LCLS II-HE - SXR Undulator

METROLOGY

Nominal Gap = 10   Nominal Taper = 0.000

Gap Reading = 10.0000   US Encoder = 10.0000   DS Encoder = 10.0000

Nominal Gap = 10.0000

13-JAN-2026
S/N =   003
D/S=   0001
Run=   2

Top Jaw Pole Tips

Y Dev.from Mean

Mean TOP =   5.4410

Regression Line Ang. (mrad) =   0.0039

Bottom Jaw Pole Tips

Minimum Effective Gap =   10.059

Y Dev.from Mean

Pole Tip Num. --->

Mean BTM =   -4.6418

Regression Line Ang. (mrad) =   0.0010

Y Dev.from Mean
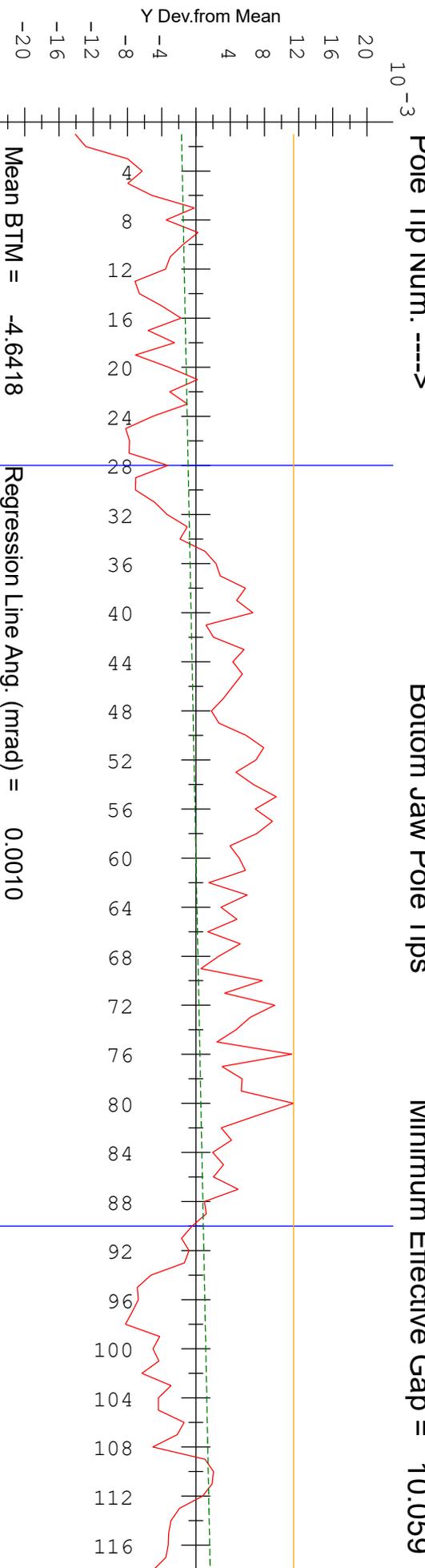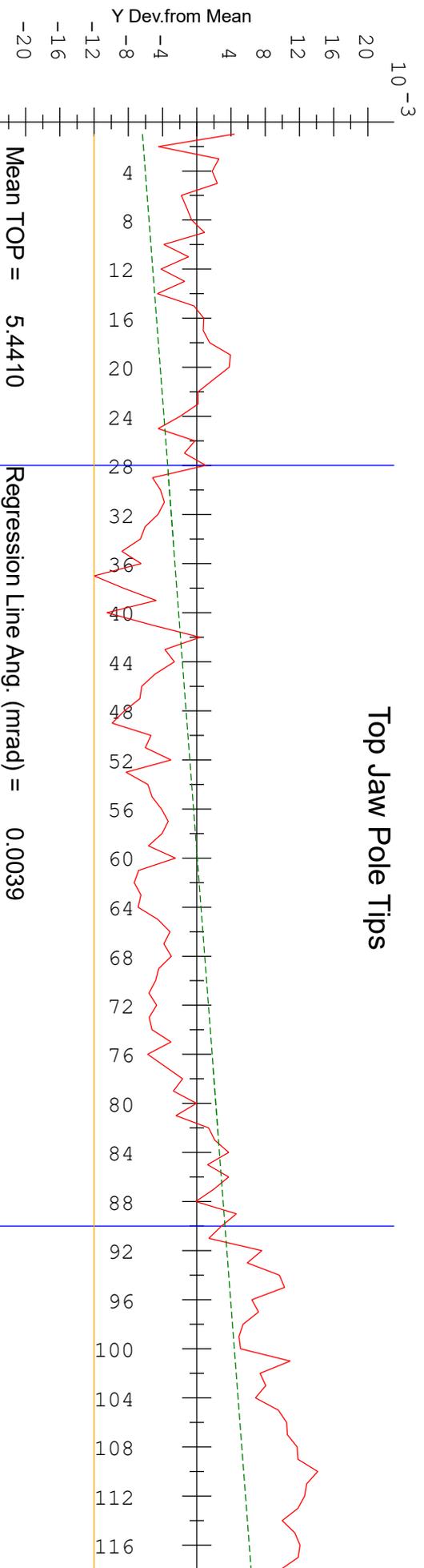
Y Value Scales Centered on Mean Values

