



Fig. 140 Nonlinear bifurcation buckling mode from STAGS of the optimized “**perfect**” **unstiffened** equivalent ellipsoidal shell loaded by the external design pressure, $p = 460$ psi. This mode is used as a “trigger” non-axisymmetric imperfection shape (very small amplitude: $W_{imp} = 0.001$ inch) to obtain nonlinear non-axisymmetric collapse of the shell. The nonlinear non-axisymmetric elastic load-deflection curve is shown as the second-to-last trace (upside-down triangles) in the previous figure. This figure is analogous to Fig. 124.