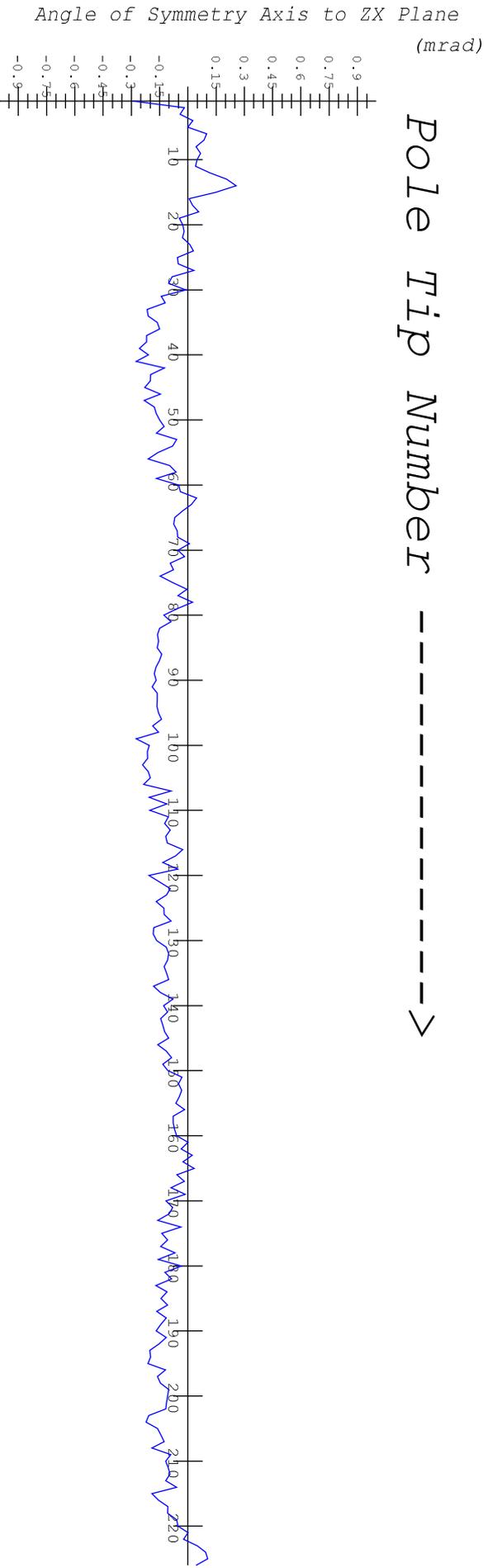


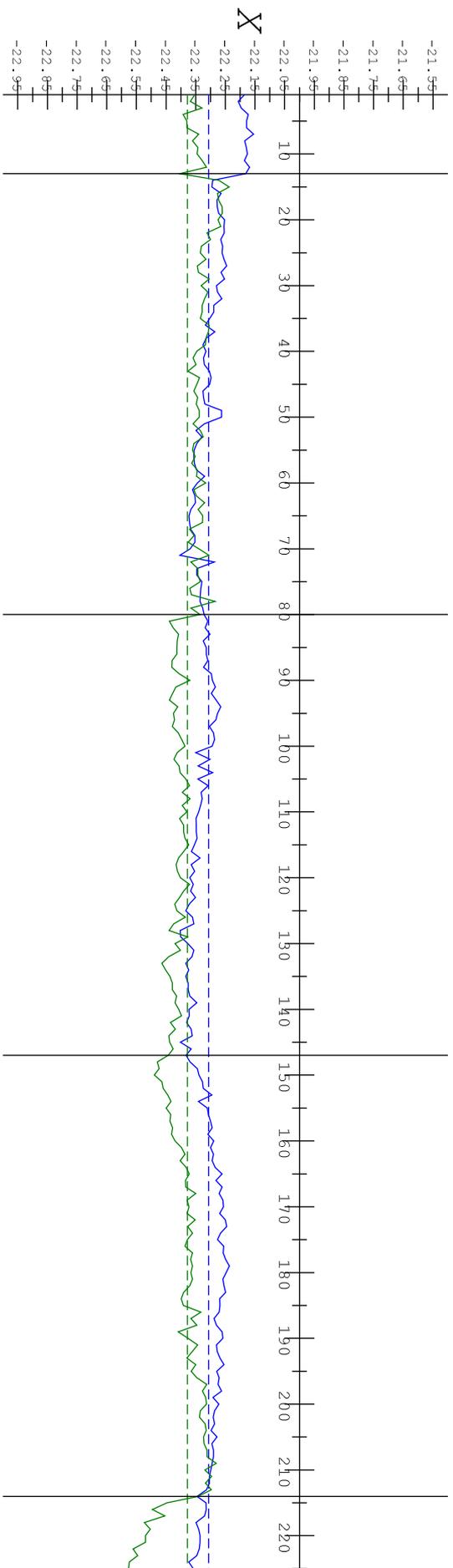
Pole Tip Number ----->



Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips  
 Included Angle is the angle between the Upper and Lower Pole Tips

<p><b>SLAC</b>          LCLS-MMF          LEITZ CMM</p>	<p>Undulator Pole Tip Angles          Post Align., After Trans.</p>	<p>DATE: 10-JUL-2007          UNDUULATOR # 11          VERSION 1.0</p>
