Included Angle Between Tips

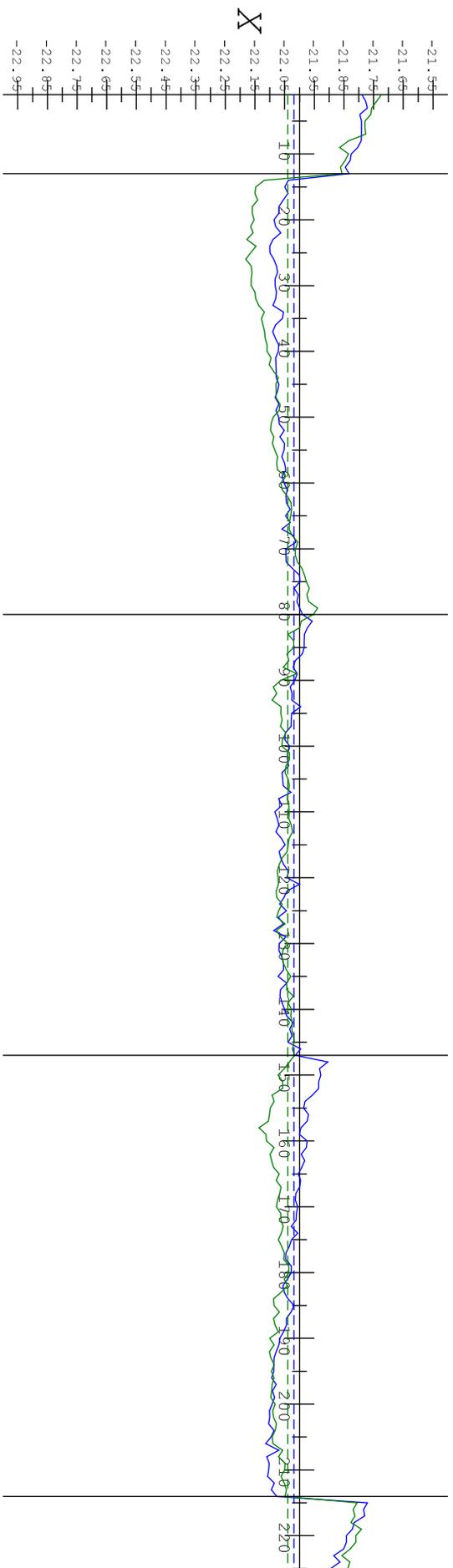Angle of Symmetry Axis to ZX Plane

(mrad)

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

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

X

Undulator Pole Tip Location
Post Magnetic Alignment

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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 = -22.040
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 = -22.019

