

# Status and beam requirement on CALO WLSF readout for 2023 test beam

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# Development plan of 2023 CALO prototype

## ◆ Before August 27<sup>th</sup> and no change until the end the beam test

- A prototype consists of 7\*7\*21 LYSO cubes, including a platform with translation and rotation functions.

Date	Items
August 15 <sup>th</sup>	Shipping
August 1 <sup>st</sup> ~August 15 <sup>th</sup>	Integrated CALO test
July 16 <sup>th</sup> ~July 31 <sup>th</sup>	WLSF micro-hole adapter processing
June 16 <sup>th</sup> ~July 15 <sup>th</sup>	Assemble, integral and test of CALO Array.
June 7 <sup>th</sup> ~June 15 <sup>th</sup>	Assemble and test of LYSO+WLSF(500 pcs)
May 16 <sup>th</sup> ~June 7 <sup>th</sup>	Gluing and test of LYSO +PD(550 pcs); Assemble and test of LYSO+WLSF
May 8 <sup>th</sup> ~May 15 <sup>th</sup>	Gluing and test of LYSO +PD(550 pcs)
Up to May 7 <sup>th</sup>	<b>WLSF mat production; 63 pcs LYSO surface clean</b>

Will be finished before May 3<sup>th</sup>



# Beam requirement

## ◆PS

### ➤ Muons

- Max intensity between ( $X \sim 15$ ) GeV/c,  $X$  will be determined after simulation
- Scan in 3cm\*3cm for single crystal non-uniformity test, tracker needed for position tracking
- 7\*7 scan at each crystal geo. center for calibration, 20k events at each position, spot size $\sim 1\text{cm}^2$

### ➤ Electrons

- 4 incident angles: 0、15deg、30deg、45deg
- 4 momentums : 1,5,10 (if possible), 15(if possible) GeV/c at each angle
- Tracker needed for position and angle tracking
- 40k events for each state

## ◆SPS Pb

- Fixed at CALO geo. center for energy resolution, 500k events
- 5\*5 scan at each crystal geo. center for calibration, 20k events at each position
- SCD and FIT are needed for PID and tracking respectively.
- A low and adjustable beam intensity due to the limit of IsCMOS acquisition frequency