```
Run III (2024). E = 6.8 \text{ TeV}. N_b \simeq 1 \times 10^{11} \text{ ppb},
            L_{1/5} = 2 \times 10^{34} \text{ cm}^{-2} \text{ s}^{-1}, L_2 = 1.2 \times 10^{30} \text{ cm}^{-2} \text{ s}^{-1}, L_8 = 2 \times 10^{33} \text{ cm}^{-2} \text{ s}^{-1}
                           \beta_{x \text{ IP1}}^* = 0.5 \text{ m}, \beta_{y \text{ IP1}}^* = 0.15 \text{ m}, \text{ polarity IP}_{2/8} = 1/1
\Phi/2_{\text{IP1(H)}} = -145 \,\mu\text{rad}, \,\Phi/2_{\text{IP5(V)}} = -145 \,\mu\text{rad}, \,\Phi/2_{\text{IP2, V}} = 200 \,\mu\text{rad}, \,\Phi/2_{\text{IP8, V}} = 200 \,\mu\text{rad}
                 \sigma_z = 9.0 \text{ cm}, \ \varepsilon_n = 2.2 \ \mu\text{m}, \ Q' = 15.0, \ I_{MO} = -600.0 \ A, \ C^- = 0.0
                     25ns_2464b_2452_1842_1821_236bpi_12inj. Bunch 411.
         60.327 -
                                                                                                                            8.0
   60.325 -
                                                                                                                          - 7.5
   60.323 -
                                                                                                                          - 7.0
   60.321 -
                                                                                                                         - <sub>6.5</sub> ල
  60.319 -
  60.317 -
  60.315 -
   60.313 -
                                                                                                                          - 4.5
   60.311 -
                                                                                                                          - 4.0
   60.309 -
  60.307 -
  60.305 - 41
                                               Horizontal tune O<sub>x</sub>
```

Vertical tune Q<sub>v</sub>