

Status Update

02/22/2019

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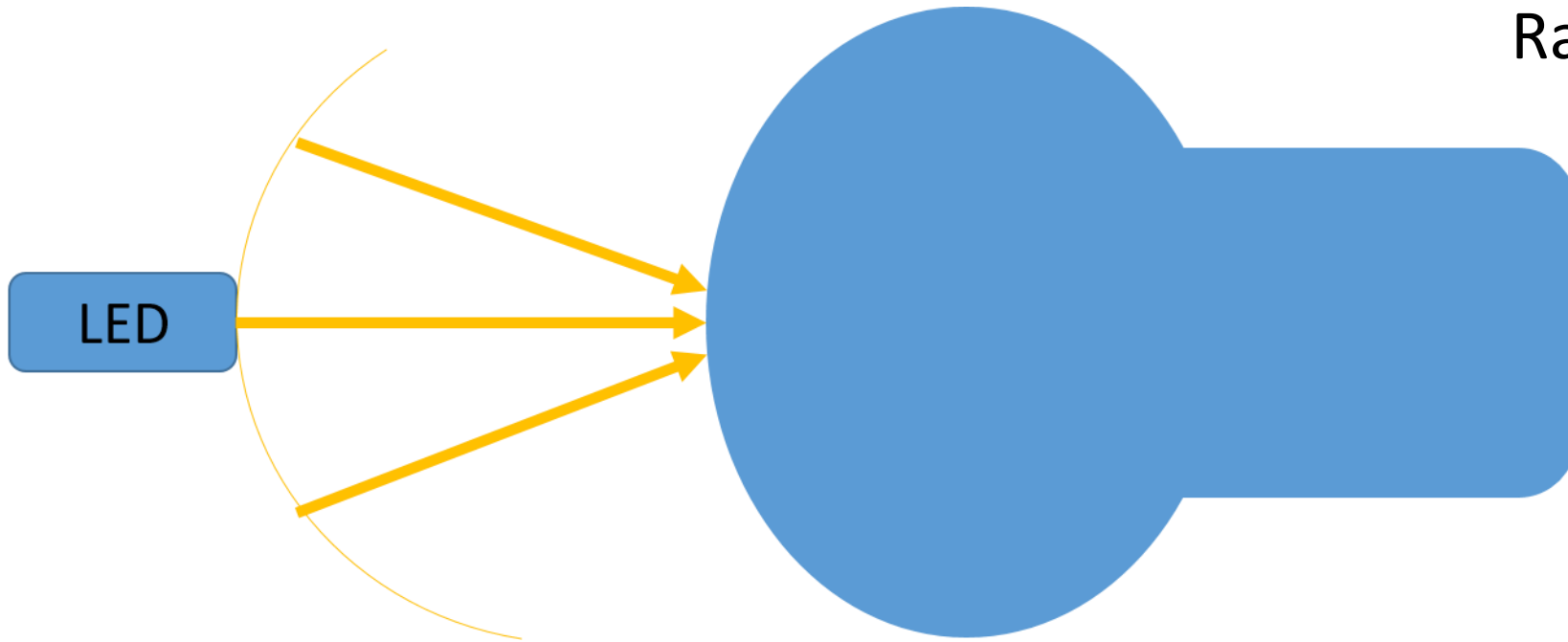
Angle measurement

BC0038 & BC0035

HV: 1200 V

Intensity: 150 mA, 70 psec

Radius: 210 mm

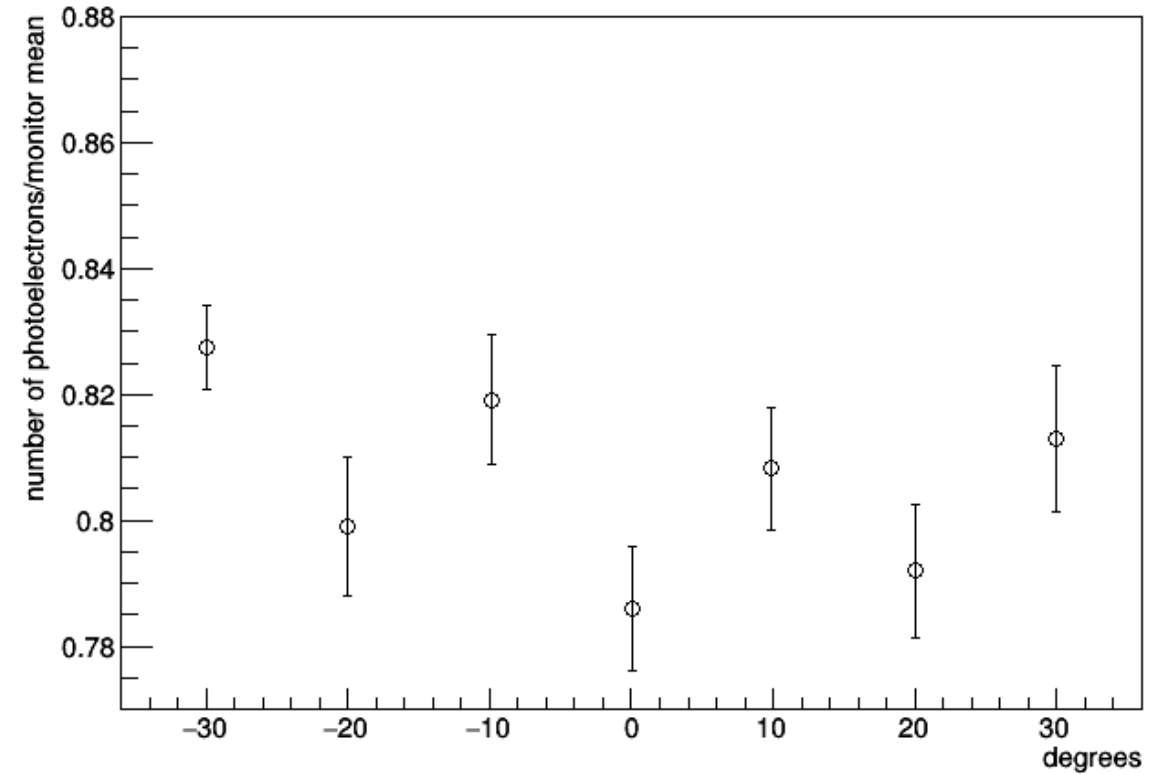
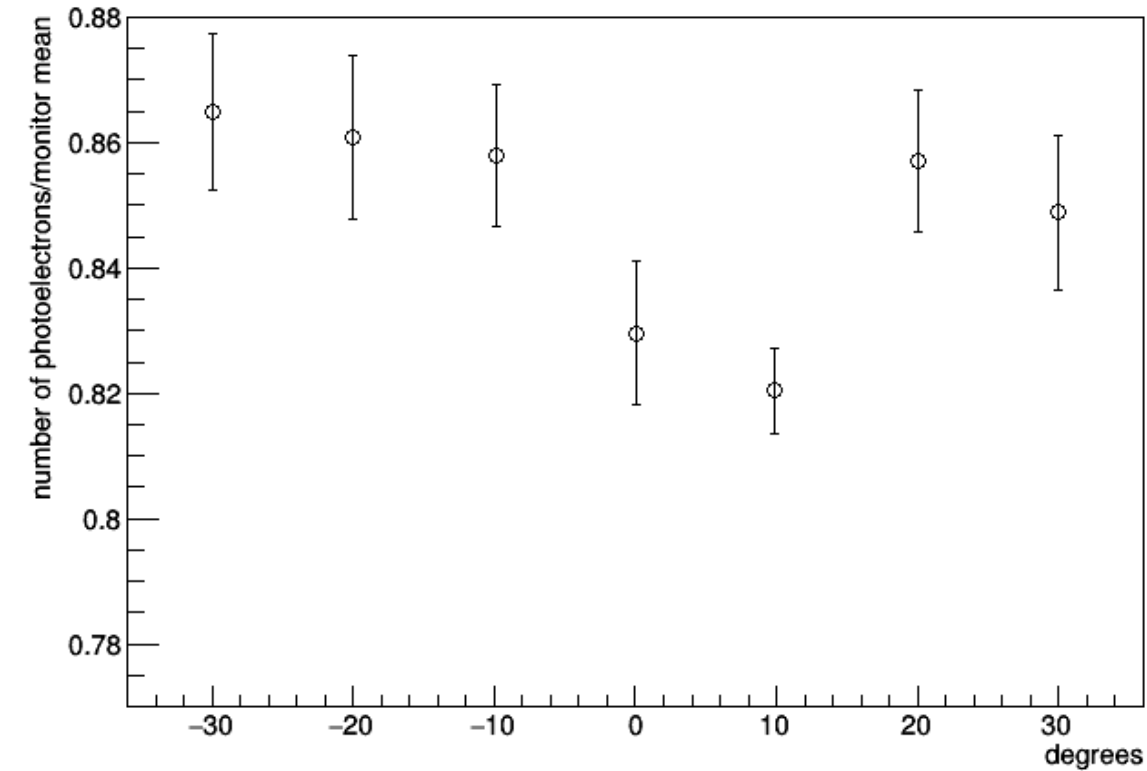


