

The influence of the number  $N$  in Eq. (6) is investigated with a similar model setup as described in Sec4.3, and the results are in Table. R3. It can be observed that the de-raining results will be stable after  $N=15$ . Consequently, to achieve a good tradeoff between performance and inference speed,  $N$  is set as 15 in all the experiments.

Table R3: Average PSNR/SSIM values with different  $N$ .

Value of “ $N$ ”	RS-Data (Test1)	RD-Data (TestA)
1	28.46/0.920	30.61/0.921
5	29.67/0.924	30.89/0.925
10	30.47/0.929	31.59/0.930
15	30.79/0.932	31.92/0.935
30	30.74/0.932	31.91/0.936
48	30.64/0.926	31.84/0.931

Results in Table.R3 and corresponding analysis will be added to Sec4.3 of the paper in the camera-ready version.