Carbon Target Parameters and Particle Distributions for Front End Study
(Discussion)

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Introduction

- MARS15 (BNL Spot Cluster)

- ROOT based geometry setting without BE windows for 20t02T5m and 20to 4T5m configuration (Carbon target, 1.8 g/cm^3)

- No SMIN card and 400,000 events

- KE at 6.75 GeV, 5 micron beam emittance, launched at z = -100 cm (other beam emittance?)

- Collect all particles at z = 50 m with KE selection of min. of 40 MeV and max. of 180 MeV or 300 MeV

- Particle distribution at z = 2 m and 5 m (other location ?) for Front End Study (N = 400,000 or 2000,000?).
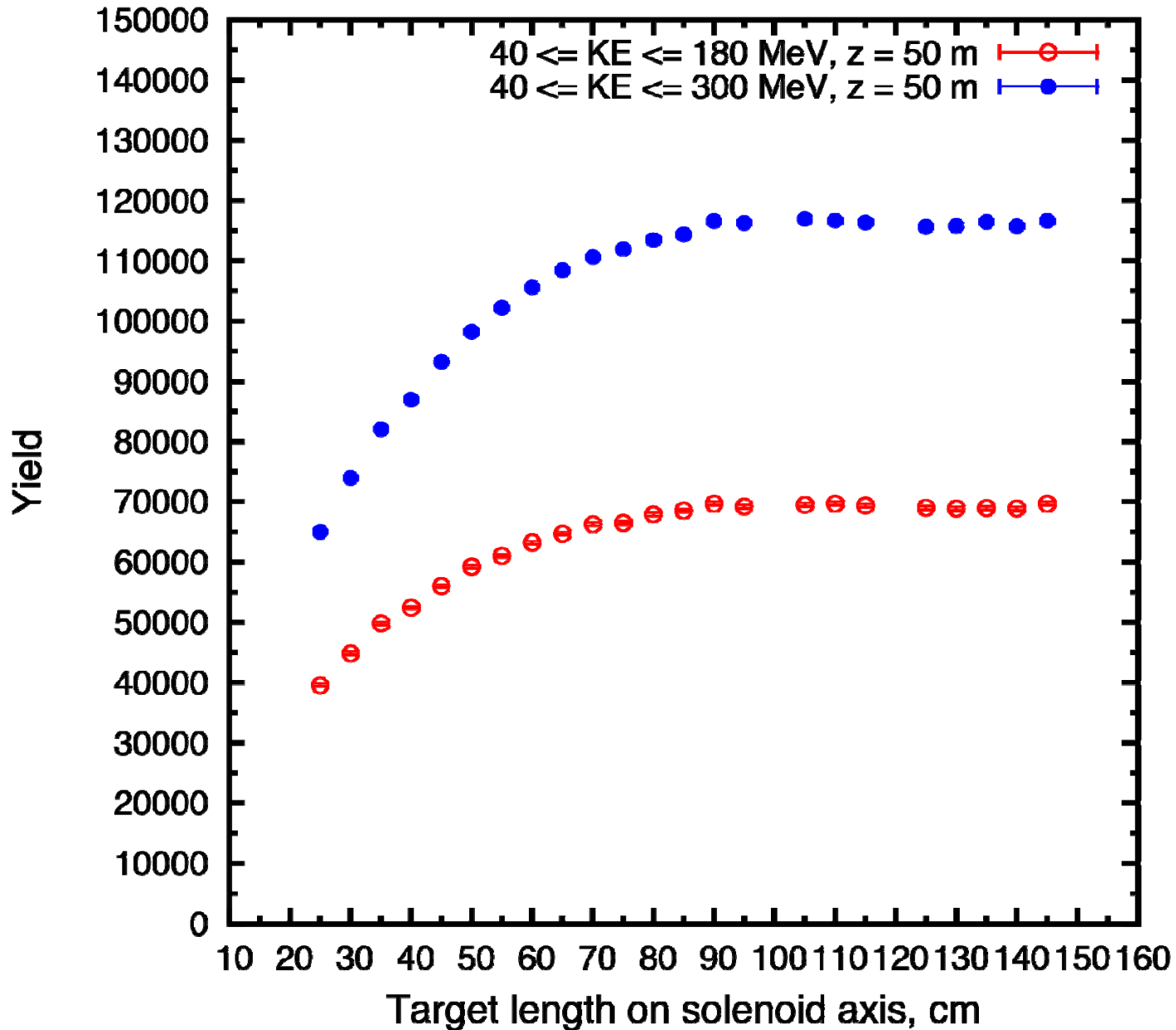
Carbon Target Parameters for Front End Study ?

- Target Length: 100 cm
- Target Radius: 1 cm
- Beam Radius: 0.25 cm
- Beam Angle or Target Angle: 65 mrad
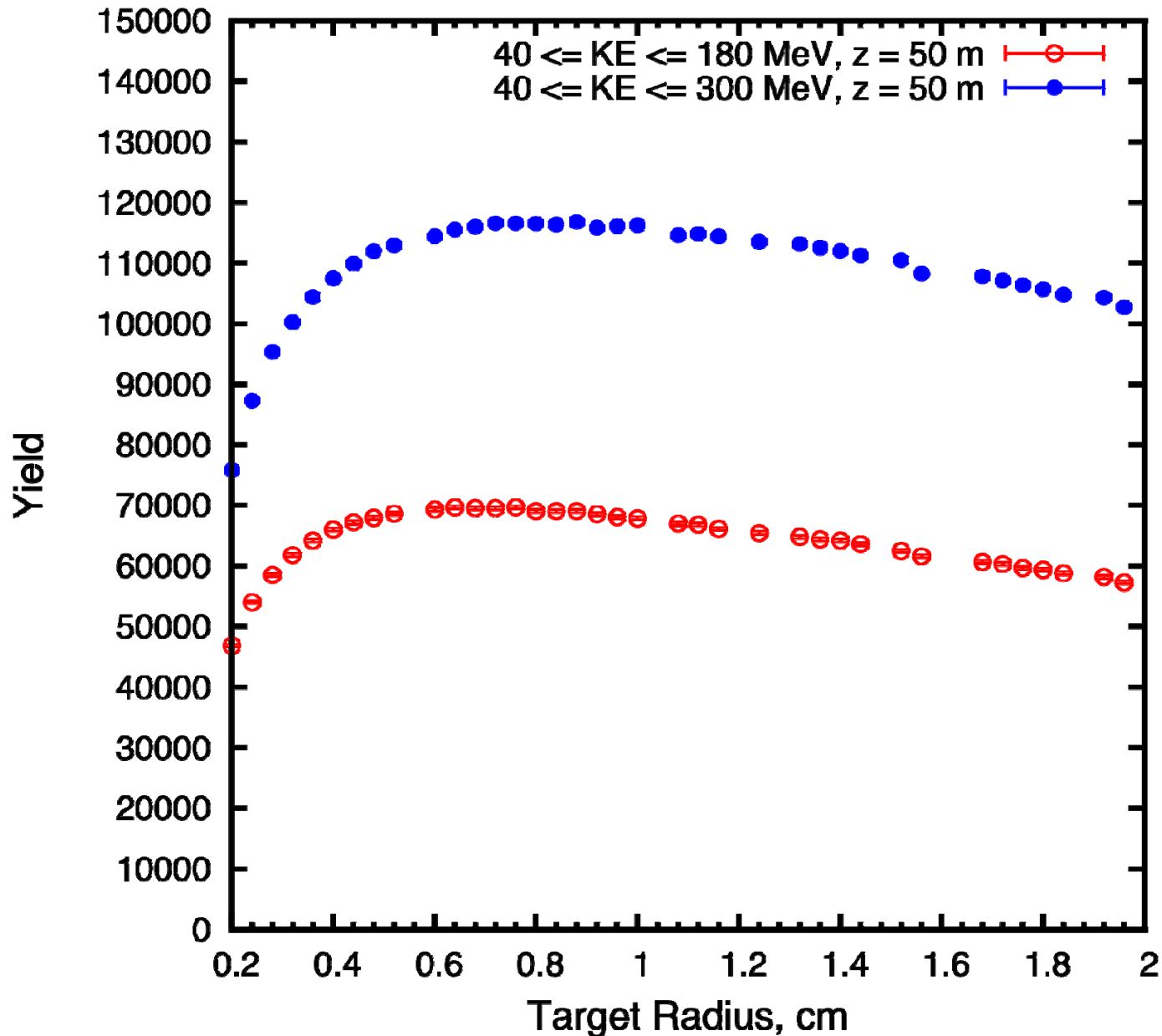- Beam/Target Crossing Angle: 0 mrad