Efficiency of BC0038

180° rotation



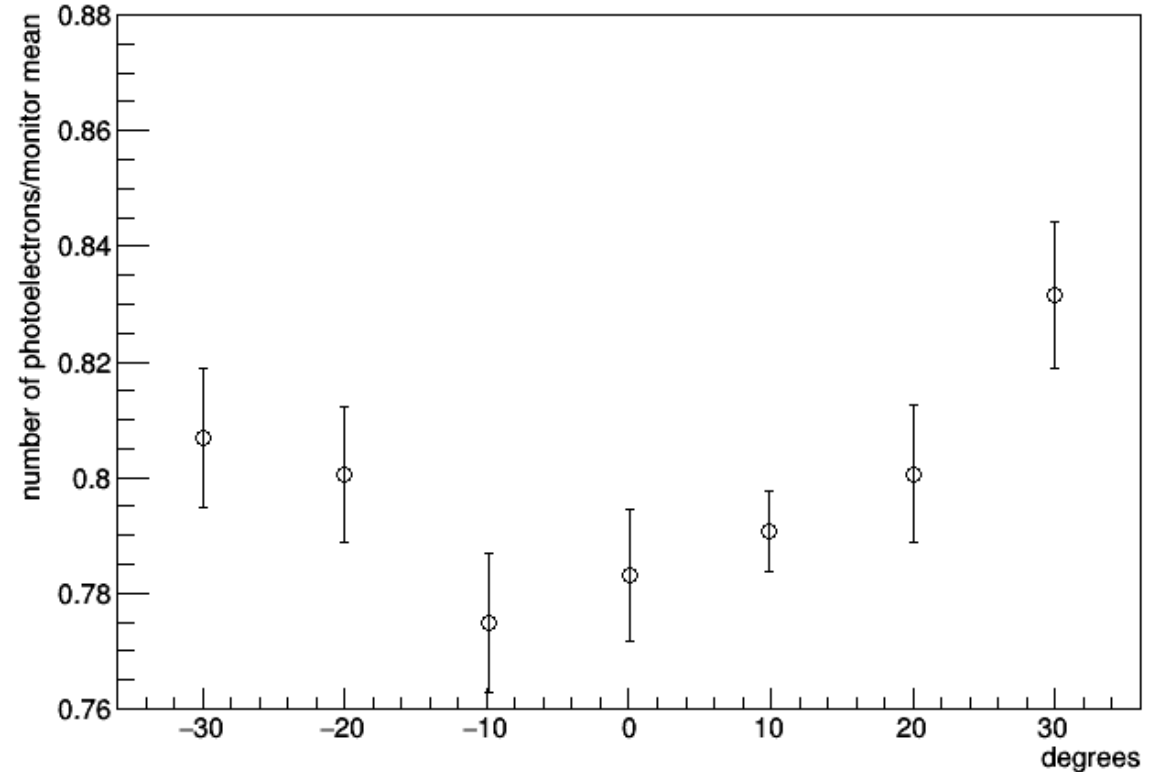
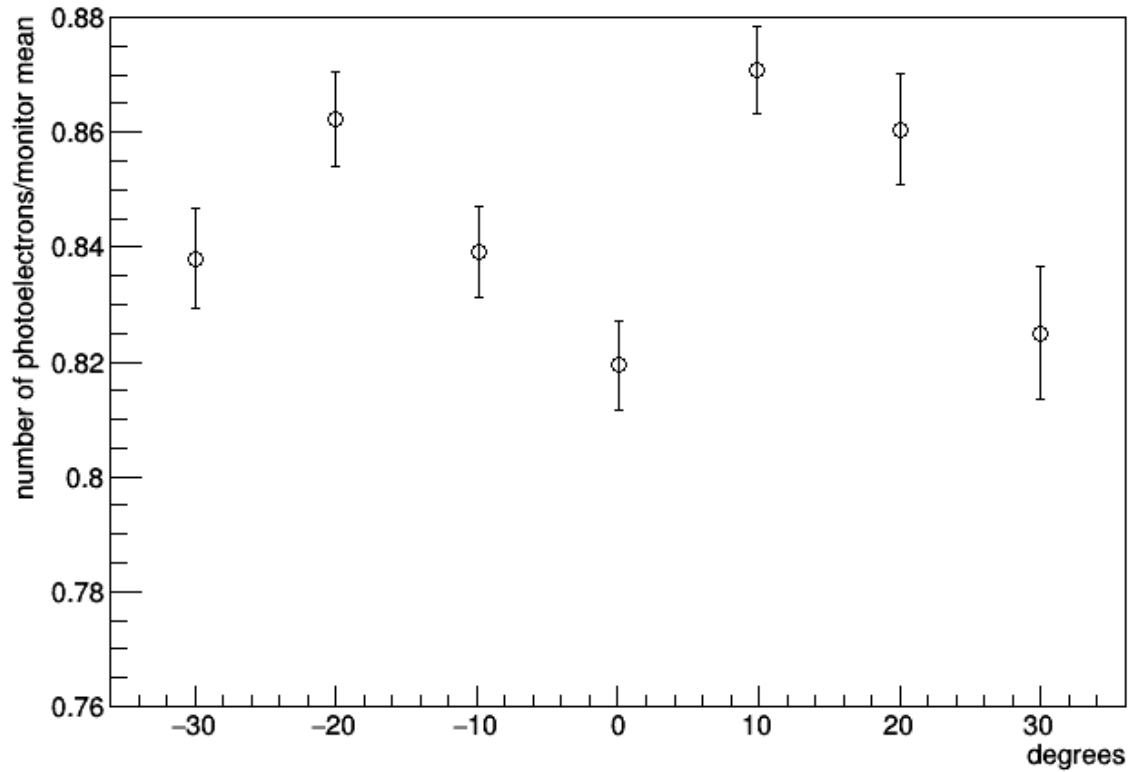
Efficiency was uniform at all angles.
Lower after 180 degree-rotation.



Efficiency of BC0035

Efficiency was uniform within $\pm 5\%$.
Lower after 180 degree-rotation.

