LCLS II-HE - SXR Undulator

METROLOGY

Nominal Gap = 10   Nominal Taper = 0.000

Gap Reading = 10.0004   US Encoder = 10.0003   DS Encoder = 10.0005

18-NOV-2025   S/N = 007   D/S= 0001   Run= 3

Y Value Scales Centered on Mean Values

Step Between Measured Pole Tips = 1

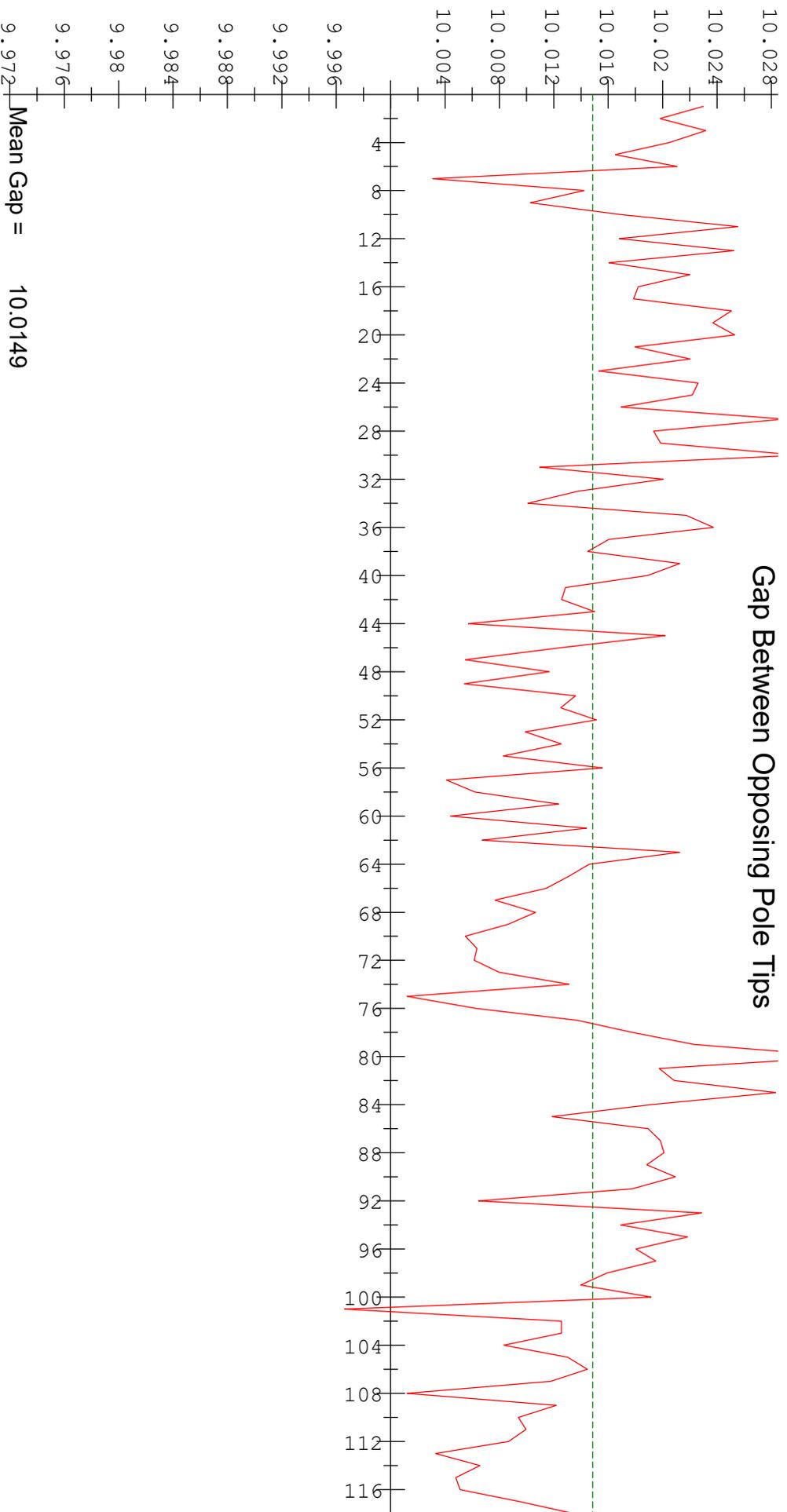Regression Line Through Points = ------   Dimensions in mm

Top Jaw Pole Tips

Y Dev.from Mean

Mean TOP = 5.2792   Regression Line Ang. (mrad) = -0.0124

Pole Tip Num. --->

Bottom Jaw Pole Tips

Y Dev.from Mean

Minimum Effective Gap = 9.968

Mean BTM = -4.7357   Regression Line Ang. (mrad) = -0.0097

LCLS II-HE - SXR Undulator

Gap Between Opposing Pole Tips

Dimensions in mm

Nominal Gap = 10	Nominal Taper = 0.000
Gap Reading = 10.0004	US Encoder = 10.0003	DS Encoder = 10.0005

