Multi-PIE Pose Dataset

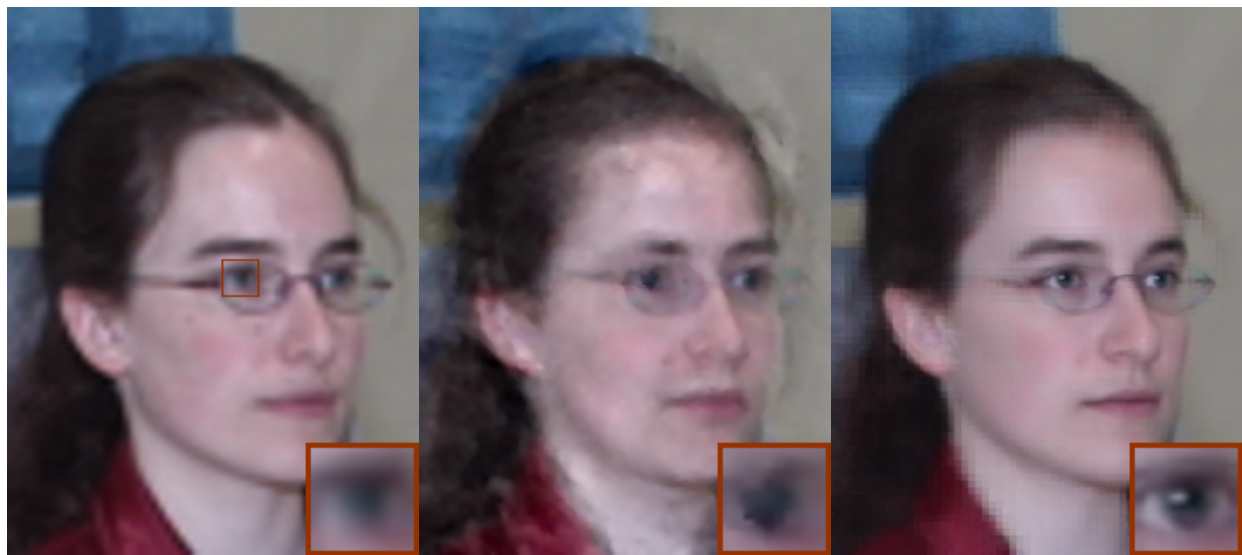## Evaluations

TABLE I: Multi-PIE Pose Dataset

	Bicubic	Liu07 [24]	Ma10 [30]	Yang10 [46]	Yang13 [43]	Dong15 [4]	Gu15 [8]	Finetuned [4]	Proposed
PSNR	33.967	24.593	29.690	35.137	32.836	35.454	35.750	35.640	**37.551**
SSIM	0.898	0.721	0.831	0.910	0.857	0.914	0.923	0.915	**0.940**
FSIM	0.918	0.816	0.881	0.936	0.925	0.937	0.946	0.940	**0.954**
GMSD	0.059	0.167	0.106	0.044	0.057	0.041	0.038	0.040	**0.031**