Step Between Measured Pole Tips =   1

Regression Line Through Points = - - - - - -

Dimensions in mm

Gap Between Opposing Pole Tips

Mean Gap =   10.0828

Step Between Measured Pole Tips =   1

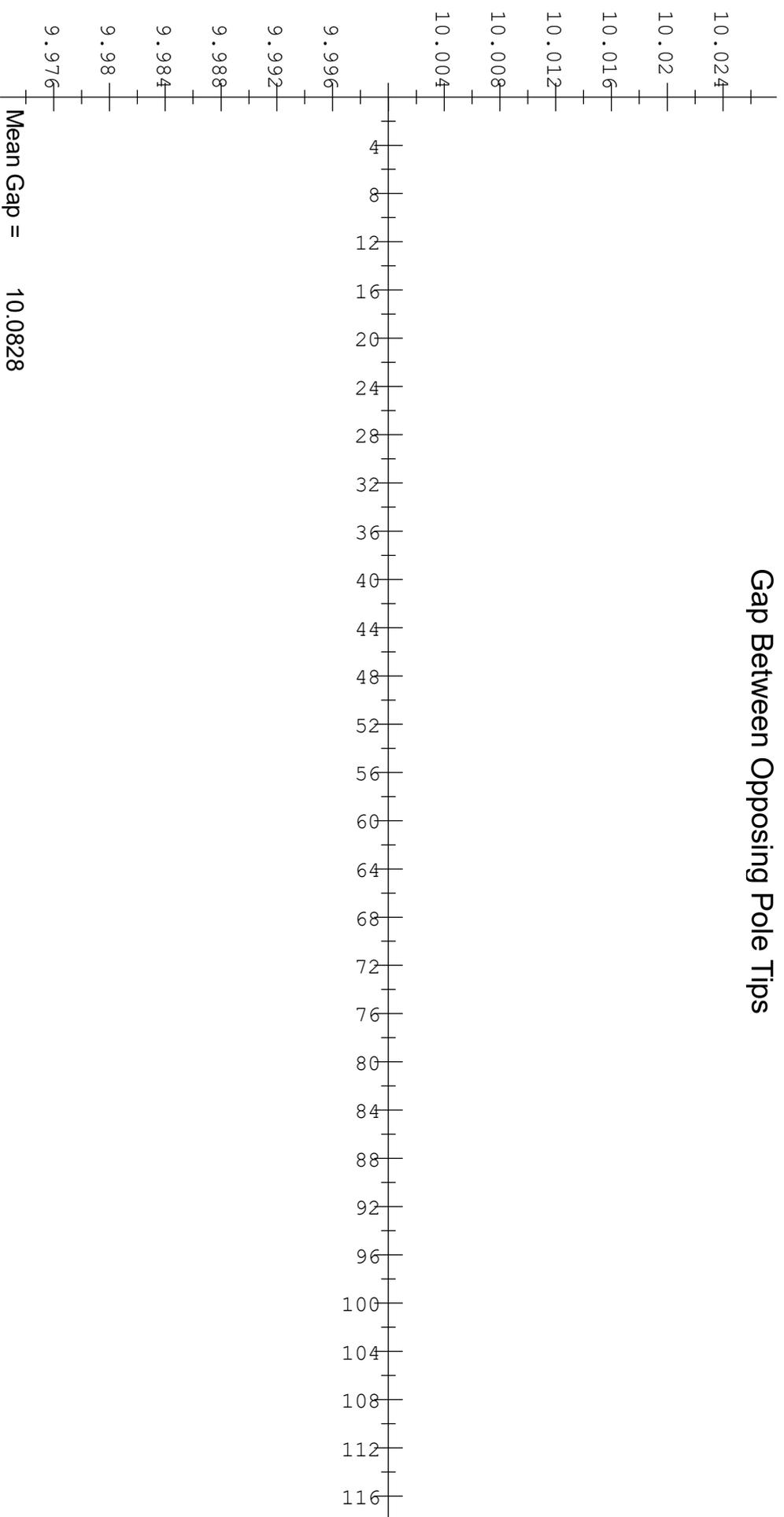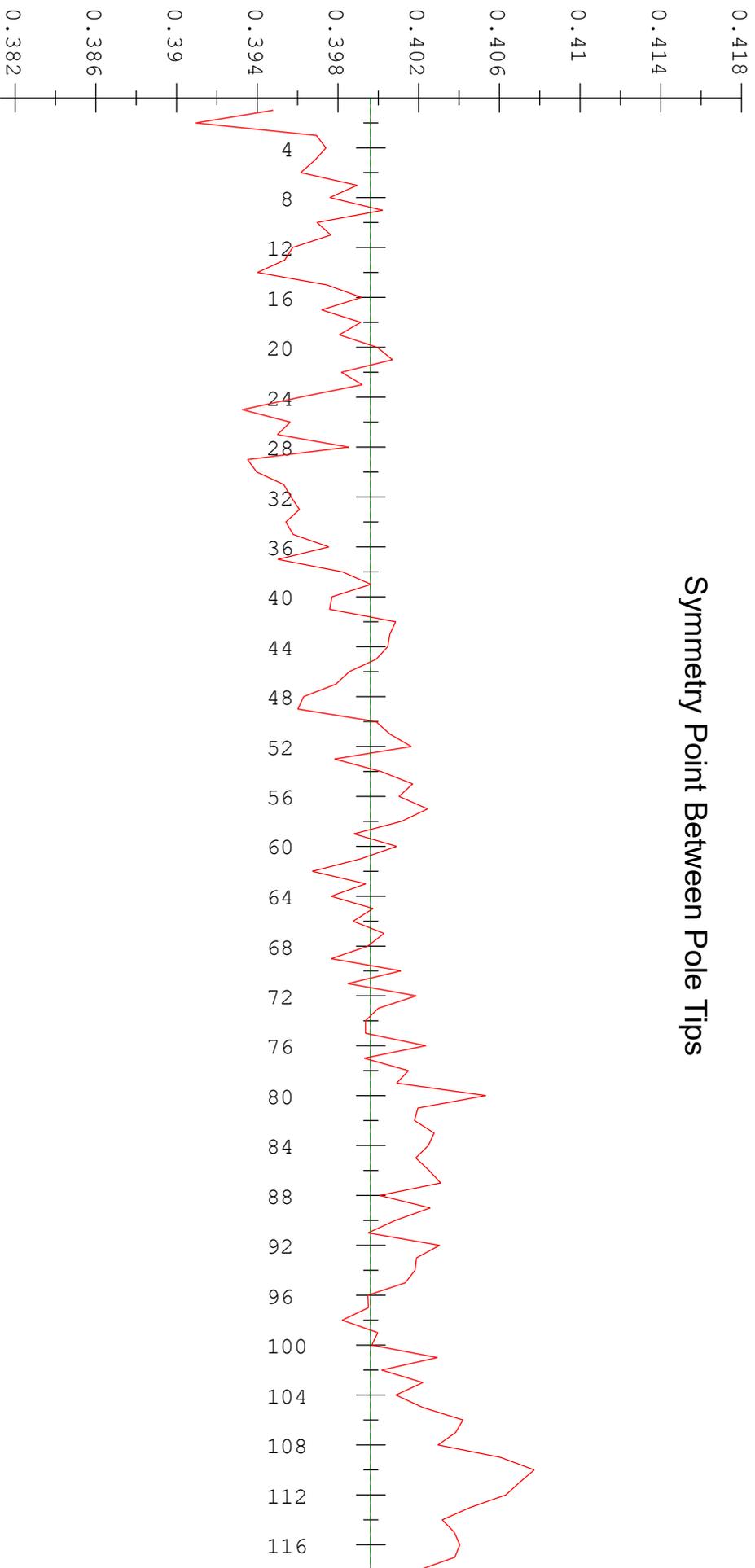**LCLS II-HE - SXR Undulator**

