

Architecture	Included DenseED blocks?	DenseED configuration	Learning rate	Mixed loss?	Loss function?	Weight 0	Weight 1	Weight 2	Dataset (FOV)	Non-linear Activation	Estimated image PSNR (dB)	Estimated image SSIM
Diffraction-limited image: PSNR=21.24 dB, SSIM=0.54												
FCN	Yes	(3,6,3)	0.001	No	MSE Loss	N/A	N/A	N/A	15	ReLU	24.58	0.68
FCN	Yes	(3,6,3)	0.0005	No	MSE Loss	N/A	N/A	N/A	15	ReLU	24.50	0.70
FCN	Yes	(3,6,3)	0.0001	No	MSE Loss	N/A	N/A	N/A	15	ReLU	23.67	0.52
FCN	Yes	(3,6,3)	0.00005	No	MSE Loss	N/A	N/A	N/A	15	ReLU	24.10	0.65
FCN	Yes	(3,6,3)	0.00001	No	MSE Loss	N/A	N/A	N/A	15	ReLU	23.60	0.59
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	15	ReLU	24.16	0.69
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	15	Elu	24.13	0.69
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	15	Leaky ReLU	24.55	0.70
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	15	PReLU	24.54	0.70
FCN	Yes	(3,6,3)	0.003	Yes	MSE Loss + SSIM loss	0.2	0.8	N/A	15	ReLU	24.25	0.63
FCN	Yes	(3,6,3)	0.003	Yes	MSE Loss + SSIM loss	0.4	0.6	N/A	15	ReLU	24.38	0.66
FCN	Yes	(3,6,3)	0.003	Yes	MSE Loss + SSIM loss	0.6	0.4	N/A	15	ReLU	24.29	0.66
FCN	Yes	(3,6,3)	0.003	Yes	MSE Loss + SSIM loss	0.8	0.2	N/A	15	ReLU	24.28	0.67
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	4	ReLU	23.23	0.54
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	6	ReLU	23.81	0.66
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	8	ReLU	23.62	0.63
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	10	ReLU	24.22	0.67
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	12	ReLU	24.19	0.68
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	14	ReLU	24.06	0.68
FCN	Yes	(3,6,3)	0.003	No	MSE Loss	N/A	N/A	N/A	15	ReLU	24.11	0.67
GAN	No	N/A	0.0005	Yes	MSE loss + GAN loss	0.2	0.8	N/A	15	ReLU	24.26	0.68
GAN	No	N/A	0.0005	Yes	MSE loss + GAN loss	0.4	0.6	N/A	15	ReLU	23.98	0.66
GAN	No	N/A	0.0005	Yes	MSE loss + GAN loss	0.6	0.4	N/A	15	ReLU	24.37	0.70
GAN	No	N/A	0.0005	Yes	MSE loss + GAN loss	0.8	0.2	N/A	15	ReLU	23.95	0.67
GAN	Yes	(1,1,1)	0.0005	Yes	MSE loss + GAN loss	0.2	0.8	N/A	15	ReLU	24.02	0.67
GAN	Yes	(2,2,2)	0.0005	Yes	MSE loss + GAN loss	0.2	0.8	N/A	15	ReLU	24.09	0.67
GAN	Yes	(3,3,3)	0.0005	Yes	MSE loss + GAN loss	0.2	0.8	N/A	15	ReLU	24.12	0.67
GAN	Yes	(4,4,4)	0.0005	Yes	MSE loss + GAN loss	0.2	0.8	N/A	15	ReLU	24.12	0.68
GAN	Yes	(6,12,6)	0.0005	Yes	MSE loss + GAN loss	0.2	0.8	N/A	15	ReLU	24.00	0.67
GAN	Yes	(8,8,8)	0.0005	Yes	MSE loss + GAN loss	0.2	0.8	N/A	15	ReLU	24.03	0.68
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss	0.2	0.8	N/A	15	ReLU	24.18	0.68
GAN	Yes	(3,6,3)	0.00001	Yes	MSE loss + GAN loss	0.2	0.8	N/A	15	ReLU	24.10	0.67
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss	0.5	0.5	N/A	15	ReLU	23.94	0.68
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss	0.6	0.4	N/A	15	ReLU	24.07	0.68
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss	0.7	0.3	N/A	15	ReLU	24.20	0.69
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss + SSIM loss	0.5	0.3	0.2	15	ReLU	24.20	0.69
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss + SSIM loss	0.6	0.2	0.2	15	ReLU	24.07	0.69
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss + SSIM loss	0.7	0.1	0.2	15	ReLU	24.29	0.69
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss + SSIM loss	0.5	0.2	0.3	15	ReLU	24.28	0.69
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss + SSIM loss	0.6	0.1	0.3	15	ReLU	24.30	0.69
GAN	Yes	(3,6,3)	0.0005	Yes	MSE loss + GAN loss + SSIM loss	0.5	0.1	0.4	15	ReLU	24.02	0.68