

Training Environment	Specification
Contourlet transform levels and channels	1, 2, 3, 4 levels and 8, 4, 2, 1 channels
Patch size	55×55 pixels
Number of channels in the network	128 channels
Convolution layer filter size in X-Y domain	3×3
Learning rate range	$[10^{-5}, 10^{-2}]$
Gradient clipping range	$[-10^{-3}, 10^3]$
Size of mini-batch	10