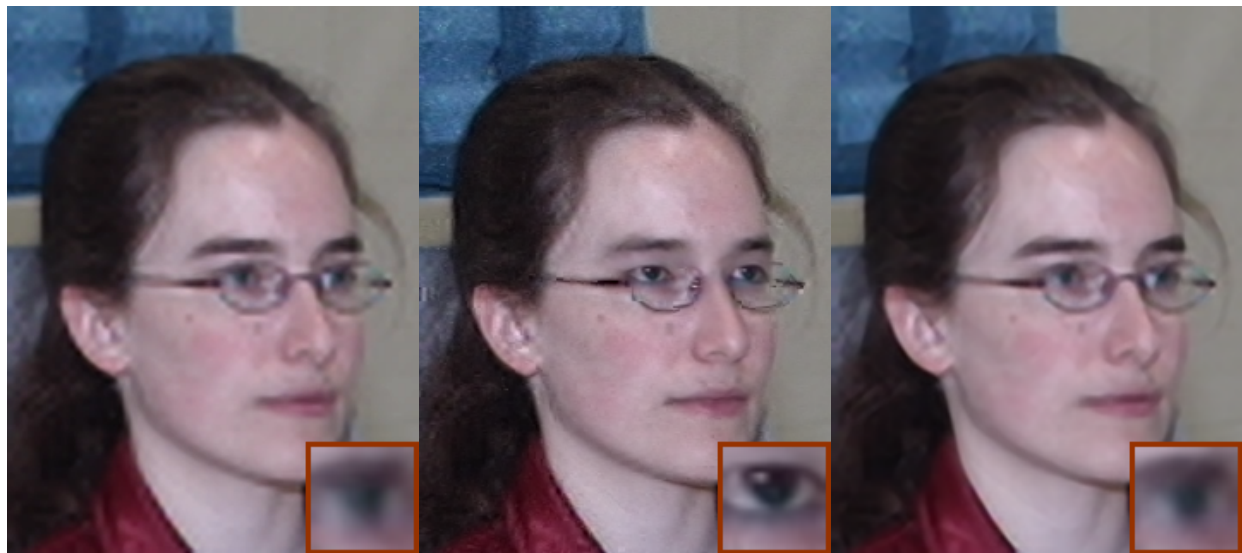Quantitative evaluations on Multi-PIE frontal dataset.

In this file we show numerical and visual evaluations on Multi-PIE pose dataset. We involve Gu15 [8] for comparison which is the most recent generic image SR method. The numerical evaluation is shown in Table I and visual evaluation is shown from Fig. 1 to Fig. 5.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
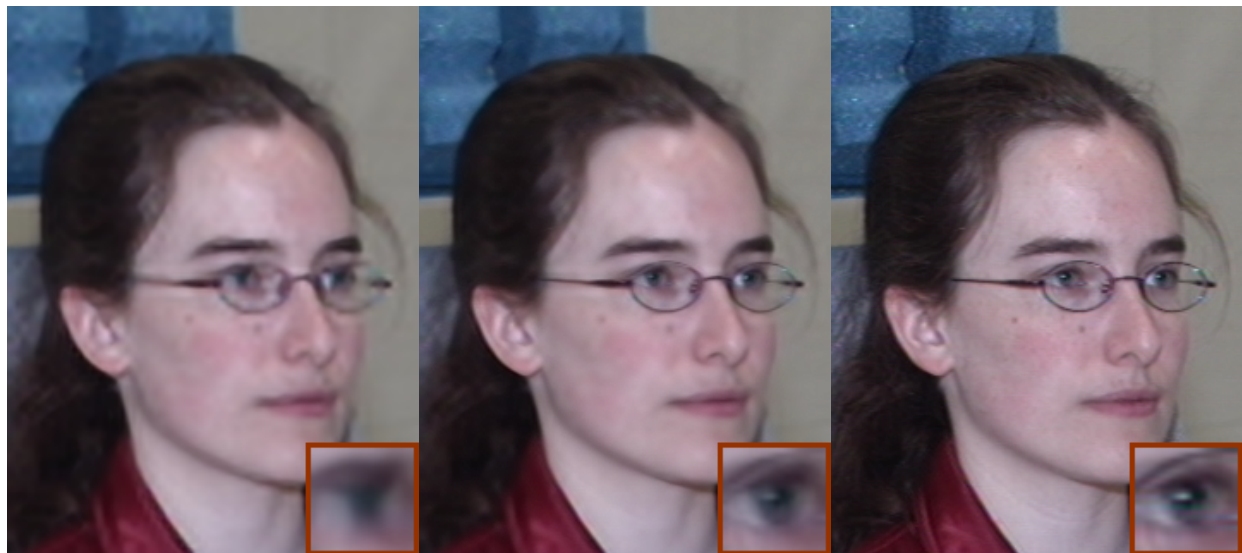24.135 / 0.704
0.817 / 0.167

