

PEP-II Luminosity Performance

| <u>Parameter</u> | <u>Units</u> | <u>Design</u> | <u>Best achieved</u> | <u>Running with BABAR, "typical"</u> |
|--------------------------------------|--|----------------------|----------------------|--------------------------------------|
| Peak luminosity | $\text{cm}^{-2} \text{s}^{-1}$ | 3×10^3 | 3.1×10^{33} | 2.5×10^{33} |
| Specific lum'ty | $\text{cm}^{-2} \text{s}^{-1} \text{mA}^{-2} / \text{bunch}$ | 3.1×10^{30} | 2.9×10^{30} | 1.8×10^{30} |
| IP hor. spot size Σ_x | μm | 220 | 190 | (low-current only) |
| IP vert. spot size Σ_y | μm | 6.7 | 6.0 | (low-current only) |
| Top-off time | minutes | 3 | 2 | 3 |
| Fill time from scratch | minutes | 6 | 8 | 10 |
| Integrated luminosity (delivered) | $\text{pb}^{-1}/\text{day}$ $\text{fb}^{-1}/\text{week}$ $\text{fb}^{-1}/\text{month}$ | 135 0.8 3.3 | 174 0.93 3.65 | |



PEP-II delivered 25.6 fb⁻¹ from May 99 to Oct 00

Updated 11/07/2000

