



# p-TP Evaporation on *PHOTON EXPORT* Dichroic Filters ProtoDUNE Run2 Vertical Drift

Report 01

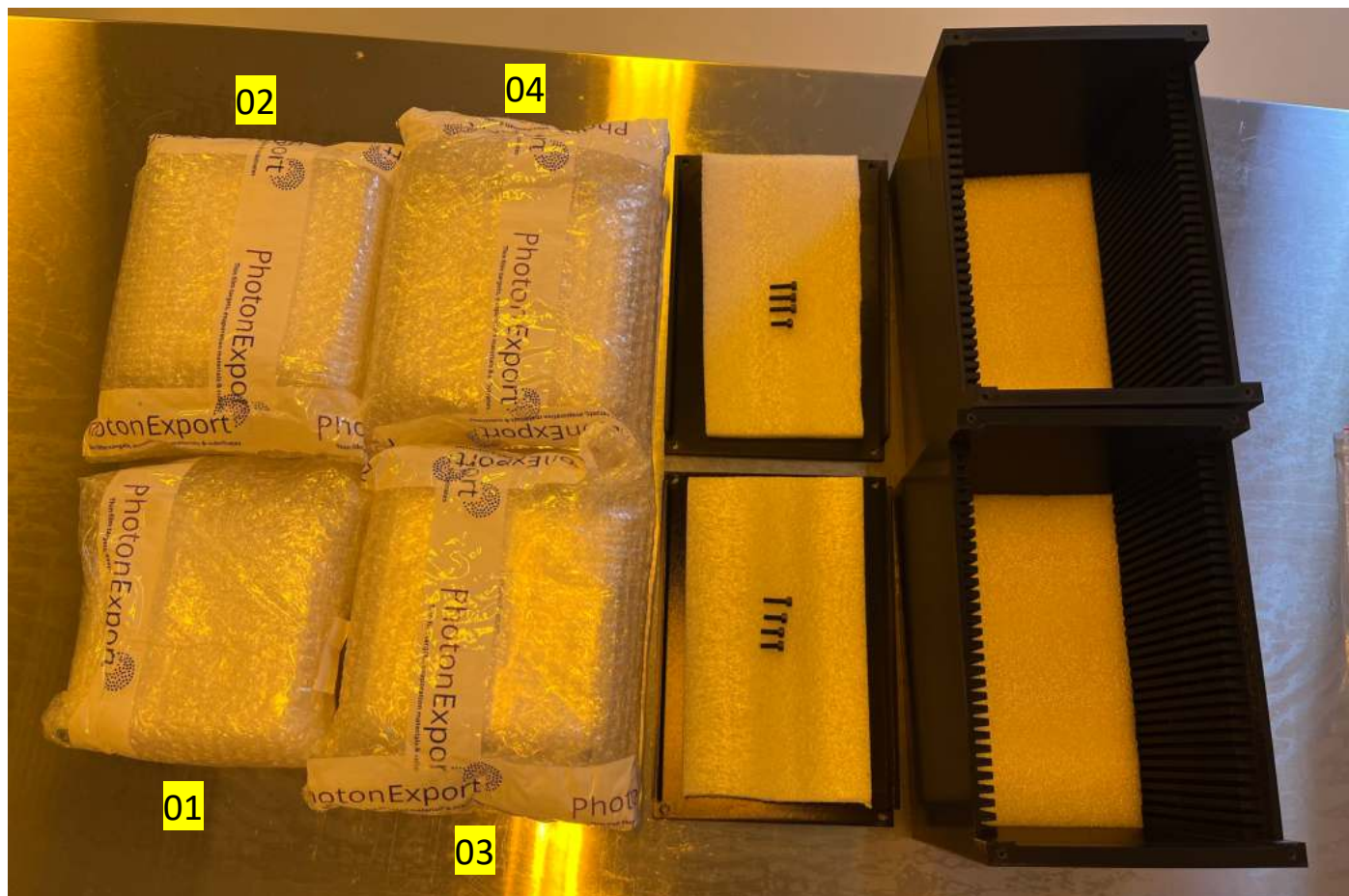
Maria Cecilia Q. Bazetto  
Rafael Merlo, Francisco Marques, Ettore Segreto, Ana Machado  
Special participation: Francesco Di Capua and Nicola Canci

