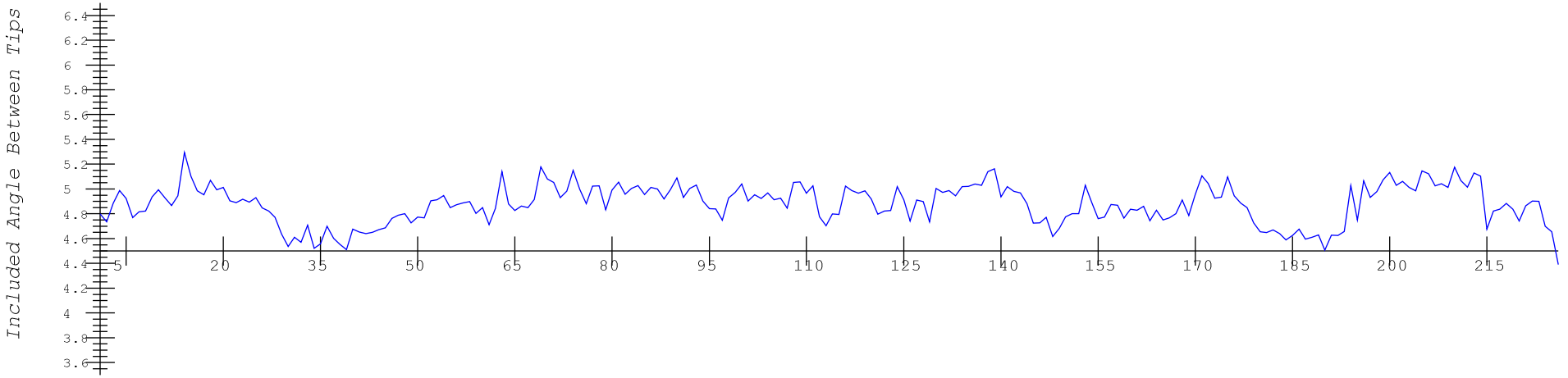
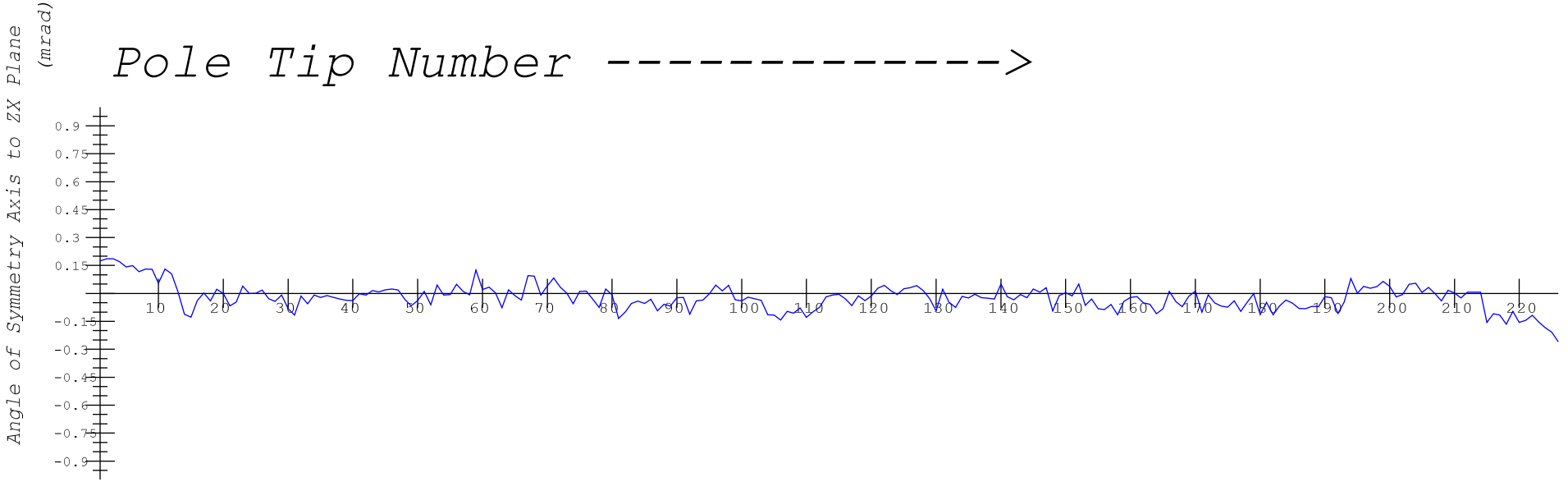


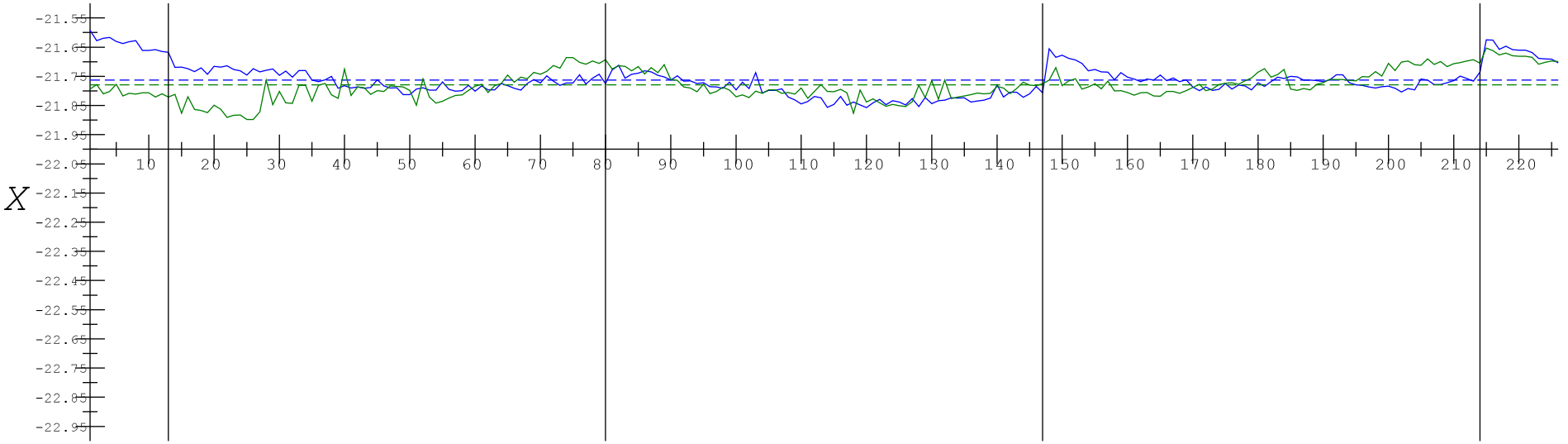
Pole Tip Number ---------->



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

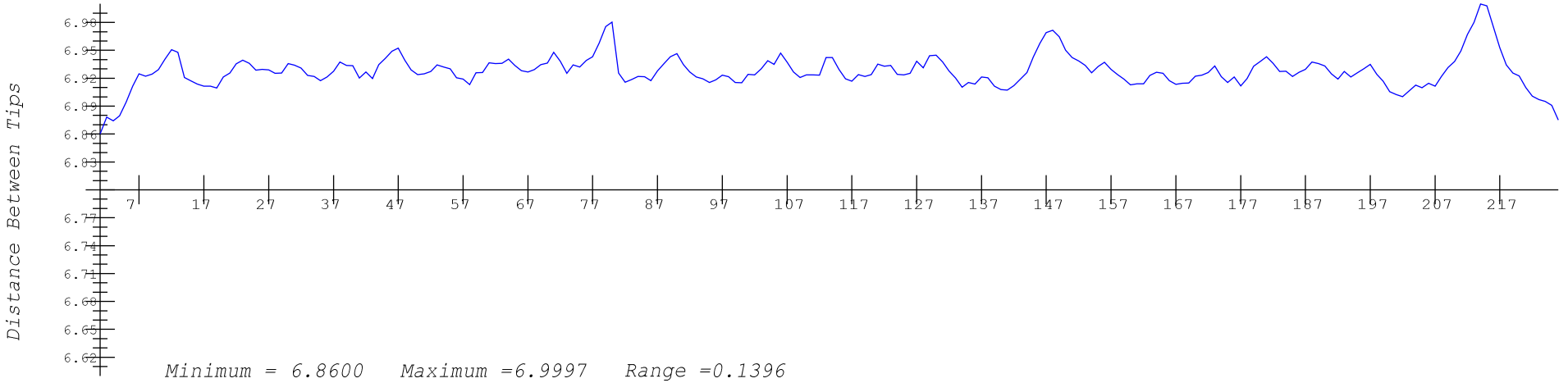
SLAC LCLS-MMF LEITZ CMM	*Undulator Pole Tip Angles* *Post Magnetic Alignment*	*DATE:17-JAN-2008* *UNDULATOR # 39* *DATASET # 0002* *PROGRAM VERSION 2.5*

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 = -21.780
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 = -21.762

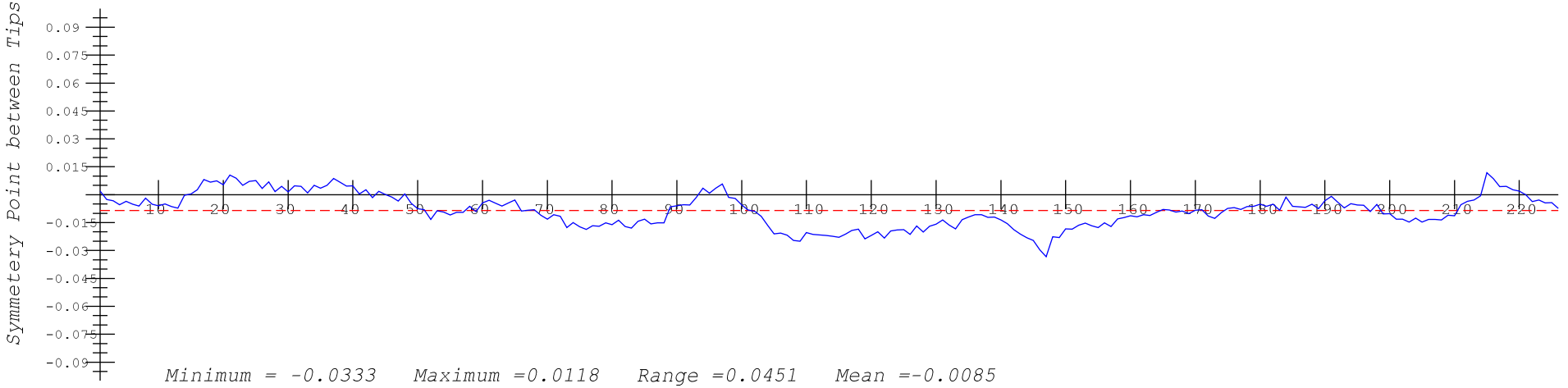
SLAC LCLS-MMF LEITZ CMM	Undulator Pole Tip Location Post Magnetic Alignment	DATE:17-JAN-2008 UNDULATOR # 39 DATASET # 0002 PROGRAM VERSION 2.5



