

# CRF-net: Single Image Radiometric Calibration using CNNs

Han Li  
College of William & Mary

Pieter Peers  
College of William & Mary

## ADDITIONAL RESULTS

The following pages contain four tone-mapped examples per linear RAW image from the validation set. The four tone-mapped examples (and thus corresponding camera response functions) are randomly selected for each linear RAW image from DoRF.

The quality of the estimation of the camera response function varies with image and camera response function. There are, however, cases for which the (lack of good) content input of the image is the main problem (e.g., Figure 5). In some cases, we get very good estimates for most curves, except a few (e.g., Figures 7, 11, 13, 14, 18, and 19). Subjectively, we argue that the estimates for Figures 4, 7, 9, 11, 12, 14, 15, 16, 18, and 20 are very good (with possibly an occasional single suboptimal estimate). The estimates for Figures 1, 2, 3, 6, 8, 10, 13, 17, and 19 are not perfect, but still good. Finally, the estimation quality for Figure 5 is not good. However, we would like to point out, as noted in the paper, that the estimation quality generally exceeds that of a simple gamma correction, and that despite a few less successful results, CRF-net is a robust method for single image radiometric calibration.

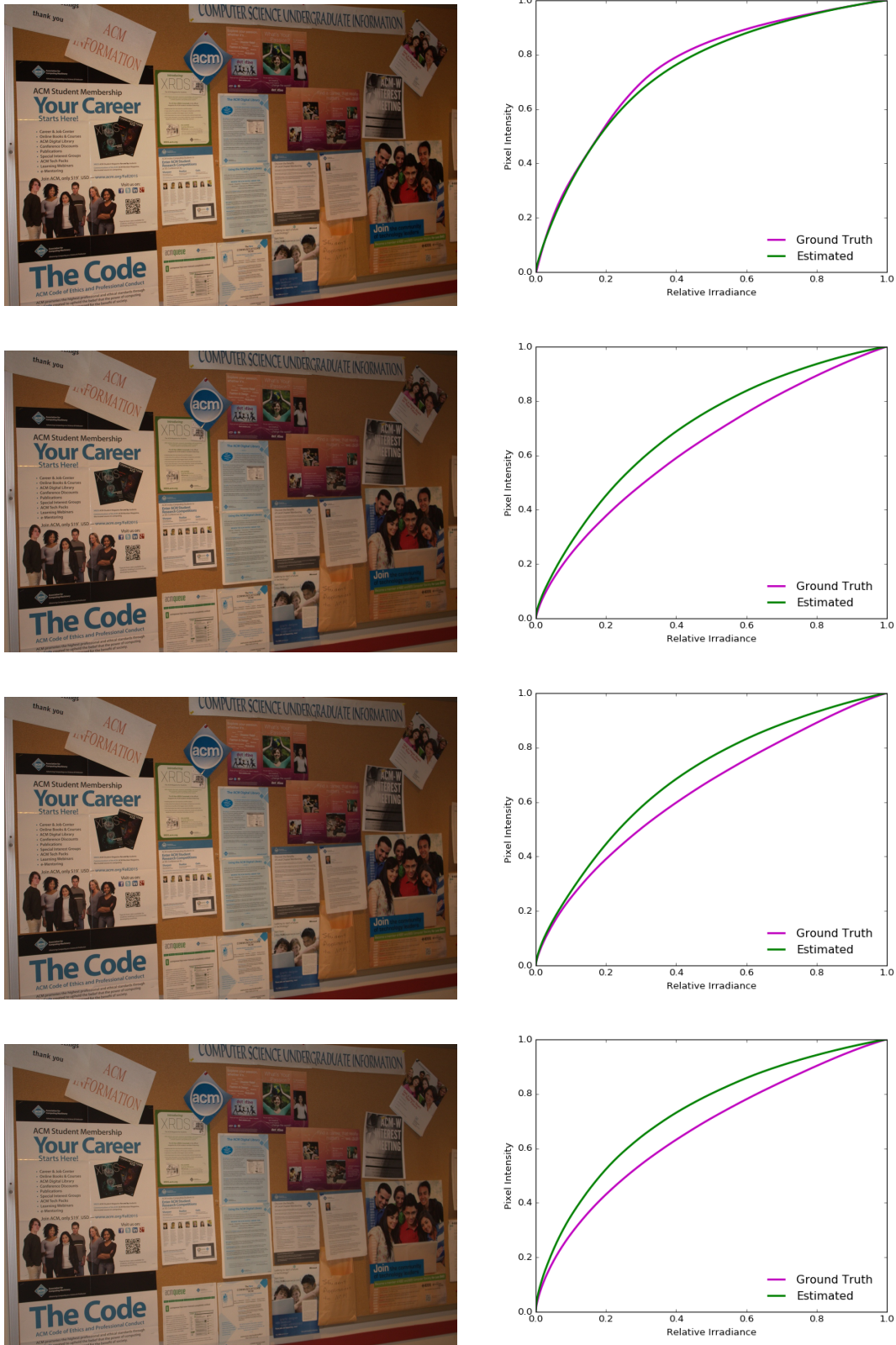


Figure 1: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

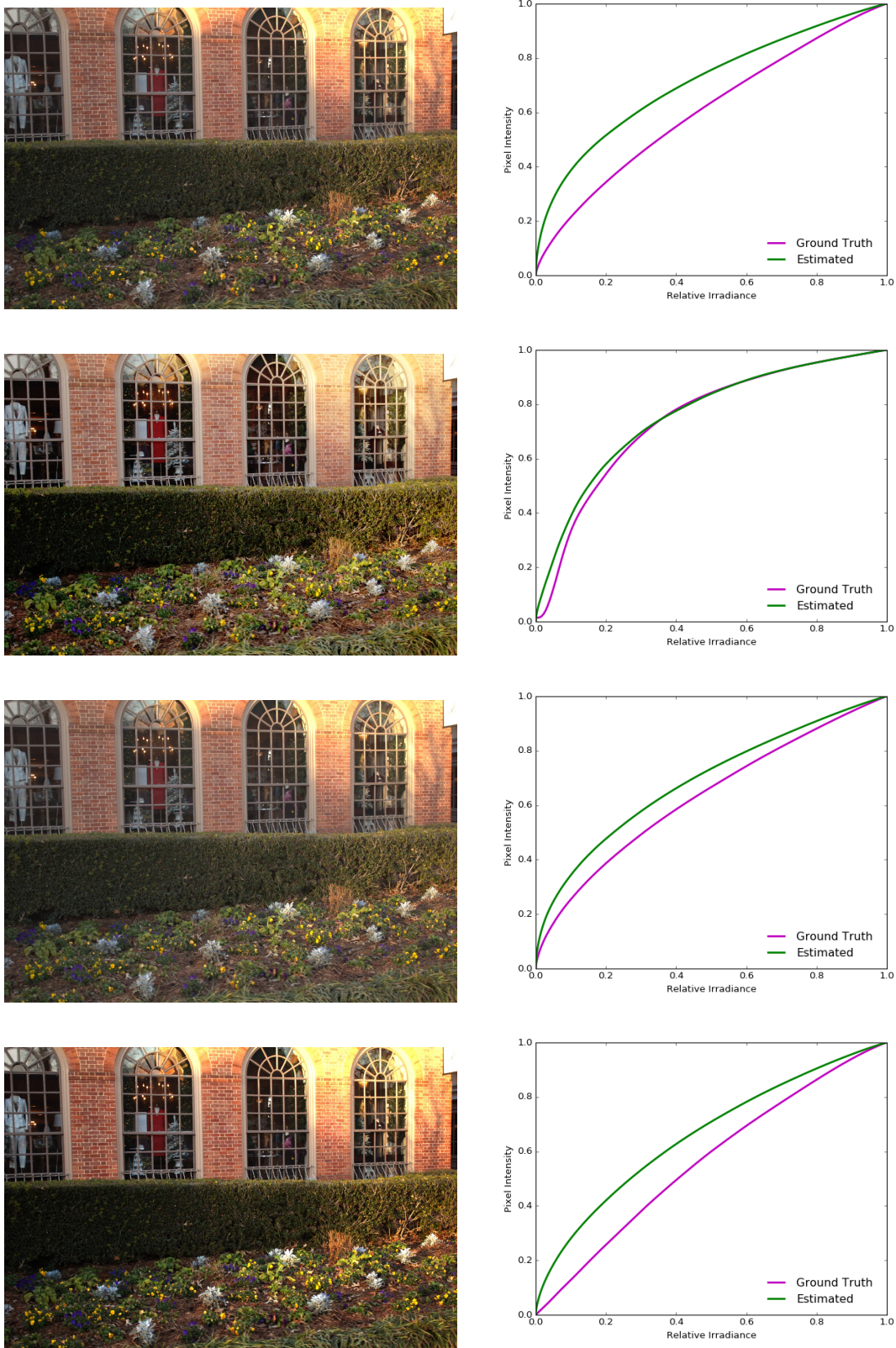


Figure 2: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

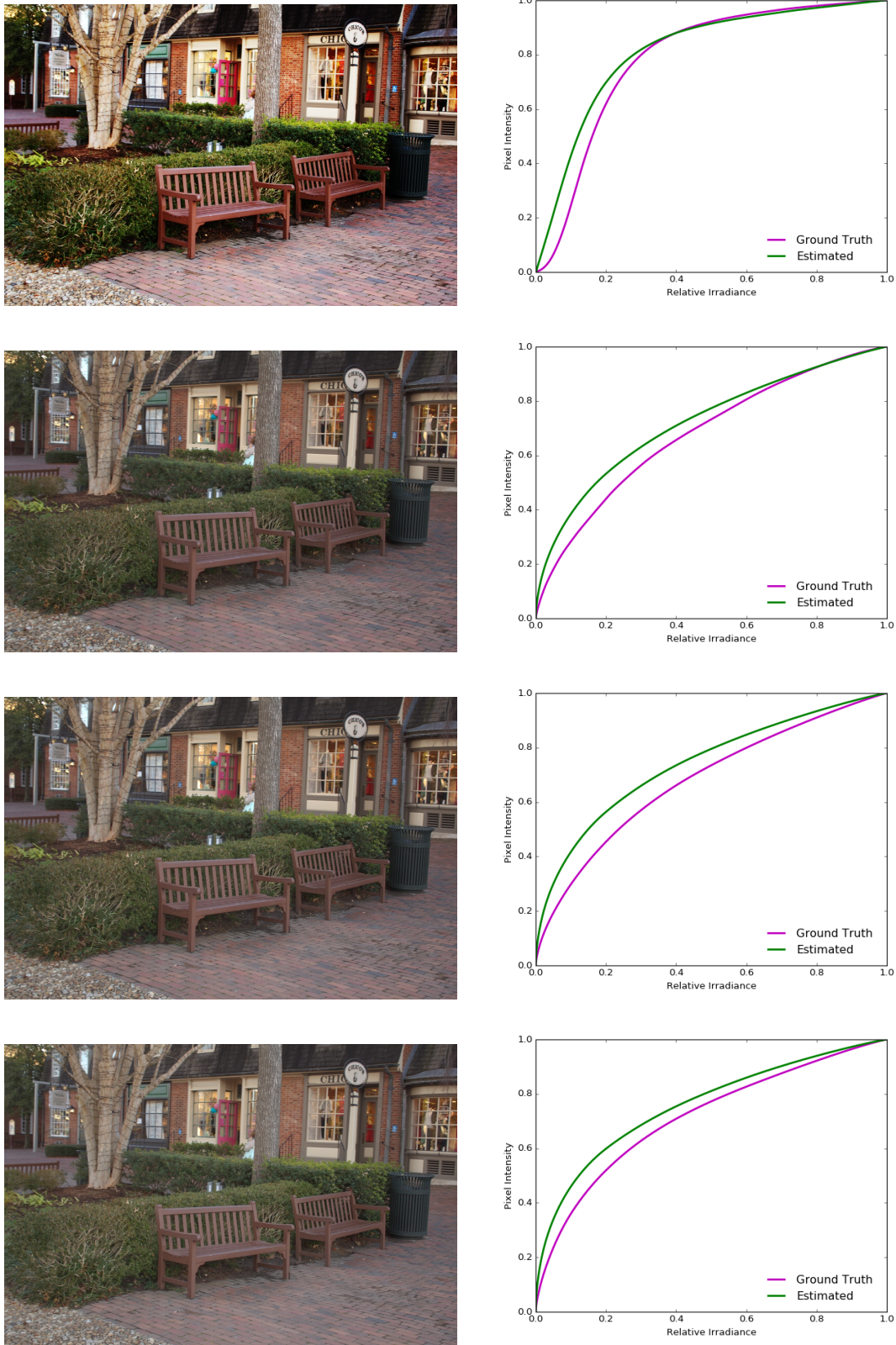


Figure 3: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

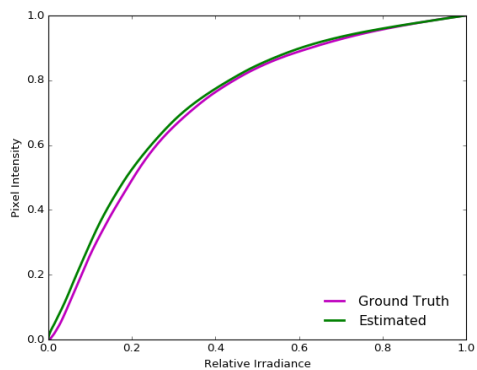
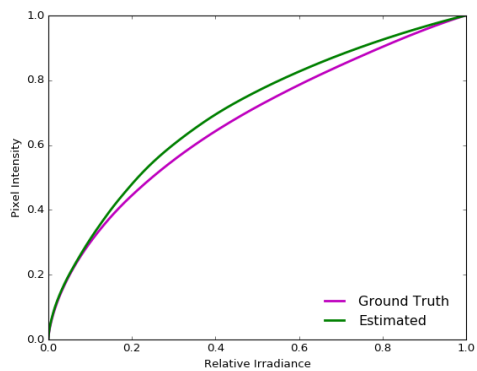
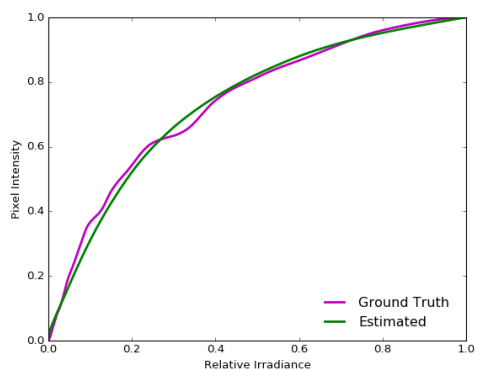
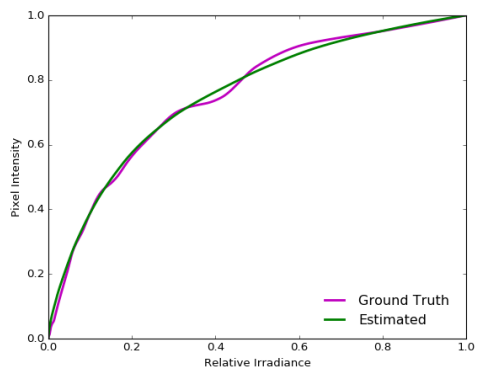


