the outer surface to a radial center of the window. The outer surface has a first radius of curvature and the inner surface has a second radius of curvature that is different from the first radius of curvature.

[0011] Yet another aspect of the present disclosure is directed to a method of depositing a layer on a substrate. The method includes providing a substrate on a substrate support within a processing chamber. The processing chamber includes a gas inlet and a gas outlet. The method further includes providing an upper window in the processing chamber. The upper window is transparent to enable radiant heating light to pass through the upper window. The upper window has a convex first face spaced from the substrate to define an air gap therebetween. The first face includes a radially outer surface and a radially inner surface circumscribed within the outer surface. The outer surface has a first radius of curvature and the inner surface has a second radius of curvature that is different from the first radius of curvature. The method further includes directing a gas flow through the gas inlet, into the air gap between the first face and the substrate, and to the gas outlet.

[0012] Various refinements exist of the features noted in relation to the above-mentioned aspects. Further features may also be incorporated in the above-mentioned aspects as well. These refinements and additional features may exist individually or in any combination. For instance, various features discussed below in relation to any of the illustrated embodiments may be incorporated into any of the above-described aspects, alone or in any combination.