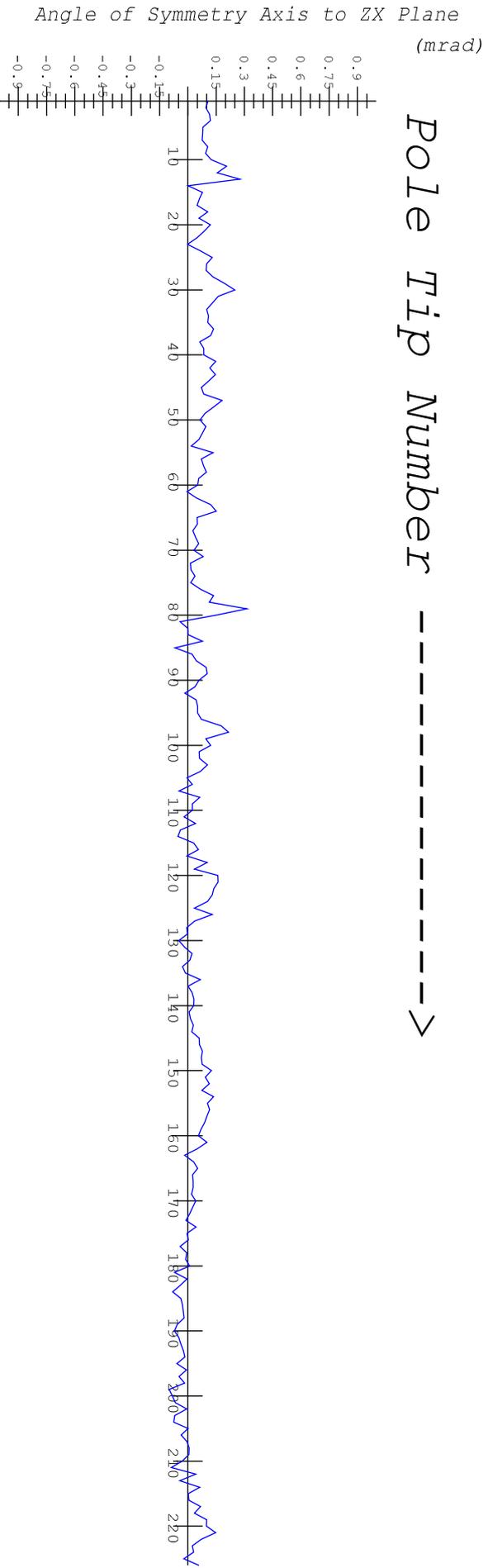


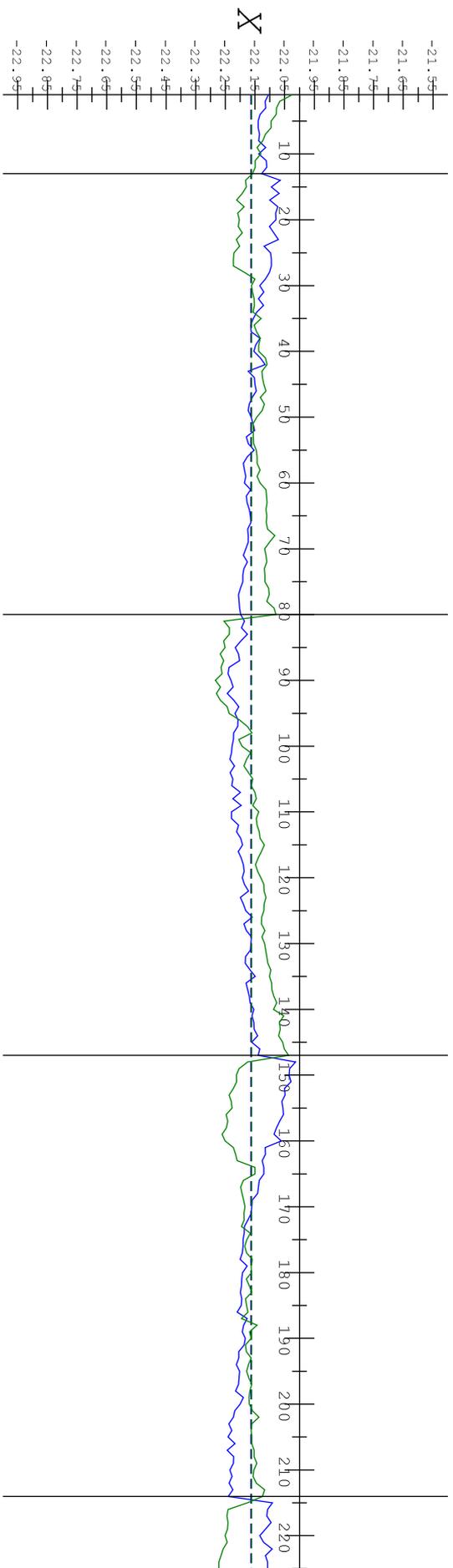
Pole Tip Number ----->



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

	<p>Undulator Pole Tip Angles          FIDUCIALIZATION WITH FLAT FEET</p>	<p>DATE: 09-OCT-2007          UNDULATOR # 24          DATASET # 0001          PROGRAM VERSION 2.3</p>
