

Pole Tip Number ----->

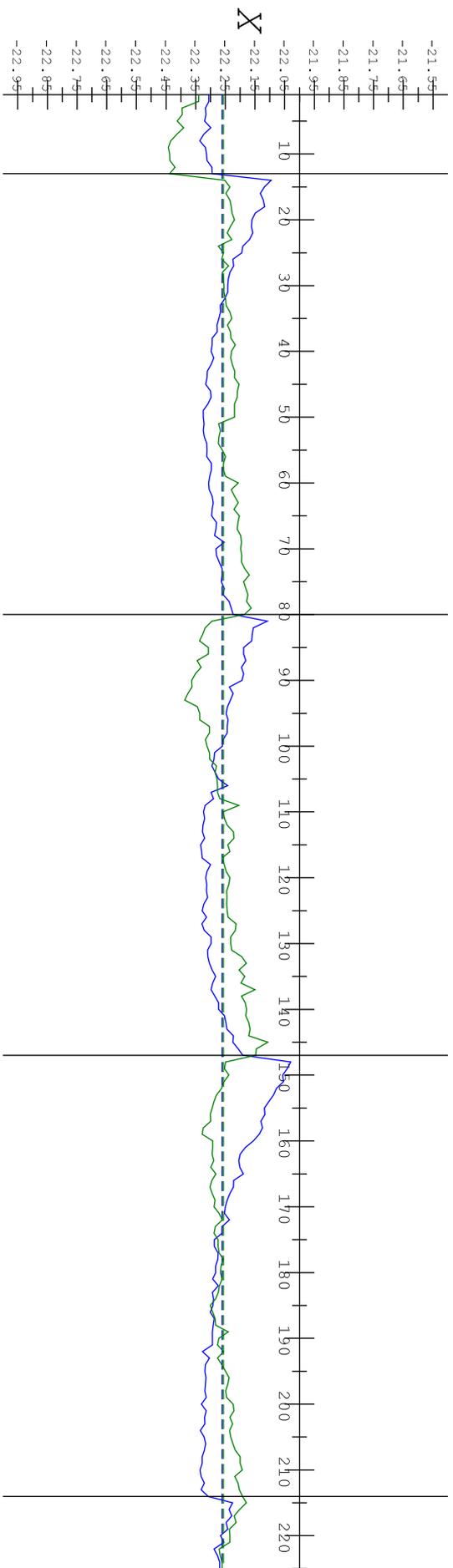
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips

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Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 28-OCT-2008
 UNDULATOR # 20
 DATASET # 0004
 PROGRAM VERSION 2.7

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 = -22.257

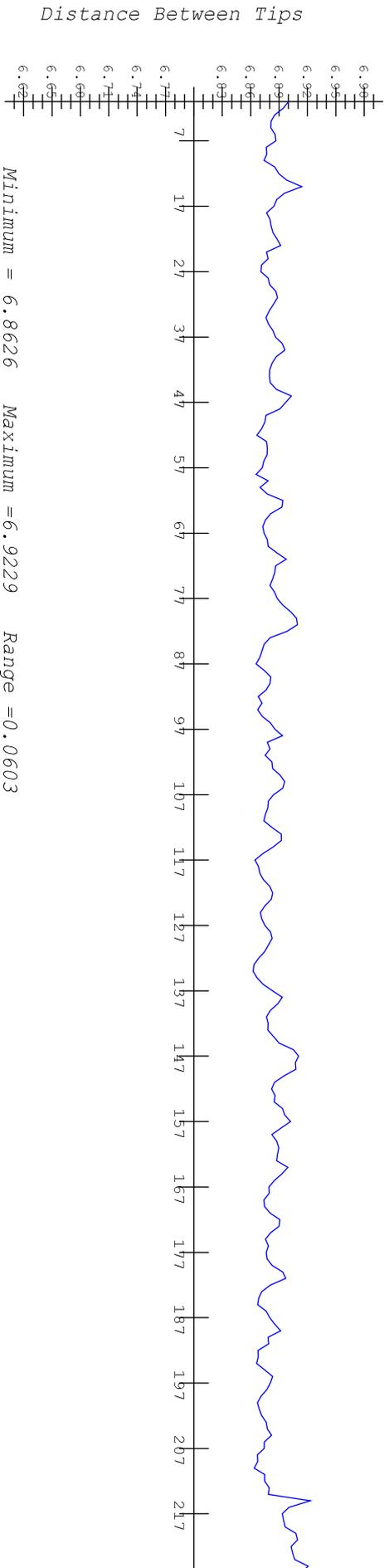
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -22.261

