

The expected proportion should show like:  $F_R$  plays a dominant role for de-raining task thus the proportion of  $F_R$  should be much larger than that of  $F_{NR}$  at each stage. Only in this way, sufficient manipulation over rainy regions can be guaranteed and unnecessary manipulation over non-rainy regions can be avoided. To demonstrate this, we train an AFR-Net with three refinement modules and calculate the proportion of both  $F_R$  and  $F_{NR}$  at each refinement stage. A direct comparison of proportion distributions of AFR-Net with the one shown in Fig.4 of the paper are provided as in Table R1.

Table R1: Comparison of filter proportion at different stages of different models.

	Raindrop Removal Task						Rainstreak Removal Task					
	Stage-I		Stage-II		Stage-III		Stage-I		Stage-II		Stage-III	
	$F_R$	$F_{NR}$	$F_R$	$F_{NR}$	$F_R$	$F_{NR}$	$F_R$	$F_{NR}$	$F_R$	$F_{NR}$	$F_R$	$F_{NR}$
PReNet	58%	42%	39%	61%	30%	70%	86%	14%	58%	42%	46%	54%
AFR-Net	87%	13%	80%	20%	79%	21%	90%	10%	84%	16%	82%	18%

As shown in Table R1 and as expected,  $F_R$  shows a much larger proportion than  $F_{NR}$  regardless of the stages. When performing de-raining by models with such filter proportion distribution, unexpected phenomenon of over/under deraining can be avoided as shown in Fig. 3 of the paper. Furthermore, by removing the attention branch, the proposed model shows a similar filter proportion distribution as PReNet, fully demonstrating the effectiveness of our novel attentive feature refinement design on overcoming problems of the progressive de-raining model design. Please see Sec1.1 for a clearer analysis on the contributions of our design.