Minimum = 6.8600 Maximum =6.9997 Range =0.1396

Pole Tip Number ---------->

in mm

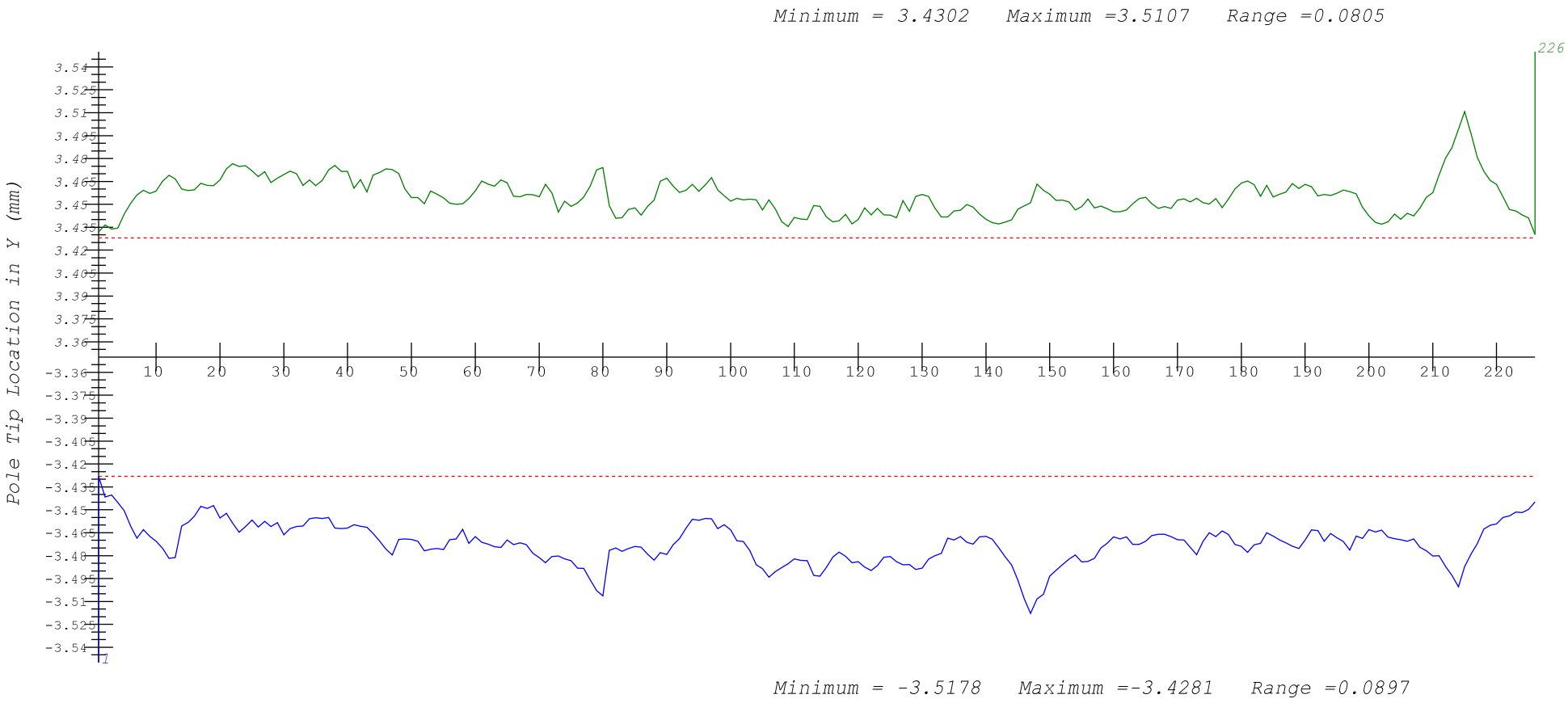


Minimum = -0.0333 Maximum =0.0118 Range =0.0451 Mean =-0.0085

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 Symmetery 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 Magnetic Alignment*	*DATE:17-JAN-2008* *UNDULATOR # 39* *DATASET # 0002* *PROGRAM VERSION 2.5*

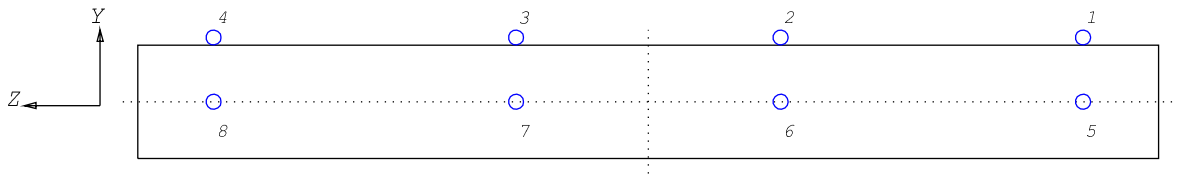
Maximum Chamber Gap = 6.8561



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 Magentic C\L (2*Min. Dev. from C\L)

SLAC LCLS-MMF LEITZ CMM	Undulator Pole Tip Location Post Magnetic Alignment	DATE:17-JAN-2008 UNDULATOR # 39 DATASET # 0002 PROGRAM VERSION 2.5

