# Supplementary Material

In this material, we first provide our proof of **Theorem 1** in the paper, and then give some visualizations of intermediate CS reconstruction results and learned filters by our proposed ISTA-Net<sup>+</sup>. Finally, detailed results on Set11 and BSD68 are presented, including PSNR results of Set11 with different CS ratios, some visual comparisons of images in Set11 with different CS ratios and average PSNR performance comparison of various network-based algorithms on the BSD68 dataset with different ratios.

## 1 Proof of Theorem 1

**Theorem 1** Let  $X_1, ..., X_n$  be independent normal random variables with common zero mean and variance  $\sigma^2$ . If  $\vec{X} = [X_1, ..., X_n]^{\top}$  and given any matrices  $\mathbf{A} \in \mathbb{R}^{m \times n}$  and  $\mathbf{B} \in \mathbb{R}^{s \times m}$ , define a new random variable  $\vec{Y} = \mathbf{B}ReLU(\mathbf{A}\vec{X}) = \mathbf{B}\max(\mathbf{0}, \mathbf{A}\vec{X})$ . Then,  $\mathbb{E}[\|\vec{Y} - \mathbb{E}[\vec{Y}]\|_2^2]$  and  $\mathbb{E}[\|\vec{X} - \mathbb{E}[\vec{X}]\|_2^2]$  are linearly related, i.e.  $\mathbb{E}[\|\vec{Y} - \mathbb{E}[\vec{Y}]\|_2^2] = \alpha \mathbb{E}[\|\vec{X} - \mathbb{E}[\vec{X}]\|_2^2]$ , where  $\alpha$  is only a function of  $\mathbf{A}$  and  $\mathbf{B}$ .

**Proof:** Let  $\vec{W} = \mathbf{A}\vec{X} = [W_1, ..., W_m]$ , since  $\vec{X} \sim \mathcal{N}(\mathbf{0}, \mathbf{\Sigma}_{\vec{X}})$  then we have  $\vec{W} \sim \mathcal{N}(\mathbf{0}, \mathbf{\Sigma}_{\vec{W}})$ , where  $\mathbf{\Sigma}_{\vec{W}} = \mathbf{A}\mathbf{\Sigma}_{\vec{X}}\mathbf{A}^{\top}$ . Note that  $\mathbf{\Sigma}_{\vec{X}} = \sigma^2 \mathbf{I}$ , and  $\mathbf{I}$  denotes the identity matrix. Let  $\vec{Z} = ReLU(\vec{W}) = \max(\vec{W}, \mathbf{0}) = [Z_1, ..., Z_m]$ , we first discuss the relationship between  $\vec{W}$  and  $\vec{Z}$ .

Obviously, the variance of  $W_i$  can be expressed as  $var(W_i) = (\eta_i \sigma)^2$ ,  $i = 1, ..., m, \eta_i$  is related with **A**, then the probability density function of  $W_i$ , denoted by  $f_{W_i}(x)$ , is expressed as

$$f_{W_i}(x) = \frac{1}{\sqrt{2\pi\eta_i\sigma}} e^{-\frac{x^2}{2(\eta_i\sigma)^2}}$$

.

According to  $Z_i = \max(W_i, 0)$ , we have the mean and the variance of  $Z_i$  as below:

$$E(Z_i) = \int_{-\infty}^{\infty} \frac{1}{\sqrt{2\pi\eta_i \sigma}} e^{-\frac{x^2}{2(\eta_i \sigma)^2}} \max(x, 0) dx = \int_0^{\infty} \frac{1}{\sqrt{2\pi\eta_i \sigma}} e^{-\frac{x^2}{2(\eta_i \sigma)^2}} x dx = \frac{\eta_i \sigma}{\sqrt{2\pi}};$$
  

$$E(Z_i^2) = \int_{-\infty}^{\infty} \frac{1}{\sqrt{2\pi\eta_i \sigma}} e^{-\frac{x^2}{2(\eta_i \sigma)^2}} \max(x, 0)^2 dx = \int_0^{\infty} \frac{1}{\sqrt{2\pi\eta_i \sigma}} e^{-\frac{x^2}{2(\eta_i \sigma)^2}} x^2 dx = \frac{(\eta_i \sigma)^2}{2};$$
  

$$var(Z_i) = E(Z_i^2) - E(Z_i)^2 = \frac{\pi - 1}{2\pi} (\eta_i \sigma)^2.$$

Our purpose is to compute the covariance matrix of  $\vec{Z}$ , that is  $\Sigma_{\vec{Z}}$ . After computing  $var(Z_i)$ , which is on the diagonal position of  $\Sigma_{\vec{Z}}$ , we now calculate  $cov(Z_i, Z_j), i \neq j$ , by

$$cov(Z_i, Z_j) = E(Z_i Z_j) - E(Z_i)E(Z_j).$$

Assume that the joint probability density function of  $W_i$  and  $W_j$  is written as

$$f_{W_i,W_j}(x,y) = \frac{1}{2\pi\eta_i\eta_j\sigma^2\sqrt{1-\rho_{ij}^2}}e^{-\frac{1}{2(1-\rho_{ij}^2)}\left(\frac{x^2}{(\eta_i\sigma)^2} - \frac{2\rho_{ij}xy}{\eta_i\eta_j\sigma^2} + \frac{y^2}{(\eta_j\sigma)^2}\right)}$$

where  $\rho_{ij}$  is the correlation coefficient between  $W_i$  and  $W_j$ . Then,

$$\begin{split} E(Z_i Z_j) &= \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} f_{W_i, W_j}(x, y) \max(x, 0) \max(y, 0) dx dy \\ &= \int_{0}^{\infty} \int_{0}^{\infty} f_{W_i, W_j}(x, y) xy dx dy \\ &= \int_{0}^{\infty} \int_{0}^{\infty} \frac{1}{2\pi \eta_i \eta_j \sigma^2 \sqrt{1 - \rho_{ij}^2}} e^{-\frac{1}{2(1 - \rho_{ij}^2)} \left(\frac{x^2}{(\eta_i \sigma)^2} - \frac{2\rho_{ij} xy}{\eta_i \eta_j \sigma^2} + \frac{y^2}{(\eta_j \sigma)^2}\right)} xy dx dy. \end{split}$$

Furthermore, define  $u = \frac{x}{\eta_i \sigma \sqrt{1 - \rho_{ij}^2}}, v = \frac{y}{\eta_j \sigma \sqrt{1 - \rho_{ij}^2}}$ , the computation of  $E(Z_i Z_j)$  is transformed to be

$$E(Z_i Z_j) = \frac{\left(\sqrt{1 - \rho_{ij}^2}\right)^3 \eta_i \eta_j \sigma^2}{2\pi} \int_0^\infty \int_0^\infty e^{-\frac{1}{2}(u^2 - 2\rho_{ij}uv + v^2)} uv du dv = M_{ij}\sigma^2,$$

where  $M_{ij} = \frac{\left(\sqrt{1-\rho_{ij}^2}\right)^3 \eta_i \eta_j}{2\pi} \int_0^\infty \int_0^\infty e^{-\frac{1}{2}(u^2 - 2\rho_{ij}uv + v^2)} uv du dv.$ Hence,

$$cov(Z_i, Z_j) = E(Z_i Z_j) - E(Z_i)E(Z_j) = M_{ij}\sigma^2 - \frac{\eta_i\eta_j\sigma^2}{2\pi} = (M_{ij} - \frac{\eta_i\eta_j}{2\pi})\sigma^2.$$

According to the expressions of  $var(Z_i)$  and  $cov(Z_i, Z_j)$ , it is clear to see that  $\Sigma_{\vec{Z}}$  can be formulated as

$$\Sigma_{\vec{Z}} = \sigma^2 \hat{\Sigma}_{\vec{Z}},$$

where  $\hat{\boldsymbol{\Sigma}}_{\vec{Z}}$  is only determined by the matrix **A**.

Therefore, the covariance matrix of  $\vec{Y} = \vec{B}\vec{Z}$ , *i.e.*  $\Sigma_{\vec{V}}$  is written as

$$\mathbf{\Sigma}_{\vec{V}} = \mathbf{B}\mathbf{\Sigma}_{\vec{Z}}\mathbf{B}^{\top} = \sigma^2 \mathbf{B}\hat{\mathbf{\Sigma}}_{\vec{Z}}\mathbf{B}^{\top}.$$

Due to  $E[\|\vec{Y} - E[\vec{Y}]\|_2^2] = tr(\Sigma_{\vec{Y}}) = \sigma^2 tr(\mathbf{B}\hat{\Sigma}_{\vec{Z}}\mathbf{B}^{\top})$  ( $tr(\cdot)$  denotes the trace of a matrix) and  $E[\|\vec{X} - E[\vec{X}]\|_2^2] = tr(\Sigma_{\vec{X}}) = n\sigma^2$ , then we have

$$E[\|\vec{Y} - E[\vec{Y}]\|_2^2] = \alpha E[\|\vec{X} - E[\vec{X}]\|_2^2],$$

where  $\alpha = \frac{tr(\mathbf{B}\hat{\boldsymbol{\Sigma}}_{\vec{Z}}\mathbf{B}^{\top})}{n}$ . That means  $E[\|\vec{Y} - E[\vec{Y}]\|_2^2]$  and  $E[\|\vec{X} - E[\vec{X}]\|_2^2]$  are linearly related.

## 2 Visualization of Intermediate Results and Learned Filters



Figure 1: Illustrations of the k-th phase of the proposed ISTA-Net<sup>+</sup>.  $\mathcal{D}^{(k)}, \mathcal{G}^{(k)}, \mathcal{H}^{(k)}, \widetilde{\mathcal{H}}^{(k)}$  are learnable linear convolutional operators.



Figure 2: Visualization of intermediate CS reconstruction results for image *Boats* by the proposed ISTA-Net<sup>+</sup> ( $N_p = 9$  and  $N_f = 32$ ) when CS ratio is 25%. As shown in Figure 1,  $\mathbf{x}^{(k)}$  stands for the output of the k phase in ISTA-Net<sup>+</sup>. Here, the phase index set is {1, 3, 5, 7, 9}.



Figure 3: Visualization of intermediate CS reconstruction results for image *Cameraman* by the proposed ISTA-Net<sup>+</sup> ( $N_p = 9$  and  $N_f = 32$ ) when CS ratio is 25%. As shown in Figure 1,  $\mathbf{x}^{(k)}$  stands for the output of the k phase in ISTA-Net<sup>+</sup>. Here, the phase index set is {1, 3, 5, 7, 9}.



Figure 4: Visualization of  $\mathcal{D}^{(1)}$  in the proposed ISTA-Net<sup>+</sup> ( $N_p = 9$  and  $N_f = 32$ ) when CS ratio is 25%.

### 3 Detailed Results for Set11 and BSD68

#### References

- Chengbo Li, Wotao Yin, Hong Jiang, and Yin Zhang. An efficient augmented lagrangian method with applications to total variation minimization. *Computational Optimization and Applications*, 56(3):507–530, 2013. 6, 7
- [2] Christopher A Metzler, Arian Maleki, and Richard G Baraniuk. From denoising to compressed sensing. IEEE Transactions on Information Theory, 62(9):5117-5144, 2016. 6, 7
- [3] Kai Zhang, Wangmeng Zuo, Shuhang Gu, and Lei Zhang. Learning deep CNN denoiser prior for image restoration. CVPR, 2017. 6, 7
- [4] Ali Mousavi, Ankit B Patel, and Richard G Baraniuk. A deep learning approach to structured signal recovery. In Annual Allerton Conference on Communication, Control, and Computing (Allerton), pages 1336–1343. IEEE, 2015. 6, 7, 11



Figure 5: Visualization of  $\mathcal{G}^{(1)}$  in the proposed ISTA-Net<sup>+</sup> ( $N_p = 9$  and  $N_f = 32$ ) when CS ratio is 25%.



Figure 6: Visualization of the first 32 filters of  $\mathcal{H}^{(1)}$  in the proposed ISTA-Net<sup>+</sup> ( $N_p = 9$  and  $N_f = 32$ ) when CS ratio is 25%.

[5] Kuldeep Kulkarni, Suhas Lohit, Pavan Turaga, Ronan Kerviche, and Amit Ashok. ReconNet: noniterative reconstruction of images from compressively sensed measurements. In CVPR, pages 449–458, 2016. 6, 7, 11



Figure 7: Visualization of the first 32 filters of  $\widetilde{\mathcal{H}}^{(1)}$  in the proposed ISTA-Net<sup>+</sup> ( $N_p = 9$  and  $N_f = 32$ ) when CS ratio is 25%.



Figure 8: Eleven test images in Set11. Left to right and top to bottom: Barbara, Boats, Cameraman, Fingerprint, Flintstones, Foreman, House, Lena, Monarch, Parrots and Pepper.



Figure 9: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Fingerprint* image in Set11 (CS ratio is 1%).

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Image Name	Algorithm	50%	40%	30%	25%	10%	1%	1%
		0070	4070	05.07	2570	1070	4/0	17.50
	TVAL3 [1]	28.39	26.58	25.07	24.25	22.00	19.27	17.58
	D-AMP [2]	37.39	35.65	29.16	26.21	22.04	19.27	5.64
י מ	IRCNN [3]	35.54	33.96	28.84	27.36	22.65	18.73	8.12
Baroara	SDA [4]   DecemNet [5]	21.14	20.15	24.70	23.34	21.87	20.47	18.38
	ISTA Not	29.04	28.40	20.30	23.32	22.02	20.04	18.30
	ISTA-Net	35.59	24.21	29.27	20.10	23.29	20.98	10.40
	ISTA-Net	30.74	34.31	31.21	29.21	23.59	20.96	18.55
Boats	TVAL3 [1]	34.82	32.59	30.17	28.87	24.02	19.70	17.19
	D-AMP [2]	38.97	35.85	31.62	29.40	23.40	19.09	5.37
	IRCNN [3]	37.42	36.23	31.36	30.14	24.63	18.41	7.97
	SDA [4]	30.41	29.34	28.18	26.79	24.05	21.39	18.44
	ISTA Net	32.11 20.15	32.00	30.00	27.09	20.49	21.07	18.40
	ISTA-Net	39.13 20.0F	27.00	34.24	32.74	20.94	22.20	18.39
	ISTA-Net	39.95	37.99	35.20	33.74	21.51	44.31	16.49
	TVAL3 [1]	31.68	29.60	27.34	25.77	22.15	18.68	16.31
	D-AMP [2]	31.15	29.13	26.90	24.81	21.17	18.25	5.66
a	IRCNN [3]	34.08	31.99	29.55	28.27	23.30	18.29	8.19
Cameraman	SDA [4]	20.31	25.37	24.49	23.21	21.22	19.18	17.04
	Reconnet [5]	27.98	21.83	26.06	23.42	22.33	19.70	17.06
	ISTA-Net	04.17 94.97	31.73	29.04	20.20	23.02	20.10	17.07
	ISTA-Net	34.37	32.18	30.31	28.96	24.08	20.19	17.08
	TVAL3 [1]	27.82	25.91	23.93	22.75	18.71	16.24	14.77
	D-AMP [2]	33.35	31.42	27.53	25.41	18.21	15.30	4.70
	IRCNN [3]	33.44	32.00	27.62	26.40	20.77	15.80	7.12
Fingerprint	SDA [4]	29.38	28.34	26.89	25.33	20.92	17.16	14.85
	ISTA Net	31.34 32.01	29.76	27.72	25.44	21.51	17.26	14.78
	ISTA-Net	00.81 94 40	31.19	29.31	21.92	21.97	17.30	14.99
	ISTA-Net	34.48	ə∡.11	49.72	28.19	44.01	11.45	14.93
	TVAL3 [1]	30.20	27.91	25.44	24.10	19.03	15.27	13.20
	D-AMP [2]	31.75	30.37	27.79	25.51	17.71	14.45	4.37
Elimitet	IRCNN [3]	32.65	28.21	29.73	28.87	20.37	13.82	6.64
Flintstones	SDA [4]	26.39	25.37	24.04	22.59	19.10	16.30	13.81
	ReconNet [5]	28.92	28.28	26.45	22.93	20.96	10.81	13.78
	ISTA-Net	33.34	31.91	30.20	29.00	22.94	17.40	13.69
	ISTA-Net	33.09	34.33	30.77	30.00	23.74	11.41	13.91
	TVAL3 [1]	41.48	39.30	36.97	35.58	28.72	21.26	18.58
	D-AMP [2]	40.98	39.20	37.59	35.65	29.96	21.57	3.95
<b>F</b>	IRCNN [3]	40.13	37.87	35.51	34.66	28.29	17.01	0.51
Foreman	BosonNet [5]	31.78	30.70	29.89	28.70	20.92	23.90	20.29
	ISTA Not	13 24	41.37	32.74	29.00	29.09	24.69	20.27
	ISTA-Net <sup>+</sup>	43.24	41.57	40.17	39.24	33 78	26.21	20.41
	10111100	11.40	14.01	10.11	00.41	00.10	20.21	20.10
	TTVAT 2 [1]	27 59	25 70	22 54	20.04	26 52	91.96	10 70
	TVAL3 [1]	37.58	35.70	33.54	32.24	26.52	21.36	18.78 4.86
	TVAL3 [1] D-AMP [2] IBCNN [3]	37.58 39.50 37.83	35.70 37.42 37.46	33.54 35.17 34.35	32.24 33.78 33.53	26.52 27.28 27.47	21.36 21.38 19.95	$     18.78 \\     4.86 \\     7.61 $
House	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4]	37.58 39.50 37.83 31.22	35.70 37.42 37.46 30.12	33.54 35.17 34.35 29.19	32.24 33.78 33.53 27.85	$\begin{array}{r} 26.52 \\ 27.28 \\ 27.47 \\ 25.44 \end{array}$	$\begin{array}{r} 21.36 \\ 21.38 \\ 19.95 \\ 22.89 \end{array}$	18.78 4.86 7.61 19.34
House	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] BeconNet [5]	37.58 39.50 37.83 31.22 34.50	35.70 37.42 37.46 30.12 33.60	$\begin{array}{r} 33.54 \\ 35.17 \\ 34.35 \\ 29.19 \\ 32.07 \end{array}$	32.24 33.78 33.53 27.85 28.52	$\begin{array}{r} 26.52 \\ 27.28 \\ 27.47 \\ 25.44 \\ 27.70 \end{array}$	$\begin{array}{r} 21.36 \\ 21.38 \\ 19.95 \\ 22.89 \\ 23.61 \end{array}$	$     18.78 \\     4.86 \\     7.61 \\     19.34 \\     19.36 $
House	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\end{array}$	$\begin{array}{r} 35.70 \\ 37.42 \\ 37.46 \\ 30.12 \\ 33.60 \\ 38.12 \end{array}$	$\begin{array}{r} 33.54 \\ 35.17 \\ 34.35 \\ 29.19 \\ 32.07 \\ 36.51 \end{array}$	$\begin{array}{r} 32.24\\ 33.78\\ 33.53\\ 27.85\\ 28.52\\ 35.32\end{array}$	$\begin{array}{r} 26.52 \\ 27.28 \\ 27.47 \\ 25.44 \\ 27.70 \\ 29.68 \end{array}$	$21.36 \\ 21.38 \\ 19.95 \\ 22.89 \\ 23.61 \\ 24.48$	$     18.78 \\     4.86 \\     7.61 \\     19.34 \\     19.36 \\     19.42 $
House	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup>	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b>	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b>	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b>	32.24 33.78 33.53 27.85 28.52 35.32 <b>36.23</b>	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b>	21.36 21.38 19.95 22.89 23.61 24.48 24.83	18.78 4.86 7.61 19.34 19.36 19.42 <b>19.59</b>
House	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b>	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b>	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b>	32.24 33.78 33.53 27.85 28.52 35.32 <b>36.23</b> 28.75	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b>	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b>	18.78 4.86 7.61 19.34 19.36 19.42 <b>19.59</b>
House	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net <sup>+</sup> TVAL3 [1]           D-AMP [2]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29	32.24 33.78 33.53 27.85 28.52 35.32 <b>36.23</b> 28.75 28.16	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30	$18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ 19.59 \\ 16.88 \\ 5.74$
House	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net <sup>+</sup> TVAL3 [1]           D-AMP [2]           IRCNN [3]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.00	$18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ 19.59 \\ 16.88 \\ 5.74 \\ 8.25 \\ 18.75 \\ 19.74 \\ 19.75 \\ 19.75 \\ 19.75 \\ 19.75 \\ 10.75 \\ $
House	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47	32.24 33.78 33.53 27.85 28.52 35.32 <b>36.23</b> 28.75 28.16 30.03 26.17	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.00 21.33	$\begin{array}{c} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.59} \\ \hline 16.88 \\ 5.74 \\ 8.25 \\ 17.77 \end{array}$
House	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52 31.33	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.00 21.33 21.86	$\begin{array}{c} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.59} \\ \hline 16.88 \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ \end{array}$
House Lena	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52 31.33 35.80	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \hline 19.80\\ 19.30\\ 19.00\\ 21.33\\ 21.86\\ 22.72\\ \end{array}$	$18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ 19.59 \\ 16.88 \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ 19.94 \\ 19.34 \\ $
House Lena	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup>	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b>	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.44</b>	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b>	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b>	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>22.98</b>	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \end{array}$
House Lena	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup>	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.44</b> 32.51	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b> 21.40	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>22.98</b> 16.89	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline \textbf{14.67}\\ \end{array}$
House Lena	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net <sup>+</sup> TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net <sup>+</sup> TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net <sup>+</sup> TVAL3 [1]           D-AMP [2]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.44</b> 32.51 32.01	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b> 21.40 19.85	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98	$\begin{array}{r} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.59} \\ \hline \textbf{16.88} \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ \textbf{17.89} \\ \textbf{14.67} \\ 6.15 \end{array}$
House	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.09	$\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline 31.73\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline 32.51\\ 32.01\\ 33.84\\ \end{array}$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 29.48 29.48 29.48 29.48 29.48	32.24 33.78 33.53 27.85 28.52 35.32 <b>36.23</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>32.57</b> 27.83 26.80 29.94	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.00 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \textbf{14.67}\\ 6.15\\ 8.54 \end{array}$
House Lena Monarch	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32	$\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline 31.73\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline 32.51\\ 32.01\\ 33.84\\ 27.12\\ \end{array}$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71	32.24 33.78 33.53 27.85 28.52 35.32 <b>36.23</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>32.57</b> 27.83 26.80 29.94 24.53	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \textbf{19.80}\\ 19.30\\ 19.30\\ 19.00\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ \textbf{16.89}\\ 15.98\\ 16.43\\ 18.15\\ \end{array}$	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.74\\ \textbf{17.89}\\ \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ \end{array}$
House Lena Monarch	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net <sup>+</sup> TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           BCONNE [5]           IRCNN [3]           SDA [4]           ReconNet [5]           IRCNN [3]           SDA [4]           ReconNet [5]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32 31.11 29.55	$\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline 31.73\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline 32.51\\ 32.01\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 92.65\\ \hline \end{array}$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 25.71	32.24           33.78           33.53           27.85           28.52           35.32           36.23           28.75           28.16           30.03           26.17           26.60           32.04           32.57           27.83           26.80           29.94           24.53           24.53	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55	$\begin{array}{c} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.59} \\ \hline 16.88 \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ \textbf{17.89} \\ \hline 14.67 \\ 6.15 \\ 8.54 \\ 15.11 \\ 15.09 \\ \textbf{15.11} \\ 1$
House Lena Monarch	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net SDA [4] ReconNet [5]	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ \textbf{28.32}\\ 31.11\\ 39.36\\ \hline \end{array}$	$\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline 31.73\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline 32.51\\ 32.01\\ 33.84\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \hline \end{array}$	$\begin{array}{r} 33.54\\ 35.17\\ 34.35\\ 29.19\\ 32.07\\ 36.51\\ \textbf{37.18}\\ \hline \textbf{29.85}\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ \hline \textbf{33.85}\\ \end{array}$	$\begin{array}{c} 32.24\\ 33.78\\ 33.53\\ 27.85\\ 28.52\\ 35.32\\ \textbf{36.23}\\ \hline \textbf{28.75}\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ \textbf{32.57}\\ \hline \textbf{27.83}\\ 26.80\\ 29.94\\ 24.53\\ 24.53\\ 32.31\\ \hline \textbf{32.31}\\ \hline \end{array}$	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.76 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b>	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \hline 15.13\\ \end{array}$
House Lena Monarch	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32 31.11 39.36 <b>40.18</b>	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline & \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline & \textbf{32.51}\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \end{array}$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b>	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.31 33.52	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b>	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ 19.80\\ 19.30\\ 19.30\\ 19.30\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ 16.89\\ 15.98\\ 16.43\\ 18.15\\ 18.55\\ \textbf{19.28}\\ 19.27\\ \end{array}$	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \end{array}$
House Lena Monarch	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net <sup>+</sup> TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           P-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net	37.58         39.50         37.83         31.22         34.50         39.60 <b>40.29</b> 33.65         33.97         36.71         29.71         32.28         37.97         35.13         35.54         37.09         28.32         31.11         39.36 <b>40.18</b> 31.97	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline 31.73\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline 30.17\\ \end{array}$	33.54           35.17           34.35           29.19           32.07           36.51           37.18           29.85           29.29           31.23           27.47           29.52           33.43           27.47           29.48           28.75           31.01           25.71           28.10           33.85           34.83           28.50	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.31 33.52 27.23	$\begin{array}{r} 26.52\\ 27.28\\ 27.47\\ 25.44\\ 27.70\\ 29.68\\ \textbf{30.76}\\ \hline 24.27\\ 23.76\\ 25.08\\ 23.69\\ 25.50\\ 26.87\\ \textbf{27.49}\\ 21.40\\ 19.85\\ 23.31\\ 21.26\\ 22.93\\ 25.16\\ \textbf{25.91}\\ \hline \textbf{23.19}\\ \end{array}$	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \hline 19.80\\ 19.30\\ 19.30\\ 19.30\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ \hline 16.89\\ 15.98\\ 16.43\\ 18.15\\ 18.55\\ \textbf{19.28}\\ 19.27\\ \hline 19.34\\ \end{array}$	$\begin{array}{r} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.59} \\ 16.88 \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ \textbf{17.89} \\ \textbf{14.67} \\ 6.15 \\ 8.54 \\ 15.11 \\ 15.09 \\ 15.13 \\ \textbf{15.15} \\ \textbf{17.19} \end{array}$
House Lena Monarch	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline \textbf{31.97}\\ 34.94\\ \hline 34.94\\ \hline \end{array}$	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \textbf{32.51}\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ \hline \textbf{32.14}\\ \hline \end{array}$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.77	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.51 33.52 27.23 27.16	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.19 23.03	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ 19.80\\ 19.30\\ 19.30\\ 19.30\\ 19.30\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ 16.89\\ 15.98\\ 16.43\\ 18.15\\ 18.55\\ \textbf{19.28}\\ 19.27\\ \textbf{19.34}\\ 19.63\\ \textbf{19.63}\\ \textbf{19.63}\\ \textbf{19.63}\\ \textbf{10.55\\ 19.28\\ 19.27\\ \textbf{19.34}\\ 19.63\\ \textbf{10.55\\ 19.28\\ 19.27\\ \textbf{19.34}\\ 19.63\\ 10.55\\ 19.28\\ 19.27\\ \textbf{19.55\\ 19.28\\ 19.27\\ \textbf{19.63\\ 19.63\\ 10.5\\$	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline \textbf{17.19}\\ 5.16\\ \hline \textbf{17.19}\\ 5.16\\ \hline \textbf{17.19}\\ 5.16\\ \hline \textbf{17.19}\\ \hline \textbf{5.16}\\ \hline \textbf{15.19}\\ \hline \textbf{17.19}\\ \hline \textbf{5.16}\\ \hline \textbf{17.19}\\ \hline \textbf{17.19}\\ \hline \textbf{5.16}\\ \hline \textbf{17.19}\\ $
House Lena Monarch	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] O-AMP [2] IRCNN [3] O-AMP [2] IRCNN [3] D-AMP [2] IRCNN [3]	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \textbf{31.97}\\ 34.94\\ 36.61\\ 30.95\\ \hline \end{array}$	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.44</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>37.77</b> 30.17 32.14 33.30	$\begin{array}{r} 33.54\\ 35.17\\ 34.35\\ 29.19\\ 32.07\\ 36.51\\ \textbf{37.18}\\ \hline \textbf{29.85}\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ \textbf{34.83}\\ \textbf{28.50}\\ 28.77\\ 31.74\\ 31.74\\ 31.74\\ 31.74\\ 33.77\\ 31.74\\ 3$	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.51 33.52 27.23 27.16 30.62 27.55 27.55 27.55 27.55 27.55 27.55 27.55 27.55 27.55 27.55 27.55 27.55 27.55 27.55 28.75 27.83 26.80 29.94 24.53 27.23 27.16 30.62 27.23 27.16 30.62 27.55 27	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.03 23.54 23.54	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.00 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 19.34 19.63 17.62	$\begin{array}{c} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.59} \\ \hline \textbf{16.88} \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ \textbf{17.89} \\ \hline \textbf{14.67} \\ 6.15 \\ 8.54 \\ 15.11 \\ 15.09 \\ 15.13 \\ \textbf{15.15} \\ \hline \textbf{17.19} \\ 5.16 \\ 7.62 \\ 7.62 \\ \hline \textbf{15.15} \\ \end{array}$
House Lena Monarch Parrots	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ICONN [3]           D-AMP [2]           IRCNN [3]           SDA [4]           PaconN [4]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32 31.11 39.36 <b>40.18</b> 31.97 34.94 36.61 28.89 21.77	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.44</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>37.77</b> 30.17 30.17 32.14 33.30 27.68	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.50 28.77 31.74 26.53 20.00	32.24 33.78 33.53 27.85 28.52 35.32 <b>36.23</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>32.57</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>33.52</b> 27.23 27.16 30.62 25.39	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.03 23.54 22.65 23.54 22.65	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 <b>19.34</b> 19.34 19.63 17.62 20.69	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline \textbf{17.19}\\ 5.16\\ 7.62\\ 17.92\\ 15.0\\ \hline \textbf{17.92}\\ \textbf{18.92}\\ \textbf{19.92}\\ $
House Lena Monarch Parrots	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-NETI	$\begin{array}{c} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline & \textbf{33.65}\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline & \textbf{35.13}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline & \textbf{31.97}\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 27.04\\ \hline \end{array}$	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.44</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>37.77</b> 30.17 32.14 33.30 27.68 30.68 30.68	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.57 731.74 26.53 28.93 28.93	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.31 33.52 27.23 27.23 27.16 30.62 25.39 25.77 21.24	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.19 23.03 23.54 22.65 24.44 25.21	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \textbf{19.80}\\ 19.30\\ 19.30\\ 19.30\\ 19.30\\ 19.30\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ \textbf{16.89}\\ 15.98\\ 16.43\\ 18.15\\ \textbf{18.55}\\ \textbf{19.28}\\ \textbf{19.27}\\ \textbf{19.34}\\ 19.63\\ 17.62\\ 20.69\\ 21.20\\ \textbf{21.20}\\ \textbf{21.20}\\ \textbf{21.20}\\ \textbf{22.22}\\ \textbf{22.20}\\ \textbf{22.20}\\ \textbf{23.20}\\ $	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline \textbf{17.19}\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.07\\ \hline \textbf{17.84}\\ 17.07\\ \hline \textbf{17.85}\\ 17.07\\ 17.07\\ 17.07\\ 17.07\\ 17.07\\ 17.07\\ 17.07\\ 17.07\\ 17.07\\$
House Lena Monarch Parrots	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline 31.97\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.04\\ \hline 28.89\\ 31.78\\ 31.89\\ 31.8$	35.70 37.42 37.46 30.12 33.60 38.12 <b>38.65</b> 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.44</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>37.77</b> 30.17 32.14 33.30 27.68 30.68 34.59 <b>25.64</b>	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.77 31.74 26.53 28.93 32.34	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.31 33.52 27.23 27.16 30.62 25.39 25.77 31.34 29.75	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.19 23.03 23.54 22.65 24.44 25.31	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> <b>19.80</b> 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 <b>19.28</b> 19.27 <b>19.34</b> 19.63 17.62 20.69 21.20 21.90	$\begin{array}{c} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.59} \\ \hline \textbf{19.59} \\ \hline \textbf{16.88} \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ \textbf{17.89} \\ \hline \textbf{14.67} \\ 6.15 \\ 8.54 \\ 15.11 \\ 15.09 \\ 15.13 \\ \textbf{15.15} \\ \hline \textbf{17.19} \\ 5.16 \\ 7.62 \\ 17.92 \\ 17.84 \\ 17.97 \\ \textbf{18.66} \\ \hline $
House Lena Monarch Parrots	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32 31.11 39.36 <b>40.18</b> 31.97 34.94 31.97 34.94 31.77 37.04 <b>37.33</b>	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline 35.04$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 28.50 28.77 31.74 33.85 34.83	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.51 33.52 27.23 27.16 30.62 25.39 25.77 31.34 32.27	$\begin{array}{r} 26.52\\ 27.28\\ 27.47\\ 25.44\\ 27.70\\ 29.68\\ \textbf{30.76}\\ \hline \\ \textbf{24.27}\\ 23.76\\ 25.08\\ 23.69\\ 25.50\\ 26.87\\ \textbf{27.49}\\ \hline \\ \textbf{25.50}\\ \textbf{26.87}\\ \textbf{27.49}\\ \hline \\ \textbf{21.40}\\ 19.85\\ 23.31\\ 21.26\\ \textbf{22.93}\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{23.19}\\ 23.03\\ 23.54\\ \textbf{22.65}\\ \textbf{24.44}\\ 25.31\\ \textbf{26.07}\\ \textbf{26.07}\\ \hline \end{array}$	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 <b>19.34</b> 19.63 17.62 20.69 21.20 21.90 <b>21.67</b>	$\begin{array}{r} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.59} \\ \hline \textbf{16.88} \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ \textbf{17.89} \\ \hline \textbf{14.67} \\ 6.15 \\ 8.54 \\ 15.11 \\ 15.09 \\ 15.13 \\ \textbf{15.15} \\ \hline \textbf{17.19} \\ 5.16 \\ 7.62 \\ 17.92 \\ 17.84 \\ 17.97 \\ \textbf{18.00} \\ \hline \textbf{18.00} \\ \hline \textbf{15.00} \\ 15.09 \\ 15.13 \\ \textbf{15.15} \\ \hline \textbf{17.19} \\ 5.16 \\ 7.62 \\ 17.92 \\ 17.84 \\ 17.97 \\ \textbf{18.00} \\ \hline \textbf{18.00} \\ \hline \textbf{15.00} \\ \hline \textbf{15.00} \\ \hline \textbf{15.13} \\ \hline \textbf{15.15} \\ \hline \textbf{17.19} \\ 5.16 \\ 7.62 \\ 17.92 \\ 17.84 \\ 17.97 \\ \textbf{18.00} \\ \hline \textbf{15.00} \\ \hline 15.$
House Lena Monarch Parrots	TVAL3 [1]         D-AMP [2]         IRCNN [3]         SDA [4]         ReconNet [5]         ISTA-Net         ISTA-Net]         TVAL3 [1]         D-AMP [2]         IRCNN [3]         SDA [4]         ReconNet [5]         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         D-AMP [2]         IRCNN [3]         SDA [4]         ReconNet [5]         ISTA-Net         BACONNET [5]         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32 31.11 35.54 37.09 28.32 31.11 35.54 37.09 28.32 31.17 34.94 36.61 28.89 31.77 37.04 <b>37.33</b>	$\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.13\\ 34.13\\ 34.15\\ \hline \textbf{35.04}\\ \hline \textbf{34.13}\\ \hline \textbf{34.14}\\ \hline \textbf{34.15}\\ \hline \textbf$	33.54         35.17         34.35         29.19         32.07         36.51         37.18         29.85         29.29         31.23         27.47         29.52         33.43         34.04         29.48         28.75         31.01         25.71         28.50         28.77         31.74         26.53         28.93         32.34         33.12	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.51 33.52 27.23 27.16 30.62 25.39 25.77 31.34 32.27 29.73 29.73 20.73 20.73 20.73 20.73 20.73 20.73 20.73 20.73 20.73 20.75 20.75 20.75 20.75 20.77 20.75 20.77 20.75 20.75 20.77 20.75 20.77 20.75 20.77 20.75 20.77 20.75 20.77 20.75 20.77 20.75 20.77 20.75 20.77 20.75 20.77 20.75 20.77 20	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.03 23.54 23.55 24.44 25.51 23.55 24.44 25.55 24.44 25.55 24.45 25.55 24.45 25.55	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \textbf{19.80}\\ 19.30\\ 19.30\\ 19.30\\ 19.30\\ 19.30\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ \textbf{16.89}\\ 15.98\\ 16.43\\ 18.15\\ \textbf{18.25}\\ \textbf{19.27}\\ \textbf{19.34}\\ 19.63\\ 17.62\\ 20.69\\ 21.20\\ 21.90\\ \textbf{21.67}\\ \textbf{18.46}\\ 18.$	$\begin{array}{r} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.59} \\ \hline 16.88 \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ \textbf{17.89} \\ \hline 14.67 \\ 6.15 \\ 8.54 \\ 15.11 \\ 15.09 \\ 15.13 \\ \textbf{15.15} \\ \hline 17.19 \\ 5.16 \\ 7.62 \\ 17.92 \\ 17.84 \\ 17.97 \\ \textbf{18.00} \\ \hline 15.56 \\ \hline r.5 \\ \hline \end{array}$
House Lena Monarch Parrots	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net <td>37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32 31.11 39.36 <b>40.18</b> 31.97 34.94 36.61 28.89 31.77 37.04 <b>37.33</b></td> <td><math display="block">\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ \hline \textbf{34.13}\\ 34.65\\ \hline \textbf{35.04}\\ \hline \end{array}</math></td> <td><math display="block">\begin{array}{c} 33.54\\ 35.17\\ 34.35\\ 29.19\\ 32.07\\ 36.51\\ \textbf{37.18}\\ \hline \textbf{29.85}\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ \textbf{34.83}\\ \textbf{28.50}\\ 28.77\\ 31.74\\ 26.53\\ 28.93\\ 32.34\\ \textbf{33.12}\\ \hline \textbf{31.21}\\ 31.72\\ 31.72\\ 31.61\\ \textbf{33.51}\\ 33.</math></td> <td>32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.51 33.52 27.23 27.16 30.62 25.39 25.77 31.34 32.27 29.73 30.14 29.73 30.14 29.73 30.14 29.73 30.14 20.02 20.03 20.14 20.05 20.04 20.04 20.05 20.04 20.04 20.05 20.04 20.04 20.05 20.07 30.062 20.77 30.04 20.07 30.04 20.07 20.03 20.04 20.04 20.04 20.04 20.04 20.04 20.04 20.05 20.04 20.04 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 2</td> <td>26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.03 23.54 22.65 24.44 25.31 <b>26.07</b> 22.88 22.58 22.58</td> <td>21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 19.34 19.63 17.62 20.69 21.20 21.20 21.90 <b>21.67</b> 18.46 18.13 19.42</td> <td><math display="block">\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline \textbf{17.19}\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \textbf{18.00}\\ \hline \textbf{15.56}\\ 5.74\\ 0.22\\ \hline \textbf{15.56}\\ 5.74\\ 0.22\\ \hline \textbf{15.56}\\ \hline \textbf{5.74}\\ 0.22\\ \hline \textbf{15.56}\\ \hline \textbf{15.56}\\ \hline \textbf{5.74}\\ 0.22\\ \hline \textbf{15.56}\\ \hline \textbf{15.56}\\ \hline \textbf{15.56}\\ \hline \textbf{15.56}\\ \hline \textbf{15.74}\\ \hline \textbf{15.76}\\ \hline \textbf{15.76}\\</math></td>	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32 31.11 39.36 <b>40.18</b> 31.97 34.94 36.61 28.89 31.77 37.04 <b>37.33</b>	$\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ \hline \textbf{34.13}\\ 34.65\\ \hline \textbf{35.04}\\ \hline \end{array}$	$\begin{array}{c} 33.54\\ 35.17\\ 34.35\\ 29.19\\ 32.07\\ 36.51\\ \textbf{37.18}\\ \hline \textbf{29.85}\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ \textbf{34.83}\\ \textbf{28.50}\\ 28.77\\ 31.74\\ 26.53\\ 28.93\\ 32.34\\ \textbf{33.12}\\ \hline \textbf{31.21}\\ 31.72\\ 31.72\\ 31.61\\ \textbf{33.51}\\ 33.$	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.51 33.52 27.23 27.16 30.62 25.39 25.77 31.34 32.27 29.73 30.14 29.73 30.14 29.73 30.14 29.73 30.14 20.02 20.03 20.14 20.05 20.04 20.04 20.05 20.04 20.04 20.05 20.04 20.04 20.05 20.07 30.062 20.77 30.04 20.07 30.04 20.07 20.03 20.04 20.04 20.04 20.04 20.04 20.04 20.04 20.05 20.04 20.04 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 20.04 20.05 2	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.03 23.54 22.65 24.44 25.31 <b>26.07</b> 22.88 22.58 22.58	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 19.34 19.63 17.62 20.69 21.20 21.20 21.90 <b>21.67</b> 18.46 18.13 19.42	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline \textbf{17.19}\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \textbf{18.00}\\ \hline \textbf{15.56}\\ 5.74\\ 0.22\\ \hline \textbf{15.56}\\ 5.74\\ 0.22\\ \hline \textbf{15.56}\\ \hline \textbf{5.74}\\ 0.22\\ \hline \textbf{15.56}\\ \hline \textbf{15.56}\\ \hline \textbf{5.74}\\ 0.22\\ \hline \textbf{15.56}\\ \hline \textbf{15.56}\\ \hline \textbf{15.56}\\ \hline \textbf{15.56}\\ \hline \textbf{15.74}\\ \hline \textbf{15.76}\\ \hline \textbf{15.76}\\$
House Lena Monarch Parrots	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net <tr< td=""><td><math display="block">\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.51\\ 32.28\\ 37.97\\ \textbf{32.28}\\ 37.97\\ \textbf{32.28}\\ 37.97\\ \textbf{33.51}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline \textbf{31.97}\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ \textbf{34.94}\\ 36.61\\ 28.89\\ 31.77\\ \textbf{37.04}\\ \textbf{37.33}\\ \hline \textbf{36.34}\\ 37.57\\ 37.14\\ 39.57\\ 37.14\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 3</math></td><td><math display="block">\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.01\\ 32.01\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 30.17\\ 30.17\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ 35.39\\ 26.64\\ \hline \textbf{35.39}\\ \textbf</math></td><td>33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.57 31.74 26.53 28.93 32.34 <b>33.12</b> 31.21 31.72 32.04</td><td>32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 24.53 32.31 33.52 27.23 27.16 30.62 25.39 25.77 30.14 30.99 24.75 29.73 30.14 30.99 24.75 29.73 30.14 30.99 24.75 24.75 29.75 29.75 29.75 20.77 20</td><td>26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.19 23.03 23.54 22.65 24.44 26.67 22.88 22.58 24.48 26.67 22.88 24.67 22.68 23.69 23.69 23.69 23.69 24.27 25.08 24.27 25.08 24.27 25.08 25.50 26.87 27.49 25.50 26.87 27.49 24.27 25.91 23.19 23.54 24.55 24.55 24.55 24.55 24.57 25.50</td><td>21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 19.34 19.27 19.34 19.63 17.62 20.69 21.20 21.90 <b>21.67</b> 18.46 18.13 18.46</td><td><math display="block">\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \textbf{18.00}\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.72\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.72\\ \hline 15.56\\ \hline 5.74\\ \hline 15.56\\ \hline 15.56\\ \hline 5.74\\ \hline 15.56\\ \hline 15.56</math></td></tr<>	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.51\\ 32.28\\ 37.97\\ \textbf{32.28}\\ 37.97\\ \textbf{32.28}\\ 37.97\\ \textbf{33.51}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline \textbf{31.97}\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ \textbf{34.94}\\ 36.61\\ 28.89\\ 31.77\\ \textbf{37.04}\\ \textbf{37.33}\\ \hline \textbf{36.34}\\ 37.57\\ 37.14\\ 39.57\\ 37.14\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 37.57\\ 3$	$\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.01\\ 32.01\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 30.17\\ 30.17\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ 35.39\\ 26.64\\ \hline \textbf{35.39}\\ \textbf$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.57 31.74 26.53 28.93 32.34 <b>33.12</b> 31.21 31.72 32.04	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 24.53 32.31 33.52 27.23 27.16 30.62 25.39 25.77 30.14 30.99 24.75 29.73 30.14 30.99 24.75 29.73 30.14 30.99 24.75 24.75 29.75 29.75 29.75 20.77 20	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.19 23.03 23.54 22.65 24.44 26.67 22.88 22.58 24.48 26.67 22.88 24.67 22.68 23.69 23.69 23.69 23.69 24.27 25.08 24.27 25.08 24.27 25.08 25.50 26.87 27.49 25.50 26.87 27.49 24.27 25.91 23.19 23.54 24.55 24.55 24.55 24.55 24.57 25.50	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 19.34 19.27 19.34 19.63 17.62 20.69 21.20 21.90 <b>21.67</b> 18.46 18.13 18.46	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \textbf{18.00}\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.72\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.72\\ \hline 15.56\\ \hline 5.74\\ \hline 15.56\\ \hline 15.56\\ \hline 5.74\\ \hline 15.56\\ \hline 15.56$
House Lena Monarch Parrots Pepper	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-NET	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{32.28}\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline \textbf{31.97}\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 34.94\\ \textbf{36.61}\\ 28.89\\ 31.77\\ 37.04\\ \textbf{37.33}\\ \hline \textbf{36.34}\\ \textbf{37.57}\\ \textbf{37.14}\\ 28.07\\ 37.14\\ 28.07\\ 37.14\\ 28.07\\ 30.02\\ \hline \textbf{37.34}\\ \hline \textbf{37.57}\\ \textbf{37.14}\\ 28.07\\ 30.02\\ \hline \textbf{37.57}\\ \textbf{37.14}\\ 28.07\\ 37.14\\ 37.57\\ 37.14\\ 37.57\\$	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.51\\ 32.51\\ 32.61\\ \textbf{33.84}\\ \textbf{27.12}\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ \textbf{27.68}\\ 30.68\\ \textbf{34.59}\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ 35.39\\ 26.91\\ \textbf{36.24}\\ \textbf{35.39}\\ 26.91\\ \textbf{36.25}\\ \textbf{35.39}\\ \textbf{36.25}\\ \textbf{36.25}\\ \textbf{36.25}\\ \textbf{36.25}\\ \textbf{37.75}\\ 3$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.50 28.57 <b>31.74</b> 26.53 28.93 32.34 <b>33.12</b> 31.21 31.72 32.04 25.85 32.92	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 24.53 32.31 33.52 27.23 27.16 30.62 25.39 25.77 31.34 32.27 29.73 30.14 30.99 24.75 24.75 24.75 29.73 30.14 30.99 24.75 24.75 24.75 24.75 25.77 25.39 25.77 30.14 30.99 24.75 24.75 24.75 24.75 25.77 25.39 25.77 25.39 25.77 30.34 30.99 24.75 24.75 24.75 25.39 25.77 30.14 30.99 24.75 24.75 24.75 24.75 25.39 25.77 30.14 30.99 24.75 24.75 24.75 24.75 24.75 25.39 25.77 30.14 30.99 24.75 24.75 24.75 24.75 24.75 25.77 30.14 30.99 24.75 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.99 30.14 30.14 30.99 30.14 30.14 30.14 30.99 30.14 30	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.03 23.54 22.65 24.44 25.31 <b>26.5</b> 24.44 25.31 <b>26.67</b> 22.88 22.58 24.80 22.08 22.08	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ 19.80\\ 19.30\\ 19.30\\ 19.30\\ 19.00\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ 16.89\\ 15.98\\ 16.43\\ 18.15\\ 19.28\\ 19.27\\ 19.34\\ 19.63\\ 17.62\\ 20.69\\ 21.20\\ \textbf{21.90}\\ \textbf{21.67}\\ 18.46\\ 18.13\\ 18.12\\ 19.80\\ 0.23\\ \textbf{20.21}\\ \end{array}$	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline \textbf{17.19}\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \textbf{18.00}\\ \hline \textbf{15.56}\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ \hline \textbf{16.71}\\ 16.72\\ \hline \textbf{16.72}\\ \hline $
House Lena Monarch Parrots Pepper	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-NET	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline 31.97\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 34.94\\ \textbf{36.61}\\ 28.89\\ 31.77\\ 37.04\\ \textbf{37.33}\\ \hline 36.34\\ 37.57\\ 37.14\\ 28.07\\ 30.92\\ 38.51\\ \hline \end{array}$	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.01\\ \textbf{33.84}\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ \textbf{27.68}\\ 30.68\\ \textbf{34.59}\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ \textbf{35.39}\\ 26.91\\ 29.43\\ 36.79\\ \hline \textbf{36.79}\\ \hline \textbf{36.79}$	$\begin{array}{r} 33.54\\ 35.17\\ 34.35\\ 29.19\\ 32.07\\ 36.51\\ \textbf{37.18}\\ \hline \textbf{29.85}\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ \textbf{34.04}\\ \textbf{29.48}\\ 28.75\\ 31.01\\ 25.71\\ 28.75\\ \textbf{31.01}\\ 25.71\\ 28.75\\ \textbf{31.01}\\ 25.71\\ 28.75\\ \textbf{31.01}\\ 28.75\\ \textbf{31.01}\\ 28.75\\ \textbf{31.01}\\ 28.75\\ \textbf{31.01}\\ 28.77\\ \textbf{31.74}\\ \textbf{33.85}\\ \textbf{34.83}\\ \textbf{28.50}\\ 28.77\\ \textbf{31.74}\\ \textbf{33.85}\\ \textbf{34.83}\\ \textbf{28.50}\\ 28.77\\ \textbf{31.74}\\ \textbf{31.72}\\ \textbf{31.21}\\ \textbf{31.21}\\ \textbf{31.21}\\ \textbf{31.21}\\ \textbf{31.22}\\ \textbf{32.04}\\ 25.85\\ 28.28\\ \textbf{34.15}\\ \end{array}$	$\begin{array}{c} 32.24\\ 33.78\\ 33.53\\ 27.85\\ 28.52\\ 35.32\\ \textbf{36.23}\\ \hline \textbf{28.75}\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ \textbf{32.57}\\ \hline \textbf{27.83}\\ 26.80\\ 29.94\\ 24.53\\ 32.51\\ \textbf{33.52}\\ \hline \textbf{27.23}\\ 27.16\\ 30.62\\ 25.39\\ 25.77\\ \textbf{31.34}\\ \textbf{32.27}\\ \hline \textbf{29.73}\\ 30.14\\ \textbf{30.99}\\ 24.75\\ 24.95\\ 25.95\\ 24.95\\$	$\begin{array}{c} 26.52\\ 27.28\\ 27.47\\ 25.44\\ 27.70\\ 29.68\\ \textbf{30.76}\\ \hline \\ 24.27\\ 23.76\\ 25.08\\ 23.69\\ 25.50\\ 26.87\\ \textbf{27.49}\\ 25.50\\ 26.87\\ \textbf{27.49}\\ 21.40\\ 19.85\\ 23.31\\ 21.26\\ \textbf{22.93}\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{23.19}\\ 23.03\\ 23.54\\ \textbf{22.08}\\ 23.54\\ \textbf{22.65}\\ 24.44\\ 25.31\\ \textbf{26.07}\\ \hline \\ \textbf{22.88}\\ 22.88\\ 22.88\\ 22.88\\ 22.88\\ 22.88\\ 22.88\\ 22.88\\ 23.98\\ 23.98\\ 26.11\\ \hline \end{array}$	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \hline 19.80\\ 19.30\\ 19.30\\ 19.00\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ \hline 16.89\\ 15.98\\ 16.43\\ 18.15\\ 18.55\\ \textbf{19.28}\\ 19.27\\ \hline 19.34\\ 19.63\\ 17.62\\ 20.69\\ 21.20\\ 21.90\\ \textbf{21.67}\\ \hline 18.46\\ 18.13\\ 18.12\\ 19.80\\ 20.21\\ \textbf{20.04}\\ \end{array}$	$\begin{array}{r} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ \textbf{19.36} \\ 19.42 \\ \textbf{19.59} \\ \hline \textbf{16.88} \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ \textbf{17.89} \\ \textbf{14.67} \\ 6.15 \\ 8.54 \\ 15.11 \\ 15.09 \\ 15.13 \\ \textbf{15.11} \\ \textbf{15.10} \\ \textbf{15.11} \\ \textbf{15.10} \\ \textbf{15.11} \\ \textbf{15.10} \\ \textbf{15.13} \\ \textbf{15.16} \\ \textbf{7.62} \\ 17.92 \\ 17.84 \\ 17.97 \\ \textbf{18.00} \\ \textbf{15.56} \\ \textbf{5.74} \\ \textbf{8.09} \\ \textbf{16.71} \\ \textbf{16.72} \\ 16.$
House Lena Monarch Parrots Pepper	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{36.34}\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline 31.97\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.04\\ \textbf{37.33}\\ \hline 36.34\\ 37.57\\ 37.14\\ 28.07\\ 30.92\\ 38.51\\ \hline 30.92\\ 38.51\\ 38.5$	$\begin{array}{c} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ \textbf{36.44}\\ 27.12\\ 30.26\\ \textbf{36.99}\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{37.76}\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ 35.39\\ \textbf{26.91}\\ 29.43\\ 36.78\\ \textbf{37.54}\\ \end{array}$	$\begin{array}{r} 33.54\\ 35.17\\ 34.35\\ 29.19\\ 32.07\\ 36.51\\ \textbf{37.18}\\ \hline \textbf{29.85}\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ \textbf{29.48}\\ \textbf{29.48}\\ \textbf{29.48}\\ \textbf{29.48}\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ \textbf{29.48}\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ \textbf{29.48}\\ \textbf{34.04}\\ \hline \textbf{33.4.04}\\ \hline \textbf{34.4.04}\\ \hline \textbf{34.4.04}\\ \hline \textbf{34.4.04}\\ \hline \textbf{34.4.04}$	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.51 33.52 27.23 27.16 30.62 25.39 25.77 31.34 32.27 29.73 30.14 30.99 24.75 24.95 32.64 34.95 32.64 34.95 35.32 35.32 35.32 35.32 35.32 35.32 35.32 35.32 35.32 35.32 35.32 35.32 35.32 35.32 35.32 35.32 32.31 33.52 35.39 35.39 35.27 31.34 30.99 32.64 35.36 35	$\begin{array}{c} 26.52\\ 27.28\\ 27.47\\ 25.44\\ 27.70\\ 29.68\\ \textbf{30.76}\\ \hline \\ 24.27\\ 23.76\\ 25.08\\ 23.69\\ 25.50\\ 26.87\\ \textbf{27.49}\\ 25.50\\ 26.87\\ \textbf{27.49}\\ 21.40\\ 19.85\\ 23.31\\ 21.26\\ \textbf{22.93}\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{23.19}\\ 23.03\\ 23.54\\ 22.93\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{23.19}\\ 23.03\\ 23.54\\ 22.65\\ 24.44\\ 25.31\\ \textbf{26.07}\\ \hline \\ \textbf{22.88}\\ 22.58\\ 24.480\\ 22.08\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline \end{array}$	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \hline 19.80\\ 19.30\\ 19.30\\ 19.30\\ 19.00\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ \hline 16.89\\ 15.98\\ 16.43\\ 18.15\\ 18.55\\ \textbf{19.28}\\ 19.27\\ \hline 19.34\\ 19.63\\ 17.62\\ 20.69\\ 21.20\\ 21.90\\ \textbf{21.67}\\ \hline 18.46\\ 18.13\\ 18.12\\ 19.80\\ 20.21\\ 20.94\\ \textbf{20.97}\\ \end{array}$	$\begin{array}{r} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ 19.59 \\ \hline 16.88 \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ 17.89 \\ \hline 14.67 \\ 6.15 \\ 8.54 \\ 15.11 \\ 15.09 \\ 15.13 \\ 15.15 \\ \hline 17.19 \\ 5.16 \\ 7.62 \\ 17.92 \\ 17.94 \\ 17.97 \\ 18.00 \\ \hline 15.56 \\ 5.74 \\ 8.09 \\ 16.71 \\ 16.72 \\ 16.76 \\ 10.76 \\ 1$
House Lena Monarch Parrots Pepper	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net SDA [4] ReconNet [5] ISTA-Net	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32 31.11 39.36 <b>40.18</b> 31.97 34.94 36.61 28.89 31.77 37.04 <b>37.33</b> 36.34 37.57 37.14 28.07 30.92 38.51 <b>39.13</b> 39.13	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.01\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ 35.39\\ \textbf{26.91}\\ 29.43\\ 36.78\\ \textbf{37.54}\\ \hline \textbf{37.55}\\ \hline 37.55$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.77 31.74 26.53 28.50 28.77 31.74 26.53 28.93 32.34 <b>33.12</b> 31.21 31.72 32.04 25.85 28.28 34.15 35.46	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.57 27.23 27.16 30.62 25.39 25.77 31.34 32.27 29.73 30.14 30.99 24.75 24.95 32.64 32.65 32.64 32.64 32.64 32.67 30.14 32.65 32.64 32.65 32.64 32	$\begin{array}{r} 26.52\\ 27.28\\ 27.47\\ 25.44\\ 27.70\\ 29.68\\ \textbf{30.76}\\ \hline 24.27\\ 23.76\\ 25.08\\ 23.69\\ 25.50\\ 26.87\\ \textbf{27.49}\\ \hline 21.40\\ 19.85\\ 23.31\\ 21.26\\ 22.93\\ 23.31\\ 21.26\\ \textbf{22.93}\\ 23.31\\ 21.26\\ \textbf{22.93}\\ 23.31\\ 21.26\\ \textbf{22.93}\\ 23.31\\ 21.26\\ \textbf{22.93}\\ 23.31\\ \textbf{23.19}\\ 23.03\\ 23.54\\ 22.65\\ \textbf{24.44}\\ 25.31\\ \textbf{26.07}\\ \hline \textbf{22.88}\\ 24.80\\ 22.08\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline 2$	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 <b>19.27</b> 19.34 19.63 17.62 20.69 21.20 21.90 <b>21.67</b> 18.46 18.13 18.12 19.80 20.94 <b>20.97</b>	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ 19.59\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 17.89\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.15\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.00\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.76\\ 16.76\\ \hline 16.75\\ \hline 16.75$
House Lena Monarch Parrots Pepper	TVAL3 [1]         D-AMP [2]         IRCNN [3]         SDA [4]         ReconNet [5]         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         SDA [4]         ReconNet [5]         SDA [4]         ReconNet [5]         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         TVAL3 [1]         D-AMP [2]         IRCNN [3]         SDA [4]         ReconNet [5]         ISTA-Net+         TVAL3 [1]         D-AMP [2]         IRCNN [3]         SDA [4]         ReconNet [5]         ISTA-Net         ISDA [4]         ReconNet [5]	37.58 39.50 37.83 31.22 34.50 39.60 <b>40.29</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.39</b> 35.13 35.54 37.97 <b>38.39</b> 35.13 35.54 37.09 28.32 31.11 39.36 <b>40.18</b> 31.97 34.94 36.61 28.89 31.77 37.04 <b>37.33</b> 36.34 37.57 37.14 <b>36.34</b> 37.57 37.14 <b>37.57</b> 33.55 33.55 33.55 33.55 35.57 37.57 37.14 39.50 33.55 35.57 37.5	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.01\\ 32.51\\ 32.01\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 30.17\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ 35.39\\ 26.91\\ 29.43\\ 36.78\\ \textbf{37.54}\\ \hline \textbf{31.46}\\ 53.59\\ \hline \textbf{31.46}\\ 53.59\\ \hline \textbf{31.46}\\ 53.59\\ \hline \textbf{31.46}\\ 53.59\\ \hline \textbf{31.46}\\ \hline 31.$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>33.12</b> 31.21 31.72 32.04 <b>33.12</b> 31.21 31.72 32.04 <b>33.546</b> 29.23 29.23 29.23	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.51 33.52 27.23 27.16 30.62 25.39 25.77 31.34 32.27 29.73 30.14 30.99 24.75 24.95 32.64 34.35 27.92 27	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.03 23.54 22.65 24.44 25.31 <b>26.07</b> 22.88 22.58 24.44 25.31 <b>26.07</b> 22.88 22.58 24.44 25.31 <b>26.07</b> 22.88 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.40 22.58 24.44 25.51 24.44 25.51 24.44 25.51 24.27 22.88 24.26 24.44 25.51 24.44 25.51 24.44 25.51 24.27 22.88 24.26 22.58 24.44 25.51 24.44 25.51 24.27 22.88 24.20 22.58 24.44 25.50 22.58 24.44 25.50 22.58 24.44 25.50 22.58 24.44 25.50 22.58 24.44 25.50 22.58 24.44 25.50 22.58 24.44 25.50 24.27 25.50 25.50 26.87 27.49 23.51 23.59 23.54 23.59 23.54 23.54 22.58 24.44 25.51 24.44 25.51 24.44 25.51 24.27 25.50 24.44 25.51 24.44 25.51 24.44 25.58 24.44 25.58 24.80 22.58 24.44 22.58 24.44 22.58 24.80 22.58 24.44 22.58 24.25 24.44 22.58 24.80 22.58 24.80 22.58 24.44 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.80 22.58 24.44 22.58 24.80 22.58 24.50 24.50 24.50 22.58 24.50 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 22.58 24.50 25.50 24.50 25.50	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 19.34 19.63 17.62 20.69 21.20 21.20 21.90 <b>21.67</b> 18.46 18.13 18.12 19.80 20.21 20.94 <b>20.97</b> 18.75	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline \textbf{17.19}\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \textbf{18.00}\\ \hline \textbf{15.56}\\ 5.74\\ 8.09\\ 16.71\\ \textbf{16.72}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.43}\\ \textbf{5.56}\\ \hline \textbf{5.74}\\ \textbf{8.09}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.43}\\ \textbf{5.56}\\ \textbf{5.74}\\ \textbf{8.09}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.43}\\ \textbf{5.56}\\ \textbf{5.74}\\ \textbf{8.09}\\ \textbf{16.76}\\ \textbf{16.43}\\ \textbf{5.56}\\ \textbf{5.74}\\ \textbf{8.09}\\ \textbf{16.76}\\ 1$
House Lena Monarch Parrots Pepper	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net <tr< td=""><td><math display="block">\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline 31.97\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.51\\ 35.51\\ 35.52\\ 35.92\\ 33.55\\ 35.92\\ 32.52\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 33.55\\ 35.92\\ 33.55\\ 35.92\\ 3</math></td><td><math display="block">\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.01\\ 32.01\\ 32.01\\ 32.01\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 30.17\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ 35.39\\ 26.91\\ 29.43\\ 36.78\\ \textbf{37.54}\\ \hline \textbf{31.46}\\ 33.56\\ \textbf{33.56}\\ \textbf{33.56}\\ \textbf{31.46}\\ 33.56\\ \textbf{33.56}\\ \textbf{33.56}\\ \textbf{33.56}\\ \textbf{31.46}\\ 33.56\\ \textbf{33.56}\\ 33.56</math></td><td>33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.65 <b>34.83</b> 28.65 <b>34.83</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>33.12</b> 31.21 31.72 32.04 25.85 28.28 33.12 31.21 31.72 32.04 25.85 28.28 34.15 <b>35.46</b> 29.23 30.39 21.10</td><td>32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 27.83 24.53 24.53 32.31 33.52 27.23 27.16 30.62 25.39 25.77 30.14 30.99 24.75 24.95 32.64 34.35 27.92 28.46 29.95 29</td><td>26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.19 23.03 23.54 22.65 24.44 24.67 22.88 22.58 24.40 22.64 24.67 24.67 22.88 22.58 24.67 24.67 22.88 22.58 24.67 24.67 25.64 25.64 25.64 24.67 25.91 23.65 23.69 22.88 22.88 24.80 22.88 24.80 22.98 22.69 22.88 24.80 22.98 22.69 22.88 24.80 22.98 22.98 22.69 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.90 22.99 22.64 24.90 22.99 22.64 24.90 22.99 22.64 24.90 22.99 22.64 24.90 22.99 22.64 24.90 22.99</td><td>21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 19.34 19.63 17.62 20.69 21.20 21.90 <b>21.67</b> 18.46 18.13 18.12 19.80 21.90 <b>21.67</b> 18.46 18.75 18.40 20.94 <b>20.97</b></td><td><math display="block">\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.16}\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \textbf{18.00}\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ \textbf{16.72}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.43}\\ 5.21\\ 7.70\\ \hline \end{array}</math></td></tr<>	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline 31.97\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.61\\ 28.89\\ 31.77\\ 37.14\\ 36.51\\ 35.51\\ 35.52\\ 35.92\\ 33.55\\ 35.92\\ 32.52\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 32.52\\ 33.55\\ 35.92\\ 33.55\\ 35.92\\ 33.55\\ 35.92\\ 3$	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.01\\ 32.01\\ 32.01\\ 32.01\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 30.17\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ 35.39\\ 26.91\\ 29.43\\ 36.78\\ \textbf{37.54}\\ \hline \textbf{31.46}\\ 33.56\\ \textbf{33.56}\\ \textbf{33.56}\\ \textbf{31.46}\\ 33.56\\ \textbf{33.56}\\ \textbf{33.56}\\ \textbf{33.56}\\ \textbf{31.46}\\ 33.56\\ \textbf{33.56}\\ 33.56$	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.65 <b>34.83</b> 28.65 <b>34.83</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>33.12</b> 31.21 31.72 32.04 25.85 28.28 33.12 31.21 31.72 32.04 25.85 28.28 34.15 <b>35.46</b> 29.23 30.39 21.10	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 27.83 24.53 24.53 32.31 33.52 27.23 27.16 30.62 25.39 25.77 30.14 30.99 24.75 24.95 32.64 34.35 27.92 28.46 29.95 29	26.52 27.28 27.47 25.44 27.70 29.68 <b>30.76</b> 24.27 23.76 25.08 25.50 26.87 <b>27.49</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>25.91</b> 23.19 23.03 23.54 22.65 24.44 24.67 22.88 22.58 24.40 22.64 24.67 24.67 22.88 22.58 24.67 24.67 22.88 22.58 24.67 24.67 25.64 25.64 25.64 24.67 25.91 23.65 23.69 22.88 22.88 24.80 22.88 24.80 22.98 22.69 22.88 24.80 22.98 22.69 22.88 24.80 22.98 22.98 22.69 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.80 22.99 22.64 24.90 22.99 22.64 24.90 22.99 22.64 24.90 22.99 22.64 24.90 22.99 22.64 24.90 22.99 22.64 24.90 22.99	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.30 19.30 19.30 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 19.27 19.34 19.63 17.62 20.69 21.20 21.90 <b>21.67</b> 18.46 18.13 18.12 19.80 21.90 <b>21.67</b> 18.46 18.75 18.40 20.94 <b>20.97</b>	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.16}\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \textbf{18.00}\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ \textbf{16.72}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.43}\\ 5.21\\ 7.70\\ \hline \end{array}$
House Lena Monarch Parrots Pepper	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-NET	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline 31.97\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.04\\ \textbf{37.33}\\ \hline 36.34\\ 37.57\\ 37.14\\ 28.07\\ 37.14\\ 28.07\\ 37.14\\ 28.07\\ 37.14\\ 28.07\\ 37.14\\ 28.07\\ 37.57\\ 37.14\\ 28.07\\ 37.57\\ 37.14\\ 28.07\\ 36.34\\ 37.57\\ 37.14\\ 28.07\\ 36.34\\ 37.57\\ 37.14\\ 28.07\\ 30.92\\ 38.51\\ \textbf{39.13}\\ \hline 33.55\\ 35.92\\ 36.23\\ 28.95\\ \hline \end{array}$	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.01\\ \textbf{33.84}\\ \textbf{27.12}\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ \textbf{34.59}\\ \textbf{37.76}\\ \textbf{34.65}\\ 35.39\\ 26.91\\ 29.43\\ 34.65\\ 35.39\\ 26.91\\ 29.43\\ 36.78\\ \textbf{37.54}\\ \hline \textbf{31.46}\\ 33.56\\ \textbf{34.06}\\ 31.46\\ 33.56\\ \textbf{34.06}\\ 37.79\\ \hline \textbf{37.79}\\ \hline \textbf{31.46}\\ 33.56\\ \textbf{34.06}\\ \textbf{37.79\\ \hline \textbf{31.46}\\ 33.56\\ \textbf{34.06\\ \hline \textbf{37.79\\ \hline \textbf{31.46}\\ \textbf{33.56\\ \hline \textbf{34.06}\\ \textbf{34.06\\ \hline \textbf{37.79\\ \hline \textbf{31.46}\\ \textbf{33.56\\ \hline \textbf{34.06\\ \hline \textbf{37.79\\ \hline \textbf{37.79\\ \hline \textbf{31.46}\\ \textbf{33.56\\ \hline \textbf{34.06\\ \hline \textbf{34.06\\ \hline \textbf{37.79\\ \hline \textbf{31.46}\\ \textbf{33.56\\ \hline \textbf{34.06\\ \hline \textbf{34.06\\ \hline \textbf{34.06\\ \hline \textbf{34.06\\ \hline \textbf{35.79\\ \hline \textbf{35.79} \hline $	33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>34.83</b> 28.50 28.50 28.57 31.74 26.53 28.93 32.34 <b>31.21</b> 31.72 32.04 25.85 28.28 31.21 31.72 32.04 25.85 28.28 33.415 <b>35.46</b> 29.23 30.39 31.18 26.62	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 24.53 32.31 33.52 27.23 27.16 30.62 25.39 25.77 31.34 32.27 29.73 30.14 30.99 24.75 24.95 32.64 34.35 27.92 28.46 30.07 25.34	$\begin{array}{c} 26.52\\ 27.28\\ 27.47\\ 25.44\\ 25.44\\ 25.47\\ 29.68\\ \textbf{30.76}\\ \hline \\ 24.27\\ 23.76\\ 25.08\\ 25.50\\ 26.87\\ \textbf{27.49}\\ \hline \\ 25.50\\ 26.87\\ \textbf{27.49}\\ \hline \\ 21.40\\ 19.85\\ 23.31\\ 21.26\\ 22.93\\ 25.16\\ \textbf{22.93}\\ 25.16\\ \textbf{22.93}\\ 25.16\\ \textbf{22.93}\\ 25.51\\ \textbf{24.44}\\ 25.31\\ \textbf{26.55}\\ 24.44\\ 25.31\\ \textbf{26.55}\\ 24.44\\ 25.31\\ \textbf{26.55}\\ 24.44\\ 25.31\\ \textbf{26.65}\\ 22.88\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline \\ \textbf{22.99}\\ 22.64\\ 24.02\\ 22.99\\ 22.64\\ 24.02\\ 22.99\\ 22.64\\ 24.02\\ 22.99\\ 22.64\\ 24.02\\ 22.99\\ 22.64\\ 24.02\\ 22.99\\ 22.64\\ 24.02\\ 22.99\\ 22.64\\ 24.02\\ 22.99\\ 22.64\\ 24.02\\ 22.99\\ 22.64\\ 24.02\\ 22.99\\ 22.65\\ 22.99\\ 22.64\\ 24.02\\ 22.98\\ 22.98\\ 24.9$	21.36 21.38 19.95 22.89 23.61 24.48 <b>24.83</b> 19.80 19.30 19.30 19.00 21.33 21.86 22.72 <b>22.98</b> 16.89 15.98 16.43 18.15 <b>19.28</b> 19.27 <b>19.34</b> 19.63 17.62 20.69 21.20 21.90 <b>21.67</b> 18.46 18.13 18.12 19.80 20.21 20.94 <b>20.97</b> 18.75 18.40 17.56 20.12	$\begin{array}{r} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ \textbf{19.59}\\ \hline \textbf{19.59}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{17.89}\\ \hline \textbf{17.89}\\ \hline \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.15}\\ \hline \textbf{17.19}\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \textbf{18.00}\\ \hline \textbf{15.56}\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \textbf{16.76}\\ \hline \textbf{16.43}\\ 5.21\\ 7.70\\ 17.20\\ \hline \end{array}$
House Lena Monarch Parrots Pepper Mean PSNR	TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{36.71}\\ 29.71\\ 32.28\\ 37.97\\ \textbf{36.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline 31.97\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.04\\ \textbf{37.33}\\ \hline 36.34\\ 37.57\\ 37.04\\ \textbf{37.33}\\ \hline 36.34\\ 37.57\\ 37.14\\ 28.07\\ 30.92\\ 38.51\\ \textbf{39.13}\\ \hline 33.55\\ 35.92\\ 36.23\\ 28.95\\ 31.50\\ \hline \end{array}$	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{37.76}\\ \textbf{33.66}\\ \textbf{34.13}\\ \textbf{34.65}\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ \textbf{34.65}\\ \textbf{35.56}\\ \textbf{34.06}\\ \textbf{37.54}\\ \hline \textbf{31.46}\\ \textbf{33.56}\\ \textbf{34.06}\\ \textbf{27.79}\\ \textbf{30.58}\\ \hline \textbf{30.58}\\ \hline \textbf{31.46}\\ \textbf{33.56}\\ \textbf{34.06}\\ \textbf{27.79}\\ \textbf{30.58}\\ \hline \textbf{30.58}\\ \hline \textbf{30.58}\\ \hline \textbf{30.58}\\ \hline \textbf{30.58}\\ \hline \textbf{31.46}\\ \hline \textbf{33.56}\\ \textbf{34.06}\\ \textbf{27.79}\\ \textbf{30.58}\\ \hline $	$\begin{array}{r} 33.54\\ 35.17\\ 34.35\\ 29.19\\ 32.07\\ 36.51\\ \textbf{37.18}\\ \hline \textbf{29.85}\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ 29.48\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ \textbf{34.83}\\ \hline \textbf{28.50}\\ 28.77\\ 31.74\\ 26.53\\ \textbf{28.93}\\ 32.34\\ \textbf{33.12}\\ \hline \textbf{31.21}\\ 31.72\\ 32.04\\ 25.85\\ 28.28\\ 34.15\\ \textbf{35.46}\\ \hline \textbf{29.23}\\ 30.39\\ 31.18\\ 26.63\\ 28.74\\ \hline \end{array}$	32.24 33.78 33.53 27.85 28.52 35.32 36.23 28.75 28.16 30.03 26.17 26.60 32.04 32.57 27.83 26.80 29.94 24.53 32.51 33.52 27.23 27.16 30.62 25.39 25.77 31.34 32.27 29.73 30.14 30.99 24.75 24.95 32.64 34.35 27.92 28.46 30.07 25.34 27.92 28.46 30.07 25.34 25.34 27.92 28.46 30.07 25.34 25.34 27.92 28.46 30.07 25.34 25.34 27.92 28.46 30.07 25.34 25.34 35.34 35.35 35.35 35.35 35.32 35.35 35	$\begin{array}{r} 26.52\\ 27.28\\ 27.47\\ 25.44\\ 27.70\\ 29.68\\ \textbf{30.76}\\ \hline \\ \textbf{24.27}\\ 23.76\\ 25.08\\ 23.69\\ 25.50\\ 26.87\\ \textbf{27.49}\\ \hline \\ \textbf{25.50}\\ \textbf{26.87}\\ \textbf{27.49}\\ \hline \\ \textbf{21.40}\\ 19.85\\ 23.31\\ 21.26\\ \textbf{22.93}\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{23.19}\\ 23.03\\ 23.54\\ \textbf{22.93}\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{23.19}\\ 23.03\\ 23.54\\ \textbf{22.93}\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{22.93}\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{22.93}\\ 25.5\\ \textbf{24.44}\\ 25.31\\ \textbf{26.07}\\ \hline \\ \textbf{22.88}\\ 22.58\\ 24.480\\ 22.08\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline \\ \textbf{22.99}\\ 22.64\\ 24.02\\ 22.65\\ 24.42\\ 22.08\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline \\ \textbf{22.99}\\ 22.64\\ 24.02\\ 22.65\\ 24.98\\ \hline \\ \textbf{22.99}\\ 22.64\\ 24.02\\ 22.65\\ 24.98\\ 22.08\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline \\ \textbf{22.99}\\ 22.64\\ 24.02\\ 22.65\\ 24.98\\ \hline \\ \textbf{23.98}\\ 22.64\\ 24.02\\ 22.65\\ 24.98\\ 24.98\\ 22.64\\ 24.02\\ 22.65\\ 24.98\\ 24.98\\ 22.64\\ 24.02\\ 22.65\\ 24.98\\ 24.98\\ 22.64\\ 24.02\\ 22.65\\ 24.98\\ 24.$	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \hline 19.80\\ 19.30\\ 19.30\\ 19.00\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ \hline 16.89\\ 15.98\\ 16.43\\ 18.15\\ 18.55\\ \textbf{19.28}\\ 19.27\\ \hline 19.34\\ 19.63\\ 17.62\\ 20.69\\ 21.20\\ 21.90\\ \textbf{21.67}\\ \hline 18.46\\ 18.13\\ 18.12\\ 19.80\\ 20.21\\ 19.80\\ 20.94\\ \textbf{20.94}\\ \textbf{20.94}\\ \textbf{20.94}\\ \textbf{20.94}\\ \textbf{20.12}\\ 0.69\\ \textbf{21.20}\\ 21.67\\ \hline 18.75\\ 18.40\\ 17.56\\ 20.12\\ 20.69\\ \textbf{21.20}\\ \textbf{20.94}\\ \textbf{20.94}\\ \textbf{20.94}\\ \textbf{20.96}\\ \textbf{20.12}\\ 0.69\\ \textbf{20.12}\\ 0.69\\ \textbf{20.12}\\ 0.69\\ \textbf{20.12}\\ 0.69\\ \textbf{20.12}\\ \textbf{20.96}\\ 2$	$\begin{array}{r} 18.78 \\ 4.86 \\ 7.61 \\ 19.34 \\ 19.36 \\ 19.42 \\ 19.59 \\ \hline 19.59 \\ \hline 16.88 \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ 17.89 \\ \hline 14.67 \\ 6.15 \\ 8.54 \\ 15.11 \\ 15.09 \\ 15.13 \\ 15.15 \\ \hline 17.19 \\ 5.16 \\ 7.62 \\ 17.92 \\ 17.84 \\ 17.97 \\ 18.00 \\ \hline 15.56 \\ 5.74 \\ 8.09 \\ 16.71 \\ 16.72 \\ 18.00 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.76 \\ 16.72 \\ 17.29 \\ 17.27 \\ 17.29 \\ 17.27 \\ 17.29 \\ 17.27 \\ 17.27 \\ 17.27 \\ 17.29 \\ 17.27 \\ 17.27 \\ 17.27 \\ 18.00 \\ 17.27 \\ 17.29 \\ 17.27 \\$
House Lena Monarch Parrots Pepper Mean PSNR	TVAL3 [1]         D-AMP [2]         IRCNN [3]         SDA [4]         ReconNet [5]         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         SDA [4]         ReconNet [5]         IRCNN [3]         SDA [4]         ReconNet [5]         ISTA-Net         SDA [4]         ReconNet [5]         ISTA-Net         ISTA-Net         ISDA [4]         ReconNet [5]         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         ISTA-Net         IRCNN [3]         SDA [4]         ReconNet [5]	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ 35.13\\ 35.54\\ 37.97\\ \textbf{38.39}\\ 35.54\\ 37.97\\ \textbf{38.39}\\ 35.54\\ 37.97\\ \textbf{38.39}\\ 35.54\\ 37.97\\ \textbf{38.39}\\ 35.54\\ \textbf{37.97}\\ \textbf{38.39}\\ 35.54\\ \textbf{37.97}\\ \textbf{38.39}\\ \textbf{38.39}\\ \textbf{31.97}\\ \textbf{34.94}\\ \textbf{36.61}\\ \textbf{28.89}\\ \textbf{31.97}\\ \textbf{34.94}\\ \textbf{36.61}\\ \textbf{28.89}\\ \textbf{31.97}\\ \textbf{34.94}\\ \textbf{36.61}\\ \textbf{38.51}\\ \textbf{37.57}\\ \textbf{37.14}\\ \textbf{28.07}\\ \textbf{30.92}\\ \textbf{38.51}\\ \textbf{33.55}\\ \textbf{35.592}\\ \textbf{36.23}\\ \textbf{28.95}\\ \textbf{31.50}\\ \textbf{37.42}\\ \textbf{37.42}\\ \end{array}$	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.44\\ \hline \textbf{32.01}\\ 32.14\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ 30.68\\ 34.59\\ \textbf{37.76}\\ \textbf{35.04}\\ \hline \textbf{34.13}\\ 34.65\\ 35.39\\ \textbf{26.91}\\ 29.43\\ 36.78\\ \textbf{37.54}\\ \hline \textbf{31.46}\\ 33.56\\ 34.06\\ 27.79\\ 30.58\\ \textbf{35.26}\\ \hline \textbf$	33.54 33.54 35.17 34.35 29.19 32.07 36.51 <b>37.18</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.04</b> 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 28.75 31.01 25.71 25.71 28.10 33.85 <b>34.83</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>33.12</b> 31.21 31.72 32.04 25.85 28.28 34.15 <b>35.46</b> 29.23 30.39 31.18 26.63 28.74 32.91	$\begin{array}{c} 32.24\\ 33.78\\ 33.53\\ 27.85\\ 28.52\\ 35.32\\ 36.23\\ \hline \\ 28.75\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ 32.57\\ \hline \\ 27.83\\ 24.53\\ 32.57\\ \hline \\ 27.83\\ 24.53\\ 32.31\\ 33.52\\ \hline \\ 27.23\\ 27.16\\ 30.62\\ 25.39\\ 25.39\\ 25.77\\ 31.34\\ 32.27\\ \hline \\ 30.14\\ 30.99\\ 24.75\\ 24.95\\ 32.64\\ \hline \\ 34.35\\ \hline \\ 27.92\\ 24.95\\ 32.64\\ \hline \\ 34.35\\ \hline \\ 27.92\\ 28.46\\ 30.07\\ 25.34\\ 25.60\\ 31.53\\ \hline \end{array}$	$\begin{array}{r} 26.52\\ 27.28\\ 27.47\\ 25.44\\ 27.70\\ 29.68\\ \textbf{30.76}\\ \hline \\ 24.27\\ 23.76\\ 25.08\\ 23.69\\ 25.50\\ 26.87\\ \textbf{27.49}\\ \hline \\ 25.50\\ 26.87\\ \textbf{27.49}\\ \hline \\ 21.40\\ 19.85\\ 23.31\\ 21.26\\ \textbf{22.93}\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{23.19}\\ 23.03\\ 23.54\\ 22.93\\ 23.54\\ \textbf{22.65}\\ 24.44\\ 25.31\\ \textbf{26.07}\\ \hline \\ \textbf{22.88}\\ 24.80\\ 22.88\\ 24.80\\ 22.08\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline \\ \textbf{22.99}\\ 22.65\\ 24.42\\ 22.65\\ 24.44\\ 25.31\\ \textbf{26.07}\\ \hline \\ \textbf{22.88}\\ 24.80\\ 22.08\\ 23.98\\ 26.11\\ \textbf{27.40}\\ 22.99\\ 22.65\\ 24.28\\ 23.98\\ 26.11\\ \textbf{27.40}\\ 22.99\\ 22.65\\ 24.28\\ 25.80\\ \hline \end{array}$	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \hline 19.80\\ 19.30\\ 19.30\\ 19.30\\ 19.00\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ \hline 16.89\\ 15.98\\ 16.43\\ 18.15\\ 18.55\\ \textbf{19.28}\\ 19.27\\ \hline 19.34\\ 19.63\\ 17.62\\ 20.69\\ 21.20\\ 21.90\\ \textbf{21.67}\\ \hline 18.46\\ 18.13\\ 18.12\\ 19.80\\ 20.21\\ 20.94\\ \textbf{20.97}\\ \hline 18.75\\ 18.40\\ 17.56\\ 20.12\\ 20.63\\ 21.23\\ \hline 18.75\\ 18.40\\ 17.56\\ 20.12\\ 20.63\\ 21.23\\ \hline 19.35\\ \hline 19.35\\ \hline 10.35\\ $	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ 19.59\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 17.89\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.15\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.00\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 18.00\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.76\\ 16.76\\ 16.76\\ 16.43\\ 5.21\\ 7.70\\ 17.29\\ 17.27\\ 17.30\\ \hline \end{array}$
House Lena Monarch Parrots Pepper Mean PSNR	TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net	$\begin{array}{r} 37.58\\ 39.50\\ 37.83\\ 31.22\\ 34.50\\ 39.60\\ \textbf{40.29}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.39}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.18}\\ \hline 31.97\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.04\\ \textbf{37.33}\\ \hline 36.34\\ 37.57\\ 37.04\\ \textbf{37.33}\\ \hline 36.34\\ 37.57\\ 37.14\\ \textbf{28.07}\\ 30.92\\ 38.51\\ \textbf{39.13}\\ \hline 33.55\\ 35.92\\ 36.23\\ 28.95\\ 31.50\\ 37.43\\ \textbf{38.07}\\ \hline \end{array}$	$\begin{array}{r} 35.70\\ 37.42\\ 37.46\\ 30.12\\ 33.60\\ 38.12\\ \textbf{38.65}\\ \hline \textbf{38.65}\\ \hline \textbf{31.73}\\ 31.36\\ 34.45\\ 28.52\\ 31.33\\ 35.80\\ \textbf{36.44}\\ \hline \textbf{32.51}\\ 32.51\\ 32.01\\ 32.51\\ 32.01\\ 33.84\\ 27.12\\ 30.26\\ 36.99\\ \textbf{37.77}\\ \hline \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ \textbf{30.17}\\ 32.14\\ 33.30\\ 27.68\\ \textbf{30.17}\\ \textbf{32.14}\\ 33.30\\ 27.68\\ \textbf{36.99}\\ \textbf{37.77}\\ \textbf{30.17}\\ 30.17\\ 32.14\\ 33.30\\ 27.68\\ \textbf{36.99}\\ \textbf{37.54}\\ \hline \textbf{31.46}\\ \textbf{33.56}\\ \textbf{34.13}\\ \textbf{34.65}\\ \textbf{35.39}\\ \textbf{26.91}\\ 29.43\\ \textbf{36.78}\\ \textbf{37.54}\\ \hline \textbf{31.46}\\ \textbf{33.56}\\ \textbf{34.06}\\ \textbf{27.79}\\ \textbf{30.58}\\ \textbf{35.06}\\ \textbf{36.06}\\ 3$	$\begin{array}{r} 33.54\\ 35.17\\ 34.35\\ 29.19\\ 32.07\\ 36.51\\ \textbf{37.18}\\ \hline \textbf{29.85}\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ \textbf{34.04}\\ \hline \textbf{29.48}\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ \textbf{34.83}\\ \textbf{28.50}\\ 28.77\\ 31.74\\ 26.53\\ \textbf{28.77}\\ 31.74\\ 26.53\\ \textbf{28.93}\\ 32.34\\ \textbf{33.12}\\ \hline \textbf{31.21}\\ 31.72\\ 32.04\\ 25.85\\ 28.28\\ \textbf{34.15}\\ \textbf{35.46}\\ \hline \textbf{29.23}\\ 30.39\\ 31.18\\ 26.63\\ 28.74\\ \textbf{32.91}\\ \textbf{33.82}\\ \end{array}$	$\begin{array}{r} 32.24\\ 33.78\\ 33.53\\ 27.85\\ 28.52\\ 35.32\\ 36.23\\ \hline \\ 28.75\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ 32.57\\ \hline \\ 27.83\\ 26.80\\ 29.94\\ 24.53\\ 24.53\\ 24.53\\ 24.53\\ 32.31\\ \hline \\ 33.52\\ \hline \\ 27.23\\ 27.16\\ 30.62\\ 25.39\\ 25.77\\ 31.34\\ \hline \\ 32.27\\ \hline \\ 29.73\\ 30.14\\ 30.99\\ 24.75\\ 24.95\\ 32.64\\ \hline \\ 34.35\\ \hline \\ 27.92\\ 28.46\\ 30.07\\ 25.34\\ 25.60\\ 31.53\\ \hline \\ 32.57\\ \hline \end{array}$	$\begin{array}{r} 26.52\\ 27.28\\ 27.47\\ 25.44\\ 27.70\\ 29.68\\ \textbf{30.76}\\ \hline \\ 24.27\\ 23.76\\ 25.08\\ 23.69\\ 25.50\\ 26.87\\ \textbf{27.49}\\ \hline \\ 25.50\\ 26.87\\ \textbf{27.49}\\ \hline \\ 21.40\\ 19.85\\ 23.31\\ 21.26\\ 22.93\\ 25.16\\ \textbf{25.91}\\ \hline \\ \textbf{23.19}\\ 23.03\\ 23.54\\ 22.65\\ 24.44\\ 25.31\\ \textbf{26.07}\\ \hline \\ \textbf{22.88}\\ 22.65\\ 24.44\\ 25.31\\ \textbf{26.07}\\ \hline \\ \textbf{22.88}\\ 22.58\\ 24.80\\ 22.08\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline \\ \textbf{22.99}\\ 22.65\\ 24.28\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline \\ \textbf{22.99}\\ 22.65\\ 24.28\\ 23.98\\ 26.11\\ \textbf{27.40}\\ \hline \\ \textbf{22.99}\\ 22.65\\ 24.28\\ 25.80\\ \textbf{26.64}\\ \hline \end{array}$	$\begin{array}{c} 21.36\\ 21.38\\ 19.95\\ 22.89\\ 23.61\\ 24.48\\ \textbf{24.83}\\ \hline 19.80\\ 19.30\\ 19.30\\ 19.30\\ 19.00\\ 21.33\\ 21.86\\ 22.72\\ \textbf{22.98}\\ \hline 16.89\\ 15.98\\ 16.43\\ 18.15\\ 18.55\\ \textbf{19.28}\\ 19.27\\ \hline 19.34\\ 19.63\\ 17.62\\ 20.69\\ 21.20\\ 21.90\\ \textbf{21.67}\\ \hline 18.46\\ 18.13\\ 18.12\\ 19.80\\ 20.21\\ 20.94\\ \textbf{20.97}\\ \hline 18.75\\ 18.40\\ 17.56\\ 20.12\\ 20.63\\ \textbf{21.23}\\ \textbf{21.23}\\ \textbf{21.31}\\ \end{array}$	$\begin{array}{c} 18.78\\ 4.86\\ 7.61\\ 19.34\\ 19.36\\ 19.42\\ 19.59\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 17.89\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.15\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.00\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.76\\ 16.76\\ 16.73\\ 5.21\\ 7.70\\ 17.29\\ 17.27\\ 17.30\\ 17.34\\ \hline 17.$

Table 1: PSNR (dB) performance for each image on Set11 with different CS ratios.

Table 2: PSNR (dB) performance for each image on Set11 with different CS ratios.

1 mage mame	Algorithm	CS Ratio							
	8	50%	40%	30%	25%	10%	4%	1%	
	TVAL3 [1]	28.39	26.58	25.07	24.25	22.00	19.27	17.58	
	D-AMP [2]	37.39	35.65	29.16	26.21	22.04	19.27	5.64	
	IRCNN [3]	35.54	33.96	28.84	27.36	22.65	18.73	8.12	
Barbara	SDA [4]	27.74	26.15	24.70	23.34	21.87	20.47	18.38	
	ReconNet [5]	29.64	28.46	26.30	23.32	22.62	20.64	18.35	
	ISTA-Net	35.59	33.04	29.27	28.16	23.29	20.98	18.43	
	ISTA-Net <sup>+</sup>	37.33	35.30	31.79	30.32	24.08	21.51	18.23	
	TVAL3 [1]	34.82	32.59	30.17	28.87	24.02	19.70	17 19	
	$D_{\Delta}MP$ [2]	38.97	35.85	31.62	29.40	23.40	19.09	5 37	
	IBCNN [3]	37 42	36.23	31.36	30.14	24.63	18.41	7.97	
Boats		30.41	29.34	28.18	26 79	24.05	21 30	18 //	
	BeconNet [5]	32.77	32.05	30.00	27.09	25.49	21.87	18 45	
	ISTA-Net	39.15	36.89	34 24	32.74	26.94	22.28	18.39	
	ISTA-Net <sup>+</sup>	40.22	38 1/	35 71	34.40	28.04	23.28	18.65	
	ISTA-Net	40.22	38.14	00.11	34.40	20.04	20.20	10.05	
	TVAL3 [1]	31.68	29.60	27.34	25.77	22.15	18.68	16.31	
	D-AMP [2]	31.15	29.13	26.90	24.81	21.17	18.25	5.66	
	IRCNN [3]	34.08	31.99	29.55	28.27	23.30	18.29	8.19	
Cameraman	SDA [4]	26.51	25.37	24.49	23.21	21.22	19.18	17.04	
	ReconNet [5]	27.98	27.83	26.06	23.42	22.33	19.76	17.06	
	ISTA-Net	34.17	31.73	29.54	28.25	23.62	20.18	17.07	
	ISTA-Net	35.10	33.37	31.32	29.88	25.01	20.70	17.22	
	TVAL3 [1]	27.82	25.91	23.93	22.75	18.71	16.24	14.77	
	D-AMP [2]	33.35	31.42	27.53	25.41	18.21	15.30	4.70	
	IRCNN [3]	33.44	32.00	27.62	26.40	20.77	15.80	7.12	
Fingerprint	SDA [4]	29.38	28.34	26.89	25.33	20.92	17.16	14.85	
	ReconNet [5]	31.34	29.76	27.72	25.44	21.51	17.26	14.78	
	ISTA-Net	33.81	31.79	29.31	27.92	21.97	17.35	14.99	
	ISTA-Net <sup>+</sup>	34.80	32.47	29.88	28.62	23.14	17.99	14.66	
	TVAL3 [1]	30.20	27.01	25.44	24 10	19.03	15.97	13.20	
	D-AMP [9]	31 75	30.37	27 70	25.51	17 71	14 45	4 37	
	IBCNN [2]	32.65	28.21	20.73	28.87	20.27	12.20	6.64	
Flintstones	SDA [4]	26.30	25.37	24 04	22.50	19.10	16.36	13.81	
1 111113101103	BeconNet [5]	20.00	28.28	24.04	22.03	20.96	16.81	13 78	
	ISTA-Net	20.52	20.20	30.20	22.95	20.30	17.48	13.70	
	ISTA Net+	22.80	22 57	91 14	20.00	22.04	18.60	19.74	
	ISTA-Net	33.89	34.37	31.14	30.48	25.20	18.00	15.74	
	TVAL3 [1]	41.48	39.30	36.97	35.58	28.72	21.26	18.58	
	D-AMP [2]	40.98	39.20	37.59	35.65	29.96	21.57	3.95	
	IRCNN [3]	40.13	37.87	35.51	34.66	28.29	17.01	6.51	
Foreman	SDA [4]	31.78	30.76	29.89	28.76	26.92	23.90	20.29	
	ReconNet [5]	35.28	34.66	32.74	29.00	29.69	24.89	20.27	
	ISTA-Net	43.24	41.37	39.21	37.54	32.10	25.94	20.41	
	ISTA-Net <sup>+</sup>	44.45	42.72	40.81	40.06	35.10	28.82	20.74	
	TVAL3 [1]	37.58	35.70	33.54	32.24	26.52	21.36	18.78	
	D-AMP [2]	39.50	37.42	35.17	33.78	27.28	21.38	4.86	
	IRCNN [3]	37.83	37.46	34.35	33.53	27.47	19.95	7.61	
House	SDA [4]	31.22	30.12	29.19	27.85	25.44	22.89	19.34	
1100000			22 60	32.07	28.52	27.70	23.61	19.36	
110 0000	ReconNet [5]	34.50	33.00				24.48	10.40	
110000	ReconNet [5] ISTA-Net	$34.50 \\ 39.60$	38.12	36.51	35.32	29.68		19.42	
110 000	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup>	34.50 39.60 <b>40.46</b>	38.12 39.08	36.51 <b>37.50</b>	35.32 <b>36.93</b>	29.68 <b>32.33</b>	26.29	19.42 19.45	
	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup>	34.50 39.60 <b>40.46</b> 33.65	33.00 38.12 <b>39.08</b>	36.51 37.50	35.32 <b>36.93</b>	29.68 <b>32.33</b>	<b>26.29</b>	<b>19.42</b> <b>19.45</b>	
	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2]	34.50 39.60 <b>40.46</b> 33.65 33.97	33.00 38.12 <b>39.08</b> 31.73 31.36	36.51 37.50 29.85 29.29	35.32 <b>36.93</b> 28.75 28.16	29.68 <b>32.33</b> 24.27 23.76	<b>26.29</b> 19.80 19.30	19.42 19.45 16.88 5.74	
	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3]	34.50 39.60 <b>40.46</b> 33.65 33.97 36.71	33.00 38.12 <b>39.08</b> 31.73 31.36 34.45	36.51 37.50 29.85 29.29 31.23	35.32 36.93 28.75 28.16 30.03	29.68 <b>32.33</b> 24.27 23.76 25.08	<b>26.29</b> 19.80 19.30 19.00	19.42 19.45 16.88 5.74 8.25	
Lena	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4]	34.50 39.60 <b>40.46</b> 33.65 33.97 36.71 29.71	33.00 38.12 <b>39.08</b> 31.73 31.36 34.45 28.52	36.51 37.50 29.85 29.29 31.23 27.47	35.32 36.93 28.75 28.16 30.03 26.17	29.68 32.33 24.27 23.76 25.08 23.69	<b>26.29</b> 19.80 19.30 19.00 21.33	19.42 19.45 16.88 5.74 8.25 17.77	
Lena	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5]	34.50 39.60 <b>40.46</b> 33.65 33.97 36.71 29.71 32.28	33.00 38.12 <b>39.08</b> 31.73 31.36 34.45 28.52 31.33	36.51 37.50 29.85 29.29 31.23 27.47 29.52	35.32 36.93 28.75 28.16 30.03 26.17 26.60	29.68 32.33 24.27 23.76 25.08 23.69 25.50	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86	$     \begin{array}{r}       19.42 \\       19.45 \\       \hline       16.88 \\       5.74 \\       8.25 \\       17.77 \\       17.85 \\     \end{array} $	
Lena	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net	34.50 39.60 <b>40.46</b> 33.65 33.97 36.71 29.71 32.28 37.97	33.00 38.12 <b>39.08</b> 31.73 31.36 34.45 28.52 31.33 35.80	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43	35.32 36.93 28.75 28.16 30.03 26.17 26.60 32.04	29.68 <b>32.33</b> 24.27 23.76 25.08 23.69 25.50 26.87	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72	$\begin{array}{r} 19.42 \\ \hline 19.45 \\ \hline 16.88 \\ 5.74 \\ 8.25 \\ 17.77 \\ 17.85 \\ 17.94 \\ \end{array}$	
Lena	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup>	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72	33.00 38.12 <b>39.08</b> 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b>	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26	35.32 36.93 28.75 28.16 30.03 26.17 26.60 32.04 33.16	29.68 32.33 24.27 23.76 25.08 23.69 25.50 26.87 28.31	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b>	19.42 19.45 16.88 5.74 8.25 17.77 17.85 17.94 18.28	
Lena	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net <sup>+</sup> ISTA-Net <sup>+</sup>	34.50 39.60 <b>40.46</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.12	33.00 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 36.63 32.51	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26	35.32 36.93 28.75 28.16 30.03 26.17 26.60 32.04 33.16	29.68 32.33 24.27 23.76 25.08 23.69 25.50 26.87 28.31 21.40	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b>	19.42         19.45         16.88         5.74         8.25         17.77         17.85         17.94         18.28	
Lena	ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2]	34.50 39.60 <b>40.46</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54	33.00 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 36.63 32.51 32.01	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 28.75	35.32 36.93 28.75 28.16 30.03 26.17 26.60 32.04 33.16 27.83 26.80	29.68 32.33 24.27 23.76 25.08 23.69 25.50 26.87 28.31 21.40 19.85	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98	19.42 19.45 16.88 5.74 8.25 17.77 17.85 17.94 18.28 14.67 6.15	
Lena	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3]	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54 37.09	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 36.63 32.51 32.01 33.84	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 28.75 31.01	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94	29.68 32.33 24.27 23.76 25.08 23.69 25.50 26.87 28.31 21.40 19.85 23.31	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43	19.42 19.45 16.88 5.74 8.25 17.77 17.85 17.94 18.28 14.67 6.15 8.54	
Lena	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4]	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54 37.09 28.32	33.00 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 28.75 31.01 25.71	35.32 36.93 28.75 28.16 30.03 26.17 26.60 32.04 33.16 27.83 26.80 29.94 24.53	29.68 32.33 24.27 23.76 25.08 25.50 26.87 28.31 21.40 19.85 23.31 21.26	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15	19.42 19.45 16.88 5.74 8.25 17.77 17.85 17.94 18.28 14.67 6.15 8.54 15.11	
Lena	SDA [4]ReconNet [5]ISTA-NetISTA-NetISTA-NetD-AMP [2]IRCNN [3]SDA [4]ReconNet [5]ISTA-NetISTA-NetISTA-NetISTA-Net [2]IRCNN [3]SDA [4]ReconNet [5]ReconNet [5]	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11	33.00 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 28.75 31.01 25.71 28.10	35.32 36.93 28.75 28.16 30.03 26.17 26.60 32.04 33.16 27.83 26.80 29.94 24.53 24.53	29.68 32.33 24.27 23.76 25.08 25.50 26.87 28.31 21.40 19.85 23.31 21.26 22.93	<b>26.29</b> 19.80 19.30 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55	19.42           19.45           16.88           5.74           8.25           17.77           17.85           17.94           18.28           14.67           6.15           8.54           15.09	
Lena	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net	34.50 39.60 <b>40.46</b> 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54 37.09 28.32 31.11 39.36	33.00 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 36.63 32.51 32.01 33.84 27.12 30.26 36.99	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.48 29.49 31.23 27.47 29.52 33.43 34.26 29.49 34.26 29.52 33.43 34.26 29.49 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.52 33.43 34.26 29.57 10.01 25.75 25.75	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31	29.68 32.33 24.27 23.76 25.08 25.50 26.87 28.31 21.40 19.85 23.31 21.26 22.93 25.16	<b>26.29</b> 19.80 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b>	$\begin{array}{c} 19.42\\ 19.45\\ \hline 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \hline 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \end{array}$	
Lena	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup>	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 36.63 32.51 32.01 33.84 27.12 30.26 36.99 38.33	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 28.75 31.01 25.71 28.10 33.85 35.66	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>34.34</b>	29.68 32.33 24.27 23.76 25.08 25.50 26.87 28.31 21.40 19.85 23.31 21.26 22.93 25.16 27.21	26.29 19.80 19.30 19.00 21.33 21.86 22.72 24.19 16.89 15.98 16.43 18.15 18.55 19.28 20.41	19.42 19.45 16.88 5.74 8.25 17.77 17.85 17.94 18.28 14.67 6.15 8.54 15.11 15.09 15.13 15.08	
Lena	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54 37.09 28.32 31.11 39.36 <b>40.48</b>	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 36.63 32.51 32.01 33.84 27.12 30.26 36.99 38.33 20.17	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 28.75 31.01 25.71 28.10 33.85 35.66	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>34.34</b>	29.68 32.33 24.27 23.76 25.08 25.50 26.87 28.31 21.40 19.85 23.31 21.26 22.93 25.16 22.93 25.16 27.21	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41	19.42 19.45 16.88 5.74 8.25 17.77 17.85 17.94 18.28 14.67 6.15 8.54 15.11 15.09 15.13 15.08	
Lena	SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           DAMP [2]	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 36.63 32.51 32.01 33.84 27.12 30.26 36.99 38.33 30.17 22.14	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 28.75 31.01 25.71 28.10 33.85 35.66 28.50 28.50	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 32.31 <b>34.34</b> 27.23 27.23 27.16	29.68 32.33 24.27 23.76 25.08 25.50 26.87 28.31 21.40 19.85 23.31 21.26 22.93 25.16 27.21 23.19 23.09 23.09 23.09	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 <b>19.28</b> 20.41 19.34 19.34 19.62	19.42 19.45 16.88 5.74 8.25 17.77 17.85 17.94 18.28 14.67 6.15 8.54 15.11 15.09 15.13 15.08 17.19 5.16	
Lena Monarch	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net <sup>+</sup> TVAL3 [1] D-AMP [2] IRCNN [2]	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.4	33.00 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 32.21 32.21	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 28.75 31.01 28.10 33.85 35.66 28.50 28.77 31.74	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 32.31 <b>34.34</b> 27.23 27.16 30.62	29.68 32.33 24.27 23.76 25.08 25.50 26.87 28.31 21.40 19.85 23.31 21.26 22.93 25.16 27.21 23.19 23.03 22.54	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 <b>19.28</b> 20.41 19.34 19.63 17.62	$\begin{array}{c} 19.42\\ \textbf{19.45}\\ \hline \textbf{16.88}\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ \textbf{18.28}\\ \hline \textbf{14.67}\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ \textbf{15.08}\\ \hline \textbf{17.19}\\ 5.16\\ 7.62\\ \end{array}$	
Lena Monarch	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-NET ISTA	$\begin{array}{c} 34.50\\ 39.60\\ \textbf{40.46}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.72}\\ \hline \textbf{35.13}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.48}\\ \hline \textbf{31.97}\\ 34.94\\ 36.61\\ 28.90\\ \hline \textbf{32.96}\\ \textbf{31.97}\\ \textbf{34.94}\\ 36.61\\ 28.90\\ \hline \textbf{32.96}\\ \textbf{33.97}\\ \textbf{34.94}\\ \textbf{36.61}\\ 28.90\\ \hline \textbf{33.97}\\ \textbf{34.94}\\ \textbf{36.61}\\ \textbf{39.96}\\ 39$	33.00 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.69	36.51 37.50 29.85 29.29 31.23 27.47 29.52 33.43 34.26 29.48 28.75 31.01 25.71 28.10 33.85 35.66 28.50 28.77 31.74 26.52	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.20	$\begin{array}{c} 29.68\\ \textbf{32.33}\\ \hline 24.27\\ 23.76\\ 25.08\\ 23.69\\ 25.50\\ 26.87\\ \textbf{28.31}\\ \hline 21.40\\ 19.85\\ 23.31\\ 21.26\\ 22.93\\ 25.16\\ \textbf{27.21}\\ \hline 23.19\\ 23.03\\ 23.54\\ 2$	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41 19.34 19.63 17.62 20.60	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ 17.19\\ 5.16\\ 7.62\\ 17.02\\ 17.02\\ \end{array}$	
Lena Monarch Parrots	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-NET ISTA	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 21.77	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 <b>31.01</b> 25.71 28.10 <b>33.85</b> <b>35.66</b> <b>28.50</b> 28.50 28.77 31.74 26.53 28.90 29.90 29.90 29.90 20.9	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41 19.34 19.34 17.62 20.69 21.20	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.94\\ 18.48\\ 15.11\\ 15.08\\ 17.19\\ 17.92\\ 17.92\\ 17.94\\ 18.48\\ 17.92\\ 17.92\\ 17.94\\ 18.48\\ 1$	
Lena Monarch Parrots	ReconNet [5] ISTA-Net	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04	33.30 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.61 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 34.50	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 <b>31.01</b> 25.71 28.10 <b>33.85</b> <b>35.66</b> <b>28.50</b> 28.57 <b>31.74</b> 26.53 28.93 32.24	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.24	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44 25.21	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41 19.34 19.63 17.62 20.69 21.20 21.20 21.00	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ \hline \end{array}$	
Lena Monarch Parrots	ReconNet [5] ISTA-Net	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 28.69	38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 34.59	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>35.66</b> 28.50 28.57 31.74 26.53 28.93 32.34 <b>4.00</b>	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>92.5</b>	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44 25.31 <b>27.6</b>	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41 19.34 19.63 17.62 20.69 21.20 21.90 <b>22.96</b>	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ \hline \end{array}$	
Lena Monarch Parrots	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 38.08	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 34.59 <b>36.21</b>	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>35.66</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>34.02</b> 25.51 28.93 32.34 <b>34.02</b> 25.51 26.53 28.93 32.34 <b>34.02</b> 25.51 26.53 28.93 32.34 <b>34.02</b> 25.51 26.53 26.53 28.93 32.34 <b>34.02</b> 26.53 26.53 26.53 26.53 27.54 27.54 27.55 27.55 27.57 28.50 28.75 28.50 28.75 31.53 28.50 28.75 31.53 28.50 28.75 31.53 28.50 28.75 31.53 28.50 28.75 31.53 28.50 28.75 32.34 32.34 33.55 32.34 32.34 34.02 34.55 35.55	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 32.31 <b>34.34</b> 27.23 27.16 30.62 25.39 25.77 31.34 <b>32.56</b>	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 <b>22.</b> 93 25.16 <b>27.21</b> 23.19 23.03 23.54 <b>23.</b> 54 <b>23.</b> 54 <b>24.</b> 27 <b>23.</b> 19 <b>23.</b> 03 <b>25.</b> 50 <b>27.21</b> <b>23.</b> 54 <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.</b>	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41 19.34 19.63 17.62 20.69 21.20 21.90 <b>22.96</b>	19.42 19.45 16.88 5.74 8.25 17.77 17.85 17.94 18.28 14.67 6.15 8.54 15.11 15.09 15.13 15.08 17.19 5.16 7.62 17.92 17.84 17.97 18.02 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.84 17.97 17.85 17.97 17.85 17.97 17.85 17.94 18.28 19.45 19.57 15.13 15.08 17.99 17.97 17.97 17.94 17.97 17.97 17.94 17.97 17.97 17.97 17.94 17.97 17.97 17.97 17.94 17.97 1	
Lena Monarch Parrots	ReconNet [5] ISTA-Net	$\begin{array}{r} 34.50\\ 39.60\\ \textbf{40.46}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.72}\\ \hline \textbf{35.13}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.48}\\ \hline \textbf{31.97}\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.04\\ \textbf{38.08}\\ \hline \textbf{36.34}\\ \hline \textbf{36.34}\\$	33.00 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 36.63 32.51 32.01 33.84 27.12 30.26 36.99 38.33 30.17 32.14 33.30 27.68 30.68 34.59 36.21 34.13 32.51 32.51 32.51 32.51 32.51 32.51 32.51 32.61 33.84 27.12 30.26 36.99 38.33 30.17 32.14 33.30 27.68 34.59 36.21 34.13 34.59 36.21 34.13 34.59 36.51 36.59 36.59 36.59 36.59 37.51 37.55 37	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>35.66</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>34.02</b> 31.21	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> 29.73	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.88 <b>24.44</b> 25.31 <b>27.36</b> <b>22.88</b> <b>22.88</b> <b>22.88</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.93</b> <b>23.94</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>24.44</b> <b>25.31</b> <b>27.36</b> <b>22.88</b> <b>23.95</b> <b>22.88</b> <b>23.95</b> <b>23.95</b> <b>23.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>24.95</b> <b>25.95</b> <b>24.95</b> <b>25.95</b> <b>24.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b>25.95</b> <b></b>	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 <b>19.28</b> 20.41 19.34 19.63 17.62 20.69 21.20 21.90 <b>22.96</b> 18.46	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ 15.56\\ 1$	
Lena Monarch Parrots	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net IRCNN [3] SDA [4] ReconNet [5] ISTA-Net	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 38.72 38.72 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 <b>38.08</b> 36.34 37.57	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 30.68 30.68 34.59 <b>36.21</b>	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 <b>31.01</b> 25.71 28.10 33.85 <b>35.66</b> <b>28</b> .50 28.57 <b>31.74</b> 26.53 <b>35.66</b> <b>35.66</b> <b>31.74</b> 26.53 <b>32.34</b> <b>34.02</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.72</b>	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> 29.73 30.14	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44 25.31 <b>27.36</b> <b>22.88</b> 22.58	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41 19.34 19.63 17.62 20.69 21.20 21.90 <b>22.96</b> 18.46 18.13	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ 15.56\\ 5.74\\ \end{array}$	
Lena Monarch Parrots	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net D-AMP [2] IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-NET IST	$\begin{array}{r} 34.50\\ 39.60\\ \textbf{40.46}\\ \hline \textbf{33.65}\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.72}\\ \hline \textbf{35.13}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.48}\\ \hline \textbf{31.97}\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.04\\ \textbf{36.08}\\ \hline \textbf{36.34}\\ \textbf{37.57}\\ \textbf{37.14}\\ \hline \textbf{37.14}\\ $	38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 34.59 <b>36.21</b> 34.13 34.65 35.39	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>35.66</b> 28.50 28.57 31.74 26.53 28.93 32.34 <b>34.26</b> 28.93 32.34 <b>34.26</b> 28.93 32.34 <b>34.26</b> 28.93 32.24 <b>31.21</b> 31.72 32.04	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> 29.73 30.14 30.99 21.54 30.99	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44 25.31 <b>27.36</b> <b>22.</b> 88 22.88 22.58 24.80 23.54 22.58 24.44 25.31 <b>27.36</b> <b>22.</b> 88 <b>22.</b> 88 <b>22.</b> 58 <b>24.</b> 80 <b>23.</b> 58 <b>24.</b> 80 <b>25.</b> 50 <b>25.</b> 50 <b>26.</b> 87 <b>27.</b> 10 <b>27.</b> 21 <b>27.</b> 21	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41 19.34 19.63 17.62 20.69 21.20 21.90 <b>22.96</b> 18.46 18.13 18.12 18.46	19.42 19.45 16.88 5.74 8.25 17.77 17.85 17.94 18.28 14.67 6.15 8.54 15.11 15.09 15.13 15.08 17.19 5.16 7.62 17.92 17.84 17.97 18.02 15.56 5.74 8.09 16.15 17.97 15.56 17.97 15.56 15.74 15.09 15.56 15.74 15.09 15.56 17.97 15.56 15.74 15.09 15.56 17.97 15.56 15.74 15.09 15.56 17.97 15.56 15.74 15.56 15.74 15.74 15.75 17.97 17.85 17.97 17.85 17.97 17.85 17.97 17.85 17.97 17.85 17.97 17.85 17.97 17.85 17.97 17.85 17.97 15.13 15.09 17.92 17.97 17.84 17.97 17.85 17.97 17.85 17.97 17.92 17.84 17.97 17.85 17.97 17.97 17.85 17.97 17.85 17.97 17.97 17.85 17.97 17.85 17.97 17.97 18.02 15.75 15.75 15.75 15.75 15.75 15.74 15.75 15.75 15.75 15.75 15.75 15.75 15.75 15.75 15.74 15.75 15.75 15.74 15.75 15.	
Lena Monarch Parrots Pepper	ReconNet [5] ISTA-Net ISTA-NET	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 <b>38.08</b> 36.34 36.34 37.57 37.14 28.07	38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.02 <b>30.17</b> 32.14 33.06 <b>36.21</b> 34.45 <b>36.21</b>	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>35.66</b> 28.50 28.57 <b>31.74</b> 26.53 28.93 32.34 <b>34.02</b> <b>31.21</b> 31.21 31.72 32.04 25.85 26.53 28.93 32.34 <b>34.02</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b>	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> <b>29.73</b> 30.14 30.99 24.75	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44 25.31 <b>27.36</b> <b>22.88</b> 22.88 22.88 24.80 22.08	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41 <b>19.34</b> 19.63 17.62 20.69 21.20 21.90 <b>22.96</b> 18.46 18.13 18.12 19.80 0.00 <b>22.96</b>	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 12.55\\ \hline \end{array}$	
Lena Monarch Parrots Pepper	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-NET ISTA	$\begin{array}{r} 34.50\\ 39.60\\ \textbf{40.46}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.72}\\ \hline \textbf{35.13}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.48}\\ \hline \textbf{31.97}\\ 34.94\\ 36.61\\ \textbf{28.89}\\ 31.77\\ 37.04\\ \textbf{38.08}\\ \hline \textbf{36.34}\\ 37.57\\ 37.14\\ \textbf{28.07}\\ 30.92\\ 20.95\\ \hline \textbf{30.92}\\ \textbf{30.92}\\ 20.95\\ \hline \textbf{30.92}\\ \textbf{30.92}\\ \textbf{30.92}\\ \textbf{30.92}\\ \textbf{30.92}\\ \textbf{30.92}\\ \textbf{30.92}\\ \textbf{30.95}\\ 30.95$	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.00 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 34.59 <b>36.21</b> 34.13 34.65 35.39 26.91 29.43 29.43	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>35.66</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>34.02</b> 31.21 31.72 32.04 25.85 28.28	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> 29.73 30.14 30.99 24.75 24.95	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.26 22.93 25.16 <b>27.21</b> <b>23.19</b> 23.03 23.54 <b>22.88</b> 24.44 25.31 <b>27.36</b> <b>22.88</b> 22.88 24.80 22.08 23.98 23.98 24.27 23.98 23.94 24.27 23.98 24.27 23.98 23.98 24.27 23.98 24.27 23.98 24.27 24.27 24.27 24.27 25.08 24.27 25.08 24.27 25.08 25.50 26.87 <b>28.31</b> 21.26 <b>27.21</b> <b>23.19</b> 23.03 23.54 <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.36</b> <b>27.39</b> <b>27.39</b> <b>27.36</b> <b>27.39</b> <b>27.39</b> <b>27.36</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.36</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.36</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.36</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b>27.39</b> <b></b>	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 <b>19.28</b> 20.41 <b>19.34</b> 19.63 17.62 20.69 21.20 21.90 <b>22.96</b> <b>18.46</b> 18.13 18.12 19.80 20.21 20.21 20.5	$\begin{array}{c} 19.42\\ 19.45\\ 10.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 8.09\\ 16.71\\ 16.72\\ -5.74$	
Lena Monarch Parrots Pepper	ReconNet [5] ISTA-Net ISTA-Net ISTA-Net ISTA-Net ISTA-Net IRCNN [3] SDA [4] ReconNet [5] ISTA-Net ISTA-NET ISTA	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 38.08 36.34 37.57 37.14 28.07 30.92 38.51	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 30.68 <b>34.13</b> 34.13 34.65 35.39 <b>26.91</b> 29.43 36.78	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 29.48 29.48 28.75 31.01 25.71 28.10 33.85 <b>35.66</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>34.02</b> 31.21 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b> <b>31.21</b>	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 24.53 24.53 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> 29.73 30.14 30.99 24.75 24.95 32.64	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> <b>23.19</b> 23.03 23.54 <b>22.65</b> <b>24.44</b> 25.31 <b>27.36</b> <b>22.88</b> 24.80 22.08 23.98 26.11 <b>23.9</b> <b>23.98</b> <b>26.11</b>	<b>26.29</b> <ul> <li>19.80</li> <li>19.30</li> <li>19.00</li> <li>21.33</li> <li>21.86</li> <li>22.72</li> <li><b>24.19</b></li> <li>16.89</li> <li>15.98</li> <li>16.43</li> <li>18.15</li> <li>18.55</li> <li><b>19.28</b></li> <li>20.41</li> <li>19.34</li> <li>19.34</li> <li>17.62</li> <li>20.69</li> <li>21.20</li> <li>21.90</li> <li><b>22.96</b></li> <li>18.46</li> <li>18.13</li> <li>18.12</li> <li>19.80</li> <li>20.21</li> <li>20.94</li> </ul>	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.76\\ 16.76\\ 16.71\\ 16.72\\ 16.76\\ 16.$	
Lena Monarch Parrots Pepper	BAL [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           BCAMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net+           TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net+           TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net <td>34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 38.08 36.34 37.57 37.14 28.07 30.92 38.51 39.29</td> <td>33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 30.68 30.68 30.68 34.59 <b>36.21</b> 34.13 34.65 35.39 26.91 29.43 36.78 <b>37.86</b></td> <td>36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 <b>31.01</b> 25.71 28.10 33.85 <b>35.66</b> <b>28.50</b> 28.77 31.74 26.53 28.93 32.34 <b>34.02</b> <b>31.21</b> 31.72 32.04 28.28 34.15 <b>35.86</b></td> <td><math display="block">\begin{array}{r} 35.32\\ \textbf{36.93}\\ \hline \textbf{28.75}\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ \textbf{33.16}\\ \hline \textbf{27.83}\\ 26.80\\ 29.94\\ 24.53\\ 24.53\\ 24.53\\ 24.53\\ 32.31\\ \textbf{34.34}\\ \textbf{27.23}\\ 27.16\\ 30.62\\ 25.39\\ 25.77\\ 31.34\\ \textbf{32.56}\\ \hline \textbf{29.73}\\ 30.14\\ 30.99\\ 24.75\\ 24.95\\ 32.64\\ \textbf{34.95}\\ \end{array}</math></td> <td>29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44 25.31 <b>27.36</b> <b>22.88</b> 22.58 24.80 22.08 23.98 26.11 <b>28.95</b></td> <td><b>26.29</b> <ul> <li>19.80</li> <li>19.30</li> <li>19.00</li> <li>21.33</li> <li>21.86</li> <li>22.72</li> <li><b>24.19</b></li> <li>16.89</li> <li>15.98</li> <li>16.43</li> <li>18.15</li> <li>18.55</li> <li><b>19.28</b></li> <li>20.41</li> <li>19.34</li> <li>19.63</li> <li>17.62</li> <li>20.69</li> <li>21.20</li> <li>21.90</li> <li><b>22.96</b></li> <li>18.46</li> <li>18.13</li> <li>18.12</li> <li>19.80</li> <li>20.21</li> <li>20.94</li> <li><b>22.07</b></li> </ul></td> <td><math display="block">\begin{array}{r} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.09\\ 15.13\\ 15.08\\ 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.81\\ \end{array}</math></td>	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 <b>38.72</b> 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 38.08 36.34 37.57 37.14 28.07 30.92 38.51 39.29	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 30.68 30.68 30.68 34.59 <b>36.21</b> 34.13 34.65 35.39 26.91 29.43 36.78 <b>37.86</b>	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 <b>31.01</b> 25.71 28.10 33.85 <b>35.66</b> <b>28.50</b> 28.77 31.74 26.53 28.93 32.34 <b>34.02</b> <b>31.21</b> 31.72 32.04 28.28 34.15 <b>35.86</b>	$\begin{array}{r} 35.32\\ \textbf{36.93}\\ \hline \textbf{28.75}\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ \textbf{33.16}\\ \hline \textbf{27.83}\\ 26.80\\ 29.94\\ 24.53\\ 24.53\\ 24.53\\ 24.53\\ 32.31\\ \textbf{34.34}\\ \textbf{27.23}\\ 27.16\\ 30.62\\ 25.39\\ 25.77\\ 31.34\\ \textbf{32.56}\\ \hline \textbf{29.73}\\ 30.14\\ 30.99\\ 24.75\\ 24.95\\ 32.64\\ \textbf{34.95}\\ \end{array}$	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44 25.31 <b>27.36</b> <b>22.88</b> 22.58 24.80 22.08 23.98 26.11 <b>28.95</b>	<b>26.29</b> <ul> <li>19.80</li> <li>19.30</li> <li>19.00</li> <li>21.33</li> <li>21.86</li> <li>22.72</li> <li><b>24.19</b></li> <li>16.89</li> <li>15.98</li> <li>16.43</li> <li>18.15</li> <li>18.55</li> <li><b>19.28</b></li> <li>20.41</li> <li>19.34</li> <li>19.63</li> <li>17.62</li> <li>20.69</li> <li>21.20</li> <li>21.90</li> <li><b>22.96</b></li> <li>18.46</li> <li>18.13</li> <li>18.12</li> <li>19.80</li> <li>20.21</li> <li>20.94</li> <li><b>22.07</b></li> </ul>	$\begin{array}{r} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.09\\ 15.13\\ 15.08\\ 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.81\\ \end{array}$	
Lena Monarch Parrots Pepper	SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net+           TVAL3 [1]	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 36.64 38.08 36.34 37.57 37.14 28.07 37.14 28.07 30.92 38.51 39.29	38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 34.59 <b>36.21</b> 34.13 34.65 35.39 26.91 29.43 36.78 <b>37.86</b> <b>31.46</b>	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 <b>31.01</b> 25.71 28.10 33.85 <b>35.66</b> 28.50 28.57 31.74 26.53 28.93 32.34 <b>34.21</b> 31.21 31.72 32.04 25.85 28.28 34.15 <b>35.86</b> 29.23	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> <b>29.73</b> 30.14 30.99 24.75 24.95 32.64 <b>34.95</b> <b>32.64</b> <b>34.95</b>	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44 25.31 <b>27.36</b> <b>22.88</b> 22.88 24.80 22.88 24.80 22.99 22.99	<b>26.29</b> <ul> <li>19.80</li> <li>19.30</li> <li>19.00</li> <li>21.33</li> <li>21.86</li> <li>22.72</li> <li><b>24.19</b></li> <li>16.89</li> <li>15.98</li> <li>16.43</li> <li>18.15</li> <li>18.55</li> <li><b>19.28</b></li> <li>20.41</li> <li>19.34</li> <li>19.63</li> <li>17.62</li> <li>20.69</li> <li>21.20</li> <li>21.90</li> <li><b>22.96</b></li> <li>18.46</li> <li>18.13</li> <li>18.12</li> <li>19.80</li> <li>20.21</li> <li>20.94</li> <li><b>22.07</b></li> <li>18.75</li> </ul>	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.81\\ \hline 16.43\\ \hline \end{array}$	
Lena Monarch Parrots Pepper	SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           TVAL3 [1]           D-AMP [2]           IRCNN [3]           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net	$\begin{array}{r} 34.50\\ 39.60\\ \textbf{40.46}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.72}\\ \hline 35.13\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.48}\\ \hline 31.97\\ 34.94\\ 36.61\\ 28.89\\ 31.77\\ 37.04\\ \textbf{38.08}\\ \hline 36.34\\ 37.57\\ 37.14\\ 28.07\\ 30.92\\ \textbf{38.51}\\ \textbf{39.29}\\ \hline 33.55\\ 35.92\\ \hline \end{array}$	38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 36.63 32.51 32.01 33.84 27.12 30.26 36.99 38.33 30.17 32.14 33.30 27.68 30.68 34.59 36.21 34.65 35.39 26.91 29.43 36.78 37.86 31.46 33.56	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 <b>31.01</b> 25.71 28.10 33.85 <b>35.66</b> 28.50 28.57 31.74 26.53 28.93 32.34 <b>34.02</b> <b>31.21</b> 31.72 32.04 25.85 28.28 <b>34.02</b> <b>31.21</b> 31.72 32.04 25.85 28.28 <b>35.86</b> <b>29.23</b> 30.39	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> <b>29.73</b> 30.14 30.99 24.75 24.95 32.64 <b>34.95</b> <b>27.92</b> 28.46	29.68 <b>32.33</b> 24.27 23.76 25.08 23.69 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 <b>22.93</b> 25.16 <b>27.21</b> <b>23.19</b> 23.03 25.16 <b>27.21</b> <b>23.19</b> 23.03 23.54 <b>22.88</b> 24.44 25.31 <b>27.36</b> <b>22.88</b> 24.28 22.88 24.44 25.31 <b>27.36</b> <b>22.88</b> 24.28 22.88 24.28 22.88 24.29 22.08 23.98 24.21 <b>23.99</b> 22.64	<b>26.29</b> <ul> <li>19.80</li> <li>19.30</li> <li>19.00</li> <li>21.33</li> <li>21.86</li> <li>22.72</li> <li><b>24.19</b> </li> <li>16.89</li> <li>15.98</li> <li>16.43</li> <li>18.15</li> <li>18.55</li> <li><b>19.28</b></li> <li>20.41</li> <li>19.34</li> <li>19.63</li> <li>17.62</li> <li>20.69</li> <li>21.20</li> <li>21.90</li> <li><b>22.96</b></li> <li>18.46</li> <li>18.13</li> <li>18.12</li> <li>19.80</li> <li>20.21</li> <li>20.94</li> <li><b>22.07</b></li> <li>18.75</li> <li>18.40</li> </ul>	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.72\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.74\\ 8.09\\ 16.71\\ 16.72\\ 16.72\\ 10$	
Lena Monarch Parrots Pepper	SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net <tr< th=""><td><math display="block">\begin{array}{r} 34.50\\ 39.60\\ \textbf{40.46}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{35.13}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.48}\\ \hline 31.97\\ 34.94\\ 36.61\\ \textbf{28.89}\\ 31.77\\ 37.04\\ \textbf{38.08}\\ \hline 36.34\\ 37.57\\ 37.04\\ \textbf{38.08}\\ \hline 36.34\\ 37.57\\ 37.14\\ 28.07\\ 30.92\\ 38.51\\ \textbf{39.29}\\ \hline 33.55\\ 35.92\\ 36.23\\ \hline \end{array}</math></td><td>33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.00 <b>30.17</b> 32.14 33.00 <b>30.17</b> 32.14 33.00 <b>36.68</b> 34.59 <b>36.21</b> 34.13 34.65 35.39 26.91 29.43 36.78 <b>37.86</b> 31.46 33.56 34.06</td><td>36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>35.66</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>34.02</b> 31.21 31.72 32.04 <b>25.85</b> 28.28 34.15 <b>35.86</b> 29.23 30.39 31.18</td><td>35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>30.99</b> 24.75 24.95 <b>32.64</b> <b>34.95</b> <b>27.92</b> <b>28.46</b> 30.07</td><td>29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.26 22.93 25.16 <b>27.21</b> <b>23.19</b> 23.03 25.16 <b>27.21</b> <b>23.19</b> 23.03 25.55 24.44 25.31 <b>27.36</b> <b>22.88</b> 24.80 22.08 23.98 24.80 22.08 23.98 26.11 <b>28.95</b> <b>22.99</b> 22.64 24.02</td><td><b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 <b>19.28</b> 20.41 19.34 19.63 17.62 20.69 21.20 21.90 <b>22.96</b> 18.46 18.13 18.12 19.80 20.21 20.94 <b>22.07</b> 18.75 18.75 18.75</td><td><math display="block">\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.81\\ \hline 16.43\\ 5.21\\ 7.70\\ \hline \end{array}</math></td></tr<>	$\begin{array}{r} 34.50\\ 39.60\\ \textbf{40.46}\\ \hline 33.65\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{35.13}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.48}\\ \hline 31.97\\ 34.94\\ 36.61\\ \textbf{28.89}\\ 31.77\\ 37.04\\ \textbf{38.08}\\ \hline 36.34\\ 37.57\\ 37.04\\ \textbf{38.08}\\ \hline 36.34\\ 37.57\\ 37.14\\ 28.07\\ 30.92\\ 38.51\\ \textbf{39.29}\\ \hline 33.55\\ 35.92\\ 36.23\\ \hline \end{array}$	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.00 <b>30.17</b> 32.14 33.00 <b>30.17</b> 32.14 33.00 <b>36.68</b> 34.59 <b>36.21</b> 34.13 34.65 35.39 26.91 29.43 36.78 <b>37.86</b> 31.46 33.56 34.06	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 31.01 25.71 28.10 33.85 <b>35.66</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>34.02</b> 31.21 31.72 32.04 <b>25.85</b> 28.28 34.15 <b>35.86</b> 29.23 30.39 31.18	35.32 <b>36.93</b> 28.75 28.16 30.03 26.17 26.60 32.04 <b>33.16</b> 27.83 26.80 29.94 24.53 32.31 <b>34.34</b> <b>27.23</b> 27.16 30.62 25.39 25.77 31.34 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>32.56</b> <b>29.73</b> 30.14 <b>30.99</b> 24.75 24.95 <b>32.64</b> <b>34.95</b> <b>27.92</b> <b>28.46</b> 30.07	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.26 22.93 25.16 <b>27.21</b> <b>23.19</b> 23.03 25.16 <b>27.21</b> <b>23.19</b> 23.03 25.55 24.44 25.31 <b>27.36</b> <b>22.88</b> 24.80 22.08 23.98 24.80 22.08 23.98 26.11 <b>28.95</b> <b>22.99</b> 22.64 24.02	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 <b>19.28</b> 20.41 19.34 19.63 17.62 20.69 21.20 21.90 <b>22.96</b> 18.46 18.13 18.12 19.80 20.21 20.94 <b>22.07</b> 18.75 18.75 18.75	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.81\\ \hline 16.43\\ 5.21\\ 7.70\\ \hline \end{array}$	
Lena Monarch Parrots Pepper Mean PSNR	SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net <tr< th=""><td>34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 38.08 36.34 37.57 37.14 28.07 30.92 38.51 39.29 33.55 35.92 36.23 28.95</td><td>33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 30.68 34.13 34.65 35.39 26.91 29.43 36.78 <b>37.86</b> 31.46 33.56 34.06 27.79</td><td><math display="block">\begin{array}{r} 36.51\\ <b>37.50</b>\\ \hline 29.85\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ <b>34.26</b>\\ \hline 29.48\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ <b>35.66</b>\\ \hline 28.50\\ 28.77\\ 31.74\\ 26.53\\ <b>35.66</b>\\ \hline 28.50\\ 28.77\\ 31.74\\ 26.53\\ <b>32.34</b>\\ <b>34.02</b>\\ \hline 31.21\\ 31.72\\ 32.04\\ <b>31.21</b>\\ 31.72\\ 32.04\\ <b>35.85</b>\\ <b>35.86</b>\\ \hline 29.23\\ 30.39\\ <b>31.18</b>\\ 26.63\\ \hline \end{array}</math></td><td><math display="block">\begin{array}{r} 35.32\\ <b>36.93</b>\\ \hline \\ <b>28.75</b>\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ <b>33.16</b>\\ \hline \\ <b>27.83</b>\\ 26.80\\ 29.94\\ 24.53\\ 24.53\\ 24.53\\ 24.53\\ 24.53\\ 22.31\\ <b>34.34</b>\\ <b>27.23</b>\\ 27.16\\ 30.62\\ 25.39\\ 25.77\\ <b>31.34</b>\\ <b>32.56</b>\\ \hline \\ <b>29.73</b>\\ 30.14\\ <b>30.99</b>\\ 24.75\\ 24.95\\ 32.64\\ <b>34.95</b>\\ \hline \\ <b>27.92</b>\\ 28.46\\ <b>30.07</b>\\ 25.34\\ \hline \end{array}</math></td><td>29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> <b>23.19</b> 23.03 23.54 <b>24.44</b> 22.65 <b>24.44</b> <b>25.31</b> <b>27.36</b> <b>22.88</b> 24.80 22.08 23.98 26.11 <b>28.95</b> <b>22.99</b> 22.64 <b>22.65</b></td><td><b>26.29</b> <ul> <li>19.80</li> <li>19.30</li> <li>19.00</li> <li>21.33</li> <li>21.86</li> <li>22.72</li> <li><b>24.19</b></li> <li>16.89</li> <li>15.98</li> <li>16.43</li> <li>18.15</li> <li>18.55</li> <li><b>19.28</b></li> <li>20.41</li> <li>19.34</li> <li>19.63</li> <li>17.62</li> <li>20.69</li> <li>21.20</li> <li>21.90</li> <li><b>22.96</b></li> <li>18.46</li> <li>18.13</li> <li>18.12</li> <li>19.80</li> <li>20.21</li> <li>20.94</li> <li><b>22.07</b></li> <li>18.75</li> <li>18.40</li> <li>17.56</li> <li>20.12</li> </ul></td><td><math display="block">\begin{array}{c} 19.42\\ 19.45\\ 10.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.09\\ 15.13\\ 15.08\\ 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.81\\ 16.43\\ 5.21\\ 7.70\\ 17.29\\ \end{array}</math></td></tr<>	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 38.08 36.34 37.57 37.14 28.07 30.92 38.51 39.29 33.55 35.92 36.23 28.95	33.10 38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 30.68 34.13 34.65 35.39 26.91 29.43 36.78 <b>37.86</b> 31.46 33.56 34.06 27.79	$\begin{array}{r} 36.51\\ 37.50\\ \hline 29.85\\ 29.29\\ 31.23\\ 27.47\\ 29.52\\ 33.43\\ 34.26\\ \hline 29.48\\ 28.75\\ 31.01\\ 25.71\\ 28.10\\ 33.85\\ 35.66\\ \hline 28.50\\ 28.77\\ 31.74\\ 26.53\\ 35.66\\ \hline 28.50\\ 28.77\\ 31.74\\ 26.53\\ 32.34\\ 34.02\\ \hline 31.21\\ 31.72\\ 32.04\\ 31.21\\ 31.72\\ 32.04\\ 35.85\\ 35.86\\ \hline 29.23\\ 30.39\\ 31.18\\ 26.63\\ \hline \end{array}$	$\begin{array}{r} 35.32\\ 36.93\\ \hline \\ 28.75\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ 33.16\\ \hline \\ 27.83\\ 26.80\\ 29.94\\ 24.53\\ 24.53\\ 24.53\\ 24.53\\ 24.53\\ 22.31\\ 34.34\\ 27.23\\ 27.16\\ 30.62\\ 25.39\\ 25.77\\ 31.34\\ 32.56\\ \hline \\ 29.73\\ 30.14\\ 30.99\\ 24.75\\ 24.95\\ 32.64\\ 34.95\\ \hline \\ 27.92\\ 28.46\\ 30.07\\ 25.34\\ \hline \end{array}$	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> <b>23.19</b> 23.03 23.54 <b>24.44</b> 22.65 <b>24.44</b> <b>25.31</b> <b>27.36</b> <b>22.88</b> 24.80 22.08 23.98 26.11 <b>28.95</b> <b>22.99</b> 22.64 <b>22.65</b>	<b>26.29</b> <ul> <li>19.80</li> <li>19.30</li> <li>19.00</li> <li>21.33</li> <li>21.86</li> <li>22.72</li> <li><b>24.19</b></li> <li>16.89</li> <li>15.98</li> <li>16.43</li> <li>18.15</li> <li>18.55</li> <li><b>19.28</b></li> <li>20.41</li> <li>19.34</li> <li>19.63</li> <li>17.62</li> <li>20.69</li> <li>21.20</li> <li>21.90</li> <li><b>22.96</b></li> <li>18.46</li> <li>18.13</li> <li>18.12</li> <li>19.80</li> <li>20.21</li> <li>20.94</li> <li><b>22.07</b></li> <li>18.75</li> <li>18.40</li> <li>17.56</li> <li>20.12</li> </ul>	$\begin{array}{c} 19.42\\ 19.45\\ 10.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.09\\ 15.13\\ 15.08\\ 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.81\\ 16.43\\ 5.21\\ 7.70\\ 17.29\\ \end{array}$	
Lena Monarch Parrots Pepper Mean PSNR	BAL [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net           ISDA [4]	$\begin{array}{r} 34.50\\ 39.60\\ \textbf{40.46}\\ \hline \textbf{33.65}\\ 33.97\\ 36.71\\ 29.71\\ 32.28\\ 37.97\\ \textbf{38.72}\\ \hline \textbf{35.13}\\ 35.54\\ 37.09\\ 28.32\\ 31.11\\ 39.36\\ \textbf{40.48}\\ \hline \textbf{31.97}\\ 34.94\\ \textbf{36.61}\\ 28.89\\ 31.77\\ 37.04\\ \textbf{36.61}\\ 28.89\\ 31.77\\ 37.04\\ \textbf{36.08}\\ \hline \textbf{36.34}\\ \textbf{37.57}\\ 37.14\\ 28.07\\ 30.92\\ \textbf{38.51}\\ \textbf{39.29}\\ \hline \textbf{33.55}\\ 35.92\\ 36.23\\ 28.95\\ 31.50\\ \hline \end{array}$	38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 34.59 <b>36.21</b> 34.13 34.65 35.39 26.91 29.43 36.78 <b>37.86</b> 31.46 33.56 34.06 27.79 30.58	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 <b>31.01</b> 25.71 28.10 33.85 <b>35.66</b> <b>28.50</b> 28.50 <b>28.50</b> <b>28.50</b> <b>28.50</b> <b>28.50</b> <b>35.66</b> <b>35.66</b> <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 32.04 <b>31.21</b> 31.72 <b>32.04</b> <b>25.85</b> <b>28.28</b> <b>34.02</b> <b>31.21</b> 31.72 <b>32.04</b> <b>25.85</b> <b>28.28</b> <b>34.15</b> <b>35.86</b> <b>29.23</b> <b>30.39</b> <b>31.18</b> <b>26.63</b> <b>28.74</b>	$\begin{array}{r} 35.32\\ 36.93\\ 28.75\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ 33.16\\ \hline \\ 27.83\\ 26.80\\ 29.94\\ 24.53\\ 24.53\\ 24.53\\ 24.53\\ 32.31\\ 34.34\\ 27.23\\ 27.16\\ 30.62\\ 25.39\\ 25.77\\ 31.34\\ 32.56\\ \hline \\ 29.73\\ 30.14\\ 30.99\\ 24.75\\ 24.95\\ 32.64\\ 34.95\\ 27.92\\ 28.46\\ 30.07\\ 25.34\\ 25.60\\ \hline \end{array}$	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.03 23.54 22.65 24.44 25.31 <b>27.36</b> <b>22.88</b> 22.58 24.44 25.53 <b>24.44</b> 25.53 <b>27.36</b> <b>22.88</b> 24.80 22.08 23.98 26.11 <b>28.95</b> 22.99 22.64 24.02 22.65 24.28	<b>26.29</b> <ul> <li>19.80</li> <li>19.30</li> <li>19.00</li> <li>21.33</li> <li>21.86</li> <li>22.72</li> <li><b>24.19</b></li> <li>16.89</li> <li>15.98</li> <li>16.43</li> <li>18.15</li> <li>18.55</li> <li><b>19.28</b></li> <li>20.41</li> <li>19.63</li> <li>17.62</li> <li>20.69</li> <li>21.20</li> <li>21.90</li> <li><b>22.96</b></li> <li>18.46</li> <li>18.13</li> <li>18.12</li> <li>19.80</li> <li>20.21</li> <li>20.94</li> <li><b>22.07</b></li> <li>18.75</li> <li>18.40</li> <li>17.56</li> <li>20.12</li> <li>20.63</li> </ul>	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.10\\ 15.09\\ 15.13\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 5.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.81\\ \hline 16.43\\ 5.21\\ 7.70\\ 17.29\\ 17.27\\ \hline \end{array}$	
Lena Monarch Parrots Pepper Mean PSNR	SDA [4]           ReconNet [5]           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           ISTA-Net           SDA [4]           ReconNet [5]           ISTA-Net	34.50 39.60 40.46 33.65 33.97 36.71 29.71 32.28 37.97 38.72 35.13 35.54 37.09 28.32 31.11 39.36 40.48 31.97 34.94 36.61 28.89 31.77 37.04 38.08 36.34 36.34 37.57 37.14 28.07 30.92 38.51 39.29 33.55 35.92 36.23 28.95 31.50 37.43	38.12 39.08 31.73 31.36 34.45 28.52 31.33 35.80 <b>36.63</b> 32.51 32.01 33.84 27.12 30.26 36.99 <b>38.33</b> 30.17 32.14 33.30 27.68 30.68 34.59 <b>36.21</b> 34.13 34.65 35.39 26.91 29.43 36.78 <b>37.86</b> <b>31.46</b> 33.56 <b>31.46</b> 33.56 <b>31.46</b> 33.56 <b>31.46</b> 33.56 <b>31.46</b> 33.56 <b>31.46</b> 33.56 <b>31.46</b> 33.56 <b>31.46</b> 33.56 <b>31.46</b> 33.56 <b>31.46</b> 33.56 <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>31.46</b> <b>33.56</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35.36</b> <b>35</b>	36.51 <b>37.50</b> 29.85 29.29 31.23 27.47 29.52 33.43 <b>34.26</b> 29.48 28.75 <b>31.01</b> 25.71 28.10 33.85 <b>35.66</b> <b>28.50</b> 28.50 28.77 31.74 26.53 28.93 32.34 <b>34.21</b> 31.21 31.72 32.04 25.85 28.28 34.15 <b>35.86</b> <b>29.23</b> 30.39 31.18 26.63 28.74 32.91	$\begin{array}{r} 35.32\\ 36.93\\ \hline 28.75\\ 28.16\\ 30.03\\ 26.17\\ 26.60\\ 32.04\\ 33.16\\ \hline 27.83\\ 26.80\\ 29.94\\ 24.53\\ 24.53\\ 24.53\\ 32.31\\ 34.34\\ \hline 27.23\\ 27.16\\ 30.62\\ 25.39\\ 25.77\\ 31.34\\ 32.56\\ \hline 29.73\\ 30.14\\ 30.99\\ 24.75\\ 24.95\\ 32.64\\ 34.95\\ 27.92\\ 28.46\\ 30.07\\ 25.34\\ 25.60\\ 31.53\\ \end{array}$	29.68 <b>32.33</b> 24.27 23.76 25.08 25.50 26.87 <b>28.31</b> 21.40 19.85 23.31 21.26 22.93 25.16 <b>27.21</b> 23.19 23.03 23.54 22.65 24.44 25.31 <b>27.36</b> <b>22.88</b> 22.58 24.80 22.08 23.98 24.80 22.08 23.98 26.11 <b>28.95</b> 22.99 22.64 24.02 22.65 24.28 25.80	<b>26.29</b> 19.80 19.30 19.00 21.33 21.86 22.72 <b>24.19</b> 16.89 15.98 16.43 18.15 18.55 <b>19.28</b> 20.41 19.34 19.63 17.62 20.69 21.20 <b>22.96</b> 18.46 18.13 18.12 19.80 20.21 20.94 <b>22.07</b> 18.75 18.40 17.56 20.12 20.63 21.23	$\begin{array}{c} 19.42\\ 19.45\\ 16.88\\ 5.74\\ 8.25\\ 17.77\\ 17.85\\ 17.94\\ 18.28\\ \hline 14.67\\ 6.15\\ 8.54\\ 15.11\\ 15.09\\ 15.13\\ 15.08\\ \hline 17.19\\ 15.16\\ 7.62\\ 17.92\\ 17.84\\ 17.97\\ 18.02\\ \hline 17.84\\ 17.97\\ 18.02\\ \hline 15.56\\ 5.74\\ 8.09\\ 16.71\\ 16.72\\ 16.76\\ 16.81\\ \hline 16.43\\ 5.21\\ 7.70\\ 17.29\\ 17.27\\ 17.30\\ \hline \end{array}$	



Figure 10: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Fingerprint* image in Set11 (CS ratio is 4%).



Figure 11: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Flintstones* image in Set11 (CS ratio is 4%).



Figure 12: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Foreman* image in Set11 (CS ratio is 10%).



Figure 13: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *House* image in Set11 (CS ratio is 10%).



Figure 14: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Lena* image in Set11 (CS ratio is 25%).



Figure 15: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Pepper* image in Set11 (CS ratio is 25%).



Figure 16: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Foreman* image in Set11 (CS ratio is 30%).



Figure 17: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Parrots* image in Set11 (CS ratio is 30%).



Figure 18: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Boats* image in Set11 (CS ratio is 40%).



Figure 19: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *House* image in Set11 (CS ratio is 40%).



Figure 20: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Barbara* image in Set11 (CS ratio is 50%). Note that for image *Barbara* that is rich of repetitive textures, D-AMP achieves the best PSNR performance with higher CS ratios due to its utilization of non-local self-similarity.



Figure 21: Comparison of seven CS reconstruction methods (including our ISTA-Net and ISTA-Net<sup>+</sup>), when applied to the *Boats* image in Set11 (CS ratio is 50%).



Figure 22: 68 test images in image BSD68 dataset.

Algorithm	CS Ratio								
Algorithm	50%	40%	30%	25%	10%	4%	1%		
SDA[4]	28.35	27.41	26.38	25.22	23.12	21.32	19.02		
ReconNet [5]	29.86	29.08	27.53	25.46	24.15	21.66	19.09		
ISTA-Net	33.60	31.85	29.93	28.91	25.02	22.12	19.19		
ISTA-Net <sup>+</sup>	34.01	32.21	30.34	29.37	25.33	22.17	19.27		

 Table 3: Average PSNR (dB) performance comparison of variou network-based algorithms on the BSD68 dataset with different CS ratios.