16	10.03	47.7	45.6

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 11.95 cm					
1	0.00	10.13	10.02	51.5	42.2
2	0.56	10.11	10.03	50.6	35.8
3	1.12	10.10	10.03	46.6	33.6
4	1.68	10.11	10.03	44.4	36.7
5	2.24	10.15	10.03	44.9	44.2
6	3.33	10.16	10.02	48.7	47.1
7	4.44	10.16	10.02	49.6	46.8
8	5.56	10.14	10.03	53.1	43.3
9	6.68	10.10	10.04	49.4	32.1
10	7.24	10.10	10.04	45.2	32.6
11	7.79	10.14	10.03	43.7	41.2
12	8.35	10.15	10.03	46.1	44.8
13	8.91	10.16	10.03	48.4	45.9
14	10.02	10.16	10.03	48.8	46.0
15	11.13	10.16	10.03	50.2	45.5
Radial position, 9.40 cm					
1	0.00	10.08	10.03	54.6	27.2
2	0.56	10.07	10.04	53.3	23.1
3	1.12	10.07	10.04	50.1	24.7
4	1.68	10.08	10.04	48.3	27.4
5	2.24	10.13	10.03	47.8	39.3
6	3.33	10.16	10.02	52.0	46.8
7	4.44	10.14	10.03	57.6	43.8
8	5.56	10.09	10.04	59.8	28.6
9	6.68	10.06	10.04	46.9	16.6
10	7.24	10.07	10.04	43.4	22.7
11	7.79	10.11	10.03	45.3	35.8
12	8.35	10.14	10.03	47.5	41.7
13	8.91	10.16	10.03	50.5	45.6
14	10.02	10.15	10.03	53.9	44.1
15	11.13	10.09	10.04	57.5	29.9
Radial position, 8.13 cm					
1	0.00	10.11	10.04	57.5	34.1
2	0.56	10.09	10.04	56.9	29.5
3	1.12	10.09	10.04	55.3	29.3
4	1.68	10.09	10.04	54.2	28.7
5	2.24	10.11	10.03	51.7	36.1
6	3.33	10.15	10.02	53.8	46.0
7	4.44	10.15	10.03	59.0	45.6
8	5.56	10.12	10.04	62.6	34.2
9	6.68	10.07	10.05	52.0	18.4
10	7.24	10.07	10.04	47.4	22.3
11	7.79	10.11	10.04	46.9	34.6
12	8.35	10.13	10.04	48.8	40.2
13	8.91	10.16	10.03	52.1	45.3
14	10.02	10.16	10.03	55.7	45.5
15	11.13	10.12	10.04	58.9	34.8

TABLE 6.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.53 cm					
1	0.00	10.08	10.00	46.4	34.2
2	1.12	10.08	10.01	46.4	34.6
3	1.68	10.11	10.02	46.4	38.1
4	2.24	10.13	10.03	46.4	39.7
5	2.79	10.13	10.03	46.6	39.3
6	3.33	10.12	10.03	46.4	38.0
7	4.44	10.10	10.03	46.4	35.6
8	5.56	10.07	10.02	46.4	27.5
9	6.68	10.01	10.01	46.2	0.0
10	7.24	*****	*****	*****	0.0
11	7.79	*****	*****	*****	0.0
12	8.35	*****	*****	*****	0.0
13	8.91	*****	*****	*****	0.0
14	10.02	*****	*****	*****	0.0
15	11.13	*****	*****	*****	0.0
Radial position, 22.00 cm					
1	0.00	10.14	10.02	46.4	44.7
2	1.12	10.11	10.02	46.4	38.0
3	1.68	10.09	10.01	46.4	37.0
4	2.24	10.09	10.00	46.4	37.5
5	2.79	10.13	10.01	46.6	43.6
6	3.33	10.14	10.03	46.4	43.3
7	4.44	10.13	10.03	46.4	39.9
8	5.56	10.11	10.03	46.4	36.3
9	6.68	10.10	10.03	46.3	35.3
10	7.24	10.09	10.02	46.6	32.5
11	7.79	10.07	10.02	46.4	27.2
12	8.35	10.02	10.02	46.6	0.0
13	8.91	10.00	10.00	46.4	0.0
14	10.02	*****	*****	*****	0.0
15	11.13	*****	*****	*****	0.0
Radial position, 19.45 cm					
1	0.00	10.16	10.02	46.4	47.5
2	1.12	10.15	10.03	46.4	44.1
3	1.68	10.12	10.01	46.4	41.7
4	2.24	10.11	10.01	46.4	41.2
5	2.79	10.15	10.01	46.6	48.1
6	3.33	10.15	10.01	46.4	47.1
7	4.44	10.11	10.02	46.4	39.2
8	5.56	10.05	10.00	46.4	28.8
9	6.68	10.08	10.01	46.3	33.9
10	7.24	10.03	10.00	46.6	23.8
11	7.79	9.99	9.99	46.4	0.0
12	8.35	9.99	9.99	46.6	0.0
13	8.91	10.01	10.00	46.4	14.0
14	10.02	10.00	10.00	46.4	0.0
15	11.13	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 16.93 cm					
1	0.00	10.16	10.02	46.4	48.1
2	1.12	10.16	10.02	46.4	47.6
3	1.68	10.14	10.02	46.4	44.4
4	2.24	10.14	10.01	46.4	44.9
5	2.79	10.16	10.02	46.6	47.9
6	3.33	10.16	10.02	46.4	47.8
7	4.44	10.14	10.01	46.4	45.1
8	5.56	10.09	10.01	46.4	36.1
9	6.68	10.07	10.00	46.3	33.8
10	7.24	10.09	10.02	46.6	35.4
11	7.79	10.12	10.03	46.4	39.3
12	8.35	10.09	10.02	46.6	35.1
13	8.91	10.06	10.02	46.4	25.6
14	10.02	10.01	10.01	46.4	6.5
15	11.13	10.01	10.01	46.4	0.0
Radial position, 14.35 cm					
1	0.00	10.16	10.02	46.4	48.0
2	1.12	10.16	10.02	46.4	47.9
3	1.68	10.14	10.02	46.4	44.3
4	2.24	10.14	10.01	46.4	44.7
5	2.79	10.16	10.02	46.6	48.2
6	3.33	10.16	10.02	46.4	48.6
7	4.44	10.16	10.01	46.4	48.2
8	5.56	10.14	10.02	46.4	44.2
9	6.68	10.11	10.01	46.3	40.5
10	7.24	10.09	10.01	46.6	37.2
11	7.79	10.08	10.00	46.4	35.9
12	8.35	10.12	10.01	46.6	41.9
13	8.91	10.13	10.03	46.4	40.5
14	10.02	10.11	10.03	46.4	36.6
15	11.13	10.10	10.03	46.4	33.5
Radial position, 11.78 cm					
1	0.00	10.16	10.02	46.4	47.8
2	1.12	10.16	10.02	46.4	47.4
3	1.68	10.14	10.02	46.4	44.1
4	2.24	10.13	10.02	46.4	43.8
5	2.79	10.16	10.02	46.6	48.0
6	3.33	10.16	10.02	46.4	48.6
7	4.44	10.16	10.02	46.4	48.6
8	5.56	10.16	10.02	46.4	47.4
9	6.68	10.14	10.02	46.3	44.8
10	7.24	10.12	10.02	46.6	42.0
11	7.79	10.10	10.01	46.4	38.8
12	8.35	10.14	10.01	46.6	45.8
13	8.91	10.13	10.01	46.4	44.1
14	10.02	10.10	10.01	46.4	37.7
15	11.13	10.05	10.00	46.4	26.4

TABLE 6.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 9.27 cm					
1	0.00	10.16	10.02	46.4	47.7
2	1.12	10.16	10.02	46.4	47.6
3	1.68	10.14	10.02	46.4	43.7
4	2.24	10.13	10.02	46.4	43.0
5	2.79	10.16	10.02	46.6	47.8
6	3.33	10.16	10.02	46.4	47.8
7	4.44	10.16	10.02	46.4	48.3
8	5.56	10.16	10.02	46.4	47.6
9	6.68	10.15	10.02	46.3	46.5
10	7.24	10.14	10.02	46.6	45.1
11	7.79	10.12	10.01	46.4	41.3
12	8.35	10.15	10.01	46.6	47.0
13	8.91	10.14	10.01	46.4	45.0
14	10.02	10.12	10.01	46.4	43.1
15	11.13	10.10	10.02	46.4	38.0
Radial position, 8.03 cm					
1	0.00	10.16	10.02	46.4	47.6
2	1.12	10.16	10.02	46.4	47.5
3	1.68	10.14	10.02	46.4	43.8
4	2.24	10.13	10.02	46.4	42.5
5	2.79	10.16	10.02	46.6	47.6
6	3.33	10.16	10.02	46.4	47.8
7	4.44	10.16	10.02	46.4	48.1
8	5.56	10.16	10.02	46.4	47.6
9	6.68	10.16	10.02	46.3	46.8
10	7.24	10.15	10.02	46.6	45.8
11	7.79	10.12	10.02	46.4	41.5
12	8.35	10.15	10.02	46.6	46.9
13	8.91	10.14	10.02	46.4	45.8
14	10.02	10.13	10.01	46.4	43.8
15	11.13	10.11	10.01	46.4	40.4
Radial position, 6.75 cm					
1	0.00	10.16	10.02	46.4	47.6
2	1.12	10.16	10.02	46.4	47.4
3	1.68	10.14	10.02	46.4	43.5
4	2.24	10.13	10.02	46.4	42.5
5	2.79	10.16	10.02	46.6	47.2
6	3.33	10.16	10.02	46.4	47.7
7	4.44	10.16	10.02	46.4	47.8
8	5.56	10.16	10.02	46.4	47.4
9	6.68	10.16	10.02	46.3	46.9
10	7.24	10.15	10.02	46.6	45.9
11	7.79	10.12	10.02	46.4	41.7
12	8.35	10.15	10.02	46.6	46.9
13	8.91	10.15	10.02	46.4	46.1
14	10.02	10.14	10.01	46.4	44.7
15	11.13	10.12	10.01	46.4	41.8

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 4.20 cm					
1	0.00	10.16	10.02	46.4	47.2
2	1.12	10.16	10.03	46.4	47.2
3	1.68	10.14	10.02	46.4	43.4
4	2.24	10.13	10.02	46.4	42.0
5	2.79	10.16	10.03	46.6	46.9
6	3.33	10.16	10.02	46.4	47.4
7	4.44	10.16	10.02	46.4	47.6
8	5.56	10.16	10.02	46.4	47.3
9	6.68	10.16	10.03	46.3	46.9
10	7.24	10.15	10.02	46.6	45.7
11	7.79	10.12	10.02	46.4	41.5
12	8.35	10.16	10.02	46.6	47.2
13	8.91	10.16	10.02	46.4	46.8
14	10.02	10.14	10.02	46.4	46.0
15	11.13	10.13	10.01	46.4	44.0
Radial position, 1.66 cm					
1	0.00	10.16	10.03	46.4	47.3
2	1.12	10.16	10.03	46.4	47.0
3	1.68	10.14	10.02	46.4	42.9
4	2.24	10.13	10.02	46.4	42.1
5	2.79	10.16	10.03	46.6	47.0
6	3.33	10.16	10.03	46.4	47.2
7	4.44	10.16	10.03	46.4	47.3
8	5.56	10.16	10.03	46.4	47.1
9	6.68	10.16	10.03	46.3	46.7
10	7.24	10.15	10.02	46.6	45.2
11	7.79	10.13	10.02	46.4	41.6
12	8.35	10.16	10.02	46.6	47.0
13	8.91	10.15	10.02	46.4	46.6
14	10.02	10.15	10.02	46.4	46.0
15	11.13	10.13	10.01	46.4	44.2
Radial position, 0.04 cm					
1	0.00	10.16	10.03	46.4	47.2
2	1.12	10.16	10.03	46.4	46.9
3	1.68	10.14	10.02	46.5	43.4
4	2.24	10.13	10.02	46.4	41.4
5	2.79	10.16	10.03	46.6	46.7
6	3.33	10.16	10.03	46.4	47.1
7	4.44	10.16	10.03	46.4	47.2
8	5.56	10.16	10.03	46.4	47.1
9	6.68	10.16	10.03	46.3	46.4
10	7.24	10.15	10.03	46.6	45.6
11	7.79	10.12	10.02	46.4	41.1
12	8.35	10.16	10.02	46.6	47.0
13	8.91	10.16	10.02	46.4	46.7
14	10.02	10.15	10.02	46.4	45.8
15	11.13	10.13	10.01	46.4	44.4

TABLE 7.—VANE EXIT SURVEY FOR VANE A4 IN CORNER 2 WITHOUT CORNER 1

[Airflow, 69.52 kg/sec.]

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.51 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	*****	*****	*****	0.0
3	1.12	*****	*****	*****	0.0
4	1.68	*****	*****	*****	0.0
5	2.24	*****	*****	*****	0.0
6	3.33	*****	*****	*****	0.0
7	4.44	9.62	9.62	37.1	0.0
8	5.56	9.62	9.62	41.2	0.0
9	6.12	9.61	9.61	32.3	0.0
10	6.68	9.66	9.66	44.0	0.0
11	7.24	9.67	9.67	44.2	0.0
12	7.79	9.69	9.67	46.1	16.0
13	8.91	9.76	9.67	46.7	40.2
14	10.02	9.86	9.67	60.9	55.9
15	11.13	9.87	9.68	69.4	56.7
Radial position, 21.96 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	*****	*****	*****	0.0
3	1.12	*****	*****	*****	0.0
4	1.68	*****	*****	*****	0.0
5	2.24	9.55	9.55	30.6	0.0
6	3.33	9.56	9.56	33.6	0.0
7	4.44	9.59	9.59	37.1	0.0
8	5.56	9.62	9.62	41.2	0.0
9	6.12	9.62	9.62	32.3	0.0
10	6.68	9.64	9.64	44.0	0.0
11	7.24	9.64	9.64	44.2	5.8
12	7.79	9.67	9.65	46.1	19.8
13	8.91	9.97	9.66	43.1	72.2
14	10.02	10.02	9.66	50.6	78.1
15	11.13	9.86	9.66	56.5	58.4
Radial position, 19.45 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	9.69	9.61	51.4	37.1
3	1.12	9.62	9.61	28.4	13.8
4	1.68	9.70	9.59	78.6	43.3
5	2.24	9.56	9.56	30.6	0.0
6	3.33	9.55	9.55	33.6	0.0
7	4.44	9.56	9.56	37.1	0.0
8	5.56	9.58	9.58	41.2	0.0
9	6.12	9.58	9.58	32.3	0.0
10	6.68	9.59	9.59	44.0	0.0
11	7.24	9.59	9.59	44.2	0.0
12	7.79	10.08	9.65	38.3	84.8
13	8.91	10.08	9.65	38.3	84.8
14	10.02	10.08	9.64	41.8	86.2
15	11.13	10.03	9.66	44.3	78.7

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 16.88 cm					
1	0.00	9.80	9.68	54.6	45.4
2	0.56	9.74	9.61	53.9	46.9
3	1.12	9.63	9.60	28.4	25.2
4	1.68	9.59	9.57	48.6	18.1
5	2.24	9.55	9.55	30.6	0.0
6	3.33	9.55	9.55	33.6	0.0
7	4.44	9.54	9.54	37.1	0.0
8	5.56	9.55	9.55	41.2	0.0
9	6.12	9.56	9.56	-16.9	0.0
10	6.68	9.56	9.56	44.0	0.0
11	7.24	9.57	9.57	44.2	0.0
12	7.79	9.82	9.67	46.1	51.3
13	8.91	10.12	9.65	34.9	89.2
14	10.02	10.13	9.64	37.7	90.3
15	11.13	10.13	9.66	39.2	88.2
Radial position, 14.36 cm					
1	0.00	10.02	9.75	33.2	67.4
2	0.56	10.02	9.68	32.3	74.6
3	1.12	10.00	9.66	28.4	75.9
4	1.68	9.97	9.64	34.2	74.7
5	2.24	9.88	9.63	36.0	64.6
6	3.33	9.69	9.60	35.1	39.9
7	4.44	9.58	9.58	37.1	8.4
8	5.56	9.56	9.56	41.2	0.0
9	6.12	9.58	9.58	45.0	0.0
10	6.68	9.59	9.59	44.0	0.0
11	7.24	9.62	9.62	44.2	0.0
12	7.79	9.87	9.70	46.1	54.4
13	8.91	10.18	9.65	33.0	93.1
14	10.02	10.18	9.66	35.8	93.5
15	11.13	10.19	9.67	38.3	93.3
Radial position, 11.76 cm					
1	0.00	10.05	9.77	38.9	68.2
2	0.56	10.05	9.73	38.9	73.6
3	1.12	10.06	9.71	38.9	76.4
4	1.68	10.07	9.68	39.3	80.3
5	2.24	10.07	9.67	40.1	82.5
6	3.33	10.07	9.66	42.4	82.5
7	4.44	10.01	9.66	46.9	77.1
8	5.56	9.83	9.65	47.6	55.4
9	6.12	9.80	9.67	45.7	47.2
10	6.68	9.76	9.68	37.5	36.4
11	7.24	9.76	9.68	44.2	37.2
12	7.79	9.99	9.71	20.9	68.8
13	8.91	10.21	9.69	36.0	92.8
14	10.02	10.22	9.68	38.5	94.4
15	11.13	10.22	9.68	40.5	94.5

TABLE 7.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 9.27 cm					
1	0.00	10.04	9.78	42.6	65.9
2	0.56	10.05	9.75	42.6	70.3
3	1.12	10.06	9.74	42.1	73.0
4	1.68	10.07	9.72	42.1	76.4
5	2.24	10.09	9.71	42.7	79.2
6	3.33	10.11	9.69	44.0	83.7
7	4.44	10.12	9.68	45.7	85.9
8	5.56	10.13	9.69	46.7	85.1
9	6.12	10.13	9.71	47.8	83.9
10	6.68	10.09	9.73	48.8	77.4
11	7.24	9.98	9.72	48.1	65.6
12	7.79	9.93	9.73	39.3	57.4
13	8.91	10.22	9.71	41.3	91.6
14	10.02	10.23	9.70	42.5	93.2
15	11.13	10.23	9.70	43.1	93.3
Radial position, 7.97 cm					
1	0.00	10.03	9.78	43.9	64.4
2	0.56	10.04	9.76	43.7	68.7
3	1.12	10.05	9.75	43.5	70.9
4	1.68	10.07	9.74	43.3	74.2
5	2.24	10.08	9.73	43.8	76.7
6	3.33	10.10	9.71	44.3	81.2
7	4.44	10.12	9.69	45.4	84.6
8	5.56	10.14	9.69	45.8	86.4
9	6.12	10.15	9.70	46.3	86.8
10	6.68	10.15	9.73	47.1	84.1
11	7.24	10.08	9.74	48.3	75.2
12	7.79	9.98	9.74	43.6	62.5
13	8.91	10.23	9.72	42.1	91.5
14	10.02	10.23	9.71	43.9	92.8
15	11.13	10.23	9.71	44.0	92.7
Radial position, 6.70 cm					
1	0.00	10.03	9.78	42.9	64.5
2	0.56	10.05	9.77	42.8	68.4
3	1.12	10.06	9.76	43.1	70.2
4	1.68	10.07	9.75	43.1	73.4
5	2.24	10.08	9.74	43.6	75.5
6	3.33	10.11	9.73	44.0	79.9
7	4.44	10.13	9.71	44.8	83.5
8	5.56	10.15	9.70	45.1	86.2
9	6.12	10.17	9.70	45.5	87.6
10	6.68	10.17	9.72	45.7	86.8
11	7.24	10.16	9.74	47.8	83.6
12	7.79	10.06	9.75	47.3	71.1
13	8.91	10.23	9.73	43.4	91.1
14	10.02	10.23	9.72	44.6	92.3
15	11.13	10.23	9.72	44.5	92.2

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 4.15 cm					
1	0.00	10.09	9.80	35.9	69.9
2	0.56	10.10	9.78	36.0	73.5
3	1.12	10.12	9.78	36.6	75.1
4	1.68	10.13	9.76	37.0	78.1
5	2.24	10.14	9.76	37.8	79.3
6	3.33	10.16	9.75	38.5	83.0
7	4.44	10.18	9.73	39.8	86.4
8	5.56	10.20	9.72	41.6	88.7
9	6.12	10.21	9.72	42.8	89.9
10	6.68	10.21	9.73	43.9	89.3
11	7.24	10.18	9.73	45.9	86.7
12	7.79	10.09	9.75	47.7	75.0
13	8.91	10.23	9.73	44.7	90.5
14	10.02	10.23	9.72	45.3	92.1
15	11.13	10.23	9.72	44.0	91.8
Radial position, 1.63 cm					
1	0.00	10.17	9.80	29.0	78.4
2	0.56	10.18	9.77	29.2	82.3
3	1.12	10.19	9.77	29.7	83.3
4	1.68	10.20	9.76	29.9	85.8
5	2.24	10.21	9.76	31.1	86.3
6	3.33	10.21	9.74	32.9	87.7
7	4.44	10.18	9.73	36.0	86.4
8	5.56	10.15	9.74	39.2	82.9
9	6.12	10.13	9.74	41.3	80.3
10	6.68	10.11	9.75	42.5	77.3
11	7.24	10.09	9.75	45.4	74.5
12	7.79	10.04	9.77	46.9	68.0
13	8.91	10.22	9.73	45.3	89.9
14	10.02	10.22	9.72	46.3	90.9
15	11.13	10.19	9.72	46.6	87.9
Radial position, −0.01 cm					
1	0.00	10.17	9.78	28.3	80.6
2	0.56	10.16	9.76	30.2	82.0
3	1.12	10.17	9.75	30.6	82.7
4	1.68	10.15	9.74	32.0	82.4
5	2.24	10.15	9.74	33.5	82.1
6	3.33	10.12	9.74	37.0	80.1
7	4.44	10.10	9.74	41.2	77.1
8	5.56	10.09	9.75	43.9	74.9
9	6.12	10.09	9.75	45.5	74.6
10	6.68	10.09	9.76	45.9	73.5
11	7.24	10.08	9.76	46.0	73.3
12	7.79	10.06	9.77	46.7	70.3
13	8.91	10.20	9.74	46.5	87.2
14	10.02	10.21	9.74	50.6	88.0
15	11.13	10.18	9.74	51.3	85.4

TABLE 7.—Continued.

(b) Middle

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 46.29 cm					
1	0.00	10.01	9.81	52.1	57.8
2	0.56	9.95	9.80	60.7	49.9
3	1.12	9.93	9.80	53.8	47.2
4	1.68	10.03	9.81	52.2	59.9
5	2.24	10.11	9.83	54.7	67.1
6	3.33	10.09	9.87	53.4	60.5
7	4.44	10.05	9.82	62.3	62.0
8	5.56	9.91	9.80	61.2	44.3
9	6.12	9.90	9.80	48.6	41.2
10	6.68	10.00	9.82	46.3	53.9
11	7.24	10.10	9.84	51.4	65.5
12	7.79	10.11	9.84	57.7	66.2
13	8.91	10.07	9.88	52.2	56.4
14	10.02	10.04	9.83	64.7	60.3
15	11.13	9.98	9.80	70.0	53.4
Radial position, 45.00 cm					
1	0.00	9.99	9.76	56.8	60.9
2	0.56	9.94	9.78	53.1	52.6
3	1.12	9.99	9.78	50.0	59.5
4	1.68	10.10	9.78	51.1	73.3
5	2.24	10.15	9.78	55.3	78.2
6	3.33	10.09	9.76	55.6	73.8
7	4.44	10.05	9.76	55.5	68.5
8	5.56	10.01	9.79	54.6	60.3
9	6.12	9.97	9.79	50.8	55.2
10	6.68	10.02	9.78	47.7	62.3
11	7.24	10.15	9.79	51.2	76.7
12	7.79	10.14	9.80	53.9	74.3
13	8.91	10.07	9.79	54.8	67.5
14	10.02	10.04	9.77	53.9	66.9
15	11.13	9.97	9.77	54.7	57.6
Radial position, 43.74 cm					
1	0.00	9.90	9.76	49.5	48.6
2	0.56	9.93	9.77	43.8	52.4
3	1.12	10.09	9.77	44.4	72.2
4	1.68	10.18	9.76	48.4	82.7
5	2.24	10.16	9.75	50.9	82.5
6	3.33	10.10	9.73	50.9	78.4
7	4.44	10.00	9.73	54.0	67.4
8	5.56	9.96	9.75	48.4	59.2
9	6.12	9.99	9.76	45.1	62.1
10	6.68	10.09	9.76	45.6	73.9
11	7.24	10.18	9.75	49.8	83.7
12	7.79	10.08	9.75	51.6	74.5
13	8.91	10.08	9.75	51.6	74.5
14	10.02	10.02	9.73	53.2	70.0
15	11.13	9.97	9.75	51.2	60.7

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 42.45 cm					
1	0.00	9.87	9.77	42.3	40.9
2	0.56	9.99	9.77	38.0	60.2
3	1.12	10.17	9.76	41.0	81.9
4	1.68	10.21	9.74	44.5	87.0
5	2.24	10.19	9.73	45.4	86.3
6	3.33	10.10	9.72	46.5	79.9
7	4.44	9.91	9.74	48.1	53.5
8	5.56	9.90	9.75	39.1	50.3
9	6.12	10.06	9.75	36.4	71.9
10	6.68	10.18	9.75	42.0	84.3
11	7.24	10.20	9.73	44.4	88.0
12	7.79	10.17	9.73	45.8	85.9
13	8.91	10.08	9.72	47.6	76.6
14	10.02	9.90	9.72	50.2	54.8
15	11.13	9.86	9.74	41.9	44.7
Radial position, 37.37 cm					
1	0.00	10.23	9.74	45.8	90.0
2	0.56	10.08	9.73	46.6	75.5
3	1.12	10.21	9.73	41.1	89.2
4	1.68	10.23	9.70	44.1	93.5
5	2.24	10.23	9.70	44.1	93.6
6	3.33	10.23	9.69	43.6	94.3
7	4.44	10.23	9.71	44.1	92.0
8	5.56	10.22	9.74	46.0	89.0
9	6.12	10.05	9.73	46.8	73.4
10	6.68	10.16	9.72	42.0	85.2
11	7.24	10.23	9.69	44.6	93.8
12	7.79	10.22	9.69	44.5	93.5
13	8.91	10.22	9.69	44.6	93.2
14	10.02	10.23	9.70	44.8	92.9
15	11.13	10.23	9.74	45.6	89.0
Radial position, 32.28 cm					
1	0.00	10.23	9.70	45.9	93.3
2	0.56	10.12	9.72	48.1	80.3
3	1.12	10.19	9.72	42.8	87.7
4	1.68	10.23	9.70	44.7	93.2
5	2.24	10.23	9.70	45.0	93.4
6	3.33	10.23	9.69	44.5	94.4
7	4.44	10.23	9.69	44.4	93.6
8	5.56	10.23	9.70	46.0	93.0
9	6.12	10.08	9.72	47.0	77.0
10	6.68	10.14	9.72	42.1	83.5
11	7.24	10.23	9.70	44.9	93.2
12	7.79	10.23	9.70	45.4	93.0
13	8.91	10.23	9.70	45.6	93.1
14	10.02	10.23	9.69	45.8	94.1
15	11.13	10.23	9.70	46.1	92.7

TABLE 7.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 27.22 cm					
1	0.00	10.23	9.70	45.9	93.3
2	0.56	10.12	9.73	48.5	80.3
3	1.12	10.18	9.72	42.7	86.8
4	1.68	10.23	9.71	44.8	92.4
5	2.24	10.23	9.71	45.4	92.6
6	3.33	10.23	9.69	44.7	93.9
7	4.44	10.23	9.70	45.0	93.1
8	5.56	10.22	9.70	46.3	92.3
9	6.12	10.08	9.73	46.9	76.4
10	6.68	10.13	9.73	42.9	81.7
11	7.24	10.23	9.71	45.3	92.3
12	7.79	10.23	9.71	45.3	92.2
13	8.91	10.23	9.71	45.8	92.2
14	10.02	10.23	9.70	45.7	93.5
15	11.13	10.23	9.71	46.2	92.0
Radial position, 22.10 cm					
1	0.00	10.23	9.70	46.1	93.1
2	0.56	10.12	9.72	48.1	80.7
3	1.12	10.17	9.72	42.7	86.0
4	1.68	10.23	9.71	44.8	92.6
5	2.24	10.23	9.71	45.4	92.8
6	3.33	10.23	9.69	45.0	93.9
7	4.44	10.23	9.70	44.9	93.1
8	5.56	10.23	9.71	46.7	92.5
9	6.12	10.08	9.73	47.2	76.9
10	6.68	10.10	9.73	43.8	78.8
11	7.24	10.23	9.71	45.6	91.9
12	7.79	10.23	9.71	45.7	91.9
13	8.91	10.23	9.72	46.1	91.7
14	10.02	10.23	9.70	46.0	93.0
15	11.13	10.23	9.72	46.3	91.4
Radial position, 17.05 cm					
1	0.00	10.23	9.69	46.7	94.2
2	0.56	10.12	9.71	48.8	82.0
3	1.12	10.15	9.71	43.5	84.8
4	1.68	10.23	9.70	45.3	93.7
5	2.24	10.23	9.70	45.8	93.7
6	3.33	10.23	9.68	45.4	95.1
7	4.44	10.23	9.69	45.8	94.0
8	5.56	10.23	9.69	47.1	93.3
9	6.12	10.08	9.72	47.7	77.6
10	6.68	10.08	9.72	45.0	77.3
11	7.24	10.23	9.70	46.0	93.0
12	7.79	10.23	9.71	46.0	92.8
13	8.91	10.23	9.71	46.5	92.9
14	10.02	10.23	9.70	46.2	93.6
15	11.13	10.23	9.72	46.5	92.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 11.94 cm					
1	0.00	10.02	9.71	48.3	72.5
2	0.56	10.02	9.71	44.6	71.2
3	1.12	10.12	9.71	43.1	82.0
4	1.68	10.20	9.69	45.4	91.7
5	2.24	10.23	9.68	46.9	95.0
6	3.33	10.23	9.66	47.1	96.8
7	4.44	10.21	9.67	48.6	94.1
8	5.56	10.04	9.71	49.5	73.6
9	6.12	10.04	9.72	44.4	73.4
10	6.68	10.08	9.72	44.4	78.1
11	7.24	10.22	9.69	45.7	93.6
12	7.79	10.23	9.69	47.5	94.5
13	8.91	10.22	9.69	48.9	93.7
14	10.02	10.16	9.69	51.0	87.7
15	11.13	10.02	9.74	49.3	68.8
Radial position, 9.39 cm					
1	0.00	9.89	9.75	55.2	49.2
2	0.56	9.90	9.75	50.1	50.5
3	1.12	10.00	9.74	47.7	65.2
4	1.68	10.12	9.71	48.2	82.0
5	2.24	10.21	9.68	51.1	93.3
6	3.33	10.19	9.67	54.6	92.8
7	4.44	9.95	9.74	59.9	59.6
8	5.56	9.85	9.75	50.9	40.3
9	6.12	9.92	9.75	46.6	53.4
10	6.68	9.95	9.75	47.5	57.2
11	7.24	10.15	9.71	48.3	85.3
12	7.79	10.21	9.70	51.1	91.7
13	8.91	10.11	9.72	58.6	80.9
14	10.02	9.93	9.74	63.0	55.9
15	11.13	9.84	9.77	56.6	33.9
Radial position, 8.13 cm					
1	0.00	9.98	9.75	60.2	61.6
2	0.56	9.94	9.75	56.6	56.3
3	1.12	9.98	9.75	55.1	61.8
4	1.68	10.06	9.72	52.7	74.3
5	2.24	10.18	9.69	53.7	89.8
6	3.33	10.21	9.67	57.5	94.3
7	4.44	10.03	9.75	63.9	68.1
8	5.56	9.85	9.76	56.1	38.3
9	6.12	9.89	9.76	49.6	47.4
10	6.68	9.92	9.76	51.3	51.4
11	7.24	10.11	9.72	50.1	80.2
12	7.79	10.19	9.70	52.9	89.2
13	8.91	10.16	9.72	60.9	85.3
14	10.02	9.98	9.76	65.5	61.3
15	11.13	9.83	9.77	61.6	32.5

TABLE 7.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.54 cm					
1	0.00	9.80	9.58	39.4	60.7
2	0.56	9.89	9.56	26.6	74.7
3	1.12	10.03	9.62	24.8	83.0
4	1.68	10.10	9.66	37.5	85.6
5	2.24	10.10	9.69	41.5	82.1
6	3.33	10.04	9.67	40.3	77.9
7	4.44	10.01	9.66	59.2	76.2
8	5.56	9.98	9.64	66.7	74.9
9	6.12	9.97	9.63	76.9	75.5
10	6.68	9.56	9.56	39.9	0.0
11	7.24	*****	*****	*****	0.0
12	7.79	*****	*****	*****	0.0
13	8.91	*****	*****	*****	0.0
14	10.02	*****	*****	*****	0.0
15	11.13	*****	*****	*****	0.0
Radial position, 21.96 cm					
1	0.00	10.12	9.66	41.7	87.1
2	0.56	10.05	9.64	46.3	82.5
3	1.12	9.92	9.61	43.9	72.7
4	1.68	9.94	9.55	42.7	81.0
5	2.24	10.14	9.61	43.2	93.8
6	3.33	10.13	9.67	51.5	87.4
7	4.44	10.06	9.66	56.8	81.4
8	5.56	10.01	9.65	63.4	77.4
9	6.12	9.98	9.64	68.7	75.8
10	6.68	9.90	9.62	72.9	68.6
11	7.24	9.74	9.62	45.1	44.1
12	7.79	9.66	9.62	37.9	25.7
13	8.91	9.52	9.52	39.4	0.0
14	10.02	*****	*****	*****	0.0
15	11.13	*****	*****	*****	0.0
Radial position, 19.46 cm					
1	0.00	10.22	9.65	40.6	96.9
2	0.56	10.21	9.66	42.7	94.5
3	1.12	10.07	9.64	42.8	84.9
4	1.68	10.10	9.57	41.0	93.4
5	2.24	10.22	9.59	42.9	102.0
6	3.33	10.14	9.58	44.6	96.4
7	4.44	9.90	9.57	46.0	74.3
8	5.56	9.87	9.55	31.0	72.9
9	6.12	10.01	9.58	34.4	85.4
10	6.68	10.00	9.60	42.4	82.0
11	7.24	9.73	9.54	47.9	56.8
12	7.79	9.51	9.51	39.4	0.0
13	8.91	9.51	9.51	39.4	0.0
14	10.02	9.51	9.51	38.3	0.0
15	11.13	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 16.91 cm					
1	0.00	10.23	9.62	40.4	99.7
2	0.56	10.23	9.61	41.7	101.2
3	1.12	10.08	9.63	41.8	86.9
4	1.68	10.19	9.59	37.9	99.7
5	2.24	10.23	9.61	39.9	101.0
6	3.33	10.19	9.59	39.1	99.8
7	4.44	10.08	9.59	38.9	90.3
8	5.56	9.89	9.58	37.1	72.7
9	6.12	9.86	9.54	36.1	73.5
10	6.68	9.99	9.57	33.4	83.5
11	7.24	10.07	9.60	37.8	88.7
12	7.79	10.02	9.63	39.3	81.1
13	8.91	9.61	9.57	39.4	25.9
14	10.02	9.54	9.54	38.3	0.0
15	11.13	9.55	9.55	38.4	0.0
Radial position, 14.35 cm					
1	0.00	10.23	9.63	40.3	99.3
2	0.56	10.24	9.62	41.9	100.8
3	1.12	10.09	9.64	42.0	86.1
4	1.68	10.19	9.61	37.9	98.0
5	2.24	10.23	9.62	39.7	100.7
6	3.33	10.23	9.59	39.3	102.0
7	4.44	10.20	9.59	39.8	100.0
8	5.56	10.14	9.63	41.4	92.6
9	6.12	10.04	9.59	44.3	86.7
10	6.68	9.94	9.58	41.9	77.4
11	7.24	10.12	9.56	40.6	96.7
12	7.79	10.11	9.60	43.2	92.7
13	8.91	10.02	9.65	39.4	79.0
14	10.02	9.98	9.65	53.0	74.2
15	11.13	9.86	9.64	59.2	61.1
Radial position, 11.79 cm					
1	0.00	10.23	9.64	40.7	98.6
2	0.56	10.23	9.63	42.4	99.6
3	1.12	10.09	9.66	42.2	84.9
4	1.68	10.19	9.62	38.0	96.8
5	2.24	10.23	9.63	39.8	99.6
6	3.33	10.23	9.61	39.9	101.1
7	4.44	10.22	9.60	39.7	101.1
8	5.56	10.21	9.61	39.9	99.4
9	6.12	10.16	9.60	42.3	96.2
10	6.68	10.02	9.60	41.5	83.3
11	7.24	10.17	9.58	40.8	99.0
12	7.79	10.14	9.59	42.0	96.0
13	8.91	10.01	9.59	39.4	83.8
14	10.02	9.82	9.58	43.1	63.6
15	11.13	9.73	9.58	30.2	51.4

TABLE 7.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 9.29 cm					
1	0.00	10.24	9.65	40.8	97.8
2	0.56	10.23	9.64	42.5	98.7
3	1.12	10.07	9.66	41.7	82.5
4	1.68	10.19	9.63	37.8	95.9
5	2.24	10.23	9.64	39.9	98.3
6	3.33	10.23	9.63	40.0	99.4
7	4.44	10.23	9.62	39.9	99.9
8	5.56	10.22	9.61	39.5	99.9
9	6.12	10.18	9.62	42.0	96.4
10	6.68	10.04	9.62	39.9	84.1
11	7.24	10.20	9.60	39.7	99.9
12	7.79	10.18	9.61	39.8	97.1
13	8.91	10.09	9.59	39.4	91.5
14	10.02	10.02	9.60	39.0	83.3
15	11.13	9.88	9.62	38.6	66.4
Radial position, 8.01 cm					
1	0.00	10.24	9.66	40.9	97.5
2	0.56	10.23	9.65	42.7	98.4
3	1.12	10.09	9.67	42.2	83.4
4	1.68	10.18	9.63	37.9	95.0
5	2.24	10.23	9.65	40.1	98.0
6	3.33	10.23	9.64	40.1	98.8
7	4.44	10.23	9.62	39.8	99.5
8	5.56	10.23	9.62	39.5	99.8
9	6.12	10.18	9.62	42.1	95.8
10	6.68	10.05	9.63	39.3	84.1
11	7.24	10.21	9.61	39.1	99.7
12	7.79	10.20	9.62	38.9	97.9
13	8.91	10.12	9.60	39.4	93.0
14	10.02	10.06	9.60	37.6	87.6
15	11.13	9.92	9.60	37.1	72.5
Radial position, 6.75 cm					
1	0.00	10.24	9.66	41.0	97.3
2	0.56	10.23	9.65	43.0	98.0
3	1.12	10.08	9.67	41.9	82.3
4	1.68	10.19	9.64	37.9	95.1
5	2.24	10.24	9.65	40.0	97.6
6	3.33	10.23	9.64	40.1	98.4
7	4.44	10.23	9.63	39.9	99.0
8	5.56	10.23	9.63	39.5	99.6
9	6.12	10.17	9.63	42.0	94.3
10	6.68	10.06	9.63	38.7	84.2
11	7.24	10.22	9.62	38.6	100.1
12	7.79	10.21	9.62	38.4	98.8
13	8.91	10.15	9.61	39.4	94.7
14	10.02	10.09	9.59	36.7	91.3
15	11.13	9.98	9.60	38.0	79.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 4.23 cm					
1	0.00	10.23	9.67	41.2	96.6
2	0.56	10.23	9.65	43.3	97.1
3	1.12	10.08	9.67	42.1	82.0
4	1.68	10.19	9.65	38.2	94.6
5	2.24	10.23	9.66	40.4	97.2
6	3.33	10.23	9.65	40.3	98.0
7	4.44	10.23	9.64	40.0	98.3
8	5.56	10.23	9.63	39.9	98.9
9	6.12	10.17	9.64	42.1	93.2
10	6.68	10.06	9.64	38.6	83.6
11	7.24	10.23	9.62	38.9	100.3
12	7.79	10.22	9.62	39.0	99.8
13	8.91	10.18	9.61	39.4	97.7
14	10.02	10.13	9.59	38.2	95.2
15	11.13	10.08	9.60	38.7	89.2
Radial position, 1.67 cm					
1	0.00	10.23	9.67	41.1	96.2
2	0.56	10.22	9.66	43.7	96.0
3	1.12	10.05	9.67	41.0	79.0
4	1.68	10.20	9.65	38.4	95.9
5	2.24	10.24	9.66	40.3	97.3
6	3.33	10.23	9.65	40.3	97.8
7	4.44	10.23	9.64	40.1	98.1
8	5.56	10.23	9.64	39.8	98.4
9	6.12	10.13	9.64	42.0	89.3
10	6.68	10.07	9.64	37.8	84.8
11	7.24	10.23	9.62	39.2	100.3
12	7.79	10.23	9.63	38.9	99.9
13	8.91	10.20	9.61	39.4	98.2
14	10.02	10.15	9.59	38.5	96.1
15	11.13	10.10	9.59	38.6	92.2
Radial position, 0.02 cm					
1	0.00	10.23	9.67	41.2	96.1
2	0.56	10.21	9.66	44.0	95.1
3	1.12	10.06	9.68	41.2	79.3
4	1.68	10.20	9.65	38.5	95.7
5	2.24	10.23	9.66	40.3	97.2
6	3.33	10.24	9.66	40.2	97.6
7	4.44	10.23	9.65	40.2	98.0
8	5.56	10.23	9.64	39.9	98.2
9	6.12	10.13	9.65	42.1	89.5
10	6.68	10.08	9.64	38.1	85.2
11	7.24	10.23	9.62	39.2	100.5
12	7.79	10.22	9.64	39.4	98.3
13	8.91	10.20	9.62	39.4	97.7
14	10.02	10.16	9.60	38.8	96.4
15	11.13	10.11	9.59	38.8	92.8

TABLE 8.—VANE EXIT SURVEY FOR VANE B IN CORNER 2 WITHOUT CORNER 1

[Airflow, 68.98 kg/sec.]

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.51 cm					
1	0.00	*****	*****	*****	0.0
2	0.94	*****	*****	*****	0.0
3	1.85	*****	*****	*****	0.0
4	2.32	*****	*****	*****	0.0
5	2.79	*****	*****	*****	0.0
6	3.26	*****	*****	*****	0.0
7	3.73	*****	*****	*****	0.0
8	4.65	*****	*****	*****	0.0
9	5.59	*****	*****	*****	0.0
10	6.06	9.69	9.69	42.4	0.0
11	6.53	9.69	9.69	47.0	7.4
12	6.98	9.69	9.69	47.0	0.0
13	7.44	9.69	9.69	45.0	6.2
14	8.38	9.69	9.69	47.5	0.0
15	9.31	9.68	9.68	50.1	0.0
Radial position, 21.98 cm					
1	0.00	*****	*****	*****	0.0
2	0.94	*****	*****	*****	0.0
3	1.85	*****	*****	*****	0.0
4	2.32	*****	*****	*****	0.0
5	2.79	*****	*****	*****	0.0
6	3.26	*****	*****	*****	0.0
7	3.73	9.69	9.69	44.3	0.0
8	4.65	9.67	9.67	44.3	0.0
9	5.59	9.83	9.70	23.8	45.8
10	6.06	9.89	9.70	37.2	55.9
11	6.53	9.86	9.69	46.9	54.2
12	6.98	9.79	9.68	47.0	42.1
13	7.44	9.72	9.67	57.8	29.6
14	8.38	9.64	9.64	47.5	0.0
15	9.31	9.69	9.69	50.3	0.0
Radial position, 19.45 cm					
1	0.00	*****	*****	*****	0.0
2	0.94	*****	*****	*****	0.0
3	1.85	9.69	9.69	47.1	0.0
4	2.32	9.69	9.69	51.0	6.0
5	2.79	9.70	9.69	41.6	8.0
6	3.26	9.69	9.69	45.8	0.0
7	3.73	9.70	9.70	44.3	0.0
8	4.65	9.70	9.70	44.3	0.0
9	5.59	9.78	9.72	15.7	31.9
10	6.06	9.93	9.72	26.5	59.4
11	6.53	10.00	9.71	33.3	69.5
12	6.98	10.02	9.70	39.0	73.2
13	7.44	10.01	9.71	43.5	71.7
14	8.38	9.85	9.71	49.6	49.5
15	9.31	9.66	9.66	50.3	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 16.91 cm					
1	0.00	*****	*****	*****	0.0
2	0.94	9.72	9.69	43.1	20.9
3	1.85	9.81	9.70	47.1	43.5
4	2.32	9.77	9.70	51.0	35.2
5	2.79	9.74	9.70	41.6	27.5
6	3.26	9.80	9.70	58.7	42.3
7	3.73	9.68	9.68	44.3	0.0
8	4.65	9.68	9.68	44.3	0.0
9	5.59	9.79	9.72	12.2	33.2
10	6.06	9.96	9.73	23.0	61.3
11	6.53	10.04	9.73	29.9	71.7
12	6.98	10.07	9.72	36.1	76.6
13	7.44	10.09	9.71	39.8	78.7
14	8.38	10.08	9.73	43.5	75.7
15	9.31	9.71	9.71	44.9	0.0
Radial position, 14.36 cm					
1	0.00	9.65	9.65	44.8	0.0
2	0.94	9.73	9.72	43.1	12.7
3	1.85	9.96	9.72	32.5	63.4
4	2.32	9.86	9.73	39.1	47.9
5	2.79	9.92	9.72	45.4	58.7
6	3.26	9.97	9.72	40.7	65.3
7	3.73	9.75	9.72	44.3	23.2
8	4.65	9.71	9.71	44.3	0.0
9	5.59	9.84	9.74	8.6	40.6
10	6.06	9.99	9.76	20.6	63.1
11	6.53	10.07	9.75	27.4	73.0
12	6.98	10.11	9.74	33.6	78.1
13	7.44	10.13	9.73	37.2	81.0
14	8.38	10.13	9.74	40.8	80.2
15	9.31	10.03	9.76	48.2	68.1
Radial position, 11.82 cm					
1	0.00	9.65	9.65	44.8	0.0
2	0.94	9.74	9.74	43.1	0.0
3	1.85	9.98	9.75	28.6	62.8
4	2.32	9.90	9.74	18.2	51.1
5	2.79	10.03	9.74	39.4	70.2
6	3.26	10.03	9.74	35.8	69.0
7	3.73	10.03	9.76	44.0	66.8
8	4.65	9.95	9.77	46.6	55.1
9	5.59	9.90	9.77	33.1	47.1
10	6.06	9.99	9.77	29.8	61.4
11	6.53	10.08	9.76	32.3	72.4
12	6.98	10.13	9.76	37.3	78.9
13	7.44	10.15	9.75	40.6	81.8
14	8.38	10.16	9.75	43.6	82.4
15	9.31	10.13	9.76	43.7	78.3

TABLE 8.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 9.27 cm					
1	0.00	9.69	9.69	44.8	0.0
2	0.94	9.76	9.76	43.1	0.0
3	1.85	10.02	9.77	27.9	63.9
4	2.32	9.91	9.76	15.9	50.8
5	2.79	10.06	9.76	38.5	70.2
6	3.26	10.06	9.77	35.2	69.2
7	3.73	10.06	9.77	41.9	69.3
8	4.65	10.05	9.77	44.3	68.3
9	5.59	10.03	9.78	47.0	64.2
10	6.06	9.99	9.78	45.3	59.4
11	6.53	9.99	9.77	40.9	60.6
12	6.98	10.10	9.77	40.3	73.6
13	7.44	10.17	9.76	44.5	82.4
14	8.38	10.18	9.76	46.6	83.8
15	9.31	10.17	9.76	45.5	82.5
Radial position, 8.00 cm					
1	0.00	9.70	9.70	44.8	0.0
2	0.94	9.78	9.78	43.1	11.6
3	1.85	10.03	9.79	28.3	64.3
4	2.32	9.93	9.77	16.8	51.3
5	2.79	10.07	9.78	38.9	70.2
6	3.26	10.07	9.78	35.8	69.1
7	3.73	10.07	9.78	42.0	69.7
8	4.65	10.06	9.78	44.0	69.3
9	5.59	10.04	9.78	46.9	66.6
10	6.06	10.01	9.78	46.0	62.3
11	6.53	10.01	9.78	42.7	61.7
12	6.98	10.10	9.78	41.5	73.4
13	7.44	10.18	9.77	45.3	82.6
14	8.38	10.19	9.76	46.8	84.8
15	9.31	10.19	9.76	47.7	84.7
Radial position, 6.75 cm					
1	0.00	9.72	9.72	44.8	0.0
2	0.94	9.83	9.78	18.3	28.9
3	1.85	10.06	9.80	29.2	66.9
4	2.32	9.96	9.79	19.0	54.9
5	2.79	10.09	9.79	38.9	71.0
6	3.26	10.09	9.80	36.1	69.9
7	3.73	10.08	9.79	42.2	70.2
8	4.65	10.07	9.78	44.0	70.2
9	5.59	10.05	9.78	46.4	67.4
10	6.06	10.02	9.79	45.5	63.0
11	6.53	10.03	9.79	42.1	63.5
12	6.98	10.13	9.79	41.7	75.4
13	7.44	10.19	9.77	44.9	83.8
14	8.38	10.21	9.76	46.0	85.6
15	9.31	10.20	9.76	47.7	85.8

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 4.21 cm					
1	0.00	9.85	9.81	44.8	26.6
2	0.94	9.93	9.82	24.7	44.0
3	1.85	10.12	9.81	32.2	72.1
4	2.32	10.04	9.81	25.6	63.0
5	2.79	10.14	9.80	38.9	75.7
6	3.26	10.14	9.80	36.9	75.1
7	3.73	10.14	9.79	41.2	75.3
8	4.65	10.13	9.79	43.1	75.0
9	5.59	10.06	9.79	45.9	67.3
10	6.06	10.02	9.80	43.7	61.3
11	6.53	10.06	9.79	40.1	66.8
12	6.98	10.17	9.79	41.3	80.1
13	7.44	10.22	9.77	43.4	86.6
14	8.38	10.23	9.76	43.5	87.4
15	9.31	10.22	9.76	46.6	86.6
Radial position, 1.66 cm					
1	0.00	10.03	9.81	45.6	61.7
2	0.94	9.98	9.80	45.3	54.8
3	1.85	10.07	9.80	36.4	67.2
4	2.32	9.97	9.79	40.2	54.4
5	2.79	10.17	9.78	40.8	80.8
6	3.26	10.16	9.79	39.6	78.6
7	3.73	10.17	9.78	41.0	80.3
8	4.65	10.14	9.78	42.7	77.4
9	5.59	10.06	9.80	45.2	65.7
10	6.06	10.02	9.80	43.4	61.6
11	6.53	10.07	9.79	40.7	67.4
12	6.98	10.17	9.78	41.6	80.4
13	7.44	10.22	9.76	44.1	87.3
14	8.38	10.20	9.76	44.7	85.1
15	9.31	10.22	9.77	44.1	86.4
Radial position, 0 cm					
1	0.00	10.05	9.79	45.6	65.7
2	0.94	10.01	9.80	46.9	59.6
3	1.85	10.02	9.79	41.7	61.4
4	2.32	9.99	9.79	45.7	58.3
5	2.79	10.16	9.77	44.4	81.0
6	3.26	10.13	9.78	42.4	76.3
7	3.73	10.16	9.77	44.3	80.0
8	4.65	10.12	9.78	45.1	75.4
9	5.59	10.07	9.80	46.7	67.7
10	6.06	10.04	9.80	46.9	64.0
11	6.53	10.05	9.79	45.0	65.8
12	6.98	10.11	9.78	44.5	74.3
13	7.44	10.20	9.77	47.4	84.3
14	8.38	10.19	9.77	50.0	83.0
15	9.31	10.16	9.78	45.2	79.4

TABLE 8.—Continued.

