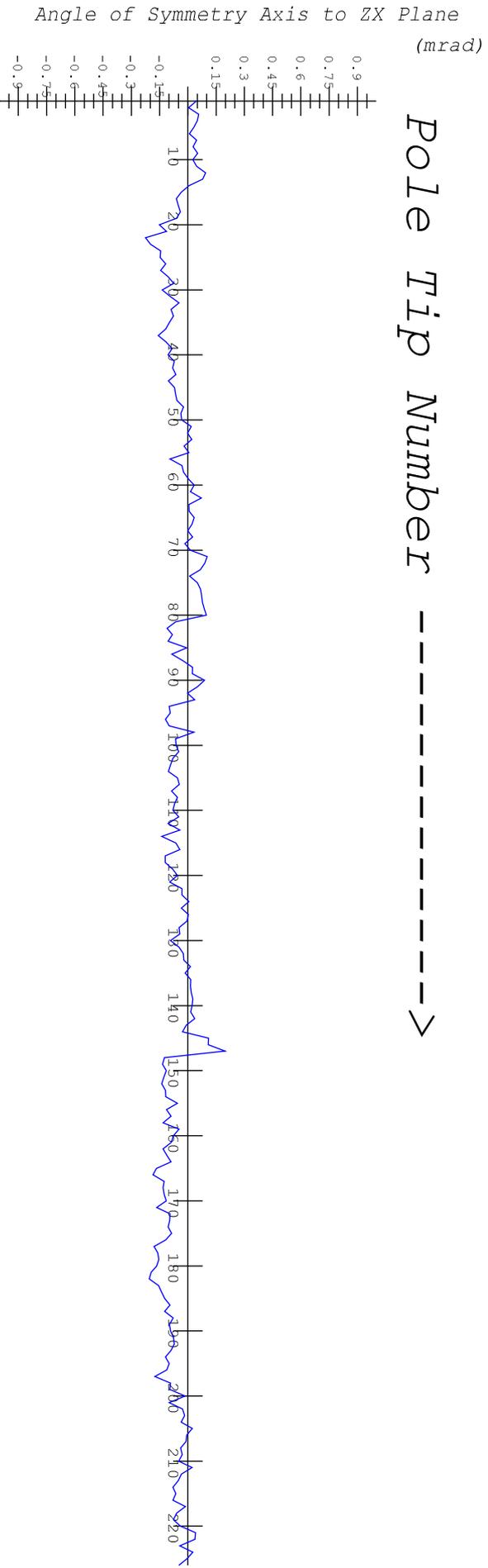


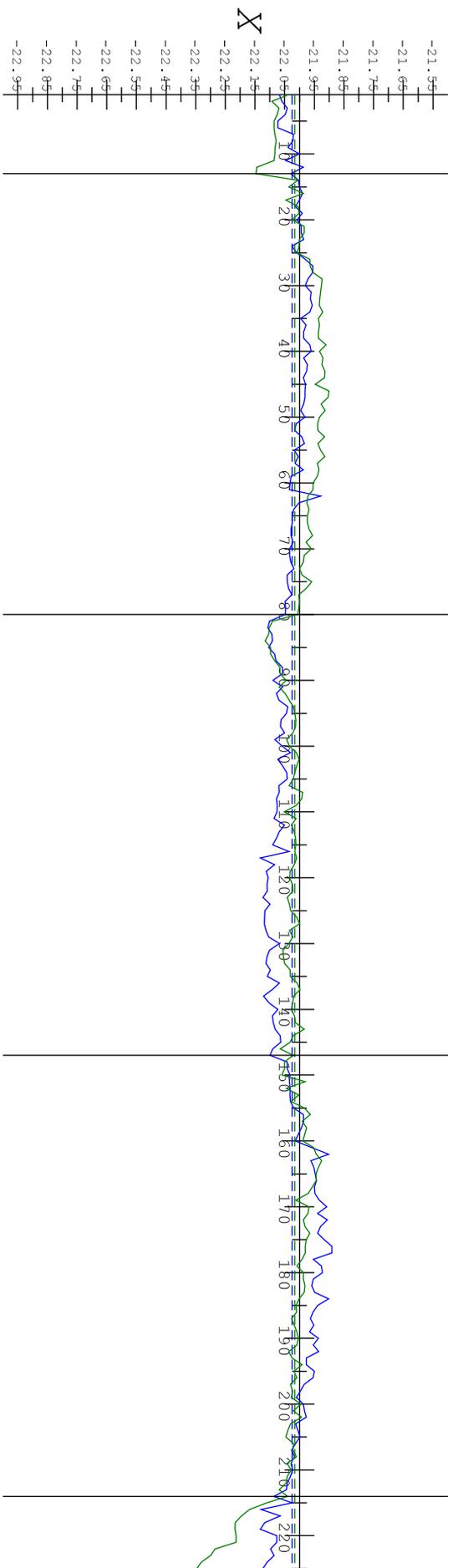
Pole Tip Number ----->



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>SLAC LCLS-MMF LEITZ CMM</p>	<p>Undulator Pole Tip Angles