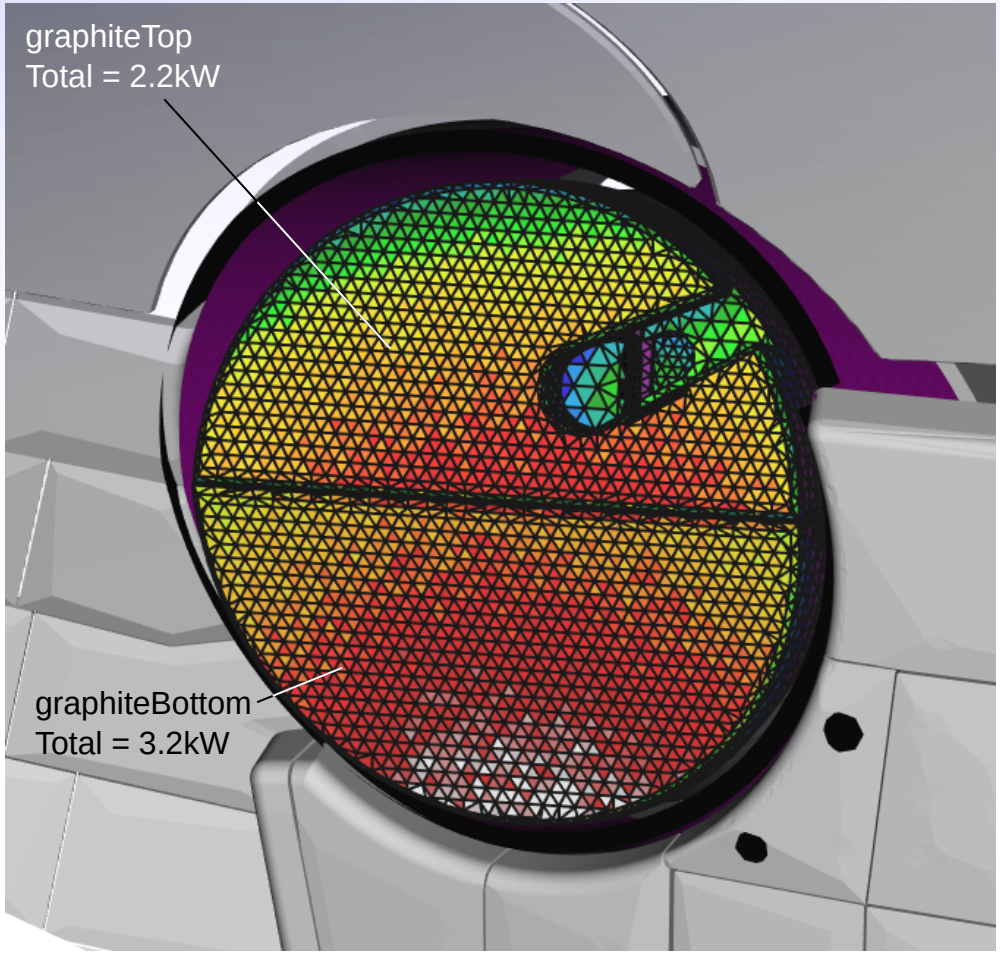
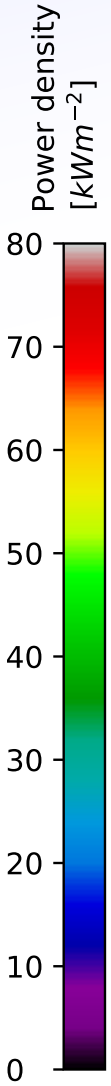
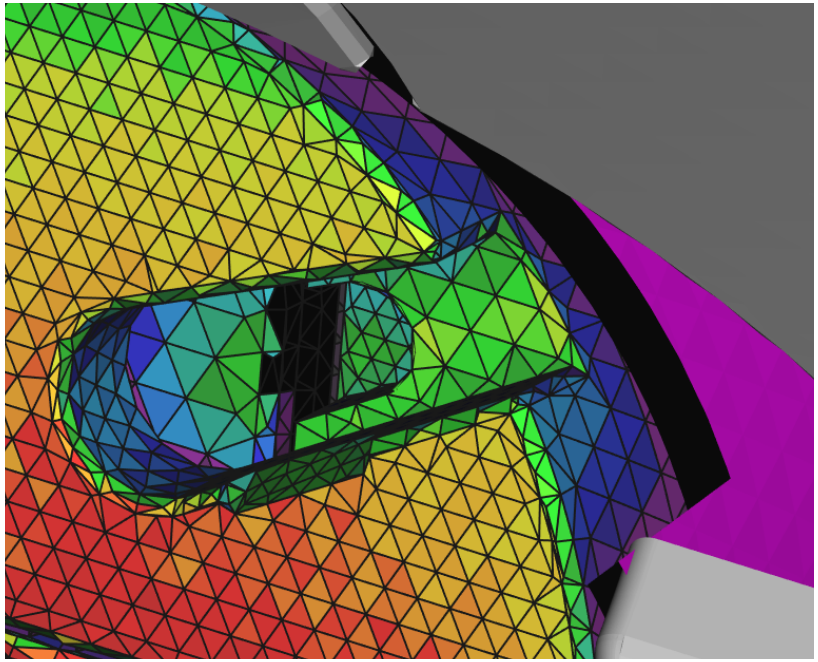
Radiation loads (Nov 2020)