(b) Middle

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 46.29 cm					
1	0.00	10.04	9.80	66.5	63.2
2	0.94	9.91	9.78	63.7	47.0
3	1.85	9.89	9.78	60.6	43.9
4	2.32	9.94	9.78	54.3	52.2
5	2.79	9.97	9.78	57.8	56.4
6	3.26	9.98	9.82	42.4	51.5
7	3.73	10.03	9.78	57.6	63.4
8	4.65	10.04	9.79	57.1	64.7
9	5.59	9.96	9.77	56.5	55.8
10	6.06	9.95	9.77	50.1	54.9
11	6.53	10.00	9.77	49.3	61.3
12	6.98	10.06	9.79	49.5	67.0
13	7.44	10.09	9.80	52.2	70.0
14	8.38	10.08	9.81	55.6	67.1
15	9.31	10.05	9.80	55.1	64.5
Radial position, 45.02 cm					
1	0.00	10.05	9.74	53.5	71.7
2	0.94	9.94	9.75	52.0	55.7
3	1.85	10.01	9.75	43.4	65.2
4	2.32	10.11	9.78	44.9	74.3
5	2.79	10.13	9.78	49.3	76.0
6	3.26	10.11	9.78	50.1	74.2
7	3.73	10.08	9.76	52.0	73.8
8	4.65	10.05	9.74	51.9	72.1
9	5.59	9.98	9.75	51.9	62.5
10	6.06	9.96	9.74	47.8	59.9
11	6.53	10.04	9.74	47.1	70.3
12	6.98	10.13	9.74	48.5	80.1
13	7.44	10.13	9.74	51.1	81.1
14	8.38	10.08	9.74	51.5	75.9
15	9.31	10.05	9.80	55.3	64.5
Radial position, 43.75 cm					
1	0.00	10.05	9.71	50.4	75.0
2	0.94	9.99	9.74	48.8	64.2
3	1.85	10.10	9.73	43.2	77.9
4	2.32	10.17	9.73	45.4	85.8
5	2.79	10.16	9.72	47.6	84.5
6	3.26	10.13	9.72	46.6	82.6
7	3.73	10.10	9.71	48.2	80.0
8	4.65	9.98	9.72	49.7	65.9
9	5.59	9.95	9.73	38.5	59.7
10	6.06	10.10	9.74	37.0	76.9
11	6.53	10.19	9.74	41.0	86.1
12	6.98	10.18	9.71	44.1	87.3
13	7.44	10.15	9.70	44.9	86.3
14	8.38	10.08	9.71	47.3	78.1
15	9.31	9.97	9.74	52.6	62.9

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 42.49 cm					
1	0.00	9.93	9.71	47.7	60.5
2	0.94	9.97	9.73	32.6	63.7
3	1.85	10.21	9.74	37.0	88.4
4	2.32	10.20	9.70	39.3	90.8
5	2.79	10.19	9.69	41.0	90.1
6	3.26	10.17	9.70	40.6	88.0
7	3.73	10.13	9.69	42.8	84.6
8	4.65	9.92	9.74	45.1	55.6
9	5.59	9.93	9.73	31.7	58.3
10	6.06	10.13	9.72	32.2	81.8
11	6.53	10.21	9.71	37.2	91.2
12	6.98	10.21	9.69	38.7	92.4
13	7.44	10.20	9.69	39.4	91.8
14	8.38	10.14	9.70	41.6	85.6
15	9.31	9.84	9.75	45.9	39.5
Radial position, 37.40 cm					
1	0.00	10.23	9.70	43.0	93.1
2	0.94	10.01	9.74	47.6	66.5
3	1.85	10.14	9.70	38.5	84.7
4	2.32	10.22	9.68	41.1	94.5
5	2.79	10.23	9.66	42.8	96.7
6	3.26	10.23	9.66	42.8	96.3
7	3.73	10.23	9.66	43.3	97.0
8	4.65	10.23	9.70	44.3	93.4
9	5.59	10.20	9.72	47.7	89.0
10	6.06	10.09	9.70	48.4	79.9
11	6.53	10.09	9.69	42.2	81.7
12	6.98	10.21	9.67	42.3	94.3
13	7.44	10.22	9.66	44.3	96.0
14	8.38	10.22	9.66	44.6	96.2
15	9.31	9.93	9.76	45.6	52.8
Radial position, 32.32 cm					
1	0.00	10.22	9.66	45.3	95.9
2	0.94	10.19	9.70	49.6	89.6
3	1.85	10.07	9.71	42.1	77.8
4	2.32	10.21	9.69	41.8	92.2
5	2.79	10.23	9.67	44.1	95.6
6	3.26	10.23	9.68	44.0	95.3
7	3.73	10.23	9.67	44.4	96.2
8	4.65	10.23	9.67	44.0	95.5
9	5.59	10.19	9.68	47.4	91.9
10	6.06	10.05	9.70	45.8	76.5
11	6.53	10.10	9.70	42.2	81.6
12	6.98	10.21	9.68	42.4	93.7
13	7.44	10.22	9.67	44.4	95.2
14	8.38	10.22	9.66	45.1	95.5
15	9.31	10.22	9.69	45.6	93.9

TABLE 8.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 27.20 cm			
1	0.00	10.23	9.66	45.7	96.4
2	0.94	10.20	9.69	49.6	92.1
3	1.85	10.07	9.71	43.6	77.8
4	2.32	10.21	9.69	41.9	92.2
5	2.79	10.23	9.68	44.7	95.2
6	3.26	10.23	9.68	44.5	95.1
7	3.73	10.23	9.67	45.6	96.3
8	4.65	10.23	9.67	45.6	96.2
9	5.59	10.22	9.68	46.9	94.9
10	6.06	10.10	9.69	47.8	81.8
11	6.53	10.08	9.69	45.8	80.4
12	6.98	10.21	9.69	42.6	92.7
13	7.44	10.22	9.68	45.1	94.5
14	8.38	10.22	9.68	45.8	94.8
15	9.31	10.22	9.67	45.3	95.2
		Radial position, 22.13 cm			
1	0.00	10.23	9.67	45.4	96.3
2	0.94	10.20	9.69	49.5	91.3
3	1.85	10.08	9.71	43.2	78.7
4	2.32	10.21	9.69	41.7	91.8
5	2.79	10.23	9.68	44.1	95.3
6	3.26	10.23	9.68	44.2	94.9
7	3.73	10.23	9.67	44.8	95.8
8	4.65	10.23	9.68	44.5	95.5
9	5.59	10.19	9.69	48.7	90.4
10	6.06	10.06	9.71	45.9	76.6
11	6.53	10.11	9.71	42.2	81.6
12	6.98	10.21	9.69	42.4	92.4
13	7.44	10.22	9.68	44.6	94.2
14	8.38	10.23	9.69	45.0	94.3
15	9.31	10.22	9.67	45.4	95.1
		Radial position, 17.06 cm			
1	0.00	10.23	9.67	45.5	96.4
2	0.94	10.17	9.70	49.6	88.2
3	1.85	10.07	9.71	43.3	78.0
4	2.32	10.20	9.69	41.3	91.3
5	2.79	10.23	9.68	44.1	95.6
6	3.26	10.23	9.68	44.4	95.5
7	3.73	10.24	9.67	44.7	96.5
8	4.65	10.23	9.68	44.8	95.4
9	5.59	10.18	9.69	48.8	89.8
10	6.06	10.06	9.71	45.9	76.7
11	6.53	10.12	9.70	42.2	82.7
12	6.98	10.22	9.69	42.7	93.1
13	7.44	10.23	9.68	44.2	94.8
14	8.38	10.23	9.68	45.4	95.0
15	9.31	10.23	9.69	45.3	94.3

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 11.98 cm			
1	0.00	10.09	9.69	47.4	81.7
2	0.94	9.97	9.72	39.4	64.9
3	1.85	10.14	9.70	37.8	86.0
4	2.32	10.21	9.68	39.5	93.5
5	2.79	10.23	9.67	42.4	96.7
6	3.26	10.24	9.67	42.5	96.4
7	3.73	10.23	9.66	43.5	96.8
8	4.65	10.21	9.67	45.8	94.4
9	5.59	10.04	9.70	43.1	75.0
10	6.06	10.12	9.70	38.2	83.6
11	6.53	10.21	9.70	38.1	92.2
12	6.98	10.23	9.67	40.5	95.6
13	7.44	10.23	9.67	41.5	96.2
14	8.38	10.23	9.68	42.9	95.4
15	9.31	10.23	9.69	45.4	94.8
		Radial position, 9.42 cm			
1	0.00	9.85	9.74	47.1	42.1
2	0.94	9.96	9.75	35.3	59.5
3	1.85	10.19	9.70	38.5	89.6
4	2.32	10.22	9.68	40.0	95.0
5	2.79	10.23	9.65	43.0	97.9
6	3.26	10.23	9.66	44.0	96.5
7	3.73	10.14	9.69	48.4	86.8
8	4.65	9.87	9.74	45.9	46.1
9	5.59	9.95	9.73	34.3	60.7
10	6.06	10.09	9.71	36.4	79.0
11	6.53	10.19	9.69	38.8	90.7
12	6.98	10.22	9.66	41.1	96.1
13	7.44	10.23	9.65	42.9	97.5
14	8.38	10.08	9.70	49.6	79.8
15	9.31	10.09	9.70	46.3	80.4
		Radial position, 8.16 cm			
1	0.00	9.84	9.75	49.6	39.6
2	0.94	9.93	9.75	41.5	54.8
3	1.85	10.12	9.71	40.5	83.3
4	2.32	10.21	9.68	42.5	93.7
5	2.79	10.23	9.65	46.8	97.7
6	3.26	10.21	9.67	49.4	94.6
7	3.73	10.07	9.71	54.0	77.1
8	4.65	9.87	9.75	54.4	44.6
9	5.59	9.87	9.75	41.4	45.5
10	6.06	10.00	9.73	38.4	67.2
11	6.53	10.16	9.69	39.5	87.3
12	6.98	10.22	9.66	42.8	95.7
13	7.44	10.23	9.65	45.8	97.8
14	8.38	10.06	9.72	54.8	75.0
15	9.31	9.83	9.75	45.2	36.5

TABLE 8.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 24.53 cm			
1	0.00	9.83	9.67	30.5	51.9
2	0.94	9.88	9.66	10.7	60.5
3	1.85	10.05	9.73	28.7	73.2
4	2.32	10.01	9.70	35.9	71.6
5	2.79	10.00	9.73	41.2	66.6
6	3.26	10.04	9.73	38.0	70.9
7	3.73	9.84	9.69	50.1	50.9
8	4.65	9.67	9.67	47.4	0.0
9	5.59	*****	*****	*****	0.0
10	6.06	*****	*****	*****	0.0
11	6.53	*****	*****	*****	0.0
12	6.98	*****	*****	*****	0.0
13	7.44	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
		Radial position, 21.98 cm			
1	0.00	10.13	9.71	37.2	84.1
2	0.94	10.04	9.72	38.2	73.2
3	1.85	9.98	9.67	30.1	72.7
4	2.32	9.90	9.67	35.2	62.6
5	2.79	10.12	9.74	39.3	80.0
6	3.26	10.13	9.70	35.9	84.1
7	3.73	10.07	9.75	43.1	73.4
8	4.65	10.00	9.74	45.6	66.4
9	5.59	9.88	9.71	47.2	52.9
10	6.06	9.73	9.70	40.6	24.9
11	6.53	9.65	9.65	38.1	0.0
12	6.98	9.91	9.72	32.1	56.5
13	7.44	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
		Radial position, 19.43 cm			
1	0.00	10.23	9.69	37.6	94.3
2	0.94	10.19	9.72	38.4	88.4
3	1.85	10.12	9.68	32.5	85.3
4	2.32	10.03	9.69	37.9	75.8
5	2.79	10.17	9.69	37.9	89.7
6	3.26	10.20	9.68	37.4	92.6
7	3.73	10.08	9.69	38.5	80.4
8	4.65	9.81	9.67	32.6	50.1
9	5.59	9.85	9.67	14.7	55.2
10	6.06	9.94	9.69	20.2	64.8
11	6.53	9.99	9.72	30.1	67.9
12	6.98	9.78	9.66	22.2	45.0
13	7.44	9.92	9.73	33.2	55.8
14	8.38	9.69	9.69	35.1	0.0
15	9.31	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 16.91 cm			
1	0.00	10.24	9.66	39.0	97.2
2	0.94	10.23	9.68	39.1	95.6
3	1.85	10.13	9.68	37.1	86.8
4	2.32	10.18	9.68	40.2	91.0
5	2.79	10.23	9.67	37.6	95.5
6	3.26	10.21	9.66	36.9	95.1
7	3.73	10.19	9.66	37.9	93.4
8	4.65	10.09	9.70	38.6	80.3
9	5.59	9.91	9.68	37.1	61.7
10	6.06	9.86	9.66	31.8	58.0
11	6.53	9.99	9.67	30.7	72.8
12	6.98	10.03	9.70	39.5	73.3
13	7.44	10.06	9.75	41.4	71.7
14	8.38	10.00	9.74	44.9	65.1
15	9.31	*****	*****	*****	0.0
		Radial position, 14.33 cm			
1	0.00	10.24	9.67	39.2	96.1
2	0.94	10.23	9.68	39.7	95.6
3	1.85	10.13	9.68	38.4	85.7
4	2.32	10.19	9.67	41.2	92.2
5	2.79	10.23	9.66	38.2	96.9
6	3.26	10.19	9.67	37.4	92.7
7	3.73	10.24	9.66	38.7	97.7
8	4.65	10.20	9.68	39.1	92.2
9	5.59	10.14	9.70	40.5	84.8
10	6.06	10.00	9.68	39.9	73.5
11	6.53	10.01	9.65	35.8	77.0
12	6.98	10.18	9.70	39.9	88.0
13	7.44	10.09	9.69	41.9	82.3
14	8.38	10.00	9.70	42.6	71.1
15	9.31	9.77	9.71	41.5	32.9
		Radial position, 11.82 cm			
1	0.00	10.24	9.68	40.3	95.8
2	0.94	10.23	9.69	40.3	94.9
3	1.85	10.12	9.70	38.7	83.9
4	2.32	10.19	9.69	41.7	91.1
5	2.79	10.23	9.67	38.5	96.4
6	3.26	10.19	9.68	37.5	91.6
7	3.73	10.24	9.65	39.0	98.8
8	4.65	10.22	9.65	38.2	97.3
9	5.59	10.20	9.67	38.8	93.3
10	6.06	10.05	9.67	38.5	80.3
11	6.53	10.11	9.65	34.3	87.3
12	6.98	10.23	9.66	38.5	96.2
13	7.44	10.12	9.66	37.7	87.2
14	8.38	10.06	9.67	37.6	80.6
15	9.31	9.85	9.69	42.9	50.6

TABLE 8.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 9.29 cm			
1	0.00	10.24	9.68	40.5	95.5
2	0.94	10.24	9.68	40.3	95.2
3	1.85	10.16	9.70	39.8	86.6
4	2.32	10.19	9.69	41.7	90.9
5	2.79	10.24	9.68	38.3	96.3
6	3.26	10.20	9.68	37.6	92.2
7	3.73	10.24	9.66	38.2	98.0
8	4.65	10.23	9.66	37.7	96.9
9	5.59	10.21	9.67	38.3	94.4
10	6.06	10.06	9.67	37.2	80.8
11	6.53	10.16	9.66	33.0	90.5
12	6.98	10.24	9.66	37.9	97.5
13	7.44	10.16	9.65	36.5	92.0
14	8.38	10.11	9.64	36.1	88.6
15	9.31	9.93	9.69	37.2	63.3
		Radial position, 8.00 cm			
1	0.00	10.24	9.68	40.8	95.2
2	0.94	10.24	9.69	40.7	94.9
3	1.85	10.13	9.70	39.2	84.8
4	2.32	10.18	9.69	41.6	89.9
5	2.79	10.24	9.68	38.7	95.7
6	3.26	10.20	9.68	37.9	91.8
7	3.73	10.24	9.66	38.2	97.7
8	4.65	10.23	9.66	37.7	97.1
9	5.59	10.21	9.67	38.5	94.5
10	6.06	10.09	9.67	36.6	82.5
11	6.53	10.17	9.67	33.1	91.3
12	6.98	10.24	9.66	37.8	97.5
13	7.44	10.18	9.65	36.1	93.7
14	8.38	10.14	9.64	35.8	90.8
15	9.31	10.05	9.69	37.1	77.3
		Radial position, 6.73 cm			
1	0.00	10.23	9.68	40.8	95.0
2	0.94	10.23	9.69	40.9	94.5
3	1.85	10.13	9.70	39.2	84.0
4	2.32	10.17	9.69	41.3	88.2
5	2.79	10.24	9.68	38.9	95.9
6	3.26	10.18	9.69	38.1	90.4
7	3.73	10.24	9.67	38.8	97.2
8	4.65	10.23	9.66	38.5	97.4
9	5.59	10.22	9.67	39.0	95.6
10	6.06	10.14	9.68	38.4	87.1
11	6.53	10.15	9.67	35.0	89.7
12	6.98	10.24	9.66	38.5	97.7
13	7.44	10.21	9.65	36.2	95.2
14	8.38	10.16	9.65	35.8	92.0
15	9.31	10.08	9.67	35.9	82.5

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
		Radial position, 4.21 cm			
1	0.00	10.23	9.69	41.1	94.5
2	0.94	10.23	9.70	41.1	93.9
3	1.85	10.13	9.71	39.8	84.0
4	2.32	10.18	9.70	42.2	88.7
5	2.79	10.23	9.69	39.4	94.2
6	3.26	10.17	9.69	38.4	89.3
7	3.73	10.24	9.67	40.2	96.2
8	4.65	10.23	9.66	39.7	96.8
9	5.59	10.22	9.67	39.7	95.5
10	6.06	10.17	9.67	39.6	90.5
11	6.53	10.14	9.67	36.7	88.5
12	6.98	10.24	9.66	39.6	97.6
13	7.44	10.22	9.65	37.2	97.3
14	8.38	10.19	9.64	36.2	94.9
15	9.31	10.10	9.65	35.1	86.2
		Radial position, 1.64 cm			
1	0.00	10.24	9.69	39.8	94.7
2	0.94	10.23	9.70	39.6	93.6
3	1.85	10.14	9.70	35.9	85.4
4	2.32	10.09	9.69	39.2	81.6
5	2.79	10.24	9.69	38.4	95.2
6	3.26	10.24	9.69	37.2	94.6
7	3.73	10.24	9.68	38.5	96.0
8	4.65	10.24	9.67	38.4	96.6
9	5.59	10.22	9.68	39.6	94.8
10	6.06	10.17	9.68	39.9	89.5
11	6.53	10.14	9.67	36.5	88.3
12	6.98	10.24	9.67	38.9	97.2
13	7.44	10.23	9.64	36.4	97.8
14	8.38	10.19	9.64	36.0	95.4
15	9.31	10.12	9.64	35.3	89.7
		Radial position, 0.01 cm			
1	0.00	10.24	9.69	39.4	95.0
2	0.94	10.23	9.70	39.2	93.6
3	1.85	10.17	9.70	33.6	87.6
4	2.32	10.09	9.71	37.9	80.1
5	2.79	10.24	9.69	37.8	95.3
6	3.26	10.24	9.69	37.1	95.3
7	3.73	10.24	9.68	37.9	95.8
8	4.65	10.24	9.67	37.3	96.2
9	5.59	10.12	9.67	38.1	85.7
10	6.06	10.12	9.67	32.5	86.9
11	6.53	10.21	9.67	33.2	93.8
12	6.98	10.24	9.68	37.5	95.8
13	7.44	10.21	9.65	35.2	96.4
14	8.38	10.18	9.64	35.7	94.1
15	9.31	10.13	9.64	35.6	90.3

TABLE 9.—VANE EXIT SURVEY FOR VANE A4 IN CORNER 2 WITH VANE A10 AND SIMULATED ENGINE EXHAUST SCOOP IN CORNER 1

[Airflow, 73.09 kg/sec.]

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.51 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	*****	*****	*****	0.0
3	1.12	*****	*****	*****	0.0
4	1.68	*****	*****	*****	0.0
5	2.24	*****	*****	*****	0.0
6	3.33	*****	*****	*****	0.0
7	4.44	9.51	9.51	48.8	0.0
8	5.56	9.51	9.51	49.2	0.0
9	6.68	9.54	9.54	47.8	0.0
10	7.24	9.56	9.56	47.1	7.5
11	7.79	9.57	9.55	47.5	18.5
12	8.35	9.61	9.54	60.3	32.7
13	8.91	9.66	9.54	56.8	46.4
14	10.02	9.79	9.54	64.2	64.4
15	11.13	9.82	9.56	73.7	66.1
Radial position, 21.91 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	*****	*****	*****	0.0
3	1.12	*****	*****	*****	0.0
4	1.68	*****	*****	*****	0.0
5	2.24	9.49	9.49	48.8	2.9
6	3.33	9.48	9.48	48.0	0.0
7	4.44	9.49	9.49	48.8	0.0
8	5.56	9.50	9.50	49.2	0.0
9	6.68	9.51	9.51	47.8	0.0
10	7.24	9.52	9.52	47.1	0.0
11	7.79	9.57	9.52	37.4	30.6
12	8.35	9.81	9.53	36.2	68.8
13	8.91	10.00	9.53	44.4	89.2
14	10.02	10.05	9.53	53.0	93.3
15	11.13	9.76	9.54	62.2	61.4
Radial position, 19.43 cm					
1	0.00	*****	*****	*****	0.0
2	0.56	9.64	9.47	77.3	53.5
3	1.12	9.62	9.46	69.7	51.5
4	1.68	9.57	9.44	82.1	47.6
5	2.24	9.45	9.43	48.8	14.4
6	3.33	9.40	9.40	48.0	0.0
7	4.44	9.41	9.41	48.8	0.0
8	5.56	9.43	9.43	49.2	0.0
9	6.68	9.44	9.44	47.8	0.0
10	7.24	9.45	9.45	47.1	0.0
11	7.79	9.77	9.50	19.2	67.6
12	8.35	10.08	9.52	32.8	96.3
13	8.91	10.15	9.51	39.7	103.5
14	10.02	10.15	9.50	42.8	104.6
15	11.13	10.07	9.56	45.5	92.7

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 16.88 cm					
1	0.00	9.72	9.55	55.5	54.5
2	0.56	9.67	9.49	53.9	56.3
3	1.12	9.54	9.44	51.0	42.9
4	1.68	9.46	9.43	51.6	25.6
5	2.24	9.40	9.40	48.8	0.0
6	3.33	9.39	9.39	48.0	0.0
7	4.44	9.39	9.39	48.8	0.0
8	5.56	9.39	9.39	49.2	0.0
9	6.68	9.39	9.39	47.8	0.0
10	7.24	9.42	9.42	47.1	0.0
11	7.79	9.95	9.50	15.7	87.7
12	8.35	10.19	9.53	29.2	105.1
13	8.91	10.21	9.51	33.8	108.3
14	10.02	10.22	9.50	36.2	109.3
15	11.13	10.22	9.55	38.4	106.2
Radial position, 14.32 cm					
1	0.00	10.10	9.66	28.9	85.6
2	0.56	10.10	9.60	29.8	91.4
3	1.12	10.08	9.55	29.4	94.9
4	1.68	10.05	9.54	31.7	92.4
5	2.24	9.96	9.52	33.0	86.2
6	3.33	9.72	9.48	36.0	64.6
7	4.44	9.53	9.46	34.7	36.6
8	5.56	9.46	9.46	49.2	0.0
9	6.68	9.48	9.48	47.8	0.0
10	7.24	9.55	9.53	47.1	16.6
11	7.79	10.07	9.55	18.0	92.8
12	8.35	10.24	9.54	29.1	108.1
13	8.91	10.24	9.52	31.9	109.7
14	10.02	10.24	9.52	34.9	109.6
15	11.13	10.25	9.54	37.8	108.3
Radial position, 11.80 cm					
1	0.00	10.10	9.68	35.1	84.1
2	0.56	10.11	9.65	35.3	87.5
3	1.12	10.12	9.62	35.3	91.7
4	1.68	10.13	9.59	36.7	94.2
5	2.24	10.14	9.56	36.6	98.4
6	3.33	10.15	9.54	39.8	101.1
7	4.44	10.13	9.56	43.6	98.2
8	5.56	10.09	9.58	46.3	92.0
9	6.68	9.95	9.61	45.1	76.0
10	7.24	9.88	9.62	41.6	66.8
11	7.79	9.94	9.62	30.4	74.1
12	8.35	10.17	9.60	35.5	97.7
13	8.91	10.21	9.58	38.9	102.7
14	10.02	10.21	9.58	40.4	102.6
15	11.13	10.21	9.59	41.9	101.9

TABLE 9.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 9.24 cm					
1	0.00	10.02	9.69	48.3	74.4
2	0.56	10.03	9.68	49.8	76.1
3	1.12	10.03	9.66	48.1	78.9
4	1.68	10.04	9.65	49.2	80.2
5	2.24	10.04	9.63	49.0	82.9
6	3.33	10.06	9.61	49.1	86.9
7	4.44	10.08	9.60	49.1	89.4
8	5.56	10.10	9.61	48.8	90.7
9	6.68	10.11	9.63	48.0	89.8
10	7.24	10.08	9.65	47.5	85.5
11	7.79	10.00	9.65	46.3	76.2
12	8.35	10.06	9.65	40.4	82.9
13	8.91	10.18	9.62	44.2	95.8
14	10.02	10.18	9.62	45.3	97.1
15	11.13	10.19	9.62	45.5	97.1
Radial position, 7.98 cm					
1	0.00	10.01	9.70	50.6	72.3
2	0.56	10.02	9.69	51.3	74.0
3	1.12	10.02	9.67	49.8	76.6
4	1.68	10.03	9.67	50.7	78.0
5	2.24	10.04	9.65	50.1	80.3
6	3.33	10.06	9.64	49.9	84.1
7	4.44	10.07	9.63	49.4	86.1
8	5.56	10.09	9.63	49.0	88.3
9	6.68	10.11	9.63	48.2	89.3
10	7.24	10.11	9.64	47.9	88.1
11	7.79	10.06	9.65	48.1	82.8
12	8.35	10.03	9.66	42.7	79.4
13	8.91	10.18	9.64	45.3	95.0
14	10.02	10.18	9.63	46.5	95.8
15	11.13	10.18	9.63	46.4	96.0
Radial position, 6.73 cm					
1	0.00	10.03	9.71	44.7	73.7
2	0.56	10.04	9.70	45.9	75.2
3	1.12	10.05	9.68	45.3	77.9
4	1.68	10.06	9.68	45.1	79.4
5	2.24	10.06	9.67	46.1	81.3
6	3.33	10.08	9.65	47.1	84.1
7	4.44	10.09	9.64	47.3	86.0
8	5.56	10.10	9.64	47.5	87.6
9	6.68	10.11	9.64	47.4	88.8
10	7.24	10.11	9.64	47.5	88.5
11	7.79	10.08	9.65	48.1	84.9
12	8.35	10.03	9.66	43.6	78.2
13	8.91	10.18	9.65	45.7	94.1
14	10.02	10.18	9.64	47.0	95.1
15	11.13	10.18	9.64	46.7	95.3

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 4.21 cm					
1	0.00	10.11	9.71	33.7	81.0
2	0.56	10.12	9.71	34.9	82.4
3	1.12	10.12	9.69	34.8	84.5
4	1.68	10.12	9.69	36.0	84.9
5	2.24	10.13	9.68	37.5	86.4
6	3.33	10.13	9.67	39.9	87.9
7	4.44	10.13	9.66	41.9	88.5
8	5.56	10.14	9.66	43.5	89.0
9	6.68	10.13	9.66	45.2	88.8
10	7.24	10.12	9.66	46.4	87.4
11	7.79	10.07	9.67	47.7	81.7
12	8.35	10.05	9.68	42.9	79.1
13	8.91	10.20	9.66	45.3	95.3
14	10.02	10.20	9.65	45.6	96.1
15	11.13	10.20	9.64	45.0	96.5
Radial position, 1.65 cm					
1	0.00	10.06	9.71	39.3	76.3
2	0.56	10.06	9.71	42.2	76.4
3	1.12	10.06	9.69	41.1	78.7
4	1.68	10.06	9.69	42.1	79.0
5	2.24	10.06	9.68	41.9	80.0
6	3.33	10.08	9.67	43.2	82.1
7	4.44	10.08	9.67	44.0	83.3
8	5.56	10.09	9.67	45.0	83.9
9	6.68	10.09	9.67	45.8	84.0
10	7.24	10.08	9.67	46.8	82.1
11	7.79	10.04	9.68	47.1	77.2
12	8.35	10.08	9.68	42.7	81.7
13	8.91	10.22	9.65	45.4	97.0
14	10.02	10.21	9.64	45.9	97.4
15	11.13	10.19	9.64	45.9	95.7
Radial position, 0.18 cm					
1	0.00	10.02	9.71	48.4	72.3
2	0.56	10.03	9.71	50.1	73.1
3	1.12	10.03	9.70	48.5	74.5
4	1.68	10.03	9.70	47.4	75.1
5	2.24	10.03	9.69	48.7	76.2
6	3.33	10.04	9.68	48.5	78.1
7	4.44	10.05	9.67	48.1	79.4
8	5.56	10.06	9.68	47.9	80.4
9	6.68	10.07	9.68	47.4	80.9
10	7.24	10.06	9.68	47.7	79.9
11	7.79	10.03	9.68	47.4	76.5
12	8.35	10.07	9.68	43.8	80.0
13	8.91	10.21	9.66	47.3	96.0
14	10.02	10.21	9.65	50.9	96.5
15	11.13	10.18	9.65	52.2	93.6

TABLE 9.—Continued.

(b) Middle

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 46.22 cm					
1	0.00	10.01	9.71	69.6	71.1
2	0.56	9.95	9.70	71.9	64.4
3	1.12	9.86	9.68	72.7	54.0
4	1.68	9.82	9.68	73.7	48.3
5	2.24	9.81	9.68	75.1	46.8
6	3.33	9.83	9.69	78.9	48.6
7	4.44	9.84	9.70	81.0	48.0
8	5.56	9.78	9.73	47.1	29.1
9	6.12	9.82	9.72	79.0	41.7
10	6.68	9.82	9.71	72.3	43.2
11	7.24	9.85	9.72	71.0	47.5
12	7.79	9.92	9.72	67.0	58.2
13	8.91	9.99	9.73	66.2	65.3
14	10.02	9.99	9.73	68.4	64.7
15	11.13	9.94	9.73	71.1	59.8
Radial position, 44.99 cm					
1	0.00	9.91	9.64	65.7	67.3
2	0.56	9.87	9.66	66.8	58.5
3	1.12	9.84	9.66	69.8	54.1
4	1.68	9.85	9.68	70.5	53.4
5	2.24	9.87	9.67	74.8	57.2
6	3.33	9.86	9.67	84.5	57.0
7	4.44	9.80	9.69	88.7	44.3
8	5.56	9.75	9.72	59.9	25.3
9	6.12	9.84	9.72	51.1	44.3
10	6.68	9.95	9.70	52.0	63.9
11	7.24	10.01	9.71	51.7	70.8
12	7.79	10.03	9.69	54.7	74.9
13	8.91	10.03	9.69	56.8	75.6
14	10.02	10.00	9.68	57.1	73.2
15	11.13	9.93	9.68	55.8	65.0
Radial position, 43.75 cm					
1	0.00	9.81	9.66	59.2	50.9
2	0.56	9.83	9.67	55.2	50.7
3	1.12	9.90	9.66	56.1	63.0
4	1.68	9.97	9.67	59.6	71.4
5	2.24	9.93	9.64	67.9	69.0
6	3.33	9.74	9.64	85.3	40.1
7	4.44	9.67	9.67	88.8	0.0
8	5.56	9.86	9.70	30.6	51.5
9	6.12	9.96	9.72	33.3	64.5
10	6.68	10.06	9.69	42.1	77.6
11	7.24	10.07	9.69	45.3	80.0
12	7.79	10.06	9.66	48.5	81.4
13	8.91	10.01	9.64	53.2	78.2
14	10.02	9.89	9.64	55.6	65.2
15	11.13	9.83	9.66	49.7	53.2

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 42.47 cm					
1	0.00	9.89	9.66	52.3	62.2
2	0.56	9.94	9.67	47.5	67.2
3	1.12	10.05	9.65	48.4	82.1
4	1.68	10.06	9.65	51.6	83.3
5	2.24	9.94	9.63	58.8	71.4
6	3.33	9.67	9.64	82.7	22.9
7	4.44	9.61	9.61	46.6	0.0
8	5.56	9.84	9.68	26.2	51.2
9	6.12	9.98	9.70	30.9	69.0
10	6.68	10.10	9.67	38.5	83.5
11	7.24	10.10	9.67	41.2	84.5
12	7.79	10.08	9.64	43.3	85.5
13	8.91	9.95	9.63	49.2	72.5
14	10.02	9.75	9.66	51.1	38.8
15	11.13	9.74	9.66	38.7	36.7
Radial position, 37.38 cm					
1	0.00	10.17	9.60	45.9	97.4
2	0.56	10.03	9.63	45.8	82.4
3	1.12	10.21	9.60	43.5	100.6
4	1.68	10.21	9.60	45.3	100.5
5	2.24	10.20	9.59	45.2	100.6
6	3.33	10.17	9.62	45.2	95.2
7	4.44	10.14	9.64	45.1	90.6
8	5.56	10.03	9.64	46.9	80.7
9	6.12	9.97	9.64	41.5	74.5
10	6.68	10.23	9.62	41.4	100.0
11	7.24	10.22	9.62	43.3	99.6
12	7.79	10.21	9.61	43.8	99.7
13	8.91	10.19	9.60	43.8	98.3
14	10.02	10.17	9.65	44.3	92.4
15	11.13	10.15	9.67	45.7	89.3
Radial position, 32.28 cm					
1	0.00	10.28	9.58	46.3	107.4
2	0.56	10.11	9.62	47.2	89.6
3	1.12	10.25	9.59	42.9	104.4
4	1.68	10.27	9.59	44.3	106.6
5	2.24	10.28	9.57	44.3	107.6
6	3.33	10.27	9.57	44.6	107.3
7	4.44	10.27	9.58	44.6	106.5
8	5.56	10.26	9.59	45.8	105.2
9	6.12	10.14	9.62	47.6	92.4
10	6.68	10.24	9.60	43.3	103.1
11	7.24	10.28	9.60	44.6	106.1
12	7.79	10.28	9.58	44.8	107.3
13	8.91	10.28	9.58	45.0	107.5
14	10.02	10.29	9.59	44.9	107.8
15	11.13	10.30	9.59	45.6	108.3

TABLE 9.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 27.21 cm					
1	0.00	10.30	9.58	46.5	108.6
2	0.56	10.13	9.63	48.0	91.6
3	1.12	10.26	9.60	43.3	104.2
4	1.68	10.29	9.59	44.4	107.4
5	2.24	10.29	9.58	44.7	108.1
6	3.33	10.29	9.58	44.8	107.9
7	4.44	10.28	9.58	44.6	107.3
8	5.56	10.27	9.60	46.8	105.3
9	6.12	10.15	9.63	48.4	93.0
10	6.68	10.23	9.61	43.4	100.9
11	7.24	10.28	9.61	44.9	105.5
12	7.79	10.29	9.59	45.5	106.7
13	8.91	10.30	9.59	45.5	108.2
14	10.02	10.31	9.59	45.0	109.2
15	11.13	10.31	9.59	45.8	108.6
Radial position, 22.12 cm					
1	0.00	10.30	9.58	46.9	108.2
2	0.56	10.13	9.63	47.7	90.7
3	1.12	10.24	9.60	43.3	102.8
4	1.68	10.29	9.60	44.6	106.8
5	2.24	10.29	9.59	45.3	107.3
6	3.33	10.28	9.59	45.3	106.4
7	4.44	10.27	9.60	45.6	105.3
8	5.56	10.28	9.60	46.8	105.0
9	6.12	10.16	9.64	48.8	93.7
10	6.68	10.23	9.62	43.3	100.3
11	7.24	10.28	9.61	45.1	104.4
12	7.79	10.30	9.60	45.4	106.8
13	8.91	10.31	9.60	45.2	107.7
14	10.02	10.31	9.60	45.6	107.9
15	11.13	10.31	9.61	46.0	107.1
Radial position, 17.05 cm					
1	0.00	10.29	9.58	47.1	108.2
2	0.56	10.12	9.62	48.3	91.3
3	1.12	10.23	9.60	43.4	101.8
4	1.68	10.28	9.60	45.0	106.2
5	2.24	10.28	9.58	45.3	107.3
6	3.33	10.28	9.59	45.1	106.6
7	4.44	10.28	9.59	44.7	106.3
8	5.56	10.27	9.61	47.4	104.4
9	6.12	10.15	9.63	49.2	92.3
10	6.68	10.21	9.62	43.6	99.0
11	7.24	10.28	9.61	44.9	104.5
12	7.79	10.28	9.60	45.7	106.1
13	8.91	10.29	9.60	45.5	106.0
14	10.02	10.29	9.61	45.2	105.9
15	11.13	10.29	9.62	46.6	105.3

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 11.98 cm					
1	0.00	9.89	9.64	46.1	64.5
2	0.56	9.98	9.65	42.4	75.1
3	1.12	10.13	9.61	42.4	93.0
4	1.68	10.21	9.58	44.1	102.4
5	2.24	10.22	9.57	45.1	103.4
6	3.33	10.17	9.60	47.1	97.6
7	4.44	10.03	9.64	51.0	81.3
8	5.56	9.91	9.67	46.8	63.5
9	6.12	9.97	9.67	42.9	71.2
10	6.68	10.16	9.62	41.8	93.9
11	7.24	10.24	9.60	43.5	102.5
12	7.79	10.23	9.59	45.1	102.3
13	8.91	10.20	9.61	46.9	98.0
14	10.02	10.04	9.65	49.9	80.3
15	11.13	9.93	9.68	47.9	65.1
Radial position, 9.42 cm					
1	0.00	9.91	9.67	53.4	63.0
2	0.56	9.93	9.68	52.7	64.7
3	1.12	9.97	9.65	51.0	73.3
4	1.68	10.08	9.62	51.9	86.9
5	2.24	10.13	9.60	52.9	94.4
6	3.33	10.11	9.62	55.3	90.4
7	4.44	9.96	9.68	60.0	68.5
8	5.56	9.81	9.70	52.5	44.1
9	6.12	9.84	9.70	49.6	48.0
10	6.68	9.97	9.67	47.3	70.9
11	7.24	10.08	9.64	49.2	85.7
12	7.79	10.15	9.61	51.0	94.2
13	8.91	10.11	9.64	55.7	87.4
14	10.02	9.94	9.69	59.3	63.9
15	11.13	9.83	9.71	56.1	45.3
Radial position, 8.16 cm					
1	0.00	10.05	9.66	59.4	80.2
2	0.56	9.98	9.67	58.2	71.2
3	1.12	9.95	9.66	57.5	70.2
4	1.68	10.00	9.64	55.3	77.8
5	2.24	10.08	9.61	55.2	88.3
6	3.33	10.11	9.61	57.0	90.9
7	4.44	10.06	9.67	60.2	80.4
8	5.56	9.89	9.70	59.8	56.6
9	6.12	9.87	9.70	57.1	52.8
10	6.68	9.91	9.68	52.7	61.5
11	7.24	10.00	9.66	52.6	74.8
12	7.79	10.09	9.63	54.4	86.8
13	8.91	10.12	9.64	58.1	89.3
14	10.02	10.05	9.69	60.9	78.1
15	11.13	9.91	9.70	61.4	58.2

TABLE 9.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.52 cm					
1	0.00	9.76	9.41	54.9	77.8
2	0.56	9.71	9.39	57.3	74.8
3	1.12	9.73	9.33	61.9	82.8
4	1.68	9.68	9.36	53.2	74.0
5	2.24	9.79	9.37	46.5	84.7
6	3.33	10.05	9.46	53.3	99.7
7	4.44	9.87	9.46	62.1	83.0
8	5.56	9.77	9.48	65.6	70.1
9	6.12	9.73	9.49	68.5	65.1
10	6.68	9.46	9.46	40.7	0.0
11	7.24	*****	*****	*****	0.0
12	7.79	*****	*****	*****	0.0
13	8.91	*****	*****	*****	0.0
14	10.02	*****	*****	*****	0.0
15	11.13	*****	*****	*****	0.0
Radial position, 21.97 cm					
1	0.00	10.11	9.49	45.6	102.0
2	0.56	10.07	9.52	47.2	96.3
3	1.12	9.96	9.49	50.4	89.2
4	1.68	9.85	9.46	47.2	81.5
5	2.24	9.98	9.42	49.9	97.7
6	3.33	10.09	9.39	57.3	108.2
7	4.44	9.88	9.39	64.3	90.5
8	5.56	9.64	9.40	73.4	63.8
9	6.12	9.61	9.41	76.6	59.5
10	6.68	9.43	9.41	51.1	21.1
11	7.24	9.42	9.42	38.9	11.8
12	7.79	9.43	9.41	37.1	14.5
13	8.91	9.39	9.39	38.4	0.0
14	10.02	*****	*****	*****	0.0
15	11.13	*****	*****	*****	0.0
Radial position, 19.45 cm					
1	0.00	10.12	9.43	44.8	107.4
2	0.56	10.11	9.47	45.2	103.6
3	1.12	10.06	9.46	46.9	100.0
4	1.68	10.05	9.44	42.8	101.2
5	2.24	10.11	9.42	45.0	107.3
6	3.33	10.08	9.41	47.3	106.7
7	4.44	9.81	9.43	46.6	79.4
8	5.56	9.89	9.43	32.1	88.1
9	6.12	9.85	9.42	38.6	85.9
10	6.68	9.62	9.40	43.7	62.4
11	7.24	9.40	9.37	38.9	24.9
12	7.79	9.33	9.33	37.1	0.0
13	8.91	9.33	9.33	38.4	0.0
14	10.02	9.34	9.34	38.3	0.0
15	11.13	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 16.89 cm					
1	0.00	10.15	9.44	43.4	108.8
2	0.56	10.14	9.45	43.4	106.9
3	1.12	10.02	9.45	45.0	97.6
4	1.68	10.10	9.45	40.8	104.1
5	2.24	10.12	9.43	43.0	107.4
6	3.33	10.10	9.41	43.5	107.5
7	4.44	10.09	9.42	42.6	105.9
8	5.56	10.05	9.43	42.9	101.9
9	6.12	9.92	9.42	39.8	92.5
10	6.68	10.00	9.41	36.6	99.5
11	7.24	10.07	9.51	40.0	97.1
12	7.79	10.04	9.50	37.1	94.6
13	8.91	9.52	9.45	45.2	34.8
14	10.02	9.43	9.43	38.3	0.0
15	11.13	9.41	9.41	38.7	0.0
Radial position, 14.38 cm					
1	0.00	10.17	9.46	42.3	108.8
2	0.56	10.15	9.48	43.1	106.0
3	1.12	10.00	9.48	44.2	93.6
4	1.68	10.13	9.48	39.9	104.2
5	2.24	10.14	9.46	42.2	106.7
6	3.33	10.10	9.44	42.0	105.0
7	4.44	10.08	9.43	41.5	104.0
8	5.56	10.07	9.43	41.7	103.8
9	6.12	10.04	9.45	42.1	100.3
10	6.68	9.92	9.43	42.3	91.4
11	7.24	10.07	9.42	40.6	104.5
12	7.79	10.07	9.44	43.2	102.8
13	8.91	9.97	9.49	46.9	89.5
14	10.02	9.73	9.46	54.9	67.3
15	11.13	9.55	9.46	61.1	40.9
Radial position, 11.80 cm					
1	0.00	10.17	9.49	42.3	105.8
2	0.56	10.13	9.51	43.3	101.8
3	1.12	9.99	9.50	43.9	90.8
4	1.68	10.14	9.50	39.5	103.4
5	2.24	10.15	9.48	41.2	105.5
6	3.33	10.09	9.47	40.8	101.9
7	4.44	10.06	9.47	40.4	99.8
8	5.56	10.05	9.46	41.1	99.0
9	6.12	10.01	9.47	41.8	94.7
10	6.68	9.94	9.45	40.2	90.3
11	7.24	10.07	9.43	39.2	103.1
12	7.79	10.06	9.41	40.5	105.0
13	8.91	10.03	9.44	41.1	100.2
14	10.02	9.86	9.47	43.8	81.5
15	11.13	9.64	9.47	45.4	54.1

TABLE 9.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 9.25 cm					
1	0.00	10.13	9.51	43.2	101.0
2	0.56	10.09	9.53	43.9	96.7
3	1.12	9.97	9.52	43.9	87.6
4	1.68	10.12	9.51	39.4	100.8
5	2.24	10.12	9.49	41.0	102.5
6	3.33	10.06	9.50	40.4	97.4
7	4.44	10.04	9.49	40.1	95.6
8	5.56	10.01	9.50	40.9	93.2
9	6.12	9.96	9.51	41.4	87.4
10	6.68	9.94	9.48	38.4	88.1
11	7.24	10.05	9.46	37.9	99.4
12	7.79	10.04	9.44	38.7	100.9
13	8.91	10.04	9.42	38.4	102.0
14	10.02	10.02	9.46	39.4	97.0
15	11.13	9.88	9.49	42.8	81.2
Radial position, 8.00 cm					
1	0.00	10.10	9.52	43.6	98.6
2	0.56	10.07	9.54	44.3	94.3
3	1.12	9.96	9.52	43.9	85.6
4	1.68	10.10	9.52	39.7	98.7
5	2.24	10.10	9.50	41.2	100.5
6	3.33	10.04	9.51	40.7	94.9
7	4.44	10.02	9.51	40.3	92.7
8	5.56	10.00	9.51	40.9	90.4
9	6.12	9.94	9.52	41.3	84.1
10	6.68	9.95	9.49	38.1	87.2
11	7.24	10.04	9.48	37.5	97.5
12	7.79	10.03	9.45	38.5	98.6
13	8.91	10.02	9.43	37.7	99.6
14	10.02	10.02	9.44	37.9	98.6
15	11.13	9.93	9.48	40.2	87.6
Radial position, 6.76 cm					
1	0.00	10.08	9.52	43.8	96.5
2	0.56	10.04	9.54	44.3	91.4
3	1.12	9.94	9.53	43.6	83.4
4	1.68	10.08	9.52	39.8	96.2
5	2.24	10.08	9.50	41.6	97.9
6	3.33	10.02	9.51	41.0	92.6
7	4.44	10.00	9.51	40.6	90.2
8	5.56	9.97	9.52	41.0	87.3
9	6.12	9.92	9.53	41.2	81.2
10	6.68	9.94	9.50	37.9	86.1
11	7.24	10.03	9.49	37.5	95.6
12	7.79	10.02	9.47	38.0	96.1
13	8.91	10.01	9.45	37.3	97.1
14	10.02	10.00	9.44	37.3	97.4
15	11.13	9.98	9.47	39.2	92.2

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 4.19 cm					
1	0.00	10.05	9.53	43.6	93.3
2	0.56	10.00	9.55	44.3	87.0
3	1.12	9.91	9.54	43.4	79.5
4	1.68	10.03	9.53	39.9	91.6
5	2.24	10.04	9.52	41.7	93.1
6	3.33	9.99	9.52	41.6	88.2
7	4.44	9.96	9.53	40.9	85.4
8	5.56	9.94	9.53	41.0	82.3
9	6.12	9.88	9.54	40.5	76.0
10	6.68	9.93	9.52	37.3	83.5
11	7.24	10.00	9.51	37.0	91.4
12	7.79	9.98	9.49	37.8	91.0
13	8.91	9.97	9.48	38.0	90.6
14	10.02	9.95	9.46	37.2	90.9
15	11.13	9.94	9.45	38.5	90.9
Radial position, 1.66 cm					
1	0.00	10.03	9.54	43.6	90.8
2	0.56	9.97	9.56	44.1	83.1
3	1.12	9.90	9.54	42.7	77.4
4	1.68	10.01	9.54	39.8	88.8
5	2.24	10.01	9.53	41.9	89.7
6	3.33	9.96	9.53	41.8	84.8
7	4.44	9.94	9.54	40.9	81.9
8	5.56	9.91	9.54	41.0	78.2
9	6.12	9.85	9.55	39.6	71.7
10	6.68	9.92	9.53	36.8	80.8
11	7.24	9.96	9.52	37.0	86.2
12	7.79	9.95	9.51	38.1	86.0
13	8.91	9.93	9.50	37.8	84.6
14	10.02	9.91	9.49	38.3	84.5
15	11.13	9.89	9.47	38.9	84.6
Radial position, 0 cm					
1	0.00	10.02	9.54	43.7	89.7
2	0.56	9.96	9.56	44.0	82.0
3	1.12	9.89	9.55	42.4	76.4
4	1.68	10.00	9.55	39.9	87.5
5	2.24	10.00	9.53	42.0	88.3
6	3.33	9.95	9.54	41.9	83.0
7	4.44	9.92	9.54	41.1	80.1
8	5.56	9.89	9.55	41.0	76.5
9	6.12	9.84	9.56	39.2	69.7
10	6.68	9.89	9.53	37.1	77.9
11	7.24	9.94	9.53	37.2	83.3
12	7.79	9.93	9.52	38.6	83.0
13	8.91	9.90	9.51	38.9	81.1
14	10.02	9.89	9.50	38.1	81.0
15	11.13	9.87	9.48	38.7	81.2

TABLE 10.—VANE EXIT SURVEY FOR VANE B IN CORNER 2 WITH VANE A10 AND SIMULATED ENGINE EXHAUST SCOOP IN CORNER 1

[Airflow, 73.19 kg/sec.]