- 36 Dichroic Filters:  
PHOTON EXPORT  
Material: Fused Silica  
Size: 143.75 x 143.75 x 1.5 mm  
Incidence angle: 60.4°  
Batch N°: PBAT22103101VR125-201

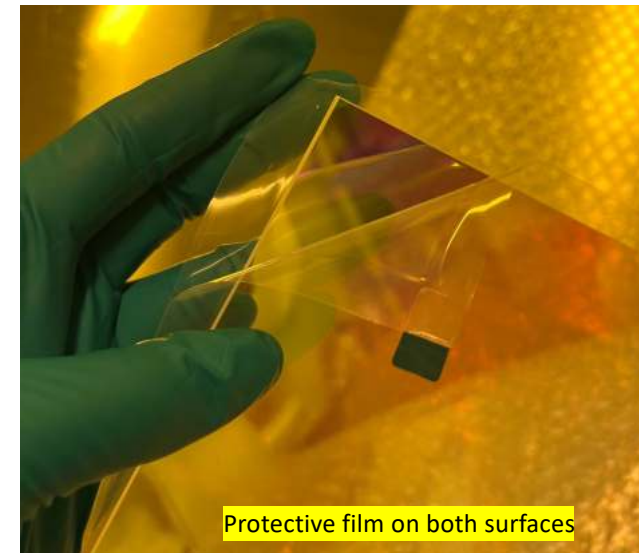
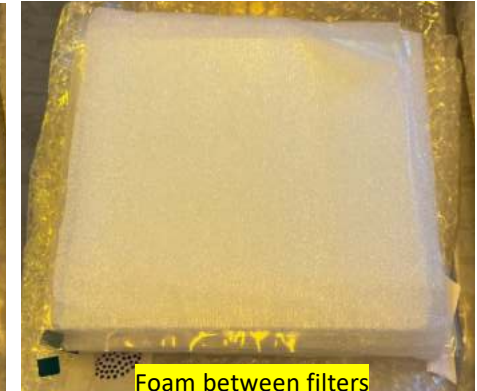
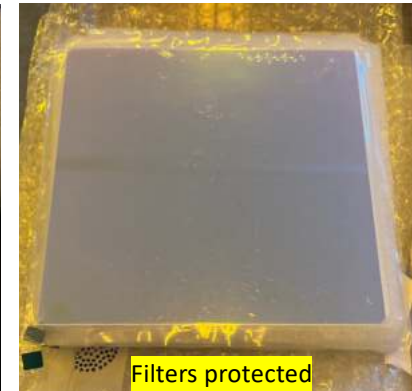
- Package 01 - 7 filters
- Package 02 - 10 filters
- Package 03 - 10 filters
- Package 04 - 09 filters

