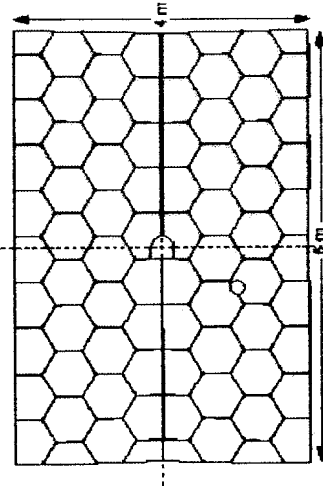
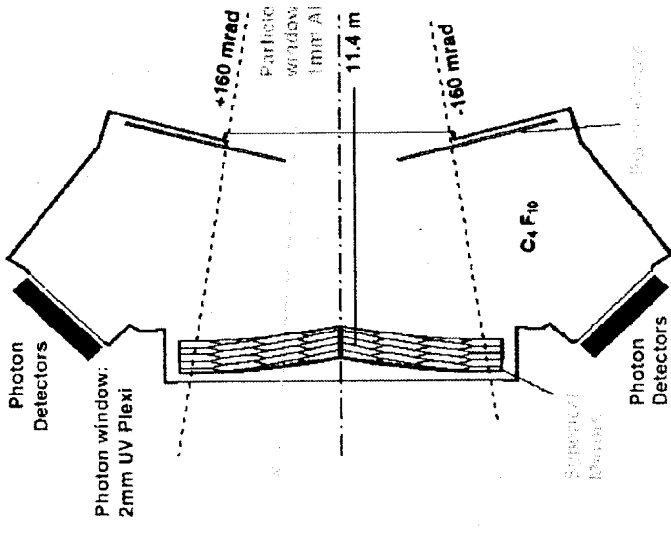


The RICH

- Radiator: C_4F_{10}
 - $n-1=1.35 \times 10^{-3}$
 - low dispersion: 5% between 300 and 480 nm
 - $\theta_c (\beta = 1) = 52 \text{ mrad}$
 - $\pi = 2.7 \text{ GeV}$, $K = 9.6 \text{ GeV}$, $p = 18 \text{ GeV}$
- Vessel and Gas System:
 - 100 m³ stainless steel tank
 - C_4F_{10} liquid at 2 bar and 20 C
 - Gas recirculated, nitrogen separation by cooling to -40 C
 - contamination by air or water uncritical; only refractive index matters



- Mirrors
 - Spherical: 80 full or partial hexagons, 7mm thick Pyrex, coating 200nm Al, 30 nm MgF_2 , radius 11.4 m, 24 m² area
 - planar: 24
 - alignment: done by surveying (autoreflexion), movement by motor
- Focal plane
 - cylinder with $r \approx 1/2R_{sph}$ tilted by 18°
 - photon detection: Photomultipliers Hamamatsu R5900 with light collection telescopes

