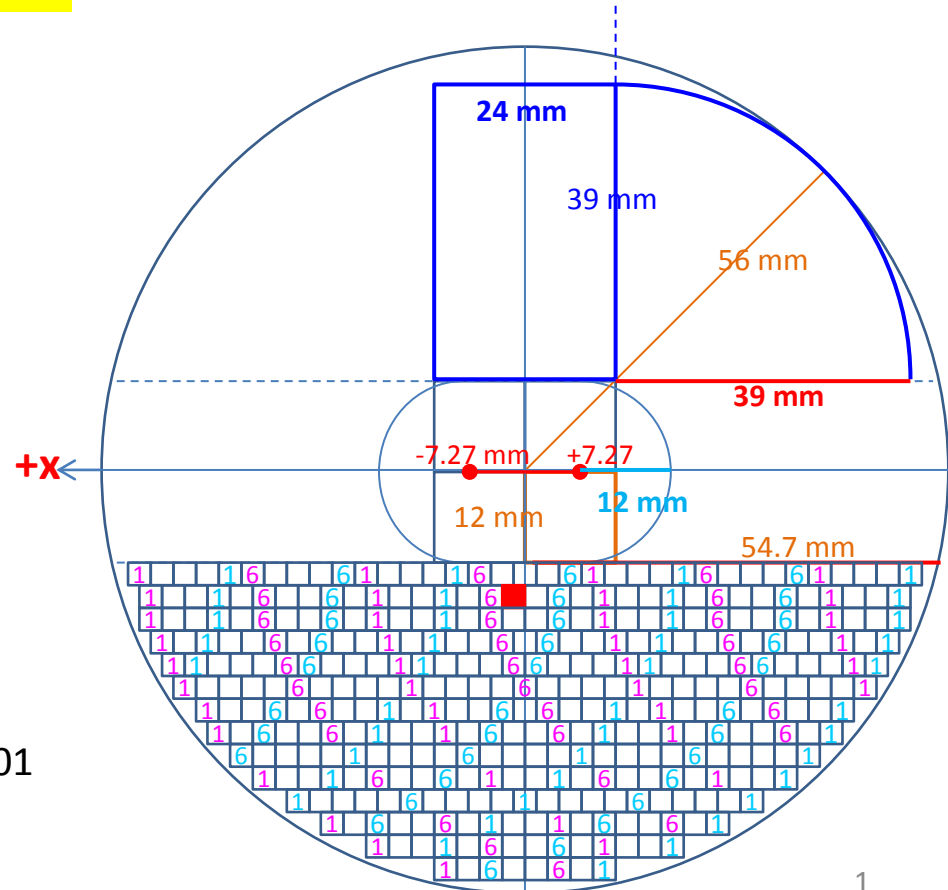
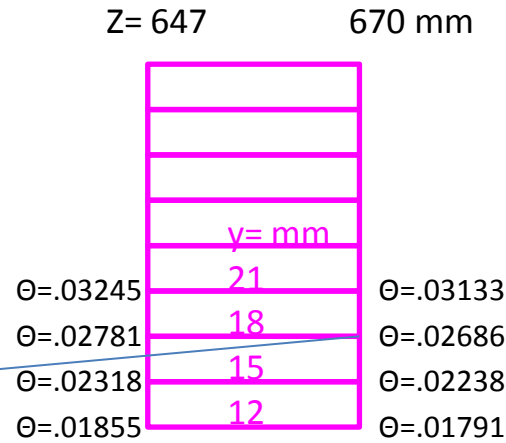