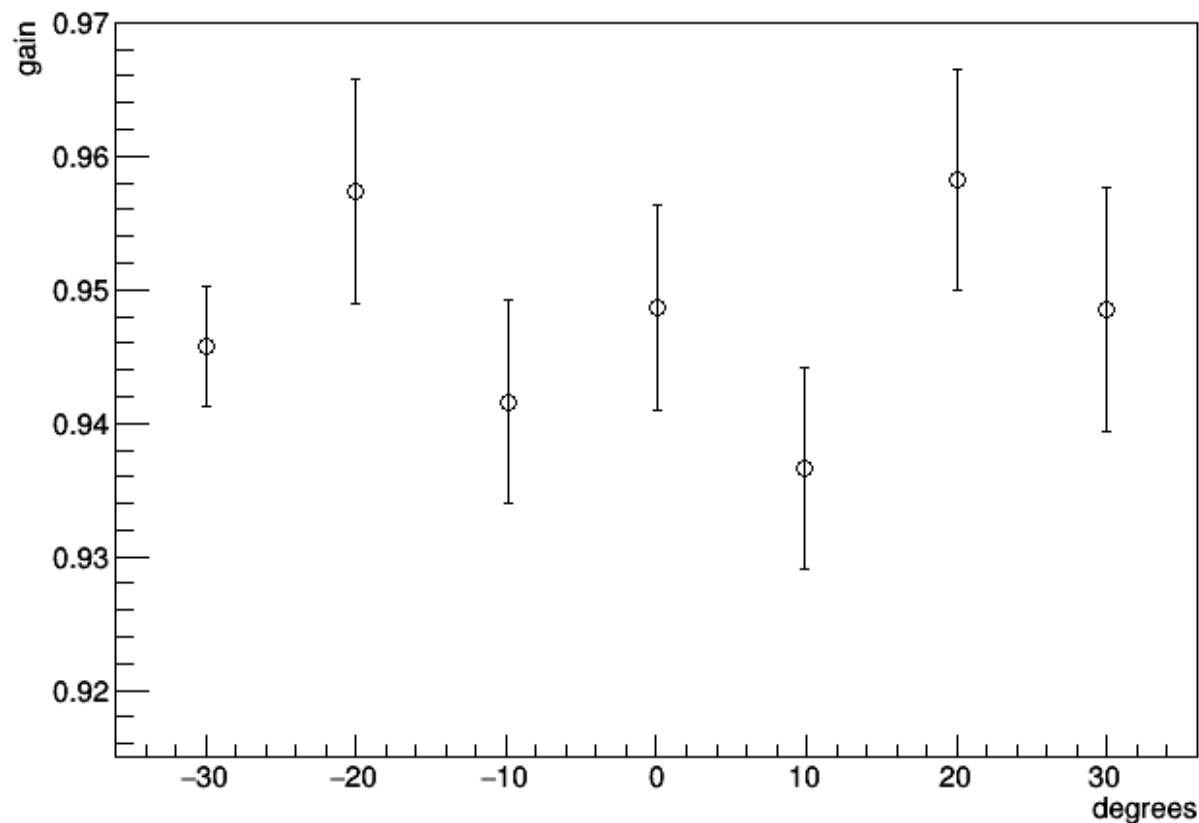
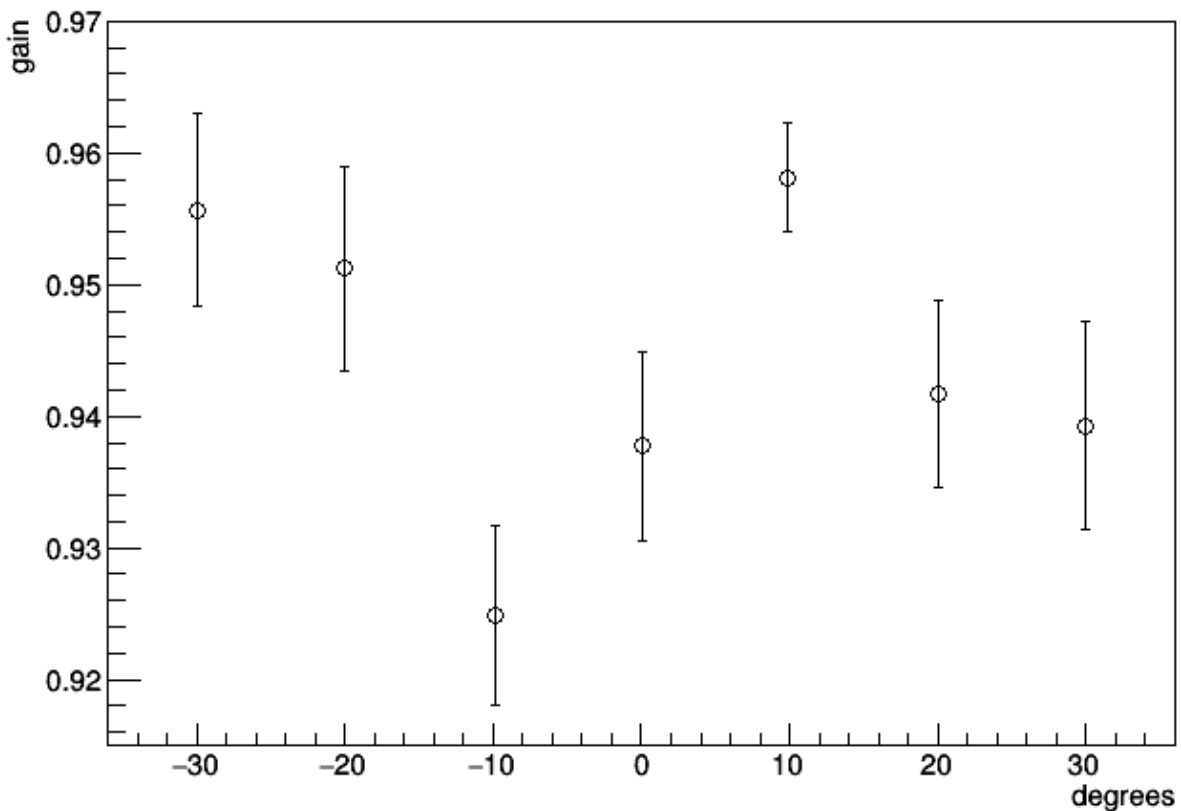
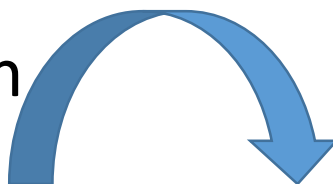
180° rotation



Gain of BC0038

Uniform

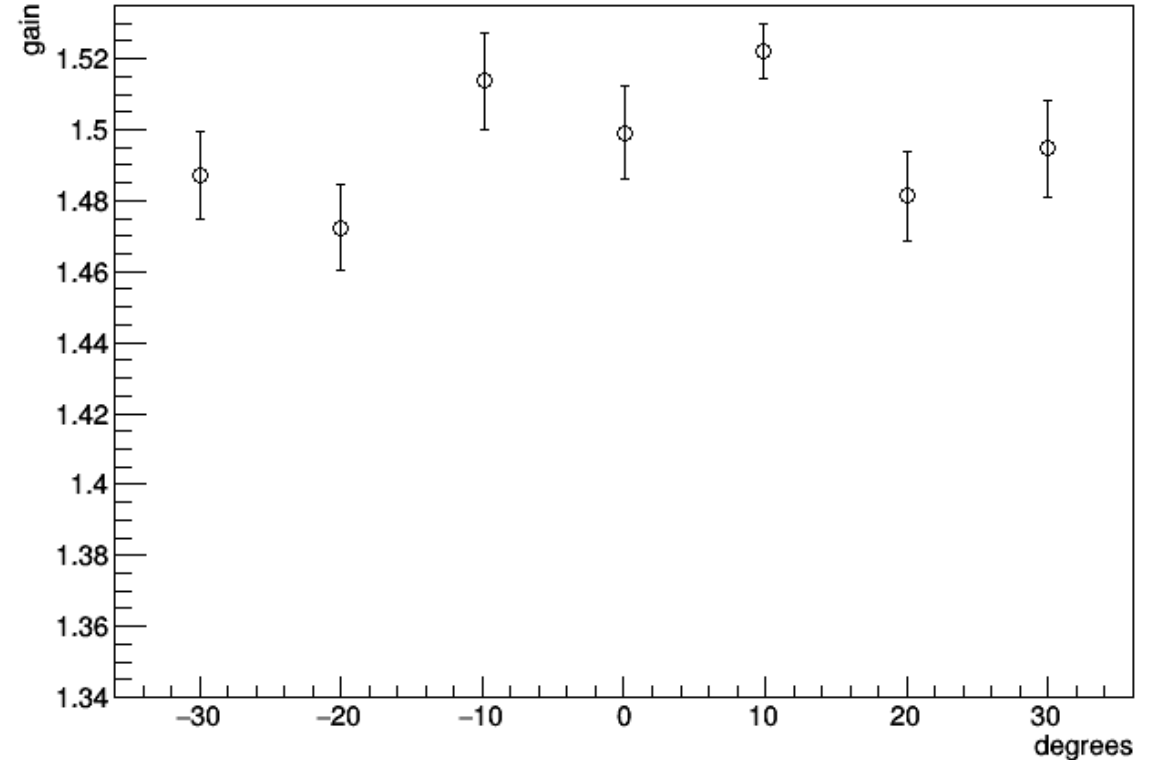
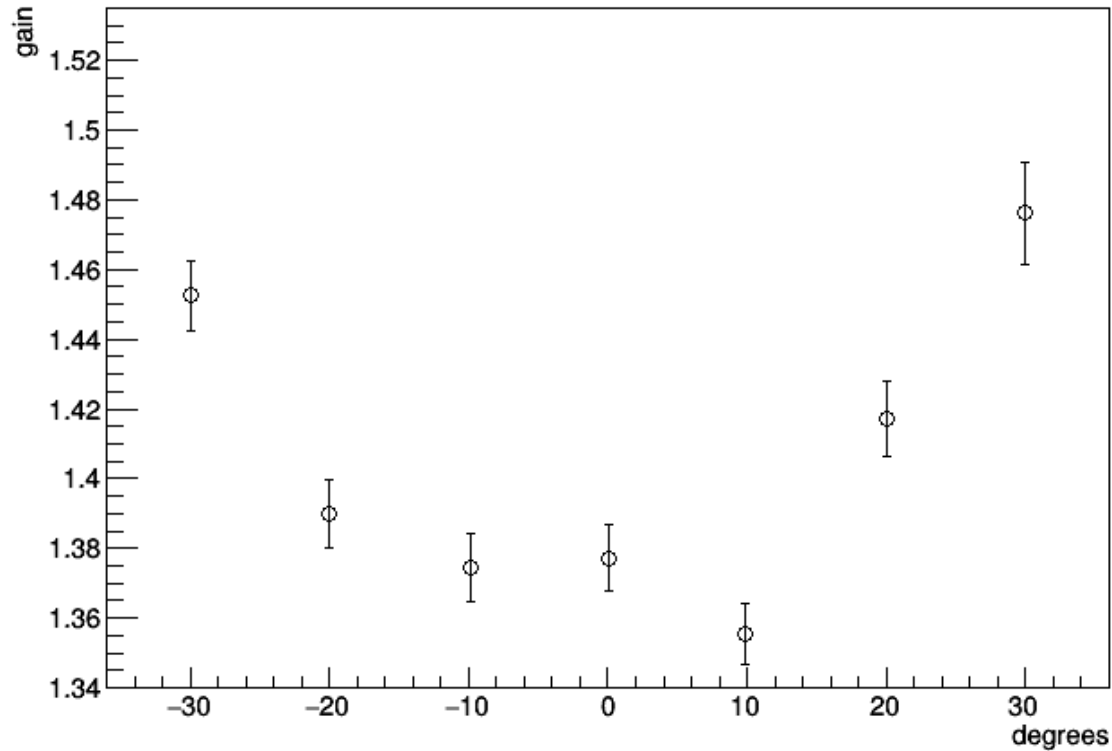
180° rotation



