

Diphoton Category

Kinematic Cuts	Search Bins (GeV)	Vetoed Events
$p_T^\gamma > 40 \text{ GeV}, p_T^{\text{miss}} > 100 \text{ GeV}$ $m_{\gamma\gamma} > 105 \text{ GeV}, \text{Lepton Veto for } p_T^\ell > 25 \text{ GeV}$	$p_T^{\text{miss}}: [100, 115], [115, 130], [130, 150]$ $[150, 185], [185, 250], > 250$	-

Photon+Lepton Category

Kinematic Cuts	Search Bins (GeV)	Vetoed Events
$p_T^\gamma > 35 \text{ GeV}, p_T^{\text{miss}} > 120 \text{ GeV}$ $p_T^\ell > 25 \text{ GeV}, M_T(\ell, p_T^{\text{miss}}) > 100 \text{ GeV}$	$p_T^{\text{miss}}: [120, 200], [200, 400], > 400$ $H_T: [0, 100], [100, 400], > 400,$ $p_T^\gamma: [35, 200], > 200$	-

Photon+ S_T^γ Category

Kinematic Cuts	Search Bins (GeV)	Vetoed Events
$p_T^\gamma > 180 \text{ GeV}, p_T^{\text{miss}} > 300 \text{ GeV}$ $S_T^\gamma > 600 \text{ GeV}, M_T(\gamma, p_T^{\text{miss}}) > 300 \text{ GeV}$	$S_T^\gamma: [600, 800], [800, 1000]$ $[1000, 1300], > 1300$	$H_T^\gamma > 2 \text{ TeV if } p_T^{\text{miss}} > 350 \text{ GeV}$ Diphoton, Lepton

Photon+ H_T^γ Category

Kinematic Cuts	Search Bins (GeV)	Vetoed Events
$p_T^\gamma > 100 \text{ GeV}, p_T^{\text{miss}} > 350 \text{ GeV}$ $H_T^\gamma > 700 \text{ GeV}, \Delta\phi(\pm \vec{p}_T^{\text{miss}}, \vec{p}_T^\gamma) > 0.3$	$p_T^{\text{miss}}: [350, 450], [450, 600], > 600$ $H_T^\gamma: [700, 2000], > 2000$	$H_T^\gamma < 2 \text{ TeV}$ Diphoton, Lepton