

Appendix - ICIP 2019 Submission

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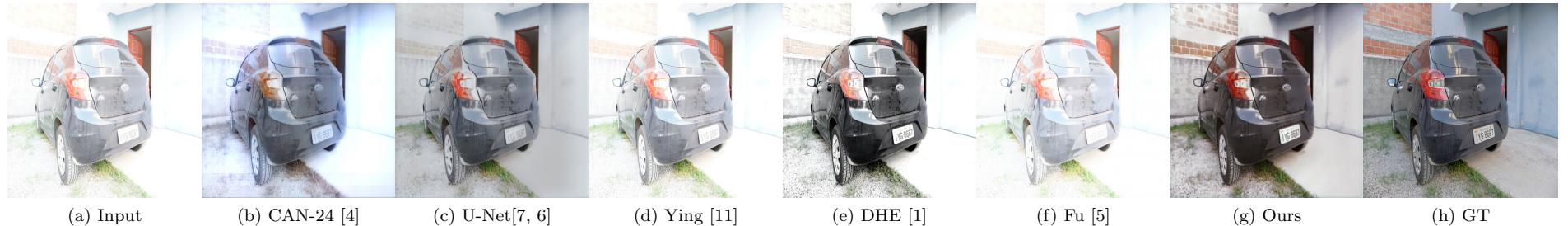
Introduction

This appendix includes results of the proposed image restoration and reconstruction model on distinct datasets. We compare our results to other approaches, including [1, 4, 7, 5, 11] using a large set of image quality assessment measurements, such as

- Peak Signal to Noise Ratio – PSNR,
- Structural SIMilarity – SSIM [9],
- Feature Similarity Index – FSIM (grayscale)[12],
- Gradient Magnitude Similarity Deviation – GMSD [10],
- Canny [3] Intersection over Union, and
- Mean Absolute Error – MAE.

Images are better visualized in digital format.

1 Results on the A6300 Multi-Exposure Dataset from [8] for Overexposed Images



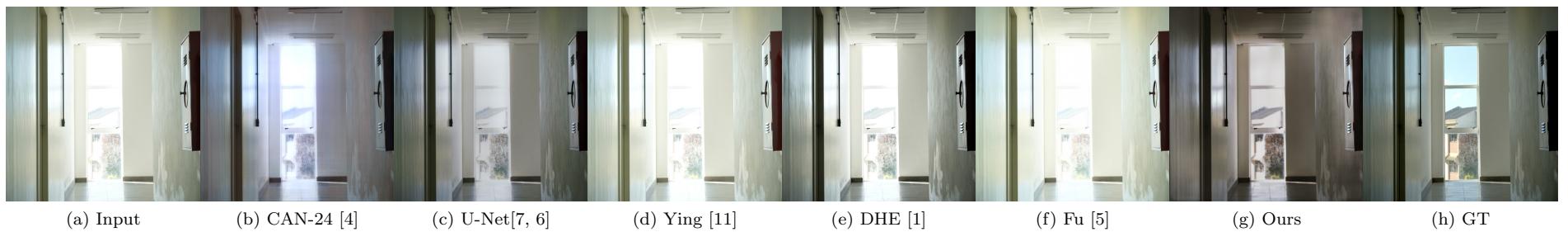
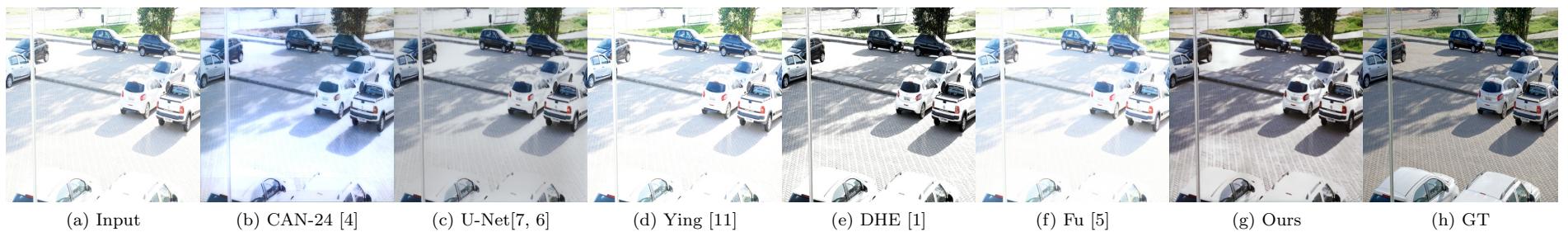


