

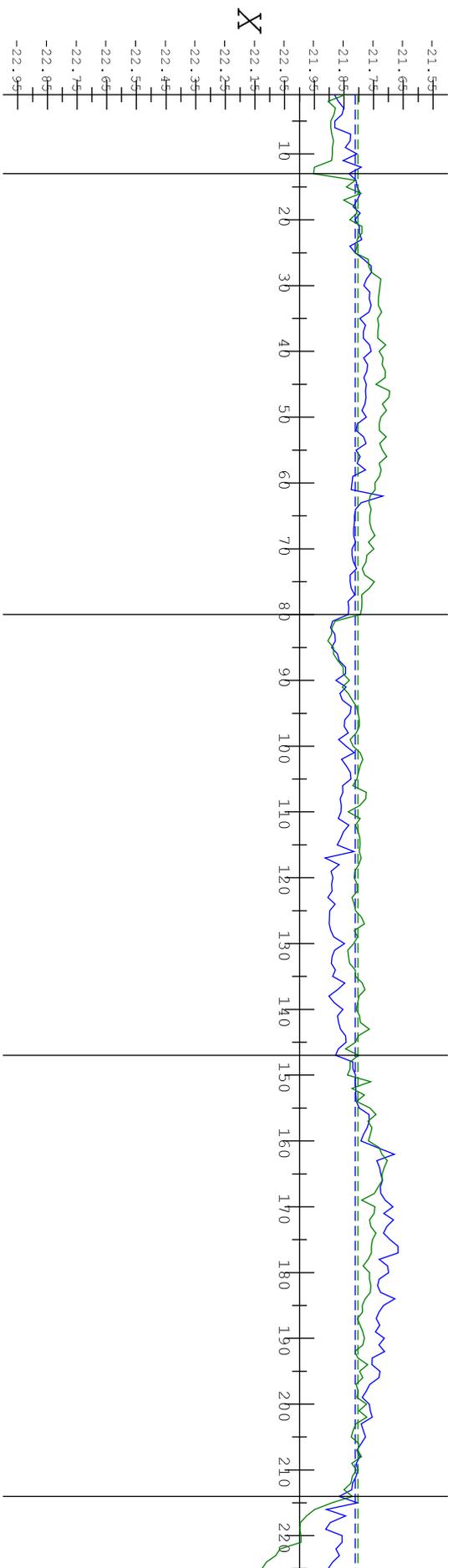
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 05-APR-2010
 UNDULATOR #13
 DATASET #0028
 PROGRAM VERSION 2.9

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 = -21.803

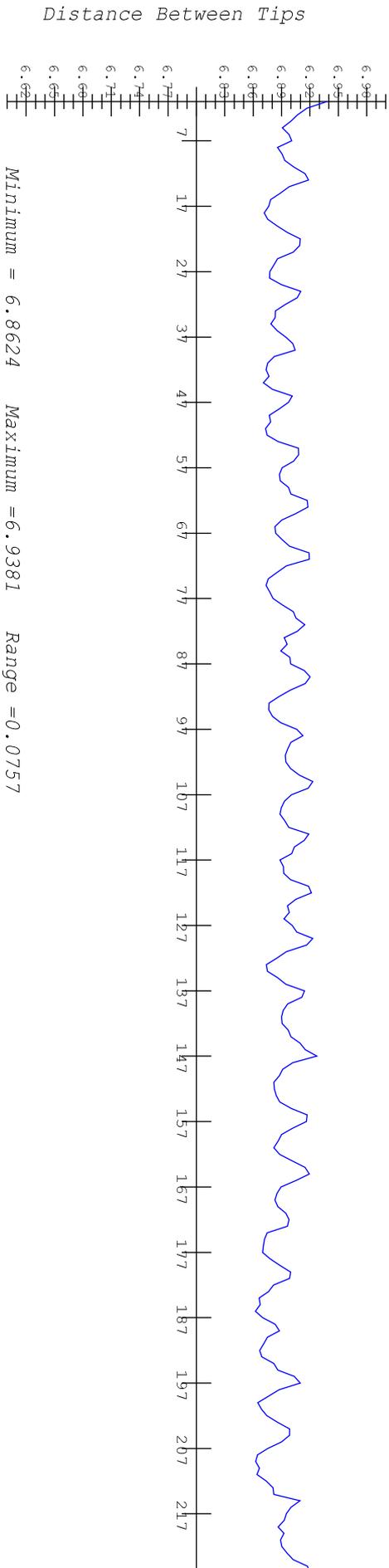
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -21.812