(a) Outside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.65 cm					
1	0.00	*****	*****	*****	0.0
2	0.47	*****	*****	*****	0.0
3	0.94	*****	*****	*****	0.0
4	1.41	*****	*****	*****	0.0
5	1.85	*****	*****	*****	0.0
6	2.79	*****	*****	*****	0.0
7	3.73	*****	*****	*****	0.0
8	4.65	*****	*****	*****	0.0
9	5.59	*****	*****	*****	0.0
10	6.06	9.62	9.62	44.7	0.0
11	6.53	9.63	9.63	45.3	0.0
12	6.98	9.63	9.63	51.8	0.0
13	7.44	9.63	9.63	44.4	0.0
14	8.38	9.64	9.64	54.5	0.0
15	9.31	9.63	9.63	56.2	0.0
Radial position, 22.15 cm					
1	0.00	*****	*****	*****	0.0
2	0.47	*****	*****	*****	0.0
3	0.94	*****	*****	*****	0.0
4	1.41	*****	*****	*****	0.0
5	1.85	*****	*****	*****	0.0
6	2.79	*****	*****	*****	0.0
7	3.73	9.68	9.68	88.2	0.0
8	4.65	9.63	9.63	44.9	0.0
9	5.59	9.77	9.70	48.8	34.1
10	6.06	9.80	9.69	44.8	43.5
11	6.53	9.76	9.68	66.5	37.7
12	6.98	9.68	9.66	76.2	19.6
13	7.44	9.61	9.61	44.4	0.0
14	8.38	9.59	9.59	54.5	0.0
15	9.31	9.59	9.59	56.2	0.0
Radial position, 19.57 cm					
1	0.00	*****	*****	*****	0.0
2	0.47	*****	*****	*****	0.0
3	0.94	*****	*****	*****	0.0
4	1.41	*****	*****	*****	0.0
5	1.85	*****	*****	*****	0.0
6	2.79	9.65	9.65	49.6	0.0
7	3.73	9.63	9.63	58.7	0.0
8	4.65	9.65	9.65	44.9	0.0
9	5.59	9.87	9.73	30.4	48.1
10	6.06	10.04	9.72	38.9	73.3
11	6.53	10.08	9.71	44.3	77.9
12	6.98	10.03	9.71	48.6	73.9
13	7.44	9.93	9.70	55.1	60.9
14	8.38	9.69	9.69	54.5	0.0
15	9.31	9.63	9.63	56.2	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 17.01 cm					
1	0.00	*****	*****	*****	0.0
2	0.47	9.60	9.60	57.1	0.0
3	0.94	9.69	9.69	56.6	0.0
4	1.41	9.77	9.71	45.5	31.8
5	1.85	9.80	9.71	61.3	39.3
6	2.79	9.68	9.68	49.6	0.0
7	3.73	9.64	9.64	58.7	0.0
8	4.65	9.64	9.64	44.9	0.0
9	5.59	9.89	9.75	23.9	49.1
10	6.06	10.09	9.74	34.9	75.9
11	6.53	10.15	9.73	40.4	83.4
12	6.98	10.14	9.72	43.3	84.1
13	7.44	10.15	9.73	45.3	83.1
14	8.38	10.12	9.76	50.4	77.0
15	9.31	9.98	9.77	55.3	59.3
Radial position, 14.48 cm					
1	0.00	9.59	9.59	57.8	0.0
2	0.47	9.61	9.61	57.1	0.0
3	0.94	9.71	9.71	56.6	0.0
4	1.41	9.92	9.74	33.3	54.9
5	1.85	10.02	9.75	43.9	67.3
6	2.79	9.91	9.75	51.5	50.7
7	3.73	9.75	9.75	58.6	0.0
8	4.65	9.73	9.73	44.9	0.0
9	5.59	10.01	9.78	22.9	61.0
10	6.06	10.15	9.76	33.0	79.4
11	6.53	10.19	9.75	37.0	85.0
12	6.98	10.18	9.74	39.4	85.6
13	7.44	10.18	9.74	40.7	85.5
14	8.38	10.18	9.77	44.3	82.7
15	9.31	10.16	9.78	48.4	79.0
Radial position, 11.96 cm					
1	0.00	9.61	9.61	57.8	0.0
2	0.47	9.63	9.63	57.1	0.0
3	0.94	9.71	9.71	56.6	0.0
4	1.41	9.89	9.76	28.6	47.0
5	1.85	10.02	9.77	38.6	65.1
6	2.79	10.06	9.76	44.6	70.1
7	3.73	10.04	9.79	50.2	64.4
8	4.65	10.00	9.81	49.5	56.7
9	5.59	9.95	9.79	42.5	50.9
10	6.06	10.05	9.78	41.3	67.4
11	6.53	10.13	9.77	44.5	77.3
12	6.98	10.14	9.76	46.8	79.2
13	7.44	10.14	9.76	47.7	79.6
14	8.38	10.13	9.77	50.0	77.7
15	9.31	10.13	9.78	51.4	76.4

TABLE 10.—Continued.

(a) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 9.42 cm					
1	0.00	9.66	9.66	57.8	0.0
2	0.47	9.68	9.68	57.1	0.0
3	0.94	9.76	9.76	56.6	0.0
4	1.41	9.96	9.80	28.7	50.9
5	1.85	10.05	9.81	41.3	63.2
6	2.79	10.05	9.79	49.1	65.6
7	3.73	10.04	9.79	51.9	64.6
8	4.65	10.03	9.79	52.9	63.3
9	5.59	10.02	9.79	53.9	61.0
10	6.06	9.99	9.79	53.0	56.8
11	6.53	10.03	9.80	50.8	61.7
12	6.98	10.08	9.79	52.7	70.0
13	7.44	10.11	9.79	54.2	73.0
14	8.38	10.11	9.79	54.9	72.8
15	9.31	10.10	9.79	54.8	72.4
Radial position, 8.15 cm					
1	0.00	9.68	9.68	45.7	0.0
2	0.47	9.70	9.70	57.1	0.0
3	0.94	9.79	9.79	56.6	0.0
4	1.41	9.99	9.81	30.8	54.2
5	1.85	10.07	9.82	40.8	64.4
6	2.79	10.06	9.80	46.6	65.4
7	3.73	10.05	9.80	49.5	64.5
8	4.65	10.04	9.80	51.6	63.4
9	5.59	10.01	9.80	52.6	59.9
10	6.06	9.99	9.80	52.6	56.2
11	6.53	10.03	9.81	51.1	61.4
12	6.98	10.08	9.80	52.3	69.1
13	7.44	10.11	9.80	54.5	71.7
14	8.38	10.10	9.79	55.3	72.0
15	9.31	10.10	9.79	55.0	71.7
Radial position, 6.91 cm					
1	0.00	9.71	9.71	45.7	0.0
2	0.47	9.73	9.73	57.1	0.0
3	0.94	9.89	9.82	23.4	35.9
4	1.41	10.04	9.82	30.4	59.7
5	1.85	10.10	9.82	38.8	67.2
6	2.79	10.08	9.81	42.9	67.0
7	3.73	10.07	9.81	46.1	65.8
8	4.65	10.05	9.80	48.8	63.5
9	5.59	9.99	9.80	50.3	55.9
10	6.06	9.98	9.81	49.1	54.5
11	6.53	10.06	9.81	48.9	63.7
12	6.98	10.10	9.80	51.4	70.7
13	7.44	10.12	9.80	53.6	72.3
14	8.38	10.11	9.80	54.0	72.0
15	9.31	10.11	9.80	54.0	71.7

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 4.33 cm					
1	0.00	9.87	9.84	48.1	21.5
2	0.47	9.87	9.83	41.4	23.9
3	0.94	9.95	9.84	32.7	43.2
4	1.41	10.06	9.83	34.8	62.7
5	1.85	10.11	9.82	40.9	69.4
6	2.79	10.10	9.81	43.9	68.9
7	3.73	10.07	9.81	46.4	66.0
8	4.65	10.04	9.81	49.4	61.1
9	5.59	9.99	9.82	49.8	54.1
10	6.06	10.01	9.82	46.7	56.6
11	6.53	10.11	9.82	47.0	69.3
12	6.98	10.14	9.80	49.0	74.8
13	7.44	10.15	9.80	50.3	75.5
14	8.38	10.13	9.80	51.1	74.0
15	9.31	10.12	9.80	51.4	72.2
Radial position, 1.81 cm					
1	0.00	9.99	9.83	56.2	51.8
2	0.47	9.97	9.82	56.4	50.0
3	0.94	9.95	9.82	54.7	46.6
4	1.41	9.96	9.82	49.9	48.1
5	1.85	10.04	9.82	49.1	60.6
6	2.79	10.09	9.81	53.1	68.5
7	3.73	10.07	9.81	54.7	66.0
8	4.65	10.04	9.81	54.8	61.4
9	5.59	10.02	9.82	54.3	57.9
10	6.06	10.02	9.82	51.2	58.0
11	6.53	10.09	9.82	49.1	67.9
12	6.98	10.14	9.80	50.7	74.7
13	7.44	10.16	9.80	52.5	76.5
14	8.38	10.14	9.80	53.0	74.0
15	9.31	10.11	9.81	53.8	70.2
Radial position, 0.15 cm					
1	0.00	10.00	9.82	56.9	54.2
2	0.47	9.98	9.81	58.1	53.5
3	0.94	9.97	9.81	57.6	51.1
4	1.41	9.96	9.81	56.1	50.0
5	1.85	10.01	9.82	52.7	55.5
6	2.79	10.10	9.81	55.5	68.3
7	3.73	10.08	9.81	57.8	67.2
8	4.65	10.04	9.81	58.0	62.3
9	5.59	10.02	9.81	55.8	58.9
10	6.06	10.02	9.81	53.4	58.1
11	6.53	10.08	9.82	50.9	66.3
12	6.98	10.14	9.80	53.0	73.7
13	7.44	10.16	9.81	55.1	76.4
14	8.38	10.13	9.81	56.8	73.5
15	9.31	10.10	9.81	57.1	69.3

TABLE 10.—Continued.

(b) Middle

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 46.13 cm					
1	0.00	10.04	9.73	58.9	72.2
2	0.47	9.95	9.71	57.1	63.1
3	0.94	9.88	9.70	51.2	55.4
4	1.41	9.92	9.70	49.4	60.4
5	1.85	10.00	9.71	46.1	70.0
6	2.79	10.06	9.72	51.1	74.6
7	3.73	10.06	9.72	52.8	74.8
8	4.65	10.03	9.71	54.0	72.6
9	5.12	9.95	9.69	53.2	66.0
10	5.59	9.87	9.68	47.9	57.0
11	6.06	9.90	9.68	44.6	60.7
12	6.53	9.99	9.70	44.8	69.7
13	7.44	10.06	9.73	50.7	74.2
14	8.38	10.04	9.73	53.2	72.6
15	9.31	10.01	9.71	54.4	70.7
Radial position, 44.88 cm					
1	0.00	10.04	9.65	50.9	79.8
2	0.47	9.96	9.67	51.3	69.7
3	0.94	9.90	9.66	46.3	63.5
4	1.41	9.97	9.66	43.0	71.4
5	1.85	10.06	9.67	43.6	80.5
6	2.79	10.09	9.67	47.6	83.6
7	3.73	9.99	9.63	48.7	77.5
8	4.65	9.98	9.63	52.5	76.2
9	5.12	9.92	9.65	51.5	67.6
10	5.59	9.88	9.65	47.0	61.0
11	6.06	9.92	9.66	43.9	66.4
12	6.53	10.03	9.65	44.0	79.3
13	7.44	10.08	9.66	47.9	83.6
14	8.38	10.02	9.65	52.7	78.1
15	9.31	9.82	9.66	53.4	52.0
Radial position, 43.58 cm					
1	0.00	9.89	9.63	48.5	66.8
2	0.47	9.89	9.64	44.3	64.3
3	0.94	9.94	9.64	39.6	69.9
4	1.41	10.06	9.65	38.8	82.3
5	1.85	10.11	9.64	41.1	88.3
6	2.79	10.10	9.62	43.4	89.3
7	3.73	10.06	9.64	50.5	83.4
8	4.65	9.77	9.65	44.0	45.1
9	5.12	9.78	9.66	34.9	46.4
10	5.59	9.94	9.65	30.9	70.0
11	6.06	10.04	9.66	34.1	79.6
12	6.53	10.09	9.64	39.8	86.9
13	7.44	10.09	9.62	43.5	88.1
14	8.38	10.00	9.64	48.0	78.2
15	9.31	9.79	9.67	46.6	43.7

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 42.28 cm					
1	0.00	9.81	9.66	39.3	50.7
2	0.47	9.82	9.65	32.9	54.0
3	0.94	9.97	9.64	30.6	73.4
4	1.41	10.10	9.64	34.8	87.2
5	1.85	10.13	9.62	38.5	91.8
6	2.79	10.12	9.60	40.5	92.5
7	3.73	10.06	9.63	43.2	84.3
8	4.65	9.86	9.66	43.6	57.4
9	5.12	9.80	9.66	37.2	48.2
10	5.59	9.91	9.64	35.3	66.8
11	6.06	10.02	9.63	36.4	80.2
12	6.53	10.10	9.62	39.5	89.9
13	7.44	10.11	9.60	41.9	91.7
14	8.38	10.07	9.62	43.8	86.2
15	9.31	9.88	9.67	46.2	59.7
Radial position, 37.18 cm					
1	0.00	10.22	9.62	41.9	99.3
2	0.47	10.16	9.63	45.0	94.1
3	0.94	10.01	9.62	42.4	80.2
4	1.41	10.14	9.61	38.1	93.9
5	1.85	10.24	9.59	39.9	103.3
6	2.79	10.24	9.57	41.7	104.7
7	3.73	10.22	9.57	42.0	103.4
8	4.65	10.20	9.60	42.4	99.6
9	5.12	10.19	9.61	44.0	97.5
10	5.59	10.02	9.62	45.6	82.1
11	6.06	10.03	9.61	40.4	83.2
12	6.53	10.21	9.59	39.6	101.0
13	7.44	10.23	9.57	42.6	104.1
14	8.38	10.21	9.56	42.8	103.0
15	9.31	10.19	9.59	43.2	99.5
Radial position, 32.15 cm					
1	0.00	10.30	9.57	42.2	109.4
2	0.47	10.23	9.60	46.0	101.8
3	0.94	10.04	9.62	43.3	84.0
4	1.41	10.15	9.61	38.1	95.2
5	1.85	10.27	9.58	38.9	106.7
6	2.79	10.29	9.55	41.2	110.3
7	3.73	10.29	9.55	41.4	109.9
8	4.65	10.28	9.56	42.0	108.7
9	5.12	10.24	9.59	45.2	104.0
10	5.59	10.03	9.62	43.9	83.1
11	6.06	10.08	9.61	39.3	87.6
12	6.53	10.24	9.59	39.1	103.5
13	7.44	10.28	9.55	41.8	109.1
14	8.38	10.28	9.55	41.9	108.9
15	9.31	10.28	9.57	42.7	108.1

TABLE 10.—Continued.

(b) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 27.05 cm					
1	0.00	10.30	9.57	42.4	109.6
2	0.47	10.25	9.59	46.2	103.9
3	0.94	10.06	9.62	44.2	85.6
4	1.41	10.14	9.61	39.0	93.3
5	1.85	10.27	9.59	39.3	105.5
6	2.79	10.30	9.56	41.9	110.2
7	3.73	10.30	9.55	42.2	110.6
8	4.65	10.29	9.56	42.6	109.6
9	5.12	10.28	9.58	44.9	107.3
10	5.59	10.10	9.61	46.5	89.9
11	6.06	10.06	9.62	42.0	85.5
12	6.53	10.22	9.60	39.5	101.8
13	7.44	10.28	9.57	42.9	108.3
14	8.38	10.28	9.57	43.0	108.4
15	9.31	10.28	9.57	43.4	107.7
Radial position, 21.95 cm					
1	0.00	10.30	9.57	42.5	109.4
2	0.47	10.25	9.59	46.1	103.8
3	0.94	10.08	9.61	43.8	87.8
4	1.41	10.14	9.61	39.3	94.0
5	1.85	10.27	9.59	39.2	105.9
6	2.79	10.31	9.56	41.7	110.5
7	3.73	10.30	9.56	42.0	110.0
8	4.65	10.29	9.57	42.6	109.0
9	5.12	10.26	9.59	45.8	105.0
10	5.59	10.07	9.62	45.2	87.0
11	6.06	10.07	9.62	41.2	86.2
12	6.53	10.22	9.60	39.2	101.5
13	7.44	10.29	9.58	42.4	108.0
14	8.38	10.28	9.58	42.7	107.5
15	9.31	10.28	9.59	43.3	107.0
Radial position, 16.88 cm					
1	0.00	10.29	9.57	42.6	108.8
2	0.47	10.22	9.59	46.3	101.7
3	0.94	10.05	9.61	43.4	85.6
4	1.41	10.12	9.61	39.6	92.0
5	1.85	10.26	9.59	39.1	104.8
6	2.79	10.29	9.56	41.8	109.7
7	3.73	10.29	9.56	42.2	109.0
8	4.65	10.28	9.57	42.8	107.9
9	5.12	10.25	9.59	46.2	104.2
10	5.59	10.07	9.61	45.9	87.2
11	6.06	10.06	9.62	41.5	85.5
12	6.53	10.20	9.60	39.4	99.9
13	7.44	10.27	9.58	42.6	106.9
14	8.38	10.27	9.59	42.9	106.1
15	9.31	10.27	9.60	43.6	105.2

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 11.81 cm					
1	0.00	9.92	9.62	41.8	69.9
2	0.47	9.93	9.63	35.5	71.2
3	0.94	10.08	9.61	32.7	88.5
4	1.41	10.21	9.58	34.5	101.8
5	1.85	10.26	9.55	36.5	107.9
6	2.79	10.24	9.55	38.4	106.6
7	3.73	10.14	9.60	43.6	94.6
8	4.65	9.88	9.63	42.5	63.8
9	5.12	9.87	9.64	35.0	62.2
10	5.59	10.04	9.62	31.7	83.6
11	6.06	10.16	9.60	33.2	96.7
12	6.53	10.23	9.57	35.0	104.6
13	7.44	10.22	9.57	37.5	103.9
14	8.38	10.15	9.61	42.5	94.3
15	9.31	9.86	9.67	43.6	57.2
Radial position, 9.25 cm					
1	0.00	9.78	9.66	34.5	44.9
2	0.47	9.87	9.66	34.2	58.8
3	0.94	10.05	9.63	34.0	83.6
4	1.41	10.17	9.60	36.2	96.8
5	1.85	10.20	9.57	38.8	102.1
6	2.79	10.16	9.56	42.6	99.8
7	3.73	9.90	9.64	50.7	66.6
8	4.65	9.75	9.65	45.5	40.3
9	5.12	9.76	9.66	36.8	41.5
10	5.59	9.88	9.65	35.2	61.9
11	6.06	10.00	9.63	36.7	78.8
12	6.53	10.10	9.60	39.2	91.8
13	7.44	10.14	9.58	43.8	95.9
14	8.38	9.97	9.64	50.6	74.3
15	9.31	9.75	9.68	46.1	35.3
Radial position, 8.00 cm					
1	0.00	9.91	9.66	45.2	64.1
2	0.47	9.92	9.66	43.1	65.3
3	0.94	9.97	9.63	40.8	75.0
4	1.41	10.05	9.61	40.7	85.9
5	1.85	10.14	9.58	42.2	95.6
6	2.79	10.16	9.57	47.0	98.7
7	3.73	10.01	9.65	53.5	78.1
8	4.65	9.87	9.66	53.2	59.0
9	5.12	9.81	9.67	48.7	48.8
10	5.59	9.83	9.66	43.3	54.1
11	6.06	9.90	9.64	40.9	66.3
12	6.53	10.02	9.62	41.3	82.1
13	7.44	10.12	9.58	47.1	94.4
14	8.38	10.07	9.64	52.8	84.1
15	9.31	9.88	9.68	54.0	58.2

TABLE 10.—Continued.

(c) Inside corner

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 24.52 cm					
1	0.00	9.74	9.46	40.3	69.9
2	0.94	9.89	9.46	16.6	84.9
3	1.41	9.95	9.47	27.0	89.6
4	1.85	9.98	9.49	36.3	90.9
5	2.32	9.88	9.48	46.6	82.7
6	2.79	9.74	9.45	60.6	70.8
7	3.73	9.64	9.43	72.6	60.0
8	4.65	9.43	9.43	38.5	0.0
9	5.12	9.44	9.44	45.6	0.0
10	5.59	*****	*****	*****	0.0
11	6.06	*****	*****	*****	0.0
12	6.53	*****	*****	*****	0.0
13	7.44	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
Radial position, 21.96 cm					
1	0.00	10.12	9.50	37.8	101.4
2	0.94	10.01	9.50	42.0	92.7
3	1.41	9.83	9.46	42.9	79.1
4	1.85	9.84	9.43	34.2	83.7
5	2.32	10.04	9.46	35.3	98.4
6	2.79	10.10	9.54	39.6	96.3
7	3.73	10.05	9.48	38.5	96.9
8	4.65	9.93	9.52	51.5	82.4
9	5.12	9.83	9.50	45.6	74.8
10	5.59	9.63	9.48	42.8	50.5
11	6.06	9.64	9.47	68.8	54.5
12	6.53	9.54	9.45	80.1	37.9
13	7.44	*****	*****	*****	0.0
14	8.38	*****	*****	*****	0.0
15	9.31	*****	*****	*****	0.0
Radial position, 19.44 cm					
1	0.00	10.12	9.44	37.2	106.4
2	0.94	10.11	9.47	37.9	103.5
3	1.41	10.03	9.47	40.3	96.3
4	1.85	9.93	9.45	35.4	90.6
5	2.32	10.09	9.44	35.2	104.0
6	2.79	10.11	9.47	36.7	103.6
7	3.73	10.03	9.56	45.0	88.8
8	4.65	9.80	9.46	39.8	75.1
9	5.12	9.67	9.47	31.2	58.2
10	5.59	9.76	9.48	25.9	68.3
11	6.06	9.88	9.51	30.9	79.3
12	6.53	9.84	9.51	43.1	74.3
13	7.44	9.70	9.49	60.1	59.6
14	8.38	9.48	9.47	44.7	10.5
15	9.31	*****	*****	*****	0.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 16.89 cm					
1	0.00	10.12	9.44	37.4	106.6
2	0.94	10.11	9.44	37.6	105.8
3	1.41	10.05	9.46	39.4	99.2
4	1.85	9.96	9.45	35.8	92.7
5	2.32	10.09	9.43	34.9	104.6
6	2.79	10.11	9.42	36.0	107.4
7	3.73	10.10	9.42	36.6	106.6
8	4.65	10.08	9.49	38.4	99.3
9	5.12	10.04	9.49	41.2	95.4
10	5.59	9.94	9.47	43.7	88.6
11	6.06	9.79	9.44	40.1	76.1
12	6.53	9.93	9.46	33.0	89.2
13	7.44	10.03	9.55	40.2	90.4
14	8.38	9.82	9.53	51.0	71.0
15	9.31	9.63	9.50	62.6	48.3
Radial position, 14.38 cm					
1	0.00	10.14	9.46	36.7	106.8
2	0.94	10.11	9.46	37.5	104.1
3	1.41	10.00	9.48	39.4	94.2
4	1.85	9.96	9.47	35.6	90.6
5	2.32	10.07	9.45	35.0	101.7
6	2.79	10.10	9.43	36.5	105.5
7	3.73	10.09	9.41	36.8	106.2
8	4.65	10.08	9.44	37.5	103.7
9	5.12	10.08	9.47	38.8	100.9
10	5.59	10.07	9.47	39.9	100.3
11	6.06	10.00	9.46	41.9	95.6
12	6.53	9.89	9.43	39.7	88.4
13	7.44	10.05	9.46	41.5	99.7
14	8.38	9.98	9.53	46.8	87.3
15	9.31	9.81	9.51	54.3	71.7
Radial position, 11.79 cm					
1	0.00	10.14	9.48	36.1	105.3
2	0.94	10.08	9.49	38.0	99.7
3	1.41	9.96	9.50	38.9	88.2
4	1.85	9.96	9.49	34.9	89.1
5	2.32	10.07	9.47	34.4	100.0
6	2.79	10.09	9.45	35.8	102.8
7	3.73	10.07	9.44	36.2	102.8
8	4.65	10.06	9.43	36.3	102.6
9	5.12	10.05	9.43	37.0	101.8
10	5.59	10.04	9.43	38.0	100.7
11	6.06	9.96	9.44	39.2	93.4
12	6.53	9.97	9.43	36.2	95.3
13	7.44	10.05	9.42	37.6	102.8
14	8.38	9.96	9.45	40.6	91.9
15	9.31	9.72	9.47	44.3	65.4

TABLE 10.—Concluded.

(c) Concluded.

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 9.27 cm					
1	0.00	10.11	9.49	36.5	101.5
2	0.94	10.05	9.50	38.3	95.0
3	1.41	9.94	9.51	38.5	85.5
4	1.85	9.98	9.50	34.4	89.6
5	2.32	10.06	9.49	34.2	98.0
6	2.79	10.07	9.47	35.1	99.6
7	3.73	10.05	9.46	35.0	98.8
8	4.65	10.03	9.46	35.0	97.7
9	5.12	10.02	9.46	36.0	96.4
10	5.59	9.97	9.46	37.4	92.5
11	6.06	9.89	9.46	36.5	84.9
12	6.53	9.99	9.45	33.1	95.6
13	7.44	10.04	9.42	34.4	102.0
14	8.38	10.03	9.43	35.0	100.2
15	9.31	10.00	9.49	37.0	93.0
Radial position, 8.00 cm					
1	0.00	10.09	9.50	37.0	99.6
2	0.94	10.03	9.51	38.6	93.6
3	1.41	9.94	9.51	38.8	84.7
4	1.85	9.97	9.50	34.5	88.1
5	2.32	10.05	9.49	34.3	96.7
6	2.79	10.05	9.48	35.1	97.6
7	3.73	10.03	9.47	34.8	96.2
8	4.65	10.01	9.47	34.8	95.0
9	5.12	10.00	9.47	35.9	93.8
10	5.59	9.94	9.48	37.2	88.3
11	6.06	9.88	9.47	35.8	82.5
12	6.53	9.99	9.46	32.4	94.2
13	7.44	10.03	9.43	33.5	100.2
14	8.38	10.02	9.42	33.6	100.7
15	9.31	10.01	9.46	34.4	96.3
Radial position, 6.75 cm					
1	0.00	10.07	9.50	37.6	97.5
2	0.94	10.02	9.51	38.8	92.0
3	1.41	9.93	9.52	39.0	83.6
4	1.85	9.95	9.51	35.0	86.6
5	2.32	10.03	9.50	34.5	94.8
6	2.79	10.03	9.49	35.2	95.4
7	3.73	10.01	9.48	35.0	93.7
8	4.65	9.99	9.48	34.9	92.4
9	5.12	9.98	9.49	36.0	90.9
10	5.59	9.92	9.49	36.9	85.3
11	6.06	9.87	9.48	35.0	80.8
12	6.53	9.98	9.47	32.1	92.9
13	7.44	10.01	9.44	33.0	97.9
14	8.38	10.01	9.43	32.8	98.9
15	9.31	10.00	9.44	33.1	97.0

Gapwise position	Gapwise location, cm	Total pressure, N/cm^2	Static pressure, N/cm^2	Flow angle, deg	Velocity, m/sec
Radial position, 4.19 cm					
1	0.00	10.04	9.51	37.8	93.9
2	0.94	9.98	9.52	39.1	88.0
3	1.41	9.91	9.52	38.8	80.4
4	1.85	9.93	9.51	35.0	83.6
5	2.32	9.99	9.50	35.0	90.6
6	2.79	9.99	9.50	35.6	91.1
7	3.73	9.97	9.50	35.3	89.3
8	4.65	9.95	9.50	35.1	87.5
9	5.12	9.93	9.50	36.2	85.4
10	5.59	9.88	9.50	37.2	80.1
11	6.06	9.85	9.50	34.3	77.8
12	6.53	9.96	9.49	31.9	89.6
13	7.44	9.98	9.46	32.5	93.2
14	8.38	9.97	9.45	32.6	93.8
15	9.31	9.95	9.44	32.5	92.7
Radial position, 1.68 cm					
1	0.00	10.01	9.52	37.7	91.4
2	0.94	9.95	9.52	39.1	84.3
3	1.41	9.88	9.53	38.0	77.3
4	1.85	9.91	9.52	34.5	81.1
5	2.32	9.97	9.51	35.0	87.3
6	2.79	9.96	9.50	35.7	87.6
7	3.73	9.94	9.50	35.5	85.1
8	4.65	9.92	9.51	35.4	83.2
9	5.12	9.90	9.51	36.3	81.0
10	5.59	9.85	9.51	36.5	76.2
11	6.06	9.84	9.50	33.1	75.7
12	6.53	9.93	9.49	31.8	86.5
13	7.44	9.94	9.48	32.3	88.6
14	8.38	9.92	9.46	32.1	88.1
15	9.31	9.91	9.46	32.5	87.2
Radial position, 0.05 cm					
1	0.00	10.00	9.52	37.5	90.3
2	0.94	9.93	9.53	39.0	82.2
3	1.41	9.87	9.53	37.8	75.7
4	1.85	9.90	9.52	34.5	79.9
5	2.32	9.95	9.51	35.2	85.7
6	2.79	9.95	9.51	35.6	85.4
7	3.73	9.92	9.51	35.7	83.1
8	4.65	9.90	9.51	35.5	81.3
9	5.12	9.88	9.51	36.3	78.9
10	5.59	9.84	9.51	36.3	74.0
11	6.06	9.84	9.51	32.5	74.6
12	6.53	9.91	9.50	32.0	84.0
13	7.44	9.92	9.48	33.0	85.5
14	8.38	9.90	9.47	33.0	84.9
15	9.31	9.89	9.46	33.0	84.5

TABLE 11.—MASS-AVERAGED CONDITIONS ACROSS VANE WAKES

(a) Vane A in corner 1; airflow, 72.6 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	0.00	9.95	0.00	0.00	0.00
2	0.00	0.00	0.00	9.97	0.00	0.00	0.00
3	0.00	0.00	9.59	9.96	0.00	0.00	0.00
4	0.00	0.00	9.78	10.10	0.00	0.00	0.00
5	0.00	0.00	9.86	10.11	9.86	0.00	0.00
6	9.38	9.65	9.83	10.11	9.89	0.00	0.00
7	9.66	9.82	9.93	10.10	9.97	0.00	0.00
8	9.82	9.96	10.05	10.10	10.04	0.00	0.00
9	9.88	10.00	10.07	10.10	10.11	9.98	9.76
10	9.84	9.98	10.09	10.10	10.12	10.01	9.88
11	9.96	10.03	10.09	10.10	10.12	10.03	9.93
12	9.87	9.99	10.09	10.06	10.12	10.06	9.99
	Loss coefficient						
1	0.00	0.00	0.00	0.21	0.00	0.00	0.00
2	0.00	0.00	0.00	0.21	0.00	0.00	0.00
3	0.00	0.00	0.23	0.23	0.00	0.00	0.00
4	0.00	0.00	0.23	0.05	0.00	0.00	0.00
5	0.00	0.00	0.24	0.04	0.31	0.00	0.00
6	0.92	0.59	0.36	0.04	0.27	0.00	0.00
7	0.56	0.37	0.23	0.04	0.17	0.00	0.00
8	0.40	0.22	0.11	0.05	0.09	0.00	0.00
9	0.32	0.18	0.09	0.05	0.01	0.17	0.44
10	0.37	0.20	0.06	0.06	0.01	0.14	0.31
11	0.23	0.14	0.06	0.05	0.01	0.11	0.24
12	0.33	0.19	0.06	0.08	0.01	0.09	0.18

(b) Vane A10 in corner 1; airflow, 72.2 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	0.00	9.82	0.00	0.00	0.00
2	0.00	0.00	0.00	9.87	0.00	0.00	0.00
3	0.00	0.00	9.49	9.95	0.00	0.00	0.00
4	0.00	0.00	9.58	10.06	0.00	0.00	0.00
5	0.00	0.00	9.64	10.09	0.00	0.00	0.00
6	0.00	0.00	9.82	10.07	9.95	0.00	0.00
7	9.55	9.84	9.98	10.08	10.07	0.00	0.00
8	9.73	9.87	9.96	10.08	10.10	0.00	0.00
9	9.85	9.93	9.99	10.08	10.09	0.00	0.00
10	9.87	9.98	10.05	10.08	10.09	10.01	9.91
11	9.90	10.01	10.09	10.06	10.09	10.00	9.91
12	9.93	10.01	10.07	10.08	10.08	10.02	9.95
	Loss coefficient						
1	0.00	0.00	0.00	9.92	0.00	0.00	0.00
2	0.00	0.00	0.00	9.92	0.00	0.00	0.00
3	0.00	0.00	9.80	9.93	0.00	0.00	0.00
4	0.00	0.00	9.97	10.04	9.62	0.00	0.00
5	9.67	9.93	10.04	10.05	9.91	0.00	0.00
6	9.76	9.95	10.06	10.04	9.99	0.00	0.00
7	9.84	9.98	10.07	10.04	10.09	0.00	0.00
8	9.88	10.00	10.08	10.02	10.11	9.91	9.56
9	9.92	10.02	10.10	10.02	10.12	9.94	9.69
10	9.96	10.04	10.10	10.02	10.12	9.97	9.77
11	10.00	10.06	10.11	9.98	10.11	10.01	9.88
12	10.06	10.09	10.11	9.90	10.11	10.04	9.97

(c) Vane B in corner 1; airflow, 73.6 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	0.00	9.91	0.00	0.00	0.00
2	0.00	0.00	0.00	9.87	0.00	0.00	0.00
3	0.00	0.00	9.70	9.90	0.00	0.00	0.00
4	0.00	0.00	9.83	10.02	0.00	0.00	0.00
5	0.00	0.00	9.93	10.09	9.77	0.00	0.00
6	9.60	9.88	10.04	10.11	9.89	0.00	0.00
7	9.85	9.96	10.05	10.10	9.93	0.00	0.00
8	9.94	10.02	10.09	10.11	10.02	0.00	0.00
9	9.99	10.03	10.07	10.11	10.09	9.94	9.69
10	10.01	10.06	10.10	10.10	10.10	10.00	9.88
11	10.02	10.06	10.11	10.10	10.10	10.02	9.92
12	10.00	10.05	10.10	10.08	10.10	10.04	9.98
	Loss coefficient						
1	0.00	0.00	0.00	0.17	0.00	0.00	0.00
2	0.00	0.00	0.00	0.32	0.00	0.00	0.00
3	0.00	0.00	0.17	0.30	0.00	0.00	0.00
4	0.00	0.00	0.14	0.15	0.00	0.00	0.00
5	0.00	0.00	0.12	0.06	0.42	0.00	0.00
6	0.67	0.32	0.12	0.04	0.26	0.00	0.00
7	0.35	0.21	0.10	0.04	0.22	0.00	0.00
8	0.25	0.15	0.06	0.04	0.11	0.00	0.00
9	0.19	0.14	0.09	0.05	0.03	0.22	0.54
10	0.16	0.10	0.05	0.05	0.03	0.15	0.31
11	0.15	0.10	0.04	0.05	0.03	0.14	0.26
12	0.18	0.11	0.04	0.07	0.03	0.11	0.19

(d) Vane A10 with simulated engine exhaust scoop in corner 1; airflow, 73.2 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	0.00	0.28	0.00	0.00	0.00
2	0.00	0.00	0.00	0.29	0.00	0.00	0.00
3	0.00	0.00	0.06	0.23	0.00	0.00	0.00
4	0.00	0.00	0.11	0.10	0.00	0.00	0.00
5	0.00	0.00	0.14	0.07	0.00	0.00	0.00
6	0.00	0.00	0.14	0.09	0.23	0.00	0.00
7	0.64	0.29	0.12	0.07	0.09	0.00	0.00
8	0.49	0.32	0.21	0.08	0.06	0.00	0.00
9	0.36	0.25	0.19	0.08	0.07	0.00	0.00
10	0.33	0.20	0.11	0.08	0.07	0.17	0.28
11	0.30	0.17	0.07	0.10	0.08	0.18	0.29
12	0.23	0.14	0.06	0.08	0.08	0.15	0.24
	Loss coefficient						
1	0.00	0.00	0.00	0.19	0.00	0.00	0.00
2	0.00	0.00	0.00	0.21	0.00	0.00	0.00
3	0.00	0.00	0.11	0.19	0.00	0.00	0.00
4	0.00	0.00	0.11	0.09	0.34	0.00	0.00
5	0.44	0.19	0.09	0.07	0.20	0.00	0.00
6	0.36	0.18	0.07	0.07	0.15	0.00	0.00
7	0.29	0.15	0.07	0.07	0.05	0.00	0.00
8	0.25	0.13	0.05	0.09	0.03	0.22	0.56
9	0.21	0.11	0.04	0.09	0.03	0.19	0.43
10	0.17	0.09	0.03	0.09	0.02	0.17	0.36
11	0.13	0.07	0.03	0.13	0.03	0.13	0.25
12	0.07	0.05	0.03	0.19	0.03	0.10	0.17

TABLE 11.—Continued.

(e) Vane A3 in corner 2; airflow, 69.45 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	9.71	10.05	10.02	0.00	0.00
2	0.00	0.00	9.89	10.07	10.07	0.00	0.00
3	0.00	0.00	10.02	10.08	10.12	0.00	0.00
4	9.59	10.01	10.07	10.09	10.17	10.09	9.92
5	9.83	10.00	10.12	10.22	10.21	10.14	10.05
6	9.99	10.05	10.12	10.22	10.23	10.16	10.08
7	10.12	10.10	10.08	10.22	10.23	10.19	10.15
8	10.13	10.13	10.12	10.22	10.23	10.20	10.17
9	10.13	10.14	10.15	10.22	10.23	10.20	10.18
10	10.17	10.18	10.19	10.16	10.23	10.21	10.20
11	10.22	10.18	10.15	10.08	10.23	10.22	10.21
12	10.15	10.14	10.13	10.11	10.23	10.22	10.20
	Loss coefficient						
1	0.00	0.00	10.03	10.11	10.10	0.00	0.00
2	0.00	0.00	10.07	10.12	10.12	0.00	0.00
3	0.00	0.00	10.10	10.12	10.13	0.00	0.00
4	10.02	10.10	10.11	10.12	10.14	10.12	10.08
5	10.08	10.10	10.12	10.15	10.15	10.13	10.11
6	10.10	10.11	10.12	10.15	10.16	10.14	10.12
7	10.13	10.12	10.12	10.16	10.16	10.15	10.14
8	10.13	10.13	10.13	10.15	10.16	10.15	10.14
9	10.13	10.13	10.13	10.15	10.16	10.15	10.14
10	10.14	10.14	10.14	10.14	10.16	10.15	10.15
11	10.15	10.14	10.13	10.12	10.16	10.15	10.15
12	10.14	10.13	10.13	10.13	10.16	10.15	10.15

(f) Vane A3 in corner 2; airflow, 35.53 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	9.82	10.04	10.02	0.00	0.00
2	0.00	0.00	9.95	10.06	10.06	0.00	0.00
3	0.00	0.00	10.08	10.06	10.09	0.00	0.00
4	9.70	10.01	10.08	10.08	10.15	10.08	9.94
5	9.91	10.03	10.13	10.21	10.20	10.12	10.03
6	10.04	10.07	10.09	10.21	10.21	10.13	10.04
7	10.09	10.12	10.15	10.21	10.21	10.16	10.10
8	10.09	10.13	10.17	10.21	10.21	10.17	10.12
9	10.10	10.14	10.19	10.21	10.21	10.18	10.14
10	10.15	10.18	10.20	10.16	10.21	10.19	10.16
11	10.19	10.18	10.16	10.07	10.21	10.19	10.17
12	10.13	10.14	10.14	10.07	10.21	10.19	10.17
	Loss coefficient						
1	0.00	0.00	0.00	10.01	9.95	0.00	0.00
2	0.00	0.00	9.82	10.06	10.05	0.00	0.00
3	0.00	0.00	9.94	10.08	10.13	0.00	0.00
4	0.00	0.00	10.03	10.11	10.19	0.00	0.00
5	9.90	10.01	10.07	10.18	10.21	10.15	10.07
6	9.99	10.05	10.09	10.19	10.21	10.17	10.12
7	10.03	10.08	10.11	10.20	10.22	10.18	10.15
8	10.03	10.08	10.12	10.20	10.21	10.19	10.17
9	10.04	10.10	10.13	10.20	10.21	10.20	10.18
10	10.08	10.12	10.16	10.18	10.21	10.20	10.19
11	10.09	10.12	10.15	10.12	10.21	10.20	10.20
12	10.08	10.11	10.13	10.09	10.21	10.20	10.18

(g) Vane A4 in corner 2; airflow, 69.52 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	0.16	0.21	0.17	0.00	0.00
2	0.00	0.00	0.23	0.23	0.22	0.00	0.00
3	0.00	0.00	0.18	0.26	0.28	0.00	0.00
4	1.41	0.34	0.19	0.32	0.20	0.40	0.82
5	0.92	0.51	0.19	0.06	0.10	0.29	0.52
6	0.62	0.48	0.28	0.06	0.07	0.24	0.43
7	0.32	0.37	0.42	0.06	0.06	0.16	0.26
8	0.30	0.31	0.32	0.06	0.07	0.14	0.22
9	0.30	0.27	0.24	0.06	0.07	0.12	0.18
10	0.20	0.17	0.14	0.22	0.06	0.10	0.14
11	0.06	0.14	0.23	0.38	0.07	0.10	0.13
12	0.19	0.22	0.25	0.31	0.07	0.10	0.13
	Loss coefficient						
1	0.00	0.00	0.10	0.16	0.23	0.00	0.00
2	0.00	0.00	0.19	0.19	0.22	0.00	0.00
3	0.00	0.00	0.18	0.23	0.25	0.00	0.00
4	1.08	0.33	0.17	0.31	0.16	0.37	0.76
5	0.67	0.44	0.21	0.10	0.08	0.27	0.49
6	0.52	0.46	0.37	0.07	0.06	0.22	0.40
7	0.31	0.34	0.37	0.06	0.06	0.15	0.24
8	0.32	0.31	0.30	0.06	0.06	0.13	0.20
9	0.32	0.29	0.25	0.06	0.06	0.12	0.18
10	0.20	0.20	0.21	0.17	0.06	0.09	0.13
11	0.05	0.15	0.26	0.32	0.06	0.10	0.13
12	0.17	0.20	0.23	0.28	0.06	0.09	0.12

(h) Vane B in corner 2; airflow, 68.98 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	0.11	0.18	0.21	0.00	0.00
2	0.00	0.00	0.12	0.22	0.18	0.00	0.00
3	0.00	0.00	0.02	0.28	0.33	0.00	0.00
4	1.06	0.28	0.12	0.32	0.20	0.37	0.72
5	0.70	0.39	0.13	0.06	0.09	0.28	0.51
6	0.46	0.39	0.31	0.06	0.06	0.25	0.49
7	0.33	0.27	0.20	0.06	0.05	0.19	0.33
8	0.34	0.25	0.16	0.06	0.05	0.17	0.29
9	0.34	0.22	0.11	0.06	0.06	0.15	0.24
10	0.20	0.13	0.08	0.17	0.05	0.11	0.17
11	0.08	0.11	0.15	0.36	0.05	0.11	0.16
12	0.18	0.16	0.15	0.31	0.06	0.10	0.15
	Loss coefficient						
1	0.00	0.00	0.00	0.19	0.22	0.00	0.00
2	0.00	0.00	0.13	0.19	0.20	0.00	0.00
3	0.00	0.00	0.19	0.24	0.21	0.00	0.00
4	0.00	0.00	0.12	0.26	0.11	0.00	0.00
5	0.56	0.29	0.15	0.13	0.07	0.22	0.41
6	0.40	0.26	0.17	0.08	0.07	0.18	0.29
7	0.36	0.24	0.17	0.07	0.06	0.14	0.23
8	0.40	0.27	0.18	0.08	0.07	0.12	0.18
9	0.41	0.27	0.18	0.10	0.08	0.11	0.15
10	0.35	0.25	0.16	0.14	0.08	0.09	0.11
11	0.32	0.24	0.17	0.28	0.08	0.09	0.11
12	0.27	0.21	0.15	0.36	0.07	0.11	0.15

TABLE 11.—Concluded.

(i) Vane A4 in corner 2 with vane A10 and simulated engine exhaust scoop in corner 1; airflow, 73.09 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	9.73	9.89	9.84	0.00	0.00
2	0.00	0.00	9.94	9.93	9.97	0.00	0.00
3	0.00	0.00	10.09	9.94	10.03	0.00	0.00
4	9.61	10.08	10.18	9.96	10.10	10.05	9.95
5	9.92	10.07	10.21	10.16	10.10	10.04	9.95
6	10.13	10.12	10.12	10.26	10.09	10.04	9.98
7	10.06	10.09	10.13	10.27	10.07	10.04	10.01
8	10.05	10.09	10.13	10.27	10.05	10.02	10.00
9	10.07	10.10	10.13	10.26	10.03	10.01	9.99
10	10.13	10.14	10.15	10.12	9.99	9.97	9.96
11	10.07	10.11	10.14	10.03	9.96	9.94	9.92
12	10.04	10.09	10.13	10.03	9.95	9.92	9.90
	Loss coefficient						
1	0.00	0.00	0.16	0.23	0.26	0.00	0.00
2	0.00	0.00	0.20	0.24	0.30	0.00	0.00
3	0.00	0.00	0.15	0.28	0.21	0.00	0.00
4	1.37	0.32	0.09	0.30	0.10	0.21	0.43
5	0.72	0.39	0.09	0.14	0.13	0.29	0.47
6	0.19	0.20	0.22	0.08	0.14	0.26	0.40
7	0.29	0.21	0.13	0.08	0.13	0.20	0.27
8	0.29	0.20	0.12	0.08	0.13	0.18	0.23
9	0.25	0.18	0.11	0.07	0.12	0.16	0.20
10	0.17	0.14	0.11	0.26	0.13	0.16	0.20
11	0.32	0.24	0.16	0.26	0.13	0.18	0.23
12	0.39	0.28	0.18	0.18	0.14	0.19	0.25

(j) Vane B in corner 2 with vane A10 and simulated engine exhaust scoop in corner 1; airflow, 73.19 kg/sec

Radial position	Outside corner			Middle (average)	Inside corner		
	Wake 1	Average	Wake 2		Wake 1	Average	Wake 2
	Total pressure, N/cm^2						
1	0.00	0.00	0.00	10.00	9.83	0.00	0.00
2	0.00	0.00	9.76	10.00	10.01	0.00	0.00
3	0.00	0.00	9.99	10.02	10.05	0.00	0.00
4	0.00	0.00	10.09	10.03	10.09	10.01	9.93
5	9.95	10.10	10.15	10.18	10.08	10.04	10.00
6	10.02	10.07	10.10	10.24	10.06	10.03	9.99
7	10.03	10.05	10.07	10.25	10.04	10.02	10.01
8	10.05	10.06	10.07	10.25	10.03	10.01	9.99
9	10.06	10.07	10.07	10.23	10.01	9.99	9.98
10	10.06	10.08	10.10	10.13	9.97	9.96	9.95
11	10.04	10.07	10.10	10.03	9.94	9.93	9.91
12	10.04	10.07	10.10	10.03	9.93	9.91	9.89
	Loss coefficient						
1	0.00	0.00	0.00	0.12	0.31	0.00	0.00
2	0.00	0.00	0.04	0.19	0.22	0.00	0.00
3	0.00	0.00	0.16	0.20	0.16	0.00	0.00
4	0.00	0.00	0.13	0.21	0.07	0.23	0.44
5	0.53	0.19	0.07	0.12	0.11	0.19	0.29
6	0.27	0.17	0.10	0.12	0.12	0.21	0.29
7	0.16	0.12	0.09	0.12	0.11	0.15	0.19
8	0.13	0.10	0.09	0.13	0.10	0.14	0.18
9	0.13	0.11	0.09	0.13	0.10	0.13	0.16
10	0.19	0.15	0.11	0.27	0.10	0.13	0.16
11	0.25	0.18	0.11	0.34	0.10	0.14	0.18
12	0.25	0.18	0.12	0.27	0.11	0.15	0.20

TABLE 12.—VIGV EXIT PERFORMANCE WITH VANE A4 IN CORNER 2 AND VANE A10 WITH SIMULATED ENGINE EXHAUST SCOOP IN CORNER 1

(a) Ring position 1; airflow, 72.94 kg/sec; VIGV angle, 0°

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip					
12.0	9.90	9.47	288.4	-3.4	86.0
18.0	9.92	9.48	291.3	-2.1	86.3
24.1	9.99	9.50	288.7	-1.5	91.1
26.0	10.01	9.50	291.4	-1.8	92.9
27.0	10.02	9.51	291.0	-2.0	93.5
28.0	10.01	9.50	288.3	-2.1	92.8
29.0	10.02	9.50	288.4	-1.7	93.2
30.0	9.98	9.48	287.2	-3.4	91.7
31.0	9.96	9.50	289.0	2.5	88.4
32.0	10.02	9.50	290.1	1.1	94.1
34.0	10.03	9.49	289.1	-0.4	95.9
38.0	10.03	9.48	290.0	-2.9	96.7
42.1	10.03	9.47	289.3	3.3	96.8
102.1	9.94	9.53	286.1	16.3	82.6
108.0	9.97	9.55	288.5	11.5	84.1
114.0	10.05	9.58	286.6	6.7	89.0
116.0	10.04	9.58	290.0	4.7	88.1
117.0	10.02	9.58	289.0	3.8	86.4
118.0	10.00	9.57	287.0	2.8	84.7
119.0	9.97	9.56	287.4	1.1	82.6
120.0	9.79	9.53	284.8	6.2	66.6
121.0	9.88	9.54	288.2	12.0	76.1
122.1	9.93	9.54	289.8	11.0	81.4
124.1	9.95	9.54	287.5	11.9	83.8
128.0	9.98	9.53	289.0	13.8	87.4
132.1	10.01	9.53	289.5	12.5	89.9
192.1	9.83	9.44	286.8	17.1	81.5
198.0	9.88	9.47	287.4	13.3	83.6
204.1	9.91	9.49	287.1	4.9	84.2
206.0	9.92	9.51	287.2	1.6	83.7
207.0	9.93	9.51	287.4	-0.5	84.4
208.0	9.94	9.52	286.9	-2.4	84.6
209.1	9.95	9.52	287.7	-5.6	85.0
210.1	9.85	9.49	286.7	-3.1	78.4
211.0	9.88	9.49	287.9	2.7	80.6
212.0	9.92	9.49	287.2	4.5	84.5
214.0	9.96	9.49	287.8	4.2	89.0
218.1	10.00	9.48	287.5	5.0	93.7
222.1	10.03	9.48	288.0	5.4	96.1
282.1	10.11	9.49	288.2	5.9	102.0
288.0	10.19	9.51	288.3	4.4	106.6
294.0	10.20	9.53	288.5	1.3	105.6
296.0	10.20	9.54	288.6	-0.4	105.3
297.0	10.20	9.54	288.5	-1.3	105.2
298.0	10.21	9.54	288.2	-2.6	105.5
299.0	10.10	9.49	288.6	3.8	101.2
300.0	10.10	9.49	287.4	0.0	100.5
301.0	10.16	9.51	288.5	-0.2	104.0
302.0	10.16	9.51	288.3	-0.8	104.2
304.0	10.14	9.50	288.0	5.3	103.8
308.0	10.09	9.49	288.3	-1.8	100.3
311.8	10.05	9.49	288.9	1.5	97.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 10 percent of span from tip					
12.0	9.94	9.42	290.3	0.7	94.9
18.0	9.99	9.43	290.7	0.6	98.2
24.1	10.06	9.43	291.5	0.4	103.9
26.0	10.09	9.43	288.6	-0.2	104.7
27.0	10.09	9.44	290.4	-0.7	105.1
28.0	10.07	9.43	291.2	-0.9	104.8
29.0	10.06	9.42	291.4	-1.3	104.9
30.0	9.88	9.38	290.4	-0.7	92.7
31.0	10.02	9.40	290.3	3.4	103.0
32.0	10.08	9.43	290.2	2.8	104.9
34.0	10.11	9.43	289.4	1.7	107.0
38.0	10.04	9.39	288.5	0.4	105.0
42.1	10.10	9.40	287.8	-0.0	108.3
102.1	9.87	9.44	287.2	12.3	85.1
108.0	9.98	9.48	288.7	8.1	91.4
114.1	10.07	9.51	289.8	6.3	96.8
116.0	10.09	9.53	287.3	5.1	96.7
117.0	10.09	9.53	290.0	4.4	96.6
118.0	10.07	9.53	290.1	3.6	95.7
119.0	9.94	9.48	290.2	1.4	88.9
120.0	9.96	9.50	289.9	8.3	88.4
121.0	10.00	9.51	289.5	9.5	90.6
122.1	10.00	9.50	290.2	9.4	91.4
124.1	10.00	9.49	289.0	8.3	92.6
128.0	10.01	9.48	289.3	9.2	95.2
132.1	10.04	9.48	286.1	8.6	96.6
192.0	9.81	9.38	286.5	10.5	85.4
198.0	9.87	9.40	287.0	7.3	89.6
204.1	9.93	9.43	287.0	1.3	92.0
206.0	9.97	9.45	286.6	-0.6	93.7
207.0	9.98	9.46	287.1	-1.8	93.9
208.0	10.01	9.45	287.0	-2.9	97.2
209.1	9.97	9.43	286.7	-6.3	95.0
210.0	9.90	9.43	287.2	0.8	89.4
211.0	9.93	9.45	288.1	2.6	90.2
212.0	9.94	9.45	287.3	3.3	91.3
214.0	9.96	9.42	287.4	3.5	94.9
218.0	9.99	9.41	287.3	3.2	98.9
222.1	10.02	9.40	287.1	2.6	101.4
282.1	10.13	9.41	287.8	3.9	109.4
288.0	10.20	9.42	289.0	3.4	114.5
294.0	10.22	9.44	288.3	0.8	114.2
296.0	10.22	9.44	288.0	-0.5	114.1
297.0	10.22	9.44	288.9	-1.0	113.9
298.0	10.22	9.42	288.3	-2.2	115.0
299.0	9.94	9.36	288.1	-1.2	99.6
300.0	10.18	9.43	288.3	1.3	111.9
301.0	10.17	9.44	288.8	0.6	110.6
302.0	10.16	9.43	288.8	0.5	110.3
304.0	10.13	9.41	288.4	0.4	110.0
308.0	10.07	9.39	288.5	0.5	106.9
311.8	10.05	9.40	287.2	-0.1	104.4

TABLE 12.—Continued.