(c) Ma10 [30]
29.263 / 0.828
0.881 / 0.104

(d) Yang10 [46]
34.547 / 0.908
0.933 / 0.047

(e) Yang13 [43]
32.191 / 0.864
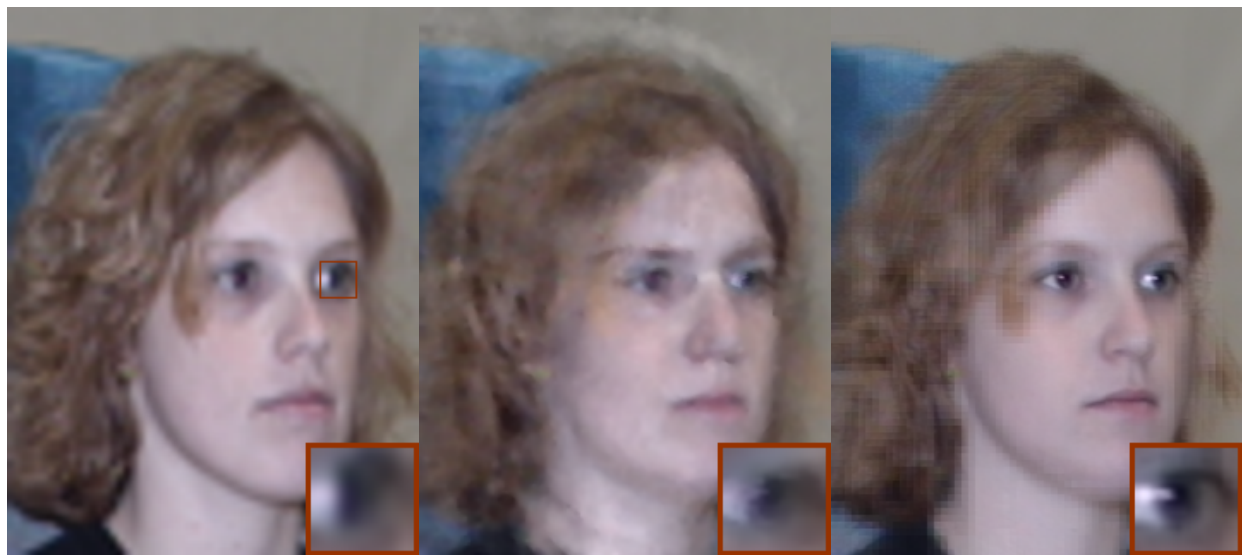0.924 / 0.060

(f) Gu15 [8]
35.312 / 0.918
0.940 / 0.040

(g) Finetuned [4]
35.075 / 0.914
0.937 / 0.042

(h) Ours
37.948 / 0.946
0.961 / 0.030
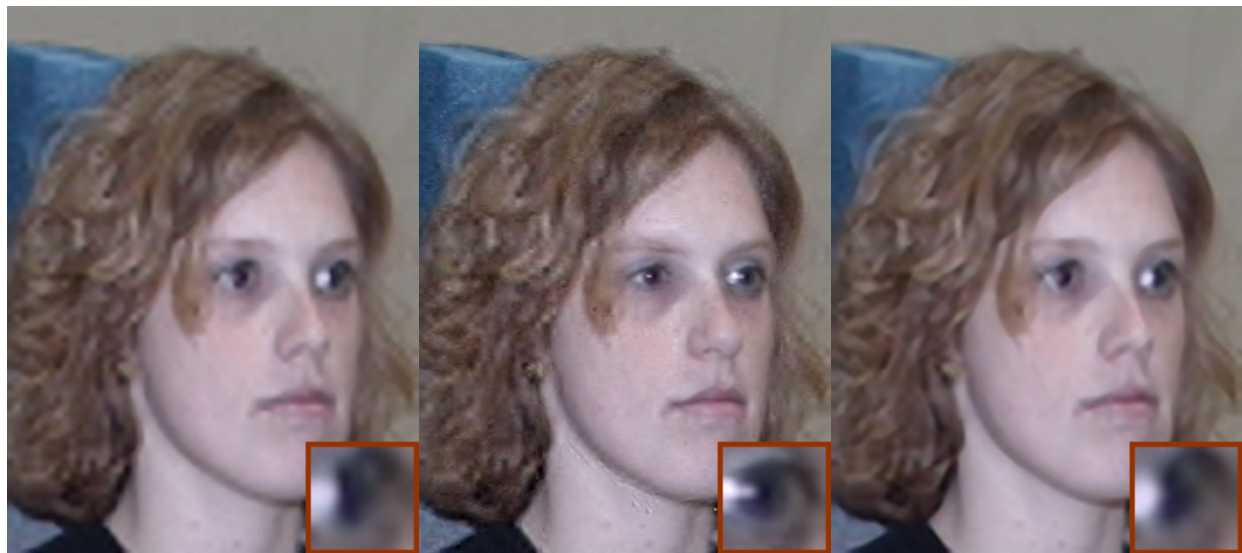
(i) Ground Truth
$+\infty$ / 1
1 / 0

