

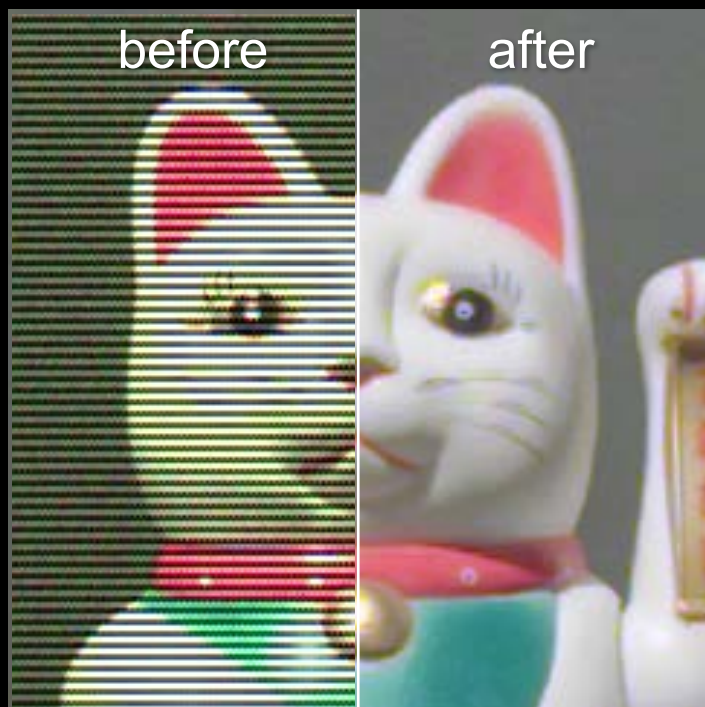
IEEE Transactions on Image Processing (TIP)

Reconstructing Interlaced High-Dynamic-Range Video using Joint Learning

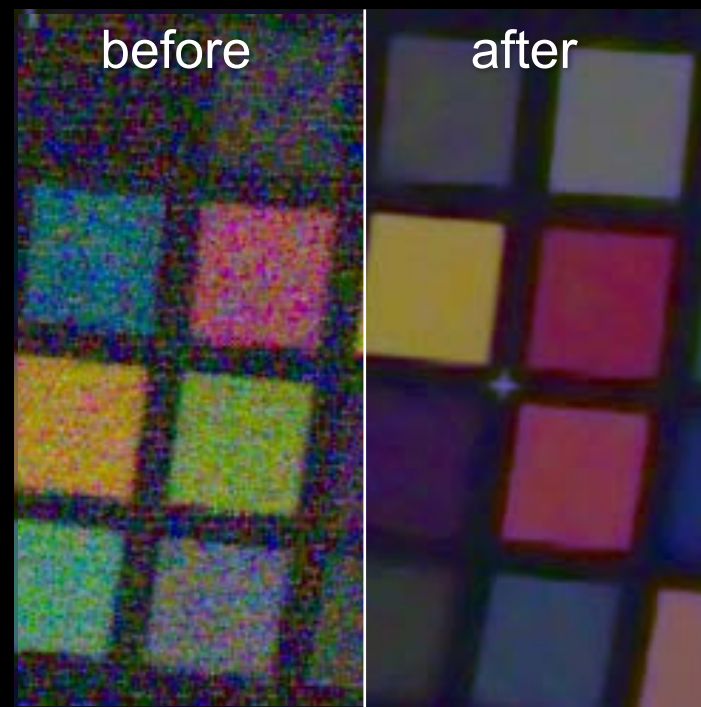
Supplemental Material

Inchang Choi Seung-Hwan Baek Min H. Kim
Korea Advanced Institute of Science and Technology (KAIST)

Figure 1



Our joint deinterlacing



Our joint denoising

Figure 7

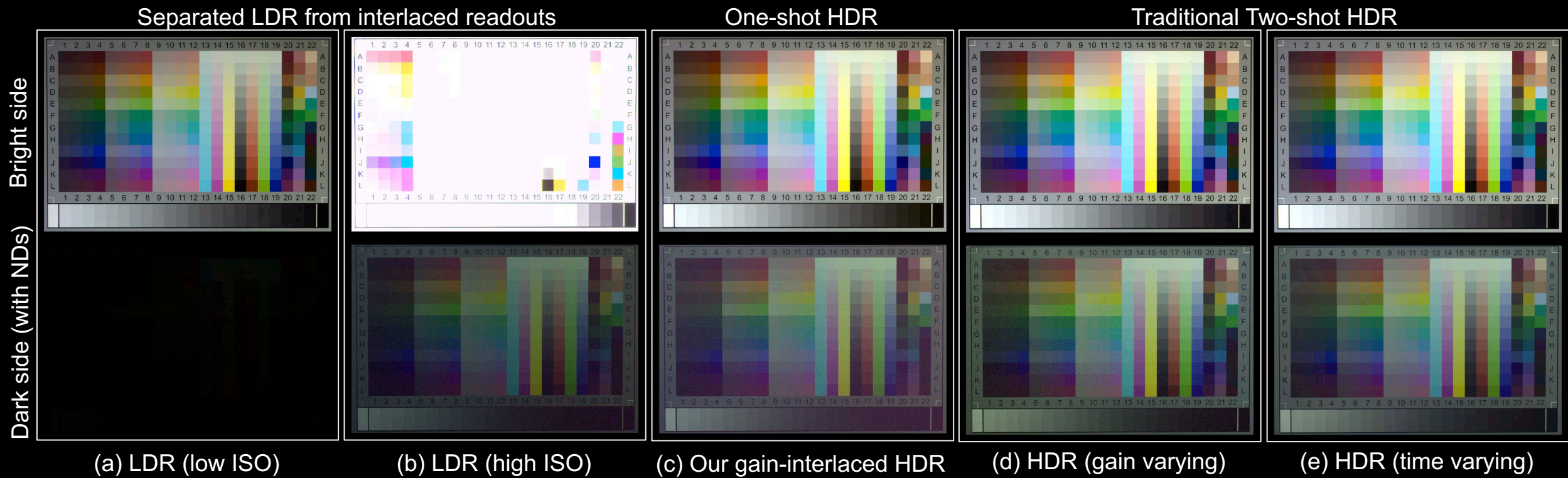
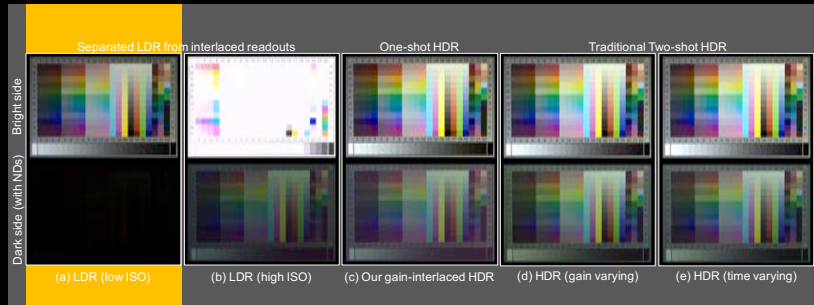