Backup

20to4T5m Configuration
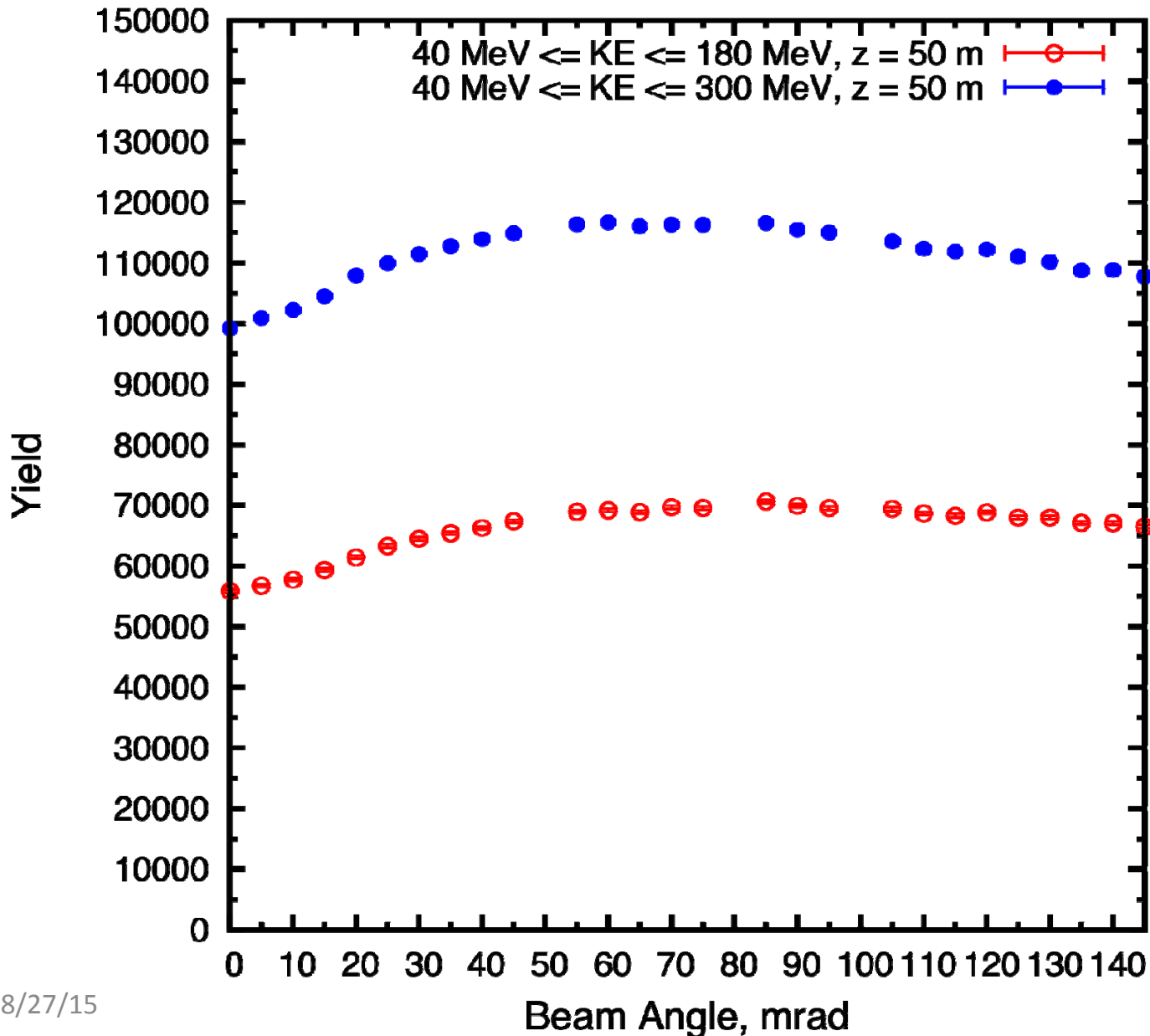## (TR = 0.8 cm, BR = 0.2 cm, CA = 0, BA = 65 mrad)

