# Denoising parameter optimization: Real dataset

#### NO. TYPE OF DENOISING

- 1 Original noisy, zero denoising level
- 2 Denoised by BM3D, moderate denoising level
- **3** Denoised by BM3D, heavy denoising level

Denoising parameter optimization: Synthetic dataset

#### NO. TYPE OF NOISE/DENOISER

- 1 Additive Gaussian noise (PSNR=28.1 dB), denoised by BM3D
- 2 Additive Gaussian noise (PSNR=28.1 dB), denoised by DDID
- **3** Spatially correlated noise<sup>1</sup> (PSNR=28.1 dB), denoised by BM3D
- 4 Spatially correlated noise (PSNR=28.1 dB), denoised by DDID
- **5** AWGN (PSNR=28.1 dB) + Lossy compression<sup>2</sup>, denoised by BM3D
- 6 AWGN (PSNR=28.1 dB) + Lossy compression, denoised by DDID

## **General distortion**

### NO. TYPE OF DISTORTION

1	Additive Gaussian noise, standard deviation = 5, (PSNR=34.1dB),
2	Additive Gaussian noise, standard deviation = 10, (PSNR=28.1 dB),
3	Spatially correlated noise <sup>1</sup> , standard deviation = 10 , (PSNR=34.1dB)
4	Spatially correlated noise <sup>1</sup> , standard deviation = 20 , (PSNR=28.1 dB)
5	Spatially correlated noise + Lossy compression, standard deviation = 7, QF = 50
6	Spatially correlated noise + Lossy compression, standard deviation = 5, QF = 75
7	Impulse noise, probability = 0.5%
8	Gaussian Blur, 5x5 with sigma = 1

<sup>&</sup>lt;sup>1</sup> Filtered AWGN using Gaussian filter.

<sup>&</sup>lt;sup>2</sup> JPEG compression with QF = 75.