Figure 7
(close-up)

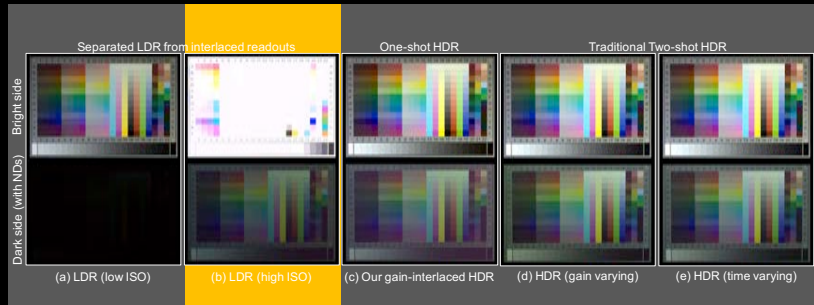


Separated LDR from interlaced readouts

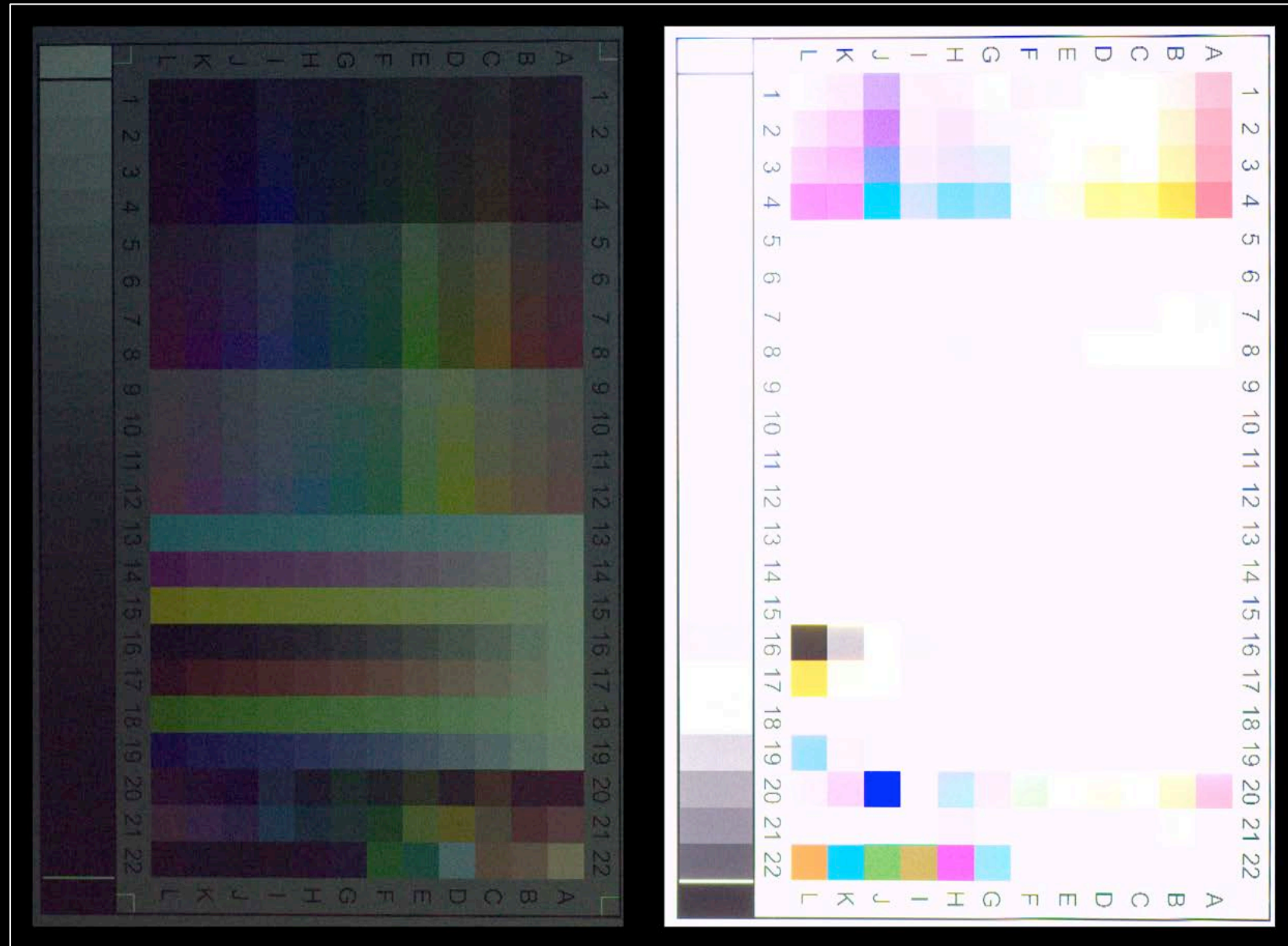


(a) LDR (low ISO)

Figure 7
(close-up)