Figure 1: Qualitative Results

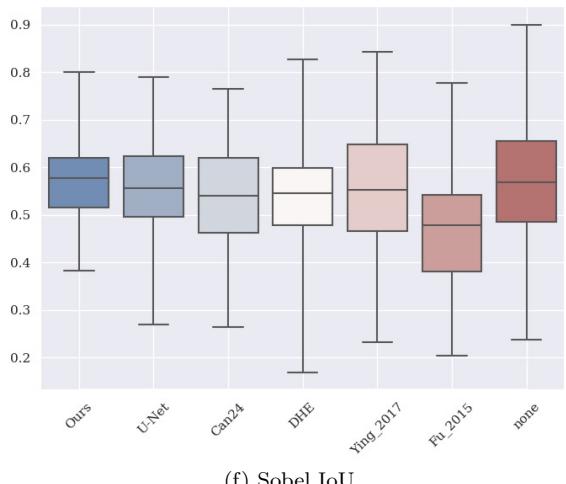
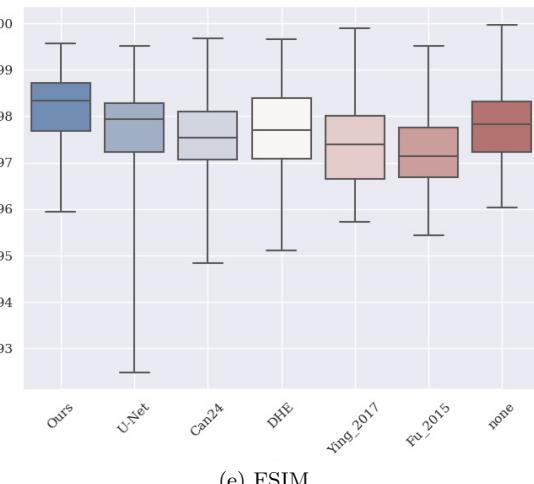
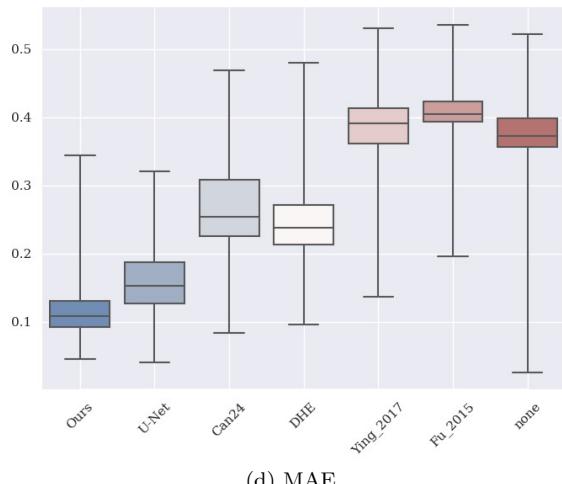
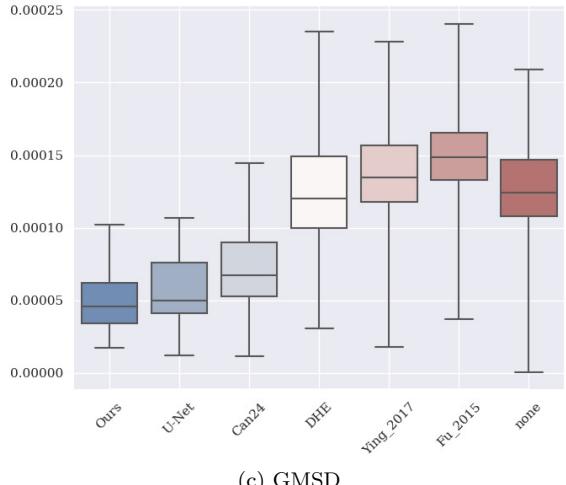
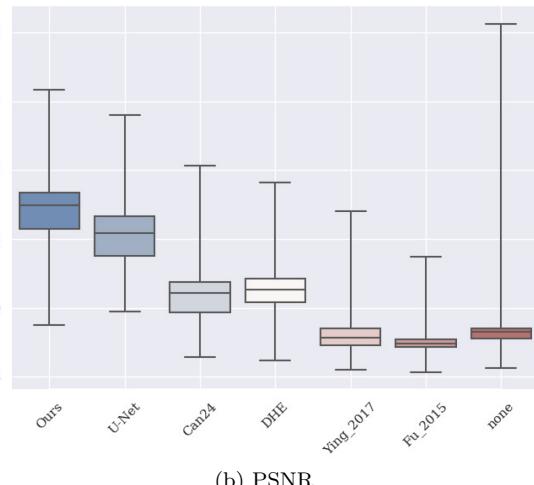
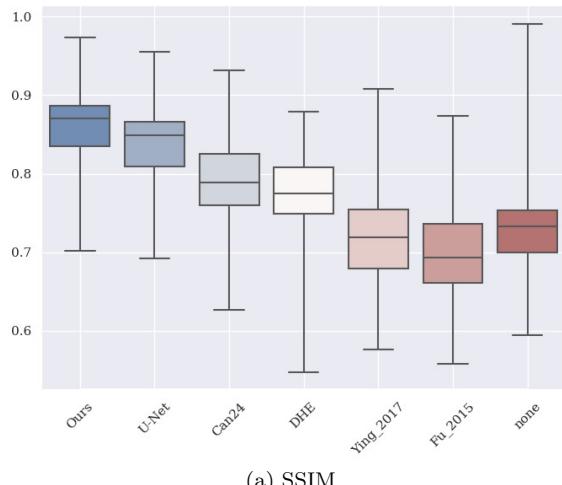
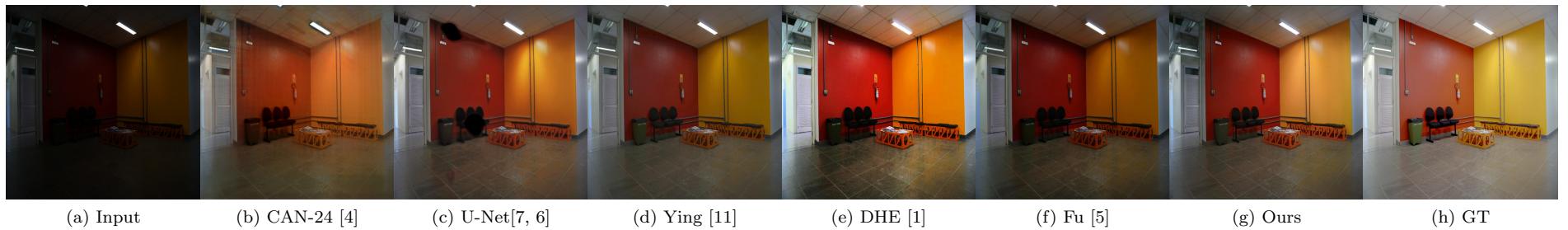
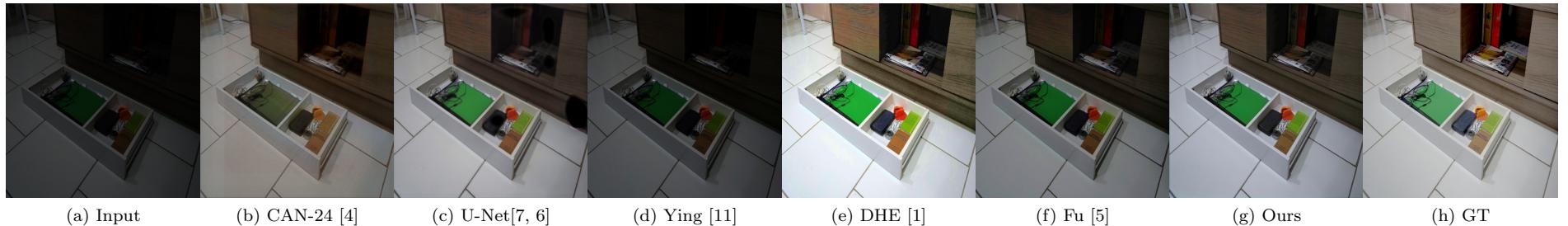
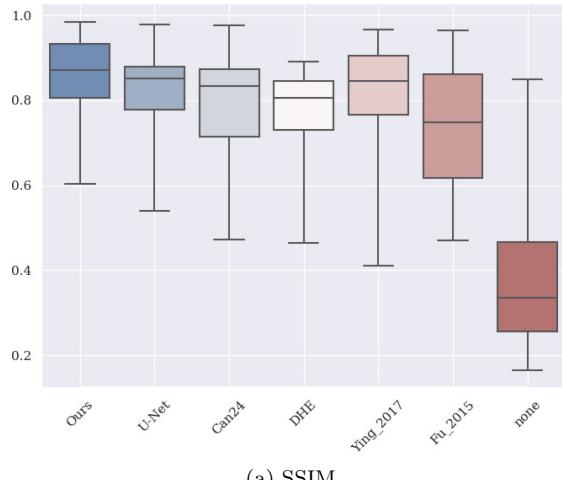


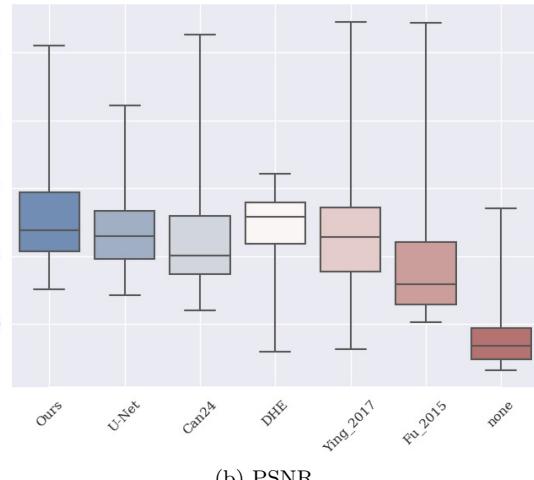
Figure 2: Quantitative Results

2 Results on the A6300 Multi-Exposure Dataset from [8] for Underexposed Images

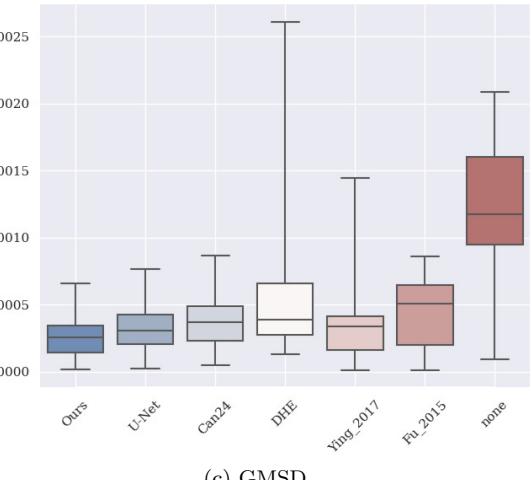




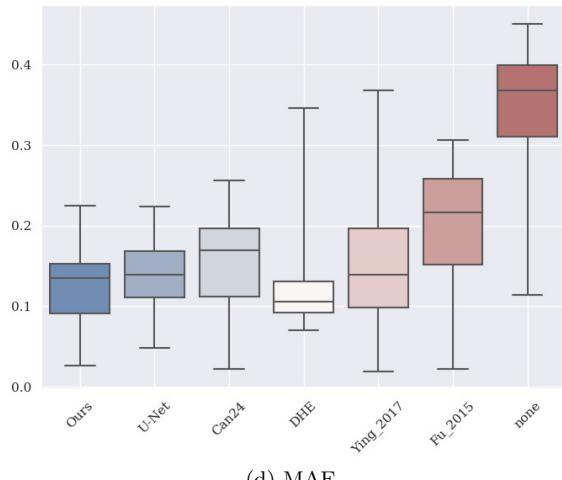
(a) SSIM



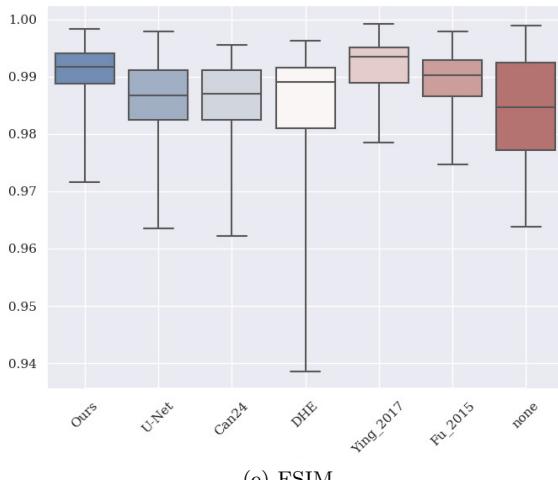
(b) PSNR



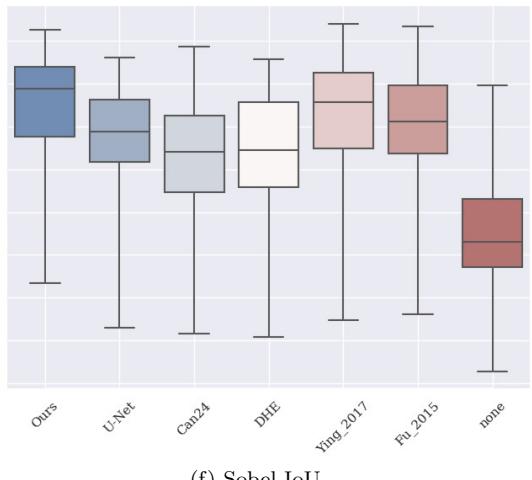
(c) GMSD



(d) MAE



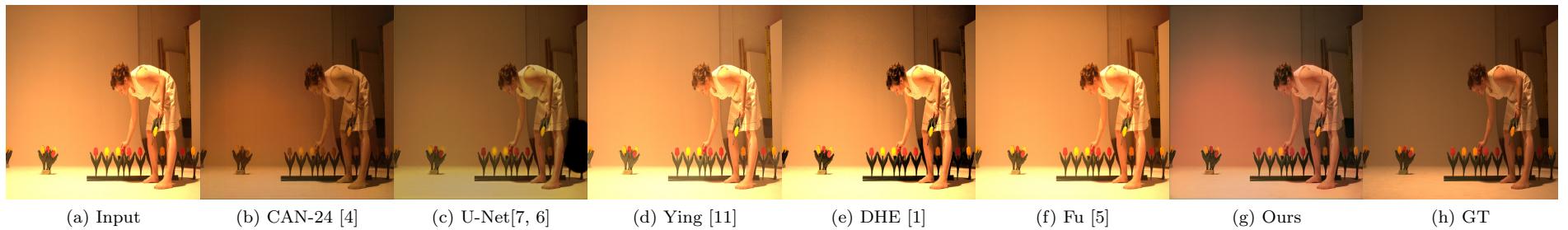
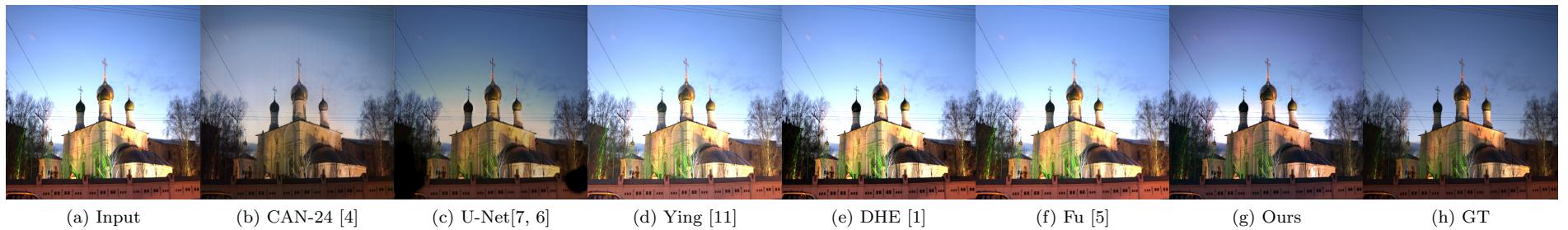
(e) FSIM