Figure 4: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

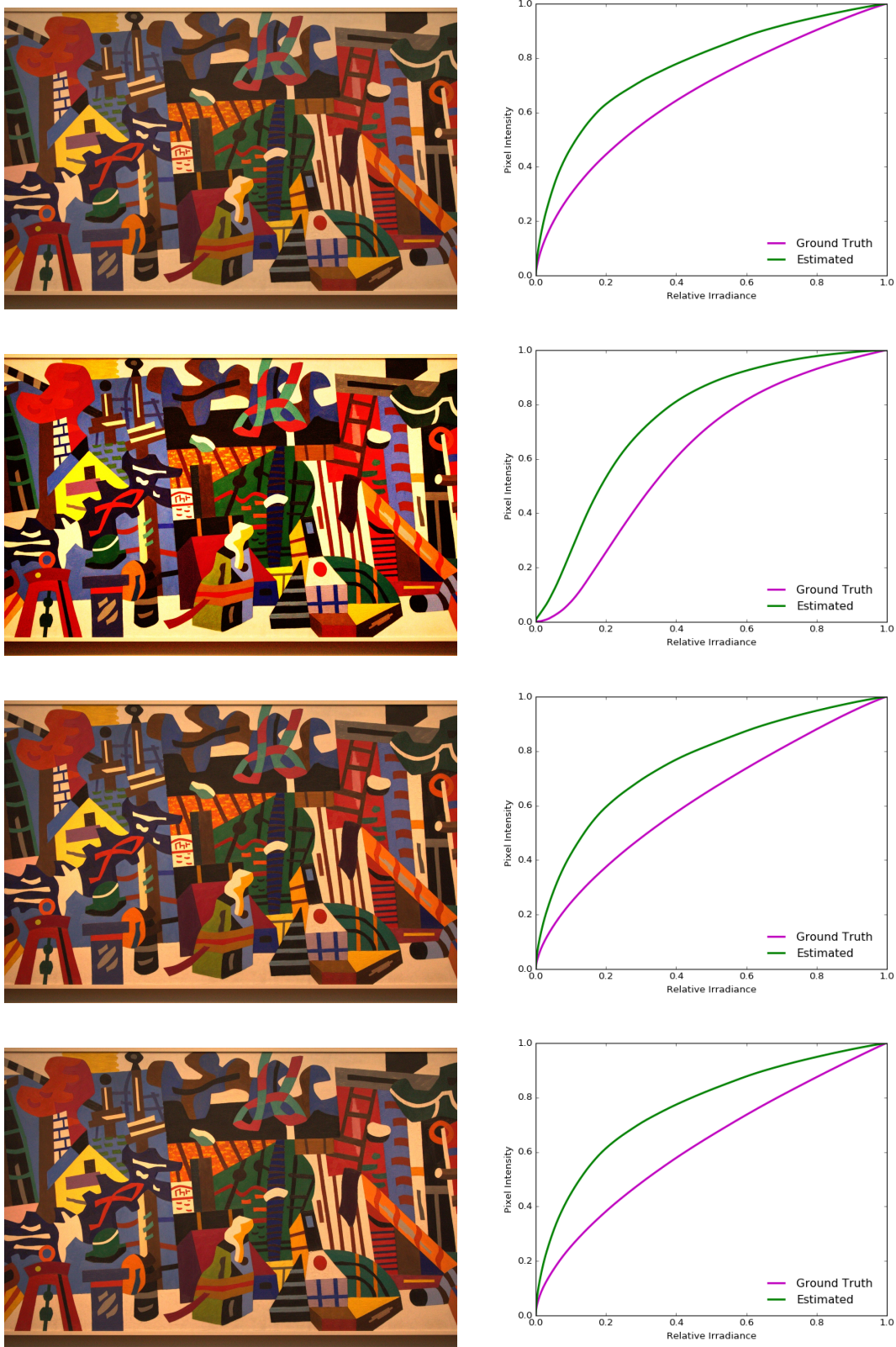


Figure 5: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

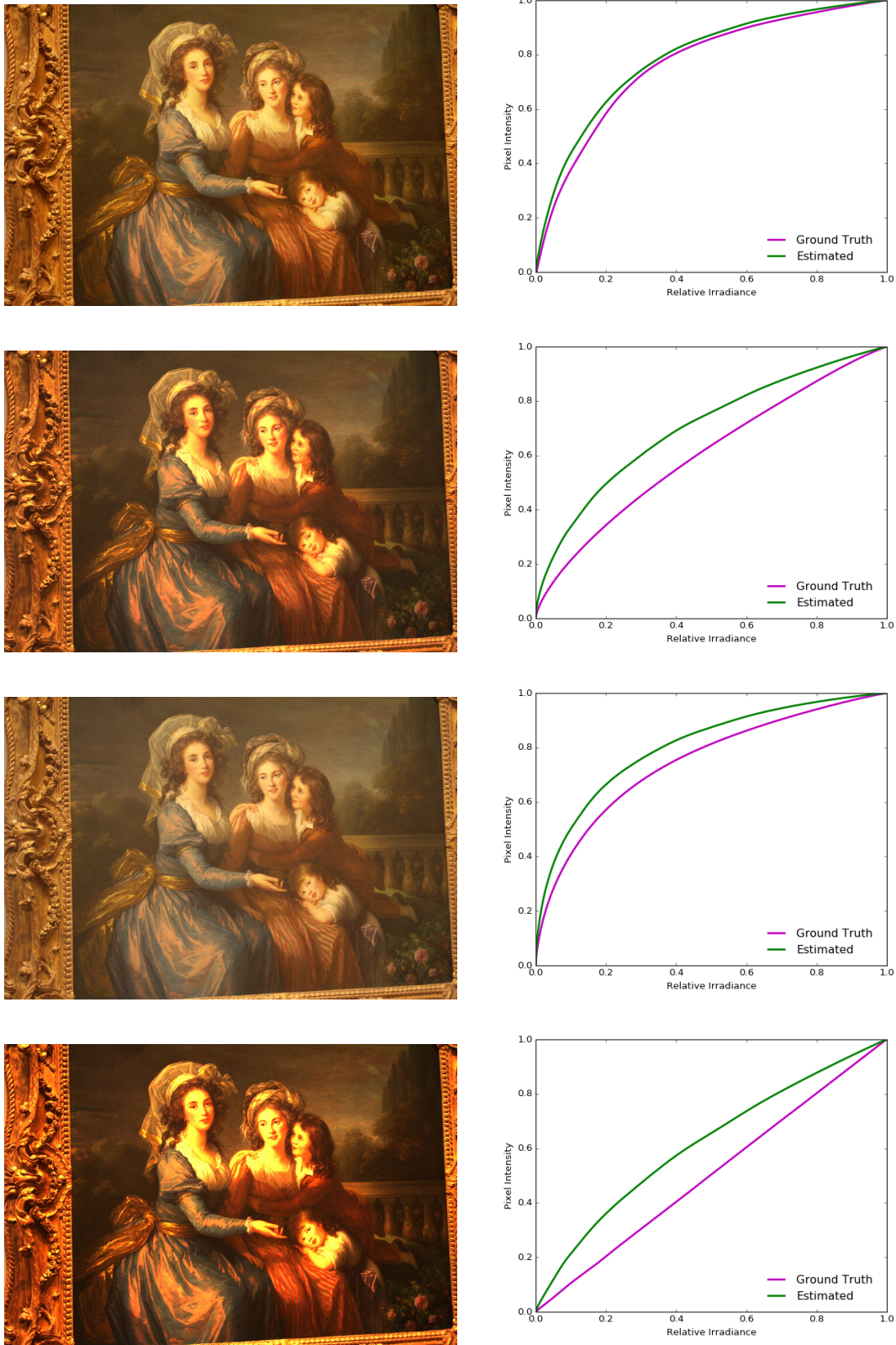


Figure 6: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

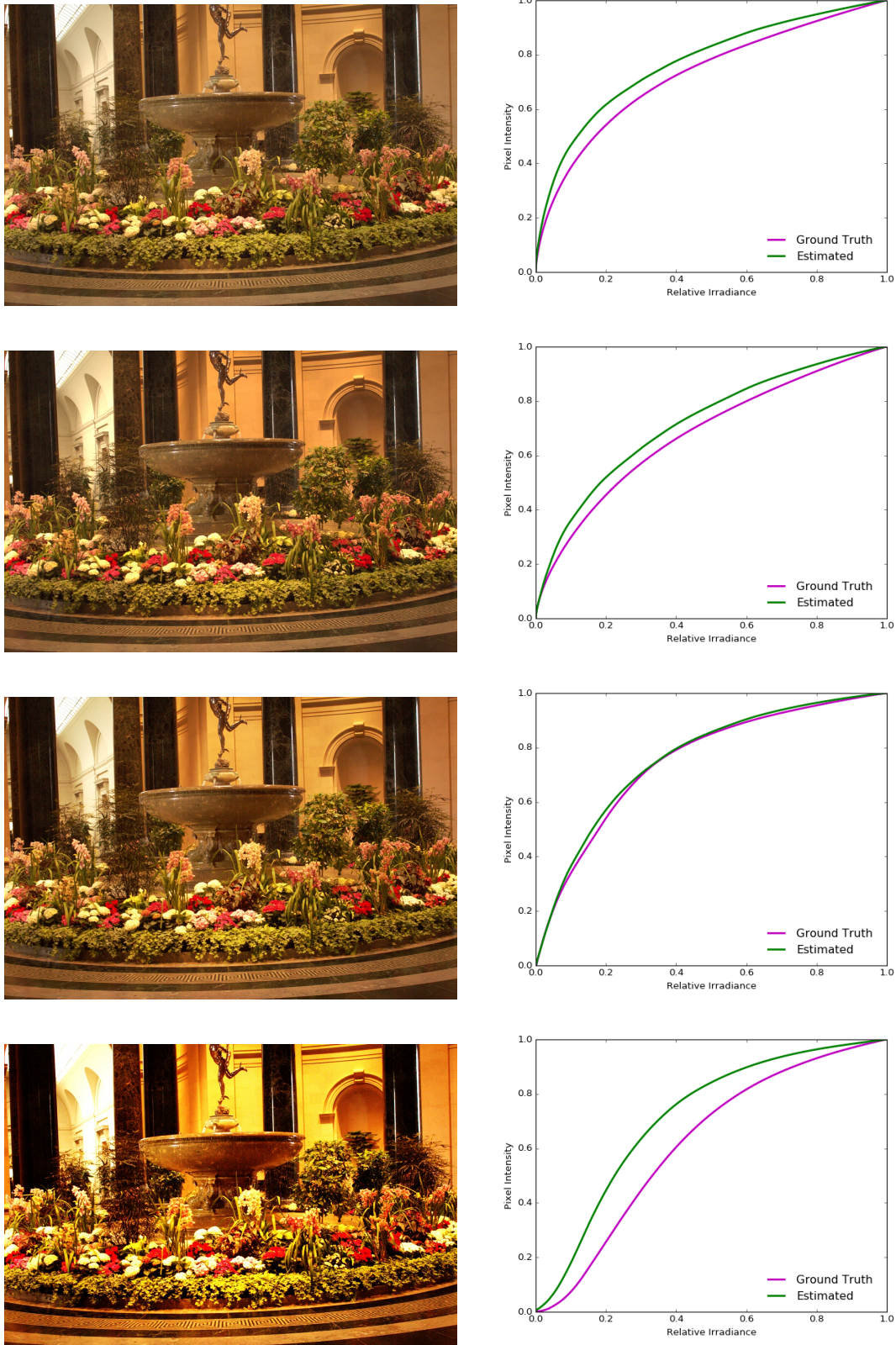


Figure 7: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.