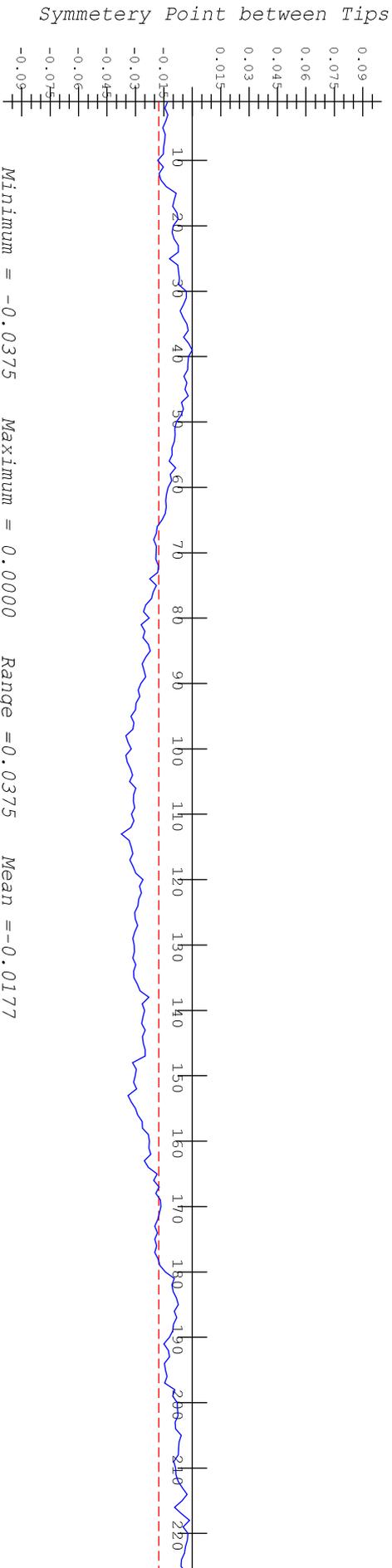
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Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 28-OCT-2008
 UNDULATOR # 20
 DATASET # 0004
 PROGRAM VERSION 2.7



Pole Tip Number ----->



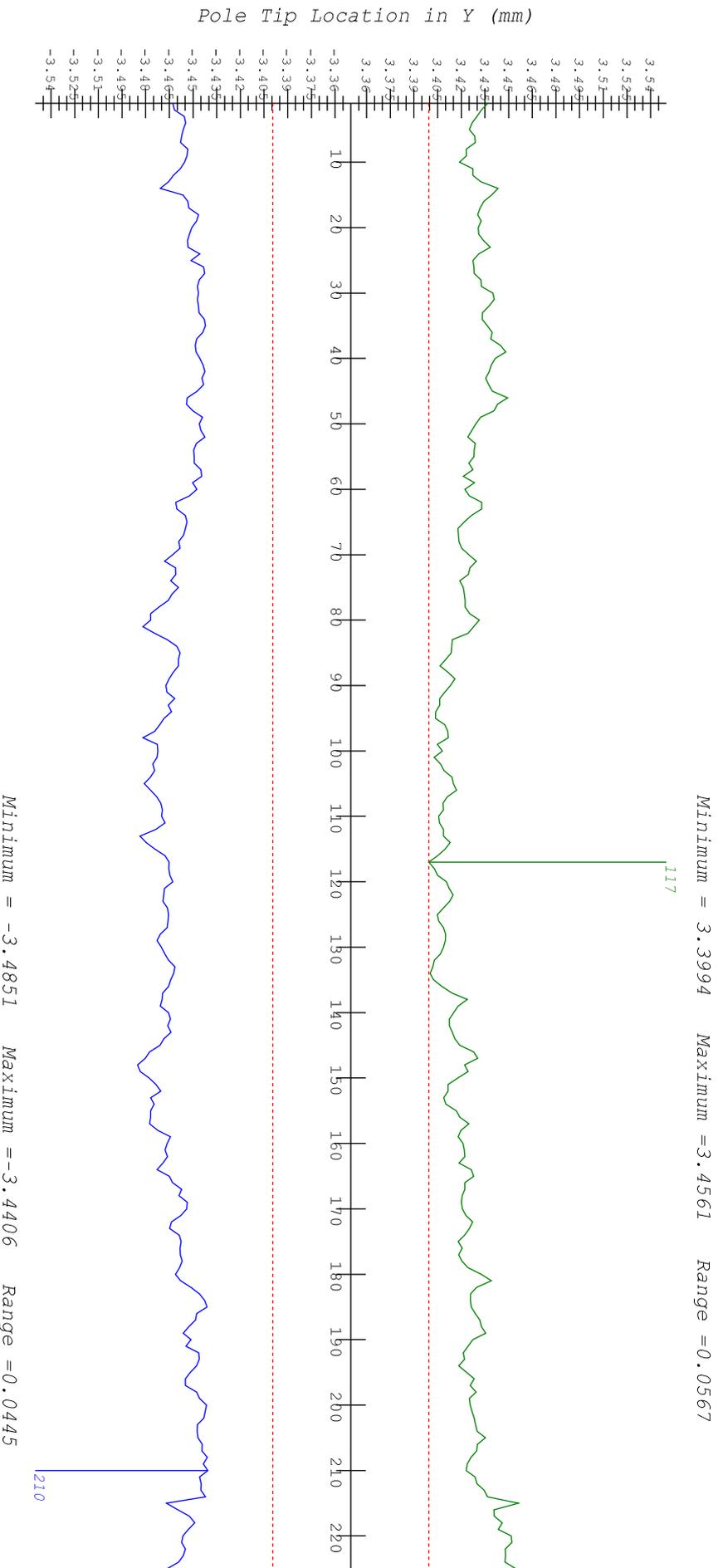
Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L
 Broken Red line is Mean Value of Symmetry Points
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L

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Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 28-OCT-2008
 UNDUULATOR # 20
 DATASET # 0004
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Maximum Chamber Gap = 6.7988



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: 28-OCT-2008
UNDULATOR # 20
DATASET # 0004
PROGRAM VERSION 2.7



