CMS Simulation (LHE) 8 TeV 0.08 Fraction of events / 1 Ge\ $pp \rightarrow h \rightarrow 2n_1 \rightarrow 2n_D + 2~\gamma_D \rightarrow 2n_D + 4\mu$ $m_h = 125 \text{ GeV}, m_{n_s} = 10 \text{ GeV}, m_{n_s} = 1 \text{ GeV}$ 0.07 $m_{\gamma_{D}} = 0.250 \text{ GeV}, c\tau_{\gamma_{D}} = 0.05 \text{ mm}$ 1st dark photon (leading p_T) 0.06 2nd dark photon 0.05 0.04 0.03 0.02 0.01 30 40 50 60 80 90