

Perception Spec Sheet

Pilot.Auto.X2 1

2026-02-27

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1 Executive Summary

評価に用いたデータの詳細を以下に示す。

Evaluation Suites
There is no evaluation suite specified.

2 メトリクス説明

以下に各メトリクスの説明を示す。各メトリクスの値は自車両を中心とした極座標系における評価物体の位置ごとに算出される。

1. **mAP**

- 定義: Mean Average Precision
- 目的: 物体検出の性能を測る

2. **precision**

- 定義: 検出された物体のうち、正しく検出された割合
- 目的: 物体検出の適合度を測る

3. **recall**

- 定義: 実際に存在する物体のうち、正しく検出された割合
- 目的: 物体検出の再現度を測る

4. **FNR**

- 定義: 実際に存在する物体のうち、未検出物体の割合
- 目的: 物体検出の未検出度を測る

5. **max_consecutive_fn_duration**

- 定義: 実際に存在する物体のうち、連続で未検出となった時間の長さ [sec]
- 目的: 物体検出の未検出の最悪時間を測る

6. **x_error/y_error**

- 定義: 検出された物体と実際の物体の中心位置誤差
- 目的: 物体検出の位置予測精度を測る

7. **yaw_error**

- 定義: 検出された物体と実際の物体の向きの誤差
- 目的: 物体検出の向き予測精度を測る

8. **speed_error**

- 定義: 検出された物体と実際の物体の速さの誤差
- 目的: 物体検出の速度予測精度を測る

9. **minADE**

- 定義: 物体の将来位置予測と実際の将来位置の各地点での誤差の平均 (Average Displacement Error)
- 目的: 危険予測・衝突回避能力の評価
- 補足: 1 / 3 / 5 秒後までの位置誤差

10. **minFDE**

- 定義: 物体の将来の最終位置予測と実際の将来の最終位置の誤差の平均(Final Displacement Error)
- 目的: 危険予測・衝突回避能力の評価
- 補足: 1 / 3 / 5 秒後での位置誤差

3 Planningユースケース説明

以下に各Planningユースケースの説明を示す。この資料では次の定義に基づきユースケースを分類している。(参考:[PDD][評価] Planning視点でのシーン分類V1)

1. 路駐物回避

- 対象クラス: 全て
- 対象物体: 回避対象となる(した)物体
- 範囲: 条件なし
- 説明: 路上に駐車している物体を回避する能力

2. 車線変更(前方物体)

- 対象クラス: Car, Truck, Trailer, Bus, Motorcycle, Bicycle
- 対象物体: 目標車線前方に存在する物体
- 範囲: 目標車線前方50m以内
- 説明: 車線変更時に前方に存在する物体を認識する能力

3. 車線変更(後方物体)

- 対象クラス: Car, Truck, Trailer, Bus, Motorcycle, Bicycle
- 対象物体: 目標車線後方に存在する物体
- 範囲: 目標車線後方50m以内
- 説明: 車線変更時に後方に存在する物体を認識する能力

4. 駐車

- 対象クラス: 全て
- 対象物体: 条件なし
- 範囲: 駐車予定位置中心から前方15m, 後方50m, 横5m以内
- 説明: 駐車時に周囲の物体を認識する能力

5. 発進

- 対象クラス: 全て
- 対象物体: 条件なし
- 範囲: 発進位置中心からlaneletに沿って前後50m, 横5m以内(対向車加味せず)
- 説明: 発進時に周囲の物体を認識する能力

6. 障害物停止

- 対象クラス: 全て
- 対象物体: 停止原因物体(完全停止のみ)
- 範囲: 条件なし
- 説明:

7. 前方車追従

- 対象クラス: Car, Truck, Trailer, Bus, Motorcycle, Bicycle
- 対象物体: 自車両前方の先行車両(複数の場合あり)
- 範囲: 自車両前方30m以内
- 説明: 前方車追従時に先行車両を認識する能力

8. 他車カットイン

- 対象クラス: Car, Truck, Trailer, Bus, Motorcycle, Bicycle
- 対象物体: カットインした物体
- 範囲: 自車両前方30m以内
- 説明: カットインする車両を認識する能力

9. 横断歩道

- 対象クラス: Pedestrian
- 対象物体: 条件なし
- 範囲: 横断歩道内及び横断歩道外周より半径5m以内
- 説明: 交差点通過時に周囲の物体を認識する能力

10. 交差点右折(信号が付いている交差点のみ)

- 対象クラス: Car, Truck, Trailer, Bus, Motorcycle, Bicycle
- 対象物体: 条件なし
- 範囲: 右折時, 対向車線となるエリアとその奥全て
- 説明: 交差点右折時に周囲の物体を認識する能力

11. 交差点左折(信号が付いている交差点のみ)

- 対象クラス: Car, Truck, Trailer, Bus, Motorcycle, Bicycle
- 対象物体: 条件なし
- 範囲: 交差点エリア全てと対向車線の奥50m以内
- 説明: 交差点左折時に周囲の物体を認識する能力

12. 交差点直進(信号が付いている交差点のみ)

- 対象クラス: Car, Truck, Trailer, Bus, Motorcycle, Bicycle
- 対象物体: 交差点奥で詰まっている車線の最後尾の物体のみ
- 範囲: 条件なし
- 説明: 渋滞を検知する能力

13. 飛び出し検知

- 対象クラス: Pedestrian
- 対象物体: 条件なし
- 範囲: 車両優先な状態で, laneletに対し0.1m付近の物体で自車両50m以内
- 説明: 飛び出しを検知する能力

14. AEB

- 対象クラス: 全て

- 対象物体: 急停止した(しそう)なシーンの原因物体
- 範囲: 条件なし
- 説明: AEBが発動する際の原因物体を認識する能力

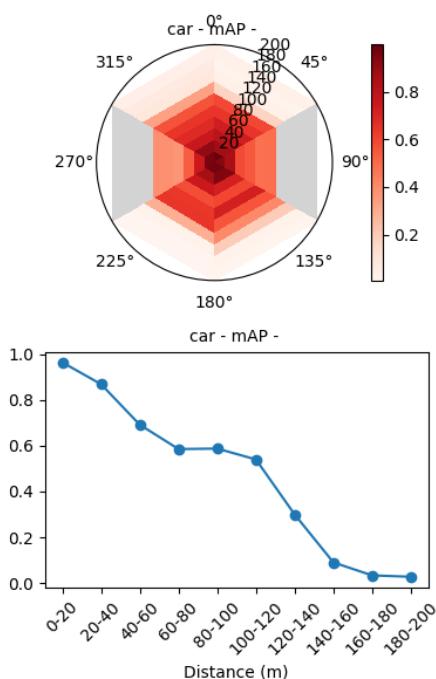
4 [Summary]: 全データセット評価 @<=60[m]

	car	truc k	bus	bicycl e	pedestri an	motorcyc le
mAP	0.842	0.928	0.87 3	0.496	0.589	NaN
precision	0.988	0.938	0.99 0	0.932	0.952	NaN
recall	0.842	0.858	0.90 6	0.411	0.609	NaN
FNR	0.158	0.142	0.09 4	0.589	0.391	NaN
max_consecutive_fn_durat ion	6.356	2.869	1.47 3	4.288	6.009	NaN
x_error	0.514	1.222	0.46 2	0.416	0.274	NaN
y_error	0.426	0.888	0.44 8	0.467	0.256	NaN
yaw_error	0.095	0.101	0.06 4	0.631	0.947	NaN
speed_error	453135520.83 1	1.480	1.14 1	1.465	1.151	NaN

5 全データセット評価

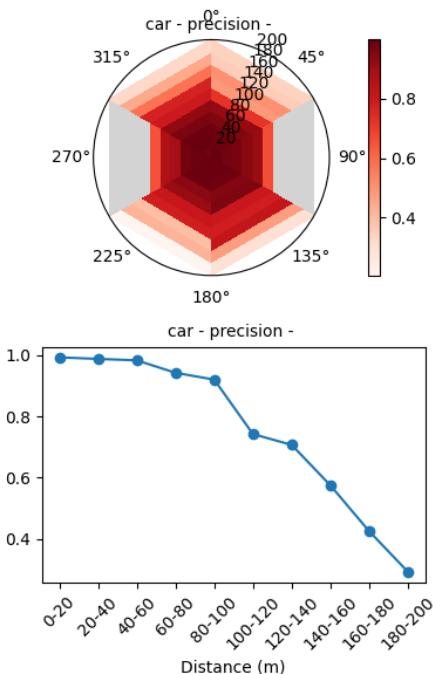
5.1 car

5.1.1 car - mAP -



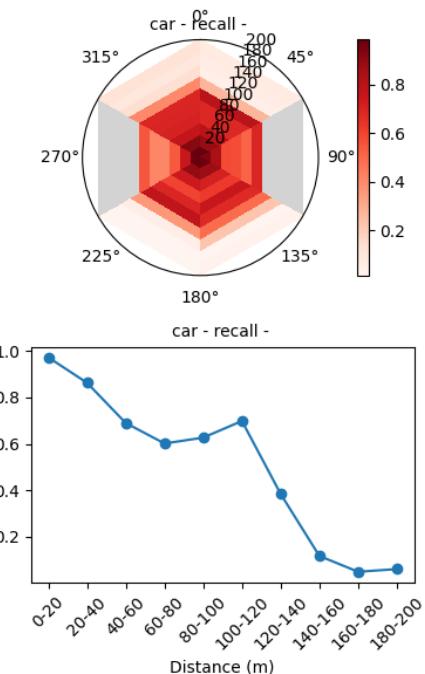
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.997	0.929	0.974	0.969	0.957	0.962	0.965
20-40	0.880	0.865	0.943	0.873	0.745	0.909	0.869
40-60	0.809	0.583	0.723	0.746	0.534	0.757	0.692
60-80	0.732	0.549	0.596	0.580	0.370	0.686	0.586
80-100	0.648	0.486	0.724	0.638	0.384	0.646	0.588
100-120	0.594	0.490	0.557	0.650	0.385	0.564	0.540
120-140	0.171	-	0.404	0.290	-	0.333	0.299
140-160	0.039	-	0.198	0.029	-	0.094	0.090
160-180	0.022	-	0.027	0.014	-	0.070	0.033
180-200	0.038	-	0.019	0.007	-	0.045	0.027

5.1.2 car - precision -



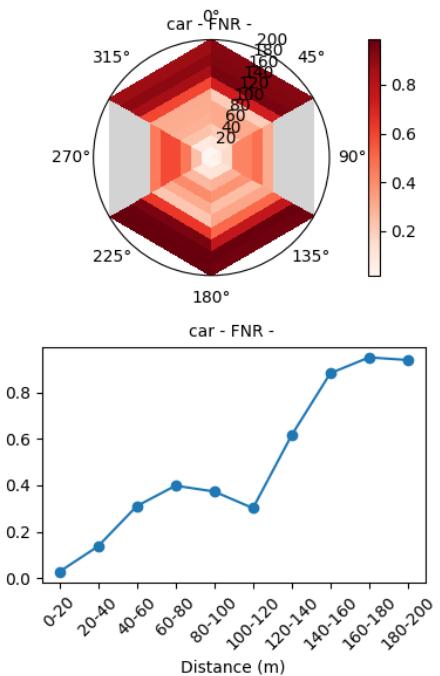
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.997	0.994	0.992	0.998	0.994	0.982	0.993
20-40	0.987	0.975	0.992	0.991	0.986	0.997	0.988
40-60	0.983	0.970	0.984	0.991	0.980	0.992	0.983
60-80	0.956	0.942	0.953	0.942	0.896	0.966	0.943
80-100	0.922	0.920	0.959	0.917	0.873	0.931	0.920
100-120	0.723	0.667	0.804	0.810	0.656	0.795	0.742
120-140	0.484	-	0.786	0.785	-	0.773	0.707
140-160	0.508	-	0.819	0.394	-	0.578	0.575
160-180	0.354	-	0.475	0.422	-	0.449	0.425
180-200	0.342	-	0.300	0.205	-	0.323	0.292

5.1.3 car - recall -



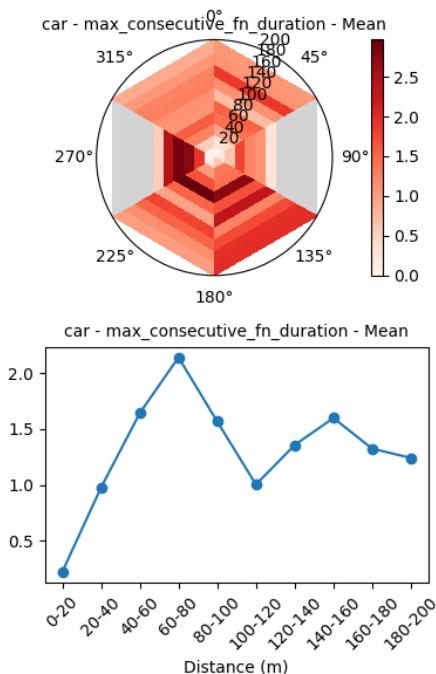
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.982	0.940	0.974	0.981	0.974	0.983	0.972
20-40	0.885	0.842	0.880	0.894	0.755	0.920	0.863
40-60	0.800	0.581	0.713	0.735	0.543	0.767	0.690
60-80	0.685	0.577	0.628	0.599	0.414	0.709	0.602
80-100	0.687	0.517	0.751	0.694	0.416	0.697	0.627
100-120	0.801	0.692	0.677	0.779	0.550	0.693	0.699
120-140	0.272	-	0.493	0.365	-	0.407	0.384
140-160	0.052	-	0.226	0.053	-	0.139	0.118
160-180	0.068	-	0.020	0.021	-	0.090	0.050
180-200	0.072	-	0.034	0.015	-	0.124	0.061

5.1.4 car - FNR -



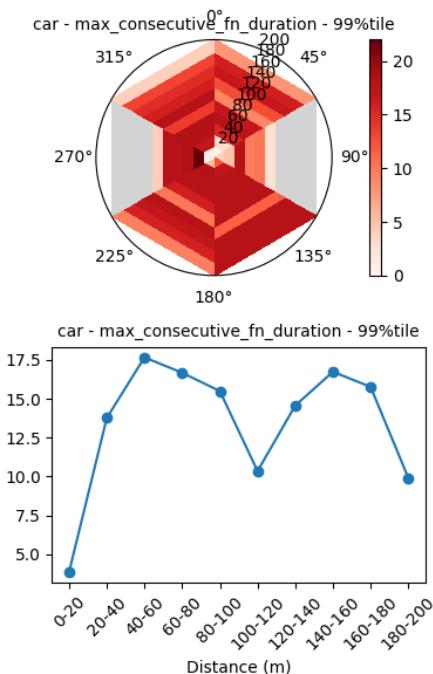
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.018	0.060	0.026	0.019	0.026	0.017	0.028
20-40	0.115	0.158	0.120	0.106	0.245	0.080	0.137
40-60	0.200	0.419	0.287	0.265	0.457	0.233	0.310
60-80	0.315	0.423	0.372	0.401	0.586	0.291	0.398
80-100	0.313	0.483	0.249	0.306	0.584	0.303	0.373
100-120	0.199	0.308	0.323	0.221	0.450	0.307	0.301
120-140	0.728	-	0.507	0.635	-	0.593	0.616
140-160	0.948	-	0.774	0.947	-	0.861	0.882
160-180	0.932	-	0.980	0.979	-	0.910	0.950
180-200	0.928	-	0.966	0.985	-	0.876	0.939

5.1.5 car - max_consecutive_fn_duration - Mean



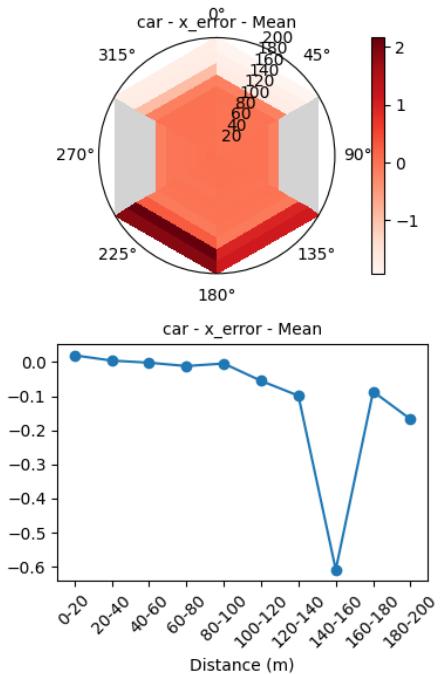
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.000	0.269	0.640	0.303	0.077	0.050	0.223
20-40	0.364	0.641	1.349	1.027	1.922	0.556	0.976
40-60	0.926	1.786	1.415	1.690	2.769	1.262	1.641
60-80	1.427	1.246	2.746	2.966	2.877	1.579	2.140
80-100	1.544	1.109	1.689	1.532	2.445	1.081	1.567
100-120	0.741	0.292	2.332	0.970	0.571	1.115	1.004
120-140	1.128	-	1.246	1.774	-	1.278	1.357
140-160	1.881	-	1.726	1.537	-	1.248	1.598
160-180	1.097	-	1.975	1.155	-	1.071	1.324
180-200	1.072	-	1.994	1.008	-	0.889	1.241

5.1.6 car - max_consecutive_fn_duration - 99%tile



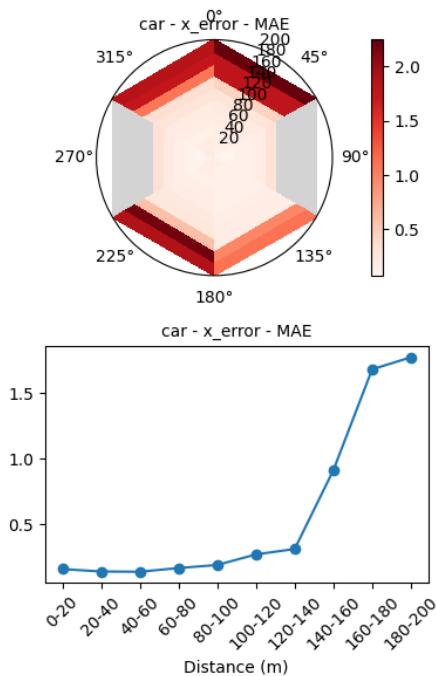
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.000	3.761	12.160	5.470	1.000	0.810	3.867
20-40	3.000	5.012	17.349	18.198	21.990	17.050	13.766
40-60	15.350	18.090	17.990	18.000	18.402	18.136	17.661
60-80	17.970	9.694	18.090	18.090	18.000	18.182	16.671
80-100	17.000	10.140	17.990	15.998	17.990	13.829	15.491
100-120	9.100	2.772	18.090	10.086	4.060	17.968	10.346
120-140	12.728	-	11.560	17.970	-	15.990	14.562
140-160	16.800	-	17.990	17.212	-	14.938	16.735
160-180	16.019	-	17.978	15.810	-	13.241	15.762
180-200	8.070	-	18.004	9.560	-	4.000	9.909

5.1.7 car - x_error - Mean



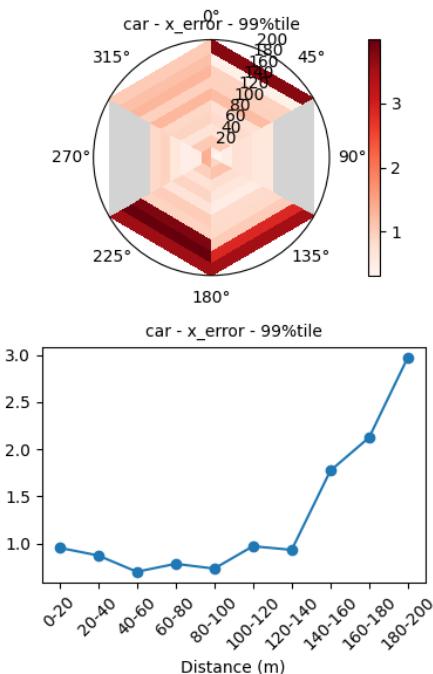
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-0.037	-0.003	0.040	0.040	0.045	0.033	0.020
20-40	-0.015	0.008	0.016	0.019	-0.007	0.006	0.004
40-60	-0.021	0.006	0.012	-0.002	-0.017	0.012	-0.002
60-80	-0.021	-0.008	-0.006	-0.024	-0.031	0.019	-0.012
80-100	-0.015	0.007	-0.018	0.006	-0.034	0.030	-0.004
100-120	-0.005	-0.166	-0.003	-0.019	-0.156	0.019	-0.055
120-140	-0.168	<NA>	-0.012	-0.072	<NA>	-0.143	-0.099
140-160	-1.714	<NA>	-0.080	0.286	<NA>	-0.928	-0.609
160-180	-1.769	<NA>	0.963	2.162	<NA>	-1.702	-0.087
180-200	-1.922	<NA>	1.096	1.892	<NA>	-1.734	-0.167

5.1.8 car - x_error - MAE



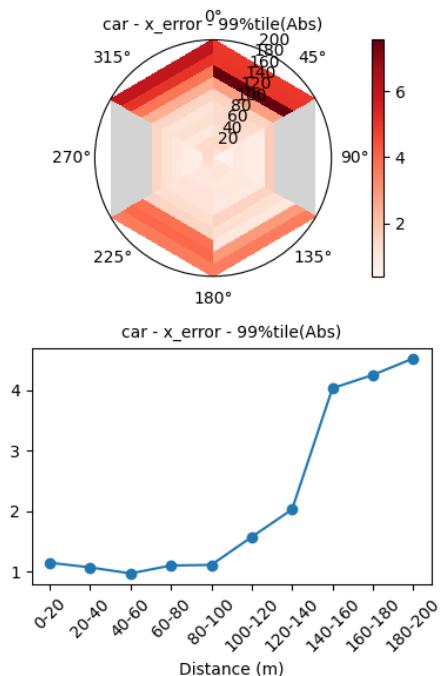
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.128	0.074	0.163	0.207	0.167	0.215	0.159
20-40	0.169	0.093	0.126	0.164	0.104	0.187	0.140
40-60	0.163	0.133	0.131	0.142	0.112	0.150	0.138
60-80	0.203	0.142	0.132	0.173	0.162	0.188	0.167
80-100	0.226	0.182	0.129	0.184	0.215	0.204	0.190
100-120	0.278	0.328	0.172	0.227	0.336	0.282	0.271
120-140	0.445	<NA>	0.188	0.265	<NA>	0.349	0.312
140-160	1.794	<NA>	0.187	0.591	<NA>	1.082	0.914
160-180	1.803	<NA>	0.963	2.196	<NA>	1.770	1.683
180-200	2.246	<NA>	1.096	1.892	<NA>	1.864	1.774

5.1.9 car - x_error - 99%tile



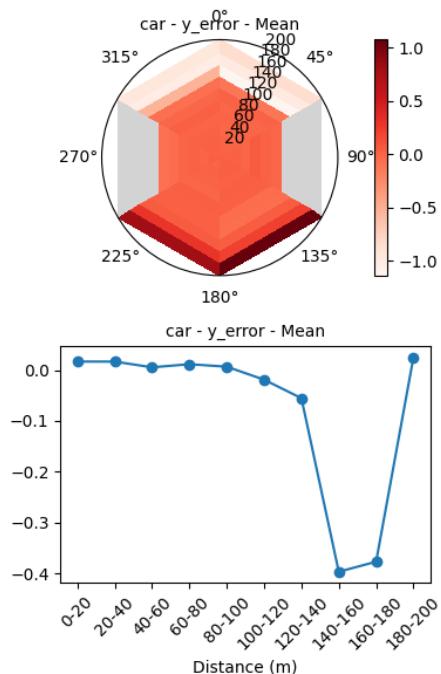
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.474	0.316	0.892	1.309	1.380	1.354	0.954
20-40	1.041	0.497	1.150	0.982	0.516	1.051	0.873
40-60	0.713	0.753	0.817	0.745	0.470	0.699	0.699
60-80	0.825	0.745	0.655	0.918	0.636	0.924	0.784
80-100	0.759	0.609	0.502	0.690	0.953	0.886	0.733
100-120	1.210	0.633	0.828	1.013	0.862	1.279	0.971
120-140	0.965	<NA>	0.855	0.943	<NA>	0.964	0.932
140-160	0.951	<NA>	1.023	3.819	<NA>	1.300	1.773
160-180	0.442	<NA>	2.884	3.993	<NA>	1.183	2.126
180-200	3.750	<NA>	3.546	3.573	<NA>	1.035	2.976

5.1.10 car - x_error - 99%tile(Abs)



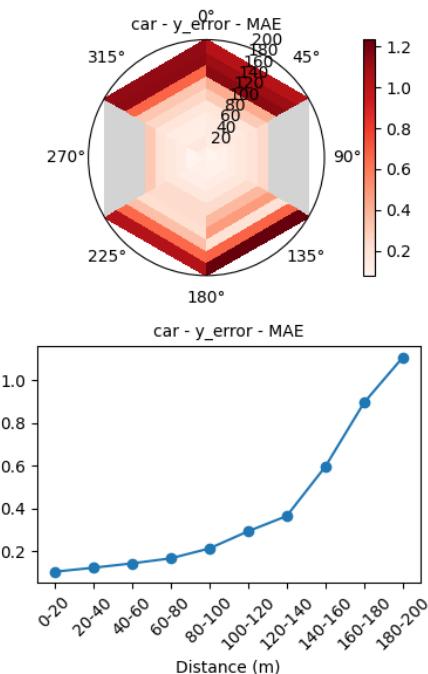
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.328	0.395	0.937	1.309	1.409	1.492	1.145
20-40	1.466	0.606	1.155	1.050	0.727	1.402	1.068
40-60	1.250	0.977	0.907	0.929	0.787	0.960	0.968
60-80	1.389	0.778	1.002	1.137	0.995	1.293	1.099
80-100	1.412	0.782	0.926	1.185	1.224	1.125	1.109
100-120	1.579	1.781	1.601	1.371	1.533	1.558	1.570
120-140	2.808	<NA>	1.296	1.560	<NA>	2.438	2.026
140-160	7.550	<NA>	1.030	3.819	<NA>	3.713	4.028
160-180	5.040	<NA>	2.884	3.993	<NA>	5.071	4.247
180-200	4.973	<NA>	3.546	3.573	<NA>	5.988	4.520