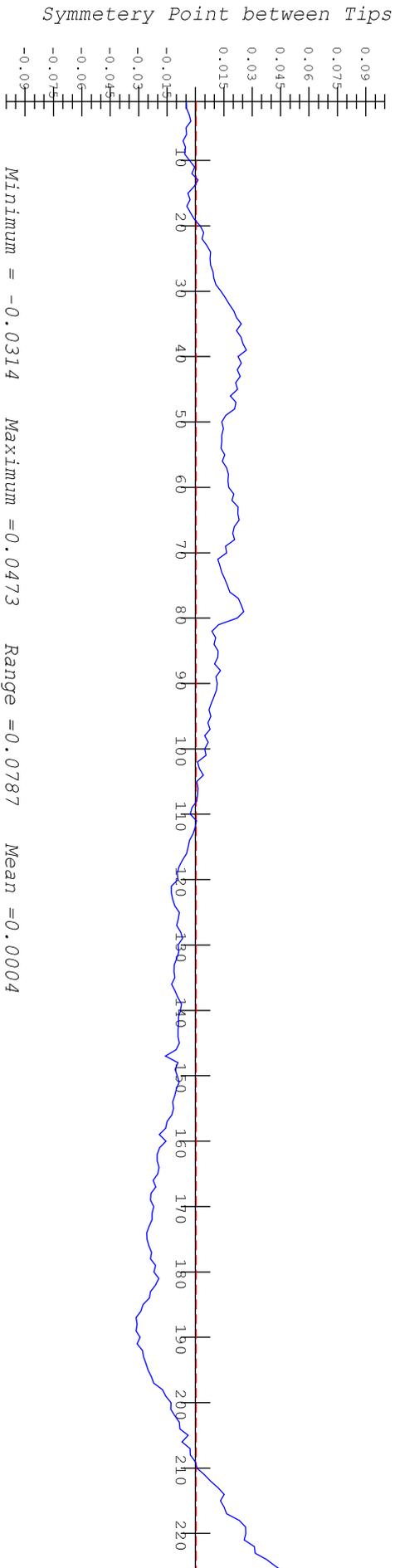


Undulator Pole Tip Location
Post Magnetic Alignment

DATE: 05-APR-2010
UNDULATOR #13
DATASET #0028
PROGRAM VERSION 2.9



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

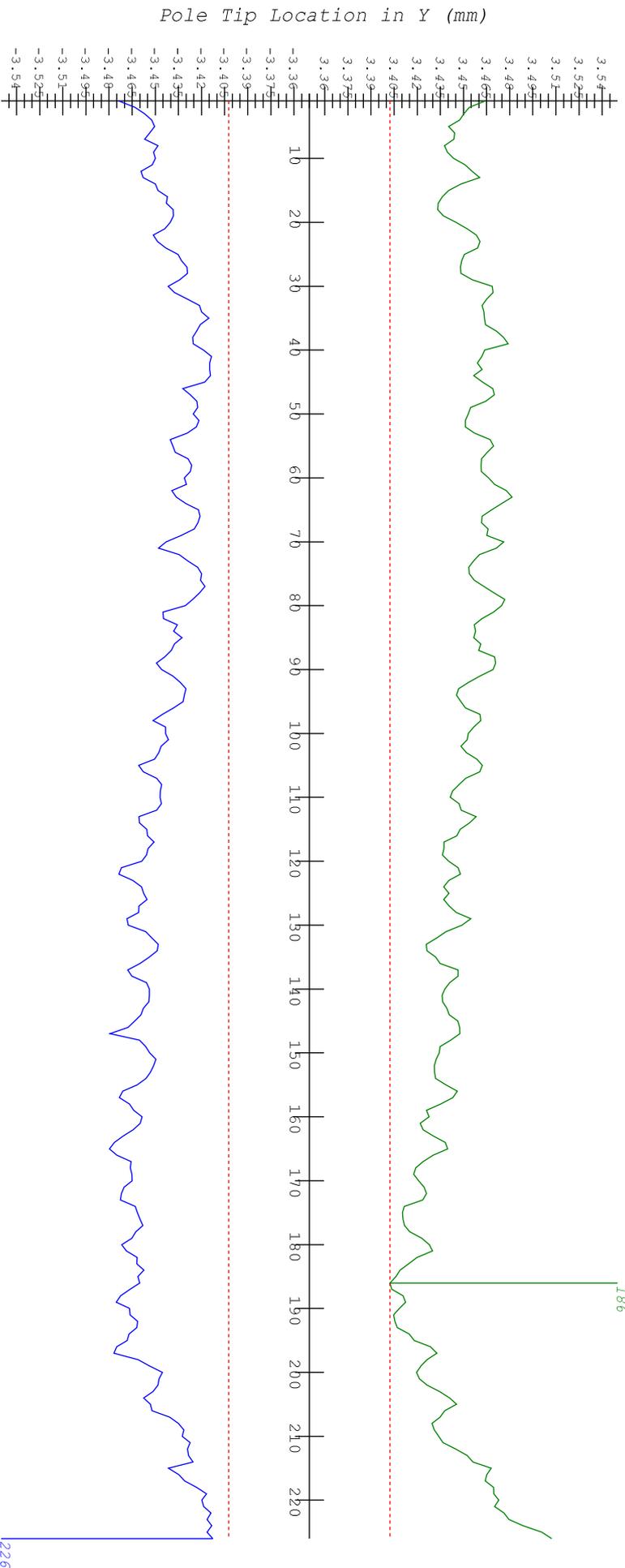


Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 05-APR-2010
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Maximum Chamber Gap = 6.8047

Minimum = 3.4024 Maximum = 3.5072 Range = 0.1048



Minimum = -3.4797 Maximum = -3.4126 Range = 0.0670

