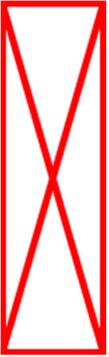


Y Value Scales Centered on Mean Values  
Step Between Measured Pole Tips = 1

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



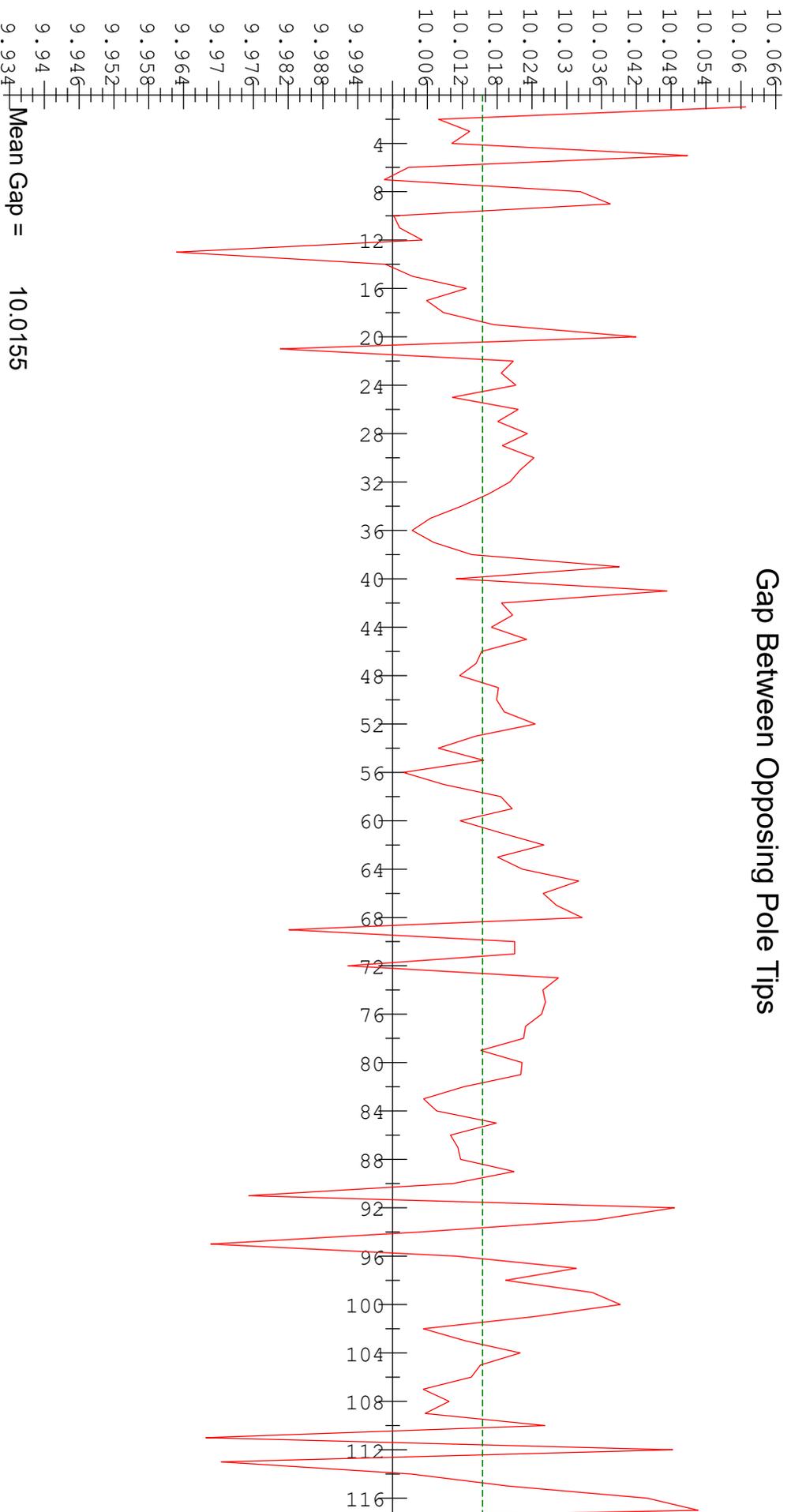
METROLOGY

# LCLS II-HE - SXR Undulator

Nominal Gap = 10      Nominal Taper = 0.000  
Gap Reading = 10.0000      US Encoder = 10.0000      DS Encoder = 10.0000

