Training Results

The final performance metrics on the validation set (191 images, 191 labels) are summarized below.

1 Overall Performance

- **mAP@0.5**: 0.556

- **mAP@0.5:0.95**: 0.412

- **Precision**: 0.500

- **Recall**: 0.972

2 Class-wise Performance

Table 1: Performance Metrics by Class (Epoch 29)

Class mAP@0.5:0.95	Images	Labels	Precision	Recall	mAP@0.5
left_turn_signal 0.188	191	30	0.179	1.000	0.280
right_turn_signal 0.635	191	161	0.821	0.944	0.831
Total 0.412	191	191	0.500	0.972	0.556

3 Training and Validation Losses

Final losses at Epoch 29:

- **Training Losses**:

  - Box Loss: 0.02453
  - Object Loss: 0.00772
  - Class Loss: 0.00740

- **Validation Losses**:

  - Box Loss: 0.00556
  - Object Loss: 0.00272
  - Class Loss: 0.00526