2023.04.23
 Update to full LumiCal
 Read Bhumi events

LYSO bars z= 647-670mm of LumiCal before flange 2023

Coding log

InX3TB for X3TB95, delete codes relevant to TB95,
 used in UGEO M UDET,



Studyt shower Shoot IL=2, NUMBV2=18

$\theta = 0.024$ $\phi = 1.474$

@z=64.7cm

@z=67.cm

r=1.553, x=.15, y=1.546

r=1.6083 x=.1554 Y=1.601

2024.08.30
 Build Qbar LYSO det

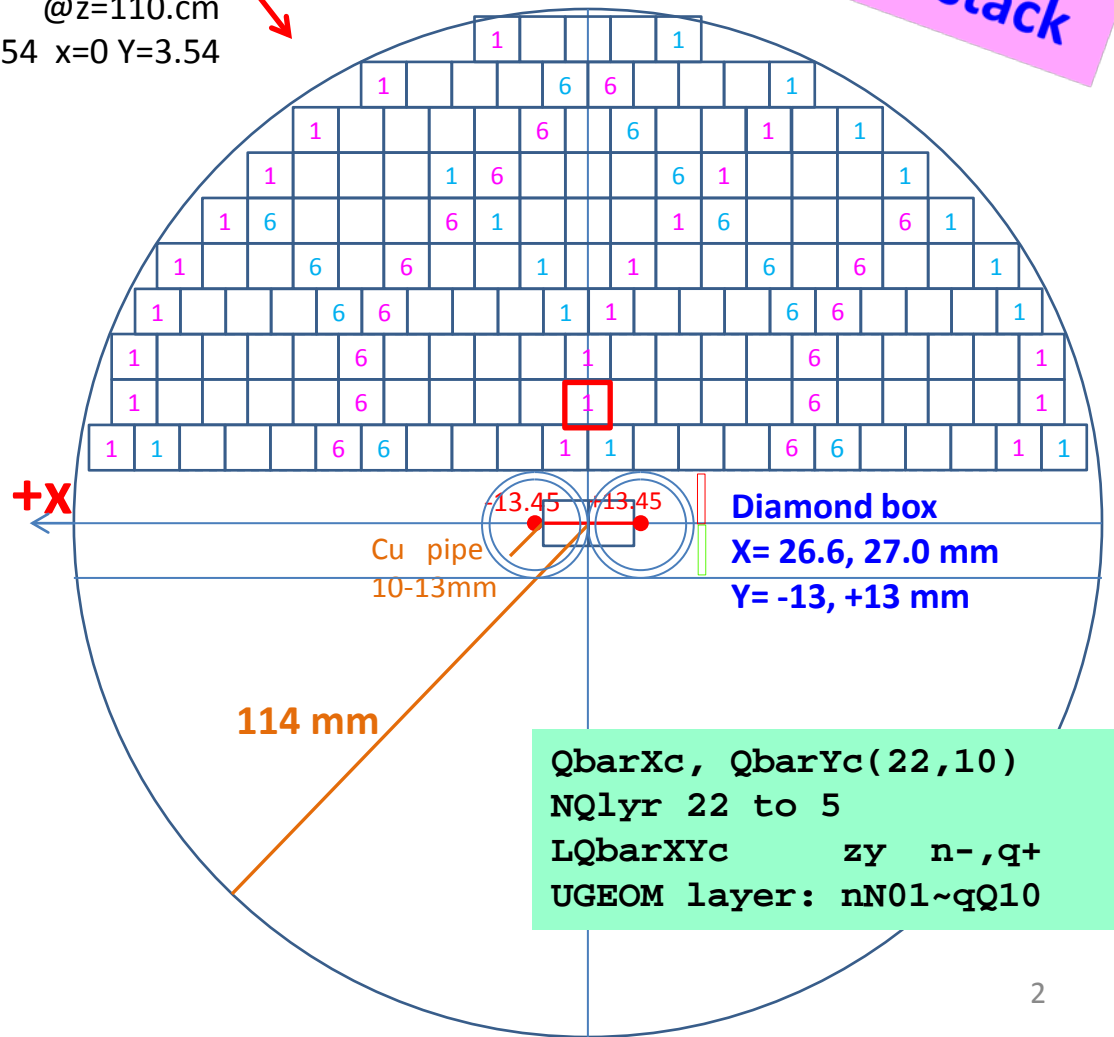
LYSO bars z= 900-1100mm Before QMAG, dupipe 855-1110 mm

2024 new stack

Shooting IL=2, NUMBV2=11
 Center (0, 29, 900), $\theta=0.0322$, $\phi=1.57$
 @z=90cm @z=110cm
 r=2.9, x=0, y=2.9 r=3.54 x=0 Y=3.54

Z= 900	1100 mm
y= mm	Θ =.1023
104	Θ =.0934
94	
84	
74	
64	
54	
44	Θ =.03998
34	Θ =.03090
24	Θ =.02183
14	

Θ =.04885
 Θ =.03776
 Θ =.02566



1				1	6				6	1				1
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UGEOM

2024
new stack

central rectangular decks GSDVN into 3 box

z y PGON xc= ± 1.35 cm z=90-110 cm
mDL0~9 z x GSDVN into 6+L*3
pUL0~9 mRC0~9
pLC0~9

```
GEANT> exe gin3kumec#lysoxy
```

SUBROUTINE LbarID(Chset,Chdet,NumBV2, Xc,Yc,Zc, Rc,Phc)