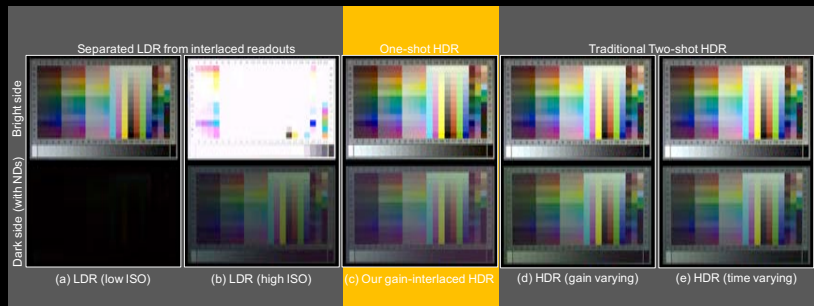


Separated LDR from interlaced readouts

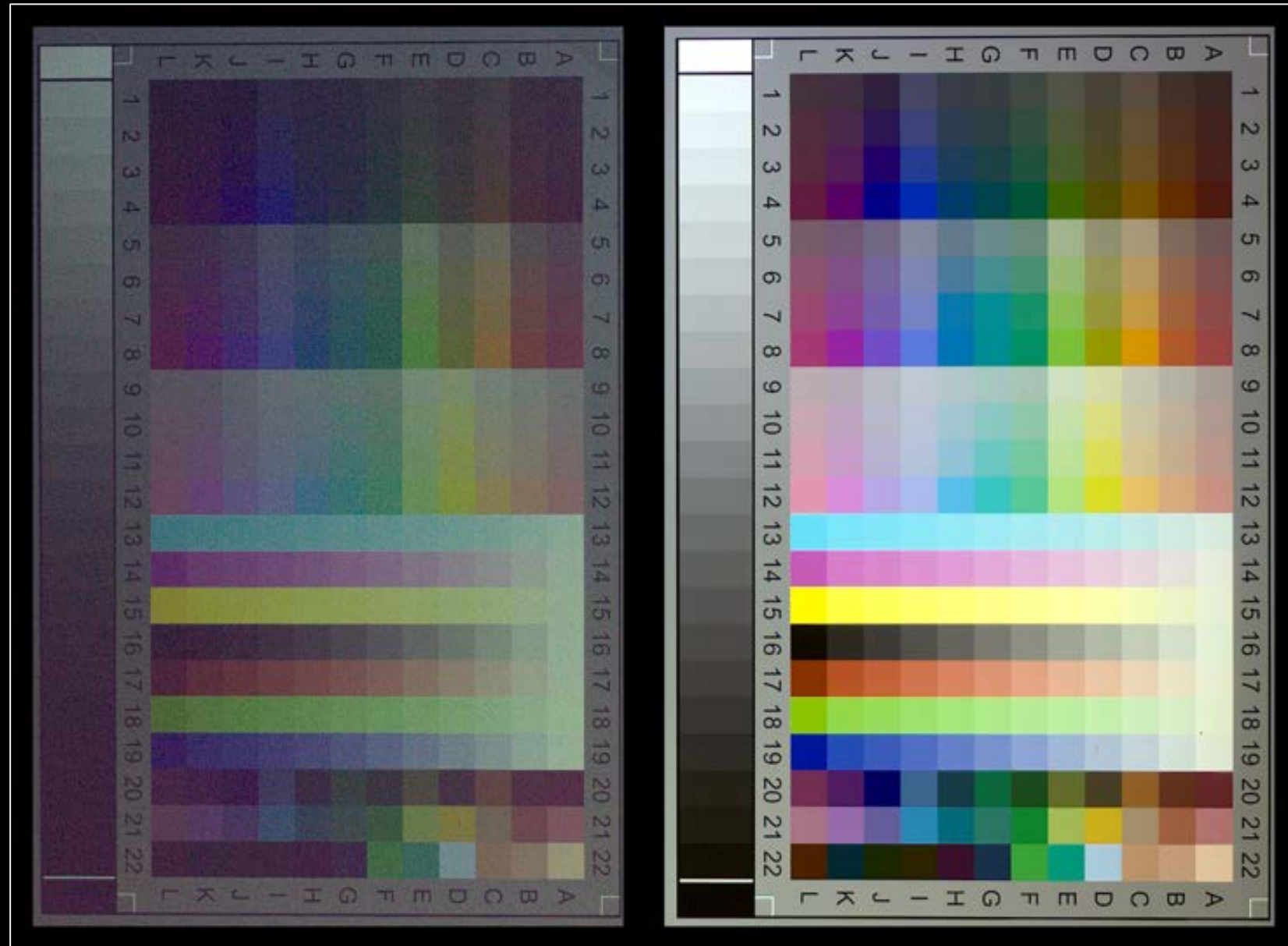


(b) LDR (high ISO)

Figure 7
(close-up)

