

| Stage | Selection on photon variables |
|----------------------------------|---|
| Preselection | $p_T^\gamma > 75 \text{ GeV}$, $ \eta_\gamma < 2.5$ with ECAL geometrical veto, $R_9 > 0.85$, $m_{\gamma\gamma} > 350 \text{ GeV}$ |
| Nonelastic | Preselection, $p_T^\gamma > 200 \text{ GeV}$, $a > 0.025$ |
| Elastic | Preselection, $R_9 > 0.94$, $a < 0.005$ |
| Accept. $\xi_{\gamma\gamma}^\pm$ | Elastic selection, $0.024 < \xi_{\gamma\gamma}^- < 0.15$, $0.037 < \xi_{\gamma\gamma}^+ < 0.15$ |
| Tight $\xi_{\gamma\gamma}^\pm$ | Elastic selection, $0.07 < \xi_{\gamma\gamma}^- < 0.111$, $0.07 < \xi_{\gamma\gamma}^+ < 0.138$ |
| 2σ match. | Tight $\xi_{\gamma\gamma}^\pm$ selection, 2σ matching of $m_{\gamma\gamma}$ and $y_{\gamma\gamma}$ with m_{pp} and y_{pp} |