- **Carbon Luminosity Study:**

  - PionLT data at 2.7 GeV
  - Run No. 8456, 8457, 8458, 8460, 8462, 8463, 8464, 8465, 8466, 8467, 8469, 8470
  - P_{HMS} = -1.5 GeV , P_{SHMS} = -1.5 GeV , θ_{HMS} = 11.5˚ and θ_{SHMS} = 9.5˚

- **Scaler Yield Calculation and Triggers:**

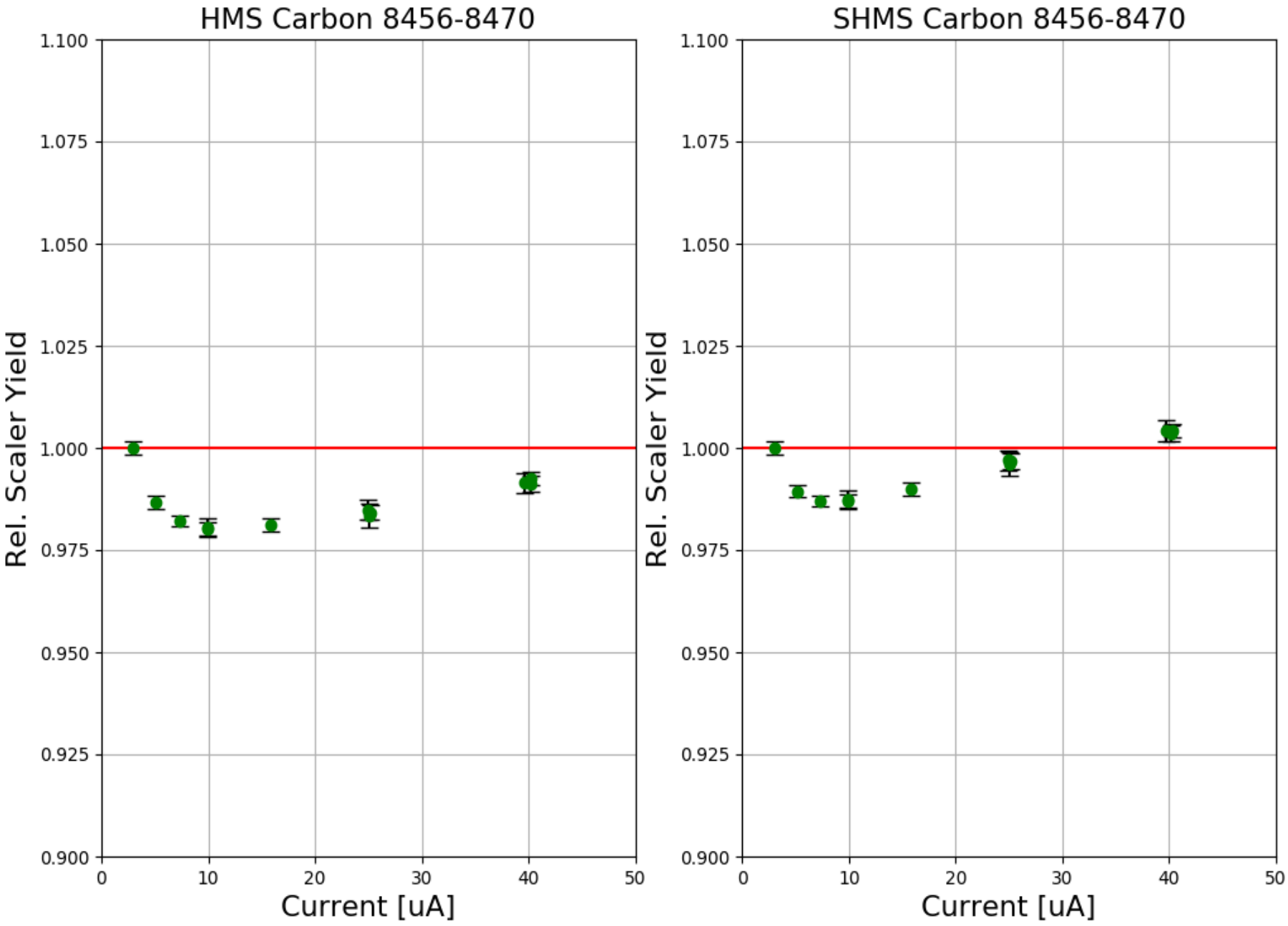
$$\mathrm{Y}_{scaler} = \frac{N_{scaler}}{Q_{tot}}$$