Fig. 1: Visual evaluation for 4 $\times$ upsampled face image.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
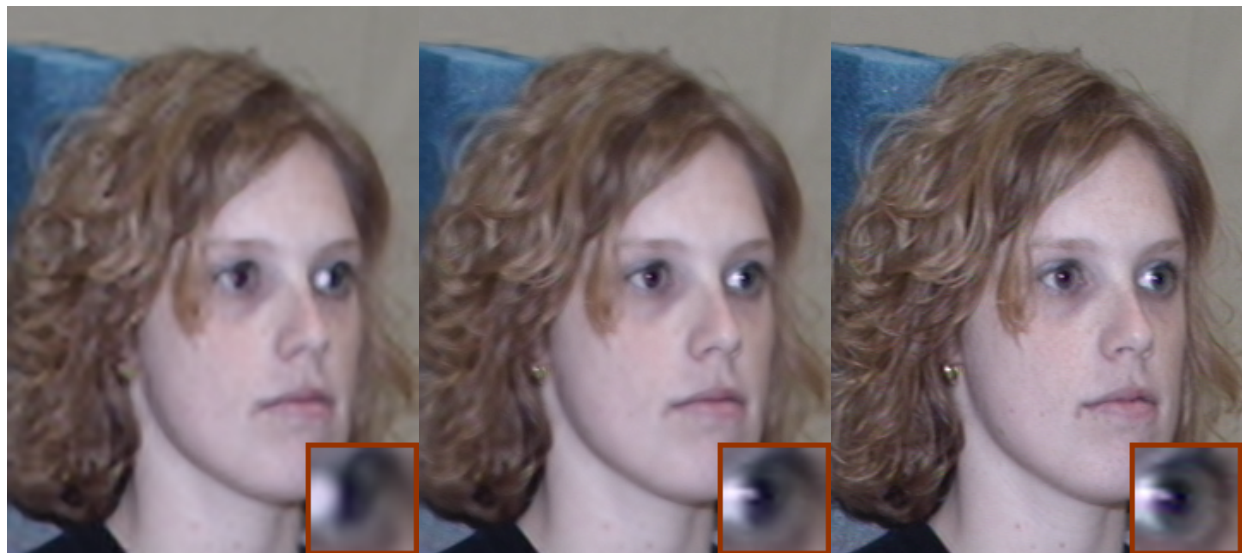23.543 / 0.624
0.779 / 0.184

(c) Ma10 [30]
27.249 / 0.732
0.838 / 0.147

(d) Yang10 [46]
33.792 / 0.877
0.919 / 0.059

(e) Yang13 [43]
31.690 / 0.825
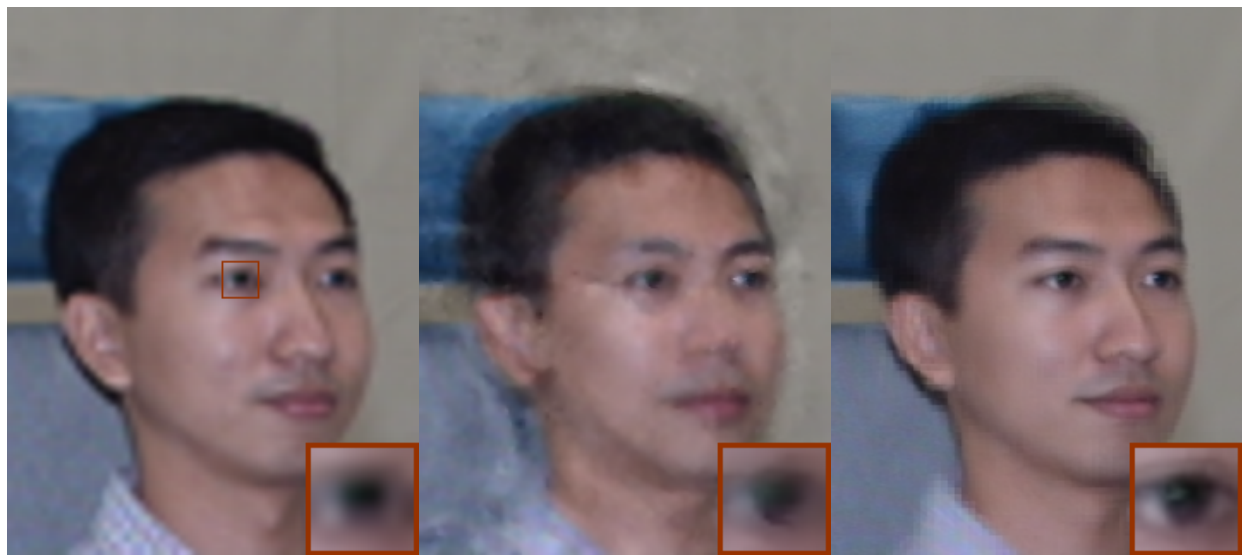0.906 / 0.072

(f) Gu15 [8]
34.406 / 0.889
0.926 / 0.053

(g) Finetuned [4]
34.056 / 0.881
0.922 / 0.058

(h) Ours
36.625 / 0.932
0.951 / 0.044

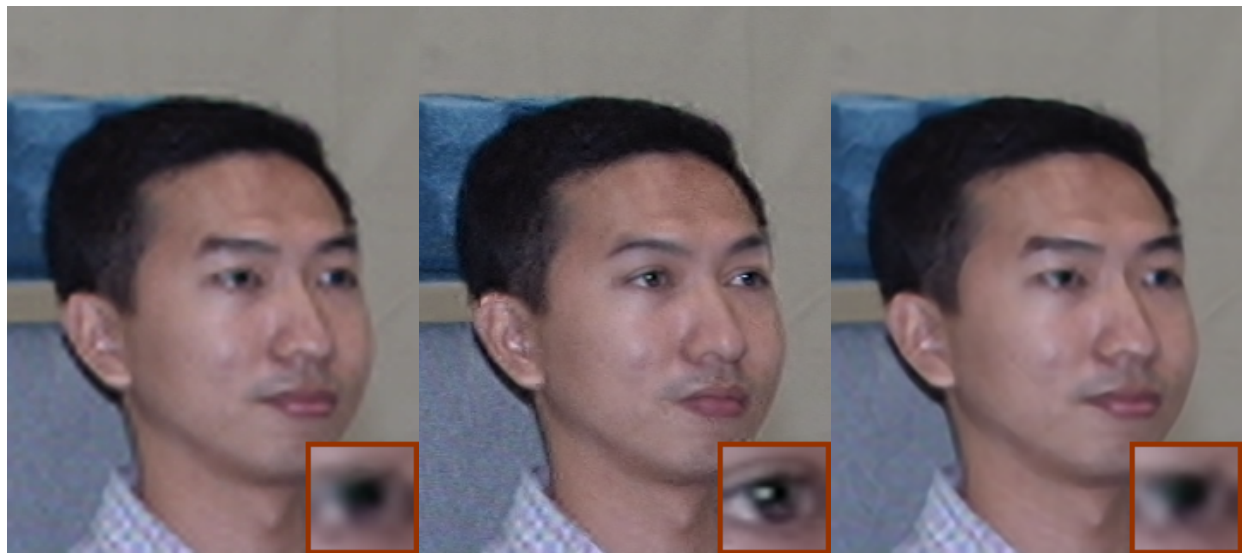(i) Ground Truth
$+\infty$ / 1
1 / 0

Fig. 2: Visual evaluation for 4 $\times$ upsampled face image.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
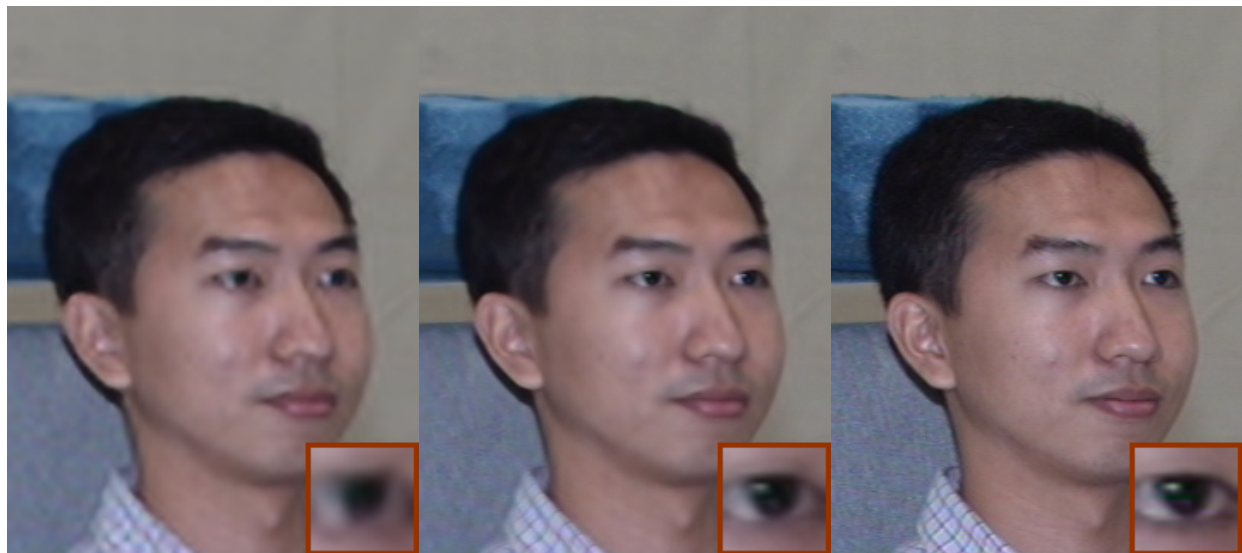25.764 / 0.760
0.820 / 0.165

(c) Ma10 [30]
30.517 / 0.856
0.885 / 0.105

(d) Yang10 [46]
35.462 / 0.915
0.938 / 0.040

(e) Yang13 [43]
33.244 / 0.880
0.931 / 0.048

(f) Gu15 [8]
36.073 / 0.922
0.943 / 0.033

(g) Finetuned [4]
35.843 / 0.919
0.940 / 0.037

(h) Ours
38.489 / 0.951
0.964 / 0.024

(i) Ground Truth
$+\infty$ / 1
1 / 0

Fig. 3: Visual evaluation for 4 $\times$ upsampled face image.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
21.176 / 0.620
0.789 / 0.197

(c) Ma10 [30]
27.497 / 0.799
0.864 / 0.124

(d) Yang10 [46]
35.458 / 0.905
0.932 / 0.052

(e) Yang13 [43]
32.648 / 0.854
0.918 / 0.063

(f) Gu15 [8]
36.195 / 0.914
0.937 / 0.045

(g) Finetuned [4]
36.001 / 0.911
0.936 / 0.048

(h) Ours
38.026 / 0.937
0.954 / 0.038
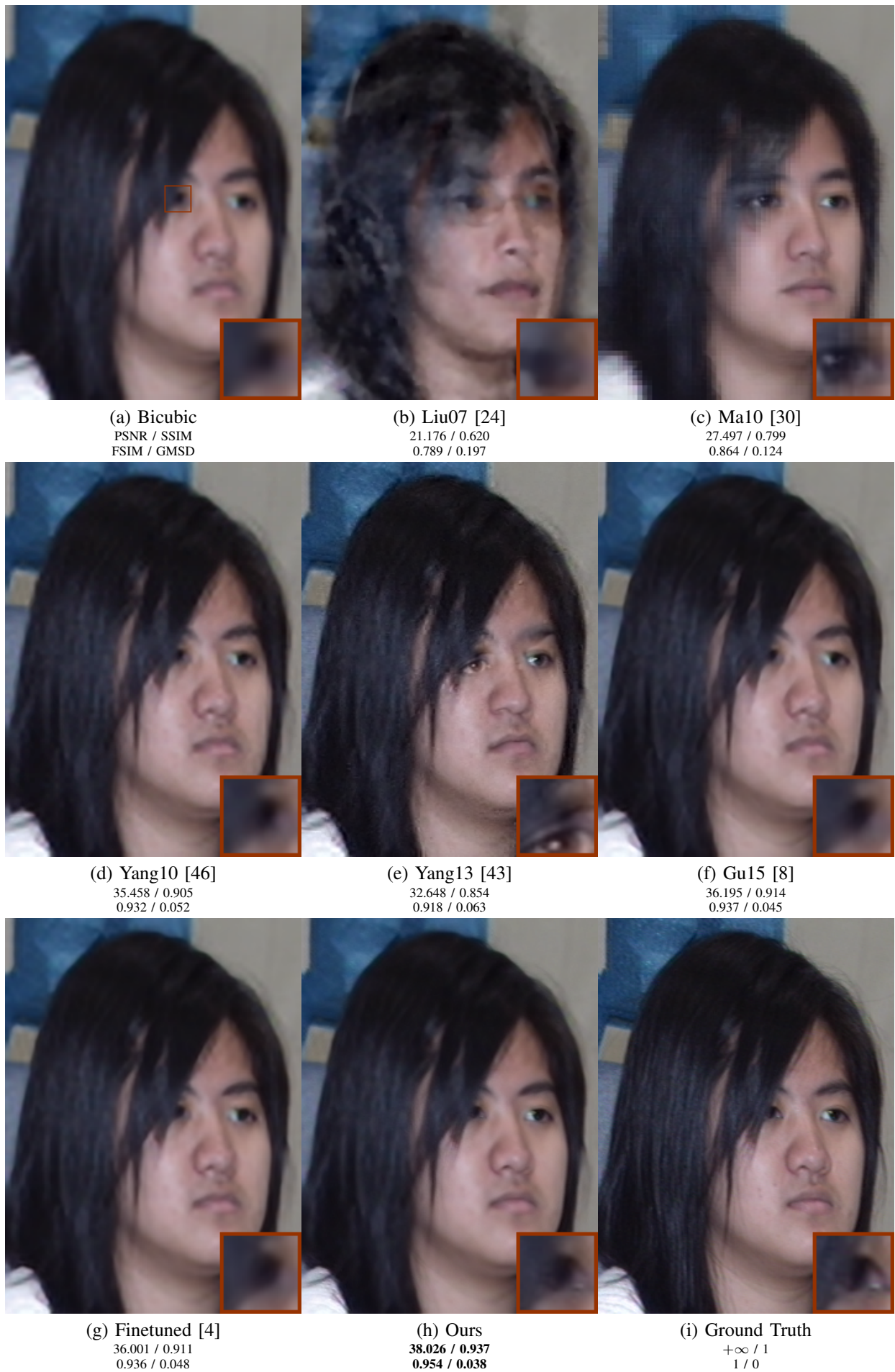
(i) Ground Truth
$+\infty$ / 1
1 / 0

Fig. 4: Visual evaluation for 4 $\times$ upsampled face image.

(a) Bicubic
PSNR / SSIM
FSIM / GMSD

(b) Liu07 [24]
24.791 / 0.724
0.825 / 0.171

(c) Ma10 [30]
30.783 / 0.836
0.893 / 0.092

(d) Yang10 [46]
35.399 / 0.911
0.941 / 0.038

(e) Yang13 [43]
32.839 / 0.866
0.927 / 0.057

(f) Gu15 [8]
36.159 / 0.920
0.947 / 0.032

(g) Finetuned [4]
35.886 / 0.916
0.947 / 0.036

(h) Ours
38.209 / 0.946
0.964 / 0.025

(i) Ground Truth
+∞ / 1
1 / 0

Fig. 5: Visual evaluation for 4 × upsampled face image.