

Category	Single Lepton ($W(\rightarrow \ell \bar{\nu}) + \gamma$)	Double Lepton ($Z(\rightarrow \ell \bar{\ell}) + \gamma$)
Trigger, Photon, $\Delta\phi(\text{jet}, p_{\text{T}}^{\text{miss}})$	Same as SR	Same as SR
Lepton	$p_{\text{T}} > 30 \text{ GeV}$, passing Tight ID requirement	Leading: $p_{\text{T}} > 30 \text{ GeV}$, passing Tight ID requirement Subleading: $p_{\text{T}} > 10 \text{ GeV}$, opposite charge, passing Loose ID requirement
Recoil (U)	$ U > 200 \text{ GeV}$, $\Delta\phi(\vec{p}_{\text{T}}^{\gamma}, \vec{U}) > 0.5$	$ U > 200 \text{ GeV}$, $\Delta\phi(\vec{p}_{\text{T}}^{\gamma}, \vec{U}) > 0.5$
Additional requirements	$m_{\text{T}}(\vec{p}_{\text{T}}^{\ell} \vec{p}_{\text{T}}^{\text{miss}}) < 160 \text{ GeV}$, $p_{\text{T}}^{\text{miss}} > 50 \text{ GeV}$ (only for $W(e\nu)$)	$60 < m_{\ell\ell} < 120 \text{ GeV}$