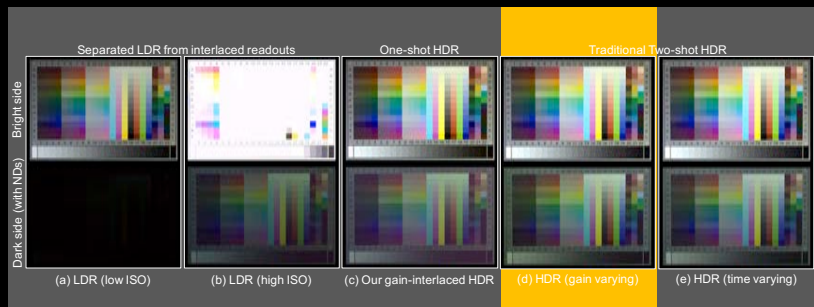


One-shot HDR

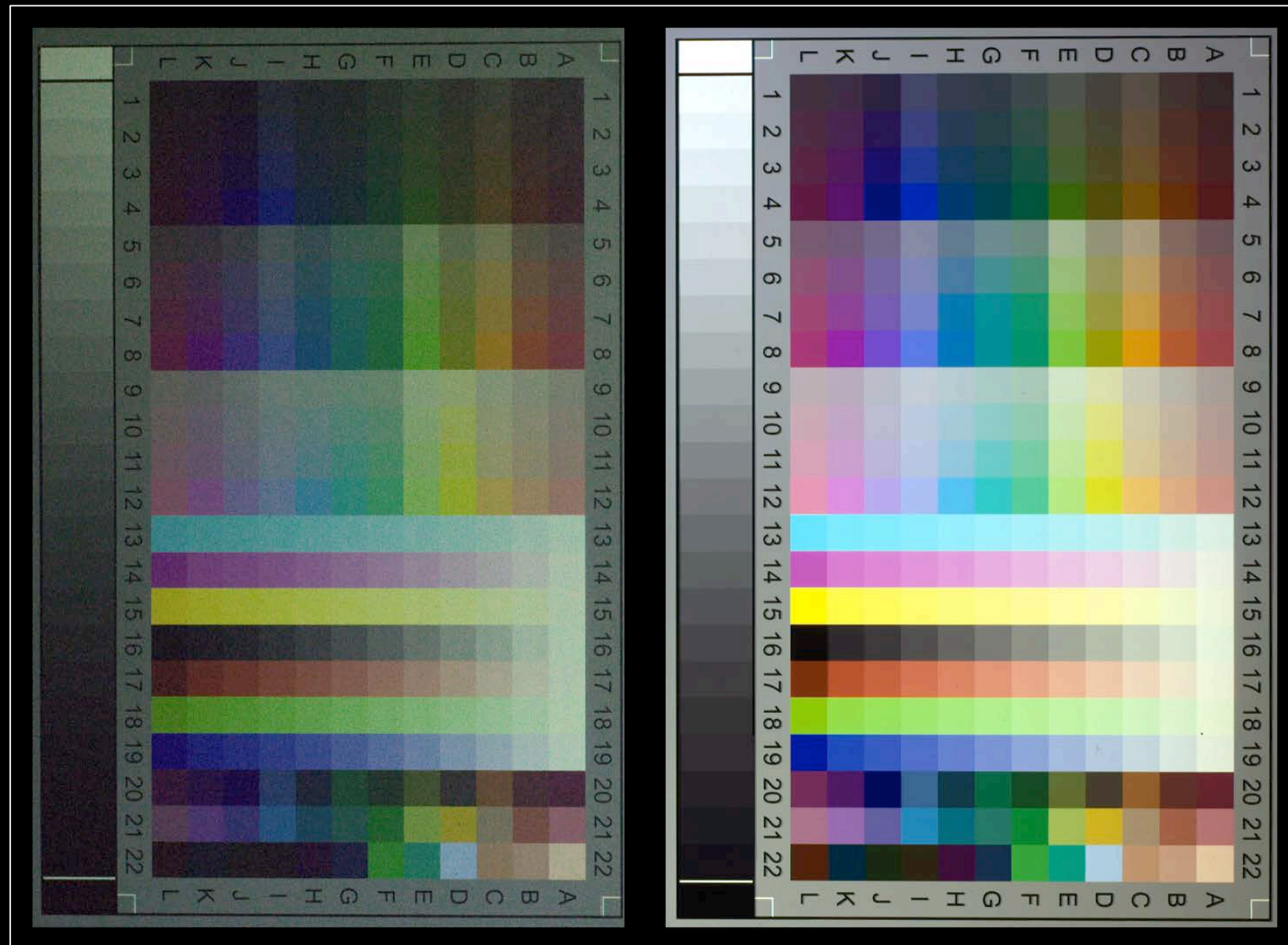


(c) Our gain-interlaced HDR

Figure 7
(close-up)

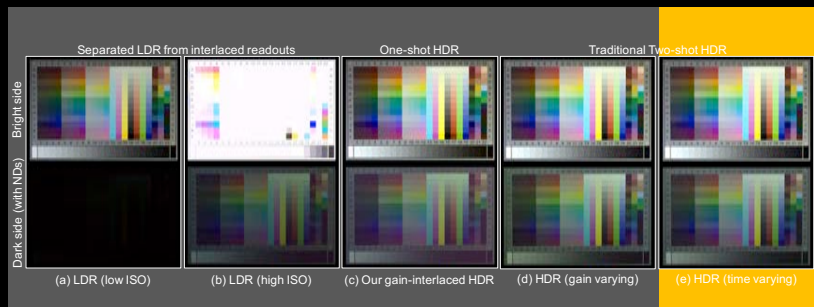


Traditional two-shot HDR

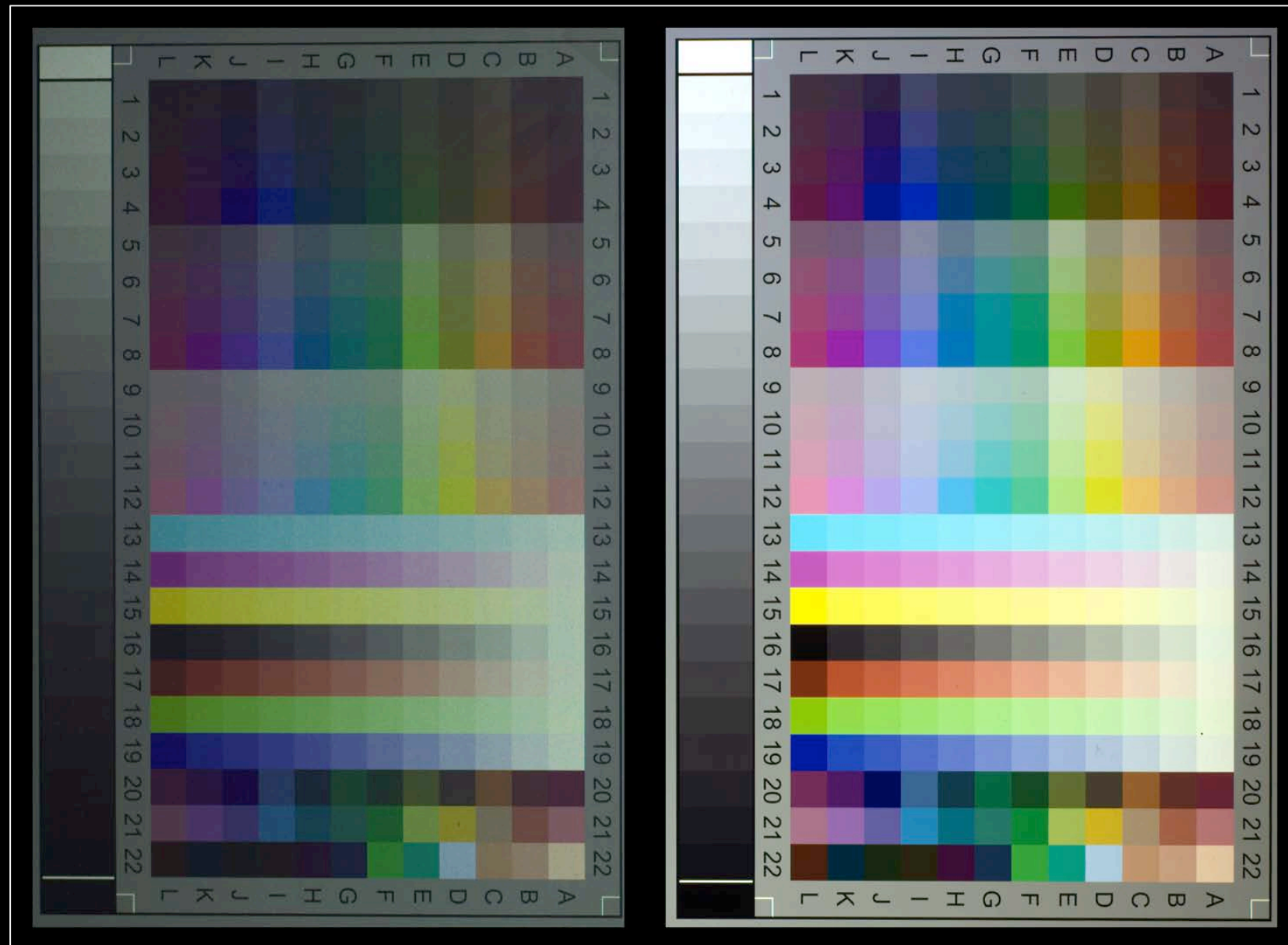


(d) HDR (gain varying)

Figure 7
(close-up)



Traditional Two-shot HDR



(e) HDR (time varying)

Figure 8

Sharpness/noise comparison in interlaced HDR



(a) Hajisharif

(b) Heide

(c) Cho

(d) Our method

Figure 8 (close-up)



(a) Hajisharif



(b) Heide



(c) Cho



(d) Our method

Figure 8 (close-up)



(a) Hajisharif



(b) Heide



(c) Cho



(d) Our method

Figure 8
(close-up)