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# Pole Tip Number ----->



X values in mm

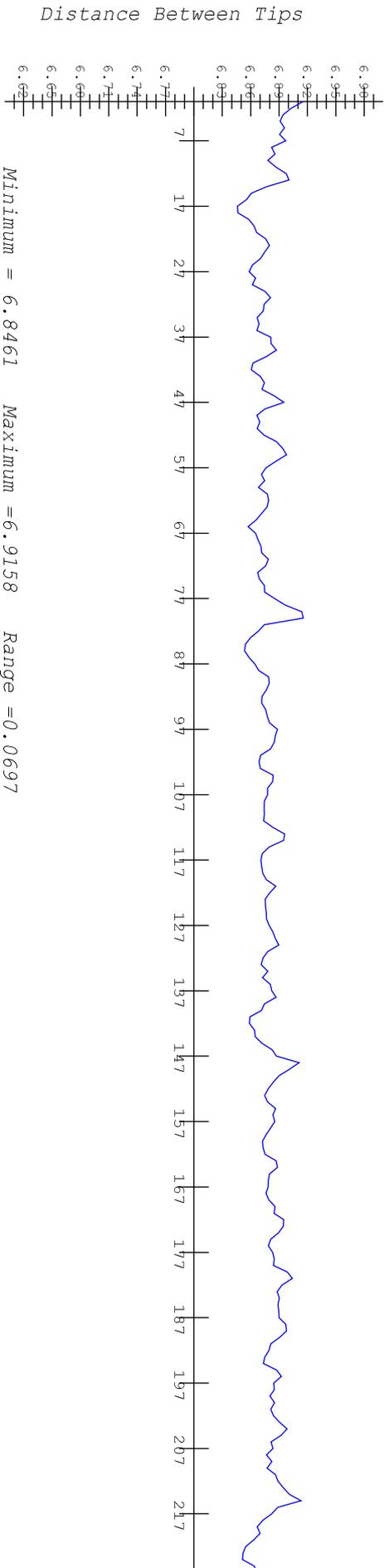
Green Solid = Point on front face of Upper Pole Tip 10mm above Magnetic C/L  
 Green Dash = Mean value of all Upper Pole Tips 10mm above Magnetic C/L Mean value Upper Pole Tips = -22.162

