

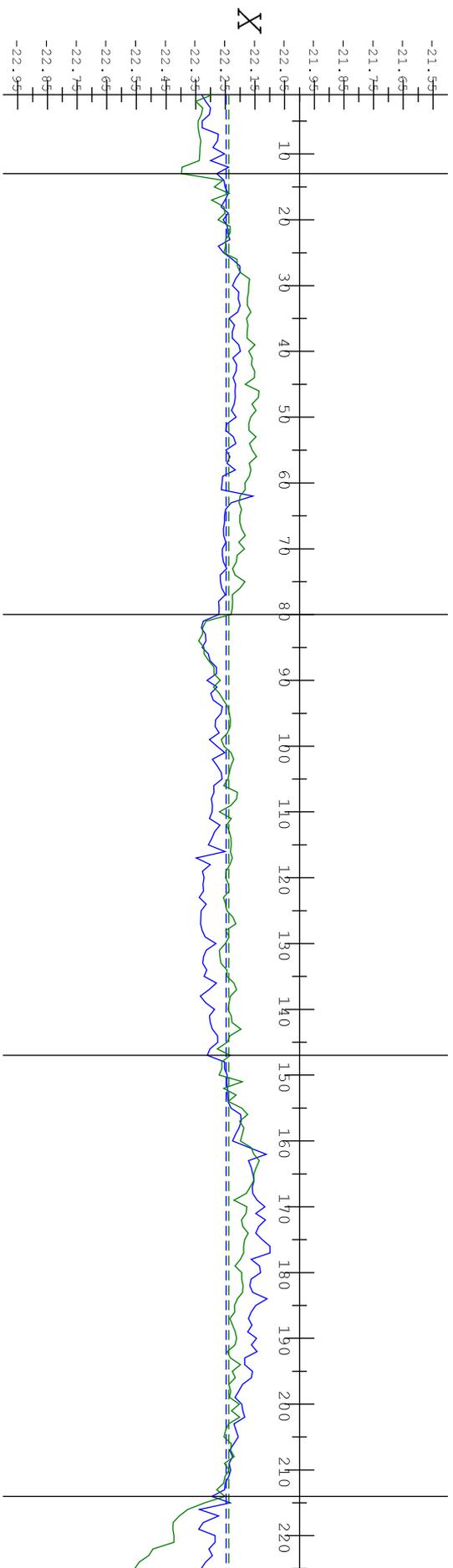
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 16-MAR-2011
 UNDULATOR # 13
 DATASET # 0034
 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 = -22.239

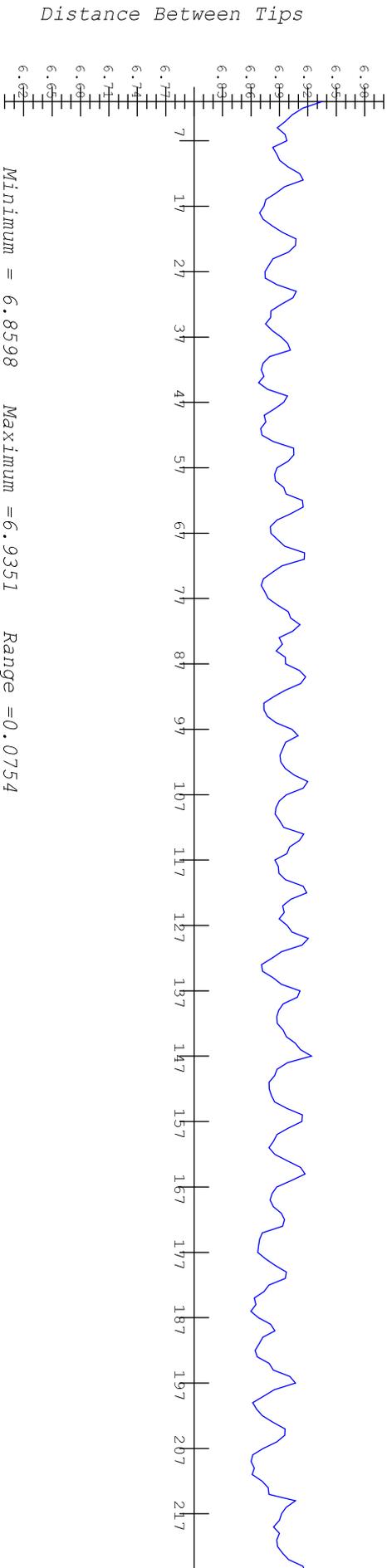
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -22.247