Post Magnetic Alignment</p>	<p>DATE: 02-OCT-2007 UNDULATOR # 13 DATASET # 0003 PROGRAM VERSION 2.2</p>
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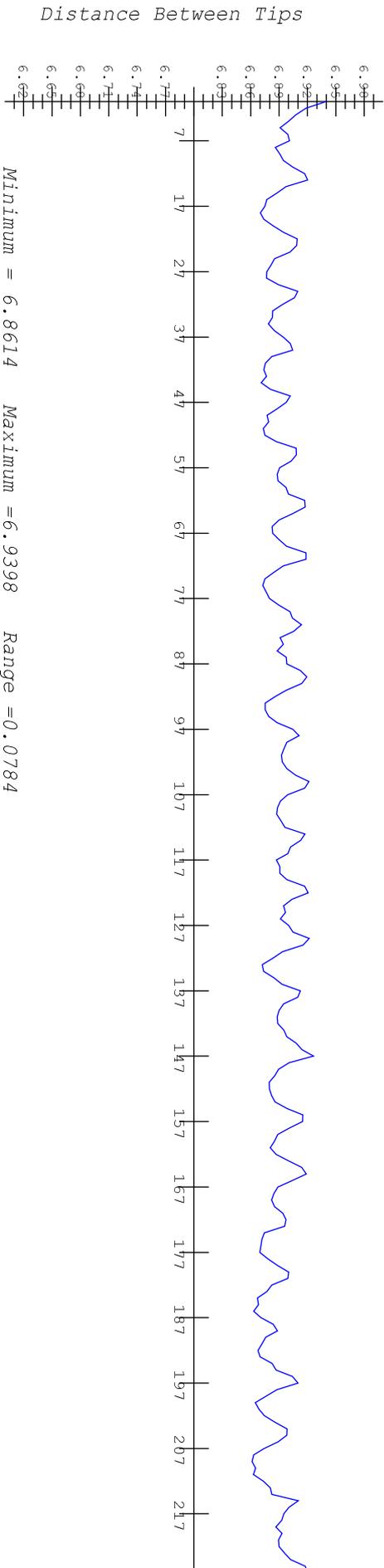
Pole Tip Number ----->



