HL-LHC v1.6. E = 7.0 TeV. CC = $-190.0~\mu rad$. $N_b \simeq 1.13 \times 10^{11}~ppb$, $L_{1/5} = 5.14 \times 10^{34} cm^{-2} s^{-1}, L_2 = 8.29 \times 10^{29} cm^{-2} s^{-1}, L_8 = 2 \times 10^{33} cm^{-2} s^{-1}$ $PU_{1/5} = 134, \beta_{x, 1}^* = 0.15~m, \beta_{y, 1}^* = 0.15~m, polarity~IP_{2/8} = 1/1$ $Q_x = 62.315, Q_y = 60.32, \Phi/2_{1(V)} = 250~\mu rad, \Phi/2_{5(H)} = 250~\mu rad, \Phi/2_{2, V} = -170~\mu rad, \Phi/2_{8, V} = 170~\mu rad$ $\sigma_z = 7.61~cm, , Q' = 15, I_{MO} = -60.0~A, C^- = 0.001$ $25ns_2760b_2748_2492_2574_288bpi_13inj_800ns_bs200ns_converted.json.~Bunch~149.$

