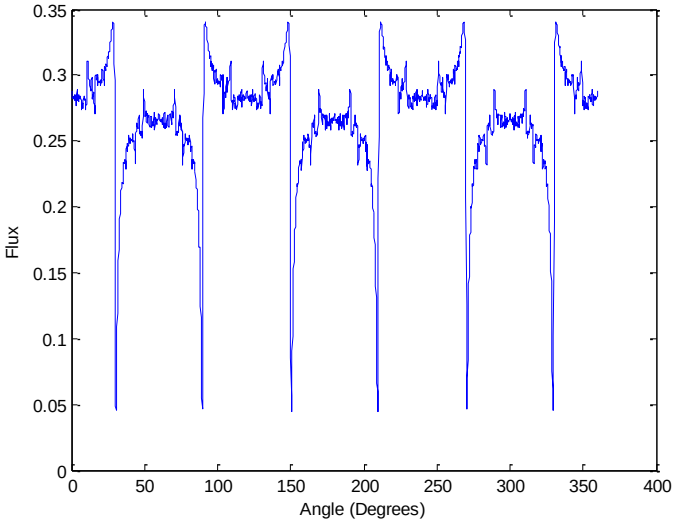
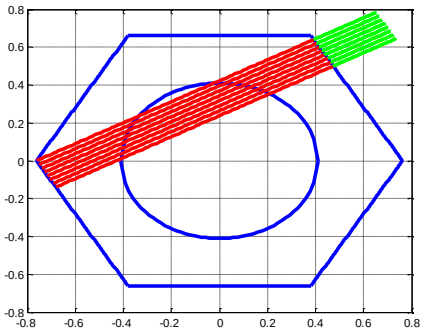
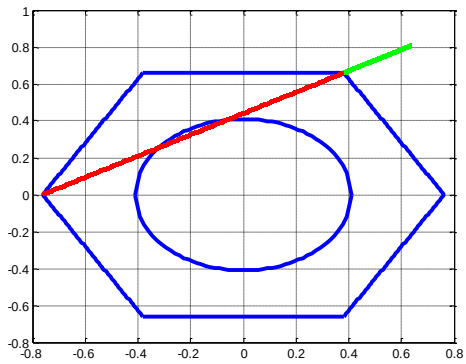
Hex Lattice: [0.381051,0.66]



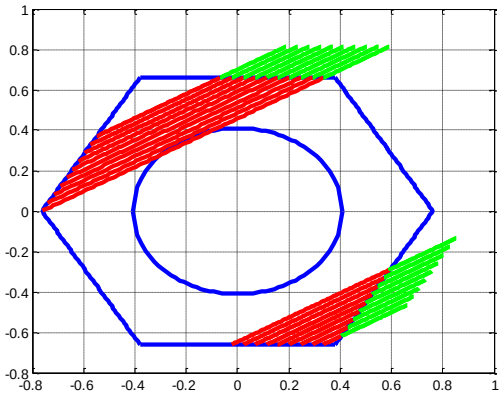
Dead spot every 60 degrees



Right before the “dead spot” (29 degrees)



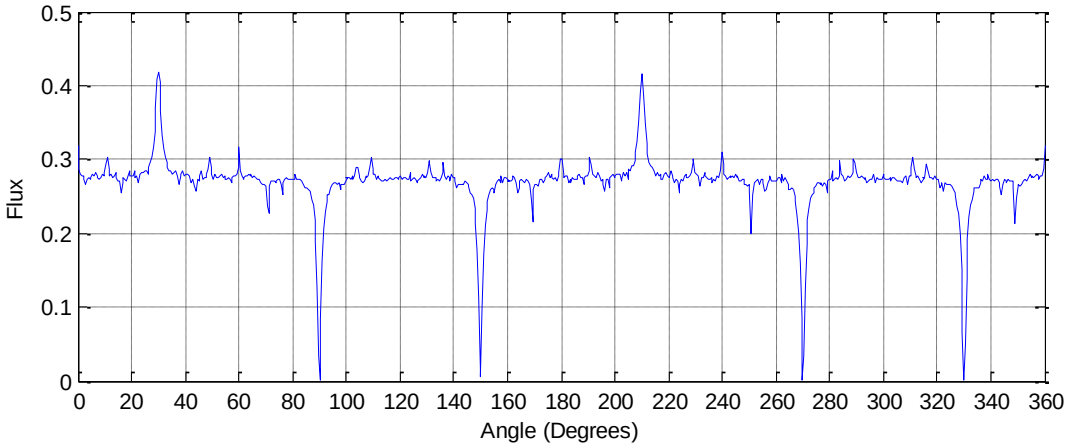
At the “dead Spot” (30 degrees)