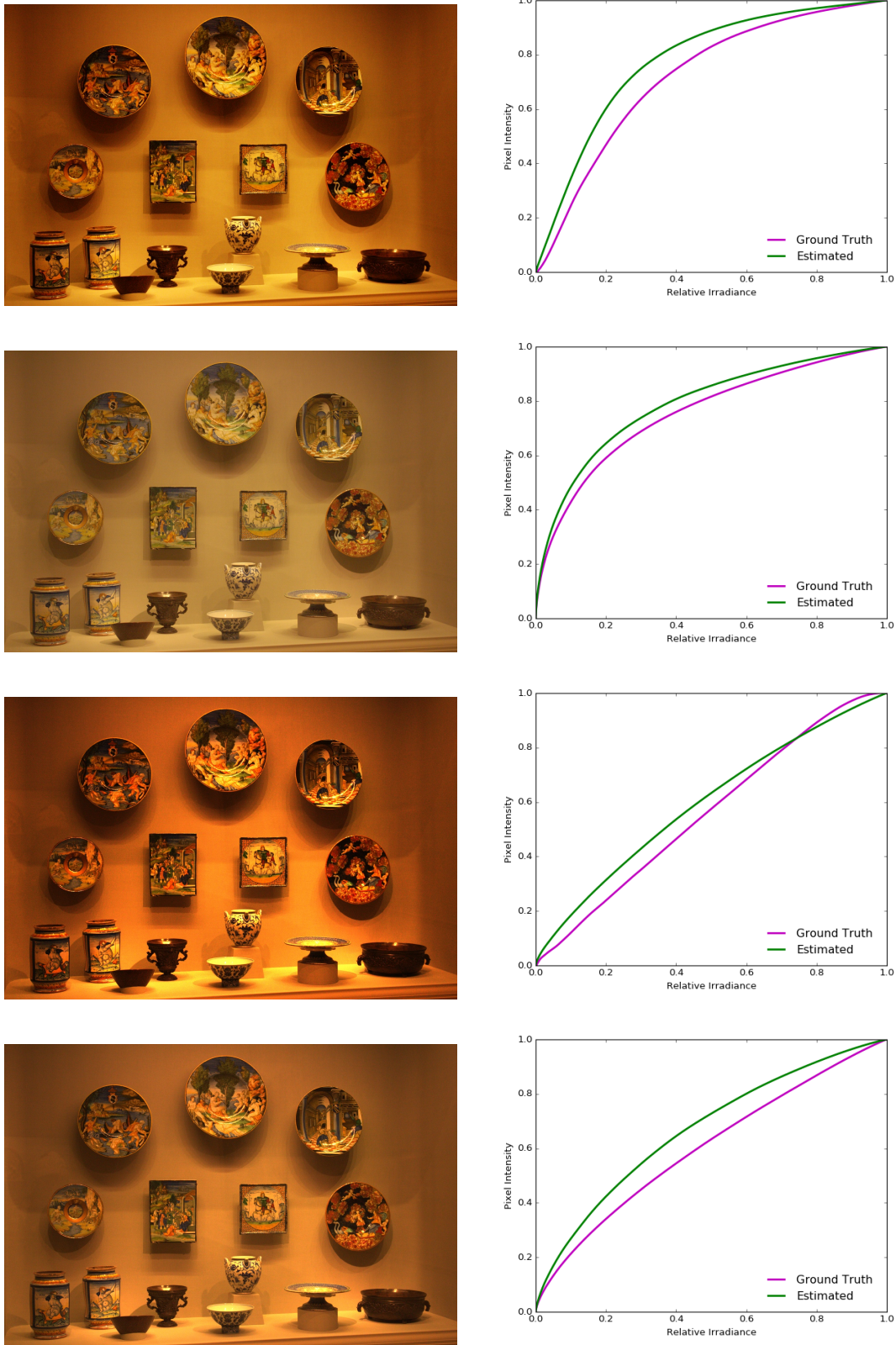


Figure 8: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

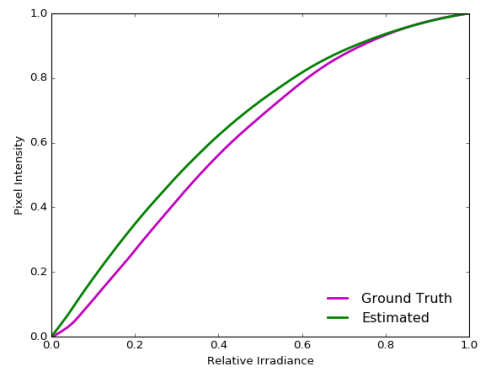


Figure 9: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

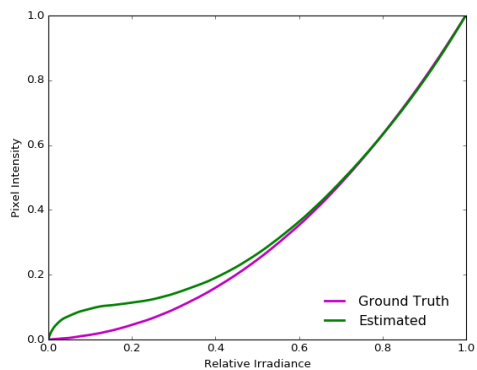
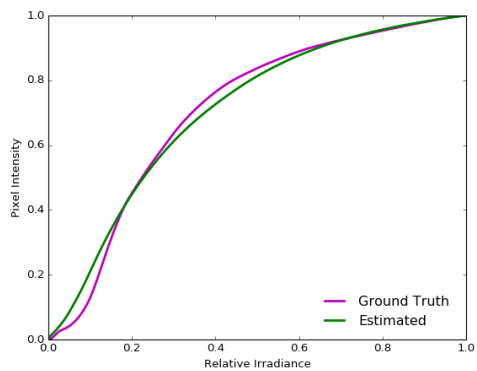
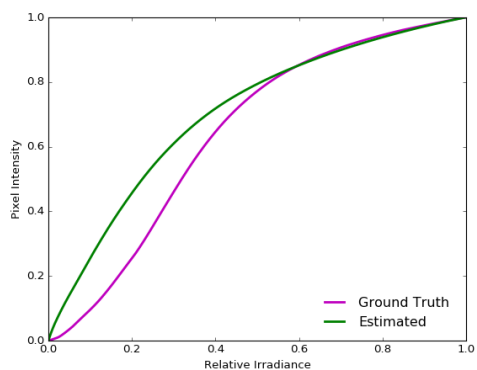
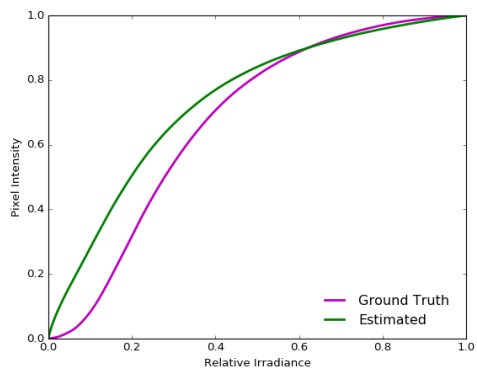