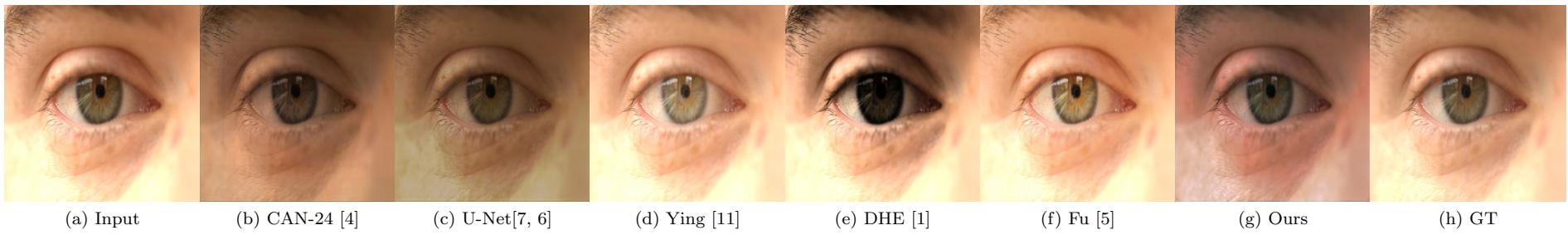
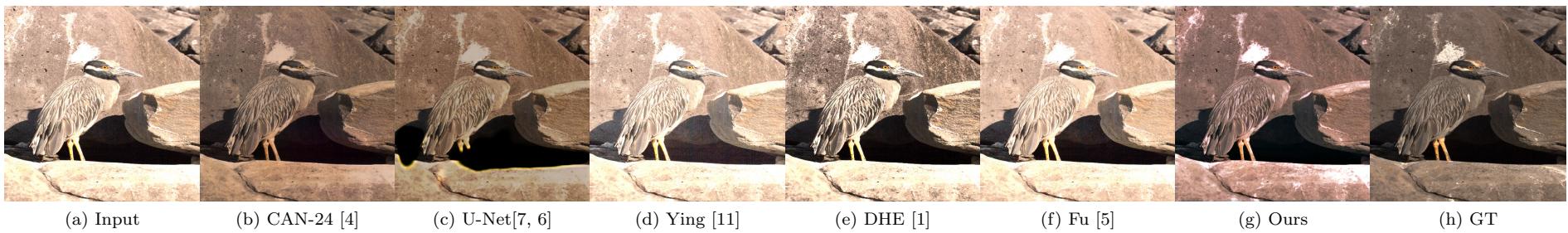
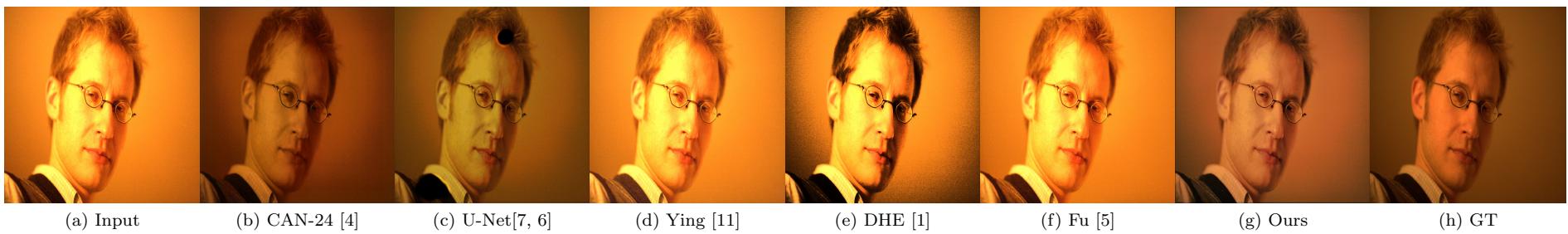
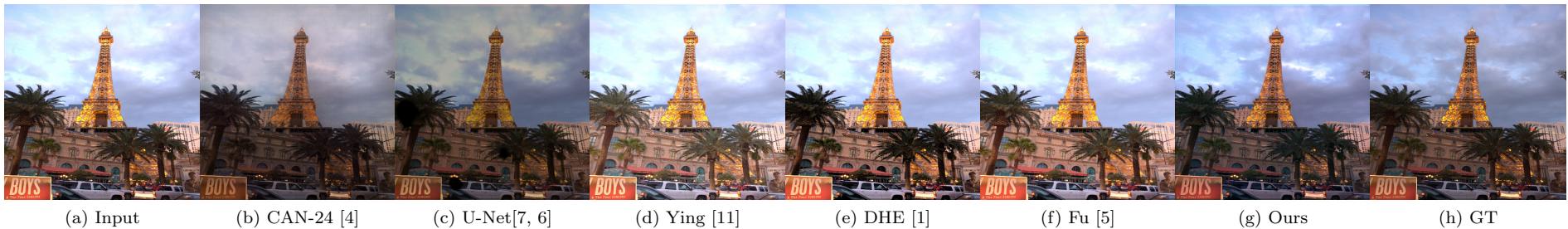