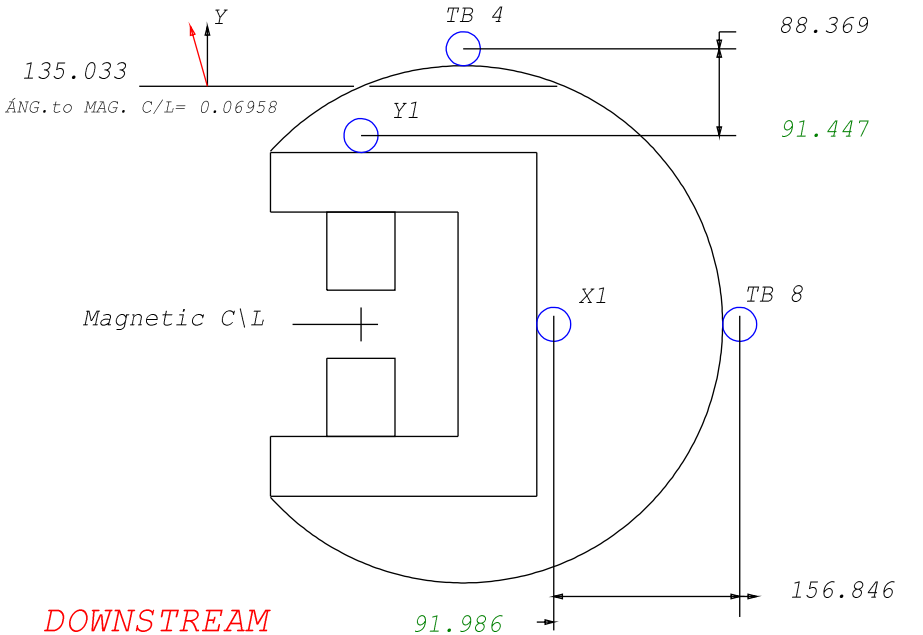


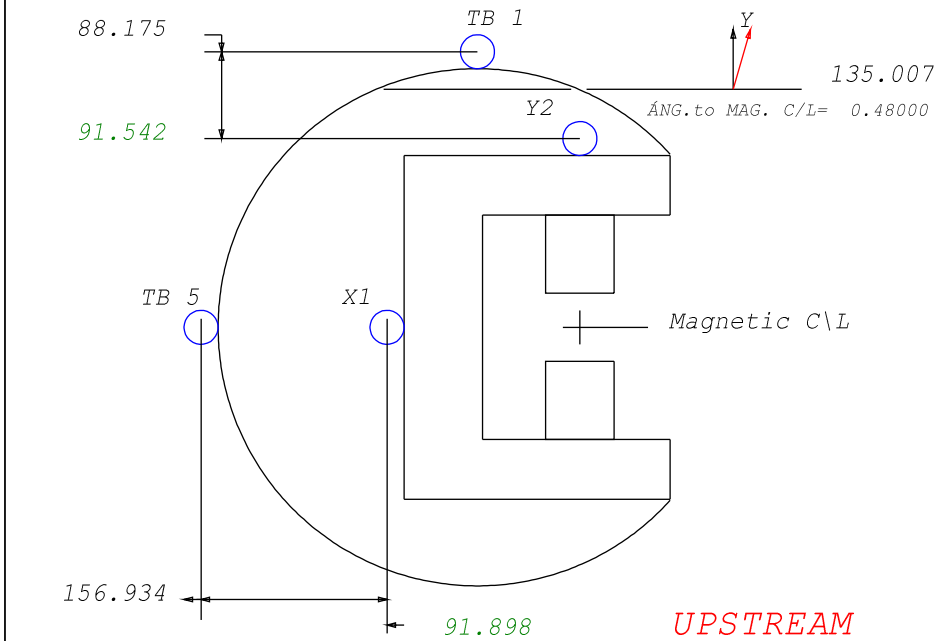
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.4366	179.7170	-1558.556
2	0.5517	179.7917	-584.8721
3	0.6060	179.7656	591.1089
4	0.6720	179.8162	1562.0067
5	248.8324	0.1633	-1558.476
6	248.8032	0.0645	-584.8670
7	248.8577	0.0787	591.1951
8	248.8323	0.1048	1561.9727

	C\L Offset	Length
Top Magnetic Structure	-0.001	3381.255
Bottom Magnetic Structure	0.001	3381.383
Strongback	-0.033	3400.349