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 = -22.163

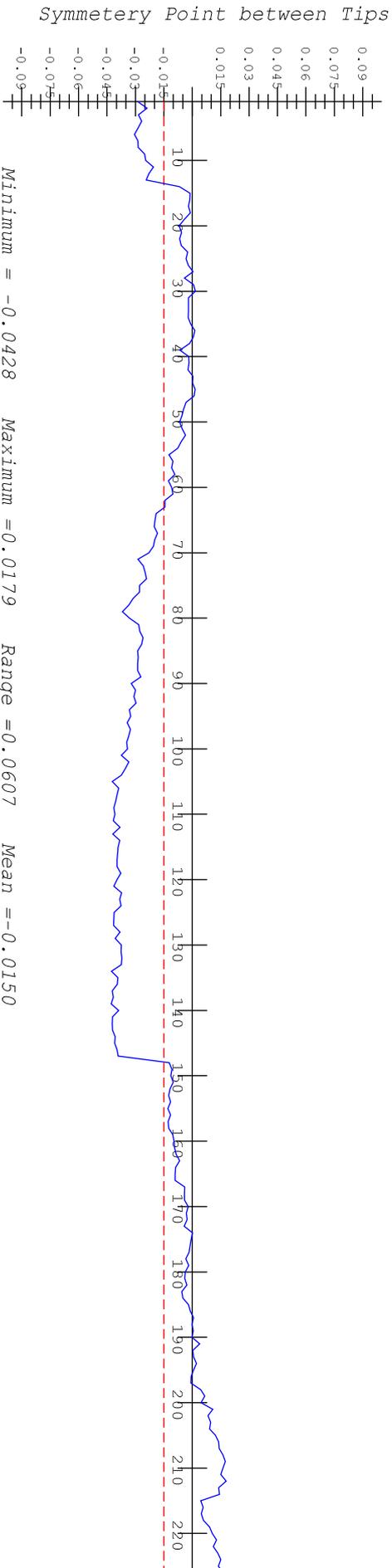
**SLAC**  
 LCLS-MMF  
 LEITZ CMM

Undulator Pole Tip Location  
 FIDUCIALIZATION WITH FLAT FEET

DATE: 09-OCT-2007  
 UNDUULATOR # 24  
 DATASET # 0001  
 PROGRAM VERSION 2.3



Pole Tip Number ----->



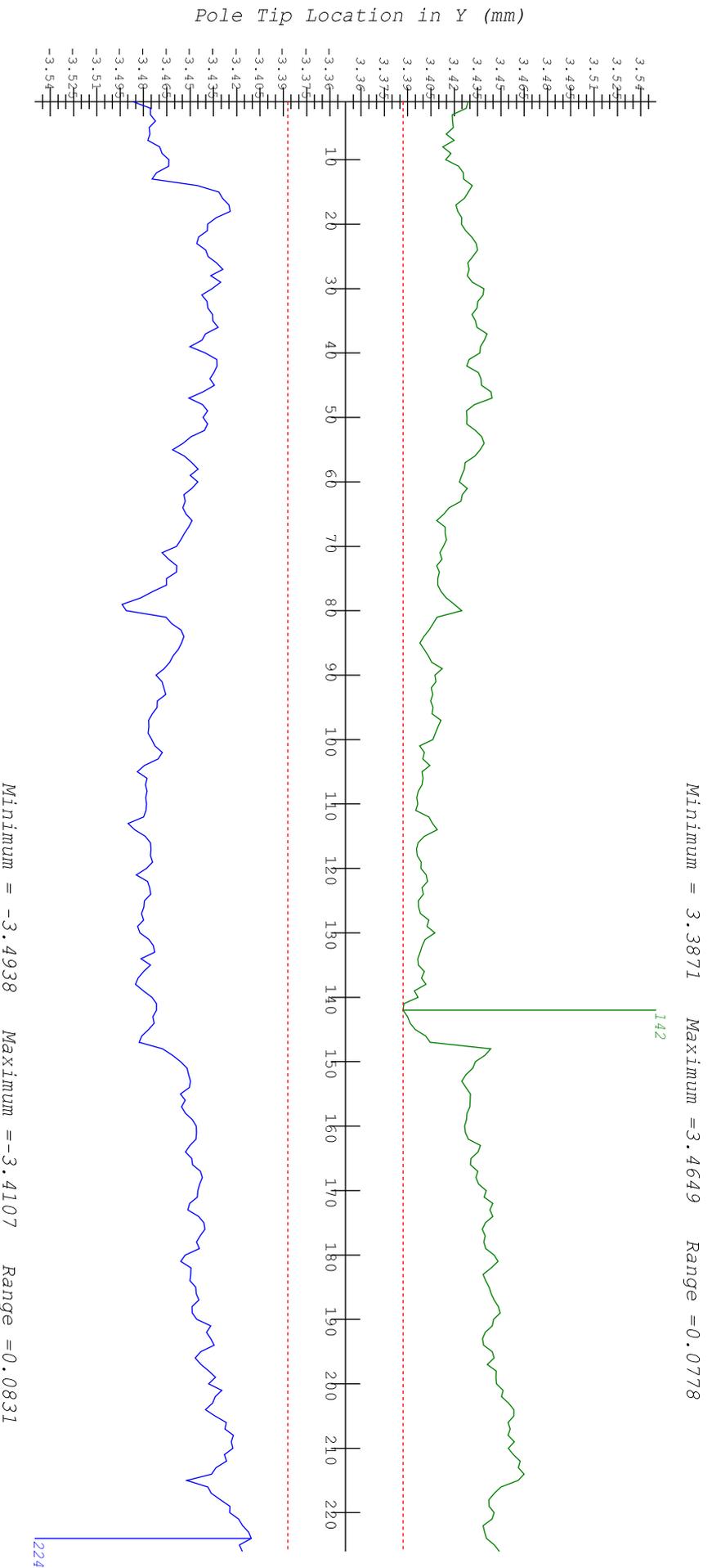
Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L  
 Broken Red line is Mean Value of Symmetry Points  
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic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

**SLAC**  
 LCLS-MMF  
 LEITZ CMM

Undulator Pole Tip Location  
 FIDUCIALIZATION WITH FLAT FEET