Figure 10: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

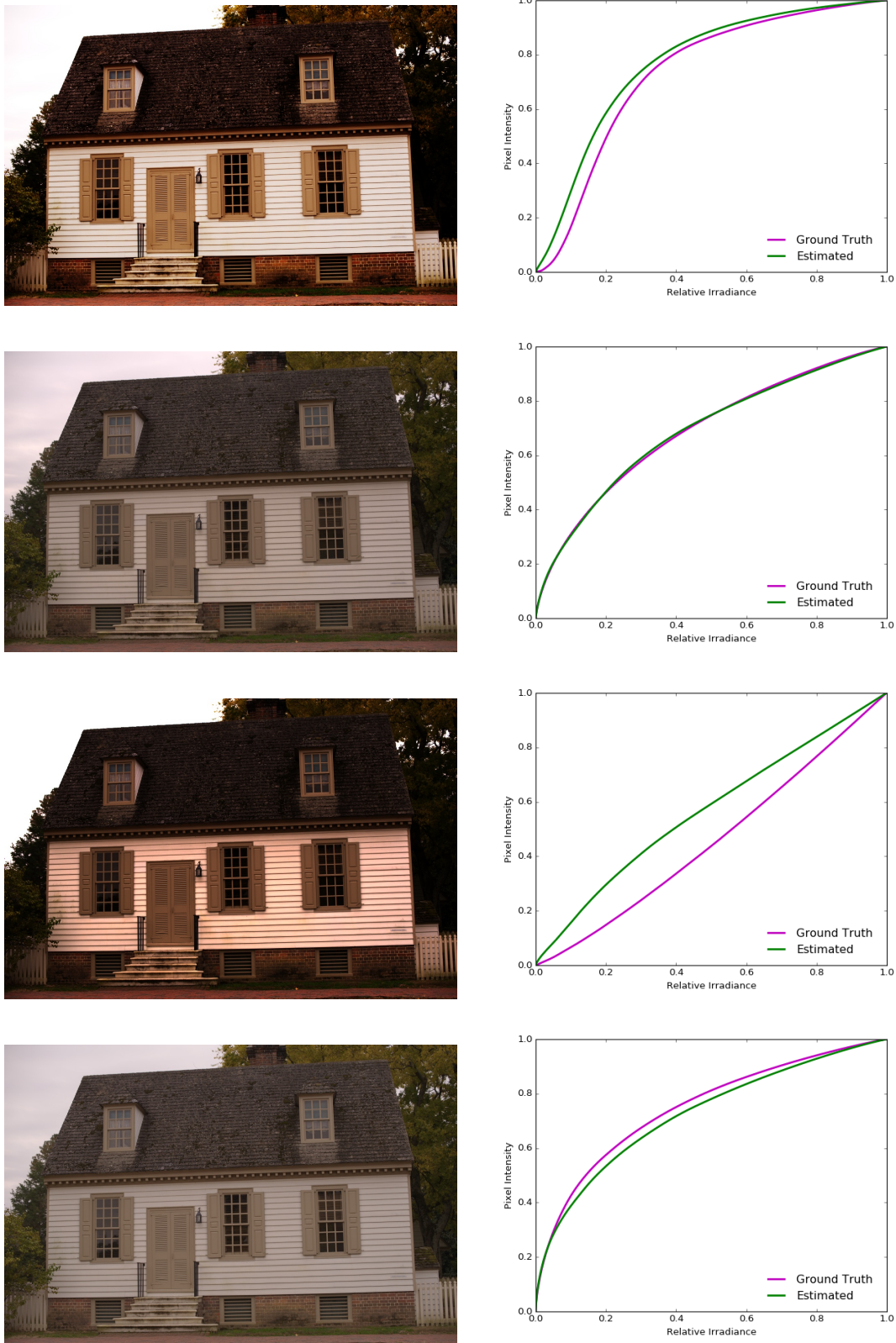


Figure 11: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

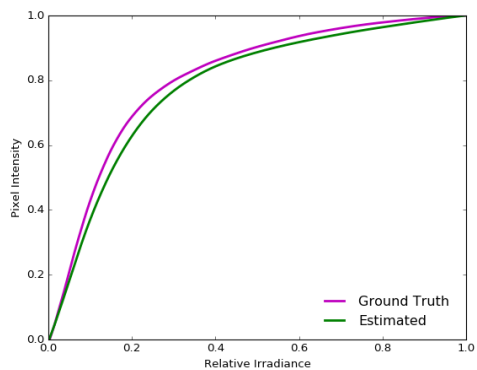
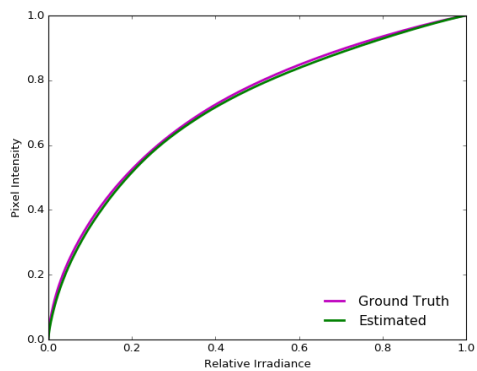
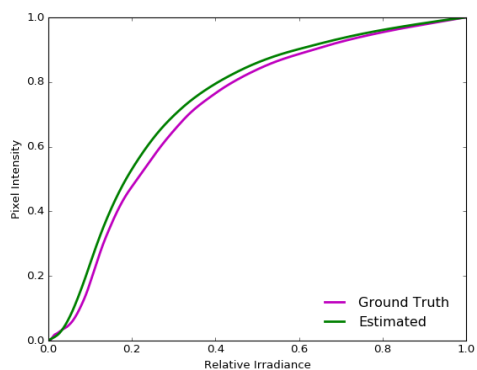
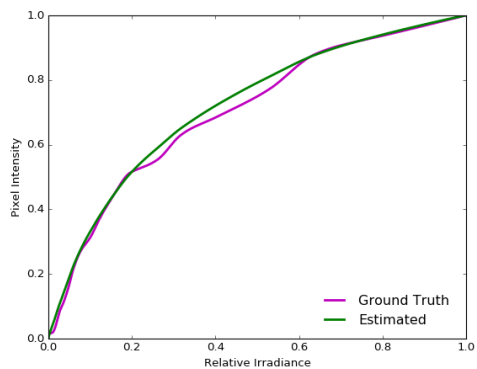


