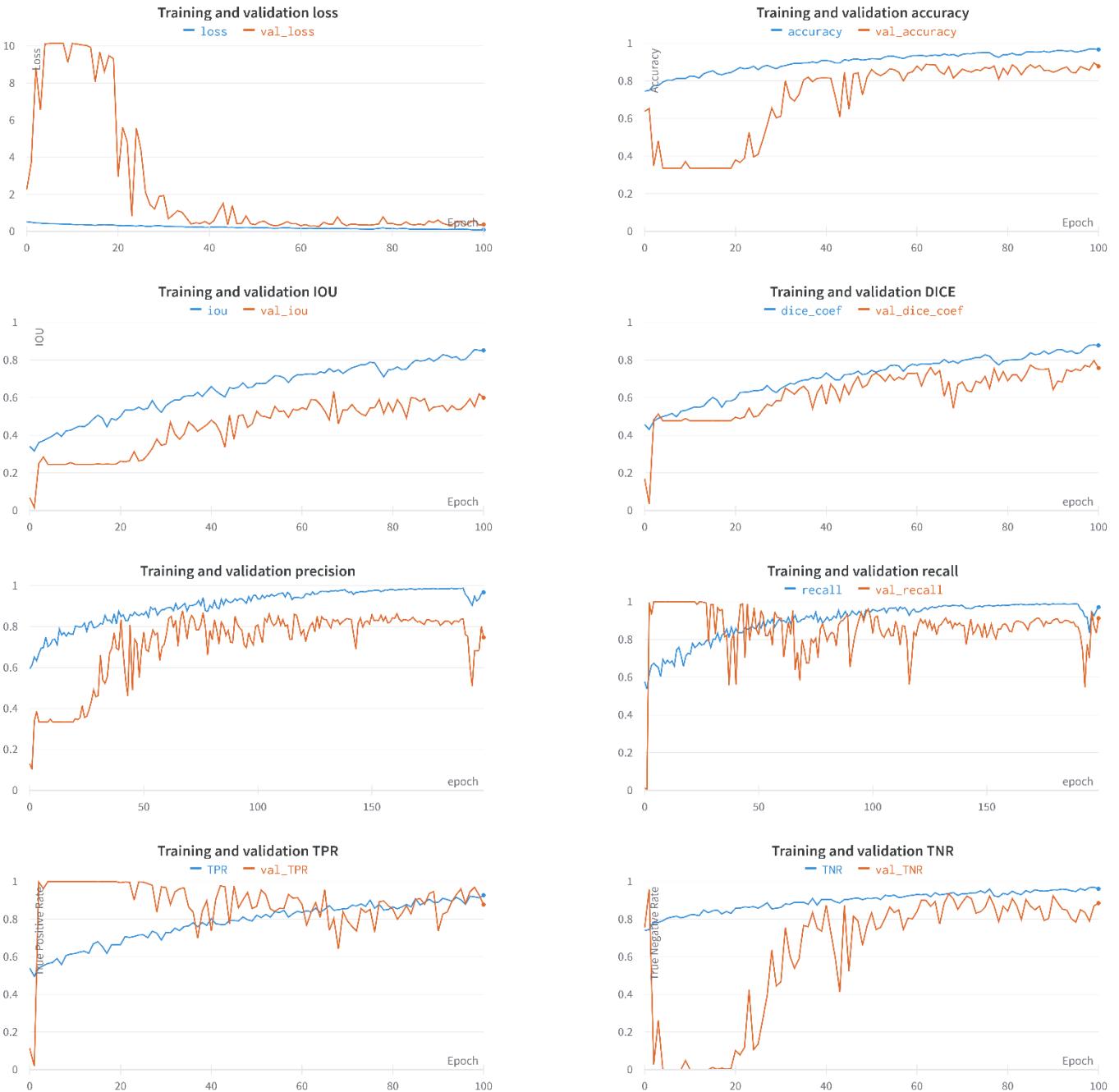
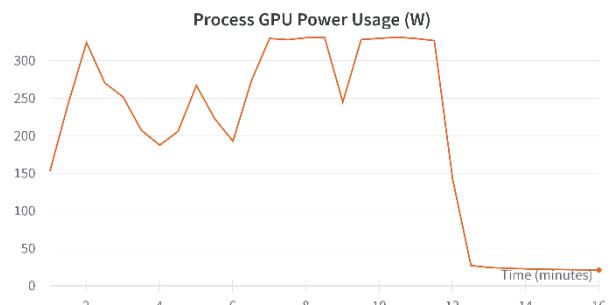


RESULTS OF BASIC STRUCTURE TEST – Original architecture:

Evaluation metrics of test_original:



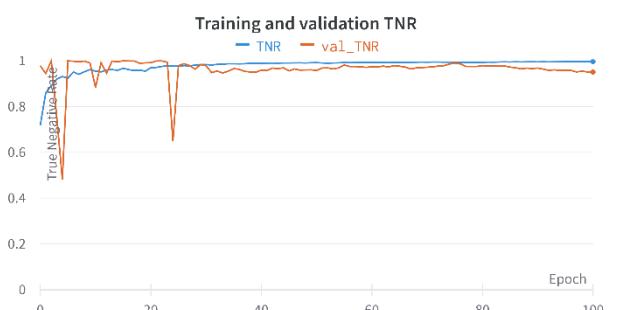
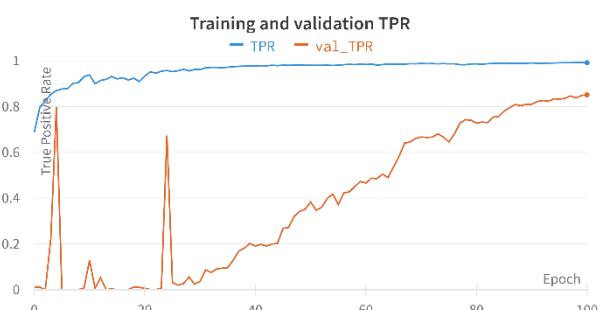
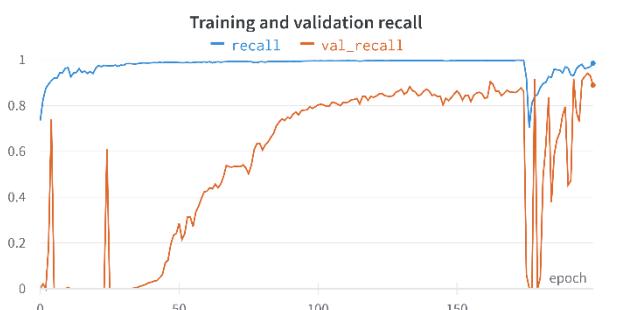
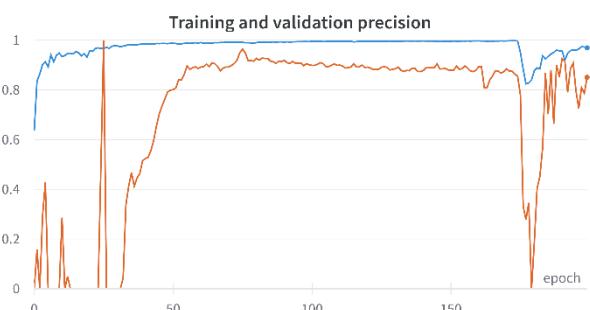
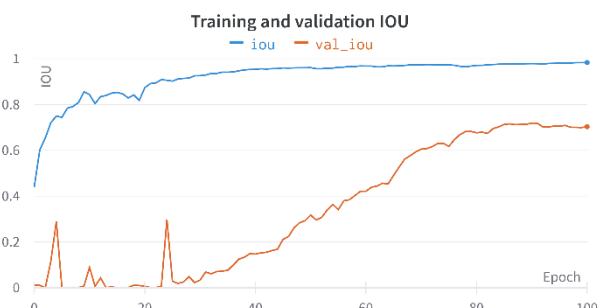
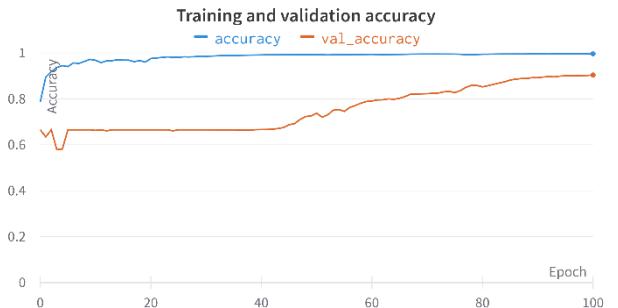
Computational costs of test_original:



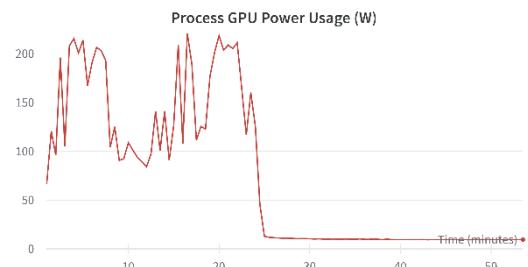
RESULTS OF BASIC STRUCTURE TEST – ResNet50 architecture:

*this results are the same for loss test (binary cross-entropy loss with constant lr)

Evaluation metrics of test_resnet50:

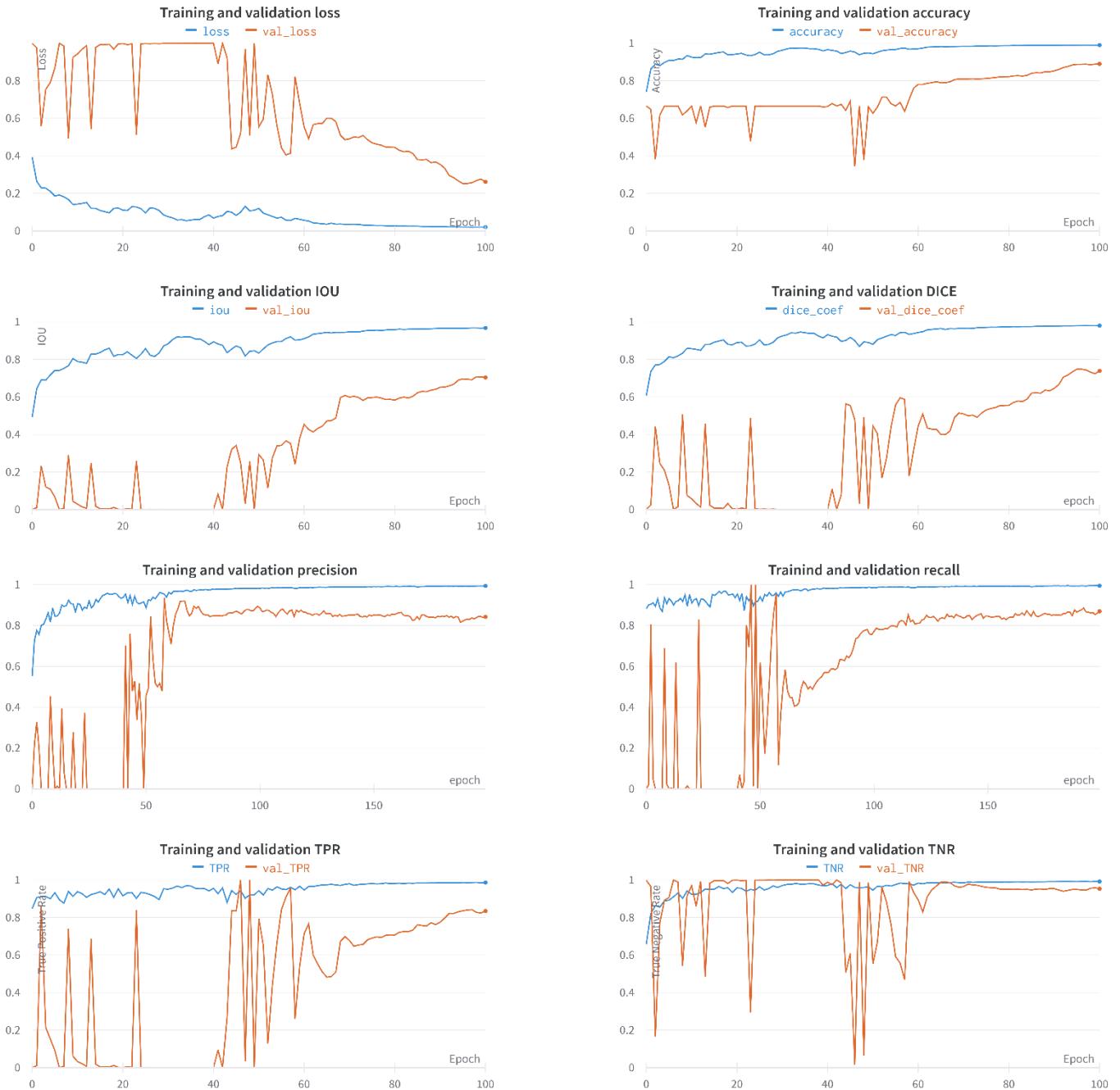


Computational costs of test_resnet50:

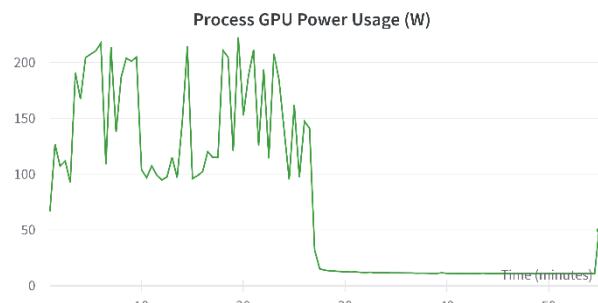


RESULTS OF LOSS FUNCTION TEST – Dice loss with constant learning rate:

Evaluation metrics of test_dice:

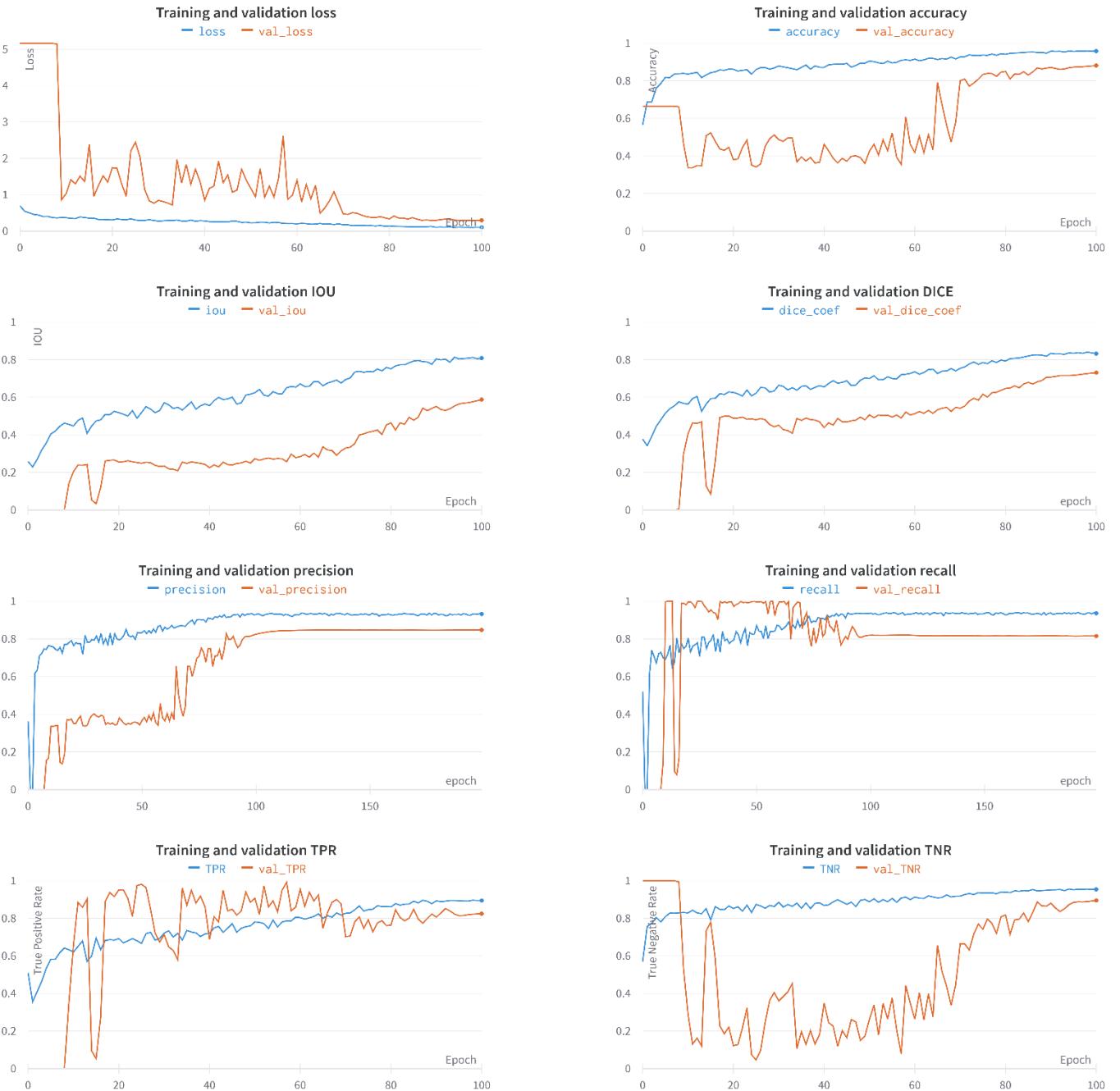


Computational costs of test_dice:

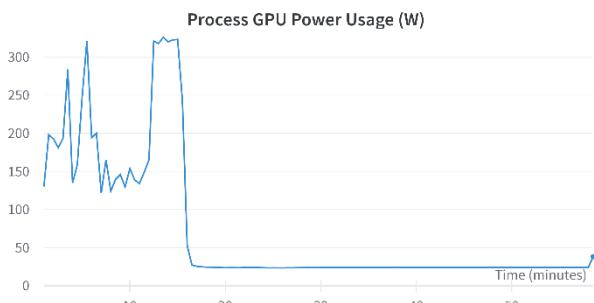


RESULTS OF LOSS FUNCTION TEST – Binary cross-entropy with learning rate scheduler:

Evaluation metrics of test_BinaryCrossEntropy_1rScheduler:

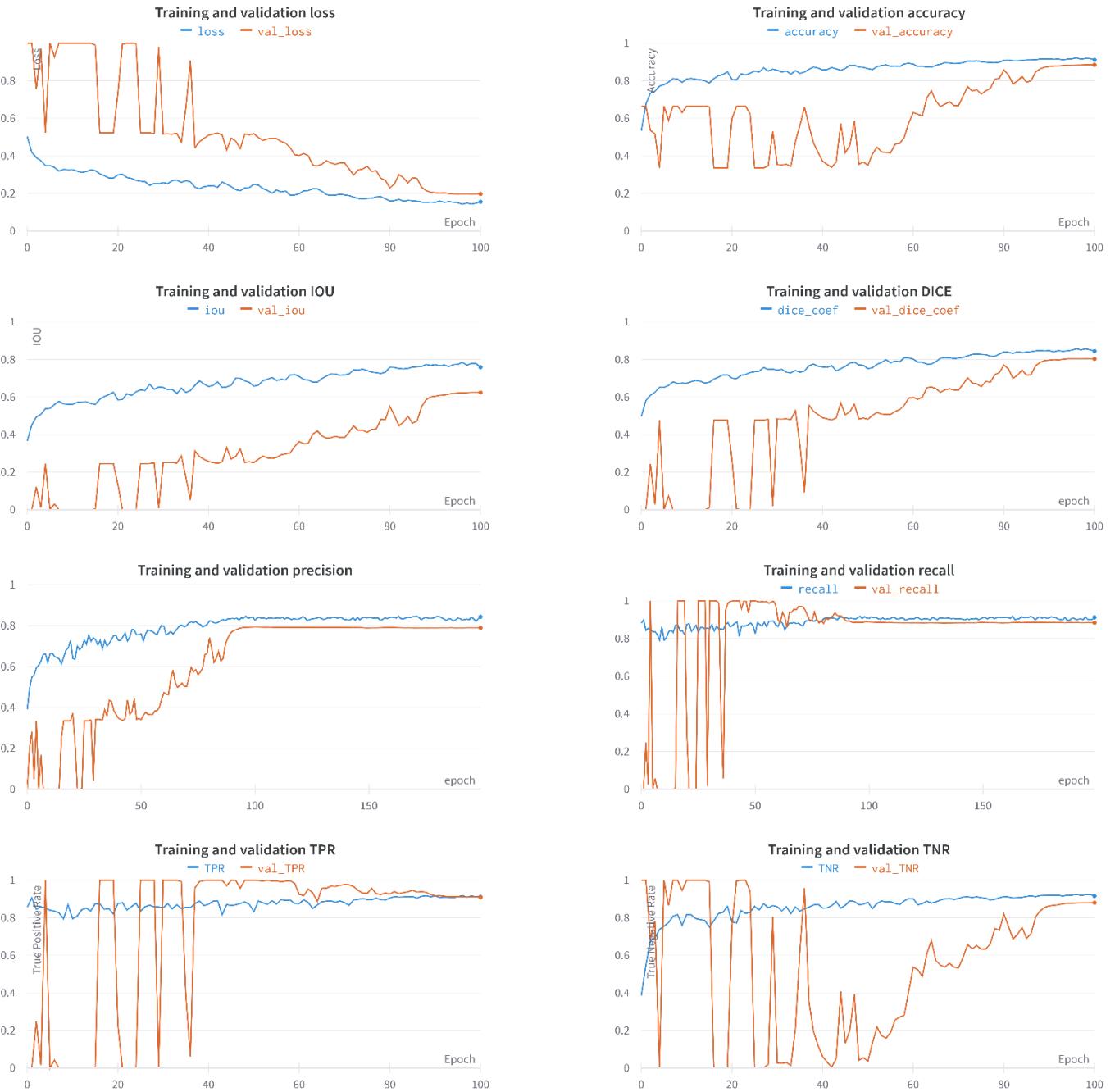


Computational costs of test_BinaryCrossEntropy_1rScheduler:

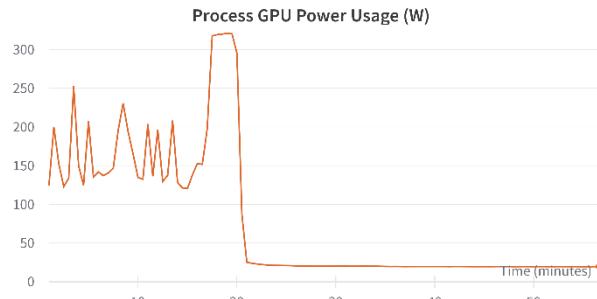


RESULTS OF LOSS FUNCTION TEST – Dice loss with learning rate scheduler:

Evaluation metrics of test_dice_lrScheduler:

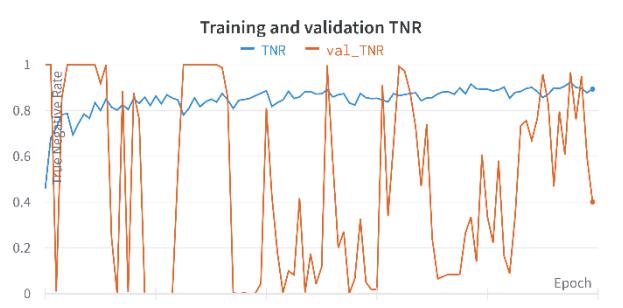
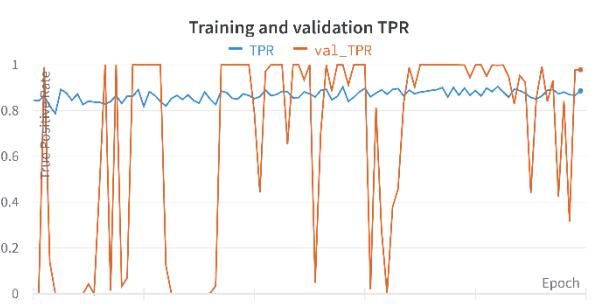
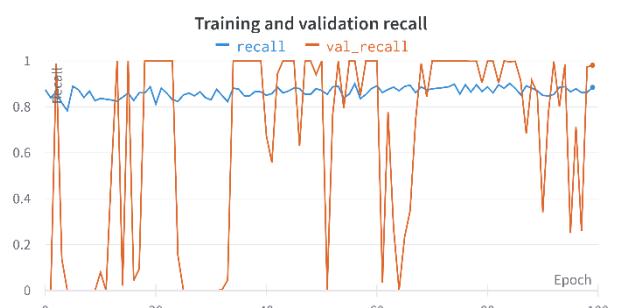
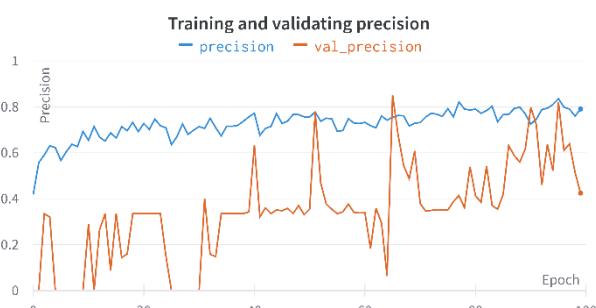
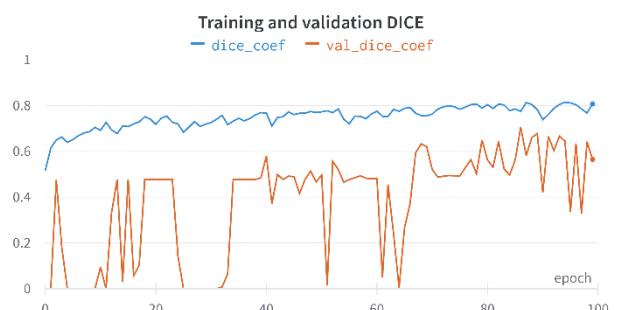
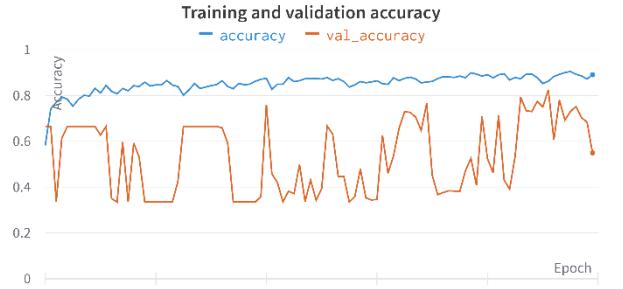
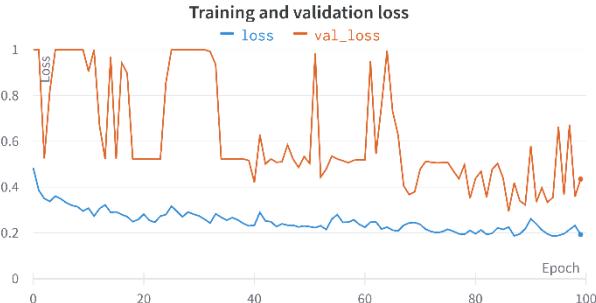


Computational costs of test_dice_lrScheduler:

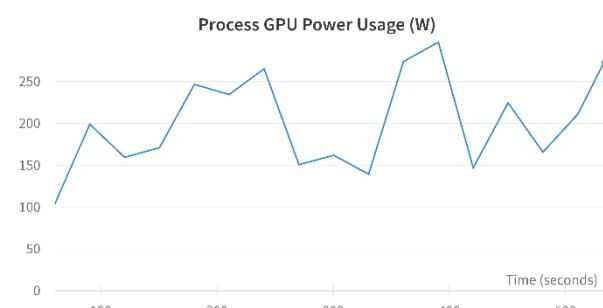


RESULTS OF LEARNING RATE TEST – learning rate = 0.01:

Evaluation metrics of test_base1:

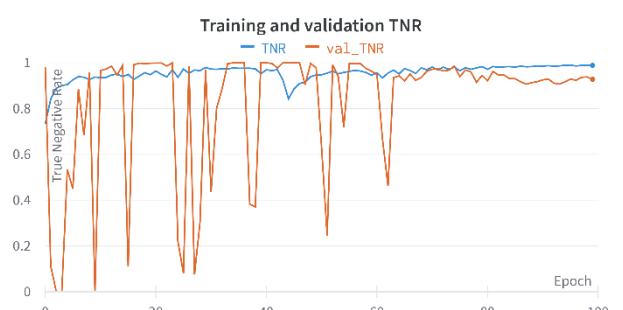
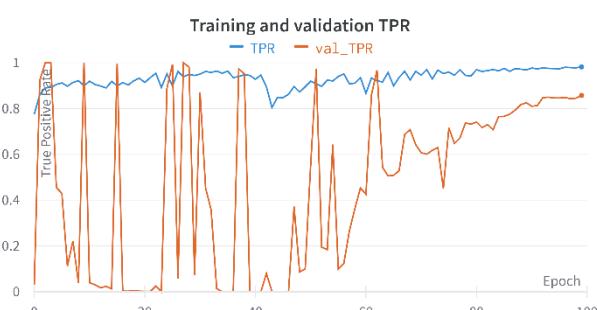
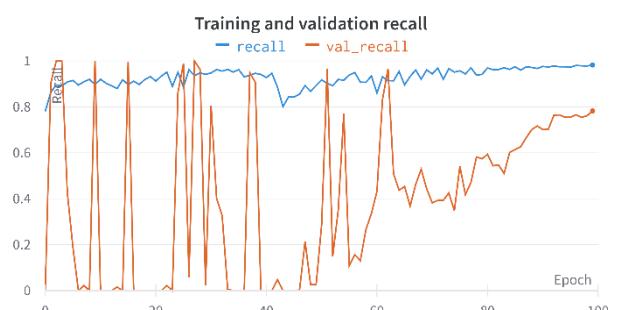
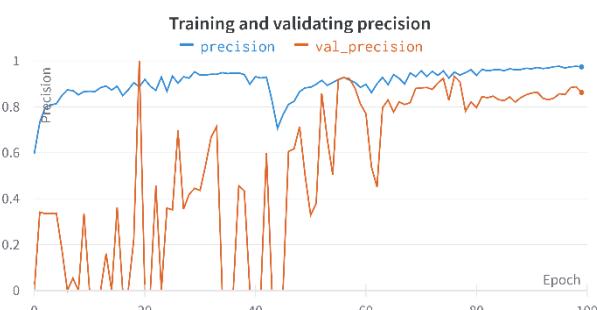
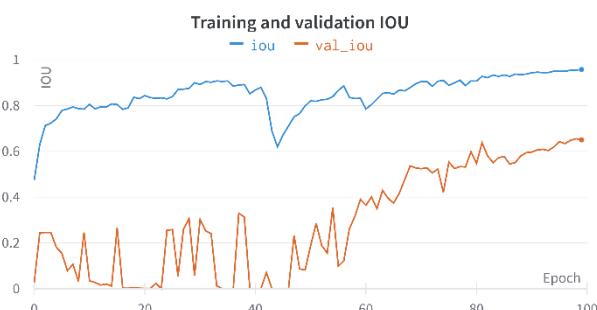
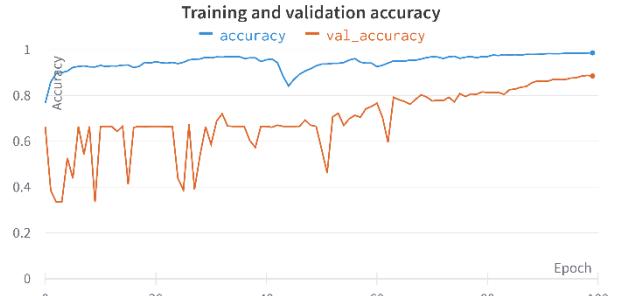


Computational costs of test_base1:

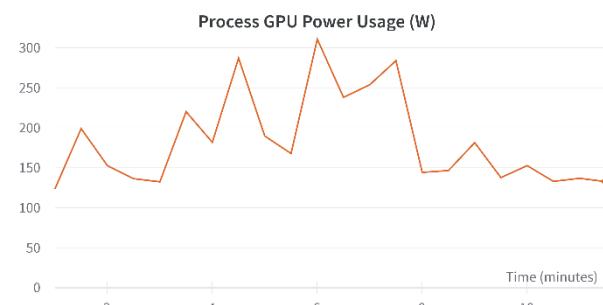


RESULTS OF LEARNING RATE TEST – learning rate = 0.001:

Evaluation metrics of test_base2:

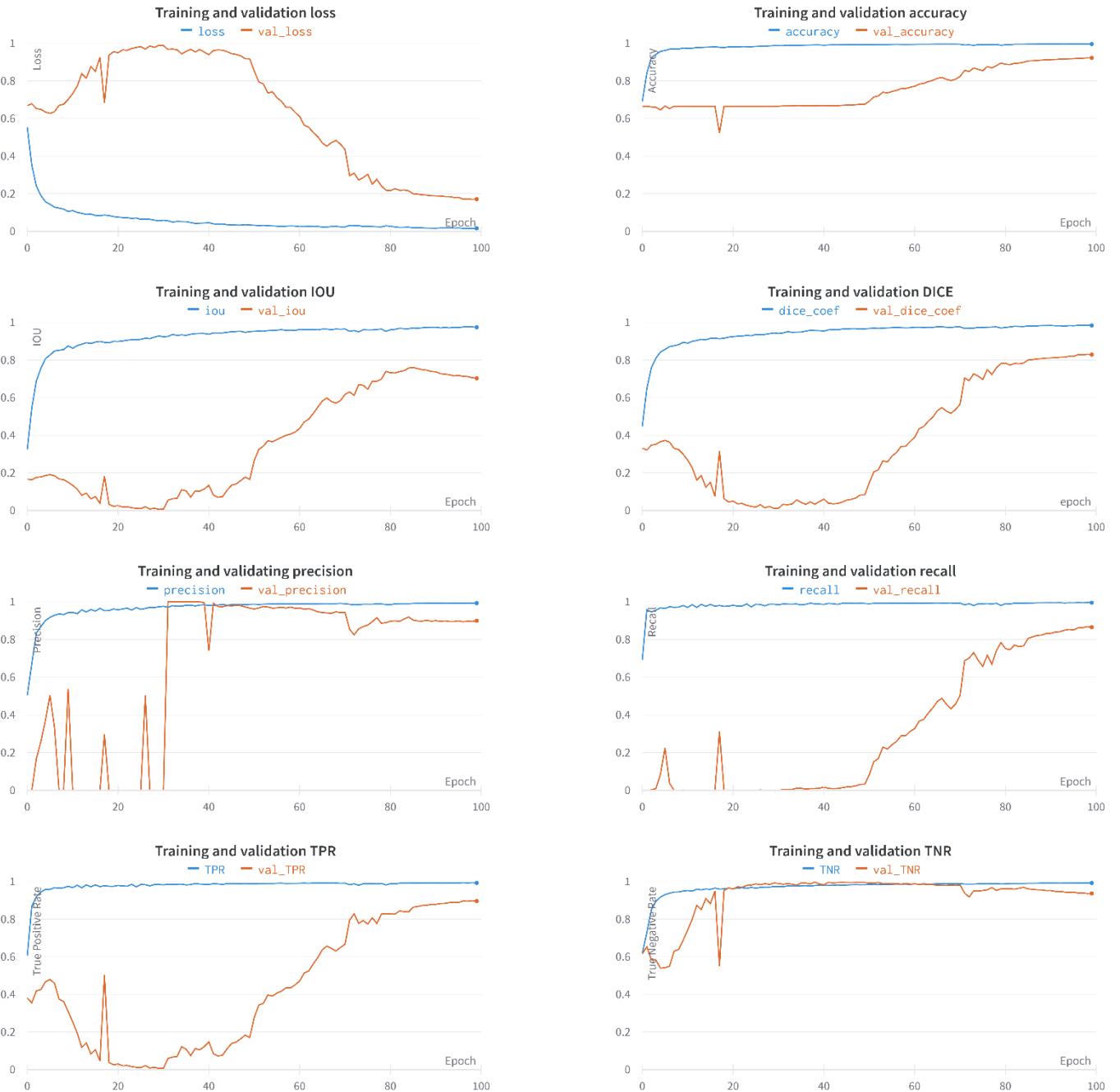


Computational costs of test_base2:

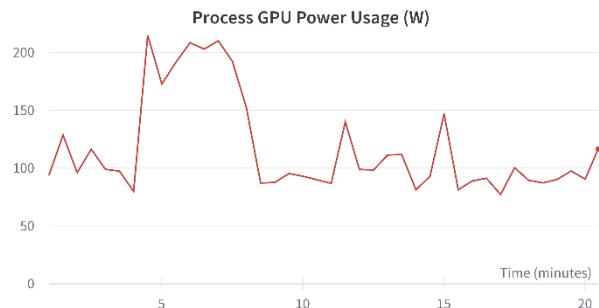


RESULTS OF LEARNING RATE TEST – learning rate = 0.0001:

Evaluation metrics of test_base3:

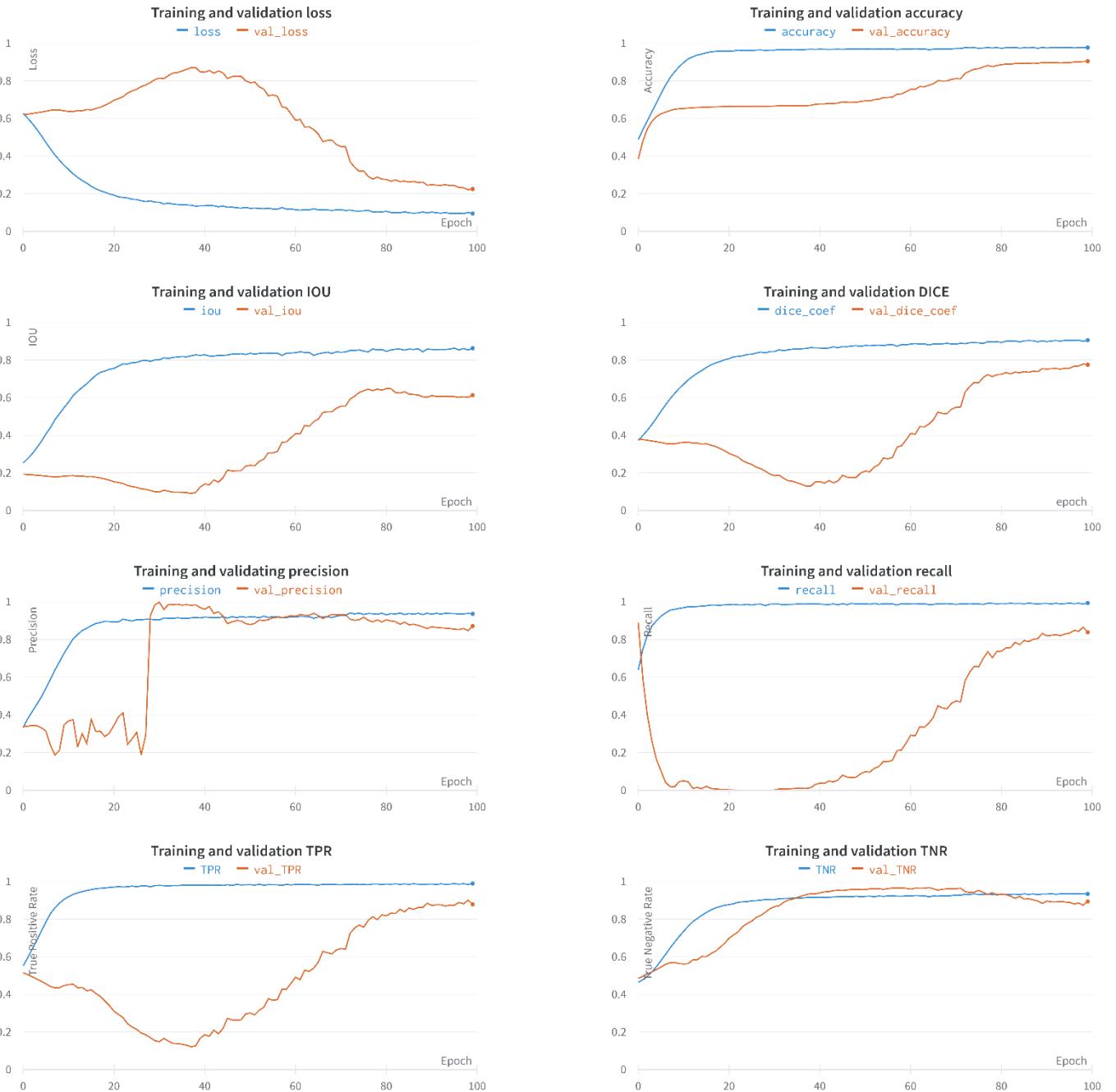


Computational costs of test_base3:

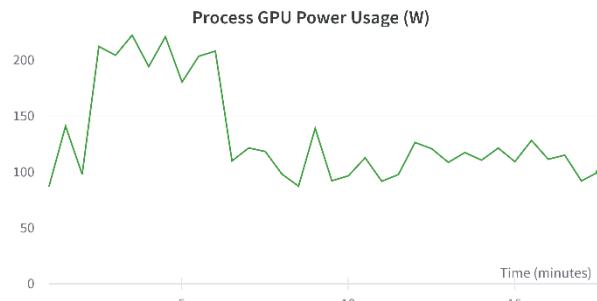


RESULTS OF LEARNING RATE TEST – learning rate scheduler with init value lr = 0.00001:

Evaluation metrics of test_base4:

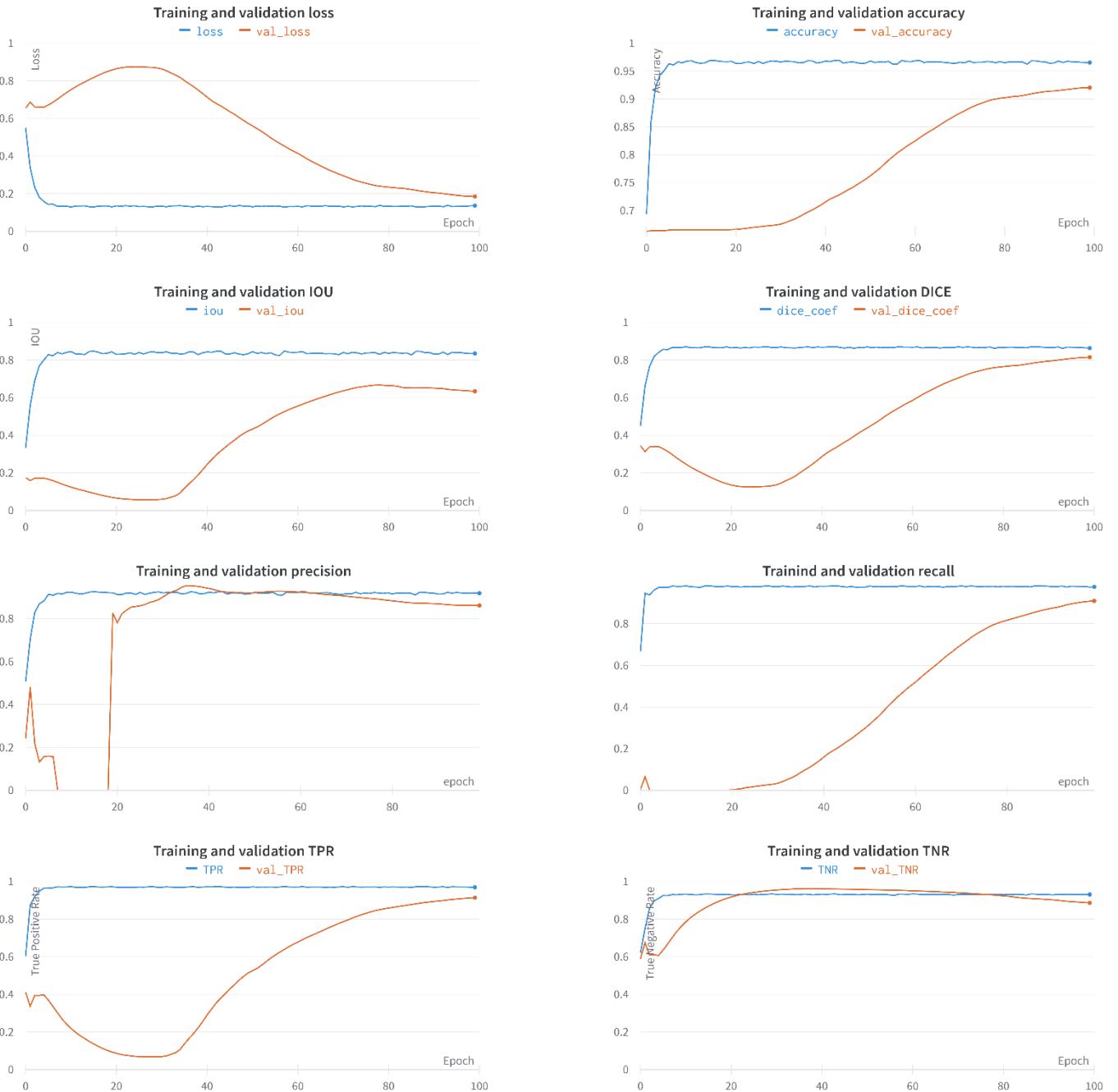


Computational costs of test_base4:

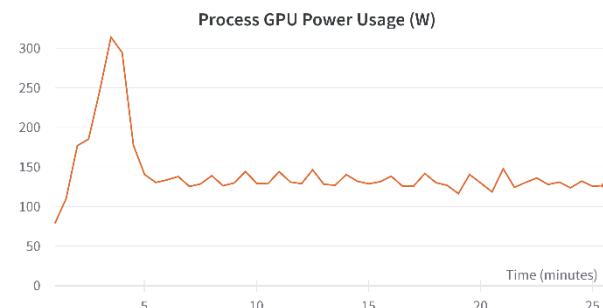


RESULTS OF LEARNING RATE TEST – learning rate scheduler with init value lr = 0.0001:

Evaluation metrics of test_base5:

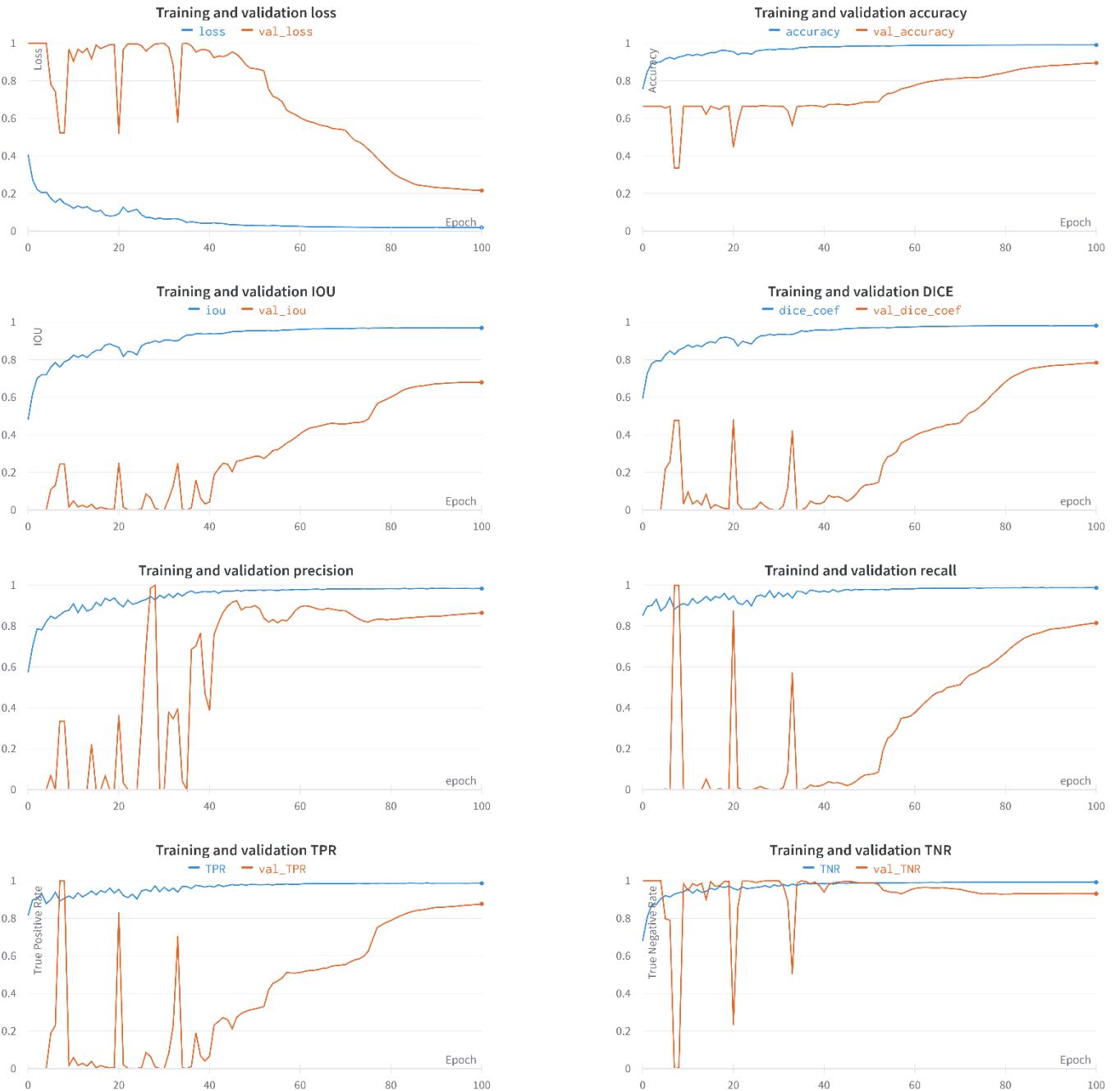


Computational costs of test_base5:

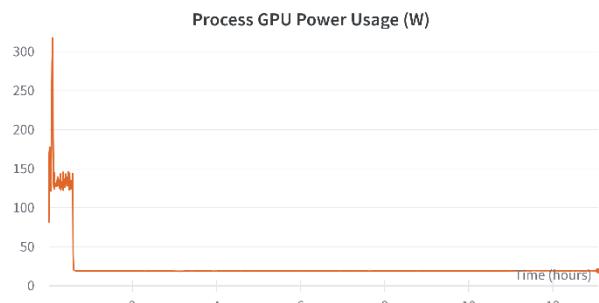


RESULTS OF LEARNING RATE TEST – learning rate scheduler with init value lr = 0.001:

Evaluation metrics of test_base6:

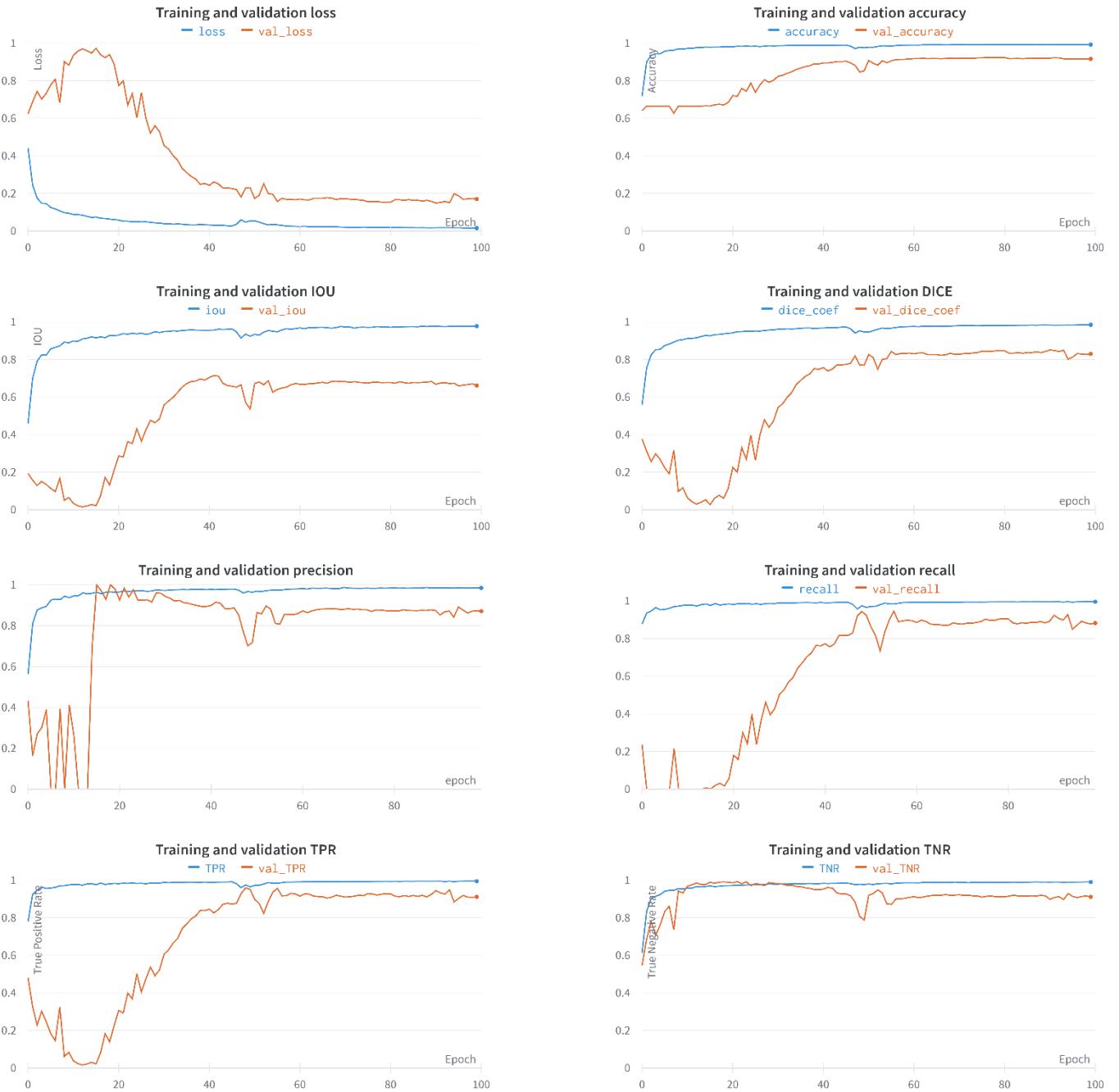


Computational costs of test_base6:

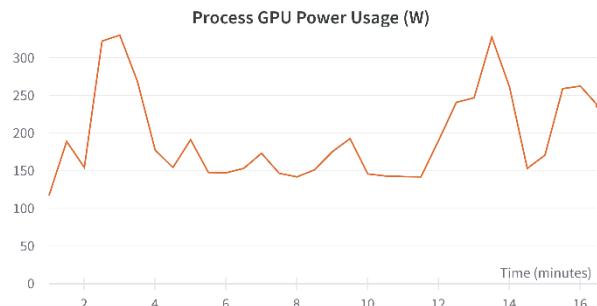


RESULTS OF AUGMENTATION TEST – augmentation function computed once:

Evaluation metrics of test_aug1:

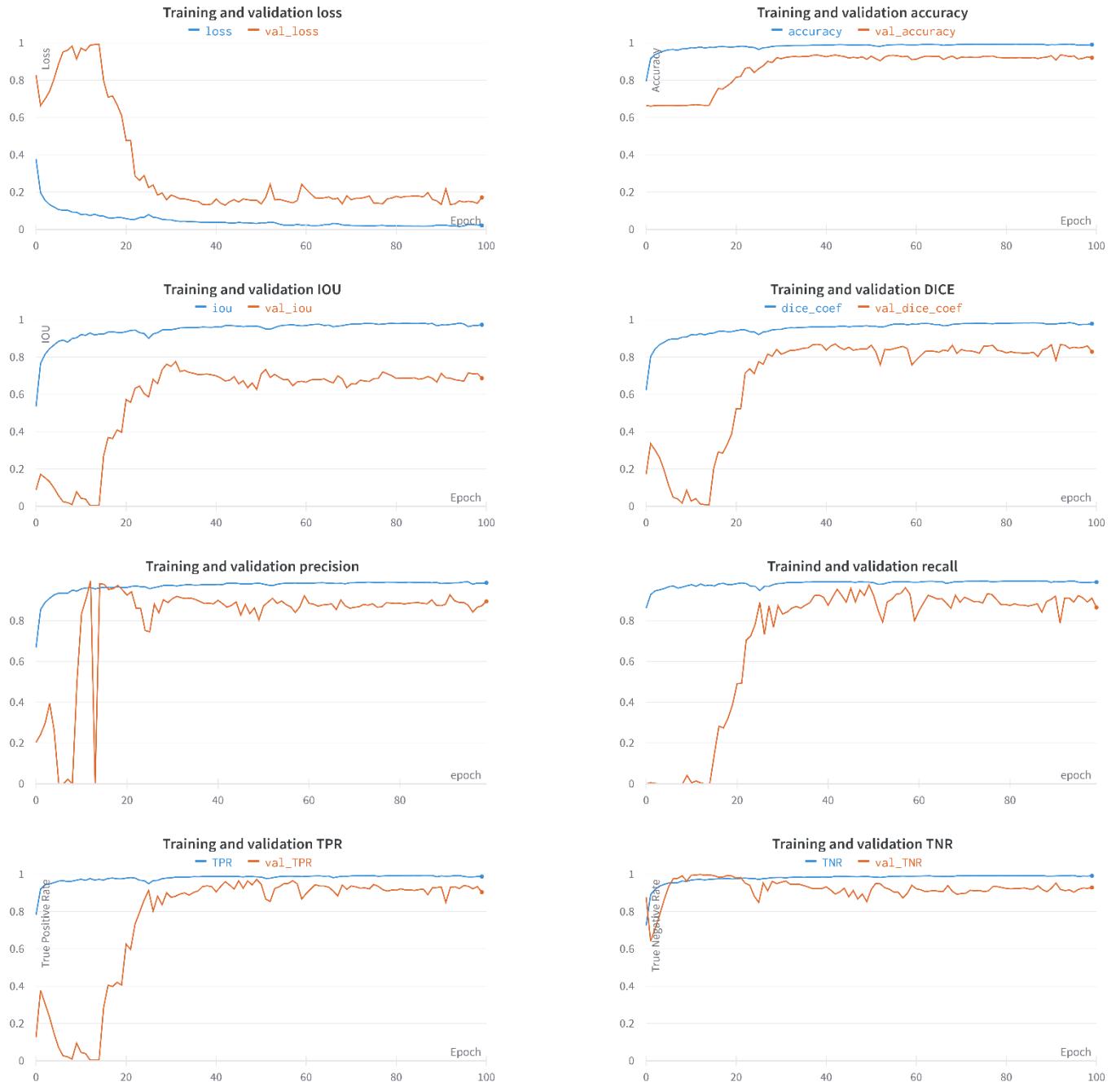


Computational costs of test_aug1:

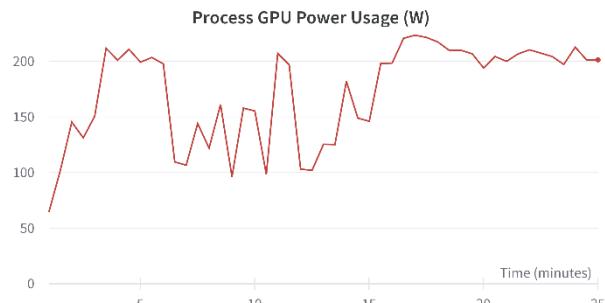


RESULTS OF AUGMENTATION TEST – augmentation function computed twice:

Evaluation metrics of test_aug2:

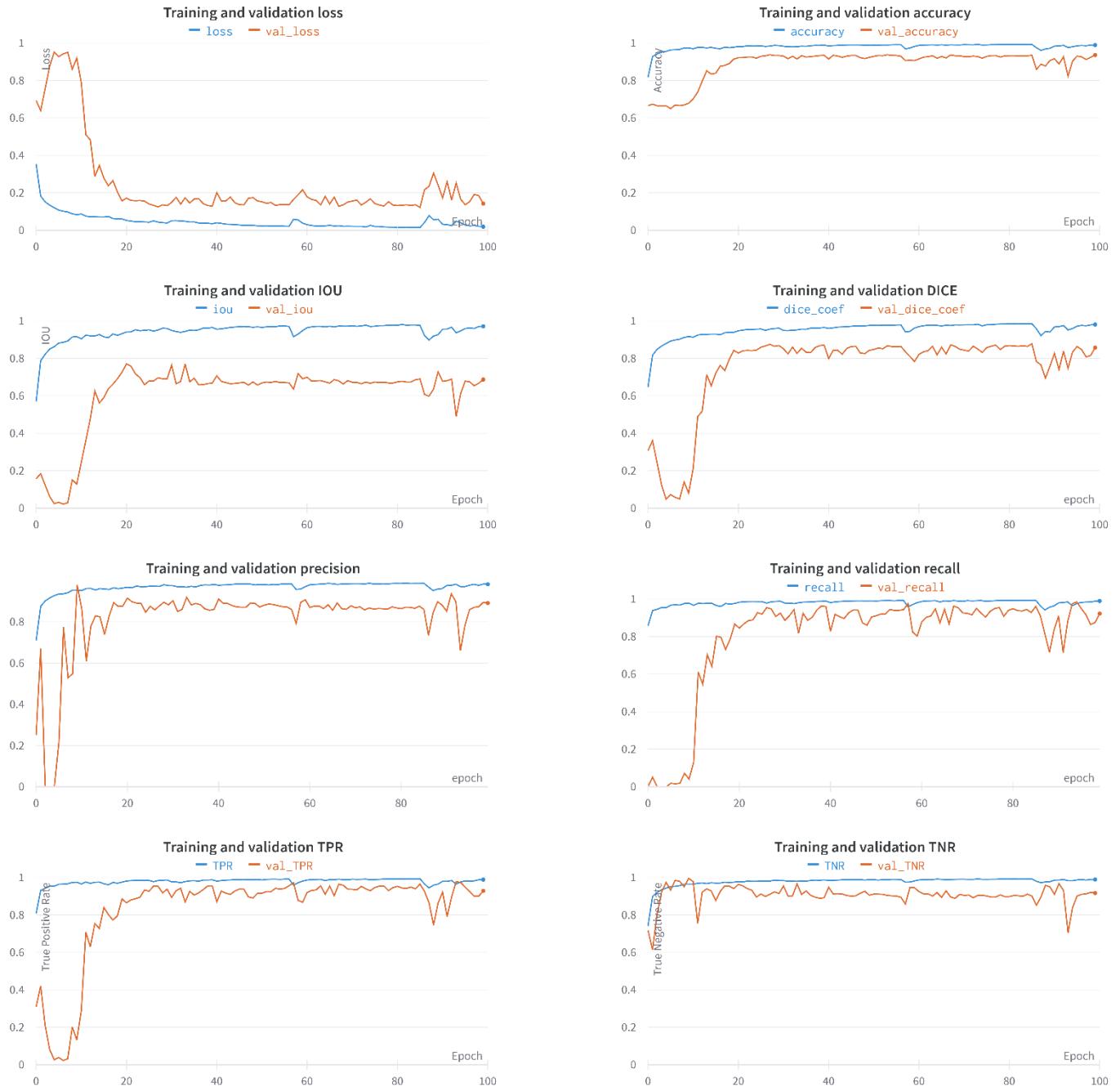


Computational costs of test_aug2:

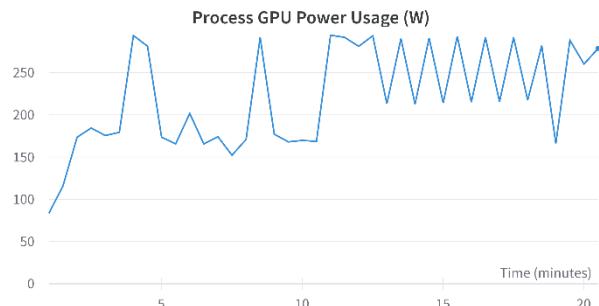


RESULTS OF AUGMENTATION TEST – augmentation function computed three times:

Evaluation metrics of test_aug3:

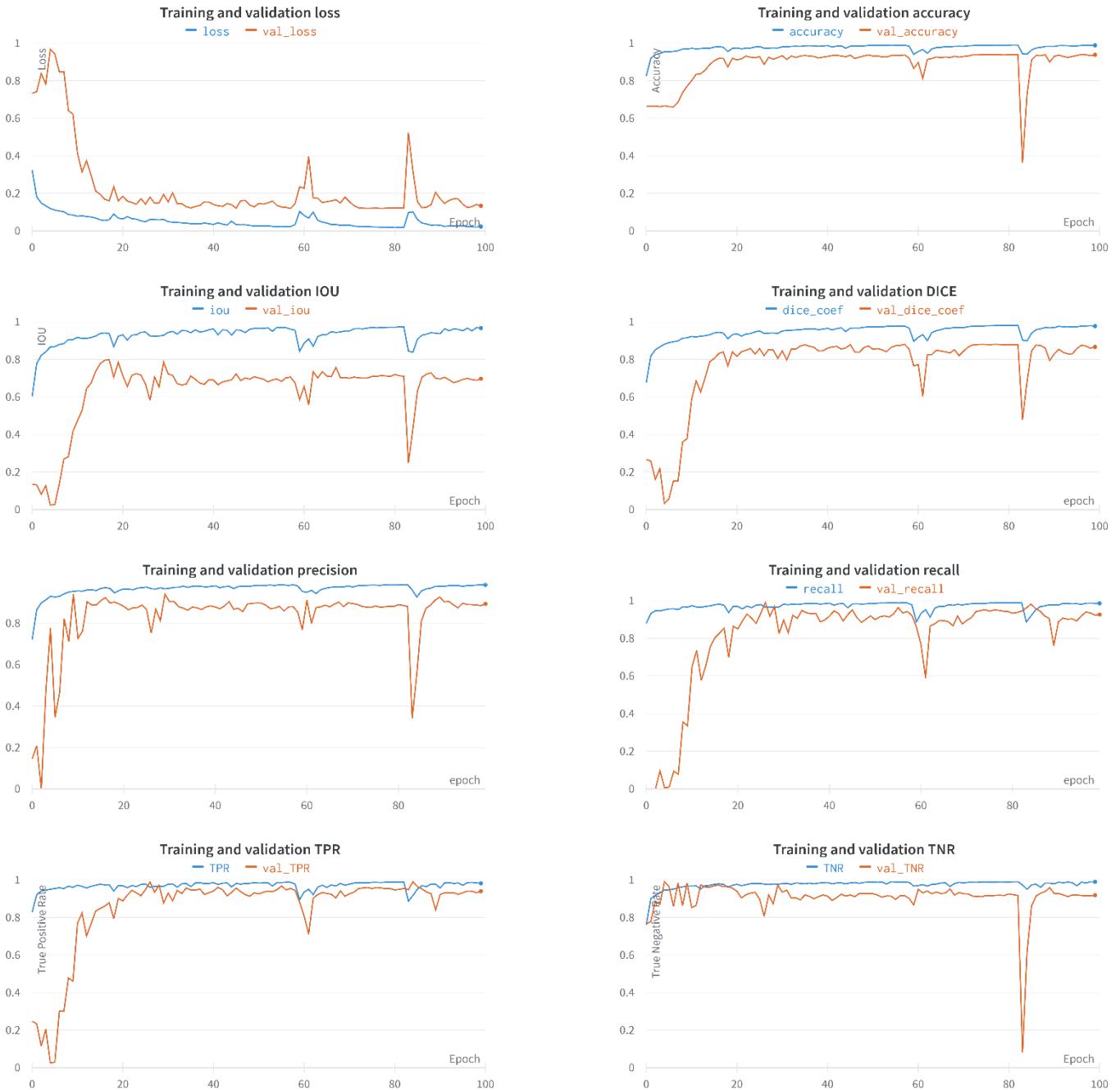


Computational costs of test_aug3:

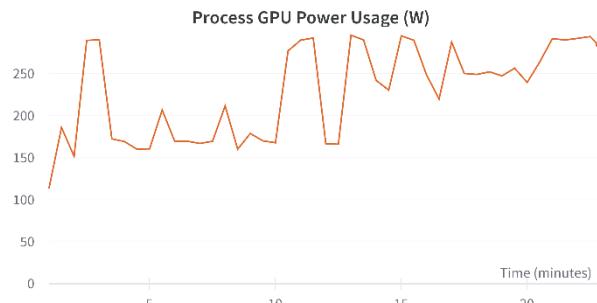


RESULTS OF AUGMENTATION TEST – augmentation function computed four times:

Evaluation metrics of test_aug4:

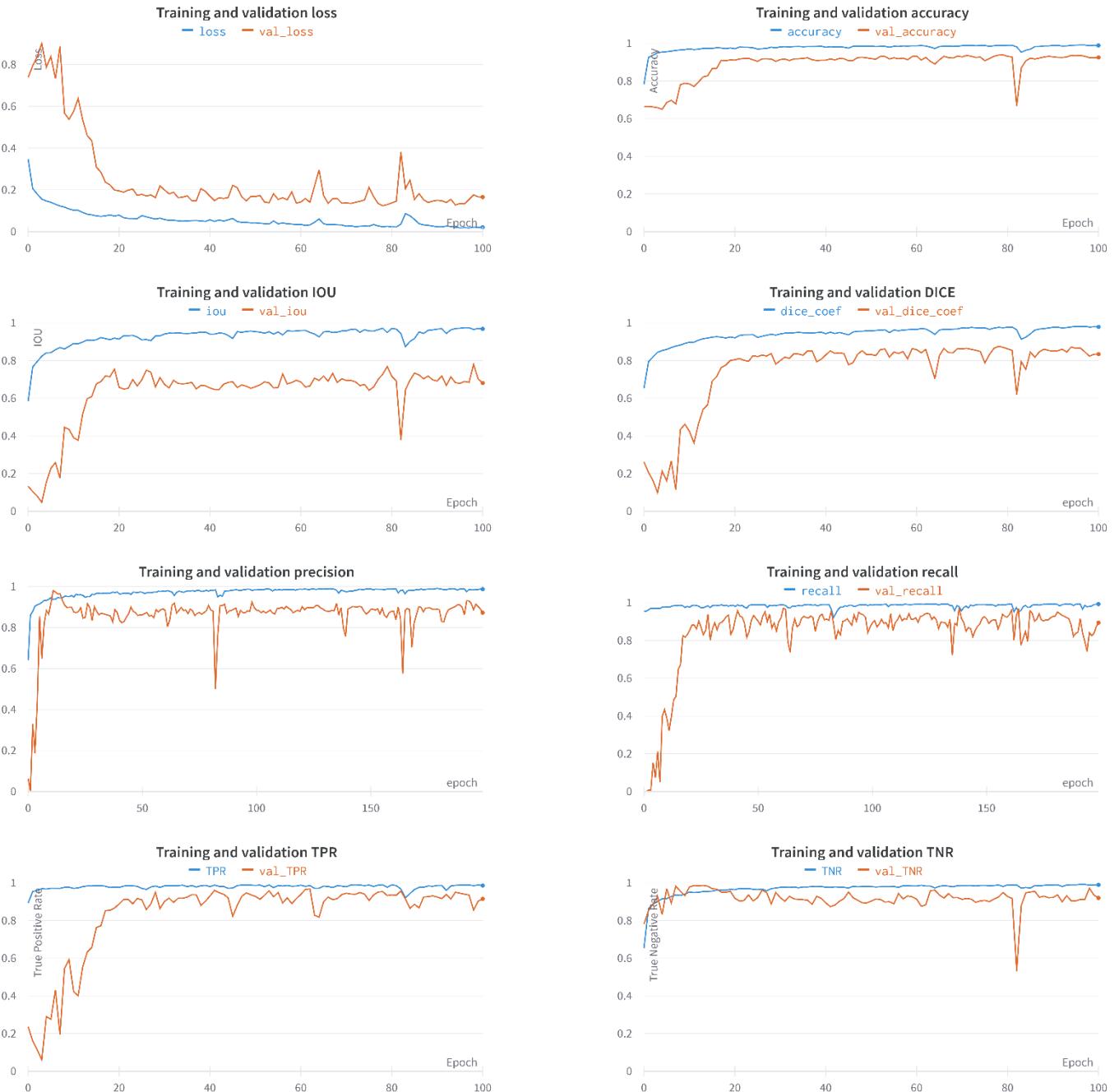


Computational costs of test_aug4:

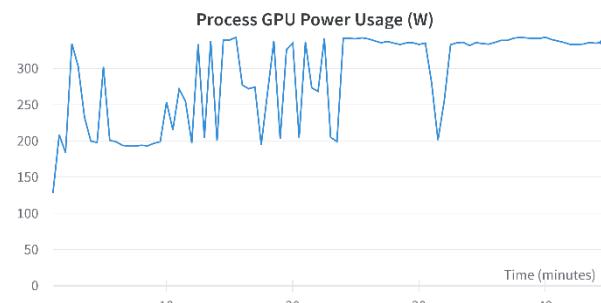


RESULTS OF DROPOUT TEST – One dropout layer of 10%:

Evaluation metrics of test_drop1:

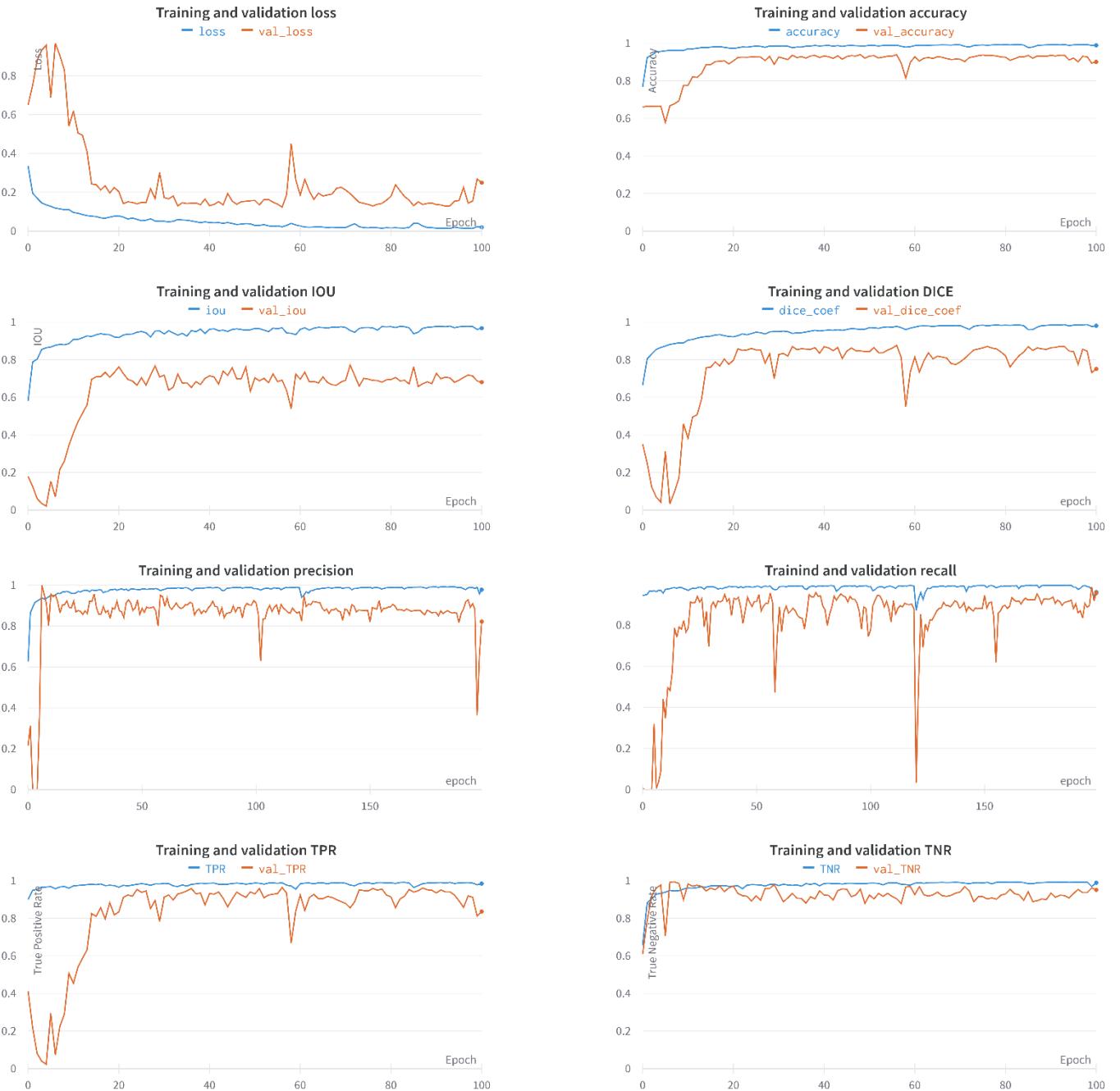


Computational costs of test_drop1:

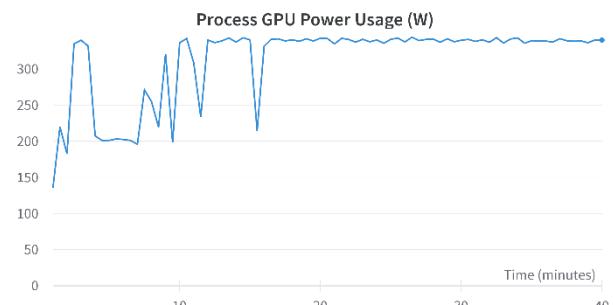


RESULTS OF DROPOUT TEST – Two dropout layers of 10%:

Evaluation metrics of test_drop2:

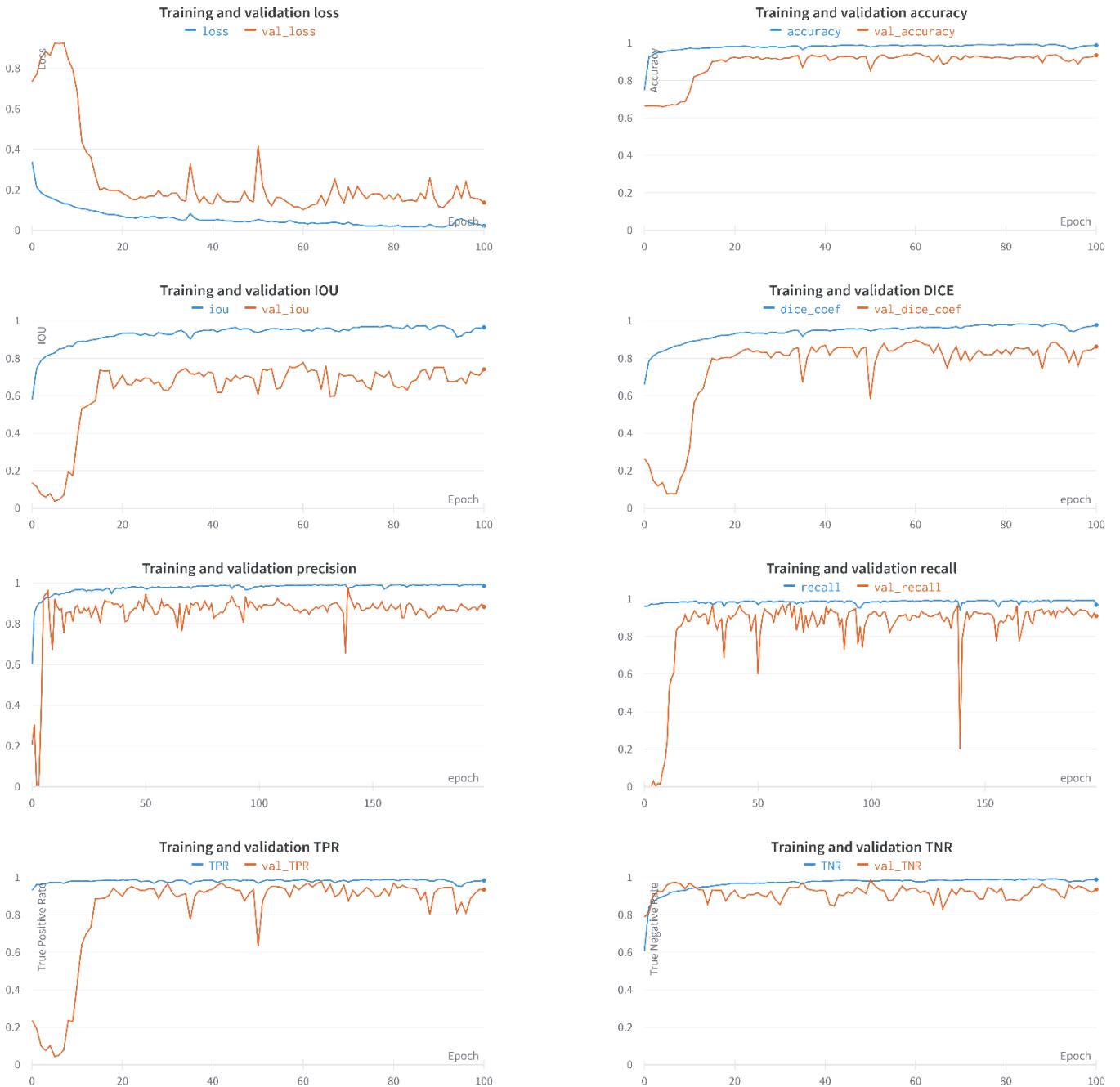


Computational costs of test_drop2:

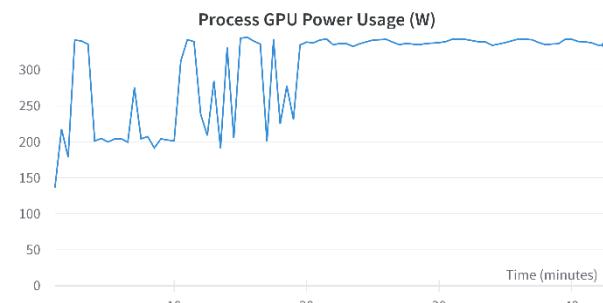


RESULTS OF DROPOUT TEST – One dropout layer of 20%:

Evaluation metrics of test_drop3:

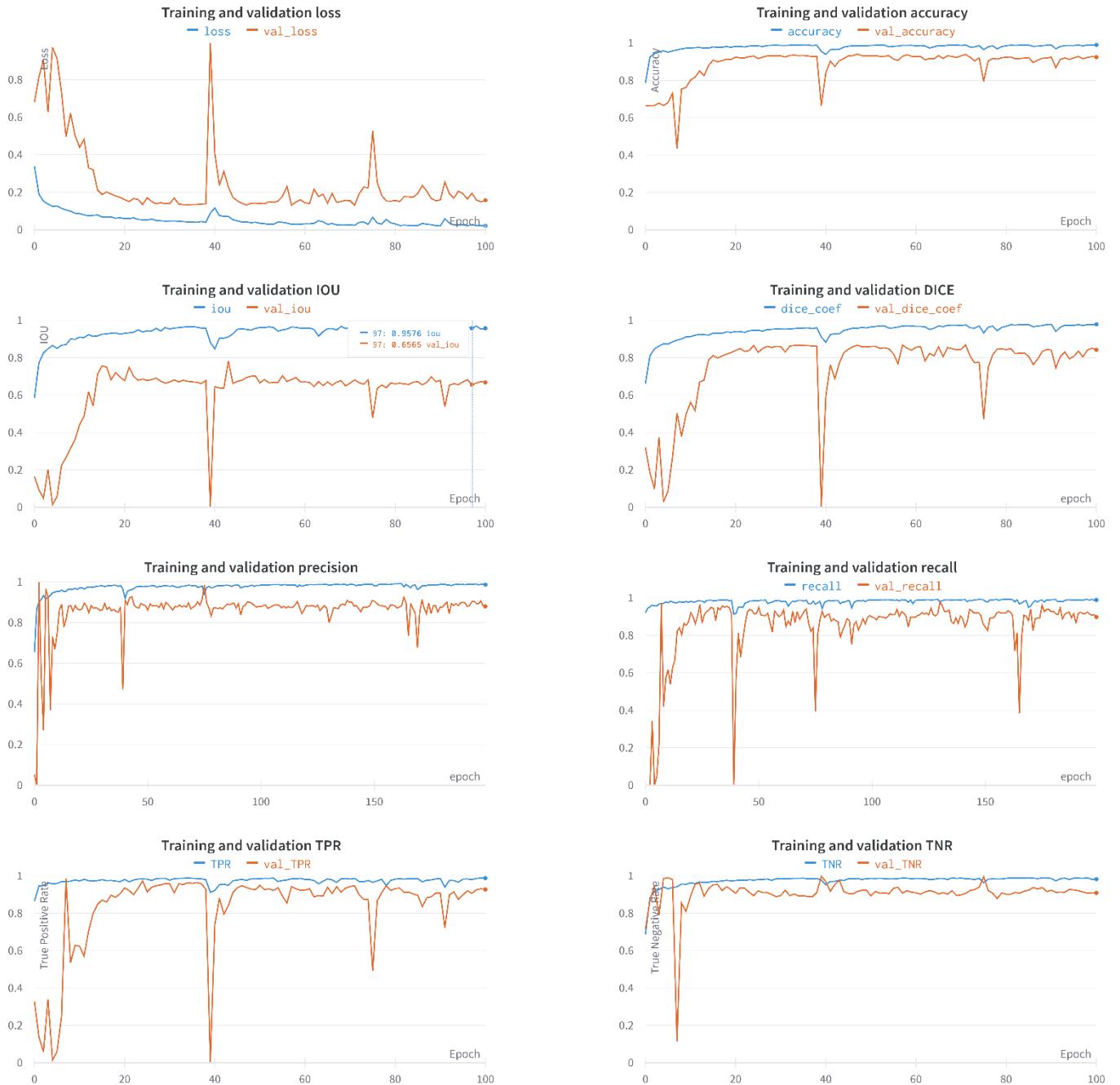


Computational costs of test_drop3:

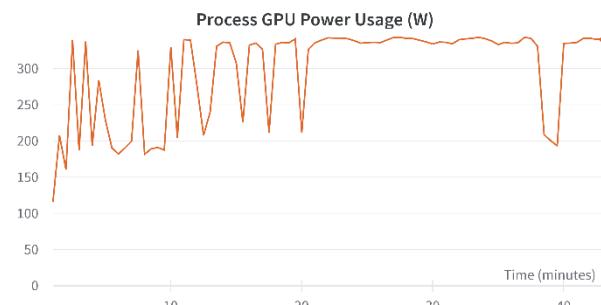


RESULTS OF DROPOUT TEST – One dropout layer of 50%:

Evaluation metrics of test_drop4:

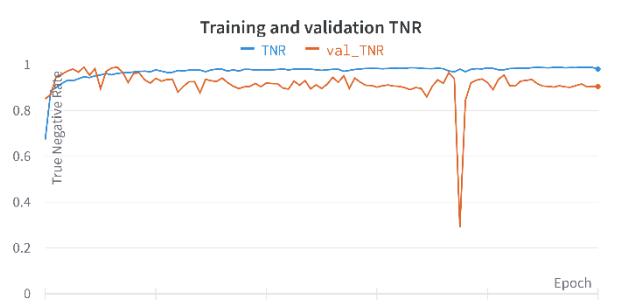
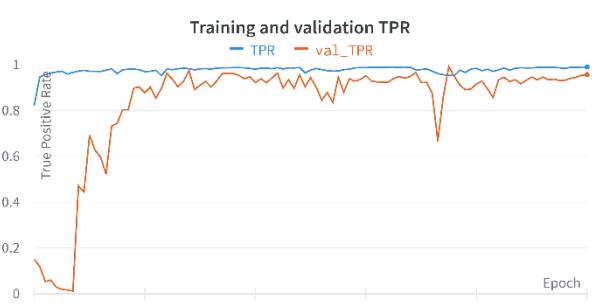
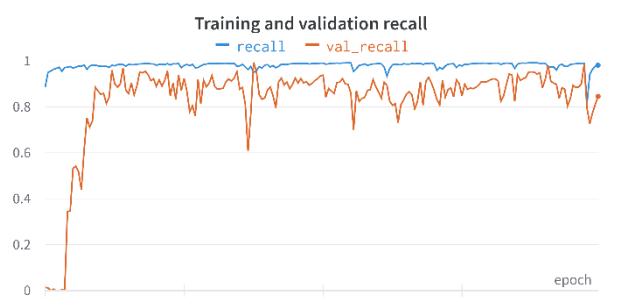
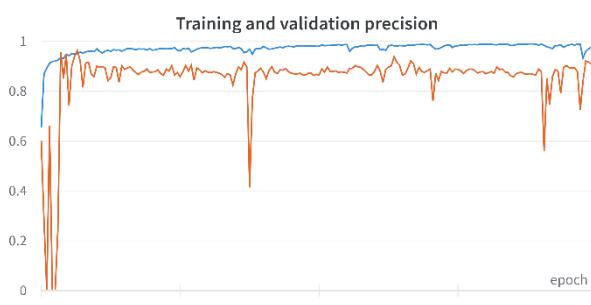
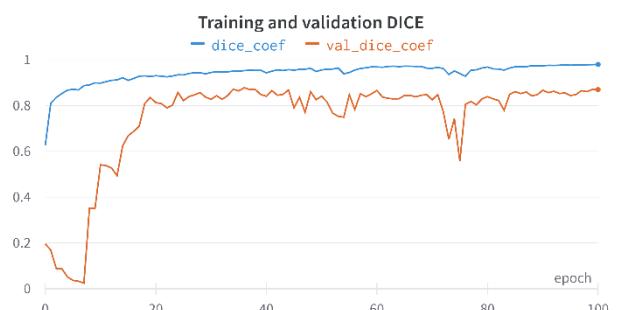
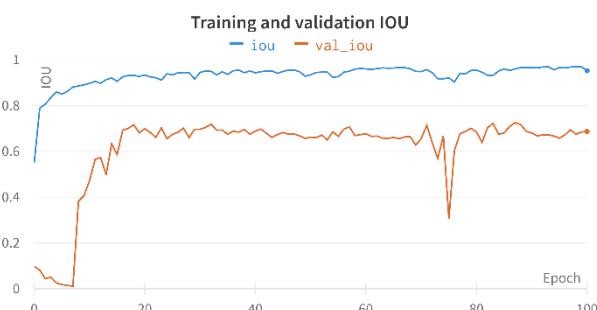
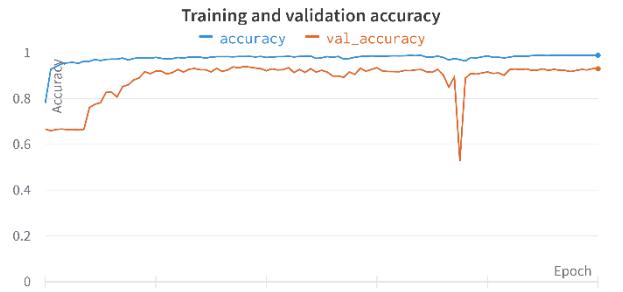
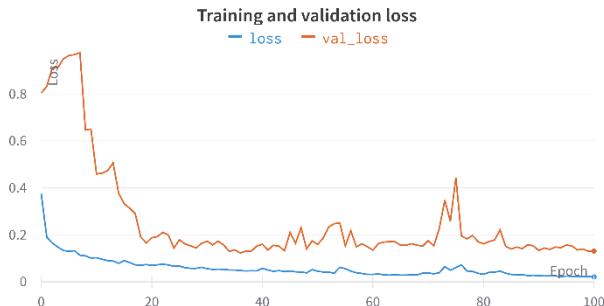


Computational costs of test_drop4:

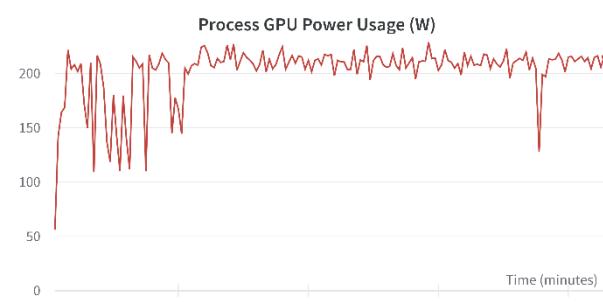


RESULTS OF DROPOUT TEST – One dropout layer of 75%:

Evaluation metrics of test_drop5:

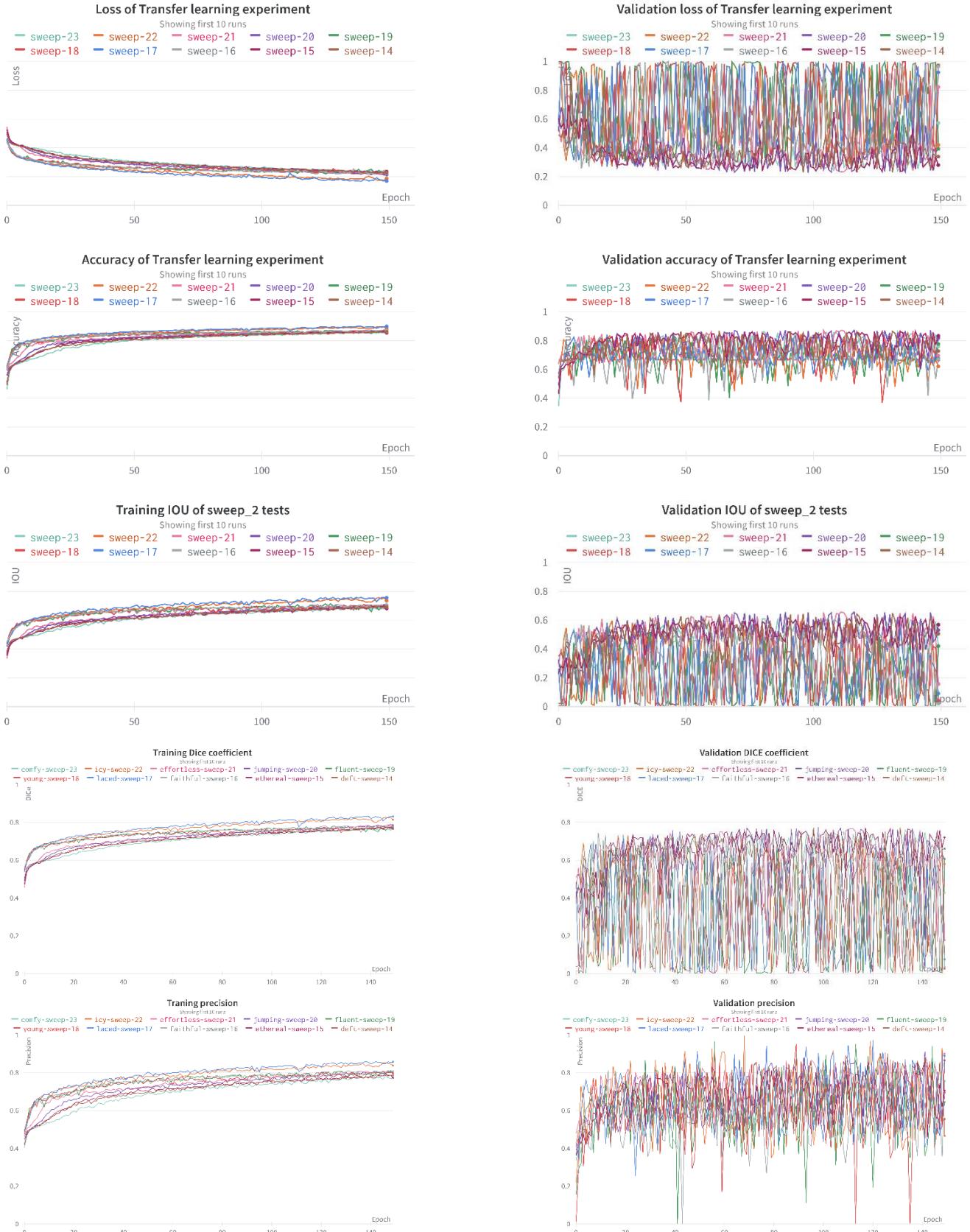


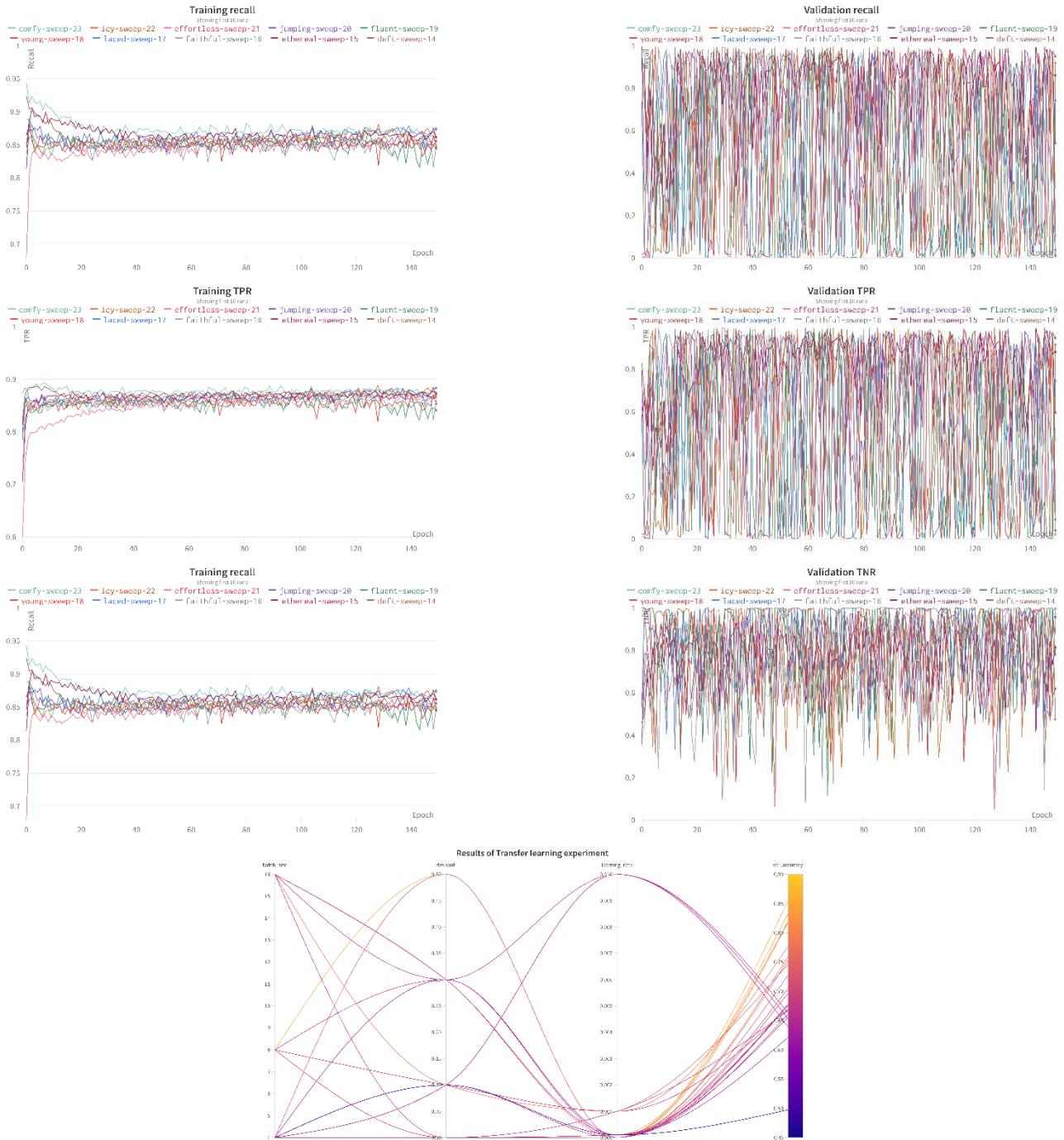
Computational costs of test_drop5:



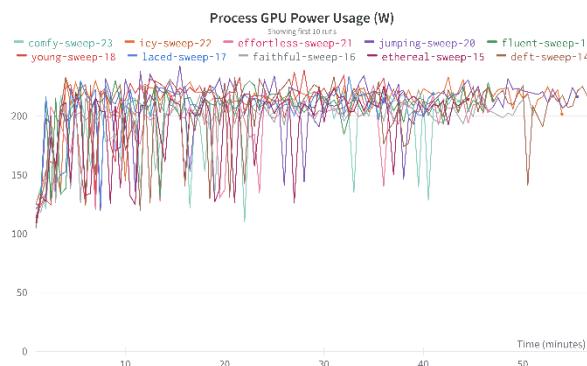
RESULTS OF HYPERPARAMETERS SEARCH TEST – Transfer learning (ResNet50):

Evaluation metrics of test_TransferLearning_ResNet50:



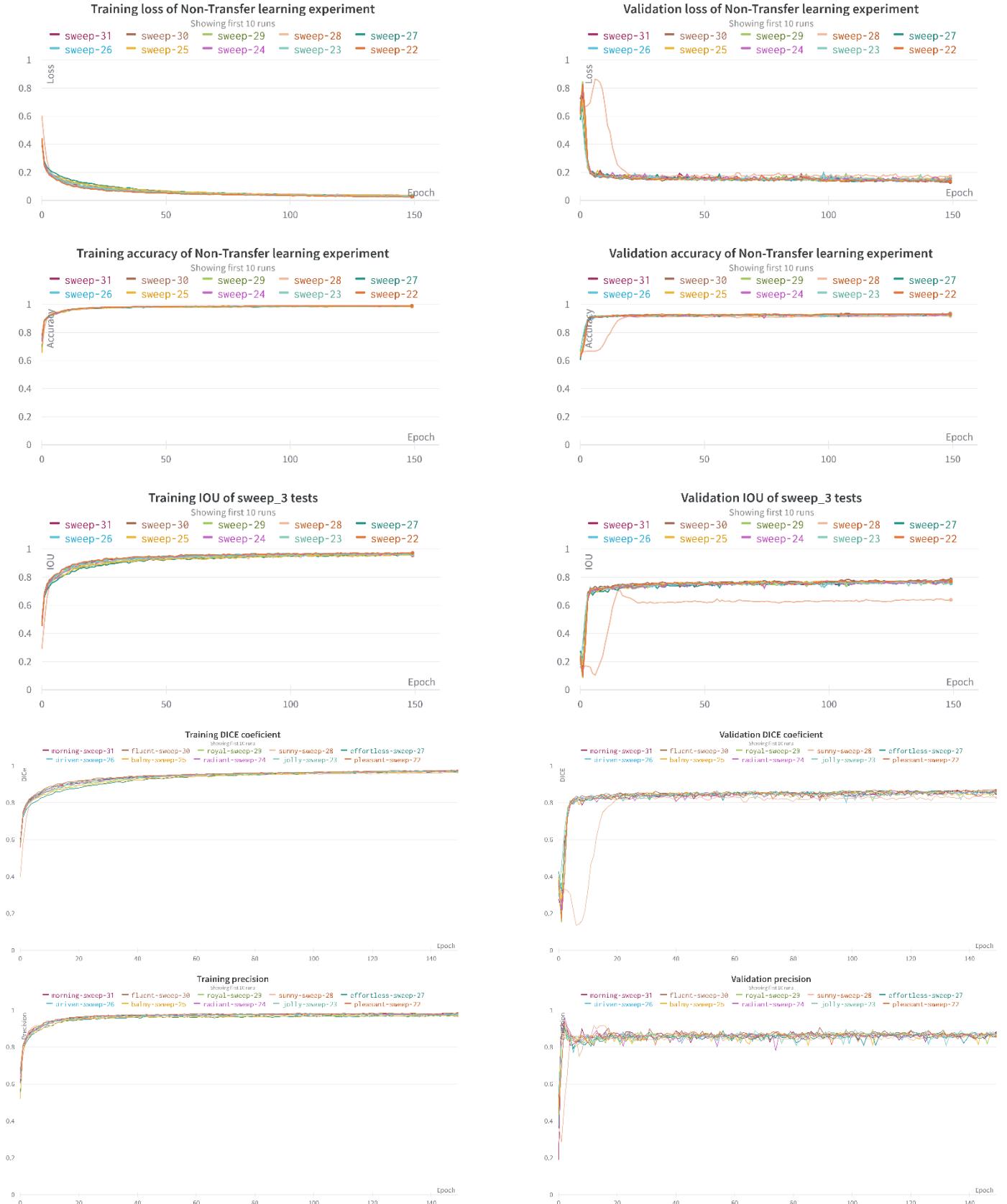


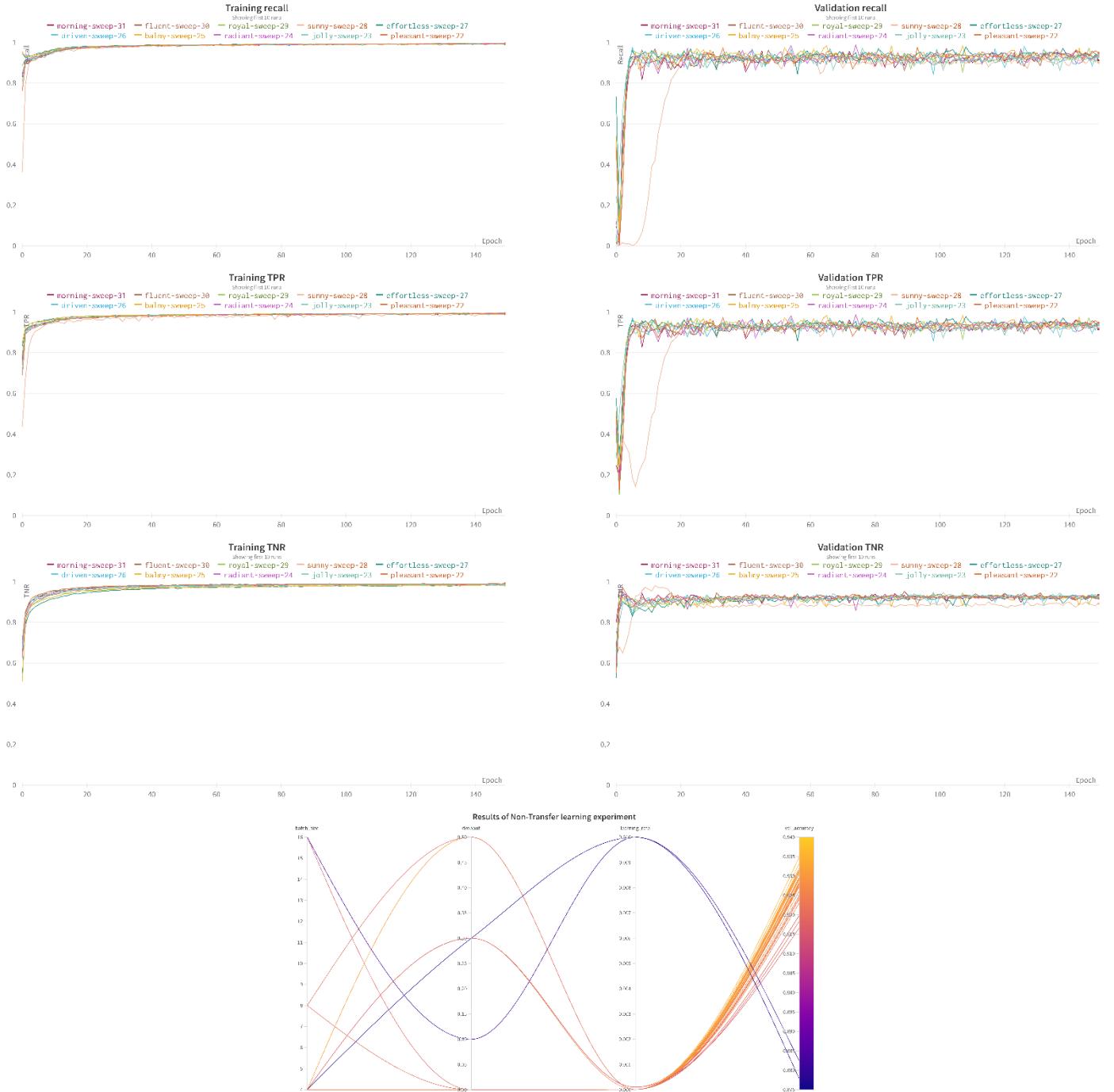
Computational costs of test_TransferLearning_ResNet50:



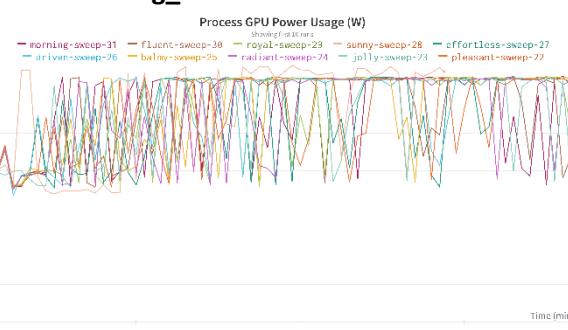
RESULTS OF HYPERPARAMETERS SEARCH TEST – Non-Transfer learning (ResNet50):

Evaluation metrics of test_Non-TransferLearning_ResNet50:



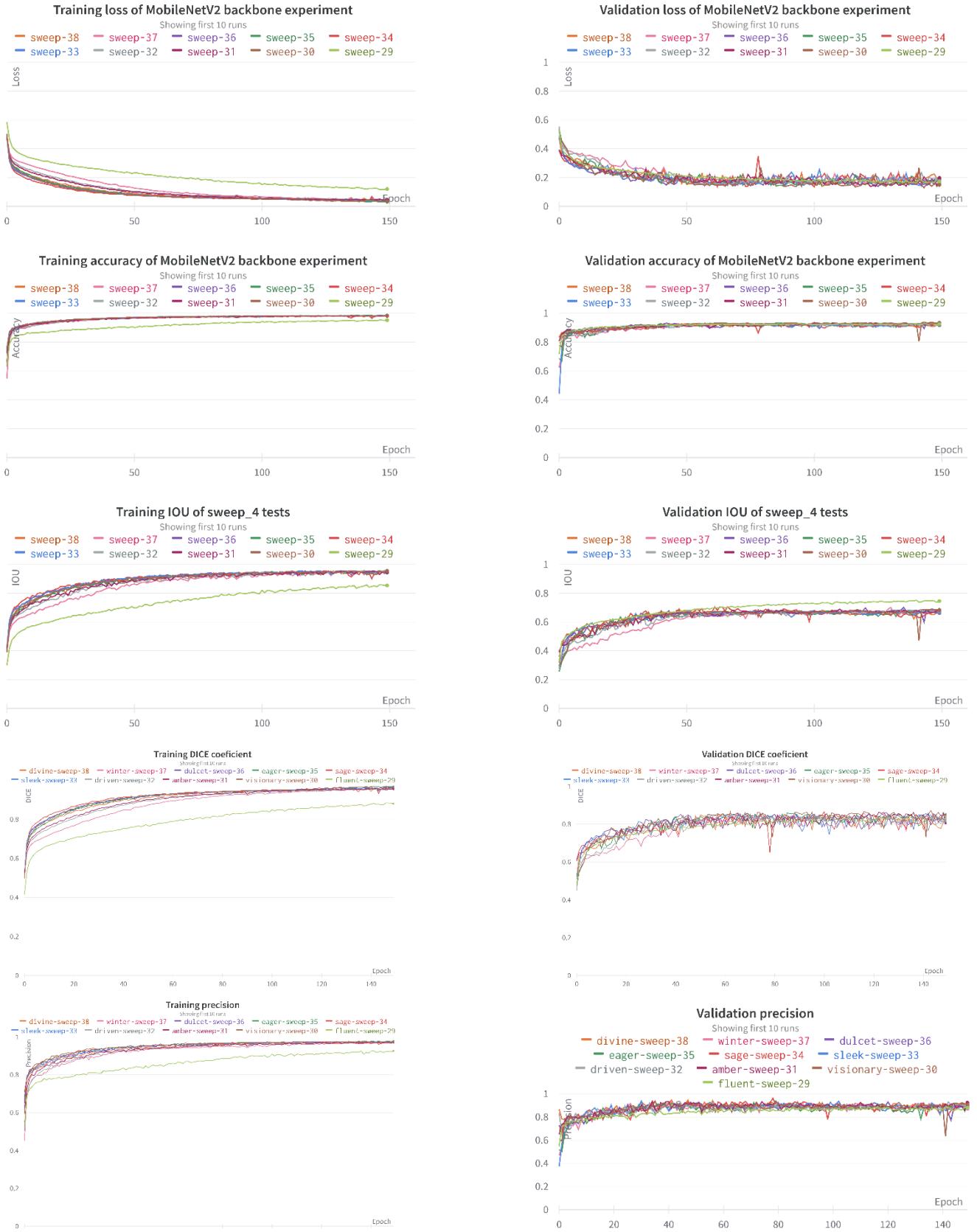


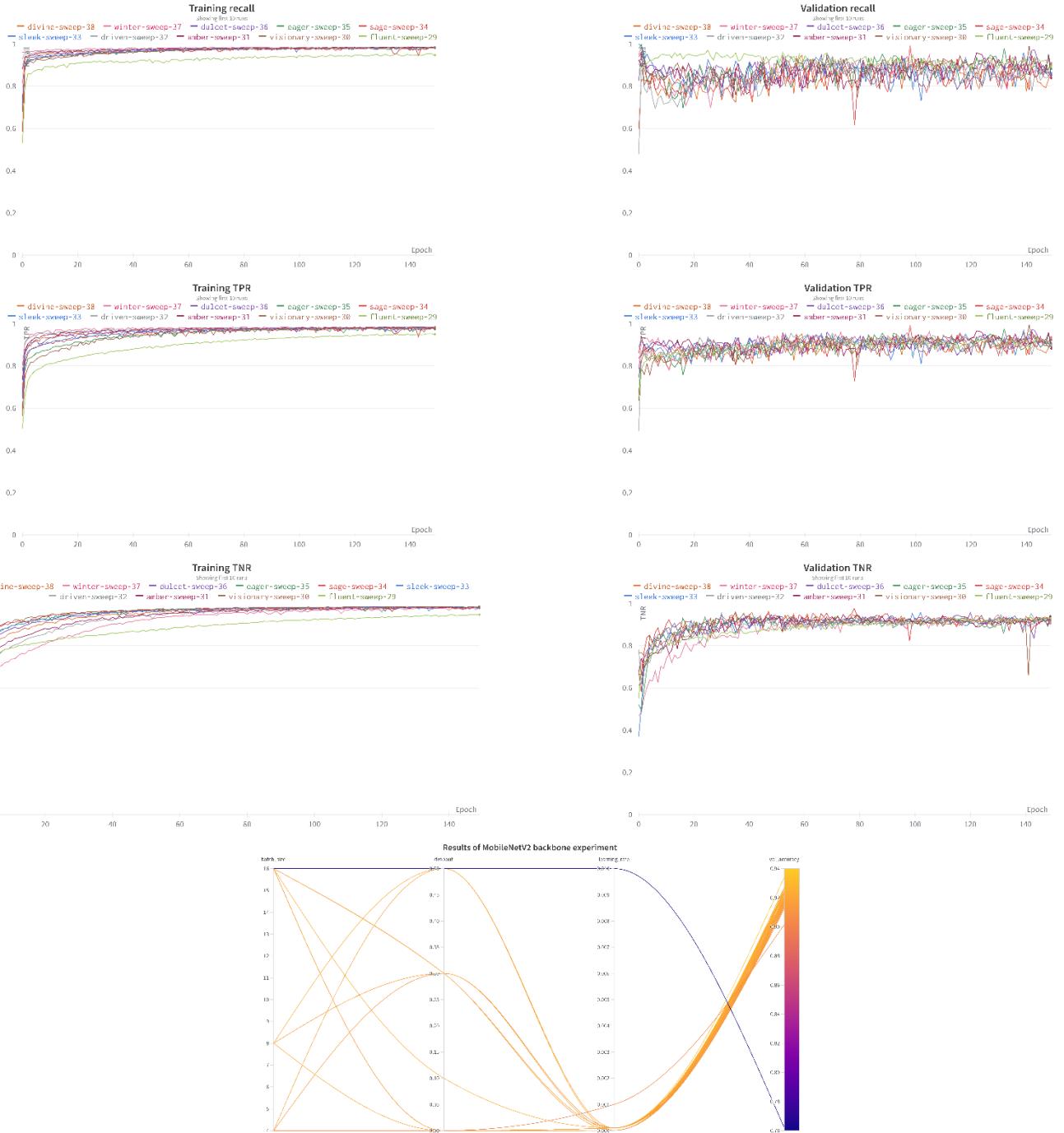
Computational costs of test_Non-TransferLearning_ResNet50:



RESULTS OF HYPERPARAMETERS SEARCH TEST – Transfer learning (MobileNetV2):

Evaluation metrics of test_TransferLearning_MobileNetV2:





Computational costs of test_TransferLearning_MobileNetV2:

