

Training Hyperparameters

Hyperparameter	Value
Learning Rate (G)	2×10 ⁻⁴
Learning Rate (D)	1×10 ⁻⁴
Batch Size	4
Epochs	30
λ_{cycle}	10.0
$\lambda_{\text{identity}}$	5.0
Optimizer	Adam ($\beta_1=0.5$, $\beta_2=0.999$)
LR Decay Start	Epoch 15
Label Smoothing	0.9 / 0.1
Spectral Norm	Discriminator
Replay Buffer	50 samples
Gradient Clipping	1.0