

Initial Velocity Bucket Analysis Report

Report Summary:

- Bucket Type: Initial Velocity
- Total Buckets: 10
- 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/s^2)

Initial Velocity - Median Statistics

| bucket | total_events | median_max_bpp | median_total_time | median_total_distance | median_deceleration |
|--------|--------------|----------------|-------------------|-----------------------|---------------------|
| 25-30 | 28 | 34.0 | 13.94 | 39.28 | 0.55 |
| 30-35 | 22 | 38.2 | 13.05 | 48.09 | 0.67 |
| 35-40 | 29 | 40.4 | 14.38 | 54.24 | 0.73 |
| 40-45 | 13 | 44.4 | 14.4 | 68.61 | 0.82 |
| 45-50 | 27 | 46.4 | 14.63 | 83.85 | 0.92 |
| 50-55 | 6 | 46.0 | 14.57 | 92.66 | 0.99 |
| 55-60 | 10 | 53.8 | 14.73 | 98.18 | 1.09 |
| 60-65 | 2 | 52.4 | 14.92 | 105.87 | 1.13 |
| 65-70 | 5 | 58.8 | 14.42 | 108.04 | 1.31 |
| 70-75 | 1 | 60.0 | 14.62 | 133.35 | 1.36 |

Initial Velocity - 95th Percentile Statistics

| bucket | total_events | p95_max_bpp | p95_total_time | p95_total_distance | p95_deceleration |
|--------|--------------|-------------|----------------|--------------------|------------------|
| 25-30 | 28 | 51.28 | 14.76 | 53.92 | 0.86 |
| 30-35 | 22 | 50.66 | 14.88 | 63.4 | 1.12 |
| 35-40 | 29 | 54.16 | 14.86 | 79.11 | 1.06 |
| 40-45 | 13 | 50.8 | 14.84 | 92.38 | 0.99 |
| 45-50 | 27 | 59.2 | 14.84 | 105.35 | 1.19 |
| 50-55 | 6 | 53.9 | 14.89 | 108.88 | 1.02 |
| 55-60 | 10 | 62.54 | 14.84 | 105.5 | 1.2 |
| 60-65 | 2 | 54.2 | 14.94 | 108.83 | 1.13 |
| 65-70 | 5 | 64.8 | 14.72 | 140.66 | 1.46 |
| 70-75 | 1 | 60.0 | 14.62 | 133.35 | 1.36 |

Initial Velocity - 99th Percentile Statistics

| bucket | total_events | p99_max_bpp | p99_total_time | p99_total_distance | p99_deceleration |
|---------------|---------------------|--------------------|-----------------------|---------------------------|-------------------------|
| 25-30 | 28 | 55.9 | 14.91 | 54.76 | 0.89 |
| 30-35 | 22 | 51.12 | 14.93 | 68.85 | 1.14 |
| 35-40 | 29 | 55.09 | 14.95 | 81.21 | 1.23 |
| 40-45 | 13 | 50.8 | 14.9 | 92.83 | 1.05 |
| 45-50 | 27 | 60.99 | 14.87 | 106.44 | 1.25 |
| 50-55 | 6 | 53.98 | 14.91 | 111.86 | 1.02 |
| 55-60 | 10 | 64.99 | 14.87 | 105.78 | 1.24 |
| 60-65 | 2 | 54.36 | 14.94 | 109.1 | 1.13 |
| 65-70 | 5 | 65.44 | 14.75 | 142.22 | 1.48 |
| 70-75 | 1 | 60.0 | 14.62 | 133.35 | 1.36 |