weight of the equivalent unstiffened ellipsoidal shell: WEIGHT (lb)

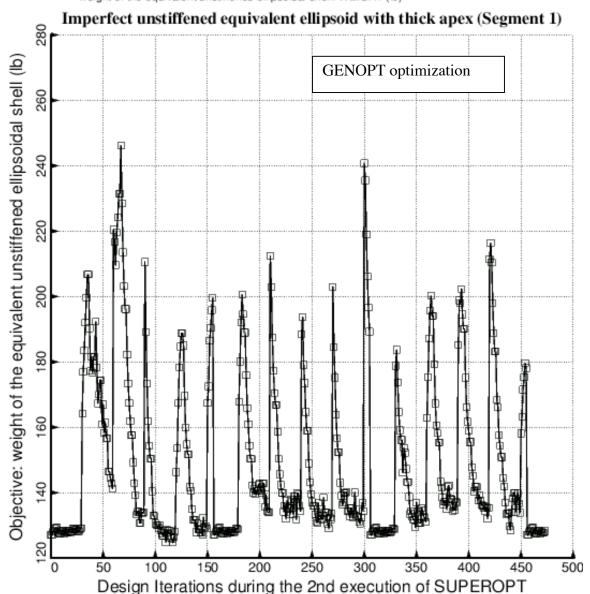


Fig. 144 Obtaining the optimum design of the unstiffened equivalent ellipsoidal shell with the thickness of the spherical apex (Shell Segment No. 1 in Fig. 2) constrained to be uniform with a lower bound of 0.4 inch ("thick apex" configuration). The optimum design is obtained in the presence of plus and minus axisymmetric mode 1 and mode 2 imperfection shapes with amplitude, Wimp = 0.2 inch. The purpose of this second execution of SUPEROPT is to try to find a lower weight than was determined during the first execution of SUPEROPT (previous figure). As is listed in Table 39, the sequence of GENOPT commands to obtain a "global" optimum design is as follows: begin, decide, mainsetup, superopt, chooseplot, diplot, superopt, chooseplot, diplot. In this case the processor CHANGE was executed after immediately after the first command, begin, in order to use as a starting design the optimum design listed in Table 38. The plot shown here presents the result after the second execution of SUPEROPT.