

The subject of the study made in this work are photon strength functions. Many models, both based on theoretical as well as phenomenological approaches, were proposed for these quantities, describing the gamma decay of the nucleus, during last 50 year. However, the correctness of these models is still questionable and its verification is the subject of intensive experimental and theoretical activity at the present time. The results of the analysis of measurements of the two-step cascades following thermal neutron capture on the  $^{176}\text{Lu}$  nucleus are compared with the outputs of the Monte Carlo simulations based on the validity of the so-called Extreme Statistical Model. Comparison of experimental data with outcomes of simulations thus becomes the basic tool for studying correctness of theoretical models. The experiment analyzed in the present work provides information mainly about E1 and M1 photon strength functions, especially about the so-called scissors resonance.