Figure 12: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

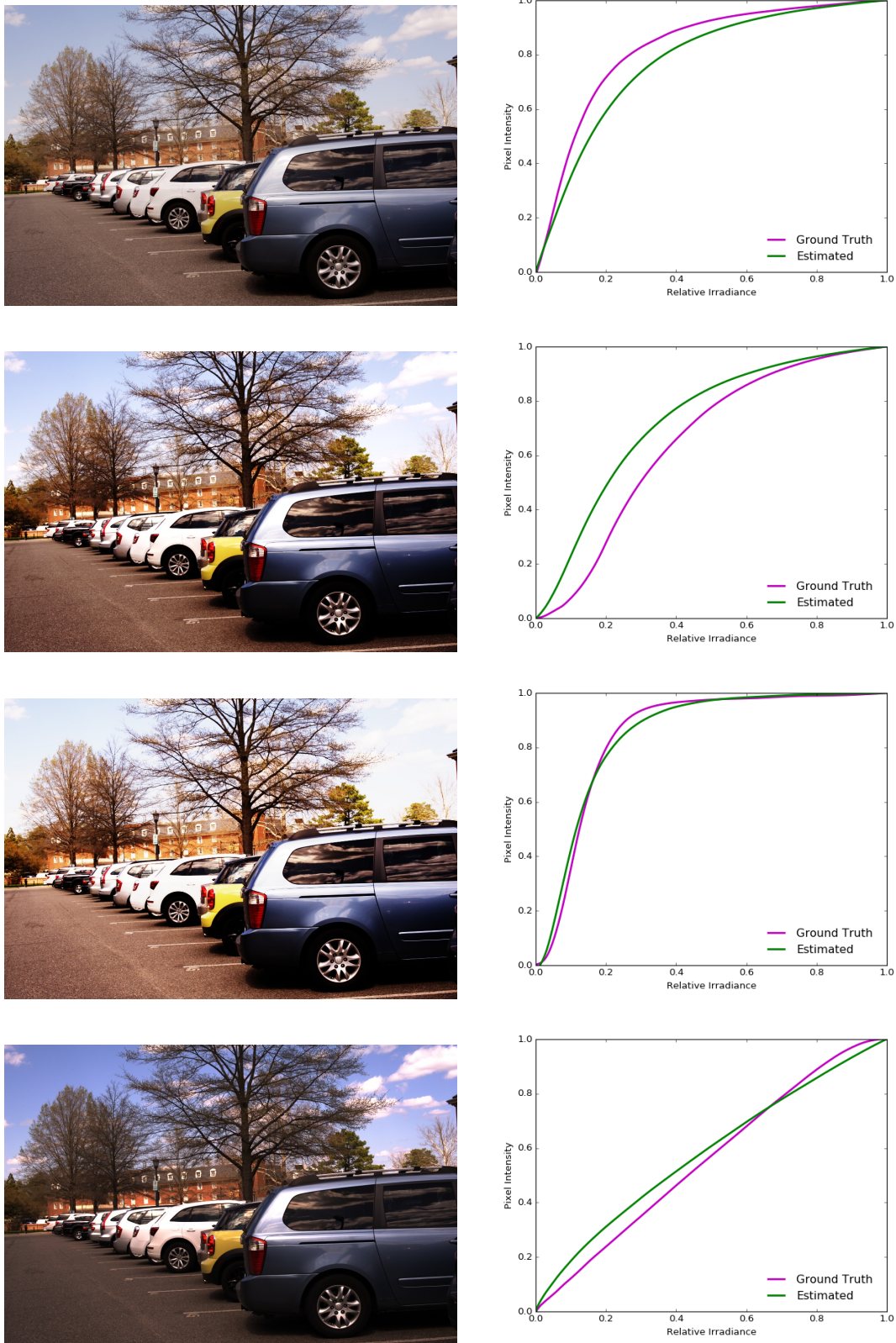


Figure 13: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

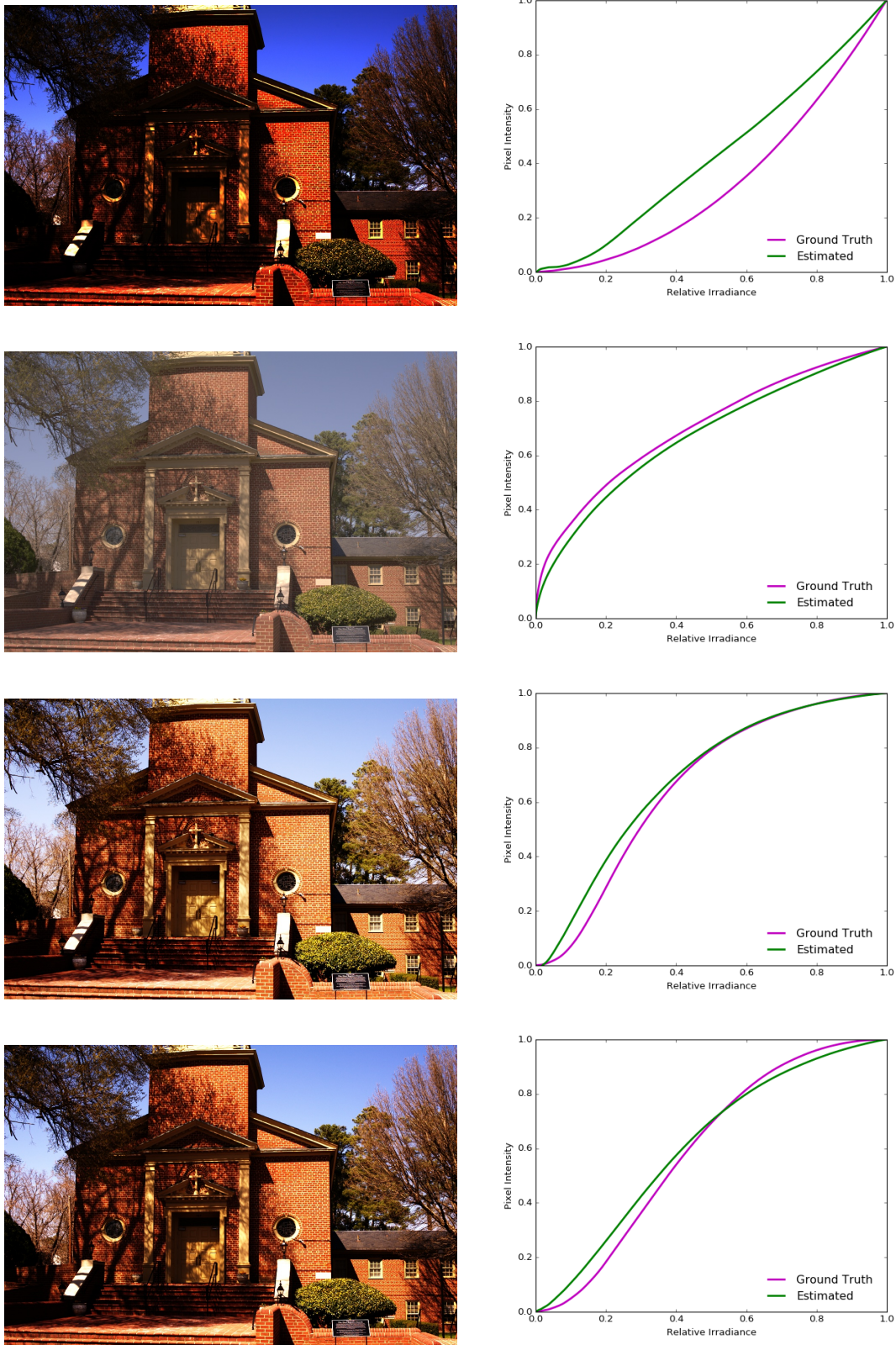


Figure 14: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

