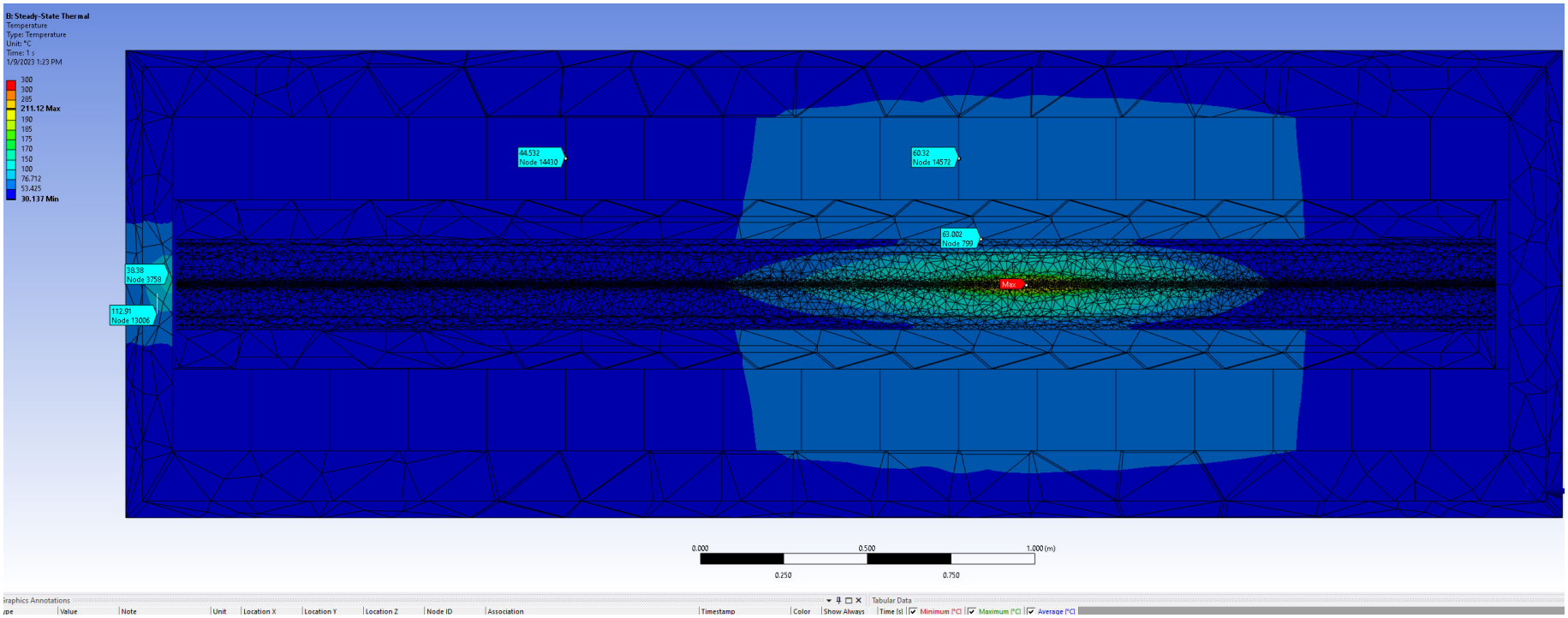Cooled Cu extended on ends to replace steel and tungsten