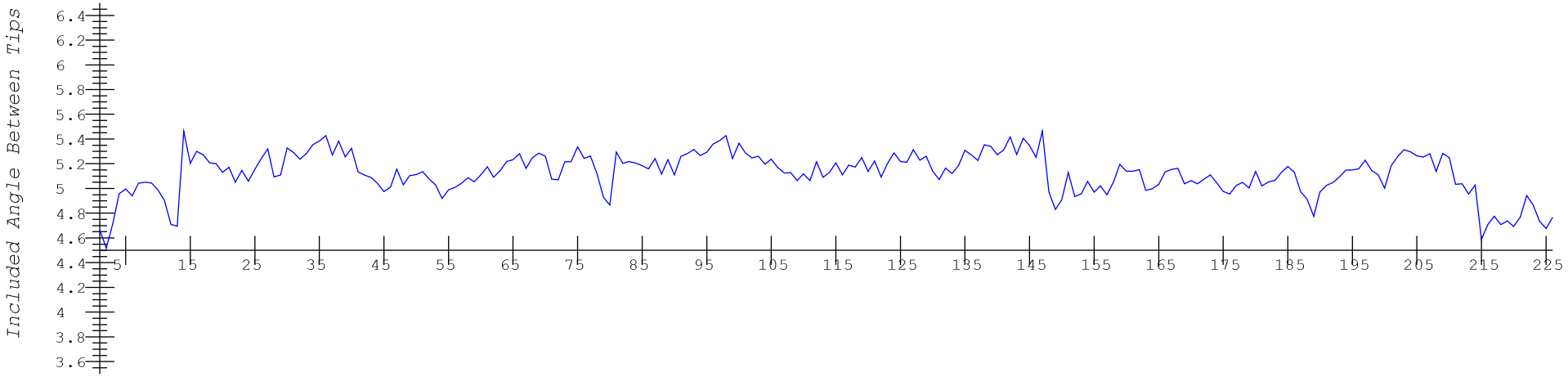
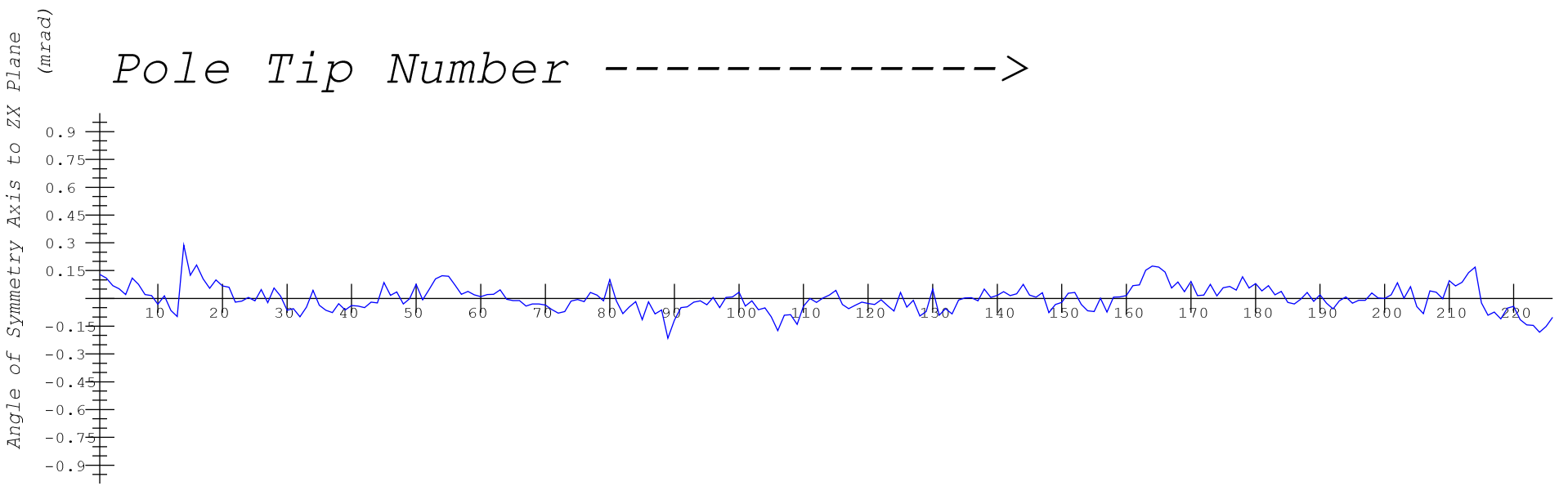


