The graph shows the distribution of weighted events for the process $H \rightarrow \gamma \gamma$ as a function of $m_{\gamma \gamma}$ (GeV) with data points and fitted curves for $S/(S+B)$ weighted events. The graph includes a data point for the fitted $S+B$ curve and the B component subtracted from the data. The CMS Preliminary analysis uses 35.9 fb$^{-1}$ at 13 TeV. The $S/(S+B)$ weighted events are shown across a wide range of $m_{\gamma \gamma}$ values, with data points clustered near the lower values and the fitted curves showing a smooth decline. The B component is indicated by a dotted line, and the difference between the data and the fitted curves is shown in the inset graph, highlighting the contribution of the B component.