



Fig. 49 Axisymmetric **+mode 3** linear buckling mode shape from BIGBOSOR4 for the **isogrid-stiffened** equivalent ellipsoidal shell with the same design as that optimized with the use of only (+ and -) mode 1 and mode 2 axisymmetric imperfection shapes. Tables 50 and 51 list margins corresponding to this shell with a plus and minus mode 3 axisymmetric imperfection shape with amplitude, $W_{\text{imp}} = 0.2$ inch. Some of the margins are significantly negative, indicating the need for further optimization if one wants the shell to survive in the presence of this type and amplitude of mode 3 axisymmetric imperfection.