Pole Tip Number ------------->



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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MMF GRE 45129

Undulator Pole Tip Angles

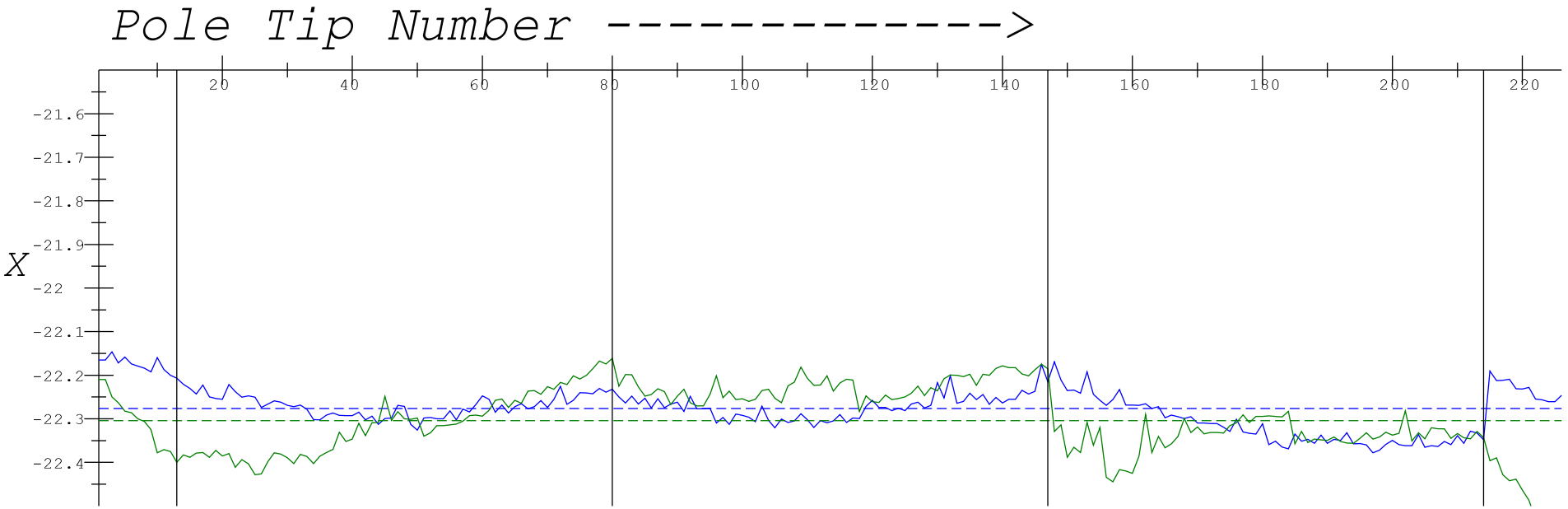
Inprocess Shim Check

Wide Gap Undulator

DATE:08-APR-2010

UNDULATOR # 31
DATASET # 0005

PROGRAM VERSION 2.0



X values in mm
Green Solid = Point on front face of Upper Pole Tip 11.5mm above Magnetic C/L
Green Dash = Mean value of all Upper Pole Tips 11.5mm above Magnetic C/L Mean value Upper Pole Tips = -22.304
Blue Solid = Point on front face of Lower Pole Tip 11.5mm below Magnetic C/L
Blue Dash = Mean value of all Lower Pole Tips 11.5mm below Magnetic C/L Mean value Lower Pole Tips = -22.277

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Undulator Pole Tip Location
Inprocess Shim Check
Wide Gap Undulator

