



Fig. 82 BIGBOSOR4 prediction of axisymmetric deformation of the optimized **imperfect unstiffened** equivalent ellipsoidal shell with a **-mode 1** linear axisymmetric bifurcation buckling modal imperfection shape with amplitude, $W_{imp} = -0.2$ inches. The applied external pressure is the design pressure, $p = 460$ psi. The shape of the buckling modal imperfection is the negative of that displayed in Fig. 74. The maximum effective stresses in each shell segment associated with this deformation pattern are listed in the third part of Table 61. The -mode 1 imperfection shape is the most critical with respect to axisymmetric collapse of the shell, as demonstrated in Fig. 83. Compare with Fig. 14, which pertains to the optimized isogrid-stiffened equivalent ellipsoidal shell.