(a) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
12.0	10.00	9.36	291.2	4.5	104.3
18.0	10.09	9.38	289.1	2.8	109.8
24.1	10.11	9.36	290.1	3.2	112.4
26.0	10.13	9.37	291.0	2.3	113.6
27.1	10.11	9.36	288.8	1.6	112.6
28.0	10.08	9.35	289.1	1.6	111.3
29.0	10.03	9.32	287.4	0.7	108.9
30.0	9.87	9.36	288.4	4.4	93.3
31.0	10.05	9.34	292.0	4.6	110.5
32.0	10.09	9.34	289.6	4.1	112.8
34.0	10.14	9.34	288.8	3.1	116.0
38.0	10.04	9.31	287.8	3.1	111.5
42.1	10.11	9.32	290.2	2.0	116.0
102.1	9.83	9.42	287.9	7.6	83.8
108.0	10.00	9.44	286.3	6.0	97.2
114.0	10.09	9.45	289.0	5.2	103.6
116.0	10.12	9.46	289.1	-12.1	105.2
117.0	10.13	9.47	287.0	3.9	104.7
118.0	10.13	9.47	288.0	3.0	104.4
119.0	9.92	9.42	286.6	1.0	92.1
120.0	9.99	9.46	287.8	6.1	94.6
121.0	9.99	9.46	290.8	6.3	95.4
122.1	10.00	9.45	287.2	5.9	95.7
124.1	10.02	9.44	287.6	5.5	99.4
128.0	10.01	9.40	286.3	5.8	101.2
132.1	10.05	9.40	290.6	5.9	105.2
192.0	9.81	9.35	287.0	3.5	88.9
198.0	9.90	9.37	286.6	2.0	95.0
204.1	9.98	9.39	286.5	-1.2	99.3
206.0	10.02	9.40	287.4	-1.9	101.8
207.1	10.05	9.41	286.6	-2.2	103.7
208.0	10.08	9.41	286.3	-3.1	106.1
209.0	9.93	9.38	286.4	-6.2	96.6
210.1	9.90	9.39	287.2	1.2	93.6
211.0	9.92	9.39	286.7	1.6	94.7
212.0	9.93	9.39	287.2	1.9	95.2
214.0	9.95	9.38	287.0	1.9	98.6
218.0	9.99	9.36	287.0	1.3	103.5
222.1	10.01	9.34	287.0	0.8	105.9
282.1	10.12	9.33	287.6	2.2	114.8
288.0	10.20	9.33	287.3	2.1	120.3
294.0	10.23	9.35	288.7	0.5	121.4
296.0	10.23	9.35	288.0	-0.2	121.0
297.0	10.22	9.35	287.6	-0.4	120.5
298.0	10.19	9.33	287.8	-2.6	120.0
299.0	10.06	9.35	287.4	3.9	109.2
300.0	10.18	9.36	287.9	1.9	116.7
301.0	10.16	9.36	287.6	1.9	116.0
302.0	10.15	9.35	287.5	1.8	115.4
304.0	10.12	9.34	287.5	2.2	114.6
308.0	10.07	9.34	287.2	2.6	111.1
311.8	10.06	9.35	288.5	2.2	109.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
12.0	10.05	9.32	291.8	6.8	111.7
18.0	10.16	9.32	291.8	4.4	119.1
24.1	10.14	9.31	290.0	4.9	118.0
26.0	10.16	9.32	291.0	3.9	119.6
27.0	10.12	9.30	288.9	3.4	117.3
28.0	10.08	9.30	291.4	3.3	115.4
29.0	9.91	9.33	290.8	3.1	99.9
30.0	9.98	9.36	288.0	6.8	102.8
31.0	10.07	9.31	288.2	5.0	113.2
32.0	10.10	9.30	290.6	4.8	116.7
34.0	10.17	9.29	291.3	4.4	121.9
38.0	10.03	9.27	291.2	4.2	114.2
42.1	10.16	9.27	288.2	3.4	122.6
102.1	9.86	9.41	289.1	4.5	87.6
108.0	10.01	9.41	289.1	4.9	100.6
114.0	10.11	9.42	287.7	4.4	107.4
116.0	10.14	9.42	290.1	3.9	109.9
117.0	10.14	9.43	287.6	3.1	109.3
118.0	10.15	9.42	289.8	1.2	110.9
119.0	9.86	9.40	289.3	0.1	89.5
120.0	9.98	9.42	286.3	5.5	96.7
121.0	10.02	9.43	286.7	4.4	99.1
122.1	10.03	9.42	290.1	4.5	101.8
124.1	10.05	9.39	290.4	4.7	105.6
128.0	10.03	9.37	291.0	5.7	105.9
132.1	10.08	9.37	287.1	5.3	109.3
192.1	9.85	9.34	287.2	-2.6	93.6
198.0	9.96	9.35	287.3	-1.9	101.7
204.1	10.03	9.37	287.5	-2.3	105.5
206.0	10.07	9.37	286.9	-2.0	108.3
207.0	10.12	9.37	286.3	-2.1	111.4
208.0	10.14	9.36	287.6	-3.4	113.9
209.0	9.88	9.36	287.4	-4.7	93.5
210.1	9.91	9.37	286.7	1.2	95.1
211.0	9.93	9.37	286.2	1.0	97.7
212.0	9.94	9.37	287.0	0.9	98.4
214.0	9.97	9.35	286.6	0.7	102.2
218.1	10.02	9.33	286.6	-0.1	107.6
222.1	10.03	9.32	287.1	-0.6	109.1
282.1	10.11	9.29	288.8	1.1	118.0
290.4	10.18	9.28	287.6	1.1	122.8
294.0	10.23	9.30	287.4	0.8	124.5
296.0	10.23	9.31	288.8	0.6	124.4
297.0	10.23	9.31	287.5	0.4	123.7
298.0	10.09	9.31	288.1	-2.9	114.7
299.0	10.12	9.34	288.2	4.7	114.2
300.0	10.18	9.32	286.9	2.9	120.1
301.0	10.17	9.31	287.0	3.1	119.6
302.0	10.15	9.31	288.3	3.3	118.9
304.0	10.13	9.31	288.0	3.6	117.5
308.0	10.09	9.31	287.9	3.9	114.5
311.8	10.09	9.32	287.0	3.6	113.7

TABLE 12.—Continued.

(a) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
12.0	10.14	9.26	290.4	8.8	122.4
18.0	10.27	9.25	293.2	7.0	131.7
24.1	10.23	9.26	292.5	5.2	128.1
26.0	10.25	9.26	289.9	4.9	129.2
27.0	10.25	9.26	291.7	4.6	129.7
28.0	10.18	9.26	289.6	3.4	124.5
29.0	9.91	9.34	289.1	4.2	98.6
30.0	10.05	9.33	291.1	7.3	110.4
31.0	10.18	9.27	291.3	5.7	124.2
32.0	10.18	9.25	288.9	5.6	125.2
34.0	10.22	9.23	289.9	5.8	128.9
38.0	10.19	9.23	290.2	5.0	127.0
42.1	10.24	9.21	290.5	5.6	132.2
102.1	9.94	9.39	286.6	3.4	96.5
108.0	10.03	9.39	289.8	4.3	104.2
114.0	10.15	9.39	290.4	4.5	113.3
116.0	10.18	9.38	288.0	5.0	115.3
117.0	10.19	9.38	289.3	4.6	117.0
118.0	9.93	9.38	289.2	5.2	97.0
119.0	10.12	9.45	288.1	9.2	105.6
120.0	10.13	9.43	290.5	7.9	108.9
121.0	10.13	9.40	289.5	7.5	110.6
122.1	10.12	9.38	288.1	7.2	111.8
124.1	10.11	9.35	289.6	7.4	113.3
128.0	10.20	9.36	289.2	6.1	118.8
132.1	10.16	9.33	290.7	5.7	118.4
192.1	10.03	9.33	286.6	-5.5	108.8
198.0	10.08	9.31	286.6	-4.5	113.6
204.1	10.14	9.33	286.8	-2.6	116.1
206.0	10.17	9.34	286.2	-0.9	117.6
207.0	10.21	9.33	287.1	-0.6	121.5
208.0	10.06	9.33	287.0	-3.2	111.1
209.0	9.94	9.37	287.1	3.8	98.1
210.1	10.02	9.38	287.5	2.6	104.1
211.0	10.03	9.36	287.5	1.5	106.5
212.0	10.04	9.35	286.0	0.7	108.0
214.0	10.06	9.33	286.7	-0.2	111.3
218.0	10.13	9.30	286.5	-1.6	117.6
222.1	10.10	9.29	287.4	-2.2	116.6
282.1	10.13	9.26	287.3	0.6	120.4
288.0	10.18	9.26	288.1	0.5	124.1
294.0	10.23	9.27	288.3	1.6	126.8
296.0	10.23	9.28	287.2	2.1	125.7
297.0	10.20	9.28	288.1	0.2	124.1
298.0	10.00	9.34	288.1	1.6	105.6
299.0	10.20	9.32	288.4	5.3	122.1
300.0	10.19	9.28	287.8	4.8	124.0
301.0	10.19	9.27	287.5	4.9	123.7
302.0	10.18	9.28	286.9	5.0	122.8
304.0	10.16	9.28	288.2	5.2	121.9
308.0	10.15	9.28	288.3	5.5	121.0
311.8	10.17	9.28	288.3	4.9	122.4

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
12.0	10.28	9.18	295.1	9.6	137.6
18.0	10.27	9.18	292.8	9.6	135.7
24.1	10.24	9.22	291.0	9.8	131.4
26.0	10.25	9.22	291.9	9.4	132.6
27.0	10.13	9.26	292.6	7.4	121.9
28.0	10.02	9.30	289.9	11.5	111.1
29.0	10.25	9.24	290.6	10.2	130.5
30.0	10.27	9.21	292.0	9.2	134.4
31.0	10.25	9.20	292.6	9.5	133.5
32.0	10.24	9.20	291.7	9.6	132.6
34.0	10.23	9.20	290.7	10.2	131.7
38.0	10.27	9.15	288.8	9.9	136.9
42.1	10.23	9.18	293.2	9.8	134.2
102.1	10.07	9.36	289.9	4.1	109.8
108.0	10.15	9.36	288.5	4.6	115.0
114.1	10.23	9.35	289.2	6.4	121.2
116.0	10.21	9.36	288.4	5.9	119.0
117.0	9.97	9.38	290.6	7.0	100.6
118.0	10.14	9.39	287.9	10.5	112.0
119.1	10.26	9.34	289.6	8.9	124.1
120.0	10.26	9.33	290.5	8.3	125.0
121.0	10.26	9.32	291.1	7.8	125.8
122.1	10.26	9.31	289.3	7.5	126.3
124.1	10.28	9.30	288.9	6.9	128.2
128.0	10.28	9.28	287.8	6.1	129.4
132.1	10.24	9.29	291.7	5.0	127.0
192.1	10.25	9.24	287.3	-2.1	129.5
198.0	10.27	9.25	286.7	-1.3	130.6
204.1	10.25	9.27	286.5	0.9	127.3
206.0	10.28	9.28	287.9	1.3	129.5
207.0	10.11	9.31	286.8	-0.9	115.2
208.0	10.00	9.35	286.1	4.7	105.2
209.1	10.22	9.33	286.3	5.0	121.5
210.1	10.26	9.31	286.0	3.0	125.9
211.0	10.26	9.30	286.4	2.5	126.3
212.0	10.24	9.29	287.5	2.0	126.1
214.0	10.25	9.27	287.4	1.4	127.9
218.0	10.27	9.24	286.2	0.4	130.7
222.1	10.22	9.24	287.0	0.1	127.5
282.1	10.15	9.25	287.7	4.3	123.0
288.0	10.22	9.24	288.2	4.0	128.0
294.0	10.25	9.26	288.4	4.8	129.1
296.0	10.21	9.27	287.9	2.7	125.7
297.0	10.01	9.32	287.8	5.9	108.2
298.0	10.20	9.30	287.7	8.1	122.9
299.0	10.25	9.26	287.8	6.3	128.7
300.0	10.25	9.25	288.4	6.2	129.4
301.0	10.25	9.24	288.1	6.0	129.7
302.0	10.25	9.24	287.3	5.8	129.7
304.0	10.24	9.24	287.2	5.9	129.4
308.0	10.24	9.23	286.9	5.7	129.6
311.8	10.29	9.22	288.5	5.2	133.5

TABLE 12.—Continued.

(a) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
12.0	10.24	9.18	295.1	10.3	134.9
18.0	10.24	9.18	292.9	9.9	134.8
24.1	10.22	9.21	290.7	10.9	130.5
26.0	10.11	9.26	293.3	9.6	120.8
27.0	10.03	9.28	289.8	13.2	113.3
28.0	10.17	9.24	290.1	12.5	125.4
29.0	10.18	9.22	290.7	12.2	127.3
30.0	10.16	9.22	292.4	12.2	126.9
31.0	10.15	9.23	293.2	12.0	125.6
32.0	10.14	9.22	294.1	11.9	125.9
34.0	10.14	9.22	292.5	11.8	125.4
38.0	10.14	9.20	290.5	11.3	126.5
42.1	10.15	9.20	290.0	10.6	127.0
102.1	10.08	9.34	289.7	6.3	112.1
108.0	10.12	9.34	288.4	6.9	114.2
114.1	10.18	9.34	287.8	8.3	118.4
116.0	10.00	9.38	290.2	6.6	103.2
117.0	9.97	9.40	287.7	10.5	98.5
118.0	10.13	9.38	287.3	9.7	111.7
119.0	10.19	9.35	287.9	8.1	118.8
120.0	10.19	9.34	290.3	7.3	120.0
121.0	10.19	9.33	290.9	7.0	120.5
122.1	10.19	9.32	291.6	6.6	121.4
124.1	10.19	9.31	290.8	6.0	122.0
128.0	10.22	9.32	288.8	5.6	123.1
132.1	10.26	9.28	287.9	5.8	127.7
192.1	10.25	9.22	286.1	1.3	130.9
198.0	10.27	9.22	287.0	2.3	132.4
204.1	10.23	9.25	286.5	3.5	127.9
206.0	10.13	9.29	286.8	1.0	118.8
207.0	10.01	9.34	286.3	4.8	105.8
208.0	10.17	9.35	286.9	6.3	116.7
209.1	10.27	9.32	287.4	4.7	125.8
210.1	10.29	9.27	286.5	3.7	130.4
211.0	10.28	9.25	286.8	3.6	130.9
212.1	10.28	9.25	286.3	3.5	130.9
214.0	10.27	9.24	286.3	3.5	130.5
218.0	10.27	9.22	287.2	3.1	132.0
222.1	10.27	9.22	286.7	3.1	132.0
282.1	10.16	9.24	288.6	6.7	124.5
288.0	10.19	9.24	287.7	6.3	126.3
294.0	10.22	9.24	287.6	6.3	127.6
296.0	10.00	9.30	287.5	3.3	108.9
297.0	10.04	9.31	287.9	8.6	111.0
298.0	10.20	9.28	287.9	7.8	124.5
299.0	10.24	9.24	287.3	6.1	129.2
300.0	10.24	9.23	288.3	6.0	130.3
301.0	10.25	9.23	287.4	5.7	130.7
302.0	10.26	9.22	287.4	5.5	131.4
304.0	10.27	9.22	287.7	5.2	132.7
308.0	10.29	9.20	287.7	4.8	134.8
311.8	10.27	9.21	287.4	4.9	133.1

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
12.0	10.24	9.18	291.7	10.5	134.7
18.0	10.22	9.17	293.8	10.0	133.8
24.1	10.20	9.19	292.5	10.7	131.3
26.0	10.05	9.26	290.1	9.5	115.9
27.0	10.04	9.27	291.2	13.0	115.0
28.0	10.16	9.23	293.4	12.2	126.6
29.0	10.17	9.21	293.3	11.6	128.1
30.0	10.17	9.21	289.7	11.4	127.5
31.0	10.13	9.22	293.4	11.6	124.9
32.0	10.14	9.22	288.8	11.6	124.8
34.0	10.13	9.22	290.3	11.7	124.2
38.0	10.10	9.22	293.3	11.6	123.3
42.1	10.09	9.21	292.3	11.2	122.3
102.1	10.03	9.35	286.9	8.2	107.2
108.0	10.07	9.34	290.3	8.1	111.3
114.1	10.13	9.34	288.8	9.1	115.9
116.0	9.91	9.39	287.6	8.8	94.4
117.0	10.00	9.39	287.9	10.2	101.2
118.0	10.08	9.38	290.2	9.1	108.8
119.0	10.10	9.36	290.6	8.2	112.0
120.0	10.11	9.36	287.2	8.0	112.4
121.0	10.11	9.35	291.4	7.9	113.9
122.1	10.13	9.34	286.4	7.8	114.6
124.1	10.14	9.33	289.0	7.5	117.0
128.0	10.17	9.31	291.4	7.0	120.8
132.1	10.18	9.30	291.0	6.4	121.9
192.1	10.23	9.22	286.7	2.9	129.8
198.0	10.24	9.22	285.9	3.6	130.4
204.1	10.23	9.24	287.4	4.6	128.5
206.0	9.96	9.32	286.5	4.2	104.2
207.0	10.11	9.33	287.5	6.9	114.7
208.0	10.18	9.31	286.7	6.0	120.9
209.1	10.20	9.28	286.4	5.0	124.1
210.1	10.20	9.27	286.4	4.7	124.9
211.0	10.20	9.26	286.3	4.6	125.3
212.1	10.20	9.26	286.3	4.6	125.3
214.0	10.20	9.25	287.5	4.4	126.3
218.1	10.21	9.23	286.4	4.1	128.0
222.1	10.24	9.21	286.5	3.9	131.1
282.1	10.11	9.25	287.3	6.8	120.1
288.0	10.11	9.26	287.7	7.1	120.2
294.0	10.14	9.26	287.7	6.7	121.5
296.0	9.94	9.32	287.5	7.5	102.4
297.0	10.10	9.31	288.0	9.4	114.9
298.0	10.16	9.28	287.7	8.1	121.3
299.0	10.18	9.26	287.3	7.1	124.2
300.0	10.19	9.25	287.1	6.9	125.3
301.0	10.20	9.24	288.2	6.8	126.5
302.0	10.20	9.24	287.0	6.6	127.0
304.0	10.22	9.23	288.4	6.4	129.1
308.0	10.25	9.21	287.4	6.1	131.8
311.8	10.27	9.20	287.7	6.0	133.8

TABLE 12.—Continued.

(a) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
12.0	10.18	9.19	292.7	10.4	130.0
18.0	10.15	9.19	292.9	10.1	128.3
24.1	10.15	9.19	293.2	9.8	128.1
26.0	10.02	9.26	290.2	7.8	114.2
27.0	9.91	9.27	293.7	12.0	105.8
28.0	10.05	9.24	289.8	12.4	117.9
29.0	10.12	9.22	290.0	11.6	123.9
30.0	10.13	9.21	291.1	11.2	125.4
31.0	10.12	9.22	289.1	11.3	123.4
32.0	10.11	9.22	288.7	11.0	123.1
34.0	10.11	9.22	290.2	10.9	123.4
38.0	10.10	9.22	287.8	10.9	121.8
42.1	10.08	9.22	288.8	11.0	120.8
102.1	10.02	9.35	287.7	10.8	106.2
108.0	10.04	9.34	289.0	9.8	108.9
114.1	10.08	9.34	290.2	9.0	112.4
116.0	9.92	9.39	287.2	10.5	94.6
117.0	9.99	9.38	290.4	10.6	101.8
118.0	10.02	9.38	287.3	10.5	104.3
119.0	10.03	9.37	287.7	10.5	105.4
120.0	10.04	9.37	288.2	10.3	106.7
121.0	10.05	9.36	286.7	10.1	107.4
122.1	10.06	9.35	286.5	9.8	108.6
124.1	10.07	9.34	288.0	9.5	110.7
128.0	10.10	9.32	285.9	9.2	113.5
132.1	10.11	9.32	287.1	9.0	115.6
192.1	10.16	9.23	287.6	5.0	125.0
198.0	10.17	9.22	286.7	4.5	126.2
204.1	10.19	9.23	286.1	4.1	126.4
206.0	9.94	9.32	287.0	5.3	102.1
207.0	10.08	9.31	287.3	7.0	113.7
208.0	10.10	9.29	287.1	6.6	116.3
209.0	10.09	9.29	286.7	6.7	115.9
210.1	10.10	9.29	287.3	6.5	116.9
211.0	10.10	9.28	286.4	6.3	117.2
212.0	10.09	9.28	286.4	6.1	116.7
214.0	10.10	9.28	287.5	6.2	117.6
218.1	10.12	9.26	286.2	6.2	120.1
222.1	10.13	9.24	286.6	6.6	122.3
282.1	10.08	9.26	287.7	4.6	118.0
288.0	10.08	9.26	288.0	4.3	117.9
294.0	10.10	9.27	287.6	4.5	118.1
296.0	9.90	9.32	287.7	6.0	99.4
297.0	9.94	9.30	288.4	7.7	104.0
298.0	10.04	9.29	288.4	8.2	112.8
299.0	10.11	9.27	287.6	6.7	119.1
300.0	10.12	9.27	287.3	6.4	119.8
301.0	10.12	9.26	286.9	6.3	120.2
302.0	10.13	9.26	287.2	6.1	120.8
304.0	10.14	9.25	288.0	6.0	122.0
308.0	10.15	9.24	287.2	5.8	124.0
311.8	10.17	9.23	287.1	5.9	125.8

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
12.0	10.11	9.20	294.2	10.3	125.3
18.0	10.11	9.20	292.4	9.9	124.4
24.1	10.10	9.20	291.4	8.9	124.2
26.0	10.03	9.26	293.0	6.7	115.0
27.0	9.89	9.28	289.4	9.8	102.9
28.0	9.91	9.26	291.7	12.2	106.5
29.0	9.93	9.24	290.9	13.4	108.8
30.0	9.93	9.24	293.1	14.3	109.8
31.0	9.97	9.24	290.7	14.2	111.4
32.0	10.02	9.24	291.9	12.5	115.7
34.0	10.05	9.23	293.7	11.0	118.7
38.0	10.06	9.22	291.2	10.5	120.0
42.1	10.06	9.22	290.5	10.8	119.7
102.1	10.00	9.35	289.8	12.3	105.1
108.0	10.02	9.35	288.3	10.9	106.6
114.1	10.05	9.34	288.4	8.0	109.4
116.0	9.81	9.37	289.6	7.5	86.9
117.0	9.73	9.37	286.1	9.7	78.3
118.0	9.69	9.37	288.6	12.6	74.1
119.0	9.69	9.37	288.3	16.8	74.3
120.0	9.75	9.37	290.2	17.1	80.7
121.0	9.86	9.37	289.5	14.1	91.8
122.1	9.94	9.37	289.6	11.5	98.3
124.1	10.01	9.35	291.5	10.3	105.9
128.0	10.04	9.33	289.3	10.7	110.0
132.1	10.07	9.32	288.8	10.7	112.3
192.1	10.09	9.24	286.0	7.2	119.5
198.0	10.12	9.24	287.1	6.2	121.6
204.1	10.15	9.24	287.7	3.6	123.7
206.0	9.86	9.31	286.4	1.4	97.2
207.0	9.71	9.32	286.1	7.3	82.4
208.0	9.67	9.32	286.8	13.1	77.8
209.0	9.67	9.32	287.0	17.2	77.6
210.1	9.72	9.31	286.3	17.9	83.8
211.0	9.84	9.31	287.1	13.7	94.9
212.1	9.94	9.31	287.1	9.4	103.3
214.0	10.03	9.29	286.0	7.7	111.3
218.0	10.07	9.26	287.0	8.6	117.2
222.1	10.09	9.25	287.3	8.7	118.7
282.1	10.07	9.26	287.8	4.5	117.2
288.0	10.07	9.26	287.9	2.4	117.0
294.0	10.10	9.27	288.8	2.5	118.6
296.0	9.94	9.32	287.8	-0.0	103.0
297.0	9.88	9.32	287.1	2.9	98.1
298.0	9.87	9.31	287.8	6.9	98.0
299.0	9.84	9.30	287.9	8.6	97.0
300.0	9.89	9.29	287.5	9.9	101.5
301.0	10.02	9.28	288.2	7.2	111.9
302.0	10.07	9.28	287.5	5.7	115.6
304.0	10.09	9.27	287.1	4.5	117.3
308.0	10.08	9.26	287.7	5.0	118.0
311.8	10.10	9.24	287.7	5.6	120.4

TABLE 12.—Continued.

(b) Ring position 2; airflow, 72.94 kg/sec; VIGV angle, 0°

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip					
48.0	10.01	9.47	288.1	-5.9	95.8
52.0	10.00	9.47	288.9	-5.8	94.7
55.0	10.04	9.48	289.0	-5.3	96.8
56.0	10.03	9.49	289.6	-4.8	95.6
57.0	10.02	9.50	289.8	0.7	94.1
58.0	10.01	9.50	287.7	-4.0	92.4
59.0	10.01	9.50	289.1	-3.1	92.4
60.0	9.84	9.48	288.9	-3.5	78.6
61.0	9.87	9.50	289.1	1.1	79.8
62.0	9.86	9.49	288.4	0.5	80.0
66.0	9.89	9.47	287.9	-1.1	84.4
72.1	9.92	9.47	289.0	-4.6	87.9
78.1	9.92	9.46	289.2	-10.6	88.3
138.0	10.05	9.55	284.2	10.3	91.6
142.0	10.05	9.56	288.3	9.4	90.7
145.0	10.04	9.56	286.2	6.5	89.4
146.0	10.04	9.56	288.2	5.4	89.2
147.0	10.04	9.57	289.8	5.5	89.4
148.1	10.06	9.58	283.4	2.9	88.8
149.0	9.93	9.55	285.4	1.0	80.2
150.0	9.87	9.53	286.7	8.4	75.2
151.1	9.98	9.54	287.6	9.6	85.1
152.1	10.00	9.55	285.3	8.2	86.1
156.1	9.91	9.53	283.0	11.0	79.5
162.1	9.97	9.54	287.7	12.7	85.0
168.1	9.98	9.55	287.0	10.7	85.3
228.0	10.11	9.50	287.4	2.9	101.1
232.0	10.17	9.52	287.8	1.0	103.8
235.0	10.19	9.53	288.3	-1.1	104.7
236.0	10.20	9.54	288.4	-1.9	104.9
237.0	10.20	9.54	288.2	-2.1	104.6
238.0	10.20	9.55	287.7	-3.7	104.3
239.0	10.20	9.54	288.0	-5.7	105.1
240.1	9.98	9.49	288.0	-5.0	91.1
241.1	10.14	9.53	288.3	-2.1	100.9
242.1	10.14	9.52	288.2	-2.0	101.8
246.1	10.11	9.51	287.8	-2.1	100.6
252.1	10.06	9.50	288.3	-1.3	97.4
258.1	10.05	9.50	287.9	0.8	95.7
318.1	10.01	9.49	287.7	-11.5	92.9
322.0	9.99	9.49	288.3	-13.5	91.6
325.0	9.96	9.49	288.5	-14.9	89.6
326.0	9.95	9.49	289.0	-15.4	88.6
327.0	9.95	9.49	289.2	-6.0	87.5
328.0	9.95	9.49	287.7	-15.3	87.4
329.0	9.87	9.46	288.2	-19.0	83.1
330.0	9.79	9.48	287.9	-16.3	72.9
331.0	9.85	9.49	288.4	-14.8	77.8
332.0	9.86	9.49	288.2	-15.2	79.8
336.0	9.87	9.46	287.5	-19.0	84.1
342.0	9.84	9.45	288.2	-23.5	82.0
347.8	9.81	9.45	288.3	-22.2	77.8

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 10 percent of span from tip					
48.0	10.05	9.38	288.9	-0.5	105.9
52.0	10.02	9.38	289.5	-1.2	103.9
55.0	10.05	9.39	289.0	-1.3	105.7
56.0	10.05	9.40	288.3	-2.1	104.7
57.0	10.03	9.41	287.8	-2.8	102.4
58.0	10.02	9.41	290.3	-2.7	101.8
59.0	9.99	9.38	290.7	-2.2	101.7
60.0	9.82	9.40	288.3	2.3	84.4
61.0	9.95	9.43	288.6	1.9	93.6
62.0	9.95	9.43	287.2	1.6	93.2
66.0	9.96	9.40	288.5	0.9	97.6
72.1	9.96	9.39	288.8	-2.3	98.4
78.1	9.89	9.37	288.5	-5.6	94.2
138.0	10.07	9.48	288.3	7.9	99.9
142.0	10.05	9.49	288.8	7.1	97.4
145.0	10.08	9.51	287.1	5.1	97.8
146.0	10.08	9.51	285.8	4.4	96.8
147.0	10.07	9.51	284.2	3.4	96.1
148.1	10.07	9.51	293.2	2.3	97.9
149.0	9.90	9.46	291.0	4.6	87.1
150.0	10.03	9.51	289.8	7.6	93.8
151.1	10.05	9.52	288.0	7.9	94.7
152.1	10.05	9.51	289.1	7.8	95.5
156.1	9.96	9.49	287.9	8.3	89.1
162.1	10.00	9.49	287.9	9.4	92.0
168.1	10.04	9.51	286.5	7.6	94.2
228.0	10.09	9.41	287.4	1.6	106.6
232.0	10.15	9.43	288.5	0.6	110.3
235.0	10.20	9.45	288.1	-1.1	111.6
236.0	10.21	9.46	287.6	-1.6	111.7
237.0	10.22	9.47	287.4	-2.3	112.1
238.0	10.23	9.47	289.6	-3.3	112.9
239.1	10.16	9.40	288.9	-6.7	113.1
240.1	10.04	9.39	288.7	-0.3	104.3
241.1	10.19	9.45	288.1	-1.3	110.9
242.0	10.18	9.47	287.5	-1.2	109.1
246.1	10.14	9.45	288.0	-0.7	107.7
252.1	10.08	9.44	288.4	-0.3	104.2
258.1	10.07	9.44	287.6	0.5	102.7
318.1	10.01	9.42	288.1	-8.6	100.1
322.0	9.99	9.41	288.5	-10.2	98.5
325.0	9.95	9.41	288.0	-11.4	95.8
326.0	9.95	9.41	287.4	-11.2	94.9
327.0	9.94	9.42	287.2	-10.8	94.2
328.0	9.93	9.41	289.6	-11.4	94.5
329.0	9.81	9.42	289.2	-11.8	81.9
330.1	9.90	9.45	288.5	-9.4	88.2
331.0	9.92	9.45	288.0	-9.7	89.5
332.0	9.91	9.44	287.7	-9.6	89.3
336.0	9.86	9.39	287.7	-11.3	89.4
342.0	9.83	9.39	288.2	-15.3	87.1
347.8	9.83	9.41	287.7	-15.6	84.8

TABLE 12.—Continued.

(b) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
48.0	10.09	9.32	288.6	2.1	113.9
52.0	10.04	9.32	288.0	2.2	110.7
55.0	10.05	9.32	288.3	1.3	110.6
56.0	10.01	9.33	287.9	0.9	107.5
57.0	9.97	9.34	288.6	0.8	103.6
58.0	9.95	9.33	288.4	1.3	102.5
59.0	9.87	9.33	289.1	1.5	96.2
60.0	9.87	9.38	287.9	5.4	91.1
61.0	10.02	9.38	288.3	3.1	104.2
62.0	10.03	9.38	288.0	2.5	104.8
66.0	10.04	9.35	289.1	2.4	107.9
72.1	10.00	9.34	288.3	1.2	105.7
78.1	9.85	9.34	288.7	0.7	94.0
138.0	10.08	9.40	287.3	7.0	106.5
142.0	10.05	9.42	286.0	6.4	102.9
145.0	10.10	9.44	289.5	4.8	105.4
146.0	10.09	9.44	290.0	4.5	104.5
147.0	10.07	9.44	290.2	3.8	103.4
148.1	10.04	9.42	285.5	1.5	101.6
149.0	9.97	9.42	287.5	9.1	96.1
150.0	10.07	9.46	283.8	7.9	100.7
151.1	10.09	9.47	286.6	7.4	102.1
152.1	10.11	9.47	285.6	6.8	103.4
156.0	10.01	9.45	287.5	6.4	97.3
162.1	10.03	9.43	287.9	5.7	100.3
168.1	10.13	9.46	287.7	5.5	105.1
228.0	10.07	9.34	287.0	0.2	110.8
232.0	10.13	9.35	286.9	-0.3	114.5
235.0	10.19	9.36	287.2	-1.0	117.4
236.0	10.21	9.37	286.8	-1.2	118.3
237.0	10.22	9.37	287.2	-1.7	118.8
238.0	10.23	9.37	288.1	-2.4	119.9
239.0	9.97	9.34	287.9	-1.4	103.4
240.1	10.21	9.41	287.8	1.2	115.3
241.1	10.20	9.38	287.9	0.5	117.0
242.0	10.20	9.40	287.9	0.5	115.3
246.1	10.15	9.38	288.2	0.5	113.7
252.1	10.09	9.37	287.8	0.5	109.7
258.1	10.08	9.38	288.7	0.4	108.7
318.1	10.02	9.37	287.7	-5.6	104.5
322.0	9.99	9.37	287.4	-6.9	102.2
325.0	9.95	9.37	287.7	-7.3	98.7
326.0	9.94	9.38	287.3	-7.2	98.0
327.0	9.94	9.38	287.7	-7.0	97.9
328.0	9.89	9.38	287.9	-8.8	93.1
329.0	9.90	9.41	288.2	-5.9	90.5
330.0	9.98	9.42	287.3	-5.7	97.4
331.0	9.96	9.40	287.9	-5.9	97.2
332.0	9.94	9.39	287.4	-5.5	96.1
336.0	9.89	9.37	288.1	-5.2	94.1
342.0	9.86	9.36	288.0	-7.3	91.8
347.8	9.85	9.37	288.5	-8.2	90.4

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
48.0	10.15	9.29	289.0	3.0	120.5
52.0	10.09	9.28	288.6	2.6	116.5
55.0	10.05	9.30	287.9	3.4	113.2
56.0	10.01	9.31	287.3	4.0	108.9
57.0	9.97	9.32	287.3	4.5	104.4
58.0	9.92	9.32	289.0	4.4	101.1
59.0	9.81	9.36	288.9	4.8	87.5
60.0	9.99	9.38	288.0	5.5	101.7
61.0	10.11	9.34	287.9	3.5	113.6
62.0	10.11	9.34	288.4	2.8	114.1
66.0	10.08	9.31	288.3	3.6	113.9
72.1	10.01	9.31	287.9	4.1	108.8
78.1	9.86	9.33	287.6	5.3	95.3
138.0	10.12	9.38	289.6	6.5	111.8
142.0	10.12	9.40	290.7	6.5	110.3
145.0	10.15	9.41	286.2	4.7	110.9
146.0	10.13	9.41	284.6	5.1	109.1
147.0	10.12	9.41	284.8	4.9	108.3
148.1	9.99	9.40	289.0	2.8	100.2
149.0	10.05	9.44	287.5	8.5	101.6
150.0	10.09	9.42	289.6	7.3	106.3
151.1	10.12	9.43	285.0	7.3	107.1
152.1	10.14	9.42	287.9	5.9	109.9
156.1	10.06	9.41	285.5	5.8	107.2
162.1	10.10	9.40	287.5	3.8	108.0
168.1	10.14	9.40	285.7	4.1	110.6
228.0	10.07	9.31	287.3	-0.8	113.1
232.0	10.13	9.31	287.4	-1.0	116.8
235.1	10.18	9.32	287.1	-0.8	119.9
236.0	10.20	9.32	286.9	-0.8	120.9
237.0	10.21	9.33	287.2	-1.0	121.6
238.0	10.20	9.32	288.6	-2.3	121.7
239.1	9.99	9.34	288.4	2.1	104.6
240.1	10.23	9.35	287.7	1.6	120.9
241.1	10.22	9.34	287.3	1.6	121.0
242.0	10.21	9.35	287.8	1.9	120.0
246.1	10.15	9.33	287.3	1.6	117.5
252.1	10.09	9.33	287.7	1.3	113.3
258.1	10.09	9.33	287.0	0.5	112.9
318.1	10.05	9.35	288.0	-3.0	109.1
322.0	10.01	9.35	287.8	-3.9	105.8
325.0	9.97	9.36	287.2	-3.9	101.7
326.0	9.97	9.36	286.8	-3.9	101.2
327.0	9.96	9.36	287.3	-5.3	100.9
328.0	9.87	9.38	288.9	-6.0	91.2
329.0	10.01	9.40	289.0	-2.9	101.6
330.0	10.03	9.38	288.2	-3.1	104.4
331.0	10.00	9.37	287.1	-2.9	103.0
332.0	9.98	9.37	288.2	-2.2	101.9
336.0	9.95	9.35	287.2	-0.6	100.4
342.0	9.92	9.35	287.8	-2.0	98.2
347.8	9.91	9.36	287.3	-3.4	96.4

TABLE 12.—Continued.

(b) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
48.0	10.20	9.23	289.2	4.4	128.4
52.0	10.18	9.23	287.9	4.3	126.3
55.0	10.12	9.25	288.0	5.3	120.9
56.0	10.11	9.27	287.7	5.5	119.0
57.0	10.12	9.31	288.4	5.2	116.9
58.0	10.00	9.32	288.7	3.4	107.4
59.0	9.92	9.35	288.0	8.4	98.8
60.0	10.18	9.31	288.0	6.8	120.8
61.0	10.19	9.28	288.2	6.1	123.6
62.0	10.18	9.27	288.9	6.0	123.9
66.0	10.11	9.25	287.3	6.2	120.0
72.1	10.02	9.27	288.5	7.2	112.9
78.1	9.94	9.30	288.6	8.2	104.7
137.9	10.19	9.33	290.9	5.9	119.9
142.0	10.26	9.36	285.7	5.9	121.6
145.0	10.23	9.37	288.8	5.5	120.1
146.0	10.24	9.38	285.8	5.2	119.5
147.0	10.25	9.38	289.1	4.4	120.2
148.1	9.95	9.39	287.8	5.0	97.1
149.0	10.15	9.41	288.0	9.0	110.9
150.0	10.23	9.39	286.2	7.3	118.0
151.1	10.23	9.37	288.0	7.0	119.6
152.1	10.20	9.36	289.2	6.2	118.9
156.0	10.14	9.37	290.1	6.0	114.0
162.1	10.19	9.35	290.2	4.2	119.2
168.1	10.24	9.36	289.8	2.6	121.2
228.0	10.13	9.29	287.2	-1.4	118.5
232.0	10.15	9.29	286.7	-0.8	119.6
235.0	10.18	9.30	287.1	-0.0	121.1
236.0	10.19	9.30	287.0	0.3	121.8
237.0	10.20	9.32	287.4	0.2	121.1
238.0	10.01	9.33	287.9	-1.1	107.1
239.0	10.16	9.35	287.8	5.0	116.8
240.1	10.23	9.28	287.9	3.2	126.0
241.1	10.23	9.28	287.6	3.2	126.2
242.0	10.22	9.28	288.1	3.4	125.8
246.1	10.18	9.28	287.5	3.1	122.9
252.0	10.12	9.29	288.2	2.1	118.4
258.1	10.13	9.30	288.0	0.8	118.5
318.1	10.16	9.31	289.2	0.5	119.9
325.1	10.10	9.32	287.3	0.4	114.6
325.0	10.10	9.34	287.8	0.2	113.2
326.0	10.10	9.34	287.3	-1.0	113.2
327.0	9.96	9.37	288.2	-2.5	100.0
328.0	10.12	9.37	288.4	1.8	112.0
329.0	10.15	9.34	288.7	0.7	116.8
330.0	10.12	9.32	288.2	1.1	116.1
331.0	10.09	9.32	288.2	1.5	114.6
332.0	10.07	9.32	288.6	2.2	112.9
336.0	10.11	9.32	288.0	2.7	115.8
342.0	10.07	9.31	288.7	1.7	113.4
347.8	10.05	9.32	288.7	0.9	110.7

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
48.0	10.24	9.17	288.0	9.1	134.5
52.0	10.21	9.17	288.1	9.0	132.0
55.0	10.22	9.18	287.6	8.5	132.2
56.0	10.23	9.20	288.0	8.1	131.7
57.0	10.05	9.27	287.8	6.7	114.3
58.0	10.03	9.31	287.0	10.4	109.9
59.0	10.21	9.26	288.0	9.4	125.6
60.0	10.23	9.22	288.3	9.1	130.1
61.0	10.22	9.20	287.6	9.4	130.5
62.0	10.22	9.20	287.1	9.5	130.5
66.0	10.18	9.20	287.9	9.7	128.3
72.1	10.12	9.22	287.6	9.1	123.4
78.1	10.06	9.25	287.7	9.4	117.0
138.0	10.31	9.29	285.8	5.5	129.9
142.0	10.29	9.33	288.2	5.8	126.5
145.0	10.29	9.33	290.1	7.3	127.2
146.0	10.22	9.35	287.9	5.4	120.6
147.0	9.98	9.38	289.0	7.7	100.6
148.1	10.16	9.38	288.9	10.1	114.4
149.0	10.28	9.34	289.6	8.4	125.8
150.0	10.30	9.32	287.5	7.8	127.2
151.1	10.30	9.32	290.2	7.4	128.4
152.1	10.30	9.31	291.8	7.1	129.2
156.0	10.28	9.29	285.7	6.2	127.9
162.1	10.29	9.30	286.3	5.5	128.5
168.1	10.28	9.31	291.0	5.2	127.3
228.0	10.22	9.26	286.8	0.6	126.6
232.0	10.24	9.26	287.6	1.6	127.4
235.0	10.23	9.28	287.7	2.2	126.3
236.0	10.22	9.28	287.8	1.7	125.4
237.1	10.01	9.33	287.9	0.6	107.4
238.0	10.02	9.35	288.0	6.2	106.5
239.0	10.21	9.31	288.1	5.0	123.0
240.1	10.23	9.27	287.6	3.6	126.7
241.1	10.24	9.26	287.2	3.5	127.4
242.0	10.24	9.26	287.1	3.5	127.7
246.1	10.24	9.25	287.1	3.3	128.7
252.1	10.22	9.25	286.9	2.1	127.1
258.1	10.17	9.27	287.2	1.5	122.4
318.1	10.29	9.23	287.3	1.7	133.1
322.0	10.25	9.24	287.8	2.1	129.6
325.0	10.28	9.26	288.0	1.4	130.4
326.0	10.07	9.30	288.1	-0.9	114.2
327.0	10.18	9.30	287.4	4.6	121.1
328.0	10.29	9.25	288.1	3.7	132.0
329.0	10.29	9.23	288.5	3.5	133.0
330.0	10.27	9.23	288.0	3.6	132.1
331.0	10.25	9.23	288.3	3.6	131.0
332.0	10.25	9.23	287.7	3.6	130.3
336.0	10.28	9.21	287.7	3.3	133.7
342.0	10.26	9.21	287.3	3.9	132.4
347.8	10.17	9.23	288.3	3.6	126.3

TABLE 12.—Continued.

(b) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
48.0	10.07	9.23	288.1	10.7	119.6
52.0	10.04	9.23	287.8	11.1	117.4
55.0	9.97	9.26	287.5	10.0	110.0
56.0	9.85	9.30	287.2	12.0	96.6
57.0	9.99	9.27	287.5	12.5	110.1
58.0	10.02	9.26	287.7	12.0	113.4
59.0	10.01	9.25	287.3	12.1	112.9
60.0	10.01	9.25	287.6	12.3	113.0
61.0	9.99	9.25	287.3	12.4	112.2
62.0	9.99	9.25	287.0	12.6	112.1
66.0	9.97	9.25	287.5	12.9	111.3
72.1	9.96	9.24	287.7	12.9	110.3
78.1	9.92	9.27	287.8	12.6	105.4
137.9	10.20	9.30	288.3	6.5	122.9
142.0	10.22	9.31	285.4	7.2	123.0
145.0	10.21	9.33	285.8	7.0	120.9
146.0	9.97	9.37	287.9	7.5	100.6
147.0	10.06	9.39	286.4	10.5	106.1
148.0	10.17	9.38	290.1	9.0	115.0
149.0	10.21	9.35	298.6	7.9	121.9
150.0	10.22	9.33	284.5	7.4	121.1
151.1	10.22	9.33	290.1	7.3	122.8
152.1	10.23	9.32	289.4	7.1	123.6
156.1	10.26	9.30	285.3	7.0	126.0
162.1	10.22	9.30	287.1	6.6	124.3
168.1	10.26	9.29	288.2	7.1	126.9
228.0	10.24	9.21	287.8	4.2	131.5
232.0	10.24	9.22	287.0	4.7	130.6
235.0	10.16	9.27	287.3	3.3	121.9
236.0	9.94	9.32	287.5	4.3	102.1
237.1	10.03	9.34	287.0	7.8	107.6
238.0	10.10	9.33	288.1	7.5	114.3
239.0	10.18	9.29	287.4	5.3	121.8
240.1	10.18	9.28	287.1	4.6	122.5
241.1	10.18	9.28	287.3	4.4	122.8
242.0	10.17	9.27	286.9	4.3	122.6
246.1	10.14	9.27	286.7	3.8	120.7
252.1	10.11	9.27	287.2	3.8	118.5
258.1	10.09	9.28	287.2	4.4	116.2
318.1	10.26	9.21	288.4	1.9	132.9
322.0	10.29	9.19	287.6	2.8	135.3
325.0	10.03	9.27	287.0	-0.1	113.4
326.0	10.10	9.29	288.2	4.8	116.6
327.0	10.23	9.25	288.0	4.7	128.1
328.0	10.25	9.22	287.8	3.8	131.7
329.0	10.26	9.21	287.5	3.7	132.8
330.0	10.27	9.20	287.4	3.8	133.6
331.0	10.27	9.19	287.2	3.9	134.2
332.0	10.27	9.19	287.5	4.0	134.7
336.0	10.25	9.19	287.5	3.8	132.7
342.0	10.26	9.18	287.6	4.0	134.9
347.8	10.24	9.18	287.9	3.4	133.3

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
48.0	10.11	9.22	287.7	10.5	122.8
52.0	10.09	9.21	287.1	10.5	121.8
55.0	10.07	9.23	287.4	10.1	119.2
56.0	9.92	9.29	286.8	9.9	103.2
57.0	9.97	9.28	287.0	12.5	107.7
58.0	10.07	9.26	287.3	11.6	116.9
59.0	10.06	9.24	288.3	11.5	117.8
60.0	10.06	9.25	286.9	11.4	117.3
61.0	10.06	9.24	287.5	11.6	117.5
62.0	10.05	9.24	287.7	11.6	117.5
66.0	10.04	9.23	287.8	11.9	117.5
72.1	10.04	9.22	288.2	12.2	118.0
78.1	9.99	9.24	287.5	12.8	112.3
138.0	10.25	9.29	289.2	6.4	126.4
142.0	10.22	9.32	289.3	6.2	122.6
145.0	10.22	9.35	289.0	6.1	121.4
146.0	10.07	9.37	289.9	4.3	108.5
147.0	9.96	9.40	295.7	8.9	99.1
148.1	10.14	9.40	285.0	9.6	110.6
149.0	10.27	9.37	284.0	8.0	121.8
150.0	10.30	9.33	291.2	6.9	127.6
151.1	10.29	9.32	285.4	6.6	126.6
152.1	10.28	9.31	284.4	6.5	126.3
156.1	10.29	9.30	286.0	6.4	127.8
162.1	10.26	9.29	287.7	6.4	126.9
168.1	10.30	9.30	284.5	6.5	128.2
228.0	10.28	9.22	287.1	3.5	133.0
232.0	10.26	9.23	287.6	4.2	131.2
235.0	10.25	9.25	287.2	3.6	129.3
236.0	10.06	9.31	287.1	1.5	112.6
237.1	10.04	9.35	287.8	7.6	107.9
238.0	10.16	9.34	286.8	7.5	117.2
239.0	10.24	9.29	287.3	5.3	125.8
240.1	10.24	9.27	287.4	4.5	127.3
241.1	10.24	9.26	286.7	4.3	127.2
242.0	10.23	9.26	286.9	4.3	127.0
246.1	10.20	9.26	287.3	3.4	125.5
252.1	10.17	9.25	287.5	2.6	124.3
258.1	10.13	9.27	286.6	2.7	120.0
318.1	10.27	9.20	287.9	2.0	133.7
322.0	10.30	9.21	288.2	2.7	134.8
325.0	10.14	9.25	288.9	-0.3	122.6
326.0	10.11	9.27	287.5	5.5	118.8
327.0	10.26	9.23	288.0	4.9	131.2
328.0	10.26	9.21	287.5	4.2	132.3
329.0	10.26	9.21	287.7	4.0	132.3
330.0	10.27	9.21	287.7	3.9	133.0
331.0	10.28	9.20	287.1	3.9	134.4
332.0	10.29	9.20	287.4	4.2	135.3
336.0	10.25	9.19	287.8	4.3	133.3
342.0	10.28	9.17	288.1	4.1	136.4
347.8	10.26	9.18	287.1	3.4	134.2

TABLE 12.—Continued.

