```
runIII. E = 6.8 TeV. N_b \simeq 1.26 \times 10^{11} ppb,
           L_{1/5} = 2.01 \times 10^{34} \text{cm}^{-2} \text{s}^{-1}, L_2 = 1.81 \times 10^{30} \text{cm}^{-2} \text{s}^{-1}, L_8 = 2.01 \times 10^{33} \text{cm}^{-2} \text{s}^{-1}
                                                                                \beta_{v,1}^* = 0.3 \text{ m}, \beta_{v,1}^* = 0.3 \text{ m}, \text{ polarity IP}_{2/8} = 1/1
            \Phi/2_{1(V)} = 160 \,\mu\text{rad}, \,\Phi/2_{5(H)} = 160 \,\mu\text{rad}, \,\Phi/2_{2,V} = 200 \,\mu\text{rad}, \,\Phi/2_{8,V} = 200 \,\mu\text{rad}
                                           \sigma_z = 9.0 \text{ cm}, \ \varepsilon_n = 2.5 \ \mu\text{m}, \ Q' = 15.0, \ I_{MO} = -590.0 \ A, \ C^- = 0.0
                            25ns_2556b_2544_2211_2327_3x48bpi_20inj.json.json. Bunch 1009.
                                65.30 65.30 65.31 65.31 65.31 65.31 65.31 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 65.35 
60.329
60.327
                                                                                                                                                                                                                                                                                                                                                                 7.0
60.325
                                       - 6.5
60.323
60.321
60.319
60.317
60.315
                                                                                                                                                                                                                                                                                                                                                          - 5.0
60.313
60.311
60.309
                                                                                                                                  Horizontal tune Q<sub>x</sub>
```

rertical tune Q_v