5.1.11 car - y_error - Mean



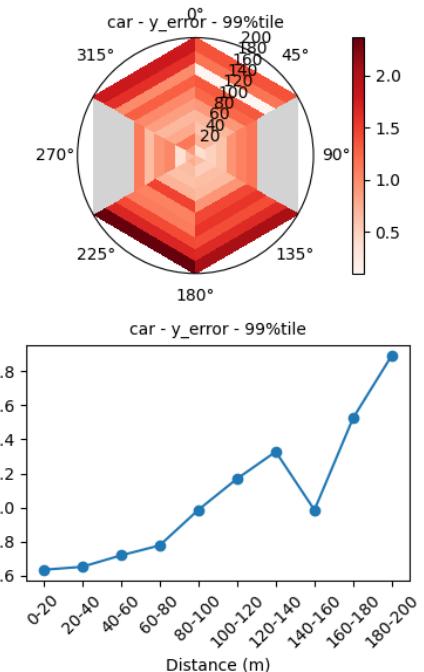
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.006	0.016	0.031	-0.002	0.032	0.019	0.017
20-40	0.003	0.027	0.030	0.019	0.002	0.021	0.017
40-60	-0.017	-0.003	0.015	0.010	0.015	0.014	0.006
60-80	0.001	0.046	0.036	-0.011	0.000	-0.002	0.012
80-100	-0.012	0.019	0.025	0.034	-0.052	0.027	0.007
100-120	0.017	-0.010	-0.052	0.023	-0.081	-0.010	-0.019
120-140	-0.114	<NA>	-0.060	0.025	<NA>	-0.071	-0.055
140-160	-1.139	<NA>	0.040	0.048	<NA>	-0.538	-0.397
160-180	-0.993	<NA>	0.213	0.292	<NA>	-1.021	-0.377
180-200	-0.842	<NA>	1.075	0.814	<NA>	-0.946	0.025

5.1.12 car - y_error - MAE



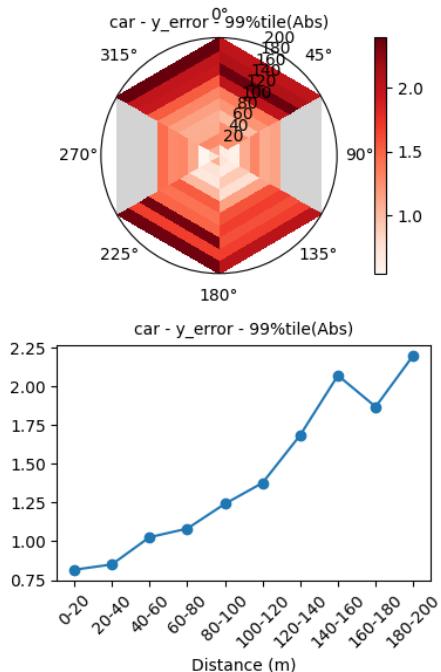
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.089	0.080	0.098	0.124	0.102	0.125	0.103
20-40	0.146	0.107	0.099	0.118	0.086	0.175	0.122
40-60	0.156	0.150	0.141	0.125	0.148	0.133	0.142
60-80	0.154	0.179	0.171	0.174	0.171	0.145	0.166
80-100	0.184	0.209	0.239	0.241	0.211	0.187	0.212
100-120	0.312	0.255	0.375	0.239	0.317	0.256	0.292
120-140	0.421	<NA>	0.480	0.229	<NA>	0.326	0.364
140-160	1.145	<NA>	0.212	0.353	<NA>	0.671	0.596
160-180	1.110	<NA>	0.675	0.657	<NA>	1.139	0.895
180-200	1.029	<NA>	1.233	1.031	<NA>	1.133	1.106

5.1.13 car - y_error - 99%tile



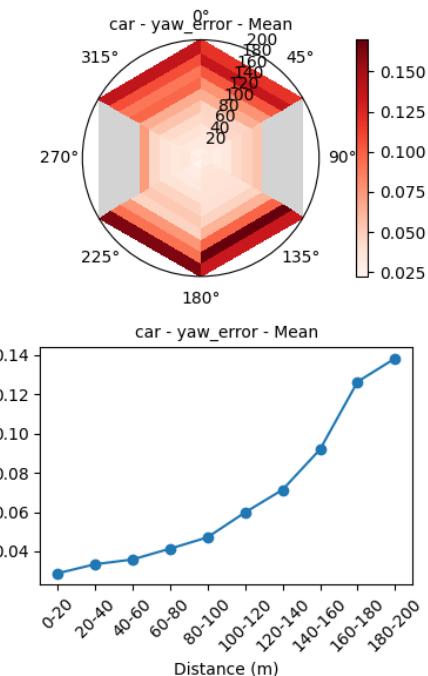
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.381	0.411	0.661	0.780	0.668	0.911	0.635
20-40	0.721	0.505	0.525	0.663	0.374	1.126	0.653
40-60	0.601	0.611	0.647	0.633	1.026	0.799	0.720
60-80	0.705	0.945	0.674	0.729	0.925	0.689	0.778
80-100	0.911	1.071	0.931	1.476	0.663	0.868	0.987
100-120	1.241	1.147	1.435	1.061	1.125	1.006	1.169
120-140	1.344	<NA>	1.567	1.106	<NA>	1.294	1.328
140-160	0.105	<NA>	1.417	1.423	<NA>	0.999	0.986
160-180	1.153	<NA>	1.654	1.689	<NA>	1.608	1.526
180-200	1.373	<NA>	2.043	2.359	<NA>	1.796	1.893

5.1.14 car - y_error - 99%tile(Abs)



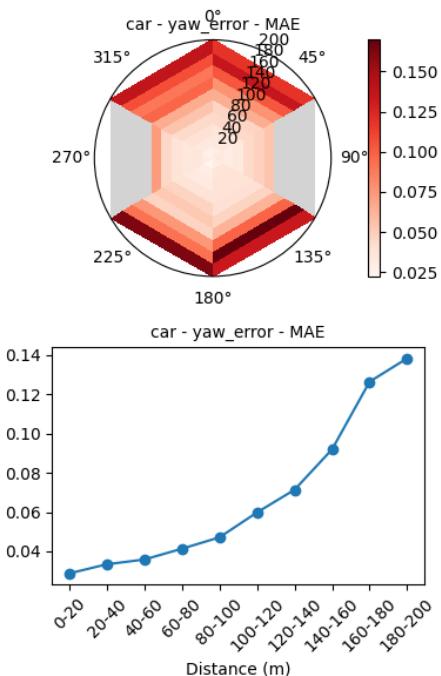
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.652	0.630	0.747	1.072	0.718	1.078	0.816
20-40	1.261	0.602	0.657	0.759	0.543	1.281	0.851
40-60	1.263	1.091	0.917	0.686	1.110	1.092	1.026
60-80	1.005	1.307	0.777	1.014	1.308	1.079	1.082
80-100	1.222	1.093	1.144	1.540	1.291	1.161	1.242
100-120	1.371	1.147	1.588	1.415	1.447	1.298	1.377
120-140	2.022	<NA>	1.690	1.494	<NA>	1.540	1.686
140-160	2.380	<NA>	1.601	2.343	<NA>	1.963	2.072
160-180	2.098	<NA>	1.690	1.689	<NA>	1.999	1.869
180-200	2.007	<NA>	2.043	2.359	<NA>	2.394	2.201

5.1.15 car - yaw_error - Mean



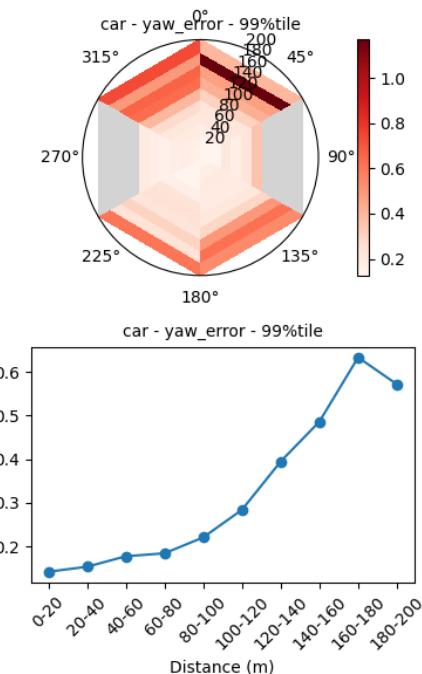
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.031	0.033	0.030	0.022	0.031	0.026	0.029
20-40	0.034	0.030	0.037	0.030	0.036	0.033	0.033
40-60	0.036	0.033	0.039	0.033	0.035	0.040	0.036
60-80	0.045	0.044	0.039	0.038	0.038	0.044	0.041
80-100	0.046	0.049	0.040	0.048	0.045	0.055	0.047
100-120	0.065	0.055	0.047	0.052	0.073	0.066	0.060
120-140	0.077	<NA>	0.063	0.047	<NA>	0.098	0.071
140-160	0.104	<NA>	0.099	0.075	<NA>	0.090	0.092
160-180	0.136	<NA>	0.170	0.092	<NA>	0.107	0.126
180-200	0.119	<NA>	0.134	0.162	<NA>	0.139	0.138

5.1.16 car - yaw_error - MAE



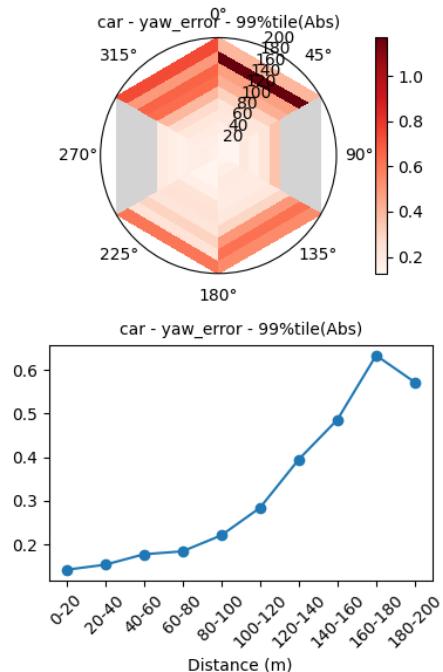
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.031	0.033	0.030	0.022	0.031	0.026	0.029
20-40	0.034	0.030	0.037	0.030	0.036	0.033	0.033
40-60	0.036	0.033	0.039	0.033	0.035	0.040	0.036
60-80	0.045	0.044	0.039	0.038	0.038	0.044	0.041
80-100	0.046	0.049	0.040	0.048	0.045	0.055	0.047
100-120	0.065	0.055	0.047	0.052	0.073	0.066	0.060
120-140	0.077	<NA>	0.063	0.047	<NA>	0.098	0.071
140-160	0.104	<NA>	0.099	0.075	<NA>	0.090	0.092
160-180	0.136	<NA>	0.170	0.092	<NA>	0.107	0.126
180-200	0.119	<NA>	0.134	0.162	<NA>	0.139	0.138

5.1.17 car - yaw_error - 99%tile



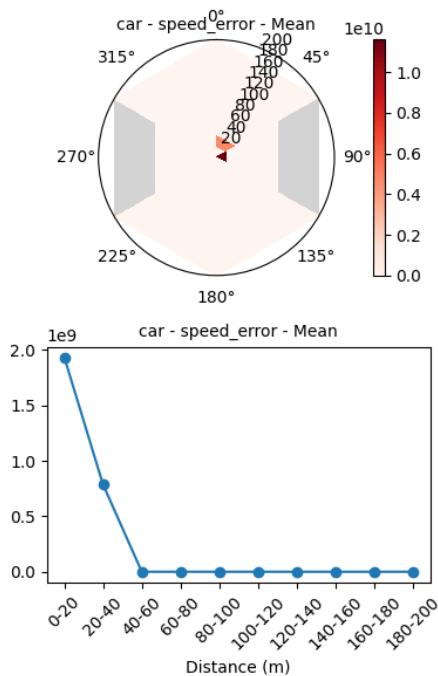
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.130	0.131	0.140	0.131	0.163	0.157	0.142
20-40	0.137	0.126	0.172	0.134	0.182	0.170	0.154
40-60	0.169	0.206	0.195	0.136	0.170	0.190	0.178
60-80	0.212	0.172	0.189	0.166	0.152	0.216	0.184
80-100	0.223	0.225	0.189	0.240	0.174	0.275	0.221
100-120	0.306	0.355	0.205	0.246	0.193	0.398	0.284
120-140	0.425	<NA>	0.293	0.224	<NA>	0.637	0.395
140-160	0.476	<NA>	0.500	0.304	<NA>	0.664	0.486
160-180	1.169	<NA>	0.625	0.242	<NA>	0.496	0.633
180-200	0.403	<NA>	0.539	0.610	<NA>	0.734	0.572

5.1.18 car - yaw_error - 99%tile(Abs)



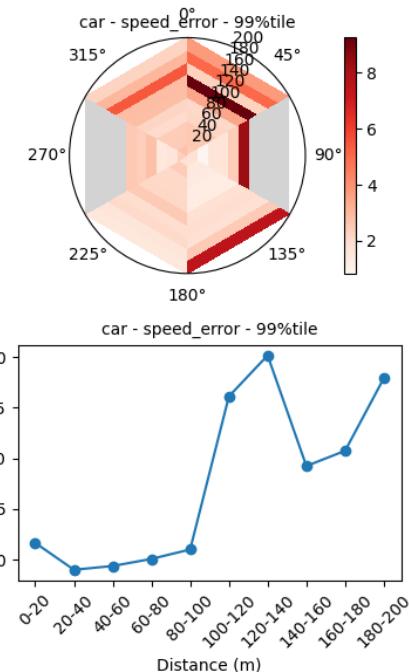
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.130	0.131	0.140	0.131	0.163	0.157	0.142
20-40	0.137	0.126	0.172	0.134	0.182	0.170	0.154
40-60	0.169	0.206	0.195	0.136	0.170	0.190	0.178
60-80	0.212	0.172	0.189	0.166	0.152	0.216	0.184
80-100	0.223	0.225	0.189	0.240	0.174	0.275	0.221
100-120	0.306	0.355	0.205	0.246	0.193	0.398	0.284
120-140	0.425	<NA>	0.293	0.224	<NA>	0.637	0.395
140-160	0.476	<NA>	0.500	0.304	<NA>	0.664	0.486
160-180	1.169	<NA>	0.625	0.242	<NA>	0.496	0.633
180-200	0.403	<NA>	0.539	0.610	<NA>	0.734	0.572

5.1.19 car - speed_error - Mean



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.194	11596968371.796	0.220	0.334	0.331	0.433	1932828062.218
20-40	4715910337.932	0.122	0.161	0.308	0.158	0.423	785985056.517
40-60	0.302	0.210	0.181	0.258	0.205	0.328	0.247
60-80	0.264	0.228	0.157	0.257	0.263	0.276	0.241
80-100	0.280	0.326	0.163	0.277	0.297	0.320	0.277
100-120	0.458	0.753	0.250	0.334	0.408	0.381	0.431
120-140	0.678	<NA>	0.356	0.277	<NA>	0.298	0.402
140-160	0.572	<NA>	0.249	0.389	<NA>	0.456	0.416
160-180	0.735	<NA>	0.901	0.749	<NA>	0.555	0.735
180-200	0.759	<NA>	1.155	0.786	<NA>	0.566	0.816

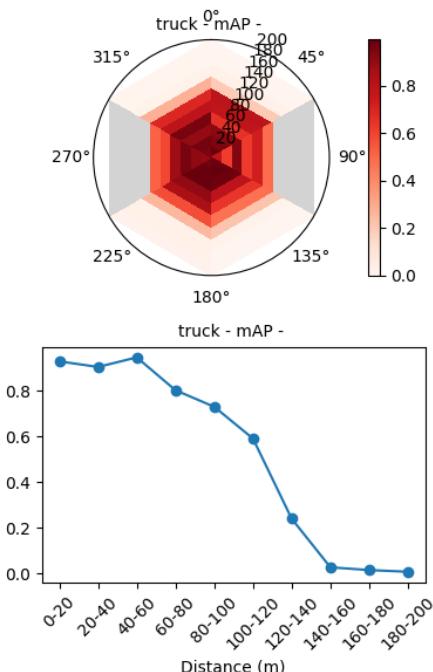
5.1.20 car - speed_error - 99%tile



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	2.493	1.856	1.698	1.802	2.360	2.782	2.165
20-40	2.552	0.837	1.439	2.440	1.656	2.474	1.900
40-60	2.547	1.643	1.377	2.117	1.505	2.432	1.937
60-80	2.157	1.660	1.285	2.109	2.789	2.039	2.006
80-100	2.097	2.445	1.310	2.148	2.389	2.211	2.100
100-120	3.469	8.353	1.865	2.540	2.576	2.859	3.610
120-140	9.246	<NA>	1.965	1.968	<NA>	2.883	4.015
140-160	2.300	<NA>	1.846	2.081	<NA>	5.466	2.923
160-180	5.060	<NA>	2.536	1.655	<NA>	3.044	3.074
180-200	3.793	<NA>	7.554	1.591	<NA>	2.223	3.790

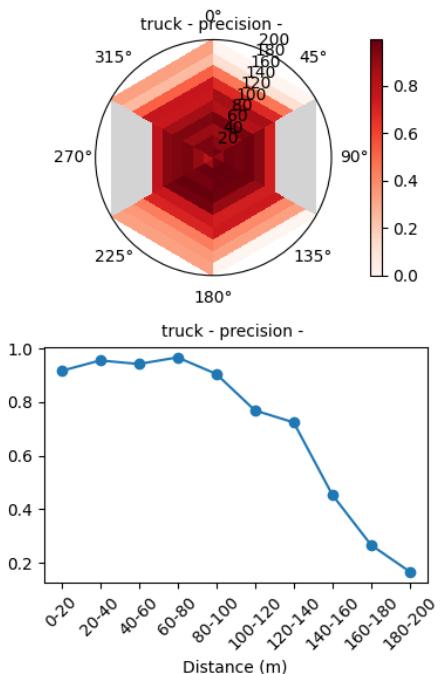
5.2 truck

5.2.1 truck - mAP -



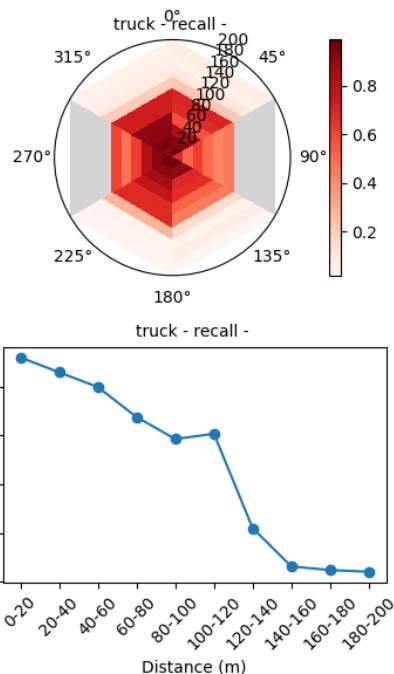
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.986	0.792	0.985	0.970	0.897	0.950	0.930
20-40	0.951	0.619	0.994	0.990	0.915	0.965	0.906
40-60	0.917	0.939	0.979	0.989	0.961	0.901	0.948
60-80	0.656	0.625	0.793	0.905	0.880	0.961	0.803
80-100	0.781	0.728	0.643	0.848	0.591	0.794	0.731
100-120	0.800	0.489	0.474	0.575	0.519	0.691	0.591
120-140	0.200	-	0.220	0.256	-	0.281	0.239
140-160	0.032	-	0.023	0.029	-	0.021	0.026
160-180	0.010	-	0.003	0.033	-	0.010	0.014
180-200	0.000	-	0.000	0.017	-	0.010	0.007

5.2.2 truck - precision -



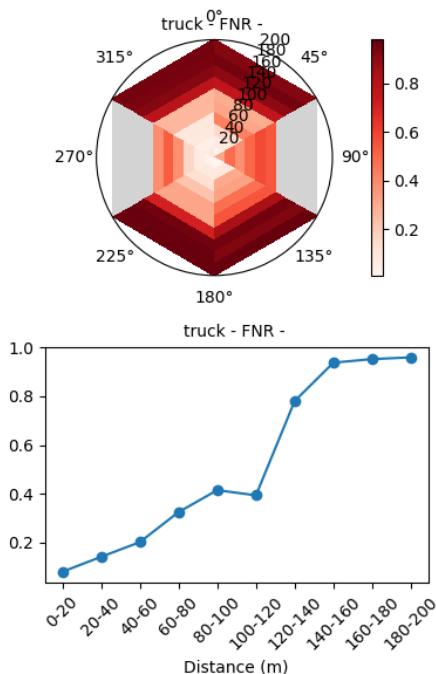
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.977	0.909	0.974	0.888	0.801	0.950	0.916
20-40	0.922	0.976	0.994	0.989	0.901	0.951	0.956
40-60	0.887	0.963	0.987	0.964	0.961	0.893	0.942
60-80	0.960	0.979	0.981	0.992	0.944	0.946	0.967
80-100	0.827	0.930	0.900	0.973	0.930	0.873	0.905
100-120	0.867	0.725	0.725	0.759	0.786	0.753	0.769
120-140	0.686	-	0.738	0.705	-	0.768	0.724
140-160	0.455	-	0.400	0.438	-	0.522	0.453
160-180	0.125	-	0.333	0.357	-	0.250	0.266
180-200	0.000	-	0.000	0.333	-	0.333	0.167

5.2.3 truck - recall -



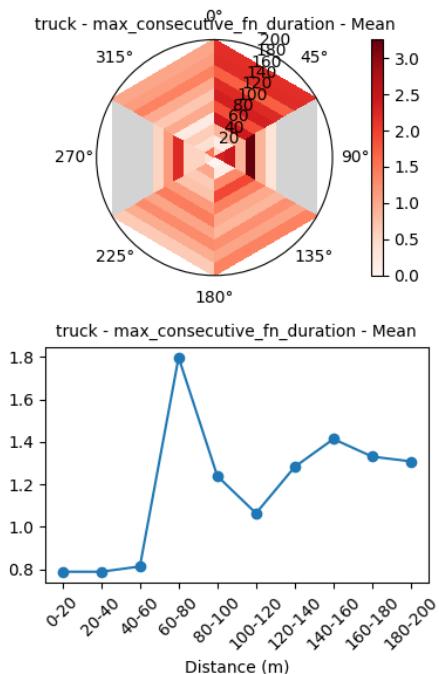
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.981	0.684	0.989	0.977	0.968	0.917	0.919
20-40	0.923	0.513	0.913	0.920	0.926	0.955	0.858
40-60	0.849	0.622	0.694	0.869	0.837	0.917	0.798
60-80	0.575	0.496	0.669	0.777	0.619	0.914	0.675
80-100	0.680	0.420	0.521	0.682	0.473	0.734	0.585
100-120	0.703	0.457	0.449	0.686	0.611	0.732	0.606
120-140	0.226	-	0.159	0.287	-	0.208	0.220
140-160	0.096	-	0.039	0.038	-	0.078	0.063
160-180	0.045	-	0.070	0.024	-	0.054	0.048
180-200	0.073	-	0.019	0.023	-	0.049	0.041

5.2.4 truck - FNR -



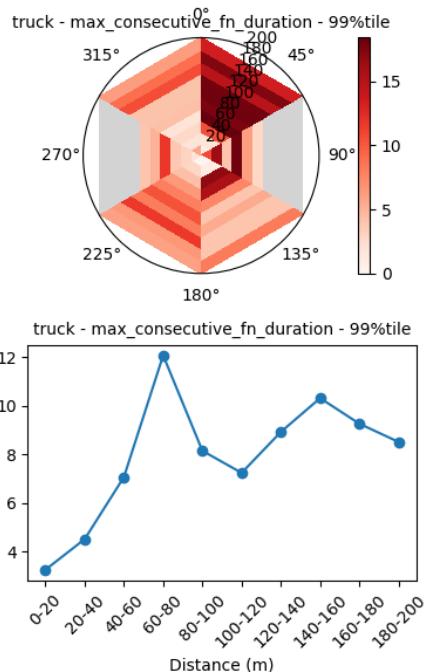
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.019	0.316	0.011	0.023	0.032	0.083	0.081
20-40	0.077	0.487	0.087	0.080	0.074	0.045	0.142
40-60	0.151	0.378	0.306	0.131	0.163	0.083	0.202
60-80	0.425	0.504	0.331	0.223	0.381	0.086	0.325
80-100	0.320	0.580	0.479	0.318	0.527	0.266	0.415
100-120	0.297	0.543	0.551	0.314	0.389	0.268	0.394
120-140	0.774	-	0.841	0.713	-	0.792	0.780
140-160	0.904	-	0.961	0.962	-	0.922	0.937
160-180	0.955	-	0.930	0.976	-	0.946	0.952
180-200	0.927	-	0.981	0.977	-	0.951	0.959

