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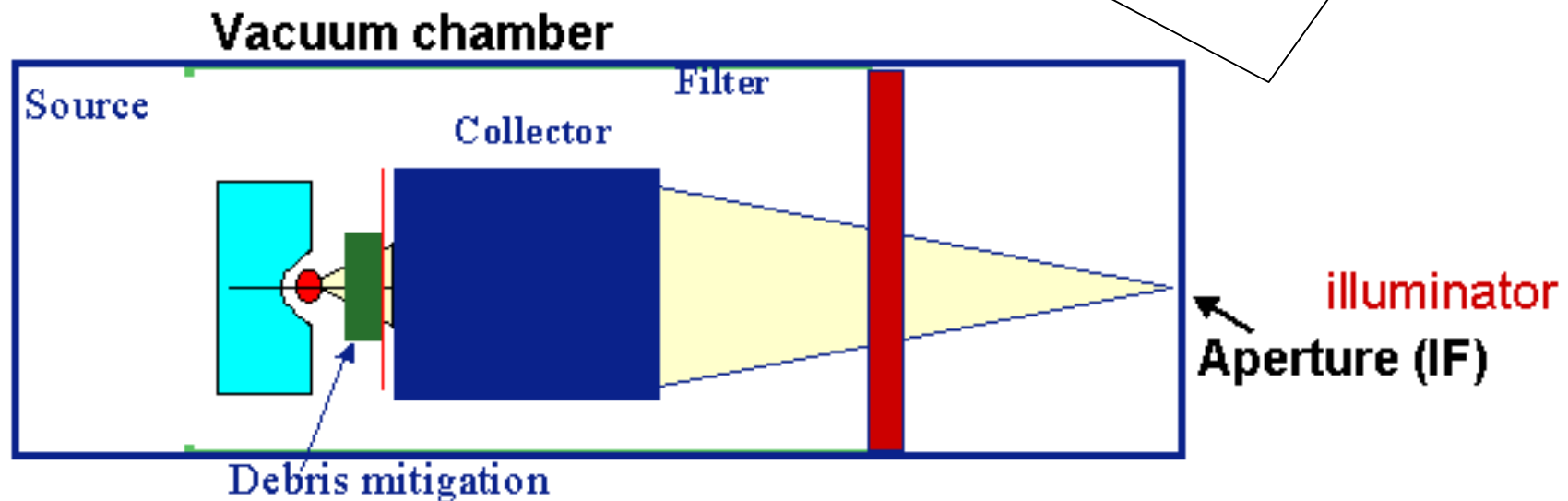
# Joint spec

ASML, Canon, Nikon



# Definition of clean photon spot at intermediate focus (IF)

Source specifications are defined at intermediate focus (IF) which is illuminator entrance



# Joint Requirements for EUV Source

## SOURCE CHARACTERISTIC

- Wavelength
- EUV Power (in-band)
  
- Repetition Frequency
- Integrated Energy Stability
- Source Cleanliness
  
- Etendue of Source Output
- Max. solid angle input to illuminator
  
- Spectral Purity:
  - 130-400 [nm] (DUV/UV)
  - $\geq 400$  [nm] (IRVis) at Wafer

## REQUIREMENT

13.5 [nm]  
80 - 120 [W] (note: this is after intermediate focus)  
> 6000 Hz  
 $\pm 0.3\%$ ,  $3\sigma$  over 50 pulses  
 $\geq 30,000$  hours (note: this is after intermediate focus)  
max 1 - 3.3 mm<sup>2</sup>sr \*\*\*  
0.03 - 0.2 [sr] (depending on particular optical scheme)\*\*\*  
  
 $\leq$  TBD - 7% (Design dependent)\*\*\*  
TBD

\*\*\* Not agreed among participants