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# Pole Tip Number ----->



X values in mm

Green Solid = Point on front face of Upper Pole Tip 10mm above Magnetic C/L

Green Dash = Mean value of all Upper Pole Tips 10mm above Magnetic C/L Mean value Upper Pole Tips = -22.378

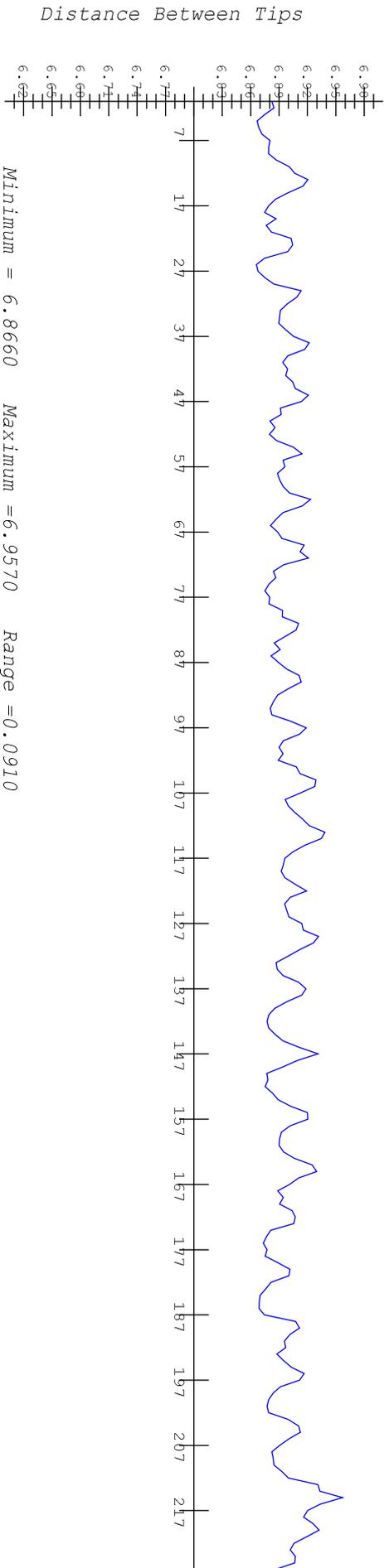
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -22.306