20to4T5m Configuration
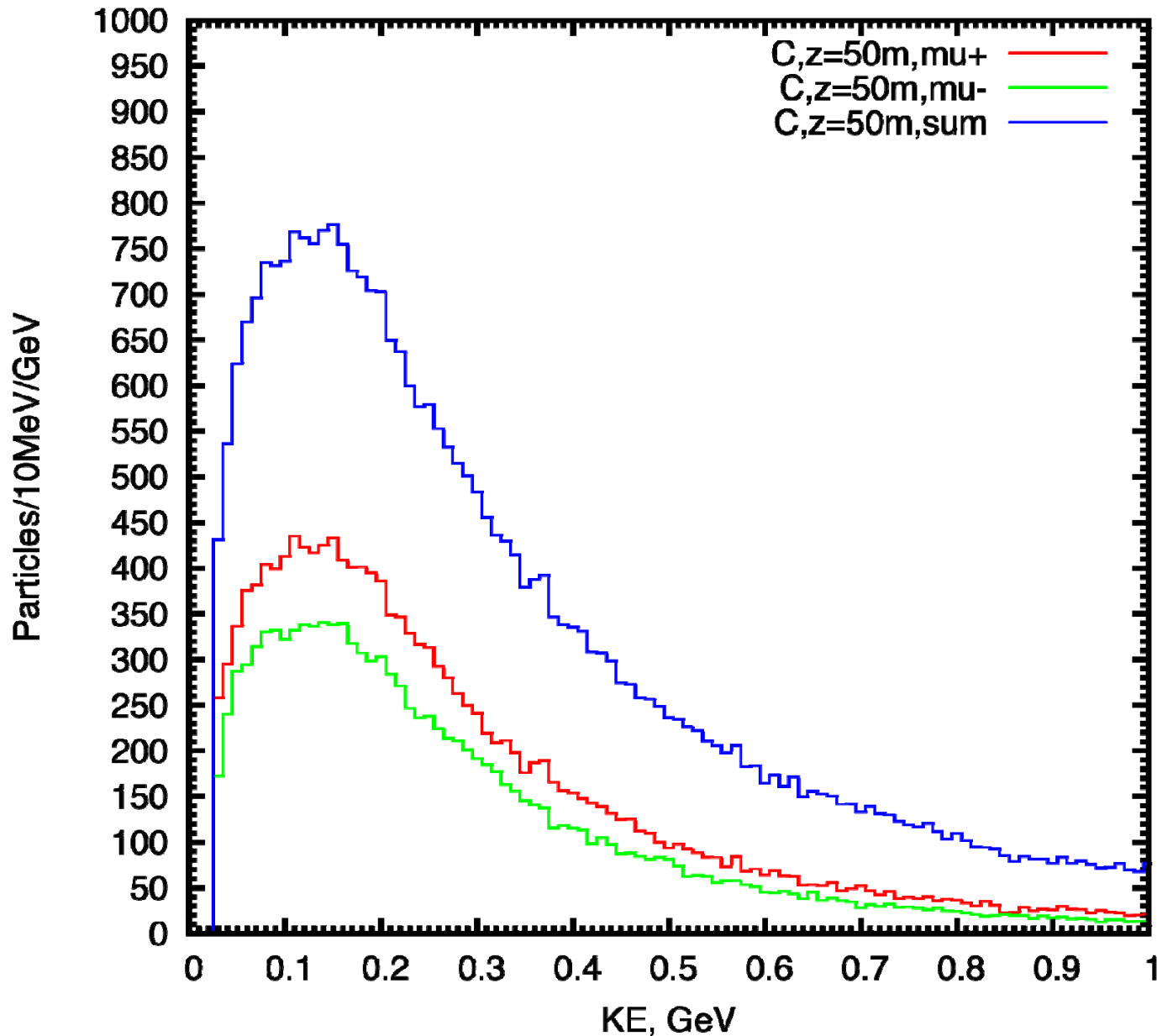## (LEN = 100 cm, TR/BR = 4, CA = 0, BA = 65 mrad)