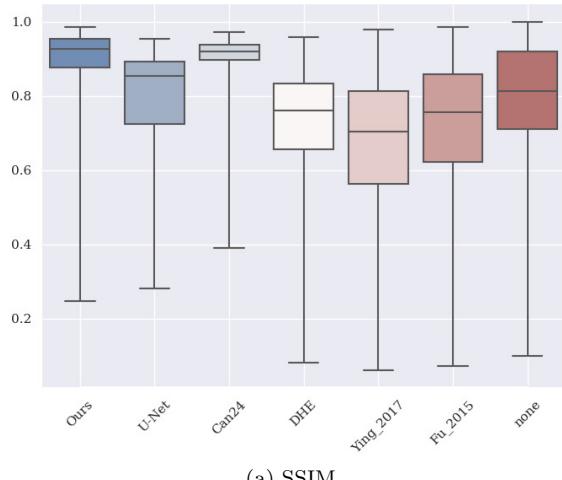
(f) Sobel IoU

Figure 3: Quantitative Results

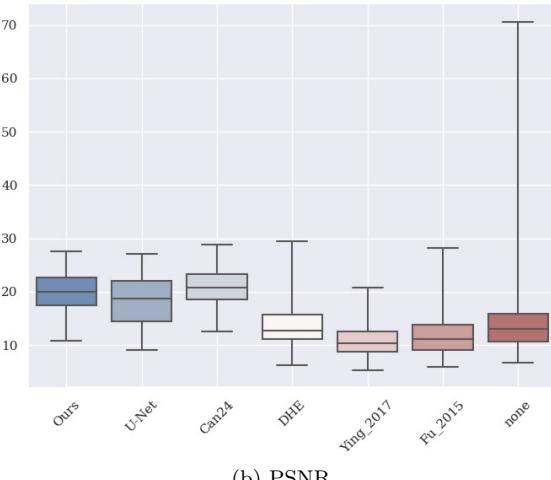
3 Results on the FiveK from [2] for Overexposed Images



