Injection HL (from run III optics).  $E=0.45~\text{TeV}.~N_b\simeq 2.3\times 10^{11}~\text{ppb},$   $\beta_{x,\,1}^*=10~\text{m},~\beta_{y,\,1}^*=10~\text{m},~\text{polarity}~\text{IP}_{2/8}=1/1,~\text{phase\_change}=1$   $\sigma_z=7.61~\text{cm},~\epsilon_n=2.5~\text{\mu m},~Q^{'}=15.0,~\text{I}_{MO}=-45~\text{A},~\text{C}^-=0.001$   $25\text{ns}\_2452\text{b}\_2440\_1952\_2240\_248\text{bpi}\_12\text{inj}.~\text{Bunch}~1130.}$ 