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Distance Between Tips

in mm

Symmetery Point between Tips

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

Minimum = 6.8653   Maximum =6.9520   Range =0.0867

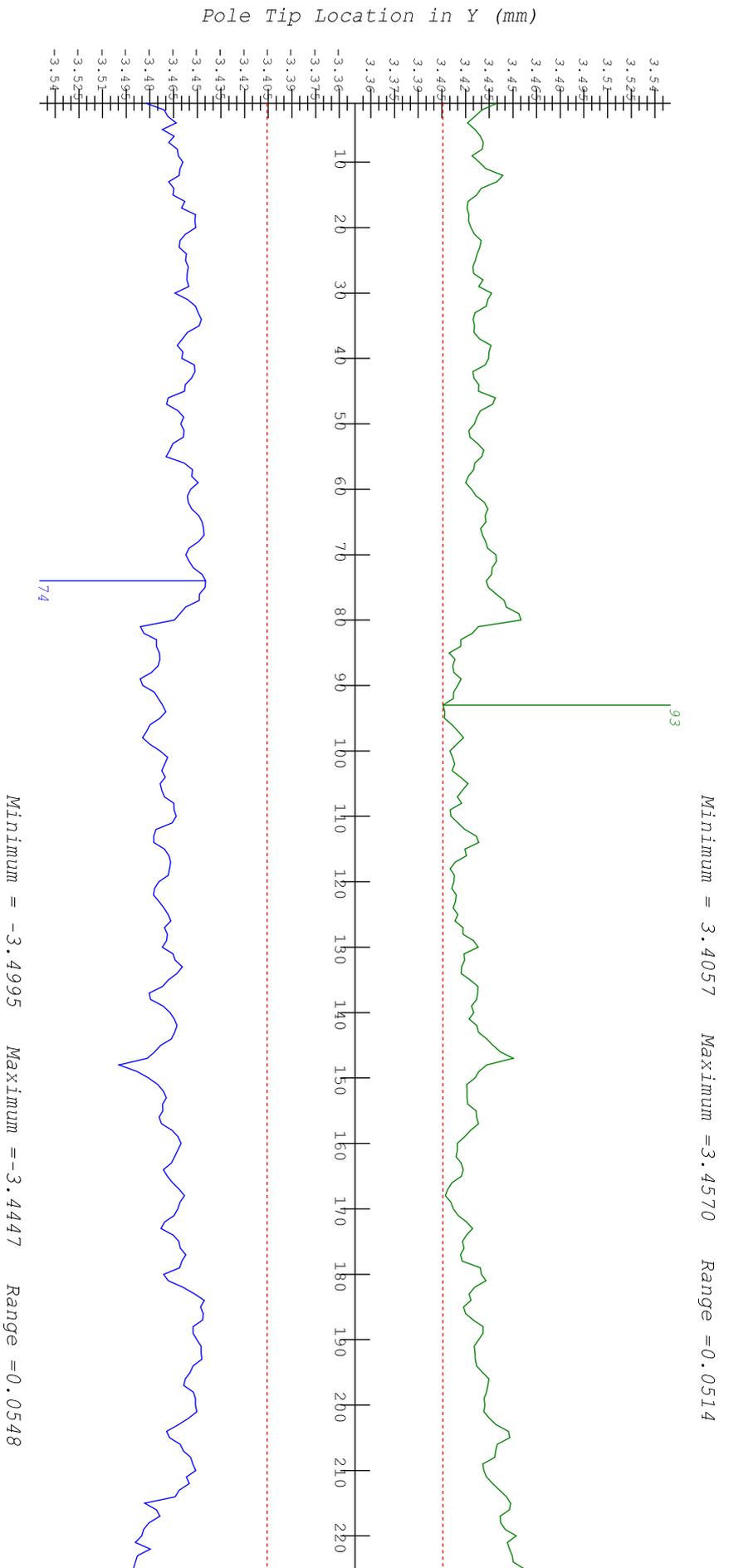Minimum = -0.0347   Maximum =-0.0022   Range =0.0325   Mean =-0.0190
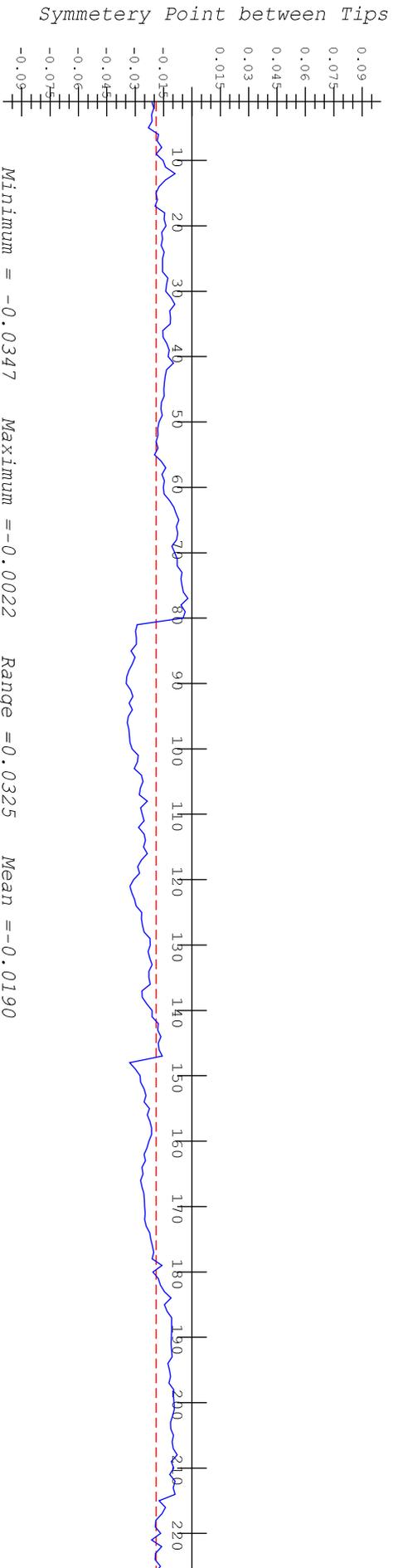
Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L