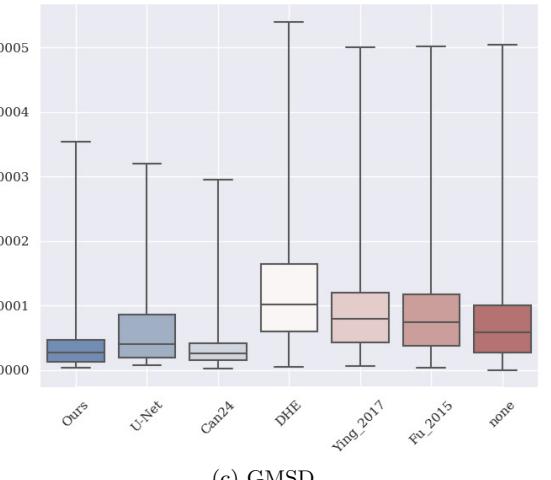




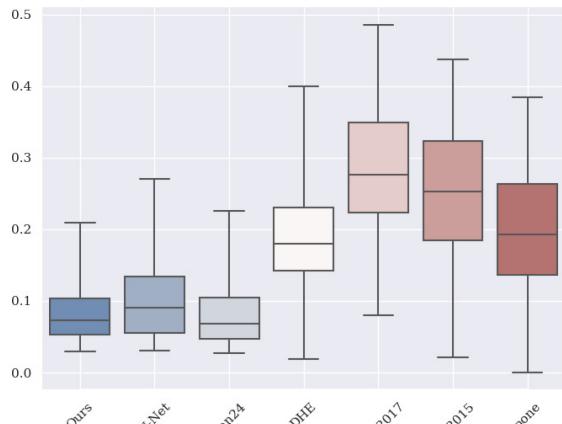
(a) SSIM



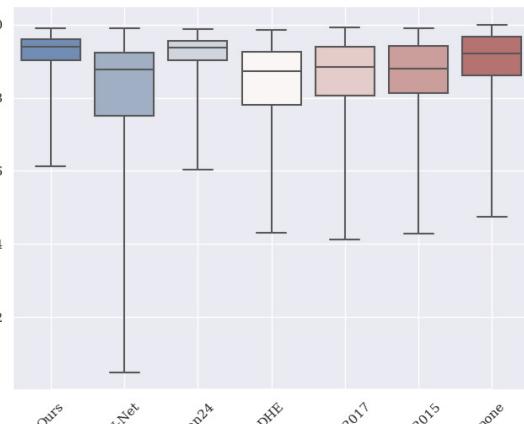
(b) PSNR



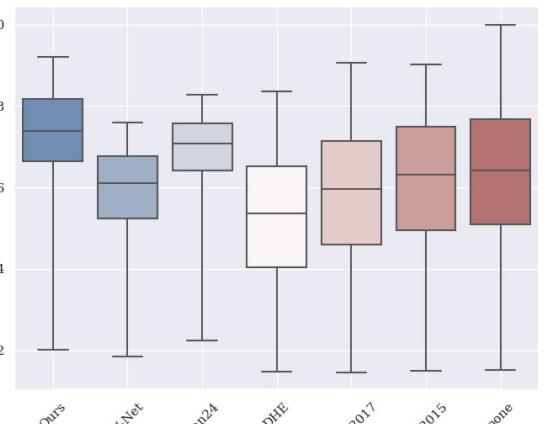
(c) GMSD



(d) MAE