- 2 Boxes to storage and transport the evaporated filters

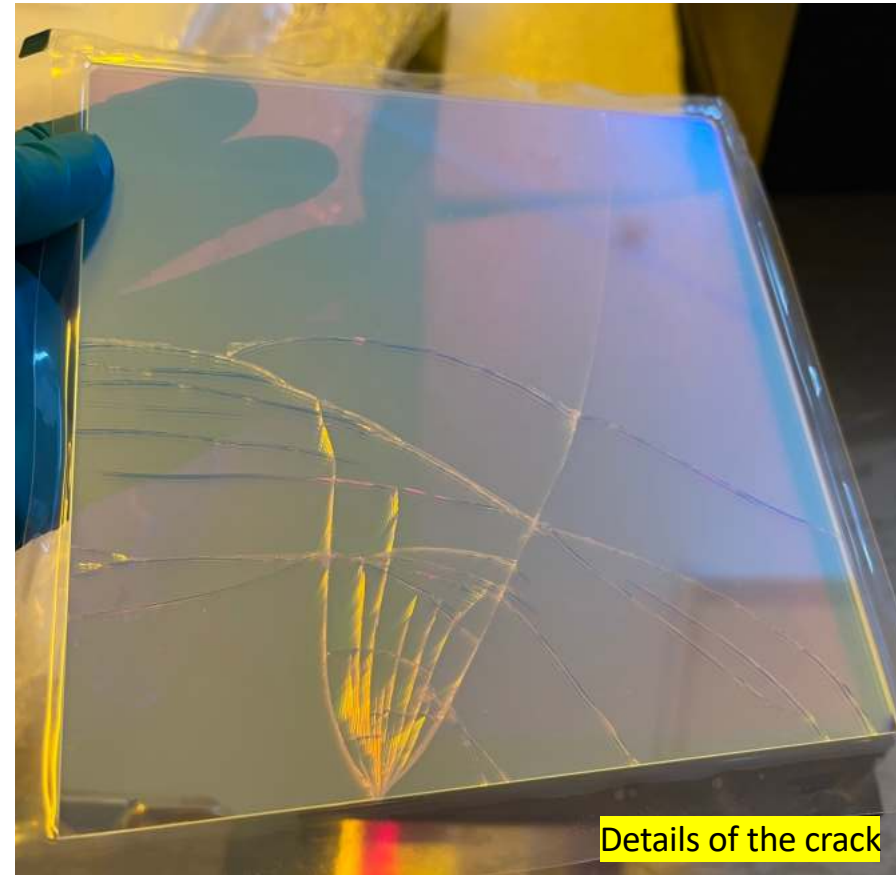
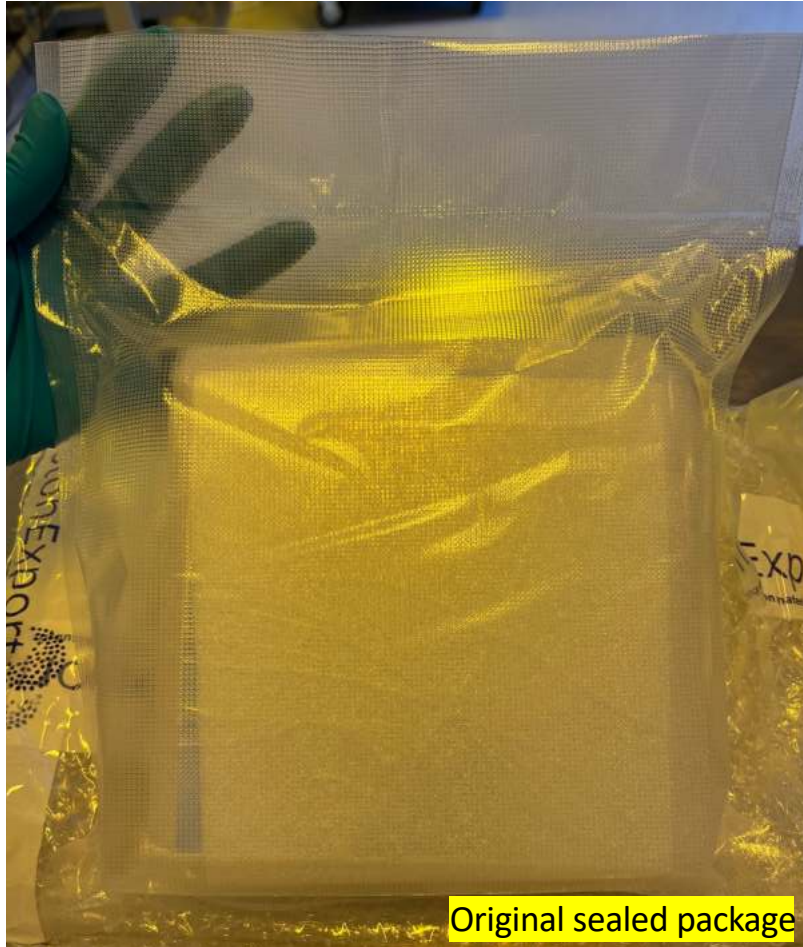
- 03 pTP evaporations:  
Run 01 - 12 DF on 13/01/23  
Run 02 - 12 DF on 16/01/23  
Run 03 - 11 DF on 17/01/23



