



Fig. 270 STAGS results for the **optimized isogrid-stiffened equivalent ellipsoidal shell; Wimp=0.2 inch; this figure pertains to the shell design listed in columns 2 and 3 of Table 33.** Shown here are the load cycles for load set B (load factor PB) that produce two different residual " $\cos(\theta)$ " dents, the biggest of depth 0.2278 inch. Compare with Fig. 268. These results correspond to the " $\cos(\theta)$ " line imposed normal inward-directed **displacement** applied along Row 5 of Shell Segment 4 from circumferential coordinate, $\theta = 0$ to 90 degrees. This " $\cos(\theta)$ " displacement distribution is used because it generates a residual dent that **locally** resembles the negative of the buckling modal deformation in Fig. 262, that is, the negative of the second linear buckling modal imperfection with $n = 1$ circumferential wave. Here the residual dent is somewhat deeper than the depth, Wimp=0.2 inch, of each of the two axisymmetric buckling modal imperfections, mode 1 and mode 2, for which the optimum design was obtained.