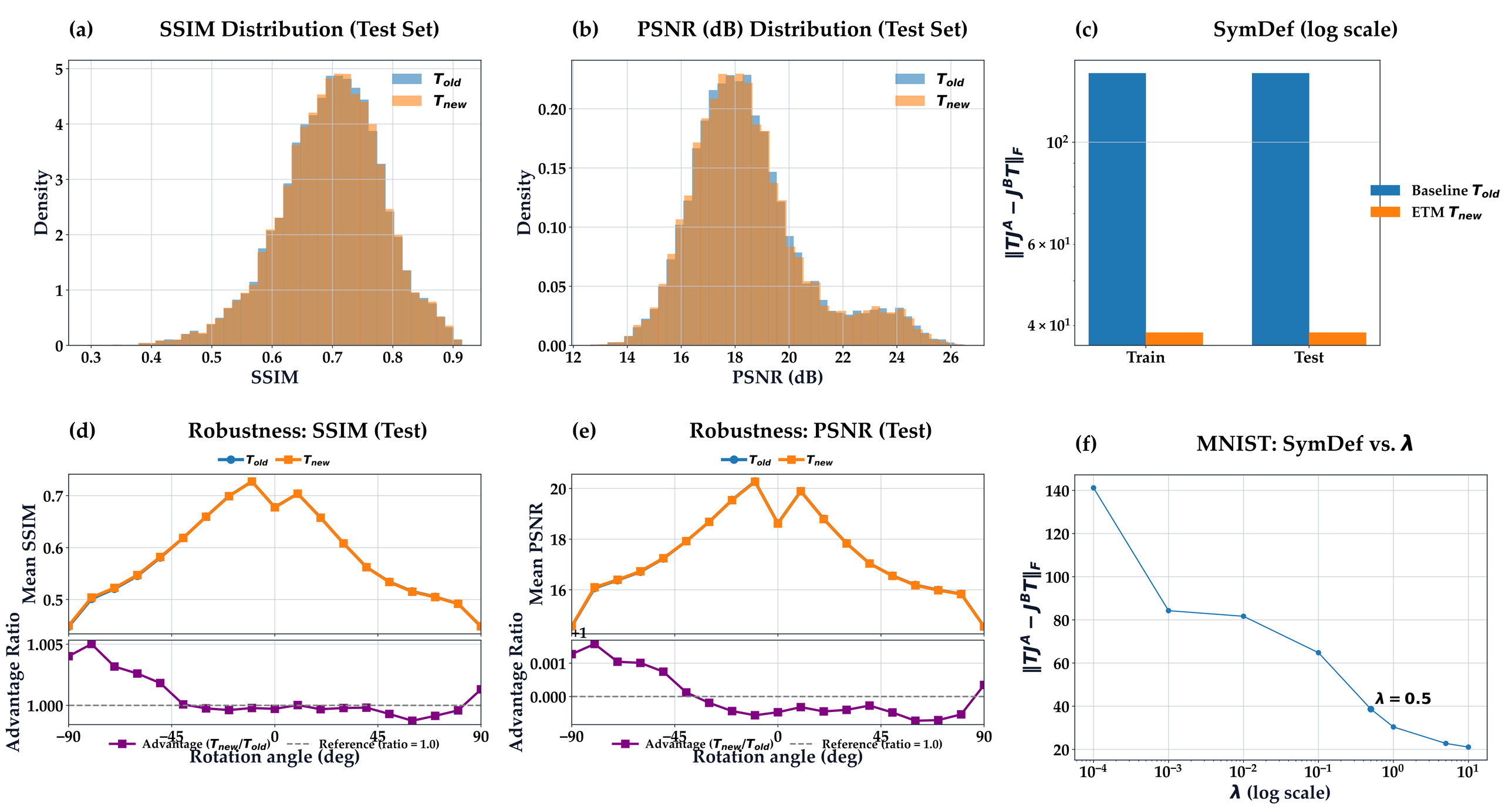

(a) SSIM Distribution (Test Set)
Density
SSIM
T_{old}
T_{new}
(b) PSNR (dB) Distribution (Test Set)
Density
PSNR (dB)
T_{old}
T_{new}
(c) SymDef (log scale)
$\|TJ^A - J^BT\|_F$
Baseline T_{old}
ETM T_{new}
Train
Test
(d) Robustness: SSIM (Test)
Mean SSIM
Advantage Ratio
T_{old}
T_{new}
Advantage (T_{new}/T_{old})
Reference (ratio = 1.0)
Rotation angle (deg)
(e) Robustness: PSNR (Test)
Mean PSNR
Advantage Ratio
+1
T_{old}
T_{new}
Advantage (T_{new}/T_{old})
Reference (ratio = 1.0)
Rotation angle (deg)
(f) MNIST: SymDef vs. λ
$\|TJ^A - J^BT\|_F$
$\lambda = 0.5$
λ (log scale)