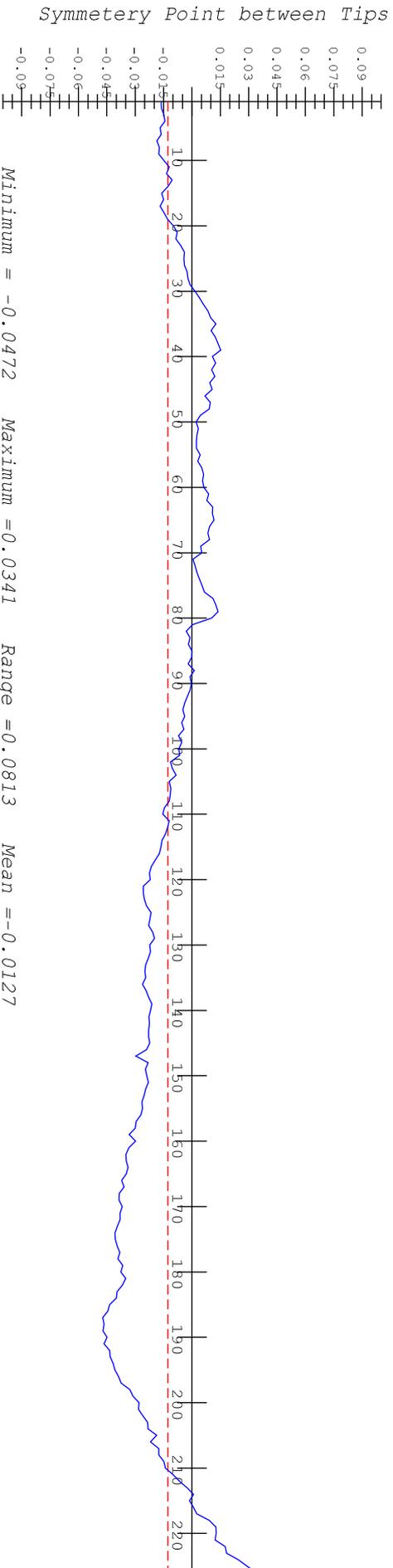
Undulator Pole Tip Location Post Magnetic Alignment