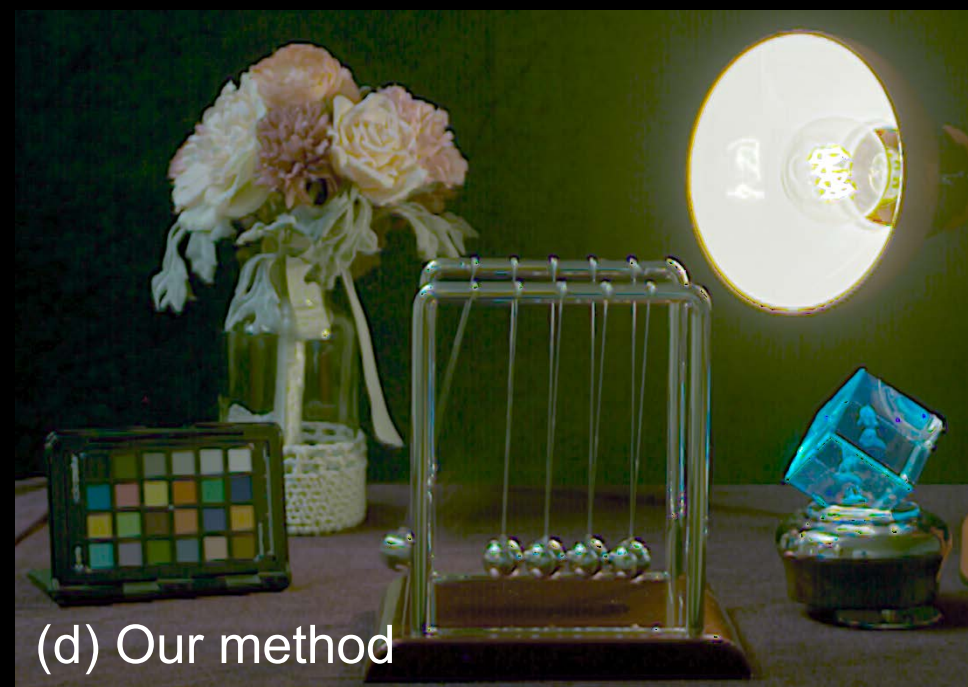
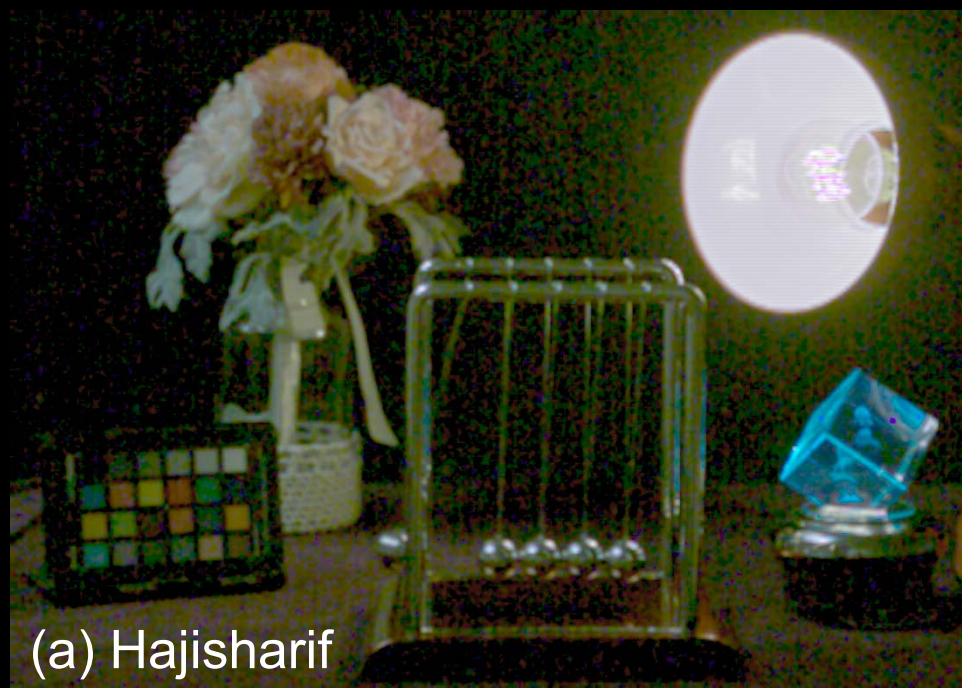
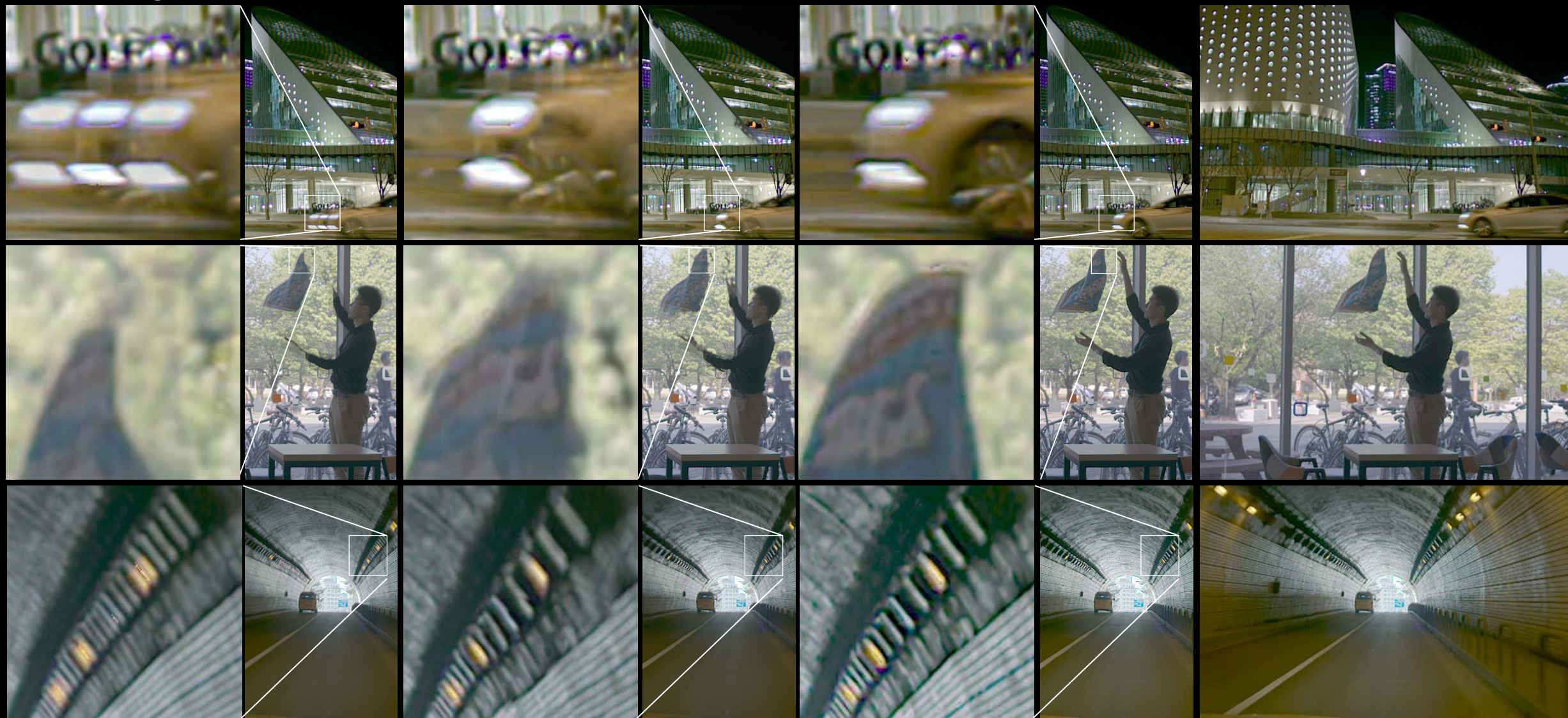


