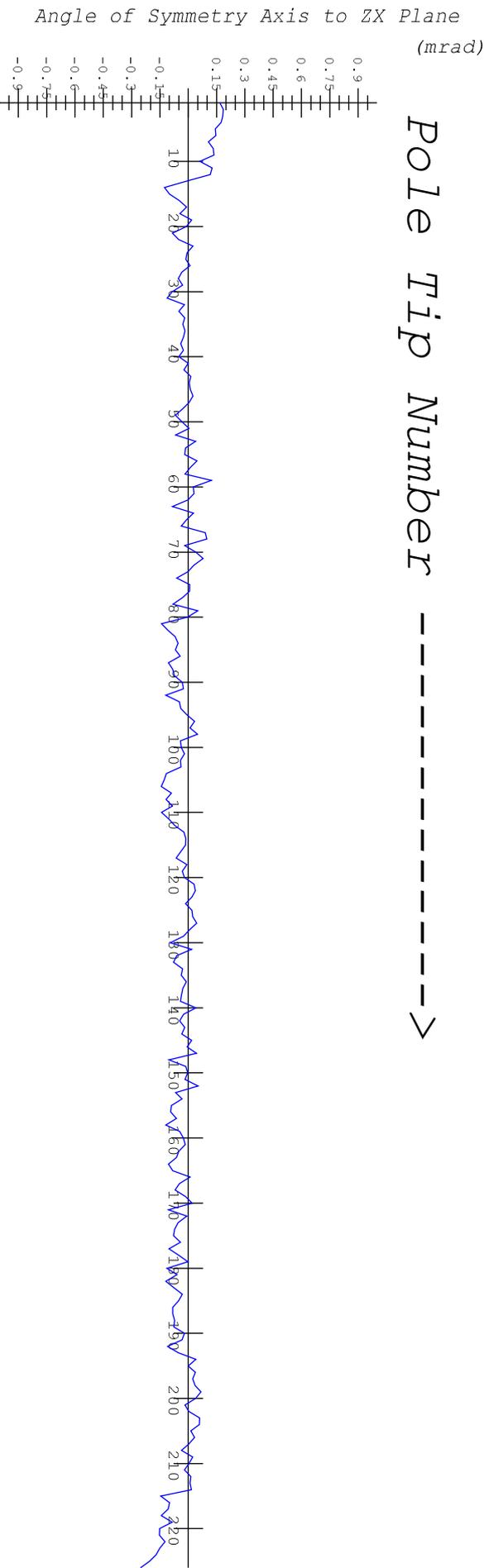


Pole Tip Number ----->



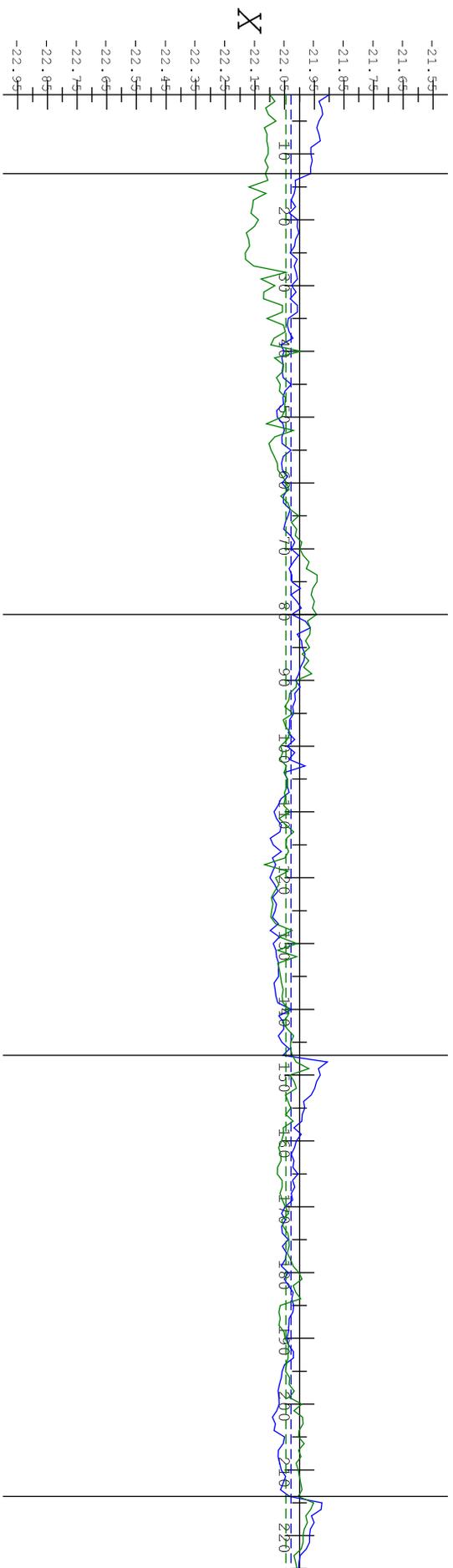
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips

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Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 16-JUN-2008
 UNDULATOR # 39
 DATASET # 0004
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Pole Tip Number ----->



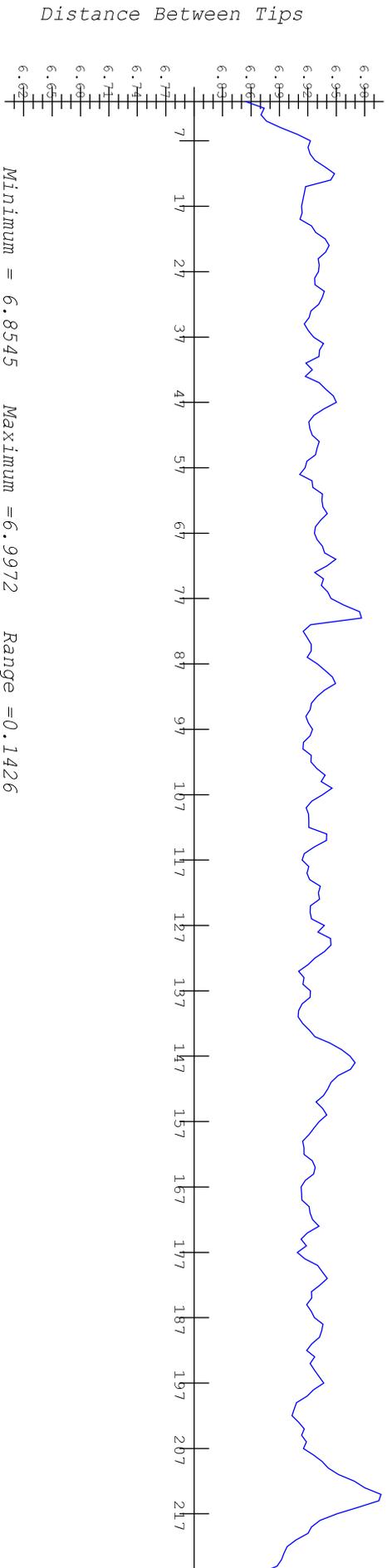
X values in mm

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 = -22.046
 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 = -22.029

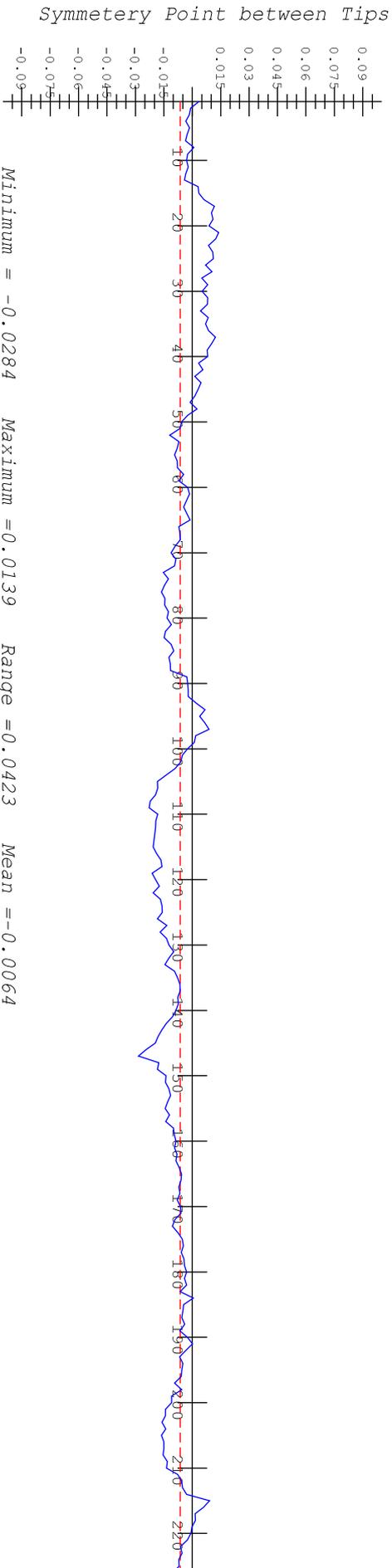
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Undulator Pole Tip Location
 Post Magnetic Alignment