DATE: 16-MAR-2011
UNDULATOR # 13
DATASET # 0034
PROGRAM VERSION 2.9



in mm

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

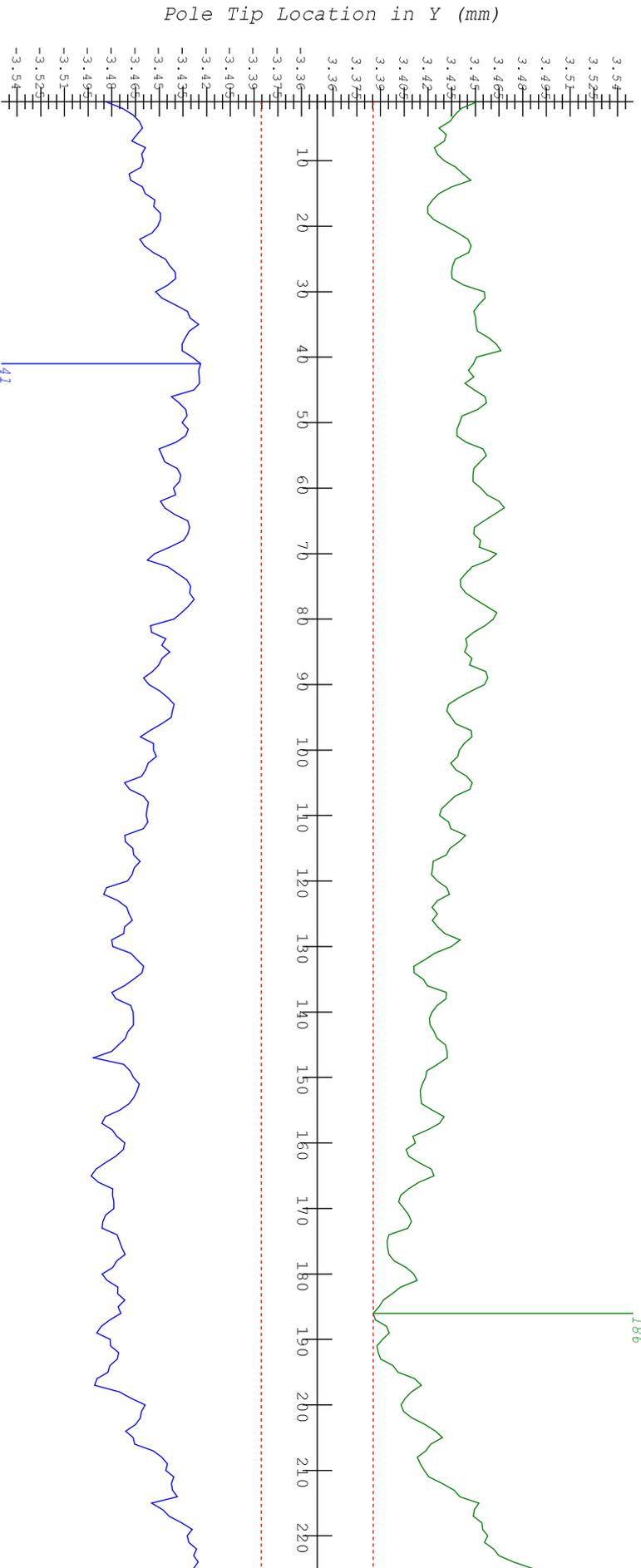


Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 16-MAR-2011
 UNDUULATOR # 13
 DATASET # 0034
 PROGRAM VERSION 2.9

Maximum Chamber Gap = 6.7707

Minimum = 3.3854 Maximum = 3.4929 Range = 0.1075



Minimum = -3.4932 Maximum = -3.4238 Range = 0.0694

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

DATE: 16-MAR-2011
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PROGRAM VERSION 2.9