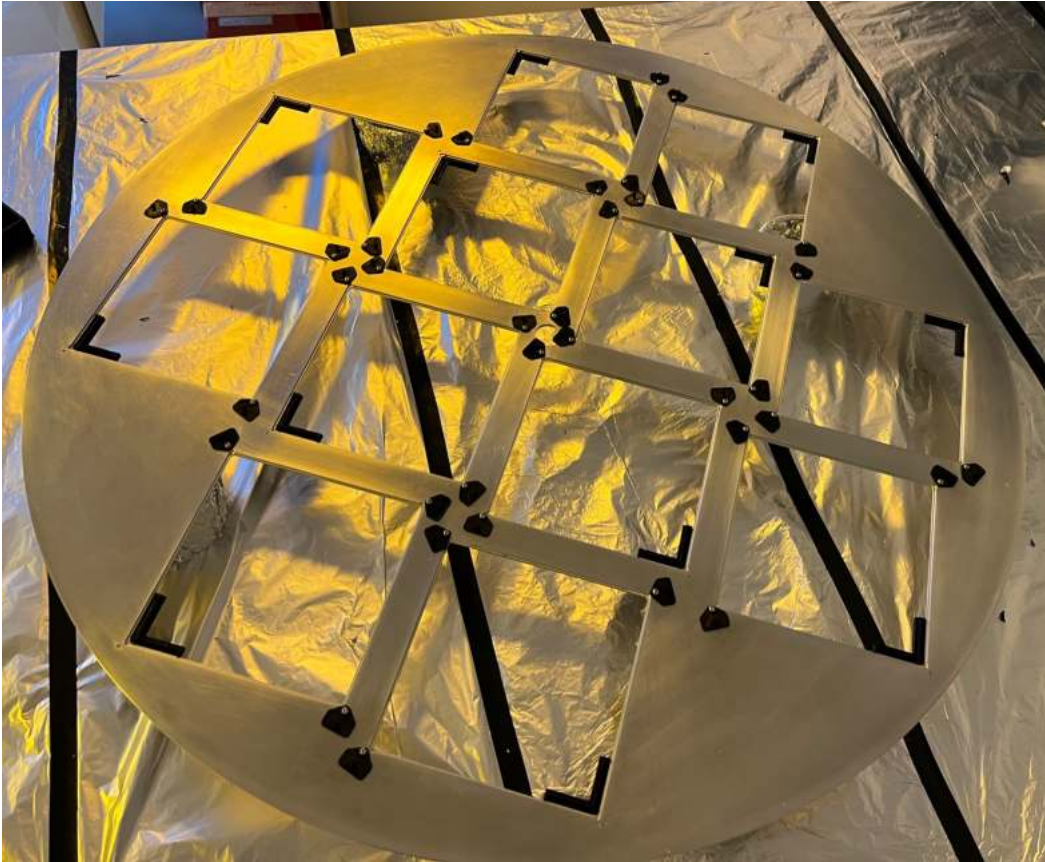
- Quick visual inspection of all filters



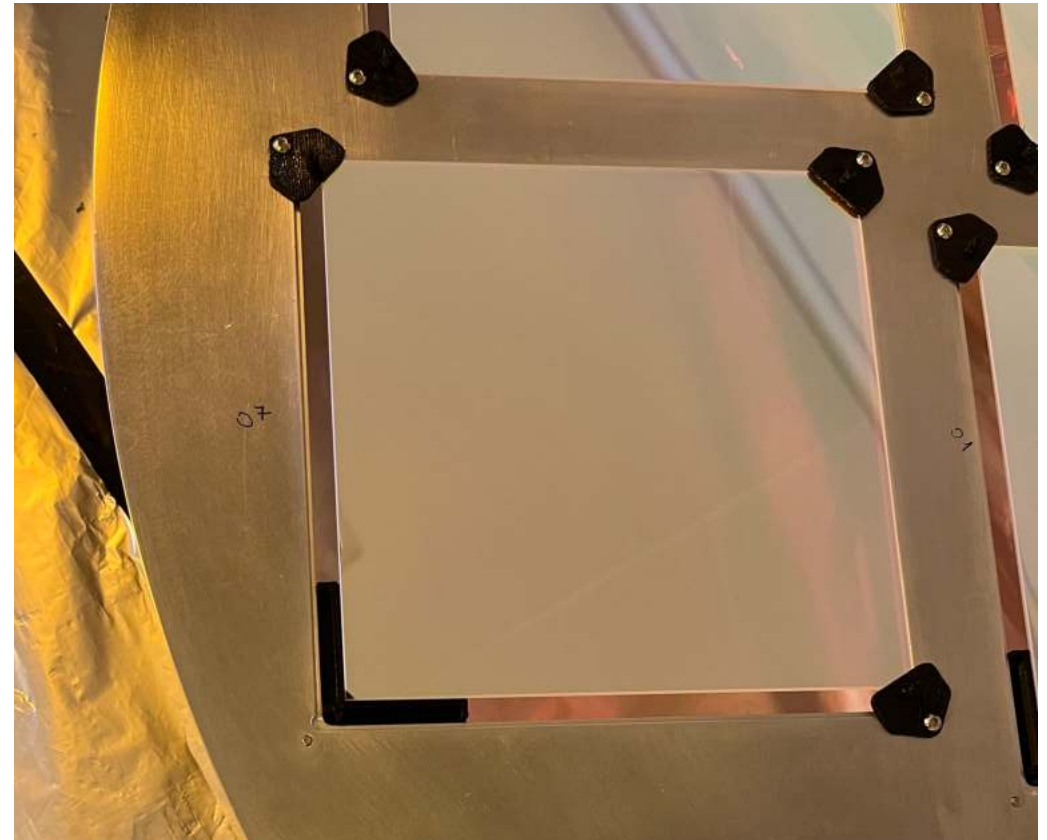
- 01 Broken filter was on the bottom of Package 02