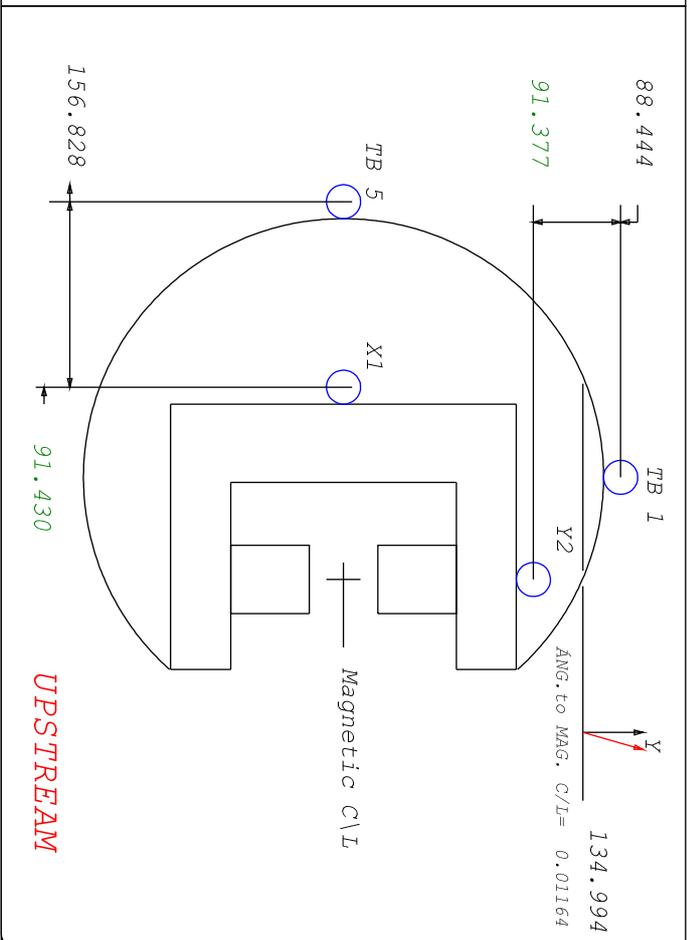
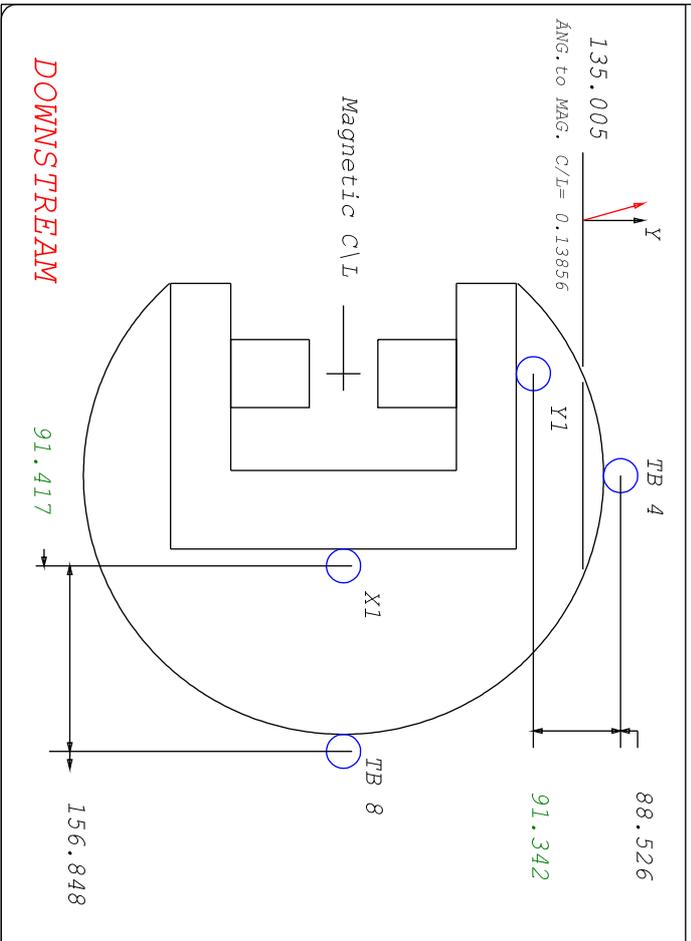
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	-0.1234	179.8207	-1558.367
2	0.0574	179.7325	-584.7391
3	0.0639	179.7539	591.2009
4	0.1427	179.8684	1562.1098
5	248.2580	0.0933	-1558.291
6	248.3023	0.0303	-584.7578
7	248.2762	0.1016	591.3905
8	248.2654	0.0669	1562.2061

	C/L Offset	Length
Top Magnetic Structure	-0.052	3380.922
Bottom Magnetic Structure	0.052	3381.109
Strongback	0.314	3399.993

