

Requirement	$qq/qg \rightarrow ZH$		$gg \rightarrow ZH$	
	Unweighted	Weighted	Unweighted	Weighted
Initial sample	600000		400000	
Primary vertex	600000		400000	
Jet cleaning	597055		398151	
Electron channel				
≥ 2 electrons	109320		79917	
Trigger	108018		79073	
Trigger matching	107938		79023	
Medium electrons with $p_T^\ell > 20, 30$ GeV	106964		78546	
Exactly 2 electrons	106777		78417	
Opposite sign electrons	104374		77152	
$76 < m_{\ell\ell} < 106$ GeV	98478	1319.1	72915	303.6
b jet veto	93094	1257.3	68428	284.8
$E_T^{\text{miss}} > 90$ GeV	71207	586.7	52412	218.1
$\Delta R_{\ell\ell} < 1.8$	68206	484.6	46545	194.0
$S_{E_T^{\text{miss}}} > 9$	60998	420.1	38101	160.2
Muon channel				
≥ 2 muons	125089		92766	
Trigger	118991		87958	
Trigger matching	118424		87499	
Medium muons with $p_T^\ell > 20, 30$ GeV	118165		87419	
Exactly 2 muons	117977		87312	
Opposite sign muons	117976		87311	
$76 < m_{\ell\ell} < 106$ GeV	110147	1540.3	81731	334.1
b -jet veto	104566	1475.4	76570	312.1
$E_T^{\text{miss}} > 90$ GeV	78586	672.0	58094	236.6
$\Delta R_{\ell\ell} < 1.8$	74665	542.6	51052	208.2
$S_{E_T^{\text{miss}}} > 9$	66440	469.9	41595	171.2