(b) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
48.0	10.05	9.23	288.0	10.7	117.9
52.0	10.01	9.23	287.4	10.8	115.2
55.0	9.89	9.28	287.8	9.8	102.2
56.0	9.85	9.30	287.6	12.5	97.4
57.0	9.97	9.26	287.4	12.5	109.4
58.0	9.99	9.25	288.2	11.8	111.8
59.0	9.98	9.25	288.1	11.7	111.6
60.0	9.98	9.25	287.3	11.5	111.2
61.0	9.97	9.25	287.8	11.5	111.1
62.0	9.97	9.25	288.1	11.3	110.6
66.0	9.95	9.25	287.4	10.7	108.9
72.1	9.94	9.26	288.5	9.4	107.8
78.1	9.94	9.26	288.2	7.8	107.2
137.9	10.16	9.31	286.6	9.2	119.2
142.0	10.18	9.30	289.7	8.5	121.8
145.0	10.08	9.34	287.6	7.7	112.0
146.0	10.00	9.38	286.2	10.3	102.5
147.0	10.08	9.38	291.9	11.1	109.6
148.0	10.10	9.36	283.4	10.2	110.5
149.0	10.11	9.35	284.0	10.0	112.4
150.0	10.12	9.35	289.6	9.7	114.3
151.1	10.13	9.34	285.0	9.5	114.6
152.1	10.13	9.33	285.8	9.3	115.5
156.1	10.14	9.32	289.1	9.0	117.6
162.1	10.17	9.31	289.5	8.8	120.2
168.1	10.22	9.29	287.8	9.0	124.3
228.0	10.14	9.23	286.9	5.7	123.4
232.0	10.15	9.23	286.7	5.0	124.4
235.0	10.02	9.30	288.0	3.0	110.8
236.0	9.91	9.33	286.6	6.5	99.2
237.1	10.03	9.33	287.9	7.9	108.9
238.0	10.08	9.32	287.5	7.5	112.8
239.0	10.10	9.30	287.3	6.6	116.0
240.1	10.10	9.29	287.1	6.3	116.7
241.1	10.11	9.29	286.7	6.3	117.0
242.0	10.10	9.29	287.6	6.4	117.1
246.1	10.09	9.28	286.8	6.4	116.3
252.1	10.07	9.28	287.8	6.6	115.8
258.1	10.07	9.28	287.5	6.3	115.4
318.1	10.20	9.21	287.4	1.7	128.5
322.0	10.20	9.21	287.1	1.7	129.1
325.0	10.01	9.27	287.8	-1.9	111.9
326.0	9.98	9.28	287.5	3.1	108.6
327.0	10.09	9.26	287.6	5.0	118.4
328.0	10.20	9.23	287.9	3.9	127.5
329.0	10.20	9.22	287.8	3.6	128.3
330.0	10.20	9.22	287.0	3.4	128.0
331.0	10.19	9.22	287.3	3.3	127.9
332.0	10.18	9.22	287.8	3.2	127.3
336.0	10.18	9.21	287.2	2.6	127.2
342.0	10.18	9.20	288.7	2.6	128.7
347.8	10.15	9.21	287.9	2.4	125.8

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
48.0	10.04	9.23	287.0	10.1	117.2
52.0	10.03	9.22	287.9	9.4	116.7
55.0	9.96	9.27	288.3	7.4	108.2
56.0	9.84	9.30	287.8	9.0	96.3
57.0	9.89	9.27	288.3	11.5	103.3
58.0	9.96	9.26	287.7	11.2	109.1
59.0	9.97	9.25	287.6	11.2	110.4
60.0	9.98	9.25	288.0	11.3	111.1
61.0	9.98	9.25	288.0	10.7	111.8
62.0	9.99	9.25	288.3	9.7	112.4
66.0	9.98	9.25	288.3	7.7	111.3
72.1	9.96	9.26	288.2	6.3	109.6
78.1	9.96	9.26	287.8	4.8	108.9
137.9	10.11	9.31	290.2	10.8	116.5
142.0	10.13	9.31	285.3	9.6	117.1
145.0	10.01	9.34	286.3	6.5	106.3
146.0	9.79	9.36	288.1	10.2	86.4
147.0	9.73	9.37	285.0	13.3	78.2
148.0	9.69	9.37	288.3	15.2	75.0
149.0	9.71	9.36	288.5	18.2	77.4
150.0	9.81	9.36	284.2	15.8	87.6
151.1	9.92	9.37	288.0	12.5	97.2
152.1	10.00	9.36	285.2	10.7	103.9
156.1	10.09	9.33	285.6	10.5	112.1
162.1	10.13	9.32	285.7	11.9	116.3
168.1	10.16	9.30	284.6	10.3	119.3
228.0	10.10	9.25	286.3	7.7	119.6
232.0	10.11	9.25	286.4	6.3	120.3
235.0	9.96	9.30	287.4	3.0	105.1
236.0	9.83	9.32	287.4	7.6	93.5
237.1	9.78	9.32	287.5	12.1	89.4
238.0	9.76	9.32	287.5	13.8	87.4
239.0	9.78	9.31	287.5	17.0	89.4
240.1	9.89	9.31	287.2	15.0	99.3
241.1	10.00	9.31	287.4	10.4	108.6
242.0	10.06	9.30	287.7	8.0	113.3
246.1	10.07	9.28	287.0	8.8	114.7
252.1	10.05	9.28	287.2	9.3	114.4
258.1	10.03	9.28	286.9	8.0	112.9
318.1	10.14	9.23	286.5	1.0	122.9
322.0	10.15	9.22	287.1	0.6	125.0
325.0	10.04	9.27	288.0	-4.0	113.9
326.0	9.94	9.29	287.9	-2.5	105.6
327.0	9.94	9.28	288.1	0.5	106.0
328.0	9.90	9.27	287.2	3.2	103.4
329.0	9.88	9.27	287.2	4.9	101.8
330.0	9.95	9.26	287.5	5.6	108.2
331.0	10.02	9.26	287.8	4.0	113.8
332.0	10.07	9.25	288.0	1.8	117.7
336.0	10.11	9.24	287.8	1.3	121.4
342.0	10.13	9.22	287.6	1.7	124.0
347.8	10.11	9.23	287.2	1.0	121.8

TABLE 12.—Continued.

(c) Ring position 3; airflow, 73.04 kg/sec; VIGV angle, 0°

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip					
75.0	9.95	9.51	288.1	-9.0	85.6
80.0	9.86	9.49	289.4	-8.1	79.2
85.0	9.78	9.49	287.5	-15.0	70.1
86.0	9.75	9.48	289.0	-13.0	68.6
87.0	9.72	9.49	288.7	-6.6	63.8
88.0	9.70	9.48	287.9	-6.9	62.2
89.0	9.72	9.51	288.1	-4.0	59.4
90.0	9.67	9.50	287.7	-1.8	54.5
91.0	9.63	9.50	287.6	8.7	47.8
93.0	9.72	9.50	288.7	14.6	61.3
95.1	9.80	9.49	288.5	21.0	72.3
100.1	9.87	9.49	289.0	22.8	80.7
105.1	9.95	9.51	288.9	16.0	86.1
225.1	10.05	9.54	288.1	3.4	92.9
230.0	10.07	9.55	289.6	2.8	93.6
235.0	10.08	9.58	288.0	0.3	91.4
236.1	10.08	9.56	288.7	-0.5	92.8
237.1	10.08	9.56	288.4	-1.1	93.8
238.1	10.08	9.54	287.9	-1.6	94.9
239.1	10.08	9.56	287.9	-2.7	93.2
240.0	9.96	9.54	287.7	-0.7	84.5
241.0	10.03	9.55	287.6	1.1	89.6
243.1	10.05	9.55	288.5	0.6	91.6
245.1	10.04	9.54	288.4	1.5	91.7
250.1	10.06	9.53	289.0	5.3	93.9
255.1	10.13	9.55	288.6	6.1	98.6
345.1	9.84	9.49	288.1	-12.8	77.3
350.0	9.83	9.50	289.4	-7.3	75.4
355.0	9.88	9.51	287.5	-4.8	78.5
356.0	9.88	9.50	289.0	-4.8	80.4
357.0	9.88	9.51	288.7	-5.2	79.2
358.0	9.88	9.50	287.9	-5.3	80.7
359.0	9.88	9.52	288.1	-7.3	79.0
0.0	9.84	9.51	287.7	-2.4	74.5
1.0	9.95	9.53	287.6	-3.5	83.5
3.0	9.95	9.52	288.7	-4.9	84.8
5.0	9.94	9.51	288.5	-5.8	85.0
10.0	9.94	9.51	289.0	-6.7	85.5
14.8	9.94	9.51	288.9	-6.5	85.0

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 10 percent of span from tip					
75.0	9.96	9.45	288.9	-3.6	92.7
80.0	9.79	9.43	288.0	-3.8	78.5
85.0	9.73	9.44	289.0	-4.7	70.6
86.0	9.73	9.45	289.1	-4.9	69.4
87.0	9.70	9.43	287.6	-4.9	68.9
88.0	9.70	9.43	288.4	-4.0	67.4
89.0	9.70	9.46	288.7	-2.1	64.2
90.0	9.65	9.46	288.5	3.3	57.6
91.0	9.67	9.48	288.2	9.0	57.9
93.0	9.71	9.46	287.6	13.2	66.3
95.1	9.74	9.43	288.6	14.9	73.0
100.1	9.76	9.42	287.5	17.7	76.1
105.1	9.93	9.45	289.3	13.2	90.5
225.1	10.07	9.48	289.0	3.0	99.7
230.0	10.09	9.49	288.2	2.5	100.2
235.1	10.09	9.51	288.6	0.5	98.7
236.1	10.09	9.51	288.6	0.1	98.8
237.1	10.09	9.47	287.5	-0.6	102.2
238.1	10.10	9.47	287.9	-1.5	102.5
239.1	10.06	9.45	288.8	-3.7	101.0
240.0	9.93	9.45	288.3	1.2	90.4
241.0	10.08	9.50	288.0	1.0	98.3
243.1	10.07	9.50	287.6	1.7	97.2
245.1	10.06	9.49	288.4	2.0	98.2
250.1	10.08	9.48	288.1	4.2	100.4
255.0	10.14	9.48	289.4	4.7	105.0
345.1	9.85	9.44	288.9	-6.7	83.7
350.0	9.86	9.46	288.0	-4.4	83.1
355.0	9.93	9.47	289.0	-3.5	88.2
356.0	9.94	9.47	289.1	-3.6	89.2
357.0	9.92	9.44	287.6	-3.8	90.1
358.0	9.93	9.44	288.4	-4.0	91.0
359.0	9.85	9.44	288.7	-6.1	83.2
0.0	9.94	9.47	288.5	0.0	89.1
1.0	10.00	9.48	288.2	-1.8	93.9
3.0	9.98	9.47	287.6	-1.6	92.9
5.0	9.97	9.45	288.6	-1.3	93.6
10.0	9.98	9.45	287.5	-1.7	94.8
14.8	9.98	9.46	289.3	-1.4	94.2

TABLE 12.—Continued.

(c) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
75.0	9.93	9.41	288.4	1.8	94.7
80.0	9.79	9.42	288.2	4.5	79.3
85.0	9.74	9.43	287.9	4.9	72.6
86.0	9.75	9.44	287.7	3.6	73.3
87.0	9.70	9.41	289.0	2.1	71.3
88.0	9.69	9.41	289.4	1.0	69.2
89.0	9.67	9.44	287.4	1.1	62.8
90.0	9.63	9.44	289.2	5.0	58.3
91.0	9.65	9.45	288.1	7.7	59.3
93.0	9.69	9.43	288.6	8.3	65.8
95.1	9.71	9.41	288.1	6.8	72.0
100.1	9.74	9.41	289.5	7.6	75.8
105.1	9.89	9.41	288.7	10.3	90.3
225.1	10.07	9.42	288.3	3.1	105.3
230.0	10.09	9.44	288.1	2.4	104.3
235.1	10.11	9.45	287.8	1.0	105.2
236.1	10.11	9.45	287.2	0.7	104.7
237.1	10.11	9.40	288.6	0.4	109.5
238.1	10.11	9.40	288.8	-0.8	109.6
239.1	9.95	9.41	288.1	-3.4	95.9
240.0	10.03	9.44	288.8	3.6	99.9
241.0	10.08	9.44	288.1	2.1	104.0
243.1	10.07	9.45	288.0	2.3	102.7
245.1	10.07	9.43	288.2	2.6	103.4
250.1	10.07	9.42	289.0	3.1	105.4
255.1	10.13	9.41	288.2	3.5	109.7
345.1	9.87	9.41	288.4	0.1	88.5
350.0	9.90	9.43	288.2	-0.6	89.4
355.1	9.97	9.43	287.9	-1.5	95.5
356.0	9.98	9.43	287.7	-1.6	96.3
357.0	9.97	9.40	289.0	-1.7	97.9
358.0	9.95	9.39	289.4	-2.8	97.7
359.0	9.86	9.43	287.4	-0.2	85.4
0.0	10.04	9.45	289.2	1.6	99.9
1.0	10.04	9.43	288.1	1.0	102.0
3.0	10.01	9.42	288.6	1.8	100.3
5.0	10.00	9.41	288.1	2.7	100.3
10.0	10.06	9.41	289.5	1.9	104.4
14.8	10.04	9.42	288.7	2.0	102.9

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
75.0	9.92	9.40	288.6	6.1	94.7
80.0	9.85	9.41	288.5	8.2	86.3
85.0	9.79	9.43	288.6	7.9	78.4
86.0	9.78	9.44	288.9	6.9	76.4
87.0	9.73	9.40	288.5	5.8	75.4
88.0	9.70	9.41	288.5	4.0	71.4
89.0	9.65	9.44	288.6	3.4	60.0
90.0	9.64	9.43	288.7	5.3	59.7
91.0	9.66	9.44	288.3	5.4	60.8
93.0	9.68	9.43	287.3	4.1	65.5
95.1	9.70	9.41	288.4	2.4	70.9
100.1	9.79	9.41	289.2	2.6	80.9
105.1	9.90	9.40	287.9	7.1	91.7
225.1	10.09	9.38	288.3	3.2	109.4
230.0	10.11	9.40	288.1	2.3	108.9
235.0	10.12	9.41	238.4	1.5	108.9
236.1	10.12	9.42	288.7	1.4	108.9
237.1	10.12	9.36	288.5	1.2	113.0
238.1	10.10	9.36	238.0	-0.7	111.4
239.1	9.90	9.42	287.9	3.0	90.3
240.0	10.09	9.43	288.4	4.0	105.8
241.0	10.09	9.40	288.2	3.5	107.6
243.1	10.08	9.40	287.6	3.5	106.9
245.1	10.07	9.39	288.3	3.1	107.3
250.1	10.07	9.37	289.2	2.6	108.8
255.1	10.12	9.36	287.6	2.6	112.5
345.1	9.91	9.40	288.6	4.4	93.5
350.0	9.95	9.41	288.5	2.7	96.1
355.0	10.02	9.41	288.6	0.4	102.0
356.0	10.02	9.40	288.9	0.4	102.2
357.0	10.00	9.37	288.5	0.4	103.4
358.1	9.90	9.37	288.5	-0.4	95.4
359.0	10.01	9.43	288.6	5.2	99.0
0.0	10.09	9.41	288.7	3.6	106.9
1.0	10.08	9.39	288.3	3.4	108.1
3.0	10.05	9.38	287.3	4.0	105.8
5.0	10.05	9.38	288.4	5.3	106.7
10.0	10.12	9.38	289.2	3.9	111.8
14.8	10.11	9.38	287.9	4.0	110.5

TABLE 12.—Continued.

(c) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
75.0	9.97	9.38	288.6	9.9	100.5
80.0	9.94	9.38	289.2	8.4	97.8
85.0	9.91	9.41	289.0	7.6	91.8
86.0	9.90	9.42	288.8	7.3	89.8
87.0	9.87	9.40	288.8	6.4	89.9
88.0	9.79	9.42	288.3	4.0	79.5
89.0	9.70	9.43	286.9	6.3	67.5
90.0	9.74	9.44	288.2	6.1	72.3
91.0	9.76	9.44	288.7	5.2	73.7
93.0	9.78	9.43	288.2	4.1	77.3
95.1	9.82	9.42	288.3	3.5	83.2
100.1	9.91	9.38	288.6	4.0	94.7
105.1	9.95	9.38	288.4	4.6	98.1
225.1	10.13	9.35	287.9	3.5	114.5
230.0	10.14	9.38	288.3	3.0	113.2
235.0	10.14	9.39	289.1	3.4	112.2
236.1	10.14	9.39	288.9	3.6	112.7
237.1	10.14	9.34	288.2	3.1	116.0
238.1	9.92	9.39	287.7	3.7	94.4
239.1	10.10	9.41	287.1	7.0	107.7
240.0	10.12	9.37	288.3	5.7	111.6
241.0	10.11	9.36	288.4	5.6	112.3
243.1	10.11	9.36	287.9	5.2	111.9
245.1	10.10	9.35	288.0	4.7	112.0
250.1	10.10	9.35	288.1	2.9	112.4
255.1	10.12	9.34	288.0	1.9	114.6
345.1	10.05	9.37	288.6	6.5	107.1
350.0	10.10	9.37	289.2	5.2	110.6
355.0	10.09	9.36	289.0	3.6	111.1
356.0	10.08	9.37	288.8	3.6	110.0
357.0	10.00	9.33	288.8	2.0	107.0
358.0	9.97	9.38	288.3	7.9	100.2
359.0	10.14	9.38	286.9	6.4	113.1
0.0	10.18	9.35	288.2	5.8	117.4
1.0	10.19	9.34	288.7	5.5	119.0
3.0	10.13	9.34	288.2	5.3	115.0
5.0	10.11	9.33	288.3	6.5	114.9
10.0	10.21	9.32	288.6	6.2	122.4
14.8	10.22	9.33	288.4	4.7	122.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
75.0	10.09	9.34	288.7	10.5	112.6
80.0	10.04	9.36	288.3	10.6	107.4
85.0	10.02	9.38	287.7	10.2	103.8
86.0	10.01	9.38	289.2	9.7	103.4
87.0	9.85	9.37	288.4	8.7	90.1
88.0	9.83	9.43	288.8	11.7	83.1
89.0	9.94	9.41	288.4	10.0	95.4
90.0	9.95	9.40	287.4	8.8	96.9
91.0	9.95	9.41	288.1	8.2	96.4
93.0	9.96	9.39	288.3	7.0	98.1
95.1	9.97	9.38	287.8	6.2	100.0
100.0	10.01	9.36	288.4	5.1	105.0
105.1	10.06	9.35	287.7	5.3	109.9
225.1	10.18	9.32	288.0	3.9	120.3
230.0	10.14	9.37	288.3	4.4	113.9
235.1	10.12	9.39	287.6	5.9	110.9
236.1	10.11	9.37	288.0	4.9	111.1
237.1	9.91	9.37	287.7	6.0	95.8
238.1	10.07	9.40	288.5	9.4	105.7
239.1	10.11	9.37	288.3	7.9	111.9
240.0	10.11	9.35	287.5	7.7	112.7
241.0	10.11	9.35	287.7	7.7	112.5
243.1	10.10	9.35	288.3	7.5	112.3
245.1	10.10	9.35	288.4	7.3	112.4
250.1	10.11	9.34	288.7	6.3	113.8
255.1	10.15	9.33	287.9	5.7	117.4
345.1	10.21	9.28	288.7	7.6	124.8
350.0	10.20	9.29	288.3	7.4	123.5
355.0	10.28	9.30	287.7	6.2	127.6
356.0	10.17	9.31	289.2	3.0	120.3
357.0	10.05	9.33	288.4	9.2	110.5
358.0	10.23	9.35	288.8	8.0	121.4
359.0	10.24	9.30	288.4	7.3	125.8
0.0	10.26	9.28	287.4	7.5	127.5
1.0	10.27	9.27	288.1	7.4	129.3
3.0	10.29	9.27	288.3	7.2	130.7
5.0	10.29	9.28	287.8	6.7	129.8
10.0	10.25	9.26	288.4	5.9	128.7
14.8	10.27	9.26	287.7	6.4	129.8

TABLE 12.—Continued.

(c) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
75.0	10.02	9.33	288.6	13.9	108.8
80.0	9.96	9.35	287.4	14.3	101.5
85.0	9.93	9.39	288.5	12.1	96.3
86.0	9.81	9.41	287.9	11.6	83.3
87.0	9.80	9.39	288.3	13.5	83.8
88.0	9.92	9.42	287.6	12.4	92.5
89.0	9.95	9.38	288.2	10.4	97.9
90.0	9.95	9.38	287.9	9.7	98.7
91.0	9.95	9.38	288.1	9.1	98.9
93.0	9.97	9.36	288.0	8.3	102.1
95.1	9.99	9.34	287.9	7.8	104.9
100.1	10.04	9.33	287.9	7.3	109.9
105.1	10.06	9.32	286.9	7.5	111.5
225.1	10.15	9.32	287.9	5.1	117.9
230.0	10.11	9.36	287.3	5.7	112.0
235.0	10.09	9.37	288.1	6.5	109.6
236.1	9.92	9.39	288.3	5.6	95.1
237.1	9.95	9.37	288.2	10.2	99.0
238.1	10.08	9.38	287.9	9.4	108.9
239.1	10.10	9.36	288.2	8.1	111.9
240.0	10.10	9.35	287.9	7.9	112.4
241.0	10.10	9.35	288.9	7.9	112.7
243.1	10.10	9.35	287.9	7.9	112.7
245.1	10.10	9.34	287.6	8.0	112.9
250.1	10.12	9.33	287.6	8.4	115.4
255.1	10.16	9.32	288.0	8.1	118.9
345.1	10.27	9.24	288.6	7.4	131.0
350.0	10.23	9.27	287.4	7.2	126.7
355.0	10.18	9.29	288.5	5.1	121.8
356.0	10.09	9.33	287.9	10.7	113.1
357.0	10.27	9.27	288.3	9.7	128.9
358.0	10.27	9.27	287.6	8.5	128.9
359.0	10.27	9.27	288.2	8.3	129.1
0.0	10.25	9.27	287.9	8.2	128.2
1.0	10.25	9.27	288.1	8.1	128.0
3.0	10.26	9.26	288.0	8.0	129.6
5.0	10.28	9.24	287.9	7.7	131.7
10.0	10.27	9.25	287.9	7.1	130.5
14.8	10.25	9.25	286.9	6.6	128.8

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
75.0	9.95	9.34	287.7	14.1	101.7
80.0	9.94	9.37	288.2	13.7	98.5
85.0	9.87	9.41	287.8	11.5	88.8
86.0	9.78	9.42	288.3	13.5	78.3
87.0	9.89	9.40	288.8	14.1	91.1
88.1	9.96	9.42	288.3	12.5	95.7
89.0	9.98	9.39	288.1	12.2	99.4
90.3	9.97	9.40	288.1	11.9	98.6
91.0	9.97	9.39	288.0	11.8	99.5
93.0	9.96	9.37	287.1	11.5	99.7
95.1	9.96	9.36	288.2	11.1	101.3
100.1	9.99	9.34	287.1	9.9	105.2
105.1	10.02	9.33	287.7	9.3	107.9
225.1	10.10	9.33	287.6	6.7	113.4
230.0	10.08	9.36	288.2	7.5	109.8
235.0	10.07	9.37	288.1	7.5	108.6
236.1	9.88	9.40	288.6	8.6	90.0
237.1	10.00	9.37	288.4	10.4	103.8
238.1	10.08	9.37	288.3	9.3	109.1
239.1	10.09	9.36	287.6	8.1	111.0
240.0	10.10	9.35	288.0	7.9	112.0
241.0	10.10	9.35	287.9	7.9	112.4
243.1	10.10	9.34	288.0	7.9	112.7
245.1	10.09	9.34	288.3	7.9	112.7
250.1	10.09	9.33	288.1	8.3	113.2
255.1	10.10	9.33	287.6	8.4	114.0
345.1	10.24	9.25	287.7	7.5	129.3
350.0	10.21	9.26	288.2	7.0	126.4
355.0	10.12	9.30	287.8	5.3	117.3
356.0	10.09	9.32	288.3	10.6	113.8
357.0	10.24	9.25	288.8	9.9	128.9
358.0	10.26	9.26	288.3	8.4	129.1
359.0	10.27	9.26	288.1	8.1	129.7
0.0	10.26	9.26	288.1	7.9	129.3
1.0	10.26	9.26	288.0	7.8	128.9
3.0	10.24	9.26	287.1	7.6	127.4
5.0	10.24	9.25	288.2	7.5	128.3
10.0	10.26	9.24	287.1	7.1	130.3
14.7	10.23	9.25	287.7	7.1	128.2

TABLE 12.—Continued.

(c) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
75.0	9.96	9.35	288.7	9.7	102.3
80.0	9.97	9.36	288.3	8.8	102.1
85.0	9.90	9.41	287.7	10.5	91.8
86.0	9.87	9.42	287.5	13.9	88.0
87.0	9.93	9.38	288.9	14.6	97.1
88.0	9.96	9.40	287.3	15.0	97.2
89.0	9.97	9.38	288.1	15.3	100.1
90.0	9.97	9.38	288.2	14.9	100.2
91.0	9.99	9.38	287.6	14.7	101.5
93.0	9.99	9.36	287.8	14.2	102.9
95.1	9.99	9.36	288.1	13.9	103.3
100.1	10.00	9.34	287.8	13.1	105.2
105.1	10.00	9.33	287.4	12.2	105.9
225.1	10.07	9.33	288.3	8.7	111.6
230.0	10.07	9.36	288.3	8.1	109.5
235.1	10.03	9.38	287.4	6.9	104.6
236.1	9.84	9.40	287.4	8.9	86.3
237.1	9.94	9.36	289.2	10.5	99.4
238.1	10.00	9.37	287.9	9.6	103.1
239.1	10.02	9.36	288.4	9.0	105.3
240.0	10.04	9.35	288.3	8.6	107.5
241.0	10.05	9.35	287.7	8.1	109.0
243.1	10.07	9.34	288.0	7.2	111.2
245.1	10.08	9.34	288.2	6.7	112.0
250.1	10.08	9.34	287.8	6.4	111.8
255.1	10.08	9.33	287.4	5.9	111.9
345.1	10.16	9.27	288.7	6.5	122.3
350.0	10.14	9.28	288.3	6.2	120.8
355.0	10.04	9.32	287.7	3.4	110.8
356.0	9.94	9.33	287.5	7.6	102.0
357.0	10.04	9.28	288.9	9.9	114.1
358.0	10.16	9.29	287.3	8.4	120.7
359.0	10.18	9.28	288.1	7.8	122.6
0.0	10.18	9.28	288.2	7.8	123.0
1.0	10.18	9.27	287.6	7.6	123.1
3.0	10.17	9.27	287.8	7.1	123.0
5.0	10.18	9.27	288.1	6.8	123.4
10.0	10.18	9.26	287.8	6.8	124.0
14.8	10.17	9.26	287.4	6.7	123.2

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
75.0	9.98	9.35	288.3	6.5	103.9
80.0	9.95	9.36	287.5	5.6	100.5
85.0	9.90	9.38	288.5	7.9	94.4
86.0	9.80	9.39	287.7	11.7	84.1
87.0	9.72	9.36	287.9	16.0	78.9
88.0	9.70	9.39	287.4	20.3	72.7
89.0	9.73	9.38	287.2	22.7	77.3
90.0	9.80	9.39	287.7	20.7	83.6
91.0	9.87	9.39	288.0	18.0	90.8
93.0	9.96	9.37	288.2	15.5	99.5
95.1	9.97	9.36	288.3	15.3	101.9
100.1	9.98	9.34	287.4	14.9	104.0
105.1	9.99	9.34	288.1	14.0	105.1
225.1	10.04	9.33	287.5	11.1	109.6
230.0	10.02	9.36	287.3	8.8	105.5
235.0	10.00	9.39	288.7	5.7	102.3
236.1	9.86	9.40	288.3	3.6	88.7
237.1	9.81	9.36	288.2	7.0	88.4
238.1	9.81	9.38	287.8	8.5	85.9
239.1	9.77	9.38	287.6	10.3	81.5
240.0	9.75	9.38	288.1	13.2	80.0
241.0	9.77	9.38	288.2	13.6	81.7
243.1	9.92	9.37	288.6	8.5	97.0
245.1	10.02	9.35	288.8	6.7	106.9
250.1	10.06	9.34	287.4	5.6	110.4
255.1	10.07	9.33	288.1	4.6	111.3
345.1	10.12	9.28	288.3	5.3	118.7
350.0	10.09	9.29	287.5	4.8	116.3
355.0	10.04	9.32	288.5	1.8	110.6
356.0	9.92	9.34	287.7	3.3	99.5
357.0	9.89	9.29	287.9	5.8	100.8
358.0	9.83	9.32	287.4	8.3	93.4
359.0	9.82	9.33	287.2	12.2	91.7
0.0	9.89	9.32	287.7	12.7	98.8
1.0	9.97	9.31	288.0	10.1	105.8
3.0	10.07	9.30	288.2	6.5	114.0
5.0	10.09	9.29	288.3	6.4	115.8
10.0	10.10	9.28	287.4	6.7	117.5
14.8	10.10	9.28	288.1	6.8	117.8

TABLE 12.—Continued.

(d) Ring position 3; airflow, 72.45 kg/sec; VIGV angle, 10°

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip					
75.0	9.93	9.49	287.9	-13.6	86.6
81.1	9.87	9.47	288.2	-19.7	83.2
87.1	9.77	9.46	289.2	-23.4	73.0
88.0	9.77	9.49	290.0	-22.3	69.6
89.0	9.75	9.50	287.5	-20.1	64.9
90.1	9.72	9.51	289.4	-17.6	59.1
91.0	9.68	9.51	288.6	-14.1	53.9
92.0	9.67	9.52	288.6	-6.1	51.5
93.1	9.70	9.52	288.0	-1.0	55.2
94.0	9.71	9.52	288.4	2.0	57.9
95.0	9.71	9.48	289.0	4.8	62.3
100.0	9.82	9.47	287.7	17.0	76.7
105.1	9.93	9.51	289.1	11.3	84.0
225.0	10.05	9.51	288.1	-4.0	94.9
231.1	10.07	9.52	288.2	-3.2	96.0
237.1	10.07	9.54	288.8	-5.9	94.6
238.1	10.08	9.56	289.8	-6.6	93.6
239.1	10.08	9.56	288.1	-7.3	92.6
240.0	10.08	9.58	289.9	-8.1	91.7
241.1	10.06	9.57	289.2	-10.2	90.8
242.1	9.88	9.53	288.3	-10.8	77.2
243.0	10.05	9.55	288.6	-5.5	91.3
244.1	10.06	9.56	288.5	-6.7	91.3
245.0	10.05	9.53	289.6	-6.4	93.5
250.0	10.03	9.53	288.6	-3.5	92.2
255.0	10.10	9.55	289.3	-0.4	96.6
345.1	9.84	9.46	287.9	-21.6	80.0
351.1	9.81	9.47	288.2	-16.5	76.4
357.0	9.86	9.50	289.2	-12.7	78.8
358.1	9.87	9.51	290.0	-12.6	78.4
359.0	9.88	9.52	287.5	-12.9	77.9
0.0	9.89	9.54	289.4	-13.1	77.4
1.0	9.88	9.54	288.6	-14.1	76.2
2.1	9.84	9.52	288.6	-11.1	73.6
3.0	9.97	9.54	288.0	-11.4	84.4
4.0	9.97	9.54	288.4	-12.3	85.0
5.0	9.95	9.51	289.0	-12.9	86.7
10.0	9.93	9.50	287.7	-14.2	85.2
14.9	9.94	9.51	289.1	-15.2	84.6

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 10 percent of span from tip					
75.0	9.97	9.43	287.0	-8.7	95.7
81.1	9.81	9.40	287.1	-11.2	83.4
87.1	9.73	9.43	288.3	-13.7	71.7
88.0	9.73	9.44	288.4	-13.9	70.0
89.0	9.73	9.47	289.0	-14.3	67.8
90.1	9.71	9.47	288.0	-13.9	64.9
91.0	9.70	9.47	289.4	-12.9	62.9
92.1	9.69	9.48	289.7	-8.7	60.0
93.1	9.68	9.48	289.5	-2.7	58.8
94.0	9.70	9.48	288.8	1.4	62.2
95.0	9.69	9.43	289.2	3.8	67.3
100.0	9.73	9.42	287.9	9.3	72.8
105.1	9.83	9.44	289.2	7.9	81.9
225.0	10.07	9.45	287.6	-3.4	101.5
231.1	10.08	9.46	287.7	-3.4	102.0
237.1	10.09	9.50	288.4	-6.0	99.9
238.1	10.09	9.50	289.0	-6.5	99.8
239.1	10.10	9.51	289.5	-6.8	98.8
240.0	10.09	9.51	288.2	-7.4	98.8
241.0	10.03	9.48	289.5	-10.0	96.3
242.1	9.91	9.46	289.6	-5.0	86.8
243.0	10.07	9.50	289.6	-5.5	98.5
244.1	10.07	9.51	289.2	-5.8	97.3
245.0	10.06	9.47	289.3	-5.4	100.3
250.0	10.07	9.48	288.9	-3.2	99.0
255.0	10.11	9.49	289.3	-1.8	102.2
345.1	9.83	9.40	287.0	-14.4	85.6
351.1	9.84	9.42	287.1	-12.5	83.9
357.0	9.91	9.47	288.3	-11.1	86.9
358.1	9.92	9.47	288.4	-11.0	87.4
359.0	9.93	9.48	289.0	-10.9	87.1
0.0	9.93	9.48	288.0	-10.6	87.3
1.0	9.87	9.47	289.4	-11.1	82.9
2.1	9.96	9.48	289.7	-6.9	90.1
3.0	10.01	9.49	289.5	-9.3	94.3
4.0	10.01	9.48	288.8	-9.5	93.8
5.0	9.98	9.44	289.2	-9.4	96.2
10.0	9.98	9.45	287.9	-9.3	94.0
14.9	9.98	9.46	289.2	-9.8	93.7

TABLE 12.—Continued.

(d) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
75.0	9.98	9.38	288.0	-3.9	100.7
81.1	9.78	9.38	286.5	-2.7	82.6
87.1	9.73	9.43	287.0	-3.3	71.9
88.0	9.72	9.43	287.7	-4.6	70.8
89.0	9.71	9.44	287.4	-6.4	68.8
90.1	9.71	9.45	289.1	-8.1	65.8
91.0	9.69	9.45	288.6	-8.7	64.4
92.1	9.67	9.46	288.0	-7.6	60.3
93.1	9.65	9.45	287.7	-3.3	59.5
94.0	9.67	9.45	286.7	-1.4	62.0
95.0	9.67	9.41	288.6	-0.8	67.0
100.0	9.73	9.42	290.5	-3.3	73.5
105.1	9.80	9.43	288.9	1.3	79.9
225.0	10.08	9.39	287.6	-3.4	107.2
231.1	10.09	9.40	286.4	-3.7	107.8
237.1	10.11	9.44	287.6	-5.7	105.7
238.1	10.11	9.44	287.7	-6.1	105.8
239.1	10.11	9.44	287.8	-6.3	106.0
240.0	10.10	9.45	289.0	-6.7	104.5
241.1	10.03	9.43	289.0	-9.5	100.7
242.1	9.97	9.46	288.2	-3.9	93.1
243.0	10.09	9.43	287.8	-5.2	104.6
244.1	10.08	9.45	287.1	-5.1	103.0
245.0	10.07	9.41	288.9	-4.9	105.8
250.0	10.06	9.43	290.6	-4.0	103.7
255.0	10.10	9.43	289.3	-3.3	106.7
345.1	9.86	9.38	288.0	-7.4	90.5
351.1	9.87	9.39	286.5	-7.7	90.2
357.0	9.96	9.44	287.0	-8.9	93.6
358.1	9.96	9.44	287.7	-8.9	93.9
359.0	9.97	9.44	287.4	-8.8	94.5
0.0	9.97	9.45	289.1	-8.7	93.6
1.0	9.87	9.44	288.6	-8.1	85.7
2.1	10.05	9.46	288.0	-5.6	99.4
3.0	10.06	9.43	287.7	-6.9	102.3
4.0	10.04	9.43	286.7	-6.7	101.5
5.0	10.02	9.39	288.6	-6.7	102.9
10.0	10.05	9.42	290.5	-5.3	103.0
14.9	10.03	9.42	288.9	-6.0	101.6

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
75.0	9.97	9.36	287.6	-0.3	101.6
81.1	9.83	9.38	288.4	1.8	88.3
87.1	9.77	9.42	289.1	1.3	77.5
88.1	9.75	9.44	289.9	0.2	73.6
89.0	9.73	9.45	289.5	-1.3	70.3
90.1	9.70	9.44	287.5	-2.9	67.0
91.0	9.67	9.43	287.5	-4.1	63.3
92.0	9.64	9.44	290.3	-3.7	59.0
93.1	9.66	9.46	289.8	-3.4	59.7
94.0	9.67	9.45	288.8	-3.8	62.6
95.0	9.66	9.40	288.1	-4.4	66.9
100.0	9.76	9.43	288.9	-7.4	75.6
105.1	9.84	9.42	287.2	-2.3	84.7
225.0	10.08	9.35	288.0	-3.1	111.0
231.1	10.10	9.35	287.9	-3.9	112.1
237.1	10.12	9.39	289.2	-5.5	110.9
238.1	10.12	9.41	289.8	-5.8	109.7
239.1	10.12	9.41	290.0	-5.9	109.0
240.0	10.12	9.41	288.0	-6.1	109.1
241.1	9.99	9.41	288.1	-8.7	99.4
242.1	10.03	9.43	290.6	-2.9	101.2
243.0	10.09	9.41	290.0	-4.5	107.4
244.1	10.09	9.41	289.0	-4.3	107.0
245.0	10.08	9.36	288.1	-4.2	110.0
250.0	10.07	9.40	289.4	-4.5	106.8
255.0	10.09	9.38	287.4	-4.5	109.7
345.1	9.91	9.36	287.6	-2.5	96.3
351.1	9.92	9.38	288.4	-3.9	95.9
357.0	10.00	9.41	289.1	-7.1	100.3
358.1	10.01	9.42	289.9	-7.1	99.9
359.0	10.00	9.42	289.5	-7.0	99.1
0.0	9.98	9.41	287.5	-7.6	97.9
1.0	9.90	9.42	287.5	-4.1	90.1
2.1	10.10	9.41	290.3	-4.4	107.9
3.0	10.10	9.41	289.8	-4.9	108.1
4.0	10.08	9.40	288.8	-4.7	107.6
5.0	10.05	9.35	288.1	-4.5	108.9
10.0	10.13	9.40	288.9	-2.9	110.9
14.9	10.07	9.38	287.2	-3.4	108.0

TABLE 12.—Continued.

(d) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
75.0	9.99	9.34	287.6	3.9	105.1
81.1	9.93	9.35	287.7	3.0	99.7
87.1	9.89	9.41	287.3	1.9	89.9
88.1	9.88	9.42	288.4	1.4	88.1
89.0	9.84	9.43	288.5	0.7	84.4
90.1	9.80	9.44	289.0	-0.8	78.6
91.0	9.72	9.46	289.2	-1.1	67.7
92.0	9.75	9.46	288.6	-0.2	70.6
93.1	9.78	9.46	288.4	-1.7	75.0
94.0	9.79	9.44	288.0	-2.3	76.9
95.0	9.78	9.41	289.0	-2.9	80.3
100.0	9.88	9.41	289.0	-3.7	88.9
105.1	9.93	9.40	289.6	-3.2	95.2
225.0	10.12	9.32	287.7	-2.7	116.5
231.1	10.13	9.32	287.1	-3.7	116.5
237.1	10.14	9.37	287.8	-4.4	113.6
238.1	10.14	9.37	289.6	-4.4	113.9
239.1	10.14	9.38	288.8	-4.3	113.1
240.0	10.13	9.39	290.0	-5.3	111.7
241.0	9.93	9.43	289.4	-4.9	92.5
242.1	10.11	9.40	290.0	-2.1	109.2
243.0	10.11	9.37	289.1	-2.9	111.7
244.1	10.11	9.36	287.6	-2.9	112.0
245.0	10.10	9.33	289.2	-2.9	114.7
250.0	10.09	9.36	289.0	-4.0	110.9
255.0	10.10	9.35	290.2	-5.5	112.7
345.1	10.05	9.33	287.6	0.2	109.8
351.1	10.07	9.35	287.7	-0.8	110.4
357.0	10.09	9.37	287.3	-4.4	109.9
358.1	10.08	9.37	288.4	-4.5	108.8
359.0	10.06	9.37	288.5	-4.8	107.5
0.0	9.94	9.39	289.0	-6.0	97.0
1.0	10.03	9.42	289.2	-0.3	102.0
2.1	10.17	9.37	288.6	-2.6	116.0
3.0	10.19	9.35	288.4	-3.0	118.5
4.0	10.18	9.34	288.0	-3.1	118.5
5.0	10.14	9.31	289.0	-3.1	118.8
10.0	10.23	9.33	289.0	-0.7	122.7
14.9	10.17	9.34	289.6	-1.8	118.2

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
75.0	10.11	9.30	288.7	4.8	117.2
81.1	10.03	9.32	287.1	4.5	109.5
87.1	10.01	9.39	288.6	2.6	103.1
88.0	10.01	9.40	288.9	2.2	101.9
89.0	10.01	9.40	288.3	1.4	101.0
90.1	9.92	9.42	288.0	-0.1	92.4
91.0	9.83	9.43	288.8	2.3	82.1
92.0	9.94	9.42	288.4	1.8	94.0
93.1	9.96	9.42	287.9	0.5	95.9
94.0	9.97	9.41	287.9	-0.1	97.2
95.0	9.96	9.36	287.5	-0.5	100.6
100.0	9.99	9.37	288.5	-2.3	102.7
105.1	10.04	9.36	288.5	-2.8	106.9
225.0	10.21	9.28	287.7	-3.0	124.5
231.1	10.15	9.31	287.4	-3.3	118.7
237.1	10.12	9.37	288.9	-3.2	112.5
238.1	10.12	9.38	289.0	-2.9	111.8
239.1	10.12	9.39	288.7	-3.0	111.2
240.0	10.03	9.40	289.3	-5.0	104.0
241.0	9.99	9.42	290.7	0.4	98.8
242.1	10.11	9.37	289.8	-1.1	111.8
243.0	10.11	9.37	289.6	-1.4	111.8
244.1	10.11	9.36	288.2	-1.3	111.6
245.0	10.10	9.32	287.9	-1.4	114.6
250.0	10.10	9.35	289.3	-1.8	112.6
255.0	10.13	9.35	289.6	-2.6	114.7
345.1	10.25	9.25	288.7	0.9	129.1
351.1	10.18	9.26	287.1	0.5	123.7
357.0	10.27	9.32	288.6	-1.2	126.0
358.1	10.25	9.33	288.9	-2.7	123.7
359.0	10.09	9.37	288.3	-3.9	110.3
0.0	10.06	9.38	288.0	0.7	107.0
1.0	10.21	9.37	288.8	0.6	119.2
2.1	10.24	9.31	288.4	-0.6	125.0
3.0	10.26	9.30	287.9	-0.6	126.1
4.0	10.28	9.30	287.9	-0.6	127.8
5.0	10.30	9.24	287.5	-0.8	132.3
10.0	10.26	9.27	288.5	-1.9	128.5
14.9	10.28	9.27	288.5	-1.8	129.9

TABLE 12.—Continued.

(d) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
75.0	10.05	9.29	287.0	6.4	112.8
81.1	9.98	9.32	286.6	6.5	105.7
87.1	9.95	9.40	287.4	4.6	96.8
88.0	9.95	9.41	288.2	4.0	95.7
89.0	9.91	9.42	288.2	2.5	91.7
90.1	9.81	9.43	288.5	1.9	80.8
91.0	9.80	9.44	288.4	4.1	78.5
92.0	9.90	9.42	288.6	3.7	90.6
93.1	9.96	9.41	288.3	1.4	96.9
94.0	9.96	9.40	288.3	0.5	97.9
95.0	9.96	9.35	288.4	-0.0	101.4
100.0	10.00	9.35	287.5	-1.3	105.3
105.1	10.05	9.35	288.6	-1.5	109.1
225.0	10.17	9.29	287.9	-3.1	121.6
231.1	10.12	9.32	287.3	-2.9	116.4
237.1	10.09	9.36	287.6	-2.8	110.7
238.1	10.10	9.37	289.2	-2.5	110.6
239.1	10.09	9.38	289.3	-2.9	109.6
240.0	9.95	9.40	290.1	-4.0	96.9
241.1	9.96	9.41	289.4	0.7	96.5
242.1	10.09	9.37	289.6	-0.7	110.4
243.0	10.10	9.37	289.1	-1.3	111.1
244.1	10.10	9.36	288.7	-1.3	111.4
245.0	10.10	9.32	288.6	-1.4	114.3
250.0	10.10	9.35	288.7	-1.0	112.4
255.0	10.13	9.35	290.1	-0.6	114.9
345.1	10.28	9.23	287.0	-0.1	132.0
351.1	10.25	9.24	286.6	-1.1	129.4
357.0	10.26	9.31	287.4	-1.9	126.0
358.1	10.22	9.32	288.2	-3.4	122.3
359.0	10.07	9.36	288.2	-3.3	109.2
0.0	10.09	9.36	288.5	0.8	111.0
1.0	10.23	9.34	288.4	1.0	122.2
2.1	10.27	9.30	288.6	-0.8	127.5
3.0	10.25	9.30	288.3	-0.9	126.2
4.0	10.24	9.30	288.3	-1.0	125.7
5.0	10.25	9.25	288.4	-1.0	129.5
10.0	10.28	9.26	287.5	-1.5	130.3
14.9	10.25	9.29	288.6	-2.0	126.9

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
75.0	9.97	9.31	286.4	5.9	105.8
81.1	9.92	9.34	287.5	5.0	99.8
87.1	9.95	9.41	288.3	3.7	95.5
88.0	9.94	9.42	288.1	3.4	93.4
89.0	9.89	9.43	288.1	2.2	88.3
90.1	9.79	9.44	288.4	2.5	77.3
91.0	9.79	9.44	289.6	5.1	76.8
92.0	9.89	9.44	289.3	5.0	88.0
93.1	9.96	9.42	288.6	2.8	96.0
94.0	9.97	9.41	288.1	2.2	97.0
95.0	9.96	9.37	287.8	1.9	99.8
100.0	9.97	9.38	288.7	0.6	100.2
105.1	10.00	9.36	288.2	-0.3	104.7
225.0	10.11	9.31	287.1	-2.7	116.1
231.1	10.09	9.32	287.2	-2.0	113.1
237.1	10.07	9.36	289.1	-1.6	109.5
238.1	10.08	9.37	287.9	-1.7	108.9
239.1	10.05	9.38	288.7	-2.9	106.4
240.0	9.89	9.41	288.7	-2.6	90.3
241.1	9.93	9.41	289.5	1.1	94.0
242.1	10.07	9.38	289.8	-0.2	108.2
243.0	10.09	9.36	289.5	-1.3	110.9
244.1	10.09	9.36	288.1	-1.4	111.0
245.0	10.09	9.32	288.0	-1.6	114.2
250.0	10.09	9.36	288.8	-1.6	110.9
255.0	10.10	9.35	287.7	-1.2	112.0
345.1	10.26	9.23	286.4	-0.8	130.8
351.1	10.23	9.25	287.5	-1.4	128.3
357.0	10.23	9.31	288.3	-2.3	123.8
358.1	10.19	9.34	288.1	-3.8	119.1
359.0	10.05	9.37	288.1	-4.0	107.7
0.0	10.03	9.36	288.4	-0.3	106.4
1.0	10.16	9.34	289.6	1.3	117.6
2.1	10.27	9.30	289.3	-0.8	127.6
3.0	10.27	9.28	288.6	-1.3	128.4
4.0	10.26	9.29	288.1	-1.6	127.3
5.0	10.26	9.25	287.8	-1.7	129.7
10.0	10.25	9.29	288.7	-2.0	127.1
14.9	10.26	9.28	288.2	-2.2	127.9

TABLE 12.—Continued.

(d) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
75.0	9.95	9.32	287.1	1.9	103.4
81.1	9.95	9.33	286.4	0.2	101.7
87.1	9.98	9.41	288.4	-1.1	98.9
88.0	9.97	9.42	288.9	-0.8	97.2
89.0	9.95	9.43	289.7	-1.0	94.0
90.1	9.89	9.43	288.0	-1.0	89.1
91.0	9.84	9.45	288.3	1.7	82.4
92.0	9.88	9.44	289.0	4.9	87.4
93.1	9.97	9.42	288.6	4.0	96.1
94.0	9.97	9.38	288.9	3.9	100.5
95.0	9.98	9.36	288.1	4.1	102.4
100.0	9.98	9.37	287.9	3.6	101.7
105.1	9.99	9.38	288.9	2.5	102.2
225.0	10.08	9.32	286.9	-0.9	112.6
231.1	10.07	9.32	287.0	-0.9	112.0
237.1	10.05	9.37	289.6	-2.2	107.4
238.1	10.04	9.38	289.3	-2.6	105.5
239.1	10.01	9.40	289.9	-3.8	101.4
240.0	9.87	9.41	288.4	-4.0	88.5
241.0	9.85	9.43	288.6	-0.5	85.3
242.1	9.96	9.41	289.6	0.9	97.2
243.0	10.04	9.38	289.0	-1.2	105.6
244.1	10.05	9.34	289.3	-1.5	110.2
245.0	10.07	9.33	289.0	-1.8	111.8
250.0	10.08	9.35	287.7	-3.4	110.8
255.0	10.08	9.37	288.8	-4.1	109.6
345.1	10.18	9.26	287.1	-2.9	124.4
351.1	10.15	9.27	286.4	-3.0	120.8
357.0	10.14	9.33	288.4	-3.9	116.5
358.1	10.13	9.35	288.9	-4.9	114.4
359.0	10.03	9.38	289.7	-5.8	105.2
0.0	9.96	9.37	288.0	-3.4	99.9
1.0	9.99	9.37	288.3	-0.5	102.0
2.1	10.18	9.32	289.0	-0.8	119.6
3.0	10.20	9.31	288.6	-2.1	122.2
4.0	10.21	9.27	288.9	-2.5	125.8
5.0	10.20	9.26	288.1	-2.5	125.4
10.0	10.18	9.30	287.9	-3.2	121.9
14.9	10.18	9.30	288.9	-3.6	121.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
75.0	9.98	9.33	287.6	-1.4	104.9
81.1	9.96	9.34	286.9	-2.6	102.6
87.1	9.91	9.41	289.1	-3.3	92.5
88.0	9.89	9.41	287.8	-2.9	89.9
89.0	9.87	9.41	288.6	-2.4	88.7
90.1	9.84	9.41	287.3	-1.3	85.7
91.0	9.83	9.42	288.1	0.6	84.2
92.0	9.85	9.42	288.3	3.8	85.3
93.1	9.91	9.41	289.8	5.1	91.9
94.0	9.90	9.37	287.5	6.1	94.9
95.0	9.90	9.36	289.1	6.5	95.6
100.0	9.98	9.39	288.8	4.8	100.5
105.1	9.99	9.37	287.5	4.1	102.0
225.0	10.06	9.32	287.2	1.2	111.4
231.1	10.04	9.33	287.2	0.2	109.6
237.1	9.99	9.38	288.9	-3.1	101.3
238.1	9.99	9.39	288.8	-3.7	101.0
239.1	9.98	9.40	289.1	-4.8	98.9
240.0	9.90	9.42	287.5	-6.3	90.0
241.0	9.83	9.42	288.2	-4.8	83.8
242.1	9.83	9.42	288.3	-1.8	83.8
243.0	9.94	9.40	290.5	-1.2	96.5
244.1	9.95	9.35	287.6	-1.5	101.4
245.0	9.95	9.34	289.9	-1.5	102.2
250.0	10.04	9.37	289.5	-4.3	106.3
255.0	10.06	9.37	287.5	-5.5	108.4
345.1	10.13	9.28	287.6	-4.6	119.6
351.1	10.11	9.29	286.9	-5.0	117.4
357.0	10.07	9.35	289.1	-6.1	110.3
358.1	10.06	9.36	287.8	-7.3	108.2
359.0	9.97	9.38	288.6	-8.3	100.0
0.0	9.91	9.38	287.3	-7.6	94.9
1.0	9.90	9.38	288.1	-5.1	93.9
2.1	10.03	9.35	288.3	-17.4	107.1
3.0	10.10	9.34	289.8	-2.6	114.0
4.0	10.11	9.29	287.5	-2.7	117.6
5.0	10.11	9.28	289.1	-3.1	118.3
10.0	10.12	9.33	288.8	-4.8	115.8
14.9	10.11	9.32	287.5	-5.0	115.1

TABLE 12.—Continued.