Dimensions in mm

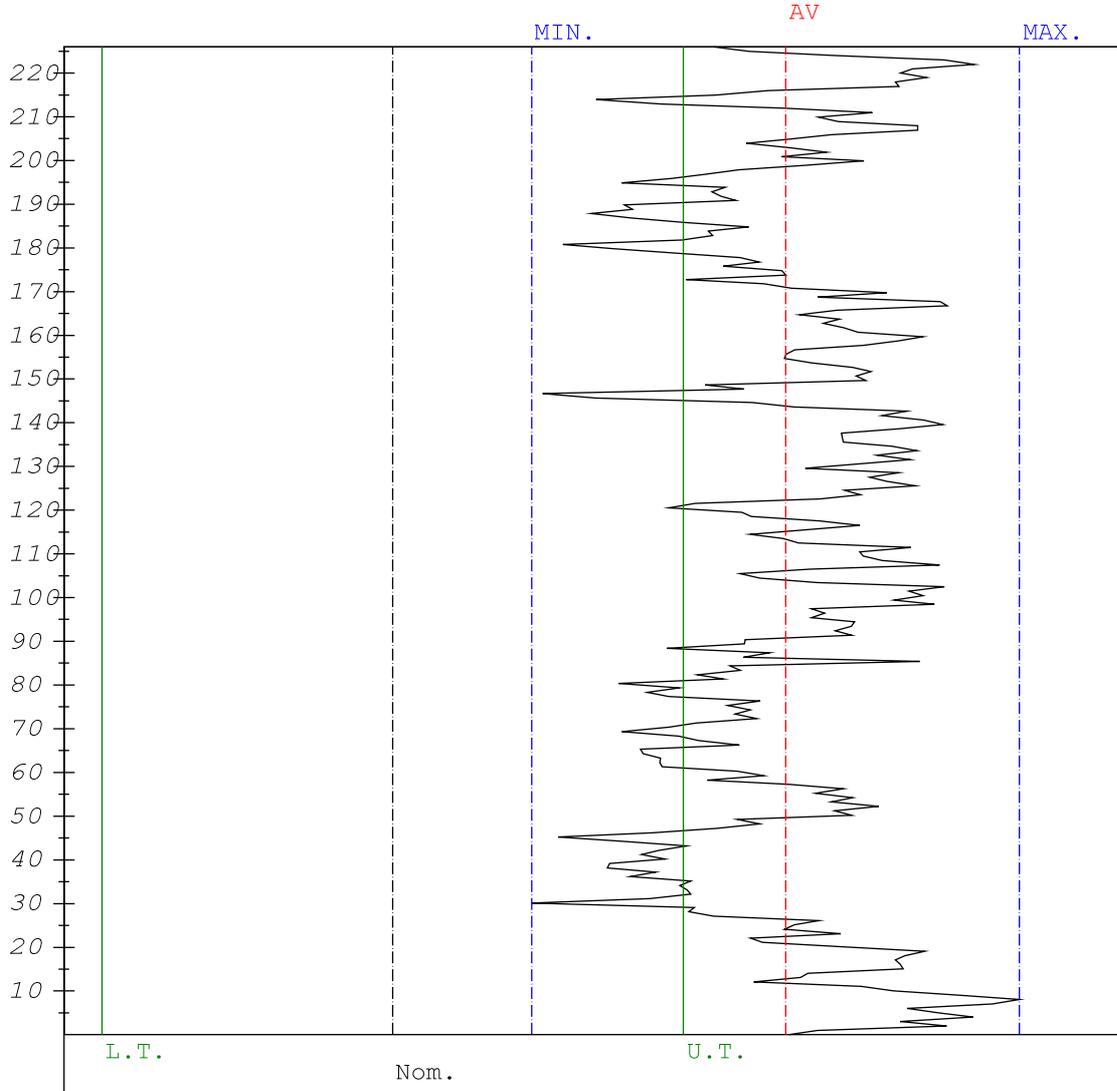
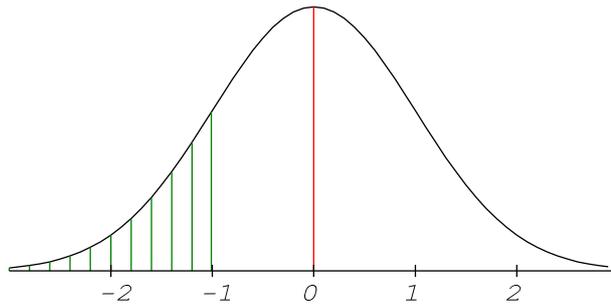
Angles in mrad



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Undulator Fiducialization
Post Magnetic Alignment

DATE: 28-OCT-2008
UNDULATOR # 20
DATASET # 0004
PROGRAM VERSION 2.7



Nominal : 4.5000	Averag : 5.1765	Cent.-Dev. : 0.6765
Up. Tol. : 0.5	Maximum : 5.5785	U.Tol.Ex. > : 84.4 %
Low.Tol. : -0.5	Minimum : 4.7393	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1746	In Tolerance: 15.6 %
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: 28-OCT-2008 UNDULATOR # 20 DATASET # 0004 PROGRAM VERSION 2.7</p>
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