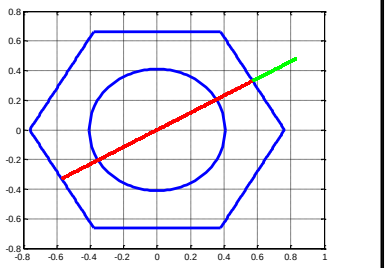
Right after the “dead Spot” (31 degrees)

Every Picture is shown at 10 mean free paths. It should be noted that I took the dead spot at 30 degrees, but these pictures show the dead spot is nearer the 31 degree mark. At 30 degrees, the trace goes through the fuel every pass through the lattice, at 31 degrees, there is a single pass through the fuel, then many subsequent passes through the fuel lattice without any interactions in the fuel.

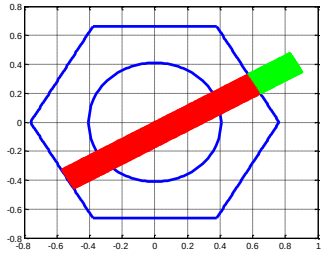
Hex Lattice: [0.57157676649,0.33]



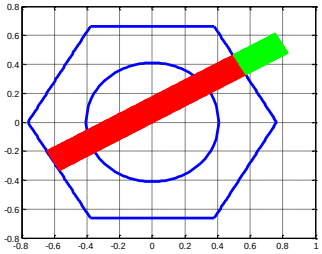
Every 60 degrees there is either a peak or a dead spot



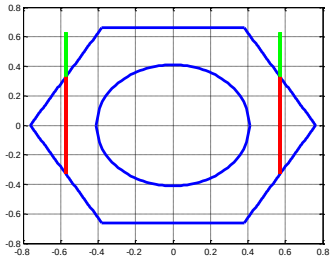
At peak spot (30 degrees)



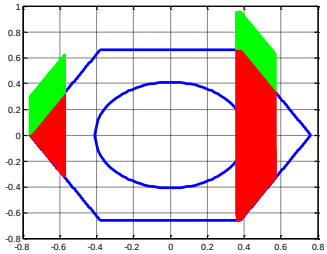
Right before peak (29.9)



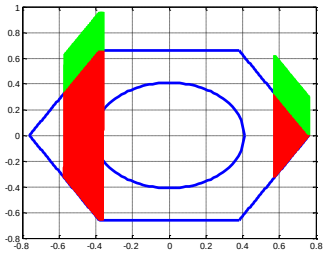
Right after peak (30.1)



At dead spot (90 degrees)



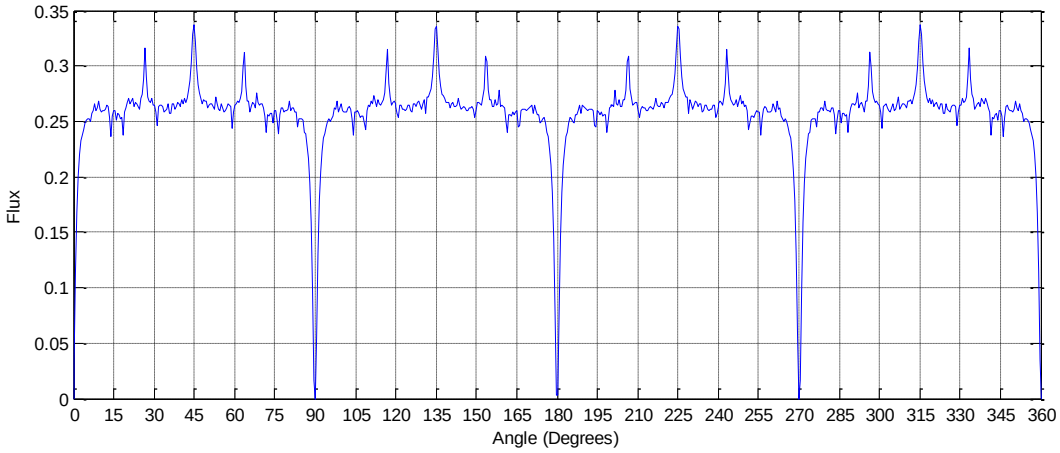
Right after dead spot (90.1)



