



Fig. 78 Fourth linear bifurcation buckling mode of the optimized **unstiffened** equivalent ellipsoidal shell according to the STAGS program. Compare with the BIGBOSOR4 prediction in Fig. 75. pcr = 1.5395 means that the linear buckling pressure is  $1.5395 \times 460 = 708.17$  psi. BIGBOSOR4 predicts a linear buckling pressure of 695 psi (Fig. 75). The axisymmetric buckling mode analogous to this one but computed by BIGBOSOR4 (Fig. 75) is what is called in GENOPT jargon “**mode 2**”. Plus and minus versions of this STAGS linear bifurcation buckling mode are used as initial imperfection shapes in STAGS computations of the local skin and stiffener stresses and buckling load factors, collapse loads, and general nonlinear bifurcation buckling load factors.