Dimensions in mm Angles in mrad





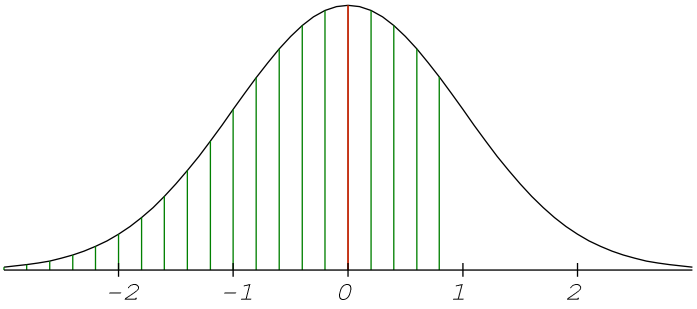
SLAC
LCLS-MMF
LEITZ CMM

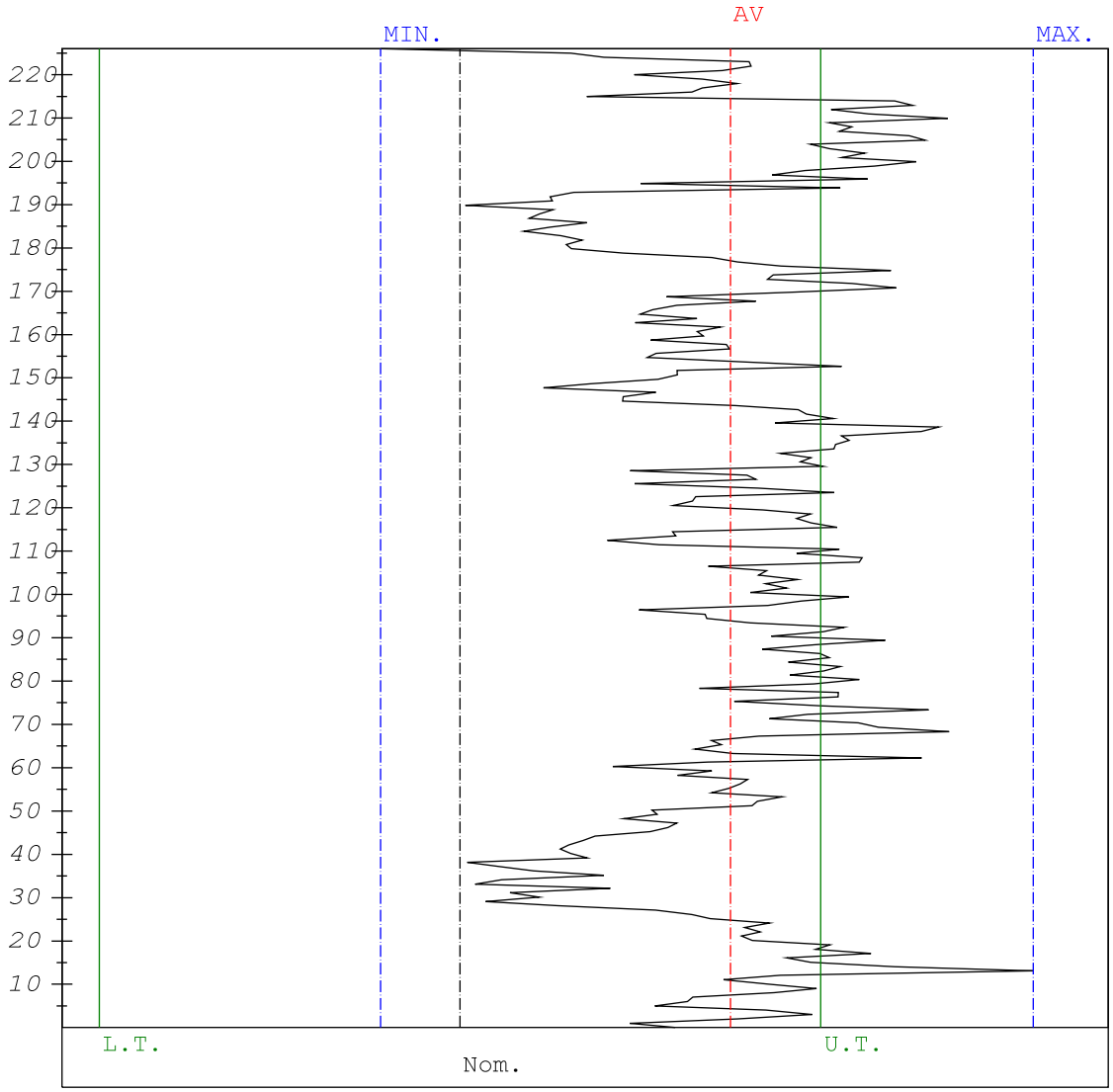
Undulator Dimensional Fiducialization
Post Magnetic Alignment

DATE:17-JAN-2008

UNDULATOR # 39
DATASET # 0002

PROGRAM VERSION 2.5





Nominal : 4.5000	Averag :4.8752	Cent.-Dev. :0.3752
Up. Tol. :0.5	Maximum : 5.2947	U.Tol.Ex. > : 21.4 %
Low.Tol. :-0.5	Minimum : 4.3900	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1572	In Tolerance: 78.6 %
Outlier : 0	Distribution : NOR	Dimension : mrad

SLAC LCLS-MMF LEITZ CMM	Statistical Evaluation Pole Tip Gap Angle *Post Magnetic Alignment*	*DATE:17-JAN-2008* *UNDULATOR # 39* *DATASET # 0002* *PROGRAM VERSION 2.5*