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 DATASET # 0004
 PROGRAM VERSION 2.7



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

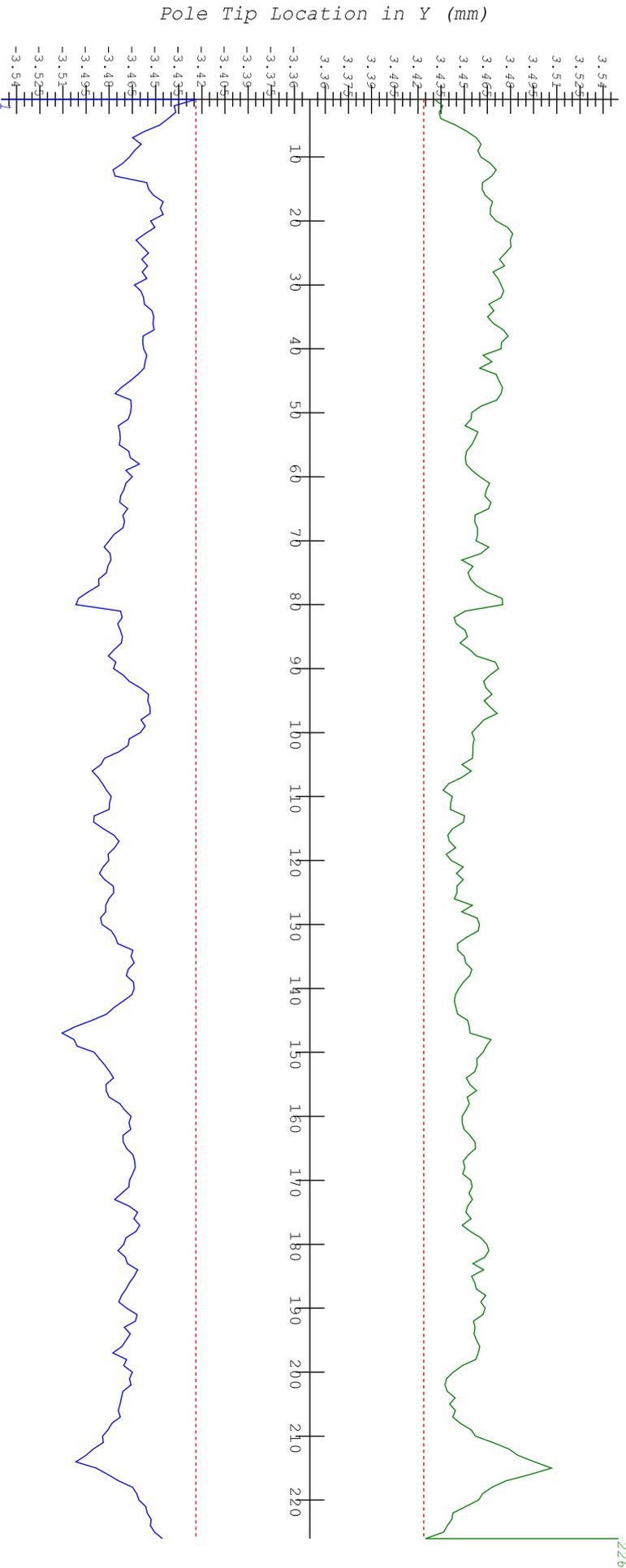
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Undulator Pole Tip Location
 Post Magnetic Alignment

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Maximum Chamber Gap = 6.8476

Minimum = 3.4250 Maximum = 3.5065 Range = 0.0815



Minimum = -3.5106 Maximum = -3.4238 Range = 0.0868

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

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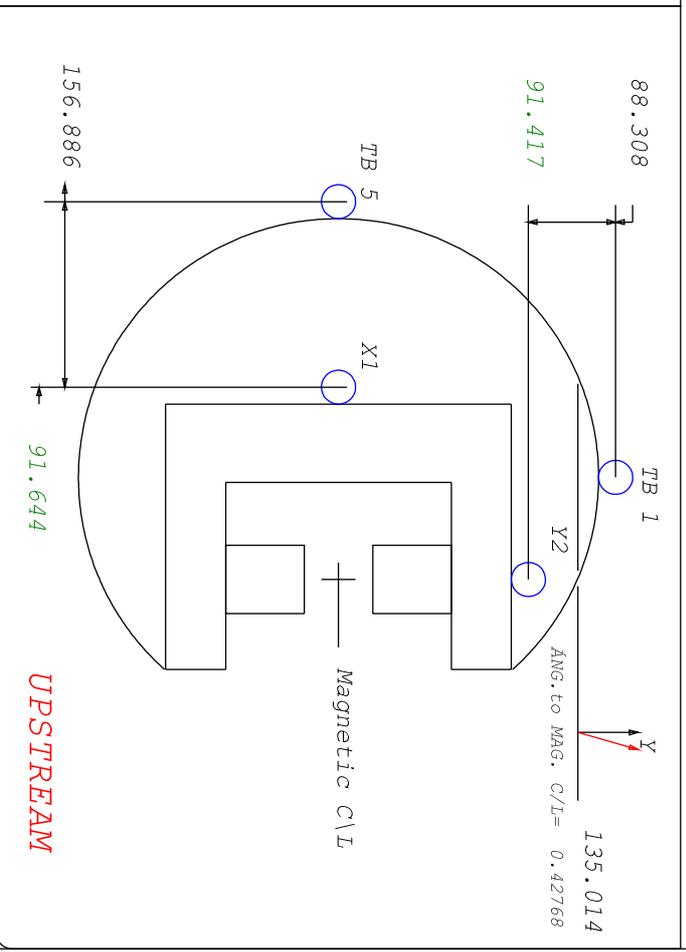
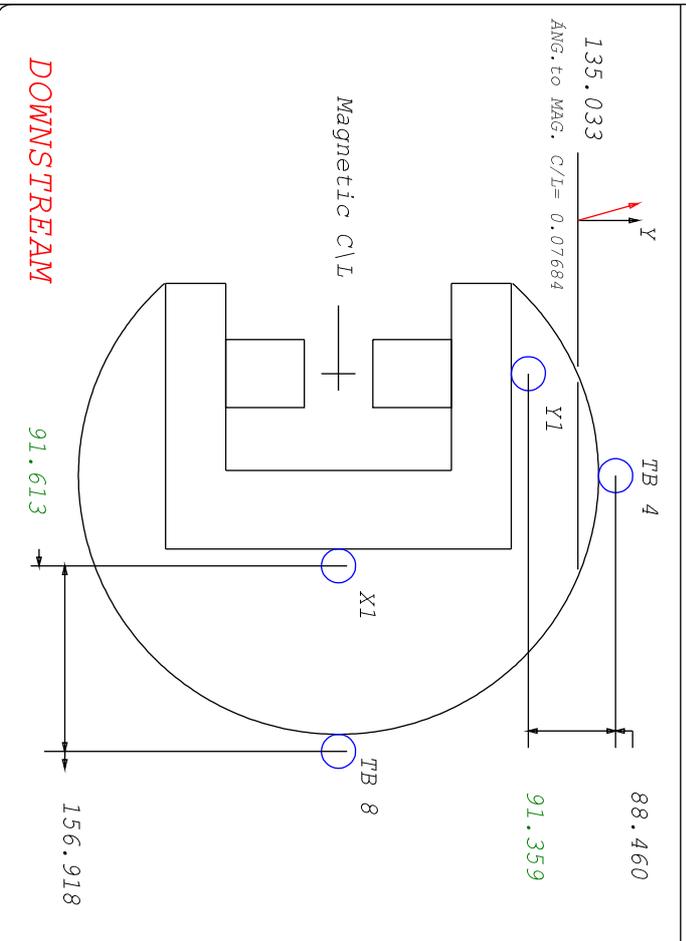
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.1311	179.7255	-1558.547
2	0.2984	179.8022	-584.8671
3	0.3558	179.7738	591.1051
4	0.3691	179.8187	1561.9972
5	248.5295	0.1703	-1558.478
6	248.5511	0.0729	-584.8651
7	248.6074	0.0905	591.2057
8	248.5311	0.1067	1561.9868

	C/L Offset	Length
Top Magnetic Structure	-0.001	3381.234
Bottom Magnetic Structure	0.001	3381.363
Strongback	0.149	3400.001

Dimensions in mm

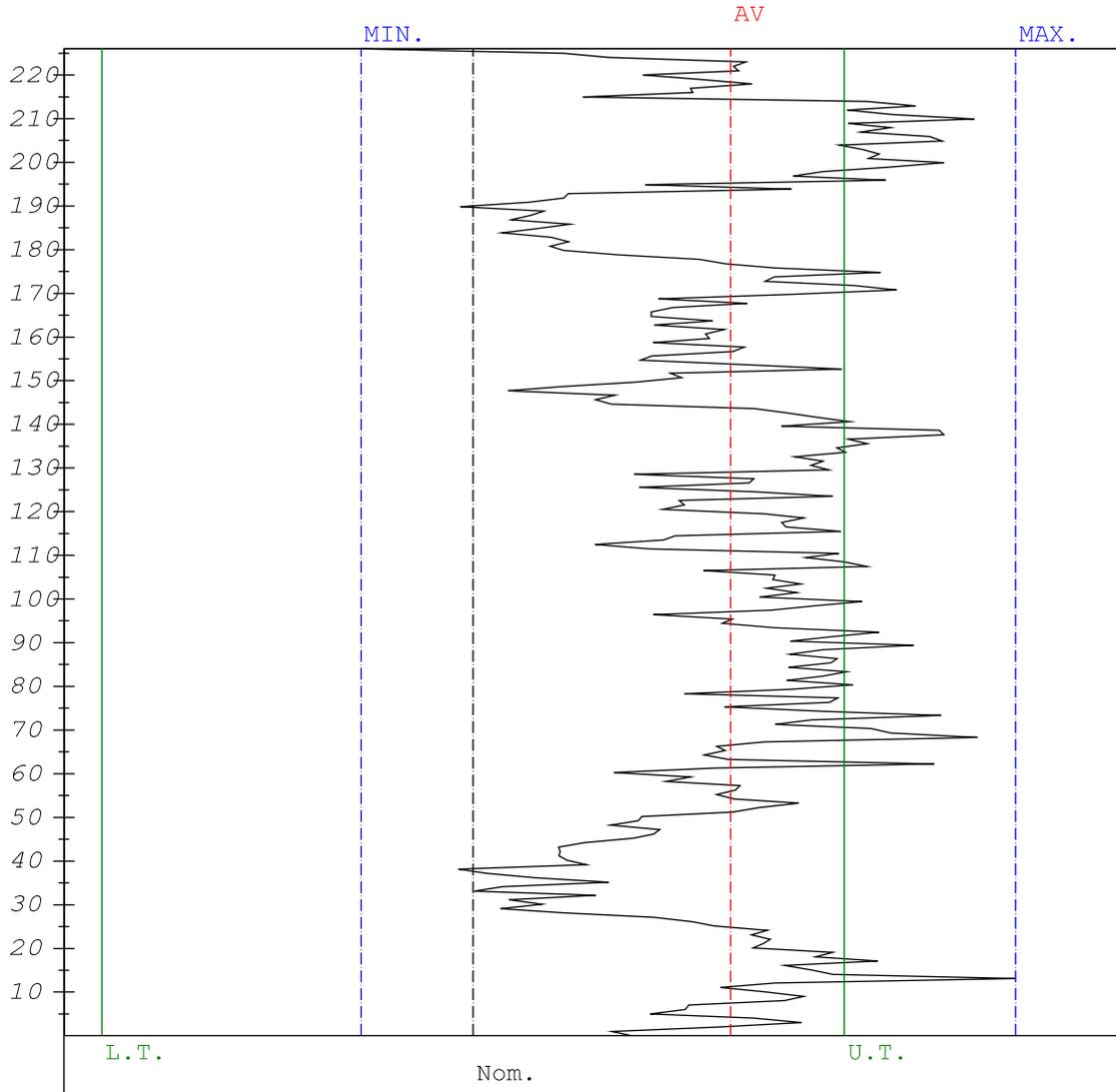
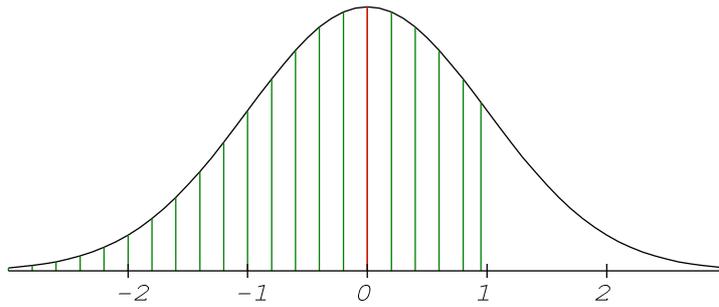
Angles in mrad



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Undulator Dimensional Fiducialization
Post Magnetic Alignment

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Nominal : 4.5000	Averag : 4.8473	Cent.-Dev. : 0.3473
Up. Tol. : 0.5	Maximum : 5.2313	U.Tol.Ex. > : 17.2 %
Low.Tol. : -0.5	Minimum : 4.3493	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1611	In Tolerance: 82.8 %
Outlier : 0	Distribution : NOR	Dimension : mrad

<p>SLAC LCLS-MMF LEITZ CMM</p>	<p>Statistical Evaluation Pole Tip Gap Angle Post Magnetic Alignment</p>	<p>DATE:16-JUN-2008 UNDULATOR # 39 DATASET # 0004 PROGRAM VERSION 2.7</p>
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