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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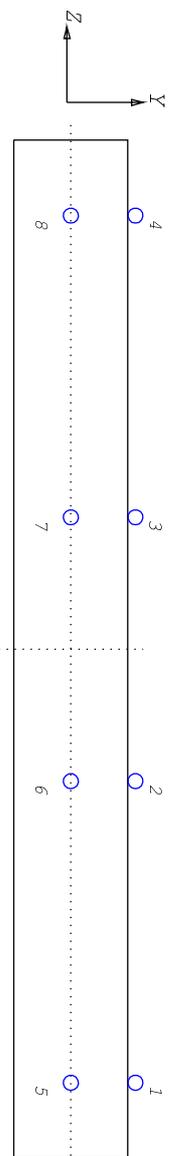DATASET   # 0005
PROGRAM VERSION 2.9

Maximum Chamber Gap = 6.8114
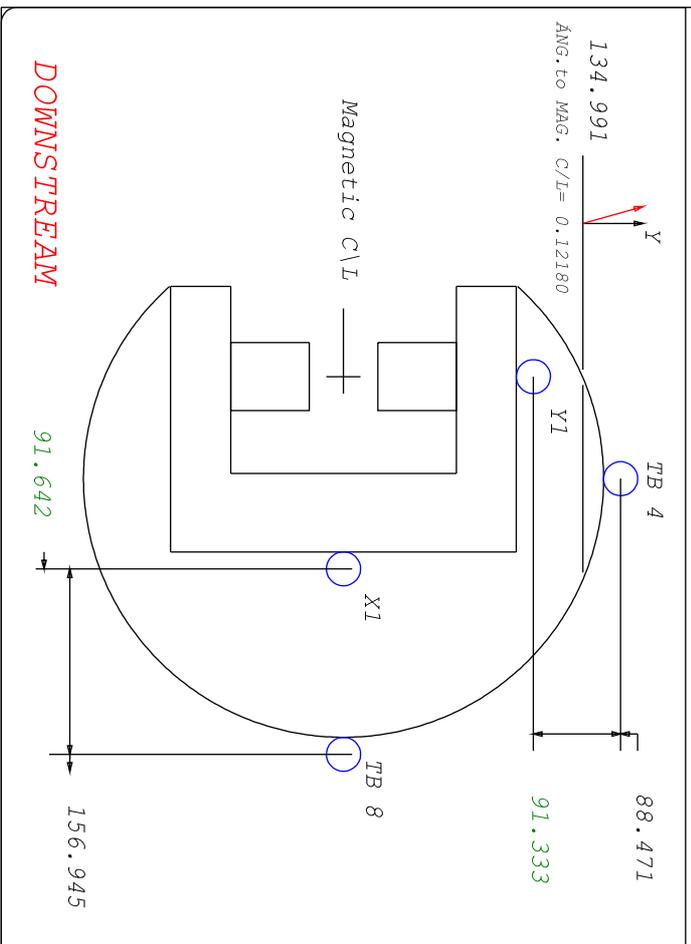
Pole Tip Location in Y (mm)

Minimum = 3.4057   Maximum =3.4570   Range =0.0514

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

Minimum = -3.4995   Maximum =-3.4447   Range =0.0548

Undulator Pole Tip Location
Post Magnetic Alignment

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)

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Undulator Dimensional Fiducialization
Post Magnetic Alignment