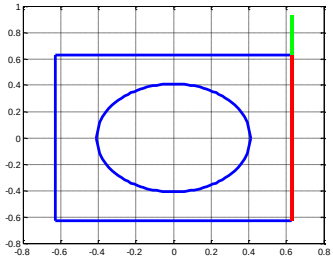
Right after dead spot (89.9)

These figures better show why we have peaks and dead spots in the angular distribution. All pictures are shown at 10 mfps.

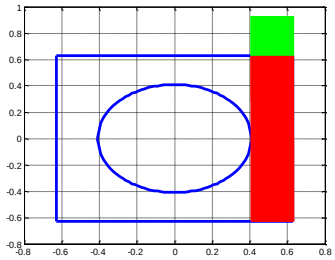
Square Lattice: [0.63, 0.63]



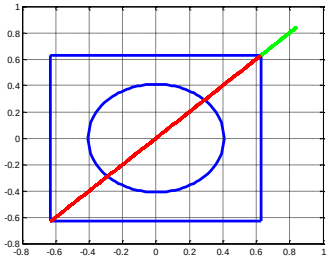
Dead spots and peaks every 90 degrees.



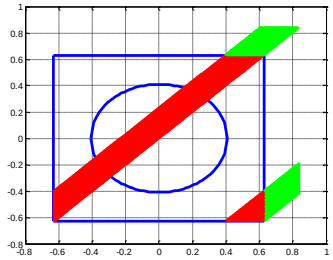
At dead spot (90 degrees)



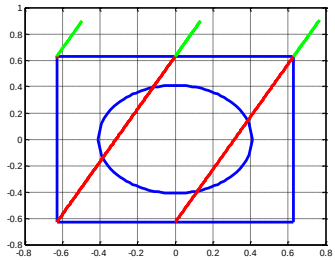
Right after dead spot (90.1)



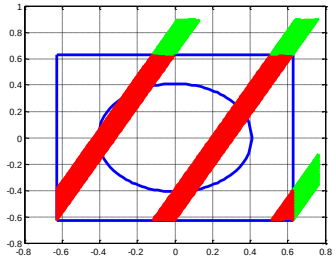
At peak spot (45 degrees)



After peak spot (45.1)



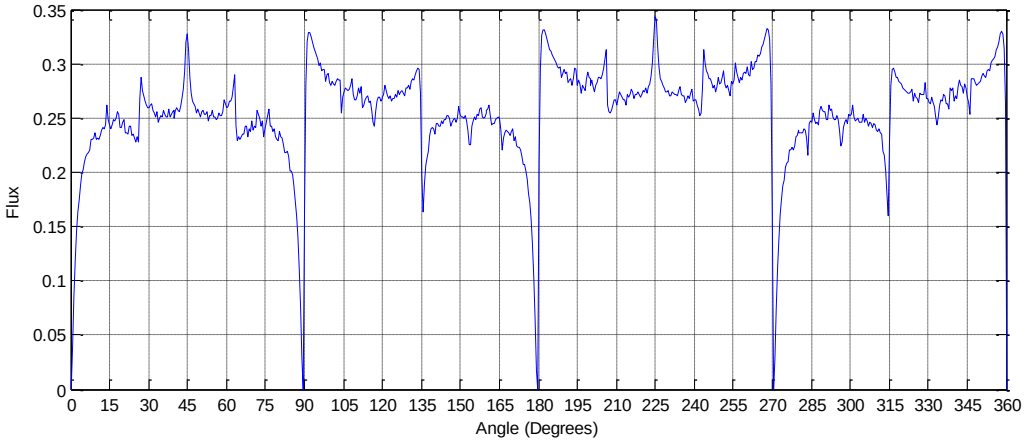
At Peak Spot (63.43 degrees)



