LCLS II-HE - SXR Undulator

METROLOGY

Top Jaw Pole Tips

Y Dev.from Mean

10^{-3} : 20, 16, 12, 8, 4

Mean TOP = 12.5649

Regression Line Ang. (mrad) = -0.0062

Y Dev.from Mean

10^{-3} : -24, -20, -16, -12, -8, -4, 4, 8, 12, 16, 20

Bottom Jaw Pole Tips

Pole Tip Num. --->

4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116

Minimum Effective Gap = 24.985

10^{-3} : -24, -20, -16, -12, -8, -4, 4, 8, 12, 16, 20
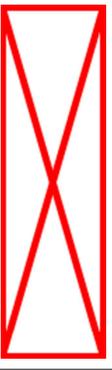
Mean BTM = -12.4494

Regression Line Ang. (mrad) = -0.0054

Y Value Scales Centered on Mean Values

Step Between Measured Pole Tips = **7**

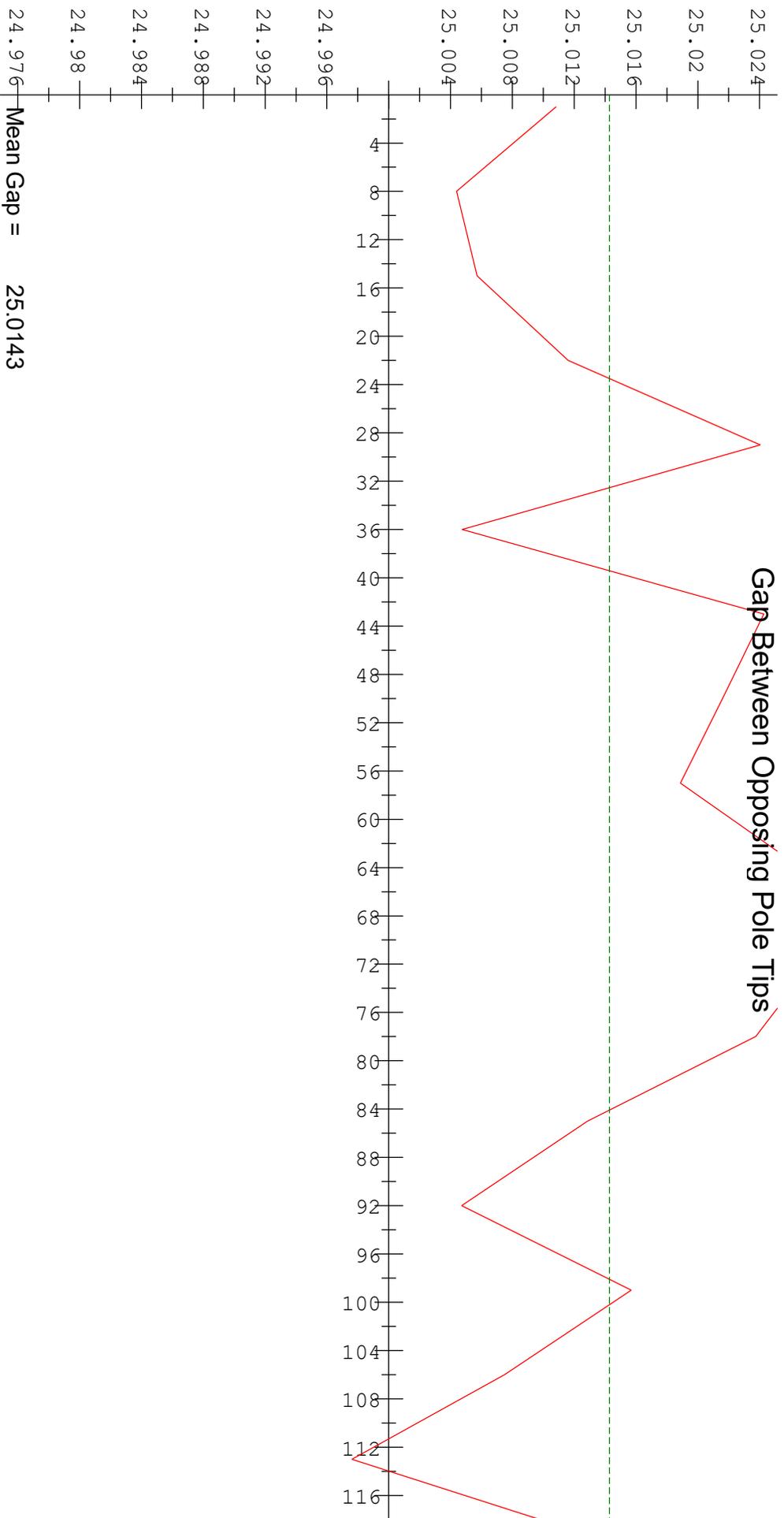Regression Line Through Points = ----

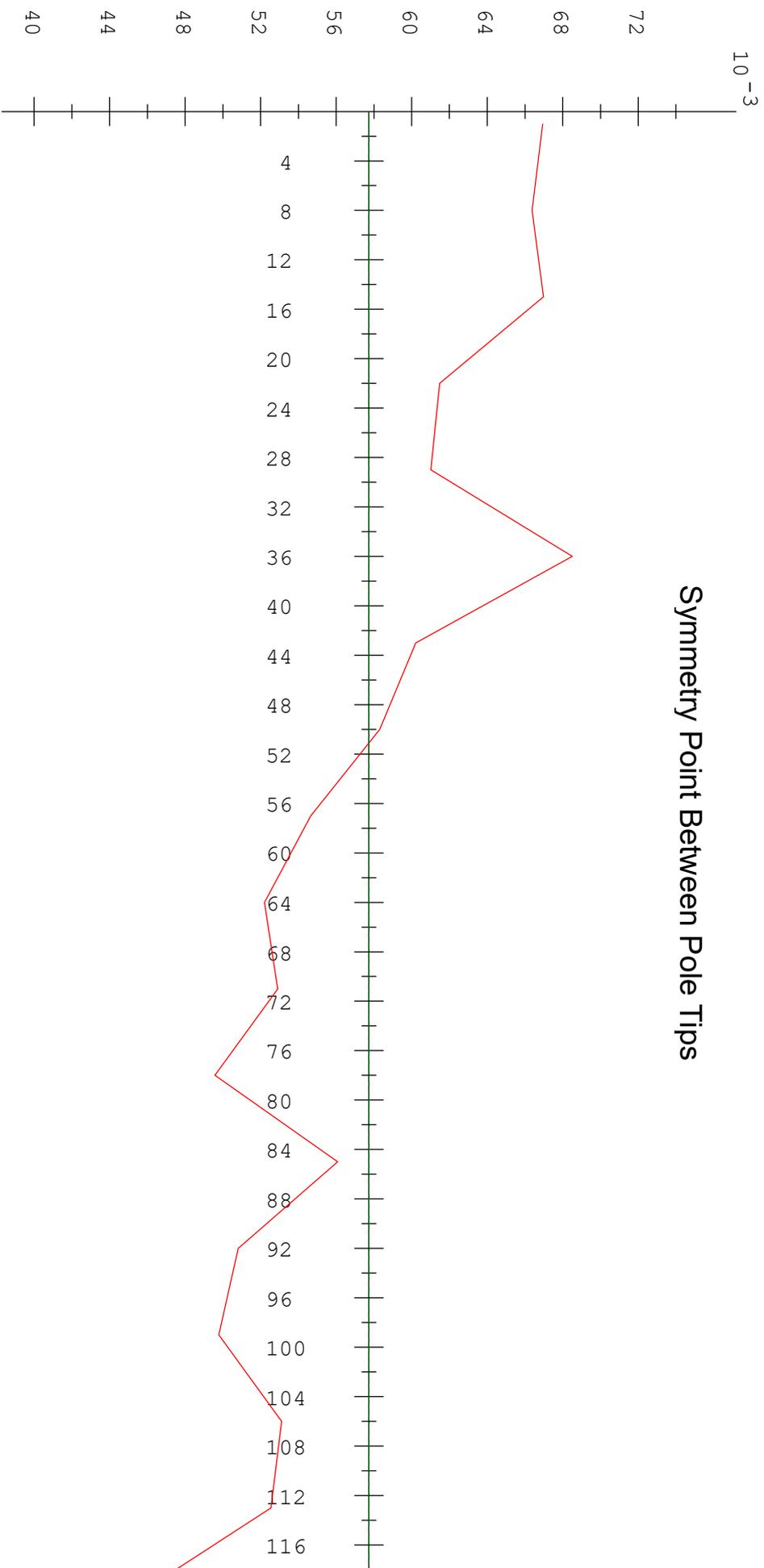Dimensions in mm

Nominal Gap = 25   Nominal Taper = 0.000

Gap Reading = 25.0000   US Encoder = 25.0000   DS Encoder = 25.0000

29-AUG-2022
S/N = 000
D/S= 0001
Run= 11

LCLS II-HE - SXR Undulator

METROLOGY

Step Between Measured Pole Tips = **7**

Mean Gap = 25.0143

Nominal Gap = 25	Nominal Taper = 0.000
Gap Reading = 25.0000	US Encoder = 25.0000	DS Encoder = 25.0000

Gap Between Opposing Pole Tips

Dimensions in mm

29-AUG-2022
S/N = 000
D/S= 0001
Run= 11

