This paper addresses a gap in the literature on the 3-dimensional scattering of the fundamental symmetric Lamb mode S0 from delimitations in composite plates. We study the scattering of low-frequency S0 mode by delamination in a stiffened 4-ply CFRP composite plate with 0/0/0/0 ply orientation. The work is carried out using three dimensional finite element simulation validated by experiments. Far field scattering coefficients for the S0 mode are plotted as a function of circumferential position around the delamination. Results show that the delamination size and through thickness location have less influence on S0 Lamb wave scattering in the low-frequency regime where the S0 mode is non-dispersive. This work will be useful for practical Lamb wave based inspection of composite plate structures.