DATE:08-APR-2010
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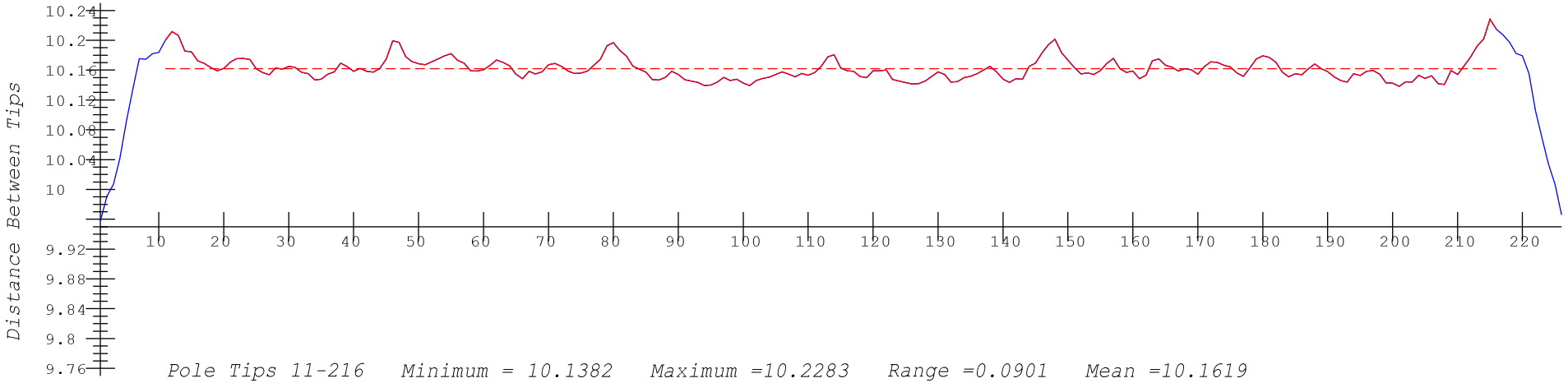
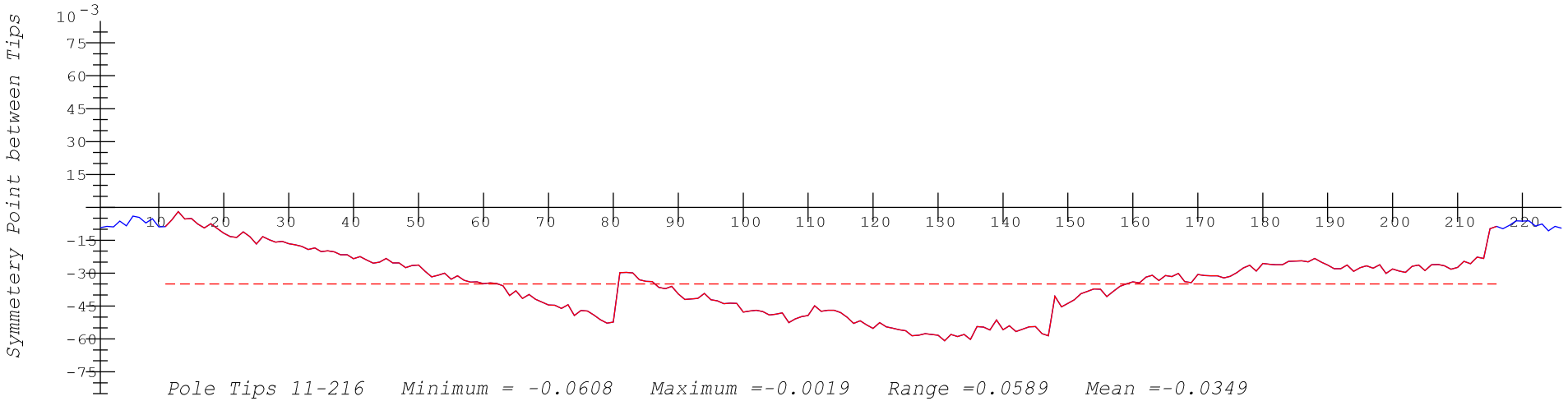
PROGRAM VERSION 2.0



Pole Tips 11-216 Minimum = 10.1382 Maximum =10.2283 Range =0.0901 Mean =10.1619

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



Pole Tips 11-216 Minimum = -0.0608 Maximum =-0.0019 Range =0.0589 Mean =-0.0349

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 and Mean Value of Gap Distance
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
Inprocess Shim Check
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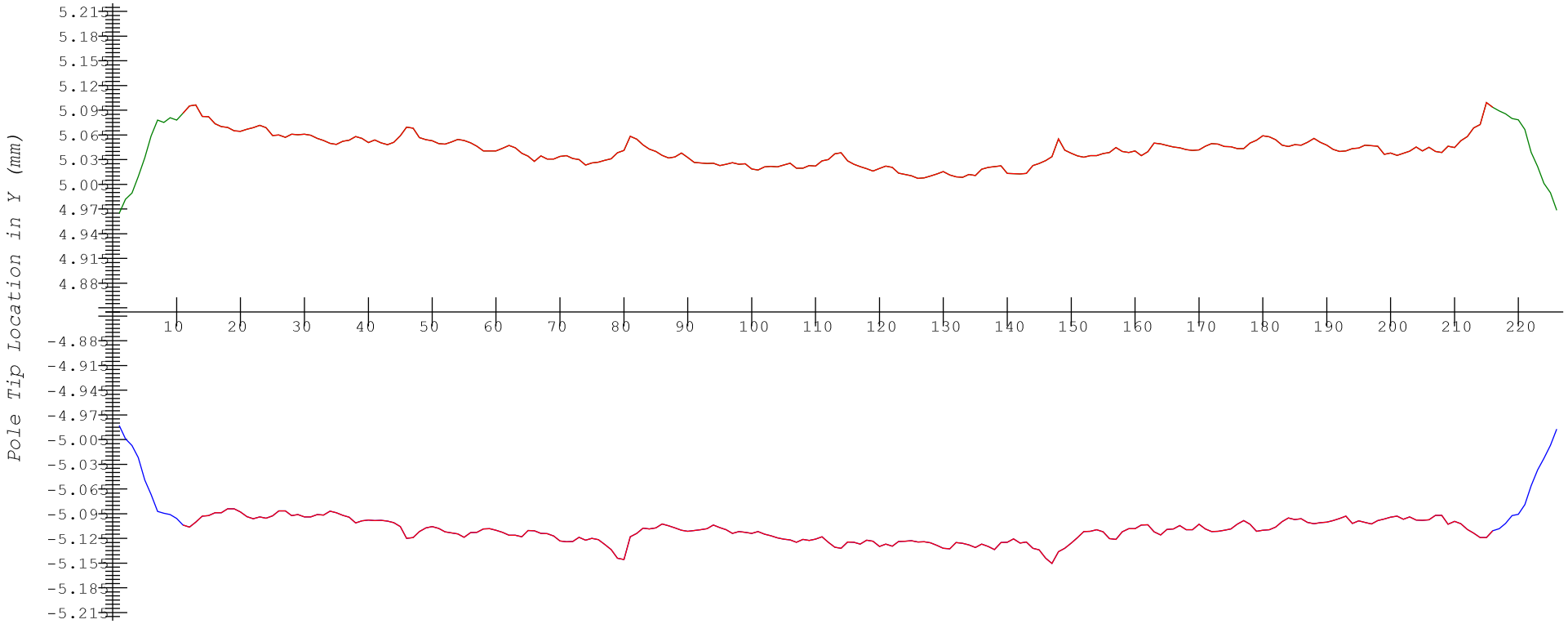
PROGRAM VERSION 2.0

Pole Tips 11-216 Minimum = 5.0122 Maximum =5.1043 Range =0.0922



Pole Tips 11-216 Minimum = -5.1556 Maximum =-5.0891 Range =0.0665

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

Green + Red = The position of the Upper Pole Tips at Magnetic C\L (Pole Tips 11-216 in Red)
Blue + Red = The position of the Lower Pole Tips at Magnetic C\L (Pole Tips 11-216 in Red)

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Undulator Pole Tip Location
Inprocess Shim Check
Wide Gap Undulator

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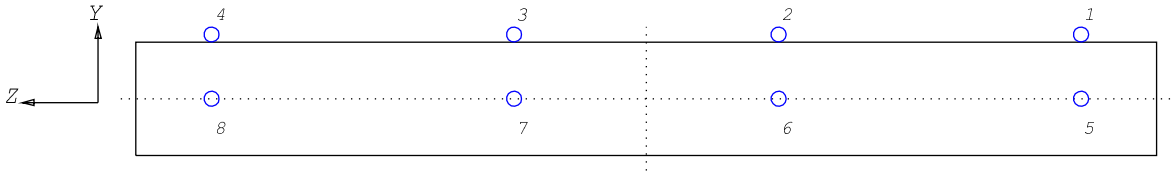
PROGRAM VERSION 2.0



	C\L Offset	Length
Top Magnetic Structure	-0.360	3381.047
Bottom Magnetic Structure	-0.379	3380.877
Strongback	0.000	3399.796

Dimensions in mm Angles in mrad

TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	-0.0338	179.8266	-1558.581
2	0.1229	179.7589	-585.0495
3	0.1484	179.7181	591.0356
4	0.1417	179.8437	1561.8987
5	248.2703	0.0345	-1558.652
6	248.3181	0.0550	-585.0386
7	248.3457	0.0165	591.0780
8	248.2919	0.0447	1561.9069

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MMF GRE 45129

Undulator Dimensional Fiducialization

Inprocess Shim Check

Wide Gap Undulator

DATE:08-APR-2010

UNDULATOR # 31

DATASET # 0005

PROGRAM VERSION 2.0