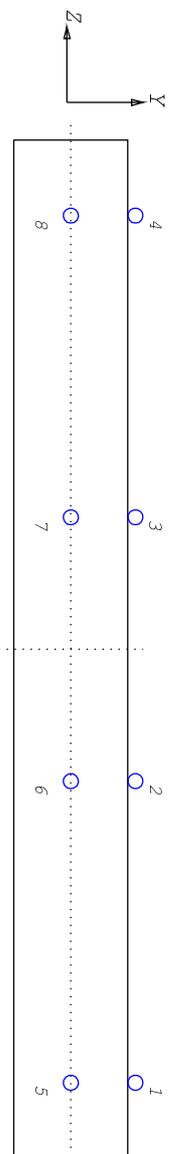
Pole Tip Number ----->

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)



Undulator Pole Tip Location
Post Magnetic Alignment

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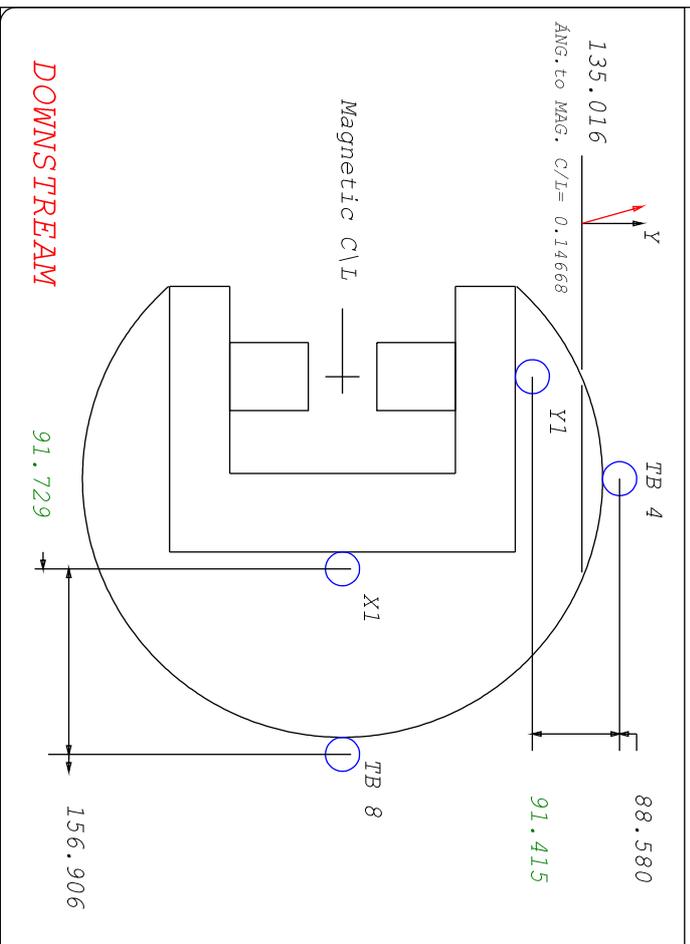
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.2746	179.9955	-1558.285
2	0.4291	180.0188	-584.4527
3	0.3245	179.8991	591.3047
4	0.2802	179.9950	1562.0725
5	248.6084	0.0815	1558.350
6	248.5756	-0.0172	-584.6004
7	248.5937	0.0448	591.3260
8	248.6355	-0.0603	1562.0854