5.2.5 truck - max_consecutive_fn_duration - Mean



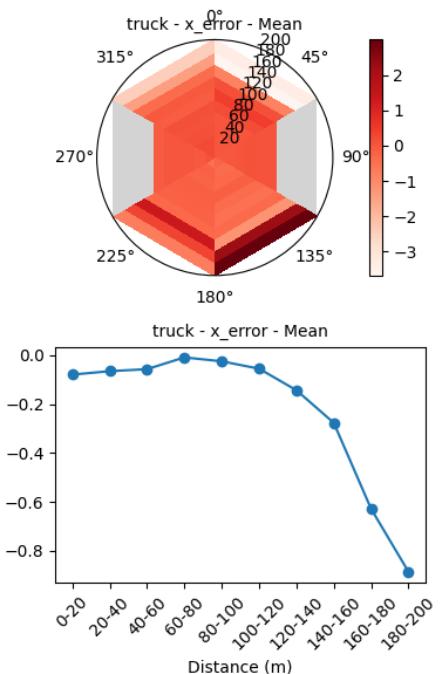
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.500	2.333	0.000	0.000	0.400	1.500	0.789
20-40	0.158	2.456	0.158	1.007	0.536	0.417	0.789
40-60	0.873	0.885	1.303	0.652	0.556	0.614	0.814
60-80	2.414	3.254	1.925	0.733	2.232	0.227	1.798
80-100	1.887	0.885	1.408	1.136	1.137	0.982	1.239
100-120	2.360	0.351	1.002	1.432	0.540	0.699	1.064
120-140	2.232	-	0.876	1.048	-	0.974	1.283
140-160	1.726	-	1.257	1.293	-	1.378	1.414
160-180	2.205	-	1.053	0.958	-	1.107	1.331
180-200	2.175	-	1.384	0.655	-	1.019	1.308

5.2.6 truck - max_consecutive_fn_duration - 99%tile



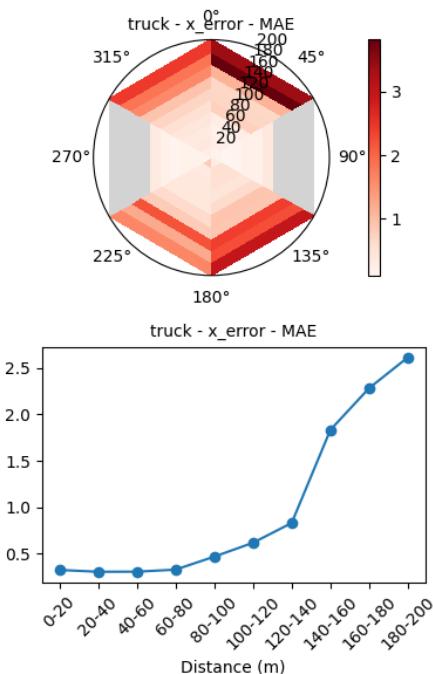
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.990	10.760	0.000	0.000	1.920	5.820	3.248
20-40	1.820	16.338	1.008	2.910	3.092	1.890	4.510
40-60	10.625	4.000	16.861	4.320	3.830	2.770	7.068
60-80	18.402	18.090	15.604	6.515	11.784	2.080	12.079
80-100	17.640	6.200	7.570	8.005	5.122	4.350	8.148
100-120	18.048	2.858	4.000	10.360	4.012	4.158	7.239
120-140	18.008	-	5.493	8.070	-	4.142	8.928
140-160	14.906	-	4.000	11.690	-	10.673	10.317
160-180	17.466	-	4.000	6.616	-	8.976	9.264
180-200	13.480	-	8.200	6.080	-	6.288	8.512

5.2.7 truck - x_error - Mean



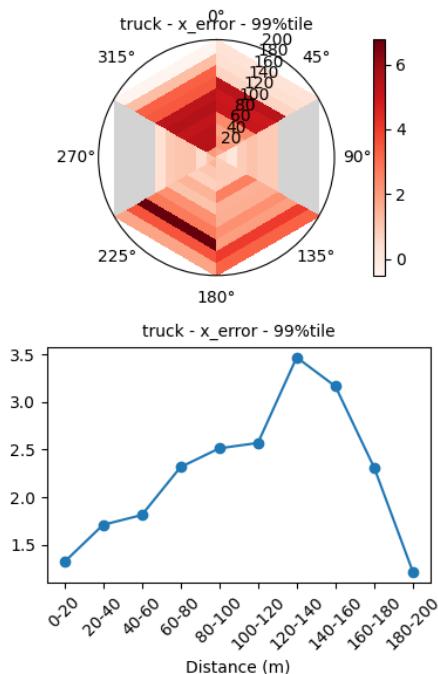
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-0.000	-0.045	-0.209	-0.521	0.091	0.209	-0.079
20-40	0.019	-0.024	-0.389	-0.167	-0.051	0.220	-0.065
40-60	0.027	0.030	-0.333	-0.231	0.019	0.147	-0.057
60-80	0.008	0.081	-0.135	-0.131	0.022	0.102	-0.009
80-100	0.183	0.058	-0.365	-0.180	0.009	0.145	-0.025
100-120	0.455	0.066	-0.489	-0.183	-0.071	-0.108	-0.055
120-140	0.155	<NA>	-0.364	-0.333	<NA>	-0.031	-0.143
140-160	-0.835	<NA>	-1.217	1.332	<NA>	-0.386	-0.276
160-180	-3.673	<NA>	2.240	0.351	<NA>	-1.431	-0.628
180-200	-3.356	<NA>	2.996	-0.736	<NA>	-2.444	-0.885

5.2.8 truck - x_error - MAE



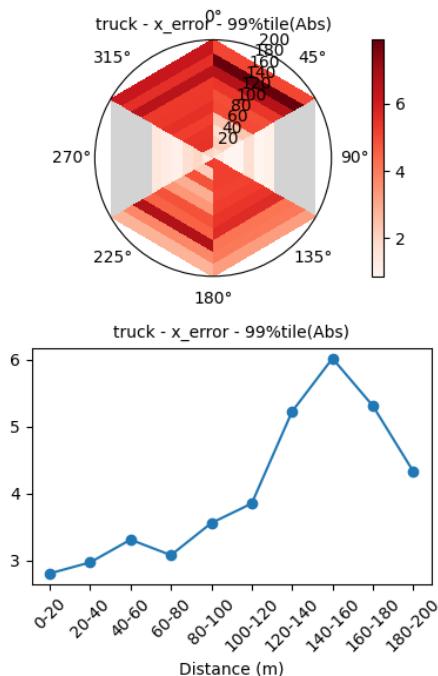
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.169	0.180	0.315	0.818	0.182	0.280	0.324
20-40	0.254	0.105	0.558	0.361	0.165	0.384	0.304
40-60	0.189	0.152	0.555	0.396	0.183	0.356	0.305
60-80	0.294	0.207	0.462	0.400	0.159	0.441	0.327
80-100	0.764	0.213	0.625	0.427	0.219	0.556	0.467
100-120	0.692	0.408	0.905	0.630	0.363	0.700	0.616
120-140	0.683	<NA>	0.889	0.822	<NA>	0.928	0.830
140-160	1.131	<NA>	2.401	2.205	<NA>	1.599	1.834
160-180	3.819	<NA>	2.240	1.235	<NA>	1.841	2.284
180-200	3.403	<NA>	2.996	1.617	<NA>	2.444	2.615

5.2.9 truck - x_error - 99%tile



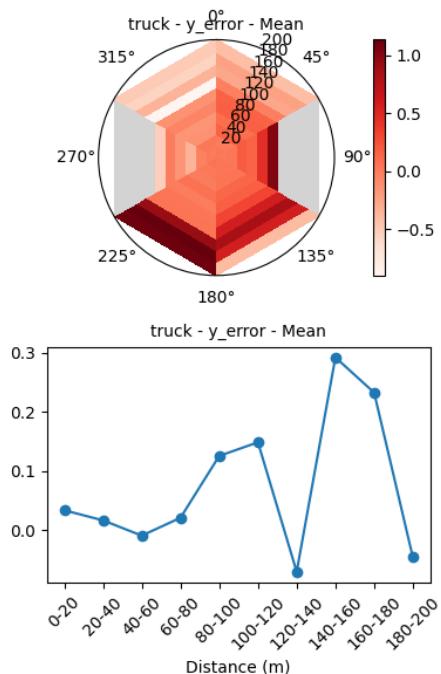
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.781	0.564	0.872	1.471	1.160	2.059	1.318
20-40	2.126	0.166	0.961	1.027	0.500	5.475	1.709
40-60	1.760	0.880	0.930	0.779	1.102	5.422	1.812
60-80	2.363	1.148	2.659	1.466	1.058	5.203	2.316
80-100	5.003	0.939	1.550	1.120	0.946	5.523	2.513
100-120	4.928	0.947	1.596	2.254	0.385	5.316	2.571
120-140	5.393	<NA>	2.244	2.782	<NA>	3.463	3.470
140-160	0.660	<NA>	1.935	6.761	<NA>	3.307	3.166
160-180	0.402	<NA>	4.055	3.566	<NA>	1.225	2.312
180-200	0.286	<NA>	3.273	1.817	<NA>	-0.514	1.216

5.2.10 truck - x_error - 99%tile(Abs)



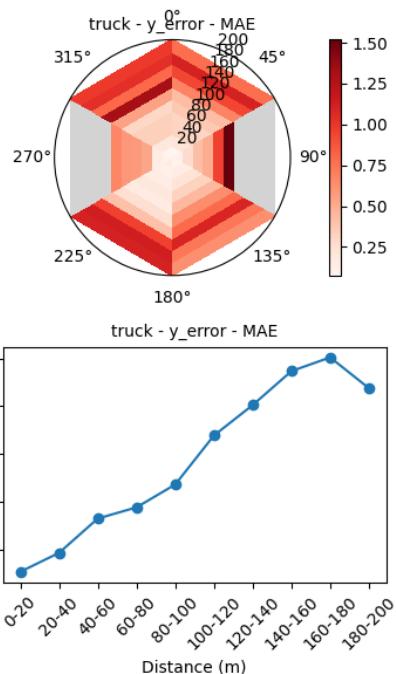
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.781	1.213	5.162	5.266	1.365	2.059	2.808
20-40	2.126	0.875	5.196	2.201	1.960	5.475	2.972
40-60	1.768	0.880	5.186	4.832	1.779	5.422	3.311
60-80	2.367	1.763	5.147	2.928	1.074	5.203	3.080
80-100	5.003	0.951	5.252	3.401	1.223	5.523	3.559
100-120	4.928	1.105	5.412	4.845	1.474	5.338	3.850
120-140	5.393	<NA>	5.667	4.523	<NA>	5.304	5.222
140-160	6.614	<NA>	4.141	6.761	<NA>	6.542	6.014
160-180	7.886	<NA>	4.055	3.738	<NA>	5.551	5.308
180-200	5.046	<NA>	3.273	2.814	<NA>	6.189	4.331

5.2.11 truck - y_error - Mean



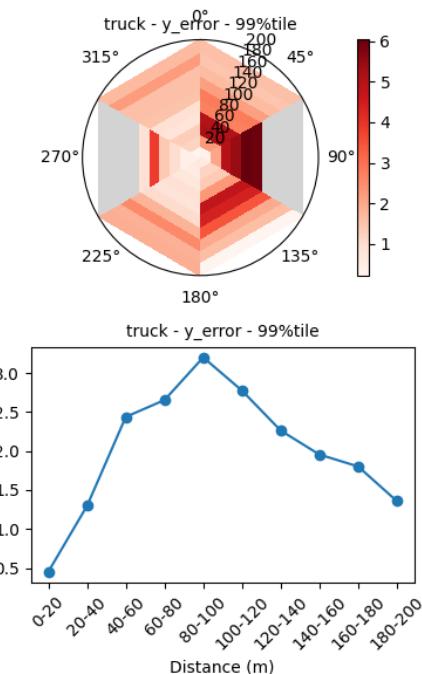
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.040	0.014	0.043	0.071	0.020	0.014	0.034
20-40	-0.005	0.037	0.043	0.026	-0.032	0.031	0.017
40-60	0.163	0.196	0.053	0.005	-0.338	-0.134	-0.009
60-80	0.093	0.150	0.135	0.064	-0.159	-0.158	0.021
80-100	0.177	0.460	0.178	-0.004	-0.003	-0.054	0.126
100-120	0.160	1.026	0.318	0.045	-0.524	-0.134	0.149
120-140	-0.020	<NA>	0.586	0.052	<NA>	-0.899	-0.070
140-160	-0.271	<NA>	0.850	0.929	<NA>	-0.340	0.292
160-180	-0.225	<NA>	0.582	1.134	<NA>	-0.560	0.233
180-200	-0.412	<NA>	-0.391	1.109	<NA>	-0.489	-0.046

5.2.12 truck - y_error - MAE



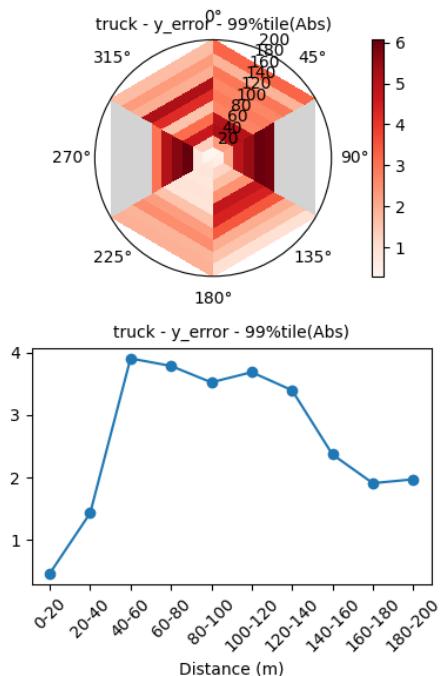
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.075	0.128	0.092	0.160	0.100	0.079	0.105
20-40	0.221	0.273	0.147	0.125	0.157	0.186	0.185
40-60	0.314	0.421	0.229	0.143	0.529	0.336	0.329
60-80	0.310	0.500	0.328	0.194	0.584	0.338	0.376
80-100	0.373	0.956	0.446	0.165	0.591	0.298	0.471
100-120	0.429	1.519	0.635	0.258	0.671	0.551	0.677
120-140	0.682	<NA>	0.797	0.408	<NA>	1.331	0.805
140-160	0.936	<NA>	1.092	0.957	<NA>	0.803	0.947
160-180	1.109	<NA>	0.737	1.134	<NA>	1.039	1.005
180-200	0.775	<NA>	0.631	1.109	<NA>	0.988	0.876

5.2.13 truck - y_error - 99%tile



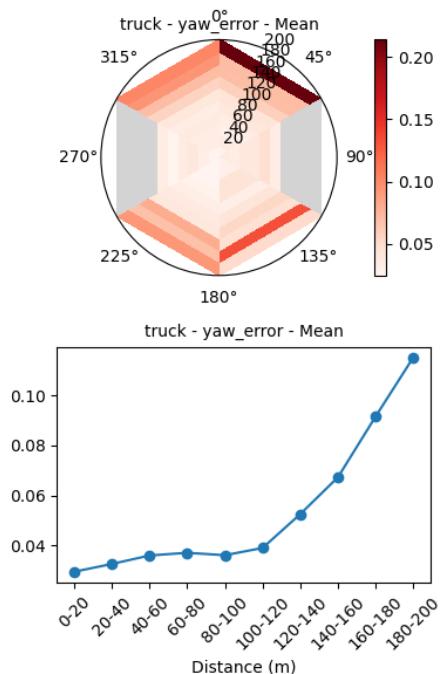
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.343	0.371	0.601	0.720	0.382	0.291	0.451
20-40	2.269	2.079	1.217	0.576	0.437	1.205	1.297
40-60	5.209	4.969	1.384	0.727	1.012	1.327	2.438
60-80	5.020	5.459	2.317	0.917	1.408	0.807	2.655
80-100	2.718	6.034	4.809	0.837	3.867	0.947	3.202
100-120	2.831	5.951	4.403	1.022	0.912	1.539	2.776
120-140	2.199	<NA>	3.457	1.807	<NA>	1.590	2.263
140-160	1.659	<NA>	1.994	2.565	<NA>	1.603	1.955
160-180	1.497	<NA>	1.620	1.862	<NA>	2.230	1.802
180-200	1.601	<NA>	0.228	1.919	<NA>	1.686	1.358

5.2.14 truck - y_error - 99%tile(Abs)

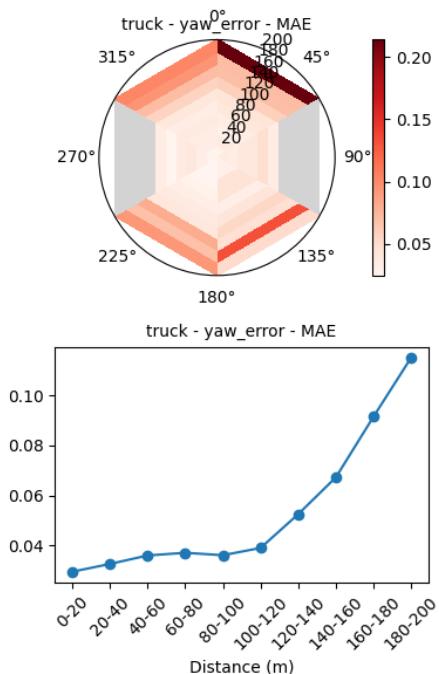


theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.343	0.473	0.601	0.720	0.382	0.296	0.469
20-40	2.318	2.079	1.237	0.857	0.731	1.374	1.433
40-60	5.209	4.969	1.677	0.798	6.064	4.714	3.905
60-80	5.020	5.459	2.476	0.917	5.710	3.131	3.786
80-100	2.718	6.034	4.809	0.876	5.111	1.591	3.523
100-120	2.887	5.951	4.403	1.617	3.021	4.231	3.685
120-140	2.682	<NA>	3.457	2.278	<NA>	5.168	3.396
140-160	2.939	<NA>	1.994	2.565	<NA>	1.983	2.370
160-180	1.869	<NA>	1.620	1.862	<NA>	2.295	1.911
180-200	3.256	<NA>	1.015	1.919	<NA>	1.704	1.973

5.2.15 truck - yaw_error - Mean

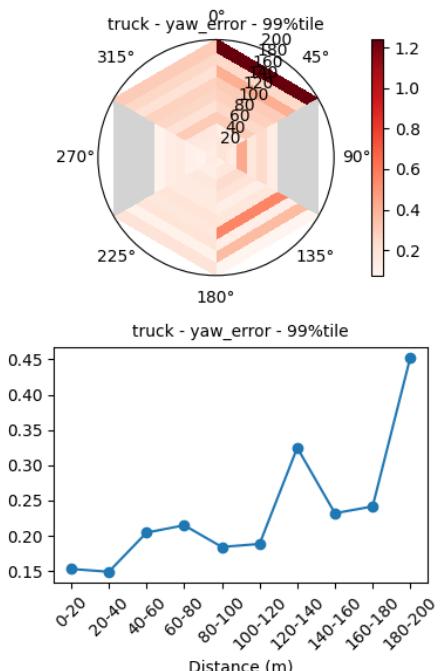


5.2.16 truck - yaw_error - MAE



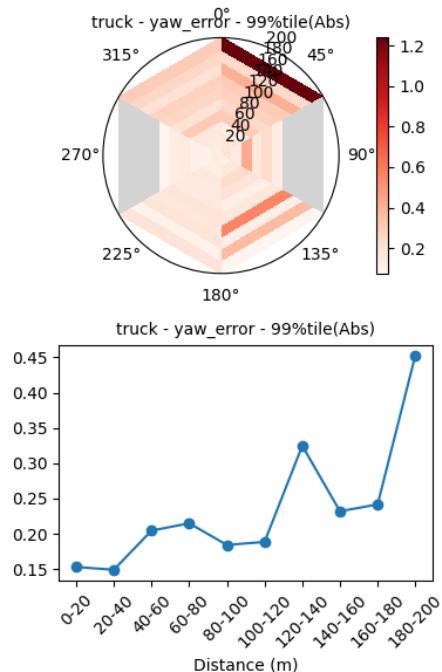
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.029	0.038	0.030	0.026	0.028	0.027	0.029
20-40	0.038	0.034	0.032	0.025	0.033	0.034	0.033
40-60	0.031	0.040	0.045	0.026	0.041	0.034	0.036
60-80	0.035	0.040	0.045	0.029	0.036	0.038	0.037
80-100	0.041	0.049	0.032	0.033	0.026	0.034	0.036
100-120	0.043	0.035	0.043	0.037	0.035	0.041	0.039
120-140	0.059	<NA>	0.054	0.041	<NA>	0.057	0.053
140-160	0.070	<NA>	0.048	0.080	<NA>	0.071	0.067
160-180	0.071	<NA>	0.133	0.069	<NA>	0.094	0.092
180-200	0.214	<NA>	0.051	0.093	<NA>	0.102	0.115

5.2.17 truck - yaw_error - 99%tile



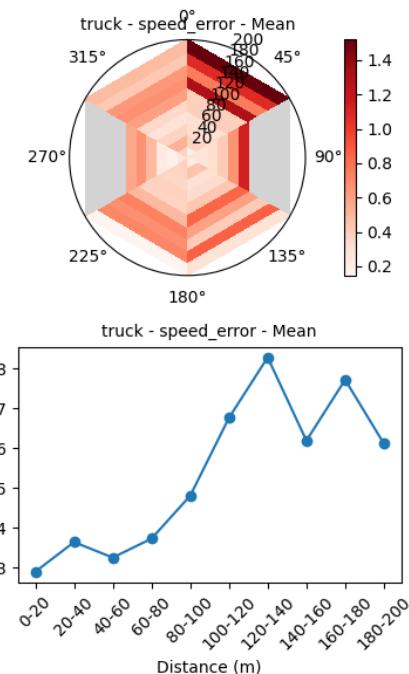
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.186	0.200	0.115	0.143	0.146	0.128	0.153
20-40	0.189	0.144	0.177	0.128	0.101	0.155	0.149
40-60	0.130	0.429	0.235	0.163	0.109	0.162	0.205
60-80	0.299	0.176	0.205	0.153	0.154	0.303	0.215
80-100	0.250	0.235	0.128	0.151	0.133	0.209	0.184
100-120	0.281	0.135	0.178	0.189	0.090	0.259	0.189
120-140	0.302	<NA>	0.558	0.164	<NA>	0.276	0.325
140-160	0.408	<NA>	0.121	0.190	<NA>	0.208	0.232
160-180	0.244	<NA>	0.364	0.102	<NA>	0.257	0.242
180-200	1.238	<NA>	0.075	0.197	<NA>	0.301	0.453

5.2.18 truck - yaw_error - 99%tile(Abs)



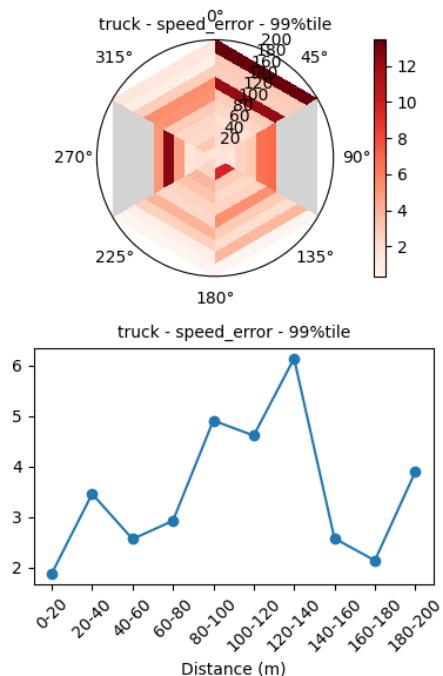
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.186	0.200	0.115	0.143	0.146	0.128	0.153
20-40	0.189	0.144	0.177	0.128	0.101	0.155	0.149
40-60	0.130	0.429	0.235	0.163	0.109	0.162	0.205
60-80	0.299	0.176	0.205	0.153	0.154	0.303	0.215
80-100	0.250	0.235	0.128	0.151	0.133	0.209	0.184
100-120	0.281	0.135	0.178	0.189	0.090	0.259	0.189
120-140	0.302	<NA>	0.558	0.164	<NA>	0.276	0.325
140-160	0.408	<NA>	0.121	0.190	<NA>	0.208	0.232
160-180	0.244	<NA>	0.364	0.102	<NA>	0.257	0.242
180-200	1.238	<NA>	0.075	0.197	<NA>	0.301	0.453

5.2.19 truck - speed_error - Mean



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.187	0.280	0.231	0.402	0.270	0.372	0.290
20-40	0.374	0.275	0.447	0.381	0.183	0.528	0.365
40-60	0.331	0.328	0.317	0.362	0.240	0.377	0.326
60-80	0.320	0.416	0.339	0.383	0.491	0.291	0.373
80-100	0.404	0.655	0.431	0.378	0.665	0.354	0.481
100-120	0.397	1.140	0.845	0.496	0.574	0.606	0.676
120-140	1.315	<NA>	0.600	0.727	<NA>	0.670	0.828
140-160	0.754	<NA>	0.411	0.674	<NA>	0.637	0.619
160-180	1.089	<NA>	0.865	0.705	<NA>	0.430	0.772
180-200	1.519	<NA>	0.294	0.147	<NA>	0.488	0.612

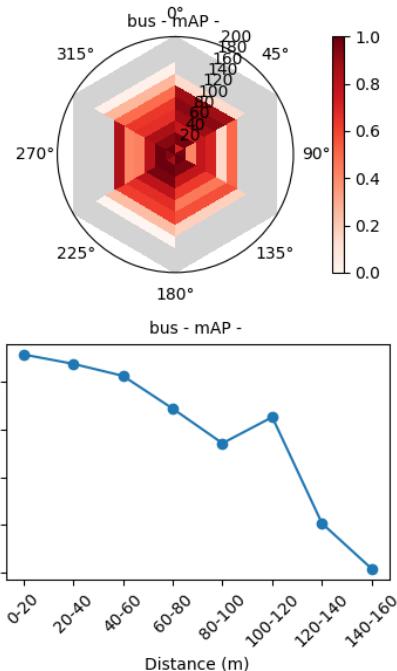
5.2.20 truck - speed_error - 99%tile



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.594	1.792	1.768	2.482	2.075	1.583	1.882
20-40	2.099	1.533	9.632	2.535	1.886	3.050	3.456
40-60	2.203	2.531	2.903	3.825	1.658	2.253	2.562
60-80	1.849	2.999	2.236	3.245	4.790	2.420	2.923
80-100	2.397	6.560	2.575	2.513	12.543	2.854	4.907
100-120	2.833	6.891	5.324	2.323	5.099	5.191	4.610
120-140	12.250	<NA>	2.903	3.880	<NA>	5.509	6.135
140-160	2.780	<NA>	2.097	2.644	<NA>	2.784	2.576
160-180	2.987	<NA>	3.772	0.854	<NA>	0.937	2.138
180-200	13.454	<NA>	0.356	0.336	<NA>	1.411	3.889

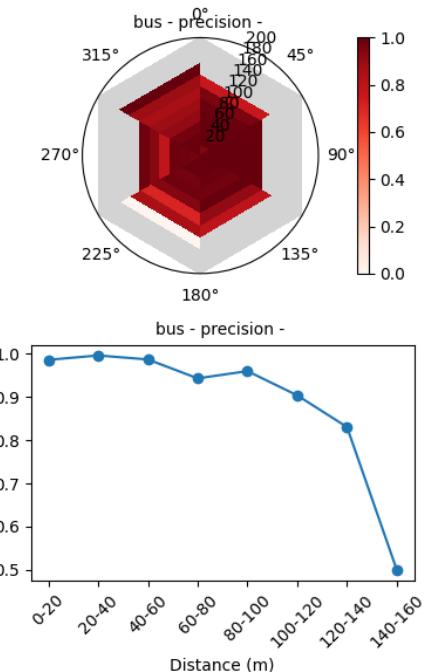
5.3 bus

5.3.1 bus - mAP -



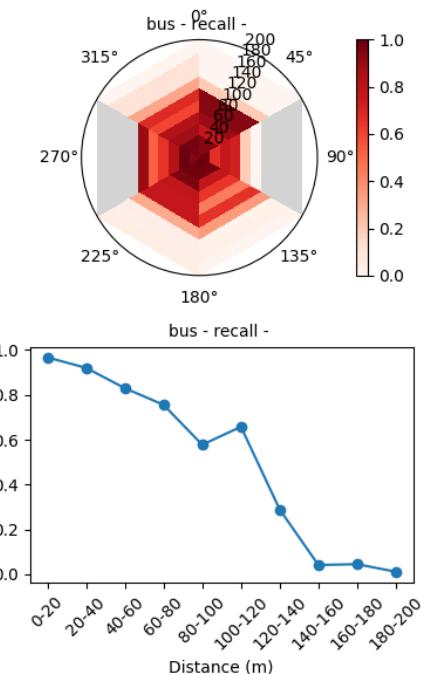
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.714	0.970	1.000	0.871	0.943	1.000	0.916
20-40	0.970	0.416	0.960	0.990	0.989	0.937	0.877
40-60	0.762	0.782	0.778	0.965	0.813	0.859	0.826
60-80	0.891	0.713	0.630	0.799	0.433	0.666	0.689
80-100	0.928	0.149	0.455	0.673	0.412	0.640	0.543
100-120	0.885	0.505	0.571	0.620	0.847	0.490	0.653
120-140	0.140	-	0.178	0.243	-	0.262	0.206
140-160	-	-	-	0.000	-	0.030	0.015
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.3.2 bus - precision -



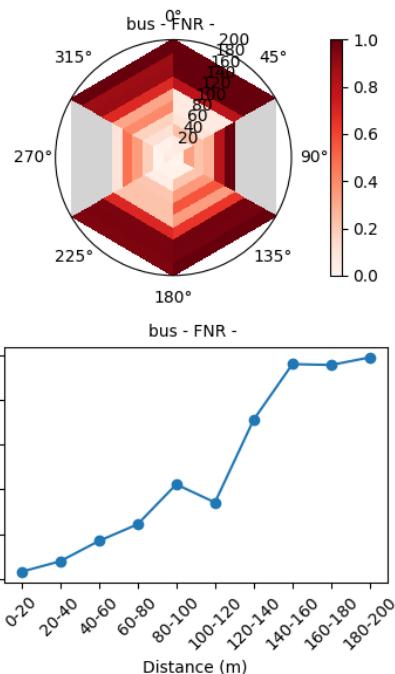
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.949	1.000	1.000	1.000	0.969	1.000	0.986
20-40	1.000	1.000	1.000	1.000	0.984	0.995	0.996
40-60	1.000	1.000	0.991	0.974	0.986	0.972	0.987
60-80	1.000	1.000	0.980	0.984	0.786	0.911	0.943
80-100	0.990	1.000	1.000	0.944	0.933	0.894	0.960
100-120	0.958	1.000	0.913	0.705	0.981	0.867	0.904
120-140	0.769	-	0.800	0.862	-	0.891	0.831
140-160	-	-	-	0.000	-	1.000	0.500
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.3.3 bus - recall -



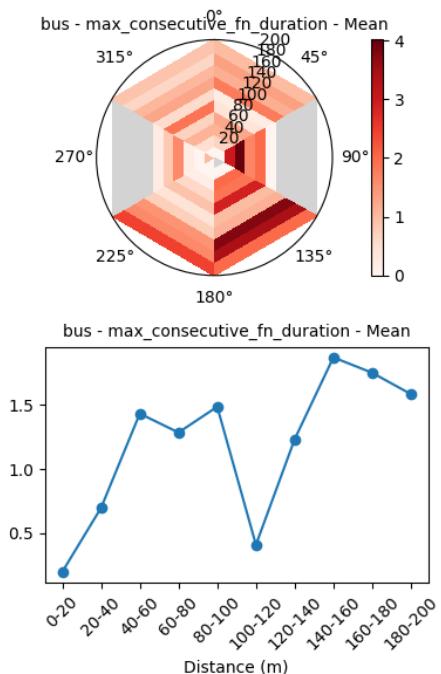
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.940	0.979	1.000	0.989	0.938	0.957	0.967
20-40	0.941	0.667	0.977	0.977	0.992	0.970	0.921
40-60	0.768	0.773	0.784	0.954	0.820	0.881	0.830
60-80	0.898	0.727	0.645	0.787	0.653	0.824	0.756
80-100	0.931	0.190	0.444	0.773	0.525	0.601	0.577
100-120	0.938	0.000	0.657	0.770	0.898	0.684	0.658
120-140	0.197	-	0.348	0.302	-	0.309	0.289
140-160	0.000	-	0.022	0.040	-	0.103	0.041
160-180	0.000	-	0.031	0.037	-	0.111	0.045
180-200	0.000	-	0.000	0.044	-	0.000	0.011

5.3.4 bus - FNR -



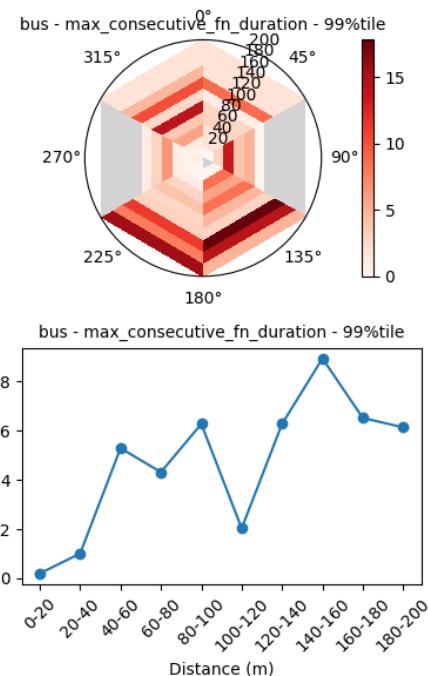
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.060	0.021	0.000	0.011	0.062	0.043	0.033
20-40	0.059	0.333	0.023	0.023	0.008	0.030	0.079
40-60	0.232	0.227	0.216	0.046	0.180	0.119	0.170
60-80	0.102	0.273	0.355	0.213	0.347	0.176	0.244
80-100	0.069	0.810	0.556	0.227	0.475	0.399	0.423
100-120	0.062	1.000	0.343	0.230	0.102	0.316	0.342
120-140	0.803	-	0.652	0.698	-	0.691	0.711
140-160	1.000	-	0.978	0.960	-	0.897	0.959
160-180	1.000	-	0.969	0.963	-	0.889	0.955
180-200	1.000	-	1.000	0.956	-	1.000	0.989

5.3.5 bus - max_consecutive_fn_duration - Mean



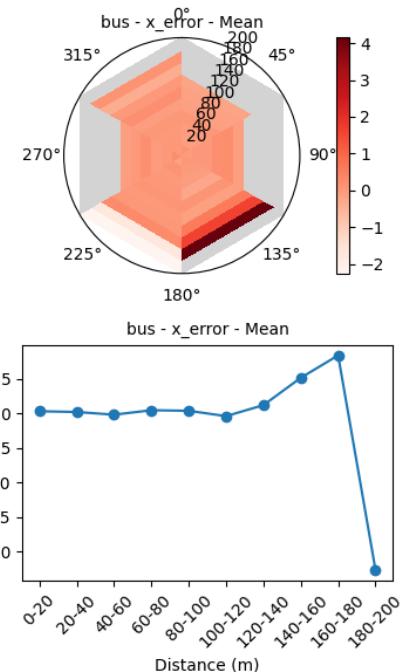
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.000	0.000	-	0.000	1.000	0.000	0.200
20-40	0.667	3.000	0.000	0.000	0.000	0.525	0.699
40-60	1.103	4.014	2.007	0.167	0.211	1.100	1.434
60-80	1.250	1.665	1.881	0.600	1.618	0.704	1.286
80-100	0.400	2.000	2.910	0.923	0.824	1.868	1.487
100-120	0.222	0.000	1.000	0.428	0.250	0.563	0.410
120-140	1.794	-	1.143	0.734	-	1.266	1.234
140-160	1.170	-	3.790	1.477	-	1.053	1.872
160-180	1.333	-	3.429	1.613	-	0.634	1.752
180-200	1.000	-	2.003	2.454	-	0.888	1.586

5.3.6 bus - max_consecutive_fn_duration - 99%tile



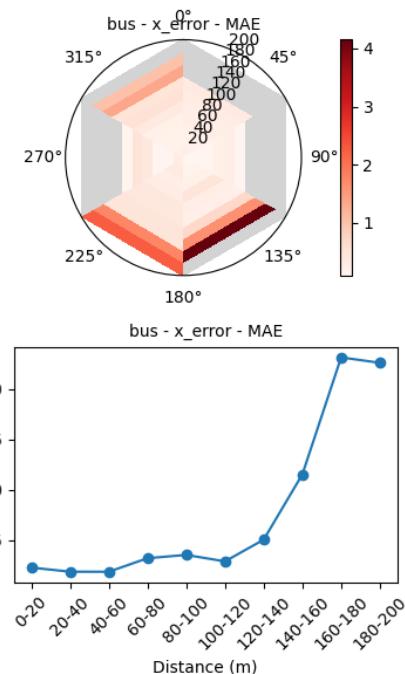
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.000	0.000	-	0.000	1.000	0.000	0.200
20-40	1.960	3.000	0.000	0.000	0.000	1.097	1.010
40-60	1.900	13.615	8.522	0.950	0.992	5.790	5.295
60-80	2.940	3.950	5.850	2.910	6.511	3.750	4.318
80-100	2.820	4.960	8.559	3.999	3.000	14.340	6.280
100-120	1.000	0.000	4.800	2.740	0.970	2.683	2.032
120-140	8.791	-	3.000	3.081	-	10.258	6.283
140-160	2.000	-	17.837	11.269	-	4.670	8.944
160-180	2.000	-	14.400	7.838	-	1.844	6.520
180-200	1.970	-	4.910	15.686	-	2.000	6.142

5.3.7 bus - x_error - Mean



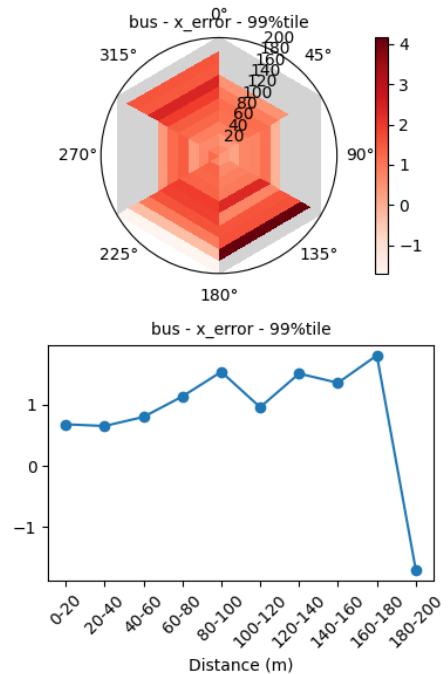
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.107	-0.039	0.038	-0.182	0.258	-0.005	0.030
20-40	-0.095	0.028	-0.027	0.142	0.017	0.048	0.019
40-60	-0.076	0.033	-0.062	0.016	-0.038	0.003	-0.021
60-80	0.019	0.197	-0.262	0.035	0.212	0.064	0.044
80-100	-0.113	0.241	0.076	0.083	0.003	-0.076	0.036
100-120	-0.138	-0.093	-0.129	-0.004	-0.083	0.199	-0.041
120-140	-0.198	<NA>	0.607	0.045	<NA>	0.016	0.118
140-160	<NA>	<NA>	1.632	0.271	<NA>	-0.364	0.513
160-180	<NA>	<NA>	4.152	-1.768	<NA>	0.127	0.837
180-200	<NA>	<NA>	<NA>	-2.263	<NA>	<NA>	-2.263

5.3.8 bus - x_error - MAE



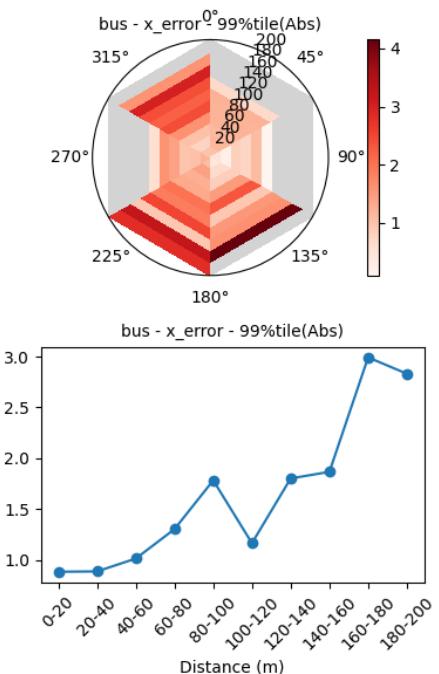
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.252	0.100	0.131	0.305	0.333	0.241	0.227
20-40	0.213	0.120	0.145	0.353	0.111	0.174	0.186
40-60	0.218	0.138	0.197	0.266	0.119	0.176	0.186
60-80	0.258	0.233	0.482	0.291	0.424	0.233	0.320
80-100	0.283	0.272	0.283	0.404	0.509	0.368	0.353
100-120	0.292	0.093	0.250	0.407	0.134	0.554	0.289
120-140	0.349	<NA>	0.699	0.475	<NA>	0.494	0.504
140-160	<NA>	<NA>	1.632	0.475	<NA>	1.357	1.155
160-180	<NA>	<NA>	4.152	1.768	<NA>	1.030	2.317
180-200	<NA>	<NA>	<NA>	2.263	<NA>	<NA>	2.263

5.3.9 bus - x_error - 99%tile



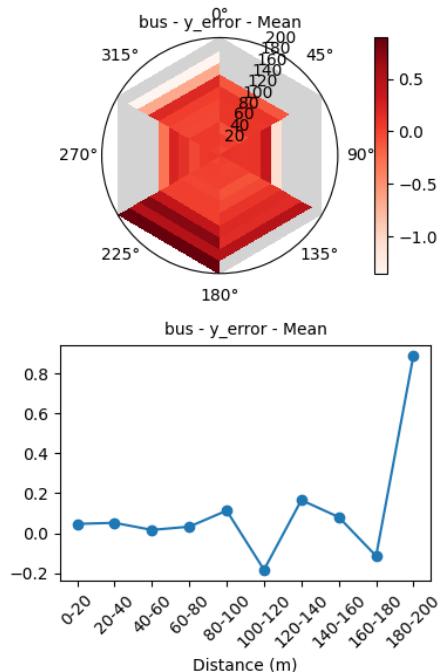
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.625	0.381	0.350	0.690	1.224	0.813	0.680
20-40	0.387	0.183	0.652	1.333	0.719	0.639	0.652
40-60	0.826	0.704	0.844	1.252	0.318	0.857	0.800
60-80	1.081	0.751	0.938	1.337	1.429	1.272	1.135
80-100	1.174	1.096	2.343	1.947	1.195	1.466	1.537
100-120	0.926	-0.093	0.737	1.877	0.367	1.941	0.959
120-140	0.453	<NA>	1.557	1.595	<NA>	2.428	1.508
140-160	<NA>	<NA>	1.632	0.943	<NA>	1.497	1.357
160-180	<NA>	<NA>	4.152	-0.300	<NA>	1.564	1.805
180-200	<NA>	<NA>	<NA>	-1.694	<NA>	<NA>	-1.694

5.3.10 bus - x_error - 99%tile(Abs)



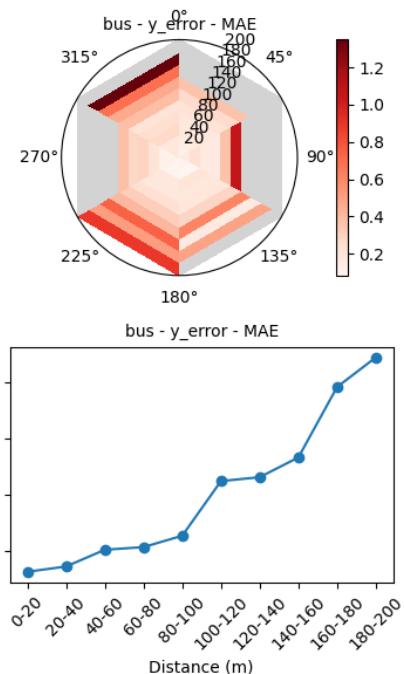
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.025	0.506	0.445	1.084	1.224	1.019	0.884
20-40	1.161	0.236	0.652	1.456	1.033	0.785	0.887
40-60	1.132	0.824	0.844	1.252	0.996	1.033	1.014
60-80	1.198	0.751	1.489	1.337	1.429	1.616	1.303
80-100	1.197	1.096	2.343	2.004	1.602	2.454	1.783
100-120	1.223	0.093	0.949	1.877	0.621	2.226	1.165
120-140	0.687	<NA>	1.557	2.534	<NA>	2.428	1.802
140-160	<NA>	<NA>	1.632	0.946	<NA>	3.022	1.866
160-180	<NA>	<NA>	4.152	3.236	<NA>	1.588	2.992
180-200	<NA>	<NA>	<NA>	2.831	<NA>	<NA>	2.831

5.3.11 bus - y_error - Mean



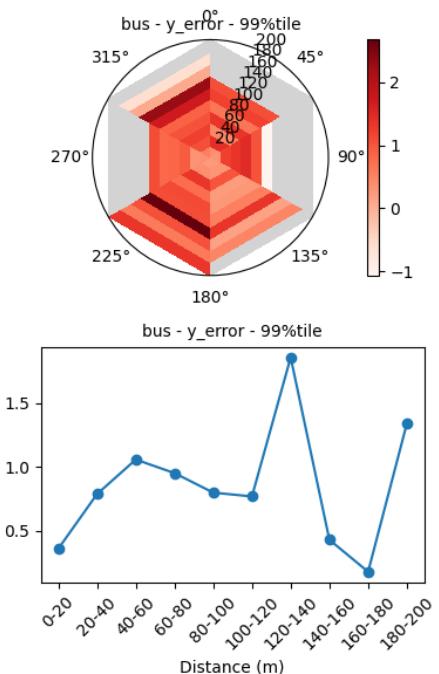
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-0.014	0.124	0.040	-0.010	0.091	0.049	0.047
20-40	0.042	0.100	0.013	0.026	0.065	0.066	0.052
40-60	-0.070	0.094	0.023	0.017	-0.027	0.062	0.016
60-80	0.090	0.101	-0.085	-0.005	0.121	-0.026	0.033
80-100	0.078	0.371	-0.023	0.026	0.240	-0.013	0.113
100-120	0.101	-1.066	0.102	0.030	-0.303	0.037	-0.183
120-140	-0.113	<NA>	0.194	0.384	<NA>	0.199	0.166
140-160	<NA>	<NA>	0.165	0.745	<NA>	-0.669	0.081
160-180	<NA>	<NA>	0.493	0.514	<NA>	-1.349	-0.114
180-200	<NA>	<NA>	<NA>	0.890	<NA>	<NA>	0.890

5.3.12 bus - y_error - MAE



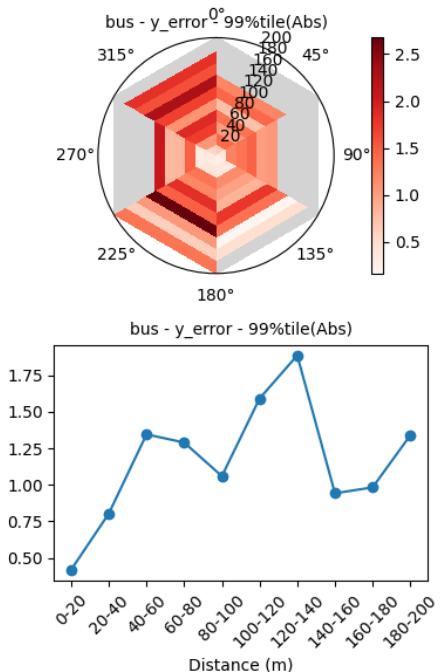
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.105	0.164	0.102	0.092	0.122	0.182	0.128
20-40	0.153	0.240	0.082	0.099	0.113	0.192	0.146
40-60	0.195	0.167	0.208	0.183	0.217	0.267	0.206
60-80	0.191	0.171	0.193	0.193	0.299	0.246	0.216
80-100	0.225	0.371	0.201	0.238	0.284	0.218	0.256
100-120	0.264	1.066	0.287	0.316	0.382	0.388	0.450
120-140	0.368	<NA>	0.611	0.414	<NA>	0.465	0.464
140-160	<NA>	<NA>	0.165	0.745	<NA>	0.693	0.535
160-180	<NA>	<NA>	0.493	0.514	<NA>	1.349	0.785
180-200	<NA>	<NA>	<NA>	0.890	<NA>	<NA>	0.890

5.3.13 bus - y_error - 99%tile



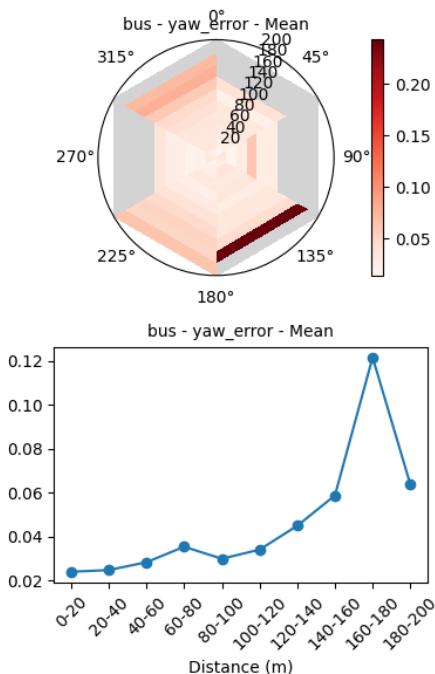
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.408	0.326	0.258	0.241	0.366	0.565	0.361
20-40	1.425	1.235	0.298	0.380	0.320	1.072	0.788
40-60	0.464	1.349	1.012	1.338	0.946	1.240	1.058
60-80	1.350	1.473	0.231	0.774	0.840	1.045	0.952
80-100	0.666	1.026	0.282	1.130	0.809	0.883	0.799
100-120	1.225	-1.066	0.550	1.098	1.102	1.707	0.769
120-140	1.090	<NA>	1.371	2.675	<NA>	2.295	1.858
140-160	<NA>	<NA>	0.165	1.063	<NA>	0.062	0.430
160-180	<NA>	<NA>	0.493	0.629	<NA>	-0.582	0.180
180-200	<NA>	<NA>	<NA>	1.340	<NA>	<NA>	1.340

5.3.14 bus - y_error - 99%tile(Abs)