Nominal Gap = 10   Nominal Taper = 0.000

Gap Reading = 10.0000   US Encoder = 10.0000   DS Encoder = 10.0000

METROLOGY

Dimensions in mm

13-JAN-2026
S/N =   003
D/S=   0001
Run=   2

Gap axis labels: 9.976, 9.98, 9.984, 9.988, 9.992, 9.996, 10.004, 10.008, 10.012, 10.016, 10.02, 10.024

Pole tip axis labels: 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

LCLS II-HE - SXR Undulator

Symmetry Point Between Pole Tips

METROLOGY

Step Between Measured Pole Tips = 1

Mean Symmetry Value = 0.3996

Nominal Gap = 10   Nominal Taper = 0.000

Gap Reading = 10.0000   US Encoder = 10.0000   DS Encoder = 10.0000

Dimensions in mm

13-JAN-2026
S/N = 003
D/S = 0001
Run = 2

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	5.4347	5.4376	5.4444	5.4474
Bottom	-4.6435	-4.6427	-4.6409	-4.6401
Gap	10.0782		10.0875	
Taper				0.0093

Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
5.4410	-4.6418	10.0828	0.3996

Additional Calculated Values

Bottom Pole #1 Z Value	978.769
Top Jaw Pitch (mrad)	0.004
Bottom Jaw Pitch(mrad)	0.001
Minimum Effective Gap	10.059
Reference Block Gap	6.797

LCLS II-HE - SXR Undulator

Nominal Gap = 10   Nominal Gap = 10.0000   Nominal Taper = 0.000

Gap Reading = 10.0000   US Encoder = 10.0000   DS Encoder = 10.0000

13-JAN-2026
S/N = 003
D/S= 0001
Run= 2

Dimensions in mm

METROLOGY