$$N_{scaler} = \Sigma(trigscaler) - EDTM_{scaler}$$

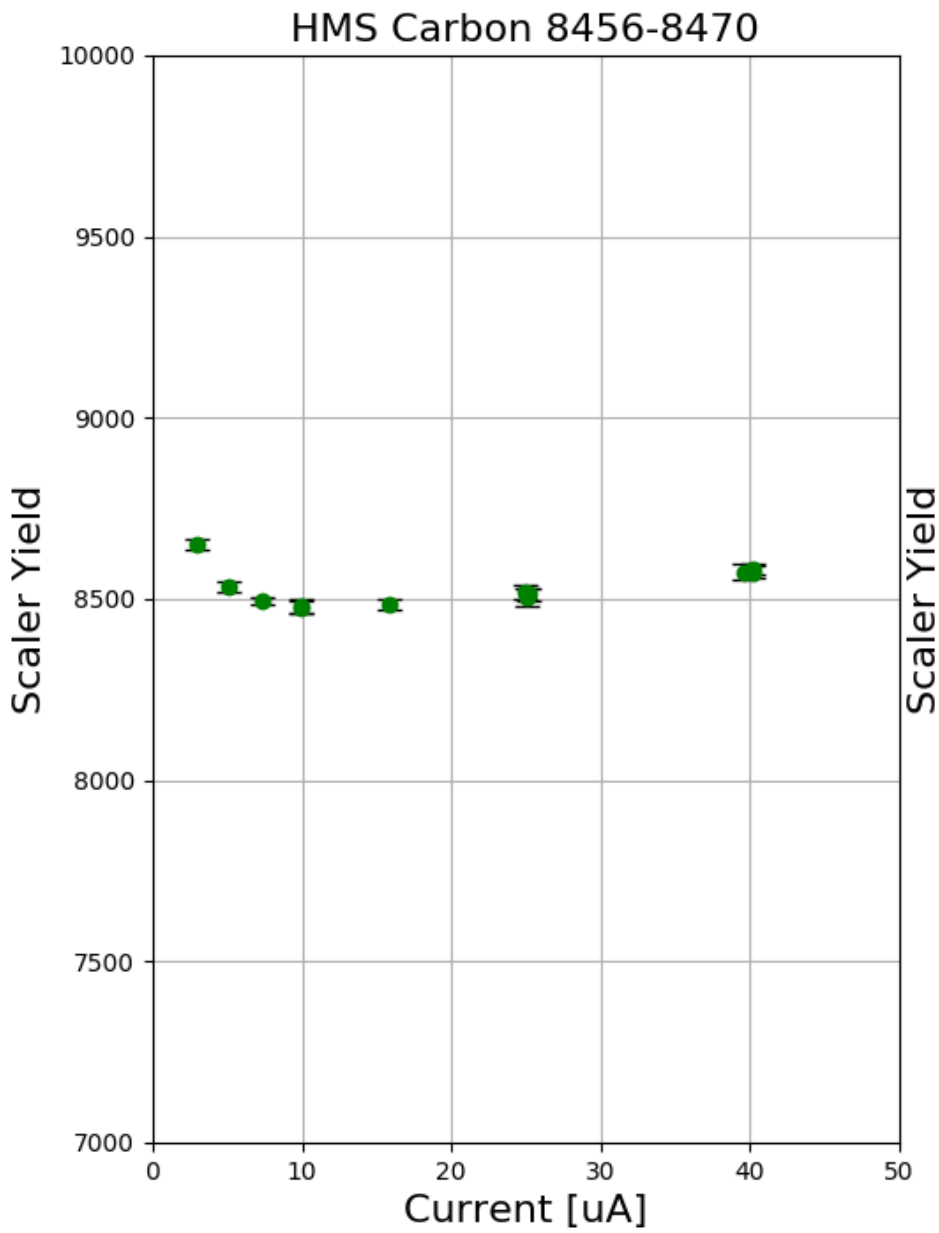
$$Q_{tot} = H.BCM1.scaler.charge$$

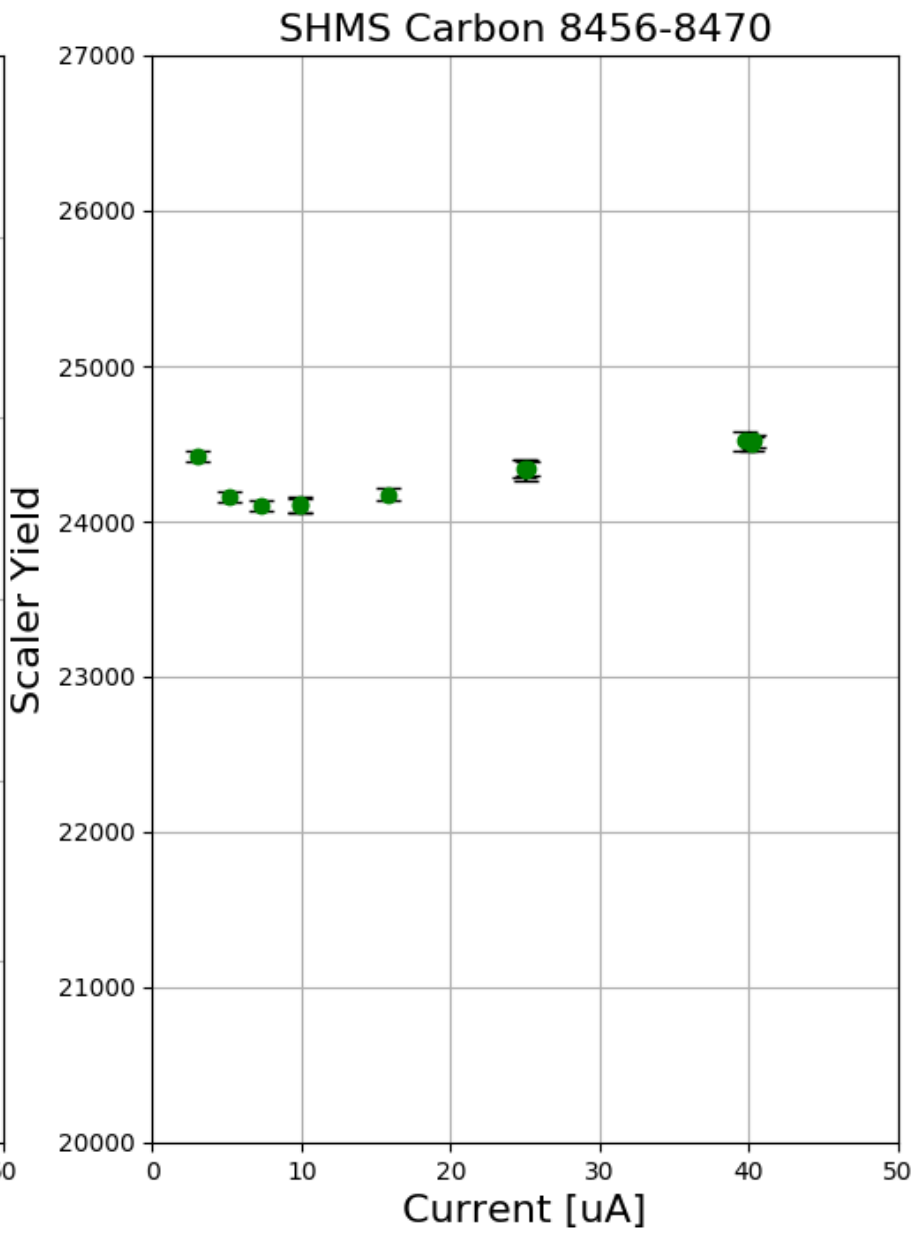
SHMS EL_real HMS EL_real

Relative scaler yield



Absolute scaler yield





- Working for non-track and track scaler yields
- Will work for BCM offsets to fix the yield at below 10 uA