

Fig. 202 Axisymmetric **mode 1** linear buckling mode from BIGBOSOR4 for the **optimized unstiffened equivalent ellipsoidal shell with the thick apex of uniform thickness,** $\mathbf{t}(\mathbf{apex}) = \mathbf{0.47183}$ inch; the optimum design is listed in Table 89. The shell was optimized with plus and minus axisymmetric buckling modal imperfection shapes, mode 1 and mode 2 with amplitude, **Wimp=0.1** inch, half the amplitude, Wimp = 0.2 inch, that pertains to the results in Figs. 145 – 200 and Tables 78 – 88. Notice that, unlike the optimized shell with $\mathbf{t}(\mathbf{apex}) = 0.4$ inch, which was optimized in the presence of mode 1 and mode 2 axisymmetric buckling modal imperfections of amplitude, Wimp=0.2 inch (Fig. 145), in this case the shell apex is thick enough to prevent the maximum axisymmetric linear buckling modal displacement from occurring at the pole of the shell. Compare with Fig. 145.