CMS Simulation (LHE) 8 TeV Normalized Fraction of events / 1 mm 0.7 $pp \rightarrow h \rightarrow 2n_1 \rightarrow 2n_D + 2~\gamma_D \rightarrow 2n_D + 4\mu$ $m_h = 125 \text{ GeV}, m_{n_s} = 10 \text{ GeV}, m_{n_s} = 1 \text{ GeV}$ 0.6 $m_{\gamma_{D}} = 0.250 \text{ GeV}, c\tau_{\gamma_{D}} = 0.00 \text{ mm}$ 1st dark photon (leading p_T) 2nd dark photon 0.5 0.4 0.3 0.2 0.1 5 3 6