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Resonance Contribution to Radiative Neutron Capture on Lithium-7 LAKMA FERNANDO, Mississippi State University, RENATO HIGA, Kernfysisch versneller Instituut, GAUTAM RUPAK, Mississippi State University — We consider the contribution of the 3^+ resonance state to low energy radiative neutron capture in a recently developed halo effective field theory. The resonance contribution is dominated by the M1 transition that proceeds through the initial 5P_3 state to the 2^+ lithium-8 ground state. We present a model-independent calculation whose parameters are constrained by the known data on the 2^+ ground state and the 3^+ resonance state. This calculation extends the range of applicability of previous effective field theory calculations.

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