

Table 4. Comparison of baseline method (Hendrycks & Gimpel, 2017) and confidence-based thresholding. All models are trained on SVHN, which is used as the in-distribution dataset (average of 5 runs). All values are shown in percentages. ↓ indicates that lower values are better, while ↑ indicates that higher scores are better.

Out-of-distribution dataset		FPR (95% TPR) ↓	Detection Error ↓	AUROC ↑	AUPR In ↑	AUPR Out ↑
		Baseline (Hendrycks & Gimpel, 2017)/Confidence Thresholding				
DenseNet-BC	TinyImageNet (crop)	12.9/ 3.1	7.0/ 4.0	97.4/ 99.2	99.0/ 99.5	93.2/ 98.0
	TinyImageNet (resize)	7.2/ 1.5	5.3/ 2.8	98.4/ 99.5	99.4/ 99.8	95.6/ 98.7
	LSUN (crop)	28.3/ 14.0	11.7/ 8.4	93.7/ 96.6	96.8/ 98.1	85.6/ 93.2
	LSUN (resize)	6.0/ 1.0	4.9/ 2.3	98.6/ 99.7	99.5/ 99.9	96.0/ 99.0
	iSUN	6.0/ 0.9	4.9/ 2.3	98.6/ 99.7	99.5/ 99.9	95.7/ 98.8
	Uniform	11.9/ 0.1	5.2/ 1.2	97.9/ 99.9	99.3/ 100.0	93.4/ 99.6
	Gaussian	7.4/ 0.0	4.1/ 0.9	98.5/ 99.9	99.5/ 100.0	95.1/ 99.7
	All Images	12.2/ 4.2	7.2/ 4.5	97.3/ 98.9	95.1/ 97.4	98.4/ 99.4
WRN-16-8	TinyImageNet (crop)	16.3/ 4.1	7.8/ 4.4	96.9/ 99.1	98.7/ 99.5	91.4/ 98.1
	TinyImageNet (resize)	10.6/ 1.5	6.1/ 2.7	97.8/ 99.6	99.2/ 99.8	93.6/ 99.2
	LSUN (crop)	31.9/ 18.7	12.5/ 10.5	93.0/ 95.5	96.4/ 97.5	84.0/ 91.8
	LSUN (resize)	9.5/ 0.6	5.8/ 1.8	98.0/ 99.8	99.3/ 99.9	94.0/ 99.5
	iSUN	9.6/ 0.8	5.9/ 2.1	98.0/ 99.8	99.3/ 99.9	93.4/ 99.4
	Uniform	17.7/ 0.3	7.1/ 1.2	97.1/ 99.9	99.0/ 100.0	91.1/ 99.6
	Gaussian	11.0/ 0.2	5.8/ 1.0	97.9/ 99.9	99.3/ 100.0	93.7/ 99.8
	All Images	15.7/ 5.3	7.9/ 5.0	96.7/ 98.7	94.1/ 96.8	97.9/ 99.4
VGG13	TinyImageNet (crop)	17.3/ 4.3	7.7/ 4.6	96.9/ 99.2	98.8/ 99.7	91.3/ 98.1
	TinyImageNet (resize)	11.4/ 1.8	6.2/ 3.1	97.8/ 99.6	99.2/ 99.8	93.7/ 99.1
	LSUN (crop)	22.7/ 13.0	9.4/ 7.8	95.6/ 97.6	98.1/ 99.0	88.6/ 94.7
	LSUN (resize)	9.4/ 0.8	5.7/ 2.0	98.1/ 99.8	99.3/ 99.9	94.3/ 99.6
	iSUN	10.0/ 1.0	6.0/ 2.2	98.0/ 99.8	99.3/ 99.9	93.7/ 99.5
	Uniform	20.0/ 0.5	7.3/ 1.4	96.8/ 99.9	98.9/ 100.0	90.2/ 99.7
	Gaussian	12.9/ 0.3	6.0/ 0.9	97.8/ 99.9	99.2/ 100.0	93.1/ 99.9
	All Images	14.2/ 4.3	7.1/ 4.6	97.3/ 99.2	95.9/ 98.5	98.2/ 99.6