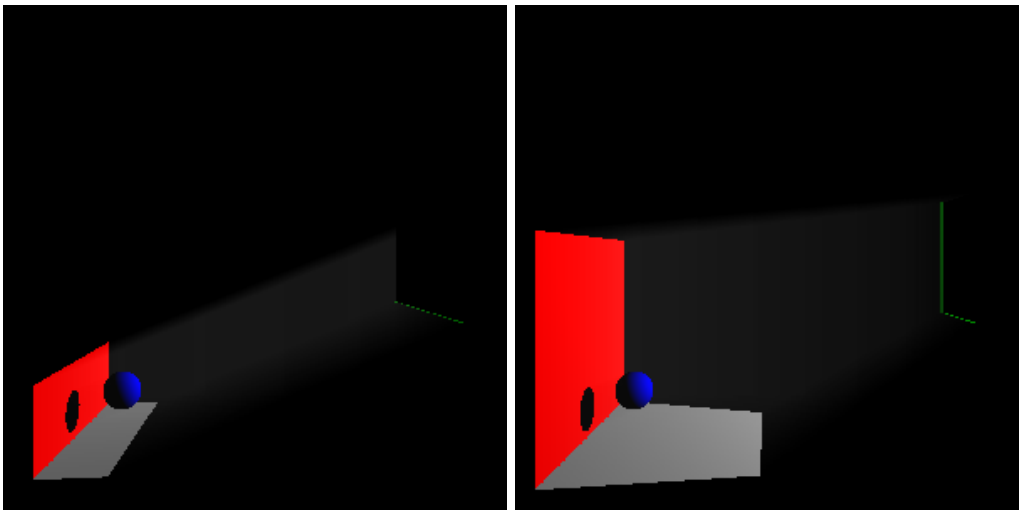
FP Milestone 1 Report - Katie LaRue and Sean Brzoska

For each milestone, you will add a milestone report to your repository's `reports` directory.

1. Briefly describe your progress. Address all items that were in your project proposal for this milestone.
    a. We have implemented a basic example of volumetric lighting within our test scene 12 using camera 1. The rendering of this image is still pretty slow with a 300x300 frame and gets slower as we increase the size. We are currently working on making the volumetric lighting go through a more defined space and working on how the space is lit when we change the intensity of the light source. We are also trying to better implement the volumetric lighting to have better cascading effects (ie, brighter at the source). We have also looked at information needed for our implementation of global illumination by the next milestone.
2. Include some form of visual evidence of the results you've achieved so far:

    Left (Directional Light) Right (Point Light)

    a. 
3. Provide instructions for running your code, and a description of what I should expect to see when I do so.
    a. A run of our code can be done in the WWURay folder from the julia environment with the command `WWURay.main(12, 1, 300, 300, "results/volumetric.png")`
    b. We currently have just one room with a couple of objects in it that we are using for testing. We hope to add more things of different materials and shapes so that we can try to make sure that our light is behaving correctly.
4. If the project's goals need to change at all (e.g., to adjust scope to account for unforeseen challenges, or to further clarify goals), provide an updated set of goals for your final deliverable. Explain each change with respect to your original goals.
    a. We originally did not have a lot of ideas about what our main goals were but would like to implement volumetric lighting that isn't just global, just isolated (fog/cloud sphere objects) and potentially add color to our lights in the A2 base code. This seems more reasonable than just generic optimization. Optimizing volumetric lighting since it's relatively optimized

to start, and changing the number of steps ‘n’ inside the model decreases and increases its runtime respectively.