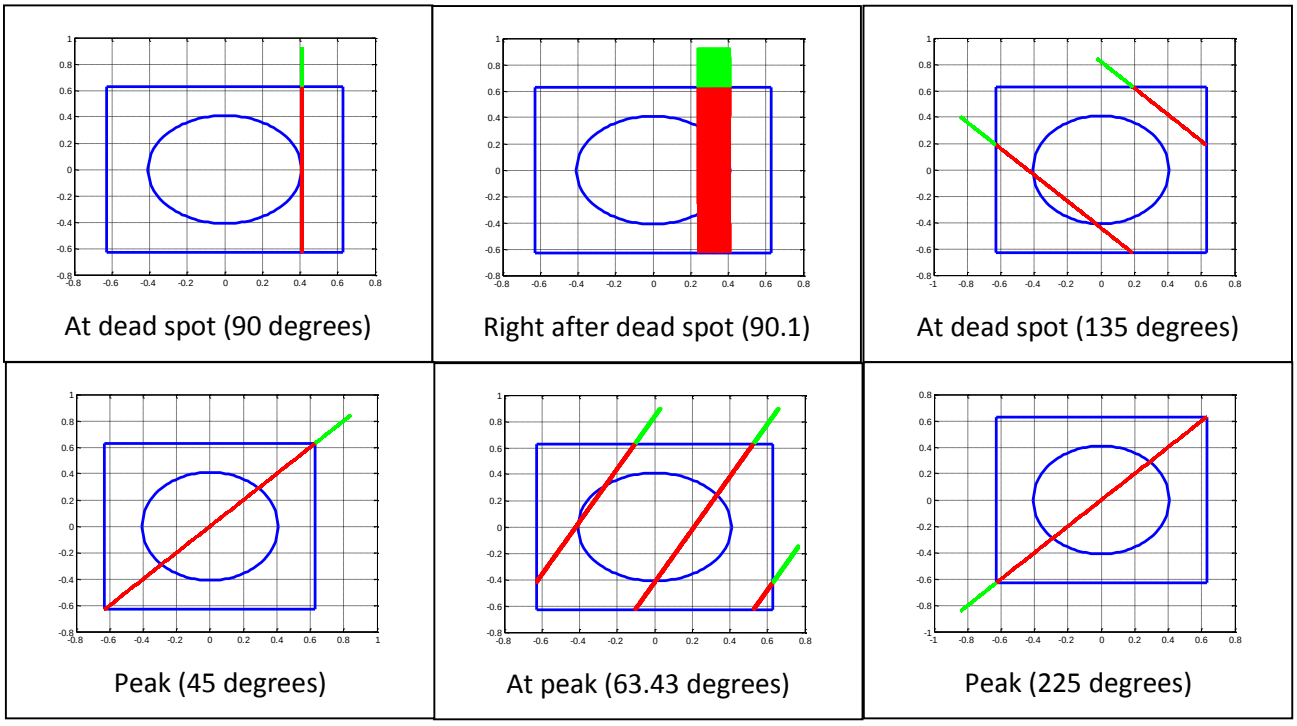
At peak spot (63.5 degrees)

These pictures were done all at 10 mfps and show the origin of the peaks and valleys.

Square Lattice: [0.41,0.41]



Valleys every 90 degrees, and varying peaks.



At dead spot (90 degrees)

Right after dead spot (90.1)

At dead spot (135 degrees)

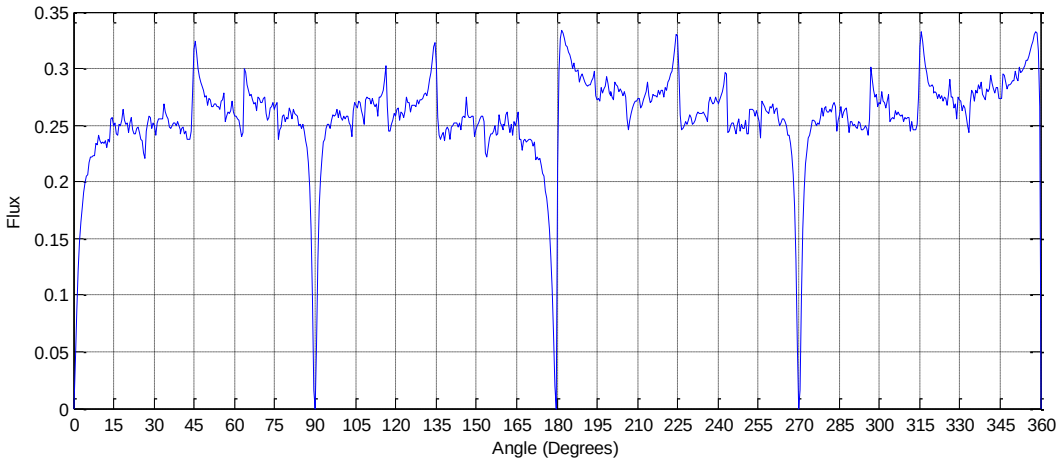
Peak (45 degrees)