Figure 9

Ghosting artifact comparison in HDR video



(a) Kang

(b) Kalantari

(c) Our method

full screen (ours)

Figure 9 (close-up)



Figure 9 (close-up)



(a) Kang



(b) Kalantari



(c) Our method

Figure 9 (close-up)



(a) Kang



(b) Kalantari



(c) Our method

Figure 10



Figure 10
(close-up)

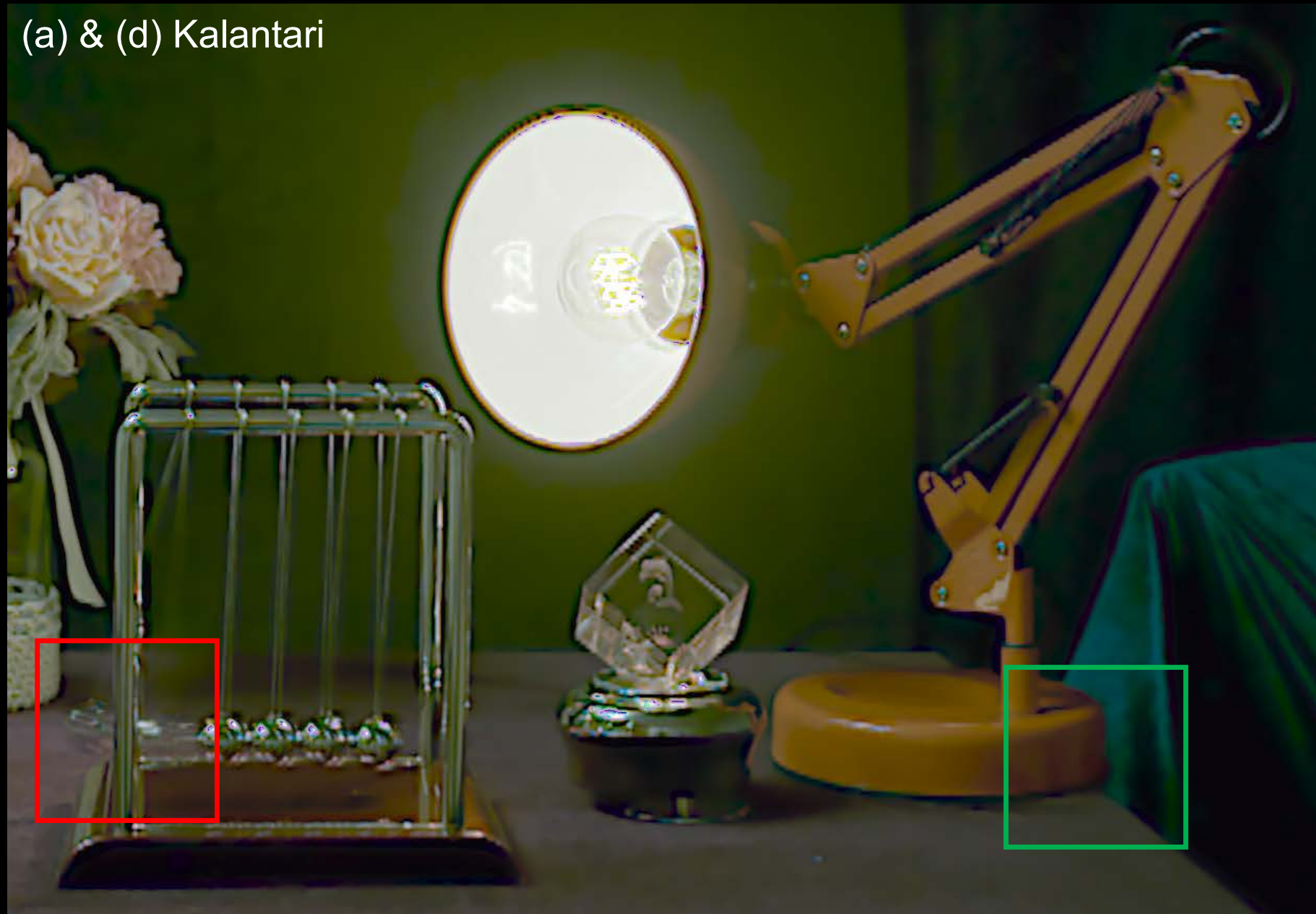


Figure 10
(close-up)

(b) & (e) Liu 2014



Figure 10
(close-up)