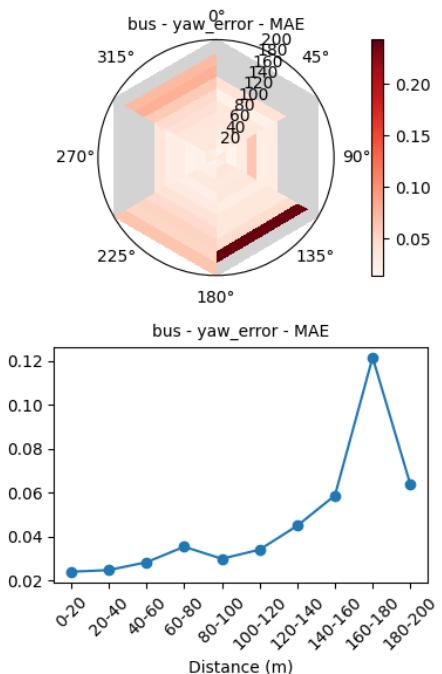
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.663	0.366	0.258	0.292	0.366	0.565	0.418
20-40	1.425	1.238	0.360	0.405	0.320	1.072	0.803
40-60	1.019	1.349	1.158	1.338	1.483	1.729	1.346
60-80	1.350	1.473	0.989	1.197	0.840	1.891	1.290
80-100	0.746	1.026	0.858	1.832	0.809	1.088	1.060
100-120	1.430	1.066	1.774	1.491	2.084	1.707	1.592
120-140	1.208	<NA>	1.371	2.675	<NA>	2.295	1.887
140-160	<NA>	<NA>	0.165	1.063	<NA>	1.599	0.942
160-180	<NA>	<NA>	0.493	0.629	<NA>	1.827	0.983
180-200	<NA>	<NA>	<NA>	1.340	<NA>	<NA>	1.340

5.3.15 bus - yaw_error - Mean



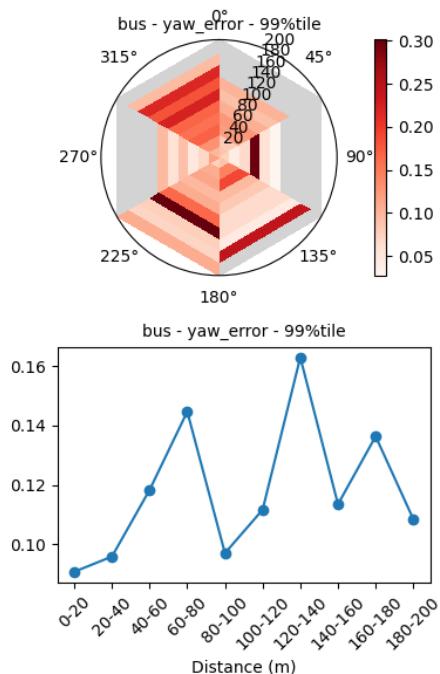
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.014	0.034	0.024	0.016	0.031	0.025	0.024
20-40	0.023	0.016	0.035	0.023	0.021	0.031	0.025
40-60	0.029	0.028	0.030	0.031	0.019	0.033	0.028
60-80	0.033	0.062	0.032	0.023	0.026	0.035	0.035
80-100	0.033	0.025	0.027	0.029	0.025	0.041	0.030
100-120	0.021	0.027	0.034	0.038	0.037	0.046	0.034
120-140	0.039	<NA>	0.034	0.047	<NA>	0.060	0.045
140-160	<NA>	<NA>	0.045	0.052	<NA>	0.079	0.059
160-180	<NA>	<NA>	0.243	0.050	<NA>	0.072	0.122
180-200	<NA>	<NA>	<NA>	0.064	<NA>	<NA>	0.064

5.3.16 bus - yaw_error - MAE



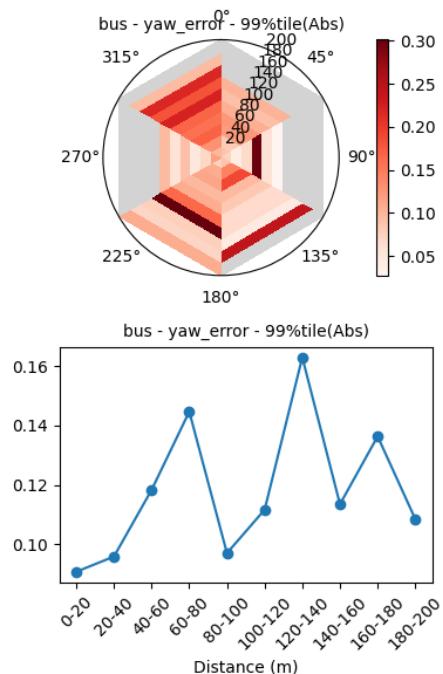
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.014	0.034	0.024	0.016	0.031	0.025	0.024
20-40	0.023	0.016	0.035	0.023	0.021	0.031	0.025
40-60	0.029	0.028	0.030	0.031	0.019	0.033	0.028
60-80	0.033	0.062	0.032	0.023	0.026	0.035	0.035
80-100	0.033	0.025	0.027	0.029	0.025	0.041	0.030
100-120	0.021	0.027	0.034	0.038	0.037	0.046	0.034
120-140	0.039	<NA>	0.034	0.047	<NA>	0.060	0.045
140-160	<NA>	<NA>	0.045	0.052	<NA>	0.079	0.059
160-180	<NA>	<NA>	0.243	0.050	<NA>	0.072	0.122
180-200	<NA>	<NA>	<NA>	0.064	<NA>	<NA>	0.064

5.3.17 bus - yaw_error - 99%tile



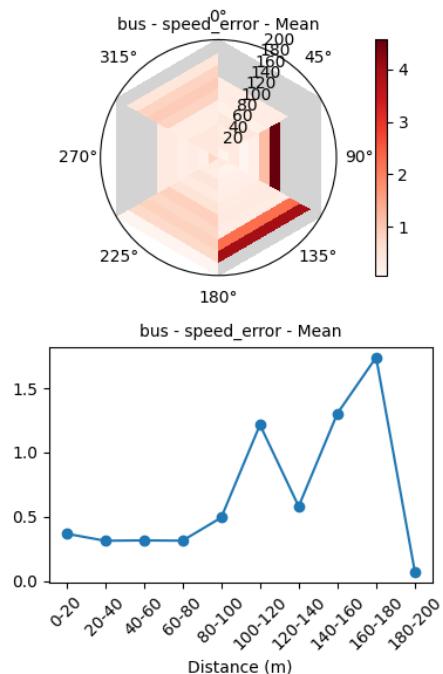
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.087	0.075	0.088	0.076	0.119	0.100	0.091
20-40	0.082	0.043	0.144	0.108	0.069	0.130	0.096
40-60	0.120	0.067	0.189	0.113	0.050	0.170	0.118
60-80	0.125	0.298	0.097	0.097	0.092	0.159	0.145
80-100	0.106	0.059	0.083	0.108	0.059	0.168	0.097
100-120	0.092	0.027	0.067	0.165	0.096	0.223	0.112
120-140	0.102	<NA>	0.066	0.301	<NA>	0.182	0.163
140-160	<NA>	<NA>	0.045	0.078	<NA>	0.218	0.114
160-180	<NA>	<NA>	0.243	0.072	<NA>	0.095	0.136
180-200	<NA>	<NA>	<NA>	0.108	<NA>	<NA>	0.108

5.3.18 bus - yaw_error - 99%tile(Abs)



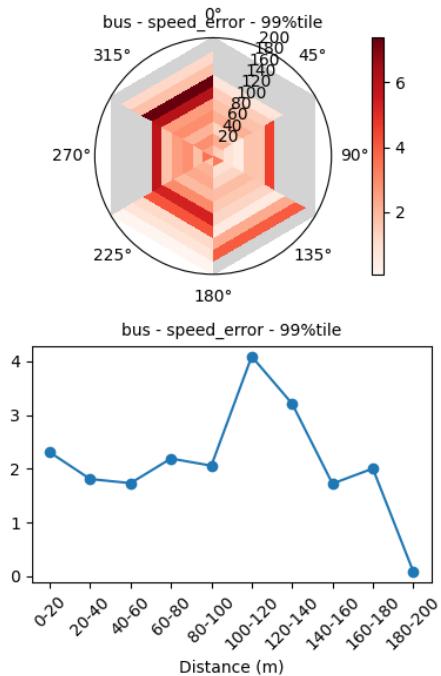
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.087	0.075	0.088	0.076	0.119	0.100	0.091
20-40	0.082	0.043	0.144	0.108	0.069	0.130	0.096
40-60	0.120	0.067	0.189	0.113	0.050	0.170	0.118
60-80	0.125	0.298	0.097	0.097	0.092	0.159	0.145
80-100	0.106	0.059	0.083	0.108	0.059	0.168	0.097
100-120	0.092	0.027	0.067	0.165	0.096	0.223	0.112
120-140	0.102	<NA>	0.066	0.301	<NA>	0.182	0.163
140-160	<NA>	<NA>	0.045	0.078	<NA>	0.218	0.114
160-180	<NA>	<NA>	0.243	0.072	<NA>	0.095	0.136
180-200	<NA>	<NA>	<NA>	0.108	<NA>	<NA>	0.108

5.3.19 bus - speed_error - Mean



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.218	0.115	0.383	0.291	0.773	0.433	0.369
20-40	0.385	0.374	0.168	0.302	0.235	0.417	0.313
40-60	0.329	0.086	0.243	0.504	0.293	0.440	0.316
60-80	0.424	0.231	0.252	0.377	0.269	0.331	0.314
80-100	0.223	1.161	0.341	0.550	0.372	0.316	0.494
100-120	0.285	4.564	0.376	0.863	0.372	0.837	1.216
120-140	0.313	<NA>	0.309	0.761	<NA>	0.942	0.581
140-160	<NA>	<NA>	2.252	0.851	<NA>	0.812	1.305
160-180	<NA>	<NA>	4.003	0.729	<NA>	0.491	1.741
180-200	<NA>	<NA>	<NA>	0.072	<NA>	<NA>	0.072

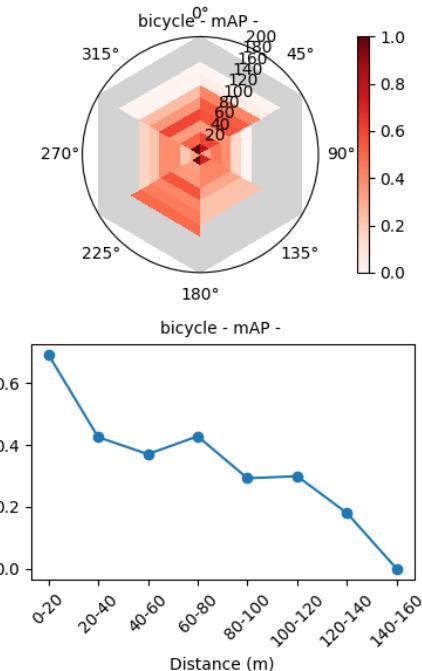
5.3.20 bus - speed_error - 99%tile



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.549	1.347	3.363	1.660	3.559	2.363	2.307
20-40	2.182	0.900	0.942	2.119	1.811	2.895	1.808
40-60	1.325	0.523	1.264	2.309	2.873	2.096	1.732
60-80	2.157	1.707	1.874	1.937	2.550	2.914	2.190
80-100	1.776	1.655	1.575	2.966	1.757	2.615	2.057
100-120	1.477	4.564	1.256	5.330	5.841	6.087	4.093
120-140	0.772	<NA>	0.555	4.150	<NA>	7.375	3.213
140-160	<NA>	<NA>	2.252	1.143	<NA>	1.773	1.723
160-180	<NA>	<NA>	4.003	0.827	<NA>	1.182	2.004
180-200	<NA>	<NA>	<NA>	0.087	<NA>	<NA>	0.087

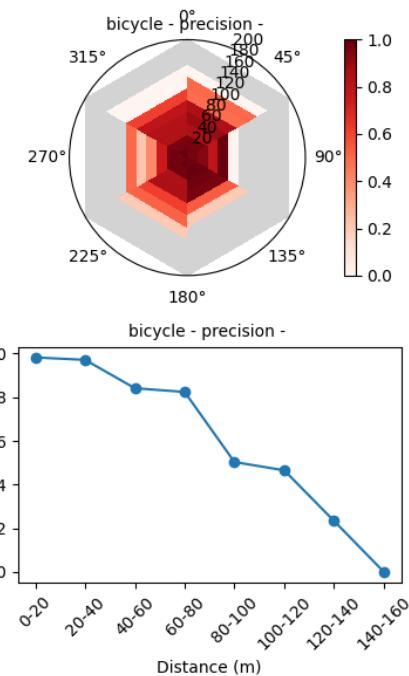
5.4 bicycle

5.4.1 bicycle - mAP -



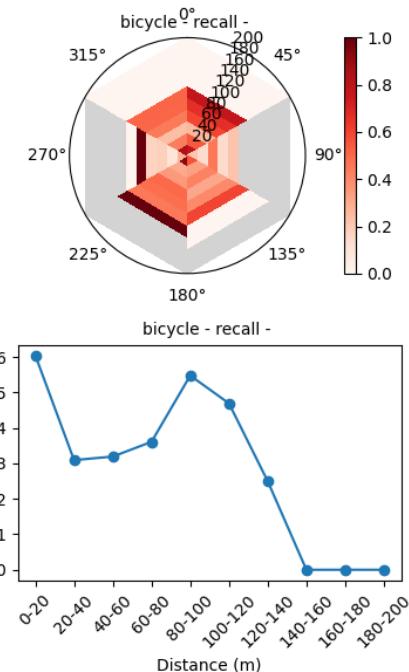
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.793	0.318	0.715	1.000	0.326	1.000	0.692
20-40	0.600	0.463	0.416	0.337	0.214	0.521	0.425
40-60	0.341	0.385	0.412	0.348	0.393	0.341	0.370
60-80	0.564	0.149	0.309	0.558	0.388	0.599	0.428
80-100	0.536	0.000	0.230	0.407	0.222	0.358	0.292
100-120	0.416	-	0.223	0.443	0.168	0.245	0.299
120-140	0.040	-	-	0.500	-	0.000	0.180
140-160	0.000	-	-	-	-	0.000	0.000
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.4.2 bicycle - precision -



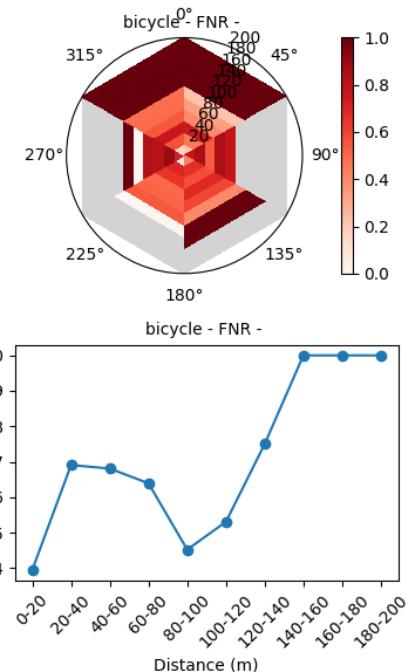
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.974	0.967	0.984	1.000	0.969	1.000	0.982
20-40	0.966	0.938	1.000	0.980	0.981	0.963	0.971
40-60	0.846	0.786	0.984	0.844	0.750	0.839	0.841
60-80	0.897	1.000	0.964	0.855	0.400	0.828	0.824
80-100	0.846	0.000	0.541	0.621	0.222	0.789	0.503
100-120	0.488	-	0.200	0.522	0.500	0.615	0.465
120-140	0.500	-	-	0.200	-	0.000	0.233
140-160	0.000	-	-	-	-	0.000	0.000
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.4.3 bicycle - recall -



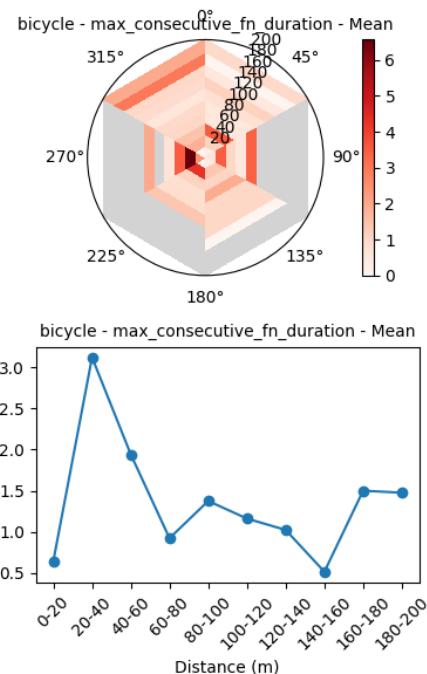
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.789	0.216	0.565	0.933	0.280	0.846	0.605
20-40	0.544	0.141	0.333	0.302	0.098	0.438	0.309
40-60	0.256	0.458	0.426	0.353	0.182	0.241	0.319
60-80	0.596	0.143	0.310	0.500	0.167	0.449	0.361
80-100	0.667	0.222	0.404	0.485	1.000	0.510	0.548
100-120	0.780	-	0.600	0.455	0.000	0.512	0.469
120-140	0.000	-	0.000	1.000	-	0.000	0.250
140-160	0.000	-	0.000	-	-	0.000	0.000
160-180	0.000	-	-	-	-	0.000	0.000
180-200	0.000	-	-	-	-	0.000	0.000

5.4.4 bicycle - FNR -



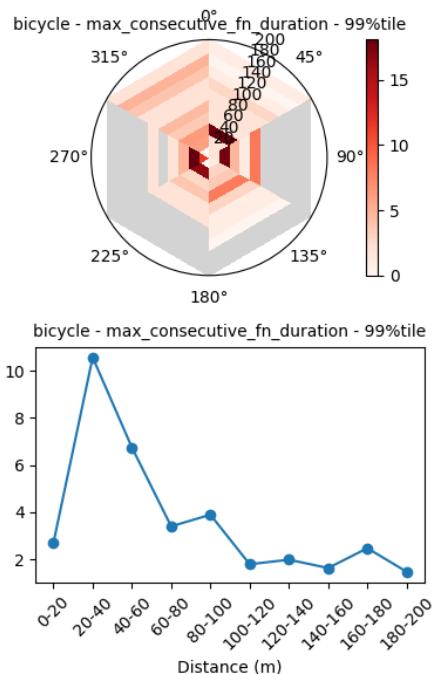
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.211	0.784	0.435	0.067	0.720	0.154	0.395
20-40	0.456	0.859	0.667	0.698	0.902	0.562	0.691
40-60	0.744	0.542	0.574	0.647	0.818	0.759	0.681
60-80	0.404	0.857	0.690	0.500	0.833	0.551	0.639
80-100	0.333	0.778	0.596	0.515	0.000	0.490	0.452
100-120	0.220	-	0.400	0.545	1.000	0.488	0.531
120-140	1.000	-	1.000	0.000	-	1.000	0.750
140-160	1.000	-	1.000	-	-	1.000	1.000
160-180	1.000	-	-	-	-	1.000	1.000
180-200	1.000	-	-	-	-	1.000	1.000

5.4.5 bicycle - max_consecutive_fn_duration - Mean



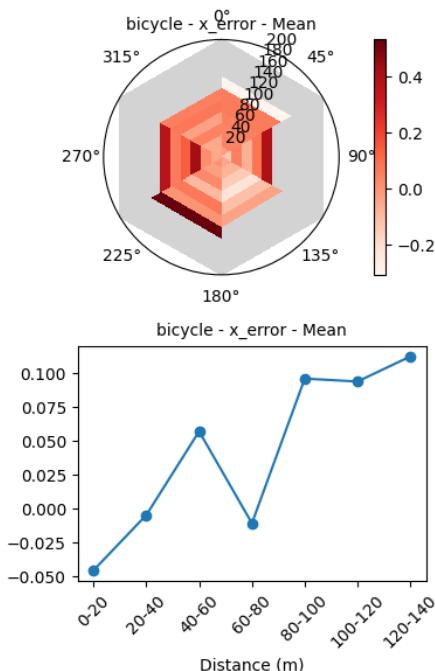
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.321	0.616	0.440	0.000	2.478	0.000	0.642
20-40	1.133	3.493	1.375	4.306	6.564	1.869	3.123
40-60	3.530	1.000	1.075	1.086	3.498	1.463	1.942
60-80	0.541	0.535	1.942	0.838	0.667	1.003	0.921
80-100	0.580	3.433	1.000	0.889	-	0.971	1.375
100-120	0.800	-	1.000	1.400	2.000	0.600	1.160
120-140	1.152	-	1.000	-	-	0.913	1.022
140-160	0.538	-	0.000	-	-	1.000	0.513
160-180	0.000	-	-	-	-	3.000	1.500
180-200	0.970	-	-	-	-	1.980	1.475

5.4.6 bicycle - max_consecutive_fn_duration - 99%tile



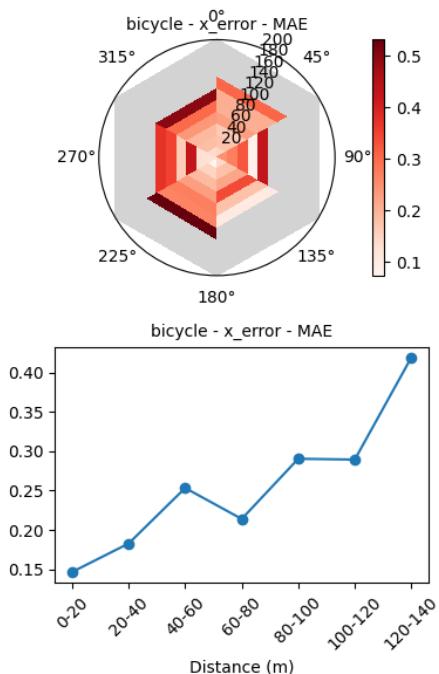
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.730	2.000	1.000	0.000	11.470	0.000	2.700
20-40	2.000	17.622	3.010	16.727	18.070	6.000	10.572
40-60	17.970	4.800	3.620	2.800	5.000	6.297	6.748
60-80	1.830	1.070	8.100	3.834	1.960	3.610	3.401
80-100	1.875	8.252	2.910	1.920	-	4.520	3.895
100-120	1.960	-	1.000	2.000	2.000	2.009	1.794
120-140	2.871	-	1.000	-	-	2.089	1.987
140-160	0.999	-	0.000	-	-	3.900	1.633
160-180	0.000	-	-	-	-	4.950	2.475
180-200	0.970	-	-	-	-	1.980	1.475

5.4.7 bicycle - x_error - Mean



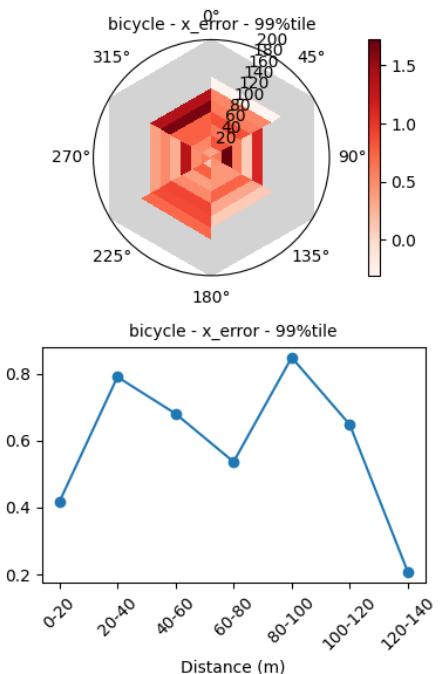
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-0.019	-0.127	-0.039	0.006	-0.045	-0.050	-0.046
20-40	0.046	0.057	-0.079	-0.024	0.023	-0.051	-0.005
40-60	0.046	-0.070	-0.138	0.029	0.428	0.048	0.057
60-80	0.051	0.085	-0.220	-0.092	0.141	-0.029	-0.011
80-100	0.066	0.399	-0.108	0.075	0.065	0.079	0.096
100-120	0.069	<NA>	-0.032	0.005	0.373	0.055	0.094
120-140	-0.307	<NA>	<NA>	0.532	<NA>	<NA>	0.113
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.4.8 bicycle - x_error - MAE

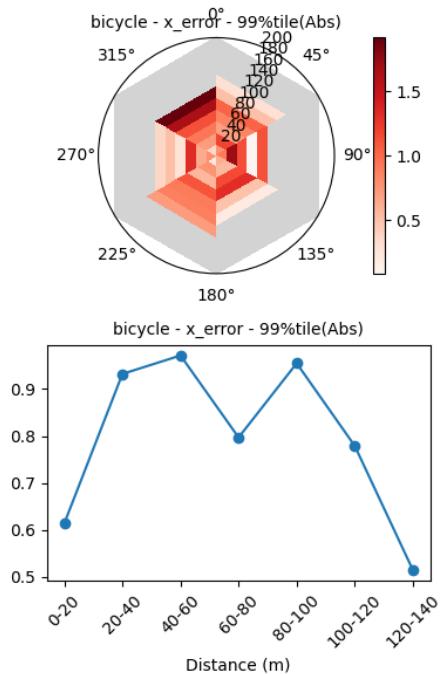


theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.147	0.249	0.143	0.074	0.126	0.140	0.147
20-40	0.179	0.271	0.180	0.152	0.130	0.184	0.183
40-60	0.165	0.327	0.218	0.189	0.430	0.191	0.253
60-80	0.229	0.085	0.341	0.229	0.161	0.239	0.214
80-100	0.206	0.432	0.178	0.272	0.352	0.302	0.291
100-120	0.207	<NA>	0.103	0.266	0.373	0.499	0.289
120-140	0.307	<NA>	<NA>	0.532	<NA>	<NA>	0.419
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.4.9 bicycle - x_error - 99%tile

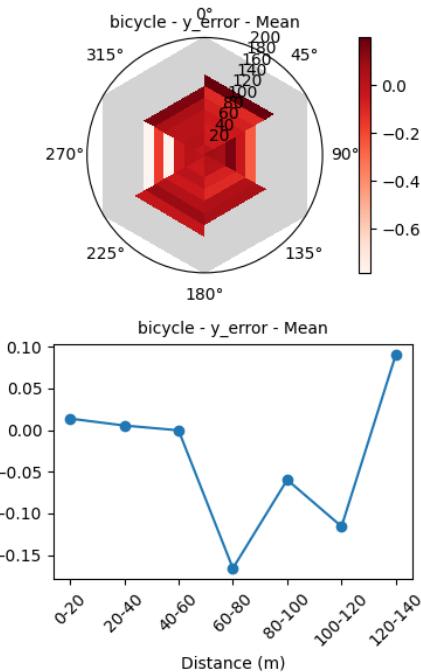


5.4.10 bicycle - x_error - 99%tile(Abs)

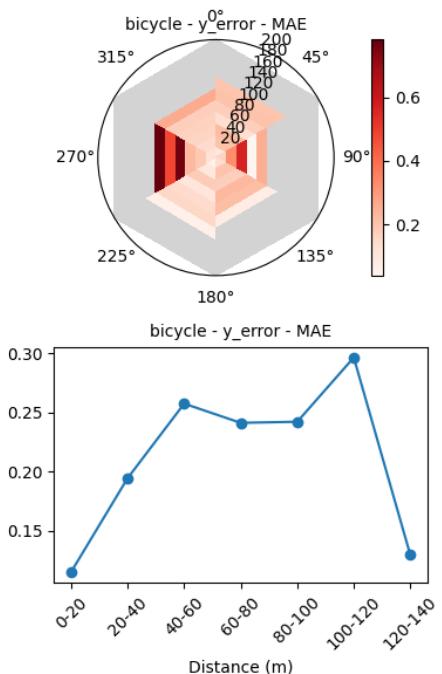


theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.771	0.908	0.622	0.228	0.790	0.363	0.614
20-40	1.192	1.721	0.554	0.770	0.640	0.716	0.932
40-60	0.700	1.142	1.163	0.568	1.333	0.924	0.972
60-80	0.852	0.085	1.320	1.105	0.286	1.132	0.797
80-100	1.033	1.123	0.506	0.906	0.516	1.646	0.955
100-120	0.521	<NA>	0.202	0.880	0.373	1.917	0.779
120-140	0.307	<NA>	<NA>	0.721	<NA>	<NA>	0.514
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.4.11 bicycle - y_error - Mean

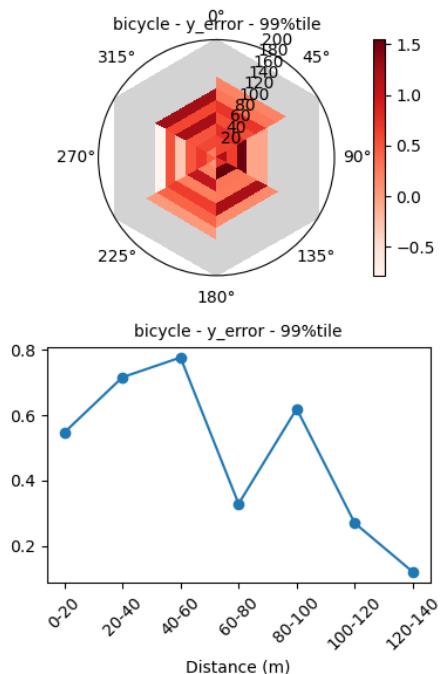


5.4.12 bicycle - y_error - MAE



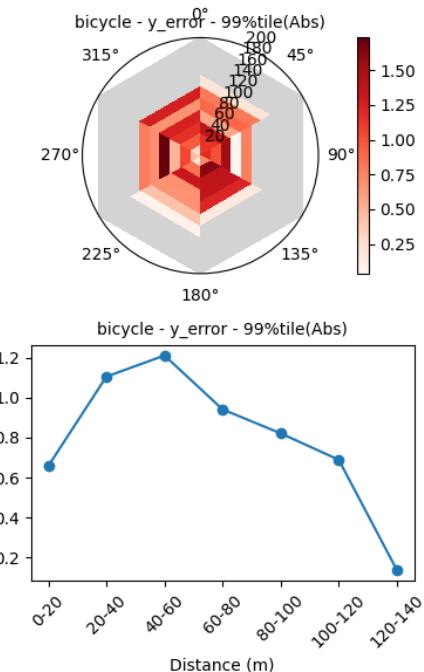
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.097	0.159	0.138	0.053	0.121	0.123	0.115
20-40	0.205	0.332	0.202	0.094	0.190	0.144	0.194
40-60	0.224	0.572	0.177	0.182	0.230	0.159	0.257
60-80	0.135	0.038	0.230	0.107	0.768	0.168	0.241
80-100	0.176	0.256	0.217	0.145	0.483	0.175	0.242
100-120	0.207	<NA>	0.076	0.154	0.783	0.262	0.296
120-140	0.199	<NA>	<NA>	0.061	<NA>	<NA>	0.130
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.4.13 bicycle - y_error - 99%tile

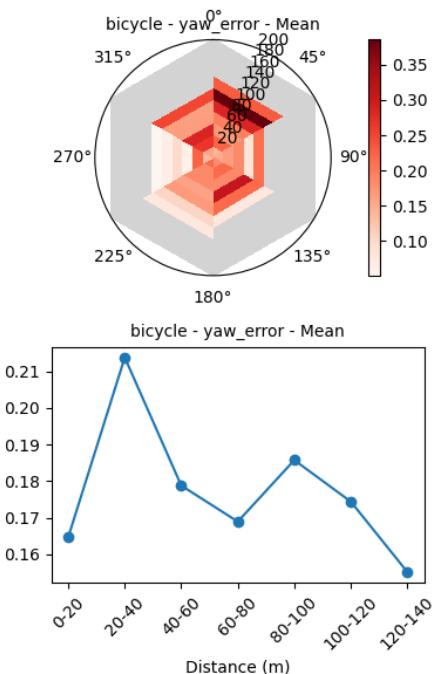


theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.622	1.185	0.726	0.057	0.458	0.236	0.547
20-40	0.618	0.656	1.545	0.199	0.693	0.590	0.717
40-60	0.775	1.531	0.291	1.044	0.502	0.519	0.777
60-80	0.563	-0.038	0.279	0.222	-0.295	1.244	0.329
80-100	0.723	-0.040	1.227	0.670	0.537	0.604	0.620
100-120	0.282	<NA>	0.160	0.424	-0.783	1.268	0.270
120-140	0.199	<NA>	<NA>	0.042	<NA>	<NA>	0.120
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.4.14 bicycle - y_error - 99%tile(Abs)

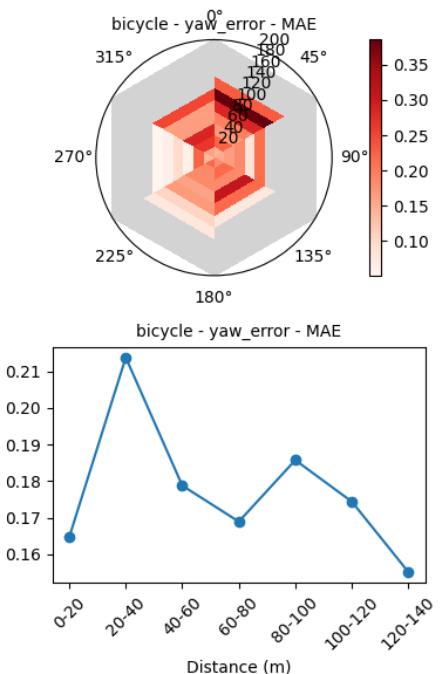


5.4.15 bicycle - yaw_error - Mean



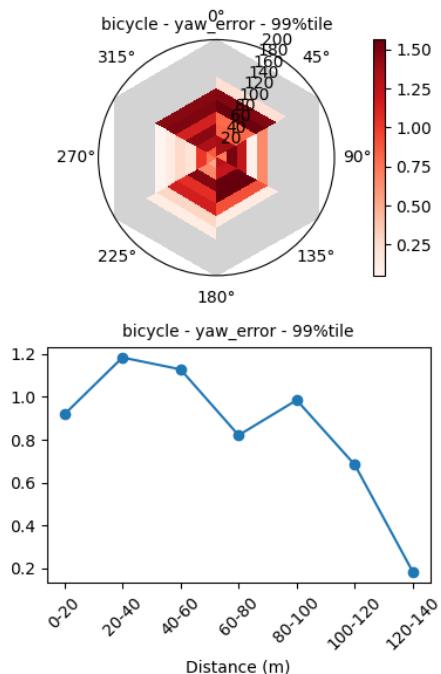
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.141	0.151	0.180	0.218	0.139	0.159	0.165
20-40	0.225	0.166	0.217	0.185	0.224	0.266	0.214
40-60	0.168	0.186	0.186	0.184	0.062	0.287	0.179
60-80	0.194	0.087	0.309	0.160	0.097	0.165	0.169
80-100	0.285	0.214	0.218	0.167	0.065	0.165	0.186
100-120	0.386	<NA>	0.079	0.106	0.051	0.251	0.174
120-140	0.231	<NA>	<NA>	0.079	<NA>	<NA>	0.155
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.4.16 bicycle - yaw_error - MAE



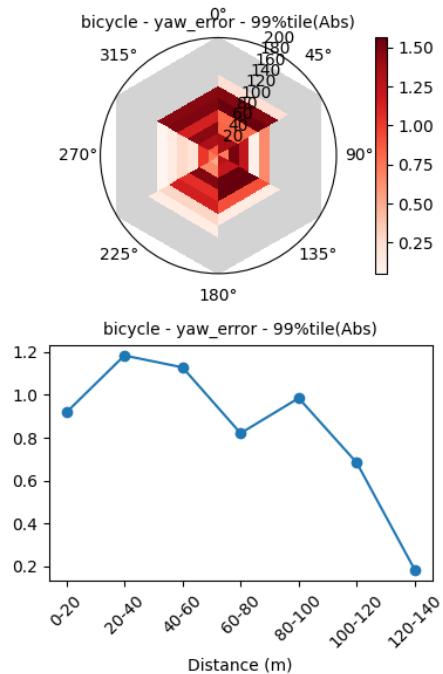
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.141	0.151	0.180	0.218	0.139	0.159	0.165
20-40	0.225	0.166	0.217	0.185	0.224	0.266	0.214
40-60	0.168	0.186	0.186	0.184	0.062	0.287	0.179
60-80	0.194	0.087	0.309	0.160	0.097	0.165	0.169
80-100	0.285	0.214	0.218	0.167	0.065	0.165	0.186
100-120	0.386	<NA>	0.079	0.106	0.051	0.251	0.174
120-140	0.231	<NA>	<NA>	0.079	<NA>	<NA>	0.155
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.4.17 bicycle - yaw_error - 99%tile



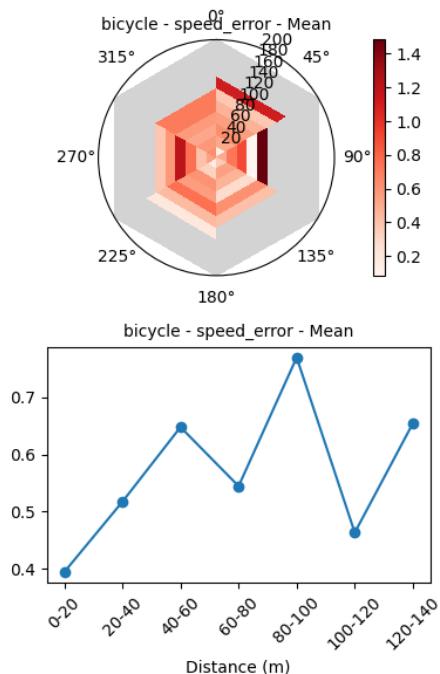
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.364	0.724	1.289	0.524	0.741	0.868	0.918
20-40	1.377	1.510	1.214	0.661	1.015	1.327	1.184
40-60	0.831	1.235	1.558	1.478	0.215	1.455	1.129
60-80	0.802	0.087	1.562	1.063	0.271	1.142	0.821
80-100	1.550	0.665	0.913	1.151	0.141	1.490	0.985
100-120	1.474	<NA>	0.140	0.288	0.051	1.464	0.683
120-140	0.231	<NA>	<NA>	0.135	<NA>	<NA>	0.183
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.4.18 bicycle - yaw_error - 99%tile(Abs)



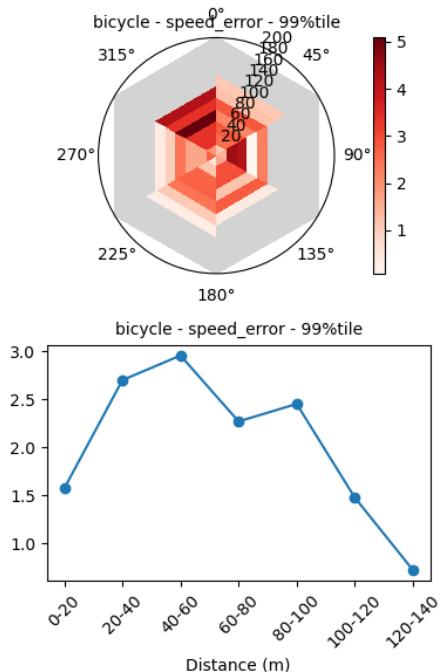
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.364	0.724	1.289	0.524	0.741	0.868	0.918
20-40	1.377	1.510	1.214	0.661	1.015	1.327	1.184
40-60	0.831	1.235	1.558	1.478	0.215	1.455	1.129
60-80	0.802	0.087	1.562	1.063	0.271	1.142	0.821
80-100	1.550	0.665	0.913	1.151	0.141	1.490	0.985
100-120	1.474	<NA>	0.140	0.288	0.051	1.464	0.683
120-140	0.231	<NA>	<NA>	0.135	<NA>	<NA>	0.183
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.4.19 bicycle - speed_error - Mean



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.142	0.513	0.366	0.165	0.550	0.631	0.395
20-40	0.514	0.725	0.545	0.326	0.410	0.584	0.517
40-60	0.630	0.908	0.462	0.607	0.761	0.520	0.648
60-80	0.559	0.084	0.279	0.563	1.208	0.574	0.545
80-100	0.476	1.484	0.615	0.752	0.589	0.702	0.769
100-120	0.375	<NA>	0.417	0.438	0.380	0.708	0.464
120-140	1.114	<NA>	<NA>	0.195	<NA>	<NA>	0.654
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

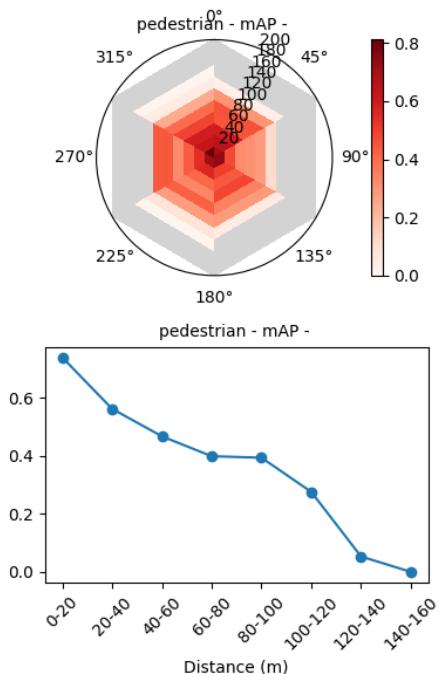
5.4.20 bicycle - speed_error - 99%tile



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.080	1.455	1.680	0.578	2.733	1.922	1.574
20-40	2.534	4.508	2.949	1.162	1.648	3.404	2.701
40-60	2.827	4.279	2.952	2.682	1.654	3.349	2.957
60-80	2.137	0.084	1.191	2.704	2.419	5.087	2.270
80-100	2.847	2.263	2.785	2.411	1.007	3.405	2.453
100-120	1.246	<NA>	0.429	1.090	0.380	4.247	1.478
120-140	1.114	<NA>	<NA>	0.334	<NA>	<NA>	0.724
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

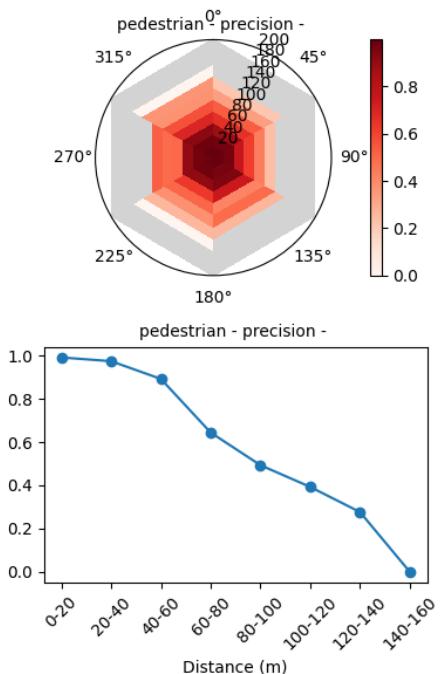
5.5 pedestrian

5.5.1 pedestrian - mAP -



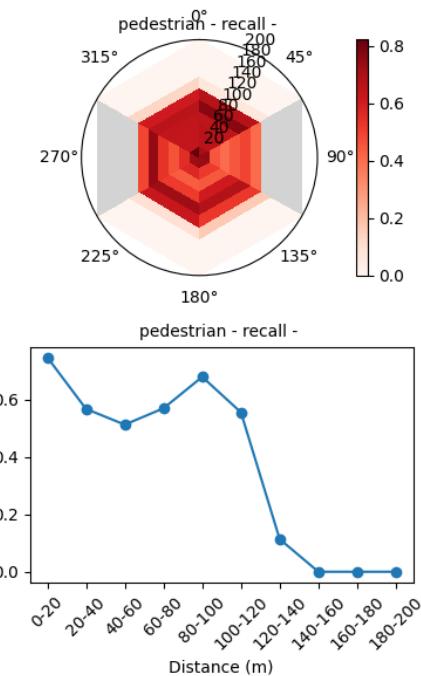
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.710	0.740	0.739	0.716	0.715	0.811	0.739
20-40	0.655	0.478	0.499	0.566	0.545	0.628	0.562
40-60	0.595	0.321	0.441	0.410	0.440	0.594	0.467
60-80	0.453	0.310	0.482	0.336	0.320	0.489	0.398
80-100	0.457	0.281	0.348	0.425	0.446	0.402	0.393
100-120	0.297	0.111	0.285	0.277	0.441	0.242	0.276
120-140	0.030	-	0.050	0.081	-	0.050	0.053
140-160	-	-	-	0.000	-	0.000	0.000
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.5.2 pedestrian - precision -



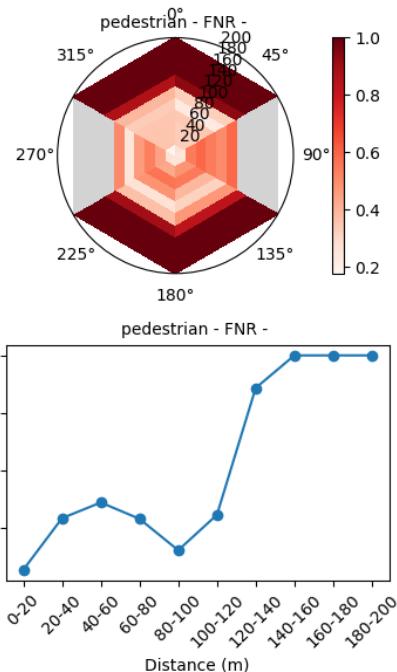
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.995	0.991	0.994	0.985	0.985	0.997	0.991
20-40	0.975	0.970	0.966	0.980	0.968	0.984	0.974
40-60	0.887	0.770	0.949	0.913	0.910	0.924	0.892
60-80	0.662	0.617	0.748	0.635	0.502	0.701	0.644
80-100	0.531	0.440	0.419	0.508	0.493	0.569	0.493
100-120	0.339	0.241	0.492	0.381	0.529	0.374	0.393
120-140	0.214	-	0.266	0.262	-	0.364	0.276
140-160	-	-	-	0.000	-	0.000	0.000
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.5.3 pedestrian - recall -



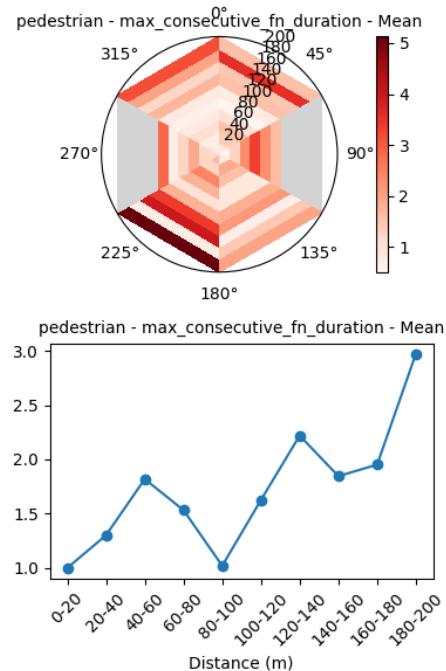
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.716	0.749	0.735	0.733	0.727	0.822	0.747
20-40	0.665	0.453	0.518	0.570	0.555	0.643	0.567
40-60	0.670	0.405	0.452	0.439	0.465	0.643	0.512
60-80	0.654	0.454	0.609	0.514	0.539	0.647	0.569
80-100	0.765	0.495	0.680	0.728	0.742	0.664	0.679
100-120	0.671	0.408	0.525	0.628	0.491	0.609	0.555
120-140	0.063	-	0.165	0.097	-	0.130	0.114
140-160	0.000	-	0.000	0.000	-	0.000	0.000
160-180	0.000	-	0.000	0.000	-	0.000	0.000
180-200	0.000	-	0.000	0.000	-	0.000	0.000

5.5.4 pedestrian - FNR -



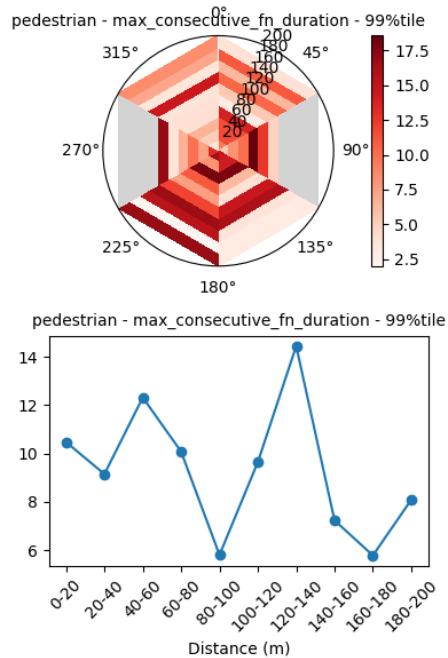
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.284	0.251	0.265	0.267	0.273	0.178	0.253
20-40	0.335	0.547	0.482	0.430	0.445	0.357	0.433
40-60	0.330	0.595	0.548	0.561	0.535	0.357	0.488
60-80	0.346	0.546	0.391	0.486	0.461	0.353	0.431
80-100	0.235	0.505	0.320	0.272	0.258	0.336	0.321
100-120	0.329	0.592	0.475	0.372	0.509	0.391	0.445
120-140	0.937	-	0.835	0.903	-	0.870	0.886
140-160	1.000	-	1.000	1.000	-	1.000	1.000
160-180	1.000	-	1.000	1.000	-	1.000	1.000
180-200	1.000	-	1.000	1.000	-	1.000	1.000

5.5.5 pedestrian - max_consecutive_fn_duration - Mean



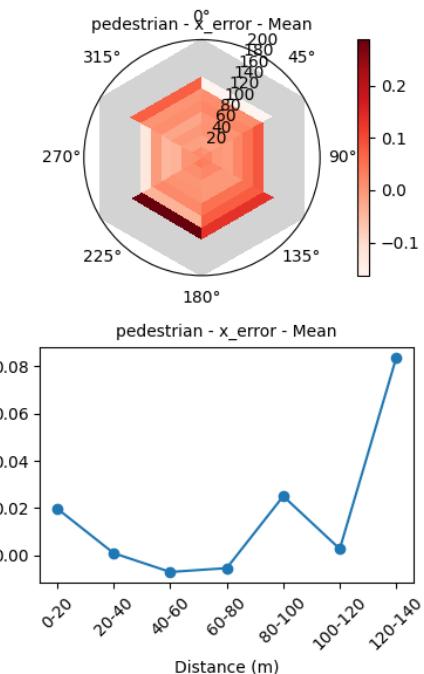
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.882	0.564	0.907	1.689	1.160	0.786	0.998
20-40	1.396	1.296	1.885	1.251	1.243	0.730	1.300
40-60	1.580	2.299	1.595	2.435	1.904	1.095	1.818
60-80	1.088	3.337	0.900	1.797	1.253	0.812	1.531
80-100	0.512	2.296	0.906	1.049	0.724	0.621	1.018
100-120	0.794	1.636	1.836	1.797	2.853	0.834	1.625
120-140	1.587	-	2.144	3.406	-	1.741	2.219
140-160	1.502	-	0.693	3.940	-	1.245	1.845
160-180	3.586	-	1.450	0.778	-	1.990	1.951
180-200	1.597	-	2.000	5.125	-	3.172	2.973

5.5.6 pedestrian - max_consecutive_fn_duration - 99%tile



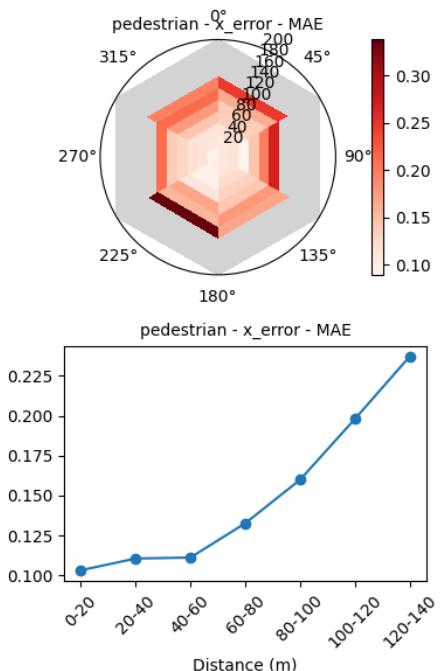
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	9.488	5.400	14.498	16.484	13.310	3.660	10.473
20-40	11.735	8.200	14.177	8.160	7.480	5.150	9.150
40-60	11.590	10.029	17.859	18.033	9.910	6.470	12.315
60-80	13.880	18.570	6.208	11.000	6.669	4.135	10.077
80-100	3.000	12.620	4.000	7.600	3.640	4.000	5.810
100-120	5.420	4.900	14.750	12.000	17.012	3.784	9.644
120-140	10.474	-	16.008	16.800	-	14.486	14.442
140-160	6.360	-	3.722	15.341	-	3.520	7.236
160-180	11.000	-	3.000	2.000	-	7.152	5.788
180-200	3.910	-	3.000	16.930	-	8.520	8.090

5.5.7 pedestrian - x_error - Mean



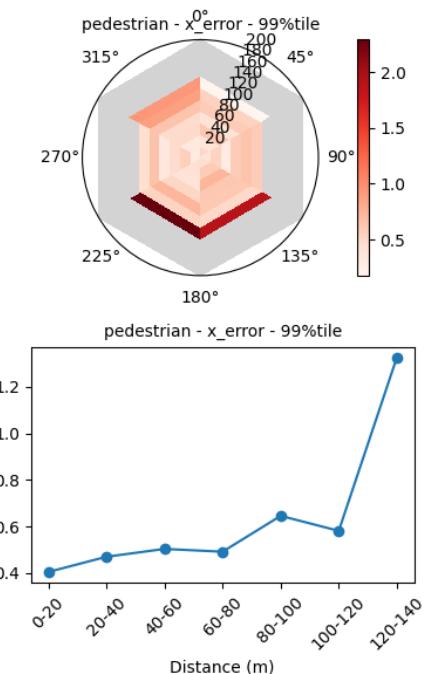
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.005	0.021	0.031	0.038	0.007	0.017	0.020
20-40	-0.014	-0.002	0.021	0.011	0.003	-0.013	0.001
40-60	0.007	-0.008	-0.000	0.001	-0.040	-0.001	-0.007
60-80	0.005	0.022	-0.000	0.006	-0.045	-0.020	-0.005
80-100	0.023	0.051	0.051	0.019	-0.006	0.013	0.025
100-120	0.012	0.086	0.078	-0.039	-0.126	0.006	0.003
120-140	-0.164	<NA>	0.134	0.288	<NA>	0.076	0.084
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.8 pedestrian - x_error - MAE



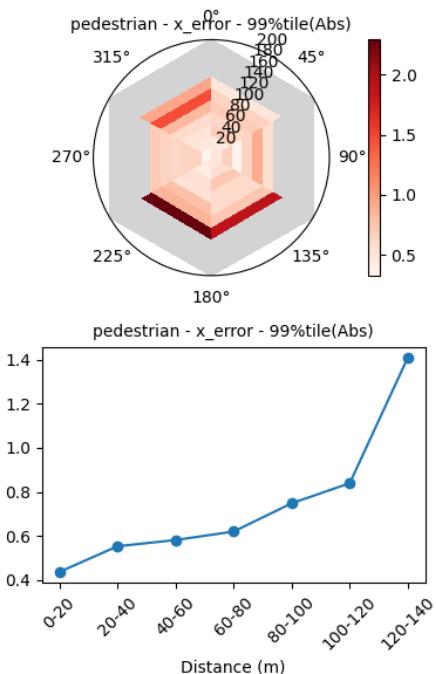
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.113	0.109	0.112	0.101	0.094	0.090	0.103
20-40	0.110	0.118	0.112	0.096	0.116	0.112	0.110
40-60	0.118	0.093	0.124	0.096	0.119	0.116	0.111
60-80	0.135	0.143	0.133	0.113	0.129	0.142	0.133
80-100	0.137	0.198	0.142	0.168	0.138	0.177	0.160
100-120	0.162	0.269	0.177	0.156	0.210	0.213	0.198
120-140	0.247	<NA>	0.168	0.338	<NA>	0.196	0.237
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.9 pedestrian - x_error - 99%tile



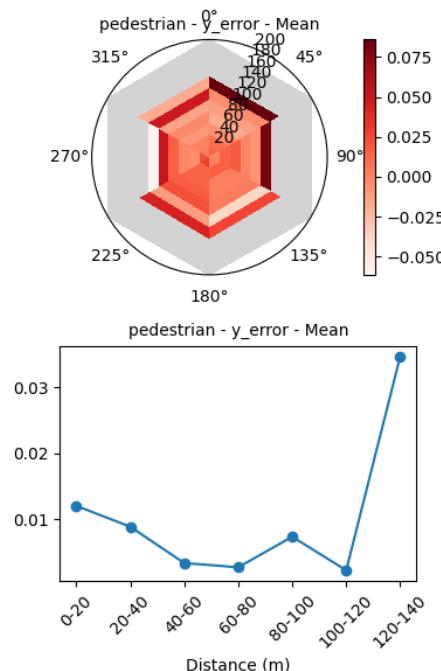
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.502	0.384	0.459	0.452	0.317	0.316	0.405
20-40	0.385	0.532	0.593	0.423	0.561	0.328	0.470
40-60	0.621	0.300	0.739	0.408	0.467	0.489	0.504
60-80	0.411	0.586	0.617	0.507	0.358	0.473	0.492
80-100	0.582	0.646	0.608	0.745	0.652	0.642	0.646
100-120	0.542	0.588	0.495	0.527	0.457	0.880	0.581
120-140	0.176	<NA>	1.898	2.293	<NA>	0.935	1.326
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.10 pedestrian - x_error - 99%tile(Abs)



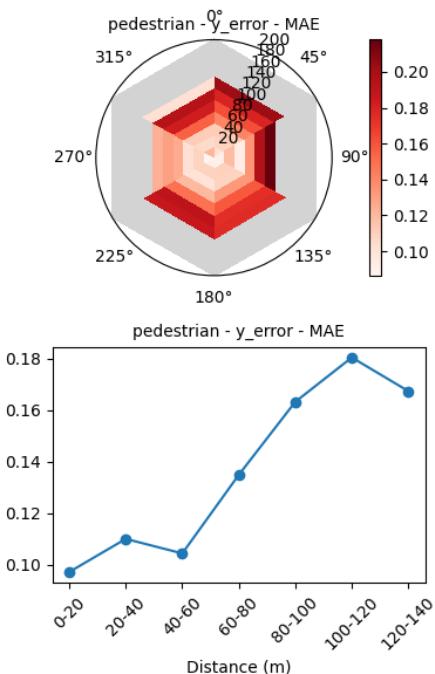
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.515	0.483	0.481	0.465	0.326	0.354	0.437
20-40	0.464	0.675	0.593	0.440	0.666	0.484	0.554
40-60	0.691	0.326	0.739	0.560	0.650	0.526	0.582
60-80	0.638	0.662	0.617	0.553	0.644	0.610	0.620
80-100	0.701	0.907	0.608	0.794	0.652	0.828	0.748
100-120	0.666	0.588	0.741	0.861	0.713	1.468	0.840
120-140	0.509	<NA>	1.898	2.293	<NA>	0.935	1.409
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.11 pedestrian - y_error - Mean



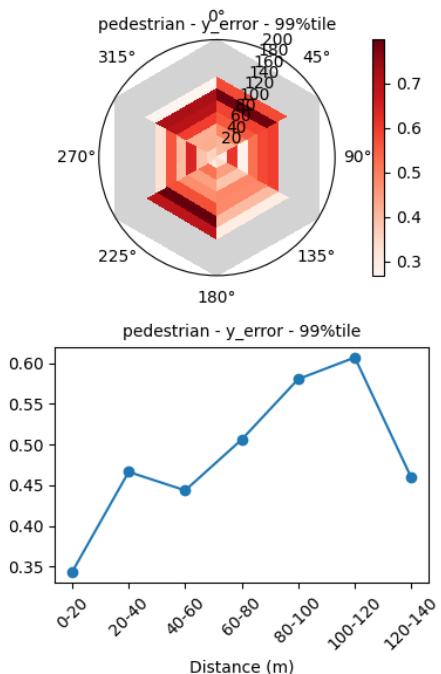
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.015	-0.001	0.002	0.030	0.023	0.003	0.012
20-40	0.010	0.015	0.016	0.015	-0.004	0.001	0.009
40-60	-0.005	0.018	0.003	0.015	-0.001	-0.009	0.003
60-80	-0.018	0.000	0.002	0.017	0.017	-0.002	0.003
80-100	-0.012	-0.007	0.004	0.023	0.051	-0.014	0.007
100-120	-0.004	0.081	-0.039	-0.011	-0.061	0.048	0.002
120-140	0.086	<NA>	0.027	0.044	<NA>	-0.018	0.035
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.12 pedestrian - y_error - MAE



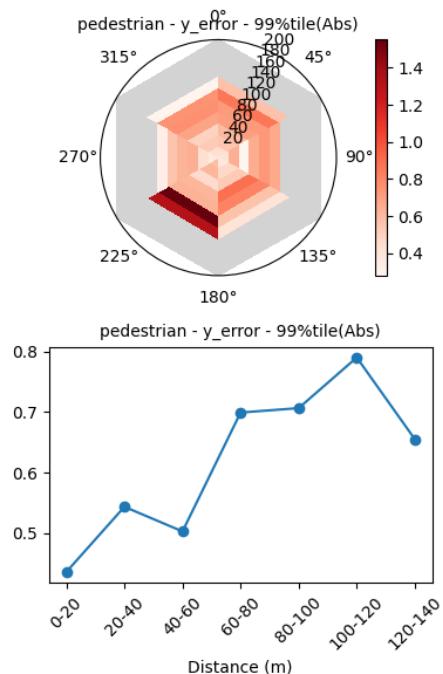
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.102	0.092	0.090	0.091	0.086	0.122	0.097
20-40	0.108	0.119	0.110	0.109	0.108	0.106	0.110
40-60	0.111	0.093	0.108	0.101	0.102	0.111	0.104
60-80	0.141	0.134	0.133	0.120	0.126	0.155	0.135
80-100	0.162	0.196	0.158	0.149	0.131	0.183	0.163
100-120	0.180	0.218	0.175	0.191	0.124	0.194	0.180
120-140	0.203	<NA>	0.176	0.187	<NA>	0.103	0.167
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.13 pedestrian - y_error - 99%tile



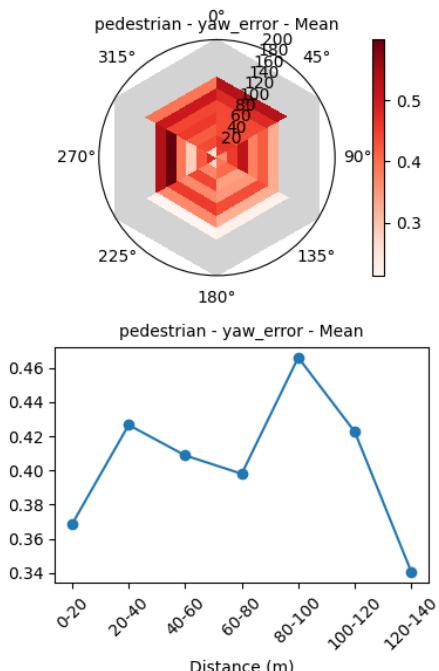
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.407	0.292	0.342	0.304	0.355	0.361	0.343
20-40	0.411	0.610	0.446	0.517	0.390	0.424	0.466
40-60	0.492	0.280	0.382	0.444	0.643	0.421	0.444
60-80	0.559	0.519	0.486	0.477	0.400	0.596	0.506
80-100	0.591	0.580	0.480	0.573	0.560	0.700	0.581
100-120	0.789	0.596	0.401	0.799	0.334	0.723	0.607
120-140	0.577	<NA>	0.298	0.694	<NA>	0.268	0.459
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.14 pedestrian - y_error - 99%tile(Abs)



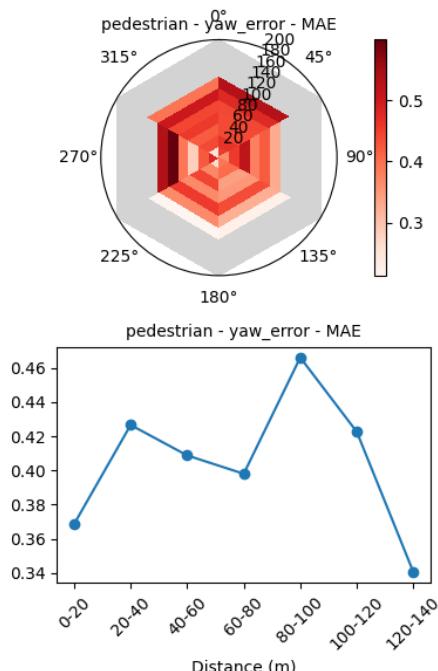
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.444	0.411	0.384	0.584	0.355	0.437	0.436
20-40	0.548	0.644	0.473	0.618	0.442	0.535	0.543
40-60	0.598	0.280	0.534	0.460	0.643	0.501	0.503
60-80	0.711	0.654	0.895	0.621	0.624	0.689	0.699
80-100	0.726	0.740	0.815	0.634	0.560	0.763	0.706
100-120	0.864	0.671	0.567	1.552	0.334	0.752	0.790
120-140	0.577	<NA>	0.419	1.331	<NA>	0.293	0.655
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.15 pedestrian - yaw_error - Mean



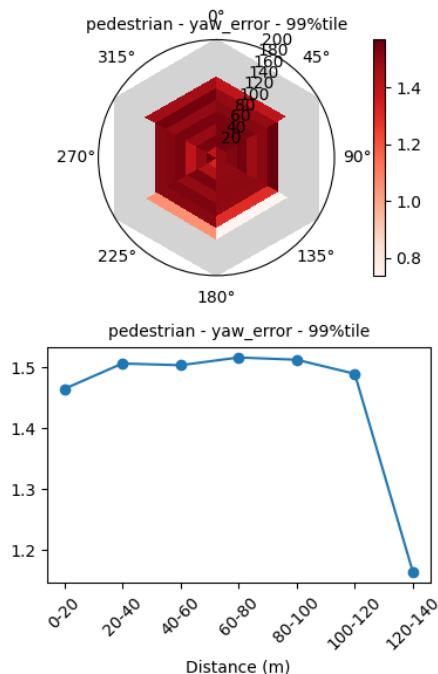
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.455	0.361	0.392	0.266	0.482	0.254	0.369
20-40	0.466	0.455	0.405	0.370	0.424	0.441	0.427
40-60	0.441	0.519	0.342	0.444	0.286	0.421	0.409
60-80	0.438	0.382	0.351	0.370	0.390	0.458	0.398
80-100	0.441	0.421	0.437	0.455	0.599	0.443	0.466
100-120	0.478	0.328	0.324	0.368	0.535	0.502	0.423
120-140	0.532	<NA>	0.224	0.213	<NA>	0.394	0.341
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.16 pedestrian - yaw_error - MAE



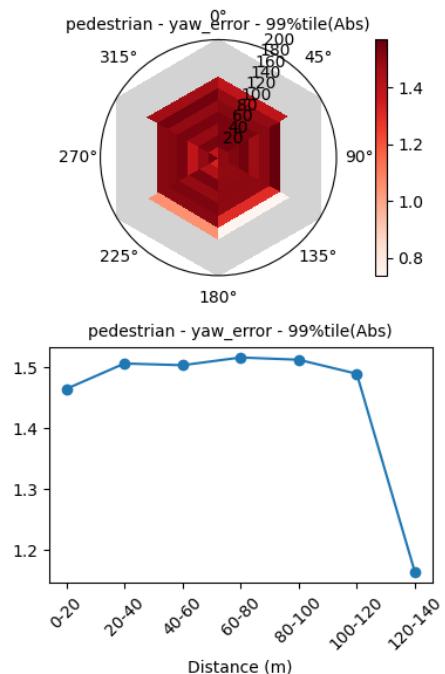
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.455	0.361	0.392	0.266	0.482	0.254	0.369
20-40	0.466	0.455	0.405	0.370	0.424	0.441	0.427
40-60	0.441	0.519	0.342	0.444	0.286	0.421	0.409
60-80	0.438	0.382	0.351	0.370	0.390	0.458	0.398
80-100	0.441	0.421	0.437	0.455	0.599	0.443	0.466
100-120	0.478	0.328	0.324	0.368	0.535	0.502	0.423
120-140	0.532	<NA>	0.224	0.213	<NA>	0.394	0.341
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.17 pedestrian - yaw_error - 99%tile



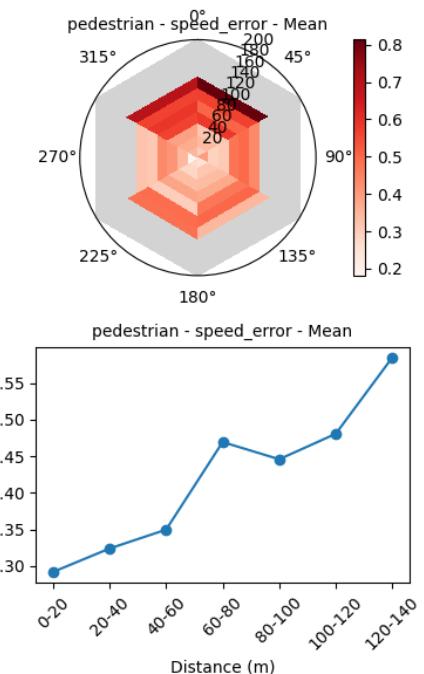
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.506	1.499	1.501	1.330	1.558	1.395	1.465
20-40	1.543	1.526	1.500	1.431	1.497	1.543	1.507
40-60	1.540	1.551	1.503	1.541	1.399	1.489	1.504
60-80	1.542	1.480	1.507	1.492	1.539	1.539	1.517
80-100	1.515	1.510	1.502	1.532	1.521	1.497	1.513
100-120	1.493	1.569	1.302	1.513	1.511	1.551	1.490
120-140	1.394	<NA>	0.737	1.054	<NA>	1.472	1.164
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.18 pedestrian - yaw_error - 99%tile(Abs)



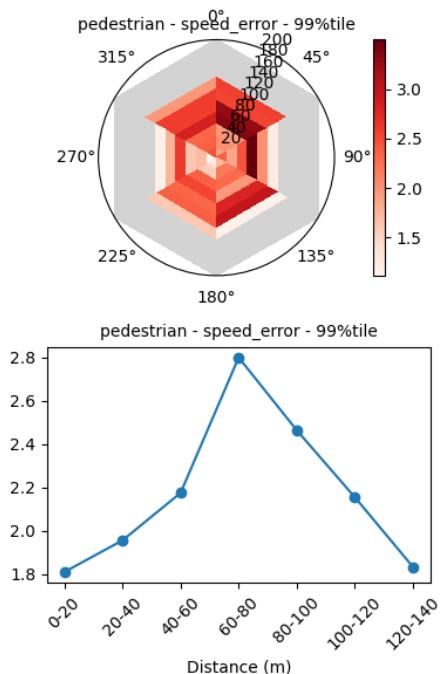
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.506	1.499	1.501	1.330	1.558	1.395	1.465
20-40	1.543	1.526	1.500	1.431	1.497	1.543	1.507
40-60	1.540	1.551	1.503	1.541	1.399	1.489	1.504
60-80	1.542	1.480	1.507	1.492	1.539	1.539	1.517
80-100	1.515	1.510	1.502	1.532	1.521	1.497	1.513
100-120	1.493	1.569	1.302	1.513	1.511	1.551	1.490
120-140	1.394	<NA>	0.737	1.054	<NA>	1.472	1.164
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

5.5.19 pedestrian - speed_error - Mean



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	0.300	0.398	0.253	0.271	0.181	0.345	0.292
20-40	0.341	0.292	0.316	0.282	0.344	0.367	0.324
40-60	0.317	0.309	0.338	0.332	0.413	0.389	0.350
60-80	0.581	0.476	0.375	0.385	0.435	0.565	0.469
80-100	0.506	0.497	0.473	0.298	0.314	0.588	0.446
100-120	0.569	0.436	0.501	0.492	0.321	0.566	0.481
120-140	0.813	<NA>	0.347	0.485	<NA>	0.695	0.585
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

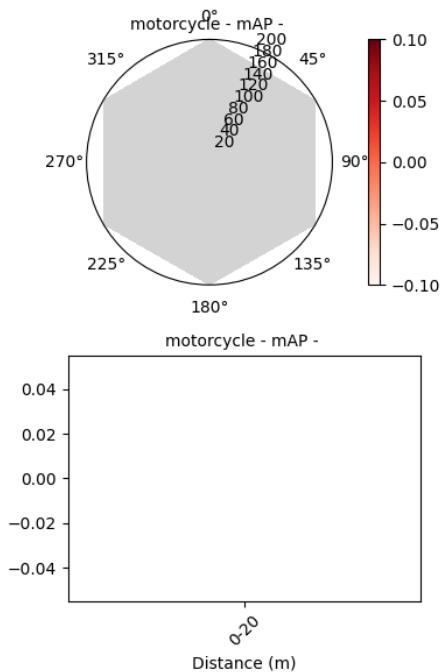
5.5.20 pedestrian - speed_error - 99%tile



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	1.908	2.366	1.725	1.305	1.115	2.447	1.811
20-40	2.030	1.869	2.203	1.555	1.710	2.372	1.957
40-60	1.968	2.458	2.307	2.365	1.621	2.333	2.175
60-80	3.352	3.499	1.956	2.536	2.616	2.835	2.799
80-100	3.275	2.026	2.794	2.327	1.765	2.597	2.464
100-120	2.540	1.258	2.965	2.377	1.188	2.605	2.155
120-140	2.579	<NA>	1.180	1.606	<NA>	1.973	1.835
140-160	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
160-180	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>
180-200	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>	<NA>

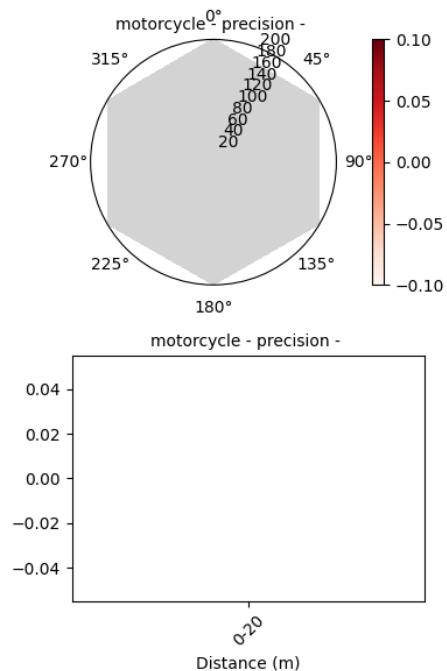
5.6 motorcycle

5.6.1 motorcycle - mAP -



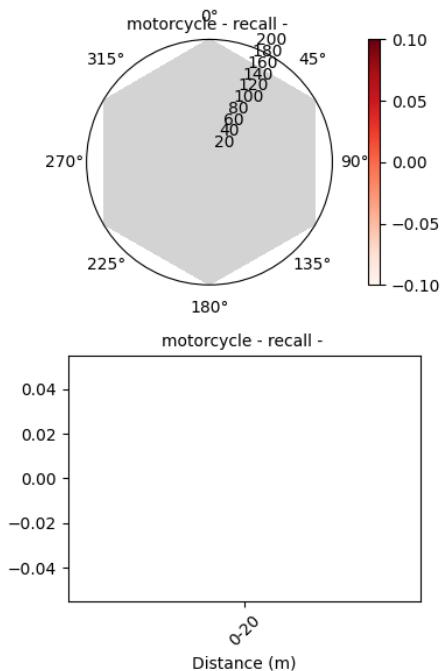
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.2 motorcycle - precision -



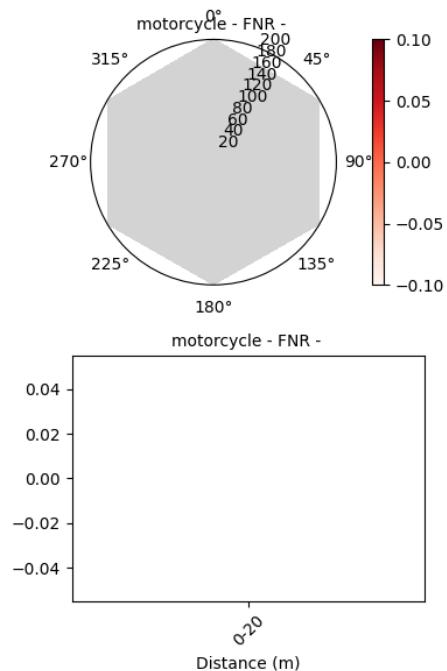
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.3 motorcycle - recall -