20to4T5m Configuration

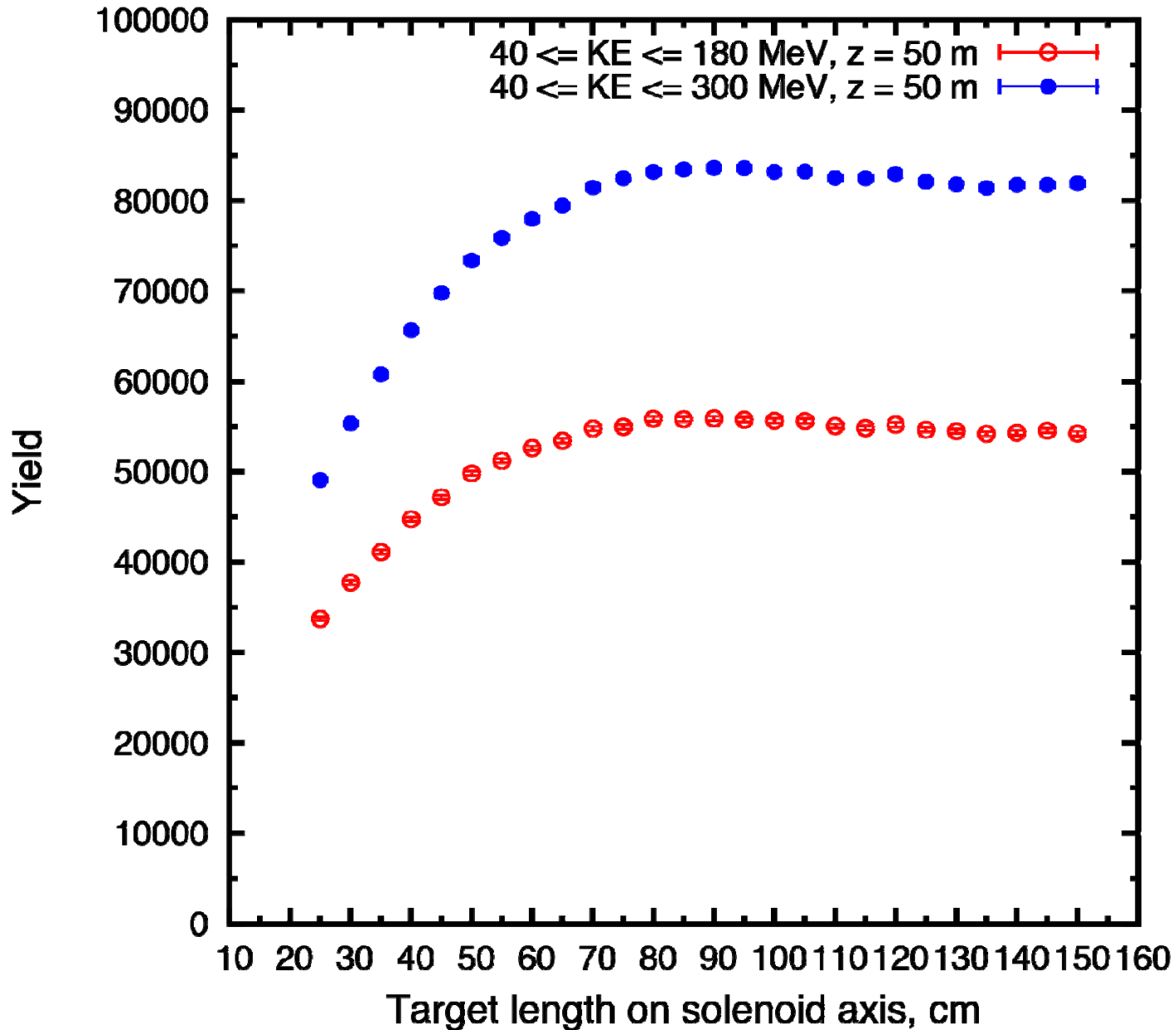## (LEN = 100 cm, TR = 0.8 cm, BR = 0.2 cm, CA = 0)

20to4T5m Configuration
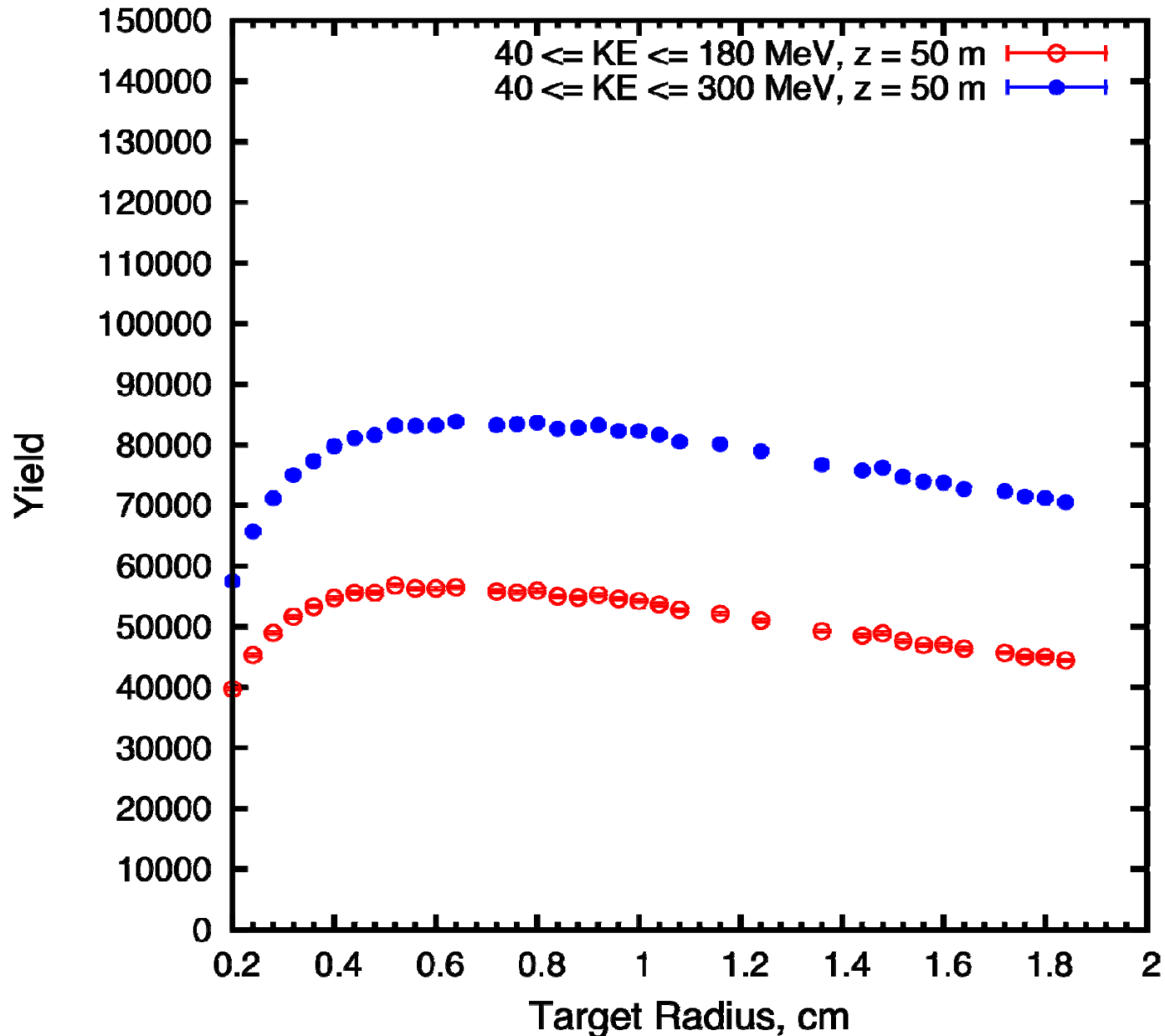## (LEN = 100 cm, TR = 0.8 cm, BR = 0.2 cm, BA = 65 mrad, CA = 0)

20to2T5m Configuration
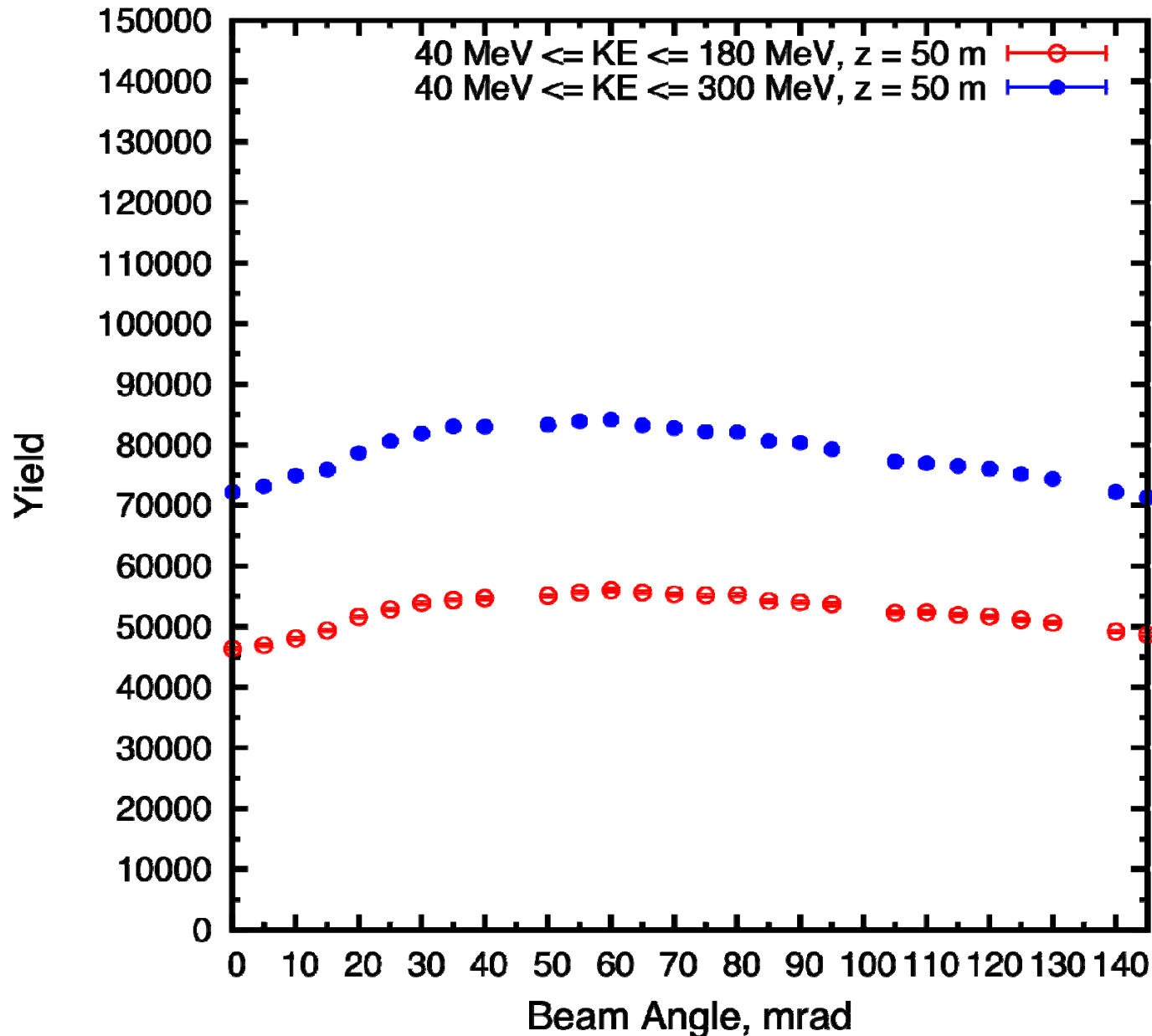## (TR = 0.8 cm, BR = 0.2 cm, CA = 0, BA = 65 mrad)

20to2T5m Configuration
(LEN = 100 cm, TR/BR = 4, CA = 0, BA = 65 mrad)

20to2T5m Configuration
(LEN = 100 cm, TR = 0.8 cm, BR = 0.2 cm, CA = 0)

20to2T5m Configuration
(LEN = 100 cm, TR = 0.8 cm, BR = 0.2 cm, BA = 65 mrad, CA = 0)