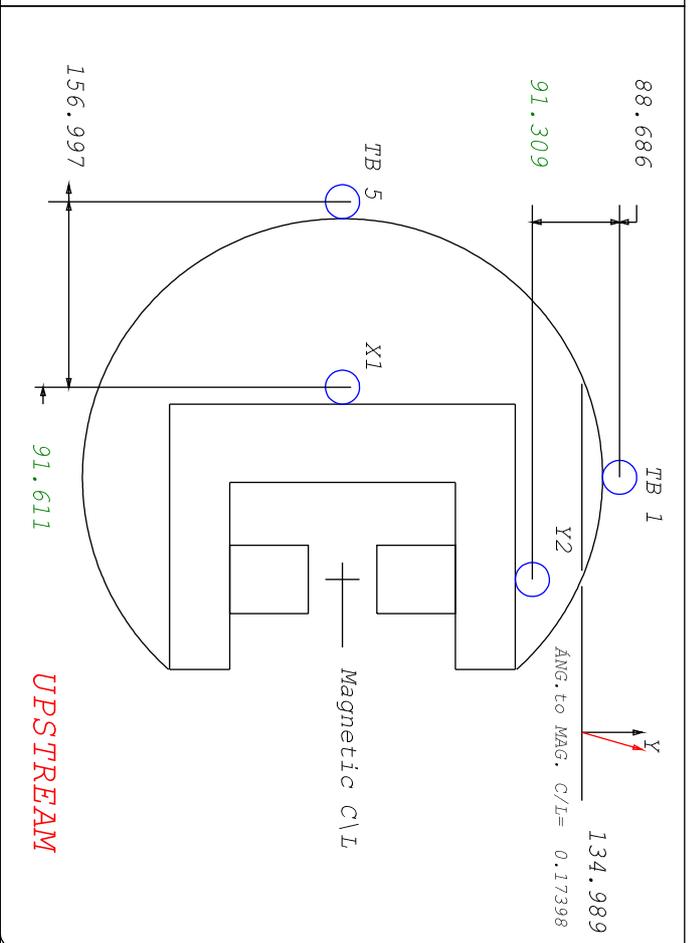
	C/L Offset	Length
Top Magnetic Structure	-0.096	3381.051
Bottom Magnetic Structure	0.096	3381.276
Strongback	0.250	3399.775

