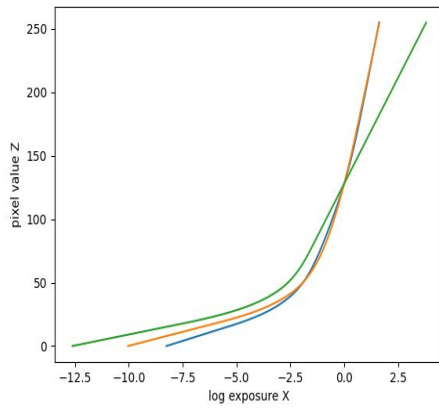CSCE 489/689 - Computational Photography
Assignment 6
Jorge Farinacci
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**Results**

Cathedral



ToneMapping gamma = 0.5
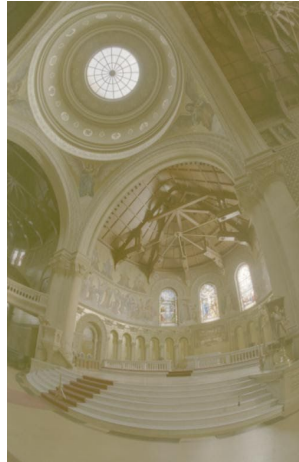


Global                    Local                    Reinhard
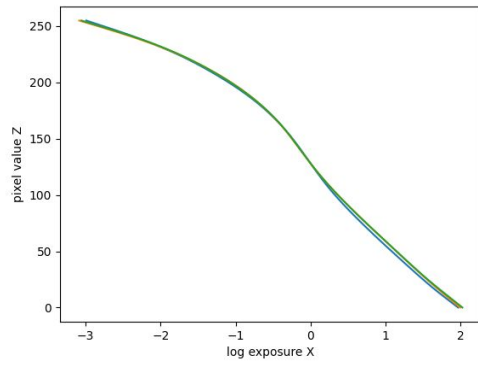
# Office



## Tonemapping gamma 0.5



Global                    Local                    Reinhard

For the assignment I followed Debevec paper *Recovering High Dynamic Range Radiance Maps from Photographs* to obtain radiance maps, particularly equation 4 and equation 6. From the instructions I implemented a simple global tone mapper utilizing gamma compression and a simple local tonemapper, both made simple to do through provided instructions. Looking at the results while they were relatively good and clear matching closely to sample outputs i noticed they could be made better. Doing some research I came across a variation of the global tonemapper known as the reinhard tonemapper algorithm. Having read about it I chose to also implement it as seen above.Looking at the output id argue that it produced a clearer result for both the cathedral and the office, with the aggieland water tower really popping in the office image.

One of the problems I noticed was with random sampling. Having run the algorithm copious times with generally small variations one of the times the image that returned was considerably darker. And the CRF graph was considerably different. I assume this is because the points sampled were not good enough, maybe being to grabbed from a region to close to each other or maybe were values of similar illumination sampled across the images.