Performance from Mass Testing of JUNO 20'' PMTs

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Motivation

- The energy resolution 3%@1MeV requires the central detector (CD) of JUNO with great PMT configuration.
  - 75% PMT coverage (20k 20'' tubes)
  - High PDE
  - High charge resolution and P/V;
  - Low DCR;

Testing&Parameters

- Scanning Station
- Container system

Uncertainty

- The relative uncertainty of PDE test less than 4% for container system, which means the absolute uncertainty of PDE is about 1%.

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