28-JUN-2023  
S/N = 000  
D/S = 0003  
Run = 3

### Gap Between Opposing Pole Tips



Step Between Measured Pole Tips = 1

Dimensions in mm



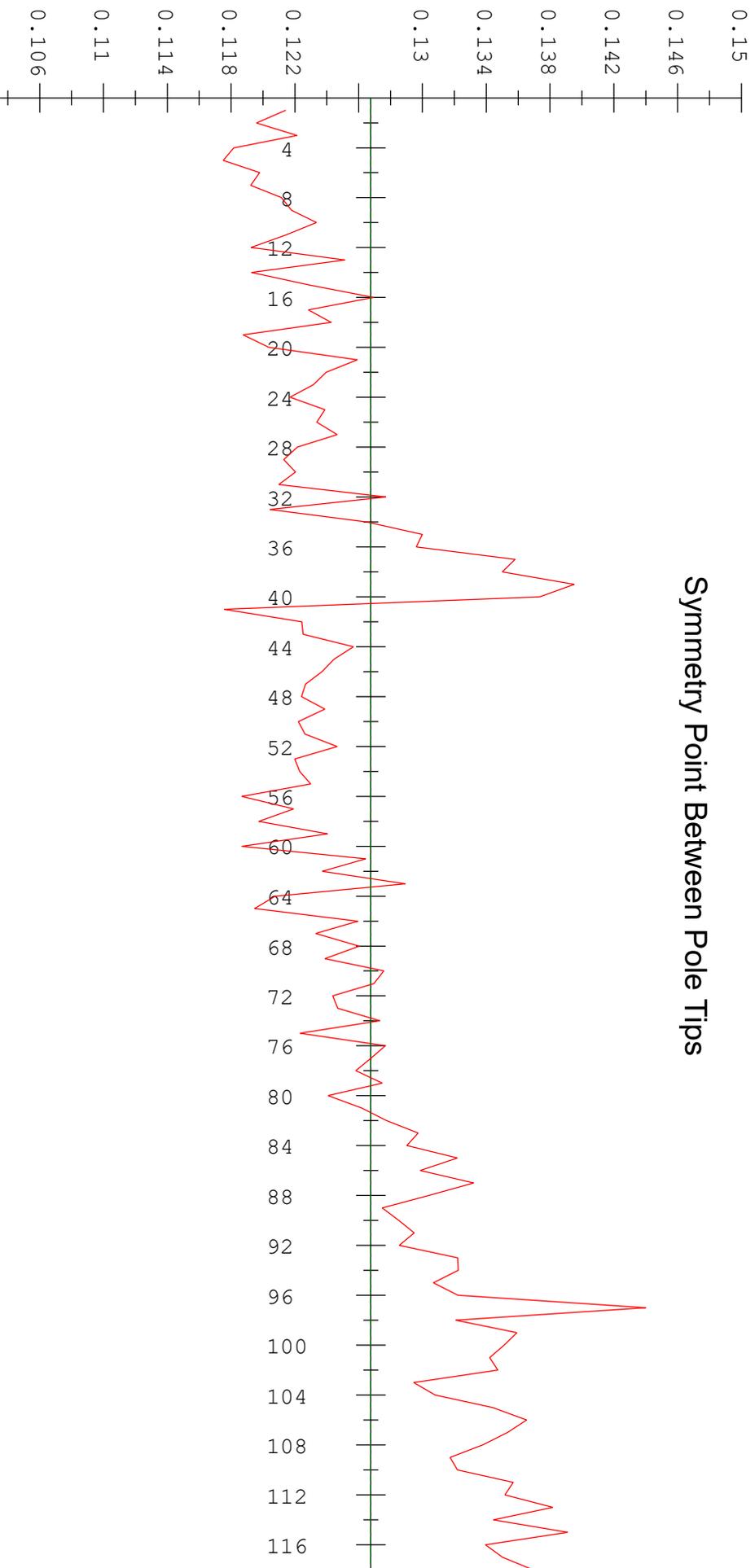
METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 10      Nominal Taper = 0.000  
Gap Reading = 10.0000      US Encoder = 10.0000      DS Encoder = 10.0000

28-JUN-2023  
S/N = 000  
D/S = 0003  
Run = 3

### Symmetry Point Between Pole Tips



Mean Symmetry Value = 0.1268

Step Between Measured Pole Tips = 1

Dimensions in mm



METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 10      Nominal Taper = 0.000  
Gap Reading = 10.0000      US Encoder = 10.0000      DS Encoder = 10.0000

28-JUN-2023  
S/N = 000  
D/S = 0003  
Run = 3

## Top and Bottom Jaw Regression Line Intersect Points

Jaw	First Pole <i>(Pole -1)</i>	US Actuator <i>(Pole 28)</i>	DS Actuator <i>(Pole 90)</i>	Last Pole <i>(Pole 118)</i>
<b>Top</b>	5.1280	5.1310	5.1379	5.1410
<b>Bottom</b>	-4.8887	-4.8852	-4.8770	-4.8732
<b>Gap</b>	10.0167			10.0143
<b>Taper</b>				-0.0025

## Summary of Mean Values

Top Jaw Poles	Btm. Jaw Poles	Gap Values	Sym. Pt. Values
5.1345	-4.8810	10.0155	0.1268

## Additional Calculated Values

<b>Bottom Pole #1 Z Value</b>	<b>974.878</b>
<b>Top Jaw Pitch (mrad)</b>	<b>0.004</b>
<b>Bottom Jaw Pitch(mrad)</b>	<b>0.005</b>
<b>Minimum Effective Gap</b>	<b>9.943</b>
<b>Reference Block Gap</b>	<b>6.798</b>

Dimensions in mm



METROLOGY

## LCLS II-HE - SXR Undulator

Nominal Gap = 10      Nominal Taper = 0.000  
 Gap Reading = 10.0000      US Encoder = 10.0000      DS Encoder = 10.0000

28-JUN-2023  
 S/N = 000  
 D/S = 0003  
 Run = 3