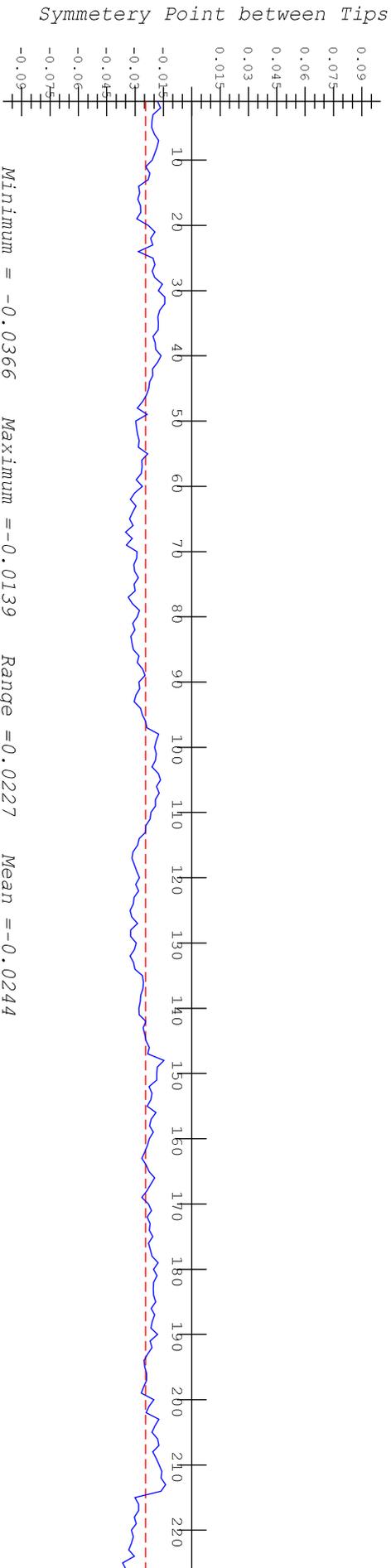
**SLAC**  
 LCLS-MMF  
 LEITZ CMM

Undulator Pole Tip Location  
 Post Align., After Trans.

DATE: 10-JUL-2007  
 UNDUULATOR # 11  
 VERSION 1.0



Pole Tip Number ----->



Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L  
 Broken Red line is Mean Value of Symmetry Points  
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L