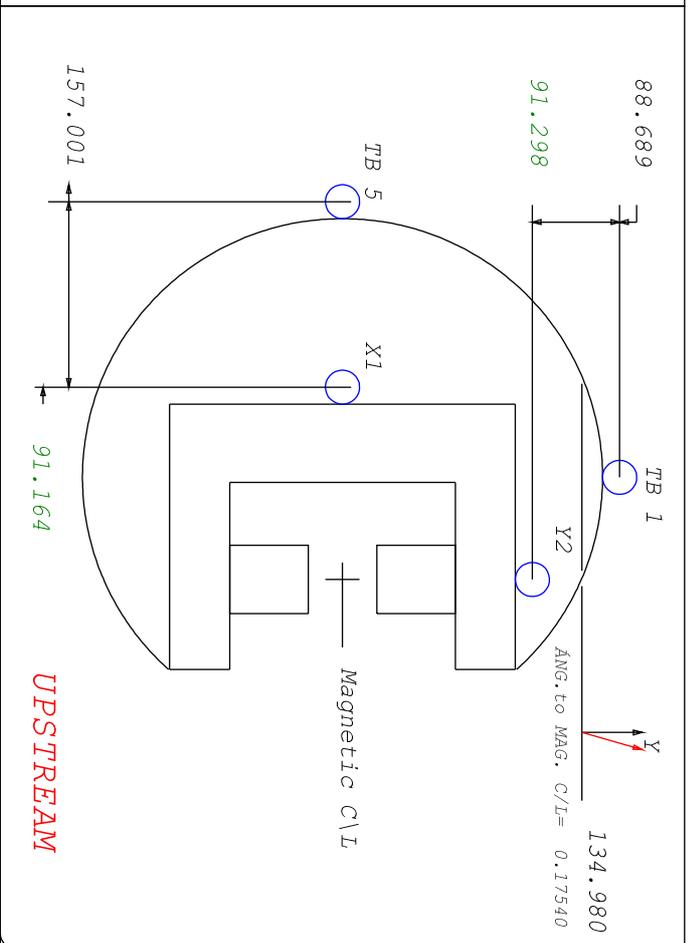
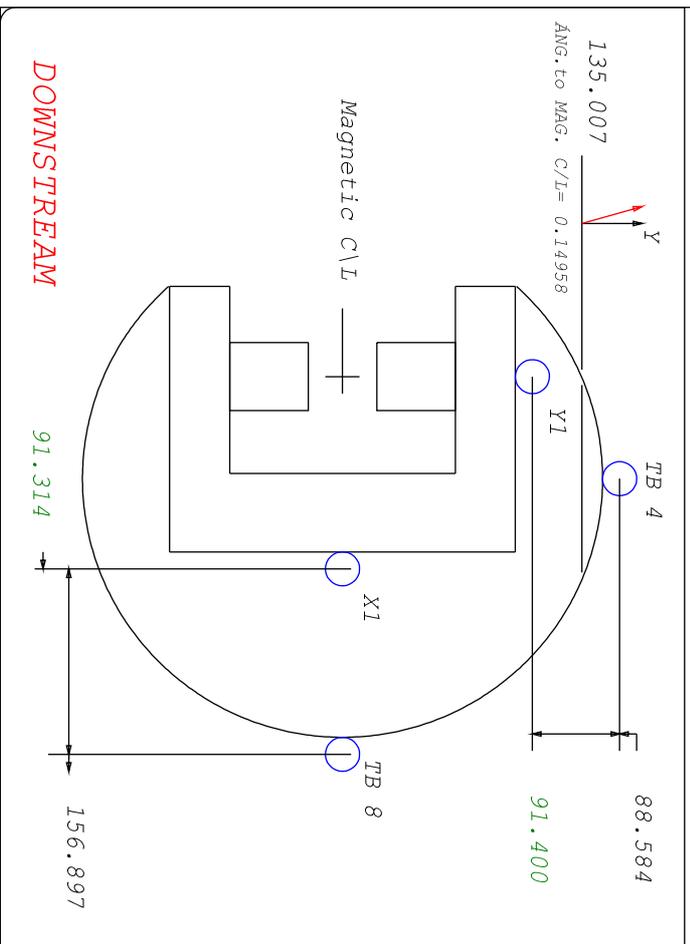
TOOLING BALL LOCATIONS