(e) Ring position 3; airflow, 73.83 kg/sec; VIGV angle, −10°

Circumferential location, deg	Total pressure, N/cm²	Static pressure, N/cm²	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip					
75.1	9.93	9.45	288.6	-3.1	90.5
80.0	9.81	9.43	288.5	-7.0	81.3
81.1	9.79	9.43	288.0	-7.5	79.3
82.1	9.78	9.42	288.2	-7.1	77.7
83.0	9.76	9.43	287.6	-6.2	75.0
84.0	9.73	9.43	287.9	-3.9	71.8
85.0	9.72	9.44	288.2	-1.0	69.0
86.0	9.72	9.45	287.7	1.0	67.9
87.0	9.69	9.45	287.3	0.3	65.1
88.0	9.55	9.42	288.7	1.7	46.4
90.0	9.59	9.43	288.6	25.2	53.6
97.0	9.85	9.41	287.4	31.0	86.5
105.1	9.94	9.45	287.9	21.6	91.8
225.1	10.06	9.48	288.4	9.7	98.6
230.0	10.07	9.50	288.8	8.2	98.4
231.1	10.08	9.50	287.7	7.7	98.1
232.0	10.08	9.50	288.2	7.4	98.2
233.1	10.08	9.51	287.5	6.9	97.7
234.0	10.08	9.51	287.9	6.7	97.5
235.1	10.08	9.52	288.1	6.4	97.3
236.0	10.08	9.50	287.4	5.8	98.0
237.1	9.92	9.46	287.2	5.7	88.1
238.0	9.85	9.46	288.3	11.5	81.6
240.0	10.04	9.49	288.4	11.6	95.6
247.1	10.05	9.46	287.4	12.0	98.9
255.1	10.15	9.49	287.8	12.4	105.0
345.1	9.82	9.45	288.6	-1.0	80.4
350.0	9.85	9.47	288.5	4.5	80.7
351.0	9.86	9.47	288.0	4.8	81.7
352.1	9.87	9.47	288.2	4.8	82.6
353.0	9.88	9.48	287.6	5.0	83.2
354.0	9.90	9.48	287.9	4.9	84.0
355.0	9.91	9.48	288.2	4.7	84.9
356.0	9.89	9.46	287.7	3.2	85.2
357.0	9.82	9.45	287.3	8.4	78.7
358.0	9.85	9.46	288.7	9.6	81.8
0.0	9.92	9.47	288.6	11.7	87.7
7.0	9.93	9.44	287.4	3.0	91.2
14.9	9.93	9.45	287.9	2.5	90.3

Circumferential location, deg	Total pressure, N/cm²	Static pressure, N/cm²	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 10 percent of span from tip					
75.1	9.88	9.37	289.3	3.7	93.9
80.0	9.74	9.37	288.6	4.6	80.1
81.1	9.72	9.37	288.7	4.7	78.5
82.1	9.72	9.37	288.0	4.5	77.8
83.0	9.72	9.38	288.8	3.9	76.7
84.0	9.71	9.39	288.5	3.3	75.4
85.0	9.72	9.39	288.8	3.6	74.7
86.0	9.72	9.40	288.0	4.4	73.9
87.0	9.63	9.40	288.0	6.4	63.7
88.0	9.56	9.41	288.1	15.0	52.3
90.0	9.64	9.40	288.2	21.5	64.6
97.0	9.72	9.33	288.1	25.9	82.4
105.0	9.96	9.39	287.4	17.8	98.8
225.1	10.07	9.41	290.0	9.1	105.5
230.0	10.09	9.43	288.5	8.1	105.3
231.1	10.09	9.43	289.0	7.8	105.3
232.0	10.09	9.43	287.9	7.7	105.6
233.1	10.09	9.44	288.2	7.4	105.0
234.0	10.09	9.44	287.9	7.3	104.8
235.1	10.09	9.42	288.6	7.0	106.4
236.0	10.03	9.37	288.5	5.9	106.2
237.1	9.90	9.38	287.8	10.5	94.4
238.0	10.05	9.44	288.1	13.2	101.0
240.0	10.07	9.46	288.4	11.4	101.9
247.1	10.06	9.41	288.4	10.8	104.9
255.1	10.16	9.41	287.0	11.0	111.2
345.1	9.84	9.39	289.3	2.8	87.7
350.0	9.89	9.41	288.6	5.3	90.0
351.0	9.90	9.41	288.7	5.2	91.5
352.1	9.92	9.42	288.0	5.4	92.5
353.0	9.94	9.42	288.8	5.5	93.6
354.0	9.95	9.42	288.5	5.6	94.4
355.0	9.95	9.41	288.8	5.2	95.8
356.1	9.87	9.38	288.0	4.9	91.3
357.0	9.88	9.40	288.0	12.2	90.4
358.0	9.99	9.43	288.1	11.3	97.7
0.0	9.99	9.44	288.2	10.0	96.7
7.0	9.97	9.38	288.1	7.7	100.4
14.9	10.00	9.40	287.4	6.4	100.1

TABLE 12.—Continued.

(e) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
75.1	9.84	9.33	288.2	10.2	93.0
80.0	9.77	9.36	288.3	13.7	83.7
81.1	9.75	9.36	287.3	14.1	82.2
82.1	9.74	9.36	288.3	13.6	81.0
83.0	9.73	9.36	287.6	12.8	79.8
84.0	9.73	9.37	287.5	11.3	78.7
85.0	9.73	9.38	287.9	9.6	78.2
86.0	9.69	9.37	287.7	8.6	74.0
87.0	9.60	9.38	287.6	12.1	61.2
88.0	9.60	9.39	288.1	16.2	61.3
90.0	9.64	9.37	287.4	17.5	68.4
97.0	9.71	9.32	287.3	15.7	82.7
105.1	9.96	9.34	288.2	15.8	102.9
225.1	10.08	9.34	287.9	9.1	111.5
230.0	10.10	9.36	288.2	8.0	111.4
231.1	10.11	9.36	287.2	7.8	111.6
232.0	10.10	9.36	287.9	7.7	111.8
233.1	10.11	9.36	287.7	7.6	111.7
234.0	10.10	9.36	287.2	7.7	111.0
235.1	10.09	9.35	287.2	7.1	112.0
236.0	9.98	9.35	288.0	6.4	103.2
237.1	9.89	9.37	287.4	12.1	94.1
238.0	10.02	9.37	288.1	14.2	105.0
240.0	10.08	9.39	287.6	11.9	107.6
247.1	10.07	9.34	287.0	10.2	110.4
255.1	10.15	9.34	288.1	10.0	116.8
345.1	9.87	9.37	288.2	8.7	93.1
350.0	9.94	9.38	288.3	7.3	97.2
351.0	9.96	9.38	287.3	7.0	99.2
352.1	9.97	9.38	288.3	6.9	100.2
353.0	9.98	9.38	287.6	6.9	101.1
354.0	9.99	9.38	287.5	6.7	101.8
355.0	9.96	9.36	287.9	5.7	100.8
356.1	9.86	9.37	287.7	8.6	91.6
357.0	9.94	9.37	287.6	13.9	98.0
358.0	10.04	9.37	288.1	12.4	106.5
0.0	10.03	9.37	287.4	11.6	105.2
7.0	10.06	9.34	287.3	10.6	109.9
14.9	10.09	9.36	288.2	8.5	111.0

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
75.1	9.86	9.32	288.1	13.9	95.7
80.0	9.84	9.35	288.5	15.5	91.4
81.1	9.83	9.35	288.5	15.5	90.6
82.1	9.82	9.36	288.7	15.1	88.8
83.0	9.81	9.36	288.7	14.3	87.5
84.0	9.80	9.37	287.7	13.2	86.2
85.0	9.77	9.37	288.6	11.3	83.6
86.0	9.66	9.37	288.3	10.5	71.3
87.0	9.60	9.38	288.4	14.2	62.2
88.0	9.62	9.38	288.2	15.5	64.9
90.0	9.63	9.36	287.7	14.2	68.6
97.0	9.76	9.31	287.4	9.9	87.8
105.1	9.96	9.31	287.6	13.9	104.9
225.1	10.09	9.29	288.3	8.9	116.2
230.0	10.12	9.31	287.7	7.9	116.3
231.1	10.12	9.32	288.5	7.6	116.3
232.0	10.12	9.32	288.2	7.6	116.4
233.1	10.12	9.32	288.8	7.4	115.9
234.1	10.12	9.33	287.5	7.3	115.4
235.1	10.09	9.33	288.8	5.7	113.4
236.0	9.96	9.36	289.0	4.7	101.0
237.1	9.85	9.38	288.1	10.4	89.6
238.0	9.97	9.36	288.0	14.4	101.5
240.0	10.09	9.34	288.1	12.1	112.6
247.1	10.07	9.30	286.8	9.8	114.1
255.1	10.14	9.28	286.9	9.2	120.2
345.1	9.92	9.35	288.1	11.7	98.8
350.0	10.00	9.36	288.5	8.8	104.7
351.0	10.02	9.35	288.5	8.2	106.3
352.1	10.03	9.35	288.7	7.8	107.3
353.0	10.03	9.35	288.7	7.6	107.2
354.0	10.02	9.34	287.7	7.1	107.4
355.0	9.95	9.35	288.6	6.2	101.5
356.1	9.87	9.36	288.3	10.4	93.3
357.0	9.97	9.36	288.4	14.4	102.1
358.0	10.08	9.33	288.2	13.1	112.0
0.0	10.08	9.33	287.7	12.5	111.9
7.0	10.14	9.31	287.4	11.8	118.1
14.9	10.18	9.32	287.6	9.6	119.8

TABLE 12.—Continued.

(e) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
75.1	9.95	9.29	289.1	15.7	105.9
80.0	9.94	9.31	287.8	14.4	103.5
81.1	9.93	9.32	287.7	14.2	102.1
82.1	9.92	9.32	287.5	14.2	100.7
83.0	9.91	9.33	287.5	14.1	99.4
84.0	9.88	9.34	288.2	13.3	96.8
85.0	9.73	9.35	286.9	13.6	81.2
86.0	9.67	9.37	286.8	16.8	72.5
87.0	9.72	9.38	288.2	16.5	76.3
88.0	9.73	9.37	288.3	15.1	78.3
90.0	9.75	9.37	287.2	13.0	81.5
97.0	9.89	9.29	287.2	11.0	100.8
105.1	9.98	9.29	287.9	12.3	108.5
225.1	10.13	9.25	288.8	8.9	121.7
230.0	10.14	9.28	287.3	8.0	120.1
231.1	10.14	9.29	287.6	7.9	119.8
232.0	10.14	9.29	287.4	7.7	119.3
233.1	10.14	9.30	287.1	7.3	118.4
234.1	10.12	9.31	288.1	6.2	116.6
235.1	9.98	9.35	287.6	3.6	103.6
236.0	9.80	9.38	286.8	4.3	84.2
237.1	9.74	9.40	287.9	10.6	76.5
238.0	9.90	9.39	288.1	15.0	93.6
240.0	10.12	9.31	286.8	12.4	116.6
247.1	10.09	9.26	286.9	10.0	118.5
255.1	10.14	9.25	287.9	8.3	122.3
345.1	10.06	9.31	289.1	12.7	112.9
350.0	10.15	9.31	287.8	10.6	118.5
351.0	10.15	9.30	287.7	9.9	119.1
352.1	10.13	9.30	287.5	9.6	117.9
353.0	10.11	9.30	287.5	8.9	116.3
354.0	10.03	9.32	288.2	7.2	109.9
355.0	9.88	9.34	286.9	9.1	95.5
356.0	9.90	9.36	286.8	14.5	95.9
357.0	10.05	9.35	288.2	15.5	108.5
358.0	10.16	9.30	288.3	13.8	120.0
0.0	10.18	9.27	287.2	12.8	123.5
7.0	10.24	9.23	287.2	13.4	129.9
14.9	10.30	9.24	287.9	10.3	132.9

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
75.1	10.06	9.24	288.0	16.4	117.7
80.0	10.01	9.27	287.5	17.0	112.0
81.1	10.02	9.28	288.0	17.1	111.5
82.1	10.00	9.29	288.1	16.9	109.3
83.0	9.91	9.32	287.9	16.0	100.4
84.0	9.77	9.34	287.7	18.1	85.7
85.0	9.79	9.35	287.3	21.2	87.2
86.0	9.90	9.35	287.7	20.5	96.7
87.0	9.96	9.34	287.6	18.3	102.7
88.0	9.98	9.33	287.2	16.8	104.2
90.0	9.98	9.32	287.6	14.9	105.6
97.0	10.00	9.25	287.6	11.8	113.0
105.1	10.09	9.24	286.9	11.5	119.7
225.1	10.16	9.23	288.5	10.1	125.1
230.0	10.13	9.28	287.5	10.4	119.5
231.1	10.12	9.29	287.7	10.5	118.6
232.0	10.11	9.30	288.3	9.9	117.1
233.1	10.03	9.32	288.6	7.8	109.1
234.0	9.85	9.36	288.1	7.4	92.0
235.1	9.75	9.38	286.9	12.3	79.1
236.0	9.84	9.40	287.4	16.7	86.8
237.1	9.99	9.39	287.7	17.5	100.0
238.0	10.07	9.36	287.4	16.2	109.3
240.0	10.10	9.28	287.4	14.7	117.7
247.1	10.10	9.23	288.2	13.3	121.2
255.1	10.17	9.23	286.9	12.0	125.7
345.1	10.18	9.21	288.0	14.2	127.8
350.0	10.26	9.22	287.5	13.2	131.5
351.0	10.27	9.22	288.0	12.3	132.3
352.1	10.22	9.24	288.1	10.5	128.1
353.0	10.04	9.28	287.9	10.1	112.9
354.0	9.91	9.32	287.7	15.1	100.4
355.0	10.03	9.33	287.3	18.3	108.5
356.1	10.18	9.33	287.7	17.3	119.2
357.0	10.24	9.28	287.6	15.5	126.2
358.0	10.26	9.23	287.2	14.8	130.8
0.0	10.29	9.19	287.6	14.7	135.7
7.0	10.25	9.15	287.6	12.8	135.4
14.9	10.26	9.16	286.9	12.6	135.1

TABLE 12.—Continued.

(e) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
75.1	9.99	9.22	288.0	20.3	114.1
80.0	9.94	9.27	287.6	18.6	106.8
81.1	9.90	9.29	287.8	17.1	101.5
82.1	9.79	9.32	286.7	15.1	89.2
83.0	9.66	9.35	286.2	14.4	73.1
84.0	9.61	9.37	287.2	16.5	64.8
85.0	9.63	9.38	287.8	18.5	66.7
86.0	9.71	9.37	287.4	19.1	76.3
87.0	9.83	9.36	287.6	18.0	89.8
88.0	9.91	9.33	287.3	16.4	99.6
90.0	9.95	9.28	286.9	14.8	106.6
97.0	10.02	9.20	286.7	14.1	117.9
105.1	10.07	9.20	286.7	14.1	121.4
225.1	10.12	9.21	287.8	13.1	123.7
230.0	10.09	9.25	287.5	13.6	118.7
231.1	10.02	9.28	288.8	12.4	112.0
232.0	9.86	9.31	287.4	12.8	97.0
233.1	9.82	9.33	286.8	17.3	91.5
234.1	9.95	9.33	287.5	20.0	102.1
235.1	10.06	9.32	287.7	18.9	112.0
236.0	10.10	9.31	288.3	17.5	115.8
237.1	10.10	9.29	288.4	16.9	117.2
238.0	10.10	9.27	287.8	16.8	118.6
240.0	10.10	9.24	286.9	16.6	120.3
247.1	10.12	9.22	286.9	16.2	123.0
255.1	10.17	9.20	286.5	14.9	127.7
345.1	10.25	9.16	288.0	14.2	135.5
350.0	10.24	9.19	287.6	12.8	132.7
351.0	10.16	9.22	287.8	10.8	125.2
352.1	9.93	9.27	286.7	11.7	105.9
353.0	9.88	9.29	286.2	16.7	100.1
354.0	10.03	9.30	287.2	19.7	111.6
355.0	10.18	9.28	287.8	18.8	123.1
356.0	10.26	9.24	287.4	16.9	130.0
357.0	10.27	9.21	287.6	15.9	132.9
358.0	10.26	9.19	287.3	15.6	134.0
0.0	10.26	9.16	286.9	15.8	135.2
7.0	10.28	9.12	286.7	14.9	138.7
14.9	10.25	9.14	286.7	14.5	136.7

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
75.1	9.93	9.24	287.6	22.0	108.7
80.0	9.90	9.30	288.5	18.7	100.9
81.1	9.82	9.33	287.5	17.5	92.0
82.1	9.74	9.34	286.9	17.9	82.0
83.0	9.73	9.36	286.2	19.2	79.7
84.0	9.78	9.37	286.7	19.4	83.8
85.0	9.85	9.37	287.5	19.1	91.0
86.0	9.91	9.35	288.2	18.8	97.5
87.0	9.94	9.33	287.6	18.2	102.1
88.0	9.95	9.29	287.2	18.1	105.5
90.0	9.95	9.26	287.6	18.3	108.4
97.0	9.99	9.20	287.1	17.3	115.2
105.1	10.03	9.20	287.4	16.5	119.0
225.1	10.08	9.21	287.8	16.1	121.0
230.0	10.01	9.26	288.4	14.6	112.8
231.1	9.88	9.29	288.1	12.7	100.0
232.0	9.78	9.32	288.3	13.2	88.9
233.1	9.78	9.33	287.4	16.3	88.2
234.1	9.87	9.33	287.9	18.2	96.1
235.1	9.97	9.32	287.8	18.3	105.2
236.0	10.06	9.28	288.2	17.4	114.9
237.1	10.09	9.26	287.6	16.7	118.6
238.0	10.10	9.24	287.5	16.5	120.2
240.0	10.09	9.23	287.6	16.5	121.1
247.1	10.09	9.21	287.3	16.9	122.3
255.1	10.11	9.21	287.1	16.4	123.5
345.1	10.23	9.14	287.6	14.8	135.5
350.0	10.16	9.20	288.5	12.7	127.7
351.0	10.01	9.24	287.5	11.4	113.7
352.1	9.87	9.28	286.9	14.1	100.6
353.0	9.93	9.29	286.2	17.5	104.0
354.0	10.06	9.28	286.7	18.4	114.5
355.0	10.18	9.26	287.5	17.8	124.2
356.0	10.25	9.22	288.2	16.4	131.6
357.0	10.26	9.18	287.6	15.9	134.7
358.0	10.26	9.16	287.2	15.7	135.7
0.0	10.25	9.15	287.6	15.8	135.7
7.0	10.26	9.11	287.1	15.8	139.2
14.9	10.23	9.12	287.4	16.2	136.3

TABLE 12.—Concluded.

(e) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
75.1	9.96	9.22	287.1	18.2	112.1
80.0	9.84	9.29	287.9	20.4	96.9
81.1	9.84	9.31	286.8	23.3	94.9
82.1	9.90	9.31	287.2	23.8	100.3
83.0	9.94	9.31	287.1	23.6	103.4
84.0	9.95	9.30	287.0	23.2	105.3
85.0	9.96	9.30	287.7	22.8	106.3
86.0	9.98	9.28	287.1	22.6	108.4
87.0	9.98	9.27	286.9	22.4	109.5
88.0	9.98	9.25	287.2	22.3	111.5
90.0	9.97	9.23	287.8	22.1	112.3
97.0	9.98	9.20	286.6	21.2	115.2
105.1	10.01	9.19	287.1	19.5	118.5
225.1	10.06	9.19	287.5	18.1	121.4
230.0	9.91	9.26	288.0	15.4	105.4
231.1	9.84	9.29	286.9	18.9	96.7
232.0	9.92	9.31	287.0	20.5	101.8
233.1	9.98	9.32	287.0	20.3	106.3
234.1	10.01	9.30	287.2	19.6	109.6
235.1	10.02	9.29	287.9	19.1	111.4
236.0	10.05	9.25	287.4	18.0	115.6
237.1	10.06	9.24	286.9	17.3	117.6
238.0	10.06	9.22	287.2	17.0	119.2
240.0	10.07	9.21	288.1	16.5	120.9
247.1	10.07	9.20	286.3	15.8	121.0
255.1	10.08	9.20	286.8	15.1	121.9
345.1	10.15	9.14	287.1	15.8	130.4
350.0	10.02	9.20	287.9	13.9	118.3
351.0	9.96	9.23	286.8	17.7	111.0
352.1	10.07	9.25	287.2	20.3	117.4
353.0	10.13	9.25	287.1	20.0	121.9
354.0	10.16	9.23	287.0	19.1	124.8
355.0	10.17	9.21	287.7	18.4	127.1
356.1	10.17	9.18	287.1	17.9	129.0
357.0	10.18	9.16	286.9	17.4	130.8
358.0	10.18	9.15	287.2	17.0	131.7
0.0	10.17	9.14	287.8	16.6	132.1
7.0	10.18	9.11	286.6	16.9	134.5
14.9	10.16	9.11	287.1	17.2	133.3

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
75.1	9.97	9.21	287.6	14.7	113.7
80.0	9.78	9.27	287.7	17.1	94.1
81.1	9.61	9.27	286.9	23.1	76.9
82.1	9.51	9.28	286.5	31.0	62.6
83.0	9.57	9.29	286.5	36.4	69.8
84.0	9.68	9.29	286.8	33.7	82.0
85.0	9.77	9.29	287.0	30.3	91.3
86.0	9.85	9.28	287.4	27.2	98.5
87.0	9.90	9.26	287.4	25.0	104.5
88.0	9.94	9.24	287.8	24.1	108.8
90.0	9.96	9.22	287.0	23.7	112.2
97.0	9.98	9.19	287.0	23.4	115.5
105.1	9.99	9.18	287.3	21.2	117.5
225.1	10.03	9.19	287.6	19.6	119.9
230.0	9.85	9.26	287.9	14.3	100.8
231.1	9.73	9.27	287.9	16.3	89.1
232.0	9.64	9.28	287.6	19.1	79.8
233.1	9.56	9.29	287.3	22.3	68.9
234.0	9.56	9.29	287.3	26.1	69.0
235.1	9.60	9.28	287.1	27.3	74.3
236.0	9.70	9.27	287.6	25.5	86.0
237.1	9.81	9.26	287.6	22.2	96.7
238.0	9.88	9.25	288.4	20.1	104.2
240.0	10.02	9.21	287.3	17.5	116.8
247.1	10.06	9.20	287.2	15.2	120.9
255.1	10.08	9.19	287.6	13.6	122.4
345.1	10.12	9.14	287.6	15.8	128.2
350.0	9.91	9.21	287.7	11.9	109.3
351.0	9.74	9.24	286.9	15.1	92.8
352.1	9.62	9.25	286.5	20.4	79.7
353.0	9.59	9.26	286.5	25.9	76.2
354.0	9.65	9.25	286.8	28.7	83.9
355.0	9.75	9.23	287.0	27.4	94.4
356.0	9.84	9.21	287.4	24.9	103.6
357.0	9.97	9.19	287.4	20.5	115.1
358.0	10.03	9.17	287.8	18.2	121.0
0.0	10.08	9.15	287.0	17.4	125.5
7.0	10.11	9.12	287.0	18.0	129.6
15.2	10.12	9.11	287.3	17.6	130.5

TABLE 13.—VIGV EXIT PERFORMANCE WITH VANE B IN CORNER 2 AND VANE A10 WITH SIMULATED ENGINE EXHAUST SCOOP IN CORNER 1

(a) Ring position 1; airflow, 72.91 kg/sec; VIGV angle, 0°

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip					
12.0	10.02	9.47	287.7	1.7	96.4
18.0	10.05	9.47	287.4	-0.4	99.3
24.0	10.05	9.47	289.2	-2.4	98.4
26.1	10.03	9.48	288.9	-2.4	96.3
27.0	10.02	9.48	288.2	-2.5	95.4
28.0	10.02	9.49	287.6	-2.2	94.5
29.1	10.02	9.49	288.8	-2.0	94.4
30.0	9.99	9.48	297.0	-2.4	94.2
31.0	9.95	9.51	288.1	2.8	86.6
32.0	10.01	9.49	287.7	0.7	93.9
34.0	10.03	9.49	289.9	-0.5	96.1
38.0	10.05	9.47	289.4	-2.3	98.6
42.0	10.04	9.47	289.5	-3.0	98.4
102.0	9.85	9.54	286.0	14.2	72.5
108.1	9.87	9.55	286.0	10.5	72.7
114.1	9.99	9.58	285.9	7.6	82.5
116.1	9.99	9.59	286.2	4.9	82.6
117.1	9.99	9.59	286.0	3.7	82.0
118.0	9.98	9.59	285.9	2.6	81.4
119.1	9.96	9.58	286.0	0.3	80.2
120.0	9.82	9.55	285.6	2.3	67.5
121.0	9.86	9.56	286.4	9.5	70.4
122.0	9.88	9.56	286.6	9.4	74.4
124.0	9.93	9.56	286.6	11.5	78.7
128.0	9.97	9.56	286.5	12.9	83.0
132.0	9.98	9.56	286.2	12.7	83.8
192.0	9.93	9.49	286.4	5.8	86.0
198.0	9.88	9.48	286.4	4.7	82.4
204.1	9.89	9.49	286.4	3.8	82.4
206.0	9.90	9.49	286.5	2.6	82.6
207.1	9.92	9.51	286.5	1.5	82.6
208.0	9.93	9.52	286.1	0.2	82.8
209.1	9.95	9.53	286.4	-1.8	84.0
210.0	9.82	9.50	285.9	-2.4	73.7
211.0	9.84	9.51	286.1	5.7	73.7
212.0	9.90	9.51	286.3	7.2	80.8
214.0	9.94	9.50	286.7	6.8	85.1
218.1	9.97	9.50	286.2	7.8	88.9
222.0	10.00	9.50	286.3	7.1	91.6
282.1	10.06	9.51	287.6	7.8	95.7
288.0	10.12	9.53	287.1	7.2	99.4
294.0	10.13	9.54	286.7	5.3	99.0
296.0	10.14	9.55	286.4	4.5	99.0
297.0	10.15	9.56	287.1	3.5	98.8
298.0	10.15	9.56	287.2	2.5	98.8
299.0	10.09	9.52	287.3	-0.4	97.6
300.0	9.99	9.51	286.8	4.1	89.5
301.0	10.10	9.55	286.3	5.9	95.1
302.0	10.11	9.54	286.6	5.9	97.1
304.0	10.11	9.54	286.1	5.6	97.4
308.0	10.10	9.53	286.5	5.1	97.0
312.0	10.06	9.52	286.7	4.1	94.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 10 percent of span from tip					
12.0	10.07	9.41	288.2	2.6	105.4
18.0	10.08	9.39	290.0	1.3	108.0
24.0	10.07	9.39	288.7	0.2	106.6
26.1	10.03	9.40	289.1	0.6	103.7
27.1	10.04	9.41	289.9	0.3	103.4
28.0	10.06	9.42	288.2	0.0	103.7
29.0	10.03	9.45	289.8	-1.6	99.4
30.0	9.96	9.38	288.0	-3.7	98.9
31.0	9.95	9.42	291.1	2.6	95.9
32.0	10.06	9.43	292.0	0.6	103.5
34.0	10.05	9.42	290.5	0.8	103.4
38.0	10.05	9.39	288.9	0.5	105.9
42.0	10.07	9.39	289.4	-0.2	107.0
102.0	9.84	9.49	285.7	10.3	77.1
108.0	9.91	9.51	285.5	7.4	81.4
114.1	10.02	9.53	285.8	6.4	90.3
116.1	10.07	9.55	285.7	4.9	92.4
117.1	10.07	9.56	286.2	4.0	92.4
118.0	10.07	9.56	286.1	2.9	92.7
119.1	9.97	9.55	286.0	-0.8	84.5
120.0	9.92	9.52	286.8	5.8	82.2
121.0	9.95	9.54	286.0	7.1	82.7
122.0	9.95	9.53	286.0	7.1	83.3
124.0	9.95	9.51	285.8	7.2	85.4
128.0	9.98	9.51	285.9	9.1	89.0
132.0	9.98	9.50	286.6	9.5	90.4
192.0	9.99	9.45	286.6	3.6	94.8
198.0	9.93	9.44	286.2	2.8	91.2
204.1	9.92	9.44	286.1	1.5	90.4
206.1	9.94	9.44	286.3	0.7	91.6
207.1	9.97	9.46	286.8	0.3	92.3
208.0	9.99	9.47	286.5	-0.3	93.0
209.1	9.96	9.50	286.5	-2.1	87.2
210.0	9.86	9.45	286.7	1.6	83.0
211.0	9.91	9.48	286.2	4.7	84.7
212.0	9.92	9.47	286.2	4.9	86.7
214.0	9.93	9.45	285.9	5.5	89.9
218.1	9.96	9.44	286.9	5.9	94.1
222.0	10.00	9.43	287.2	5.5	97.6
282.1	10.07	9.44	286.8	6.5	102.6
288.0	10.14	9.45	285.9	6.5	106.9
294.0	10.17	9.47	287.3	5.2	108.2
296.0	10.18	9.47	286.8	4.5	108.5
297.0	10.19	9.48	285.7	4.0	108.0
298.0	10.19	9.48	286.3	3.0	108.1
299.0	10.07	9.49	286.7	0.0	98.2
300.0	10.11	9.47	286.8	7.8	103.9
301.0	10.15	9.50	286.2	6.2	104.0
302.0	10.15	9.49	286.2	6.1	104.6
304.1	10.15	9.47	287.1	5.8	105.8
308.0	10.12	9.46	286.8	5.5	105.0
312.0	10.07	9.45	286.9	5.3	101.7

TABLE 13.—Continued.

(a) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
12.0	10.11	9.33	288.5	3.4	114.6
18.0	10.12	9.30	288.8	2.5	117.9
24.0	10.07	9.31	289.0	2.0	113.8
26.1	10.07	9.32	288.6	2.3	112.4
27.0	10.08	9.33	289.2	2.1	112.5
28.0	10.12	9.35	288.2	1.5	113.9
29.0	10.11	9.32	288.8	-1.0	115.8
30.0	9.92	9.38	292.5	-1.2	96.8
31.0	10.05	9.38	289.7	2.6	106.1
32.0	10.11	9.35	288.2	1.2	113.4
34.0	10.10	9.35	289.1	1.7	112.4
38.0	10.05	9.30	292.6	2.0	113.5
42.0	10.11	9.31	290.1	1.2	116.7
102.0	9.87	9.46	285.7	6.6	83.3
108.0	9.99	9.48	285.9	6.5	91.7
114.1	10.06	9.47	285.6	4.9	98.6
116.1	10.10	9.49	285.9	3.9	100.9
117.1	10.11	9.49	285.3	3.2	101.4
118.0	10.12	9.49	285.5	2.2	101.8
119.1	9.93	9.44	285.7	-1.4	90.5
120.0	9.96	9.49	285.6	6.0	88.7
121.0	9.99	9.50	286.0	5.7	90.4
122.0	9.99	9.49	286.3	5.6	91.3
124.0	9.99	9.47	286.7	5.6	92.7
128.0	10.00	9.45	285.6	6.9	95.7
132.0	10.02	9.45	285.0	8.0	97.1
192.0	10.03	9.40	286.4	2.3	102.6
198.0	10.00	9.40	286.8	1.6	100.4
204.1	9.98	9.40	286.2	0.4	99.3
206.0	10.00	9.40	286.2	0.1	100.3
207.1	10.03	9.42	286.2	0.0	101.4
208.1	10.05	9.42	286.8	-0.3	103.2
209.0	9.98	9.38	286.2	-3.5	100.1
210.0	9.86	9.42	286.8	2.6	86.5
211.0	9.91	9.43	286.3	3.5	89.8
212.0	9.92	9.42	286.8	3.5	91.6
214.1	9.94	9.40	286.6	3.5	95.2
218.1	9.97	9.38	286.4	3.9	99.6
222.0	10.01	9.37	285.9	4.1	103.3
282.1	10.07	9.38	285.9	5.4	107.9
288.0	10.14	9.37	287.0	5.8	112.8
294.0	10.19	9.40	287.2	5.1	114.9
296.0	10.21	9.41	286.0	4.8	115.3
297.0	10.22	9.42	287.0	4.5	115.2
298.0	10.21	9.40	286.1	2.9	115.9
299.0	10.02	9.41	287.2	7.4	101.0
300.0	10.19	9.45	286.7	7.4	110.7
301.0	10.19	9.44	286.7	6.6	111.6
302.0	10.19	9.43	286.6	6.4	112.4
304.0	10.19	9.42	286.9	6.1	112.9
308.0	10.15	9.40	286.2	6.0	111.5
312.0	10.09	9.39	286.9	6.2	107.7

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
12.0	10.17	9.26	287.3	3.8	123.4
18.0	10.15	9.24	289.9	3.1	124.0
24.0	10.13	9.27	290.6	2.7	121.4
26.1	10.11	9.28	290.2	2.8	119.0
27.0	10.15	9.29	289.0	2.6	120.0
28.0	10.18	9.30	289.3	2.3	121.5
29.1	10.08	9.28	287.6	0.2	115.7
30.0	10.08	9.37	293.1	5.0	110.2
31.0	10.20	9.36	293.1	3.6	119.6
32.0	10.15	9.30	293.5	3.1	121.2
34.0	10.15	9.29	293.5	2.7	121.2
38.0	10.07	9.26	288.9	2.5	117.3
42.0	10.17	9.26	289.7	1.9	124.5
102.0	9.93	9.44	285.7	5.5	90.5
108.0	10.03	9.45	286.0	5.7	98.5
114.1	10.09	9.44	286.1	4.1	103.9
116.1	10.12	9.45	284.6	3.6	105.8
117.1	10.14	9.45	285.1	3.2	106.8
118.0	10.15	9.44	285.6	1.5	108.3
119.1	9.84	9.42	285.8	3.1	84.4
120.0	10.03	9.48	283.3	7.2	95.5
121.0	10.06	9.48	285.7	6.4	97.5
122.0	10.04	9.47	285.4	6.1	97.3
124.0	10.02	9.44	285.6	6.7	98.2
128.0	10.05	9.42	285.9	6.8	102.3
132.1	10.09	9.43	286.4	7.3	104.9
192.0	10.07	9.36	286.4	1.8	109.0
198.0	10.06	9.36	286.4	1.1	108.2
204.1	10.06	9.37	287.1	0.4	107.7
206.0	10.08	9.37	286.7	0.3	109.0
207.1	10.10	9.38	286.1	0.3	109.3
208.1	10.11	9.38	286.5	-0.3	110.9
209.1	9.91	9.36	286.3	-2.8	96.5
210.0	9.89	9.41	284.6	3.1	89.3
211.0	9.94	9.41	287.1	2.9	94.2
212.0	9.95	9.40	285.9	2.6	96.2
214.0	9.97	9.38	285.8	2.6	99.8
218.0	10.00	9.35	286.2	2.9	104.4
222.0	10.04	9.35	286.9	3.2	108.0
282.1	10.08	9.34	286.6	4.8	110.9
288.0	10.13	9.34	285.5	5.1	114.6
294.0	10.21	9.37	285.8	5.3	118.3
296.0	10.23	9.38	286.6	5.2	118.8
297.0	10.24	9.39	286.6	5.0	118.6
298.0	10.15	9.36	286.3	2.3	114.6
299.0	10.06	9.40	286.5	8.4	105.3
300.0	10.23	9.40	286.1	7.3	117.1
301.0	10.23	9.41	286.3	6.8	116.9
302.0	10.23	9.39	286.0	6.6	117.6
304.0	10.22	9.38	286.4	6.4	118.0
308.0	10.18	9.36	287.2	6.4	116.5
312.0	10.11	9.37	286.4	6.7	111.6

TABLE 13.—Continued.

(a) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
12.0	10.21	9.19	292.5	5.9	132.2
18.0	10.28	9.18	289.9	4.4	136.1
24.0	10.26	9.20	289.9	3.9	133.5
26.1	10.24	9.22	289.7	3.9	131.2
27.0	10.24	9.22	289.1	4.2	130.6
28.0	10.21	9.22	288.6	2.7	129.1
29.0	9.99	9.30	289.5	5.8	108.2
30.1	10.21	9.30	288.1	6.7	123.2
31.0	10.21	9.26	291.6	6.3	127.0
32.0	10.20	9.23	290.2	6.3	128.3
34.0	10.24	9.22	288.8	5.6	130.4
38.0	10.21	9.21	291.0	4.5	130.2
42.0	10.26	9.18	290.4	4.5	135.1
102.0	9.97	9.41	284.6	5.1	97.2
108.0	10.04	9.41	285.5	4.3	103.2
114.1	10.15	9.40	285.0	5.0	111.0
116.1	10.19	9.40	285.8	5.5	114.0
117.1	10.20	9.40	285.5	5.0	115.6
118.0	9.96	9.40	285.5	6.1	96.4
119.1	10.14	9.45	285.7	10.3	106.5
120.1	10.15	9.45	287.4	9.7	107.9
121.0	10.15	9.44	285.4	9.2	108.1
122.0	10.14	9.43	286.1	8.8	108.7
124.0	10.16	9.42	286.3	7.7	110.9
128.0	10.14	9.39	286.3	7.4	112.2
132.1	10.20	9.38	285.3	5.3	116.4
192.0	10.18	9.31	285.9	2.2	120.0
198.0	10.17	9.30	286.5	1.8	120.3
204.1	10.19	9.31	287.1	2.0	120.9
206.1	10.18	9.31	285.9	2.4	119.9
207.1	10.19	9.32	286.9	2.4	120.2
208.1	10.11	9.33	286.3	0.1	114.4
209.1	9.89	9.38	286.2	4.0	92.9
210.0	10.03	9.42	287.1	5.4	101.6
211.0	10.07	9.39	285.6	4.0	106.0
212.1	10.07	9.37	286.6	3.6	108.1
214.0	10.07	9.35	286.4	3.2	110.1
218.1	10.10	9.33	287.0	2.8	113.7
222.1	10.12	9.31	286.7	2.7	116.1
282.1	10.11	9.33	285.7	4.9	114.5
288.0	10.15	9.33	287.1	5.0	116.6
294.0	10.22	9.35	286.6	5.7	120.4
296.0	10.24	9.36	286.0	6.1	120.4
297.0	10.23	9.36	287.1	5.3	119.9
298.0	9.99	9.39	286.2	6.6	100.4
299.0	10.22	9.39	286.6	9.6	117.1
300.0	10.25	9.36	286.7	8.3	121.2
301.0	10.25	9.35	287.0	8.1	121.8
302.0	10.25	9.34	286.8	8.1	122.9
304.0	10.24	9.33	286.7	7.9	122.6
308.0	10.20	9.33	286.8	7.9	120.1
312.0	10.15	9.34	286.7	8.0	116.6

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
12.0	10.26	9.13	291.1	6.9	138.7
18.0	10.27	9.14	291.4	6.9	138.7
24.0	10.26	9.16	290.2	7.8	136.5
26.1	10.24	9.17	291.4	7.7	134.6
27.0	10.15	9.23	290.0	5.4	125.0
28.0	9.99	9.29	291.0	8.4	109.5
29.1	10.19	9.26	289.8	9.1	125.0
30.1	10.23	9.23	295.5	8.4	130.7
31.0	10.25	9.22	291.5	8.4	132.0
32.0	10.23	9.19	293.3	8.1	133.4
34.0	10.24	9.18	293.2	8.0	134.4
38.0	10.27	9.14	291.3	8.1	138.2
42.0	10.28	9.13	293.7	7.9	140.0
102.0	10.14	9.37	285.3	5.0	113.0
108.1	10.19	9.36	285.2	5.3	116.8
114.1	10.24	9.37	285.2	6.8	119.5
116.1	10.23	9.38	285.6	6.2	118.8
117.1	9.99	9.40	285.1	7.1	99.4
118.0	10.14	9.41	285.6	11.7	109.7
119.1	10.28	9.36	285.4	9.6	123.1
120.0	10.29	9.37	285.4	9.2	122.9
121.0	10.30	9.37	286.2	9.0	124.4
122.0	10.30	9.35	285.0	8.6	124.8
124.0	10.29	9.34	284.7	8.1	125.2
128.0	10.27	9.32	285.2	7.3	125.4
132.1	10.25	9.33	284.3	5.9	123.6
192.0	10.25	9.25	286.1	3.5	129.0
198.0	10.25	9.23	287.0	3.8	130.3
204.1	10.26	9.25	286.0	4.9	129.3
206.0	10.25	9.27	286.4	4.6	127.6
207.1	10.13	9.32	286.5	2.3	116.7
208.0	9.94	9.36	285.7	6.0	99.3
209.1	10.16	9.35	285.7	8.2	115.9
210.0	10.23	9.33	285.9	6.4	122.0
211.0	10.24	9.32	286.6	5.6	123.3
212.1	10.24	9.30	286.7	5.3	125.2
214.0	10.25	9.29	286.9	4.9	126.4
218.0	10.24	9.27	285.8	4.1	126.9
222.1	10.24	9.26	285.6	3.6	127.8
282.1	10.18	9.31	286.6	8.6	120.4
288.0	10.22	9.32	285.8	8.4	122.1
294.0	10.26	9.34	285.8	9.1	123.1
296.0	10.21	9.36	286.9	7.4	119.3
297.0	10.02	9.37	285.3	9.8	103.7
298.0	10.22	9.37	286.3	12.1	118.1
299.0	10.26	9.34	286.3	10.6	123.8
300.0	10.26	9.36	286.5	10.8	122.1
301.0	10.26	9.36	286.2	10.8	122.2
302.0	10.26	9.34	286.2	10.8	123.2
304.0	10.25	9.34	286.2	10.7	123.2
308.0	10.23	9.32	287.0	10.5	122.8
312.0	10.22	9.32	286.6	10.5	122.4

TABLE 13.—Continued.

(a) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
12.0	10.26	9.13	290.5	7.8	138.4
18.0	10.25	9.14	288.4	8.5	136.5
24.0	10.22	9.15	290.4	9.4	134.9
26.1	10.13	9.20	289.8	6.9	125.7
27.0	9.99	9.26	292.2	10.0	112.3
28.0	10.17	9.22	290.8	10.9	127.1
29.0	10.21	9.18	292.4	9.9	132.4
30.1	10.23	9.21	289.9	9.7	131.0
31.0	10.23	9.22	294.1	9.7	131.4
32.0	10.20	9.19	291.5	9.5	131.4
34.0	10.20	9.19	290.0	9.5	130.7
38.0	10.18	9.18	294.1	9.3	131.1
42.0	10.18	9.18	292.3	9.1	131.1
102.0	10.07	9.37	285.0	8.6	108.7
108.1	10.11	9.36	282.5	9.1	111.1
114.1	10.16	9.36	285.1	10.1	115.6
116.1	9.95	9.40	284.9	8.7	95.9
117.1	10.03	9.42	284.8	12.1	100.8
118.0	10.14	9.40	285.2	10.9	110.6
119.1	10.17	9.37	284.6	9.6	115.1
120.0	10.20	9.37	285.5	9.0	117.2
121.0	10.21	9.37	284.5	8.6	118.2
122.1	10.21	9.35	285.4	8.2	119.1
124.0	10.22	9.34	285.3	7.6	120.3
128.0	10.22	9.33	284.0	6.6	120.9
132.1	10.23	9.33	285.1	6.1	122.1
192.0	10.26	9.24	285.8	6.0	129.8
198.0	10.23	9.23	284.7	6.5	128.9
204.1	10.23	9.24	285.8	7.1	127.9
206.0	10.12	9.28	287.2	4.4	118.5
207.1	9.98	9.35	285.4	8.5	102.5
208.1	10.17	9.36	286.1	9.8	115.9
209.1	10.24	9.32	286.1	8.2	123.2
210.0	10.24	9.31	285.9	7.6	124.3
211.0	10.23	9.29	285.8	7.4	124.6
212.1	10.23	9.28	285.7	7.3	125.8
214.1	10.23	9.27	286.0	7.1	126.1
218.0	10.23	9.26	285.2	6.7	126.8
222.1	10.24	9.25	286.2	6.0	128.5
282.1	10.21	9.31	286.9	11.6	123.0
288.0	10.22	9.31	284.2	11.0	122.6
294.0	10.23	9.33	286.8	10.9	122.9
296.0	9.99	9.36	286.0	10.6	102.5
297.0	10.16	9.37	286.6	13.2	114.5
298.0	10.24	9.34	286.5	11.7	121.9
299.0	10.24	9.33	286.5	11.3	123.1
300.0	10.24	9.35	287.1	11.7	121.8
301.0	10.25	9.35	286.4	11.5	121.8
302.0	10.25	9.33	287.0	11.5	123.2
304.0	10.25	9.33	286.9	11.3	123.8
308.0	10.25	9.32	286.7	10.9	124.1
312.0	10.24	9.32	286.5	10.8	123.6

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
12.0	10.24	9.12	293.2	7.8	138.7
18.0	10.22	9.15	291.8	8.2	135.5
24.0	10.22	9.14	290.6	9.1	135.5
26.1	10.05	9.23	291.1	7.3	118.7
27.0	10.03	9.28	290.4	11.3	112.9
28.0	10.19	9.22	290.8	10.6	128.1
29.0	10.20	9.18	290.9	9.6	131.5
30.1	10.22	9.22	291.6	9.5	130.5
31.0	10.19	9.19	295.5	9.2	131.6
32.0	10.20	9.19	291.6	8.9	131.6
34.0	10.20	9.18	291.3	8.5	131.2
38.0	10.18	9.18	291.7	7.9	130.5
42.0	10.16	9.18	289.2	8.0	129.0
102.0	10.03	9.37	284.1	9.6	105.0
108.0	10.05	9.37	284.1	9.8	106.6
114.1	10.10	9.36	284.6	10.5	110.7
116.1	9.89	9.41	284.2	10.7	89.7
117.1	10.01	9.41	284.9	11.6	100.1
118.0	10.08	9.40	284.3	10.4	106.2
119.1	10.09	9.39	284.6	9.7	108.0
120.1	10.13	9.39	284.7	9.4	110.3
121.0	10.13	9.38	284.6	9.2	111.4
122.0	10.14	9.37	284.5	9.1	112.6
124.0	10.15	9.36	284.8	8.9	114.3
128.0	10.18	9.35	285.1	8.2	117.2
132.1	10.21	9.34	285.6	7.6	120.2
192.0	10.22	9.23	285.6	6.7	128.3
198.0	10.20	9.22	285.9	7.2	127.6
204.1	10.21	9.24	286.6	7.8	127.8
206.0	9.96	9.31	285.9	5.9	104.8
207.1	10.08	9.35	285.9	9.8	110.5
208.0	10.17	9.32	285.5	9.0	118.9
209.1	10.19	9.29	285.4	8.0	121.8
210.0	10.19	9.30	285.8	7.6	121.5
211.0	10.19	9.29	286.2	7.5	122.2
212.0	10.19	9.28	286.6	7.3	122.6
214.1	10.18	9.28	286.6	7.1	122.3
218.1	10.16	9.28	286.4	6.7	121.6
222.0	10.15	9.27	286.3	6.5	121.5
282.1	10.15	9.32	285.8	11.7	117.2
288.0	10.17	9.32	285.4	11.9	118.6
294.0	10.18	9.34	286.1	11.2	118.3
296.0	10.06	9.37	286.0	14.4	107.6
297.0	10.18	9.35	286.6	13.2	117.9
298.0	10.19	9.33	286.0	12.5	119.2
299.0	10.19	9.33	286.4	12.5	119.3
300.0	10.19	9.35	286.4	12.8	118.1
301.0	10.19	9.34	286.4	12.7	118.5
302.0	10.19	9.34	286.2	12.6	119.1
304.0	10.19	9.34	286.4	12.4	119.4
308.0	10.20	9.33	286.6	12.0	119.8
312.0	10.20	9.32	286.7	11.7	121.2

TABLE 13.—Continued.

(a) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
12.0	10.19	9.13	290.2	8.5	134.2
18.0	10.19	9.13	290.2	8.2	134.1
24.0	10.19	9.14	290.6	8.3	133.4
26.1	10.01	9.23	291.0	6.3	115.7
27.0	9.96	9.25	288.8	11.1	110.1
28.0	10.11	9.22	290.6	11.3	123.4
29.0	10.14	9.20	289.7	10.5	126.7
30.1	10.16	9.23	297.2	10.6	127.2
31.0	10.14	9.20	290.1	10.6	126.2
32.0	10.14	9.20	294.9	10.2	127.3
34.0	10.14	9.20	294.0	9.7	126.9
38.0	10.12	9.19	293.3	9.3	126.5
42.0	10.12	9.19	292.7	9.5	126.6
102.0	10.00	9.38	285.2	11.9	102.3
108.0	10.00	9.37	284.9	10.9	102.7
114.1	10.05	9.37	284.3	10.0	106.7
116.1	9.94	9.41	284.4	12.0	93.6
117.3	10.04	9.41	285.5	11.6	102.7
118.0	10.06	9.39	284.9	11.3	105.3
119.1	10.06	9.39	285.1	11.3	106.2
120.0	10.09	9.40	283.3	11.2	107.4
121.0	10.09	9.39	285.3	11.0	108.2
122.0	10.10	9.38	284.5	10.7	109.2
124.0	10.12	9.37	284.4	10.3	111.2
128.0	10.16	9.35	284.6	10.2	115.5
132.1	10.19	9.34	284.5	10.0	118.6
192.0	10.12	9.25	286.0	8.1	120.9
198.0	10.12	9.24	285.6	8.0	121.7
204.1	10.15	9.24	285.6	7.8	123.0
206.0	9.92	9.33	284.8	8.6	99.7
207.1	10.06	9.33	286.2	9.9	110.5
208.1	10.08	9.31	285.9	10.1	113.8
209.1	10.08	9.30	285.7	9.6	114.4
210.0	10.09	9.32	284.2	9.4	113.0
211.0	10.09	9.31	286.1	9.2	114.4
212.1	10.09	9.31	285.5	9.0	114.3
214.1	10.08	9.30	285.2	9.0	114.1
218.1	10.07	9.29	285.3	9.6	114.0
222.1	10.07	9.29	285.8	9.8	114.6
282.1	10.09	9.33	286.2	9.8	112.5
288.0	10.09	9.33	286.3	9.8	113.2
294.0	10.09	9.36	285.8	9.4	110.5
296.0	9.97	9.36	285.7	12.8	101.7
297.0	10.07	9.34	286.6	12.9	110.2
298.0	10.10	9.35	286.6	12.1	112.4
299.0	10.10	9.35	286.1	11.8	112.1
300.0	10.10	9.37	285.7	12.5	110.4
301.0	10.10	9.36	286.2	12.5	111.2
302.0	10.10	9.36	286.0	12.4	110.8
304.0	10.10	9.36	286.0	12.2	111.0
308.0	10.11	9.35	286.4	11.9	112.8
312.0	10.13	9.34	286.1	11.9	114.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
12.0	10.11	9.17	290.3	9.1	126.8
18.0	10.12	9.16	291.3	8.6	128.4
24.0	10.14	9.16	292.1	7.6	129.5
26.1	10.02	9.23	289.8	4.7	115.8
27.0	9.92	9.25	290.5	7.7	107.4
28.0	9.90	9.24	289.2	10.8	105.9
29.0	9.84	9.25	291.7	13.3	100.8
30.1	9.89	9.28	291.4	15.8	102.8
31.0	9.91	9.26	293.6	15.9	107.2
32.0	10.03	9.24	290.1	12.9	115.8
34.0	10.07	9.23	288.7	10.6	119.0
38.0	10.08	9.21	291.5	10.3	122.1
42.0	10.10	9.20	289.1	10.7	123.6
102.0	10.00	9.38	284.4	14.4	101.7
108.0	10.02	9.37	284.3	12.6	103.4
114.1	10.03	9.37	284.6	9.0	105.2
116.1	9.87	9.39	285.2	8.8	89.9
117.0	9.83	9.38	284.3	11.4	87.5
118.0	9.78	9.38	284.7	13.6	82.4
119.1	9.74	9.38	284.1	17.9	78.5
120.1	9.88	9.39	284.9	17.6	90.0
121.0	9.96	9.39	284.8	14.4	97.8
122.0	10.05	9.39	285.2	11.5	105.1
124.0	10.10	9.38	285.3	10.5	109.3
128.0	10.13	9.36	284.7	10.9	113.0
132.1	10.14	9.34	285.4	10.9	115.5
192.0	10.07	9.28	285.0	10.2	114.7
198.0	10.08	9.25	285.2	9.9	118.0
204.1	10.10	9.25	285.3	7.2	119.3
206.1	9.81	9.32	285.6	4.2	91.4
207.1	9.67	9.33	285.0	8.4	76.8
208.0	9.60	9.33	284.6	13.3	68.9
209.1	9.65	9.32	284.9	20.0	74.3
210.0	9.74	9.35	285.6	19.7	81.9
211.0	9.85	9.34	285.5	15.5	92.9
212.1	9.94	9.34	285.8	12.3	101.3
214.1	10.01	9.32	285.8	11.1	108.1
218.1	10.05	9.30	286.0	12.3	111.9
222.1	10.06	9.29	286.2	13.0	113.7
282.1	10.07	9.33	286.0	8.2	110.7
288.0	10.07	9.33	285.8	8.0	111.4
294.0	10.08	9.35	285.8	7.1	110.7
296.0	9.92	9.37	286.2	6.9	96.3
297.0	9.95	9.36	285.5	10.1	99.6
298.0	9.98	9.35	286.3	10.9	103.2
299.0	9.98	9.34	285.8	11.9	103.6
300.0	10.05	9.37	286.3	12.4	106.9
301.0	10.07	9.36	286.4	11.2	108.6
302.0	10.07	9.36	286.4	10.2	109.1
304.0	10.07	9.36	286.4	9.7	108.8
308.0	10.06	9.36	286.2	10.1	108.9
312.0	10.08	9.34	286.7	11.1	111.3

TABLE 13.—Continued.

