



Fig. 75 Second **axisymmetric** bifurcation buckling mode shape of the optimized **unstiffened** shell as computed by BIGBOSOR4. The corresponding linear bifurcation buckling pressure according to BIGBOSOR4 is $p(\text{crit}) = 695$ psi. The program STAGS obtains a linear bifurcation buckling pressure of 708 psi for this second axisymmetric mode. (See Fig. 78). In the STAGS model the second axisymmetric mode corresponds to the fourth eigenvalue, as listed in Table 60, following two nonsymmetric modes, one of which is displayed in Fig. 77. Compare with Fig. 78. Plus and minus versions of "**mode 2**" are used as initial axisymmetric imperfection shapes in computations of the local skin and stiffener stresses and buckling load factors, axisymmetric collapse loads, and general nonlinear bifurcation buckling load factors. Compare with the axisymmetric buckling modes for the "thick apex" optimum designs shown in Figs. 146 and 230.