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DOWNSTREAM

UPSTREAM

Top Magnetic Structure
Bottom Magnetic Structure
Strongback

Magnetic C\L

	C\L Offset	Length
	0.097	3381.400
	-0.097	3381.098
	0.240	3399.962

Dimensions in mm

Angles in mrad

134.991

ANG. to MAG. C\L= 0.12180

91.642

91.333

88.471

156.945

Y1

TB 4

X1

TB 8

TB 5

X1

91.927

91.704

88.397

156.927

TB 1

Y2

Magnetic C\L

134.999

ANG. to MAG. C\L= 0.16498

TOOLING BALL LOCATIONS

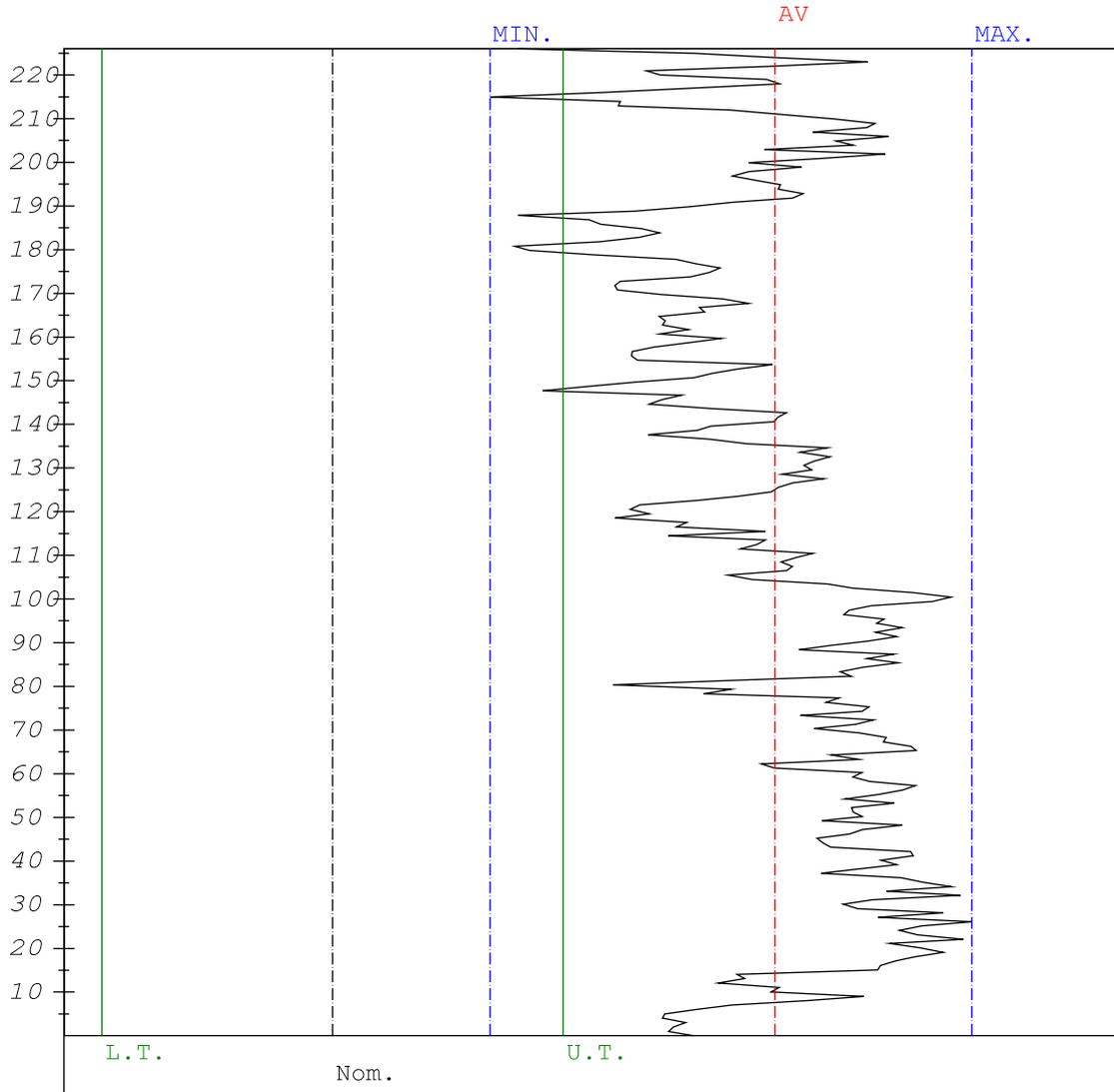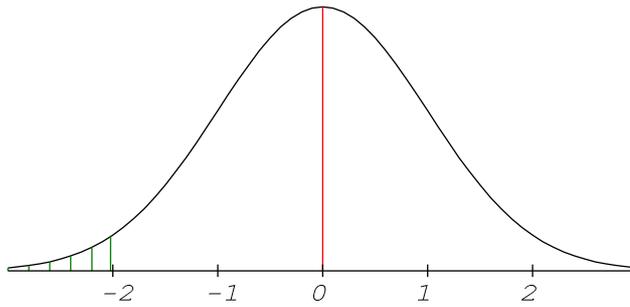| NUM.	X	Y	Z
1	0.2981	179.7790	-1558.431
2	0.4258	179.6705	-584.7312
3	0.4100	179.7412	591.2308
4	0.3830	179.8039	1562.0177
5	248.6305	0.0678	-1558.349
6	248.6244	0.0656	-584.6822
7	248.6268	0.0511	591.3058
8	248.5870	0.0149	1562.1951

Nominal : 4.5000	Averag :5.4592	Cent.-Dev. :0.9592
Up. Tol. :0.5	Maximum : 5.8858	U.Tol.Ex. > : 97.9 %
Low.Tol. :-0.5	Minimum : 4.8419	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2272	In Tolerance: 2.1 %
Outlier : 0	Distribution : NOR	Dimension : mrad

Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment