

# Initial Velocity Bucket Analysis Report

## Report Summary:

- Bucket Type: Initial Velocity
- Total Buckets: 12
- Date Range: 2025-08-01 to 2025-10-15

This report contains three tables showing:

1. Median statistics for each bucket
2. 95th percentile statistics for each bucket
3. 99th percentile statistics for each bucket

## Each table shows:

- Bucket range
- Total events in the bucket
- Median/95th/99th percentile values for:
  - \* Max Brake Pedal Position (BPP)
  - \* Total Time (seconds)
  - \* Total Distance (meters)
  - \* Deceleration ( $\text{m/s}^2$ )

Initial Velocity - Median Statistics

bucket	total_events	median_max_bpp	median_total_time	median_total_distance	median_deceleration
20-25	1	45.2	14.26	53.23	0.48
25-30	506	25.6	13.54	35.27	0.57
30-35	466	28.0	13.74	43.57	0.66
35-40	427	29.2	13.8	53.31	0.76
40-45	346	30.0	14.01	63.03	0.85
45-50	258	29.6	14.1	69.71	0.94
50-55	182	33.8	14.18	81.63	1.02
55-60	119	33.2	14.18	86.57	1.12
60-65	58	32.8	14.4	95.51	1.21
65-70	31	35.2	14.38	105.61	1.3
70-75	7	37.6	14.18	112.48	1.41
75-80	4	54.2	13.79	106.27	1.54

Initial Velocity - 95th Percentile Statistics

bucket	total_events	p95_max_bpp	p95_total_time	p95_total_distance	p95_deceleration
20-25	1	45.2	14.26	53.23	0.48
25-30	506	45.5	14.9	56.01	0.96
30-35	466	48.7	14.86	65.02	1.0
35-40	427	48.4	14.88	76.73	1.1
40-45	346	51.6	14.92	86.58	1.14
45-50	258	51.2	14.94	92.81	1.13
50-55	182	56.36	14.94	104.73	1.26
55-60	119	54.92	14.98	116.15	1.37
60-65	58	57.34	14.98	122.35	1.46
65-70	31	60.2	14.96	138.04	1.57
70-75	7	59.96	14.83	136.62	1.57
75-80	4	72.88	14.71	128.58	1.78

Initial Velocity - 99th Percentile Statistics

bucket	total_events	p99_max_bpp	p99_total_time	p99_total_distance	p99_deceleration
20-25	1	45.2	14.26	53.23	0.48
25-30	506	53.14	14.98	64.37	1.11
30-35	466	56.28	14.98	72.15	1.24
35-40	427	58.89	15.0	83.48	1.27
40-45	346	59.2	14.98	96.81	1.3
45-50	258	58.29	14.98	100.38	1.25
50-55	182	63.83	15.0	109.74	1.41
55-60	119	62.04	15.0	120.59	1.53
60-65	58	65.32	14.99	126.17	1.66
65-70	31	63.6	14.99	150.86	1.62
70-75	7	62.55	14.93	138.35	1.58
75-80	4	73.46	14.72	131.6	1.8