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# WPŁYW PARAMETRÓW MASOWYCH SŁUPA OŚWIETLENIOWEGO NA WARTOŚĆ WSPÓŁCZYNNIKÓW BEZPIECZEŃSTWA BIERNEGO POJAZDÓW W TRAKCIE ZDERZENIA

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## Abstract

The paper presents the results of work related to the impact of selected parameters on the value of passive safety coefficients during car crash with lighting column. These studies concerned lighting columns made of composite material. The obtained results were compared with the results obtained for aluminum lighting column, which is the material that is most often used as a structural material for columns. The numerical model of car crash with the lighting column was verified based on the results obtained from the experimental tests. The verification consisted in comparing the value of the ASI coefficient and the comparative analysis of collision moments obtained from experimental and virtual tests. The parameters of the composite material model were determined on the basis of experimental tests carried out on a durability machine. In order to reduce the value of passive safety coefficients, two approach was. The first concerned determining the influence of the wall thickness of the lighting column on the values of ASI and THIV. On the other hand, the second influence of the position of the center of mass on the value of these factors.