Evaporation Disc with adapters



Filters fixed on the disc

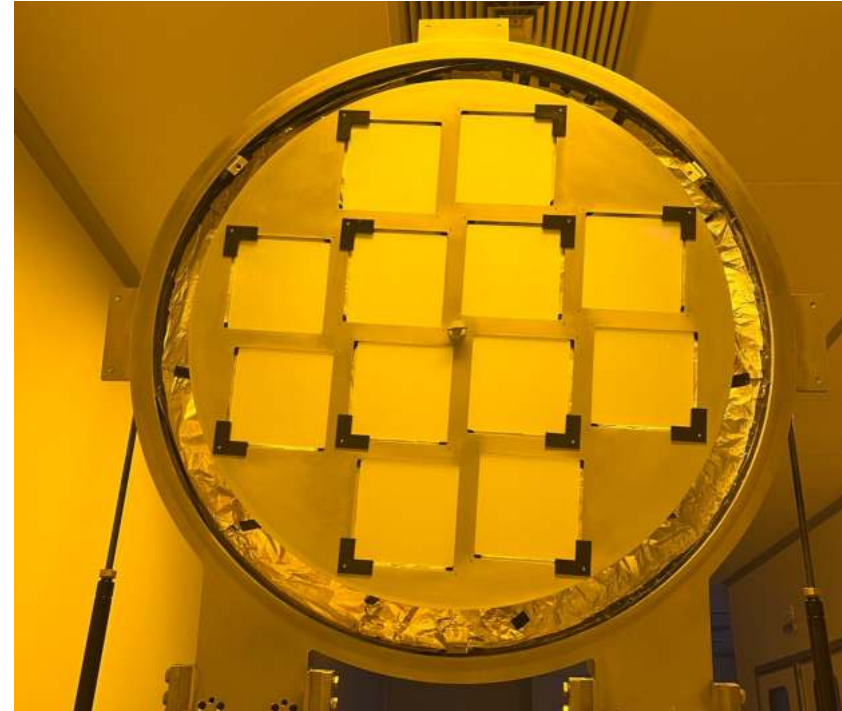
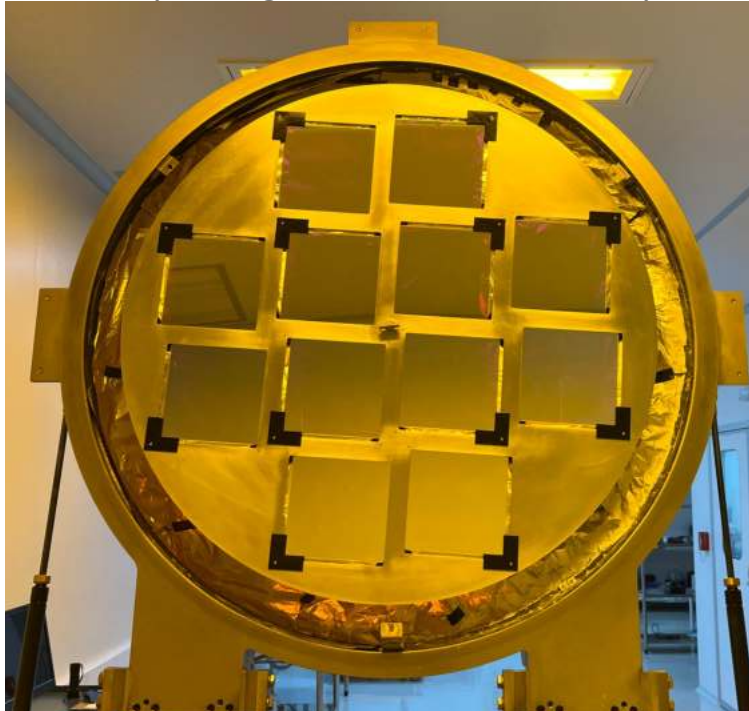


Evaporation\_Run 01

January\_2023

13/01/23 - 12 DF (PHOTON EXPORT 143.75x143.75x1.5mm)

7 DF from package 01 and 5 DF from package 02



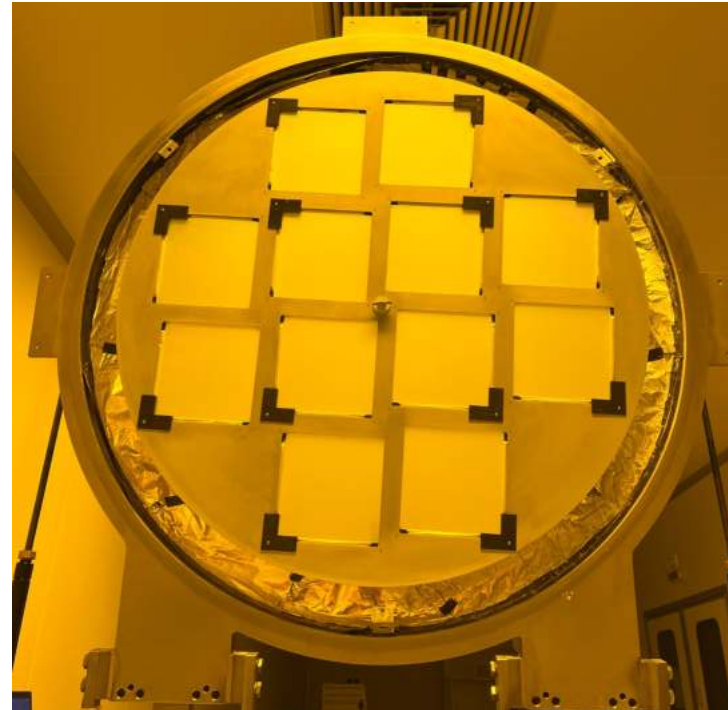
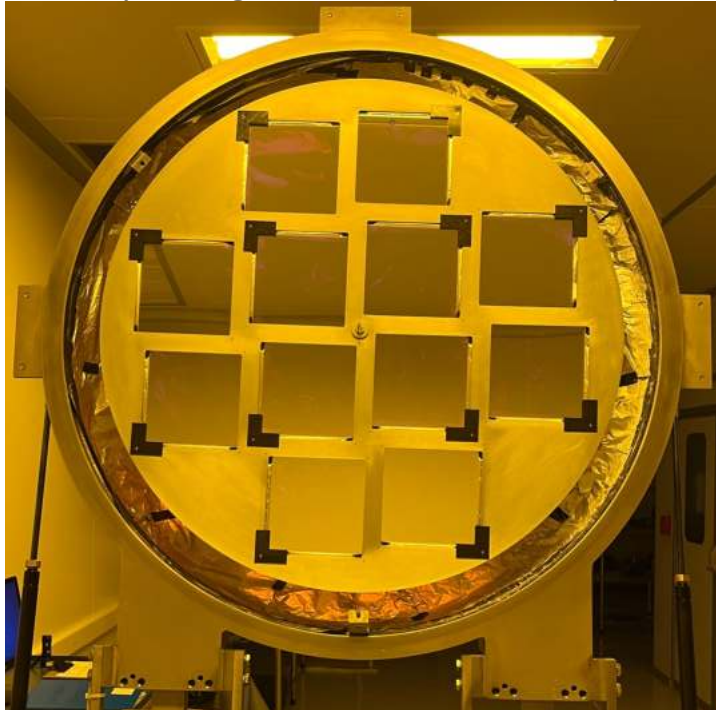
Date	Size	Disc position	Mass before	Mass after
13/01/23	143.75x143.75	Central (01)	67,25449 g	67,35389 g
13/01/23	143.75x143.75	External (07)	66,91385 g	66,97441 g
N. filters = 12		pTP = 4,000 g		Pc=5,1*10 <sup>-6</sup> mbar