Heat loads to graphite front faces are as expected fairly uniform 60 - 80kWm^-2.
(It's not quite 100kWm^2 due to distance to plasma LCFS in triangular plane).



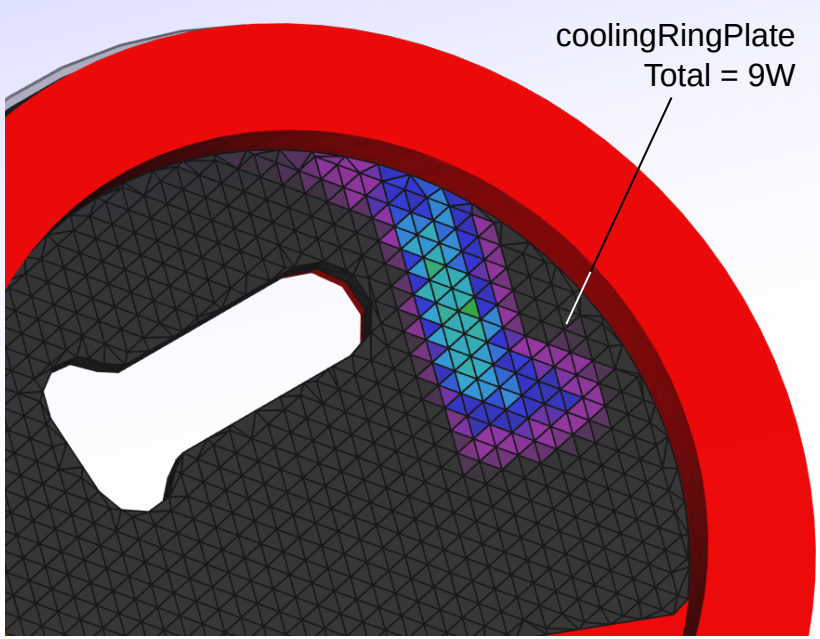


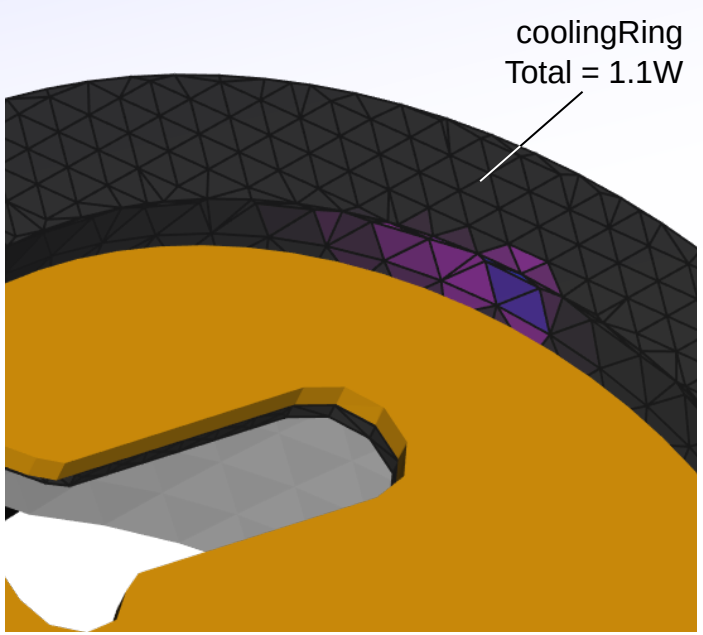
Some uncertainty on edges due to use of crude approximate model for portliner.

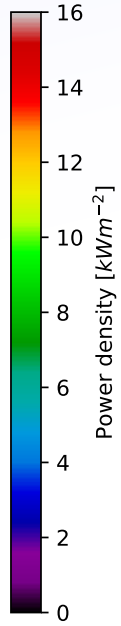


Radiation loads (Nov 2020)

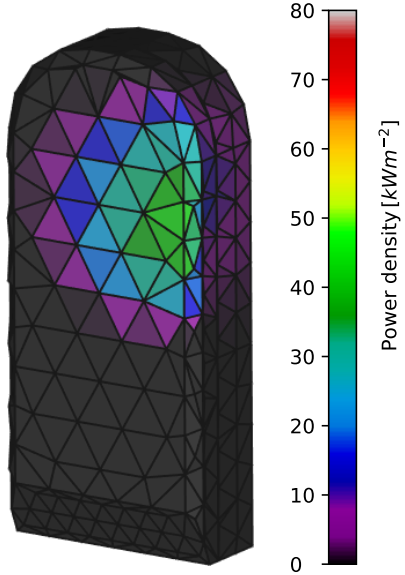
Cooling ring and cooling ring plate see low loads through gap next to shutter (< 16kWm^{-2}):





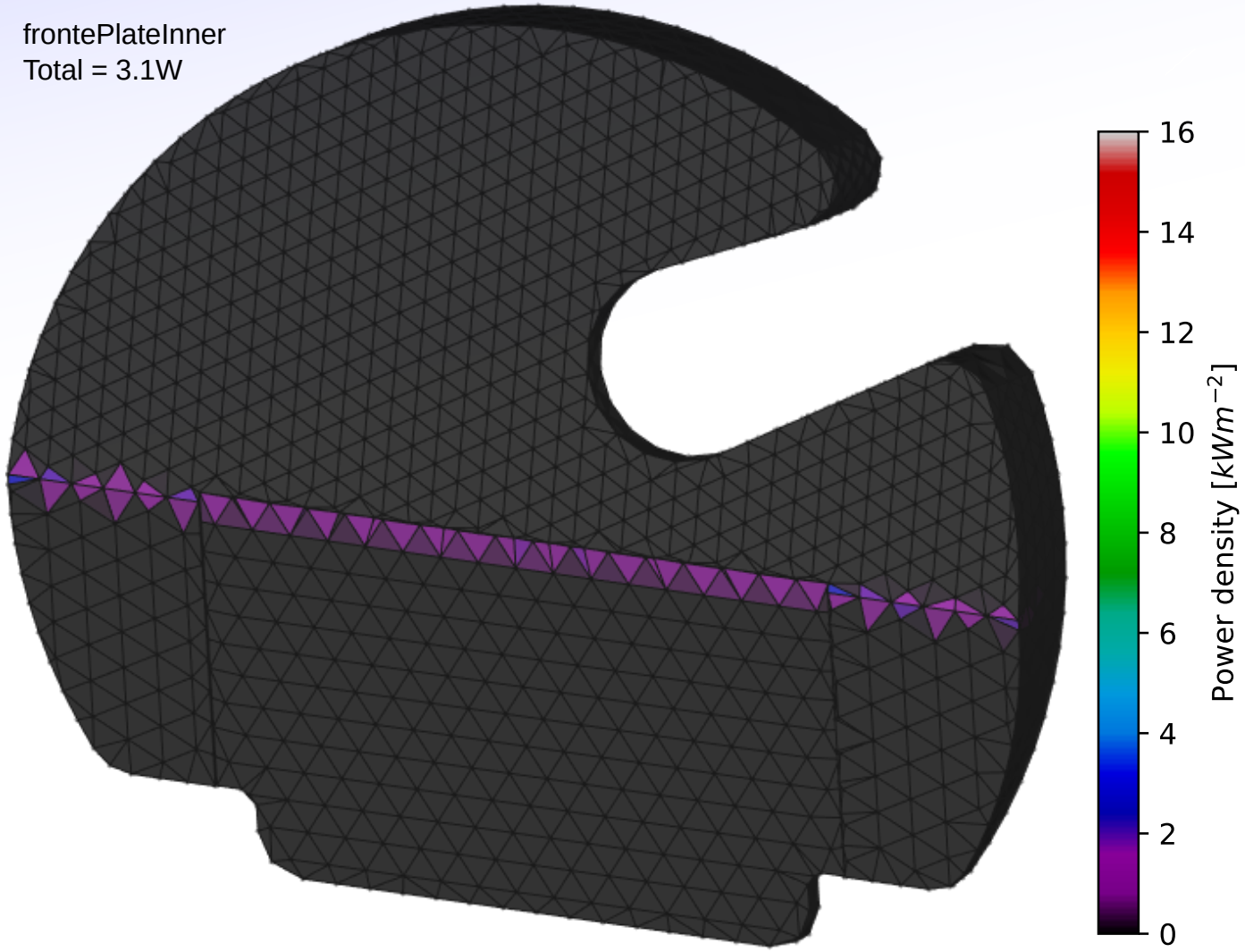


Shutter (closed) sees up ~50kWm^{-2}
in the one exposed area:



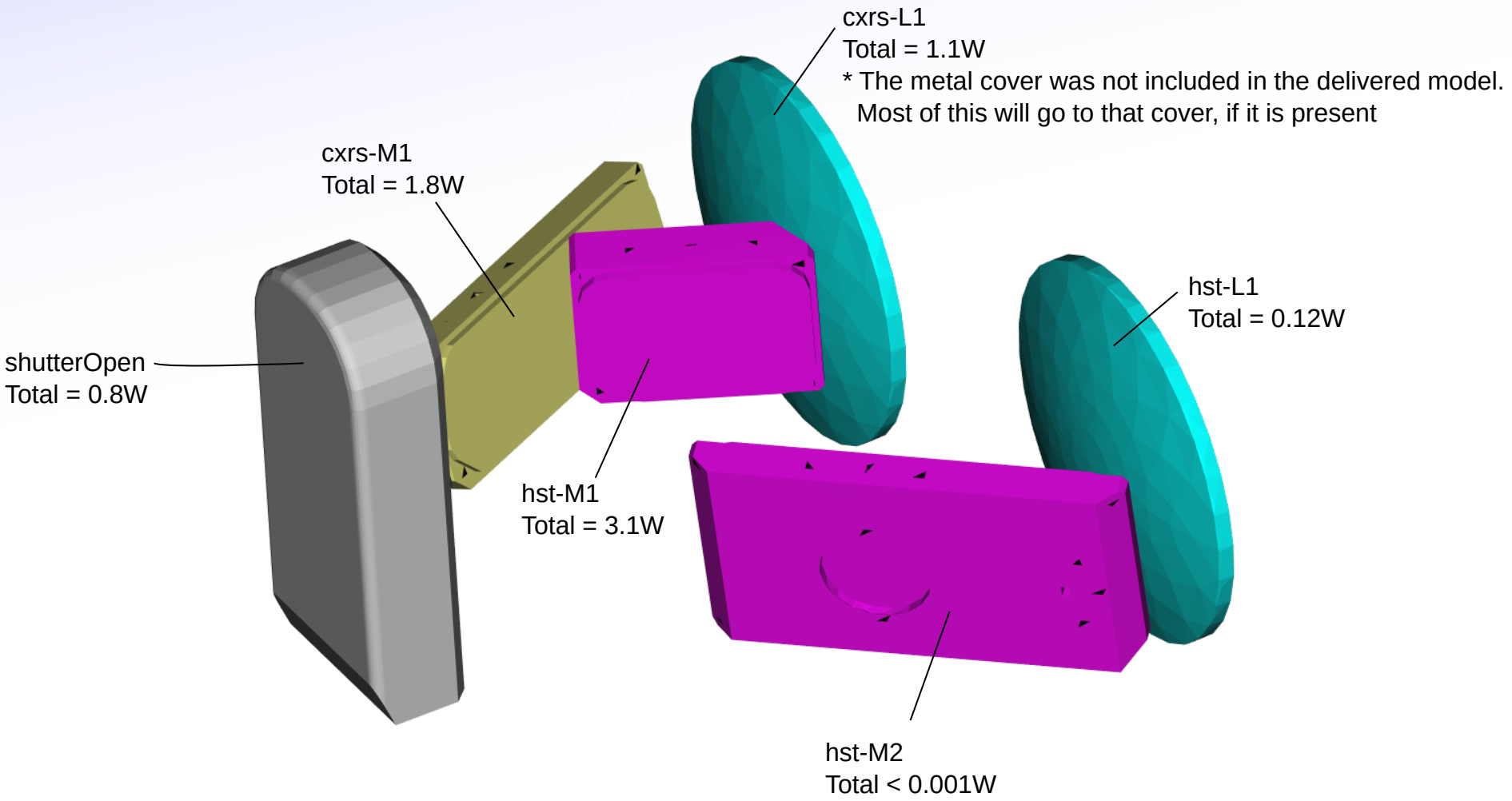
Radiation loads (Nov 2020)

The inner plate on which the graphite is mounted sees a very small load only through the gap:



Radiation loads (Nov 2020)

With the shutter open, the inner components see a negligible heat load:



Design check (Oct/Nov 2020)

The shutter has to open fully to not block the CXRS lines of sight: