

Image Super-Resolution Using Deep Convolutional Networks

Supplementary File

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Abstract

This supplementary file first presents several qualitative super-resolution results on BSD200 and Set14, and then shows the results of PSNR on the Set5 and Set14 datasets.

1 SUPER-RESOLUTION RESULTS



Fig. 1. The “2018” image from BSD200 with an upscaling factor 3.

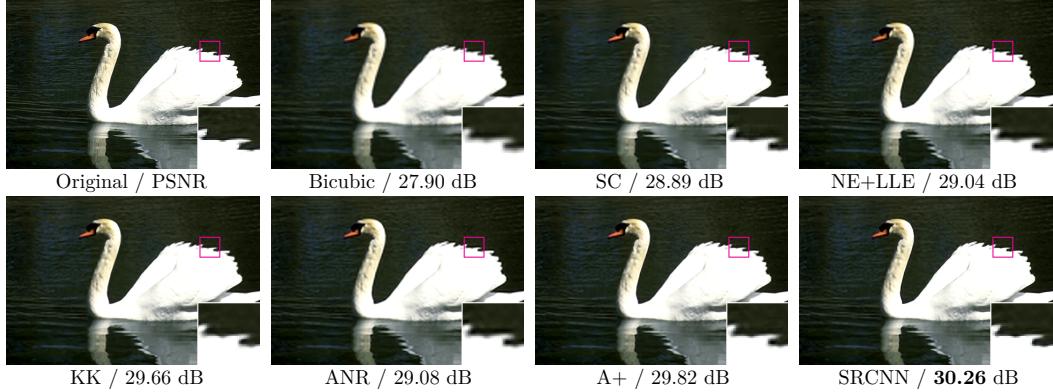


Fig. 2. The “8068” image from BSD200 with an upscaling factor 3.

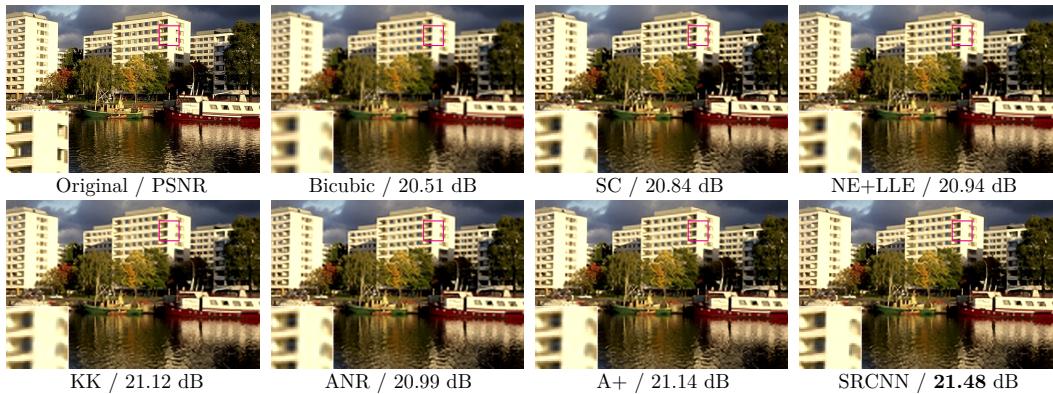


Fig. 3. The “78098” image from BSD200 with an upscaling factor 3.

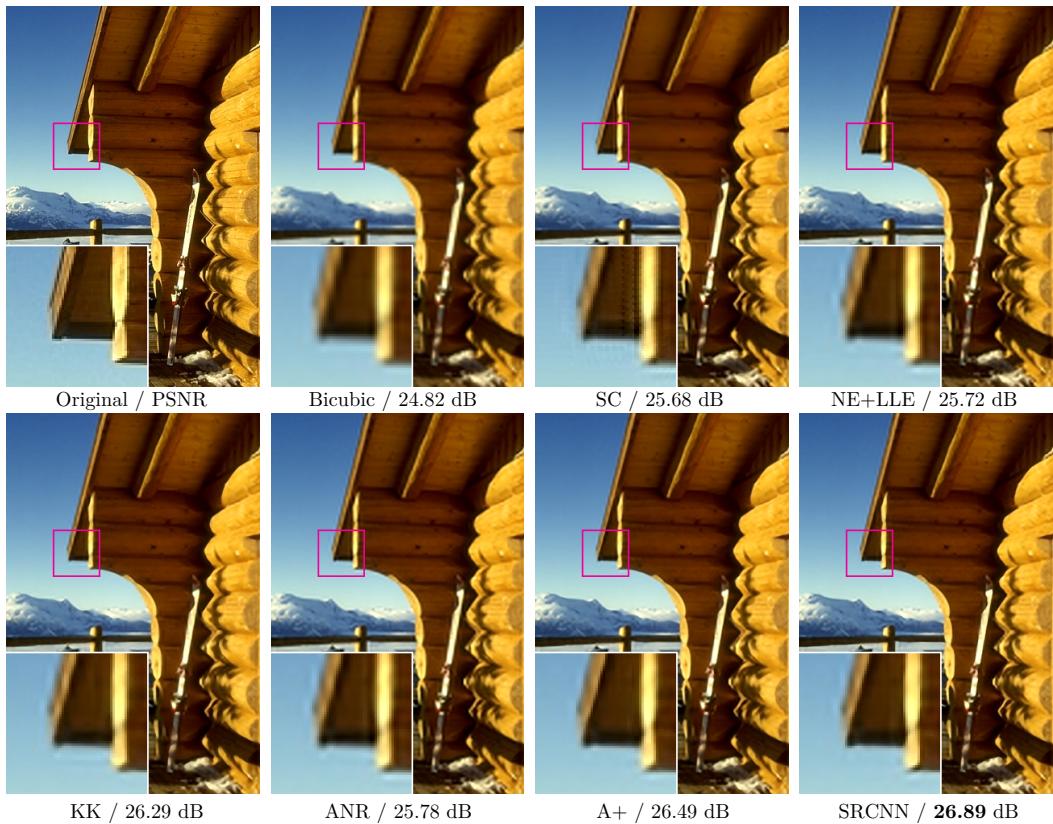


Fig. 4. The “61034” image from BSD200 with an upscaling factor 3.

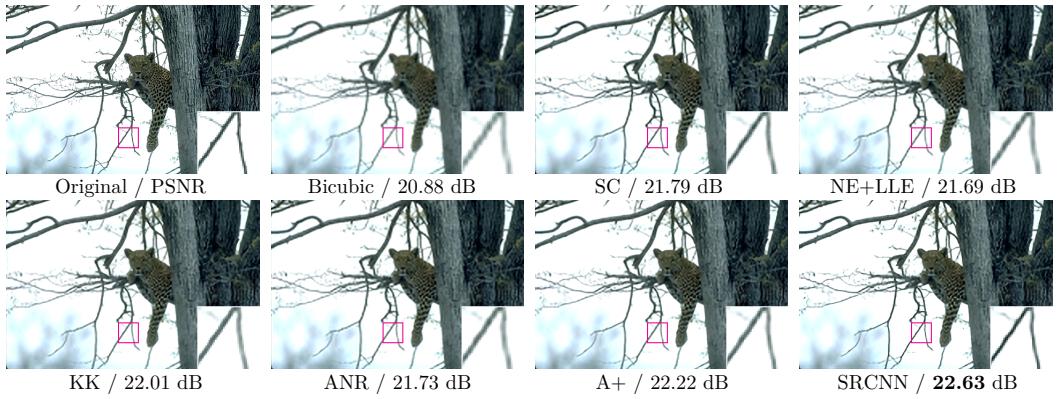


Fig. 5. The “335094” image from BSD200 with an upscaling factor 3.

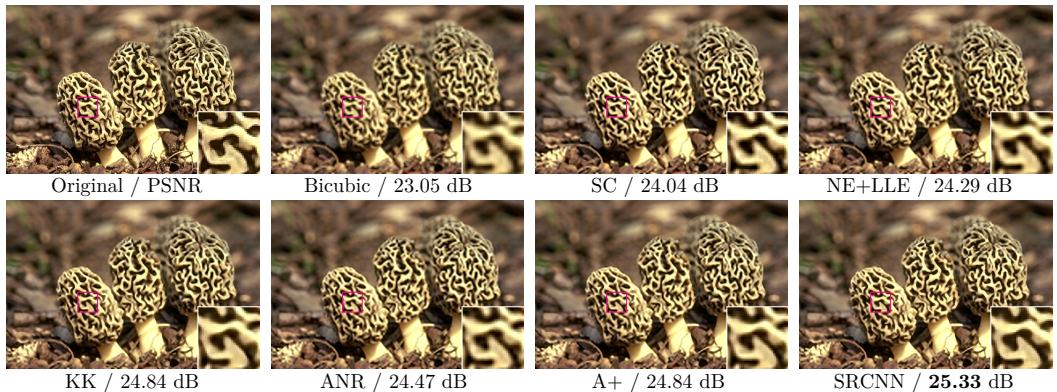


Fig. 6. The “208078” image from BSD200 with an upscaling factor 3.

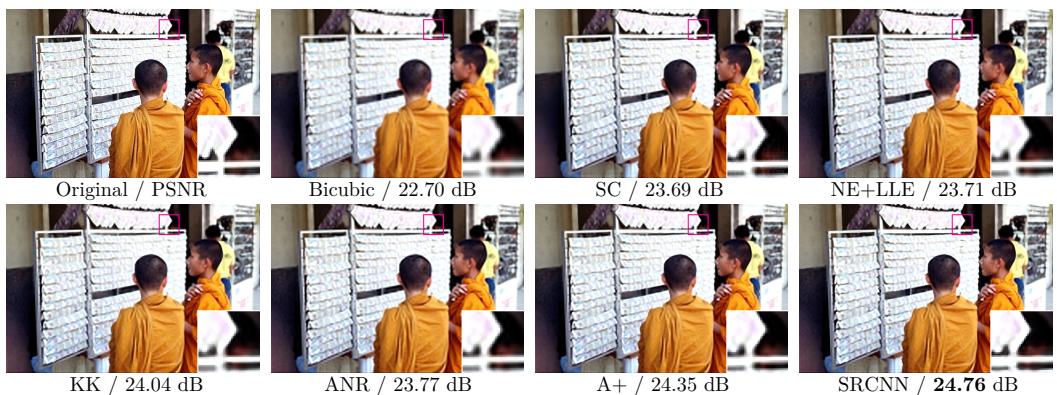


Fig. 7. The “147080” image from BSD200 with an upscaling factor 3.

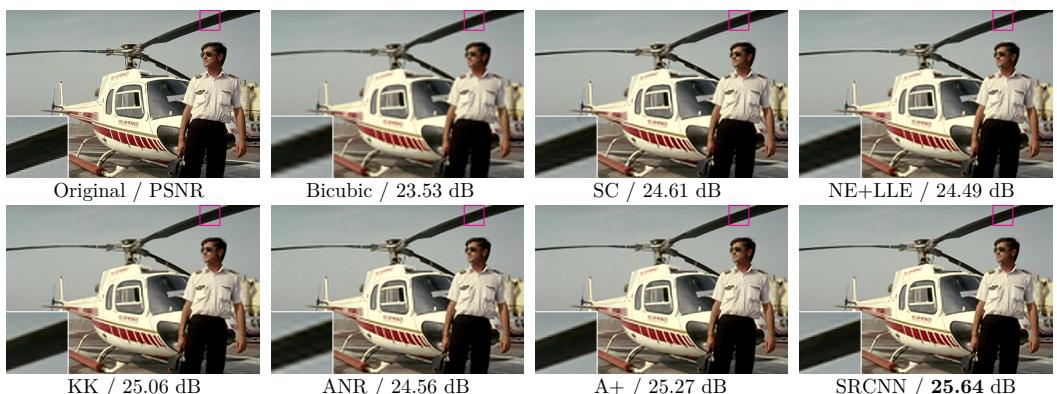


Fig. 8. The “146074” image from BSD200 with an upscaling factor 3.

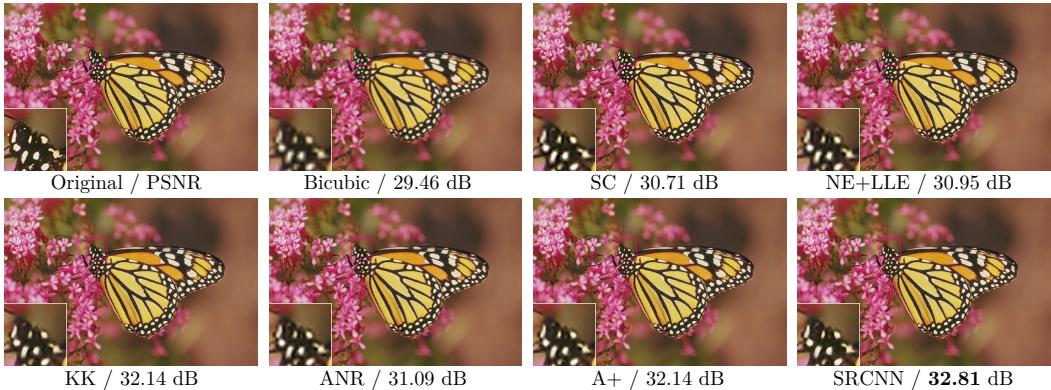


Fig. 9. The “monarch” image from Set14 with an upscaling factor 3.

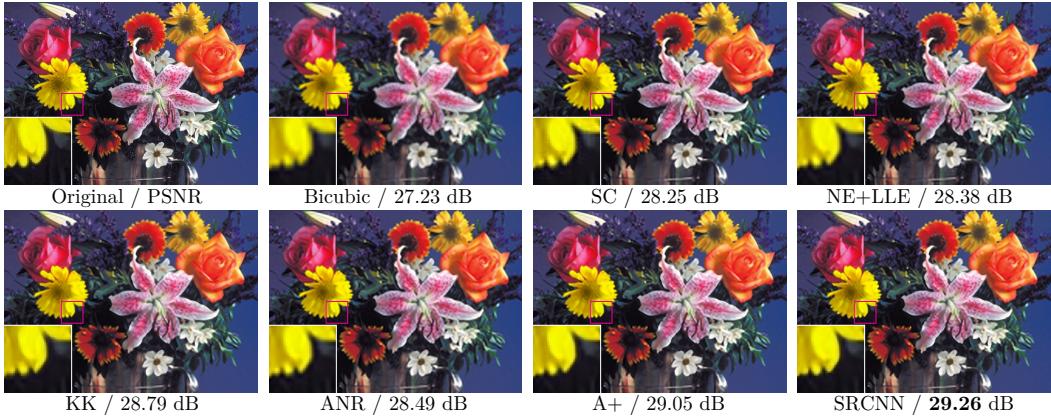


Fig. 10. The “flowers” image from Set14 with an upscaling factor 3.



Fig. 11. The “lenna” image from Set14 with an upscaling factor 3.

2 THE RESULTS OF PSNR ON THE SET5 AND SET14 DATASETS

TABLE 1
The results of PSNR (dB) on the Set5 dataset.

Eval. Mat	Scale	Bicubic	SC	NE+LLE	KK	ANR	A+	SRCNN
baby	2	37.07	-	38.33	38.28	38.44	38.52	38.54
bird	2	36.81	-	40.00	40.49	40.04	41.12	40.91
butterfly	2	27.43	-	30.38	31.78	30.48	32.01	32.75
head	2	34.86	-	35.63	35.60	35.66	35.77	35.72
woman	2	32.14	-	34.52	34.83	34.55	35.31	35.37
average	2	33.66	-	35.77	36.20	35.83	36.55	36.66
baby	3	33.91	34.29	35.06	35.00	35.13	35.21	35.25
bird	3	32.58	34.11	34.56	34.87	34.60	35.54	35.48
butterfly	3	24.04	25.59	25.75	27.31	25.90	27.24	27.95
head	3	32.88	33.17	33.60	33.63	33.63	33.77	33.71
woman	3	28.56	29.94	30.22	30.56	30.33	31.20	31.37
average	3	30.39	31.42	31.84	32.28	31.92	32.59	32.75
baby	4	31.78	-	32.99	33.08	33.03	33.28	33.13
bird	4	30.18	-	31.72	32.00	31.82	32.54	32.52
butterfly	4	22.10	-	23.38	24.41	23.52	24.42	25.46
head	4	31.59	-	32.24	32.35	32.27	32.52	32.44
woman	4	26.46	-	27.72	28.28	27.80	28.65	28.89
average	4	28.42	-	29.61	30.03	29.69	30.28	30.49

TABLE 2
The results of PSNR (dB) on the Set14 dataset.

Eval. Mat	Scale	Bicubic	SC	NE+LLE	KK	ANR	A+	SRCNN
baboon	3	23.21	23.47	23.55	23.56	23.56	23.62	23.67
barbara	3	26.25	26.39	26.74	26.48	26.69	26.47	26.55
bridge	3	24.40	24.82	24.98	25.07	25.01	25.17	25.24
coastguard	3	26.55	27.02	27.07	27.14	27.08	27.27	27.36
comic	3	23.12	23.90	23.98	24.25	24.04	24.38	24.55
face	3	32.82	33.11	33.56	33.60	33.62	33.76	33.72
flowers	3	27.23	28.25	28.38	28.79	28.49	29.05	29.26
foreman	3	31.18	32.04	33.21	33.87	33.23	34.30	33.89
lenna	3	31.68	32.64	33.01	33.33	33.08	33.52	33.67
man	3	27.01	27.76	27.87	28.17	27.92	28.28	28.42
monarch	3	29.43	30.71	30.95	32.14	31.09	32.14	32.81
pepper	3	32.39	33.33	33.80	34.28	33.82	34.74	34.71
ppt3	3	23.71	24.98	24.94	25.60	25.03	26.09	27.04
zebra	3	26.63	27.95	28.31	28.85	28.43	28.98	29.29
average	3	27.54	28.31	28.60	28.94	28.65	29.13	29.30