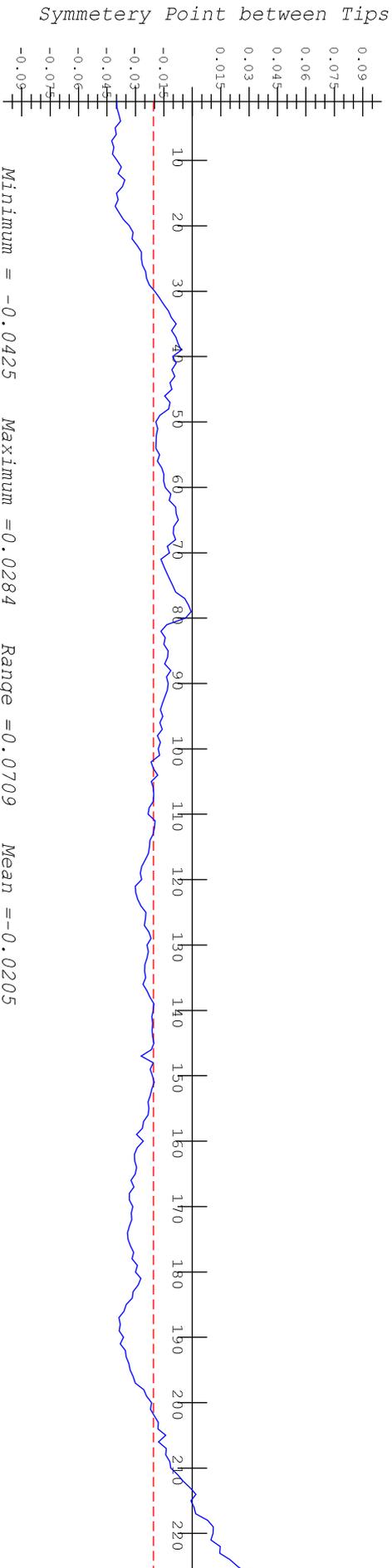
X values in mm

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 = -22.016
 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 = -22.025

<p>SLAC LCLS-MMF LEITZ CMM</p>	<p>Undulator Pole Tip Location Post Magnetic Alignment</p>	<p>DATE: 02-OCT-2007 UNDULATOR # 13 DATASET # 0003 PROGRAM VERSION 2.2</p>
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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

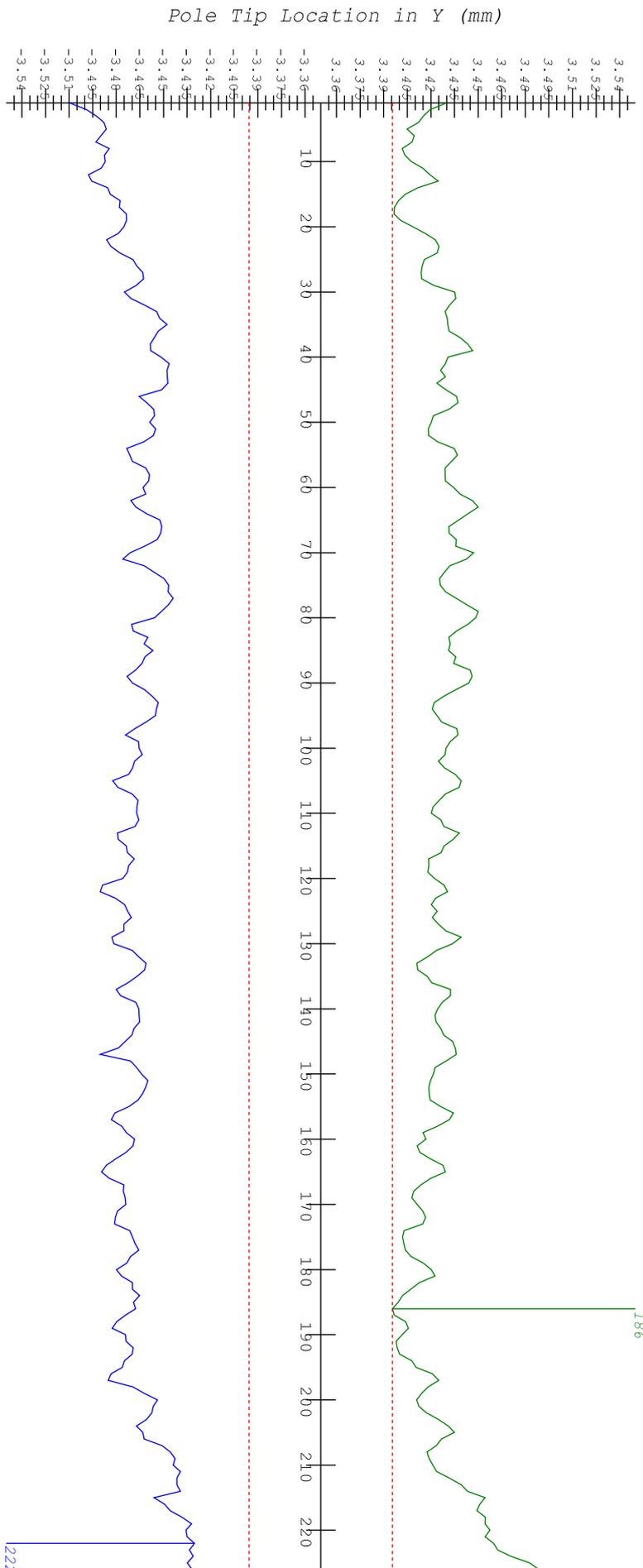
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 LEITZ CMM

Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 02-OCT-2007
 UNDUULATOR # 13
 DATASET # 0003
 PROGRAM VERSION 2.2

Maximum Chamber Gap = 6.7911

Minimum = 3.3955 Maximum = 3.4886 Range = 0.0931



Minimum = -3.5097 Maximum = -3.4303 Range = 0.0795

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)

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Undulator Pole Tip Location
Post Magnetic Alignment

DATE: 02-OCT-2007
UNDULATOR # 13
DATASET # 0003
PROGRAM VERSION 2.2



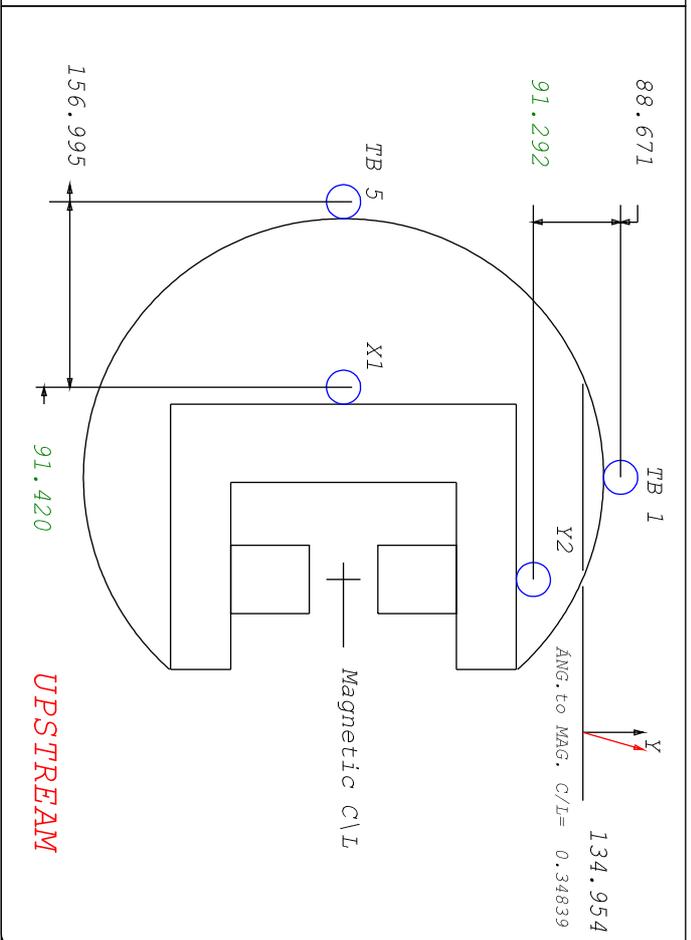
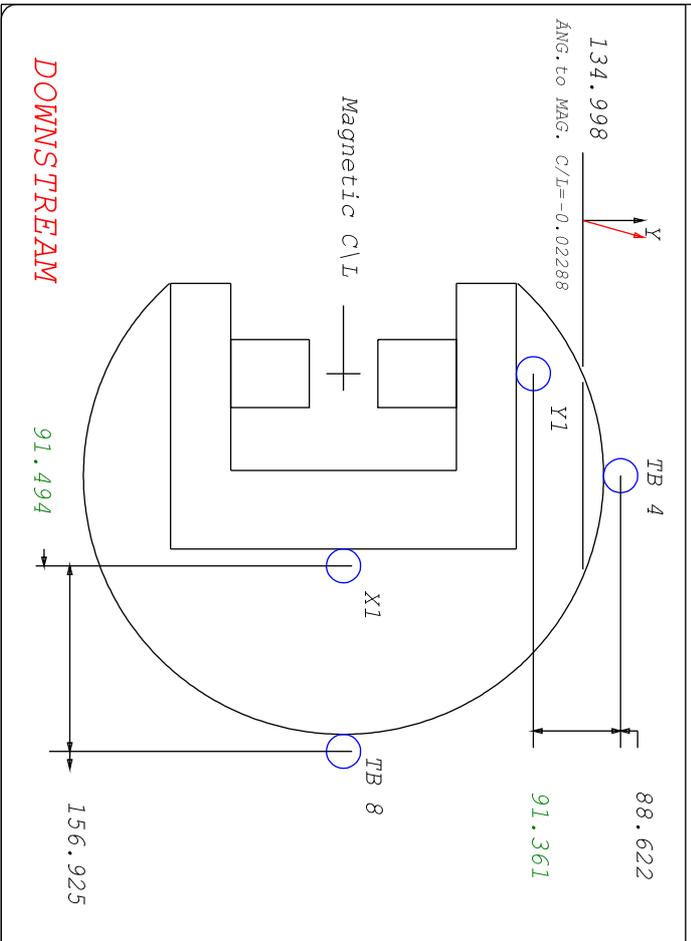
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.0898	179.9631	-1558.283
2	0.2258	179.9938	-584.4553
3	0.1099	179.8888	591.3065
4	0.0641	179.9827	1562.0749
5	248.4149	0.0468	-1558.322
6	248.3659	-0.0475	-584.5989
7	248.3759	0.0277	591.3264
8	248.4189	-0.0806	1562.0821

	C/L Offset	Length
Top Magnetic Structure	-0.096	3381.052
Bottom Magnetic Structure	0.096	3381.276
Strongback	0.266	3399.773

Dimensions in mm

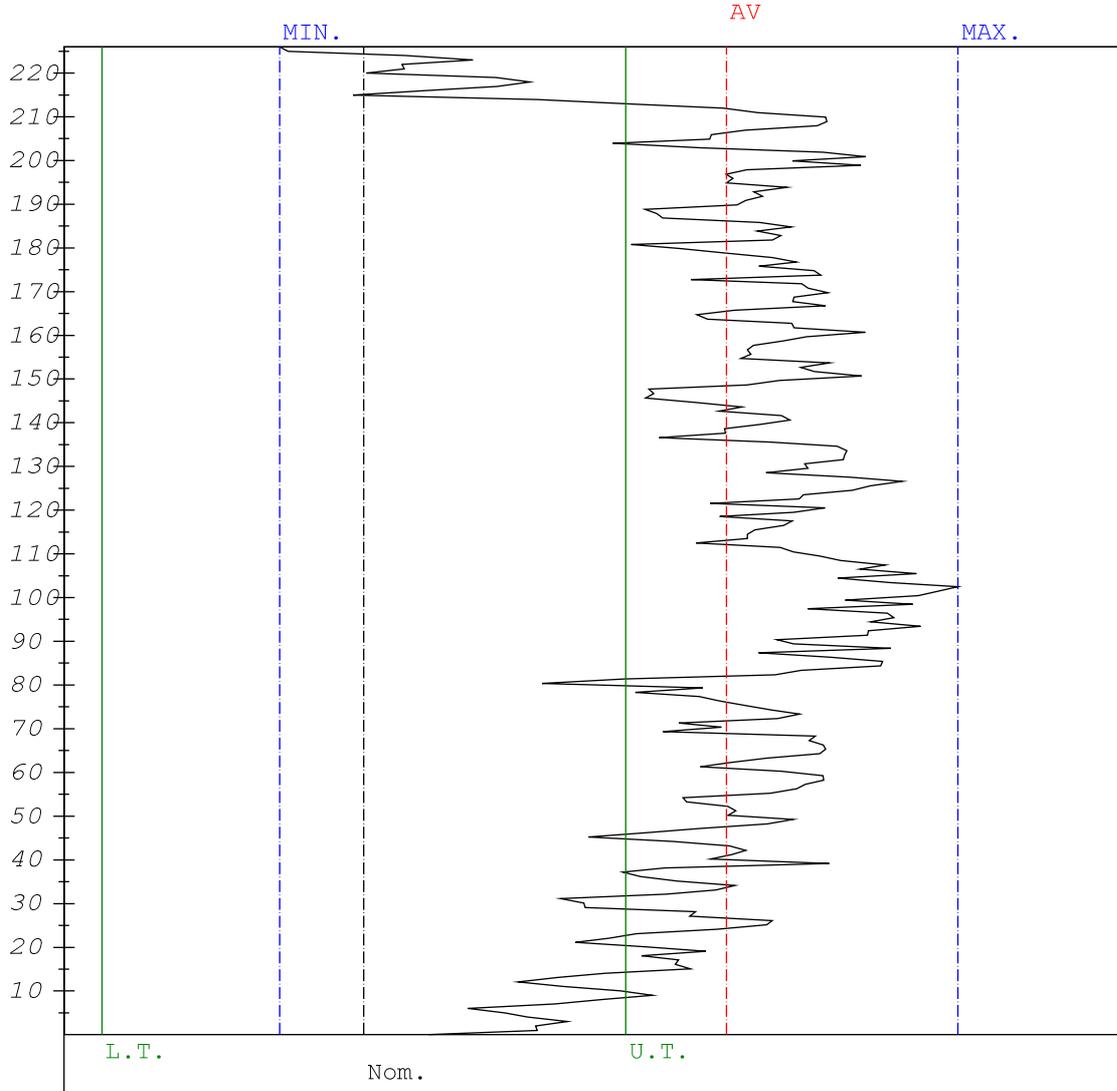
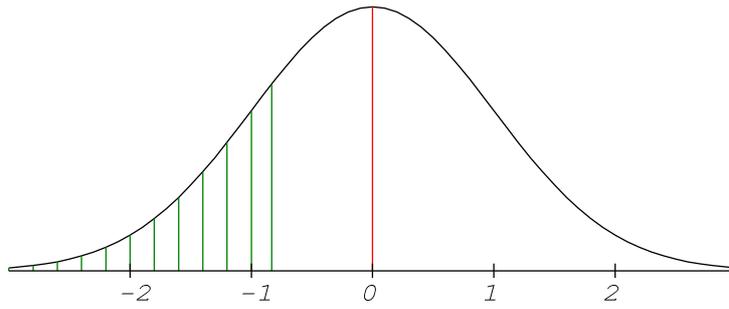
Angles in mrad



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Undulator Dimensional Fiducialization
Post Magnetic Alignment

DATE: 02-OCT-2007
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DATASET # 0003
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Nominal : 4.5000	Averag : 5.1925	Cent.-Dev. : 0.6925
Up. Tol. : 0.5	Maximum : 5.6342	U.Tol.Ex. > : 79.7 %
Low.Tol. : -0.5	Minimum : 4.3391	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2315	In Tolerance: 20.3 %
Outlier : 0	Distribution : NOR	Dimension : mrad

SLAC
 LCLS-MMF
 LEITZ CMM

Statistical Evaluation
 Pole Tip Gap Angle
 Post Magnetic Alignment

DATE: 02-OCT-2007
 UNDULATOR # 13
 DATASET # 0003
 PROGRAM VERSION 2.2