(b) Ring position 2; airflow, 72.96 kg/sec; VIGV angle, 0°

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec	Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip						Radial position, 10 percent of span from tip					
48.0	10.01	9.47	287.1	-6.5	94.7	48.0	10.02	9.39	287.0	-1.7	102.4
52.0	9.97	9.48	286.8	-5.8	91.0	52.0	10.00	9.40	287.2	-1.9	100.5
56.0	9.98	9.49	287.2	-5.6	91.1	56.0	9.98	9.41	287.4	-1.9	98.6
57.0	9.98	9.49	286.9	-5.6	90.6	57.0	9.97	9.41	287.2	-1.8	97.4
58.0	9.95	9.47	289.0	-5.1	90.2	58.0	9.94	9.39	287.2	-1.4	96.4
59.0	9.95	9.49	287.1	-1.9	88.4	59.0	9.94	9.40	288.5	-1.1	96.0
60.0	9.91	9.49	287.9	-3.5	84.5	60.0	9.85	9.40	286.7	3.0	87.2
61.0	9.91	9.50	287.5	1.3	83.1	61.0	9.99	9.44	287.3	3.4	95.9
62.0	9.89	9.49	287.3	1.7	82.0	62.0	10.00	9.45	288.1	2.9	95.8
66.0	9.92	9.49	287.6	-0.6	85.9	66.0	9.92	9.41	287.5	3.0	92.3
70.0	9.86	9.49	287.1	1.9	79.4	70.0	9.92	9.44	287.8	2.6	90.1
74.0	9.96	9.49	287.5	2.3	88.6	74.0	10.03	9.44	287.5	0.9	99.8
78.0	9.88	9.46	286.9	-1.4	83.8	78.0	9.90	9.39	287.5	0.6	92.6
138.0	10.02	9.57	286.7	11.4	87.1	138.0	10.06	9.51	285.9	8.2	95.3
142.0	10.03	9.58	285.9	9.2	87.4	142.0	10.03	9.51	285.9	6.1	93.6
146.1	10.05	9.59	286.2	5.0	87.9	146.1	10.07	9.53	285.6	3.9	94.7
147.0	10.05	9.59	285.8	3.8	87.8	147.0	10.08	9.53	285.5	3.4	95.0
148.1	10.04	9.58	284.8	1.8	86.8	148.0	10.08	9.52	285.8	1.8	96.6
149.0	9.96	9.56	286.2	3.4	82.3	149.0	9.90	9.45	284.4	0.4	86.1
150.0	9.90	9.55	295.7	4.7	78.1	150.0	10.05	9.52	286.0	6.1	94.0
151.0	9.93	9.54	285.8	8.5	80.6	151.0	10.05	9.53	286.2	6.5	93.0
152.0	9.97	9.55	286.5	7.2	84.2	152.0	10.05	9.52	285.8	6.1	93.8
156.0	10.03	9.55	286.3	9.0	89.1	156.0	10.06	9.51	286.7	6.4	96.3
160.0	10.04	9.56	286.6	9.0	89.8	160.0	10.08	9.51	285.8	6.9	97.4
164.0	10.01	9.55	286.8	7.9	87.3	164.0	10.08	9.52	286.0	6.1	96.4
168.0	9.94	9.55	286.8	7.6	81.4	168.0	10.00	9.52	285.8	5.1	90.1
228.1	10.05	9.52	287.1	5.1	93.9	228.1	10.07	9.46	286.6	4.5	100.6
232.0	10.07	9.53	286.7	3.9	94.5	232.0	10.10	9.47	286.2	3.6	102.1
236.1	10.09	9.55	286.1	1.4	94.7	236.1	10.13	9.49	286.1	1.5	102.6
237.1	10.09	9.55	286.6	1.0	94.7	237.1	10.13	9.49	285.8	0.9	103.1
238.0	10.10	9.54	286.0	1.0	96.2	238.0	10.14	9.48	287.2	0.9	104.7
239.0	10.10	9.55	287.4	-0.5	95.9	239.0	10.12	9.45	285.7	-1.3	105.3
240.0	9.95	9.52	285.9	0.2	85.0	240.0	9.92	9.42	287.0	2.5	92.3
241.0	10.02	9.53	286.6	4.1	90.0	241.0	10.11	9.48	287.4	3.7	102.6
242.1	10.07	9.53	286.7	4.2	94.8	242.1	10.12	9.49	286.1	4.0	102.6
246.0	10.12	9.53	287.4	3.5	99.4	246.0	10.16	9.48	287.1	3.4	106.5
250.0	10.12	9.52	287.2	2.8	100.0	250.0	10.15	9.47	286.6	3.1	106.3
254.1	10.07	9.52	287.2	2.0	96.2	254.1	10.09	9.47	286.6	2.8	102.1
258.1	10.04	9.51	286.9	2.3	94.2	258.1	10.06	9.46	287.0	3.0	100.4
318.1	9.98	9.54	286.2	2.9	86.4	318.1	9.99	9.49	286.2	4.6	92.0
322.0	9.96	9.54	286.8	2.2	83.8	322.0	9.97	9.49	286.2	4.1	89.9
326.0	9.94	9.54	286.7	1.5	81.8	326.0	9.95	9.50	285.7	3.6	87.5
327.0	9.93	9.54	286.9	1.5	81.1	327.0	9.95	9.50	286.4	3.6	87.6
328.0	9.92	9.53	287.5	1.4	81.5	328.0	9.95	9.48	287.0	3.5	88.5
329.0	9.91	9.53	286.7	0.1	80.4	329.0	9.83	9.44	286.5	2.0	81.1
330.0	9.83	9.51	286.3	3.4	73.3	330.1	9.95	9.48	286.5	6.7	88.3
331.0	9.88	9.53	287.1	3.8	77.2	331.0	9.96	9.50	286.9	3.8	88.6
332.0	9.88	9.52	286.5	4.8	78.5	332.0	9.95	9.49	286.9	6.2	87.8
336.0	9.90	9.51	287.3	2.5	81.2	336.0	9.93	9.48	286.9	6.3	87.5
340.0	9.88	9.51	287.2	3.6	79.5	340.0	9.93	9.48	287.2	6.6	87.0
344.0	9.89	9.51	287.0	4.9	80.0	344.0	9.96	9.49	287.7	6.2	88.8
348.0	9.93	9.51	287.4	3.8	84.0	348.0	10.00	9.49	287.8	4.5	92.5

TABLE 13.—Continued.

(b) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
48.0	10.04	9.32	287.0	1.4	110.1
52.0	10.04	9.35	287.5	0.6	108.4
56.0	10.00	9.35	286.8	1.1	105.1
57.0	9.98	9.35	286.7	1.4	102.8
58.0	9.95	9.34	287.2	1.8	101.5
59.0	9.93	9.35	287.2	0.4	99.2
60.0	9.83	9.38	287.9	4.3	88.2
61.0	10.04	9.38	287.5	4.4	105.8
62.0	10.07	9.39	287.5	3.3	106.4
66.0	9.97	9.37	288.3	4.2	100.7
70.0	10.03	9.41	287.1	2.8	102.0
74.0	10.07	9.37	287.0	1.5	108.4
78.1	9.96	9.35	287.0	2.2	101.5
138.0	10.10	9.46	285.2	6.9	103.6
142.0	10.09	9.46	285.2	6.0	102.3
146.1	10.11	9.47	285.4	3.9	103.4
147.0	10.13	9.48	285.7	4.0	104.3
148.0	10.13	9.44	285.4	1.2	107.0
149.0	9.93	9.44	285.4	7.4	91.3
150.0	10.06	9.46	285.1	6.2	99.7
151.0	10.07	9.48	285.4	6.4	99.3
152.0	10.08	9.48	286.4	5.8	100.5
156.0	10.10	9.45	284.6	5.7	103.6
160.0	10.10	9.44	285.8	5.7	104.5
164.0	10.14	9.47	285.4	5.1	105.0
168.1	10.08	9.48	286.3	4.2	100.1
228.1	10.08	9.39	286.0	3.9	107.2
232.0	10.13	9.40	286.3	3.4	109.8
236.1	10.17	9.42	286.5	2.2	111.4
237.1	10.18	9.42	286.0	2.0	111.8
238.0	10.19	9.41	286.5	1.9	113.6
239.0	10.01	9.37	287.0	-1.0	103.9
240.0	10.08	9.42	286.0	5.7	105.2
241.0	10.14	9.41	286.4	4.2	109.8
242.1	10.15	9.43	287.6	3.9	110.1
246.0	10.19	9.41	287.1	3.8	114.0
250.0	10.16	9.39	286.9	3.8	113.2
254.1	10.10	9.40	286.7	3.6	108.5
258.1	10.08	9.40	286.8	3.7	106.9
318.1	10.01	9.43	286.1	5.9	98.8
322.0	9.99	9.43	287.1	5.9	96.9
326.0	9.98	9.44	286.6	5.8	95.3
327.0	9.99	9.45	286.5	5.7	95.4
328.0	9.97	9.43	286.6	4.2	95.3
329.0	9.87	9.43	286.7	7.4	86.0
330.1	10.01	9.45	286.9	7.5	97.0
331.0	10.00	9.44	286.5	3.8	97.3
332.0	9.99	9.44	287.1	8.0	95.6
336.0	9.97	9.43	288.4	8.8	95.8
340.0	9.99	9.44	287.1	8.3	95.6
344.0	10.03	9.45	287.4	7.2	98.5
348.0	10.04	9.42	287.5	-1.9	102.6

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
48.0	10.10	9.28	287.1	1.6	117.1
52.0	10.12	9.31	287.1	1.4	116.7
56.0	10.06	9.32	287.5	2.1	111.5
57.0	10.04	9.33	286.9	2.5	109.6
58.0	10.02	9.32	287.0	2.3	109.2
59.0	9.93	9.34	287.6	0.3	99.9
60.0	9.89	9.38	286.7	3.7	92.9
61.0	10.10	9.34	287.1	4.5	112.9
62.0	10.13	9.34	287.8	3.4	115.1
66.0	10.07	9.35	287.6	3.9	110.3
70.0	10.09	9.36	288.5	3.3	111.0
74.0	10.07	9.32	288.3	3.2	112.8
78.1	9.98	9.32	287.8	3.8	106.3
138.0	10.15	9.42	285.5	6.3	110.2
142.0	10.21	9.44	285.6	5.6	112.3
146.1	10.16	9.44	285.3	4.3	109.0
147.0	10.18	9.44	284.7	4.3	110.5
148.1	10.12	9.40	285.5	1.3	108.9
149.0	10.03	9.44	284.9	7.3	99.1
150.0	10.12	9.44	286.4	6.2	106.4
151.0	10.12	9.45	285.7	6.6	105.4
152.0	10.11	9.44	285.2	6.3	106.1
156.0	10.18	9.43	285.7	5.7	111.6
160.0	10.15	9.41	285.0	5.6	110.6
164.0	10.19	9.43	285.1	4.3	112.4
168.1	10.14	9.44	284.7	4.0	107.6
228.1	10.10	9.35	285.7	3.3	111.9
232.0	10.15	9.36	286.2	3.3	114.7
236.1	10.20	9.37	286.2	2.8	117.3
237.1	10.21	9.38	286.4	2.7	117.8
238.0	10.22	9.35	286.5	2.1	120.1
239.0	9.95	9.37	285.5	3.0	98.9
240.0	10.17	9.40	287.3	5.8	113.2
241.0	10.18	9.38	286.8	4.7	115.6
242.1	10.19	9.38	285.6	4.5	115.6
246.0	10.22	9.35	286.3	4.2	119.5
250.0	10.18	9.34	286.6	4.2	118.3
254.0	10.11	9.35	286.7	4.2	113.2
258.1	10.09	9.35	287.1	4.1	111.8
318.1	10.04	9.40	286.6	6.9	103.5
322.0	10.02	9.41	286.4	7.3	101.1
326.0	10.04	9.43	286.8	7.3	101.2
327.0	10.05	9.43	286.9	6.8	101.6
328.0	9.95	9.40	286.8	4.5	95.8
329.0	9.99	9.43	287.2	10.3	97.3
330.1	10.06	9.42	287.0	8.7	104.1
331.0	10.05	9.40	287.2	3.8	103.9
332.0	10.04	9.41	287.1	9.5	102.7
336.0	10.06	9.41	287.2	9.9	104.0
340.0	10.08	9.42	288.2	8.9	105.1
344.0	10.10	9.41	288.0	7.8	107.4
348.0	10.09	9.38	287.6	-1.9	109.1

TABLE 13.—Continued.

(b) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
48.0	10.23	9.22	287.7	2.8	130.5
52.0	10.18	9.23	287.1	3.3	126.5
56.0	10.18	9.26	287.1	3.2	124.0
57.0	10.17	9.27	286.7	3.0	122.7
58.0	10.13	9.26	297.3	1.7	123.2
59.0	9.91	9.34	287.1	4.4	98.6
60.0	10.15	9.33	286.9	6.9	117.2
61.0	10.19	9.28	287.4	5.4	123.9
62.0	10.19	9.26	287.4	5.3	124.4
66.0	10.17	9.27	287.0	5.3	122.9
70.0	10.13	9.27	287.4	5.3	119.9
74.0	10.09	9.27	287.5	5.8	116.9
78.1	10.00	9.28	287.0	5.8	110.9
138.0	10.24	9.38	285.1	4.3	119.5
142.0	10.29	9.39	284.5	4.1	121.2
146.1	10.25	9.40	285.1	5.1	117.8
147.0	10.26	9.39	285.1	4.1	119.3
148.1	9.97	9.40	284.8	4.6	97.9
149.0	10.18	9.41	285.1	8.7	112.7
150.0	10.23	9.39	284.2	7.7	117.4
151.0	10.21	9.40	285.0	7.8	116.0
152.0	10.21	9.39	285.5	7.2	116.6
156.0	10.28	9.36	286.2	5.3	122.9
160.0	10.25	9.36	286.4	4.3	121.6
164.0	10.30	9.35	286.3	3.5	125.2
168.1	10.23	9.37	286.1	3.5	119.5
228.1	10.16	9.32	285.5	2.9	118.4
232.0	10.18	9.31	286.3	3.4	120.1
236.1	10.23	9.32	285.9	4.2	122.8
237.1	10.24	9.32	286.1	3.9	123.2
238.0	10.11	9.33	286.5	1.8	114.4
239.0	10.04	9.37	286.3	7.6	105.6
240.0	10.24	9.33	285.2	6.4	122.6
241.0	10.24	9.31	285.5	5.9	124.0
242.1	10.25	9.31	287.4	5.9	124.7
246.0	10.24	9.29	287.4	5.4	126.0
250.0	10.21	9.28	286.9	5.0	124.0
254.1	10.16	9.30	287.2	4.9	120.1
258.1	10.15	9.30	287.4	4.5	119.0
318.1	10.11	9.37	287.2	8.0	110.8
322.0	10.09	9.39	286.7	8.7	108.5
326.0	10.14	9.40	286.8	8.7	110.9
327.0	10.10	9.40	287.1	6.3	108.4
328.0	10.01	9.41	286.4	12.4	100.1
329.0	10.16	9.40	286.8	11.1	112.4
330.1	10.16	9.37	286.2	10.4	114.8
331.0	10.16	9.36	286.9	3.9	115.7
332.0	10.17	9.37	287.3	10.4	115.2
336.0	10.19	9.37	287.6	9.9	117.3
340.0	10.21	9.37	287.6	9.4	118.4
344.0	10.18	9.35	287.2	9.0	117.5
348.0	10.18	9.33	287.8	-1.9	119.2

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
48.0	10.27	9.15	286.5	7.0	136.7
52.0	10.28	9.16	286.3	6.8	136.8
56.0	10.29	9.18	286.7	6.3	135.6
57.0	10.18	9.24	286.9	3.8	125.7
58.0	10.00	9.30	285.9	6.8	108.7
59.0	10.20	9.28	286.7	8.9	123.3
60.0	10.28	9.22	287.1	8.5	132.9
61.0	10.28	9.19	287.1	8.8	134.9
62.0	10.28	9.18	286.4	8.8	134.8
66.0	10.27	9.18	287.4	8.2	135.3
70.0	10.25	9.18	287.0	7.6	133.7
74.0	10.22	9.21	288.4	7.1	130.7
78.1	10.15	9.21	287.7	6.8	126.3
138.0	10.27	9.34	285.0	6.0	124.1
142.0	10.25	9.37	285.0	6.4	120.2
146.1	10.20	9.39	285.5	5.7	115.2
147.0	10.00	9.41	284.6	8.3	99.5
148.1	10.16	9.40	284.8	10.8	112.6
149.0	10.29	9.36	284.3	8.8	123.4
150.0	10.29	9.34	285.4	8.1	125.3
151.0	10.29	9.33	285.2	8.0	125.4
152.0	10.28	9.33	284.8	7.5	125.4
156.0	10.32	9.31	285.0	6.8	128.7
160.0	10.29	9.31	284.6	6.3	127.0
164.0	10.30	9.31	284.5	5.5	127.4
168.1	10.25	9.32	284.9	5.8	124.0
228.1	10.25	9.27	285.9	3.9	127.3
232.0	10.25	9.28	285.9	4.7	126.8
236.1	10.24	9.30	286.3	5.3	124.9
237.1	10.05	9.35	286.0	3.4	103.1
238.0	10.03	9.36	286.4	9.7	105.4
239.0	10.22	9.33	285.4	9.0	121.1
240.0	10.25	9.29	286.8	7.3	126.3
241.0	10.25	9.28	286.7	6.9	127.1
242.1	10.25	9.28	285.5	6.6	127.2
246.0	10.25	9.26	285.8	5.8	128.3
250.0	10.24	9.25	286.9	5.3	128.3
254.0	10.22	9.26	287.4	4.9	126.3
258.1	10.19	9.27	287.3	4.8	123.9
318.1	10.22	9.34	286.9	10.3	121.5
322.0	10.24	9.35	287.3	10.3	121.8
326.0	10.16	9.38	287.2	7.6	114.5
327.0	10.04	9.39	286.3	13.1	104.4
328.0	10.24	9.36	287.2	12.8	121.0
329.0	10.26	9.32	287.4	11.4	124.6
330.1	10.26	9.32	286.7	11.2	125.3
331.0	10.26	9.29	287.1	3.8	127.4
332.0	10.26	9.31	287.4	11.2	125.9
336.0	10.26	9.30	287.7	11.1	126.1
340.0	10.26	9.30	287.3	10.4	126.5
344.0	10.26	9.31	287.4	10.3	126.1
348.0	10.23	9.28	287.3	-1.9	126.0

TABLE 13—Continued.

(b) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
48.0	10.16	9.20	285.4	8.3	127.0
52.0	10.15	9.21	286.3	8.3	125.6
56.1	10.07	9.26	285.8	6.2	116.6
57.0	9.94	9.30	285.8	9.4	103.4
58.1	10.07	9.25	285.3	10.4	117.2
59.0	10.13	9.23	286.1	9.7	122.4
60.0	10.13	9.23	285.2	9.7	122.6
61.0	10.14	9.24	285.6	9.7	122.5
62.0	10.14	9.24	285.8	9.6	122.7
66.0	10.12	9.24	286.4	9.3	122.0
70.0	10.11	9.23	286.6	9.4	121.6
74.0	10.11	9.24	286.7	9.7	121.1
78.1	10.06	9.22	286.8	10.1	119.1
138.0	10.23	9.35	284.8	6.1	121.0
142.0	10.26	9.35	285.3	7.2	122.5
146.1	10.04	9.40	284.6	6.1	103.9
147.0	10.06	9.41	285.2	10.5	103.7
148.1	10.21	9.40	284.4	9.9	115.7
149.0	10.29	9.37	284.9	8.5	123.0
150.0	10.29	9.34	284.5	7.9	125.0
151.0	10.29	9.33	284.8	7.8	125.3
152.0	10.29	9.33	285.4	7.7	125.5
156.0	10.30	9.32	285.7	7.3	127.4
160.0	10.29	9.31	285.9	7.9	127.5
164.0	10.31	9.31	286.1	7.5	128.4
168.1	10.26	9.31	285.8	7.5	125.6
228.1	10.25	9.26	286.1	6.4	128.6
232.0	10.24	9.26	285.1	7.2	126.8
236.1	10.06	9.34	285.8	4.7	110.0
237.1	9.95	9.37	285.5	9.5	98.6
238.0	10.09	9.36	285.6	10.3	110.2
239.0	10.17	9.33	286.1	9.0	118.4
240.0	10.18	9.31	287.0	7.5	120.5
241.0	10.17	9.30	286.7	7.1	120.5
242.0	10.17	9.30	286.5	6.9	120.7
246.0	10.16	9.28	286.6	6.5	121.0
250.0	10.16	9.27	286.8	6.4	122.0
254.0	10.15	9.27	287.2	6.6	121.8
258.1	10.15	9.27	287.2	7.2	121.4
318.1	10.27	9.31	286.5	10.3	125.7
322.0	10.27	9.33	287.1	10.8	124.7
326.0	10.04	9.38	286.1	13.6	105.1
327.0	10.23	9.36	287.2	13.9	120.2
328.0	10.27	9.32	286.2	12.5	125.2
329.0	10.27	9.32	287.0	12.0	125.5
330.0	10.26	9.32	286.8	11.9	125.0
331.0	10.26	9.29	286.5	3.9	126.7
332.0	10.26	9.31	286.6	11.8	125.6
336.0	10.27	9.31	287.4	11.4	126.4
340.0	10.26	9.31	287.0	11.2	125.5
344.0	10.27	9.31	287.1	10.8	126.4
348.0	10.21	9.29	287.3	-8.3	123.9

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
48.0	10.12	9.21	285.1	7.7	123.6
52.0	10.11	9.22	286.0	8.3	122.0
56.0	9.95	9.29	285.6	7.5	105.9
57.0	9.98	9.31	285.7	10.8	106.7
58.0	10.07	9.26	286.2	10.2	116.4
59.0	10.08	9.25	285.2	10.1	117.7
60.0	10.08	9.25	285.5	10.6	117.9
61.0	10.08	9.25	285.8	10.7	117.9
62.0	10.08	9.26	285.6	10.7	117.8
66.0	10.08	9.25	286.1	10.4	118.3
70.0	10.08	9.24	286.0	10.2	118.7
74.0	10.08	9.25	286.5	10.2	118.2
78.1	10.02	9.23	286.3	10.4	115.1
138.0	10.24	9.34	284.5	8.4	122.1
142.0	10.27	9.33	285.4	9.0	124.3
146.1	9.99	9.40	284.7	8.1	99.3
147.0	10.06	9.41	285.3	10.6	104.7
148.1	10.18	9.38	285.6	9.3	114.8
149.0	10.25	9.36	283.9	8.2	120.7
150.0	10.26	9.34	284.7	7.6	123.1
151.0	10.27	9.34	284.9	7.5	124.0
152.0	10.27	9.33	284.6	7.4	124.4
156.0	10.28	9.32	285.8	7.8	125.9
160.0	10.28	9.31	285.0	8.2	126.5
164.0	10.28	9.30	285.2	8.2	127.2
168.1	10.23	9.31	285.3	8.5	123.5
228.1	10.18	9.26	285.6	6.6	124.0
232.0	10.19	9.26	285.7	7.5	124.5
236.1	9.92	9.36	285.1	7.7	97.6
237.1	10.02	9.37	286.0	10.1	104.8
238.0	10.08	9.35	287.2	10.4	110.7
239.0	10.08	9.33	284.5	9.0	111.9
240.0	10.08	9.32	285.5	8.7	112.4
241.0	10.08	9.32	285.6	8.6	112.6
242.0	10.08	9.32	286.5	8.5	113.0
246.0	10.07	9.30	286.2	8.4	113.8
250.0	10.09	9.29	285.6	8.6	115.6
254.0	10.10	9.28	286.2	8.7	117.5
258.1	10.12	9.27	285.7	8.9	119.4
318.1	10.24	9.32	286.6	11.0	124.0
322.0	10.26	9.32	287.0	11.2	125.2
326.0	10.06	9.38	286.2	13.9	107.0
327.0	10.19	9.37	286.9	13.7	117.3
328.0	10.25	9.33	286.6	12.4	123.9
329.0	10.25	9.32	286.8	11.9	124.2
330.1	10.26	9.32	286.6	11.8	124.6
331.0	10.26	9.28	286.6	3.9	127.1
332.0	10.25	9.31	287.1	11.6	125.0
336.0	10.24	9.31	286.7	11.4	124.3
340.0	10.25	9.30	287.2	11.2	125.9
344.0	10.24	9.31	287.2	11.1	124.4
348.0	10.19	9.29	287.1	-8.3	122.9

TABLE 13.—Continued.

(b) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
48.0	10.09	9.21	286.3	9.1	121.3
52.0	10.06	9.23	285.5	9.3	118.5
56.0	9.89	9.30	286.0	10.5	100.0
57.0	10.00	9.28	285.9	11.7	110.4
58.1	10.03	9.25	285.3	11.2	114.3
59.0	10.04	9.26	285.8	11.5	114.6
60.0	10.04	9.26	285.8	12.1	114.6
61.0	10.04	9.26	285.5	12.2	114.4
62.0	10.04	9.26	286.0	12.2	114.1
66.0	10.04	9.26	286.1	11.4	114.8
70.0	10.05	9.25	286.4	10.7	116.1
74.0	10.06	9.25	286.6	10.0	116.5
78.1	10.00	9.23	286.8	9.2	114.1
138.0	10.20	9.33	285.2	9.9	120.1
142.0	10.21	9.33	284.9	9.4	120.8
146.1	10.04	9.41	285.2	11.5	102.8
147.0	10.15	9.40	285.6	11.4	111.5
148.1	10.18	9.37	284.5	9.7	115.6
149.0	10.21	9.35	285.4	9.4	118.8
150.0	10.22	9.34	285.1	9.2	120.2
151.0	10.22	9.34	284.7	9.1	121.1
152.0	10.23	9.33	284.7	8.9	122.0
156.0	10.24	9.32	284.8	8.7	123.6
160.0	10.27	9.30	286.3	8.9	126.4
164.0	10.23	9.31	286.5	8.8	123.7
168.1	10.17	9.31	286.5	8.8	119.9
228.1	10.10	9.28	285.8	9.6	117.2
232.0	10.11	9.27	285.8	8.8	118.3
236.1	9.93	9.36	285.7	11.2	98.0
237.1	10.02	9.35	285.9	11.1	106.4
238.0	10.03	9.33	285.3	11.2	108.2
239.0	10.03	9.33	286.4	11.2	108.5
240.0	10.03	9.33	286.3	11.4	108.2
241.0	10.02	9.33	285.9	11.6	108.2
242.0	10.02	9.33	285.3	11.5	107.9
246.0	10.03	9.31	285.8	11.7	109.7
250.0	10.05	9.30	287.0	11.7	112.3
254.0	10.07	9.29	286.9	11.2	114.8
258.1	10.10	9.27	287.2	10.3	117.8
318.1	10.18	9.33	286.7	11.5	119.2
322.0	10.20	9.32	286.3	11.2	120.6
326.0	10.08	9.37	286.7	14.6	109.6
327.0	10.17	9.35	286.7	13.8	116.7
328.0	10.18	9.33	286.4	12.9	119.1
329.0	10.19	9.33	286.2	12.5	119.3
330.1	10.18	9.33	286.3	12.5	118.9
331.0	10.18	9.30	286.3	3.9	120.8
332.0	10.17	9.33	286.9	12.2	118.5
336.0	10.18	9.33	286.8	11.9	119.2
340.0	10.18	9.32	287.0	11.9	119.4
344.0	10.15	9.33	286.9	10.9	117.0
348.0	10.10	9.30	287.1	-8.3	115.7

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
48.0	10.08	9.22	286.4	9.4	120.4
52.0	10.05	9.23	285.9	8.5	117.9
56.0	9.91	9.30	286.1	6.0	102.0
57.0	9.91	9.29	285.8	10.2	103.2
58.1	9.99	9.26	285.9	10.9	111.5
59.0	10.01	9.26	286.3	11.5	112.5
60.0	10.02	9.26	286.5	12.7	112.7
61.0	10.02	9.27	286.7	12.7	112.9
62.0	10.03	9.27	285.9	11.8	113.0
66.0	10.03	9.27	286.6	10.2	113.5
70.0	10.04	9.26	286.2	9.7	114.4
74.0	10.04	9.26	286.0	8.9	114.8
78.0	10.00	9.24	286.2	7.7	113.6
138.0	10.15	9.34	285.4	10.4	116.0
142.0	10.16	9.34	285.4	9.5	117.2
146.1	9.91	9.38	285.5	11.0	94.6
147.0	9.87	9.38	285.1	13.5	91.1
148.1	9.87	9.37	284.9	14.3	92.2
149.0	9.89	9.36	284.6	15.9	94.1
150.0	9.99	9.35	285.7	14.0	103.7
151.0	10.11	9.35	286.1	10.9	112.3
152.0	10.14	9.35	284.8	9.4	114.6
156.0	10.20	9.32	286.1	9.8	121.1
160.0	10.22	9.31	285.3	9.9	122.5
164.0	10.19	9.31	285.1	9.9	120.3
168.1	10.13	9.32	285.2	8.7	116.1
228.1	10.07	9.29	285.9	12.2	114.3
232.0	10.07	9.29	285.7	10.2	114.5
236.1	9.83	9.34	285.9	9.6	90.9
237.1	9.77	9.34	285.9	14.2	85.0
238.0	9.75	9.33	285.3	16.7	84.0
239.0	9.78	9.33	285.6	18.9	87.2
240.0	9.87	9.33	286.5	17.3	95.8
241.0	9.97	9.34	287.0	13.6	103.7
242.0	10.00	9.33	285.9	12.2	106.0
246.0	10.02	9.31	286.6	13.2	109.0
250.0	10.03	9.30	286.2	13.4	110.9
254.0	10.04	9.29	286.7	12.8	112.9
258.1	10.06	9.28	286.3	11.3	114.6
318.1	10.13	9.34	286.6	11.1	114.7
322.0	10.15	9.34	286.5	10.5	116.4
326.0	9.96	9.37	286.2	12.1	100.0
327.1	10.06	9.36	286.5	13.4	108.1
328.0	10.11	9.34	286.3	13.3	113.5
329.0	10.12	9.34	286.8	13.1	113.9
330.1	10.13	9.34	287.0	12.8	114.5
331.0	10.13	9.32	287.0	3.9	116.2
332.0	10.13	9.35	286.3	11.9	114.1
336.0	10.13	9.34	286.8	11.5	115.1
340.0	10.13	9.33	286.5	11.6	115.4
344.0	10.12	9.34	286.5	10.9	114.1
348.0	10.07	9.31	286.4	-8.3	113.2

TABLE 13.—Continued.

(c) Ring position 3; airflow, 73.17 kg/sec; VIGV angle, 0°

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip					
75.0	9.92	9.48	288.0	-0.1	86.7
81.0	9.78	9.48	288.4	0.6	70.9
85.0	9.75	9.49	287.4	0.2	66.4
86.0	9.70	9.46	288.5	0.2	63.3
87.0	9.68	9.46	286.1	4.1	60.9
88.0	9.67	9.46	286.7	7.1	59.9
89.0	9.67	9.47	286.4	9.6	59.2
90.0	9.63	9.46	286.7	14.6	53.1
91.0	9.61	9.46	286.3	23.5	51.6
93.0	9.69	9.46	286.8	28.9	62.9
97.0	9.72	9.45	286.3	8.0	67.6
101.0	9.76	9.45	285.7	13.0	72.2
105.1	9.87	9.47	286.5	11.1	82.1
255.1	10.04	9.52	286.5	1.8	93.7
261.1	10.04	9.52	287.3	2.8	92.9
265.0	10.05	9.54	287.1	1.3	92.8
266.1	10.06	9.53	287.7	0.9	94.0
267.0	10.07	9.54	288.2	0.5	94.3
268.1	10.06	9.54	287.3	-0.0	93.4
269.1	10.06	9.54	287.7	-0.6	93.5
270.1	9.92	9.51	287.4	0.0	83.1
271.1	9.97	9.52	287.5	2.3	86.5
273.0	10.01	9.52	288.0	2.3	90.9
277.0	10.01	9.50	287.3	4.0	92.3
281.1	10.02	9.50	287.5	5.1	93.4
285.1	10.06	9.51	288.9	5.7	96.5
345.0	9.96	9.48	287.8	0.4	89.4
351.0	9.99	9.49	288.9	-0.9	91.6
355.0	9.98	9.49	287.6	-1.5	90.3
356.0	9.97	9.49	289.2	-1.5	90.2
357.0	9.96	9.49	287.7	-1.8	89.6
358.0	9.96	9.49	287.8	-2.2	89.0
359.0	9.92	9.47	287.3	-3.3	87.5
0.0	9.90	9.47	288.0	1.4	85.7
1.0	9.97	9.49	287.5	0.8	89.7
3.1	9.97	9.49	287.2	1.4	90.1
7.1	9.99	9.47	287.2	1.8	92.9
11.0	10.04	9.48	287.7	1.8	96.8
15.0	10.06	9.49	289.2	0.9	98.2

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 10 percent of span from tip					
75.0	9.96	9.41	287.5	1.1	96.3
81.0	9.84	9.45	287.7	1.4	82.3
85.0	9.79	9.45	287.2	1.2	75.7
86.0	9.74	9.43	286.8	1.8	72.6
87.0	9.73	9.43	288.1	4.7	71.1
88.0	9.72	9.44	287.5	7.3	70.2
89.0	9.71	9.43	288.4	9.6	69.4
90.0	9.65	9.43	287.9	17.1	61.9
91.0	9.68	9.44	287.4	23.2	64.2
93.0	9.72	9.43	287.7	28.2	70.3
97.1	9.76	9.42	287.1	5.6	77.0
101.0	9.74	9.40	285.9	6.2	76.9
105.1	9.87	9.41	286.3	7.9	88.9
255.1	10.07	9.46	286.1	2.7	100.6
261.1	10.06	9.47	286.5	2.9	99.7
265.0	10.08	9.47	287.1	1.7	100.6
266.1	10.09	9.47	286.7	1.5	101.1
267.0	10.08	9.47	287.5	0.8	101.1
268.1	10.09	9.47	286.5	0.2	101.1
269.1	10.07	9.45	287.6	-1.2	102.1
270.1	9.87	9.41	287.0	1.0	88.1
271.1	10.05	9.47	287.3	2.5	98.3
273.1	10.04	9.48	286.8	2.9	96.9
277.1	10.03	9.45	288.4	3.7	98.9
281.1	10.04	9.45	287.6	4.3	99.7
285.1	10.07	9.45	286.9	4.7	102.6
345.0	10.02	9.43	287.9	1.8	99.5
351.0	10.01	9.43	287.7	1.9	99.4
355.0	9.99	9.43	288.3	1.8	98.0
356.0	9.99	9.42	287.3	1.6	97.7
357.0	9.99	9.43	288.9	1.2	97.4
358.0	9.98	9.43	288.1	0.4	97.0
359.0	9.82	9.39	288.9	-1.7	85.9
0.0	9.98	9.43	288.9	2.7	97.0
1.0	10.00	9.43	289.1	2.5	98.4
3.1	10.01	9.44	289.2	3.3	98.4
7.1	10.03	9.42	289.1	3.2	101.5
11.0	10.09	9.42	288.5	3.0	105.7
15.0	10.10	9.42	287.7	2.2	106.8

TABLE 13.—Continued.

(c) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
75.0	10.01	9.36	288.1	2.8	104.7
81.0	9.93	9.41	287.0	2.2	93.4
85.0	9.86	9.43	287.5	2.4	85.6
86.0	9.81	9.40	287.3	3.3	83.4
87.0	9.81	9.41	287.0	6.4	82.0
88.0	9.80	9.41	287.3	8.6	80.8
89.0	9.76	9.40	286.8	9.6	77.9
90.0	9.67	9.41	286.2	18.3	66.7
91.0	9.72	9.42	286.3	23.3	72.1
93.0	9.77	9.41	286.5	27.1	78.1
97.1	9.82	9.39	286.2	4.6	85.6
101.0	9.80	9.38	286.0	3.6	84.8
105.1	9.90	9.36	285.9	5.1	95.6
255.1	10.08	9.40	286.0	3.3	106.8
261.1	10.08	9.40	287.3	3.3	106.7
265.0	10.10	9.41	286.4	2.2	107.5
266.1	10.11	9.40	287.8	2.1	108.7
267.0	10.11	9.41	287.0	1.6	108.1
268.1	10.11	9.40	288.0	0.9	108.7
269.0	10.01	9.37	287.0	-1.6	104.1
270.1	9.96	9.41	287.5	4.5	96.7
271.1	10.06	9.40	287.2	3.1	105.2
273.1	10.06	9.42	287.5	3.4	103.6
277.1	10.05	9.39	286.7	3.8	104.6
281.1	10.05	9.39	287.3	3.8	105.4
285.1	10.07	9.37	287.3	3.9	108.0
345.0	10.07	9.38	288.3	2.8	107.5
351.0	10.04	9.38	287.6	3.3	105.6
355.0	10.04	9.39	287.9	2.9	104.5
356.0	10.03	9.39	288.3	2.8	104.5
357.0	10.04	9.39	287.4	2.5	104.0
358.0	10.03	9.39	287.9	0.5	103.9
359.0	9.85	9.40	287.2	2.5	87.5
360.0	10.04	9.39	287.3	3.8	103.9
1.0	10.03	9.38	287.4	3.8	104.8
3.1	10.05	9.39	288.0	4.6	105.6
7.1	10.09	9.38	287.2	3.7	108.6
11.0	10.13	9.37	287.4	3.3	112.3
15.0	10.15	9.37	287.8	2.9	114.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
75.0	10.02	9.32	286.3	4.6	108.4
81.0	9.98	9.38	288.5	3.4	101.2
85.0	9.93	9.40	286.9	3.6	94.5
86.0	9.88	9.38	288.0	4.3	92.3
87.0	9.87	9.39	287.4	7.7	91.0
88.0	9.86	9.39	287.9	9.7	90.0
89.0	9.77	9.38	287.2	10.7	81.5
90.0	9.73	9.40	288.0	20.4	74.4
91.0	9.78	9.40	287.7	23.6	80.1
93.0	9.83	9.39	286.9	27.1	86.7
97.1	9.87	9.36	286.5	4.7	92.9
101.0	9.89	9.36	286.7	3.6	94.8
105.1	9.95	9.33	286.0	3.8	101.7
255.1	10.10	9.34	287.5	4.2	112.5
261.1	10.10	9.36	287.2	3.6	111.6
265.0	10.12	9.37	287.6	3.0	112.4
266.0	10.13	9.36	286.9	2.6	113.2
267.0	10.13	9.36	287.9	2.7	113.2
268.1	10.12	9.36	287.5	1.3	113.0
269.0	9.89	9.37	287.0	0.8	93.7
270.1	10.06	9.40	288.2	5.3	105.1
271.1	10.08	9.37	287.6	4.3	109.6
273.0	10.07	9.38	288.4	4.1	108.0
277.1	10.07	9.35	287.5	4.0	110.3
281.1	10.06	9.34	288.0	3.4	110.1
285.1	10.07	9.33	287.5	3.2	112.1
345.0	10.11	9.35	287.2	3.5	113.1
351.0	10.08	9.36	238.2	3.6	110.4
355.0	10.09	9.37	287.5	3.1	109.9
356.0	10.08	9.37	288.3	3.2	109.6
357.0	10.09	9.37	239.1	3.0	110.2
358.0	9.97	9.36	289.2	0.3	101.7
359.0	10.03	9.42	288.3	6.5	101.6
0.0	10.09	9.37	289.5	4.8	110.3
1.0	10.08	9.36	289.4	4.6	110.9
3.1	10.09	9.35	289.1	4.8	111.5
7.1	10.15	9.36	289.3	3.9	115.8
11.0	10.18	9.34	288.8	3.6	118.7
15.0	10.20	9.33	287.7	3.7	120.6

TABLE 13.—Continued.

(c) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
75.0	10.04	9.29	288.2	6.6	112.9
81.0	9.98	9.33	286.9	6.7	104.5
85.0	9.95	9.35	287.9	6.3	100.7
86.0	9.92	9.34	286.3	7.2	99.0
87.0	9.91	9.34	286.4	10.6	98.3
88.0	9.88	9.34	285.9	10.8	95.5
89.0	9.75	9.37	287.7	17.6	80.2
90.0	9.86	9.38	286.8	23.1	90.6
91.0	9.88	9.37	286.6	25.5	93.2
93.0	9.89	9.34	286.7	28.6	96.7
97.1	9.89	9.31	286.3	4.7	99.3
101.0	9.93	9.31	286.2	3.7	102.8
105.0	9.98	9.30	286.0	3.1	107.6
255.1	10.15	9.30	286.1	4.5	118.9
261.1	10.15	9.31	287.4	4.1	118.2
265.0	10.14	9.33	287.3	4.3	116.5
266.0	10.15	9.33	287.7	4.4	117.1
267.0	10.14	9.33	286.9	4.3	116.5
268.1	9.94	9.36	286.7	2.9	99.4
269.1	10.06	9.39	286.8	8.4	105.6
270.1	10.12	9.35	287.1	6.3	113.8
271.1	10.12	9.33	287.1	5.9	115.0
273.0	10.12	9.32	287.1	5.4	115.1
277.1	10.11	9.31	286.3	-12.5	115.9
281.1	10.10	9.30	287.4	3.7	116.1
285.1	10.10	9.30	287.4	3.2	115.9
345.0	10.20	9.30	288.3	4.8	122.9
351.0	10.17	9.32	287.4	4.7	119.2
355.0	10.15	9.34	288.8	5.4	117.3
356.0	10.17	9.3[illegible]	287.5	5.3	118.3
357.0	10.16	9.33	288.4	3.1	117.6
358.0	9.97	9.38	287.2	6.7	99.9
359.0	10.19	9.35	288.8	6.9	119.0
0.0	10.19	9.32	287.8	6.4	120.3
1.0	10.17	9.31	287.9	6.4	120.1
3.1	10.19	9.31	288.2	6.3	121.6
7.1	10.20	9.28	287.6	6.1	124.3
11.0	10.23	9.27	287.0	5.7	126.6
15.0	10.24	9.28	287.1	5.0	126.6

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
75.0	10.19	9.22	286.8	7.9	127.7
81.0	10.14	9.27	287.3	7.9	121.1
85.0	10.13	9.29	286.8	8.4	118.6
86.0	10.09	9.27	287.1	9.5	117.4
87.0	10.00	9.29	287.0	11.3	109.2
88.0	9.84	9.34	287.0	17.3	92.4
89.0	10.01	9.33	286.8	20.7	107.1
90.0	10.04	9.31	286.7	23.5	111.2
91.0	10.05	9.30	287.0	26.1	112.2
93.0	10.05	9.28	286.9	28.8	113.8
97.1	10.04	9.25	286.6	4.1	115.4
101.0	10.08	9.24	286.6	3.3	118.8
105.0	10.13	9.23	286.9	3.0	122.9
255.1	10.19	9.27	287.8	4.7	124.0
261.1	10.13	9.30	287.3	5.2	118.0
265.0	10.11	9.33	287.7	6.8	114.8
266.0	10.10	9.33	287.5	5.9	114.3
267.0	9.92	9.36	287.4	5.6	97.0
268.1	10.02	9.38	288.0	10.0	104.3
269.1	10.10	9.34	287.8	8.7	112.9
270.1	10.10	9.32	287.9	8.3	114.4
271.1	10.10	9.32	287.8	8.3	114.5
273.1	10.10	9.32	288.3	8.1	114.2
277.1	10.12	9.29	287.2	7.9	118.5
281.1	10.15	9.27	287.7	7.3	121.5
285.1	10.18	9.27	288.2	7.0	123.3
345.0	10.25	9.27	287.4	6.1	127.6
351.0	10.22	9.30	288.8	6.2	124.4
355.0	10.22	9.32	287.2	6.4	122.3
356.0	10.16	9.34	288.8	4.6	117.5
357.0	9.98	9.36	288.0	7.5	102.7
358.0	10.19	9.34	289.1	8.8	119.2
359.0	10.24	9.29	287.5	7.8	126.2
0.0	10.25	9.28	288.4	7.7	127.4
1.0	10.24	9.27	288.6	7.5	127.5
3.1	10.23	9.27	288.0	7.3	126.7
7.1	10.25	9.26	287.8	7.1	129.1
11.0	10.24	9.27	286.8	6.6	127.0
15.0	10.26	9.28	287.2	6.4	127.7

TABLE 13.—Continued.

(c) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
75.0	10.07	9.25	286.4	10.8	118.0
81.0	10.02	9.29	286.7	12.0	111.0
85.0	9.98	9.32	286.7	11.4	105.7
86.0	9.88	9.32	286.9	10.8	97.0
87.0	9.78	9.36	286.7	16.8	85.4
88.0	9.88	9.35	286.9	19.9	94.8
89.0	9.95	9.33	286.7	23.5	102.2
90.0	9.95	9.32	286.6	24.3	103.5
91.0	9.95	9.31	286.5	27.2	104.5
93.0	9.96	9.28	286.3	30.2	107.0
97.1	10.00	9.24	286.2	5.9	113.1
101.0	10.05	9.23	287.1	5.8	118.1
105.0	10.09	9.23	285.9	5.7	120.1
255.1	10.13	9.27	286.1	7.3	119.6
261.1	10.10	9.30	286.9	8.4	116.4
265.0	10.08	9.31	287.5	8.8	113.4
266.1	9.90	9.35	286.5	7.9	96.5
267.0	9.98	9.36	287.2	11.8	102.6
268.1	10.07	9.33	287.2	10.5	111.7
269.1	10.08	9.32	286.8	10.3	113.0
270.1	10.09	9.32	287.6	10.2	113.8
271.1	10.09	9.31	287.5	10.2	114.6
273.1	10.11	9.30	287.6	10.3	117.1
277.1	10.16	9.27	287.2	10.6	121.8
281.0	10.19	9.26	287.5	10.1	124.7
285.1	10.20	9.25	287.7	9.5	126.0
345.0	10.20	9.28	287.9	6.6	124.4
351.0	10.21	9.29	287.2	7.2	124.1
355.0	10.14	9.33	287.7	6.1	116.7
356.0	9.96	9.35	286.9	7.6	101.6
357.0	10.11	9.35	287.2	10.1	113.0
358.0	10.21	9.32	287.7	9.0	122.2
359.0	10.24	9.29	287.3	8.4	125.7
0.0	10.24	9.28	287.5	8.3	126.8
1.0	10.25	9.27	287.2	8.2	127.7
3.1	10.24	9.27	287.0	7.9	127.4
7.1	10.22	9.27	286.1	7.7	126.0
11.0	10.24	9.26	287.4	7.4	128.0
15.0	10.23	9.27	286.8	7.4	126.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
75.0	10.05	9.25	286.9	10.8	115.9
81.0	9.99	9.30	287.3	11.7	108.4
85.0	9.95	9.34	287.0	10.5	102.1
86.0	9.80	9.34	287.0	11.7	88.7
87.0	9.81	9.35	286.8	18.5	88.4
88.0	9.93	9.33	287.0	20.8	100.6
89.0	9.97	9.32	286.3	24.6	104.9
90.0	9.98	9.31	287.2	26.0	106.9
91.0	9.98	9.30	287.2	29.4	107.3
93.1	9.97	9.28	287.1	32.9	108.2
97.1	9.98	9.25	286.6	8.3	110.8
101.0	10.02	9.24	286.0	7.5	114.8
105.0	10.05	9.24	287.1	7.4	117.3
255.1	10.10	9.28	286.8	9.2	117.3
261.1	10.10	9.29	287.6	9.2	116.4
265.0	10.06	9.31	287.3	8.5	112.7
266.1	9.86	9.36	287.5	7.8	92.7
267.0	9.94	9.36	287.8	11.5	99.4
268.1	10.05	9.33	288.0	10.5	110.3
269.1	10.07	9.31	287.8	9.5	112.8
270.1	10.07	9.31	288.2	9.1	113.7
271.1	10.08	9.30	287.9	9.1	114.3
273.1	10.09	9.29	287.9	9.4	115.7
277.1	10.10	9.28	287.6	10.0	117.7
281.1	10.11	9.27	287.7	10.0	119.1
285.1	10.14	9.27	287.2	9.9	120.9
345.0	10.12	9.30	287.3	7.4	117.2
351.0	10.15	9.29	287.6	8.0	119.9
355.0	10.02	9.34	287.2	6.4	107.4
356.0	10.02	9.35	288.0	10.9	106.3
357.0	10.16	9.33	288.0	10.4	118.6
358.0	10.20	9.30	287.8	9.4	122.8
359.0	10.20	9.29	287.7	8.9	123.8
0.0	10.20	9.28	287.3	8.7	124.1
1.0	10.20	9.28	287.7	8.6	124.1
3.1	10.19	9.28	287.7	8.2	123.7
7.1	10.17	9.28	287.6	7.8	122.4
11.0	10.20	9.27	287.0	7.6	125.2
15.0	10.23	9.26	287.4	7.4	127.3

TABLE 13.—Continued.