Dimensions in mm

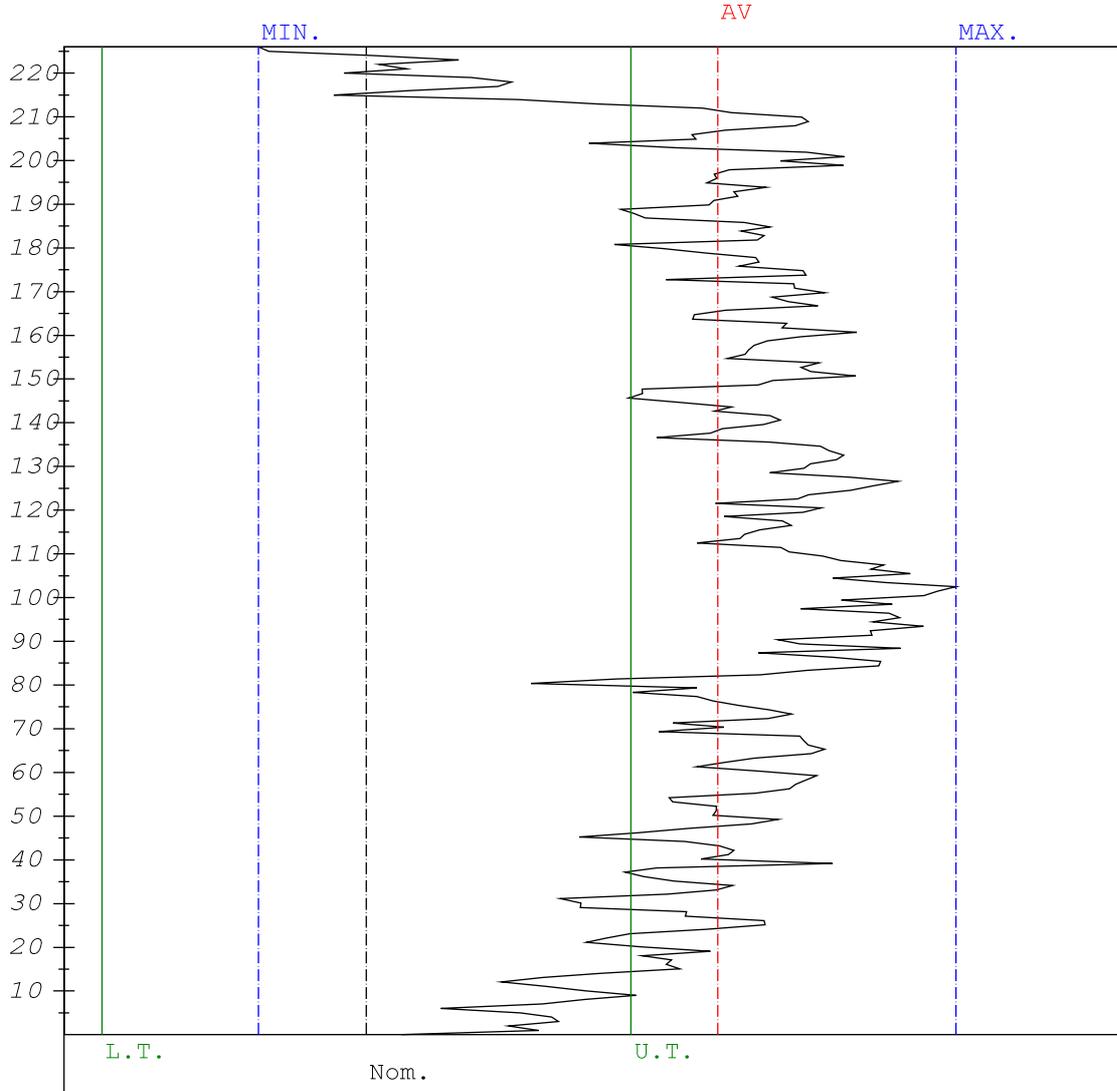
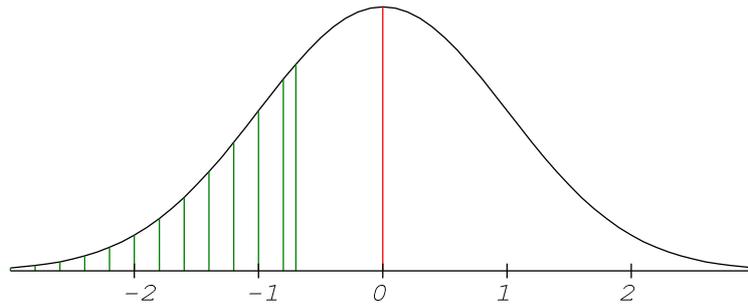
Angles in mrad



DOWNSTREAM



UPSTREAM



Nominal : 4.5000	Averag : 5.1647	Cent.-Dev. : 0.6647
Up. Tol. : 0.5	Maximum : 5.6151	U.Tol.Ex. > : 75.8 %
Low.Tol. : -0.5	Minimum : 4.2960	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2349	In Tolerance: 24.2 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment

DATE: 05-APR-2010

UNDULATOR #13
DATASET #0028

PROGRAM VERSION 2.9