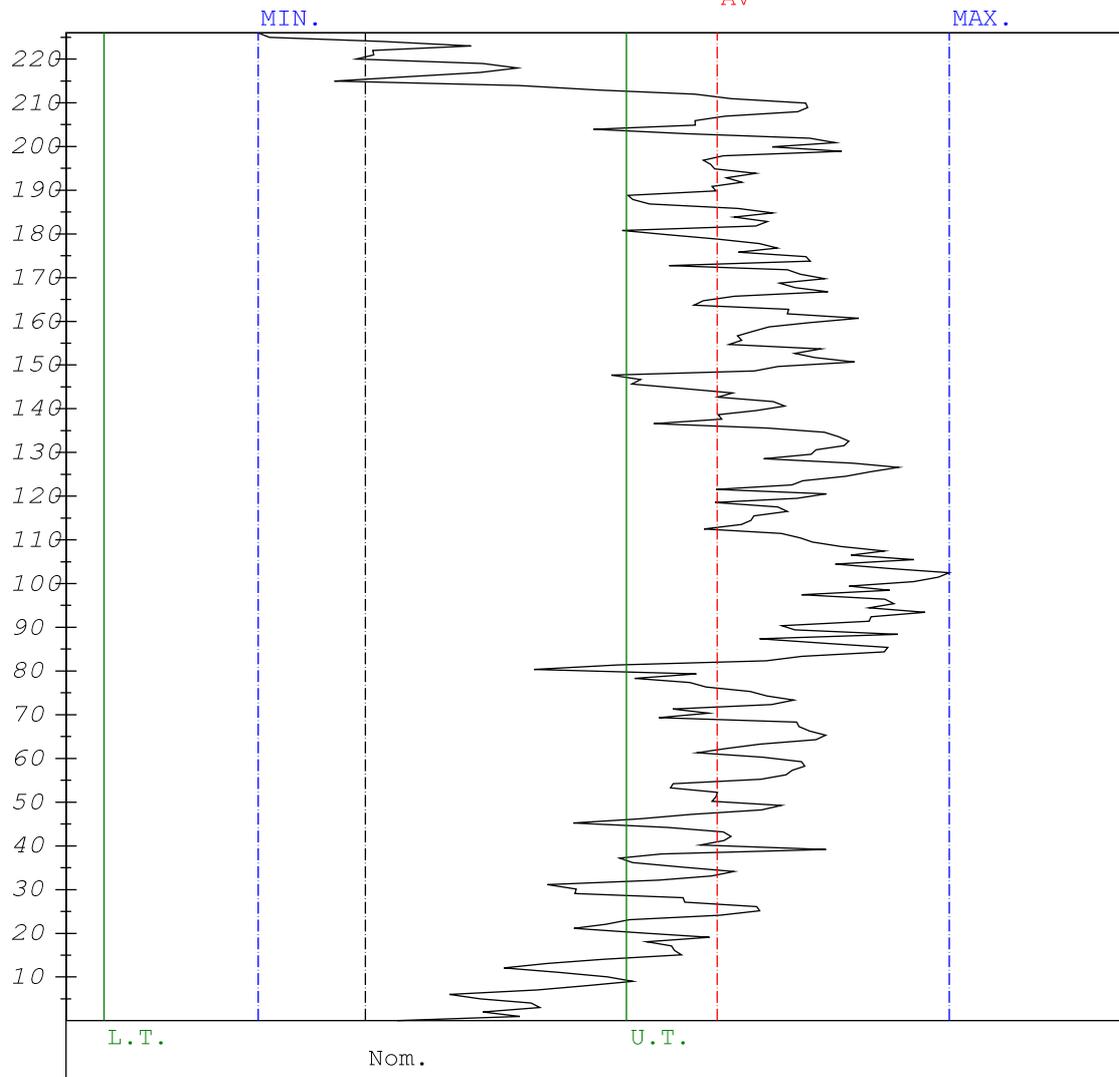
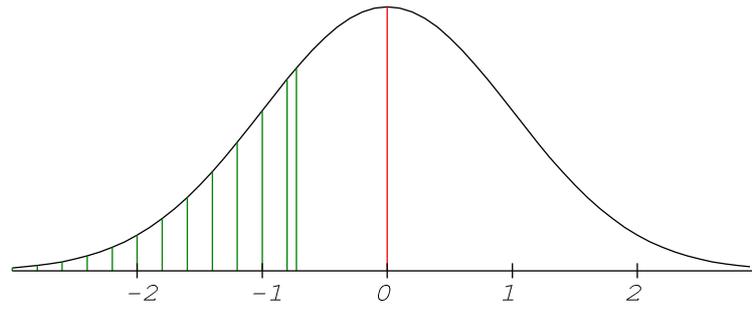
NUM.	X	Y	Z
1	-0.1704	179.9868	-1558.287
2	-0.0083	180.0097	-584.4520
3	-0.1053	179.8878	591.3053
4	-0.1502	179.9843	1562.0690
5	248.1654	0.0749	-1558.364
6	248.1414	-0.0275	-584.6031
7	248.1654	0.0335	591.3270
8	248.2110	-0.0699	1562.0876

	C/L Offset	Length
Top Magnetic Structure	-0.096	3381.055
Bottom Magnetic Structure	0.096	3381.281
Strongback	0.250	3399.779

Dimensions in mm

Angles in mrad





Nominal : 4.5000	Averag : 5.1736	Cent.-Dev. : 0.6736
Up. Tol. : 0.5	Maximum : 5.6177	U.Tol.Ex. > : 76.6 %
Low.Tol. : -0.5	Minimum : 4.2954	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2392	In Tolerance: 23.4 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation
 Pole Tip Gap Angle
 Post Magnetic Alignment

DATE:16-MAR-2011
 UNDULATOR # 13
 DATASET #0034
 PROGRAM VERSION 2.9