Gain of BC0035

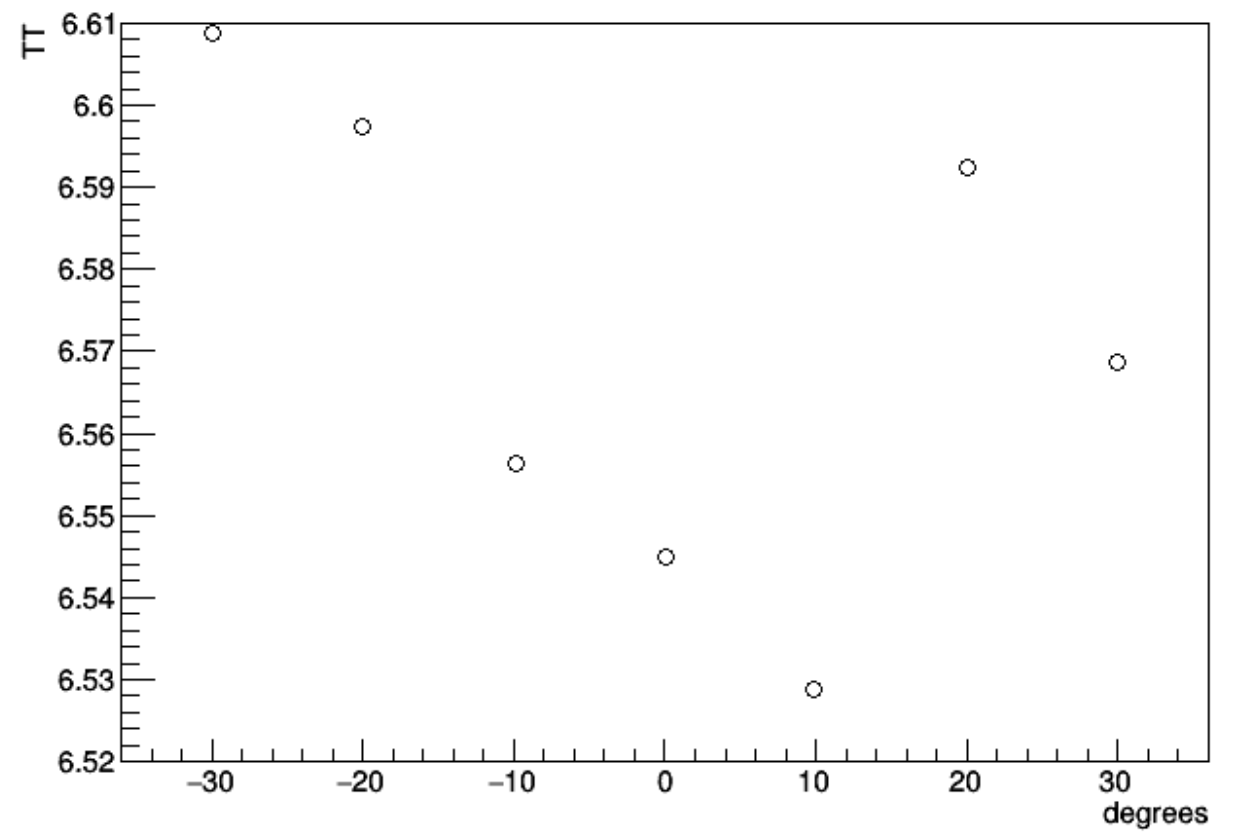
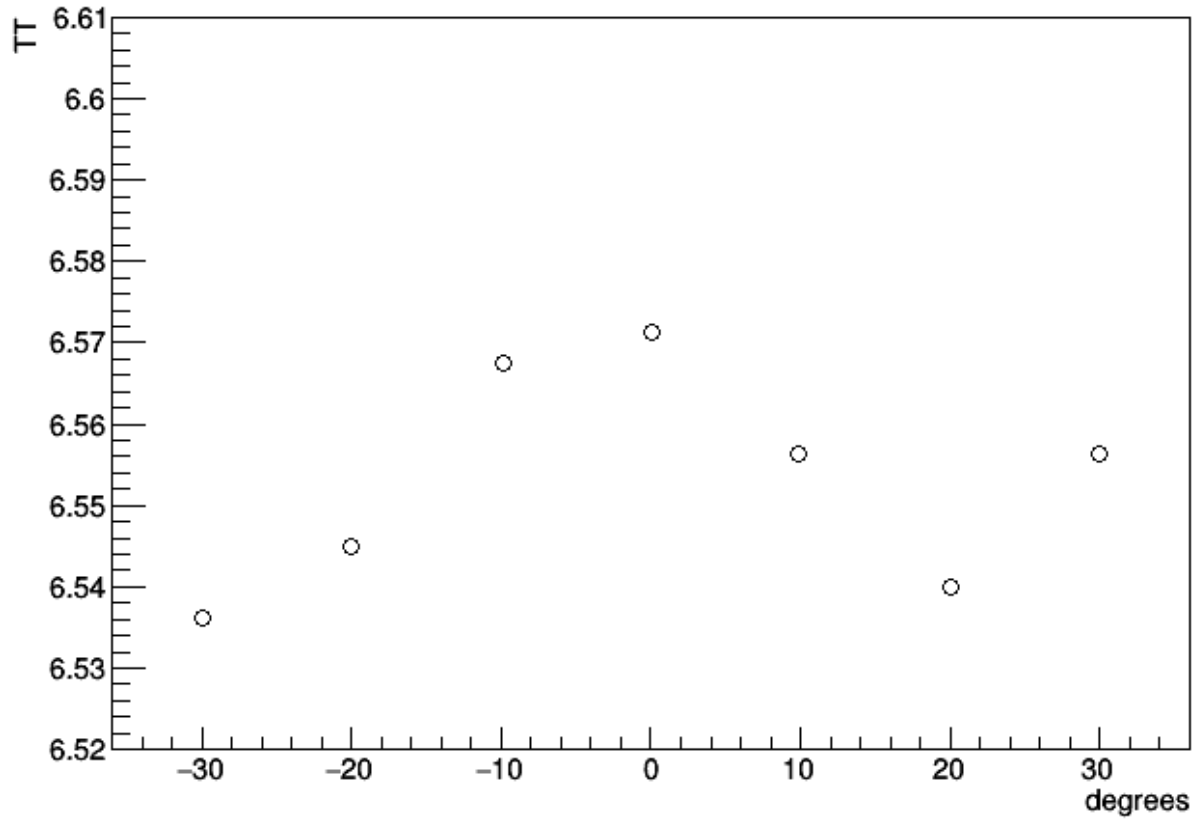
Uniform, but higher after rotation

180° rotation



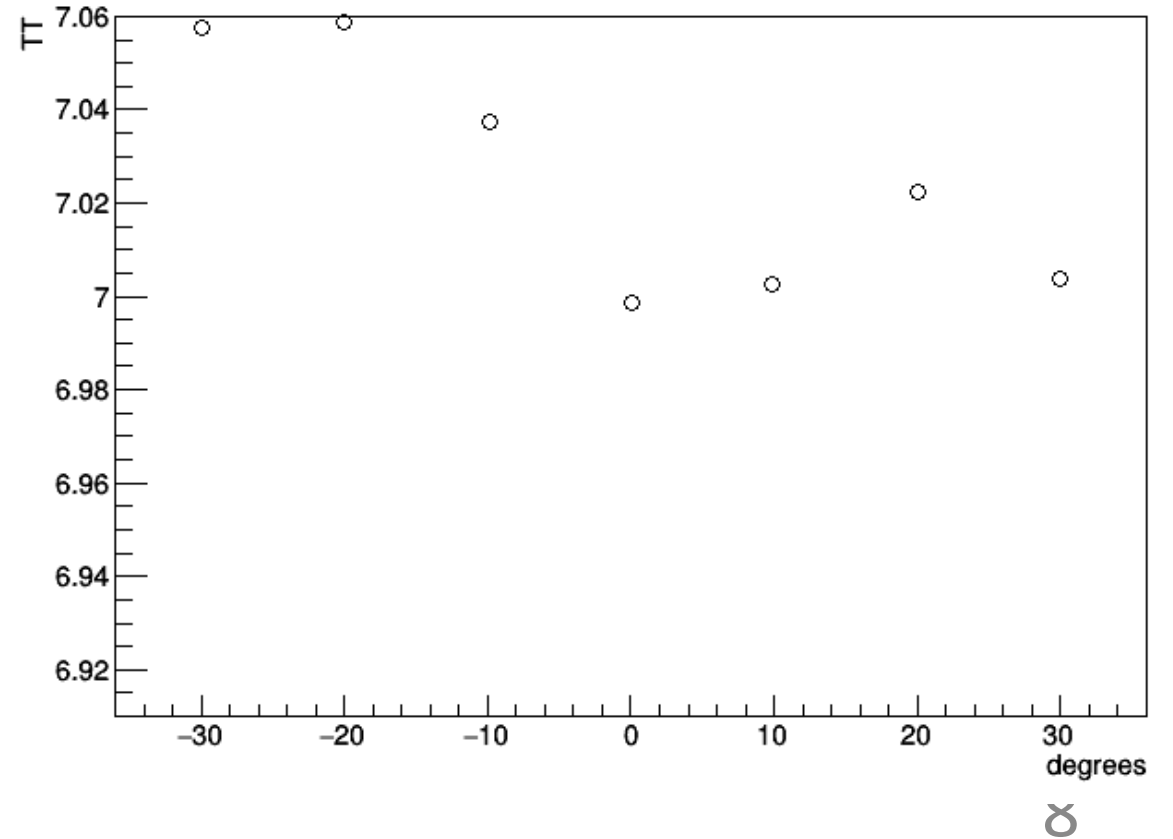
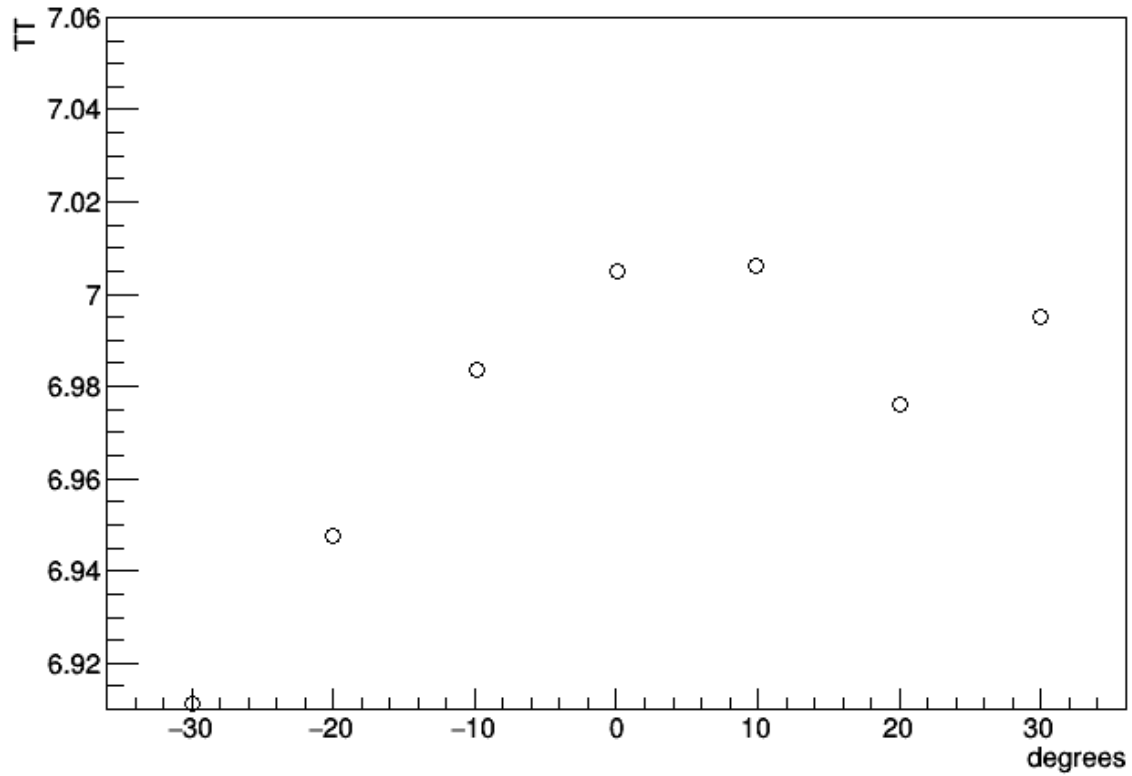
TT of BC0038

180° rotation



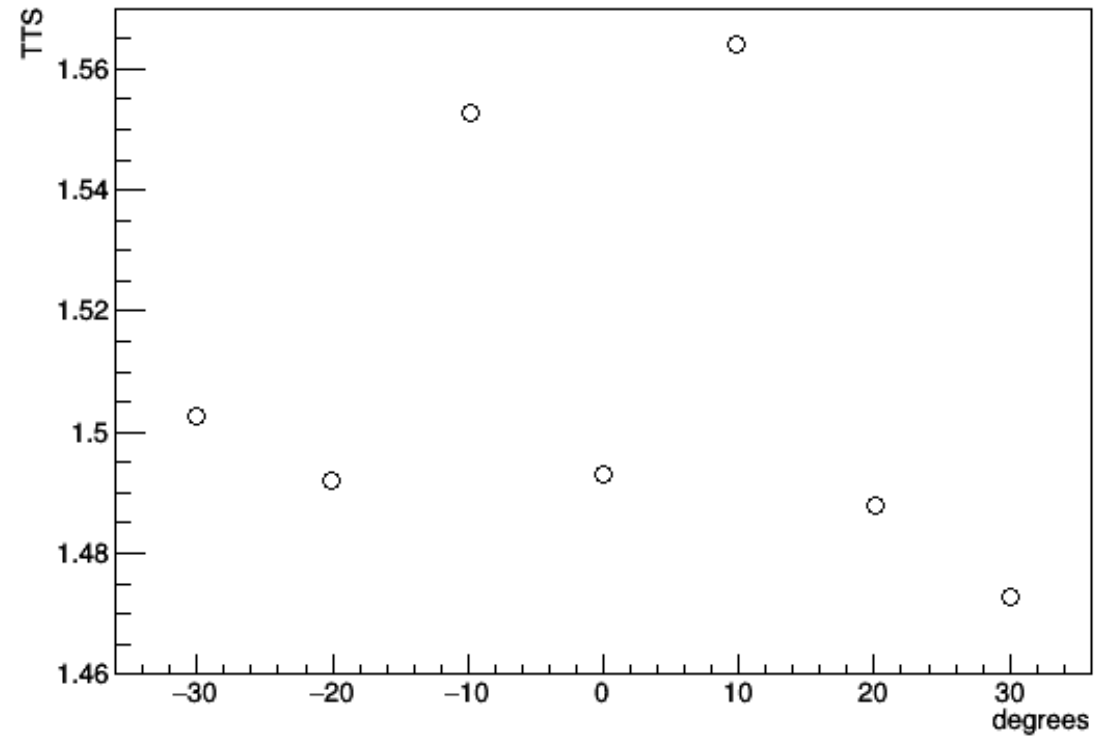
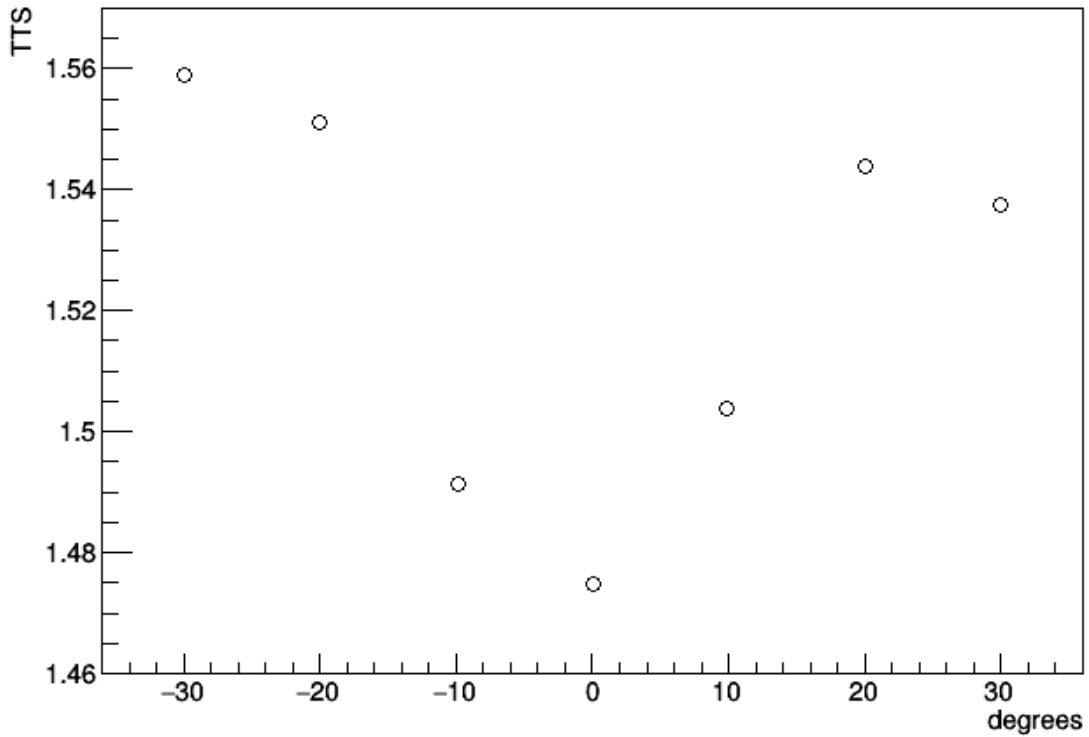
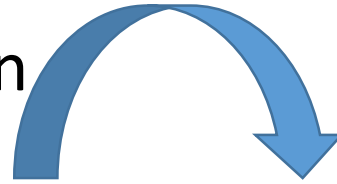
TT of BC0035

180° rotation



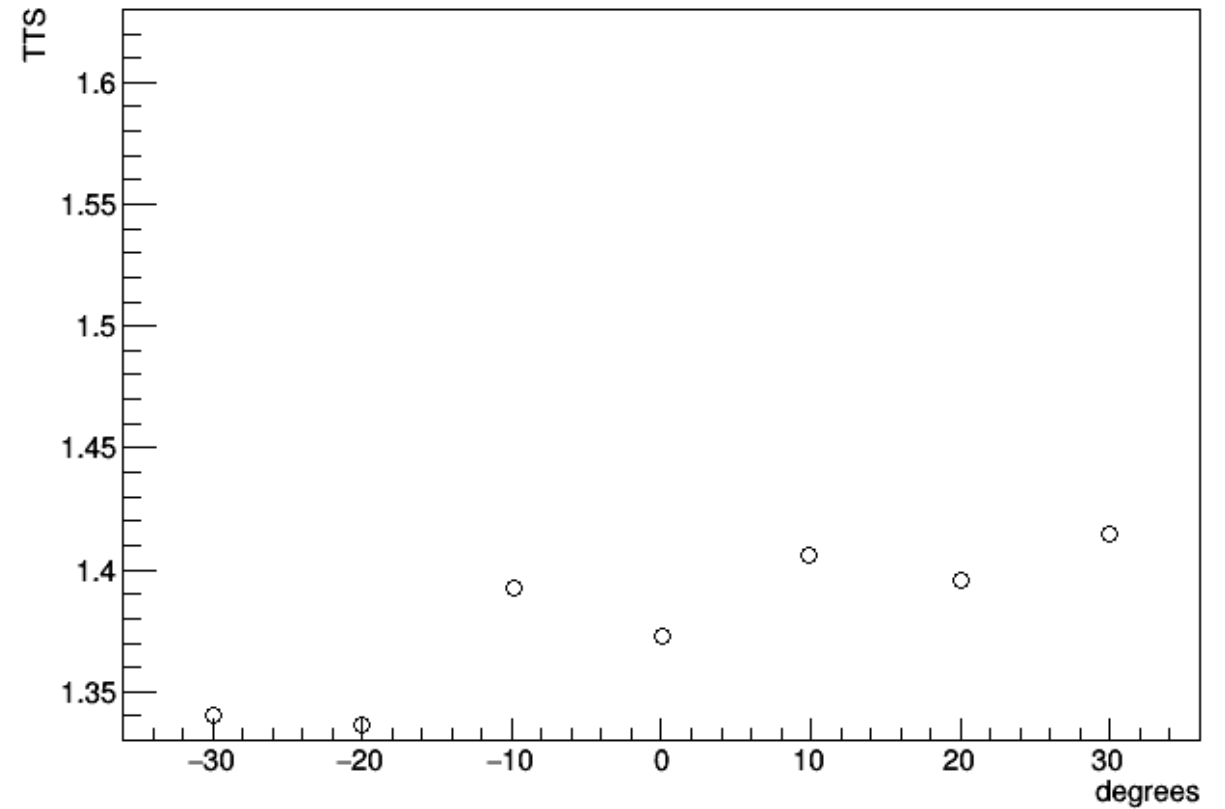
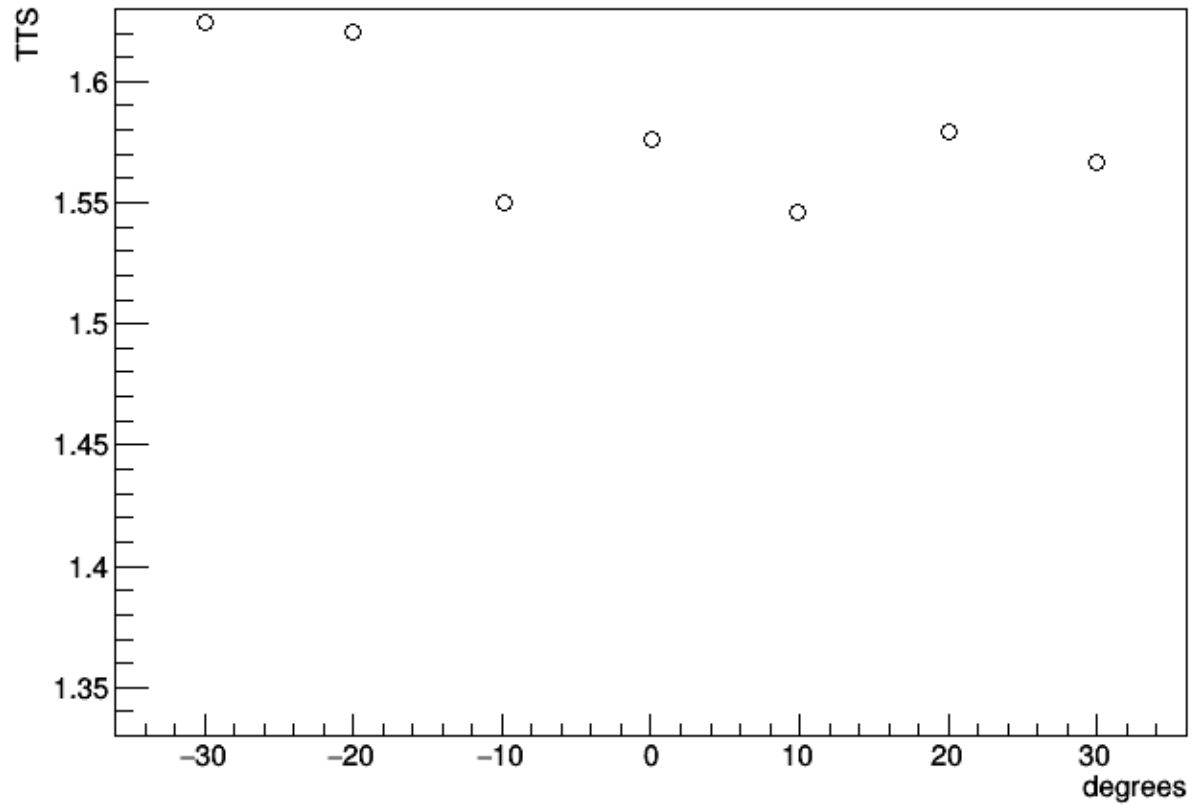
TTS of BC0038

180° rotation



TTS of BC0035

180° rotation



Conclusion

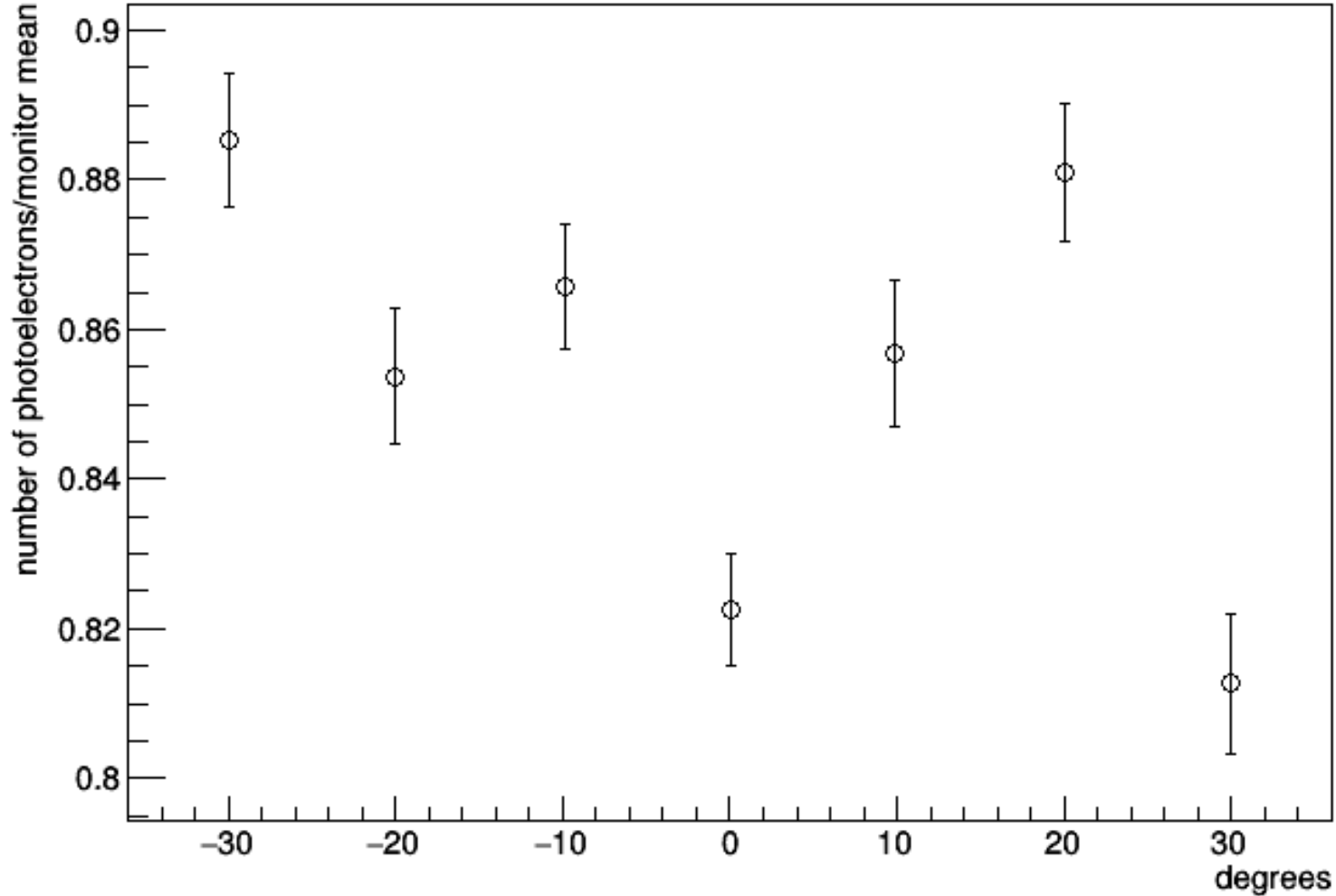
- Efficiency, gain, TT and TTS don't change much when the angle respect to the photocathode is changed within $\pm 30^\circ$.
- There are some differences in efficiency when the PMT is rotated by 180 degrees.

To do

- Create a PMT holder
- Take more angle measurements

Back up(the slide from last week)

Angle measurement



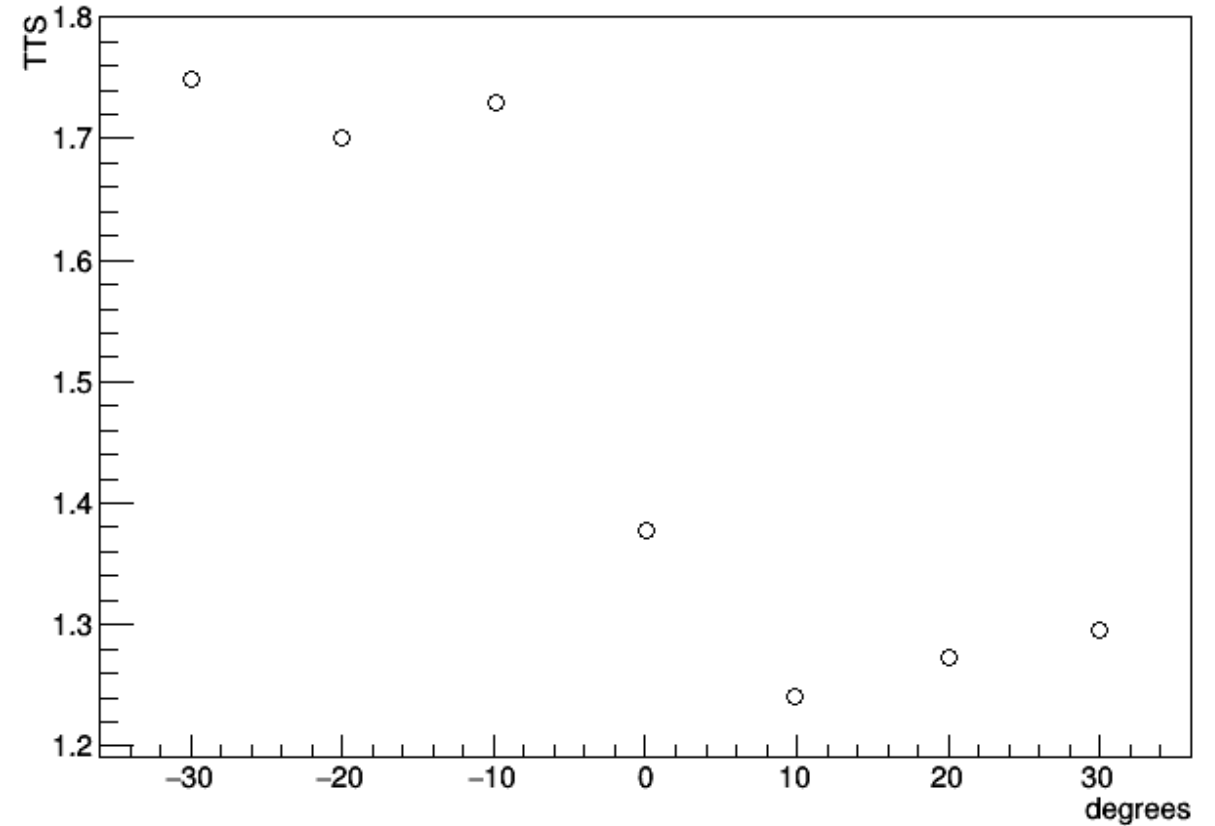
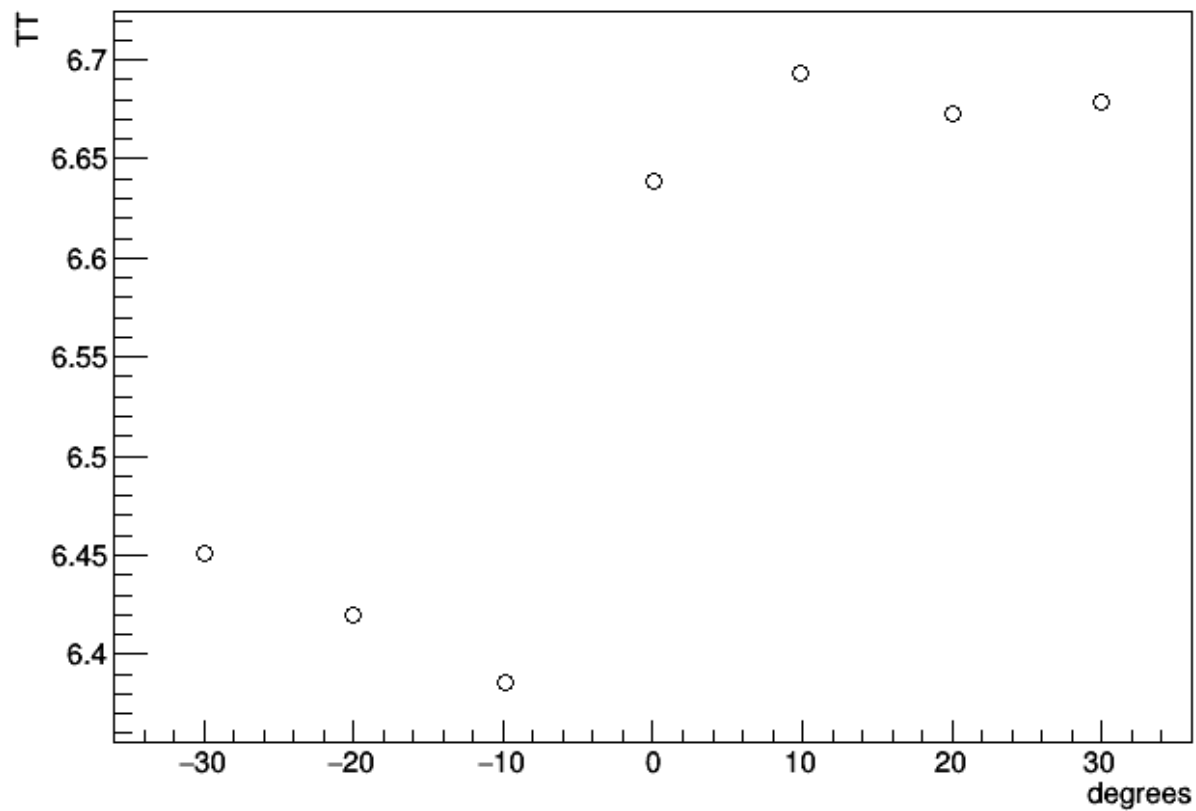
BC0038

HV: 1200 V

Intensity: 150 mA, 70 psec

Radius: 210 mm

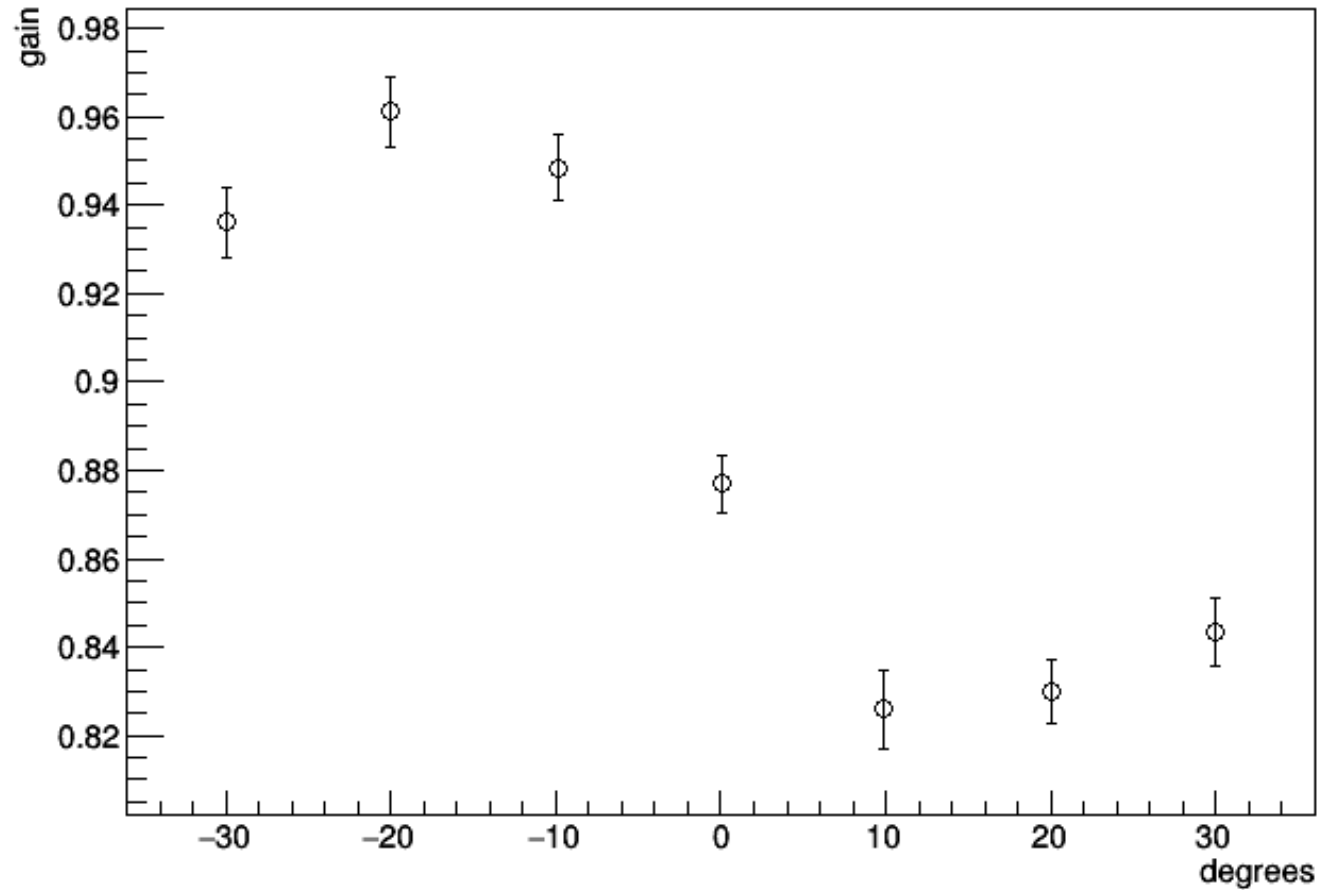
TT and TTS



TT is uniform.

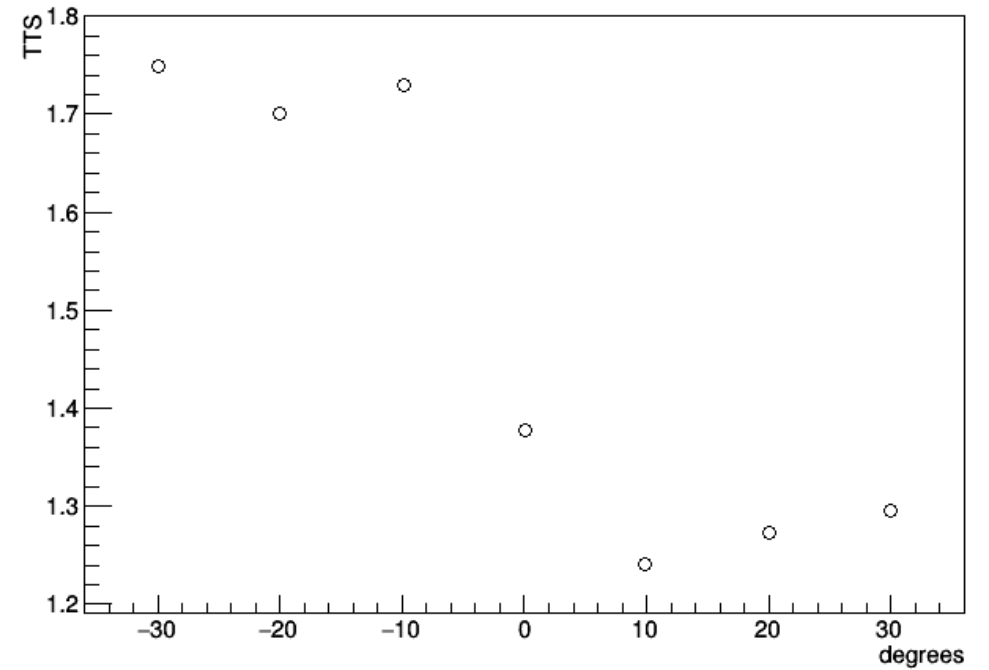
Some variation in TTS.

Gain



$\pm 5\%$

Correlation to TTS



Dynode structure

