



Fig. 129 Optimization of the “**perfect**” **unstiffened** equivalent ellipsoidal shell via the first execution of SUPEROPT. The starting design is listed near the top of Table 72. The index, IDESIGN, is set equal to 2 in MAINSETUP. IDESIGN = 2 means that “ALMOST FEASIBLE” designs are accepted. “ALMOST FEASIBLE” means that all design margins must be greater than -0.05 . See Item 725 in Table a24 for more information about IDESIGN. Only one execution of SUPEROPT is conducted. The design margins of the optimized shell are listed in Table 75 and the maximum local stresses in skin and stiffeners and minimum local buckling load factors in skin and stiffeners as predicted by BIGBOSOR4 are listed in Table 76. “Perfect” is in quotes because there is a very small axisymmetric imperfection amplitude, $W_{imp} = 0.0001$ inch, as listed in Table 72.