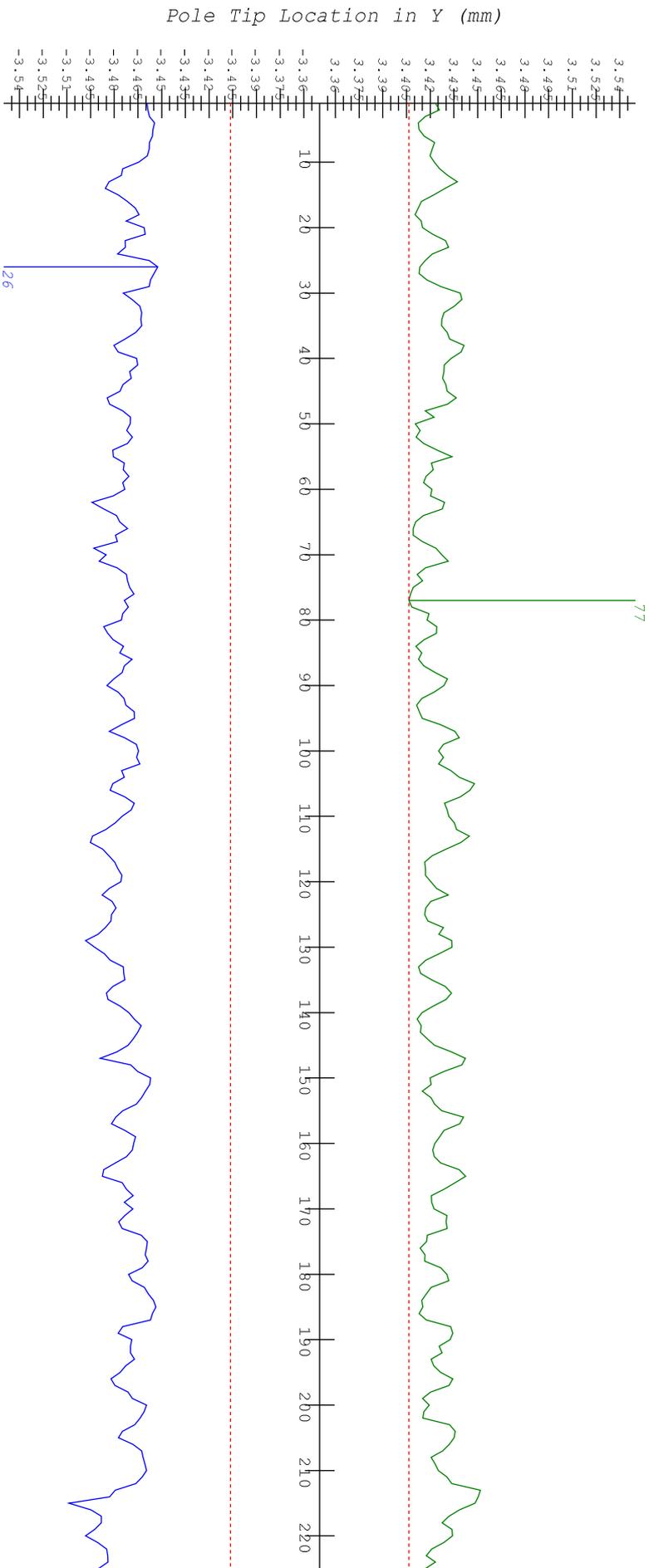
**SLAC**  
 LCLS-MMF  
 LEITZ CMM

Undulator Pole Tip Location  
 Post Alignment, After Trans.

DATE: 10-JUL-2007  
 UNDUULATOR # 11  
 VERSION 1.0

Maximum Chamber Gap = 6.8130

Minimum = 3.4065    Maximum = 3.4517    Range = 0.0453



Minimum = -3.5086    Maximum = -3.4525    Range = 0.0561

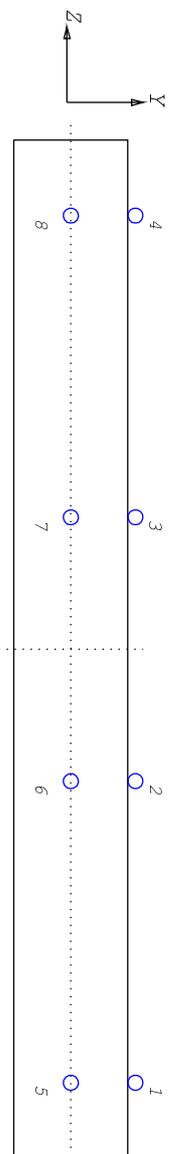
Pole Tip Number ----->

Green = The position of the Upper Pole Tips at Magnetic C\L  
Blue = The position of the Lower Pole Tips at Magnetic C\L  
Max. Chamber Gap = The maximum width vacuum chamber that will fit centered on the Magnetic C\L (2\*Min. Dev. from C\L)

**SLAC**  
LCLS-MMF  
LEITZ CMM

Undulator Pole Tip Location  
Post Alignment, After Trans.

DATE: 10-JUL-2007  
UNDUULATOR # 11  
VERSION 1.0



Top Magnetic Structure      C/L Offset      Length  
 Bottom Magnetic Structure    -0.024            3369.066  
 Strongback                      -2.971            3375.187  
     0.330            3399.884

Dimensions in mm

Angles in mrad

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TOOLING BALL LOCATIONS  
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NUM.	X	Y	Z
1	-0.1069	179.9652	-1558.341
2	-0.1185	179.8800	-584.7072
3	-0.1328	179.8145	591.2657
4	-0.1381	179.8716	1562.0947
5	248.0049	0.0455	-1558.243
6	248.1308	0.2186	-584.6612
7	248.0683	0.0452	591.3637
8	248.0603	-0.0567	1562.0980