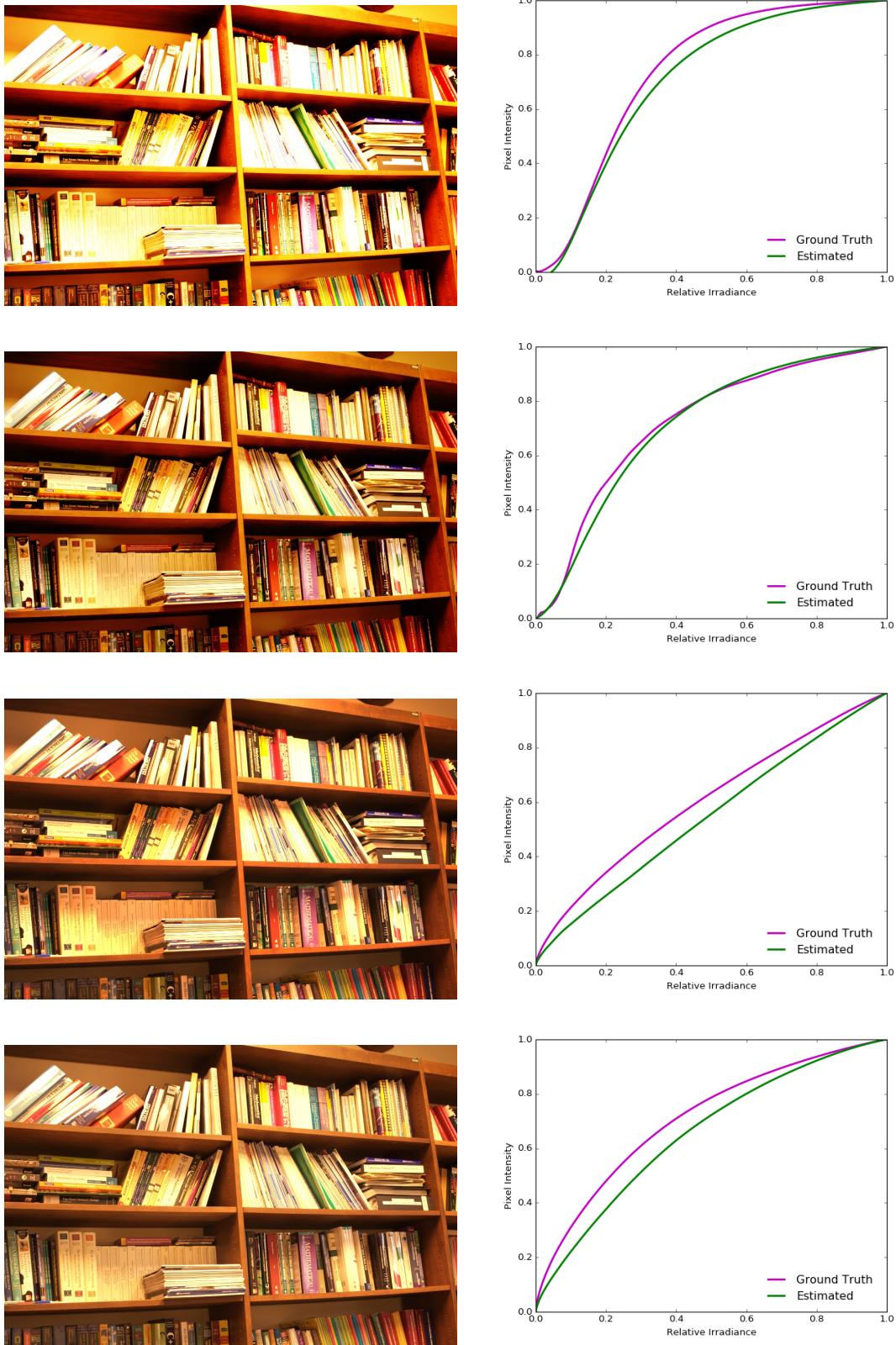


Figure 15: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.



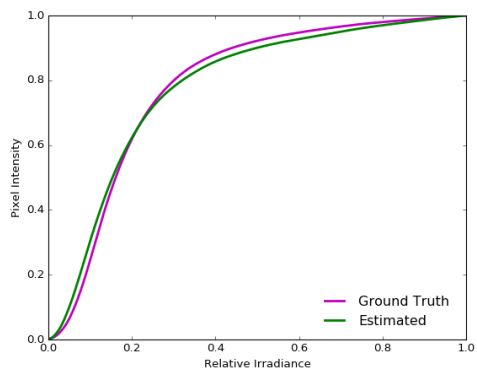
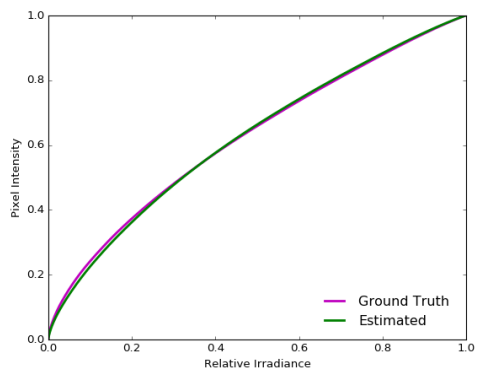
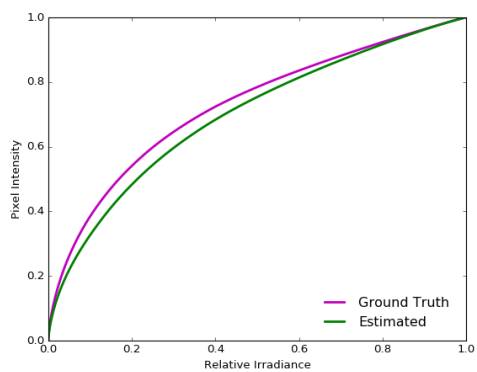
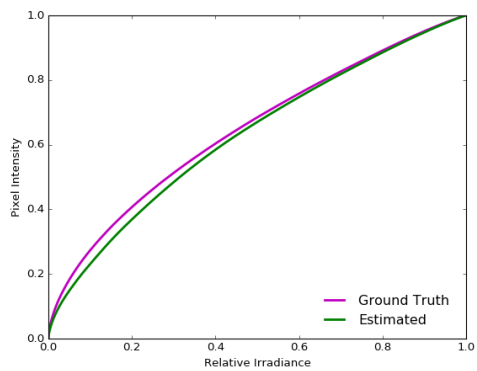


