DRAFT

Towards an EE FPPA spec D Cockerill, 29.07.02

Factors, Mean values for operation at eta=2.0

VPT yield, 1.8 T (RAL) At 4T 0.9 Drop between 1.8T and 4T HT setting 0.9 S00/600 rather than 1000/800 VPT Faceplate darkening 0.95 Early darkening, not linear with time. Estimate 5% loss at eta=2. Measured 10% loss after 20kGy, eta=2.6, 10 yrs. VPT 'burn in' of photocathode Crystal LY loss		Factor	Comments
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noise/ch values			
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(to be followed up)			(to be followed up)

Comments: relax 150 MeV/ch towards higher eta?

Check what cuts applied to conclude 150 MeV/ch appropriate

target in EE.

Factors, Spreads

- 1) VPT yield spread ~30 %
- 2) Xtal LY spread ~ 14%

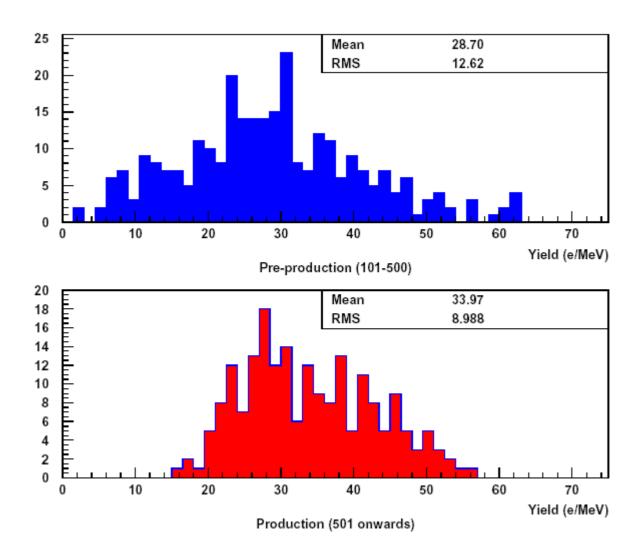
Total spread 33% (adding 1) and 2) in quadrature).

Dominated by VPT yield spread.

Matching VPT-xtal rad hardness will only give modest improvements

Adding 5x5 channels in quadrature – noise will be disproportionately dominated by lowest VPT yield/lowest xtal light yield pairings. Hence need for some safety factor as indicated in table above.

VPT yield measured at 1.8T (RAL)



High Luminosity