Step Between Measured Pole Tips = **1**

Mean Gap = 10.0149

METROLOGY

18-NOV-2025
S/N = 007
D/S = 0001
Run= 3

Symmetry Point Between Pole Tips

METROLOGY

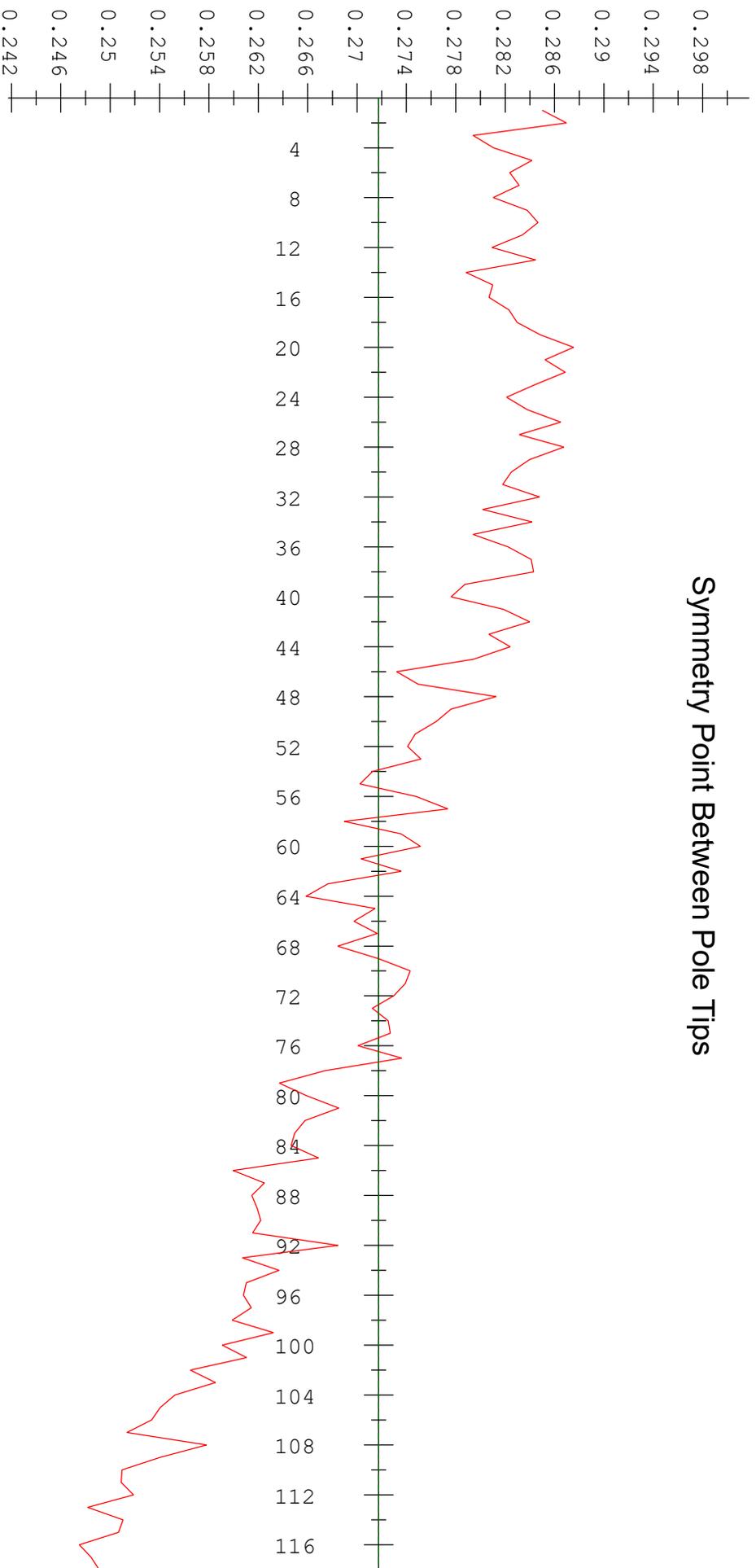Step Between Measured Pole Tips = 1

Mean Symmetry Value = 0.2717

LCLS II-HE - SXR Undulator

Nominal Gap = 10   Nominal Taper = 0.000

Gap Reading = 10.0004   US Encoder = 10.0003   DS Encoder = 10.0005

Dimensions in mm

18-NOV-2025
S/N = 007
D/S = 0001
Run= 3

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	5.2994	5.2901	5.2686	5.2589
Bottom	-4.7198	-4.7271	-4.7440	-4.7516
Gap	10.0192			10.0105
Taper				-0.0087

Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
5.2792	-4.7357	10.0149	0.2717

Additional Calculated Values

Bottom Pole #1 Z Value	979.312
Top Jaw Pitch (mrad)	-0.012
Bottom Jaw Pitch(mrad)	-0.010
Minimum Effective Gap	9.968
Reference Block Gap	6.797

LCLS II-HE - SXR Undulator

Nominal Gap = 10   Nominal Taper = 0.000

Gap Reading = 10.0004   US Encoder = 10.0003   DS Encoder = 10.0005

Dimensions in mm

18-NOV-2025
S/N = 007
D/S= 0001
Run= 3