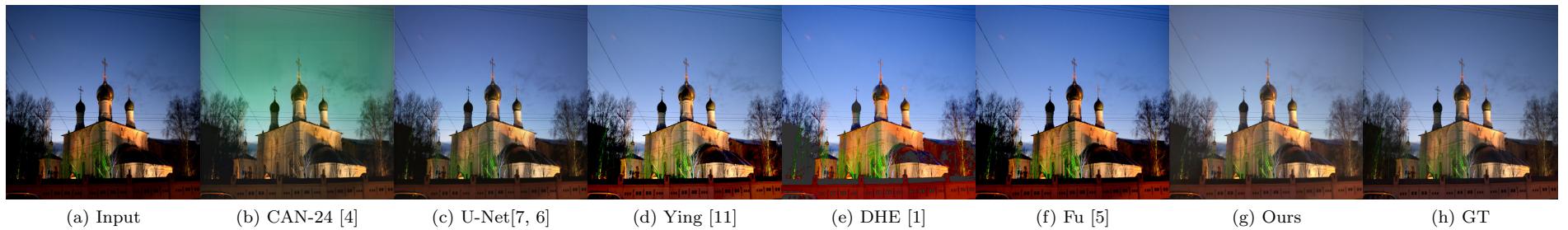
(e) FSIM

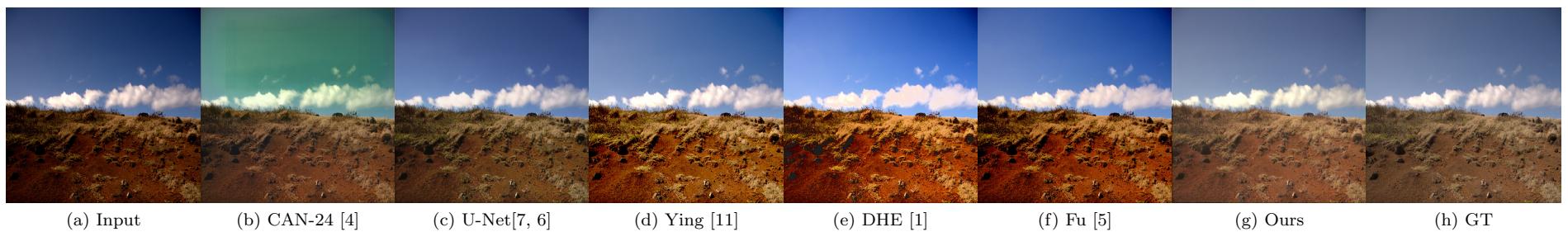
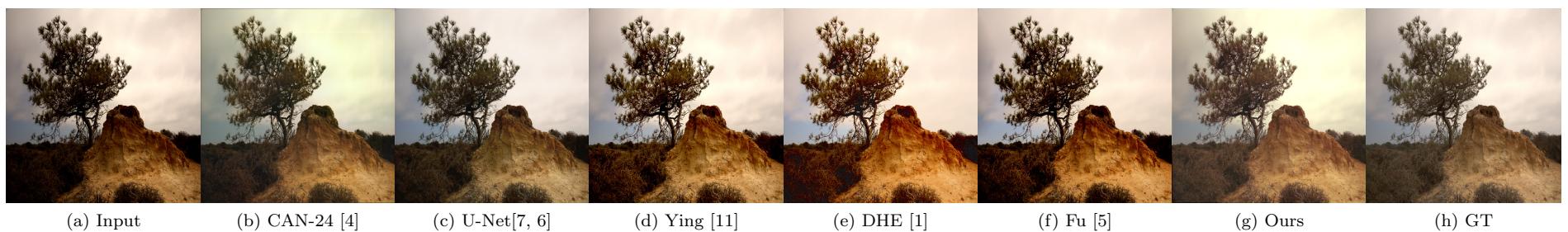
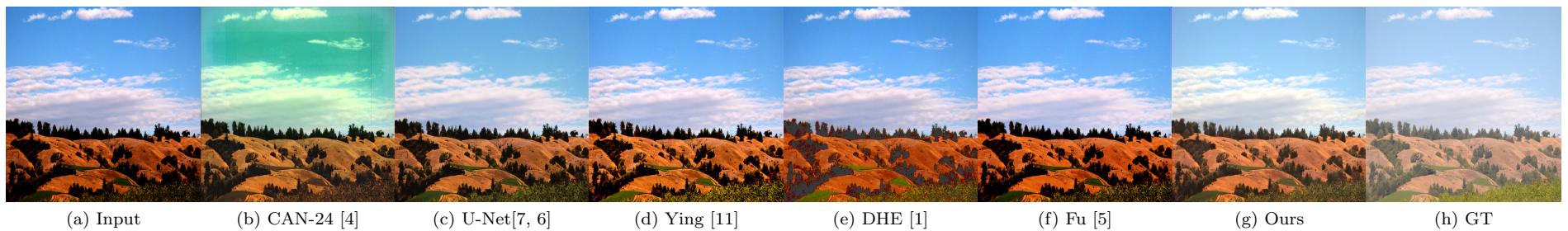
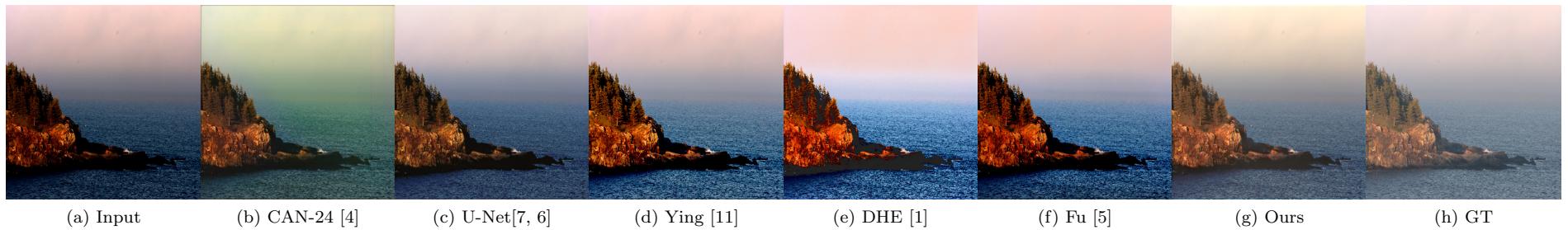