Figure 16: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

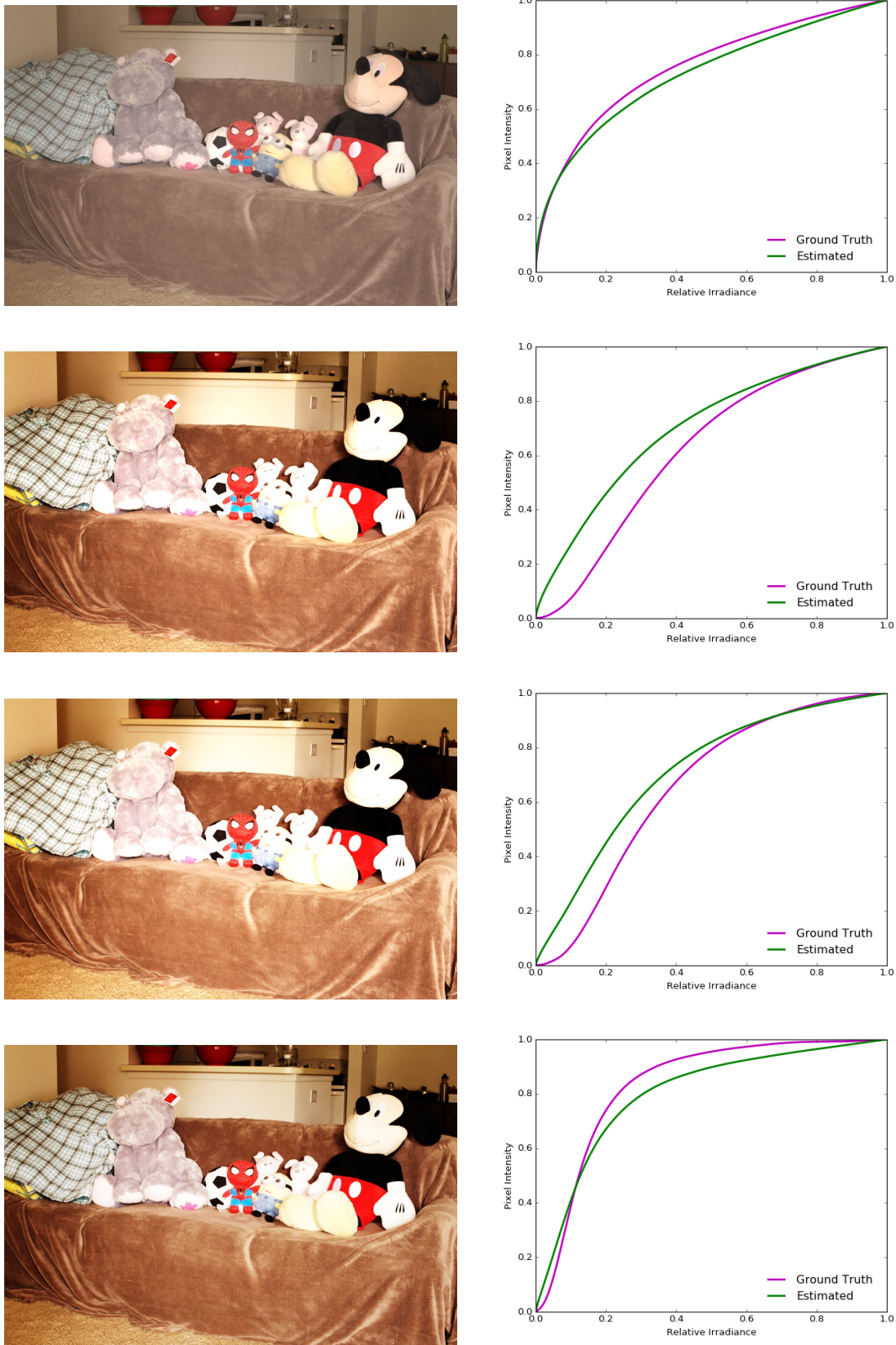


Figure 17: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

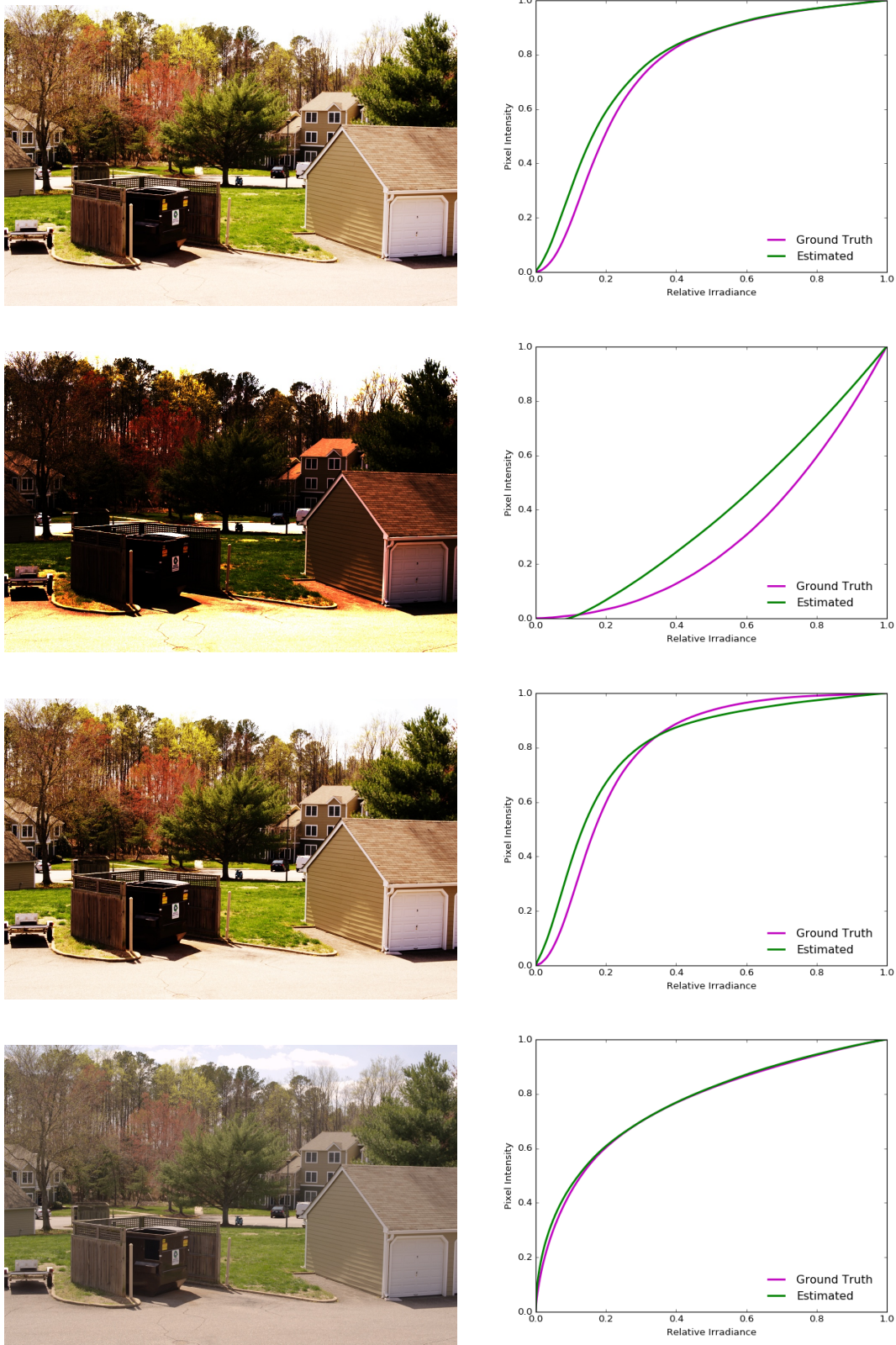


Figure 18: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

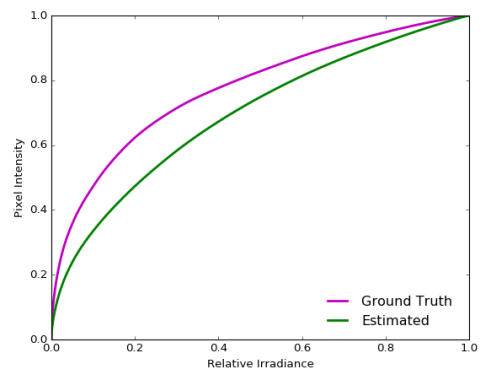
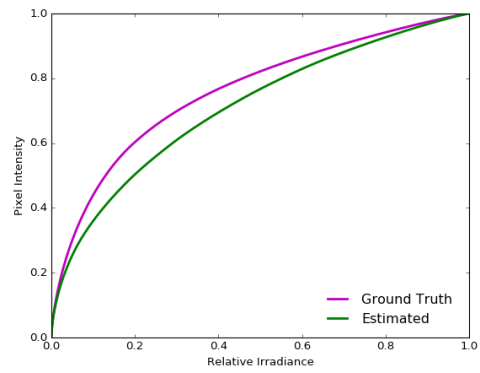
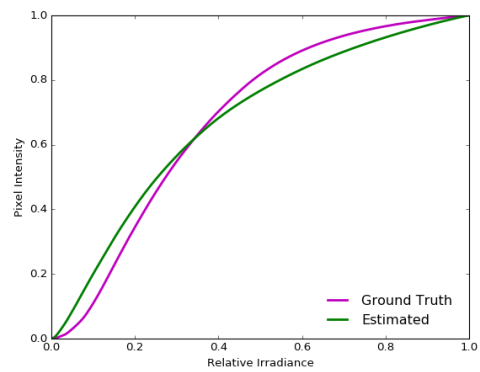
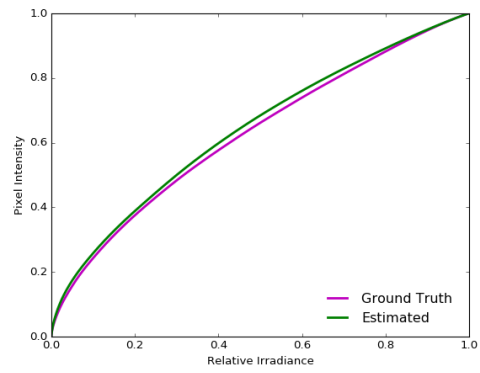


Figure 19: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.

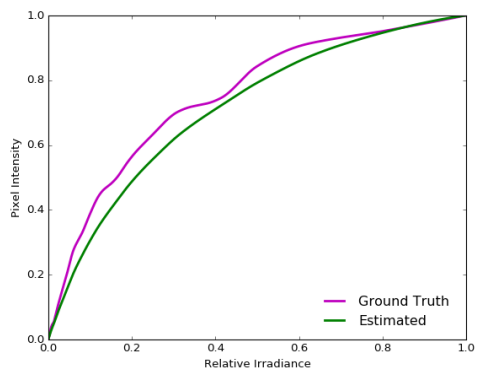
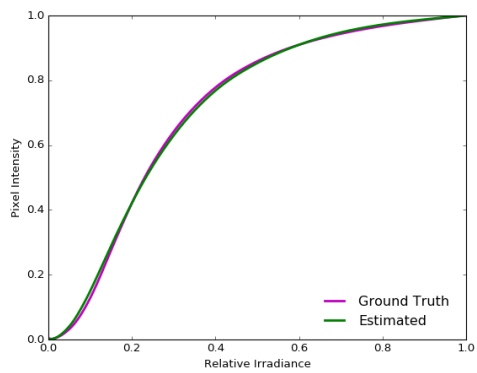
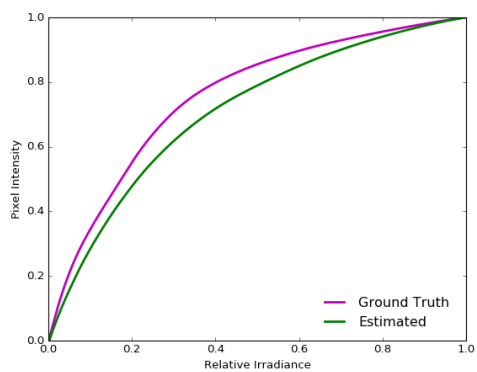
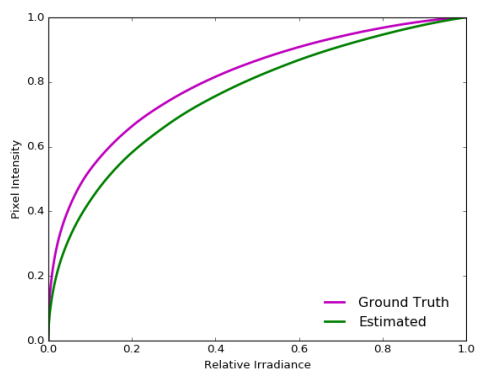


Figure 20: Four randomly selected camera response functions applied to one of the radiometrically linear basis images from the validation set.