Evaporation\_Run 02

January\_2023

16/01/23 - 12 DF (PHOTON EXPORT 143.75x143.75x1.5mm)

4 DF from package 02 and 8 DF from package 03



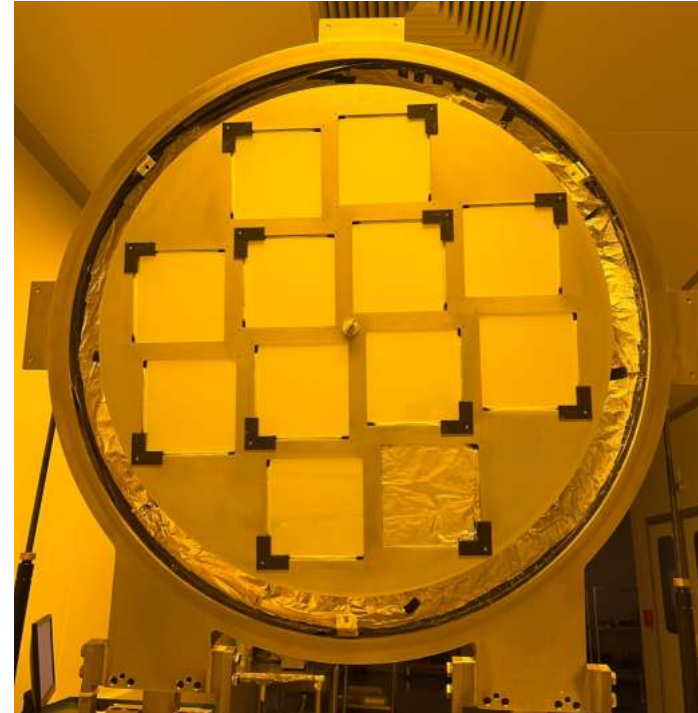
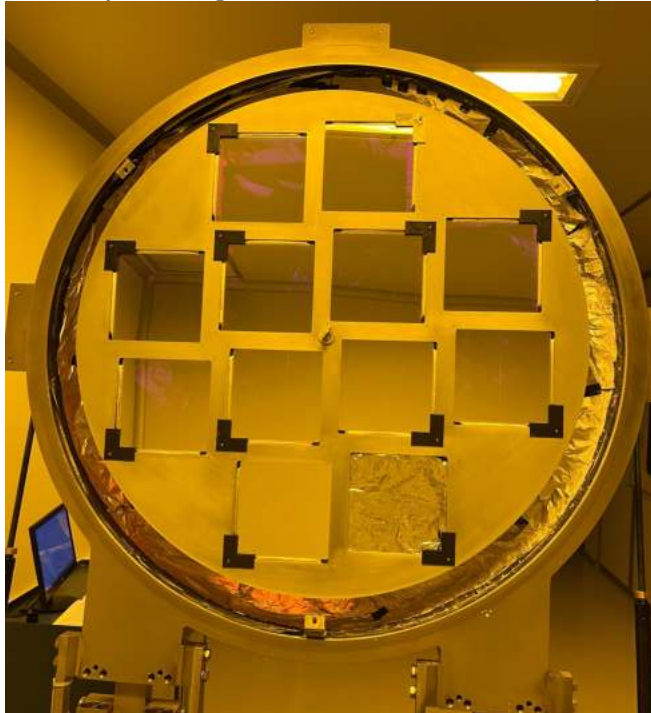
Date	Size	Disc position	Mass before	Mass after
16/01/23	143.75x143.75	Central (01)	66,32916 g	66,42698 g
16/01/23	143.75x143.75	External (07)	67,68083 g	67,73727 g
N. filters = 12		pTP = 4,000 g		Pc=1,2*10 <sup>-5</sup> mbar