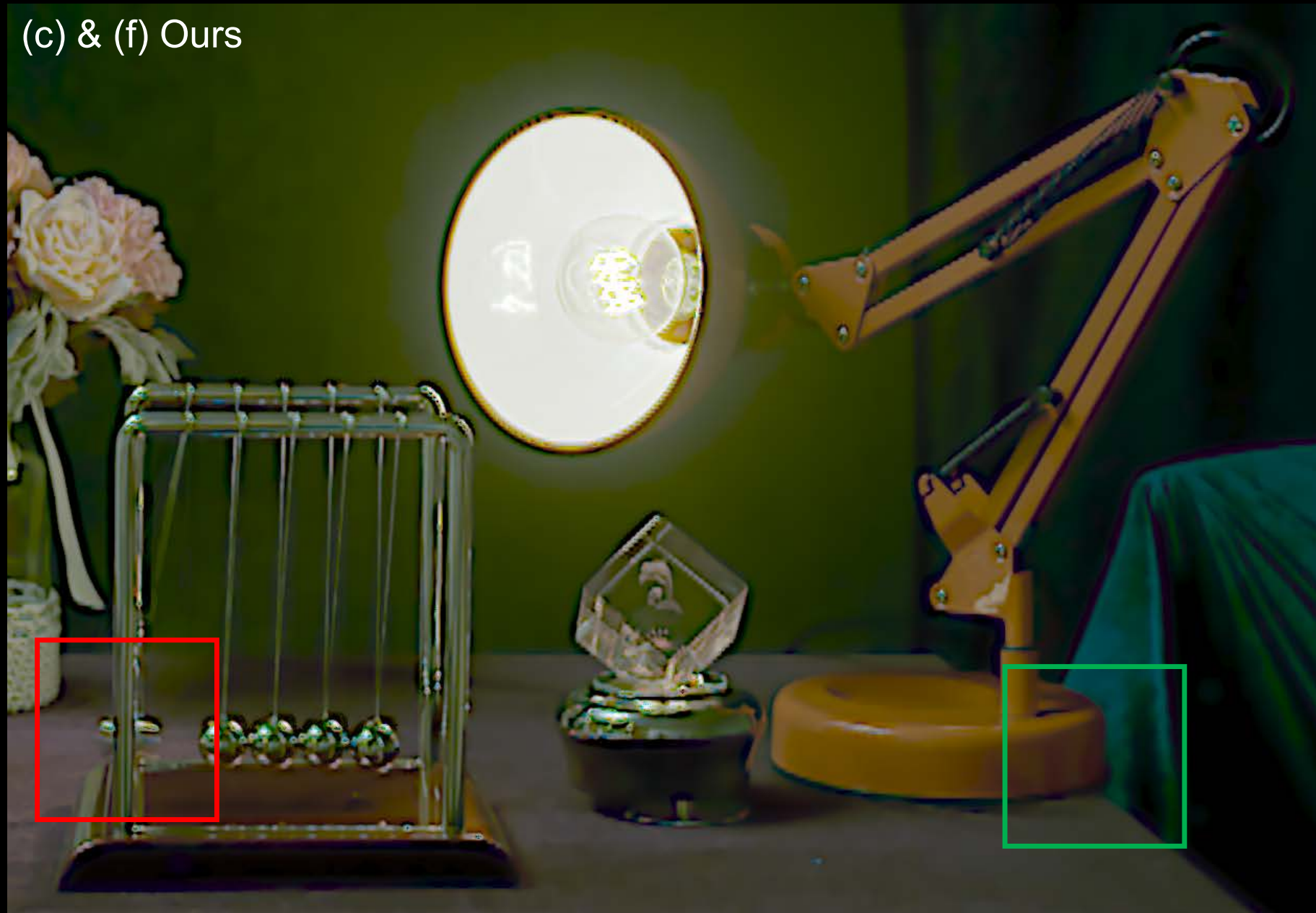


Figure 11

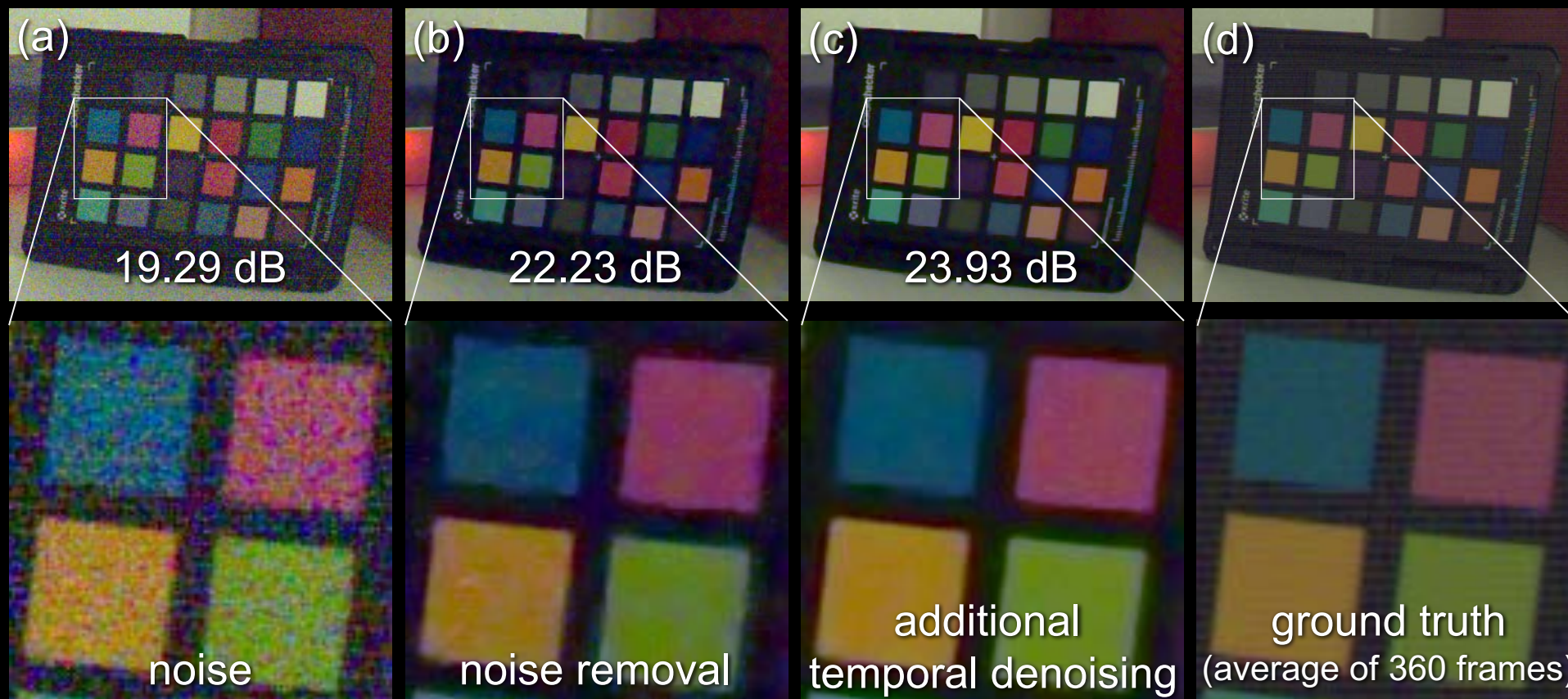


Figure 12

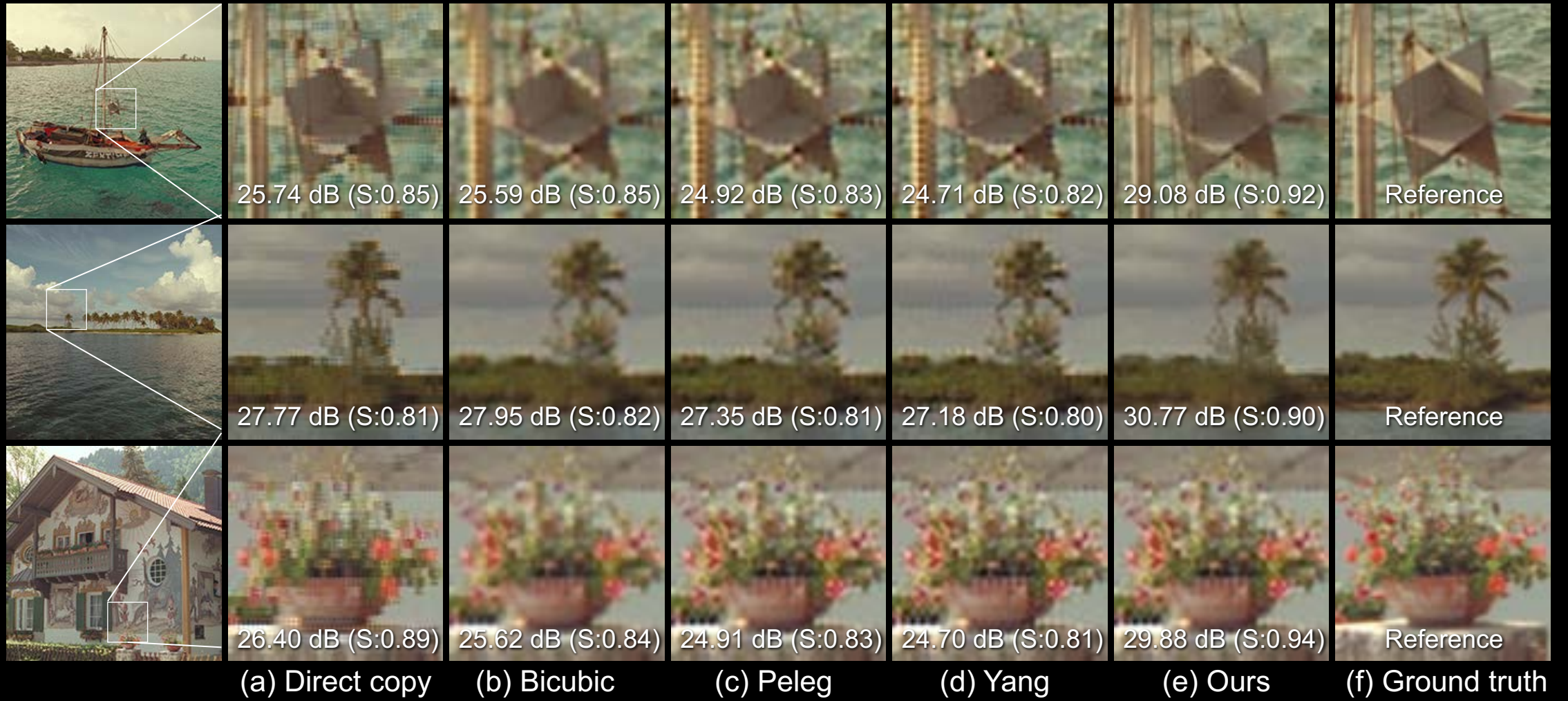