(c) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
75.0	10.03	9.26	287.5	9.0	114.2
81.0	10.00	9.29	287.1	9.7	109.1
85.0	9.93	9.34	287.2	10.6	100.4
86.0	9.87	9.34	286.8	16.6	94.8
87.0	9.93	9.33	286.8	20.5	101.0
88.0	9.96	9.31	286.4	23.5	104.3
89.0	9.97	9.30	286.8	28.6	106.5
90.0	9.99	9.29	286.4	30.2	108.1
91.0	9.99	9.29	286.4	33.2	109.3
93.1	9.99	9.27	286.3	36.1	110.9
97.1	9.99	9.25	286.3	10.6	111.5
101.0	10.01	9.25	287.0	10.0	113.1
105.0	10.00	9.25	285.9	9.3	112.5
255.1	10.05	9.28	286.8	11.4	113.7
261.1	10.08	9.29	286.9	9.0	115.3
265.0	10.01	9.33	287.7	6.9	108.0
266.1	9.82	9.36	286.7	7.0	88.4
267.0	9.88	9.36	287.3	11.1	93.6
268.1	9.97	9.34	287.4	10.4	102.8
269.1	9.99	9.33	287.5	9.5	106.0
270.1	10.01	9.32	288.0	9.7	108.2
271.1	10.02	9.31	287.9	9.4	109.7
273.1	10.04	9.30	287.7	8.4	111.8
277.1	10.06	9.29	286.9	8.0	113.6
281.1	10.06	9.29	287.2	8.1	114.4
285.1	10.07	9.28	287.6	8.1	115.2
345.0	10.02	9.31	287.7	5.7	109.7
351.0	10.07	9.31	286.9	6.8	113.1
355.0	9.96	9.35	287.6	4.5	101.9
356.0	9.92	9.34	287.1	8.5	99.1
357.0	9.99	9.33	287.2	9.5	105.9
358.0	10.05	9.32	287.2	9.5	111.0
359.0	10.04	9.31	287.0	9.6	110.6
0.0	10.04	9.31	287.4	9.5	111.0
1.0	10.06	9.32	287.4	8.9	111.7
3.1	10.06	9.31	287.1	7.8	112.3
7.1	10.07	9.30	286.9	7.8	113.8
11.0	10.11	9.29	287.1	8.1	117.4
15.0	10.14	9.28	287.2	7.9	120.3

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
75.0	10.03	9.26	287.3	8.6	114.0
81.0	10.02	9.29	287.0	6.8	111.4
85.0	9.97	9.32	287.2	7.5	105.2
86.0	9.83	9.32	287.2	12.4	94.1
87.0	9.76	9.33	286.9	20.1	86.2
88.0	9.73	9.33	286.7	28.0	82.1
89.0	9.75	9.33	287.2	35.8	84.5
90.0	9.82	9.32	287.1	37.0	92.3
91.0	9.89	9.31	287.1	37.8	100.0
93.1	9.97	9.28	288.0	38.3	108.6
97.1	9.99	9.25	287.3	12.5	111.6
101.0	9.99	9.25	286.4	12.1	111.8
105.0	10.01	9.26	286.8	11.5	112.7
255.1	10.04	9.29	286.9	12.1	112.5
261.1	10.01	9.30	287.1	8.8	109.8
265.0	9.97	9.33	287.4	5.6	104.3
266.1	9.87	9.36	287.7	3.4	93.3
267.0	9.80	9.36	287.4	5.2	87.0
268.1	9.79	9.34	287.5	7.4	87.0
269.1	9.74	9.34	287.2	8.4	83.2
270.1	9.68	9.34	286.9	11.9	76.6
271.1	9.67	9.34	286.7	13.7	74.8
273.1	9.81	9.34	287.6	10.1	89.6
277.1	10.03	9.30	287.4	7.7	110.9
281.1	10.04	9.29	287.5	7.3	112.8
285.1	10.05	9.29	287.1	6.9	113.2
345.0	9.89	9.31	287.5	6.8	100.1
351.0	9.91	9.32	286.8	6.4	100.8
355.0	9.98	9.36	287.3	2.6	102.5
356.0	9.92	9.35	288.1	0.4	98.0
357.0	9.86	9.34	288.0	-1.0	94.2
358.0	9.81	9.34	287.6	-0.6	88.9
359.0	9.72	9.34	287.5	-4.5	81.0
0.0	9.65	9.35	286.8	-4.1	72.8
1.0	9.62	9.35	286.5	2.8	68.5
3.1	9.74	9.34	287.2	8.2	82.9
7.1	9.82	9.32	286.6	9.4	92.8
11.0	9.88	9.31	287.0	10.0	99.2
15.0	9.90	9.30	286.6	9.6	101.5

TABLE 13.—Continued.

(d) Ring position 3; airflow, 73.07 kg/sec; VIGV angle, 10°

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip					
75.0	9.93	9.47	287.8	-7.3	88.2
81.0	9.78	9.45	288.7	-10.7	74.4
85.0	9.73	9.46	288.8	-9.2	68.2
88.0	9.68	9.46	286.4	-9.3	60.9
89.0	9.65	9.46	288.1	-9.1	57.2
90.0	9.62	9.46	288.2	-8.7	53.2
91.0	9.61	9.46	288.1	-8.1	50.1
92.0	9.61	9.46	287.3	-6.0	49.8
93.0	9.65	9.46	286.4	-2.1	57.0
94.0	9.69	9.47	286.2	-2.2	61.3
95.1	9.70	9.47	286.2	-1.6	63.5
99.0	9.73	9.47	287.7	-1.0	67.8
105.0	9.80	9.46	286.1	4.4	75.7
255.1	10.07	9.51	287.2	-4.1	96.4
261.0	10.03	9.51	288.1	-3.4	93.8
265.1	10.05	9.52	287.4	-3.7	93.9
268.1	10.04	9.53	288.3	-4.6	92.9
269.1	10.05	9.53	288.2	-5.2	93.1
270.0	10.05	9.53	287.6	-5.9	92.9
271.1	10.03	9.53	288.0	-7.4	91.1
272.0	9.88	9.50	287.6	-9.5	80.4
273.1	10.00	9.51	287.9	-3.3	90.0
274.0	10.02	9.52	287.8	-4.5	91.3
275.1	10.01	9.52	287.1	-4.1	90.8
279.1	10.01	9.51	288.0	-2.8	91.3
285.0	10.04	9.51	288.1	-0.7	94.7
344.9	9.93	10.40	287.7	-6.9	87.5
344.9	9.98	10.41	289.2	-7.8	83.5
345.4	9.98	10.41	289.1	-8.2	83.7
345.2	9.96	9.48	287.7	-8.2	89.9
344.9	9.96	9.49	289.1	-8.4	89.2
345.3	9.95	9.49	288.7	-8.6	88.0
345.8	9.87	9.48	289.1	-10.2	82.3
346.1	9.87	9.46	288.8	-5.4	83.2
346.1	9.98	9.49	287.7	-6.2	90.9
346.3	9.97	9.49	287.5	-6.1	90.4
346.3	9.97	9.49	287.4	-5.9	90.5
345.2	9.99	9.48	288.8	-5.4	92.5
344.9	10.05	9.49	287.8	-5.7	97.3

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 10 percent of span from tip					
75.0	9.98	9.41	287.2	-7.4	98.7
81.0	9.81	9.41	287.0	-6.5	82.7
85.0	9.78	9.42	287.0	-7.5	77.9
88.0	9.70	9.43	288.1	-7.7	68.5
89.0	9.68	9.44	286.5	-7.7	65.0
90.0	9.67	9.44	286.3	-7.9	62.7
91.0	9.67	9.44	286.5	-8.4	61.7
92.0	9.64	9.43	287.0	-7.1	59.3
93.0	9.67	9.43	287.7	-2.8	65.0
94.0	9.71	9.43	287.6	-2.9	69.1
95.1	9.72	9.43	286.5	-2.4	71.0
99.0	9.78	9.43	286.7	-2.0	77.8
105.0	9.77	9.40	286.6	-0.5	79.9
255.1	10.09	9.46	286.9	-3.3	102.8
261.0	10.06	9.46	287.5	-3.1	100.3
265.1	10.08	9.47	287.0	-3.6	100.8
268.1	10.08	9.48	287.2	-4.5	100.2
269.0	10.08	9.48	287.6	-4.6	99.8
270.0	10.08	9.48	288.4	-5.1	100.0
271.0	10.04	9.46	287.0	-7.1	98.7
272.0	9.84	9.42	286.9	-4.3	84.4
273.1	10.05	9.46	287.3	-3.3	99.4
274.0	10.05	9.47	287.0	-3.7	98.0
275.1	10.04	9.47	287.9	-3.5	97.9
279.1	10.04	9.46	287.5	-2.6	98.2
285.1	10.06	9.45	288.1	-1.6	100.8
345.0	10.00	10.41	287.2	-5.0	81.9
344.8	10.01	10.42	287.2	-5.2	80.6
345.5	10.00	10.41	286.9	-5.0	81.8
345.1	9.98	9.42	288.7	-4.8	97.4
344.9	9.98	9.43	287.2	-4.9	96.2
345.4	9.96	9.43	287.8	-5.7	95.4
345.7	9.79	9.41	287.1	-6.3	80.3
346.1	9.98	9.44	287.9	-3.0	95.2
346.1	10.01	9.43	288.7	-4.1	98.8
346.3	10.01	9.43	288.9	-3.8	99.0
346.3	10.02	9.43	288.3	-3.6	99.3
345.1	10.04	9.43	287.4	-3.6	101.2
344.9	10.09	9.42	288.9	-4.3	106.2

TABLE 13.—Continued.

(d) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
75.0	10.01	9.35	287.6	-5.7	105.7
81.0	9.90	9.38	288.1	-4.8	93.9
85.0	9.83	9.39	288.2	-5.4	87.1
88.0	9.76	9.41	286.4	-5.3	77.5
89.0	9.74	9.42	287.0	-5.7	75.0
90.0	9.73	9.42	288.2	-6.0	73.5
91.0	9.71	9.42	287.7	-7.3	71.1
92.0	9.66	9.41	285.9	-6.1	65.5
93.0	9.72	9.42	286.7	-2.8	72.4
94.0	9.75	9.41	286.5	-3.0	76.8
95.1	9.77	9.41	286.8	-2.8	79.2
99.0	9.83	9.39	286.9	-2.2	86.3
105.0	9.81	9.37	286.1	-2.7	86.6
255.1	10.10	9.38	287.7	-2.6	109.8
261.1	10.08	9.40	287.6	-2.8	106.6
265.1	10.10	9.40	288.1	-3.3	108.0
268.1	10.10	9.41	288.2	-3.9	107.4
269.0	10.10	9.41	287.1	-4.1	106.9
270.0	10.10	9.41	287.0	-4.5	107.1
271.1	10.05	9.39	288.2	-6.5	105.4
272.0	9.89	9.41	287.7	-2.6	91.0
273.1	10.07	9.41	287.8	-3.1	105.6
274.0	10.06	9.42	287.1	-3.1	104.0
275.1	10.06	9.41	287.2	-3.0	104.3
279.1	10.05	9.40	288.4	-2.7	104.6
285.1	10.06	9.39	287.2	-2.6	106.3
345.0	10.06	10.42	288.3	-3.6	76.6
344.8	10.04	10.42	288.2	-3.7	78.3
345.6	10.03	10.42	288.6	-3.3	79.1
345.1	10.02	9.39	287.1	-3.2	103.4
344.8	10.02	9.40	288.0	-3.3	102.8
345.6	9.99	9.39	288.9	-5.1	101.0
345.8	9.84	9.42	288.3	-3.7	85.0
346.1	10.04	9.41	287.6	-2.5	102.9
346.1	10.05	9.39	287.5	-3.1	105.2
346.3	10.05	9.39	287.3	-2.8	105.3
346.3	10.06	9.39	288.4	-2.3	106.6
345.1	10.09	9.39	288.5	-3.1	108.9
344.9	10.14	9.37	287.6	-3.7	113.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
75.0	10.01	9.30	286.5	-3.7	109.9
81.0	9.95	9.34	287.4	-3.3	101.5
85.0	9.89	9.36	286.9	-3.8	94.8
88.0	9.84	9.39	288.5	-4.1	87.8
89.0	9.83	9.40	286.5	-4.1	85.5
90.0	9.81	9.40	286.6	-4.7	83.5
91.0	9.78	9.40	286.7	-6.4	80.8
92.0	9.70	9.40	287.6	-4.0	72.0
93.0	9.79	9.40	287.9	-2.5	81.2
94.0	9.81	9.39	287.3	-2.6	84.5
95.1	9.83	9.39	287.1	-2.5	87.3
99.0	9.88	9.37	286.8	-1.8	93.5
105.1	9.89	9.35	287.1	-2.9	95.8
255.1	10.12	9.34	286.6	-2.2	114.1
261.1	10.10	9.35	287.1	-2.6	111.6
265.1	10.12	9.36	287.1	-3.2	112.9
268.1	10.12	9.36	287.1	-3.5	112.7
269.0	10.12	9.36	238.1	-3.6	112.7
270.0	10.12	9.37	287.1	-4.0	112.0
271.1	10.02	9.37	287.0	-6.5	104.8
272.0	9.98	9.39	238.0	-1.1	99.5
273.1	10.09	9.37	288.1	-2.6	109.7
274.0	10.08	9.37	287.7	-2.5	109.1
275.1	10.08	9.37	238.0	-2.5	109.1
279.1	10.07	9.36	287.4	-2.8	109.0
285.1	10.06	9.34	288.5	-3.3	110.3
344.9	10.12	10.43	287.1	-2.7	71.5
344.8	10.08	10.43	287.3	-3.1	74.6
345.7	10.09	10.43	287.1	-3.0	74.1
345.0	10.07	9.37	289.0	-3.0	109.0
344.8	10.08	9.37	287.2	-3.0	108.6
345.7	10.02	9.38	287.6	-5.2	103.5
345.8	9.92	9.41	287.5	-1.7	93.1
346.1	10.10	9.38	289.0	-2.2	110.3
346.2	10.10	9.37	289.0	-2.7	111.1
346.3	10.09	9.36	289.1	-2.5	111.0
346.2	10.10	9.36	287.1	-2.2	111.4
345.0	10.16	9.36	288.2	-2.8	115.3
344.9	10.18	9.33	288.4	-2.7	119.1

TABLE 13.—Continued.

(d) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
75.0	10.02	9.26	286.8	-1.4	113.7
81.0	9.95	9.30	286.8	-1.3	105.3
85.0	9.92	9.32	286.7	-1.7	100.9
88.0	9.90	9.34	286.4	-2.1	97.2
89.0	9.89	9.34	287.1	-2.3	96.4
90.0	9.89	9.35	287.2	-3.0	95.3
91.1	9.79	9.36	286.9	-5.3	86.5
92.0	9.77	9.37	286.3	-0.8	82.7
93.0	9.86	9.36	286.1	-1.6	92.1
94.0	9.87	9.35	286.8	-1.7	93.8
95.1	9.87	9.34	287.8	-1.8	95.1
99.0	9.89	9.32	286.5	-2.2	98.6
105.1	9.94	9.30	286.3	-3.5	103.7
255.1	10.16	9.29	287.4	-1.7	120.5
261.1	10.14	9.31	287.4	-2.3	118.3
265.1	10.15	9.32	287.7	-2.6	118.3
268.1	10.15	9.33	287.0	-2.5	117.1
269.0	10.14	9.33	287.0	-2.5	117.0
270.0	10.14	9.33	288.2	-3.0	116.4
271.1	9.91	9.37	288.0	-3.4	95.8
272.0	10.09	9.36	287.2	-0.2	110.8
273.1	10.12	9.33	287.0	-1.4	114.8
274.0	10.12	9.33	287.2	-1.4	115.1
275.1	10.12	9.32	287.7	-1.5	115.3
279.1	10.11	9.32	287.4	-2.2	115.6
285.1	10.10	9.31	287.4	-3.3	115.3
344.9	10.19	10.45	286.9	-0.9	64.3
344.8	10.15	10.44	287.3	-1.6	68.4
345.7	10.16	10.44	287.1	-1.9	66.7
345.0	10.16	9.34	287.3	-1.6	117.0
344.8	10.18	9.34	288.1	-2.2	118.2
345.8	10.02	9.37	288.4	-4.2	104.8
345.7	10.10	9.38	288.8	0.5	110.1
346.1	10.20	9.33	287.7	-0.8	120.4
346.2	10.18	9.32	287.6	-0.8	120.1
346.3	10.18	9.32	287.4	-0.6	119.9
346.0	10.19	9.31	289.1	-0.6	121.4
345.0	10.20	9.29	288.2	-0.6	123.7
344.9	10.22	9.29	287.4	-1.0	125.0

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
75.0	10.16	9.19	286.5	0.0	127.5
81.0	10.11	9.23	286.6	-0.4	121.5
85.0	10.09	9.26	286.6	-0.6	117.9
88.0	10.06	9.27	286.9	-0.9	115.5
89.0	10.07	9.28	286.9	-1.0	115.5
90.0	10.03	9.28	287.4	-2.4	112.5
91.1	9.86	9.33	286.6	-1.4	94.8
92.0	9.97	9.33	287.2	1.0	104.3
93.0	10.02	9.30	286.7	-0.7	110.3
94.0	10.02	9.29	286.7	-1.2	111.0
95.1	10.02	9.29	286.7	-1.6	111.6
99.0	10.04	9.27	287.0	-2.8	114.4
105.1	10.09	9.24	286.8	-3.7	119.6
255.1	10.22	9.26	286.6	-2.0	126.3
261.1	10.17	9.28	287.4	-2.5	122.0
265.1	10.13	9.31	287.0	-2.2	117.2
268.1	10.12	9.32	287.7	-1.2	115.5
269.0	10.12	9.32	288.2	-1.1	115.6
270.0	9.99	9.34	287.5	-2.8	104.8
271.1	9.97	9.37	287.2	2.2	101.1
272.0	10.09	9.33	288.2	0.8	113.5
273.1	10.10	9.32	288.2	0.5	114.9
274.0	10.10	9.32	287.8	0.5	115.0
275.1	10.10	9.32	287.0	0.5	114.9
279.1	10.12	9.30	286.9	0.2	116.8
285.1	10.16	9.28	288.0	-0.3	121.6
344.9	10.24	10.45	286.7	-0.7	58.9
344.9	10.22	10.45	286.8	-1.0	60.5
345.8	10.23	10.45	286.9	-0.9	59.5
344.9	10.22	9.33	288.2	-1.2	121.9
344.8	10.16	9.36	287.4	-2.6	116.2
345.9	9.99	9.38	287.0	-0.2	101.9
345.8	10.19	9.35	288.1	1.5	118.7
346.0	10.24	9.30	288.5	0.2	125.5
346.2	10.25	9.29	288.0	0.1	126.5
346.3	10.24	9.29	287.6	0.0	126.4
345.8	10.24	9.28	287.7	-0.0	126.1
345.0	10.26	9.28	287.1	-0.2	127.8
344.9	10.25	9.28	287.7	-0.8	127.1

TABLE 13.—Continued.

(d) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
75.0	10.05	9.23	286.8	0.8	118.1
81.0	10.02	9.25	287.1	1.5	114.1
85.0	9.96	9.29	287.1	2.1	107.3
88.0	9.94	9.31	286.6	1.7	103.3
89.0	9.92	9.32	286.4	0.5	100.7
90.0	9.82	9.34	287.0	-1.3	90.1
91.0	9.76	9.36	287.1	0.7	82.7
92.0	9.85	9.35	286.9	2.0	92.3
93.0	9.94	9.33	286.7	-0.3	102.2
94.0	9.94	9.32	286.2	-1.4	103.1
95.1	9.94	9.31	286.6	-1.9	103.4
99.0	9.98	9.27	286.9	-2.5	108.9
105.1	10.05	9.24	286.3	-2.5	116.8
255.1	10.16	9.28	287.3	-1.7	121.3
261.1	10.13	9.29	287.6	-0.9	118.7
265.1	10.11	9.31	287.6	0.1	116.2
268.1	10.09	9.32	287.0	0.5	113.8
269.1	10.05	9.33	287.4	-0.9	110.3
270.1	9.87	9.36	287.6	0.3	92.5
271.0	9.97	9.36	288.2	3.4	101.7
272.0	10.06	9.33	287.0	2.0	110.8
273.1	10.08	9.33	287.2	1.8	112.7
274.0	10.09	9.32	286.6	2.0	113.3
275.1	10.10	9.32	288.2	2.2	114.7
279.1	10.15	9.30	288.3	2.6	119.4
285.1	10.20	9.28	287.7	2.2	124.2
345.0	10.24	10.45	286.9	-1.0	57.9
344.9	10.22	10.45	287.4	-0.9	61.1
345.9	10.21	10.45	287.0	-0.9	61.5
344.9	10.19	9.33	287.5	-1.3	119.6
344.8	10.04	9.36	287.3	-2.9	107.0
345.9	9.98	9.37	287.8	0.7	101.8
345.9	10.12	9.35	287.6	2.0	113.4
346.0	10.23	9.31	287.3	0.6	123.9
346.2	10.24	9.30	287.3	0.3	125.5
346.3	10.25	9.29	287.6	0.3	126.2
345.7	10.25	9.29	287.2	0.1	126.4
345.0	10.23	9.29	287.4	-0.3	125.2
345.0	10.24	9.29	286.7	-0.8	126.2

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
75.0	10.02	9.24	286.8	0.3	114.5
81.0	9.98	9.26	286.3	0.4	110.0
85.0	9.95	9.29	286.7	0.8	105.3
88.0	9.93	9.32	287.5	0.7	101.6
89.0	9.91	9.33	287.1	-0.3	98.9
90.0	9.82	9.36	286.8	-1.6	89.0
91.0	9.76	9.37	286.7	0.8	81.9
92.0	9.84	9.36	287.1	3.0	89.9
93.0	9.95	9.34	286.9	0.9	102.0
94.0	9.97	9.32	287.5	-0.0	104.7
95.1	9.97	9.31	286.8	-0.5	105.0
99.0	9.96	9.29	286.5	-0.9	106.5
105.1	10.01	9.26	287.5	-1.6	113.3
255.1	10.10	9.29	286.1	-0.4	116.0
261.1	10.12	9.30	286.7	0.2	117.1
265.1	10.11	9.30	287.4	0.6	116.4
268.1	10.08	9.32	287.6	0.6	113.6
269.1	10.04	9.34	287.9	-0.9	108.9
270.0	9.86	9.37	286.9	-0.4	91.5
271.1	9.90	9.36	287.2	3.0	95.3
272.0	10.04	9.33	288.1	2.1	109.9
273.1	10.07	9.32	288.0	1.2	112.5
274.0	10.08	9.32	287.8	1.0	113.1
275.1	10.08	9.32	286.8	1.0	113.5
279.1	10.10	9.30	287.5	1.3	115.9
285.1	10.13	9.29	287.6	1.4	118.4
345.0	10.18	10.44	286.6	-1.3	64.8
344.9	10.15	10.44	286.4	-0.9	68.6
346.0	10.15	10.44	286.1	-0.8	68.4
345.0	10.14	9.34	288.1	-1.7	115.7
344.8	9.98	9.37	287.1	-2.5	102.1
345.9	9.95	9.37	286.7	0.2	99.4
345.9	10.03	9.36	287.4	1.9	106.0
346.1	10.20	9.32	288.1	0.8	121.0
346.2	10.21	9.31	288.3	0.3	123.3
346.3	10.22	9.30	287.6	0.2	123.6
345.6	10.21	9.30	287.4	0.1	123.3
345.0	10.19	9.31	286.9	-0.4	121.2
345.0	10.22	9.29	287.8	-0.9	124.2

TABLE 13.—Continued.

(d) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
75.0	10.00	9.25	287.3	-0.3	112.8
81.0	9.98	9.27	287.6	-1.7	109.8
85.0	9.96	9.29	287.2	-1.9	106.5
88.0	9.95	9.31	286.6	-1.8	104.2
89.0	9.94	9.32	287.0	-2.0	101.8
90.0	9.87	9.35	287.8	-2.4	94.4
91.0	9.82	9.36	287.2	-0.1	88.3
92.0	9.85	9.36	286.6	3.2	91.9
93.0	9.96	9.33	286.7	3.0	103.2
94.0	9.98	9.32	286.3	2.5	105.8
95.1	9.99	9.31	287.5	2.2	107.5
99.0	9.98	9.29	287.5	1.4	108.8
105.1	9.99	9.27	286.1	0.0	110.1
255.1	10.06	9.31	288.0	1.7	112.3
261.1	10.09	9.30	287.9	0.7	115.4
265.1	10.09	9.30	288.2	0.3	115.0
268.1	10.05	9.33	286.7	-1.0	110.1
269.1	10.00	9.35	287.6	-2.2	105.3
270.0	9.86	9.37	286.9	-2.8	90.8
271.1	9.80	9.38	287.5	-0.4	85.5
272.0	9.91	9.36	287.2	2.1	97.0
273.1	10.00	9.34	287.6	0.8	105.1
274.0	10.02	9.33	287.5	0.2	108.0
275.1	10.04	9.33	287.8	-0.1	109.9
279.1	10.06	9.32	287.5	-1.1	111.9
285.1	10.07	9.31	287.7	-1.7	112.8
345.0	10.11	10.43	286.9	-3.2	72.0
344.9	10.08	10.43	287.1	-0.9	75.2
346.0	10.07	10.42	287.0	-0.8	75.9
345.1	10.04	9.35	287.0	-4.0	107.4
344.9	9.90	9.37	287.3	-4.3	94.9
345.8	9.87	9.37	287.8	-2.3	92.4
345.9	9.89	9.37	287.4	-1.1	93.6
346.0	10.07	9.35	287.5	0.5	110.2
346.3	10.11	9.34	287.2	0.3	113.9
346.3	10.11	9.34	287.0	-0.8	113.7
345.5	10.10	9.34	287.5	0.5	113.6
345.0	10.08	9.33	287.6	-1.7	112.4
345.0	10.12	9.32	287.4	-1.5	115.8

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
75.0	9.98	9.26	287.1	-1.5	110.4
81.0	9.98	9.27	287.2	-3.5	109.7
85.0	9.97	9.28	287.2	-4.4	108.0
88.0	9.95	9.30	287.4	-4.6	104.7
89.0	9.92	9.31	286.8	-4.8	101.3
90.0	9.89	9.33	287.0	-4.8	97.4
91.1	9.85	9.34	287.1	-3.5	93.4
92.0	9.84	9.35	287.1	-0.2	91.5
93.0	9.90	9.33	287.4	3.6	97.9
94.0	9.91	9.32	287.6	4.5	99.4
95.1	9.92	9.32	286.4	4.8	100.8
99.0	9.98	9.29	286.3	3.1	107.8
105.1	9.99	9.27	287.1	1.9	109.8
255.1	10.03	9.31	286.4	2.7	110.0
261.1	10.04	9.31	286.3	0.7	111.1
265.1	10.03	9.32	287.4	-0.4	109.4
268.1	9.95	9.34	287.5	-2.8	101.8
269.0	9.93	9.35	286.9	-3.7	99.0
270.0	9.86	9.37	287.1	-4.7	90.8
271.1	9.80	9.38	286.6	-3.8	84.6
272.0	9.78	9.38	287.3	-1.4	83.3
273.1	9.89	9.36	287.7	-0.1	95.1
274.0	9.93	9.35	287.6	-0.1	99.6
275.1	9.92	9.34	287.7	-0.2	99.3
279.1	9.97	9.33	287.9	-1.8	104.1
285.1	10.04	9.32	287.2	-3.3	110.4
344.9	9.89	10.39	287.5	-5.6	90.5
345.0	9.91	10.39	287.4	-0.9	88.8
346.0	9.84	10.38	287.4	-0.8	94.3
345.0	9.83	9.36	287.0	-6.0	89.8
345.0	9.83	9.38	286.8	-7.4	87.6
345.7	9.81	9.38	287.2	-7.9	86.0
346.0	9.81	9.38	287.4	-8.0	85.3
346.0	9.80	9.36	287.0	-6.7	86.3
346.3	9.83	9.35	287.0	0.3	90.4
346.3	9.77	9.34	287.1	-7.6	86.1
345.4	9.71	9.34	286.8	-6.5	79.7
345.0	9.85	9.35	287.3	-5.0	92.2
345.0	9.87	9.34	286.6	-3.6	94.6

TABLE 13.—Continued.

(e) Ring position 3; airflow, 73.74 kg/sec; VIGV angle, −10°

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 5 percent of span from tip					
75.0	9.82	9.42	287.7	5.5	83.1
79.0	9.76	9.44	287.4	8.8	74.5
81.0	9.76	9.44	287.1	8.0	73.6
82.0	9.75	9.45	287.2	12.2	71.7
83.0	9.72	9.45	286.8	20.6	68.6
84.1	9.72	9.45	287.9	21.2	67.4
85.0	9.74	9.45	287.7	8.5	69.4
86.0	9.75	9.45	287.6	3.1	70.7
87.0	9.66	9.43	285.8	-1.2	61.7
89.1	9.54	9.42	286.2	21.2	45.0
91.0	9.67	9.41	286.5	19.1	67.0
95.0	9.72	9.40	286.3	20.1	73.0
105.0	9.87	9.43	287.0	18.2	86.9
255.1	10.04	9.46	286.1	8.8	98.4
259.1	10.04	9.48	286.6	9.1	97.5
261.0	10.06	9.49	287.5	8.6	97.7
262.0	10.06	9.49	287.7	8.4	97.3
263.1	10.05	9.50	287.3	8.2	96.6
264.1	10.06	9.50	286.9	7.9	96.1
265.1	10.06	9.51	288.1	7.7	96.2
266.1	10.04	9.48	288.6	6.6	97.0
267.1	9.84	9.44	287.3	6.4	82.9
269.1	9.84	9.46	287.3	17.6	80.2
271.0	10.00	9.49	287.7	9.4	92.2
275.1	10.01	9.48	287.2	9.5	94.0
285.0	10.09	9.50	287.9	9.9	99.2
346.2	9.99	9.45	287.4	14.3	95.4
346.4	10.00	9.46	287.7	13.0	95.3
346.4	9.99	9.46	287.8	14.3	94.0
346.4	9.98	9.47	288.0	13.1	93.5
346.4	9.98	9.47	287.5	13.1	92.8
346.4	9.98	9.47	288.4	13.1	92.5
346.4	9.97	9.46	288.7	13.1	92.9
346.4	9.90	9.42	288.7	13.1	91.1
346.4	9.93	9.45	287.1	12.4	90.1
346.4	9.97	9.49	287.5	12.8	90.4
346.4	9.97	9.45	288.3	13.2	93.9
346.4	10.00	9.44	287.3	12.6	96.8
346.3	10.08	9.46	287.4	12.6	102.2

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 10 percent of span from tip					
75.0	9.84	9.35	288.1	7.9	91.5
79.1	9.83	9.39	288.1	7.4	86.5
81.0	9.81	9.40	286.7	7.1	84.4
82.0	9.80	9.40	287.0	7.1	82.7
83.0	9.80	9.41	288.5	7.0	82.1
84.1	9.80	9.41	286.9	6.8	81.4
85.0	9.81	9.41	287.1	6.1	82.1
86.0	9.77	9.40	286.8	4.3	79.4
87.0	9.62	9.40	287.5	10.6	60.7
89.1	9.66	9.42	286.3	20.1	64.0
91.0	9.70	9.38	286.7	17.4	74.1
95.0	9.75	9.37	286.6	15.4	80.9
105.0	9.93	9.37	286.9	15.4	96.8
255.1	10.06	9.40	287.1	9.0	105.2
259.1	10.07	9.42	287.0	8.9	104.4
261.0	10.08	9.43	287.1	8.6	104.3
262.0	10.08	9.43	286.8	8.6	104.2
263.1	10.08	9.43	288.5	8.5	104.2
264.1	10.08	9.44	288.1	8.6	104.0
265.0	10.08	9.41	287.3	8.2	105.3
266.1	9.98	9.36	287.3	7.3	102.9
267.1	9.89	9.39	287.3	13.8	92.8
269.1	10.04	9.48	287.6	14.6	97.0
271.0	10.04	9.46	287.8	10.7	99.3
275.1	10.04	9.44	287.7	9.3	100.9
285.0	10.10	9.44	288.4	9.2	105.9
346.3	10.03	9.39	288.5	14.1	104.4
346.4	10.01	9.39	288.0	12.7	102.8
346.4	10.01	9.39	288.0	14.3	102.2
346.4	10.01	9.40	288.1	13.4	101.5
346.4	10.00	9.40	289.0	13.0	101.1
346.4	10.00	9.40	287.4	13.1	100.4
346.4	9.97	9.38	288.1	12.9	100.1
346.4	9.86	9.38	287.5	12.9	90.8
346.4	9.94	9.38	289.2	12.6	97.7
346.4	10.02	9.44	288.2	12.7	98.6
346.4	10.03	9.41	288.7	14.3	102.0
346.4	10.04	9.39	289.0	13.2	105.6
346.3	10.12	9.38	289.3	12.7	112.0

TABLE 13.—Continued.

(e) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 15 percent of span from tip					
75.0	9.93	9.32	287.4	8.2	102.1
79.1	9.91	9.35	287.1	7.2	97.6
81.0	9.90	9.36	286.8	7.2	95.6
82.0	9.89	9.37	287.3	7.4	94.0
83.0	9.88	9.37	286.8	7.6	92.5
84.1	9.87	9.38	287.6	7.5	92.0
85.0	9.87	9.37	286.6	6.6	92.1
86.0	9.74	9.37	286.5	6.5	79.7
87.0	9.66	9.39	286.3	13.6	68.1
89.1	9.72	9.41	286.7	16.7	73.4
91.0	9.75	9.36	286.5	15.5	81.8
95.0	9.81	9.34	286.5	13.1	90.1
105.0	9.97	9.32	286.5	13.4	105.0
255.1	10.07	9.33	286.7	9.5	111.0
259.1	10.09	9.35	287.0	9.0	111.6
261.0	10.12	9.36	287.5	8.8	113.2
262.0	10.10	9.36	287.7	8.6	111.9
263.1	10.10	9.36	286.6	8.6	111.1
264.1	10.10	9.35	287.9	8.6	111.9
265.1	10.07	9.33	287.7	8.0	111.7
266.1	9.92	9.35	287.5	7.9	98.4
267.1	9.86	9.37	286.8	14.0	90.7
269.1	10.06	9.42	287.4	14.8	103.6
271.0	10.07	9.41	286.7	11.4	105.0
275.1	10.05	9.38	286.6	9.7	106.3
285.0	10.10	9.36	286.7	7.9	111.8
346.3	10.07	9.34	287.9	13.7	111.1
346.4	10.05	9.34	287.0	13.2	109.0
346.4	10.06	9.35	287.2	13.6	108.8
346.4	10.05	9.36	288.2	13.4	108.2
346.4	10.04	9.36	287.6	13.0	107.1
346.4	10.04	9.36	289.4	13.0	107.3
346.4	9.97	9.36	287.7	13.3	101.7
346.4	9.88	9.38	287.3	13.6	92.6
346.4	9.98	9.37	287.5	12.7	101.4
346.4	10.07	9.39	288.3	12.7	106.5
346.4	10.08	9.37	287.9	14.3	109.0
346.3	10.11	9.35	287.7	13.1	112.9
346.3	10.17	9.32	287.8	12.8	119.4

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 20 percent of span from tip					
75.0	9.97	9.28	287.0	9.7	108.2
79.0	9.95	9.30	288.6	8.3	105.2
81.0	9.94	9.32	288.2	8.4	102.4
82.0	9.93	9.33	287.1	8.5	100.9
83.0	9.93	9.34	286.9	8.7	99.9
84.1	9.92	9.34	287.1	8.6	99.0
85.0	9.87	9.33	288.1	7.3	95.5
86.1	9.70	9.36	287.7	10.2	76.2
87.0	9.71	9.38	287.7	15.0	75.7
89.1	9.80	9.39	286.4	15.3	82.9
91.0	9.82	9.34	286.5	14.3	90.0
95.0	9.87	9.31	286.3	12.9	97.9
105.0	9.99	9.26	286.5	12.0	110.8
255.1	10.09	9.28	286.7	9.9	116.7
259.1	10.11	9.30	288.1	9.0	117.1
261.0	10.12	9.30	287.3	8.4	117.0
262.0	10.12	9.31	287.1	8.3	116.9
263.1	10.12	9.31	287.9	8.1	116.9
264.1	10.12	9.31	287.4	7.7	116.2
265.0	10.08	9.32	287.4	6.5	112.9
266.1	9.91	9.36	287.4	5.7	96.5
267.1	9.78	9.38	287.3	11.3	83.1
269.1	10.05	9.36	288.1	15.3	108.1
271.0	10.09	9.36	287.3	11.5	110.7
275.1	10.08	9.33	287.2	9.8	112.4
285.0	10.10	9.30	287.7	8.0	115.9
346.3	10.12	9.31	287.9	13.1	117.0
346.4	10.09	9.32	289.0	13.0	114.4
346.4	10.11	9.33	288.5	13.6	114.2
346.4	10.10	9.34	288.5	13.2	113.6
346.4	10.09	9.34	287.8	12.9	112.7
346.4	10.08	9.34	287.9	13.5	111.4
346.4	9.99	9.36	289.0	13.1	103.4
346.4	9.89	9.37	288.0	13.1	94.2
346.4	9.99	9.37	289.1	12.4	102.8
346.4	10.12	9.35	287.6	12.7	113.7
346.4	10.12	9.33	288.2	14.3	115.1
346.4	10.17	9.32	288.1	13.1	119.5
346.3	10.23	9.29	288.7	12.9	125.9

TABLE 13.—Continued.

(e) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 30 percent of span from tip					
75.0	9.98	9.22	286.1	12.1	113.0
79.0	9.95	9.26	287.0	12.3	108.5
81.0	9.94	9.28	286.5	12.5	106.3
82.0	9.94	9.29	286.4	12.6	105.2
83.0	9.94	9.29	286.3	12.4	104.3
84.1	9.89	9.30	287.2	11.2	100.4
85.0	9.76	9.34	286.3	12.5	85.4
86.1	9.78	9.35	286.6	16.7	85.4
87.0	9.86	9.36	286.8	16.7	92.6
89.1	9.89	9.35	287.6	15.2	96.1
91.0	9.88	9.29	286.7	14.7	100.0
95.0	9.90	9.25	286.4	13.0	105.3
105.0	10.00	9.21	286.0	10.8	115.9
255.1	10.14	9.23	286.3	9.9	123.5
259.1	10.15	9.25	286.8	8.8	122.9
261.0	10.15	9.26	287.3	8.4	121.9
262.0	10.15	9.27	287.2	8.0	121.4
263.1	10.14	9.28	287.8	7.3	120.0
264.1	10.11	9.30	288.1	5.7	116.7
265.0	9.95	9.34	288.4	3.1	102.1
266.1	9.73	9.38	287.5	3.4	77.1
267.1	9.64	9.41	286.4	9.5	62.8
269.1	10.00	9.35	288.0	16.3	104.6
271.0	10.13	9.32	286.9	11.5	116.3
275.1	10.12	9.27	286.8	9.8	119.3
285.0	10.11	9.26	286.5	7.7	119.6
346.3	10.17	9.25	287.8	14.5	124.1
346.4	10.18	9.28	287.7	13.9	122.8
346.4	10.16	9.30	287.3	13.7	120.5
346.4	10.16	9.31	287.3	13.6	119.5
346.4	10.16	9.32	288.8	12.9	118.8
346.4	10.07	9.34	289.6	13.3	111.5
346.4	9.89	9.36	287.1	13.1	94.9
346.4	9.90	9.37	287.1	14.7	94.8
346.4	10.08	9.37	288.0	13.7	109.5
346.4	10.20	9.30	289.1	12.5	122.7
346.3	10.22	9.28	288.1	14.3	125.4
346.4	10.23	9.24	288.6	14.2	128.6
346.3	10.28	9.23	287.4	12.9	132.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 50 percent of span from tip					
75.0	10.12	9.14	286.9	11.9	128.8
79.1	10.10	9.18	286.6	11.9	124.2
81.0	10.09	9.21	287.6	12.1	121.7
82.0	10.08	9.23	287.3	11.8	120.3
83.0	10.00	9.27	287.5	10.5	111.4
84.1	9.80	9.32	286.3	12.1	90.4
85.0	9.74	9.33	286.8	17.5	83.3
86.1	9.85	9.32	287.9	20.1	94.4
87.0	9.98	9.30	287.2	19.0	107.9
89.1	10.08	9.27	287.0	14.9	117.1
91.0	10.06	9.22	286.7	13.2	119.1
95.0	10.07	9.18	286.8	11.3	122.5
105.0	10.14	9.14	286.8	10.1	130.0
255.1	10.17	9.19	287.3	10.7	128.0
259.1	10.13	9.24	287.7	10.6	122.5
261.0	10.12	9.27	287.0	10.6	119.7
262.0	10.09	9.28	287.7	9.9	116.5
263.1	9.98	9.32	288.0	7.7	105.8
264.1	9.80	9.36	286.5	7.4	86.1
265.0	9.69	9.39	286.3	12.4	71.4
266.1	9.76	9.40	286.9	17.4	78.1
267.1	9.90	9.40	287.1	18.8	91.5
269.1	10.08	9.34	287.3	16.2	111.8
271.0	10.11	9.29	287.2	13.4	117.4
275.1	10.13	9.24	288.0	12.3	122.7
285.0	10.20	9.22	287.3	11.2	127.7
346.3	10.23	9.22	288.0	15.3	129.8
346.4	10.23	9.25	288.2	15.1	128.2
346.4	10.22	9.28	289.6	14.3	125.6
346.4	10.14	9.31	288.1	13.7	118.7
346.4	9.95	9.32	287.6	12.9	103.0
346.4	9.84	9.34	286.7	14.2	92.4
346.4	9.98	9.36	287.6	14.5	102.5
346.4	10.14	9.36	287.9	13.3	114.8
346.4	10.23	9.33	288.1	14.0	122.7
346.4	10.25	9.27	287.7	12.4	128.0
346.4	10.24	9.24	287.6	14.2	129.1
346.4	10.26	9.21	287.5	14.1	132.2
346.3	10.23	9.24	287.7	14.6	128.7

TABLE 13.—Continued.

(e) Continued.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 70 percent of span from tip					
75.0	10.01	9.14	286.1	16.9	121.4
79.1	9.97	9.20	286.7	16.2	114.5
81.0	9.90	9.25	287.3	13.4	105.5
82.0	9.79	9.30	287.0	11.3	91.3
83.0	9.67	9.34	286.4	11.7	75.4
84.1	9.63	9.36	286.6	14.5	68.8
85.0	9.68	9.37	286.6	16.4	73.7
86.1	9.78	9.37	286.6	16.7	83.9
87.0	9.87	9.35	286.9	15.8	94.4
89.1	9.95	9.27	286.5	13.5	107.2
91.0	9.94	9.21	286.1	13.7	111.4
95.0	10.00	9.15	286.5	13.8	120.2
105.0	10.09	9.13	286.2	13.4	127.4
255.1	10.12	9.18	286.0	15.3	125.5
259.1	10.09	9.22	286.8	15.8	121.4
261.0	9.93	9.27	287.4	13.6	106.1
262.0	9.78	9.30	286.5	15.5	90.5
263.1	9.83	9.32	286.7	19.6	93.9
264.1	9.96	9.31	287.5	20.6	104.8
265.0	10.06	9.31	287.4	19.6	112.5
266.1	10.08	9.30	287.0	18.8	114.9
267.1	10.09	9.29	287.3	18.7	116.2
269.1	10.10	9.25	288.8	18.7	120.3
271.0	10.14	9.24	287.3	16.3	122.4
275.1	10.18	9.21	287.3	15.8	127.6
285.0	10.22	9.19	287.2	14.2	131.1
346.3	10.21	9.20	287.3	15.6	130.1
346.4	10.20	9.24	287.6	15.1	126.7
346.4	10.03	9.29	287.7	13.5	111.8
346.4	9.84	9.31	286.9	13.6	94.5
346.4	9.78	9.33	286.6	14.7	87.5
346.4	9.87	9.34	287.5	13.9	95.5
346.4	10.02	9.34	287.6	13.1	107.5
346.4	10.14	9.31	287.6	12.6	118.0
346.4	10.21	9.28	287.4	14.0	124.4
346.4	10.23	9.25	288.4	12.3	128.8
346.4	10.21	9.23	287.4	13.6	128.1
346.4	10.21	9.20	287.6	13.6	130.3
346.3	10.20	9.21	287.1	14.3	128.9

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 80 percent of span from tip					
75.0	9.96	9.15	286.9	18.3	117.4
79.1	9.93	9.22	286.9	16.4	110.0
81.0	9.82	9.28	287.4	13.2	95.7
82.0	9.76	9.31	286.5	14.0	87.1
83.0	9.78	9.33	286.9	15.7	87.5
84.1	9.84	9.34	286.9	16.2	92.3
85.0	9.90	9.33	286.6	16.5	98.0
86.1	9.95	9.31	286.6	16.6	104.0
87.0	9.98	9.29	287.6	16.5	108.5
89.1	9.98	9.23	286.9	16.8	112.7
91.0	9.95	9.19	287.2	17.4	114.4
95.0	9.99	9.15	287.2	16.9	119.7
105.0	10.05	9.12	287.2	16.0	125.2
255.1	10.10	9.17	287.2	18.1	125.6
259.1	10.04	9.21	288.3	16.5	118.5
261.0	9.80	9.29	287.7	13.8	94.0
262.0	9.74	9.30	287.3	15.8	87.0
263.1	9.80	9.31	287.1	18.8	91.9
264.1	9.91	9.30	287.3	19.5	101.3
265.0	9.99	9.29	287.9	19.3	109.1
266.1	10.06	9.25	288.3	18.4	117.0
267.1	10.07	9.24	287.6	18.1	119.1
269.1	10.08	9.21	287.1	18.3	121.2
271.0	10.11	9.22	287.1	16.6	121.9
275.1	10.12	9.20	287.6	16.3	124.8
285.0	10.17	9.19	287.2	16.0	128.0
346.4	10.15	9.19	287.5	14.9	127.0
346.4	10.12	9.23	288.1	14.8	122.7
346.4	9.92	9.28	287.4	14.6	104.5
346.4	9.89	9.30	287.5	14.1	100.3
346.4	9.99	9.32	287.7	14.3	107.0
346.4	10.09	9.32	287.5	13.6	113.4
346.4	10.15	9.31	287.6	13.0	118.7
346.4	10.18	9.28	288.3	12.3	122.3
346.4	10.18	9.26	287.8	13.1	124.7
346.4	10.17	9.23	287.5	12.2	125.2
346.4	10.14	9.22	287.5	13.4	124.5
346.4	10.14	9.20	287.7	13.1	125.8
346.3	10.15	9.18	288.0	14.0	127.9

TABLE 13.—Concluded.

(e) Concluded.

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 90 percent of span from tip					
75.0	9.95	9.14	286.7	18.1	117.5
79.1	9.86	9.22	287.0	18.0	104.4
81.0	9.89	9.26	287.1	22.0	103.4
82.0	9.94	9.26	286.8	22.4	107.3
83.0	9.97	9.25	286.6	22.0	110.3
84.1	10.00	9.24	287.3	21.7	113.1
85.0	10.01	9.23	287.1	21.3	114.4
86.1	10.01	9.22	287.1	21.2	115.4
87.0	10.00	9.21	286.2	21.1	115.9
89.1	10.00	9.18	286.3	20.9	117.5
91.0	9.98	9.15	286.4	20.7	118.5
95.0	9.97	9.14	286.4	20.0	119.4
105.0	9.99	9.12	286.2	18.0	121.7
255.1	10.09	9.15	286.8	19.6	125.7
259.1	9.91	9.22	287.4	16.7	108.7
261.0	9.87	9.28	287.0	21.8	100.0
262.0	9.95	9.29	287.0	21.8	105.2
263.1	9.98	9.29	287.9	21.1	108.3
264.1	10.00	9.27	287.2	20.6	111.3
265.0	10.01	9.25	287.7	19.7	113.7
266.1	10.02	9.22	287.5	18.9	116.8
267.1	10.03	9.21	287.1	18.3	118.1
269.1	10.04	9.20	287.7	18.0	120.0
271.1	10.07	9.21	286.9	16.2	120.6
275.1	10.08	9.20	287.2	15.7	121.9
285.0	10.10	9.18	286.3	16.3	124.8
346.4	10.07	9.20	286.9	14.0	121.7
346.4	9.96	9.23	287.4	14.2	111.5
346.4	9.81	9.25	287.0	15.9	98.1
346.4	9.75	9.25	286.6	15.4	93.6
346.4	9.77	9.24	287.2	16.4	95.1
346.4	9.85	9.24	287.2	14.6	102.3
346.4	9.92	9.23	287.7	13.4	108.0
346.4	9.99	9.23	287.6	14.3	113.6
346.4	10.03	9.23	287.3	13.2	117.0
346.4	10.07	9.23	287.4	12.1	119.6
346.4	10.06	9.21	287.1	12.7	119.5
346.4	10.05	9.20	287.3	12.6	120.0
346.3	10.07	9.18	286.9	13.6	122.5

Circumferential location, deg	Total pressure, N/cm^2	Static pressure, N/cm^2	Total temperature, K	Flow angle, deg	Velocity, m/sec
Radial position, 95 percent of span from tip					
75.0	9.97	9.13	287.3	16.0	119.7
79.1	9.79	9.21	287.0	16.1	99.6
81.0	9.56	9.25	286.0	27.6	72.9
82.0	9.57	9.25	286.1	34.7	74.9
83.0	9.68	9.25	286.7	34.6	86.0
84.1	9.81	9.24	286.8	30.1	98.4
85.0	9.89	9.23	286.7	27.0	106.1
86.0	9.94	9.21	287.0	24.9	111.1
87.0	9.97	9.20	287.4	23.8	114.5
89.1	10.00	9.17	287.0	22.8	118.4
91.0	9.98	9.14	287.5	22.7	119.9
95.0	9.97	9.13	287.5	22.8	120.0
105.0	10.00	9.12	287.4	19.8	122.4
255.1	10.04	9.14	287.1	20.4	123.3
259.1	9.90	9.22	287.6	15.4	107.7
261.0	9.65	9.25	287.4	16.7	83.0
262.0	9.56	9.25	286.6	17.9	72.9
263.1	9.48	9.27	285.8	23.2	60.5
264.1	9.49	9.27	287.1	26.3	61.9
265.1	9.57	9.27	287.4	27.6	72.3
266.1	9.70	9.26	287.3	24.9	87.6
267.1	9.81	9.24	287.4	22.0	99.4
269.1	9.96	9.20	287.2	19.8	113.5
271.0	10.04	9.20	287.1	16.7	118.7
275.1	10.06	9.19	287.1	15.8	121.2
285.0	10.08	9.18	287.0	15.5	123.4
346.4	9.97	9.19	287.0	14.3	115.2
346.4	10.01	9.26	287.9	14.6	112.3
346.4	9.76	9.29	287.5	13.0	89.4
346.4	9.62	9.29	287.3	12.9	75.1
346.4	9.54	9.29	286.3	13.1	65.4
346.4	9.50	9.29	287.1	13.1	60.8
346.4	9.49	9.29	287.2	14.2	58.7
346.4	9.49	9.29	286.7	12.7	59.8
346.4	9.56	9.28	286.6	13.2	69.8
346.4	9.78	9.24	286.7	12.2	96.0
346.4	9.83	9.21	286.8	12.7	102.5
346.4	9.87	9.20	287.0	12.5	107.6
346.3	9.98	9.18	287.2	13.4	116.8

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16. Abstract

Detailed flow surveys downstream of the corner turning vanes and downstream of the fan inlet guide vanes have been obtained in a 0.1-scale model of the NASA Lewis Research Center's proposed Altitude Wind Tunnel. Two turning vane designs were evaluated in both corners 1 and 2 (the corners between the test section and the drive fan). Vane A was a controlled-diffusion airfoil and vane B was a circular-arc airfoil. At given flows the turning vane wakes were surveyed to determine the vane pressure losses. For both corners the vane A turning vane configuration gave lower losses than the vane B configuration in the regions where the flow regime should be representative of two-dimensional flow. For both vane sets the vane loss coefficient increased rapidly near the walls.

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