DATE: 09-OCT-2007  
 UNDUULATOR # 24  
 DATASET # 0001  
 PROGRAM VERSION 2.3

Maximum Chamber Gap = 6.7742



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)

**SLAC**  
LCLS-MMF  
LEITZ CMM

Undulator Pole Tip Location  
FIDUCIALIZATION WITH FLAT FEET

DATE: 09-OCT-2007  
UNDULATOR # 24  
DATASET # 0001  
PROGRAM VERSION 2.3



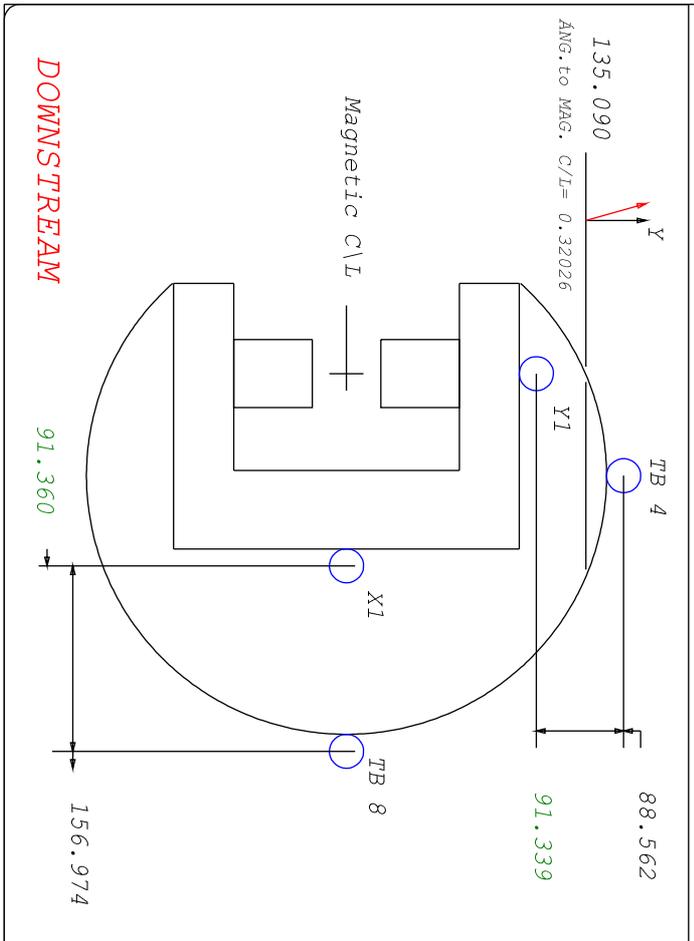
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.0054	179.8250	-1558.172
2	0.2025	179.7767	-584.5946
3	0.1442	179.7883	591.3706
4	0.1114	179.9013	1562.1764
5	248.3146	0.1524	-1558.190
6	248.4668	0.0702	-584.5460
7	248.3342	0.2029	591.4015
8	248.3340	0.2314	1562.2916

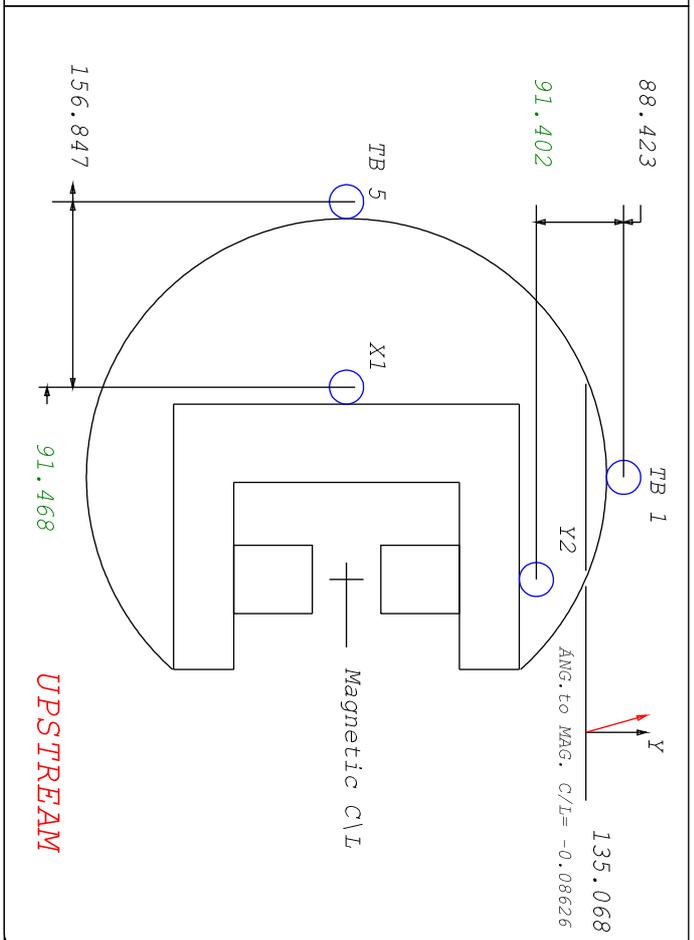
	C/L Offset	Length
Top Magnetic Structure	-0.005	3380.785
Bottom Magnetic Structure	0.005	3380.863
Strongback	0.430	3399.876

Dimensions in mm

Angles in mrad



**DOWNSTREAM**



**UPSTREAM**

**SLAC**  
LCLS-MMF  
LEITZ CMM

Undulator Dimensional Fiducialization  
FIDUCIALIZATION WITH FLAT FEET

DATE: 09-OCT-2007  
UNDULATOR # 24  
DATASET # 0001  
PROGRAM VERSION 2.3