Problem of cylindrical deformation of prismatic shell with the thickness vanishing at infinity

The present work is devoted to the problem of cylindrical deformation of prismatic shell with the thickness as follows.

$$h = h_0 e^{-\alpha x_2},\ h_0 = const > 0,\ \alpha = const \geq 0,\ 0 \leq x_2 < \infty;\ -\infty < x_1 < +\infty,\ (x_1, x_2) \in \omega,$$

Where ω is the projection of the plate on Ox_1x_2,

$$\omega := \{(x_1, x_2) : -\infty < x_1 < +\infty, 0 < x_2 < +\infty\}.$$

Solutions of the problems are presented by integral forms, numerical results are also give.