Initial Velocity Bucket Analysis Report

Report Summary:
- Bucket Type: Initial Velocity
- Total Buckets: 11
- 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 (m/s²)

Initial Velocity - Median Statistics

bucket	total_events	median_max_bpp	median_total_time	median_total_distance	median_deceleration
25-30	27	35.2	14.42	40.53	0.55
30-35	24	36.8	14.66	48.5	0.61
35-40	23	38.0	14.42	59.22	0.71
40-45	23	42.0	14.5	74.11	0.83
45-50	14	49.8	13.95	75.35	0.97
50-55	8	48.2	14.57	91.49	1.0
55-60	5	49.6	14.86	101.52	1.05
60-65	6	58.4	14.26	111.27	1.21
65-70	3	52.0	14.72	122.78	1.32
70-75	1	58.4	14.92	127.34	1.38
75-80	2	74.6	12.24	112.74	1.79

Initial Velocity - 95th Percentile Statistics

bucket	total_events	p95_max_bpp	p95_total_time	p95_total_distance	p95_deceleration
25-30	27	45.12	14.91	68.08	0.91
30-35	24	50.68	14.9	62.91	1.0
35-40	23	53.48	14.93	76.34	0.99
40-45	23	53.84	14.85	97.32	0.96
45-50	14	66.28	14.58	91.3	1.45
50-55	8	55.28	14.86	106.07	1.14
55-60	5	67.44	14.98	113.12	1.11
60-65	6	62.0	14.5	126.21	1.31
65-70	3	54.52	14.77	122.96	1.37
70-75	1	58.4	14.92	127.34	1.38
75-80	2	79.82	13.77	136.5	2.0

Initial Velocity - 99th Percentile Statistics

bucket	total_events	p99_max_bpp	p99_total_time	p99_total_distance	p99_deceleration
25-30	27	65.14	14.95	72.58	1.49
30-35	24	59.42	14.9	64.38	1.01
35-40	23	79.9	14.96	80.51	1.22
40-45	23	55.87	14.87	102.83	1.01
45-50	14	66.7	14.61	91.41	1.61
50-55	8	56.18	14.91	111.51	1.19
55-60	5	69.17	15.0	115.36	1.12
60-65	6	62.32	14.53	126.29	1.32
65-70	3	54.74	14.78	122.98	1.38
70-75	1	58.4	14.92	127.34	1.38
75-80	2	80.28	13.91	138.61	2.02