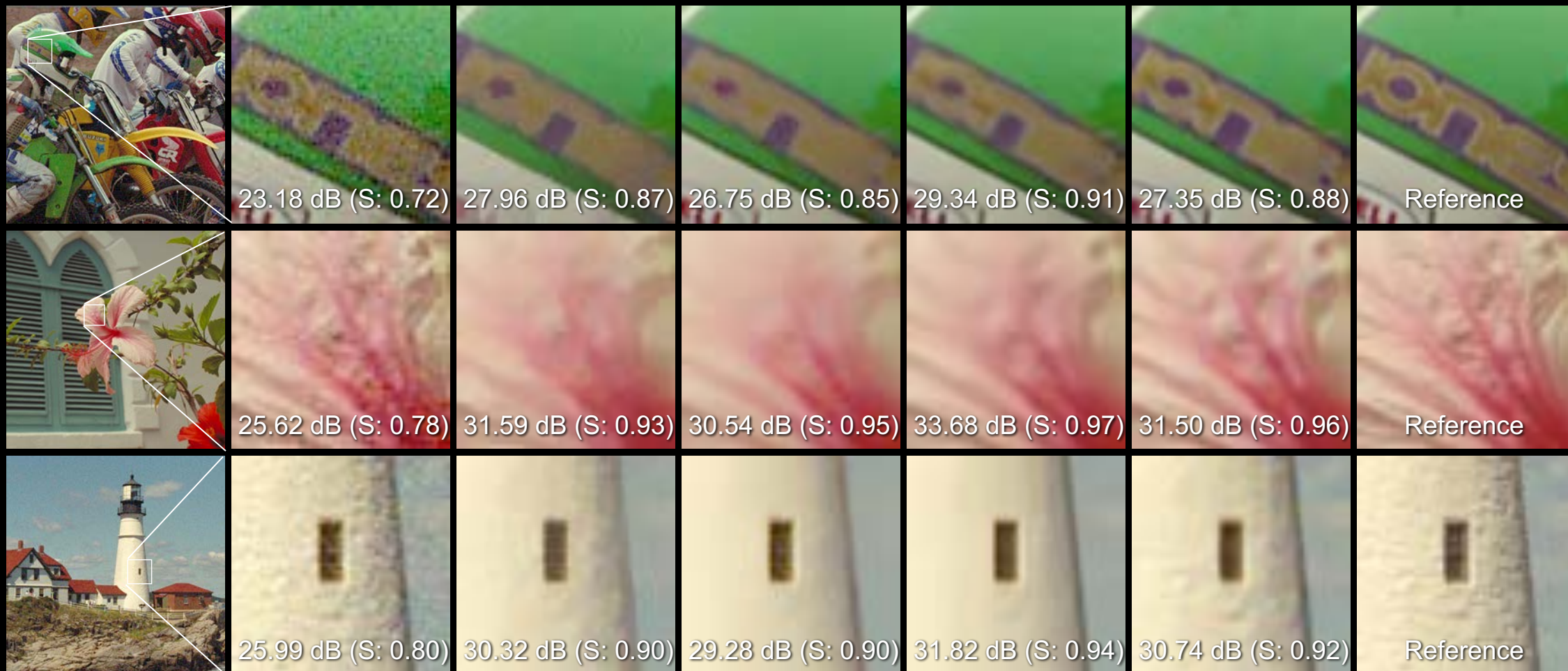


Figure 13



(a) Noise

(b) TVL1

(c) NLM

(d) BM3D

(e) Ours

(f) Ground truth

Figure 14

Real noise removal comparison in video