At peak (63.43 degrees)

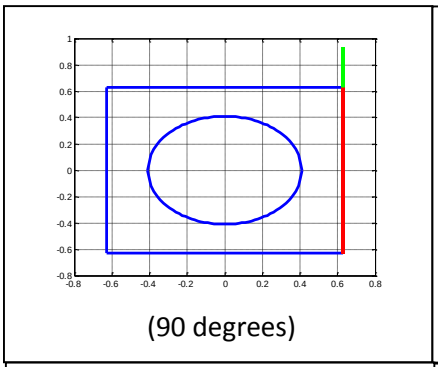
Peak (225 degrees)

The peaks vary in height with angles 180 to 270 being the highest because they initially start going towards the fuel. 10 mfp

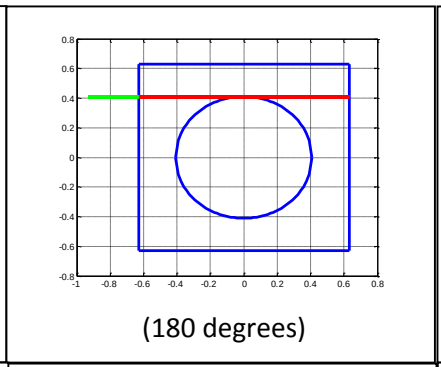
Square Lattice: [0.63,0.41]



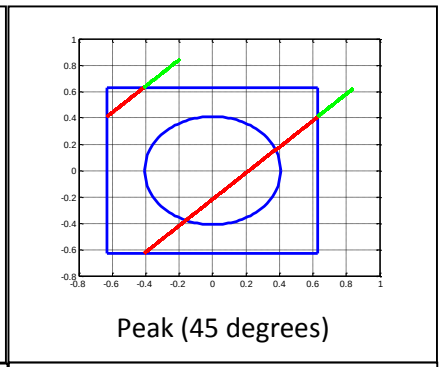
Valleys every 90 degrees, and varying peaks.



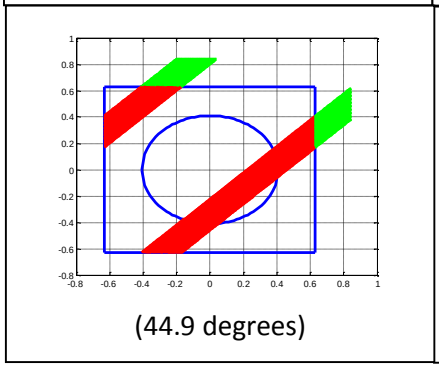
(90 degrees)



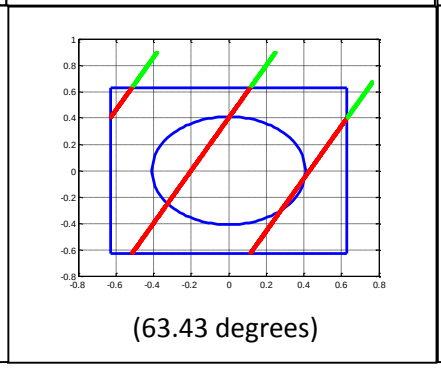
(180 degrees)



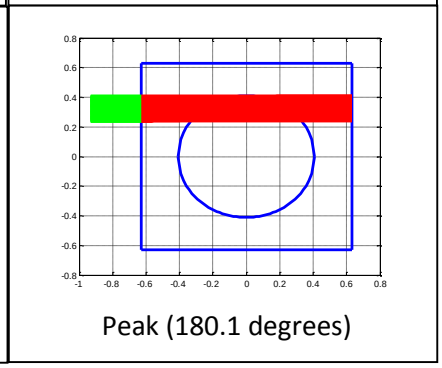
Peak (45 degrees)



(44.9 degrees)



(63.43 degrees)



Peak (180.1 degrees)

Geometry graphs shown at 10 mfps.