Evaporation\_Run 03

January\_2023

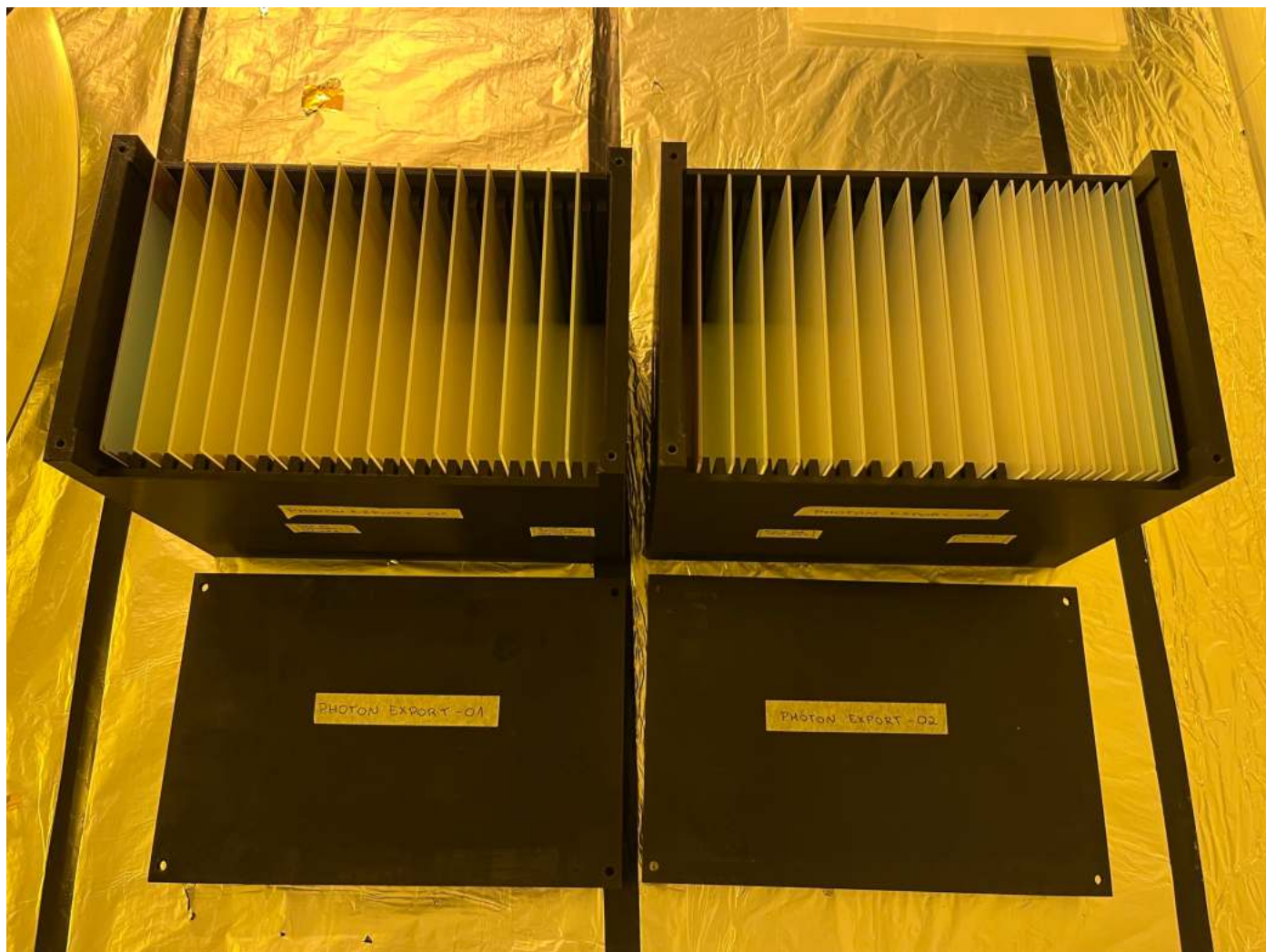
17/01/23 - 11 DF (PHOTON EXPORT 143.75x143.75x1.5mm)

2 DF from package 03 and 9 DF from package 04



Date	Size	Disc position	Mass before	Mass after
17/01/23	143.75x143.75	Central (01)	67,21522 g	67,31430 g
17/01/23	143.75x143.75	External (07)	67,77721 g	67,83778 g
N. filters = 11		pTP = 4,000 g		Pc=1,6*10 <sup>-6</sup> mbar





DF ready to GO!

Thanks to everyone who participated!!!