Gap axis values:
24.976, 24.98, 24.984, 24.988, 24.992, 24.996, 25.004, 25.008, 25.012, 25.016, 25.02, 25.024

Pole tip axis values:
4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96, 100, 104, 108, 112, 116

Symmetry Point Between Pole Tips

Mean Symmetry Value =   0.0577

Step Between Measured Pole Tips =   **7**

LCLS II-HE - SXR Undulator

Nominal Gap = 25	**Nominal Taper = 0.000**
Gap Reading = 25.0000	US Encoder = 25.0000 DS Encoder = 25.0000

METROLOGY

Dimensions in mm

29-AUG-2022	
S/N =	000
D/S=	0001
Run=	11

Top and Bottom Jaw
Regression Line Intersect Points

Jaw	First Pole (Pole 1)	US Actuator (Pole 28)	DS Actuator (Pole 90)	Last Pole (Pole 118)
Top	12.5745	12.5698	12.5591	12.5542
Bottom	-12.4408	-12.4449	-12.4544	-12.4586
Gap	25.0153		25.0128	
Taper				-0.0025

Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
12.5649	-12.4494	25.0143	0.0577

Additional Calculated Values

Bottom Pole #1 Z Value	974.854
Top Jaw Pitch (mrad)	-0.006
Bottom Jaw Pitch(mrad)	-0.005
Minimum Effective Gap	24.985
Reference Block Gap	6.801

METROLOGY

LCLS II-HE - SXR Undulator

Nominal Gap = 25   Nominal Taper = 0.000

Gap Reading = 25.0000   US Encoder = 25.0000   DS Encoder = 25.0000