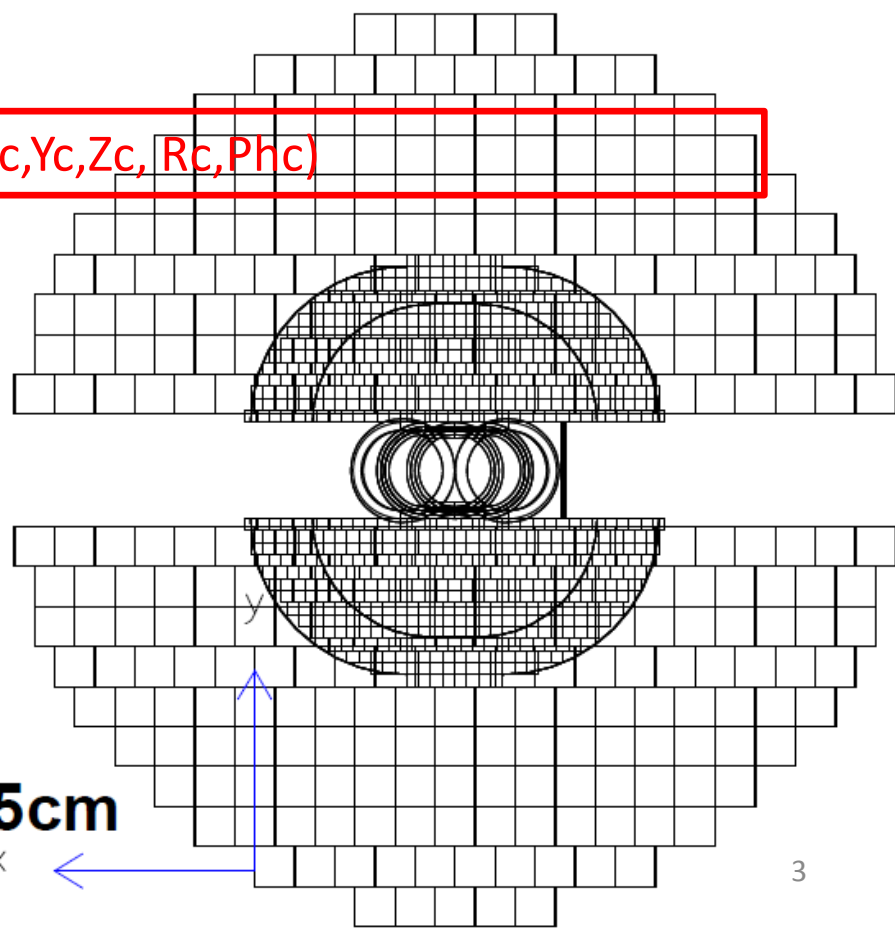
Studyt shower IL=0~9

$\theta=0.025$ $\phi=90^\circ = 1.571$ rad IL=1, NUMBV2=2

@z=90 cm @z=110.cm
x=0., r=y=2.250 x=0. Y=2.751

$\theta=0.037$ $\phi=90^\circ = 1.571$ rad IL=2, NUMBV2=2

@z=90 cm @z=110.cm
x=0., r=y=3.332 x=0. Y=4.072



Corner the corner fixed

$x'=12$

$z'=zc-475/2$

$=zc-(L/2 \cdot \cos\theta + 7 \cdot \sin\theta)$

$L=474.84$

apply $L=474.8$ from zc use $\theta=.90/180 \cdot \pi$

$z'=zc - L/2 \cdot \cos\theta + .08 - 12 \cdot \sin\theta = zc - 237.48$

$X=12$

$X=10$

$Z=180$

$x'=xc' - L/2 \cdot \sin\theta = 3.75 - 3.748 = .002$

$z'=zc' - L/2 \cdot \cos\theta = 417.58 - 237.37 = 180.21$

$xc=0$
 $zc=417.5$

Beam line

$Z=655$

Rotated TUBS half tube Al 2mm thick $L=474.8$, $dZ \leq 475mm$

10mm inner rad. +2mm thick
rotate half tube, rectangular center

$\theta = \text{atan}(7.5/475) = .01579 = .9046^\circ$

$X=19.5$

$X=17.5$

內束流管

Corner

$x'=17.5 - 10 \cdot \cos\theta$

$z'=zc + 475/2$

$=zc + L/2 \cdot \cos\theta + 5 \cdot \sin\theta$

$L=474.90$

apply $L=474.8$, $\theta=.90/180 \cdot \pi$

$x'=xc' + L/2 \cdot \sin\theta = 3.75 + 3.748 = 7.498$

$z'=zc' + L/2 \cdot \cos\theta = 417.58 + 237.37 = 654.95$

$\theta = \text{atan}(6/75) = .07983 = 4.574^\circ$

$12 \cdot \sin\theta + L \cdot \cos\theta = 75$

$L=74.04$

$X=19.5$

$X=35/2$

$Z=780$

$x'=xc' - L/2 \cdot \sin\theta = 10.5 - 2.98 = 7.52$

$z'=zc' - L/2 \cdot \cos\theta = 817.9 - 37.03 = 780.87$

apply $L=74.3$, $\theta=4.6^\circ$

$X=22.5$

$X=20.5$

$X=39/2$

TUBS rotate center shifted

$xc' = 20.5 - 5/\cos\theta - 5 \cdot \cos\theta = 10.5$

$zc' = zc + 5 \cdot \sin\theta = 817.9$

$xc=0$

$zc=817.5$

Beam line

$Z=855$

Rotated TUBS half tube Al 2mm thick $L=74.0$, $dZ \leq 75mm$

$X=25.5$

$X=23.5$

$x'=13.47 + 12 \cdot \cos\theta = 25.43$

$x'=13.47 + 10 \cdot \cos\theta = 23.44$

Corner apply $L=74.3$, $\theta=4.6^\circ$

$x'=xc' + L/2 \cdot \sin\theta = 10.5 + 2.98 = 13.479$

$z'=zc' + L/2 \cdot \cos\theta = 817.9 + 37.03 = 854.93$

Y-crotch 跨檔