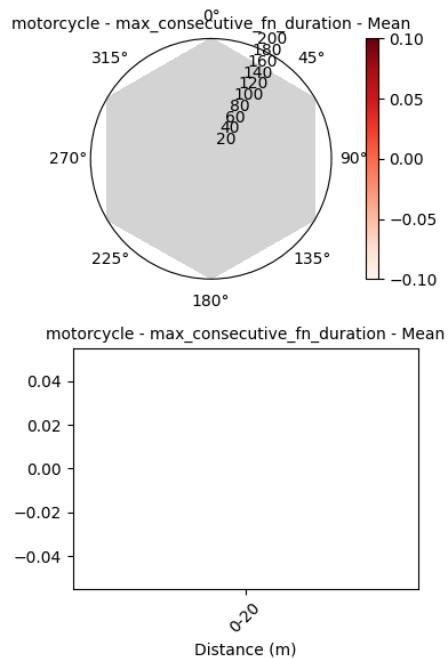
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.4 motorcycle - FNR -



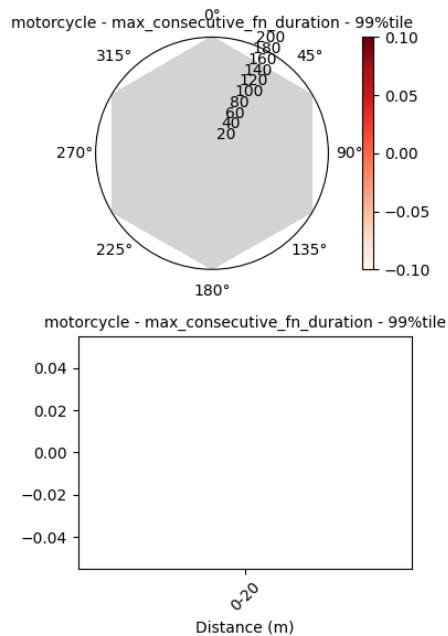
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.5 motorcycle - max_consecutive_fn_duration - Mean



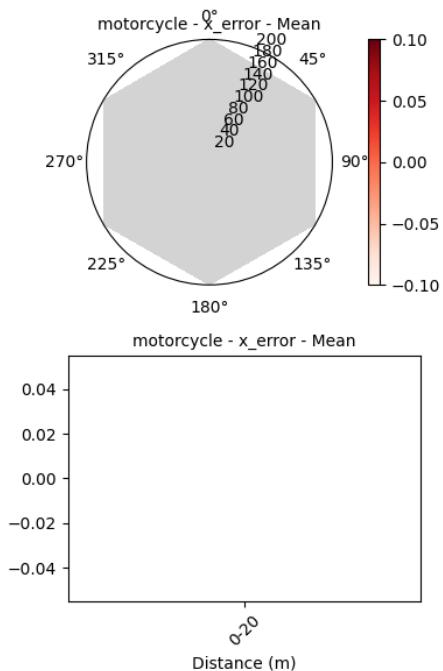
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.6 motorcycle - max_consecutive_fn_duration - 99%tile



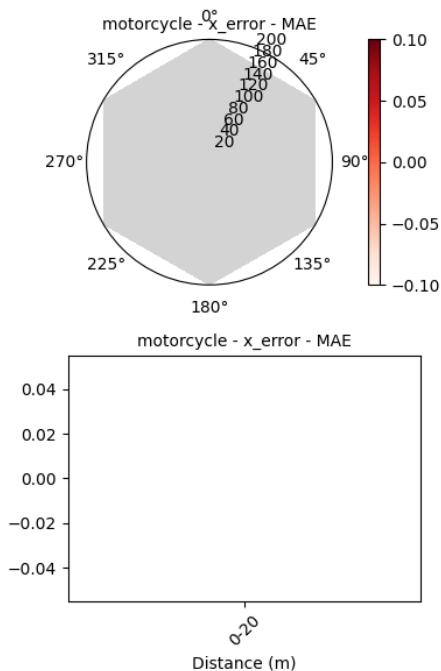
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.7 motorcycle - x_error - Mean



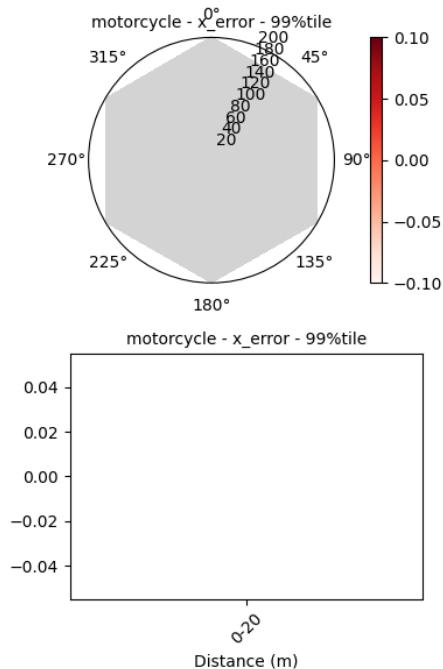
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.8 motorcycle - x_error - MAE



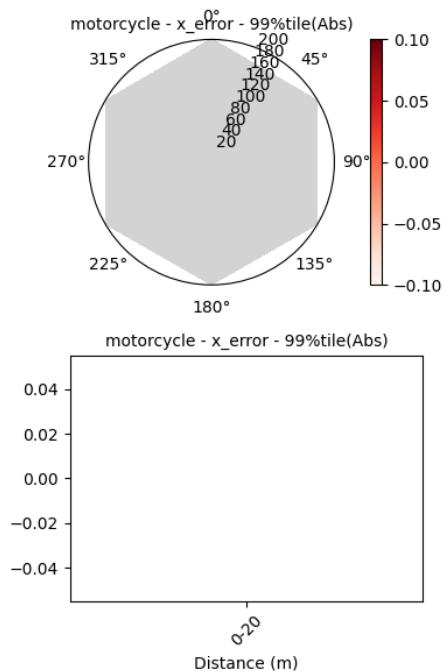
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.9 motorcycle - x_error - 99%tile



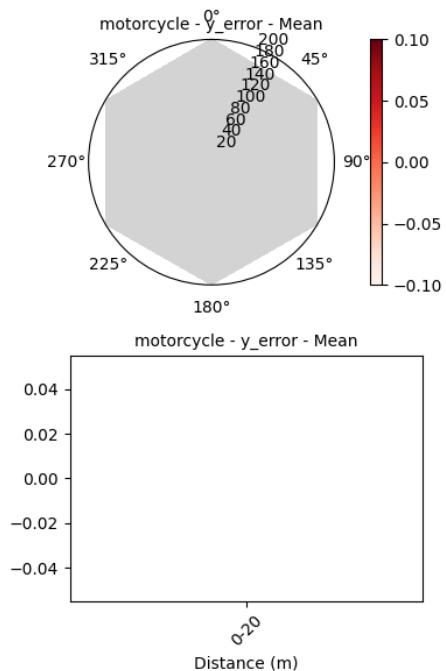
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.10 motorcycle - x_error - 99%tile(Abs)



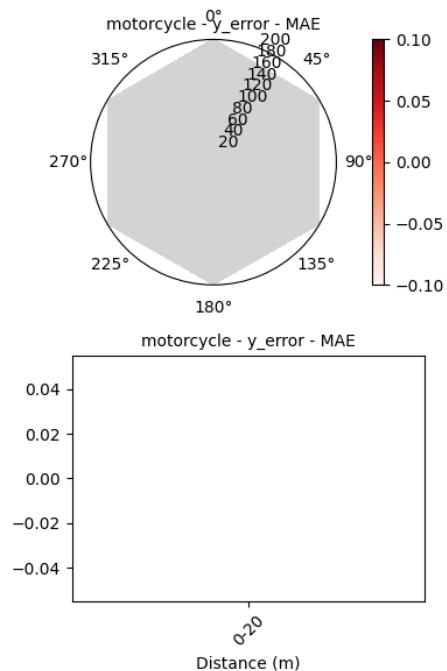
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.11 motorcycle - y_error - Mean



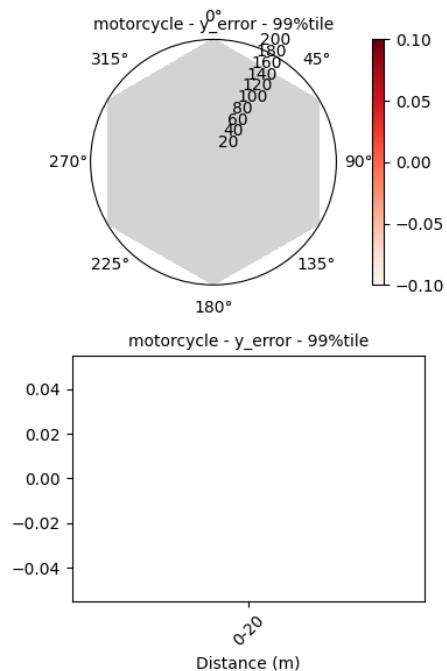
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.12 motorcycle - y_error - MAE



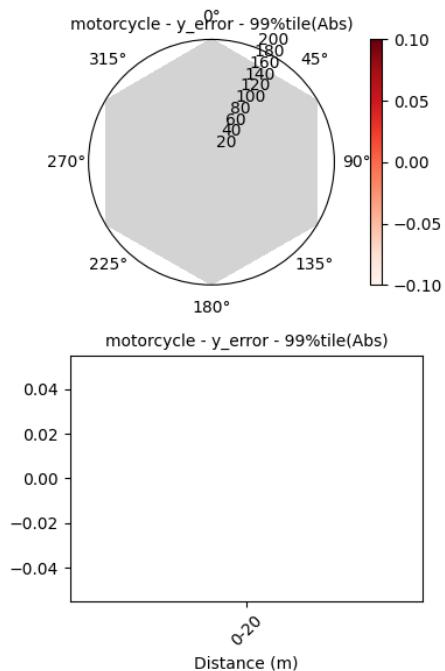
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.13 motorcycle - y_error - 99%tile



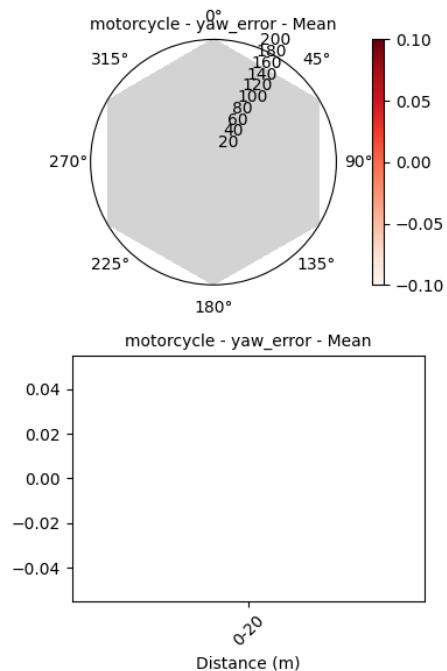
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.14 motorcycle - y_error - 99%tile(Abs)



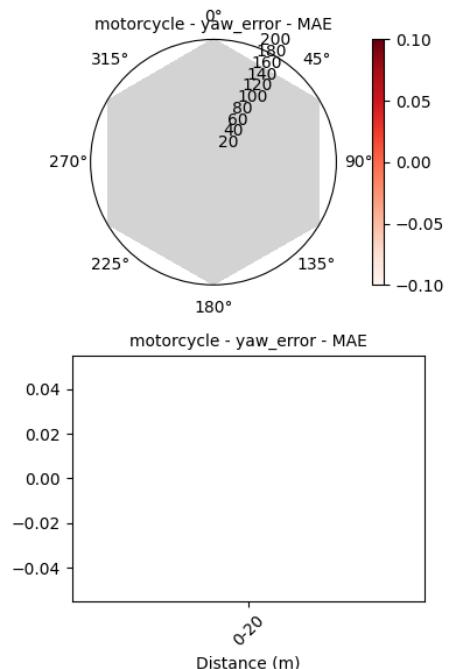
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.15 motorcycle - yaw_error - Mean



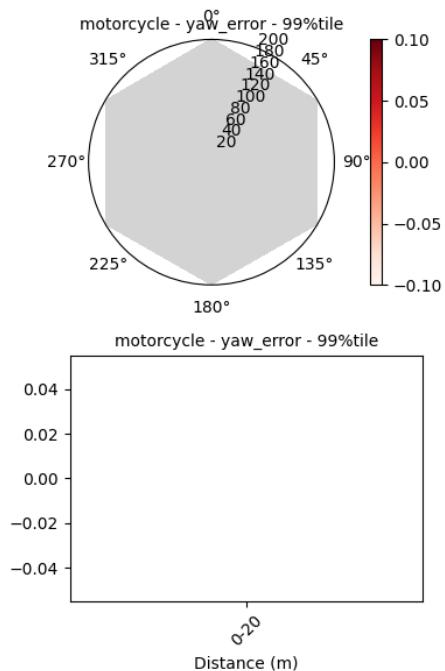
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.16 motorcycle - yaw_error - MAE



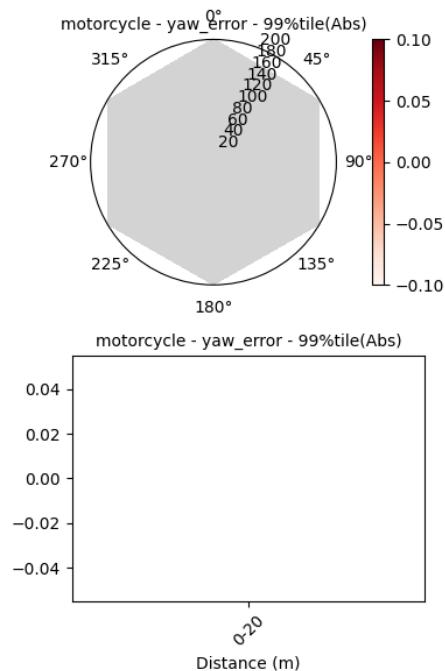
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.17 motorcycle - yaw_error - 99%tile



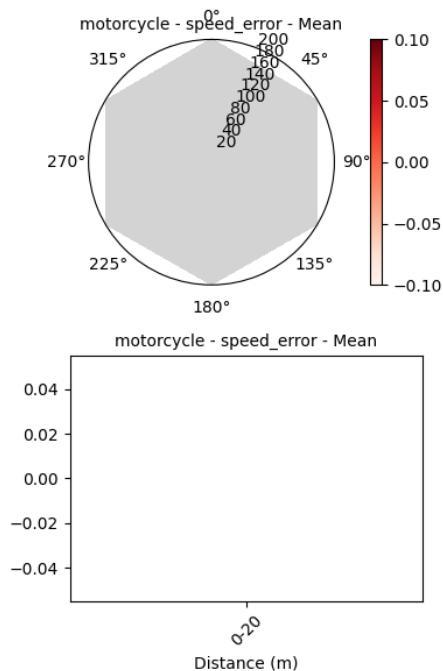
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.18 motorcycle - yaw_error - 99%tile(Abs)



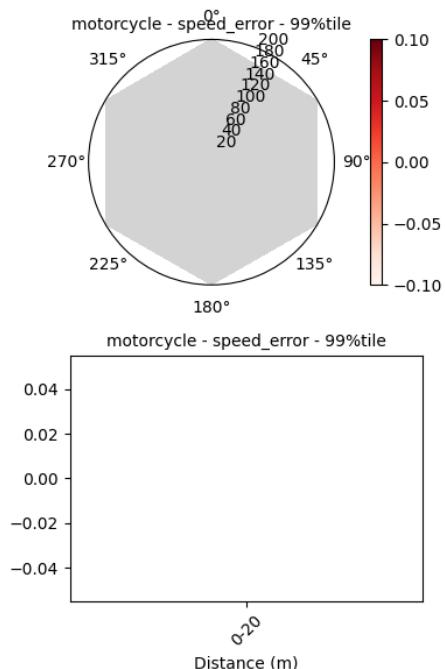
theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.19 motorcycle - speed_error - Mean



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

5.6.20 motorcycle - speed_error - 99%tile

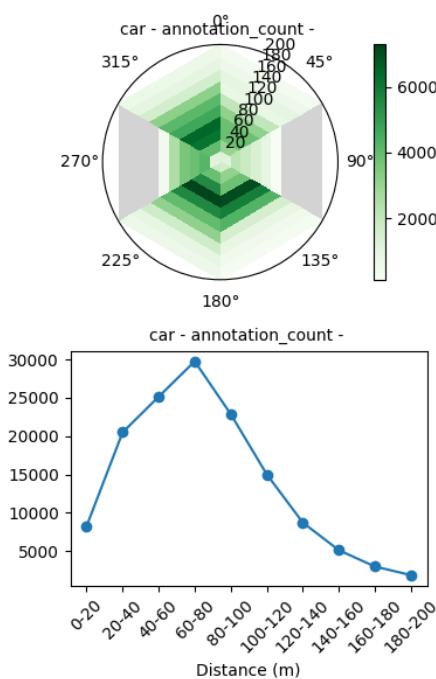


theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Mean
r							
0-20	-	-	-	-	-	-	-
20-40	-	-	-	-	-	-	-
40-60	-	-	-	-	-	-	-
60-80	-	-	-	-	-	-	-
80-100	-	-	-	-	-	-	-
100-120	-	-	-	-	-	-	-
120-140	-	-	-	-	-	-	-
140-160	-	-	-	-	-	-	-
160-180	-	-	-	-	-	-	-
180-200	-	-	-	-	-	-	-

6 アノテーション分布

6.1 car

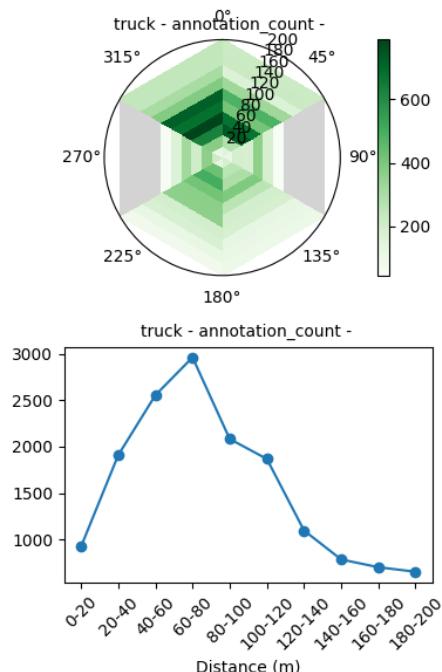
6.1.1 car - annotation_count -



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Sum
r							
0-20	1249	1175	1588	1868	1126	1249	8255
20-40	3036	2196	3128	3891	4239	4009	20499
40-60	3880	1835	3795	5541	3905	6181	25137
60-80	3841	1383	7108	7303	3644	6472	29751
80-100	3155	928	5889	5636	2548	4717	22873
100-120	2076	117	4305	3997	362	4158	15015
120-140	819	-	1535	3164	-	3214	8732
140-160	997	-	881	1689	-	1563	5130
160-180	621	-	491	920	-	966	2998
180-200	319	-	298	606	-	662	1885

6.2 truck

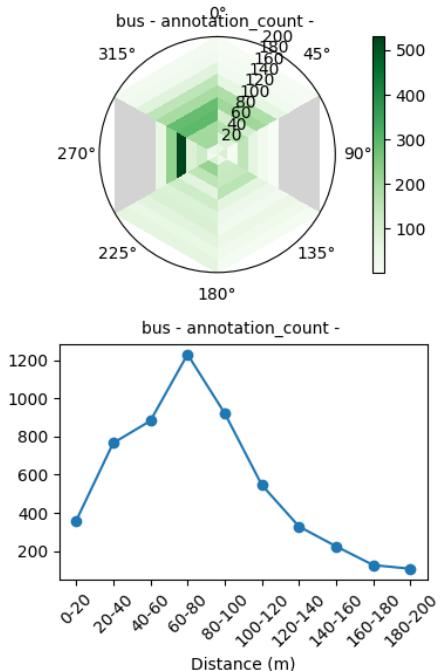
6.2.1 truck - annotation_count -



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Sum
r							
0-20	157	114	188	128	216	120	923
20-40	285	193	263	427	363	376	1907
40-60	736	185	297	502	203	630	2553
60-80	675	365	393	417	323	787	2960
80-100	415	188	263	368	167	681	2082
100-120	485	46	196	363	54	723	1867
120-140	328	-	189	195	-	385	1097
140-160	166	-	128	182	-	309	785
160-180	221	-	115	124	-	242	702
180-200	218	-	105	86	-	244	653

6.3 bus

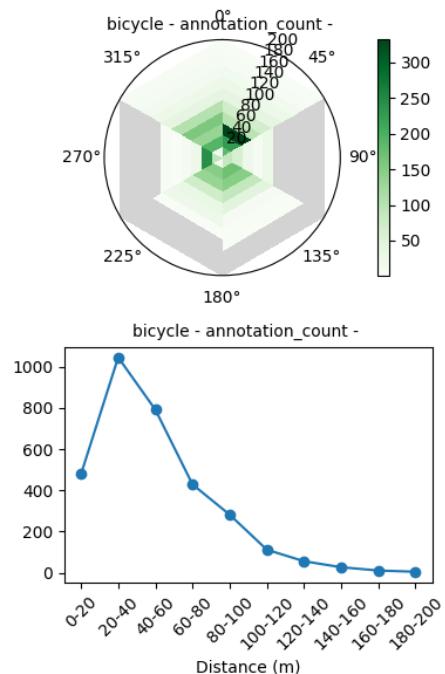
6.3.1 bus - annotation_count -



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Sum
r							
0-20	50	97	41	91	32	47	358
20-40	85	12	130	217	123	199	766
40-60	164	150	134	151	89	194	882
60-80	108	66	155	75	530	296	1230
80-100	204	21	72	119	223	283	922
100-120	176	2	35	87	59	187	546
120-140	61	-	23	96	-	149	329
140-160	26	-	46	75	-	78	225
160-180	14	-	32	54	-	27	127
180-200	8	-	15	68	-	17	108

6.4 bicycle

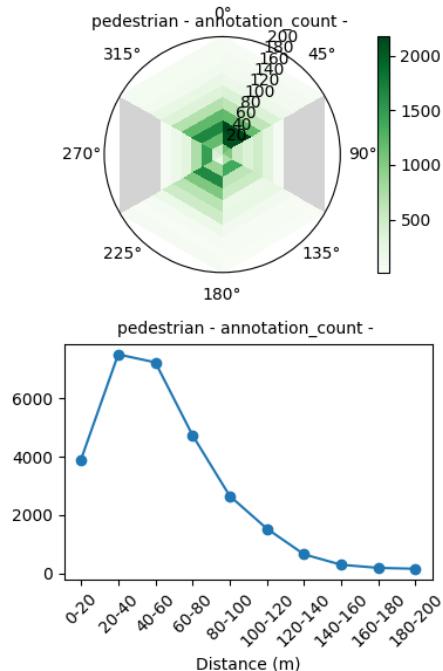
6.4.1 bicycle - annotation_count -



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Sum
r							
0-20	185	88	85	15	93	13	479
20-40	226	64	171	149	244	192	1046
40-60	332	24	148	133	22	133	792
60-80	99	7	87	72	6	158	429
80-100	69	27	47	33	2	104	282
100-120	41	-	5	22	3	41	112
120-140	28	-	2	1	-	25	56
140-160	14	-	1	-	-	12	27
160-180	3	-	-	-	-	8	11
180-200	2	-	-	-	-	3	5

6.5 pedestrian

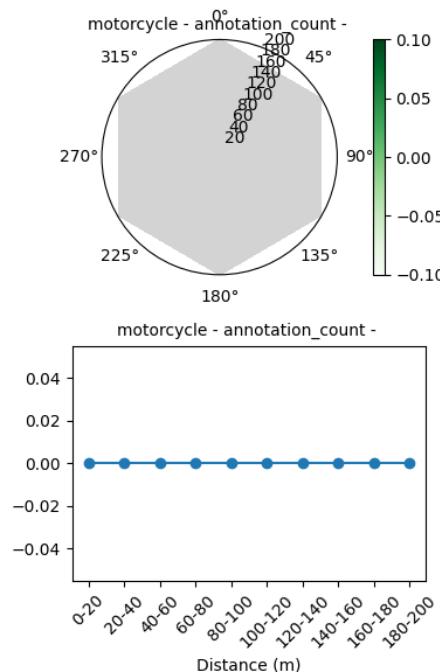
6.5.1 pedestrian - annotation_count -



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Sum
r							
0-20	1130	1007	732	176	373	482	3900
20-40	2074	539	1379	856	1472	1181	7501
40-60	2175	363	619	1655	733	1682	7227
60-80	1191	487	514	1038	295	1208	4733
80-100	630	299	206	659	178	684	2656
100-120	365	49	219	508	53	340	1534
120-140	159	-	97	176	-	223	655
140-160	97	-	32	59	-	110	298
160-180	78	-	29	16	-	68	191
180-200	26	-	15	49	-	71	161

6.6 motorcycle

6.6.1 motorcycle - annotation_count -



theta	0-60	60-120	120-180	180-240	240-300	300-360	All-Around-Sum
r							
0-20	-	-	-	-	-	-	0
20-40	-	-	-	-	-	-	0
40-60	-	-	-	-	-	-	0
60-80	-	-	-	-	-	-	0
80-100	-	-	-	-	-	-	0
100-120	-	-	-	-	-	-	0
120-140	-	-	-	-	-	-	0
140-160	-	-	-	-	-	-	0
160-180	-	-	-	-	-	-	0
180-200	-	-	-	-	-	-	0