

# Initial Velocity Bucket Analysis Report

## Report Summary:

- Bucket Type: Initial Velocity
- Total Buckets: 9
- Date Range: 2025-08-01 to 2025-08-04

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
25-30	14	25.4	14.57	39.0	0.54
30-35	14	24.8	14.25	49.37	0.63
35-40	11	29.2	14.2	57.53	0.73
40-45	7	31.6	14.49	60.82	0.81
45-50	4	30.0	14.57	85.97	0.89
50-55	7	34.8	14.64	85.95	1.0
55-60	4	36.4	14.59	85.14	1.08
60-65	5	41.2	14.74	101.31	1.15
65-70	6	37.0	14.34	114.66	1.33

Initial Velocity - 95th Percentile Statistics

bucket	total_events	p95_max_bpp	p95_total_time	p95_total_distance	p95_deceleration
25-30	14	32.18	14.95	66.96	0.76
30-35	14	36.06	14.89	70.49	0.89
35-40	11	37.8	14.82	75.04	0.94
40-45	7	38.48	14.89	76.16	1.38
45-50	4	32.84	14.82	98.99	0.92
50-55	7	42.68	14.98	120.48	1.03
55-60	4	37.14	14.64	108.34	1.19
60-65	5	44.8	14.96	102.98	1.29
65-70	6	41.6	14.9	132.45	1.55

Initial Velocity - 99th Percentile Statistics

bucket	total_events	p99_max_bpp	p99_total_time	p99_total_distance	p99_deceleration
25-30	14	33.64	14.97	69.5	0.77
30-35	14	37.93	14.89	72.63	0.96
35-40	11	40.2	14.9	78.57	0.95
40-45	7	39.06	14.91	79.6	1.46
45-50	4	33.13	14.84	100.82	0.92
50-55	7	44.7	14.98	121.29	1.03
55-60	4	37.19	14.64	110.89	1.2
60-65	5	45.12	14.99	103.06	1.31
65-70	6	42.56	14.9	132.9	1.6