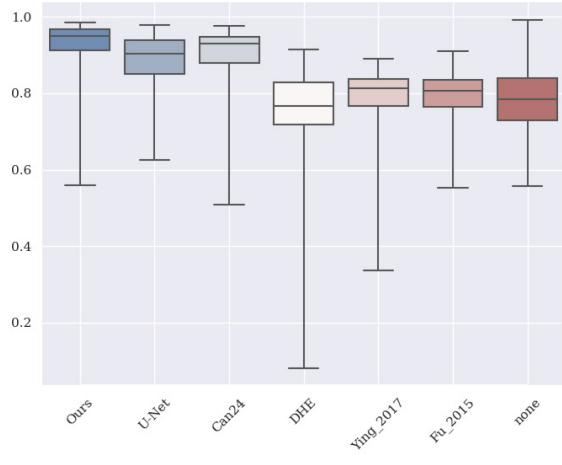
(f) Sobel IoU

Figure 4: Quantitative Results

4 Results on the FiveK from [2] for Underexposed Images



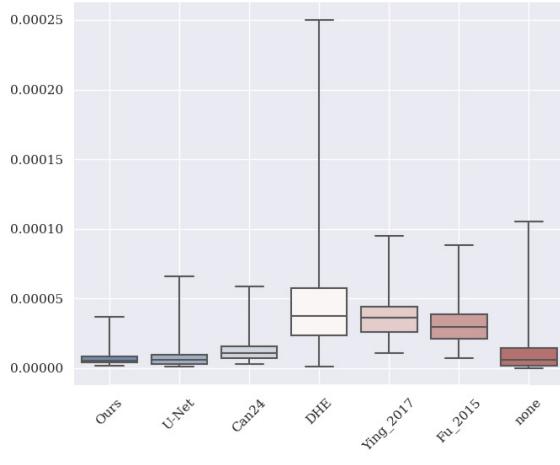




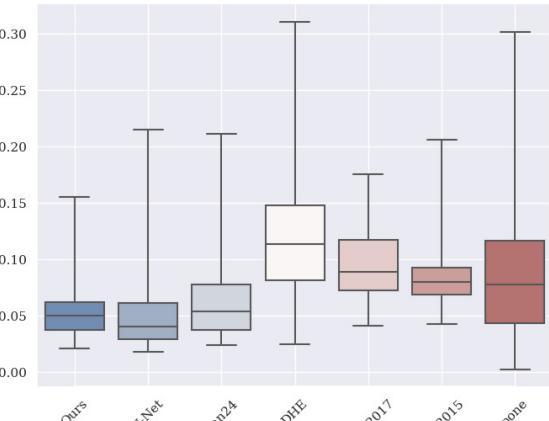
(a) SSIM



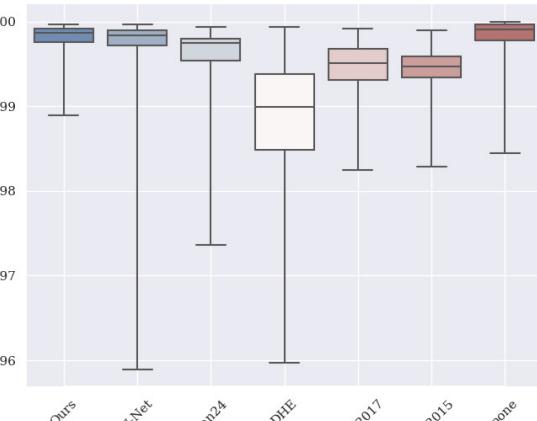
(b) PSNR



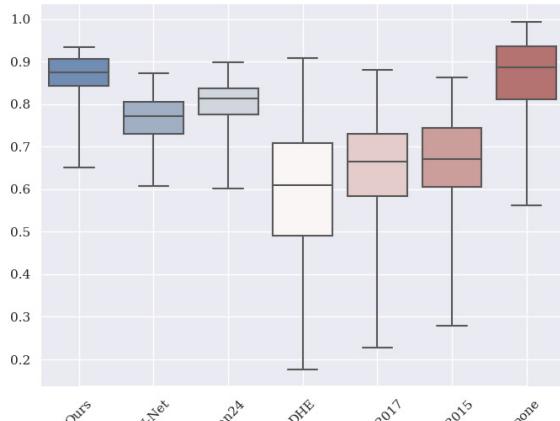
(c) GMSD



(d) MAE



(e) FSIM



(f) Sobel IoU

Figure 5: Quantitative Results

References

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