

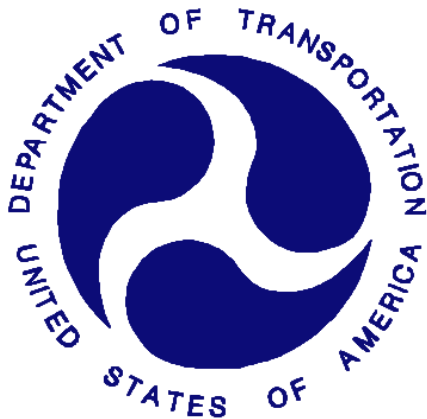
REPORT NUMBER TR-P23003-04-NC

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**FORD MOTOR COMPANY
2003 LINCOLN TOWN CAR
4 DOOR SEDAN**

NHTSA NUMBER: M30203

**Prepared By:
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NOVEMBER 14, 2002

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
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Date of Acceptance

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16. Abstract A 55/28 km/h 90 deg. Moving Deformable Barrier Side Impact NCAP Test was conducted on the subject 2003 Lincoln Town Car 4 Door Sedan in accordance with the specifications of the Office of Crash Worthiness Standards Test Procedure for the generation of consumer information on vehicle side crash protection. The test was conducted at KARCO Engineering laboratories in Adelanto, California, on November 14, 2002. The impact velocity of the Moving Deformable Barrier was 61.36 km/h, and the outside ambient temperature at the struck (driver's) side of the vehicle was 18.8 deg. C. The target vehicle's maximum post test static crush was 434 mm located at level 3 . The test vehicle's occupant performance is as follows: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 35%;">Measurement Description</th> <th style="width: 15%;">Driver SID</th> <th style="width: 15%;">Passenger SID</th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) G's</td> <td style="text-align: center;">47.0</td> <td style="text-align: center;">45.5</td> </tr> <tr> <td>Left Lower Rib (LLR) G's</td> <td style="text-align: center;">48.5</td> <td style="text-align: center;">48.1</td> </tr> <tr> <td>Lower Spine (T₁₂) G's</td> <td style="text-align: center;">65.8</td> <td style="text-align: center;">36.9</td> </tr> <tr> <td>Thoracic Trauma Index (TTI) G's</td> <td style="text-align: center;">57</td> <td style="text-align: center;">42</td> </tr> <tr> <td>Pelvis (PEV) G's</td> <td style="text-align: center;">61</td> <td style="text-align: center;">70</td> </tr> </tbody> </table>				Measurement Description	Driver SID	Passenger SID	Left Upper Rib (LUR) G's	47.0	45.5	Left Lower Rib (LLR) G's	48.5	48.1	Lower Spine (T ₁₂) G's	65.8	36.9	Thoracic Trauma Index (TTI) G's	57	42	Pelvis (PEV) G's	61	70
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SECTION 1

PURPOSE and TEST PROCEDURE

1.1 PURPOSE

This Side Impact NCAP test is conducted as part of the FY' 2003 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract No. DTNH22-99-D-02041. The purpose of this test is to generate comparative side impact data on a 2003 Lincoln Town Car 4 Door Sedan manufactured by Ford Motor Company.

1.2 TEST PROCEDURE

The side impact test was conducted in accordance with the current National Highway Traffic Safety Administration (NHTSA), Office of Crashworthiness Standards (OCS), laboratory test procedure NCAP Side Impact Testing, dated July 1997 and the corresponding KARCO Engineering Test Procedure KTP-214D, dated November 18, 1998. The procedures for receiving, inspection, testing, and reporting of test results are described in the test procedures and are not repeated in this report.

SECTION 2

SUMMARY OF SIDE IMPACT TEST

2.1 SUMMARY OF SIDE IMPACT NCAP TEST

A model year 2003 Lincoln Town Car 4 Door Sedan was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 61.36 km/h. The specified impact velocity range is from 61.1 to 62.7 km/h. The test (target) vehicle was stationary and positioned 63° to the line of forward motion. The weight of the vehicle as tested was 2202 kg and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering, LLC in Adelanto, California, on November 14, 2002.

SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front (Driver)		Left Rear (Passenger)	
	Installed	Operation	Installed	Operation
Front Airbag	Yes	Deployed Properly	None	Not Applicable
Side Torso / Head Airbag	Yes	Deployed Properly	None	Not Applicable
Head Curtain Airbag	None	Not Applicable	None	Not Applicable

One (1) real-time motion picture camera and eleven (11) high-speed motion picture cameras were used to document the impact event. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information is documented in the data sheets. Pre- and post-test photographs of the vehicle and SID's/Hybrid III can be found in Appendix A. Two 50th percentile adult male Side Impact Dummy's (SID's)/Hybrid III were placed in the driver's and left rear passenger designated seating positions according to the test procedure. Each SID/Hybrid III is instrumented with contact switches on the pelvis and thorax, and fourteen accelerometers in the following locations:

- Left Upper Rib (LUR) uni-axial accelerometer (Y-axis primary and redundant)
- Left Lower Rib (LLR) uni-axial accelerometer (Y-axis primary and redundant)
- Lower Thoracic Spine (T12) uni-axial accelerometer (Y-axis primary and redundant)
- Pelvic (PEV) section uni-axial accelerometer (Y-axis primary and redundant)
- Head Center of Gravity (CG) tri-axial accelerometers (X, Y, and Z axes)

Note: Sid's are Hybrid III head and neck. 6 neck load cells per dummy.

The test vehicle was instrumented with twenty-five (25) structural accelerometers and the MDB was instrumented with five (5) accelerometers and one (1) contact switch on each bumper (2) to compare left side to right side bumper impact timing. All data channels were recorded with a fully self contained on-board Test Data Acquisition System (TDAS). The data was digitally sampled at 10,000 samples per second and processed per Appendix V of the Test Procedure.

2.2 GENERAL COMMENTS

The test vehicle sustained a maximum static crush of 434 mm at level 3, 1650mm rearward of the left vertical impact point. The driver SID/Hybrid III, Serial No. 275 and the passenger SID/Hybrid III, Serial No. 274 were calibrated just prior to this test. The SID/Hybrid III injury criteria is summarized as follows:

Measurement	Units	Driver	Passenger
Thoracic Trauma Index (TTI)	G's	57	42
Peak Pelvic G's (PEV)	G's	61	70

Tests summaries and post-test observations are presented in Section 3. The vehicle, camera, and occupant measurements are presented in Section 4. Appendix A contains the still photograph prints. Appendix B contains the driver and passenger SID's/Hybrid III, vehicle, and MDB response data traces. Appendix C contains the SID's/Hybrid III Configuration and performance verification data. Appendix D contains the test equipment information.

SECTION 3

SIDE IMPACT DUMMY (SID)HYBRID III AND VEHICLE TEST DATA

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No. M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02

CONVERSION FACTORS USED IN THIS REPORT*

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4536
Linear Velocity	Impact Velocity	mile/h	km/h	1.609
Length or Distance	Measurements	in	mm	25.4
Volume	Fuel Systems	gal	liter	3.785
Volume	Small Fluids	oz	mL	29.573
Pressure	Tire Pressures	lbf/in ²	kPa	7.0
Volume	Liquid	gal	liter	3.785
Temperature	General Use	°F	°C	$=(tf - 32)/1.8$
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf/ft	Nm	1.355

* Based on the Recommended Practice in SAE J916, May 85

DATA SHEET NO. 1
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. M30203
 Test Date: 11/14/02

TEST VEHICLE INFORMATION

Make	Lincoln
Model	Town Car
Body Style	4- Door Sedan
NHTSA No.	M30203
VIN	1LNHM81W93Y622249
Color	Silver
Delivery Date	2002-09-12
Odometer Reading (mile)	204
Dealer	Soutars
Transmission	4-Speed Automatic
Final Drive	Rear
Type/Number Cylinders	V8
Engine Displacement (L)	4.6
Engine Placement	Longitudinal

TEST VEHICLE OPTIONS

Driver Front Airbag	Yes
Driver Side Torso Airbag	Yes
Driver Side Head Airbag	Yes
Rear Pass. Airbag	No
Rear Pass. Torso Airbag	No
Rear Pass. Head Airbag	No
Power Brakes	Yes
Power Steering	Yes
Disc Brakes, Front	Yes
Disc Brakes, Rear	Yes
Anti-lock Brakes	Yes
Tilt Steering Wheel	Yes
Power Windows	Yes
Power Seats	Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	Ford Motor Company	GVWR (kg)	2599
Date of Manufacture	June-02	GAWR Front (kg)	1250
		GAWR Rear (kg)	1354

DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	221	241
Cold Pressure (kPa)	221	241
Recommend Tire Size	P225/60R17	P225/60R17
Tire Size on Vehicle	P225/60R17	P225/60R17
Tire Manufacturer	Michelin	Michelin

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Split Bench	Bench	None	
Number of Occupants	3	3	0	6
Capacity Wt. (VCW) (kg)				499
Cargo Weight (RCLW) (kg)				91

DATA SHEET NO. 1...(CONTINUED)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. M30203
 Test Date: 11/14/02

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	530	441		593	545	
Right	kg	543	445		529	535	
Ratio	%	54.8	45.2		51.0	49.0	
Totals	kg	1073	886	1959	1122	1080	2202

TARGET TEST WEIGHT CALCULATION*

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1959
Weight of 2 P572M Sid's/Hybrid III Dummies	kg	161
Rated Cargo/Luggage Weight (RCLW)	kg	91
Calculated Vehicle Target Weight (TVTW)	kg	2211

*Actual As Tested Weight (ATW) will be TVTW -5/-10 kg

TEST VEHICLE ATTITUDES AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	750	738	742	741	1350
As Tested	mm	737	739	728	745	1464
Fully Loaded	mm	737	741	728	746	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	2986
Total Vehicle Length at Left Side	mm	3640
Total Vehicle Length at Centerline	mm	5451
Total Vehicle Length at Right Side	mm	3640
Weight of Ballast In Cargo Area	kg	85
Amount of Stoddard Solvent in Fuel Tank	Liters	66.8

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	2986
Target Impact Point Aft of Front Axle	mm	1640
Actual Impact Point Aft of Front Axle	mm	1653

DATA SHEET NO. 1...(continued)
GENERAL TEST AND VEHICLE PARAMETER DATA

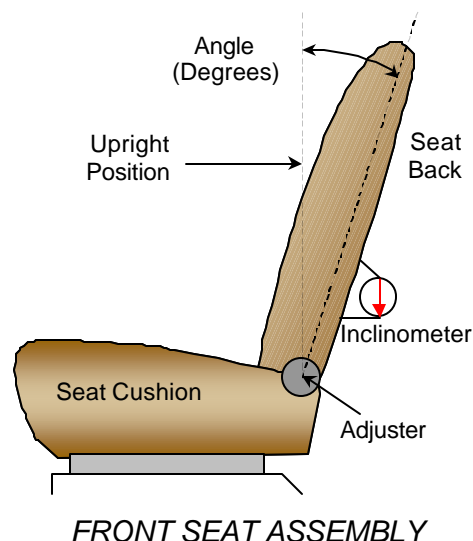
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. M30203
 Test Date: 11/14/02

NOMINAL DESIGN RIDING POSITION

The driver's seat back is positioned to the manufacturer's designated angle. The procedure for positioning the seat is as follows: A slit is cut into fabric of the seat at the outboard edge, approximately 10-13 inches above the pivot point to expose the frame of the seat. An inclinometer is firmly placed against the flat portion of the frame surface and the seat back is adjusted to the manufacturers designated angle.

Driver seat back angle: 25° with a seated dummy
 Rear seat back angle: 27° fixed



SEAT FORE/AFT POSITIONS

The driver's seat is adjustable. The fore/aft position is set to the middle.

Driver seat fore/aft total travel: 253mm of Total Travel
 Rear seat fore/aft total travel: Seat is fixed
 Driver seat fore/aft position: Placed in midpoint 126mm
 Rear seat fore/aft position: Seat is fixed

SEAT BELT UPPER ANCHORAGE

Driver seat is equipped with adjustable upper seat belt anchorages. The driver's "D" ring anchorage has 5 positions and is placed in the 3rd position from the top; the rear passenger seat has a non-adjustable fixed anchorage.

DATA SHEET NO. 1...(continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No. M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02

FUEL TANK CAPACITY DATA

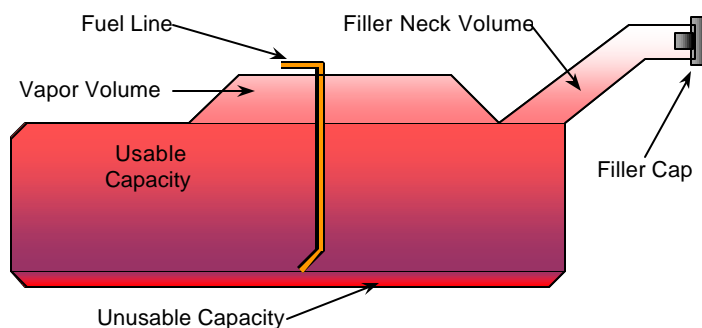
The "Usable Capacity" of the standard equipment fuel tank is: 71.9 liters

The "Usable Capacity" of any optional equipment fuel tank is: N/A liters

92-94% of "Usable Capacity" for certification to FMVSS 301 requirement: 66.1 to 67.6 liters

Actual amount of Stoddard solvent added to vehicle for certification test: 66.8 liters

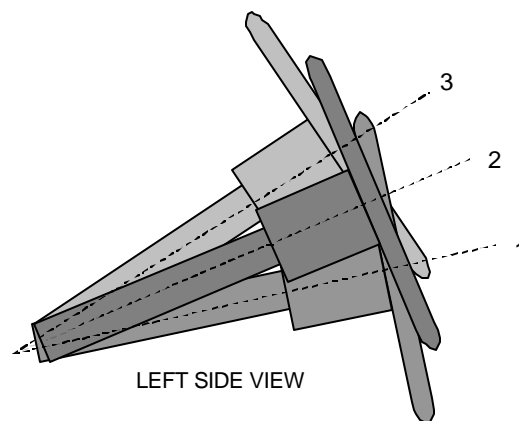
The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately three (3) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender.



VEHICLE FUEL TANK ASSEMBLY

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes, when it is moved through its full range of motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed onto the plate and the angle is measured. The tested vehicle has its steering column set at position 2 as indicated in the drawing at right and the angle below.



STEERING COLUMN ASSEMBLY

Lowermost, position 1: 16°

Geometric center, position 2: 24°

Uppermost, position 3: 31°

DATA SHEET NO. 2
TEST VEHICLE SUMMARY OF RESULTS

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. M30203
Test Date: 11/14/02

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	530	441		593	545	
Right	kg	543	445		529	535	
Weight Ratio	%	54.8	45.2		51.0	49.0	
Totals	kg	1073	886	1959	1122	1080	2202

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	224	234
Level 2	Occupant H-Point	mm	401	562
Level 3	Mid Door	mm	434	615
Level 4	Window Sill	mm	409	942
Level 5	Window Top	mm	123	1405
N/A	Maximum Penetration	mm	434	

INSTRUMENTATION

Driver SID/hybrid III Accelerometers	14
Passenger SID/Hybrid III Accelerometers	14
Vehicle Structure Accelerometers	25
MDB Accelerometers	5
Total	58

16mm MOVIE COVERAGE

High Speed, Vehicle On-Board	3
High Speed, Off-Board	5
High Speed, MDB On-Board	2
Real Time, Panning	1
Total	11

DATA SHEET NO. 3
MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. M30203
 Test Date: 11/14/02

MDB SPECIFICATIONS (mm)

Measurement Description	Length
Overall Width of Framework Carriage	1252
Overall Length Including Honeycomb Face	4115
Wheel base of Framework Carriage	2590
C.G. Location aft of Front Axle	1127

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	384	308	
Right	kg	385	284	
Ratio	%	56.5	43.5	
Totals	kg	769	592	1361

SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	61.36
Trap No. 2 Velocity (Redn.)	km/h	61.1 to 62.7	61.39
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	89.5

MAXIMUM STATIC CRUSH OF HONEYCOMB FACE (mm)

Vertical Location			From Centerline		Max Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	432	800	Right	209
B	Top of Bumper	533	800	Right	122
C	Mid Level	686	800	Right	106
D	Top of Stack	813	800	Right	147

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	2
High Speed Cameras	2

**DATA SHEET NO. 4
POST TEST OBSERVATIONS**

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/Hybrid III	Rear Seat SID/Hybrid III
Dummy Type / Serial No.	P572M, SID/Hybrid III No. 275	P572M, SID/Hybrid III No. 274
Head Contact	Air Bag	C-Pillar/Roof
Upper Torso Contact	Air Bag	Panel
Lower Torso Contact	Panel	Panel/Seat
Left Knee Contact	Panel	Panel
Right Knee Contact	Knee	Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Left Side Door Opening	Remained closed inoperable	Remained closed inoperable
Right Side Door Opening	Remained closed operable	Remained closed operable
Seat Movement	None	None
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	Pillars pushed inward with no apparent failure
Sill Separation	Rear Door Sill Had 120mm of opening
Windshield Damage	Glazing Cracks on Struck Side Only
Window Damage	Both Left Side Windows Broke.
Other Notable Effects	Trunk came open upon impact

SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front (Driver) Occupant Location 01		Left Rear (Passenger) Occupant Location 04	
	Installed	Operation	Installed	Operation
Front Airbag	Yes	Deployed Properly	None	Not Applicable
Side Torso / Head Airbag	Yes	Deployed Properly	None	Not Applicable
Head Curtain Airbag	None	Not Applicable	None	Not Applicable
Seat Belt Pretensioner	None	Not Applicable	None	Not Applicable
Seat Belt Load Limiter	None	Not Applicable	None	Not Applicable

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	13(Right)
Vertical Offset	mm	+/- 20	11(Below)

SECTION 4
OCCUPANT AND VEHICLE INFORMATION

DATA SHEET NO. 5
HIIL/SID INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 11/14/02

THORAX AND PELVIS PEAK ACCELERATIONS, PRIMARY (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	47.0	33.1	-14.9	94.4	45.5	53.8	-3.5	106.3
Lower Rib (LLR)	Y	G's	48.5	33.8	-22.9	92.5	48.1	52.5	-6.8	90.6
Lower Spine (T ₁₂)	Y	G's	65.8	36.9	-27.0	88.8	36.9	45.6	-7.7	85.6
Pelvis (PEV)	Y	G's	61.0	41.3	-29.3	83.1	69.9	41.9	-17.7	81.3

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, PRIMARY (FIR 100 Filtered)

Location	Driver				Passenger			
	LLR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Primary Rib, Spine, and Pelvis	48.461	65.832	57	61	48.119	36.857	42	70

THORAX AND PELVIS PEAK ACCELERATIONS, REDUNDANT (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	46.0	33.1	-14.4	94.4	45.8	53.8	-3.8	128.1
Lower Rib (LLR)	Y	G's	47.9	33.8	-22.9	93.1	48.9	52.5	-6.2	90.6
Lower Spine (T ₁₂)	Y	G's	65.6	36.9	-25.9	88.8	36.5	45.6	-7.4	85.6
Pelvis (PEV)	Y	G's	60.7	41.3	-29.3	82.5	69.2	41.9	-17.8	81.3

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, REDUNDANT (FIR 100 Filtered)

Location	Driver				Passenger			
	LLR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Redundant Rib, Spine, and Pelvis	47.888	65.555	57	61	48.873	36.543	43	69

Positive Acceleration Polarities:

- Longitudinal (X) = Forward
- Lateral (Y) = Right
- Vertical (Z) = Down

DATA SHEET NO. 5...(continued)
HIII/SID INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 11/14/02

HEAD PRIMARY PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	20.1	31.5	-18.1	97.3	10.6	52.5	-13.8	83.9
Head CG	Y	G's	35.7	42.3	-10.6	99.3	68.3	53.7	-10.0	72.1
Head CG	Z	G's	33.1	154.5	-2.1	15.8	16.0	45.1	-21.1	74.0
Head CG Resultant	N/A	G's	39.5	42.3			70.2	53.7		

HEAD PRIMARY INJURY CRITERIA (SAE CLASS 1000 Filtered)

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG	144.4	133.1	169.0	27.6	188.1	48.9	59.7	49.5

HEAD REDUNDANT PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	19.2	31.5	-17.5	97.3	9.5	52.5	-13.3	84.2
Head CG	Y	G's	35.0	42.3	-10.0	98.7	67.4	53.7	-9.0	74.9
Head CG	Z	G's	32.2	154.6	-1.5	6.9	16.8	54.3	-20.4	73.5
Head CG Resultant	N/A	G's	38.1	42.3			69.4	53.8		

HEAD REDUNDANT INJURY CRITERIA (SAE CLASS 1000 Filtered)

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG	142.4	133.0	168.9	27.5	186.0	48.5	59.8	48.4

UPPER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	134.3	189.1	-764.7	58.1	438.7	66.9	-77.2	45.4
Neck Force	Y	Newtons	286.1	41.1	-307.3	96.5	52.7	13.2	-1307.7	61.9
Neck Force	Z	Newtons	1665.6	147.7	-136.9	14.0	670.3	45.7	-1480.4	59.3
Neck Force Resultant	N/A	Newtons	1690.4	149.5			1935.0	64.1		
Neck Moment	X	N•m	24.4	53.6	-23.9	83.4	9.2	151.8	-59.3	70.7
Neck Moment	Y	N•m	51.2	106.2	-36.1	155.2	12.4	129.7	-7.1	84.3
Neck Moment	Z	N•m	38.3	74.6	-11.3	40.6	14.5	90.0	-7.2	174.1
Neck Moment Resultant	N/A	N•m	53.1	77.6			59.4	70.7		

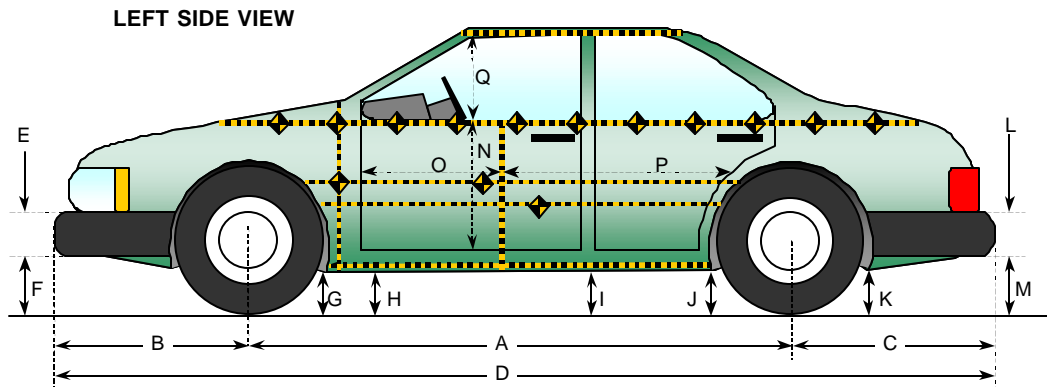
DATA SHEET NO. 6
VEHICLE PRE-TEST AND POST TEST MEASUREMENTS

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No. M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02



All Measurements in mm

Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2986	2980	-6
B	Front Axle To FSOV	1043	1087	44
C	Rear Axle to RSOV	1454	1370	-84
D	Total Length at Centerline	5451	5445	-6
E	Front Bumper Thickness	347	347	0
F	Front Bumper Bottom to Ground	256	302	46
G	Sill Height at Front Wheel Well	234	262	28
H	Sill Height at Front Door Leading Edge	234	291	57
I	Sill Height at "B" Pillar	231	272	41
J1	Sill Height at Rear Wheel Well	209	255	46
J2	Pinch Weld Height at Rear Wheel Well	231	271	40
K	Sill Height aft of Rear Wheel Well	250	349	99
L	Rear Bumper Thickness	350	350	0
M	Rear Bumper Bottom to Ground	332	461	129
N	Sill Height to Window Bottom Sill	713	720	7
O	Front Door Leading Edge to Impact CL	746	750	4
P	Rear Door Trailing Edge to Impact CL	1500	1155	-345
Q	Front Window Opening	403	411	8
R	Right Side Length	3640	3659	19
S	Left Side Length	3640	3556	-84
T	Vehicle Width at "B" Post	1992	1792	-200

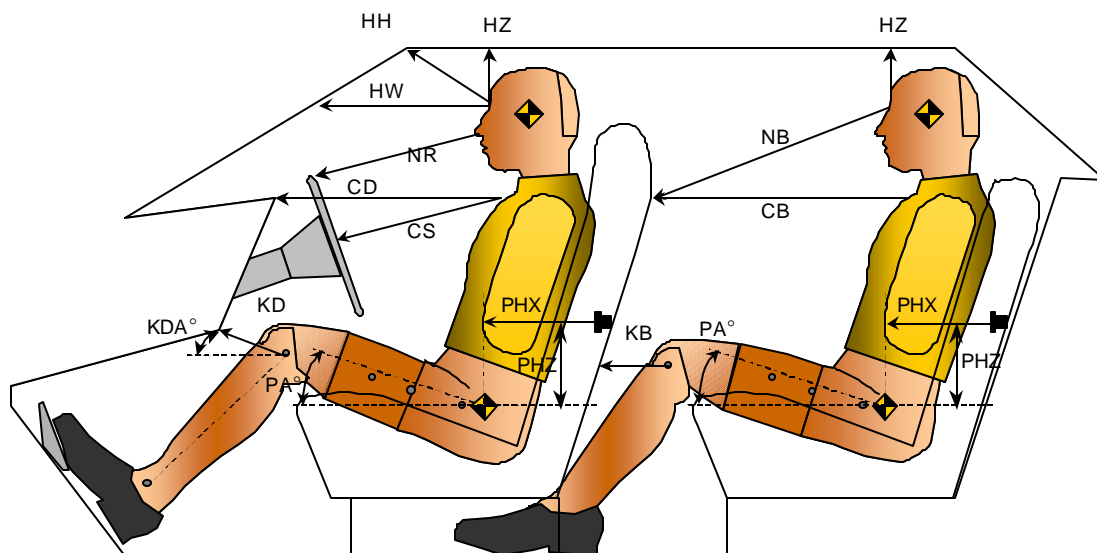
DATA SHEET NO. 7
SID/HYBRID III LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No. M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02

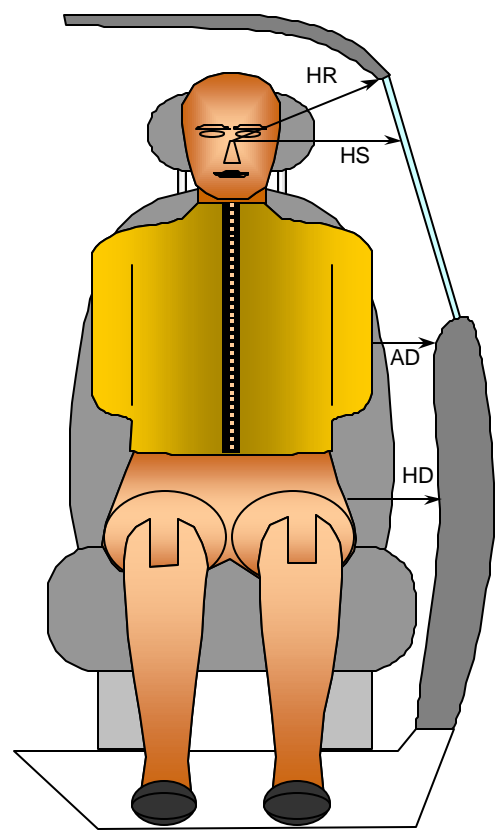


Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	427	15		
HW		Head to Windshield	650			
HZ	HZ	Head to Roof	88	90	165	90
NR	NB	Nose to Rim/Nose to Seatback	458	14	695	23
CD	CB	Chest to Dash or Seatback	584	4	593	3
CS		Chest to Steering Wheel	297			
KDL	KBL	Left Knee to Dash or Seatback	170	34	227	
KDR	KBR	Right Knee to Dash or Seatback	165		276	
PA	PA	Pelvic Angle		23		25
PHX	PHX	H-Point to Striker (X-Axis)	180		265	
PHZ	PHZ	H-Point to Striker (Z-Axis)	120		302	

DATA SHEET NO. 8
SID/HYBRID III LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No. M30203
 Test Date: 11/14/02



FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	180	170
HS	Head to Side Window	mm	334	292
AD	Arm to Door	mm	121	76
HD	H-Point to Door	mm	156	180

DATA SHEET NO. 9

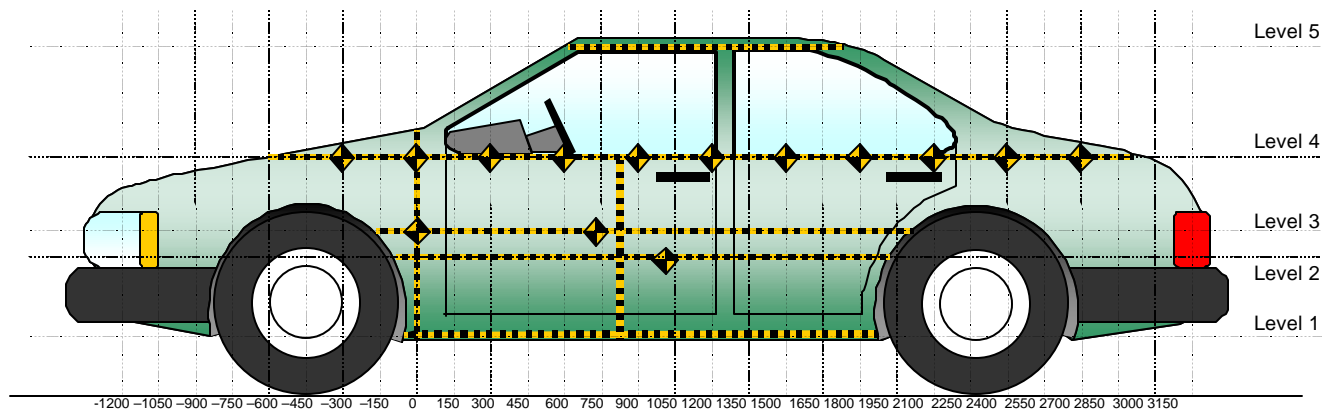
VEHICLE SIDE MEASUREMENTS

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02



All Measurements Shown in mm

LEFT SIDE VIEW

Measurements are taken with vehicle in the as tested condition.

Measurements taken 900mm right of impact reference.

All measurements below in mm.

Level	Measurement Description	Height Above Ground
5	Window Top	1405
4	Window Sill	942
3	Mid Door	615
2	Occupant H-Point	562
1	Sill Top	234

DATA SHEET NO. 10 – VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02

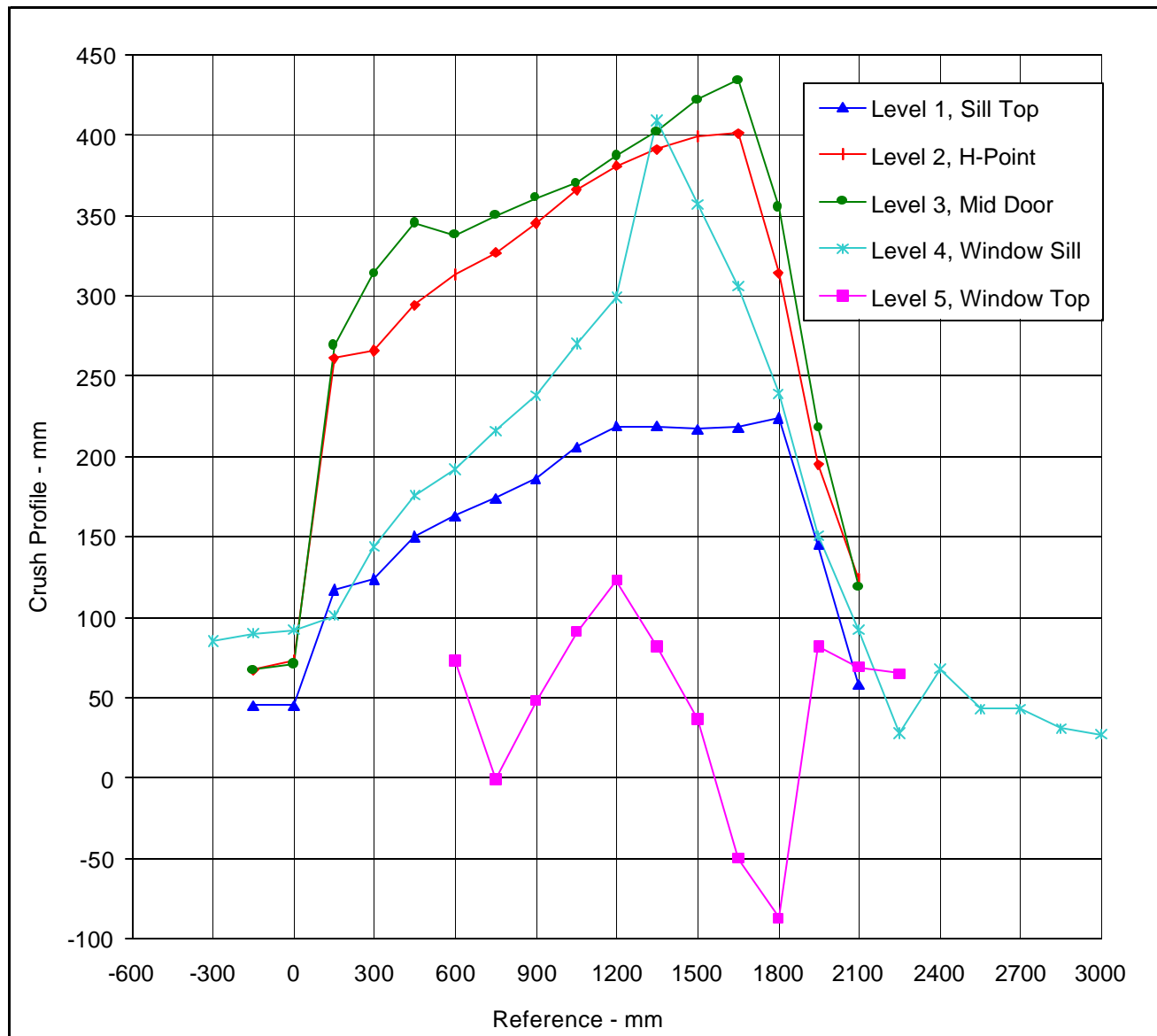
	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900															
-750															
-600															
-450															
-300				617					702					85	
-150	561	533	539	609		606	600	606	699		45	67	67	90	
0	561	526	530	604		606	599	601	696		45	73	71	92	
150	556	521	523	597		673	782	792	698		117	261	269	101	
300	556	516	516	594		680	782	830	738		124	266	314	144	
450	551	510	511	590		701	804	856	766		150	294	345	176	
600	546	506	508	586	913	709	819	846	778	986	163	313	338	192	73
750	547	503	505	583	901	721	830	855	799	900	174	327	350	216	-1
900	545	501	501	583	892	731	846	862	821	940	186	345	361	238	48
1050	545	500	500	578	885	751	866	870	848	976	206	366	370	270	91
1200	545	499	499	577	878	764	880	886	876	1001	219	381	387	299	123
1350	546	499	499	576	880	765	890	901	985	962	219	391	402	409	82
1500	547	500	500	577	875	764	899	922	934	912	217	399	422	357	37
1650	547	501	501	578	874	765	902	935	884	824	218	401	434	306	-50
1800	550	505	501	580	873	774	819	856	819	786	224	314	355	239	-87
1950	551	505	504	583	874	696	700	722	734	956	145	195	218	151	82
2100	554	506	503	584	876	612	630	622	676	945	58	124	119	92	69
2250				603	889				631	954				28	65
2400				608					676					68	
2550				613					656					43	
2700				614					657					43	
2850				621					652					31	
3000				629					656					27	

Measurements are taken from fixed reference 1500mm from vehicle CL.

DATA SHEET NO. 10...(continued)
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
 Test Program: 55/28 km/h 90° Side Impact NCAP

NHTSA No.: M30203
 Test Date: 11/14/02



	Units	Level 1	Level 2	Level 3	Level 4	Level 5
Maximum Crush	mm	224	401	434	409	123
Distance from Impact	mm	1800	1650	1650	1350	1200

DATA SHEET NO. 11

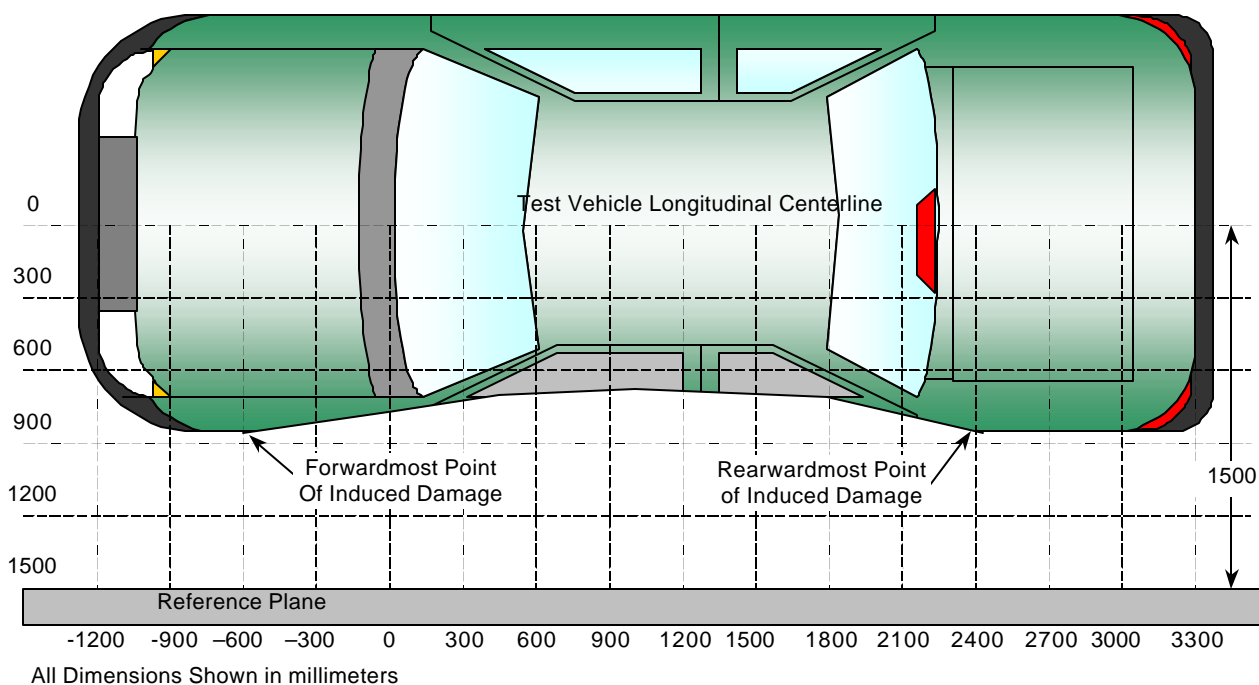
VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02



TOP VIEW

Damage Profile Distances

DPD	Distance From Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1	-300	4	617	702	-85
2	300	3	516	830	-314
3	900	3	501	862	-361
4	1500	3	500	922	-422
5	2100	2	506	630	-124
6	3000	4	629	656	-27

Pre-Test and Post-Test measurements are distance from vehicle centerline.

DATA SHEET NO. 12

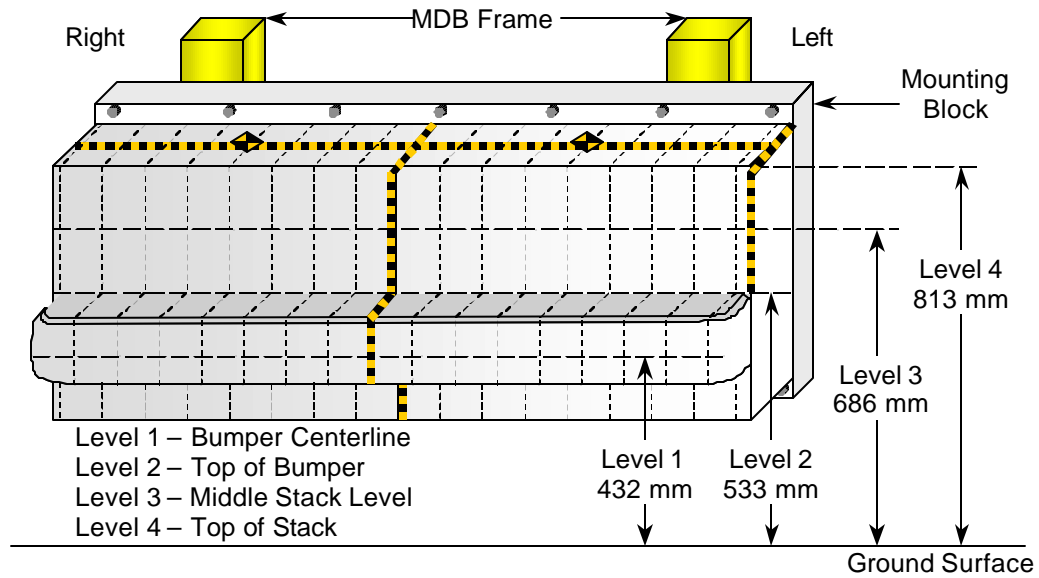
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02



DEFORMABLE BARRIER STATIC CRUSH

Stack	Distance Right of Center									C _L	Distance Left of Center							
	800	700	600	500	400	300	200	100	0		100	200	300	400	500	600	700	800
1	126	107	101	101	108	109	114	118	122	130	137	143	148	155	164	187	209	
2	66	55	51	51	56	56	61	66	64	68	74	81	86	92	97	105	122	
3	11	-12	-4	5	28	34	21	16	16	17	21	24	26	33	40	74	106	
4	66	-4	-28	-19	6	28	11	6	3	8	15	22	30	39	58	78	147	

All Dimensions in mm

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

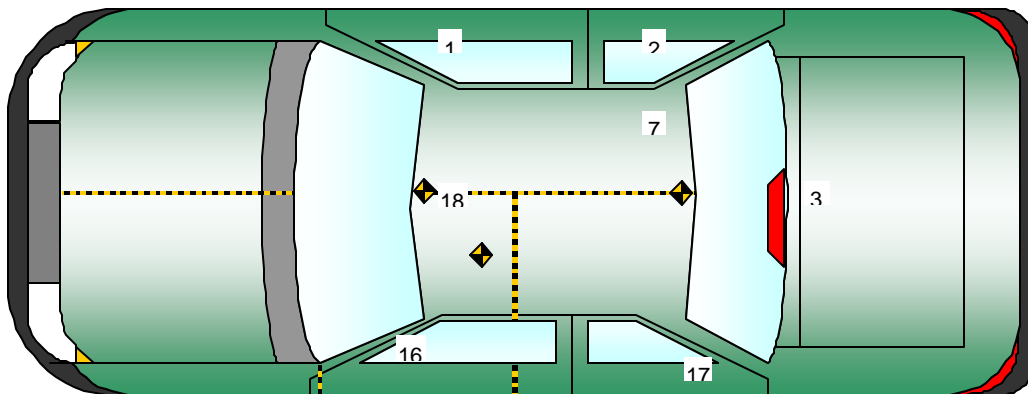
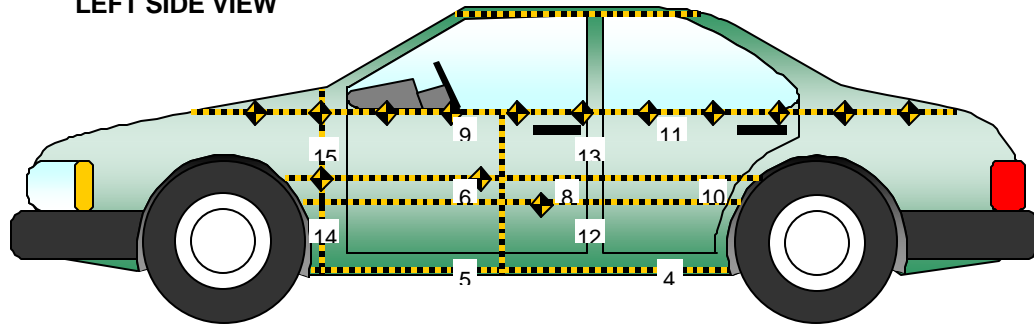
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02

LEFT SIDE VIEW



No.	Location
1	Right Sill at Front Seat
2	Right Sill at Rear Seat
3	Rear Floorpan Above Axle
4	Left Sill at Rear Door
5	Left Sill at Front Door
6	Left Front Door Centerline
7	Right Rear Occupant Compartment
8	Left Front Door Mid-Rear
9	Left Front Door Upper Centerline

No.	Location
10	Left Rear Door Mid-Rear
11	Left Rear Door Upper Centerline
12	Left Lower B-Post
13	Left Middle B-Post
14	Left Lower A-Post
15	Left Middle A-Post
16	Front Seat Track
17	Rear Seat Track or Structure
18	Vehicle CG

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 11/14/02

VEHICLE ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	Right Sill at Front Seat	3390	580	300	X	3.5	34.5	-9.4	14.4
					Y	28.1	24.7	-0.9	189.9
					Z	6.6	78.9	-9.0	16.4
					RES	28.8	24.8		
2	Right Sill at Rear Seat	2240	740	380	X	8.6	33.8	-8.8	15.4
					Y	18.2	32.2	-0.6	142.0
					Z	16.9	37.7	-20.5	20.1
					RES	27.3	20.2		
3	Rear Floorpan Above Axle	935	0	350	X	4.3	63.8	-7.4	18.8
					Y	13.5	48.5	-2.3	121.5
					Z	8.3	26.1	-7.5	61.0
					RES	15.1	19.5		
4	Left Sill at Rear Door	2400	-820	170	Y	117.2	10.2	-39.8	20.1
5	Left Sill at Front Door	3090	-820	170	Y	111.5	10.3	-38.5	17.5
6	Front Door Centerline	3350	-825	740	Y	106.5	11.5	-95.4	26.8
7	Rt. Rear Occ. Compartment	2670	320	280	Y	23.2	25.1	-2.0	5.0
8	Front Door Mid-Rear	2920	-825	630	Y	169.1	7.8	-230.7	18.5
9	Front Door Upper Centerline	3290	-825	890	Y	78.6	20.5	-70.5	32.6
10	Rear Door Mid-Rear	2040	-830	690	Y	137.3	21.0	-112.1	16.1
11	Rear Door Upper Centerline	2250	-830	895	Y	92.5	21.0	-72.0	31.0
12	B-Post Lower	2690	-835	440	Y	189.4	5.9	-97.5	22.8
13	B-Post Middle	2690	-835	700	Y	91.4	5.4	-29.2	24.3
14	A-Post Lower	2790	-865	530	Y	122.5	4.2	-10.6	178.4 ¹
15	A-Post Middle	2790	-865	690	Y	119.5	4.5	-42.7	9.2
16	Front Seat Track	3270	-565	380	Y	54.1	18.8	-34.4	26.0
17	Rear Seat Structure				Y				
18	Vehicle CG	2460	0	480	X	5.9	31.5	-10.6	10.9
					Y	25.8	34.0	-6.1	39.1
					Z	17.6	37.0	-38.6	6.3
					RES	40.2	6.2		

¹ Questionable data after 10.4 Msec. ² Not installed

DATA SHEET NO. 14
MDB ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 11/14/02

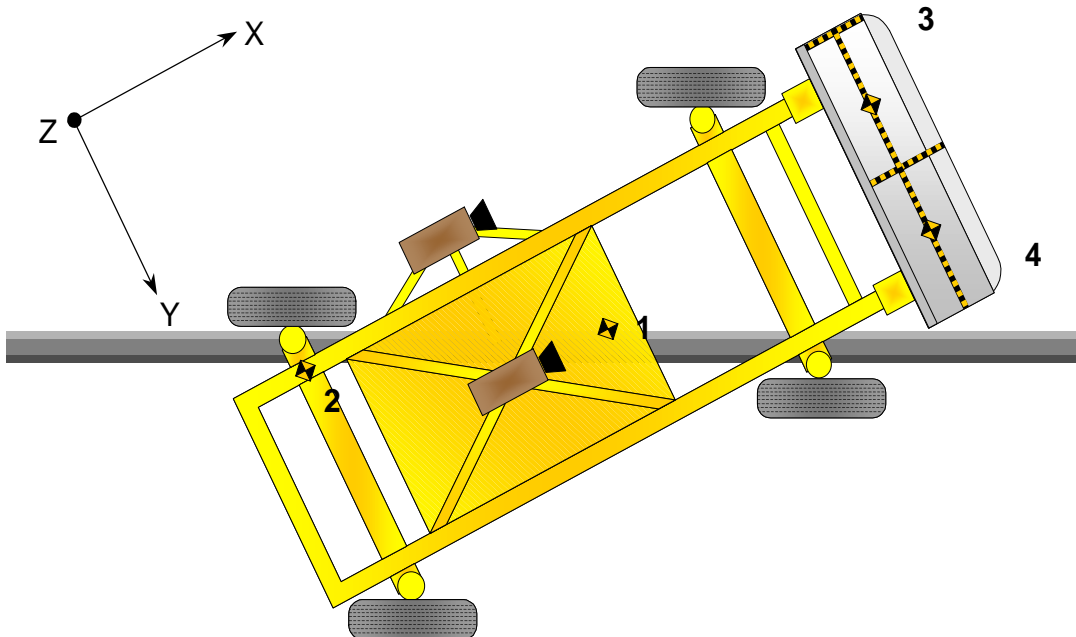
MDB ACCELEROMETER PEAK DATA AND LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	MDB CG	-1195	0	430	X	2.2	149.1	-20.6	22.8
					Y	2.0	136.6	-7.0	18.7
					Z	11.9	124.9	-12.0	132.4
					RES	21.6	22.9		
2	MDB Rear	-2642	-593	608	X	1.5	98.2	-20.7	22.4
					Y	4.1	95.8	-6.5	16.6

Reference Points X - MDB Front Axle Y - MDB Centerline Z - Ground Plane

MDB BUMPER CONTACT SWITCH DATA

Loc. No.	Contact Switch Location	Units	Peak and 50% Crossing Point			
			Max	Time	50%	Time
3	MDB Left Bumper (T=0)	% F.S	100.0	0.0	50.0	0.0
4	MDB Right Bumper	% F.S.	104.4	97.2	50.0	-1.3



DATA SHEET NO. 15

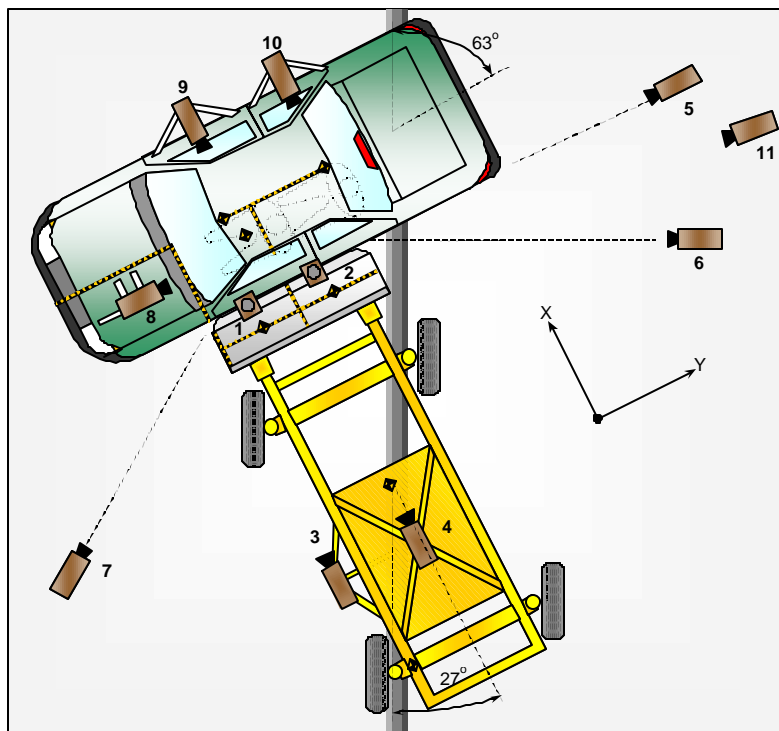
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

NHTSA No.: M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/02



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Film Speed (fr./sec.)
		X	Y	Z			
1	Overhead Overall	2438	609	5486	90	12	n/a
2	Overhead Close-up	1676	-1067	5486	90	24	980
3	MDB Onboard, Impact Point Close-Up	0	-2134	1143	7	13	420
4	MDB Onboard, Centerline of Impact	838	-3912	1829	11	13	910
5	Right Side, Ground Level, Overall	15545	228	1371	1	25	1030
6	Right Side, Ground Level, Close-up	16459	-7188	939	1	80	1000
7	Left Side, Ground Level, Close-up	-4775	-2666	1473	7	13	1000
7b	Left Side, Ground Level, Close-up	-5080	-3531	1524	11.5	17	n/a
8	Vehicle Onboard Front SID, Front	-610	559	1473	12	19	9
9	Vehicle Onboard Front SID, Side	914	2134	1321	6	10	1030
10	Vehicle Onboard Rear SID, Side	1930	2134	1346	8	10	1000
11	Real Time Coverage	-5080	-3531	1524	8	17	24

DATA SHEET NO. 16
FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan NHTSA No.: M30203
Test Program: 55/28 km/h 90° Side Impact NCAP Test Date: 11/14/02

Test Time: 12:25 PM Temperature at Time of Impact: 18.8 °C

Stoddard Solvent Spillage Measurements

- A. From impact until vehicle motion ceases: 0.0 oz.
 (Maximum Allowable = 1 ounce)
- B. For the 5 minute period after motion ceases: 0.0 oz.
 (Maximum Allowable = 5 ounces)
- C. For the following 25 minutes: 0.0 oz.
 (Maximum Allowable = 1 oz./minute)
- D. Spillage Details: No leakage occurred

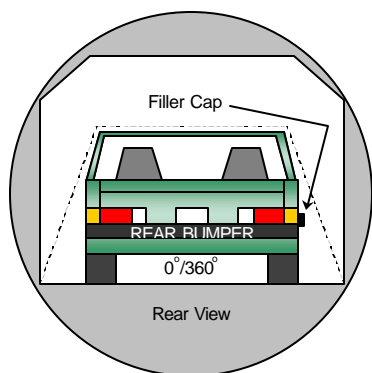
DATA SHEET NO. 17
FMVSS 301 STATIC ROLLOVER DATA SHEET

Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

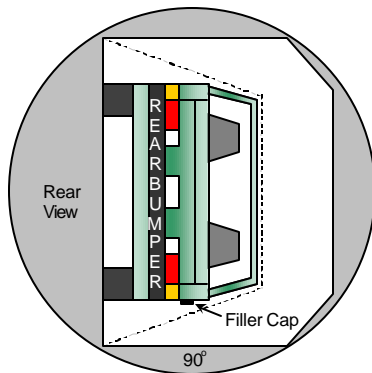
NHTSA No.: M30203

Test Program: 55/28 km/h 90° Side Impact NCAP

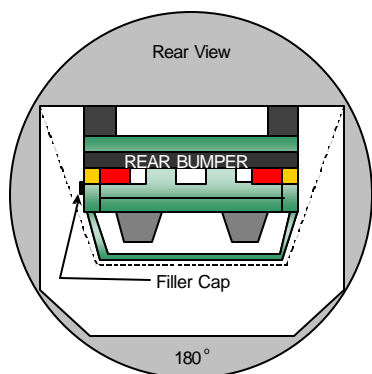
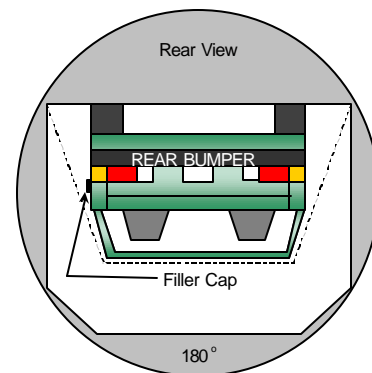
Test Date: 11/14/02



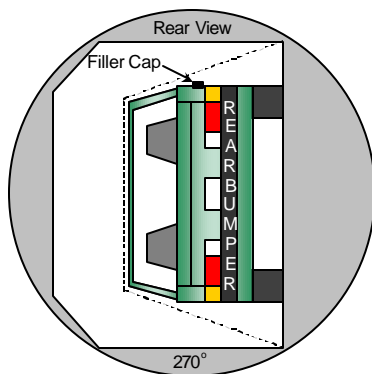
0° TO 90°



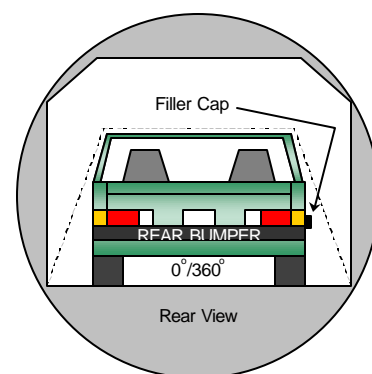
90° TO 180°



180° TO 270°



270° TO 360°



1. The specified fixture rollover rate for each 90° of rotation is 60 to 120 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage locations.

No solvent leakage occurred during static rollover testing.

Rollover Test Phase	Rotation Time (sec.)	Hold Time (sec.)	Spillage (oz.)
0° TO 90°	81	300	0.0
90° TO 180°	85	300	0.0
180° TO 270°	76	300	0.0
270° TO 360°	75	300	0.0

APPENDIX A
PHOTOGRAPHS

LIST OF PHOTOGRAPHS

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Figure A-1: Left Front, as Received



Figure A-2: Right Rear, as Received

MFD. BY FORD MOTOR CO. IN U.S.A.

DATE: 06/02

GVWR: 2599KG/5730LB

FRONT GAWR: 1249KG/2755LB

REAR GAWR: 1353KG/2985LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR
VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS
IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN: 1LNHM81W93Y622249 TYPE: PASSENGER

MAXIMUM LOAD = OCCUPANTS + LUGGAGE = 499KG/1100LB

OCCUPANTS = 6 TOTAL; 3 FR, 3 RR

LUGGAGE = 091KG/0200LB

TIRE: P225/60R17

PRESSURE(FR): 221 kPa/32 PSI COLD

PRESSURE(RR): 241 kPa/35 PSI COLD



1LNHM81W93Y622249

TRAILER TOWING - SEE OWNER GUIDE

EXT PNT: JP

IRC: 54

DSO:

F0186

BRK | INT TR

TP/PS

R | AXLE

TR | SPR

R0194

4

QU

K

27

H

CC11

UBC

▽2U5A-5420472-AA

Figure A-3: Vehicle Certification Label



Figure A-4: Vehicle Tire Label



Figure A-5: Front View, Pre-Test



Figure A-6: Front View, Post-Test



Figure A-7: Left Front $\frac{3}{4}$ View, Pre-Test



Figure A-8: Left Front $\frac{3}{4}$ View, Post-Test (Trunk Lid Opened During Impact)



Figure A-9: Left (Impacted) Side View, Pre-Test



Figure A-10: Left (Impacted) Side View, Post-Test (Trunk Lid Opened During Impact)



Figure A-11: Left Rear $\frac{3}{4}$ View, Pre-Test



Figure A-12: Left Rear ¾ View, Post-Test (Trunk Lid Opened During Impact)



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TR-P22002-04-NC

Figure A-13: Rear View, Pre-Test



Figure A-14: Rear View, Post-Test (Trunk Lid Opened During Impact)



Figure A-15: Overhead Overall View, Pre-Test



Figure A-16: Overhead Overall View, Post-Test (Trunk Lid Opened During Impact)



Figure A-17: Overhead Close-up View, Pre-Test



Figure A-18: Overhead Close-up View, Post-Test



Figure A-19: Impact Point Target Set-up, Pre-Test



Figure A-20: Impact Point Target, Post-Test



Figure A-21: Front $\frac{3}{4}$ View of Left Side Doors, Pre-Test



Figure A-22: Front ¾ View of Left Side Doors, Post-Test (Trunk Lid Opened During Impact)



Figure A-23: Rear ¾ View of Left Side Doors, Pre-Test



Figure A-24: Rear ¾ View of Left Side Doors, Post-Test



Figure A-25: Left Front Door Closed, Pre-Test



Figure A-26: Left Front Door Closed, Post-Test



Figure A-27: Left Rear Door Closed, Pre-Test



Figure A-28: Left Rear Door Closed, Post-Test



Figure A-29: Driver Dummy Left Side with Door Open, Pre-Test



Figure A-30: Driver Dummy Left Side, Pre-test



Figure A-31: Driver Dummy Left Side, Post-Test



Figure A-32: Driver Dummy Clearance, Pre-Test



Figure A-33: Driver Dummy Clearance, Post-Test



Figure A-34: Driver Dummy Inside View, Pre-Test



Figure A-35: Driver Dummy Inside View, Post-Test



Figure A-36: Driver Door Inside View, Pre-Test



Figure A-37: Driver Dummy Contact Points Inside View, Post-Test (Vehicle Moved)



Figure A-38: Passenger Dummy Left Side with Door Open, Pre-Test



Figure A-39: Passenger Dummy Left Side, Pre-Test



Figure A-40: Passenger Dummy Left Side, Post-Test



Figure A-41: Passenger Dummy Clearance, Pre-Test



Figure A-42: Passenger Dummy Clearance, Post-Test



Figure A-43: Passenger Dummy Inside View, Pre-Test



Figure A-44: Passenger Dummy Inside View, Post-Test



Figure A-45: Passenger Door Inside View, Pre-Test



Figure A-46: Passenger Dummy Contact Points Inside View, Post-Test (Vehicle Moved)



Figure A-47: Front View of Deformable Barrier, Pre-Test



Figure A-48: Front View of Deformable Barrier, Post-Test

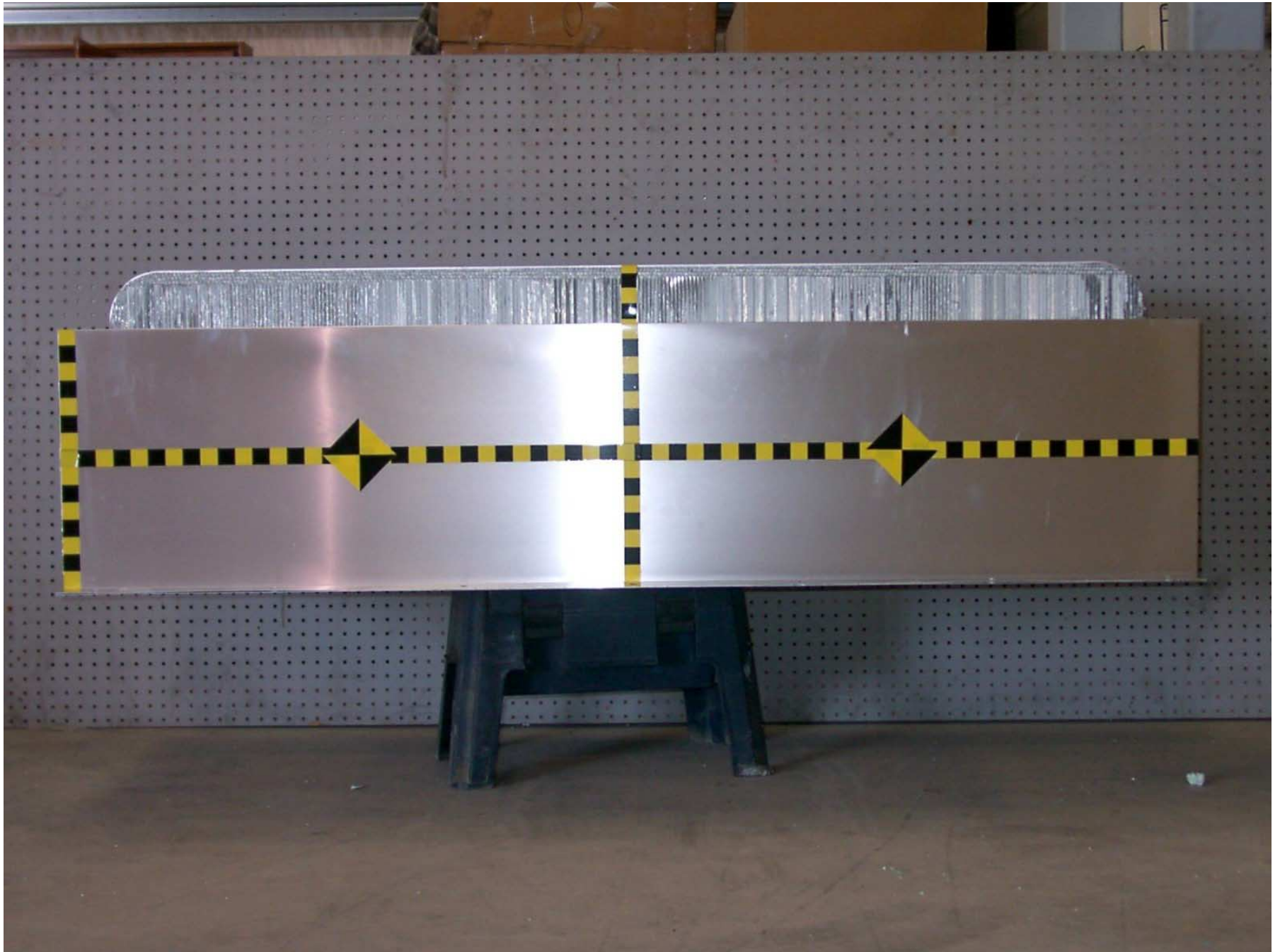
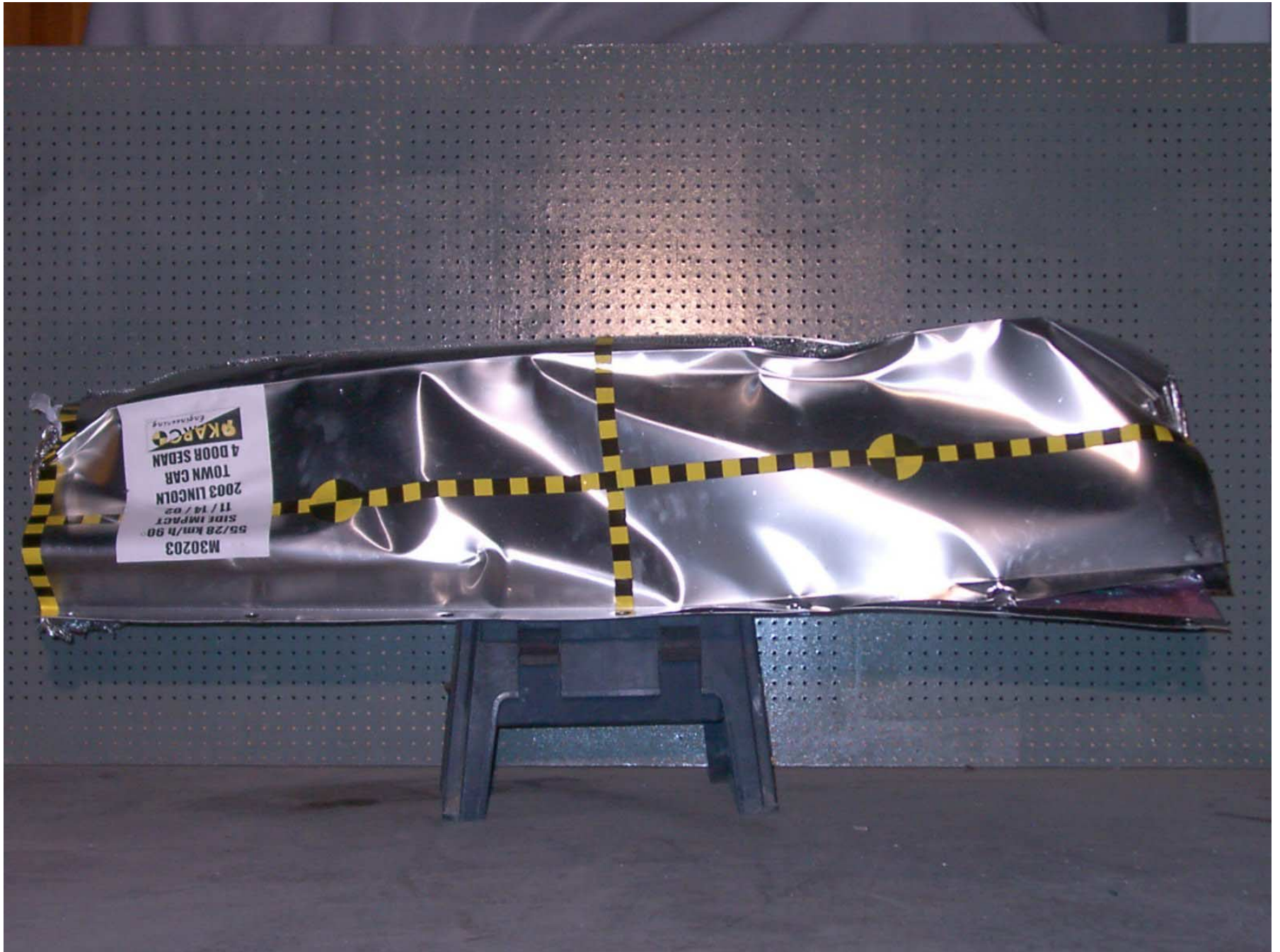


Figure A-49: Top View of Deformable Barrier, Pre-Test



M30203
55/28 km/h 90
SIDE IMPACT
11 / 14 / 02
2003 LINCOLN
TOWN CAR
4 DOOR SEDAN
PKARCO
Engineering

Figure A-50: Top View of Deformable Barrier, Post-Test



Figure A-51: Right Side View of Deformable Barrier, Pre-Test

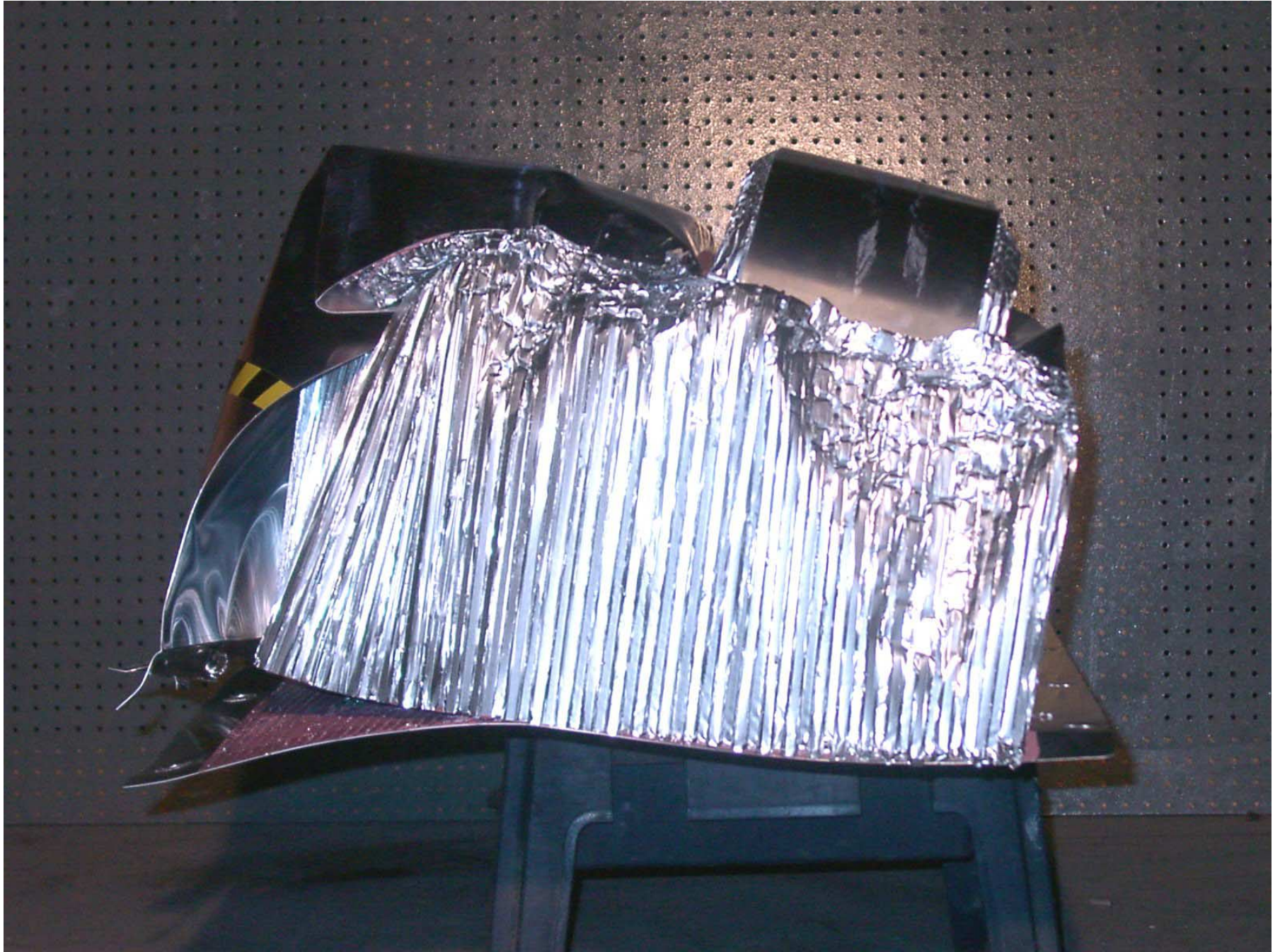


Figure A-52: Right Side View of Deformable Barrier, Post-Test



Figure A-53: Left Side View of Deformable Barrier, Pre-Test

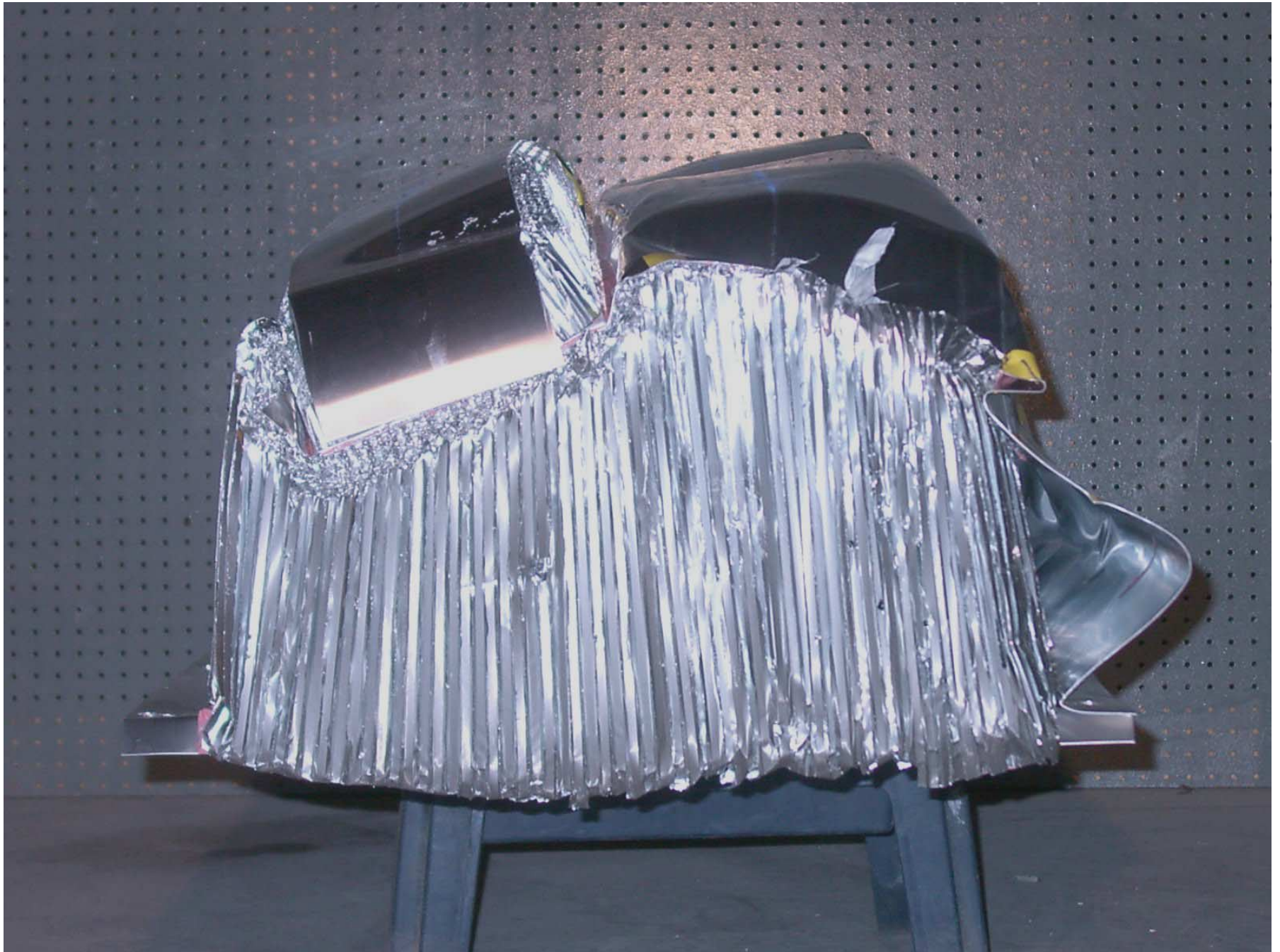


Figure A-54: Left Side View of Deformable Barrier, Post-Test



A-55

TR-P22002-04-NC

Figure A-55: Vehicle on Rollover Device, Top View



Figure A-56: Vehicle During Impact

APPENDIX B
SID, VEHICLE, AND MDB RESPONSE DATA

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LIST OF DATA PLOTS, DRIVER SID

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LIST OF DATA PLOTS, VEHICLE

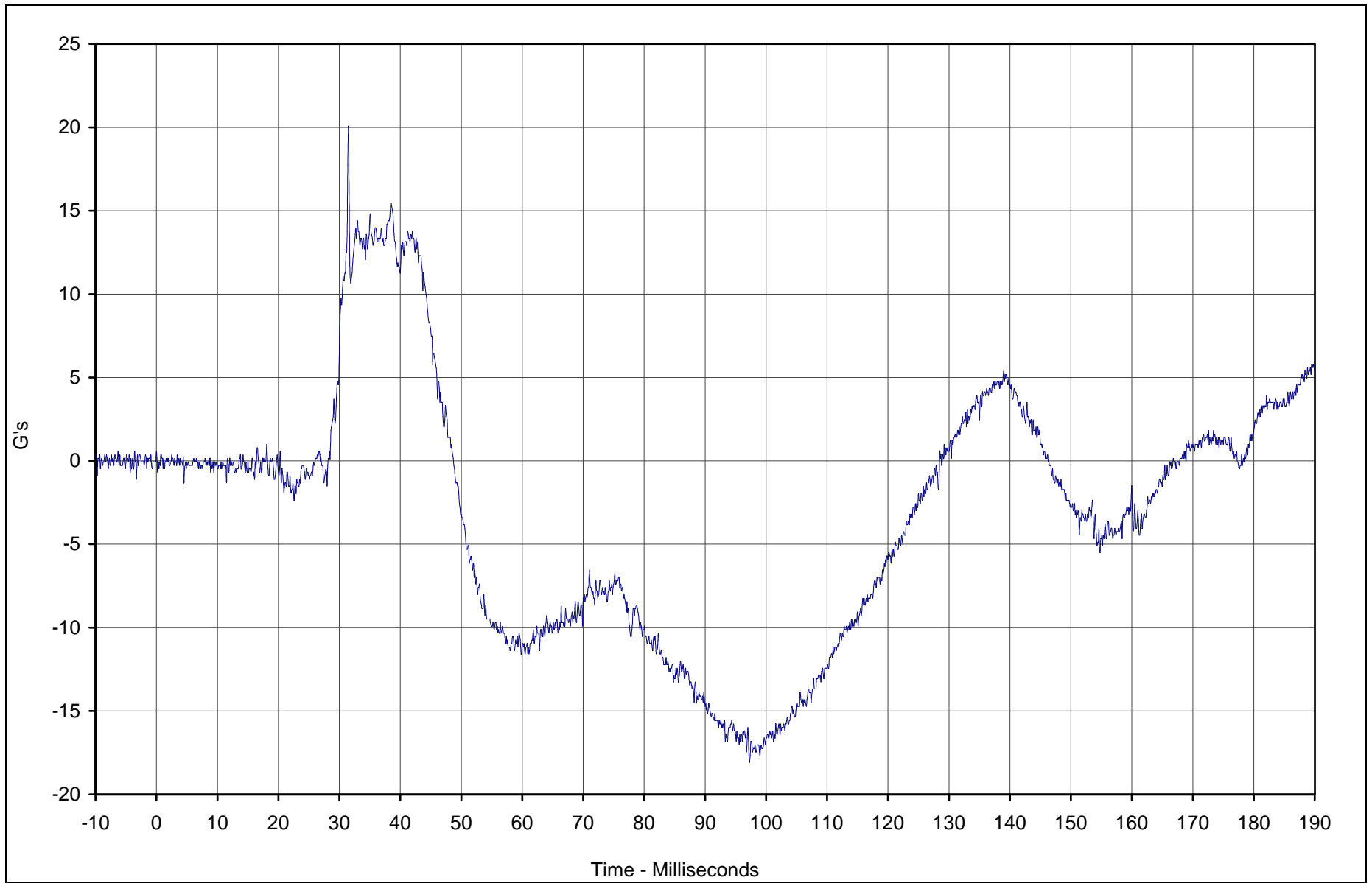
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B-161	Passenger Upper Rib Redundant Y	B-161
B-162	Passenger Lower Rib Redundant Y	B-162
B-163	Passenger Lower Spine Redundant Y	B-163
B-164	Passenger Pelvis Redundant Y	B-164



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head X	001	FIL	G's	20.1	31.5	-18.1	97.3	1000

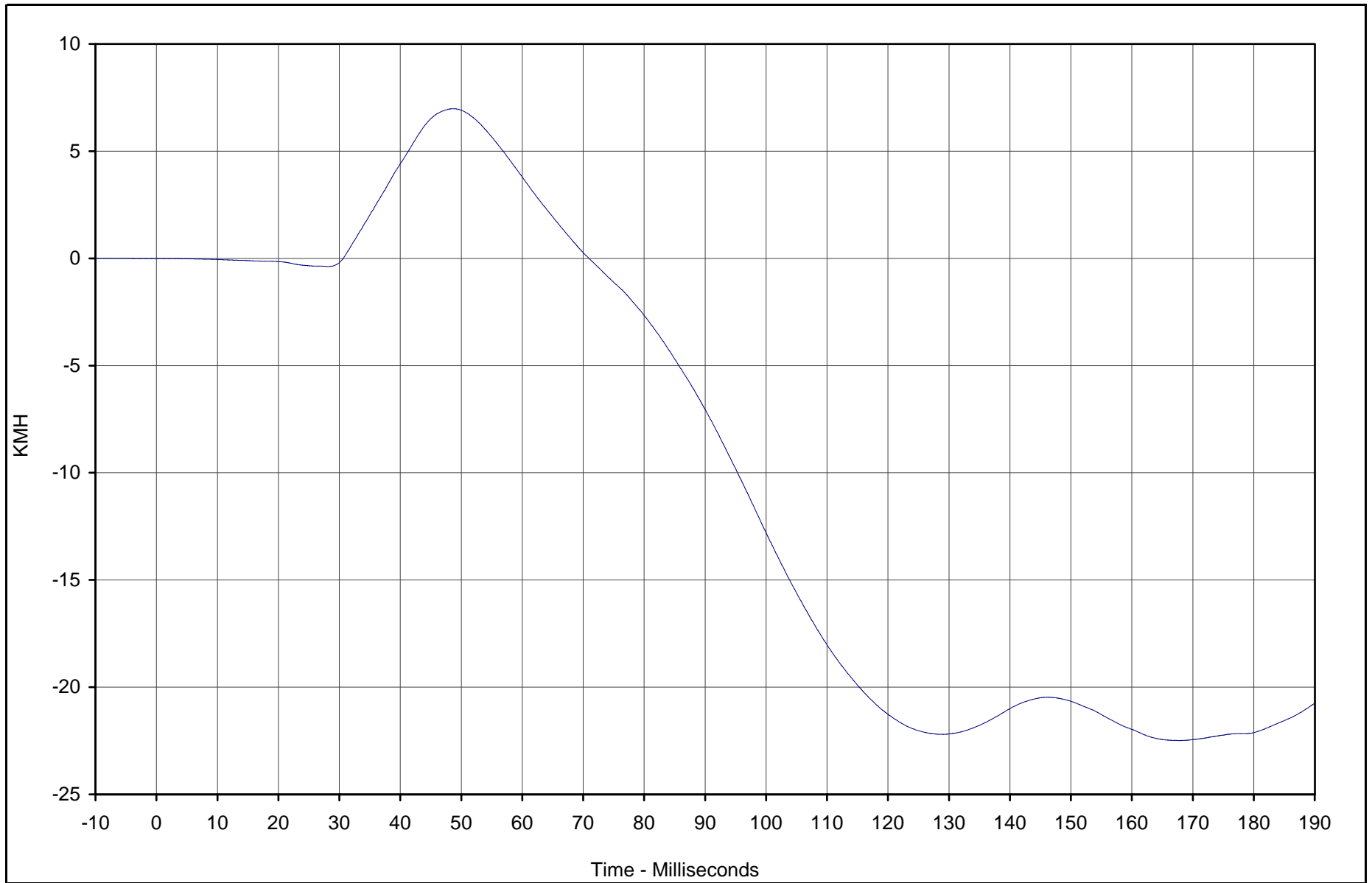


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head X Velocity	001	IN1	KMH	7.0	48.7	-22.5	167.8	180

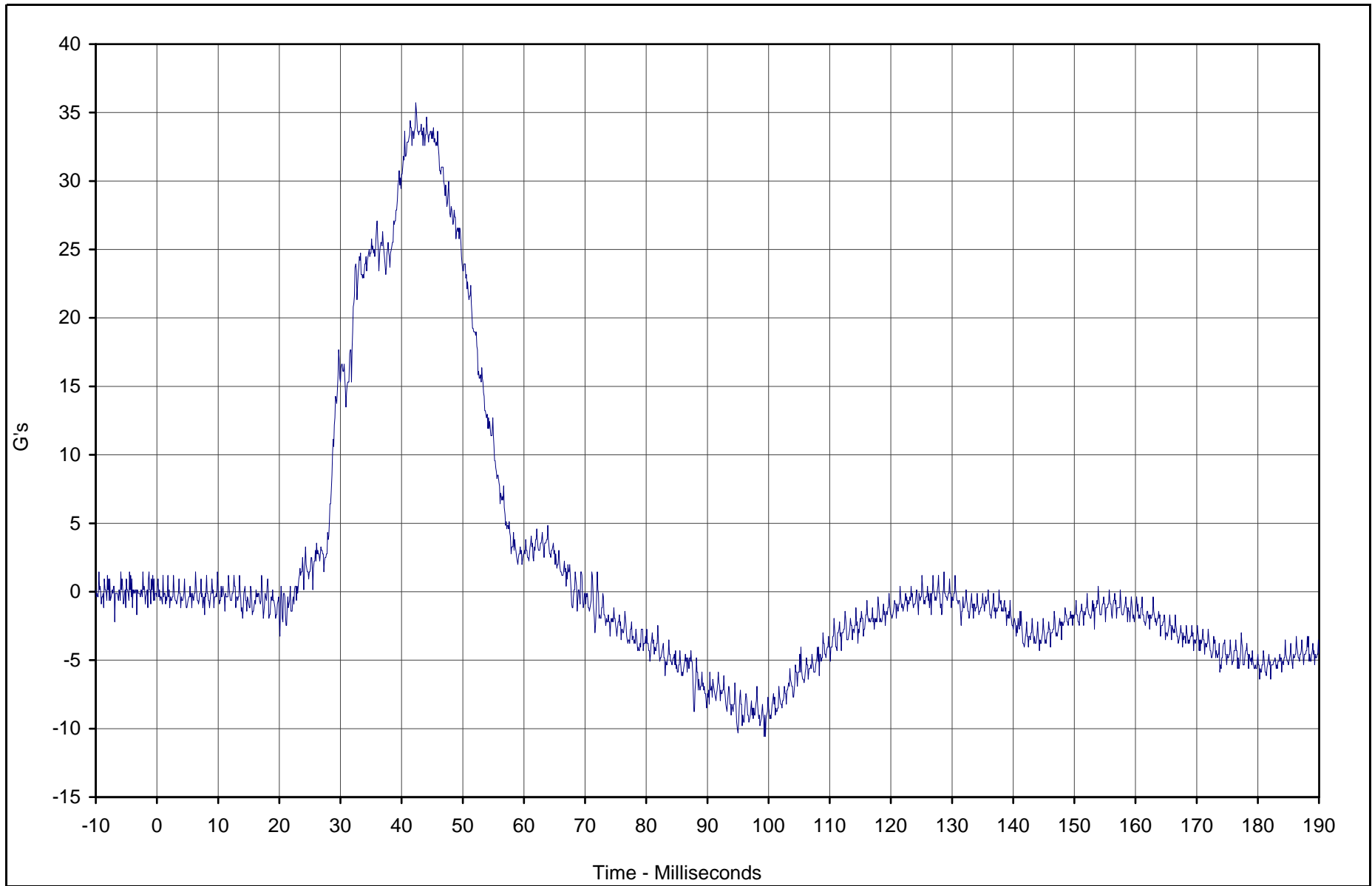


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Y	002	FIL	G's	35.7	42.3	-10.6	99.3	1000

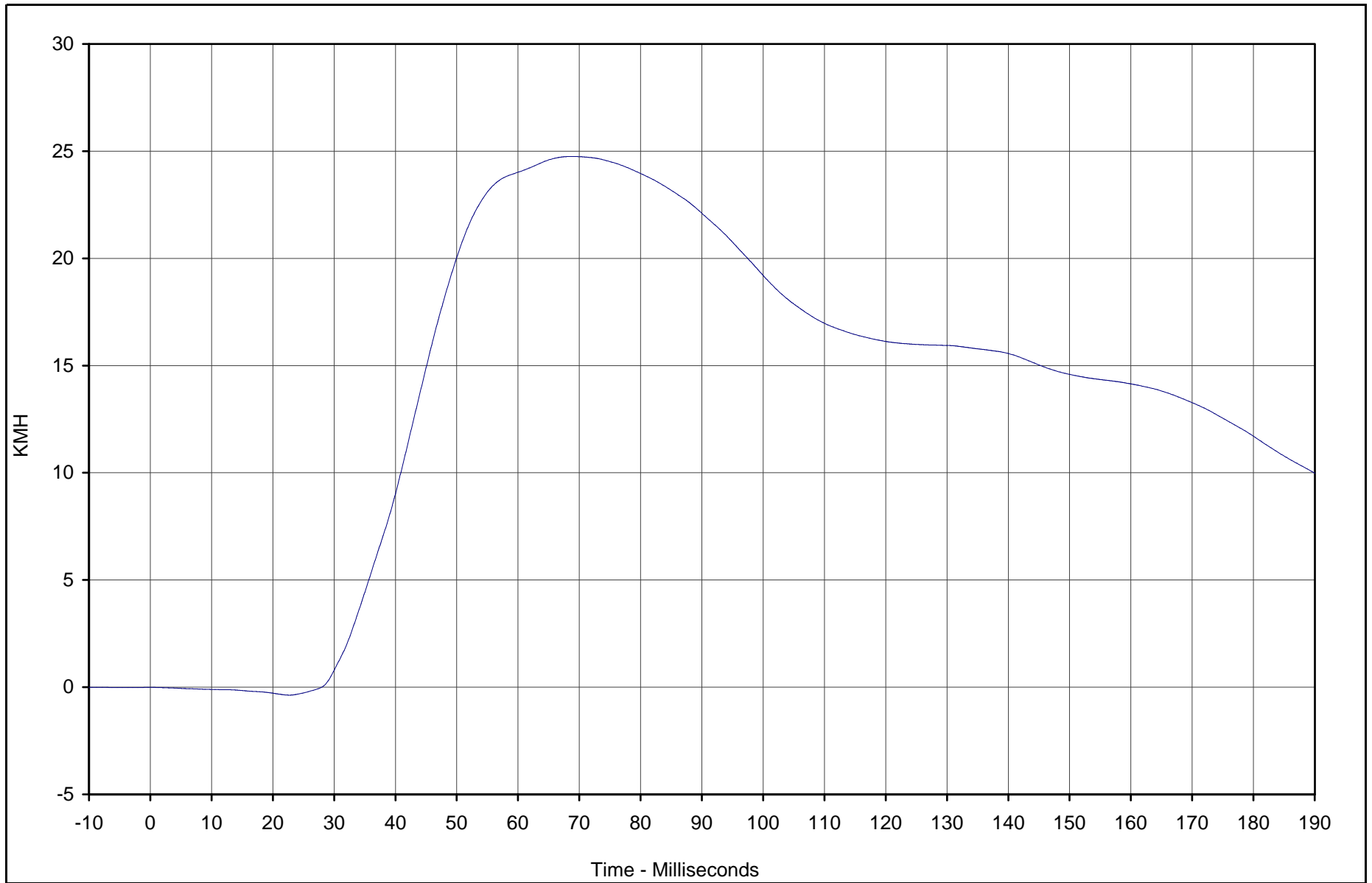


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Y Velocity	002	IN1	KMH	24.7	69.2	-0.4	22.7	180

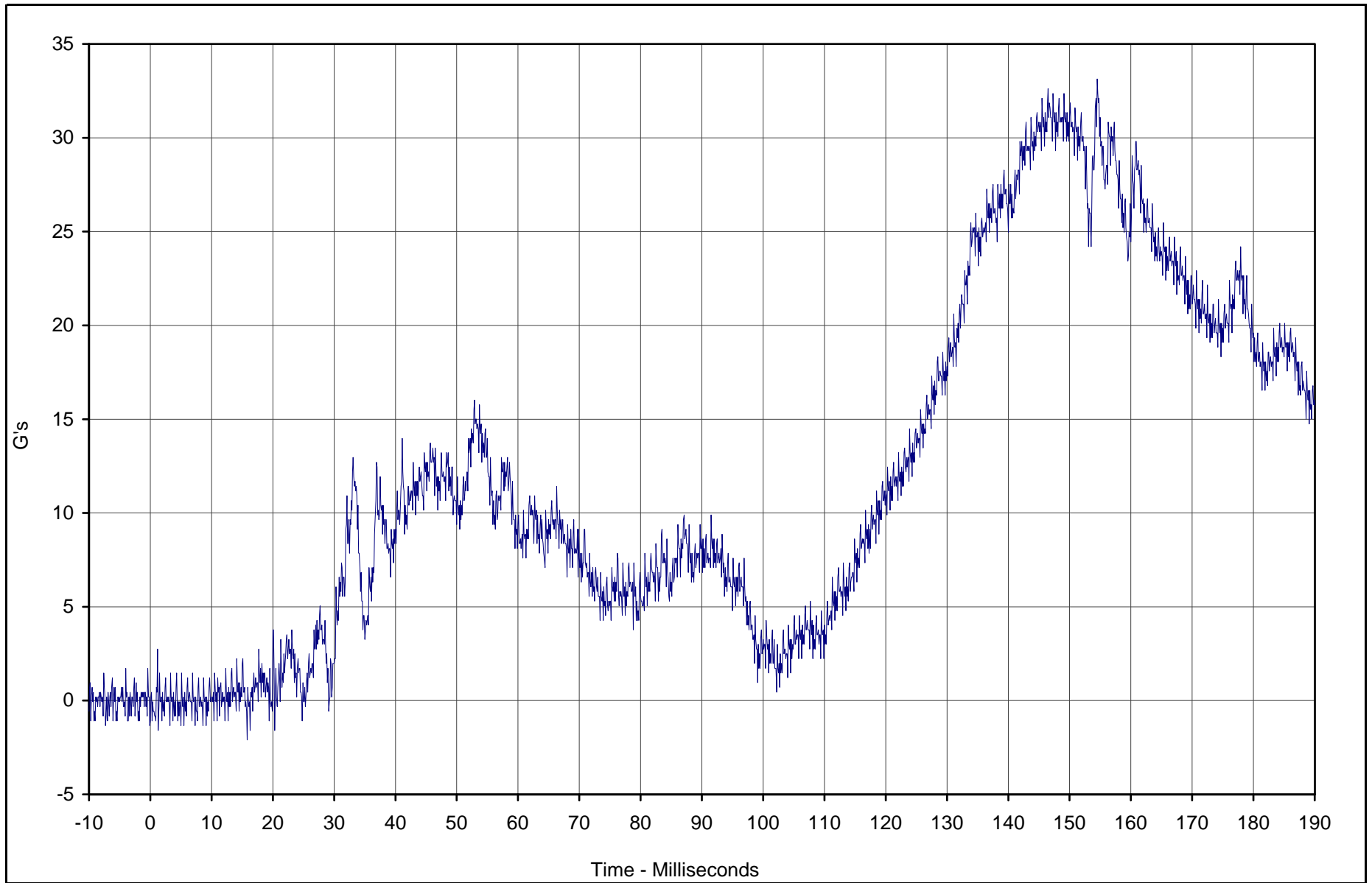


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Z	003	FIL	G's	33.1	154.5	-2.1	15.8	1000

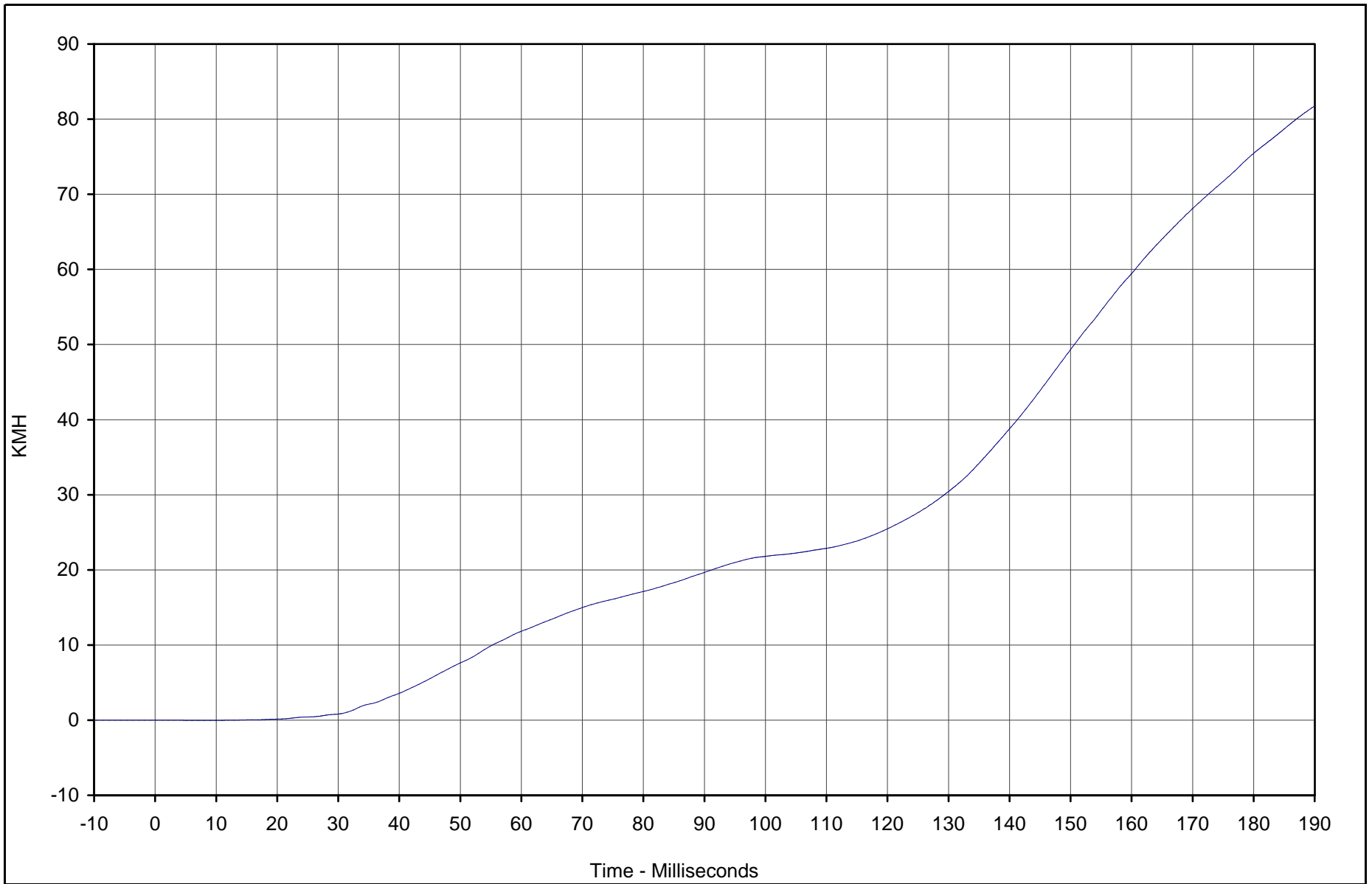


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Z Velocity	003	IN1	KMH	81.7	189.9	0.0	9.5	180

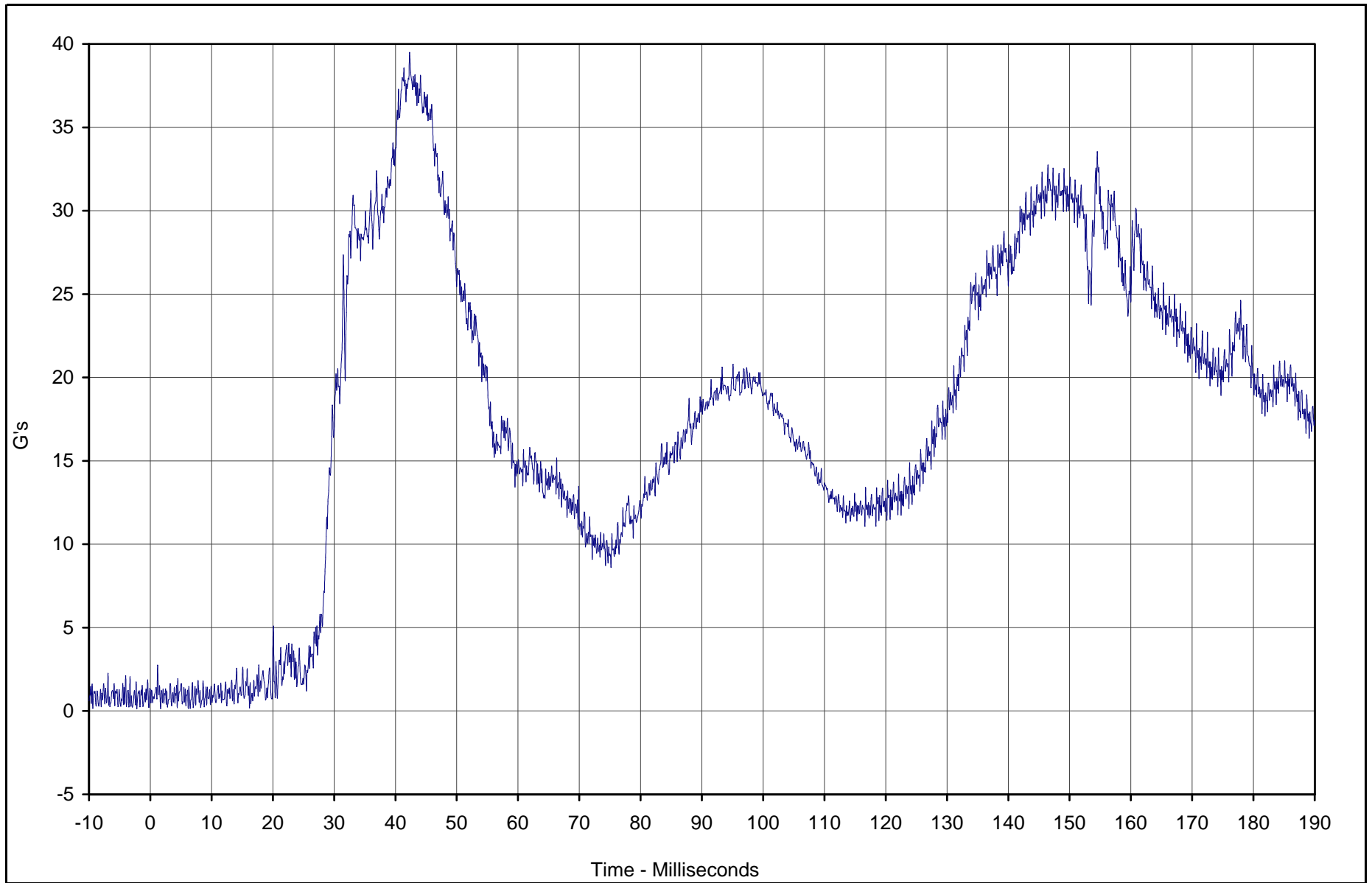


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Resultant	001	RES	G's	39.5	42.3	0.1	1.7	1000

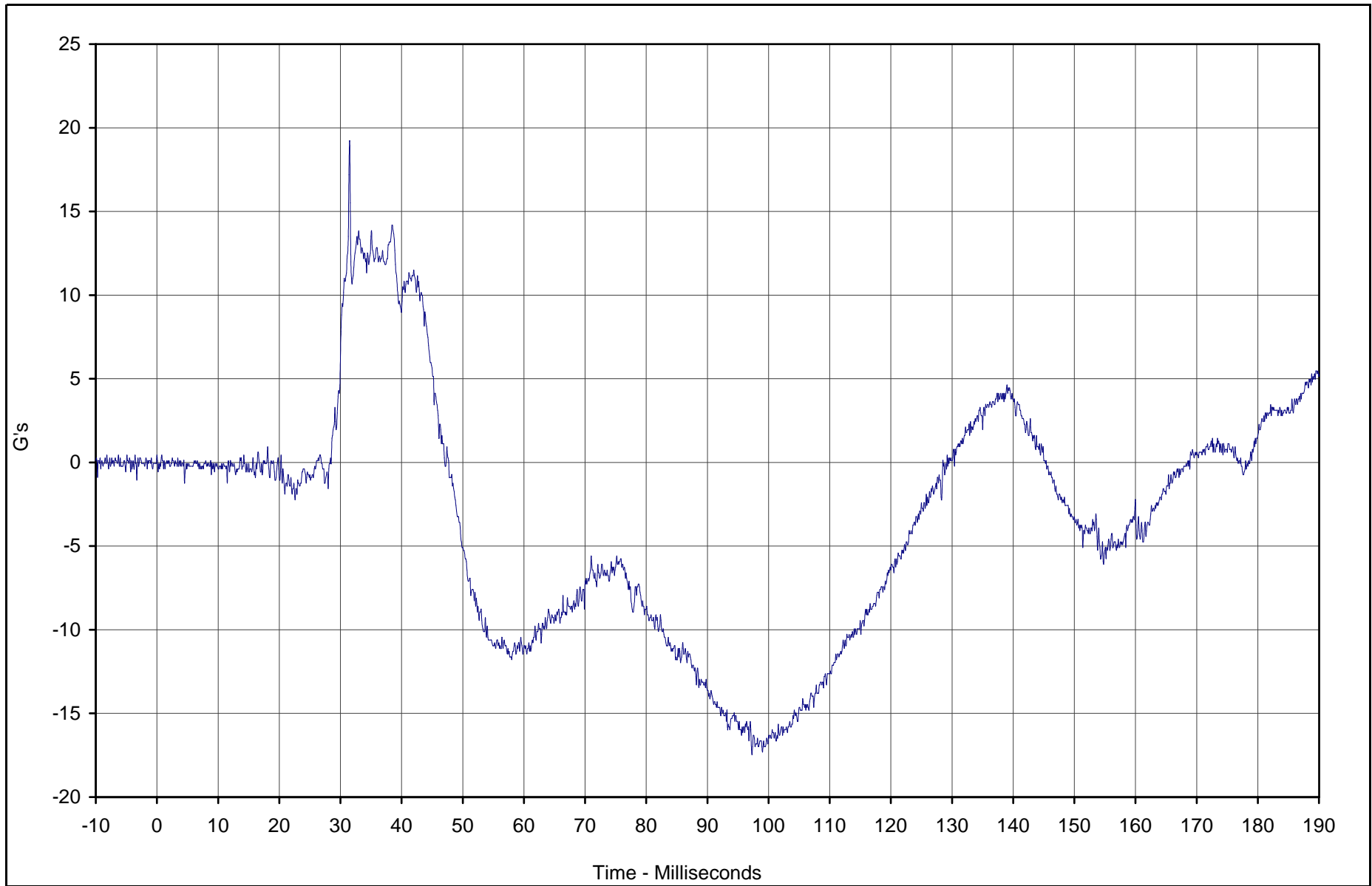


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head X Redundant	004	FIL	G's	19.2	31.5	-17.5	97.3	1000

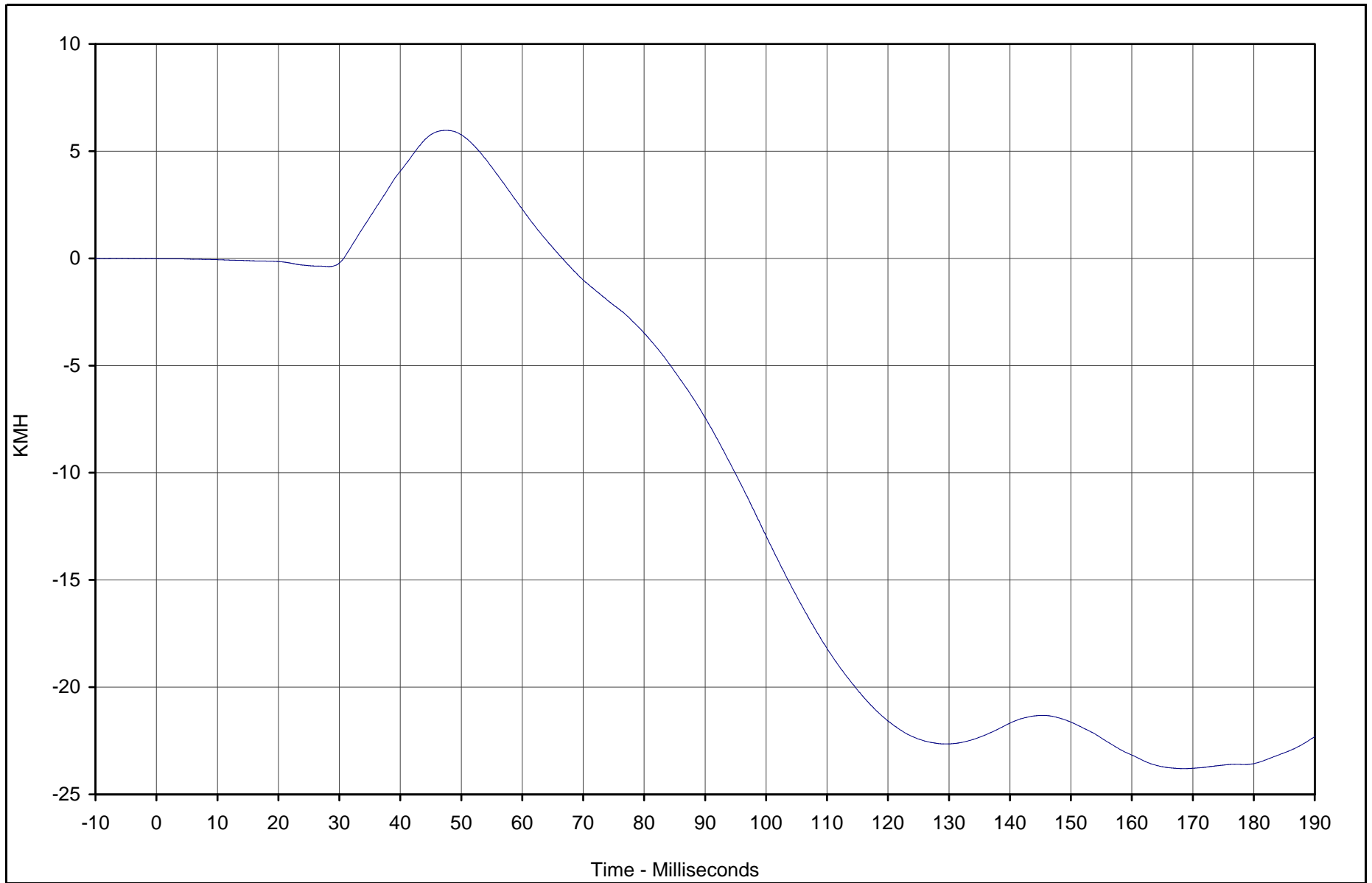


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head X Redundant Velocity	004	IN1	KMH	6.0	47.5	-23.8	168.6	180

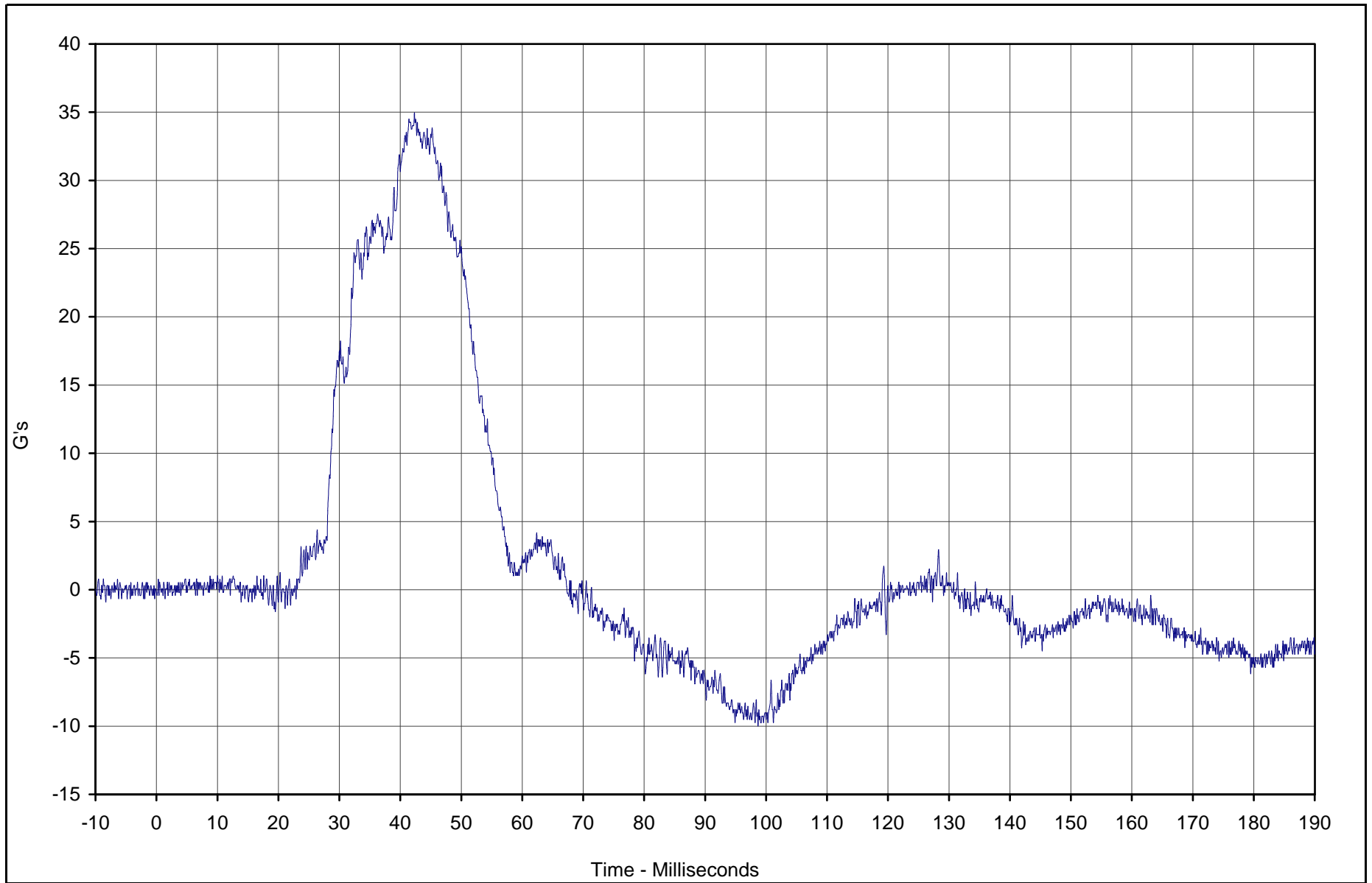


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Y Redundant	005	FIL	G's	35.0	42.3	-10.0	98.7	1000

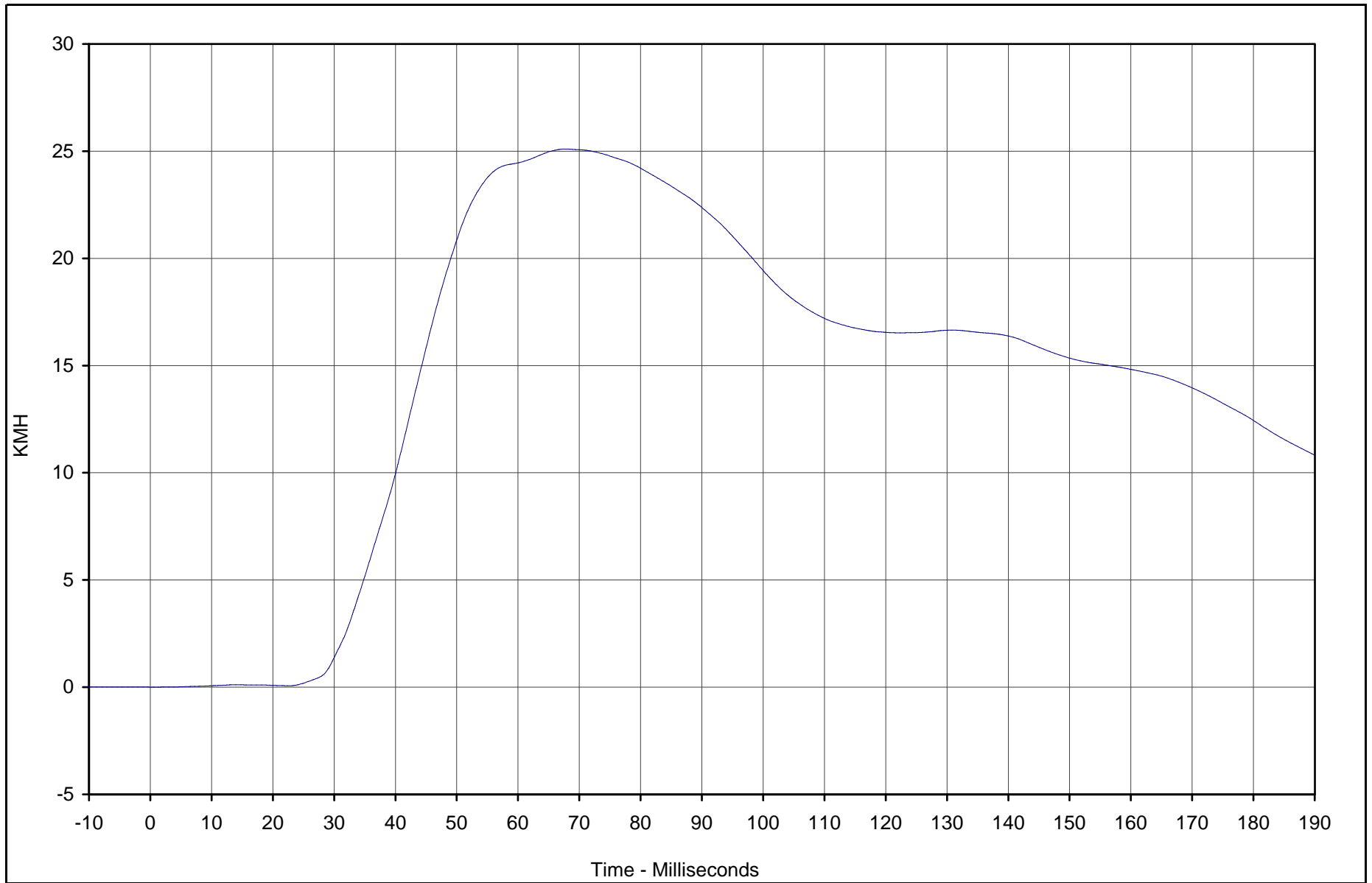


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Y Redundant Velocity	005	IN1	KMH	25.1	67.7	0.0	0.3	180

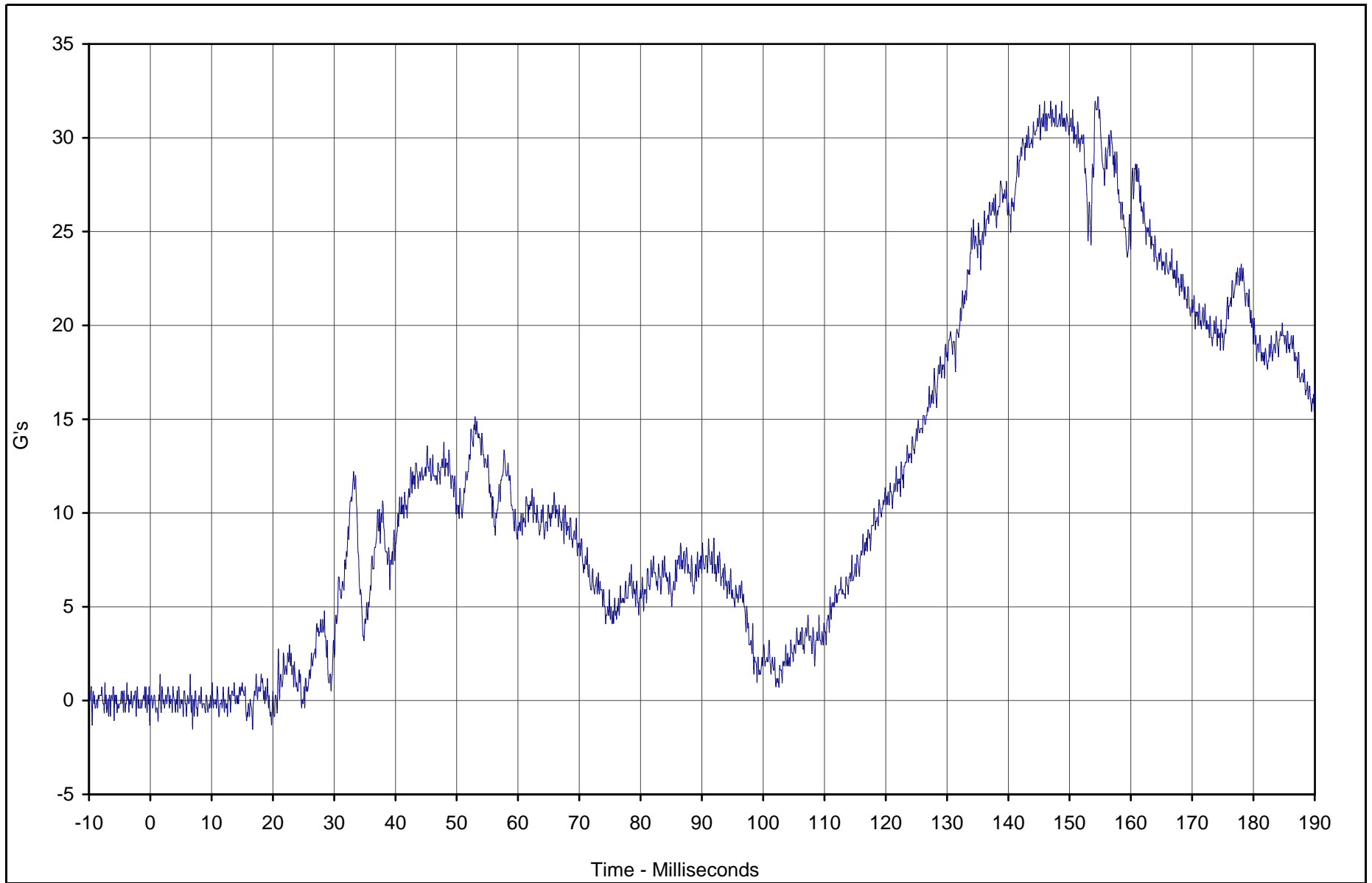


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Z Redundant	006	FIL	G's	32.2	154.6	-1.5	6.9	1000

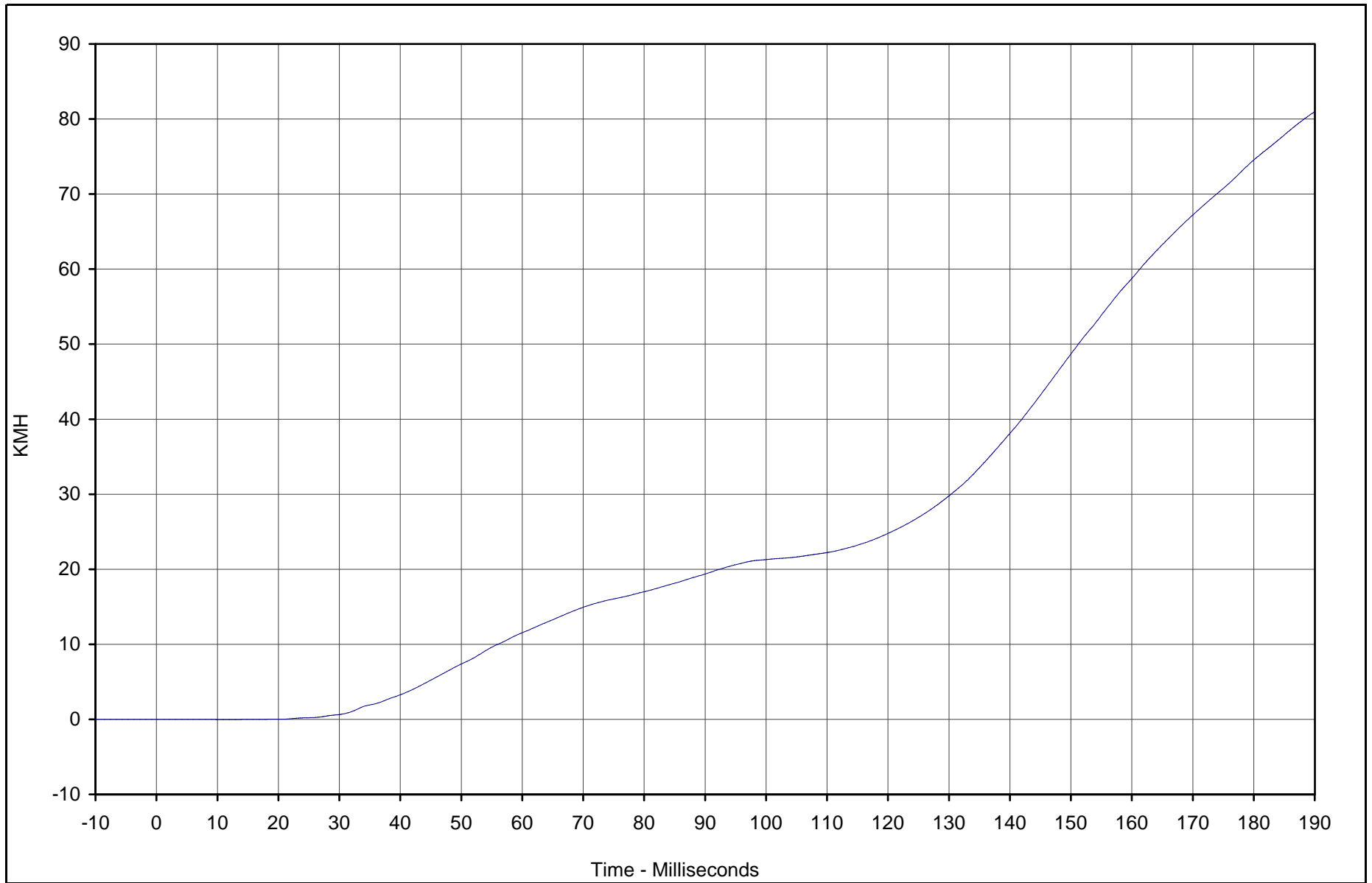


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Z Redundant Velocity	006	IN1	KMH	80.9	189.9	0.0	12.7	180

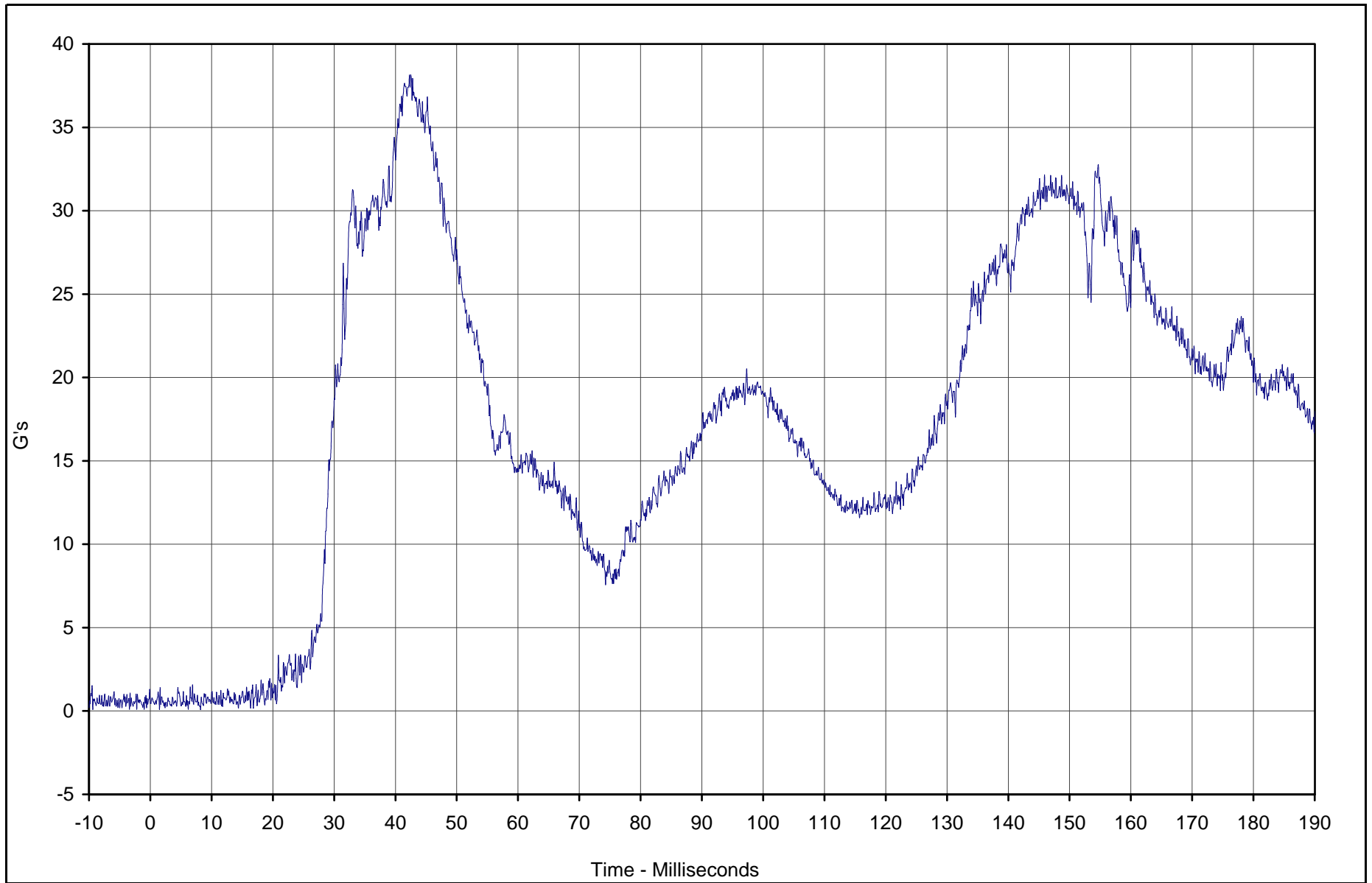


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Redundant Resultant	004	RES	G's	38.1	42.3	0.1	1.5	1000

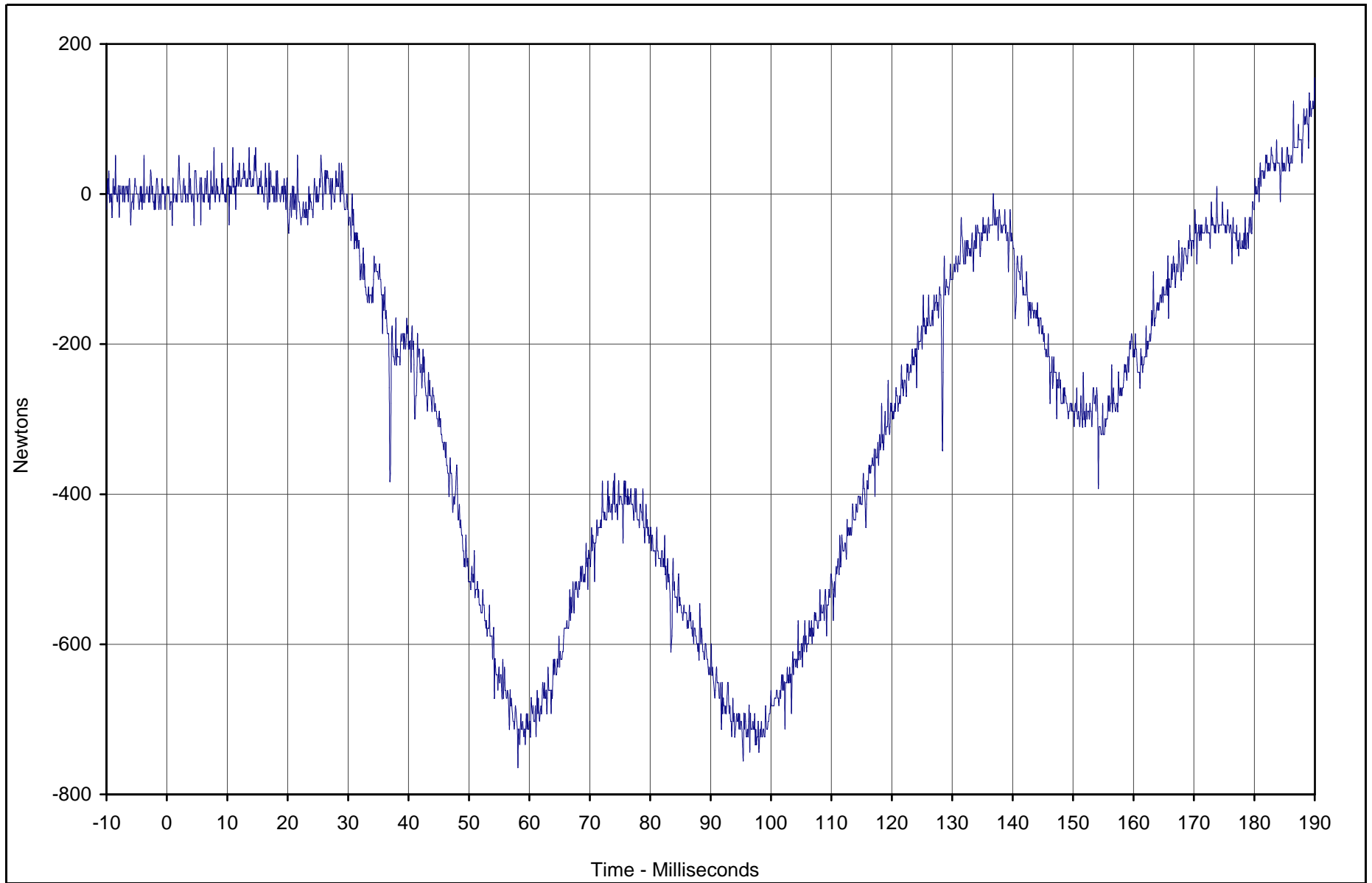


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Force X	007	FIL	Newtons	134.3	189.1	-764.7	58.1	1000

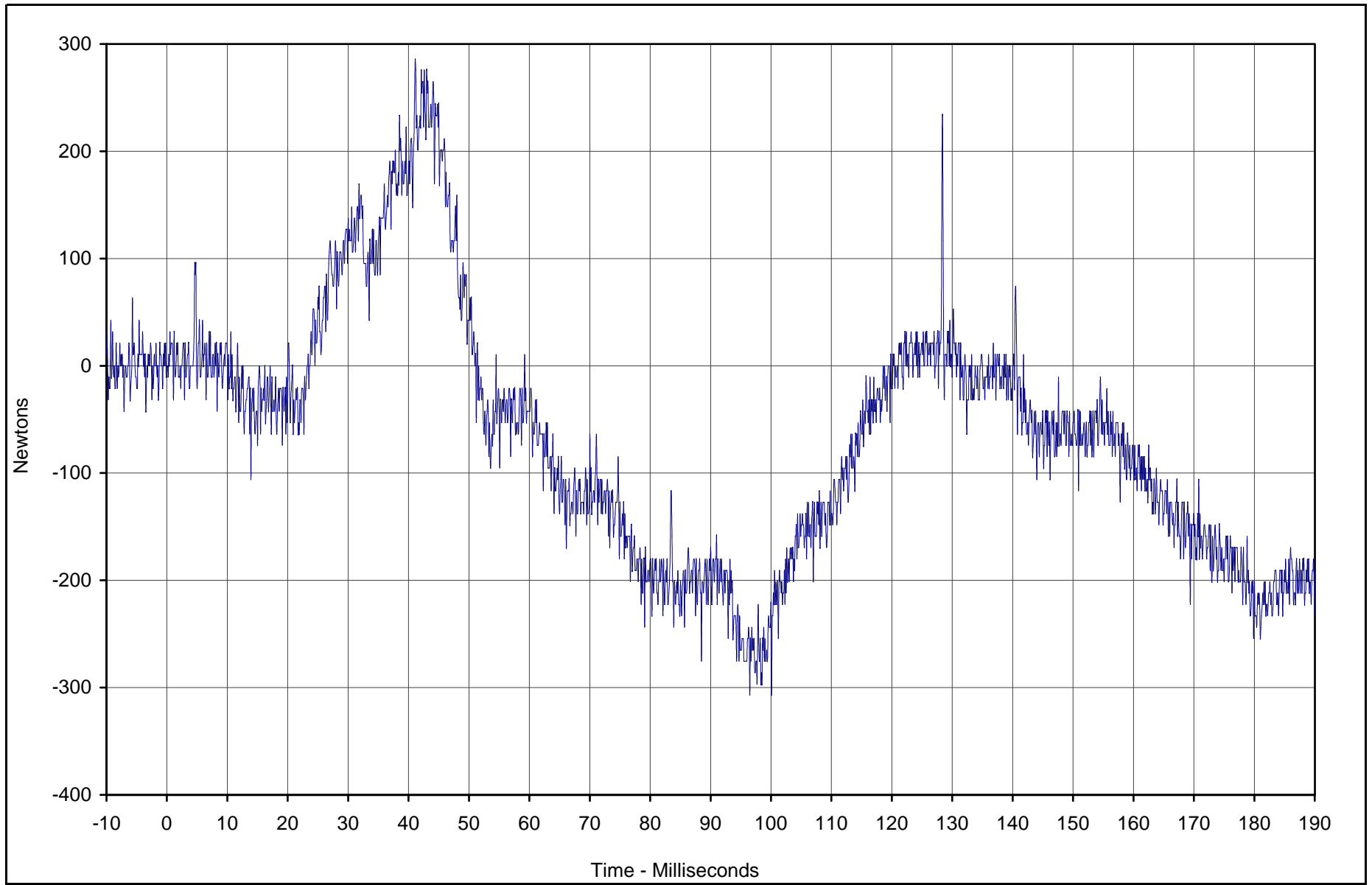


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Force Y	008	FIL	Newtons	286.1	41.1	-307.3	96.5	1000

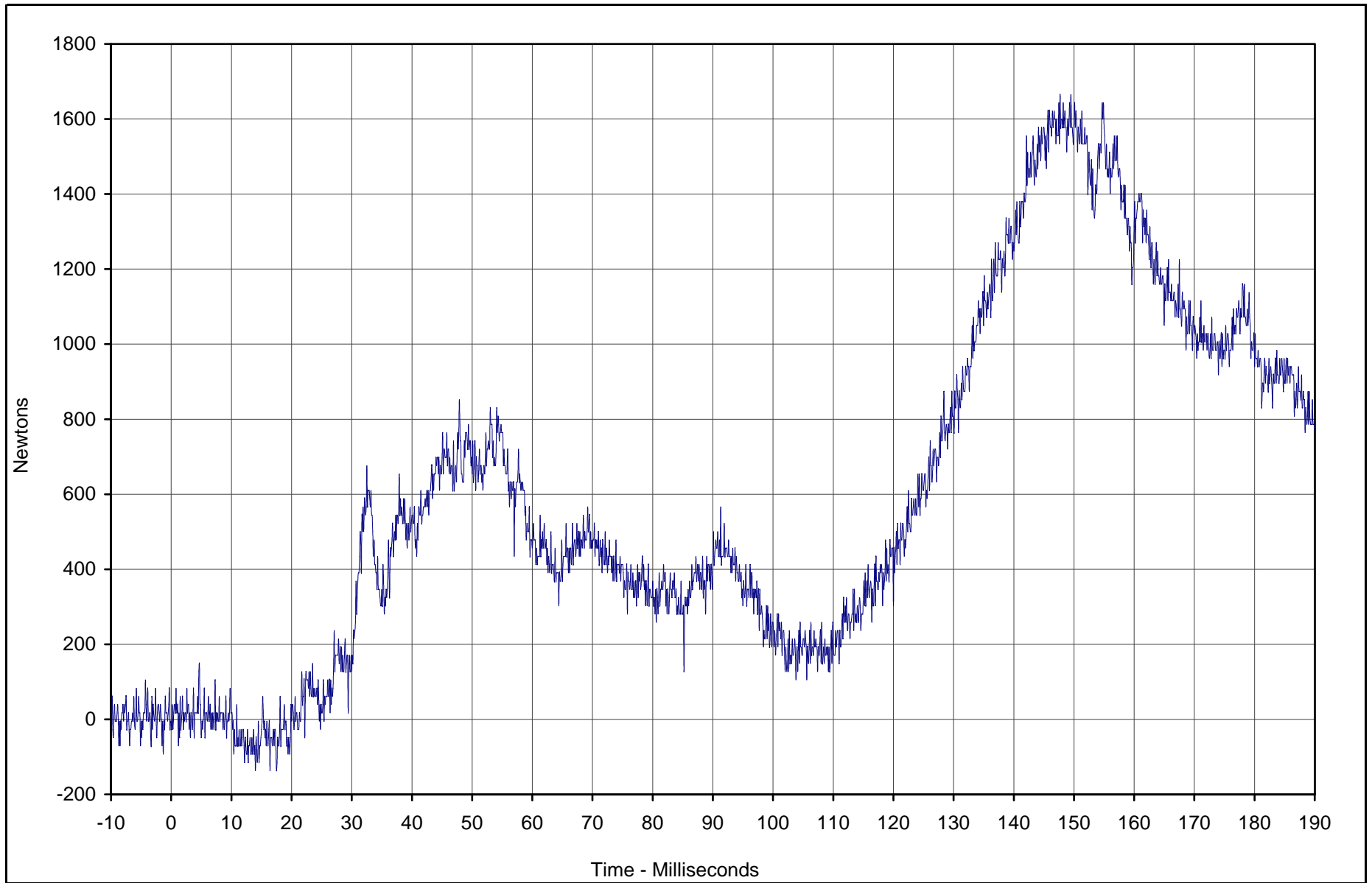


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Force Z	009	FIL	Newtons	1665.6	147.7	-136.9	14.0	1000

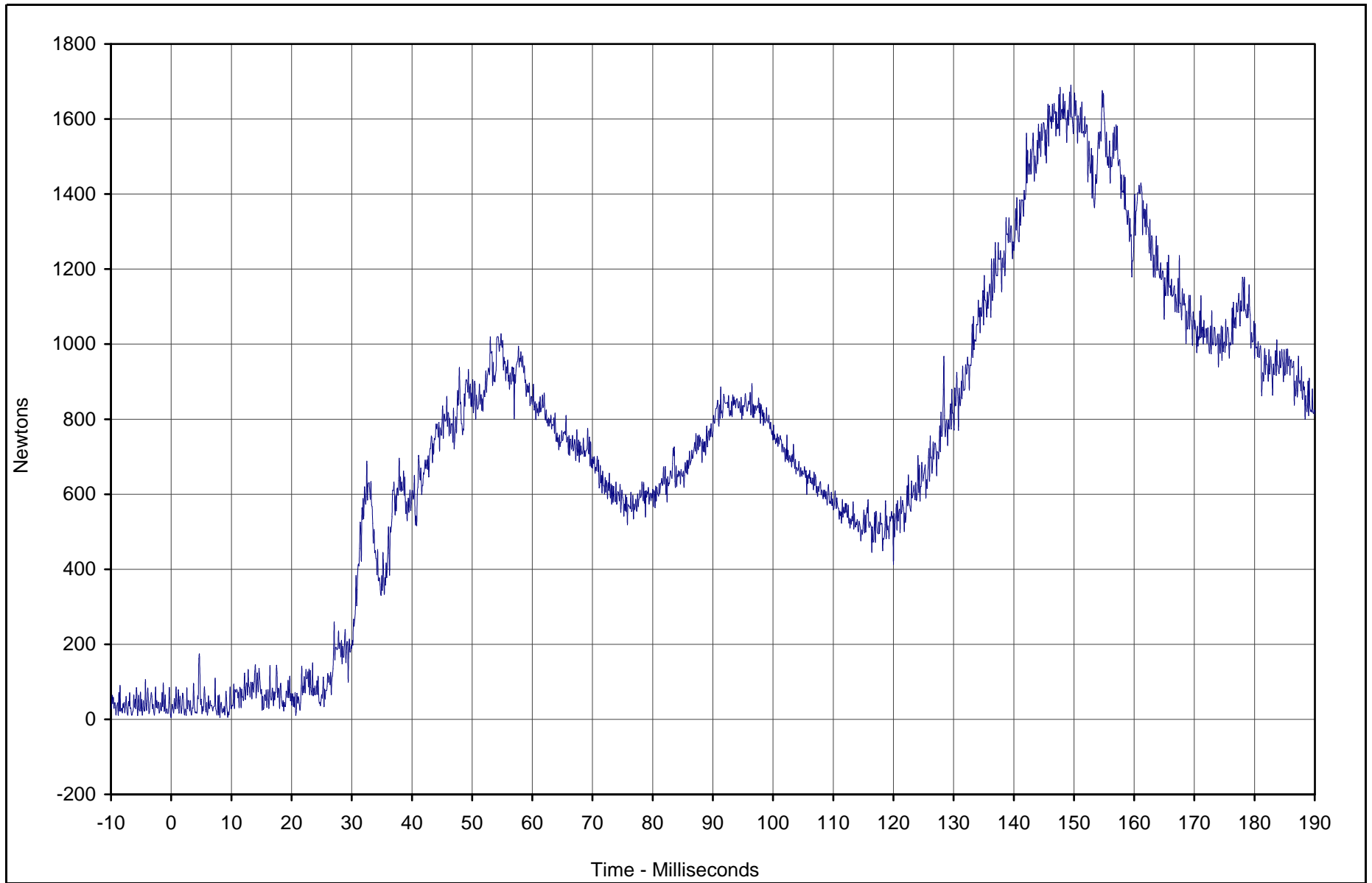


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Force Resultant	007	RES	Newtons	1690.4	149.5	5.0	0.0	1000

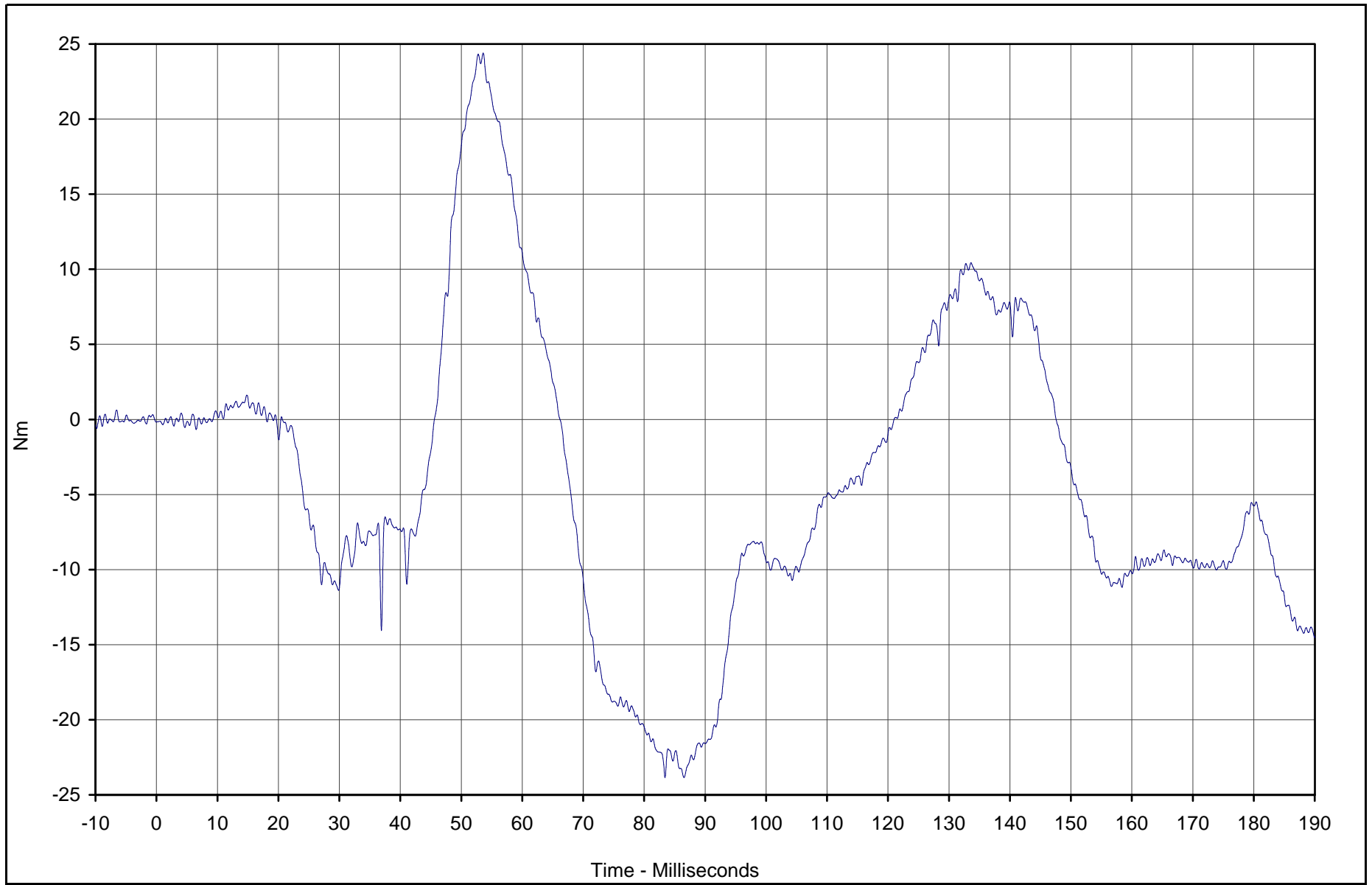


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Moment X	010	FIL	Nm	24.4	53.6	-23.9	83.4	600

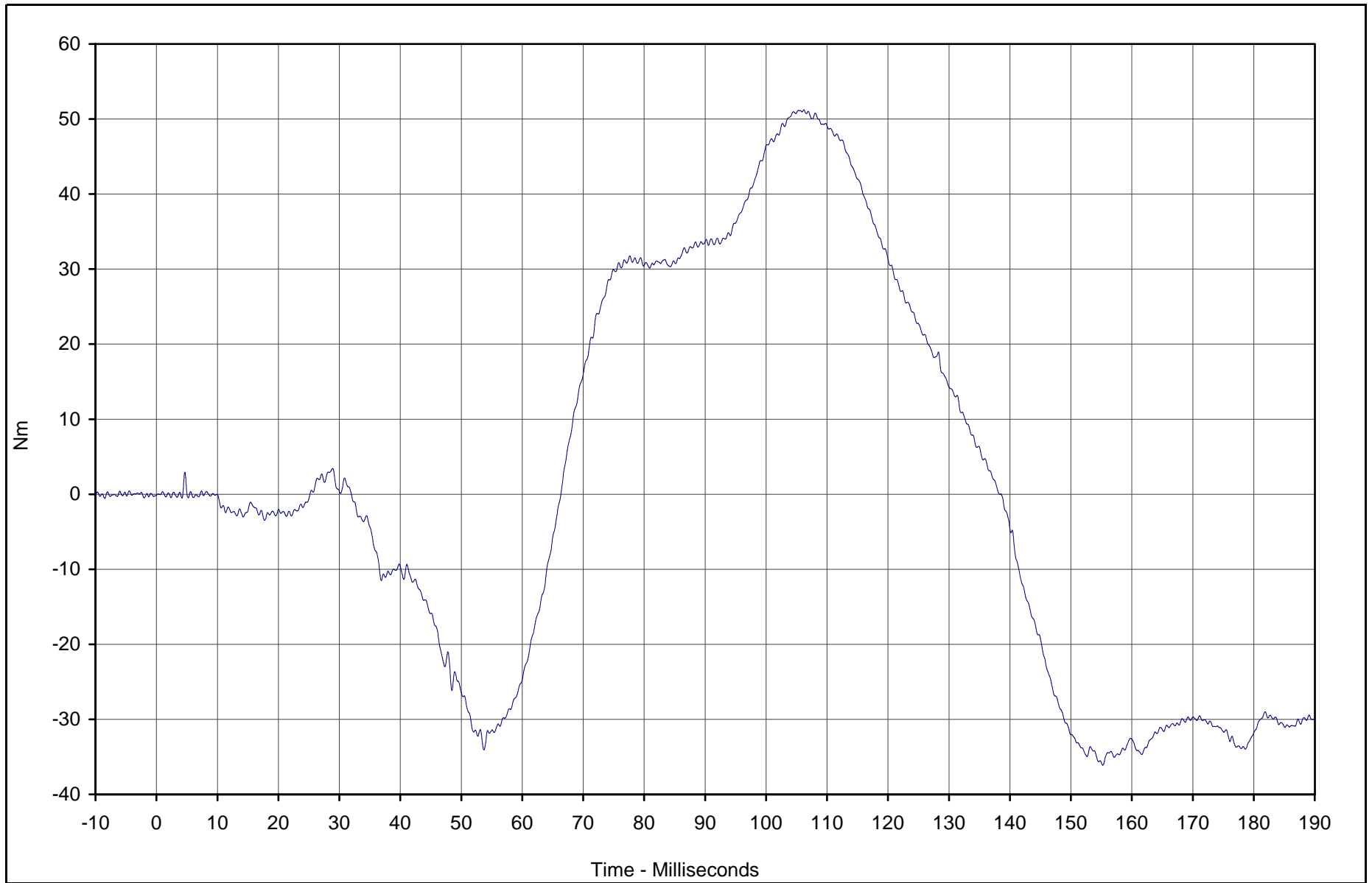


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Moment Y	011	FIL	Nm	51.2	106.2	-36.1	155.2	600

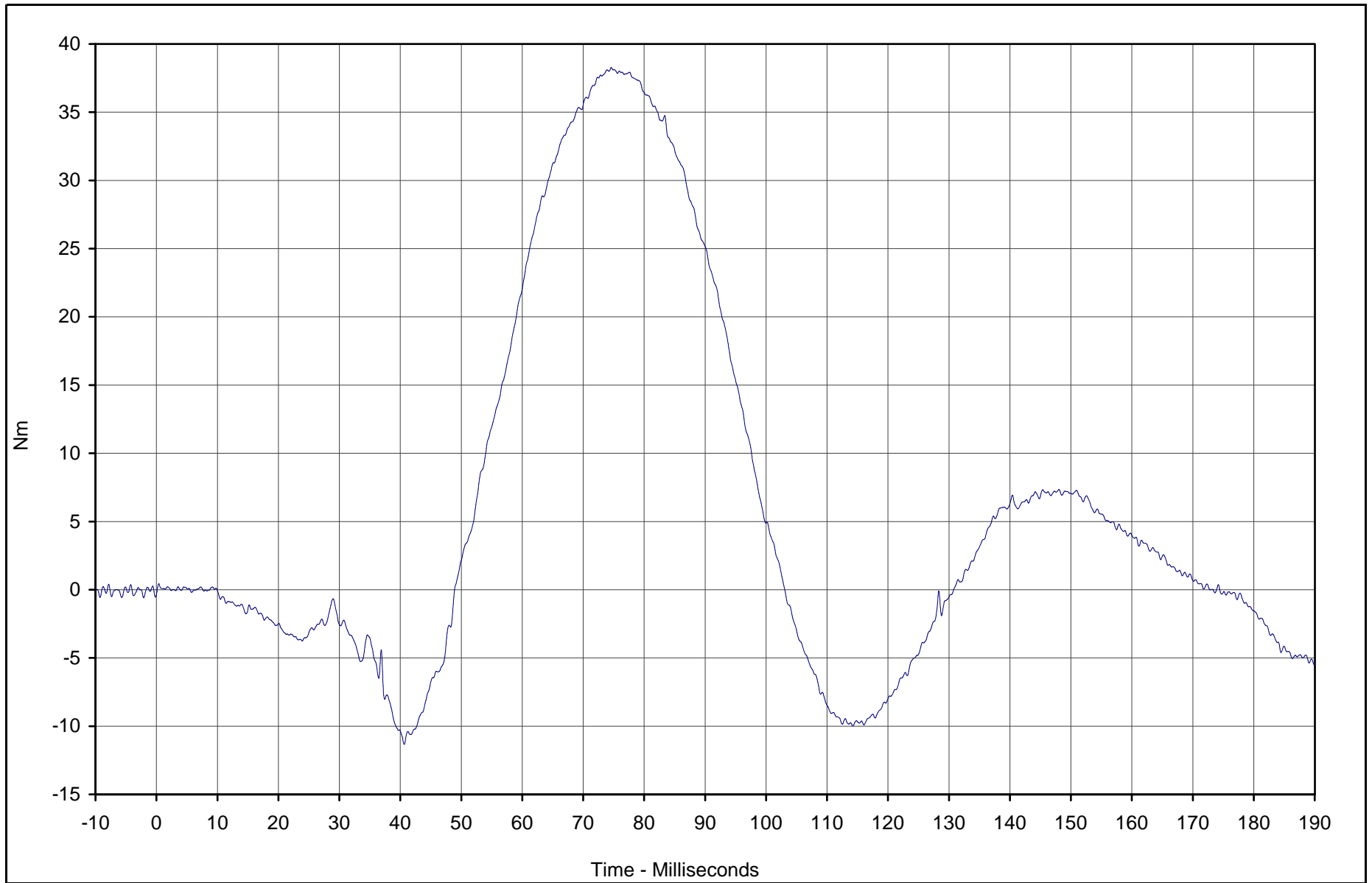


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Moment Z	012	FIL	Nm	38.3	74.6	-11.3	40.6	600

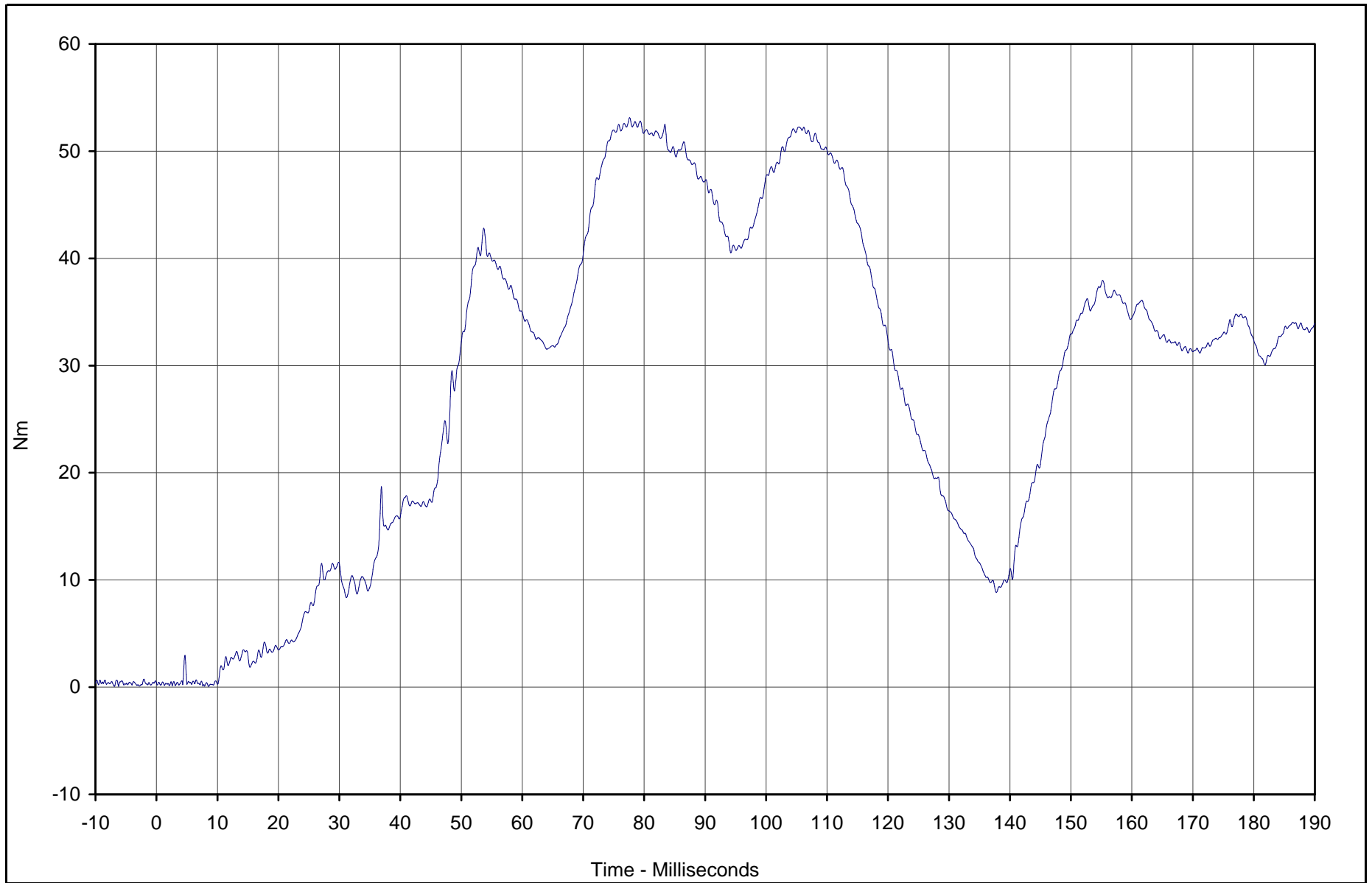


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Moment Resultant	010	RES	Nm	53.1	77.6	0.1	8.6	600

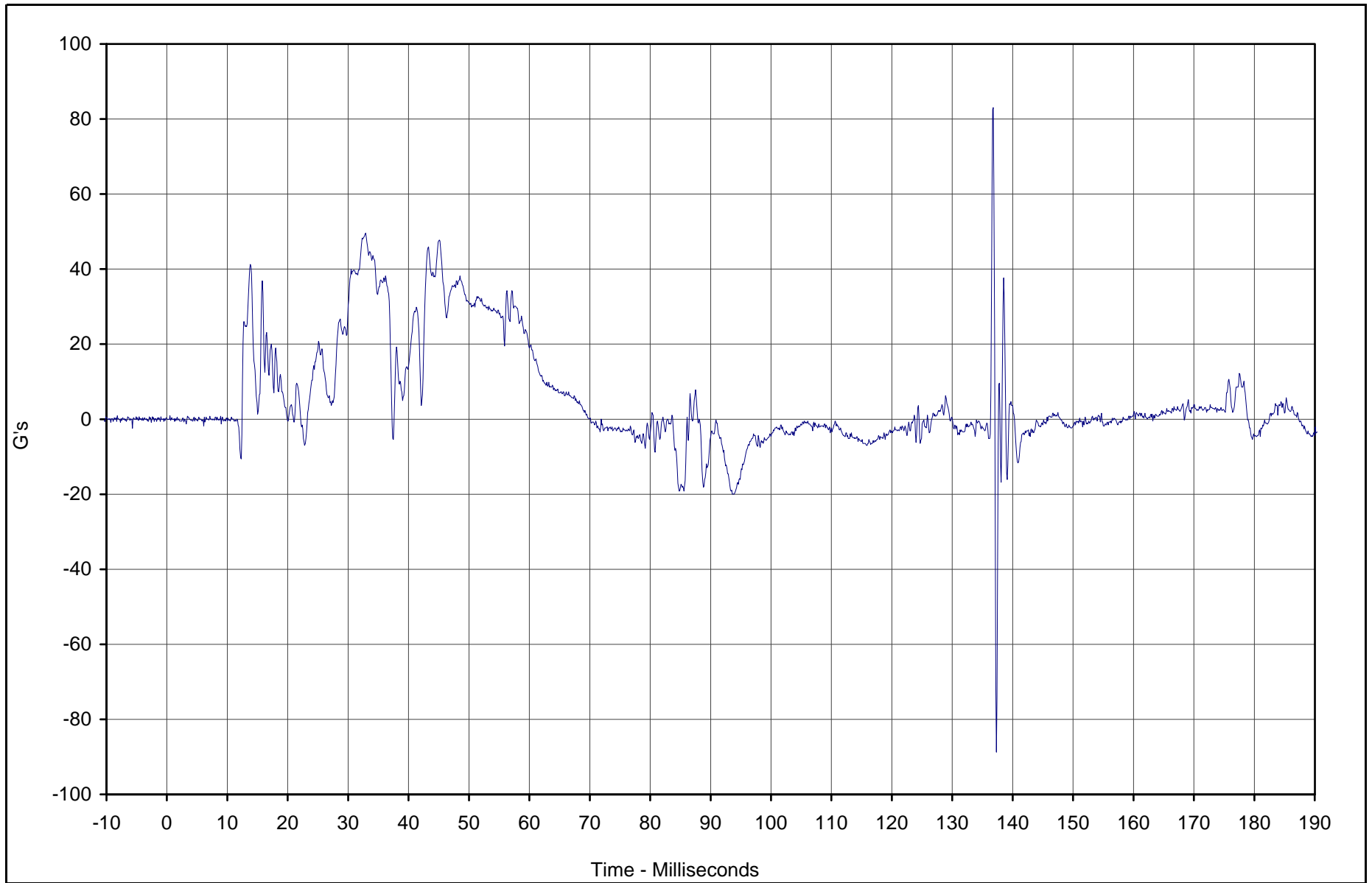


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Upper Rib Primary Y	013	FIL	G's	83.1	136.8	-88.7	137.3	1000

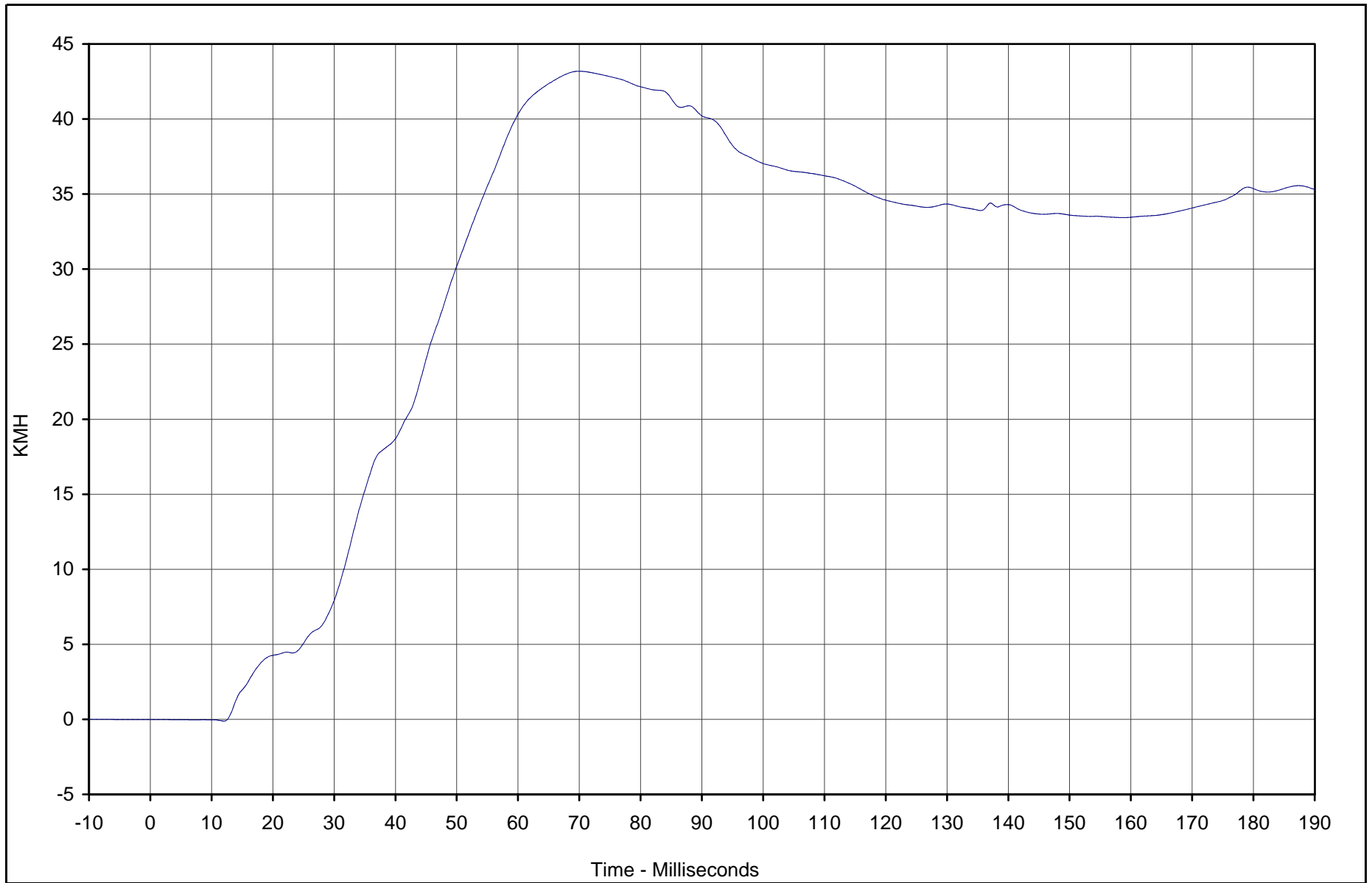


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Upper Rib Primary Y Vel.	013	IN1	KMH	43.2	70.0	-0.1	12.0	180

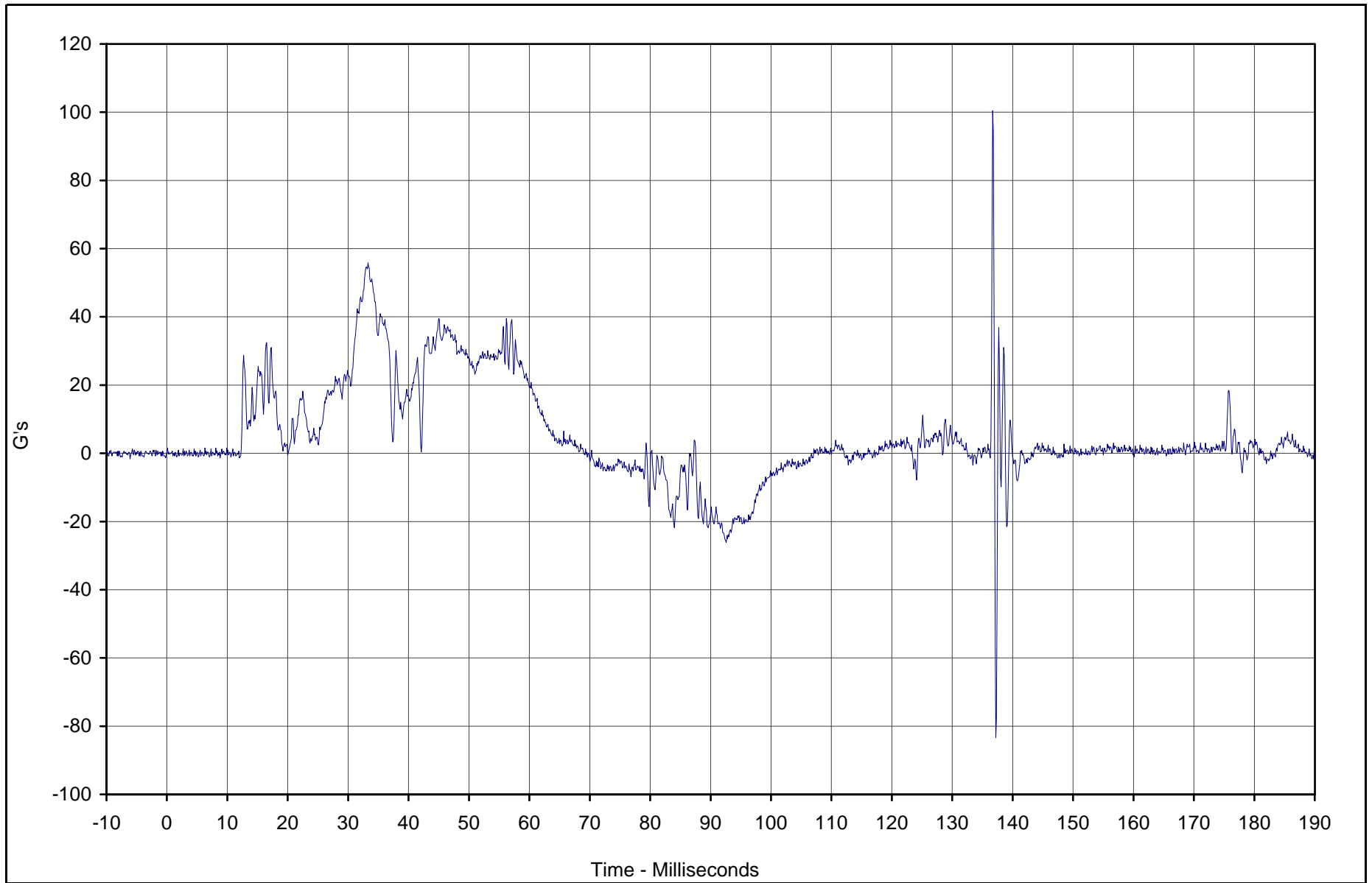


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Rib Primary Y	014	FIL	G's	100.5	136.7	-83.4	137.2	1000

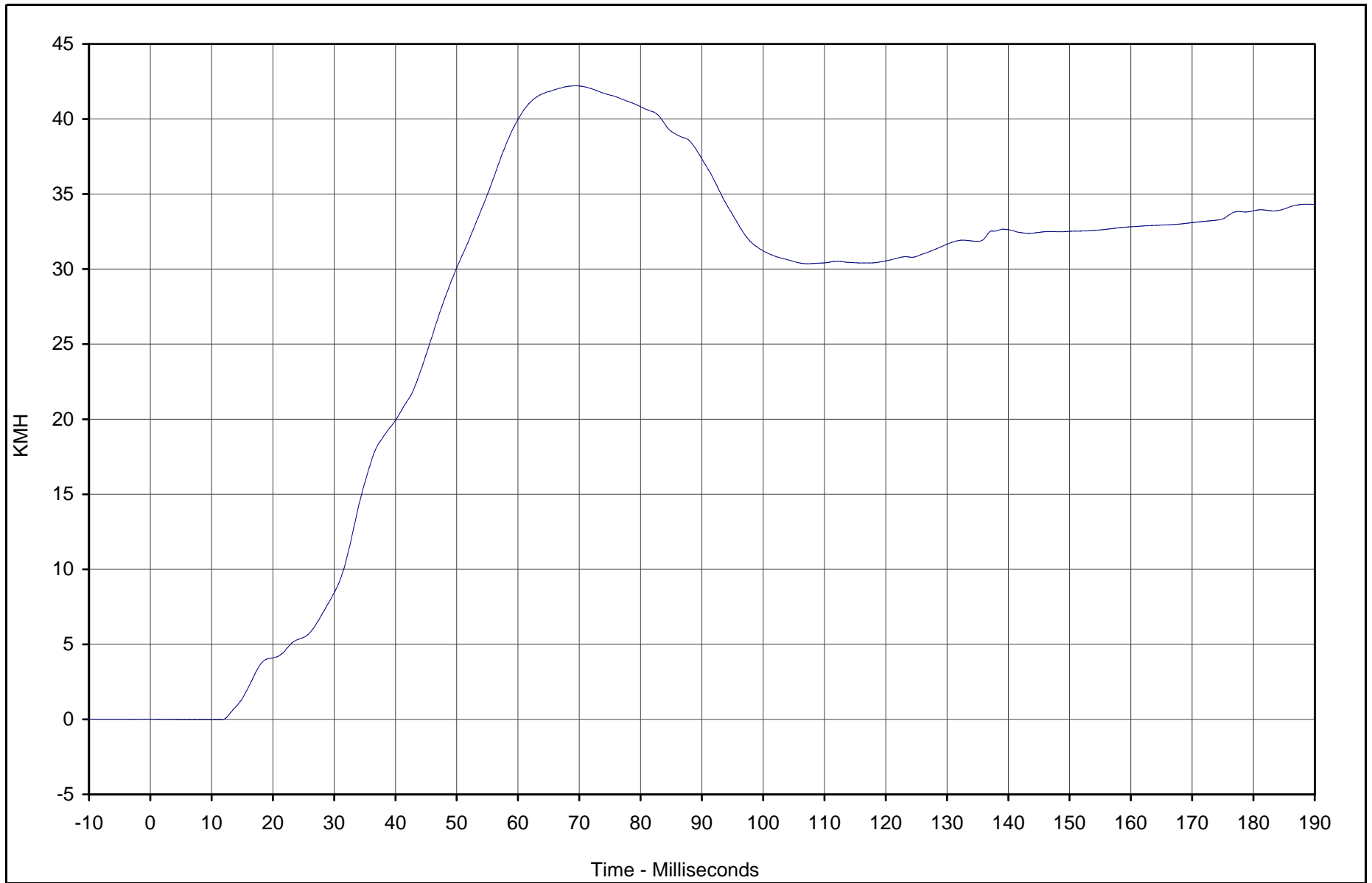


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Rib Primary Y Vel.	014	IN1	KMH	42.2	69.4	0.0	11.4	180

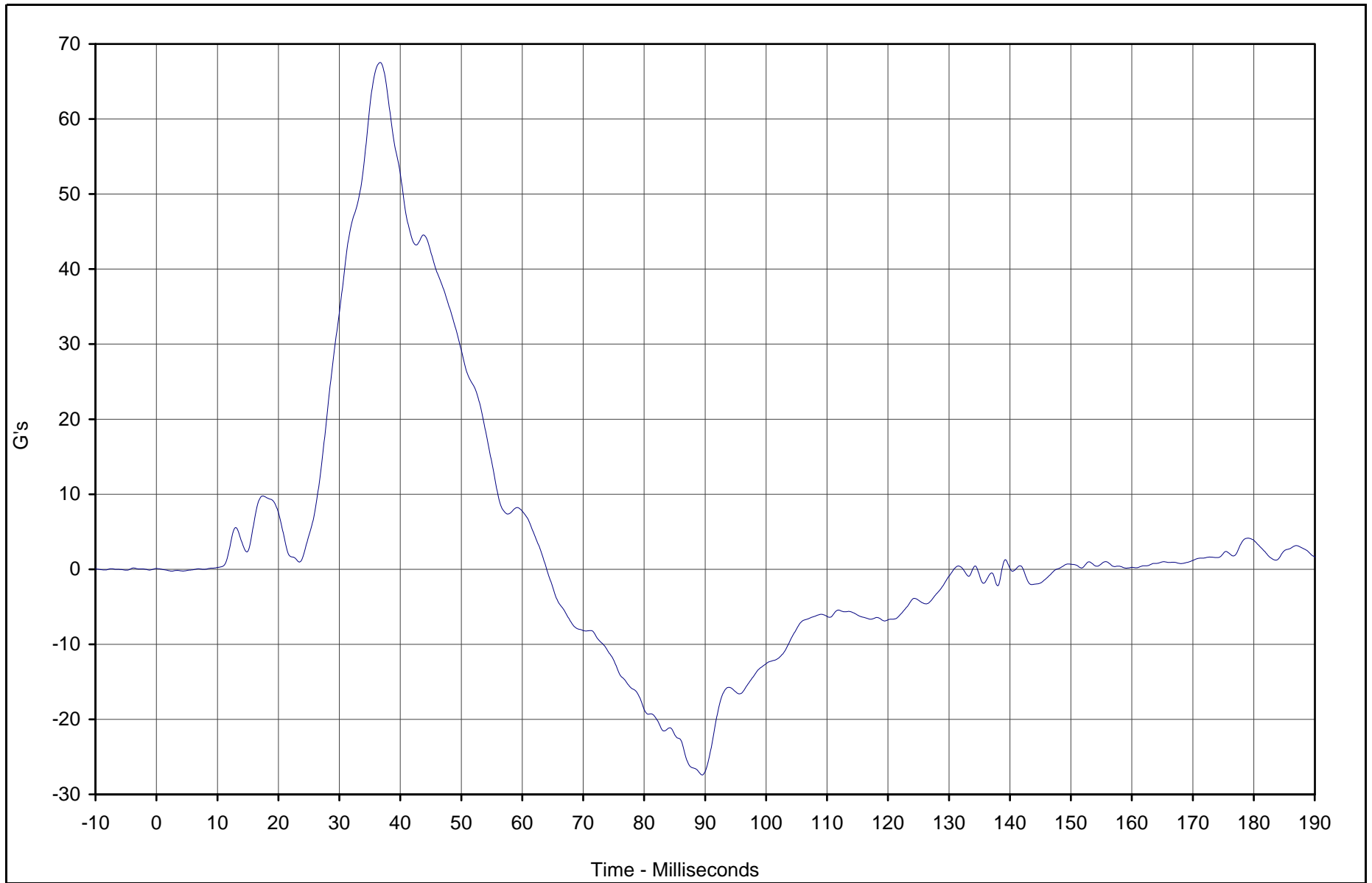


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Spine Primary Y	015	FIL	G's	67.5	36.7	-27.4	89.5	180

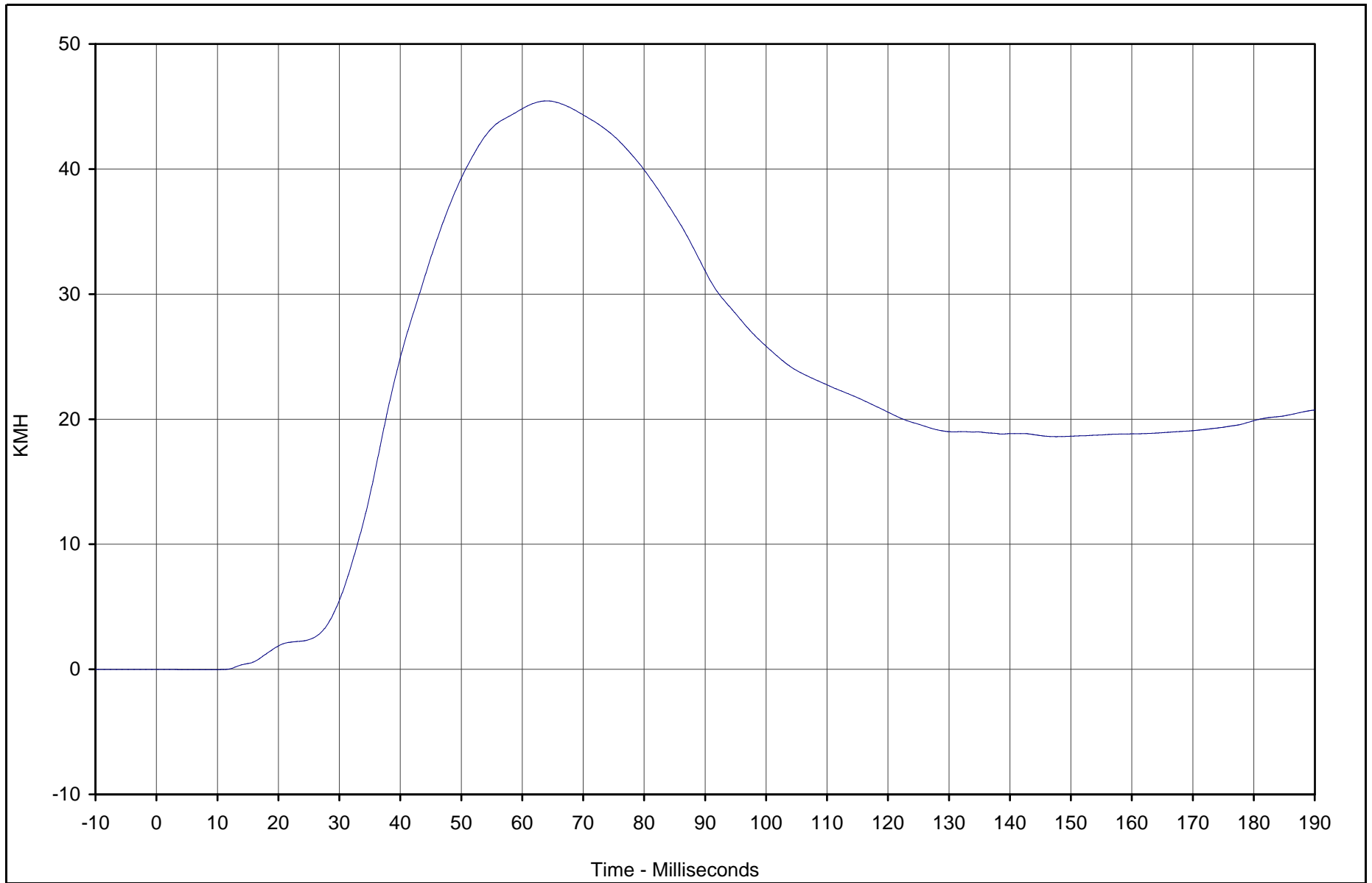


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Spine Primary Y Vel.	015	IN1	KMH	45.5	64.0	0.0	6.4	180

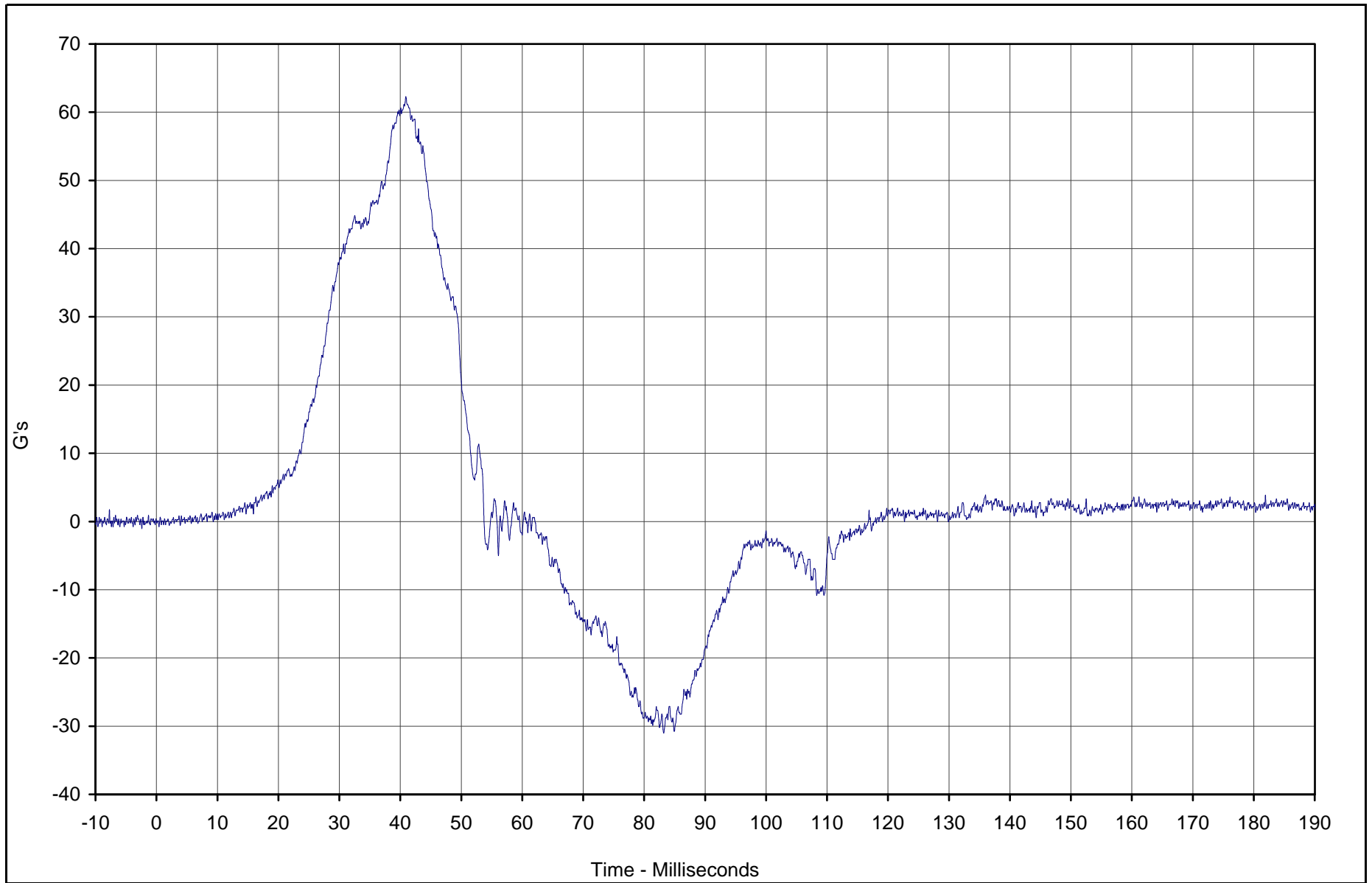


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis Primary Y	016	FIL	G's	62.3	40.9	-31.0	83.2	1000

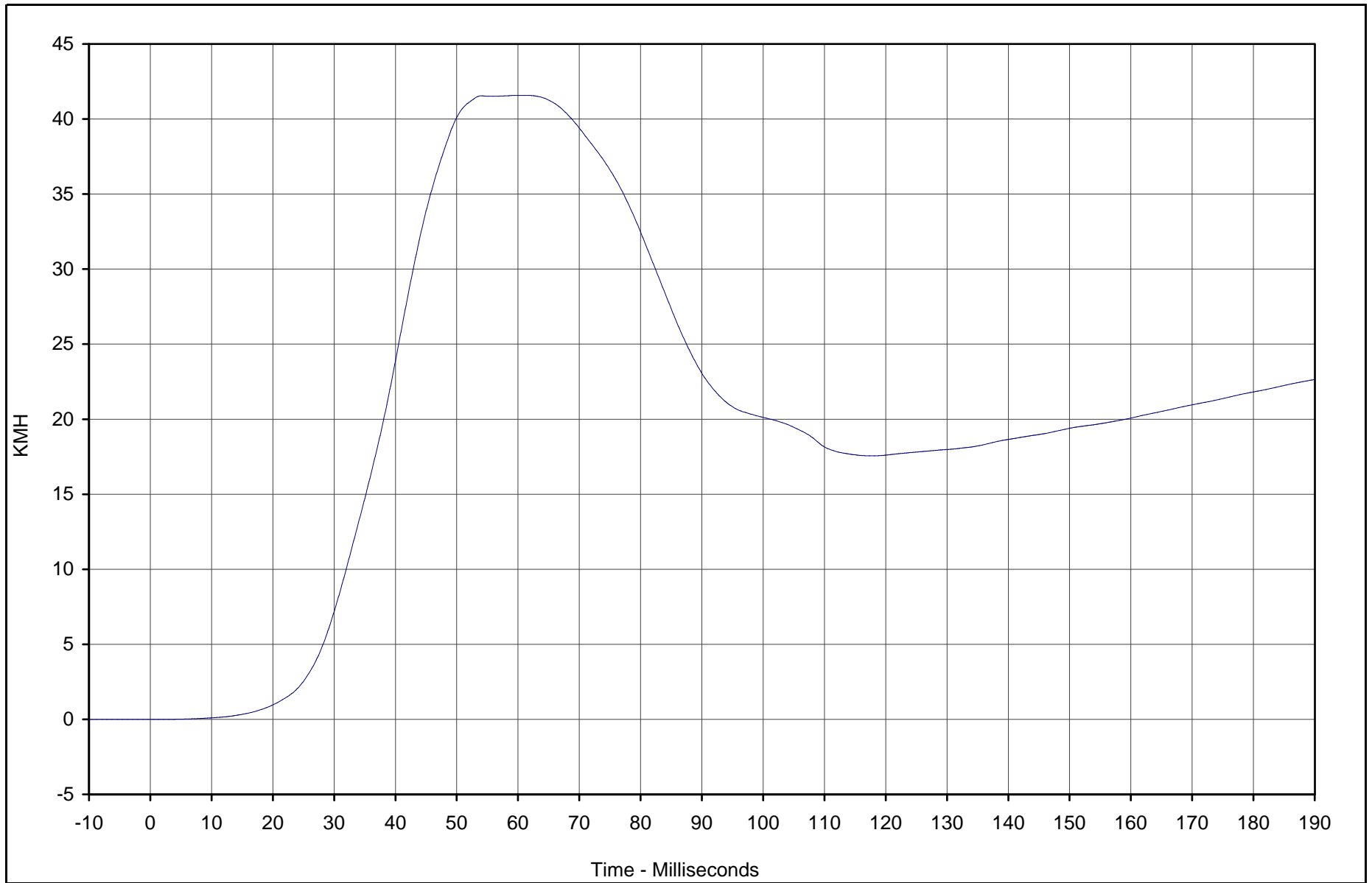


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis Primary Y Vel.	016	IN1	KMH	41.6	59.7	0.0	2.3	180

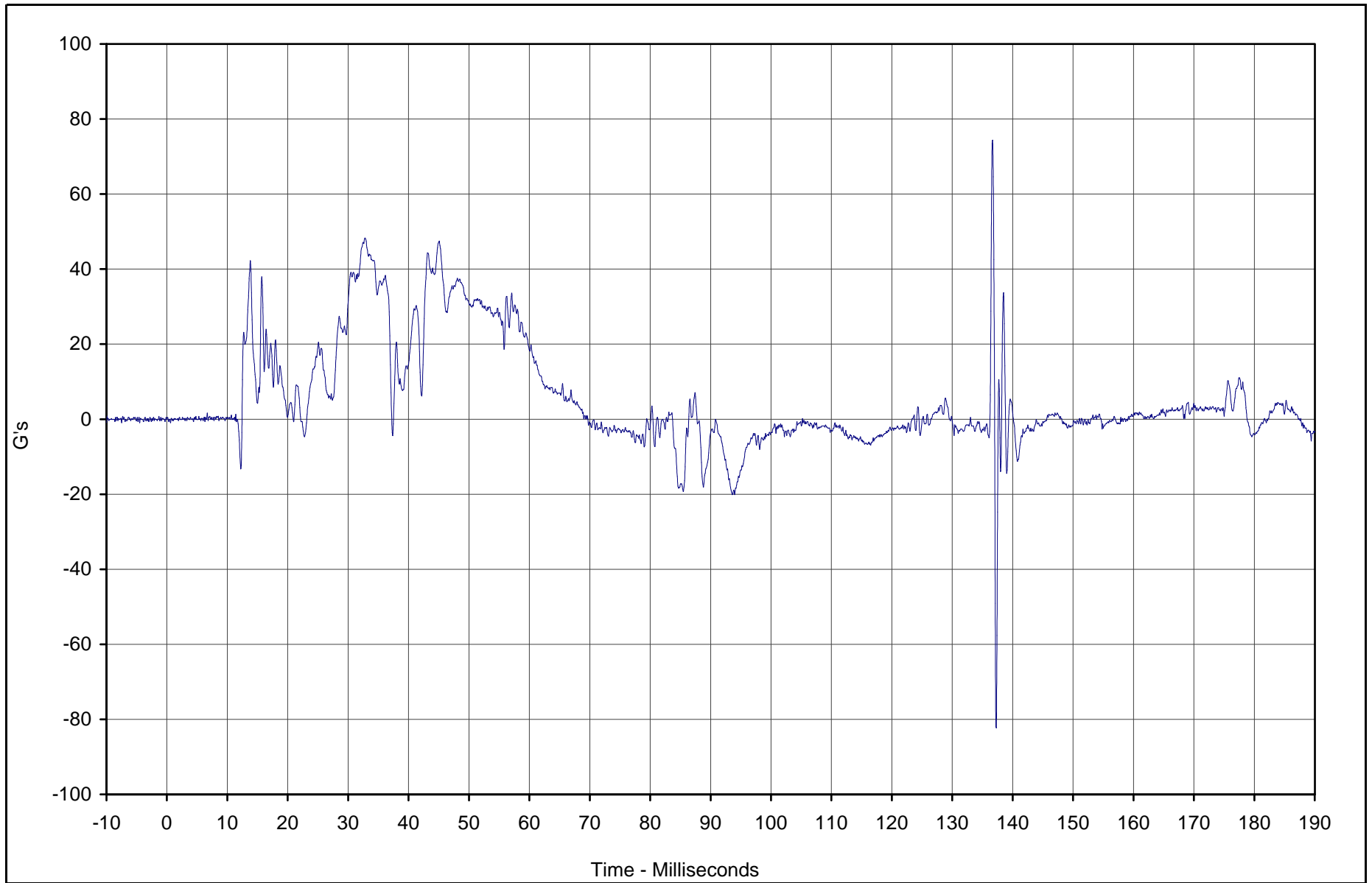


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Upper Rib Redundant Y	017	FIL	G's	74.3	136.7	-82.3	137.3	1000

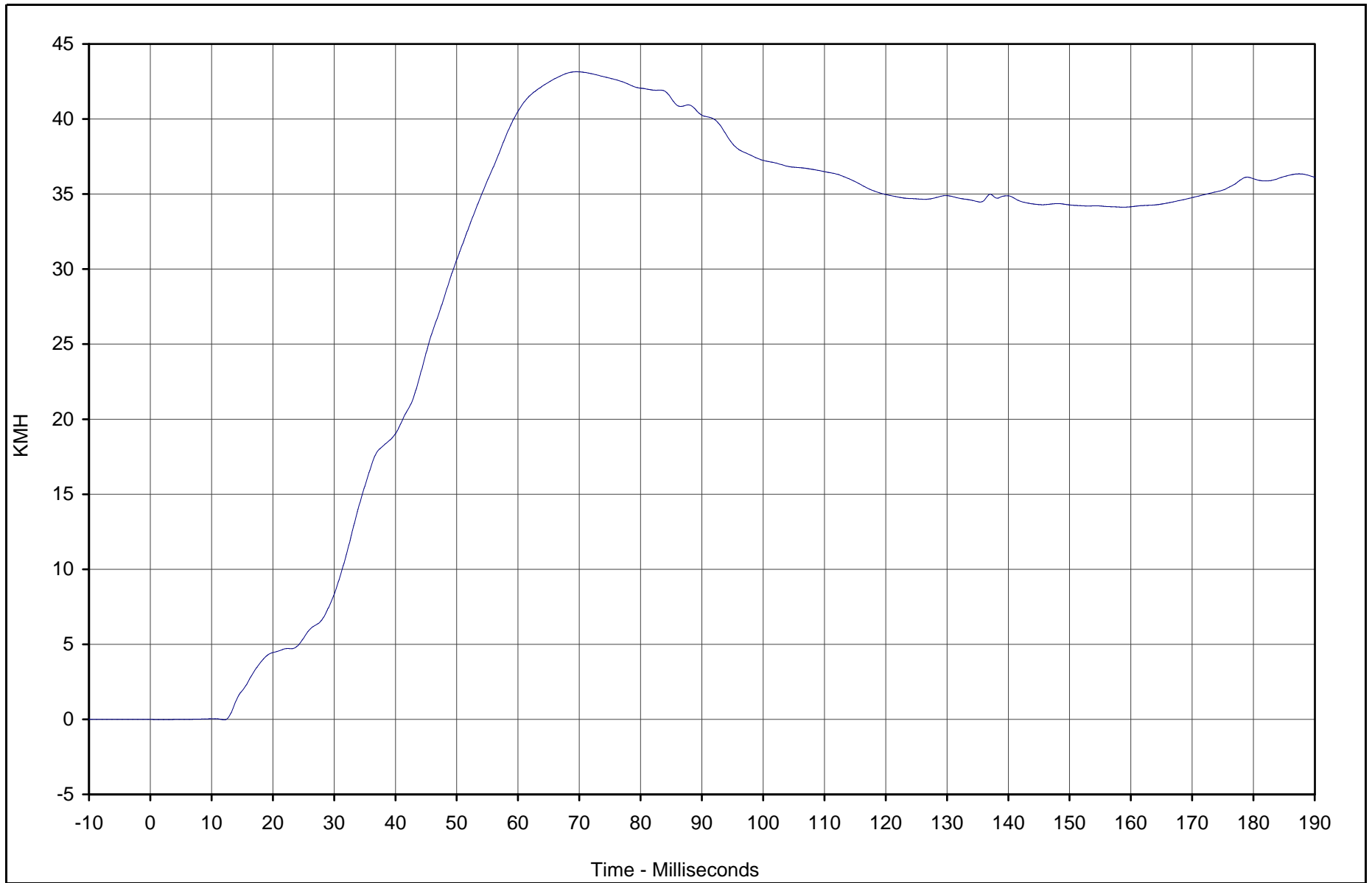


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Upper Rib Redundant Y Vel.	017	IN1	KMH	43.2	69.5	0.0	12.1	180

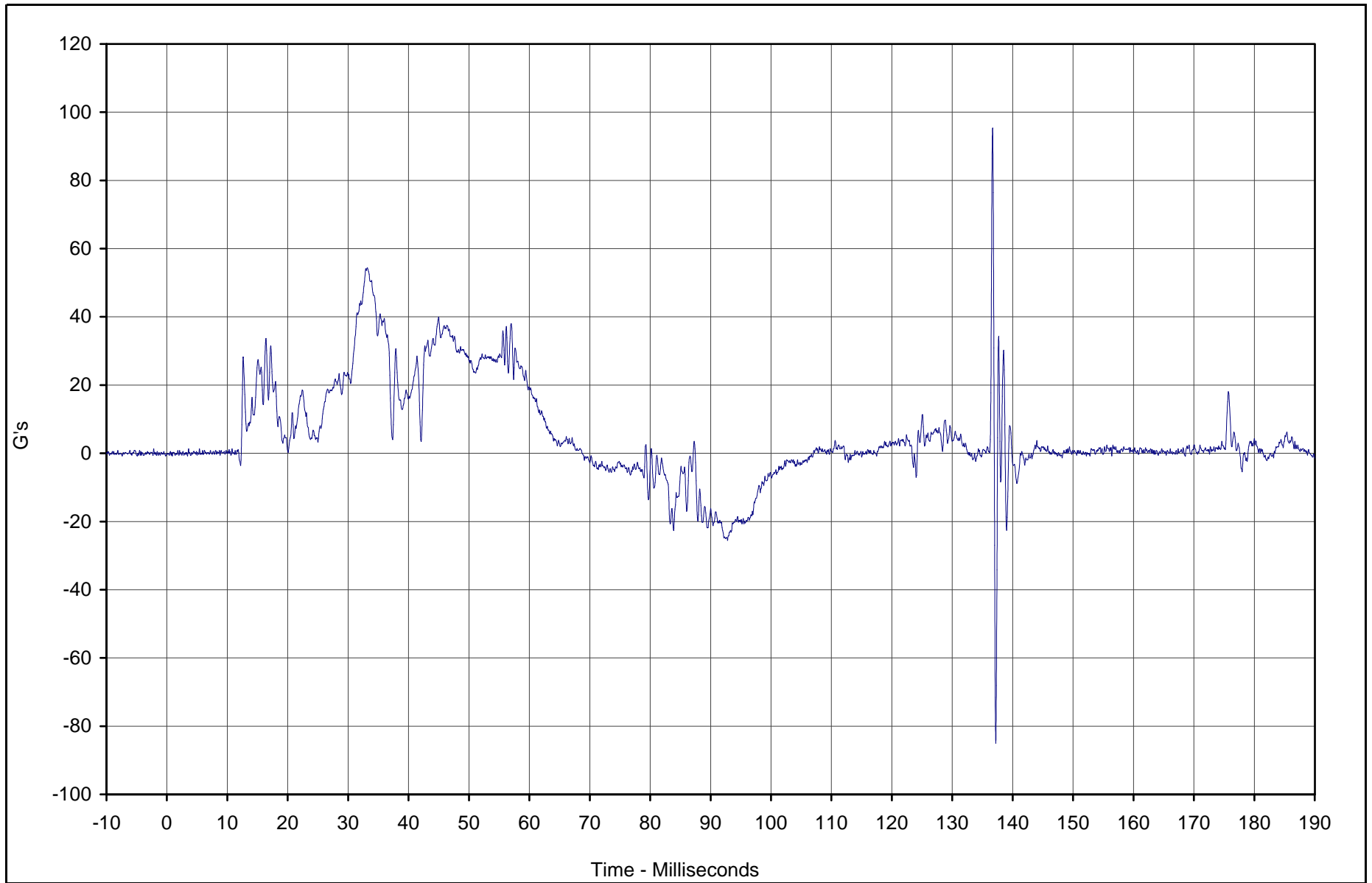


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Rib Redundant Y	018	FIL	G's	95.3	136.7	-85.0	137.2	1000

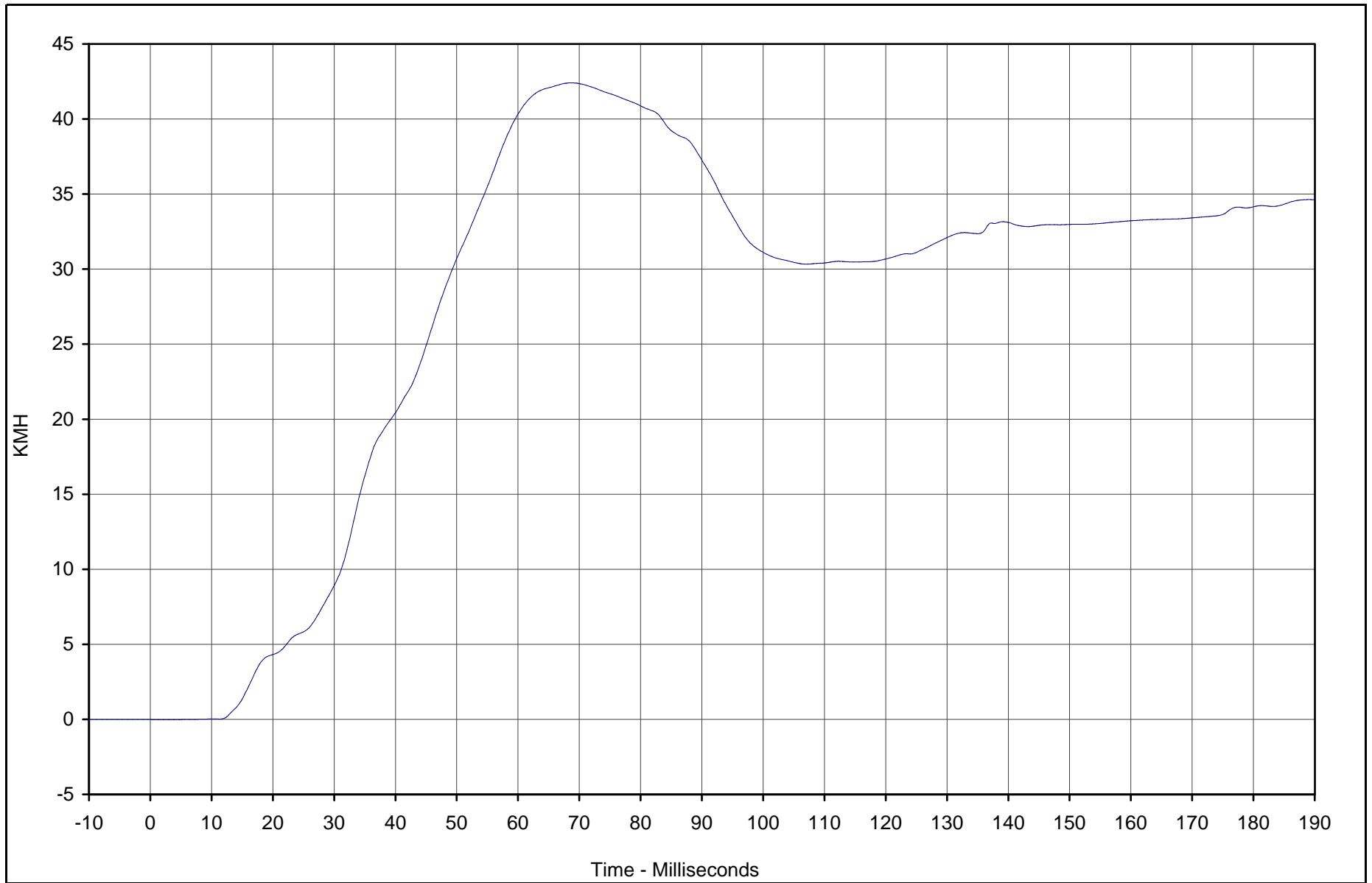


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Rib Redundant Y Vel.	018	IN1	KMH	42.4	68.7	0.0	1.8	180

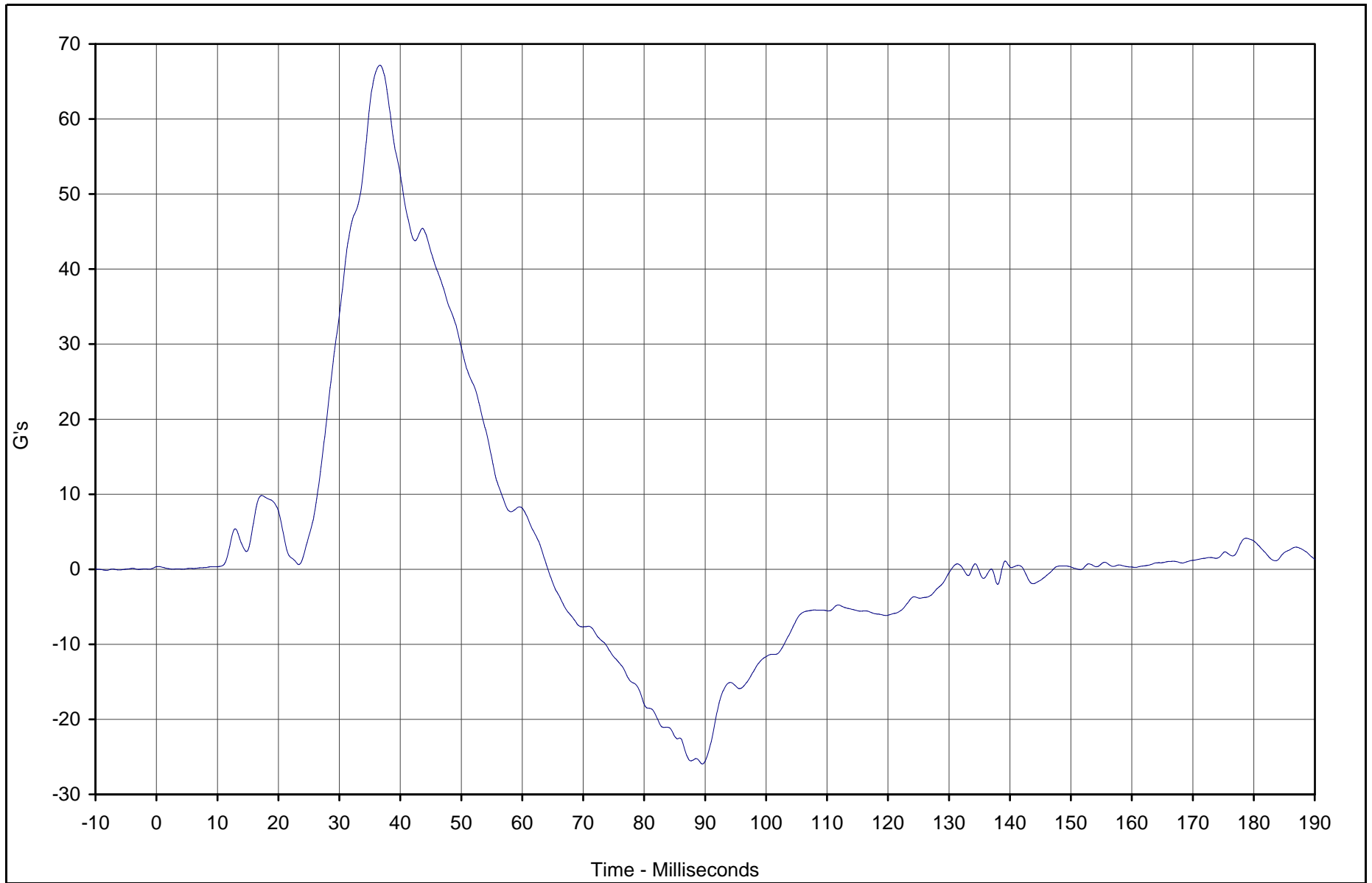


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Spine Redundant Y	019	FIL	G's	67.2	36.7	-25.9	89.6	180

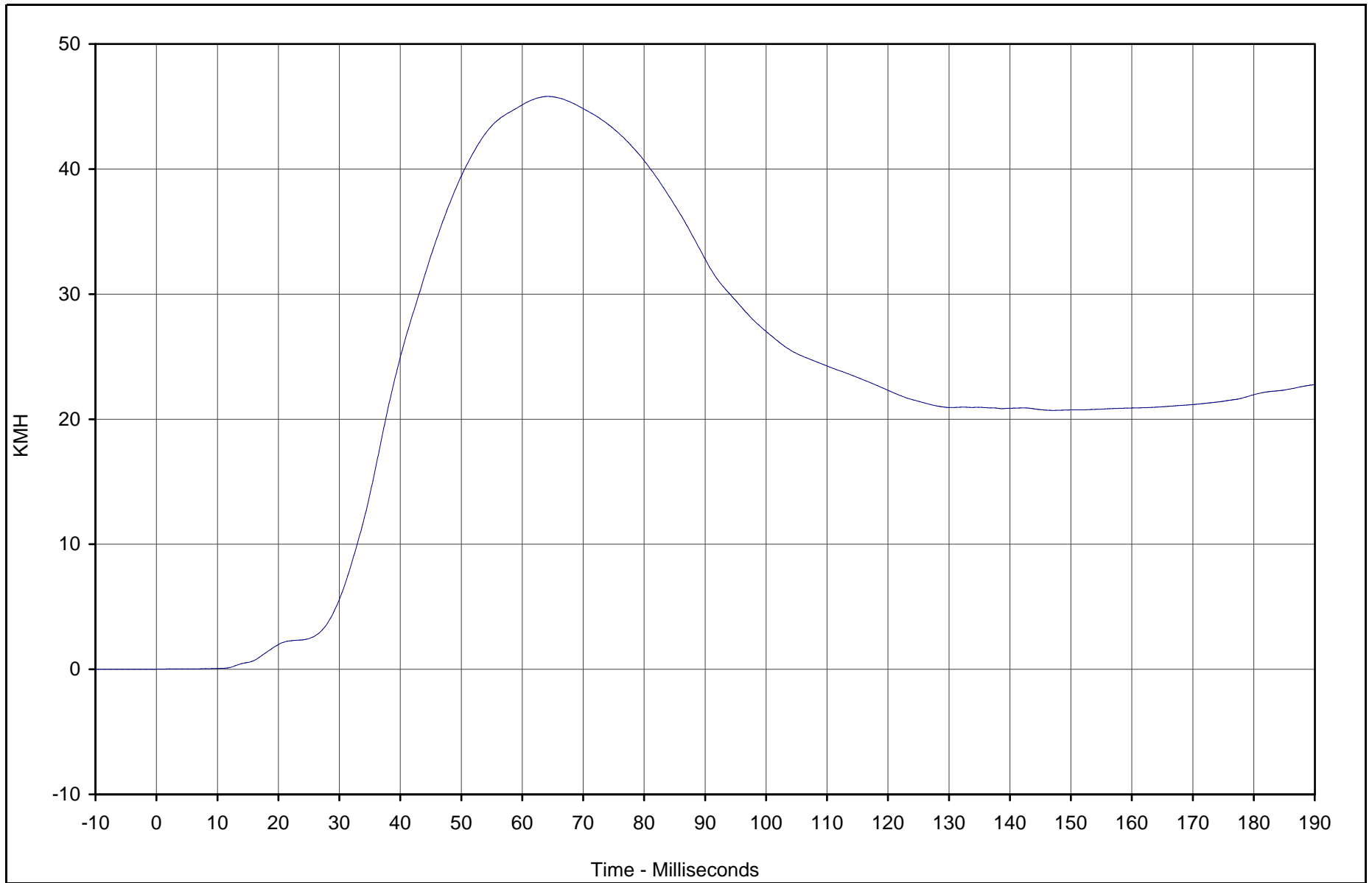


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Spine Redundant Y Vel.	019	IN1	KMH	45.8	64.2	0.0	0.0	180

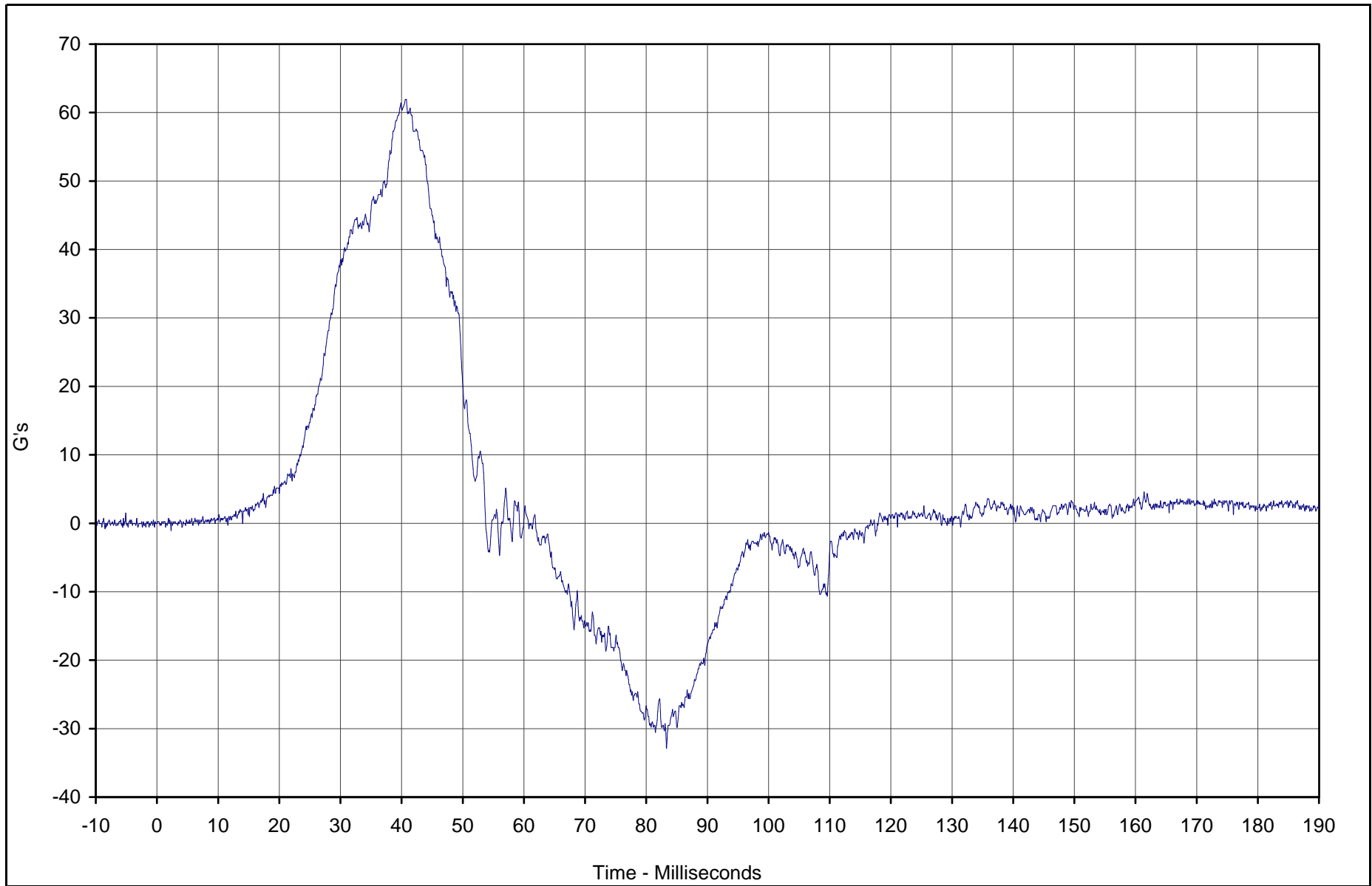


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis Redundant Y	020	FIL	G's	61.9	40.6	-32.9	83.3	1000

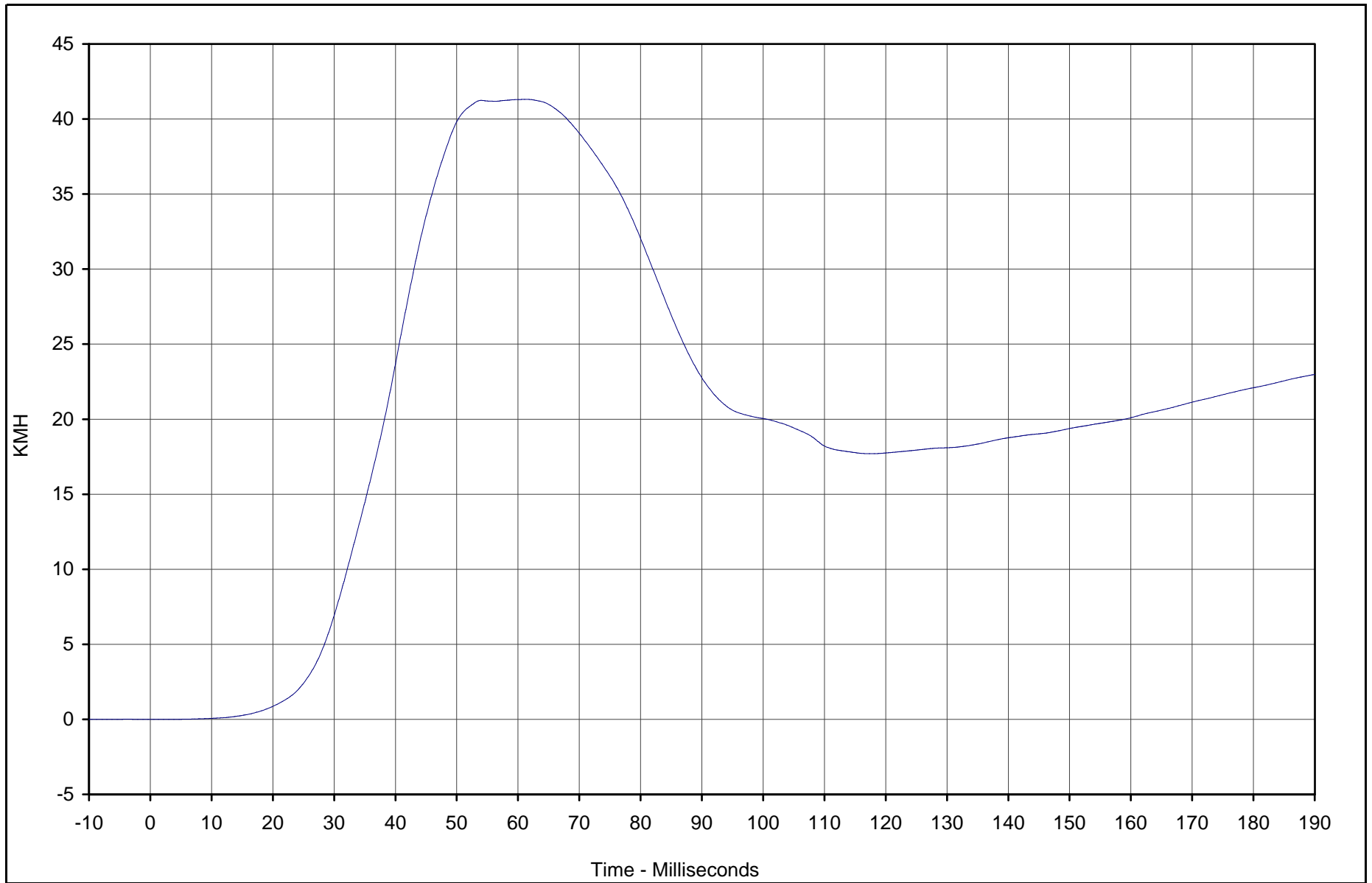


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis Redundant Y Vel.	020	IN1	KMH	41.3	61.3	0.0	0.0	180

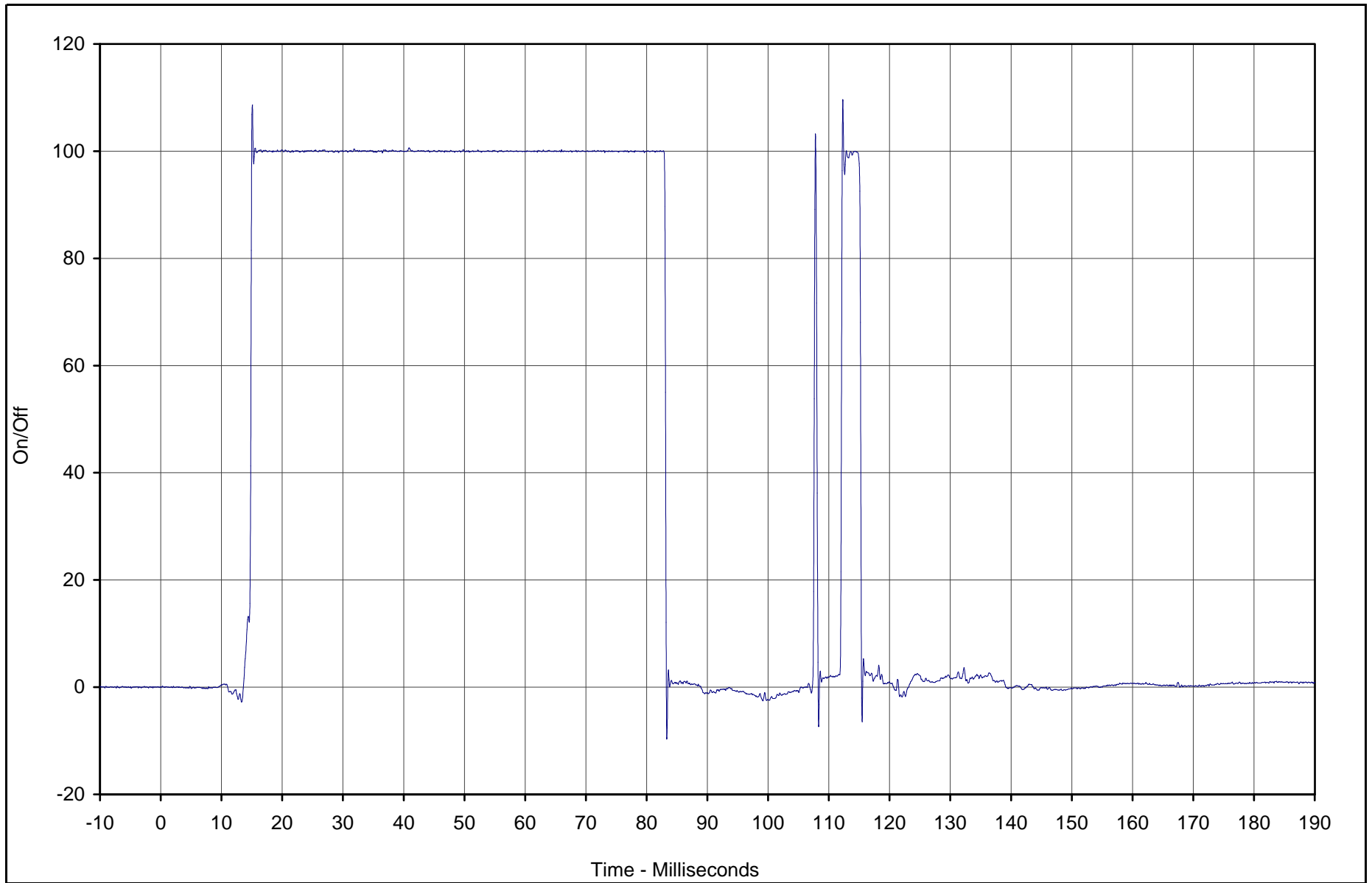


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

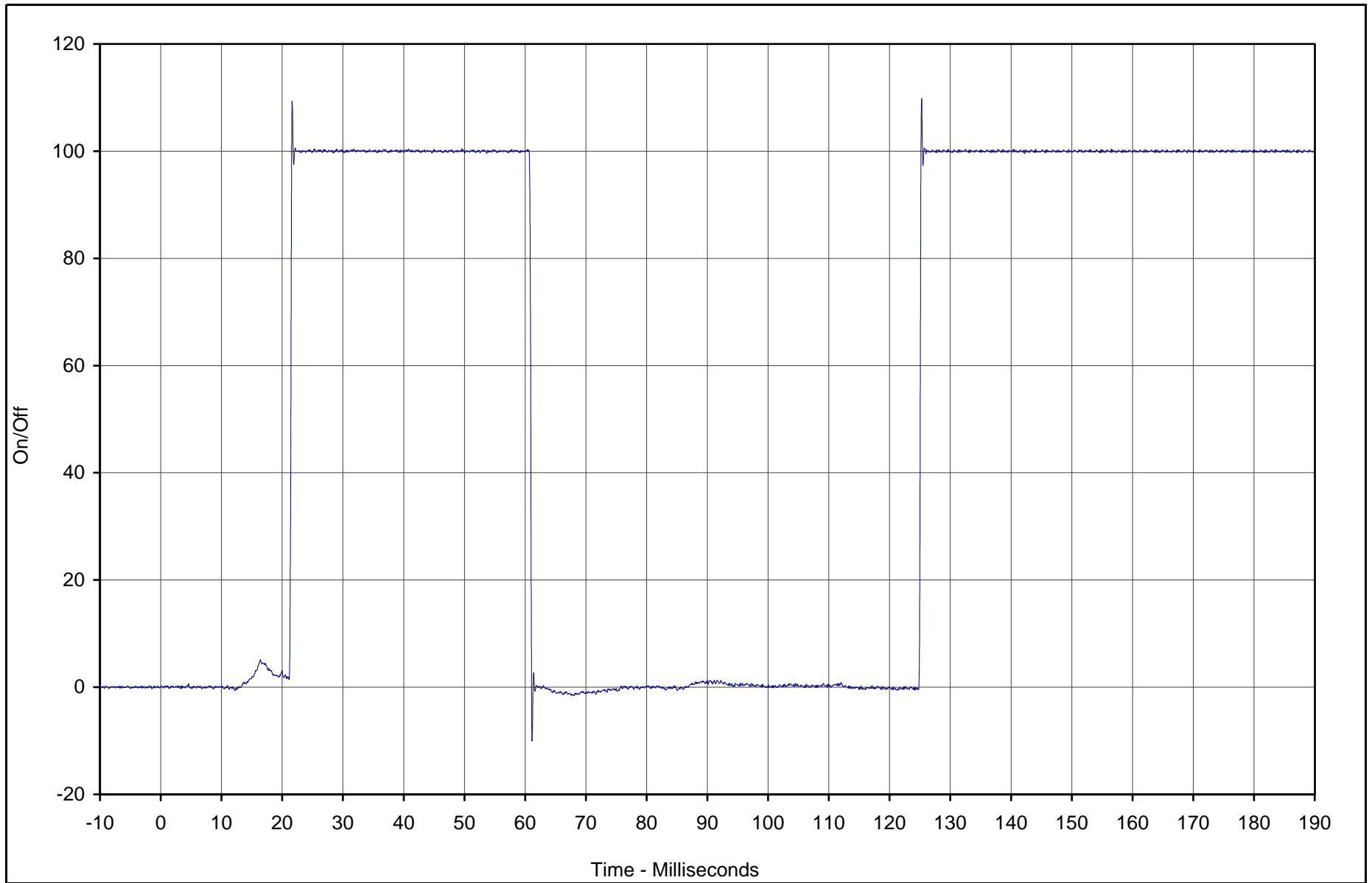


Curve Description	CURNO	Type	Units	Max	Time	Cross %	Time	SAE Class
Driver Thorax Contact	021	FIL	On/Off	109.4	112.3	50.0	14.9	1000



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 11/14/02
 NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Cross %	Time	SAE Class
Driver Pelvis Contact	022	FIL	On/Off	109.8	125.3	50.0	21.5	1000

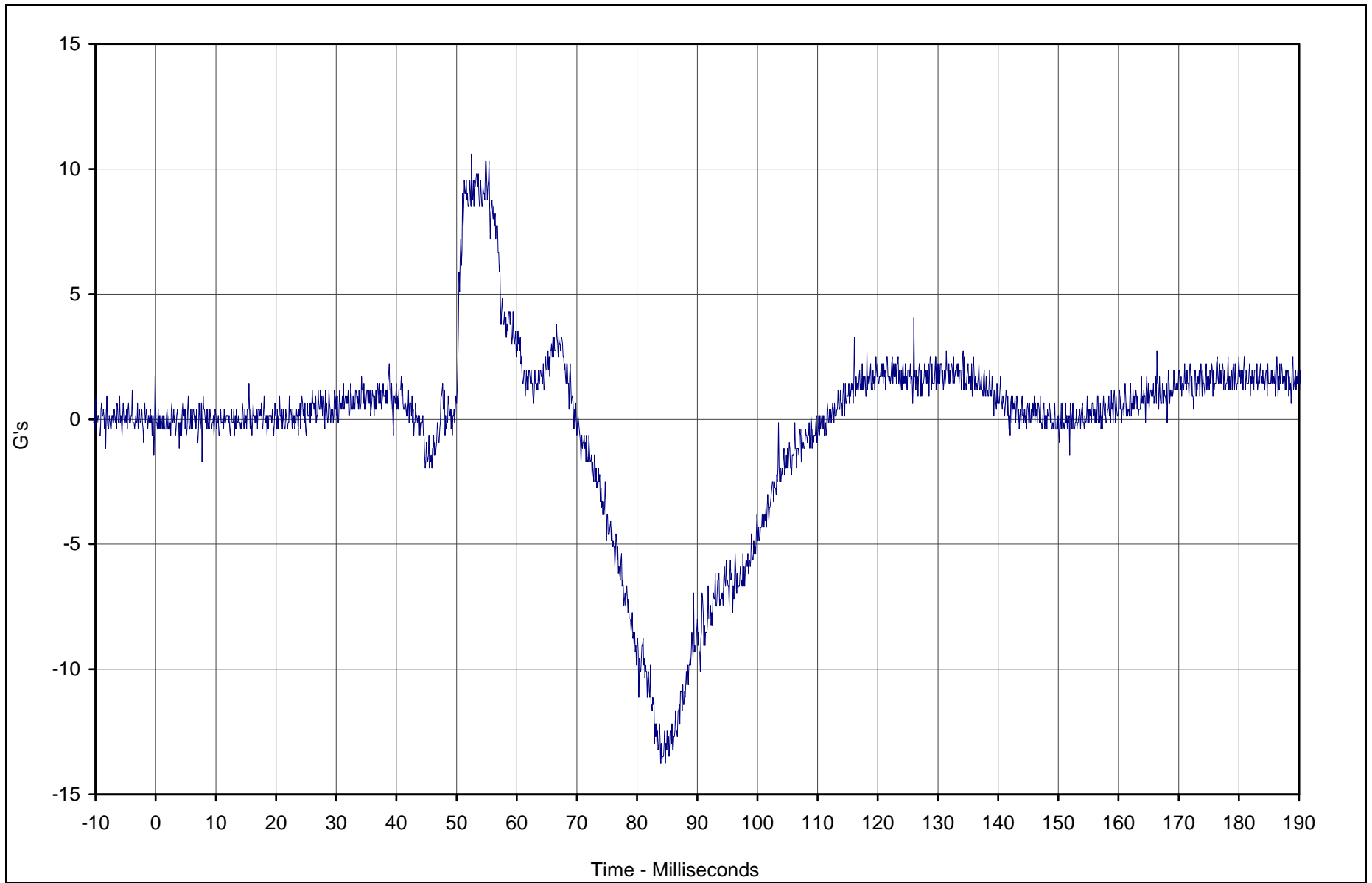


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head X	023	FIL	G's	10.6	52.5	-13.8	83.9	1000

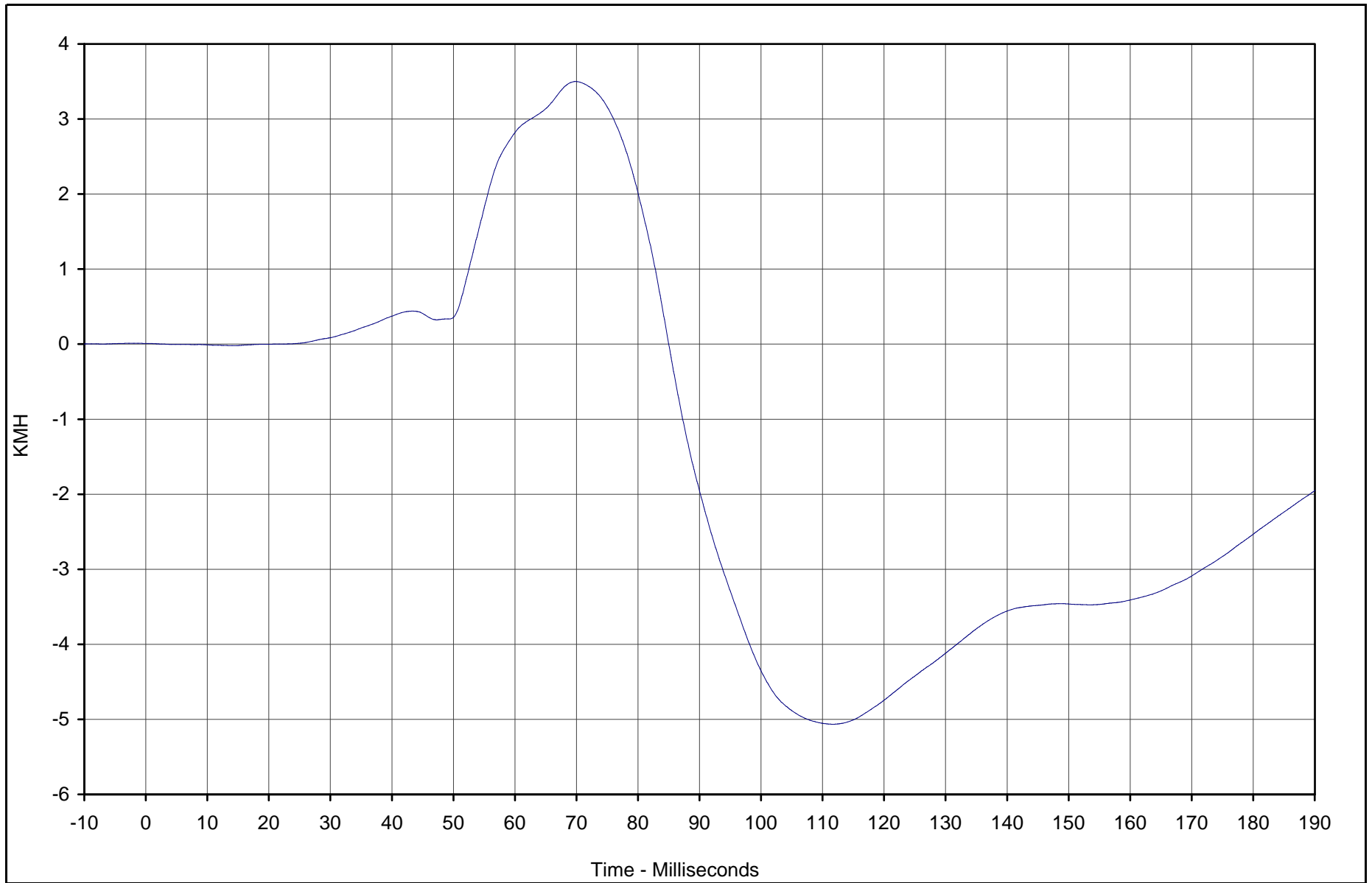


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head X Velocity	023	IN1	KMH	3.5	69.9	-5.1	111.7	180

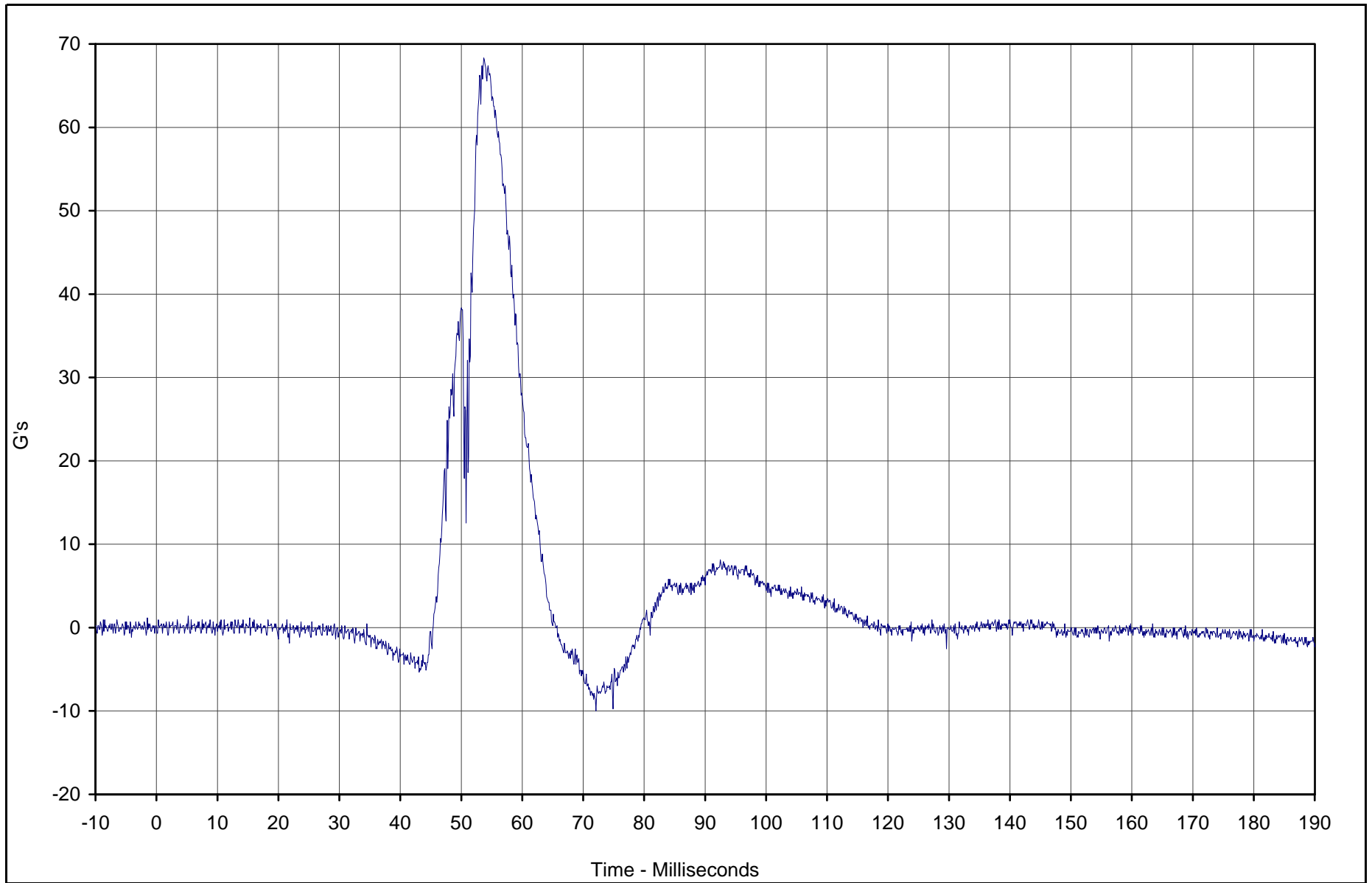


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Y	024	FIL	G's	68.3	53.7	-10.0	72.1	1000

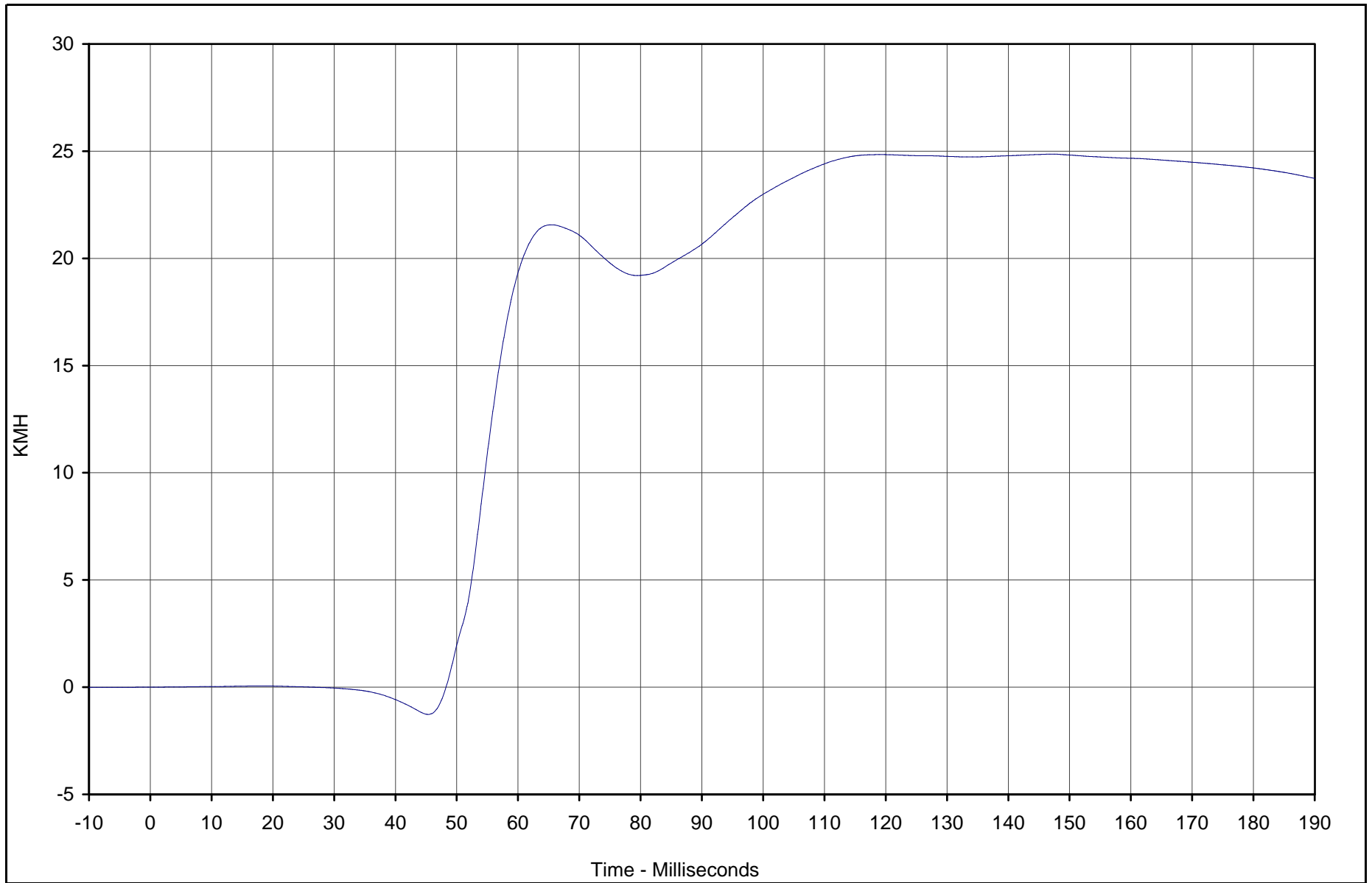


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Y Velocity	024	IN1	KMH	24.9	147.1	-1.3	45.3	180

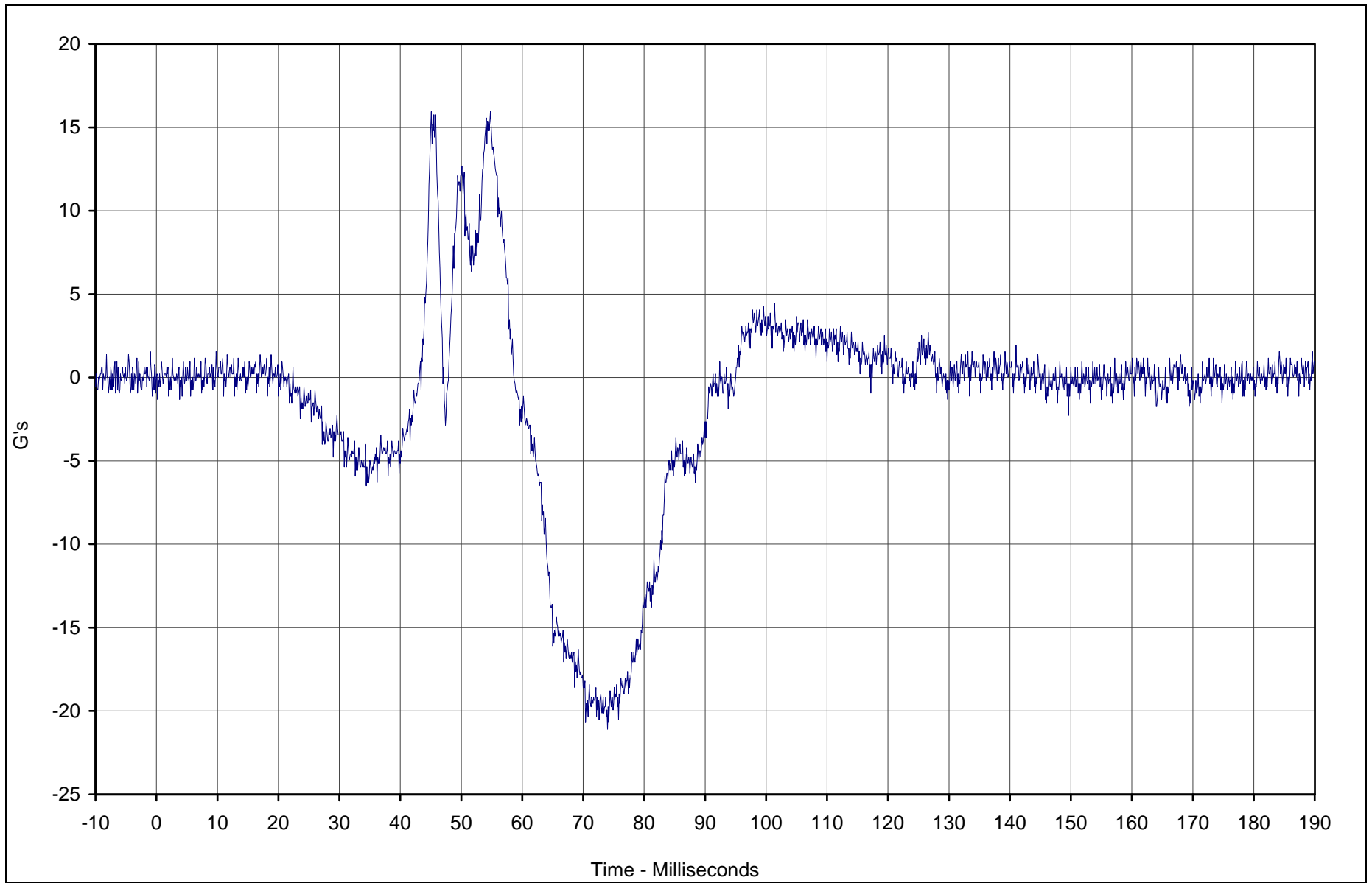


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Z	025	FIL	G's	16.0	45.1	-21.1	74.0	1000

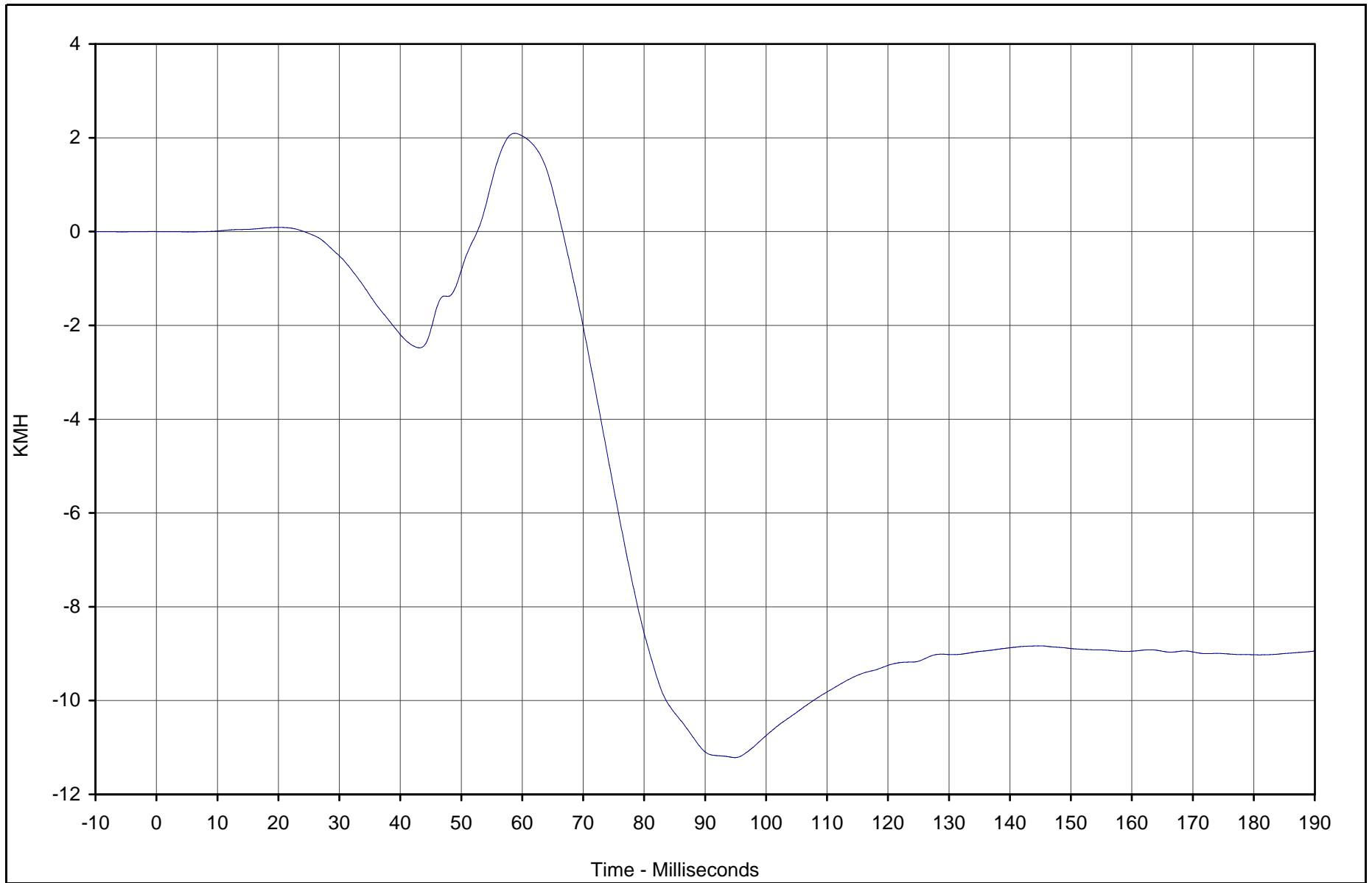


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Z Velocity	025	IN1	KMH	2.1	58.8	-11.2	94.9	180

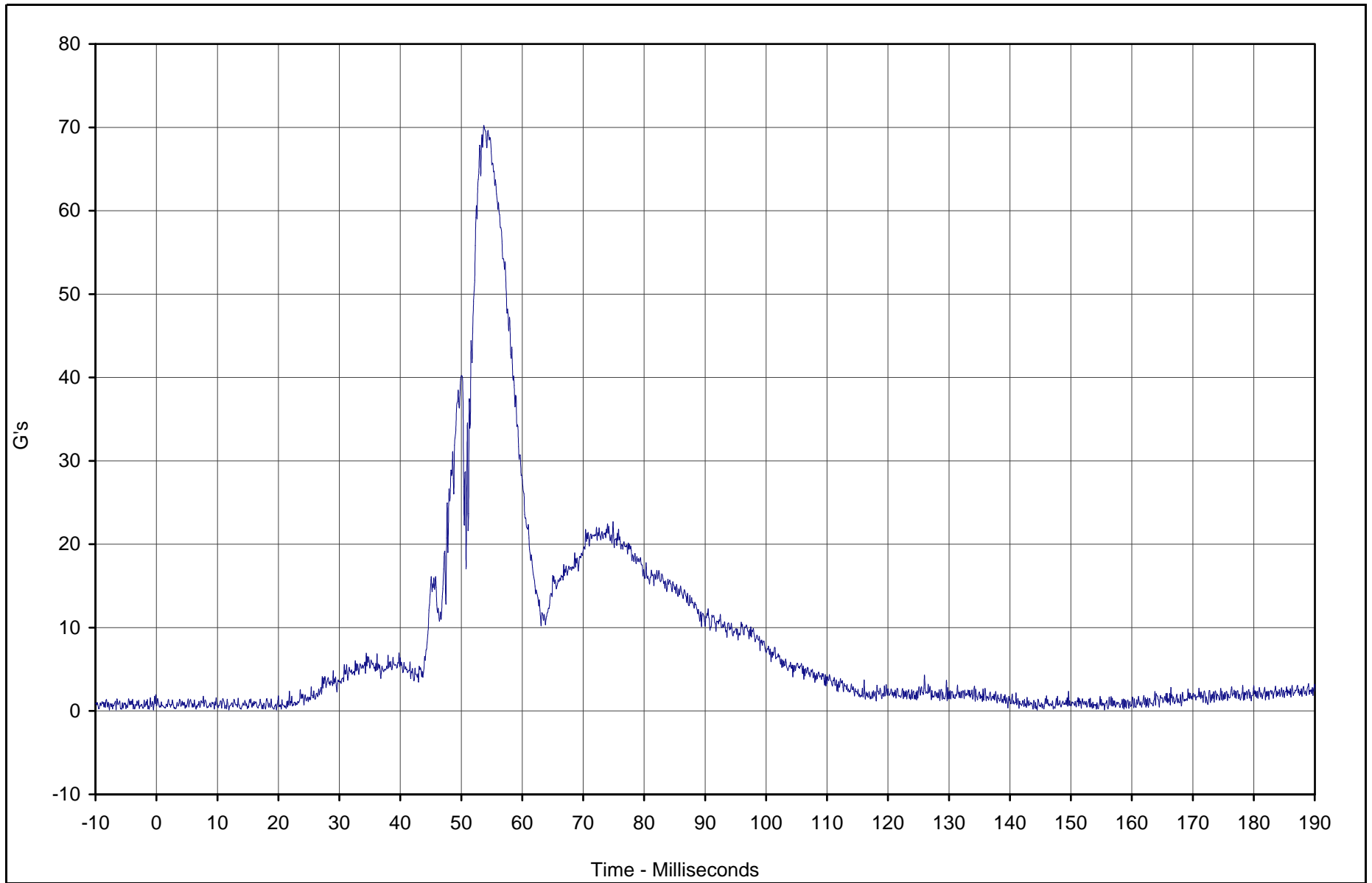


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Resultant	023	RES	G's	70.2	53.7	0.1	11.9	1000

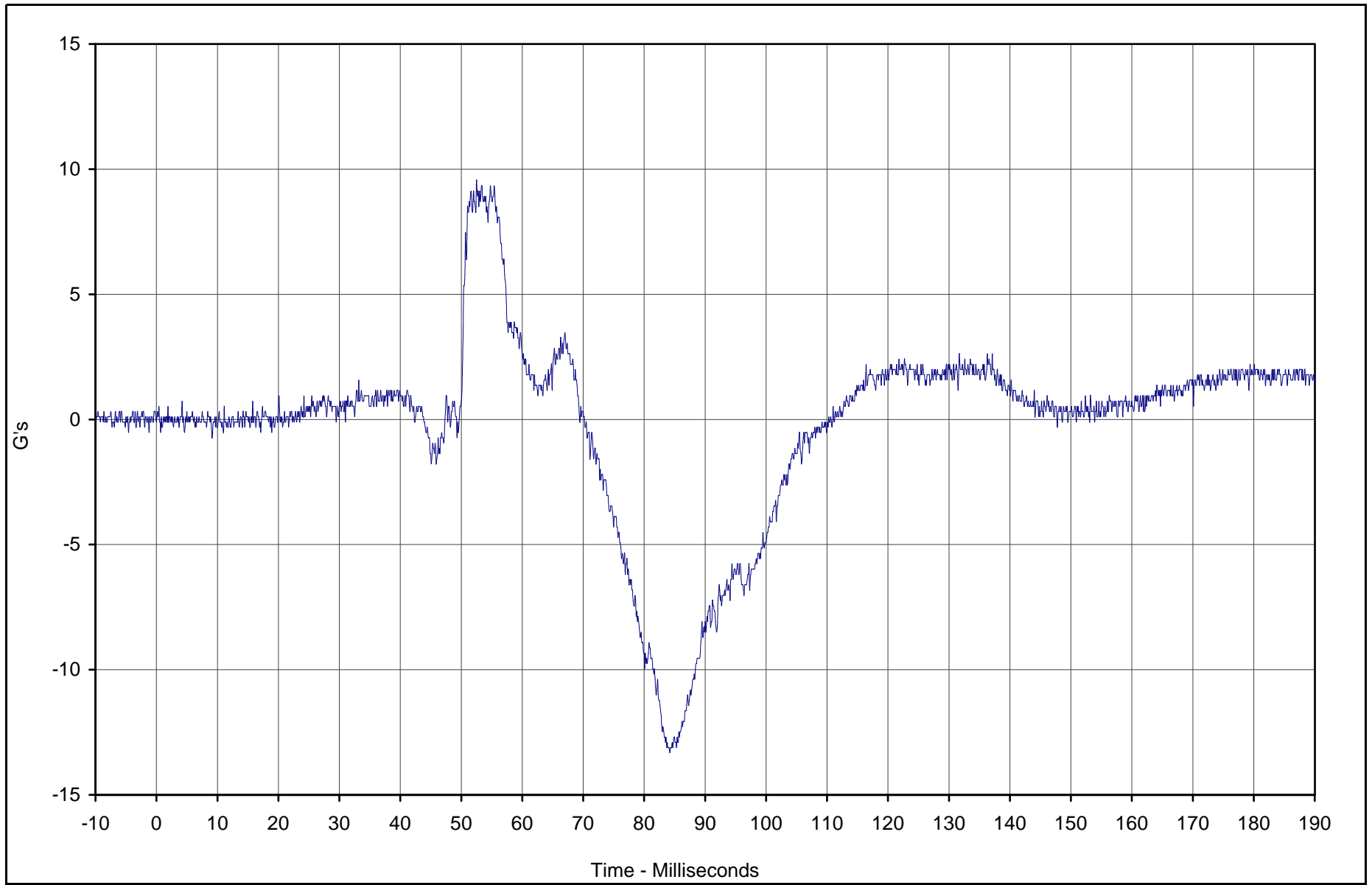


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head X Redundant	026	FIL	G's	9.5	52.5	-13.3	84.2	1000

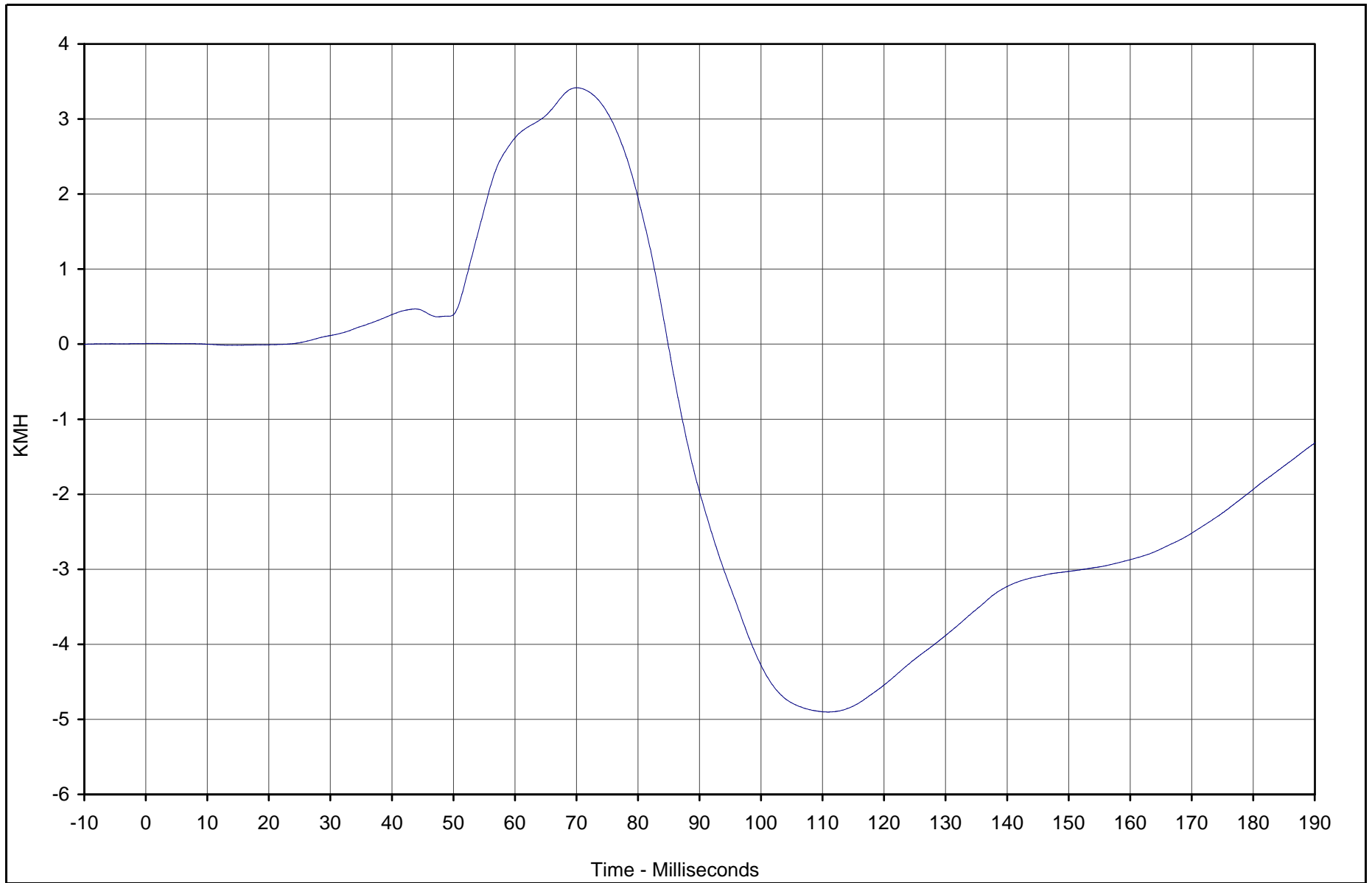


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head X Redundant Velocity	026	IN1	KMH	3.4	70.1	-4.9	110.9	180

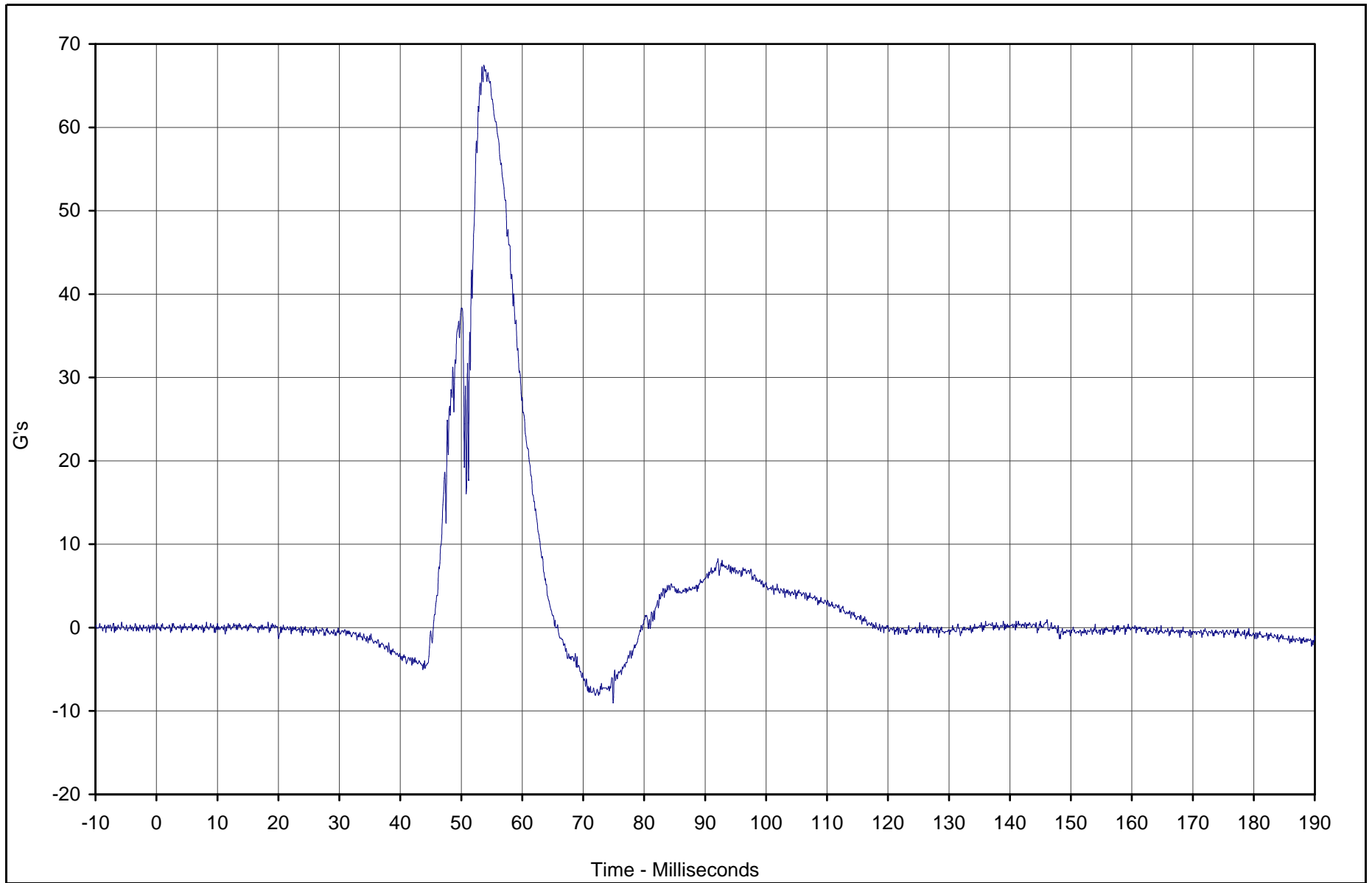


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Y Redundant	027	FIL	G's	67.4	53.7	-9.0	74.9	1000

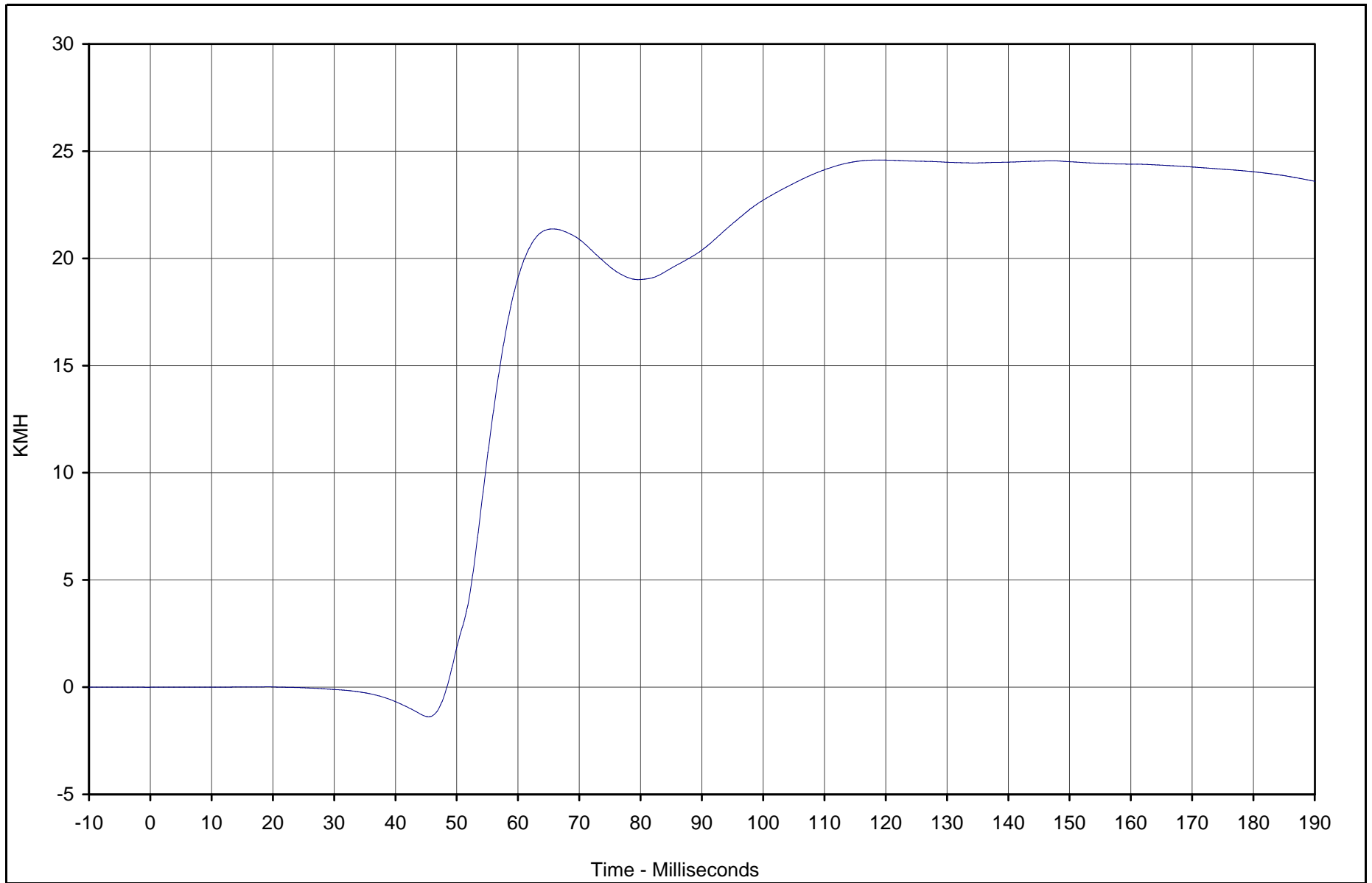


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Y Redundant Velocity	027	IN1	KMH	24.6	118.6	-1.4	45.4	180

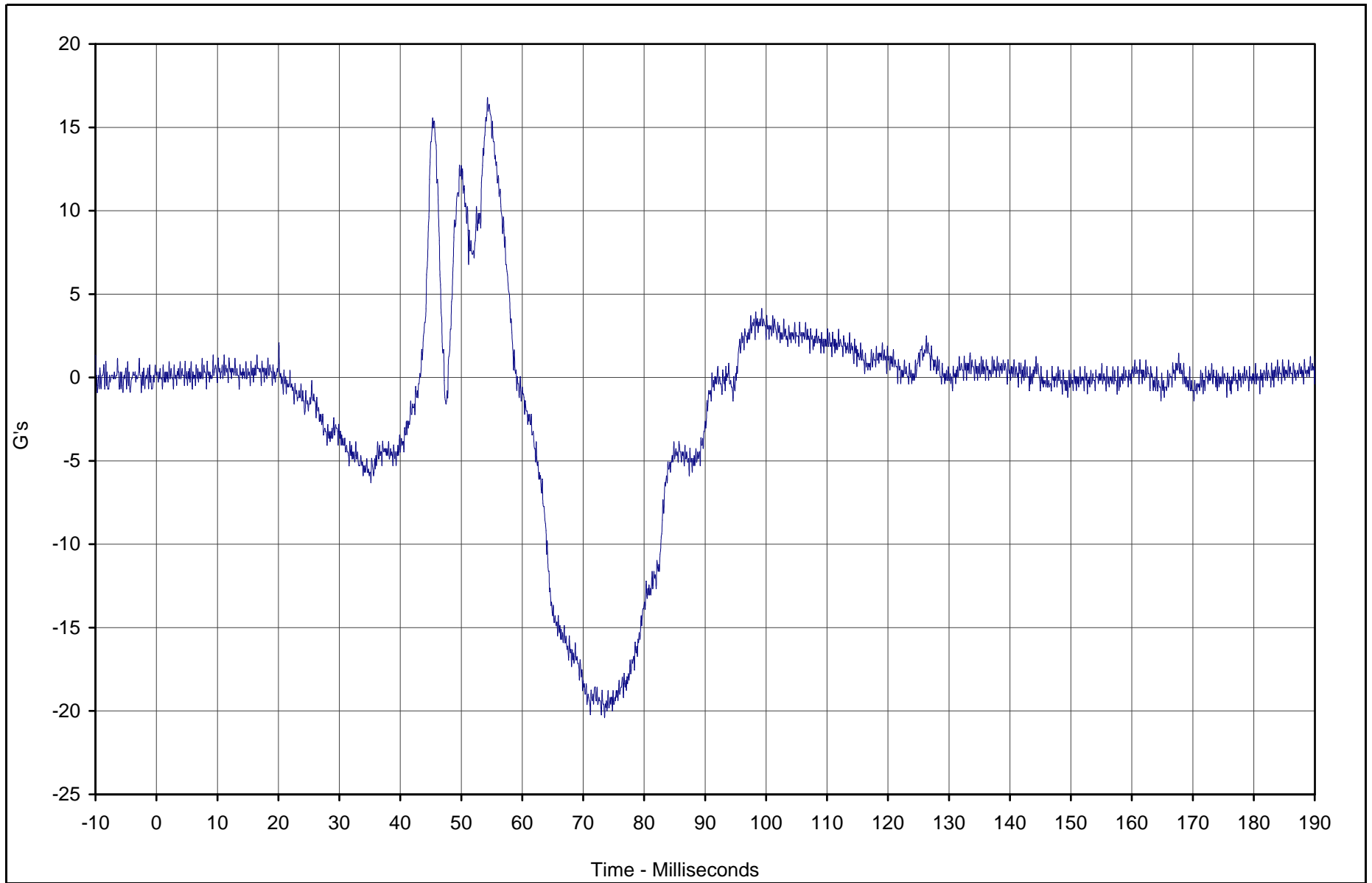


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Z Redundant	028	FIL	G's	16.8	54.3	-20.4	73.5	1000

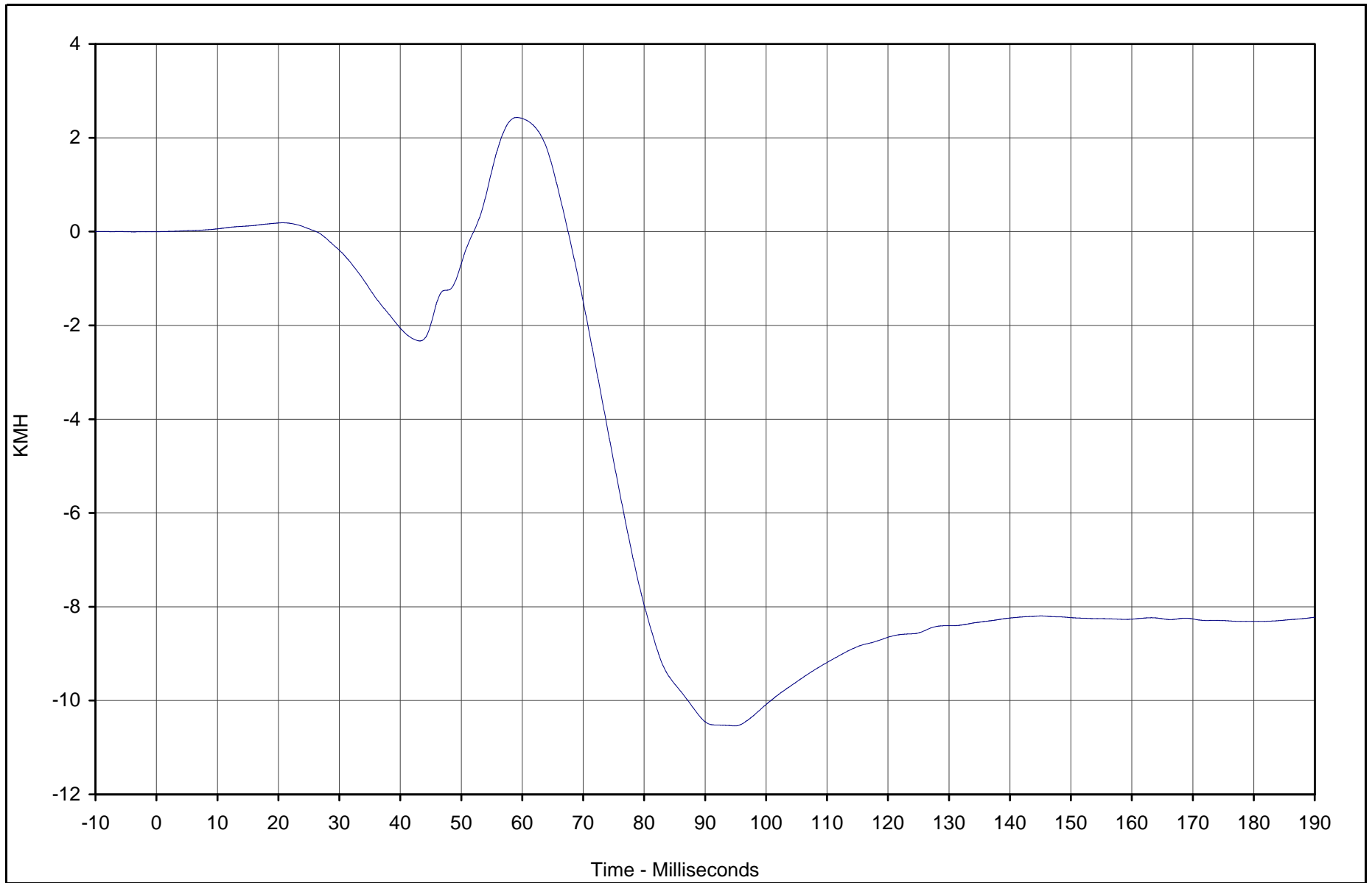


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Z Redundant Velocity	028	IN1	KMH	2.4	59.1	-10.5	94.9	180

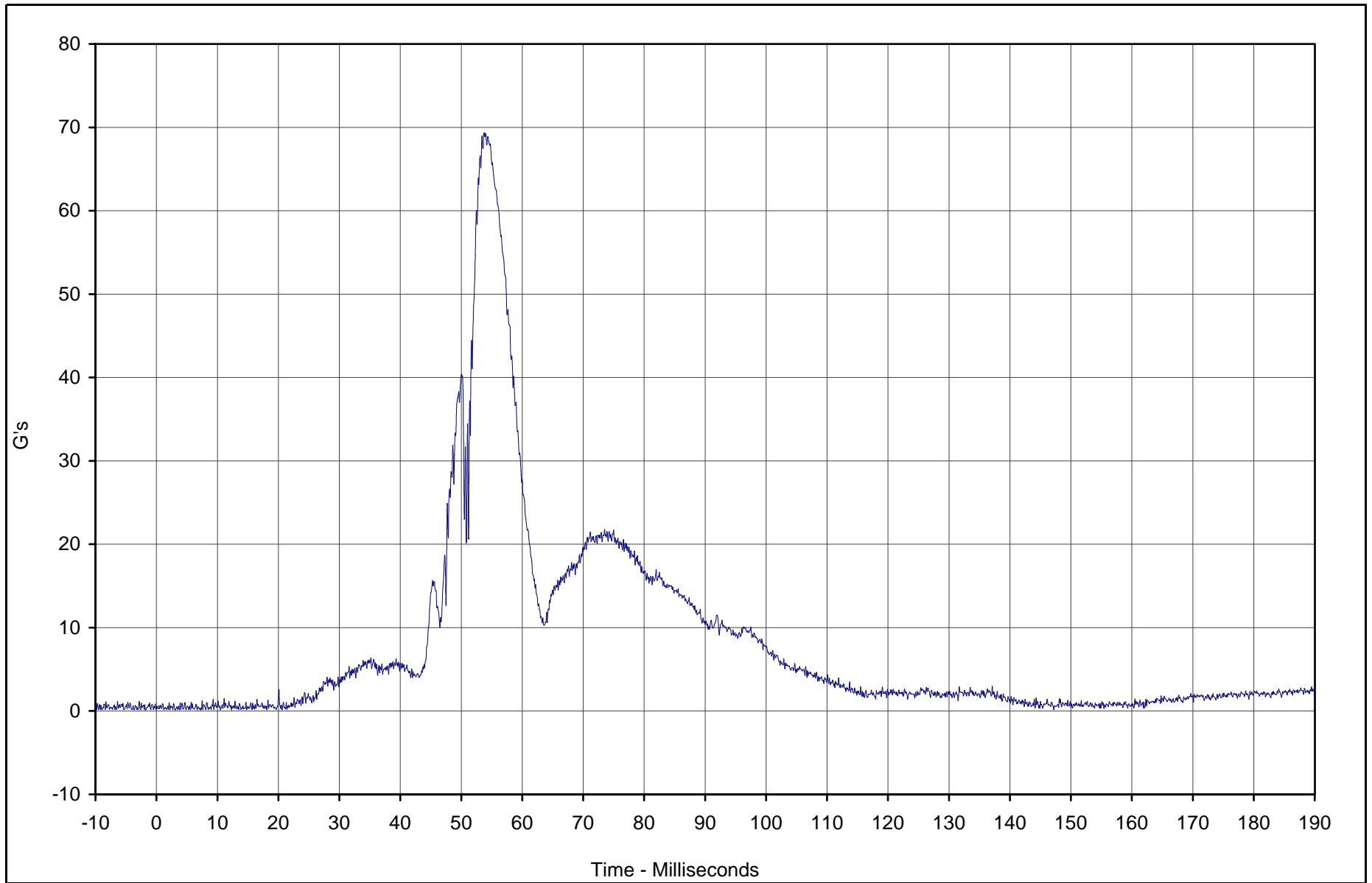


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Head Redundant Resultant	026	RES	G's	69.4	53.8	0.1	20.6	1000

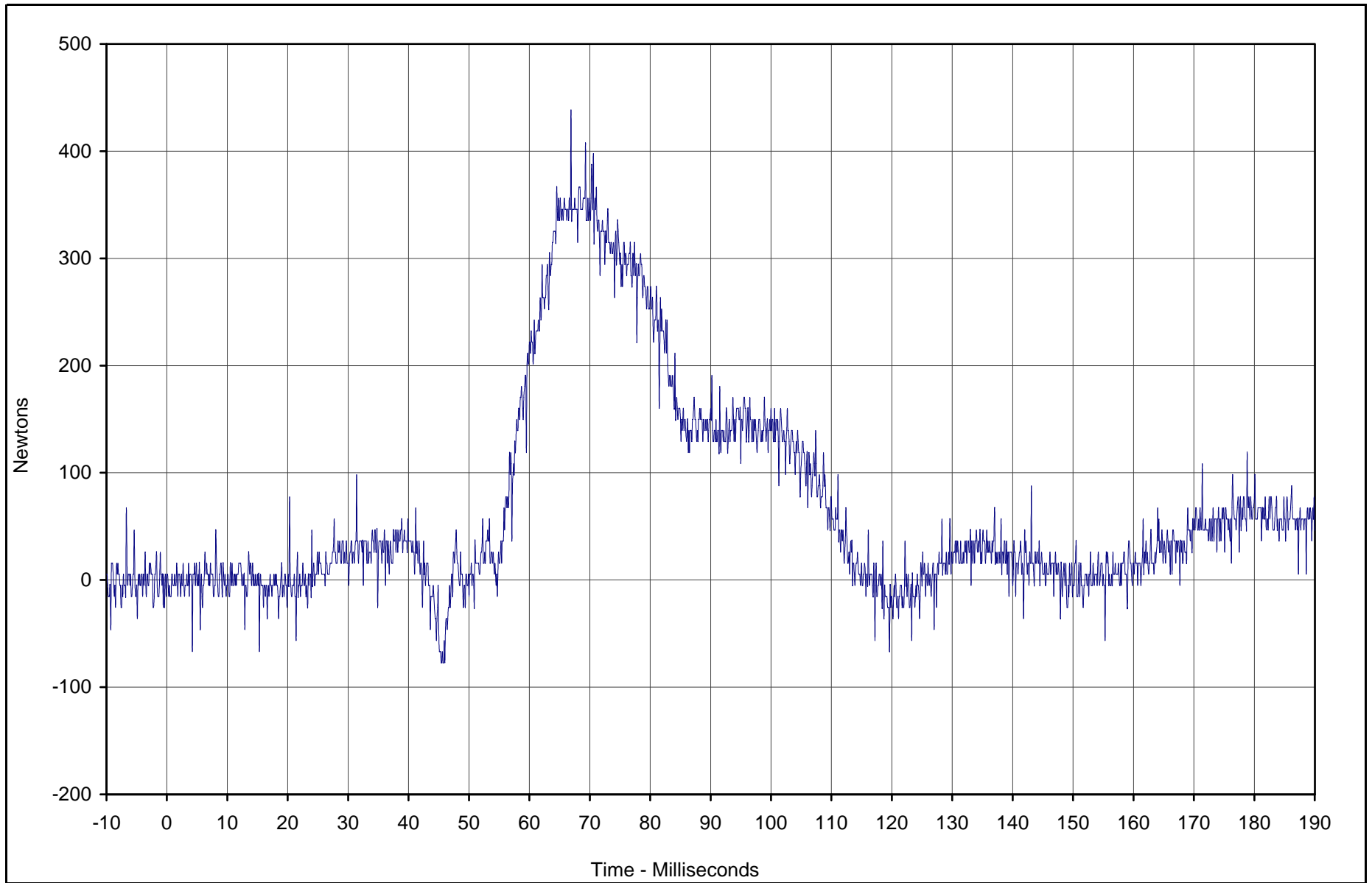


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Neck Force X	029	FIL	Newtons	438.7	66.9	-77.2	45.4	1000

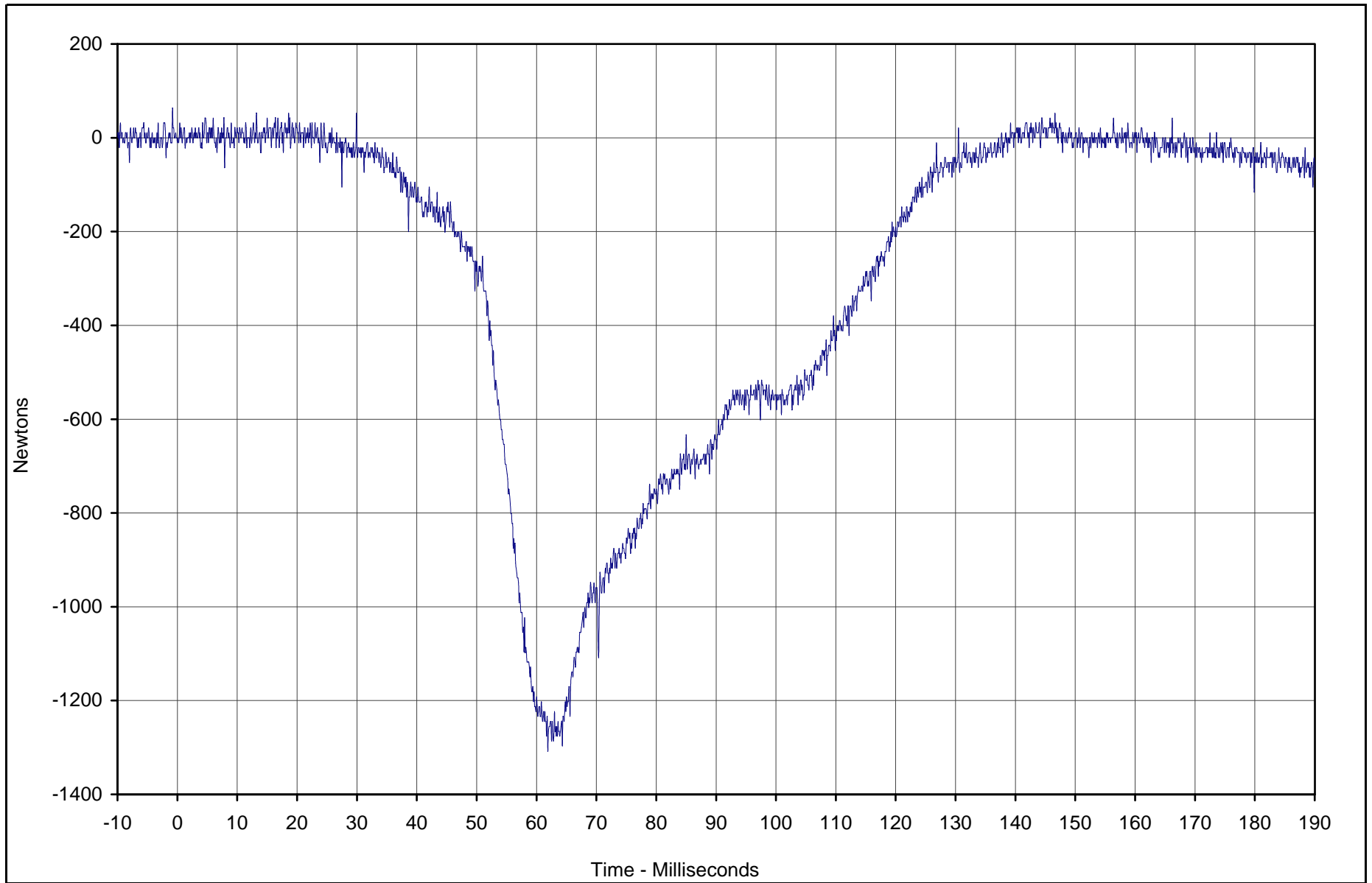


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Neck Force Y	030	FIL	Newtons	52.7	13.2	-1307.7	61.9	1000

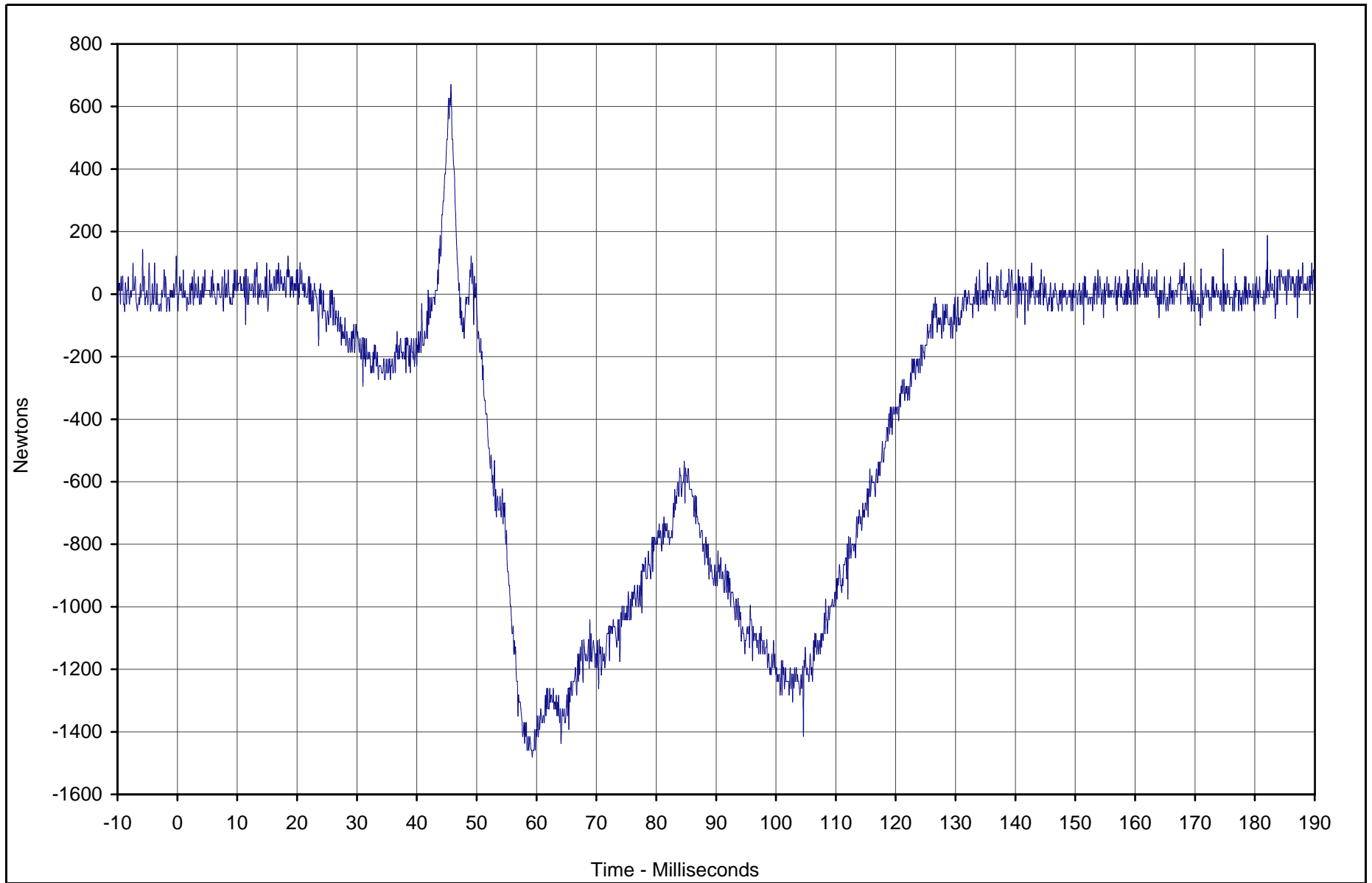


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Neck Force Z	031	FIL	Newtons	670.3	45.7	-1480.4	59.3	1000

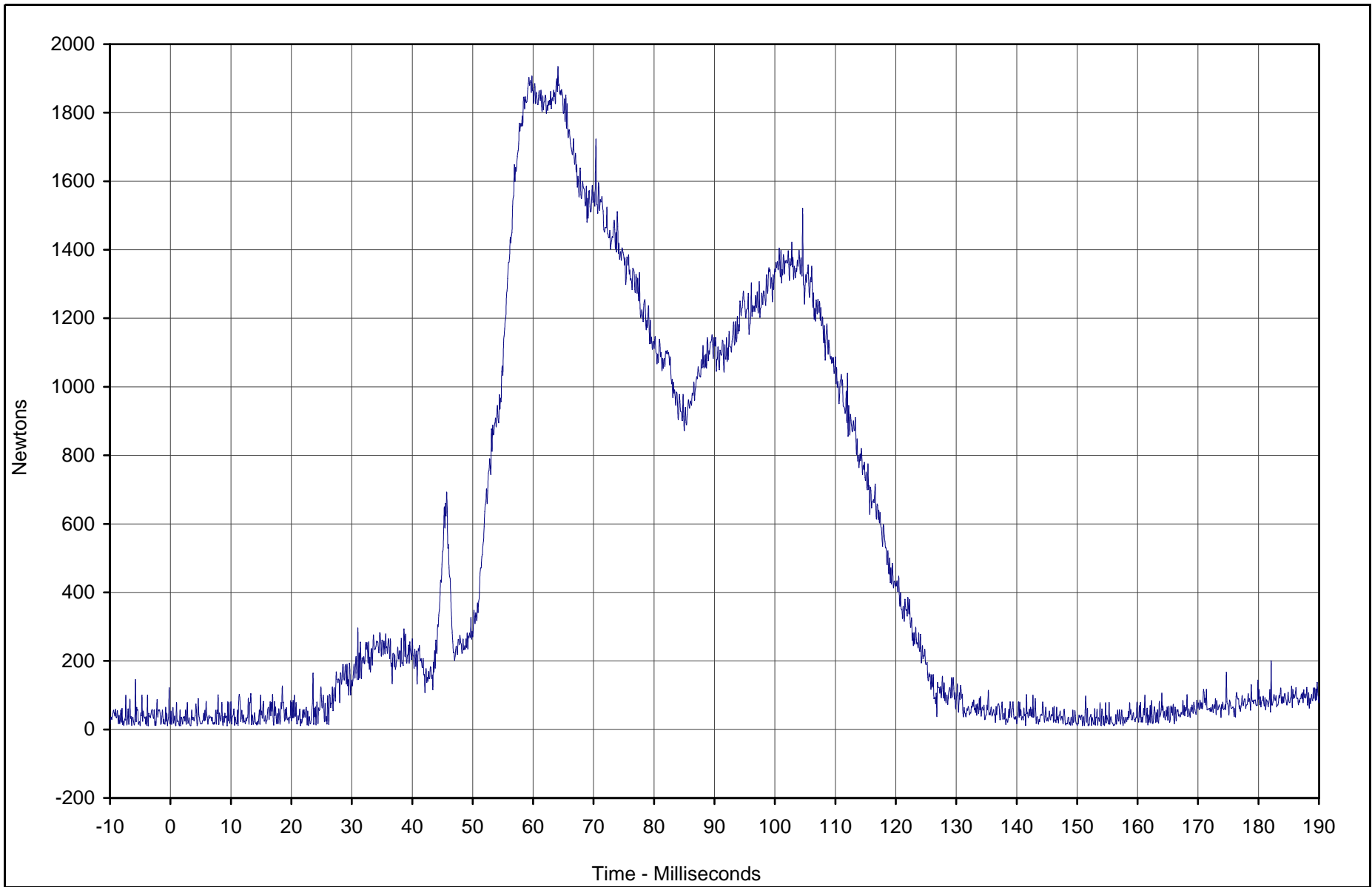


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Neck Force Resultant	029	RES	Newtons	1935.0	64.1	11.2	1.5	1000

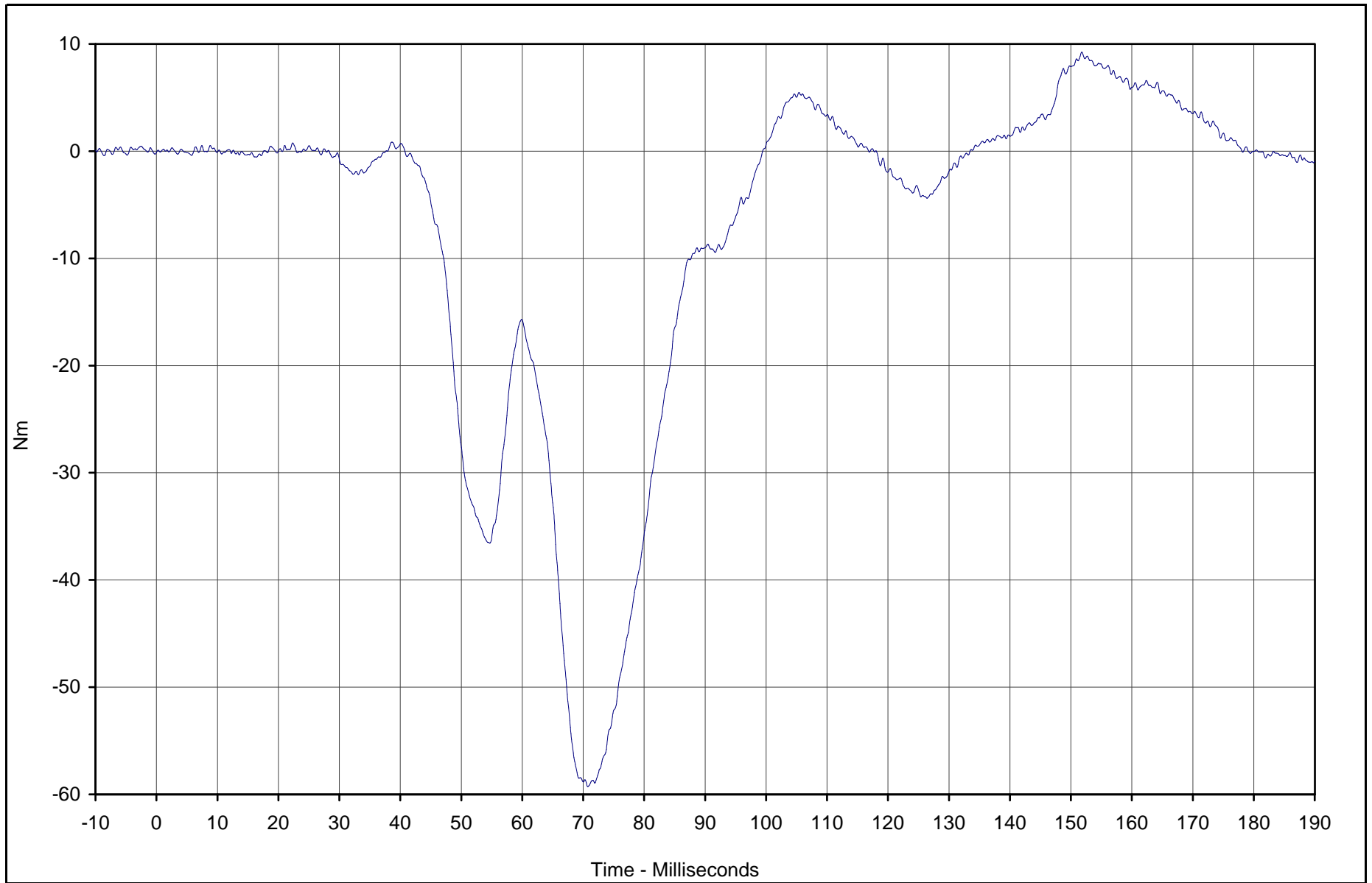


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Neck Moment X	032	FIL	Nm	9.2	151.8	-59.3	70.7	600

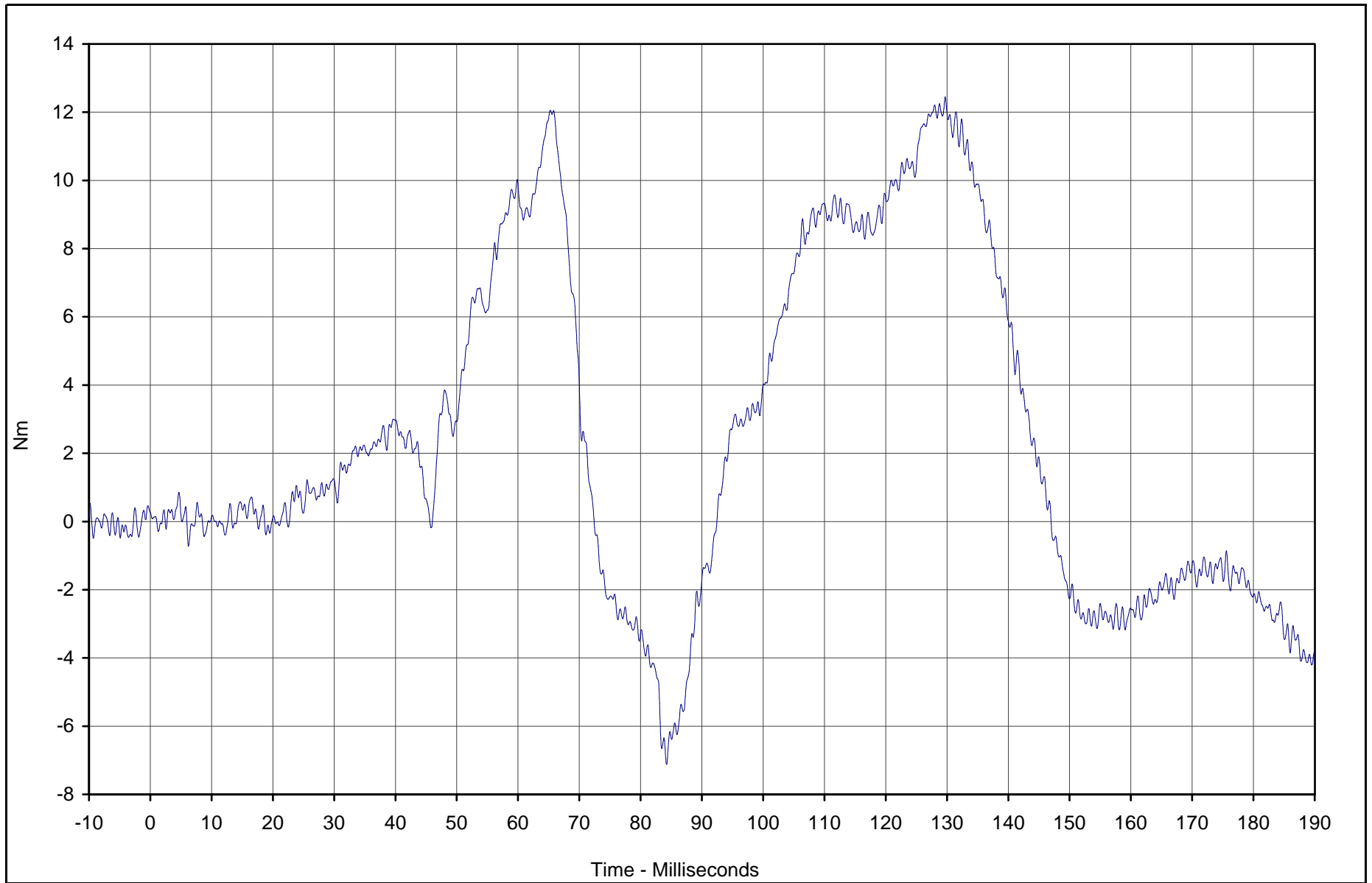


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Neck Moment Y	033	FIL	Nm	12.4	129.7	-7.1	84.3	600

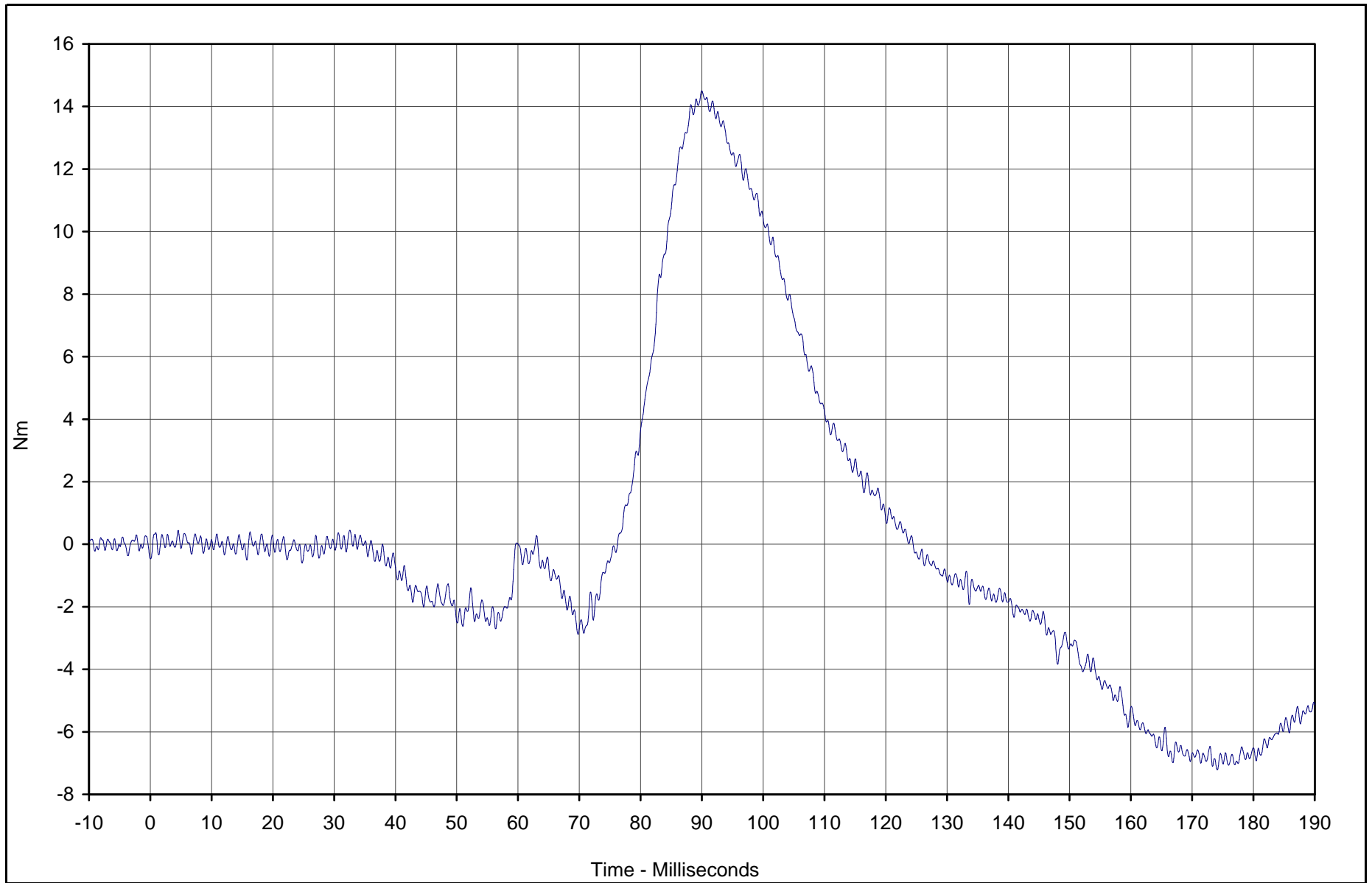


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Neck Moment Z	034	FIL	Nm	14.5	90.0	-7.2	174.1	600

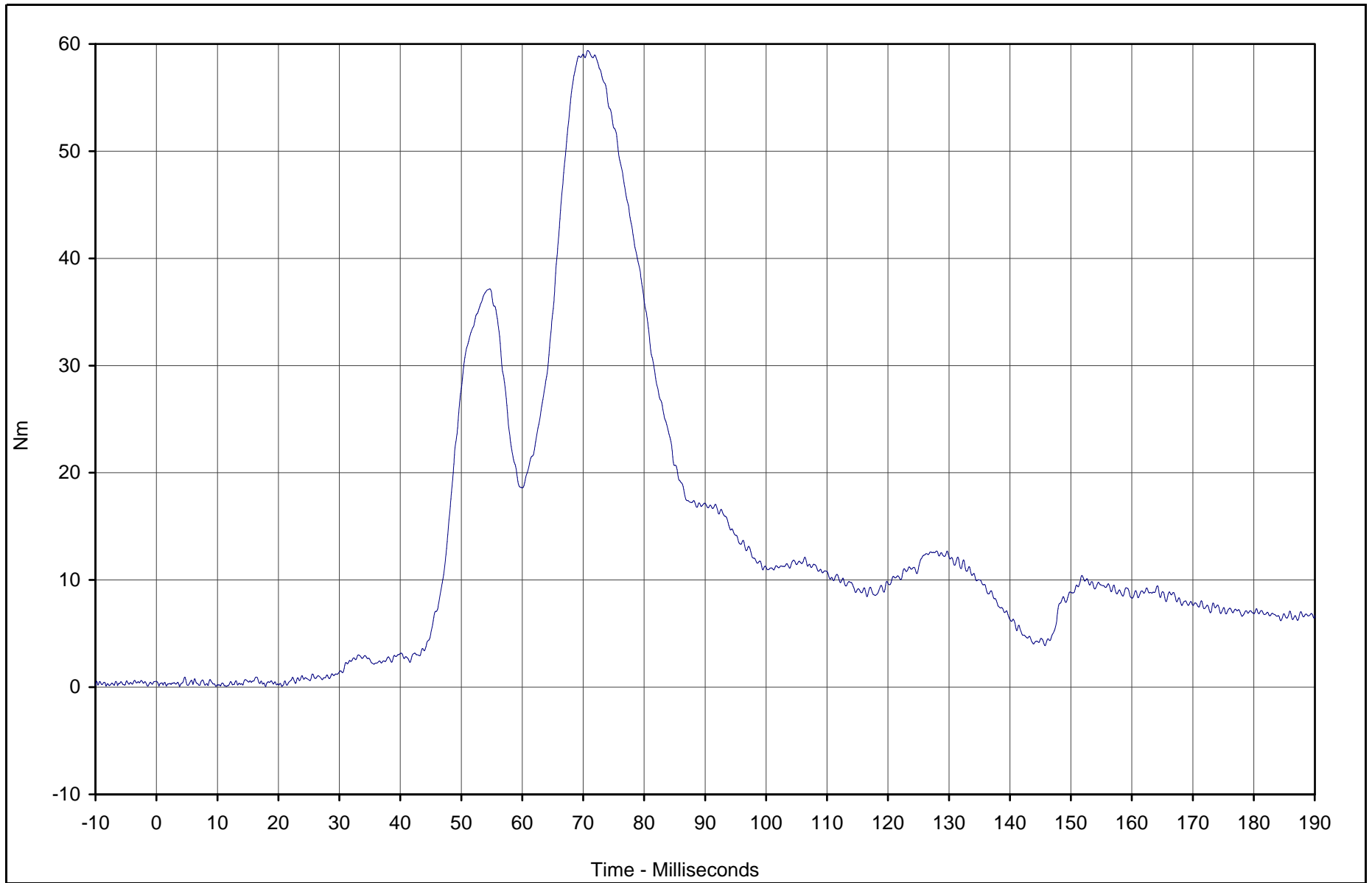


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Neck Moment Resultant	032	RES	Nm	59.4	70.7	0.0	17.9	600

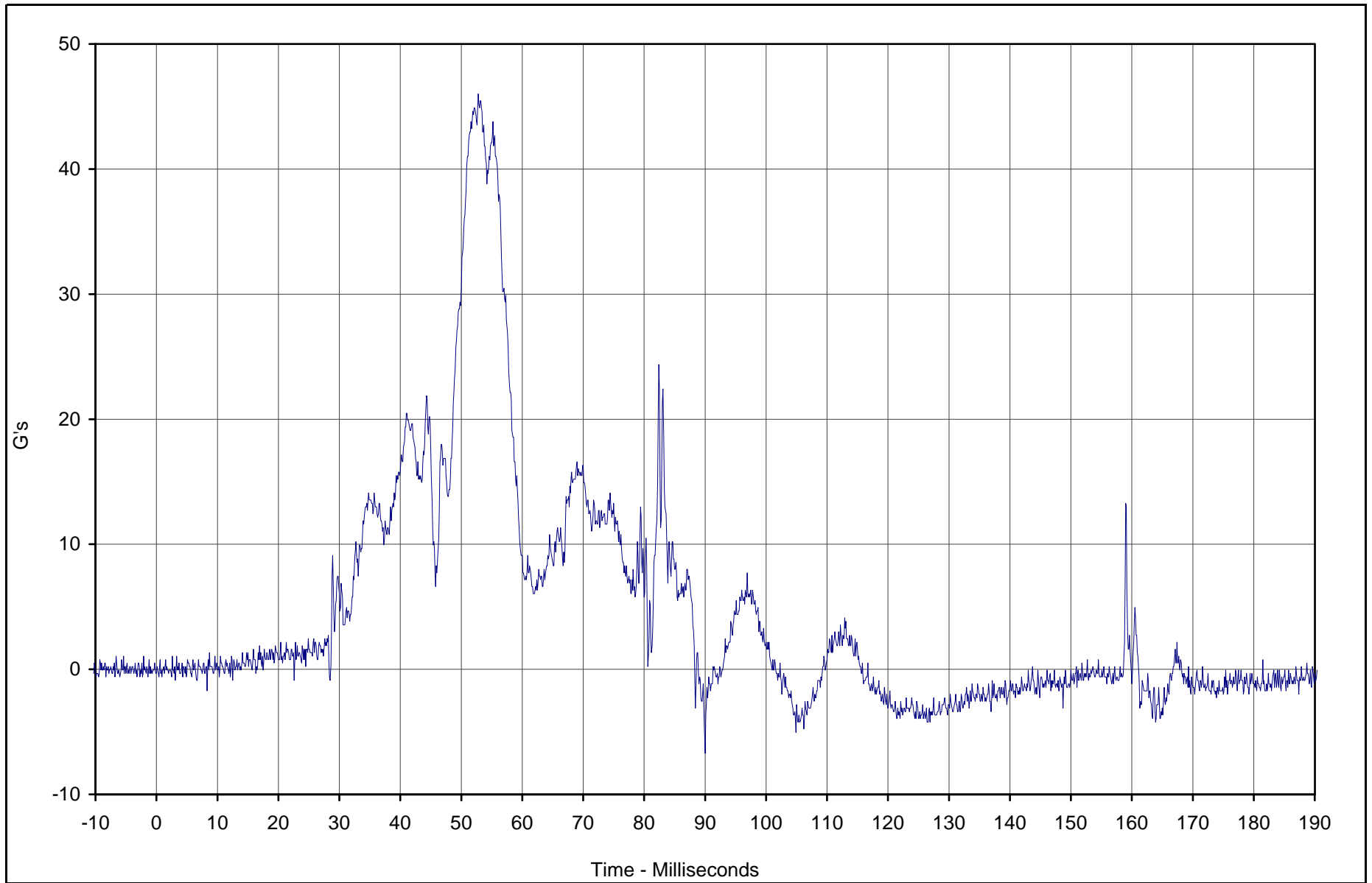


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Upper Rib Primary Y	035	FIL	G's	46.0	52.8	-6.7	90.0	1000

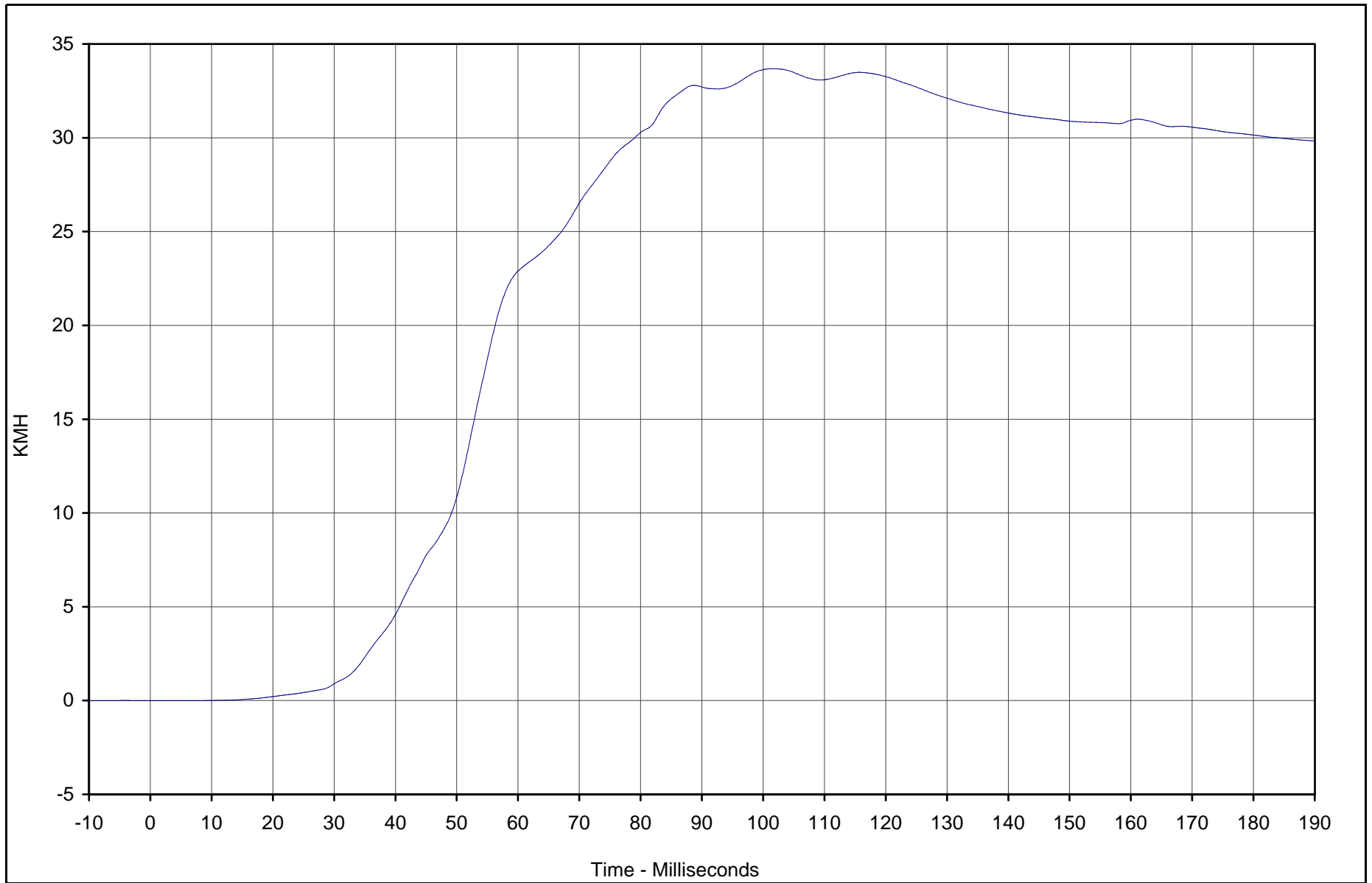


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Upper Rib Primary Y Vel.	035	IN1	KMH	33.7	101.5	0.0	4.5	180

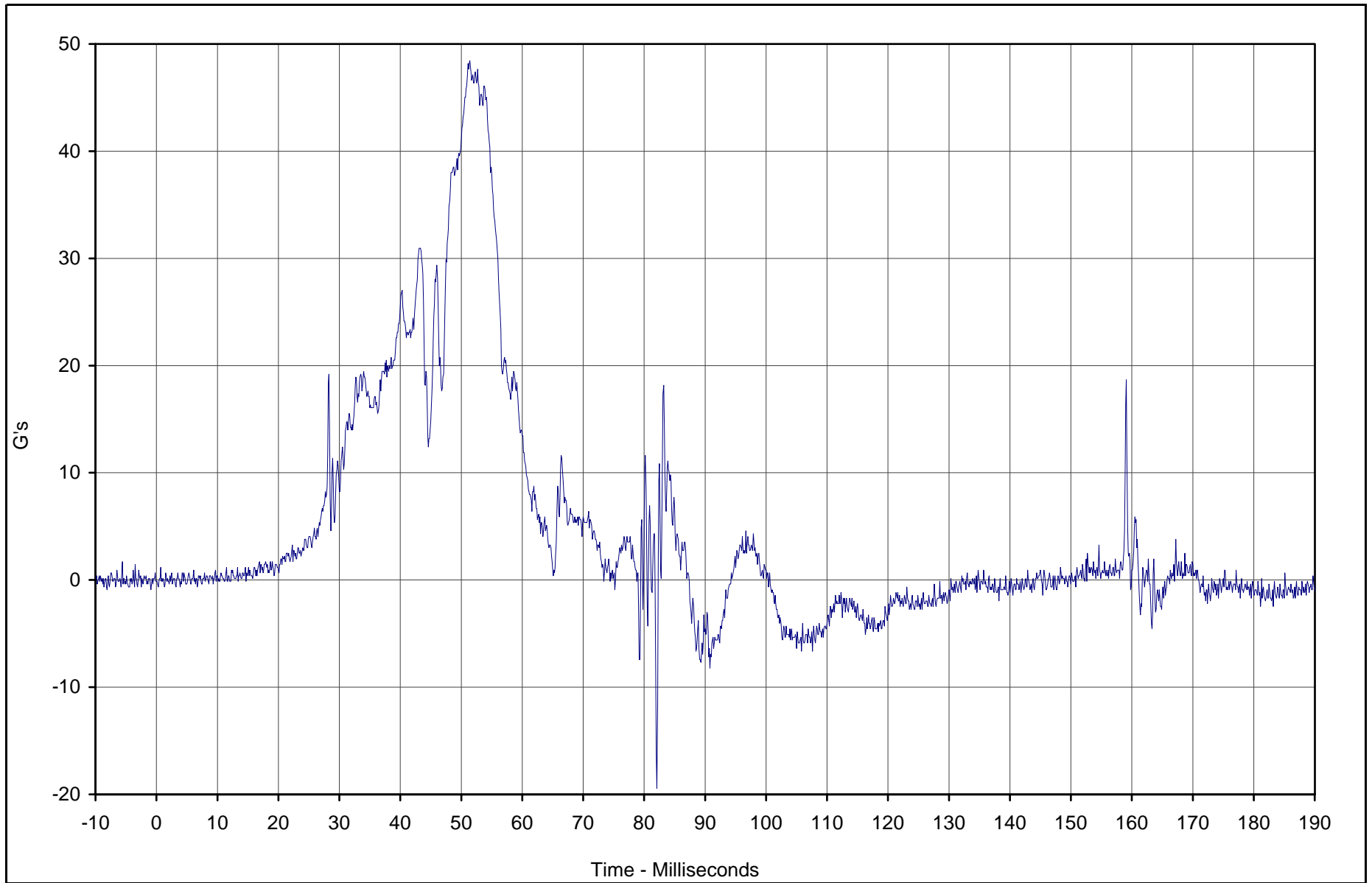


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Rib Primary Y	036	FIL	G's	48.4	51.4	-19.4	82.1	1000

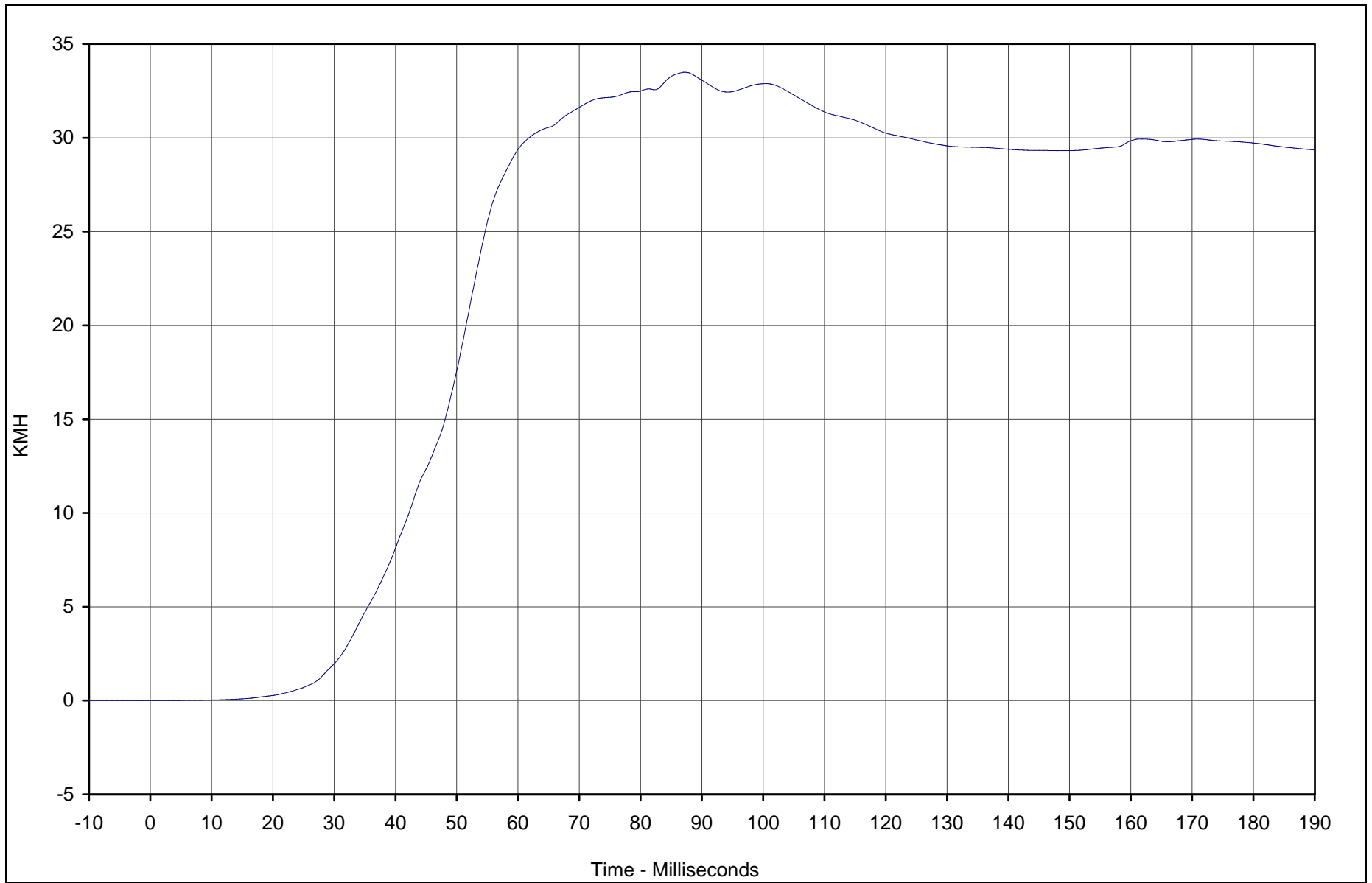


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Rib Primary Y Vel.	036	IN1	KMH	33.5	87.2	0.0	0.4	180

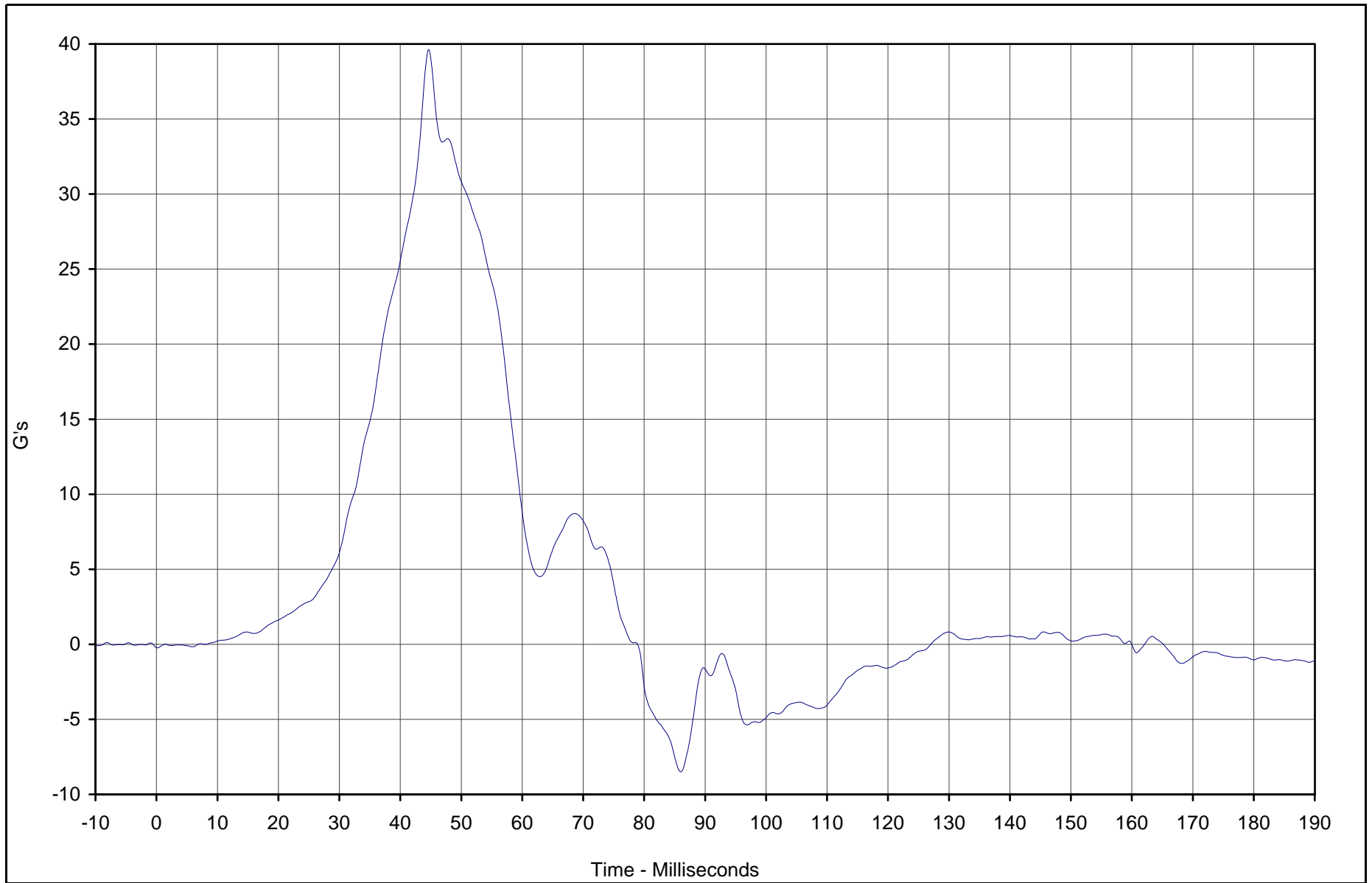


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Spine Primary Y	037	FIL	G's	39.6	44.7	-8.5	86.0	180

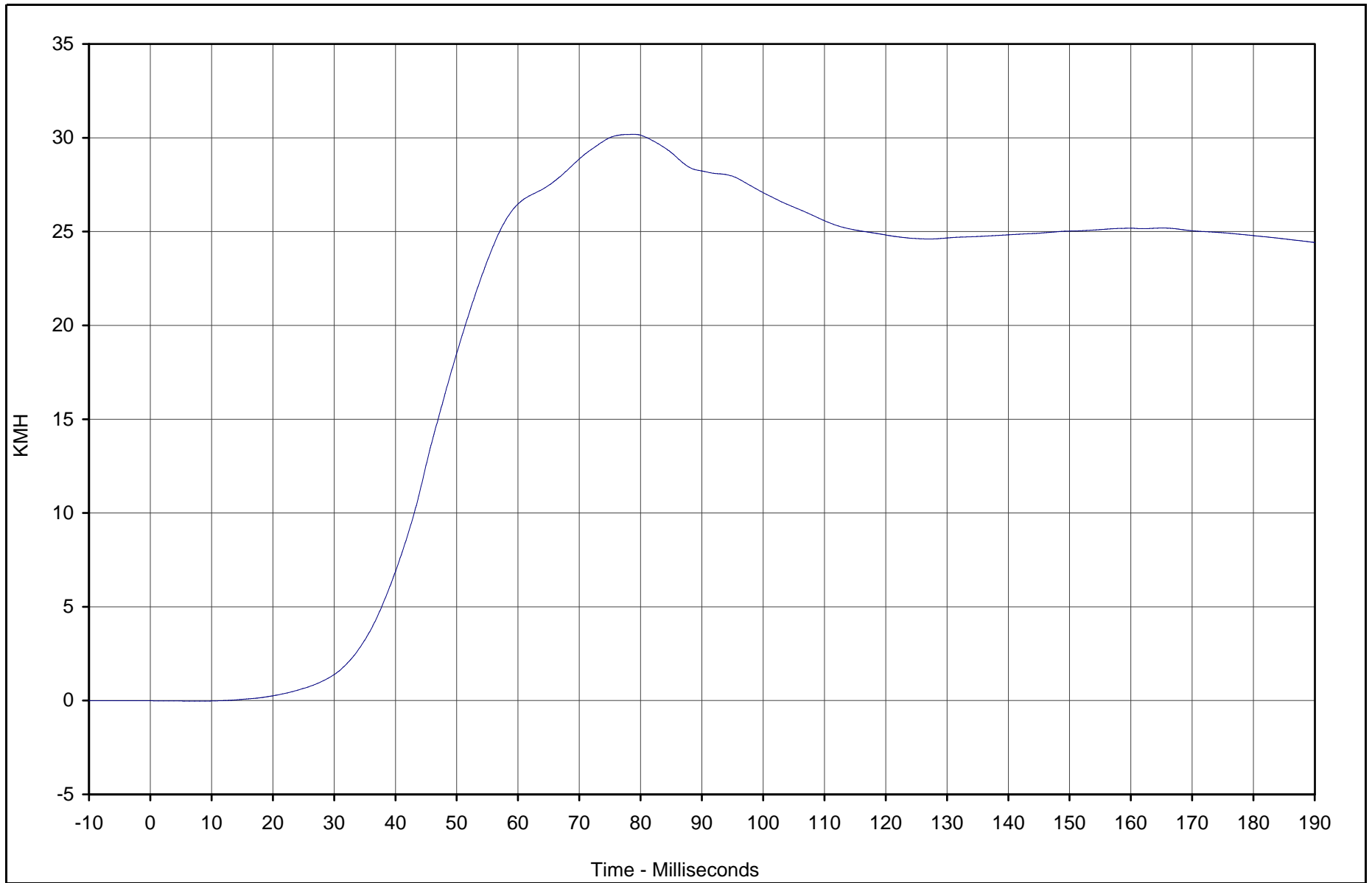


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Spine Primary Y Vel.	037	IN1	KMH	30.2	78.9	0.0	6.8	180



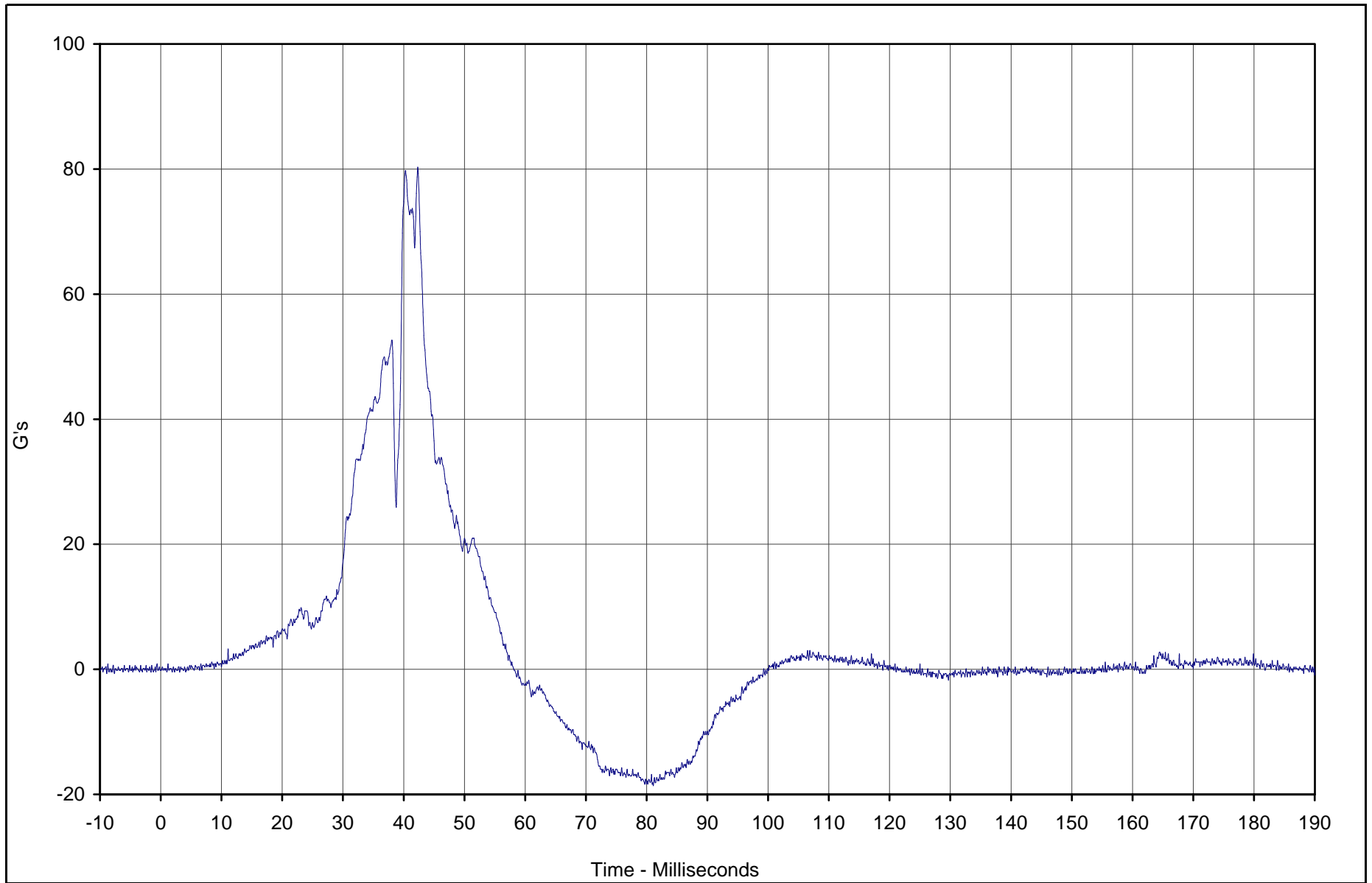
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Pelvis Primary Y	038	FIL	G's	80.3	42.3	-18.6	81.1	1000



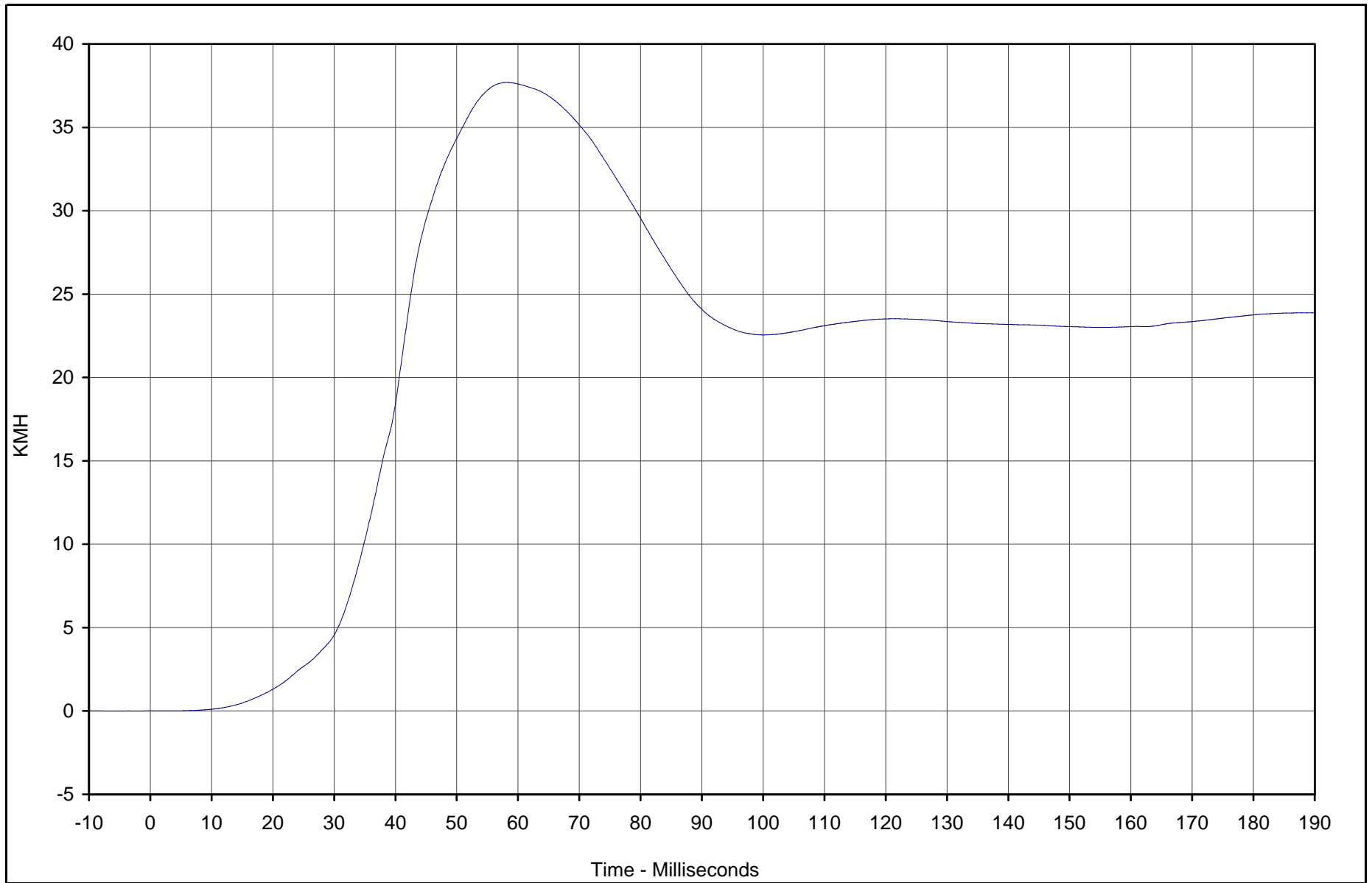
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Pelvis Primary Y Vel.	038	IN1	KMH	37.7	58.2	0.0	0.0	180

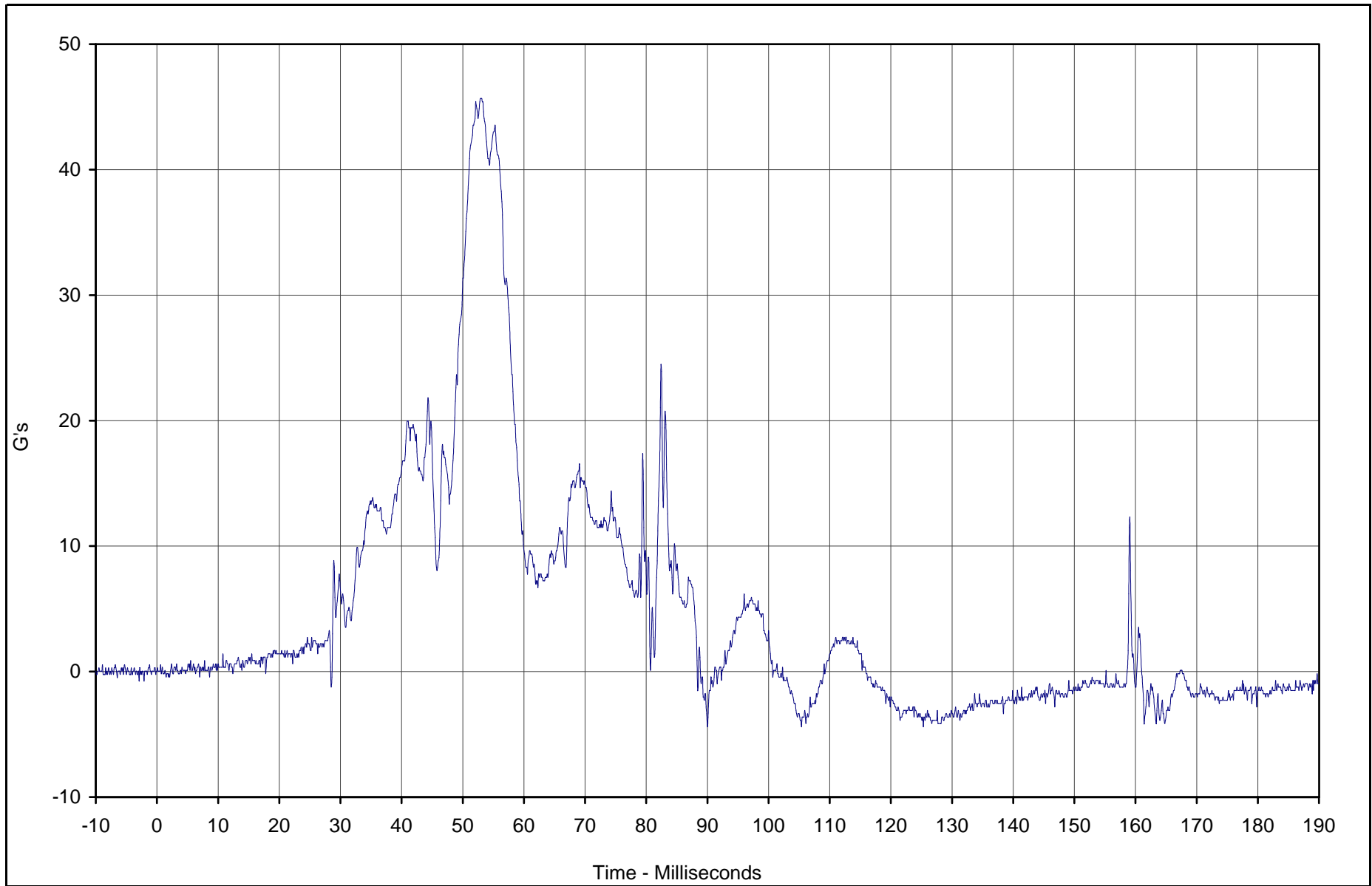


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Upper Rib Redundant Y	039	FIL	G's	45.7	52.9	-4.4	90.0	1000

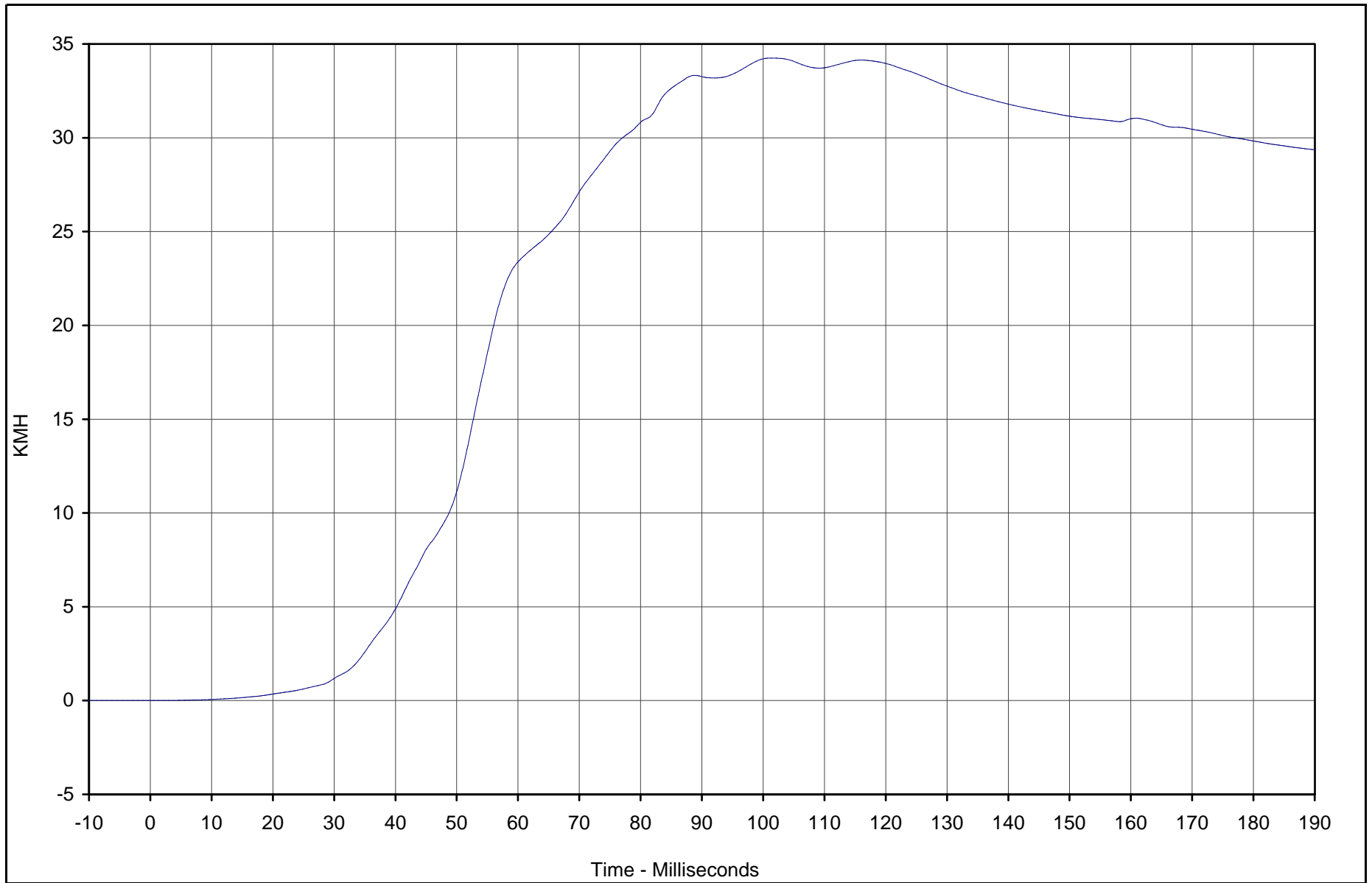


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Upper Rib Redundant Y Vel.	039	IN1	KMH	34.2	101.3	0.0	2.3	180

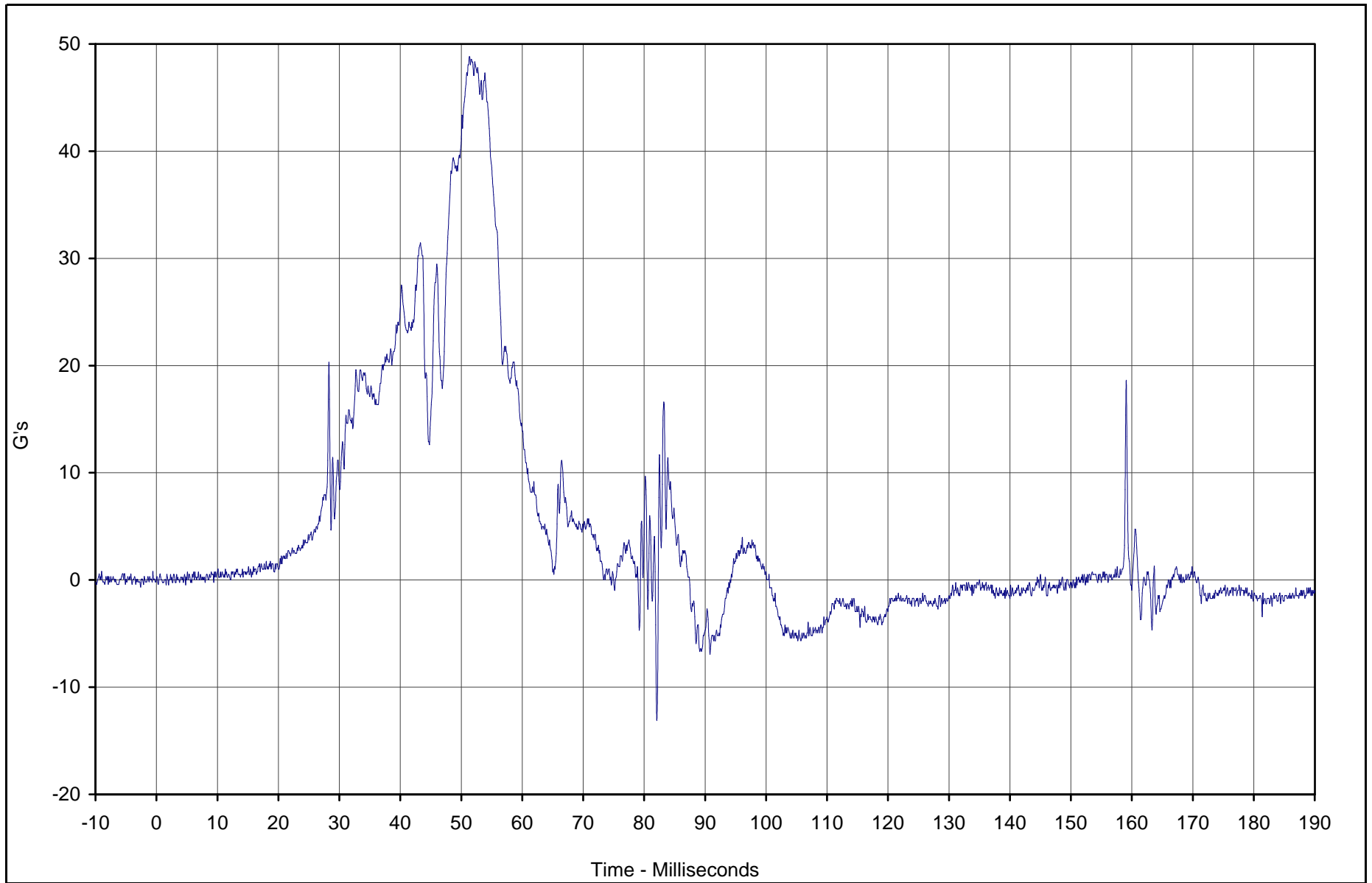


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Rib Redundant Y	040	FIL	G's	48.8	51.3	-13.1	82.1	1000

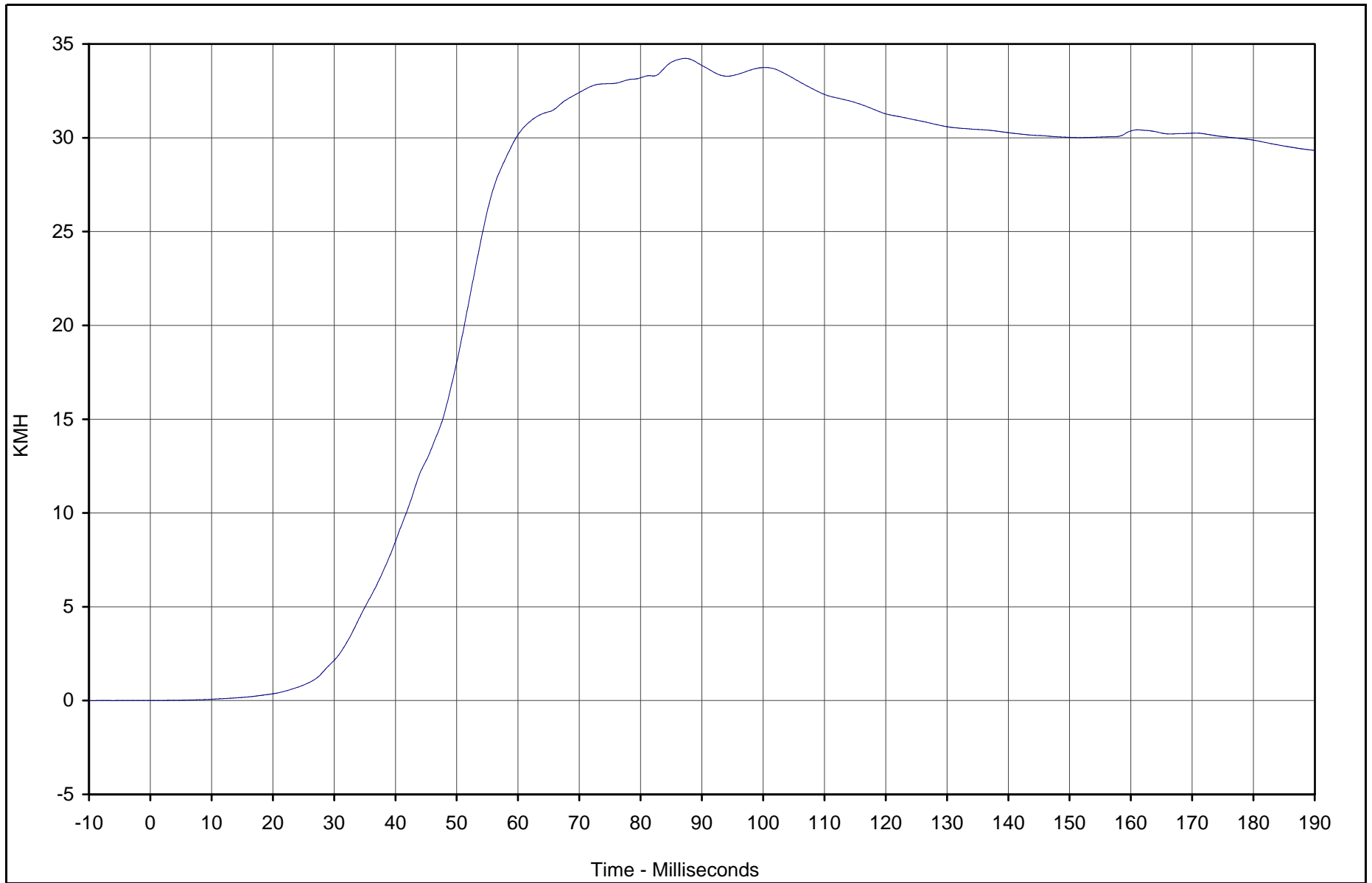


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Rib Redundant Y Vel.	040	IN1	KMH	34.2	87.3	0.0	0.0	180

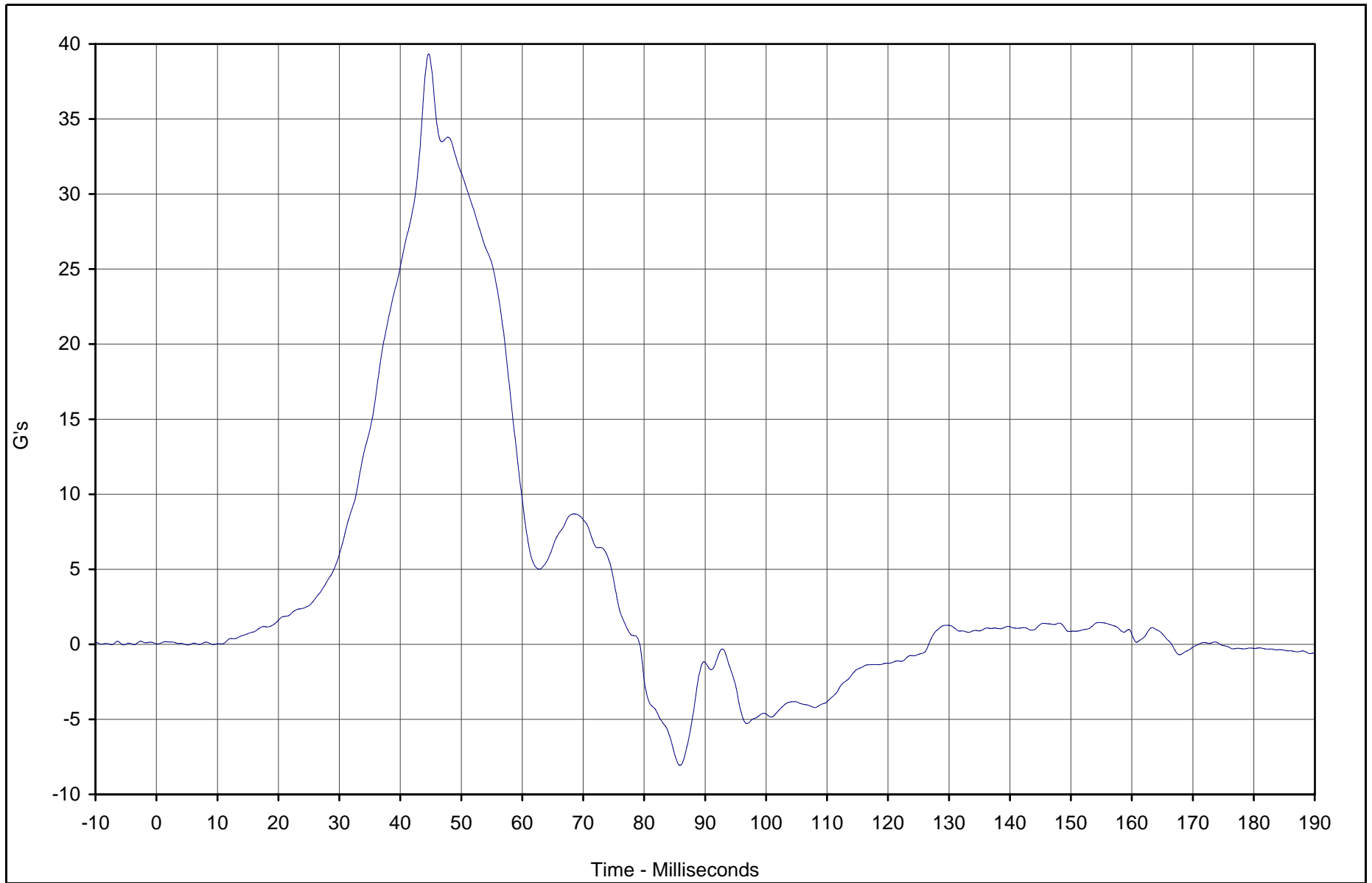


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Spine Redundant Y	041	FIL	G's	39.3	44.7	-8.1	85.9	180

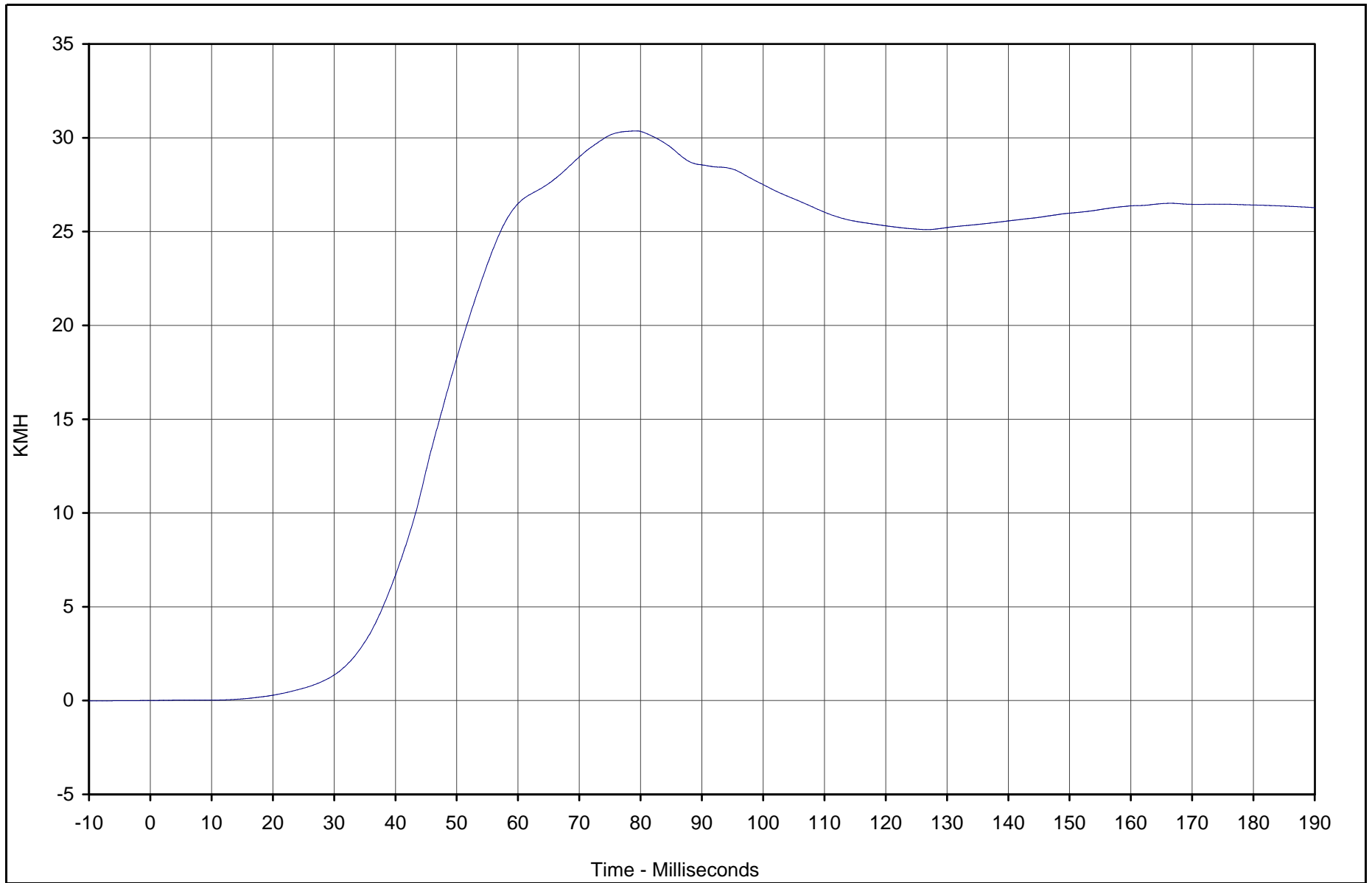


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Spine Redundant Y Vel.	041	IN1	KMH	30.4	79.3	0.0	0.0	180



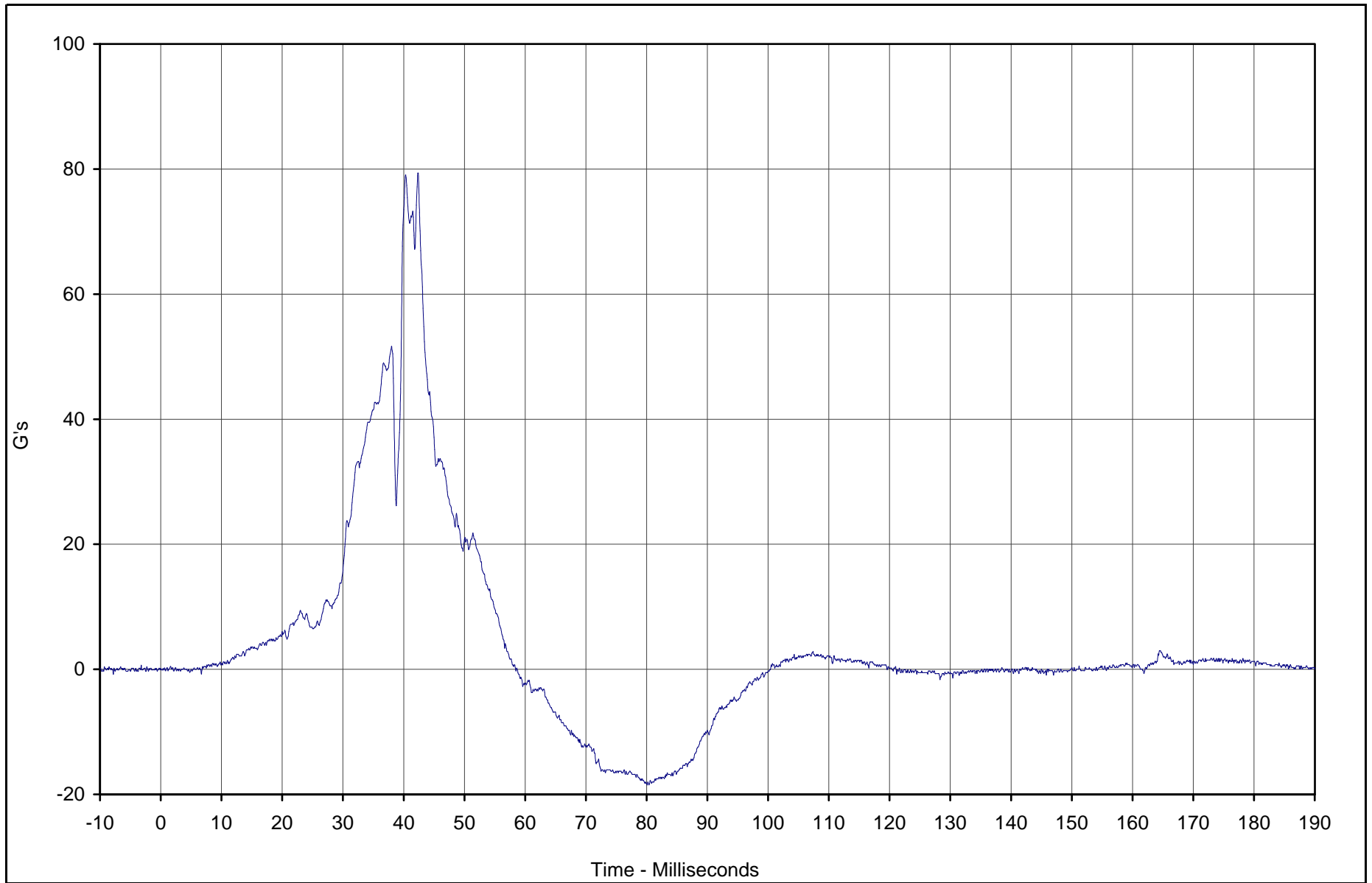
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Pelvis Redundant Y	042	FIL	G's	79.3	42.3	-18.5	80.1	1000



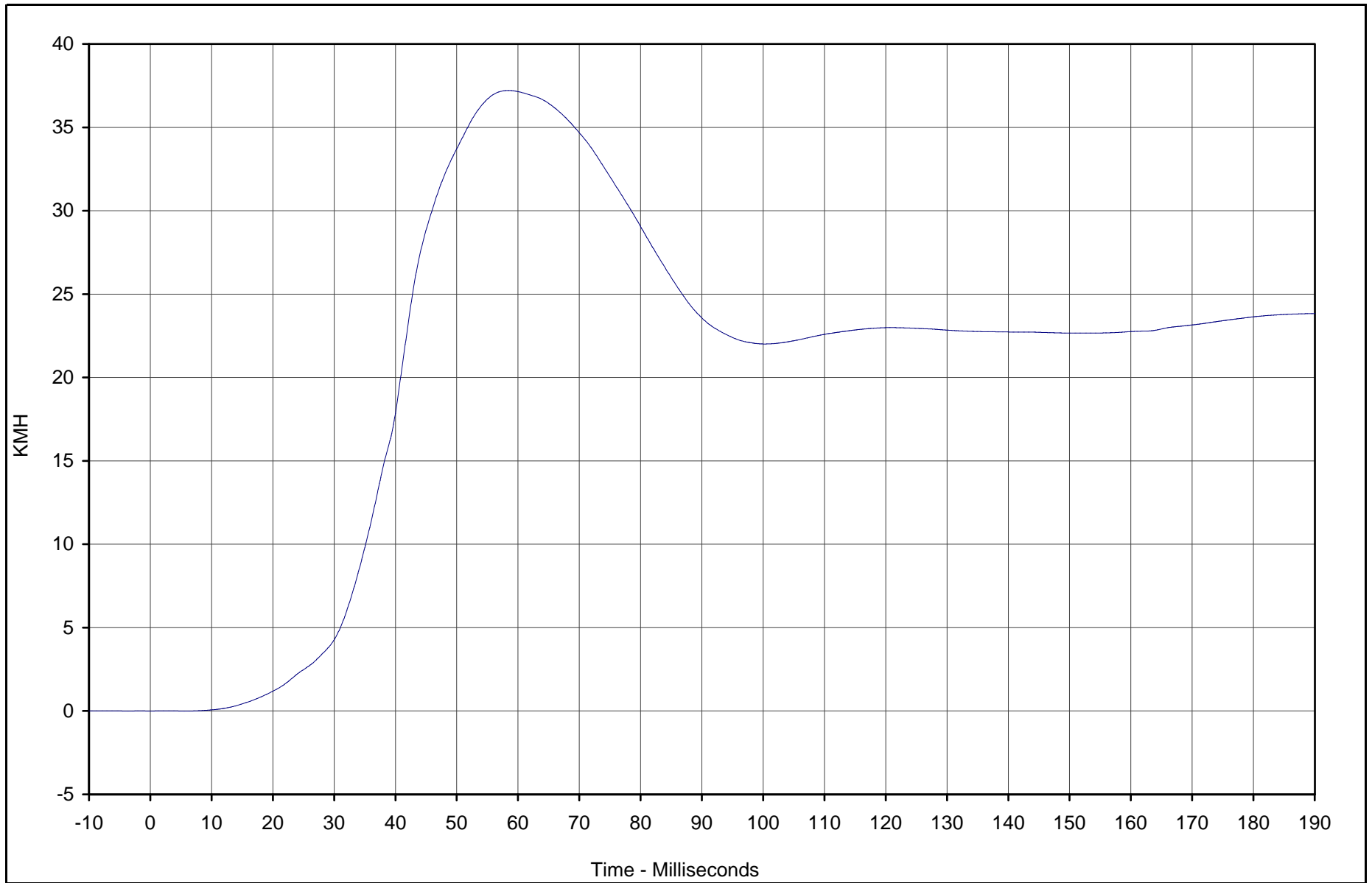
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Pelvis Redundant Y Vel.	042	IN1	KMH	37.2	58.5	0.0	5.8	180

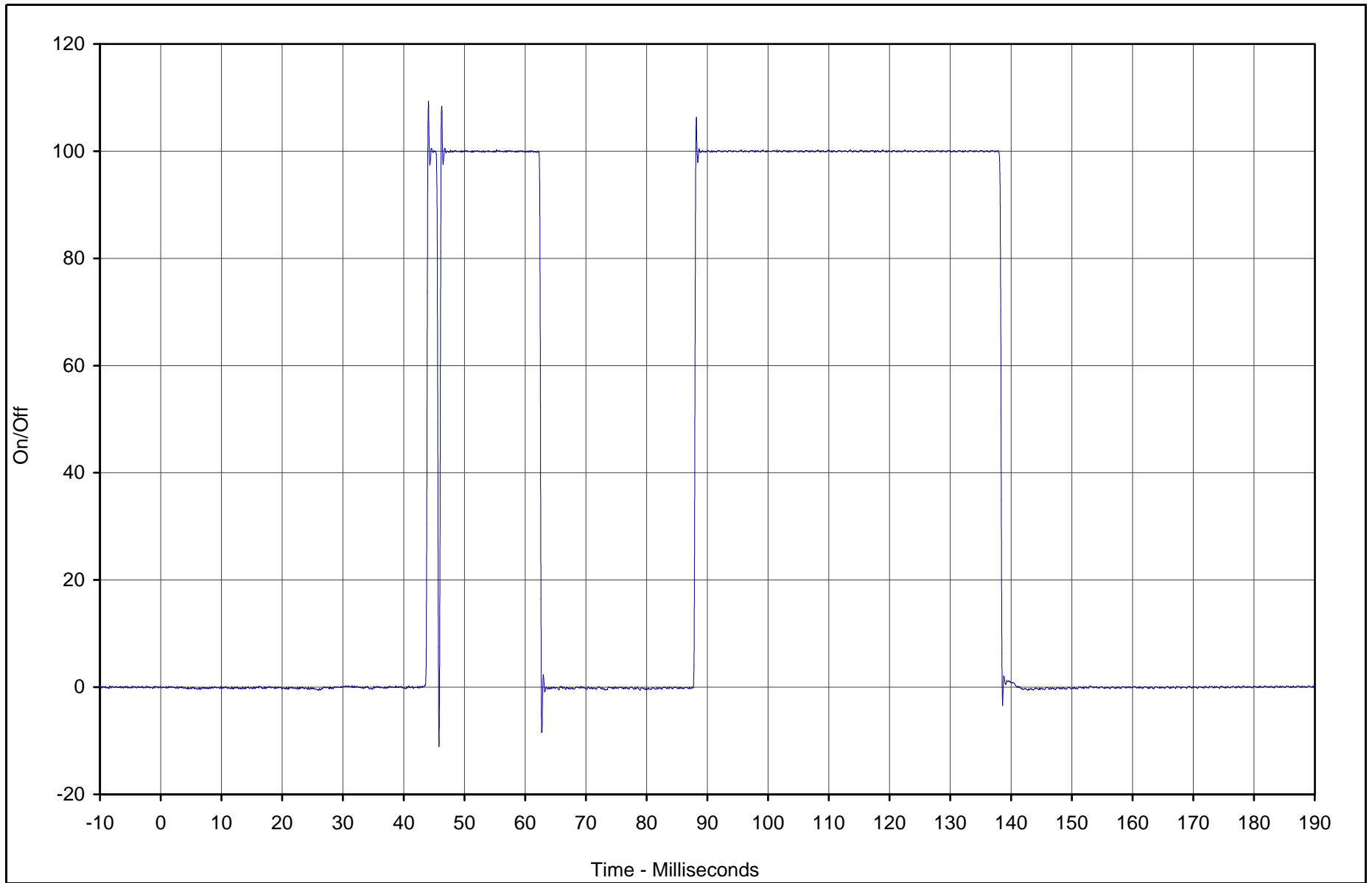


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Cross %	Time	SAE Class
Pass. Thorax Contact	043	FIL	On/Off	109.3	44.1	50.0	43.9	1000

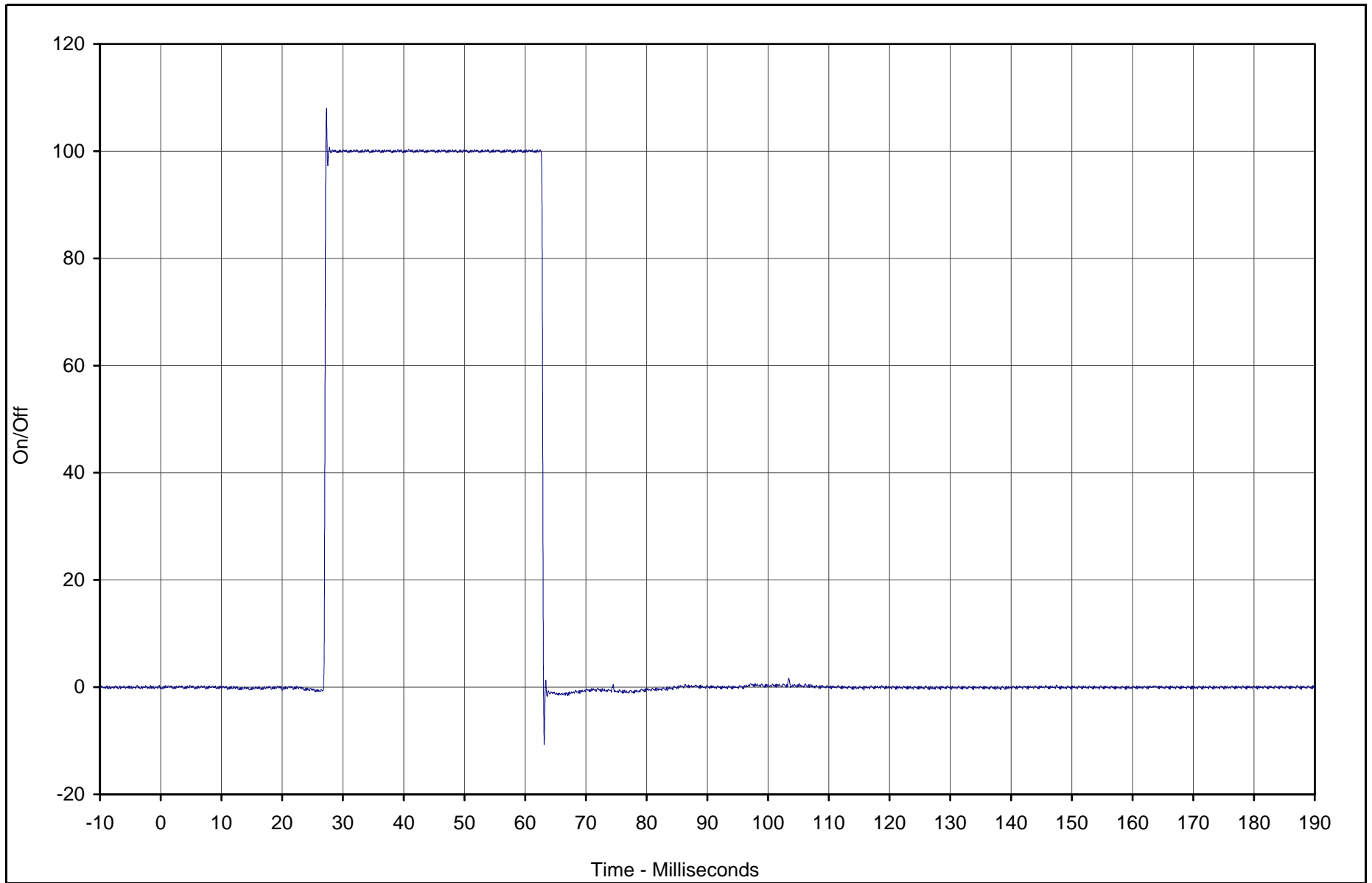


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Cross %	Time	SAE Class
Pass. Pelvis Contact	044	FIL	On/Off	108.0	27.3	50.0	27.1	1000

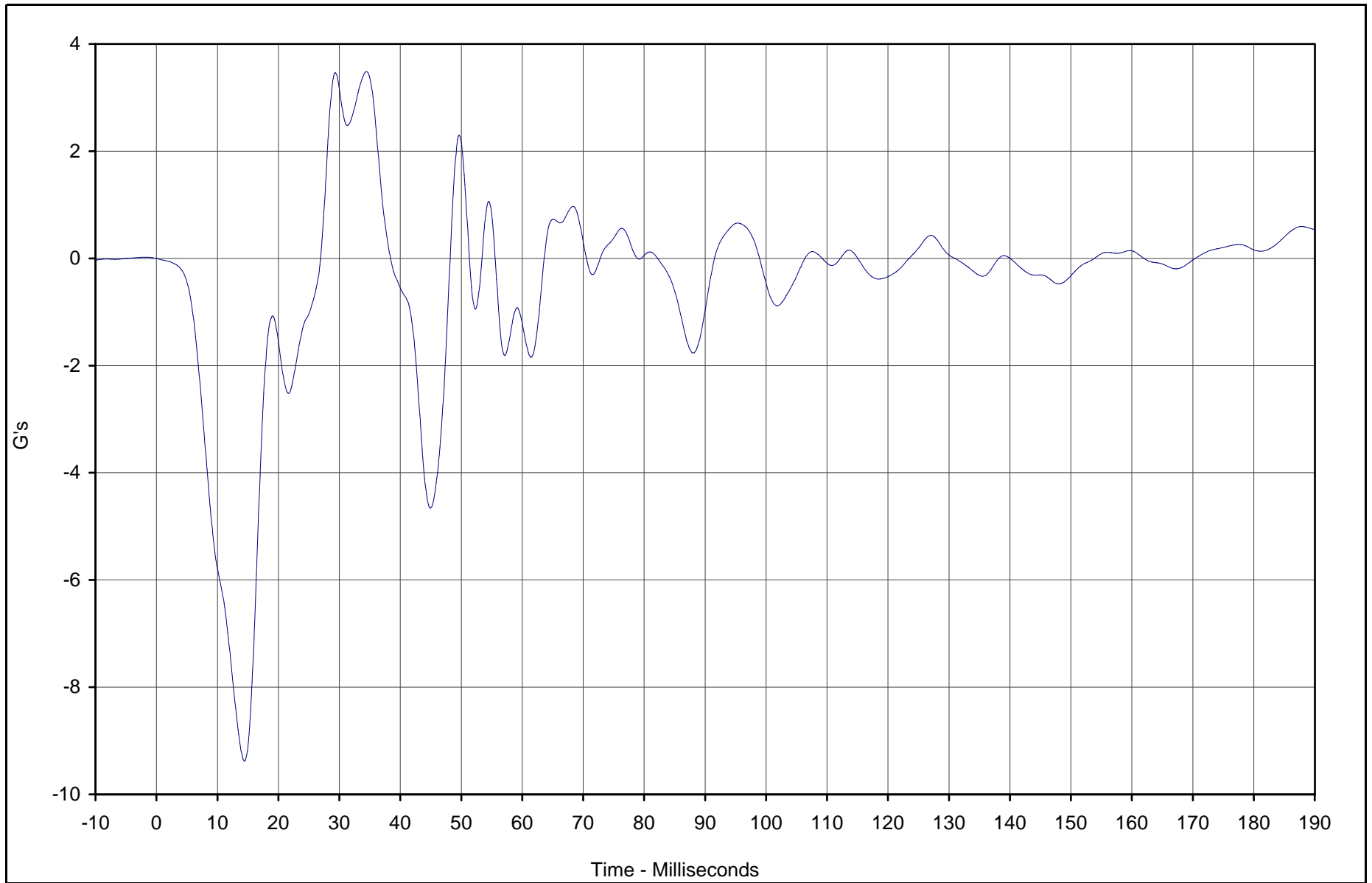


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Front Seat X	045	FIL	G's	3.5	34.5	-9.4	14.4	60

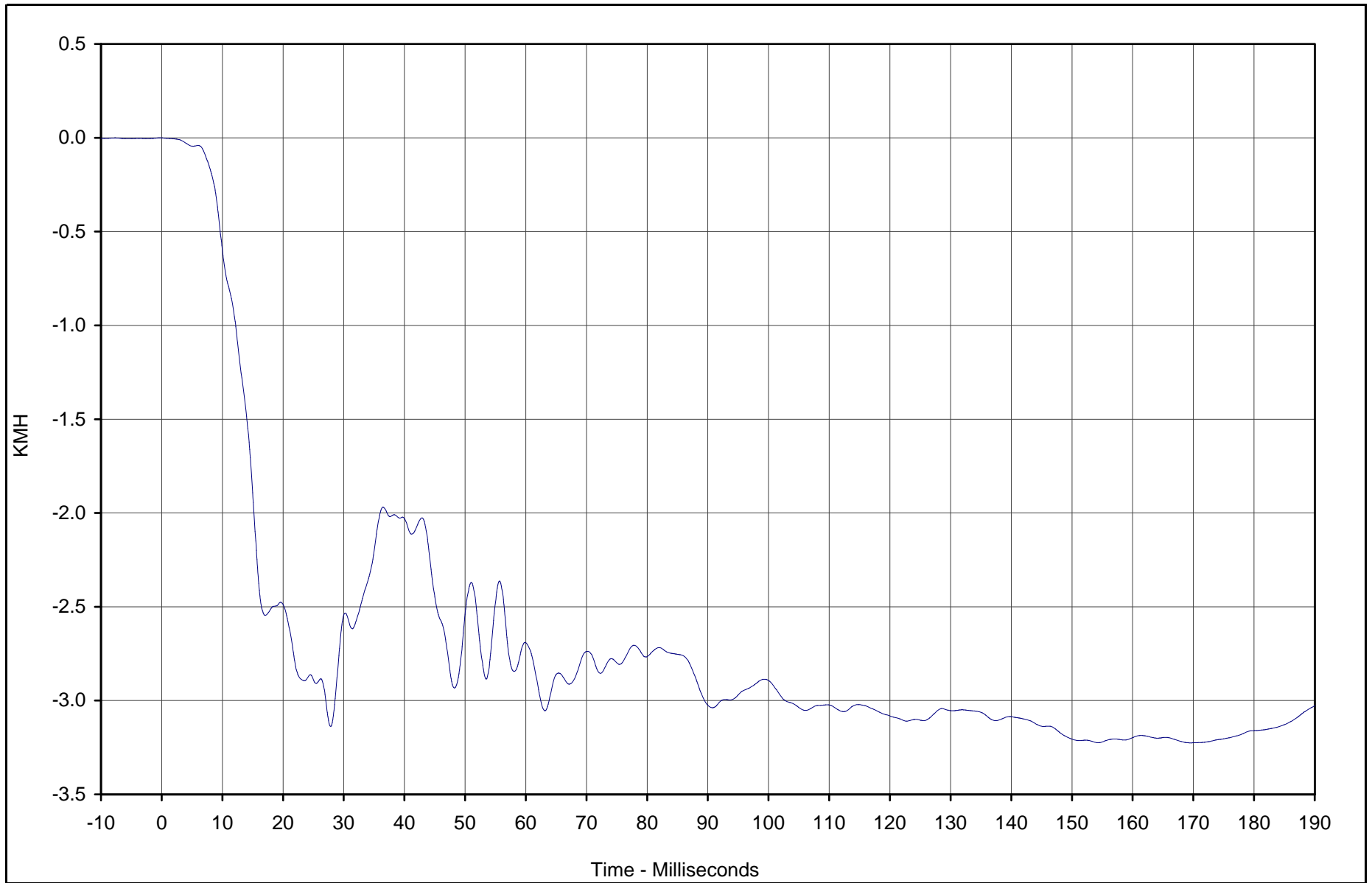


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Front Seat X Velocity	045	IN1	KMH	0.0	0.0	-3.2	169.5	180

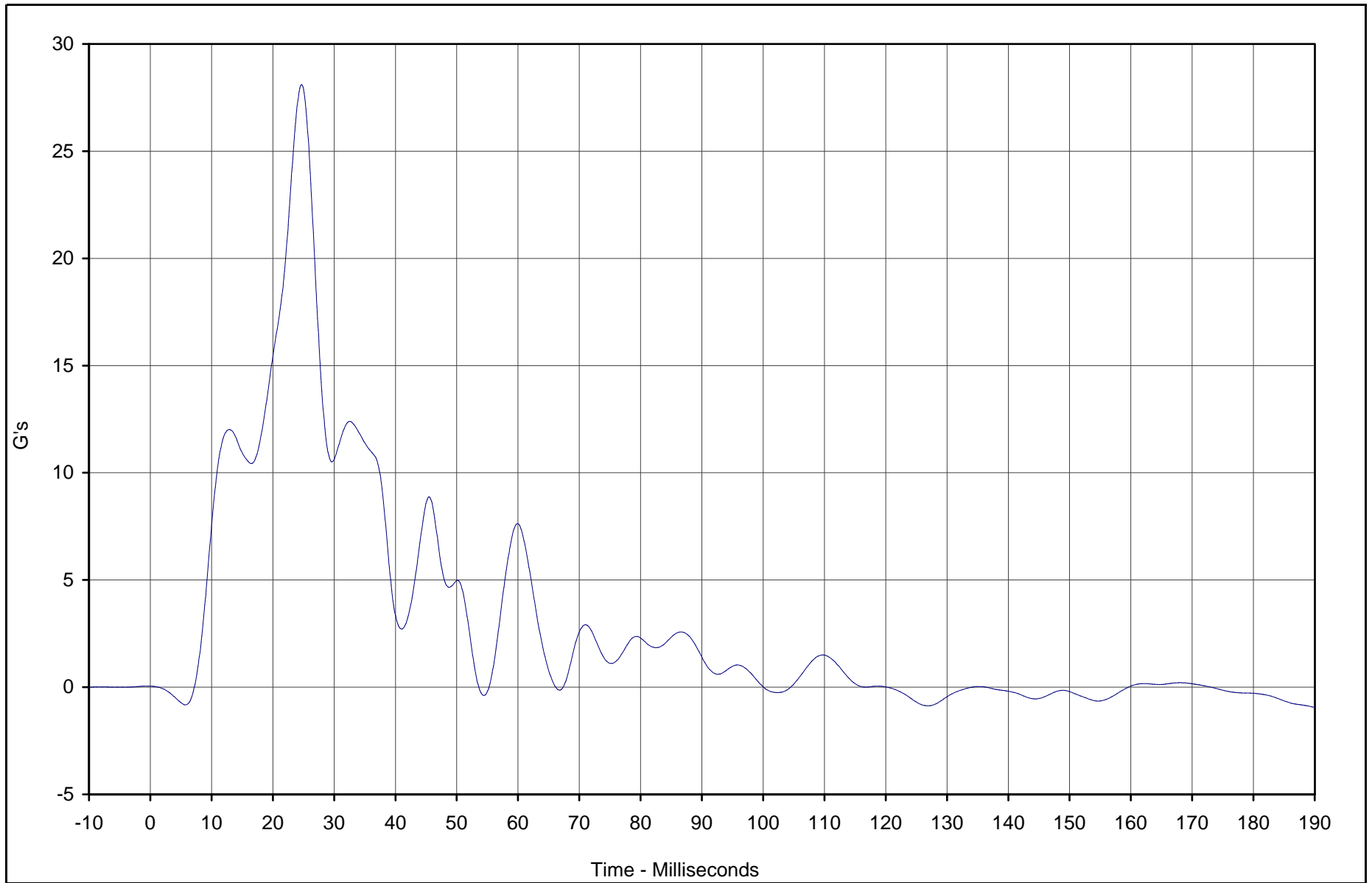


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Front Seat Y	046	FIL	G's	28.1	24.7	-0.9	189.9	60

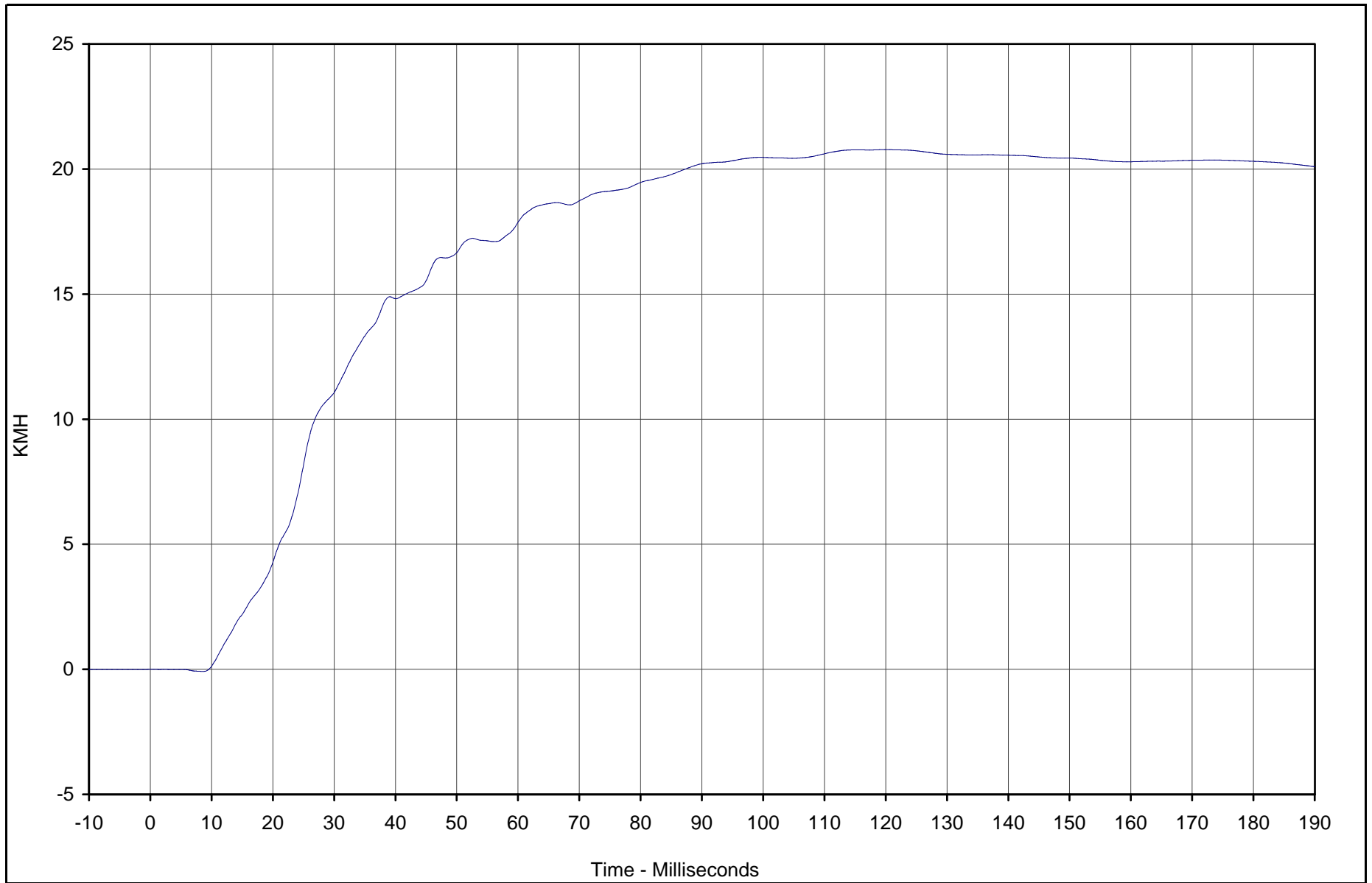


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Front Seat Y Velocity	046	IN1	KMH	20.8	119.5	-0.1	8.6	180

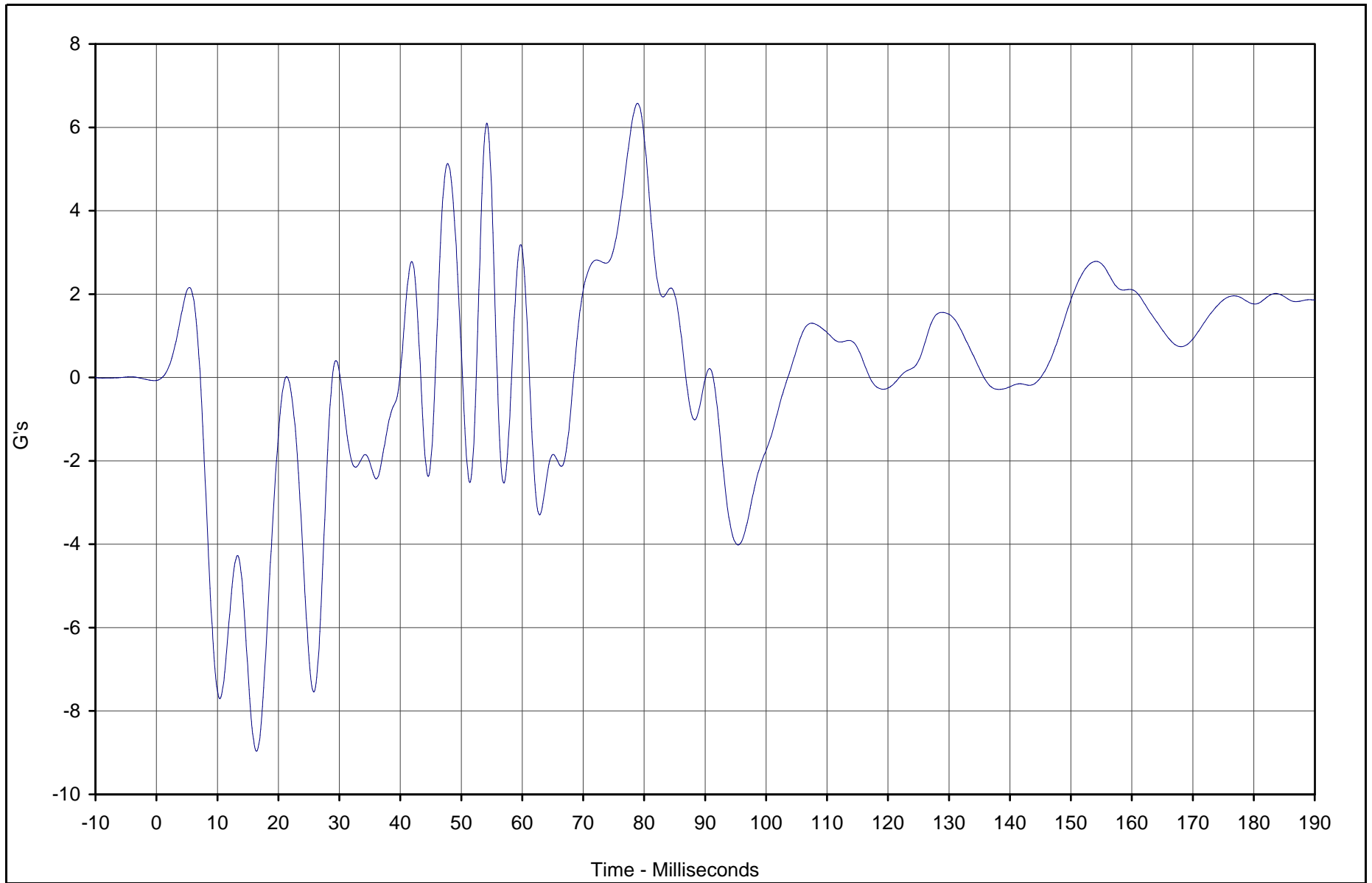


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Front Seat Z	047	FIL	G's	6.6	78.9	-9.0	16.4	60

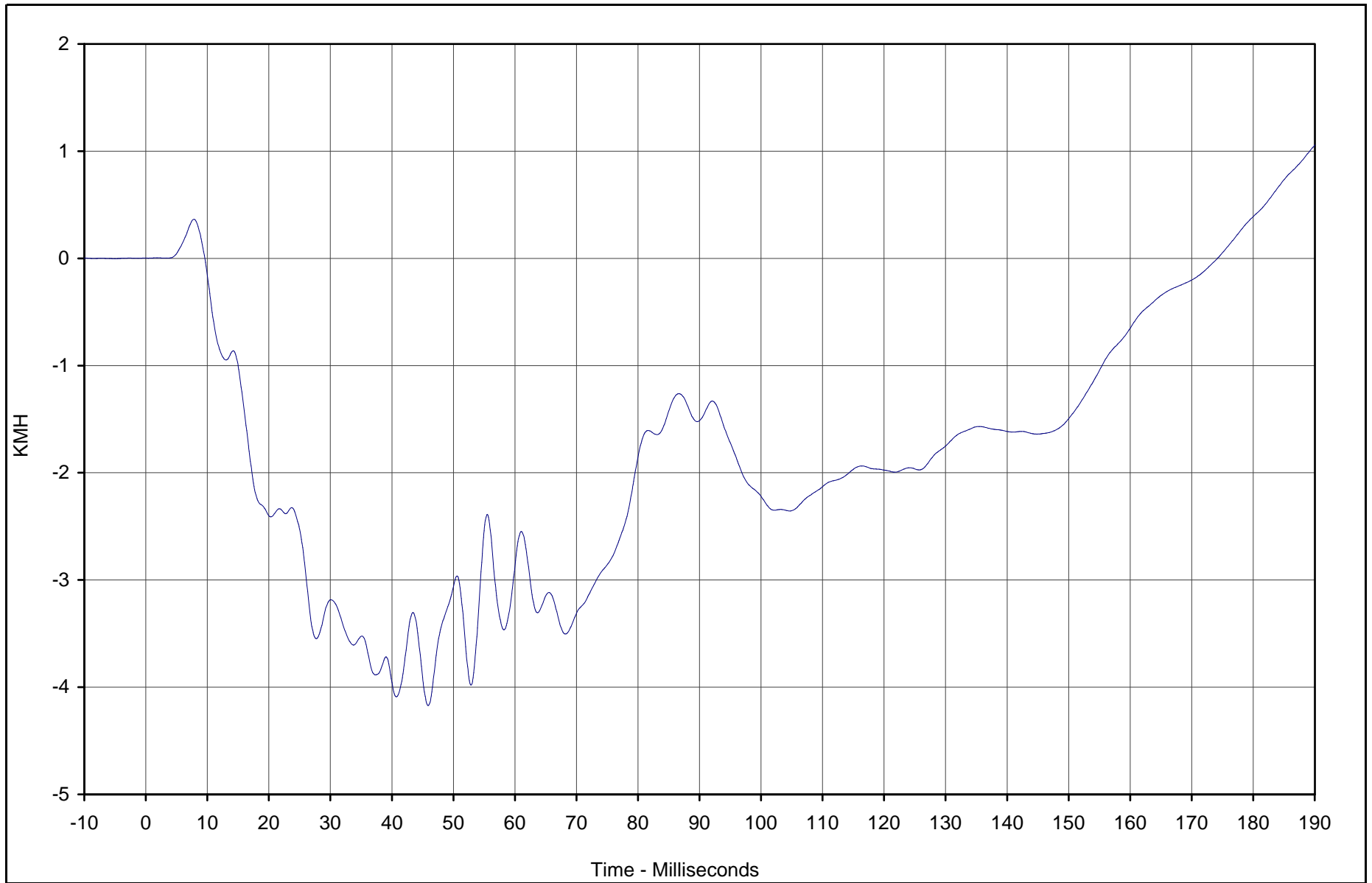


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Front Seat Z Velocity	047	IN1	KMH	1.0	189.9	-4.2	45.9	180

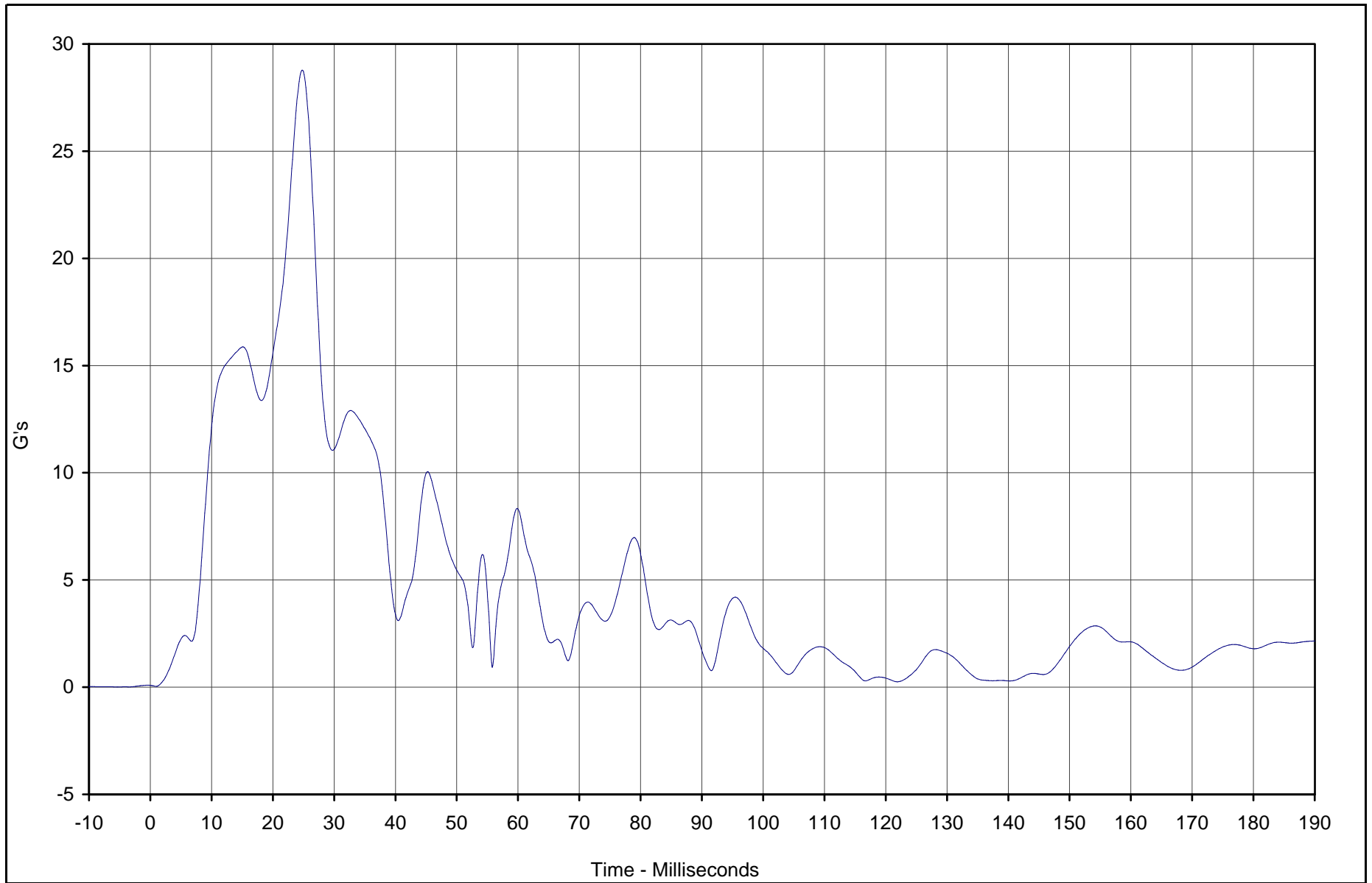


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Front Seat Resultant	045	RES	G's	28.8	24.8	0.0	1.0	60

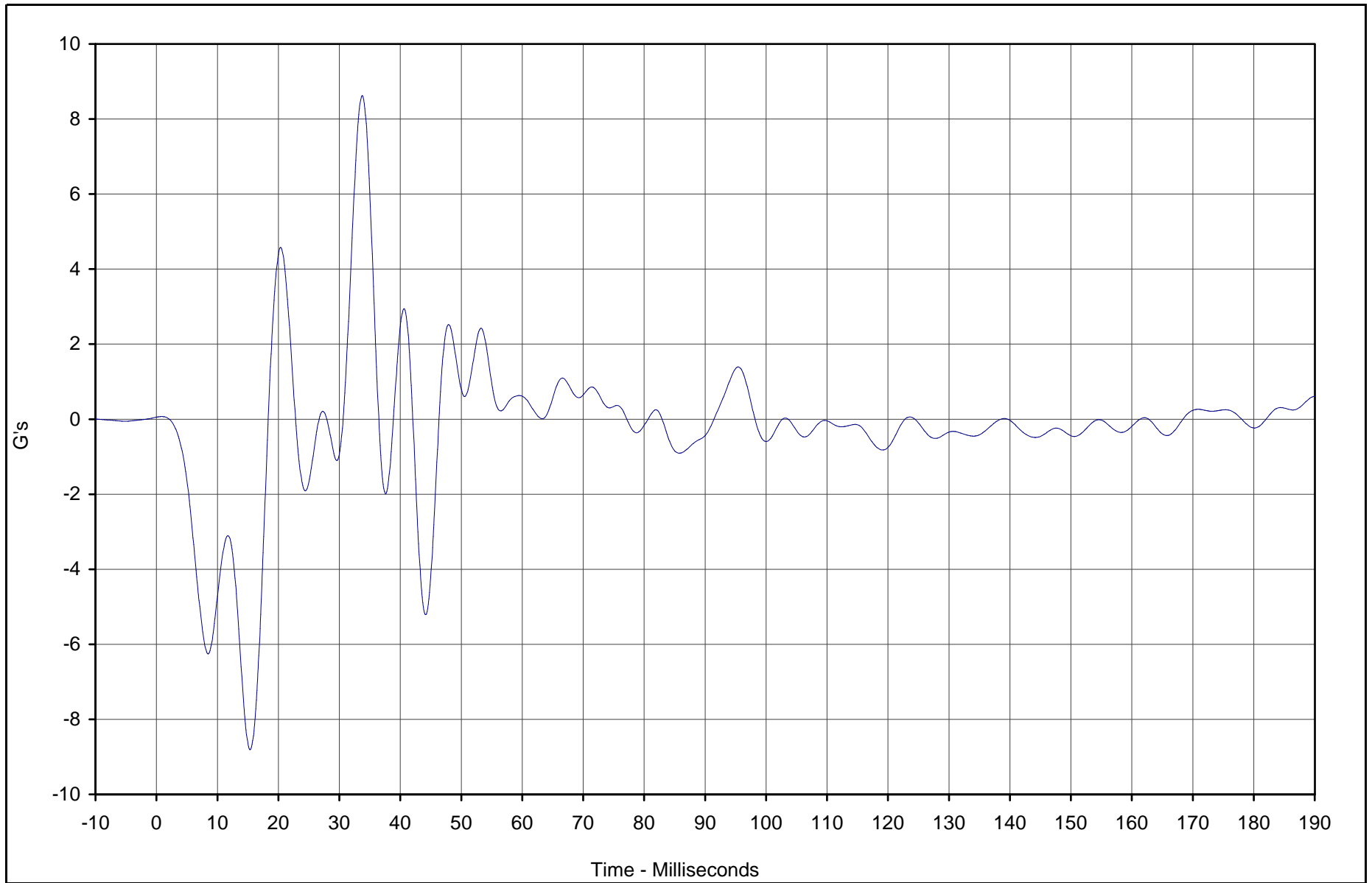


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Rear Seat X	048	FIL	G's	8.6	33.8	-8.8	15.4	60

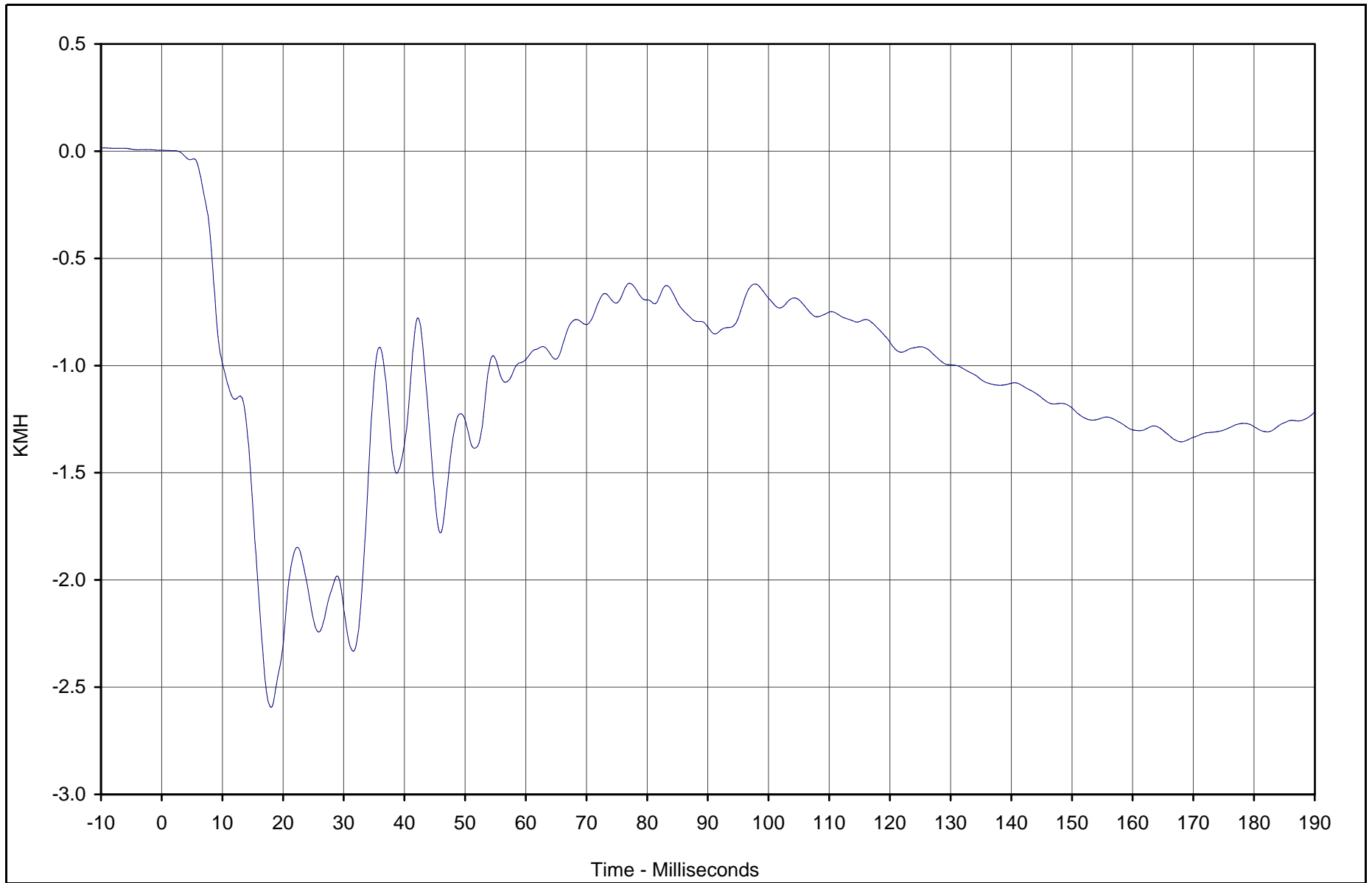


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Rear Seat X Velocity	048	IN1	KMH	0.0	0.0	-2.6	18.0	180

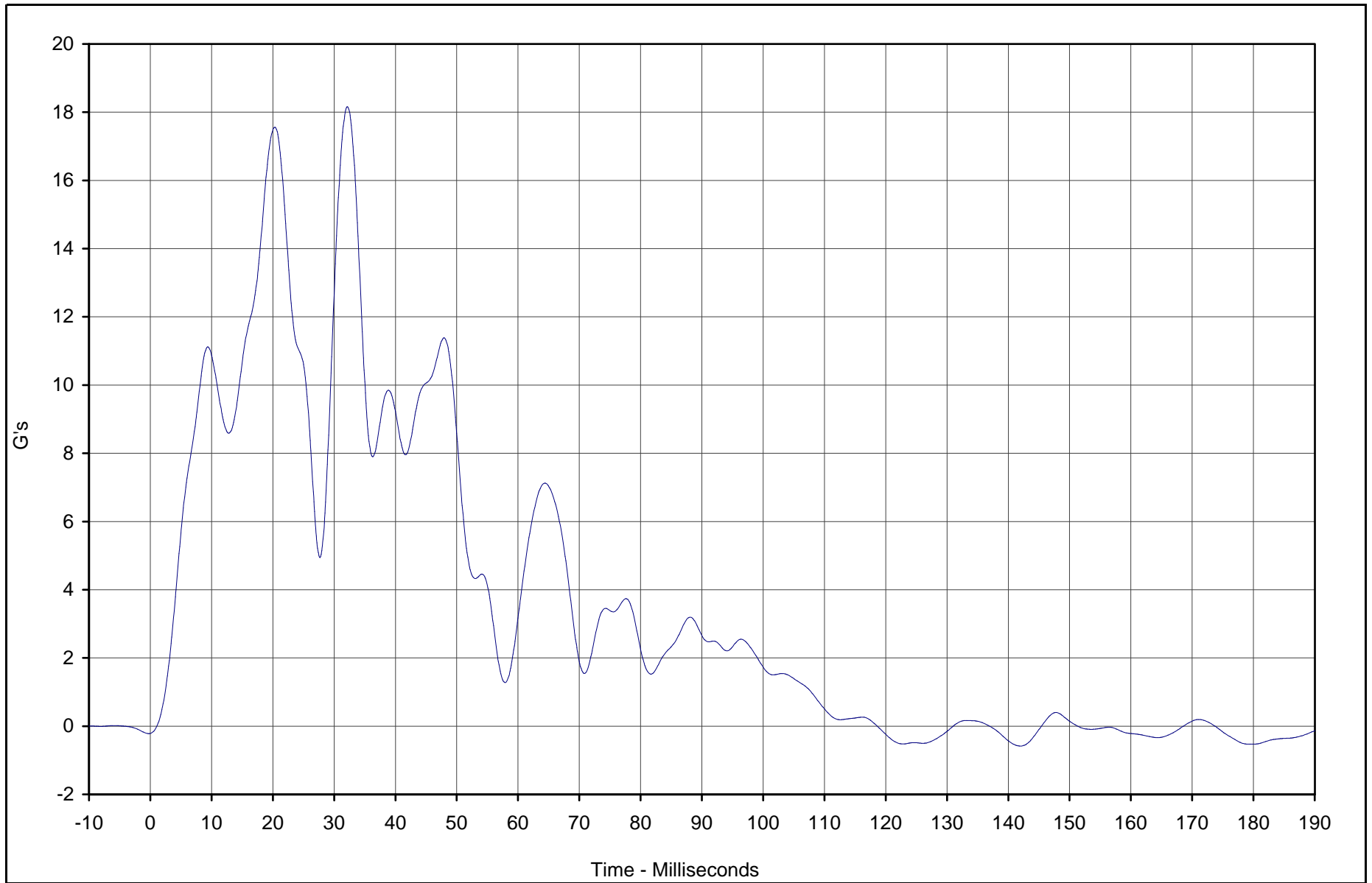


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Rear Seat Y	049	FIL	G's	18.2	32.2	-0.6	142.0	60

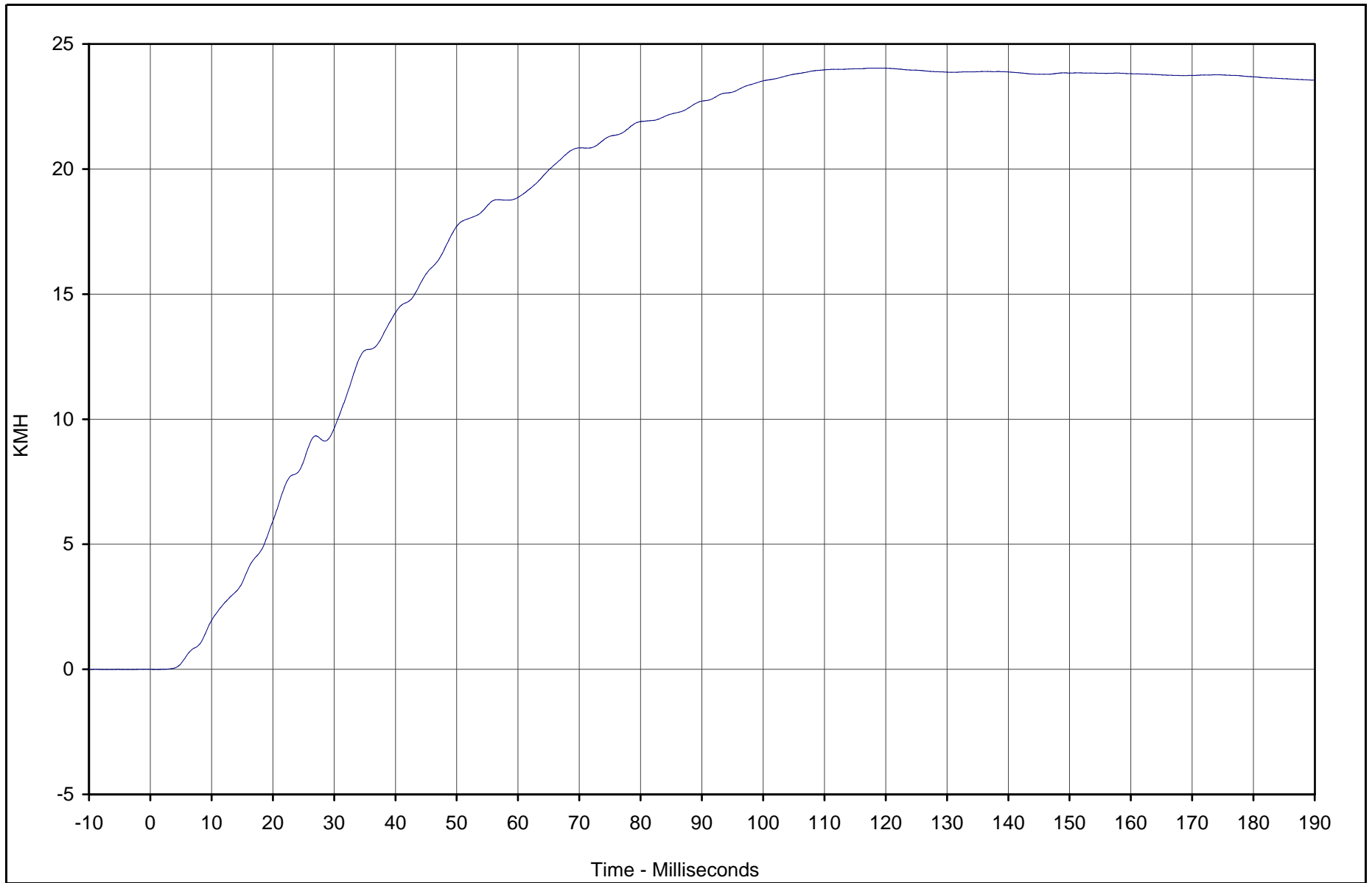


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Rear Seat Y Velocity	049	IN1	KMH	24.0	117.9	0.0	1.0	180

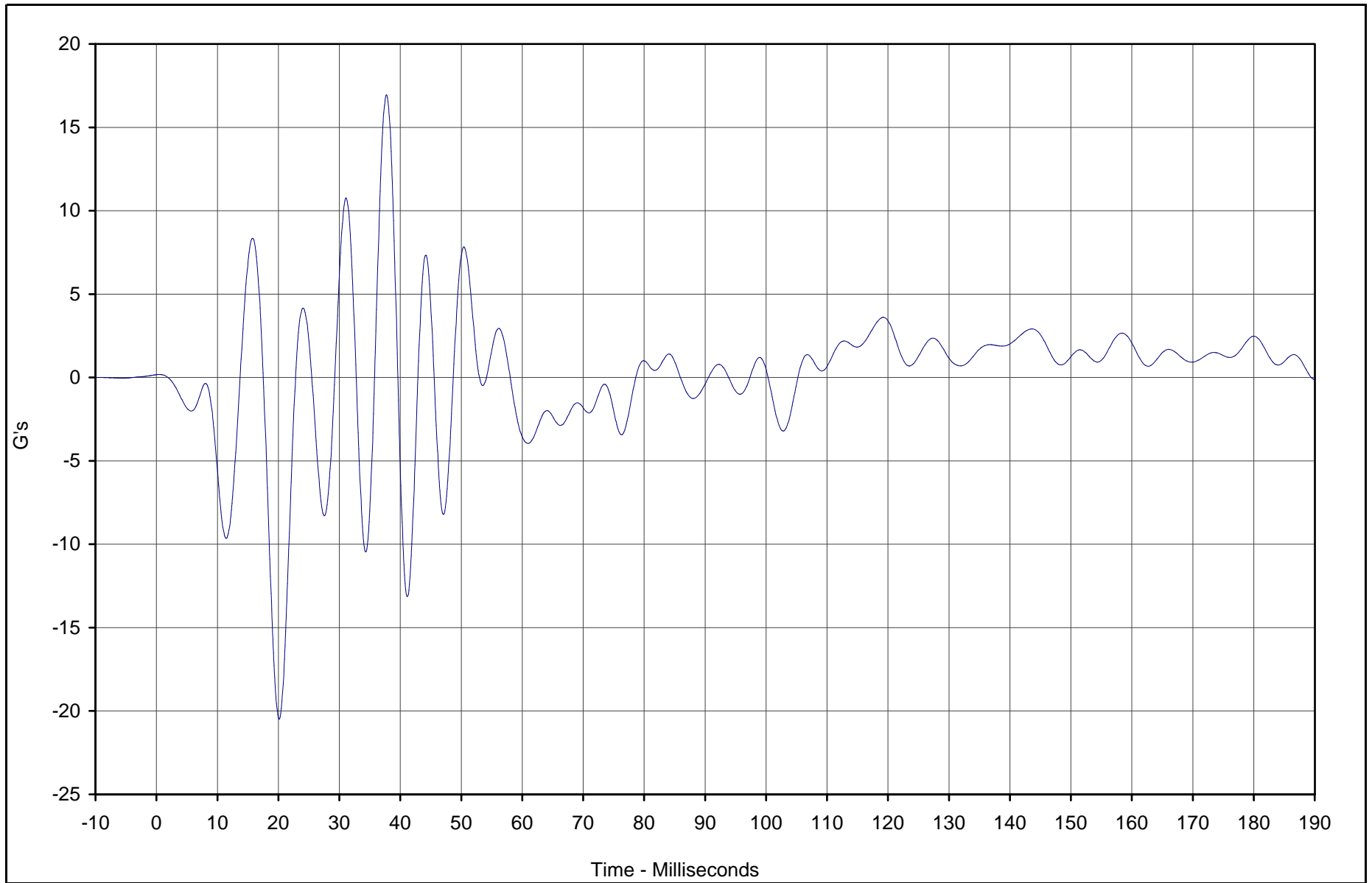


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Rear Seat Z	050	FIL	G's	16.9	37.7	-20.5	20.1	60

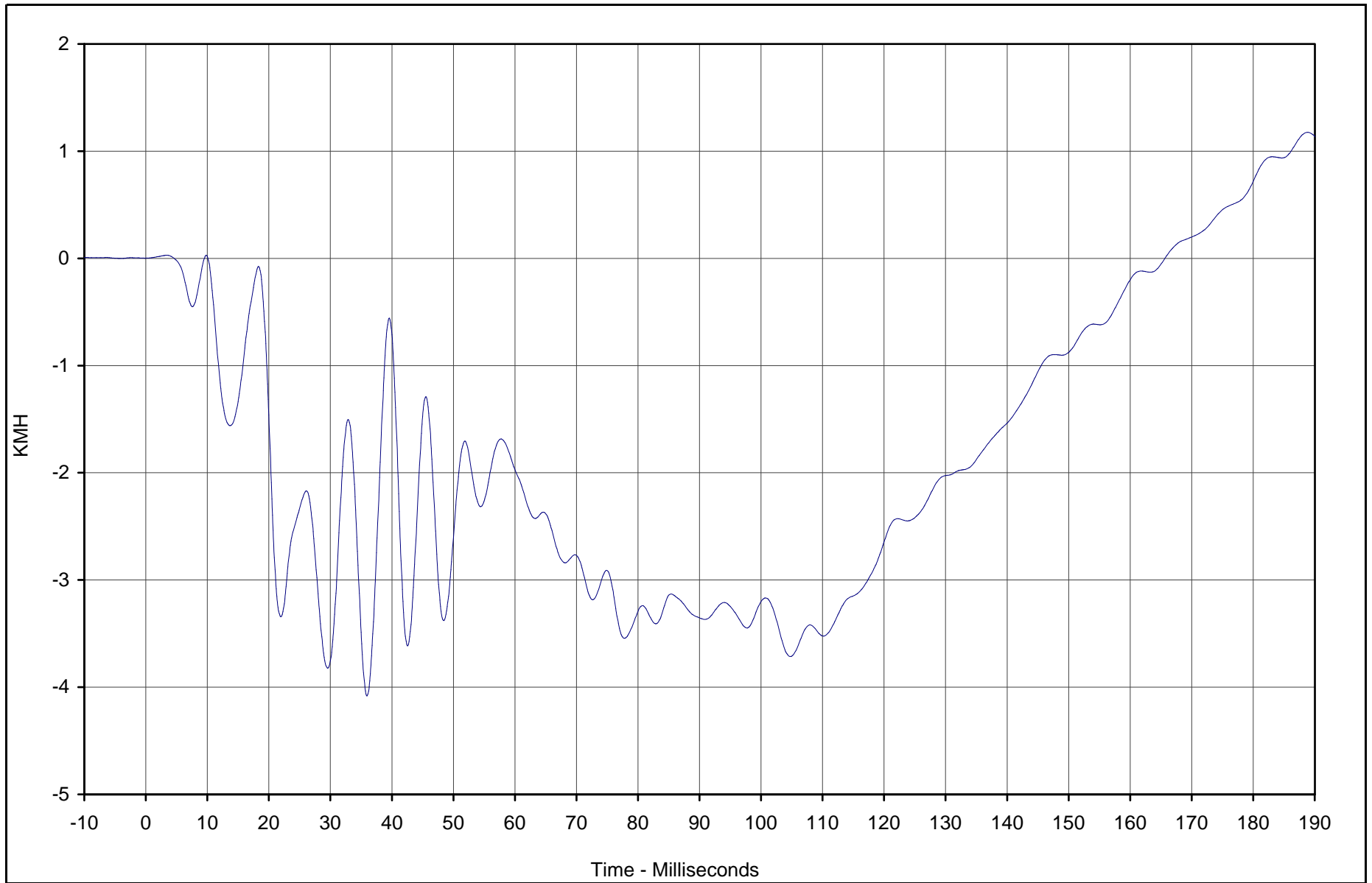


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Rear Seat Z Velocity	050	IN1	KMH	1.2	188.8	-4.1	36.0	180

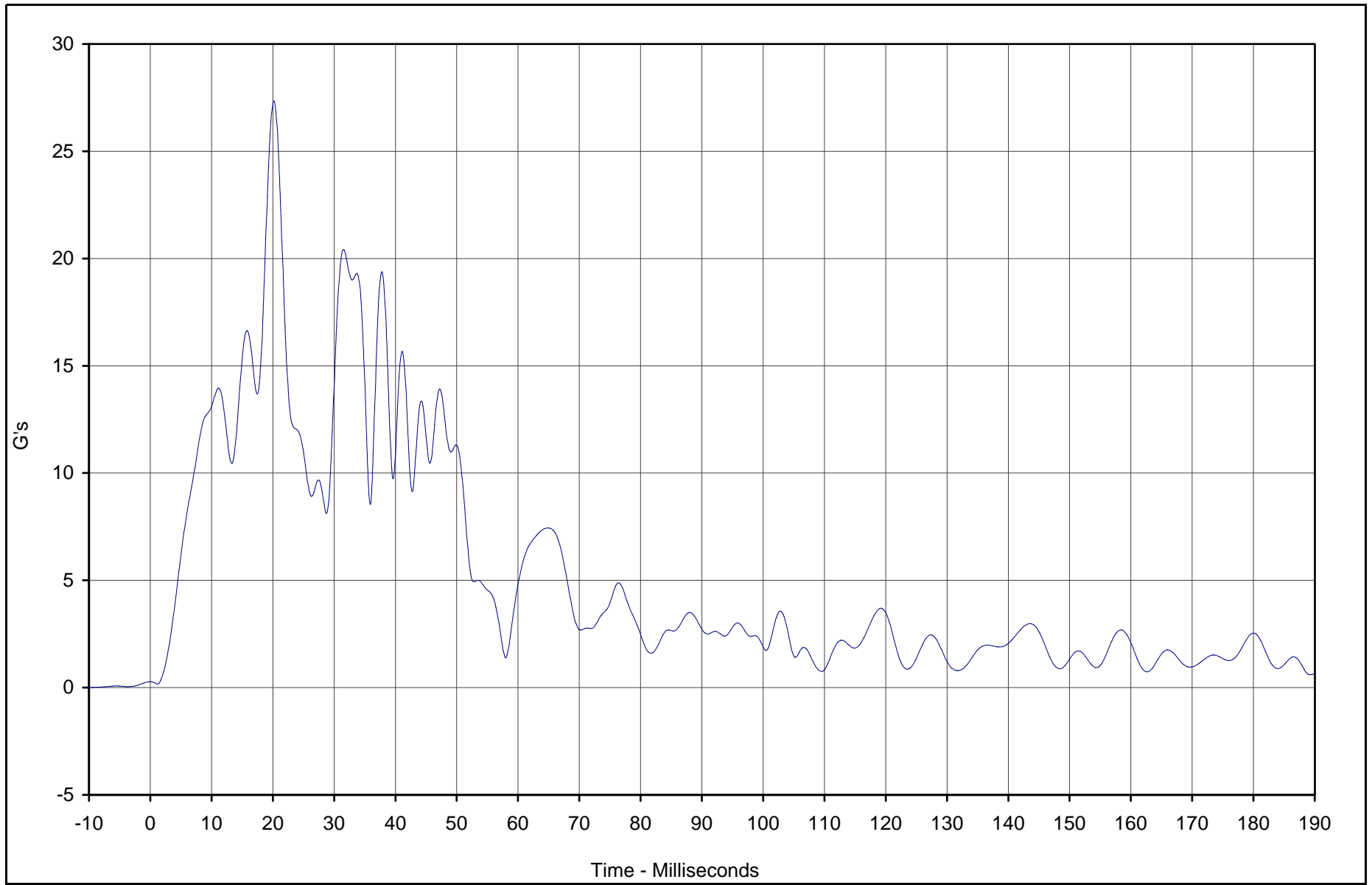


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Sill Rear Seat Resultant	048	RES	G's	27.3	20.2	0.2	1.2	60

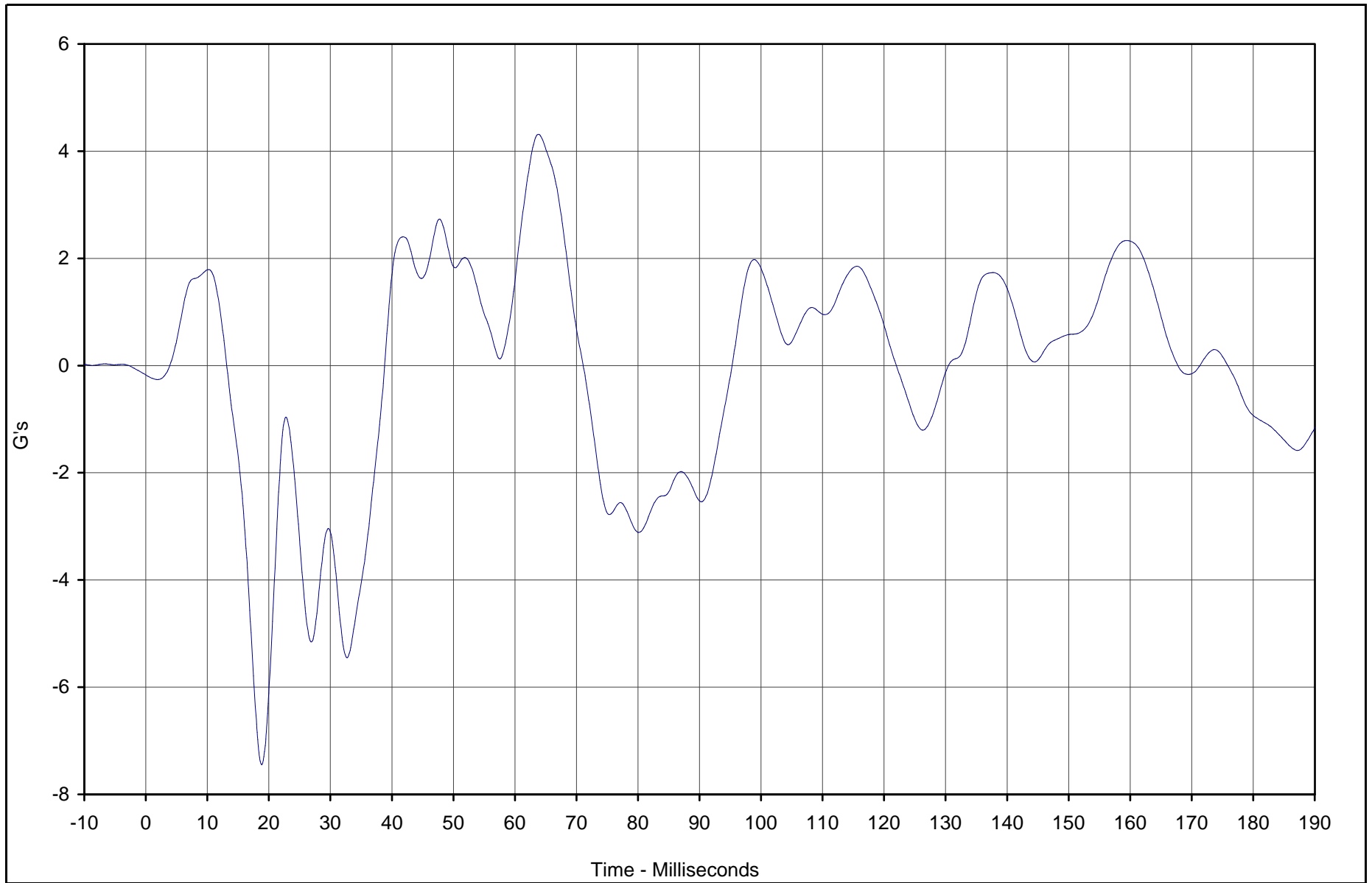


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Rear Floor Above Axle X	051	FIL	G's	4.3	63.8	-7.4	18.8	60



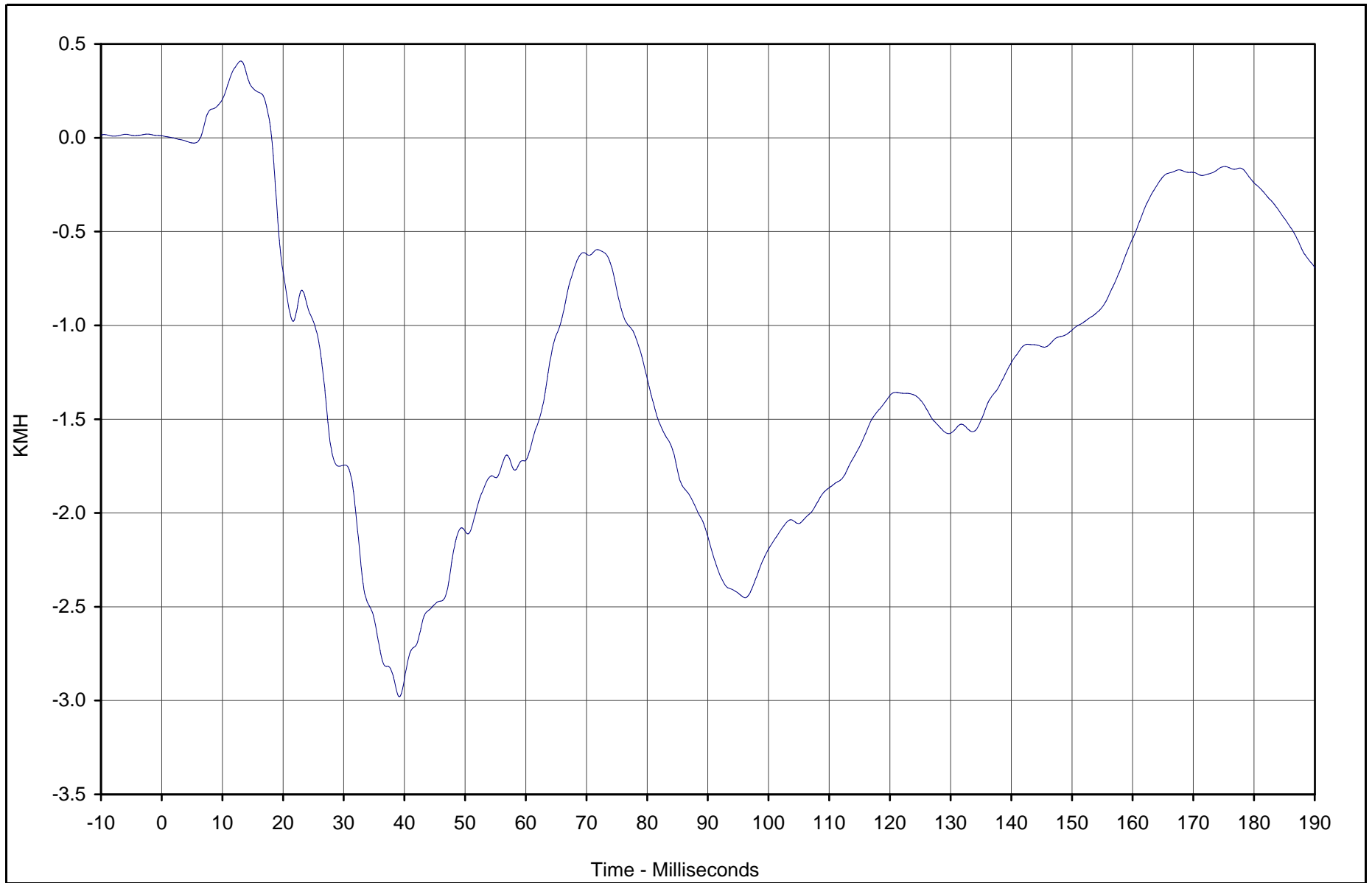
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Rear Floor Above Axle X Velocity	051	IN1	KMH	0.4	13.0	-3.0	39.2	180



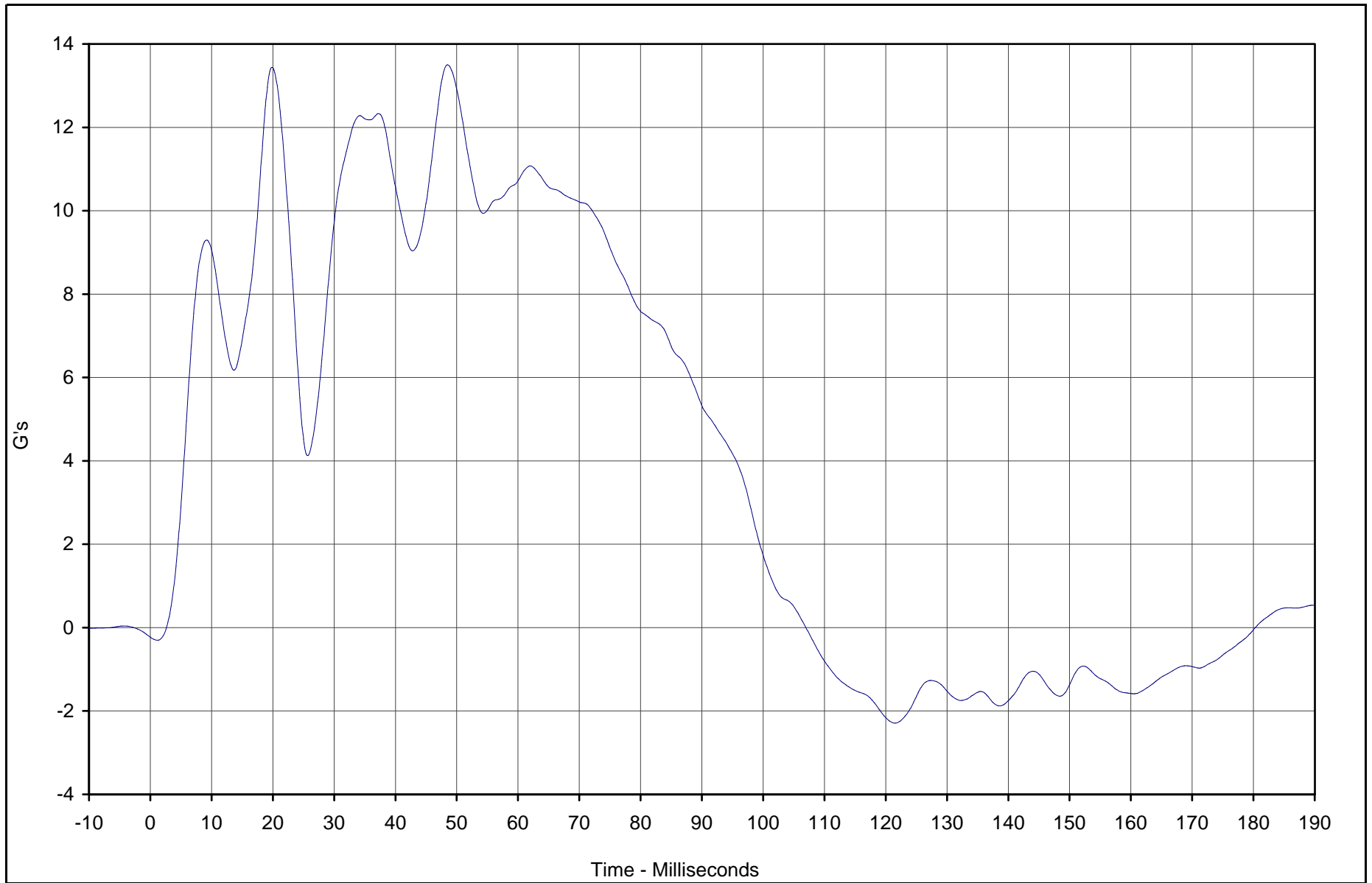
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Rear Floor Above Axle Y	052	FIL	G's	13.5	48.5	-2.3	121.5	60

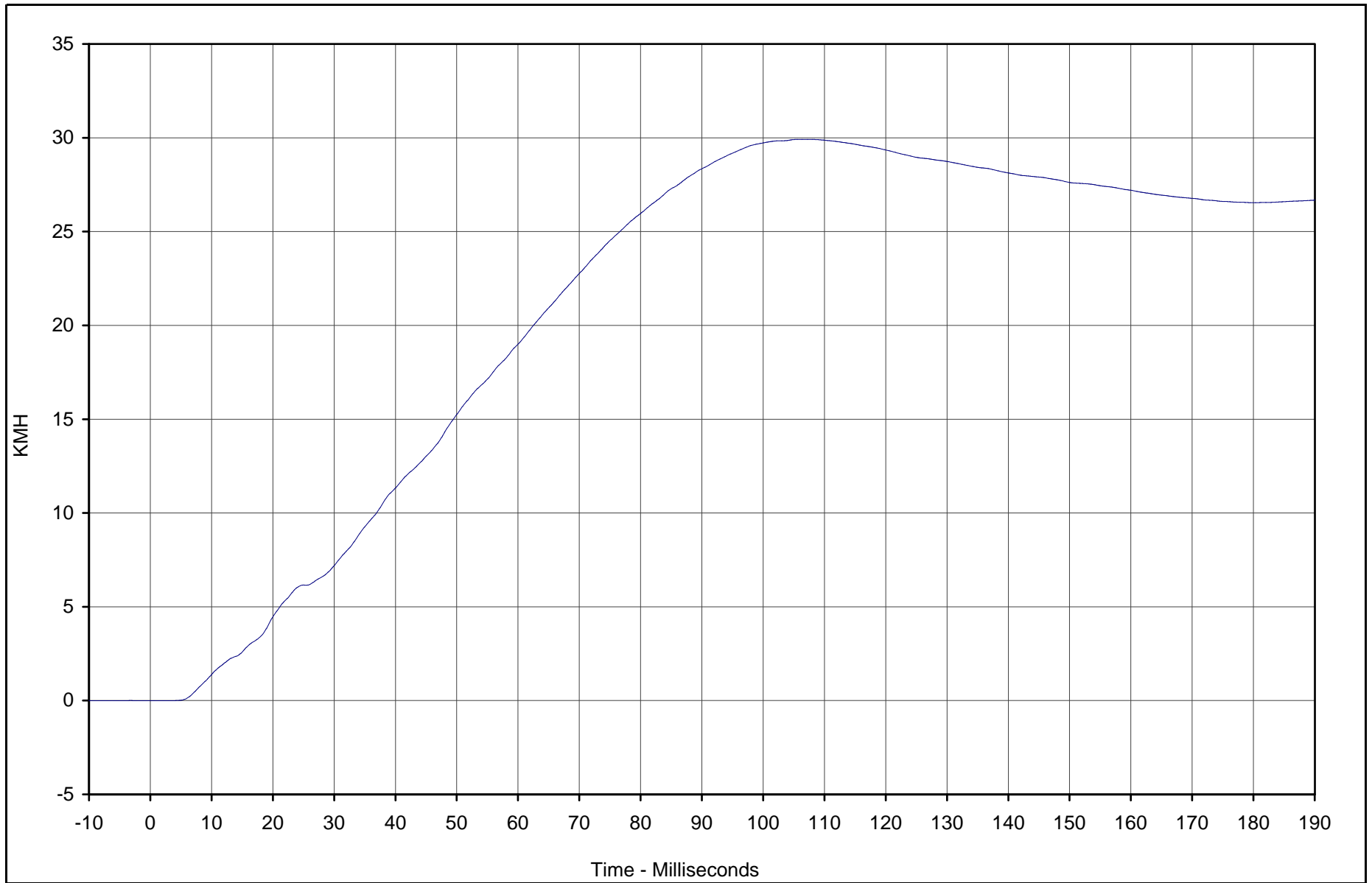


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Rear Floor Above Axle Y Velocity	052	IN1	KMH	29.9	106.1	0.0	2.2	180

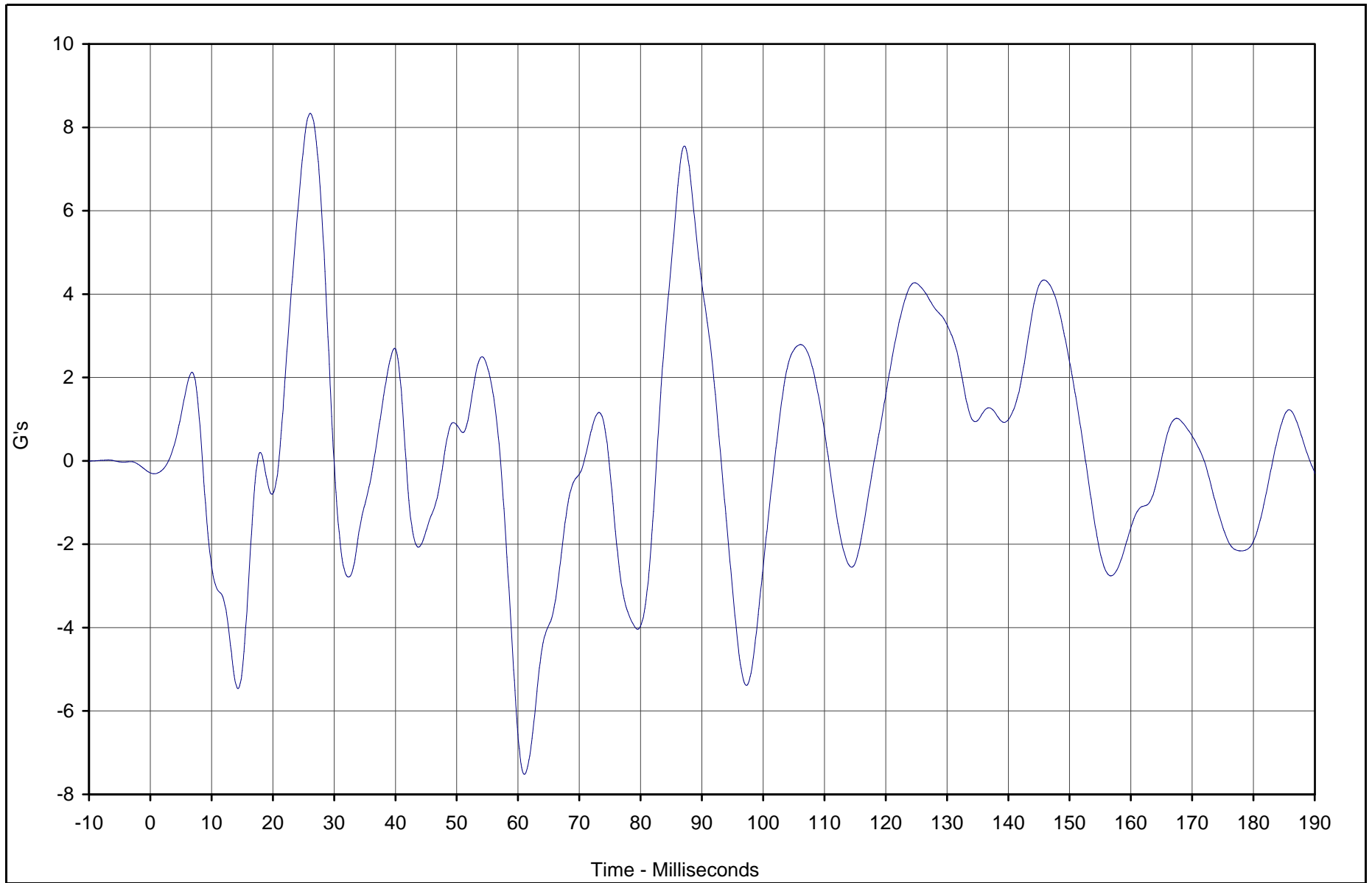


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Rear Floor Above Axle Z	053	FIL	G's	8.3	26.1	-7.5	61.0	60



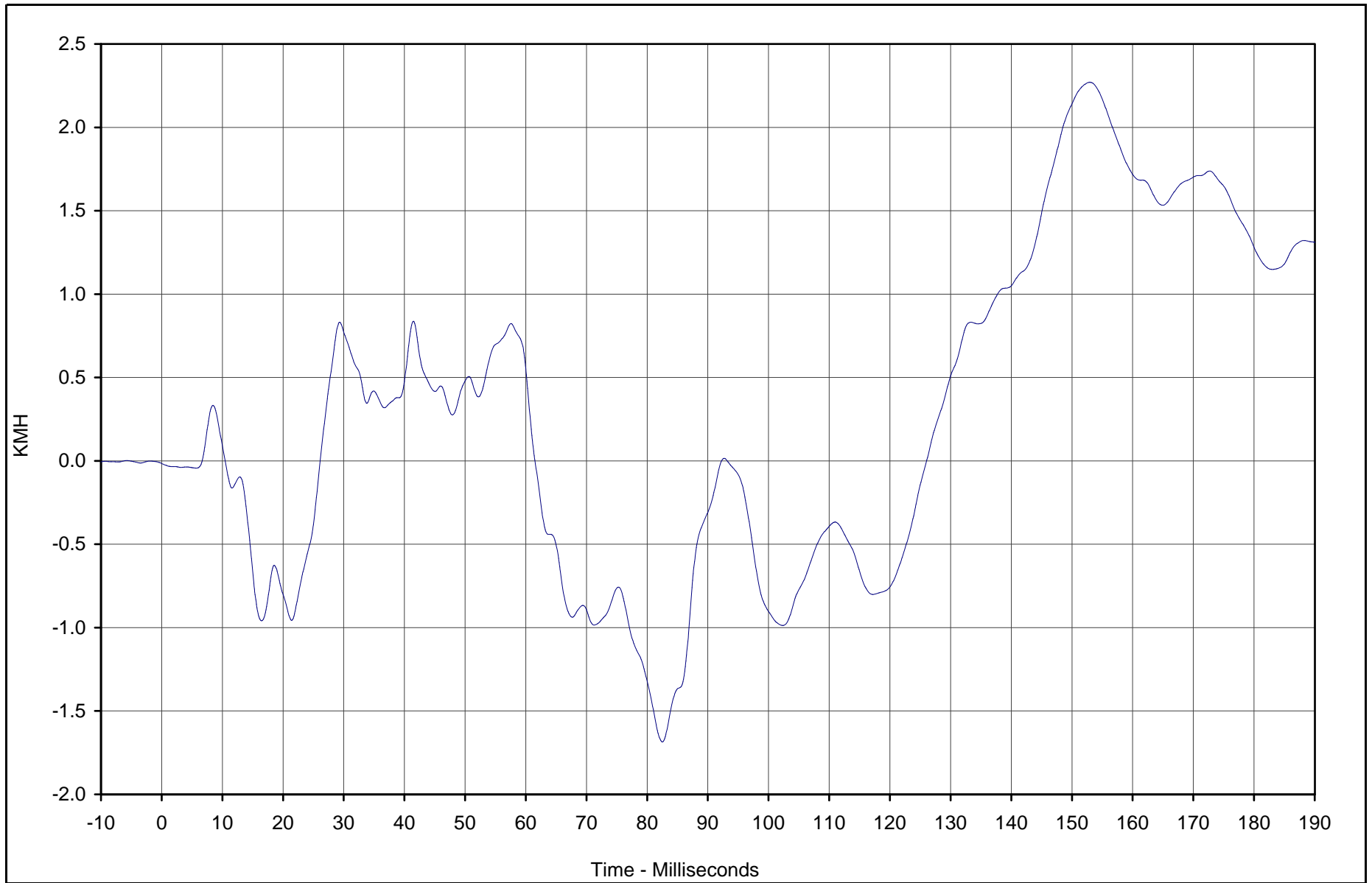
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-100



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Rear Floor Above Axle Z Velocity	053	IN1	KMH	2.3	152.9	-1.7	82.5	180



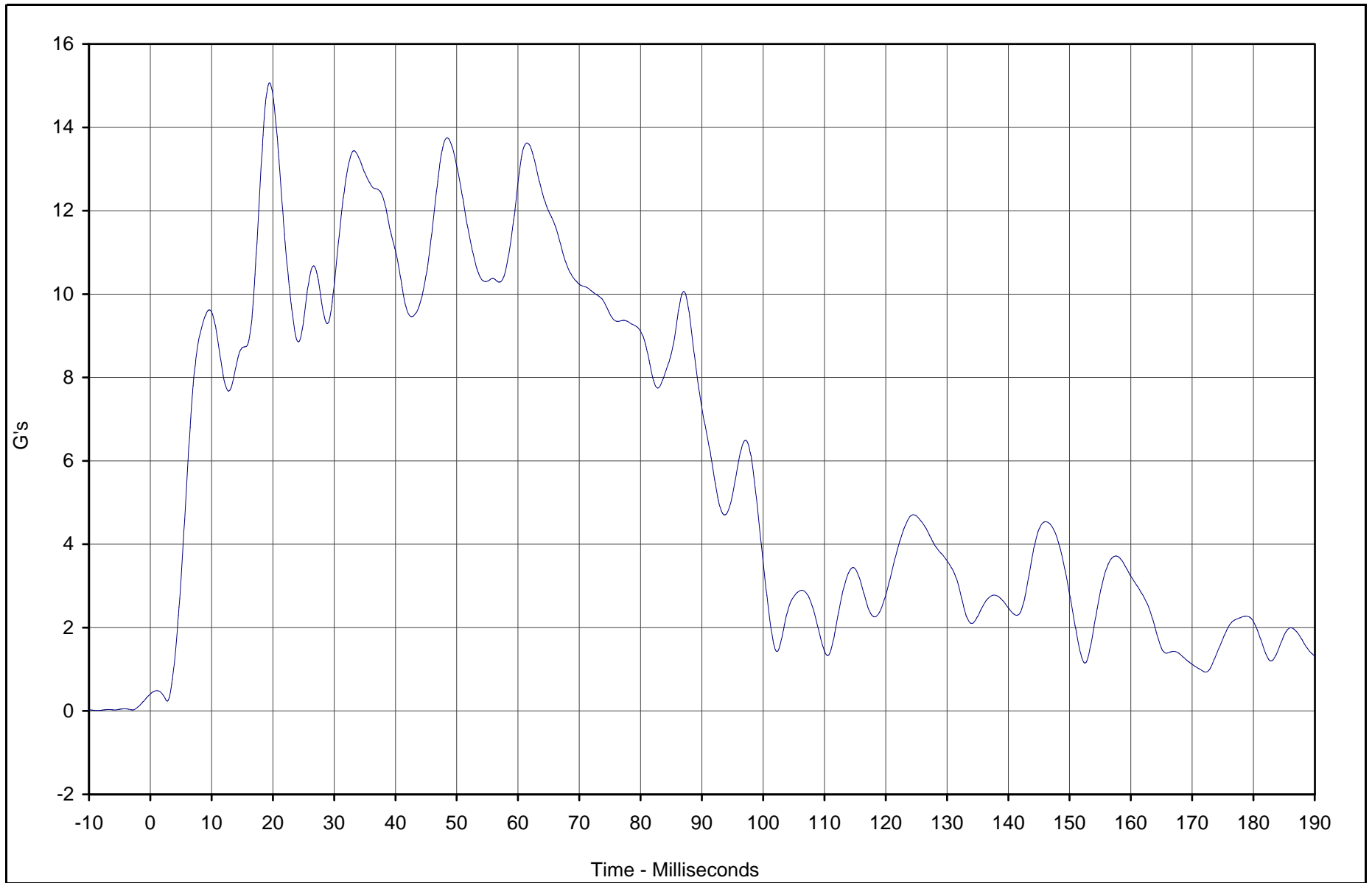
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Rear Floor Above Axle Resultant	051	RES	G's	15.1	19.5	0.2	2.8	60



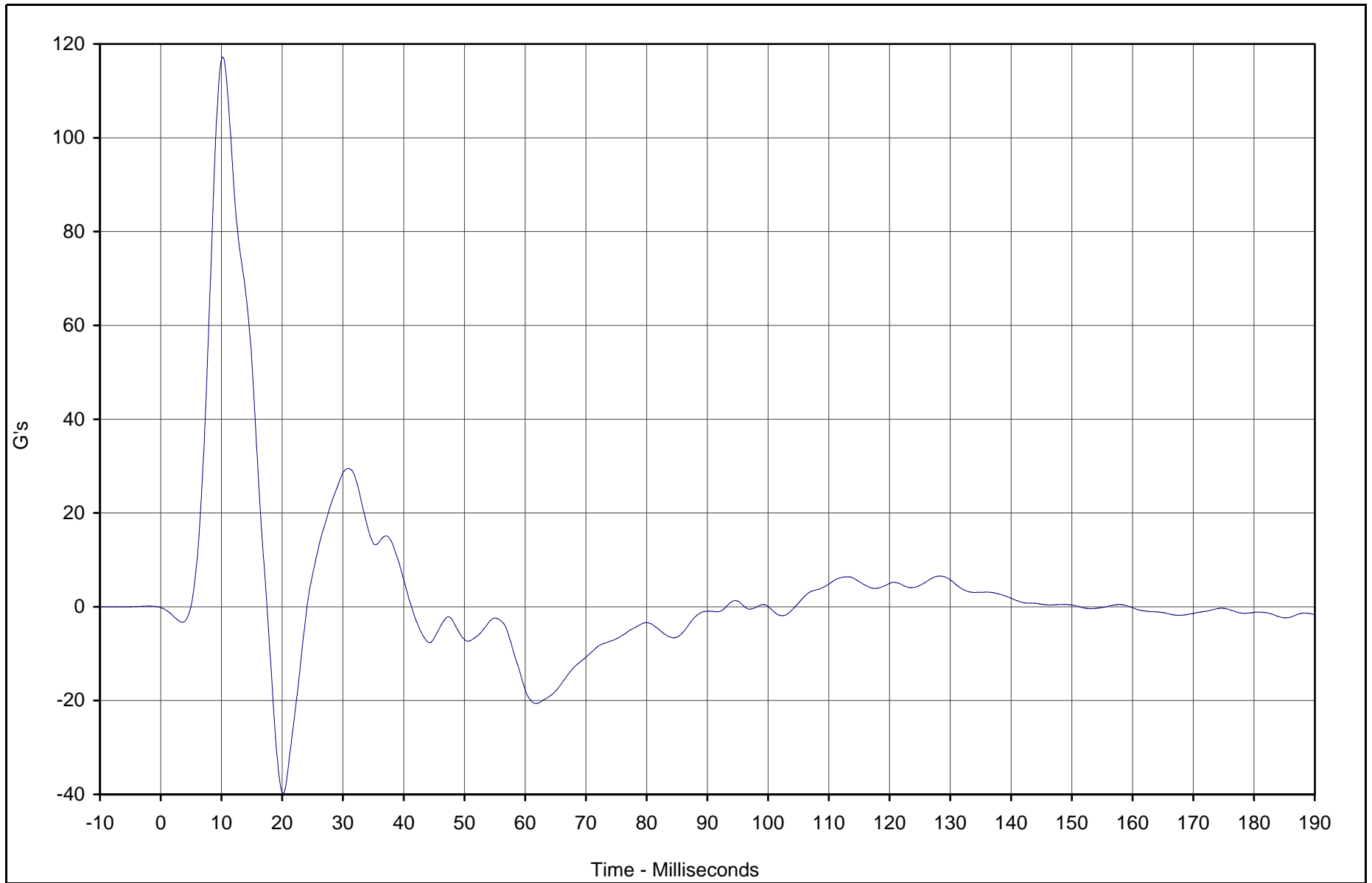
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-102



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Sill Rear Door Y	054	FIL	G's	117.2	10.2	-39.8	20.1	60



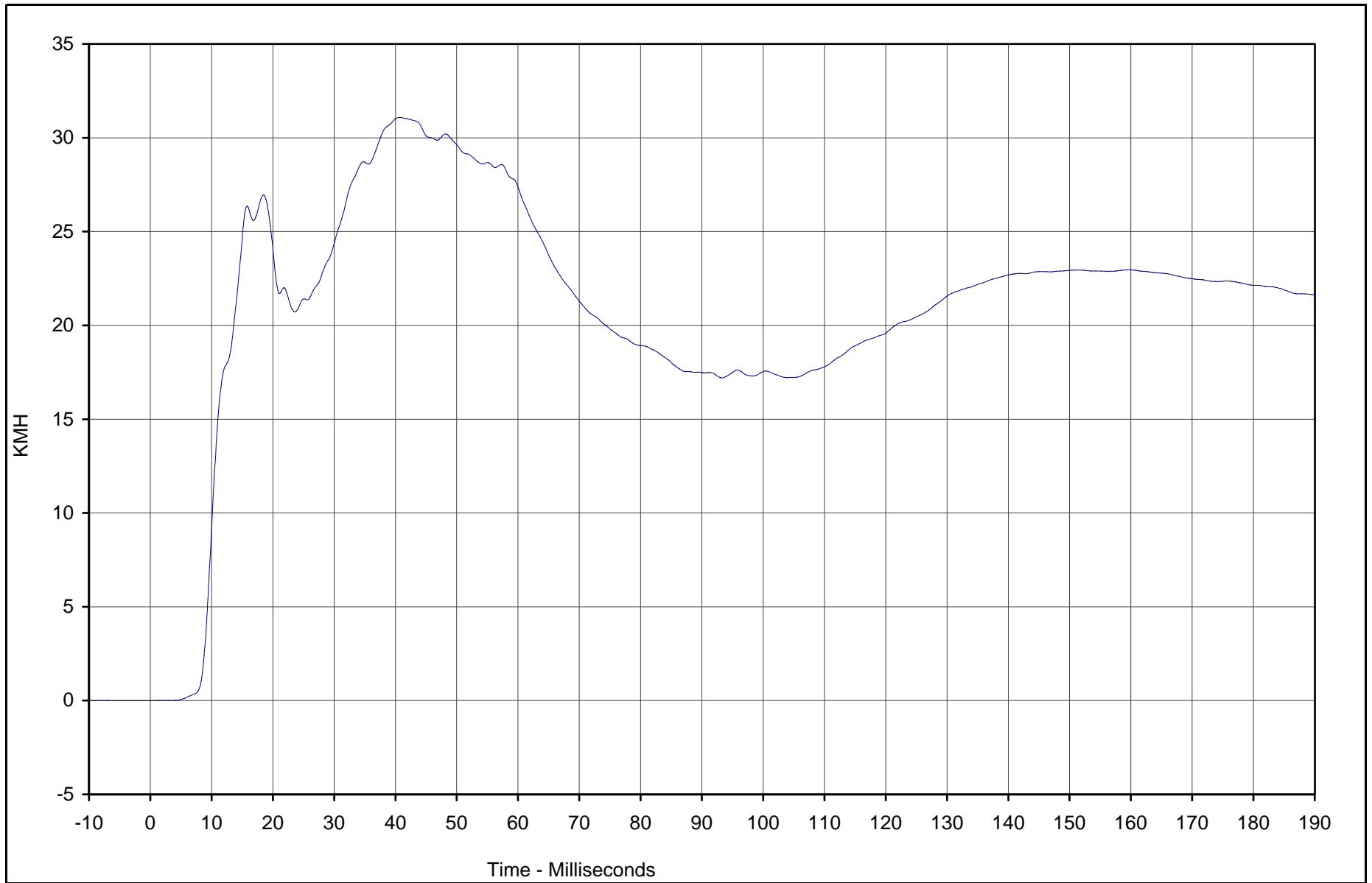
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Sill Rear Door Y Velocity	054	IN1	KMH	31.1	40.7	0.0	0.0	180

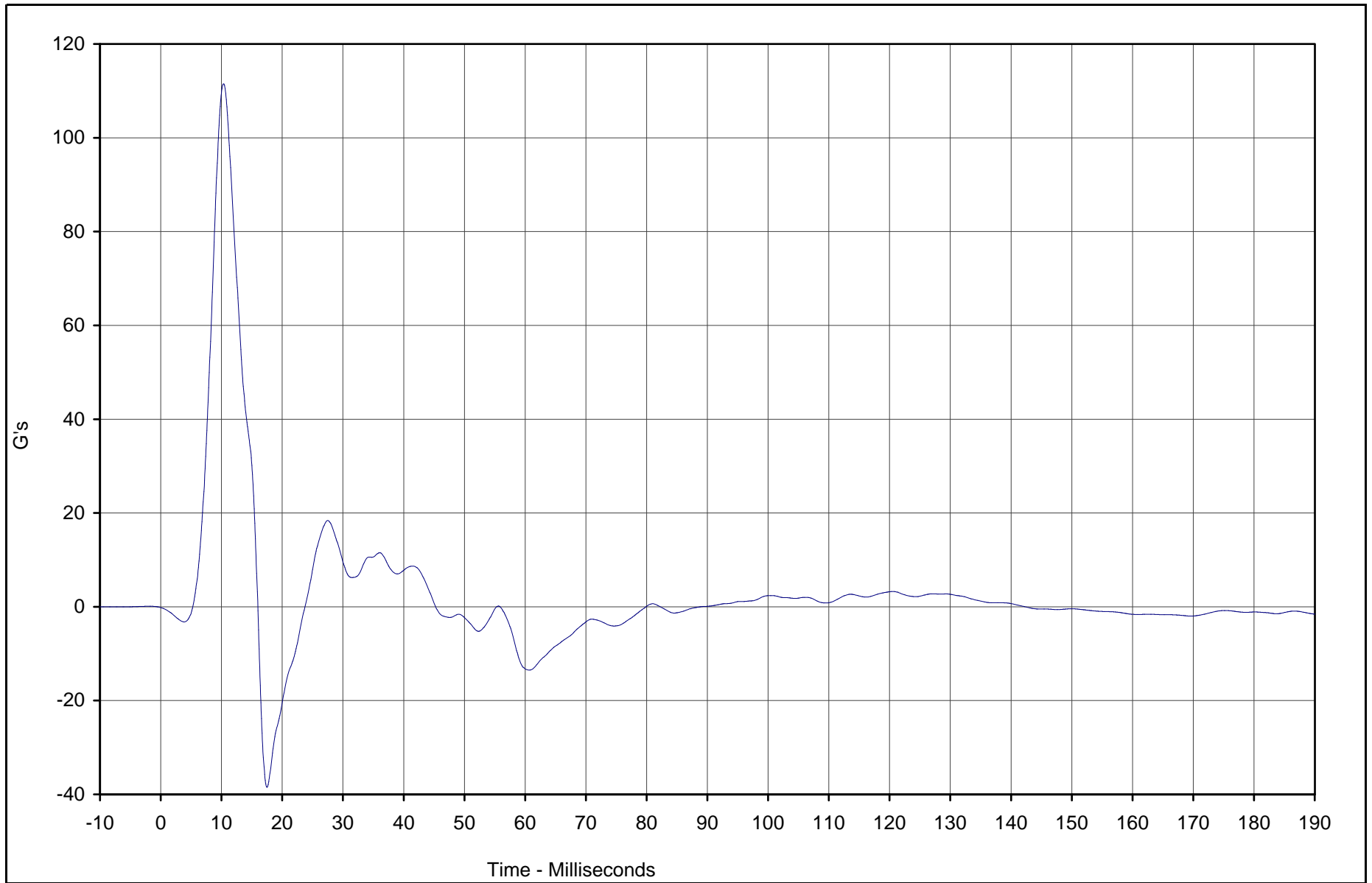


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Sill Front Door Y	055	FIL	G's	111.5	10.3	-38.5	17.5	60



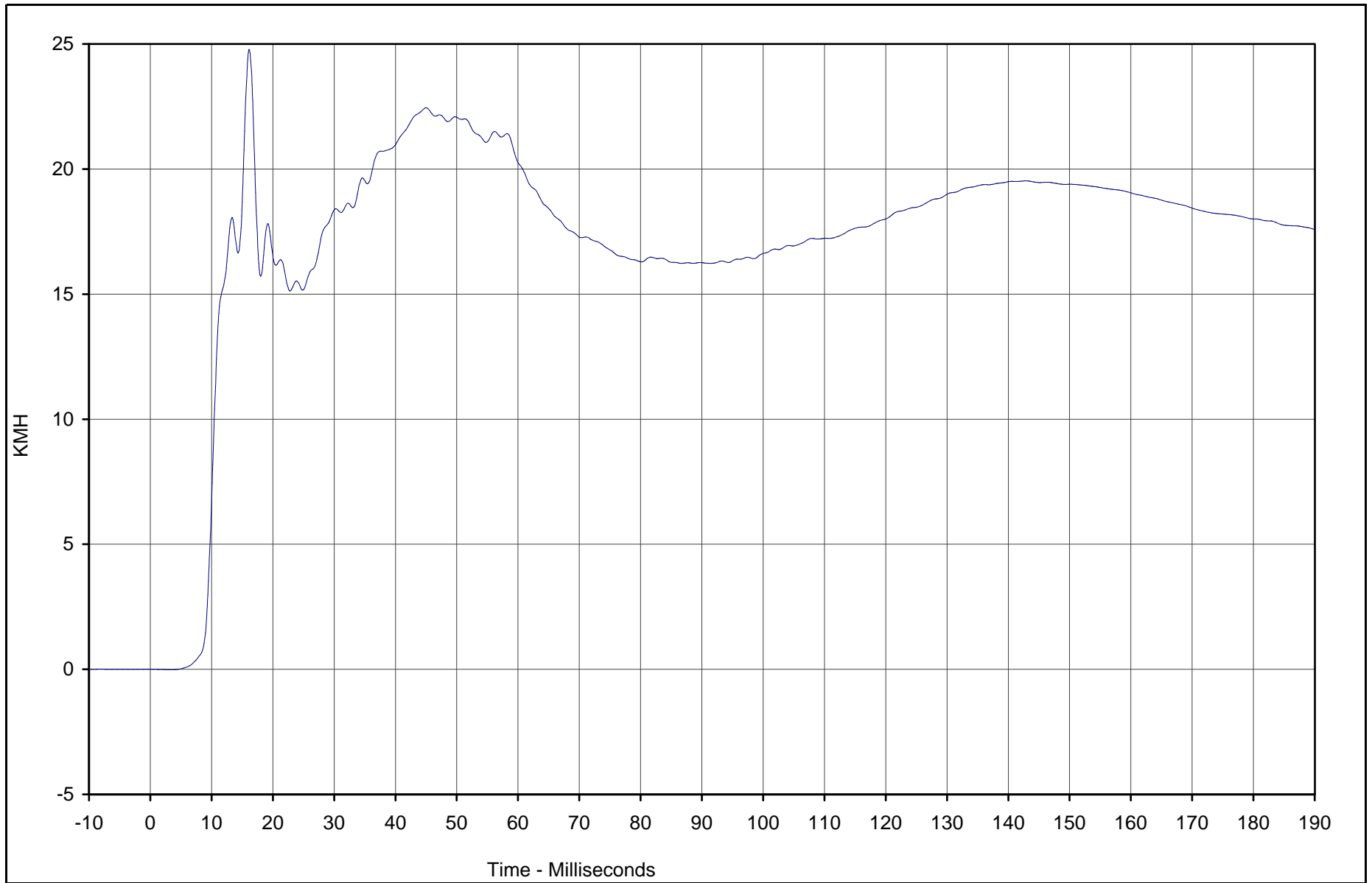
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-105



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Sill Front Door Y Velocity	055	IN1	KMH	24.8	16.1	0.0	3.4	180



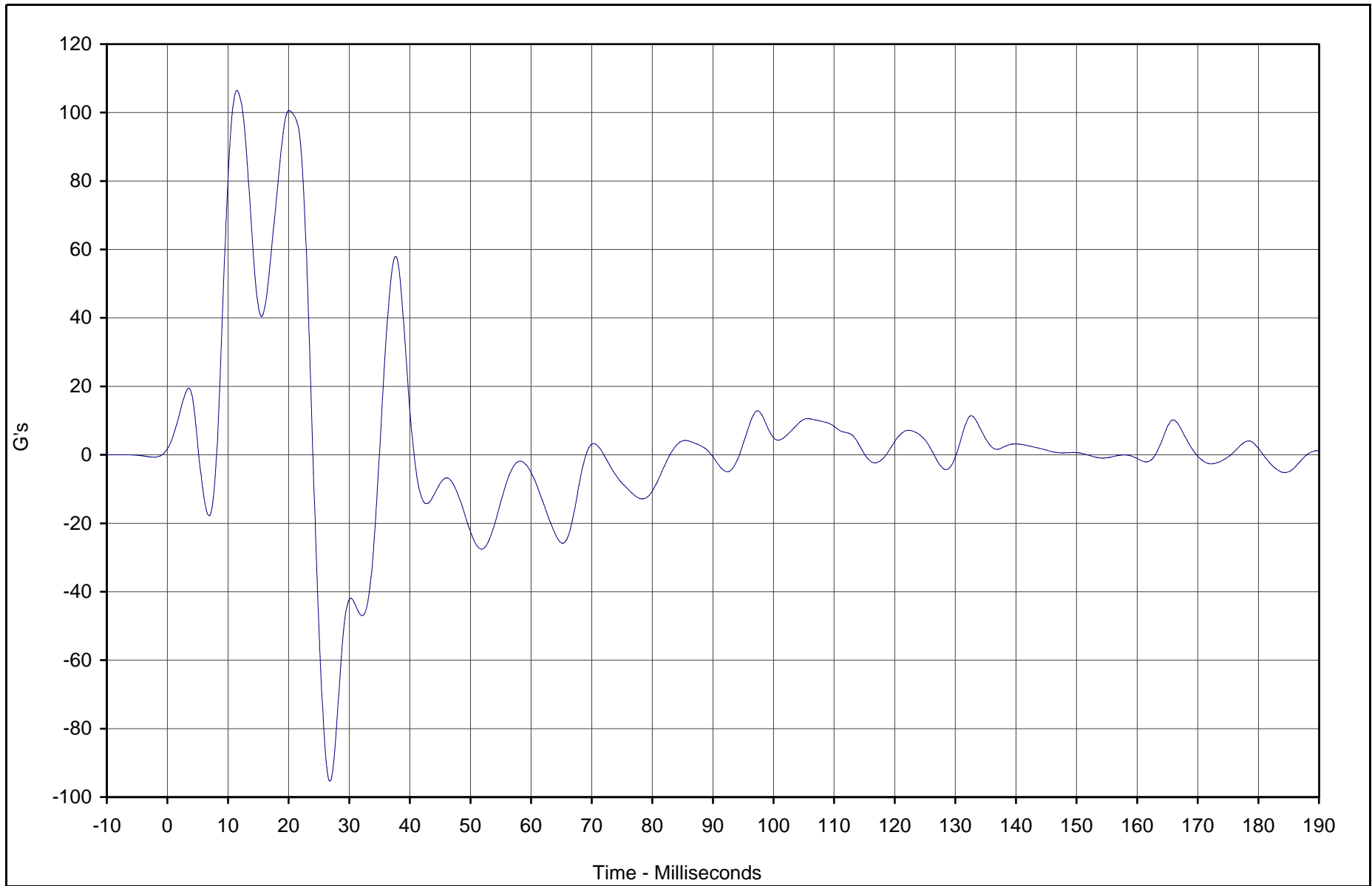
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Front Door CL Y	056	FIL	G's	106.5	11.5	-95.4	26.8	60

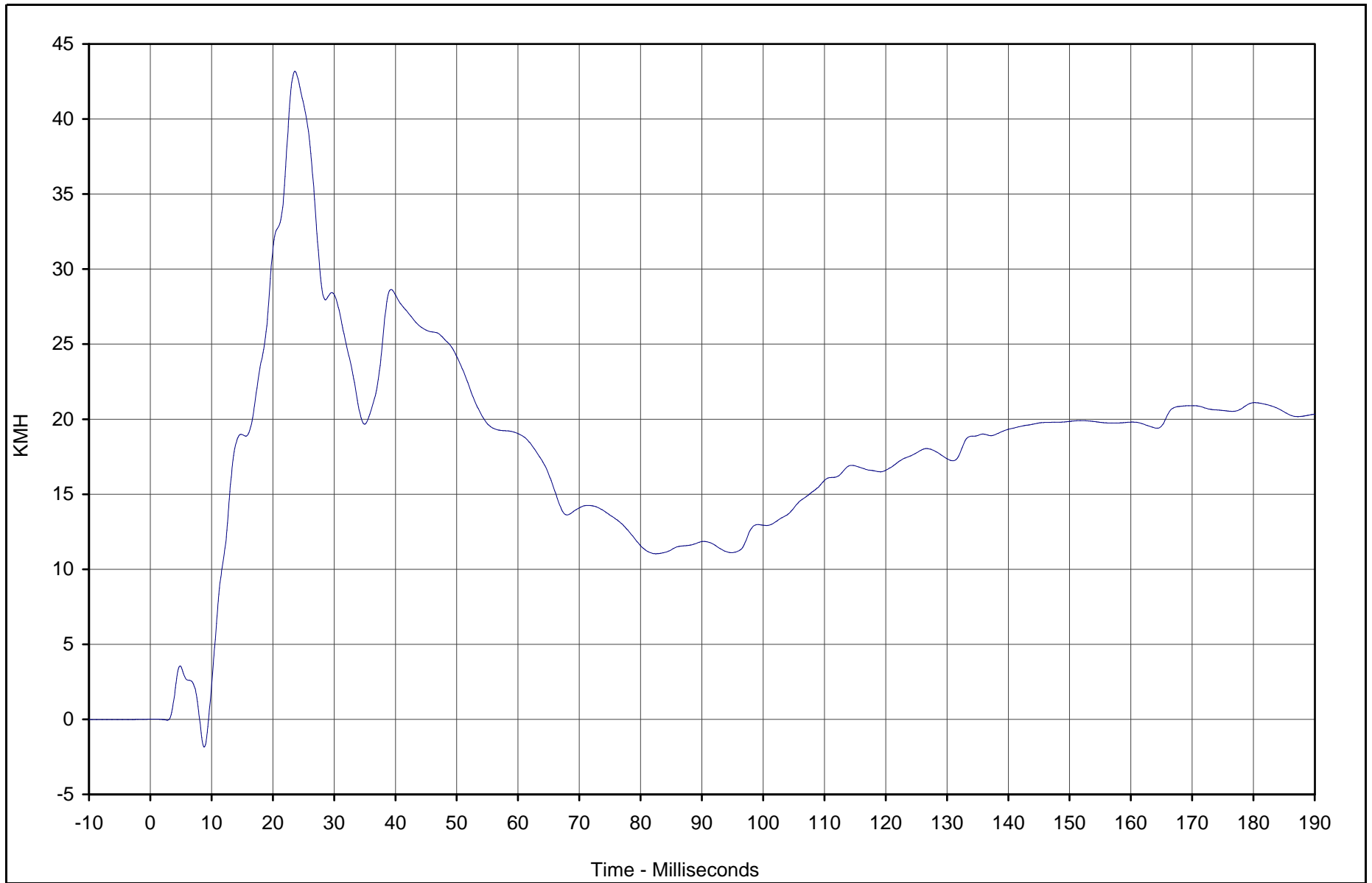


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Front Door CL Y Velocity	056	IN1	KMH	43.2	23.6	-1.8	8.8	180



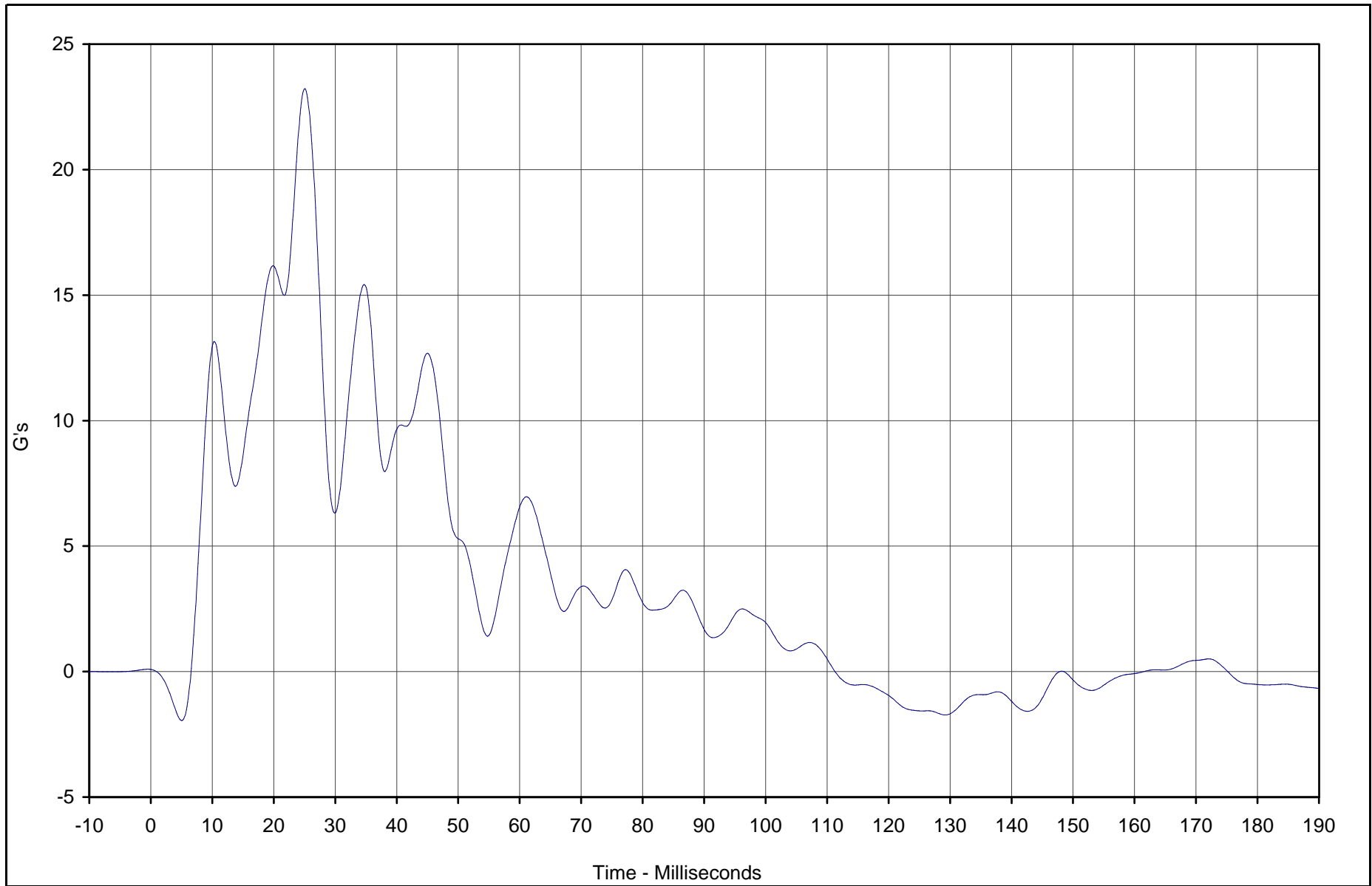
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-108



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear Occ. Comp. Y	057	FIL	G's	23.2	25.1	-2.0	5.0	60



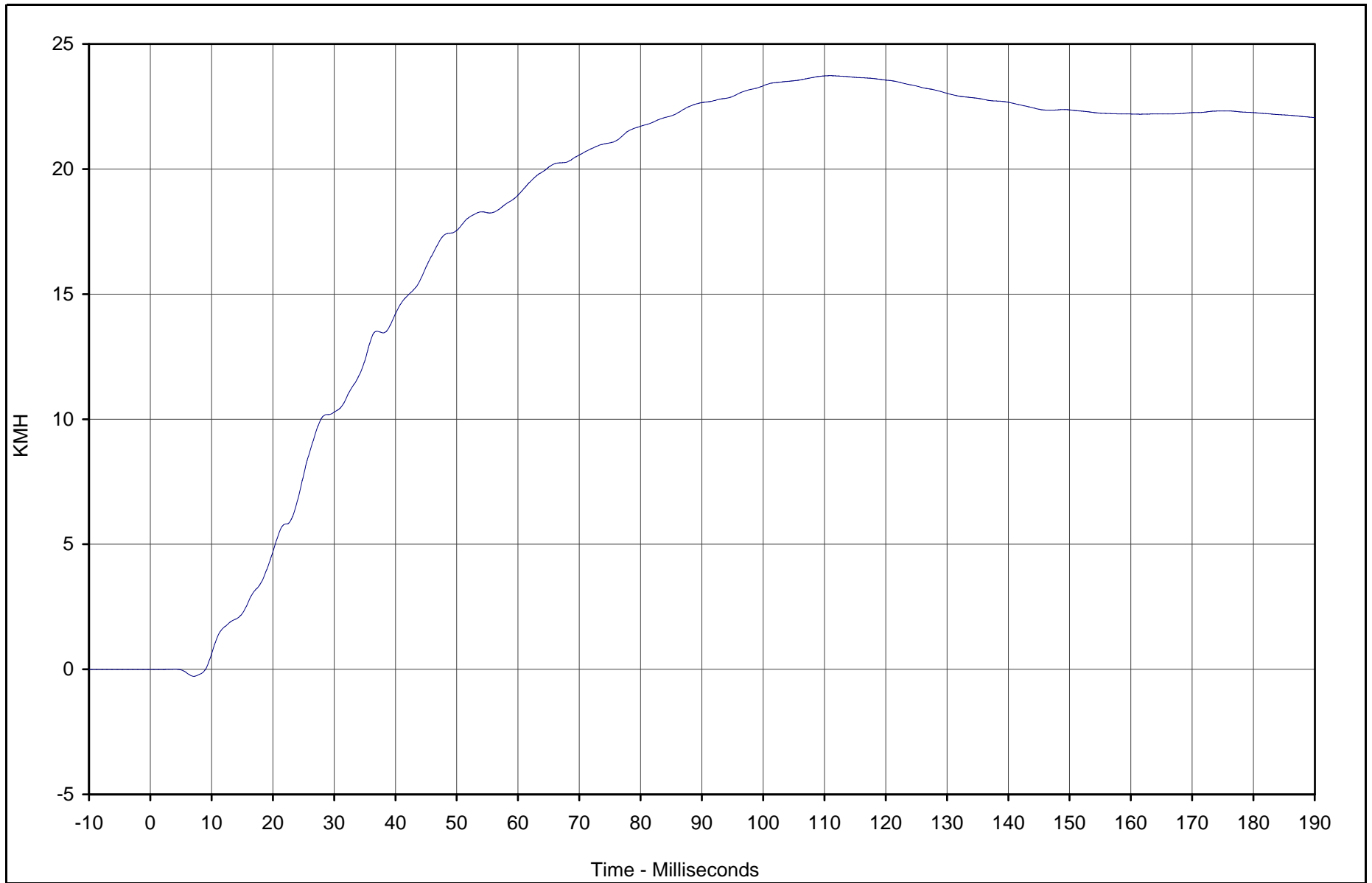
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear Occ. Comp. Y Velocity	057	IN1	KMH	23.7	110.9	-0.3	7.1	180



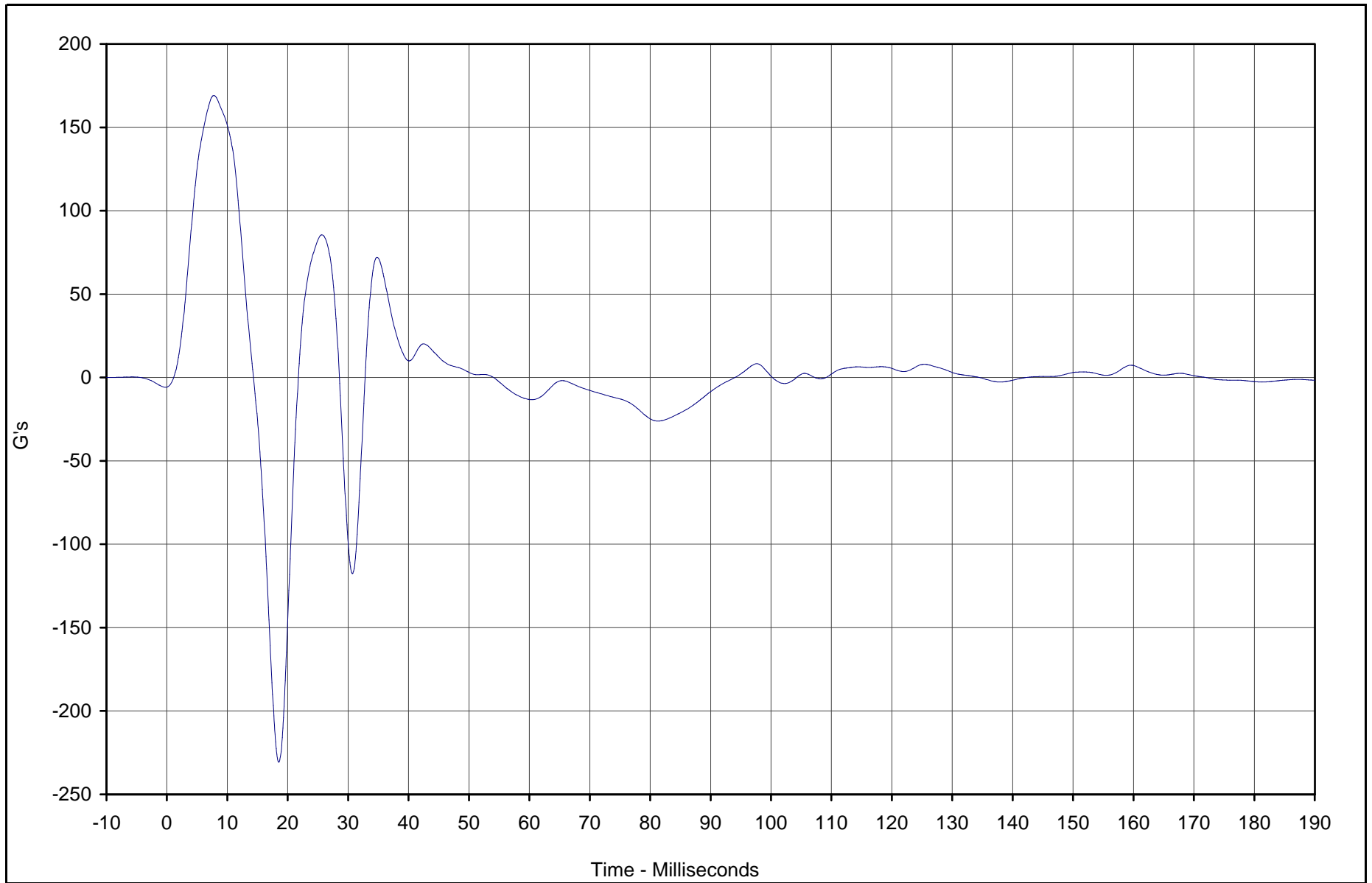
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-110



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Front Door Mid-Rear Y	058	FIL	G's	169.1	7.8	-230.7	18.5	60



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

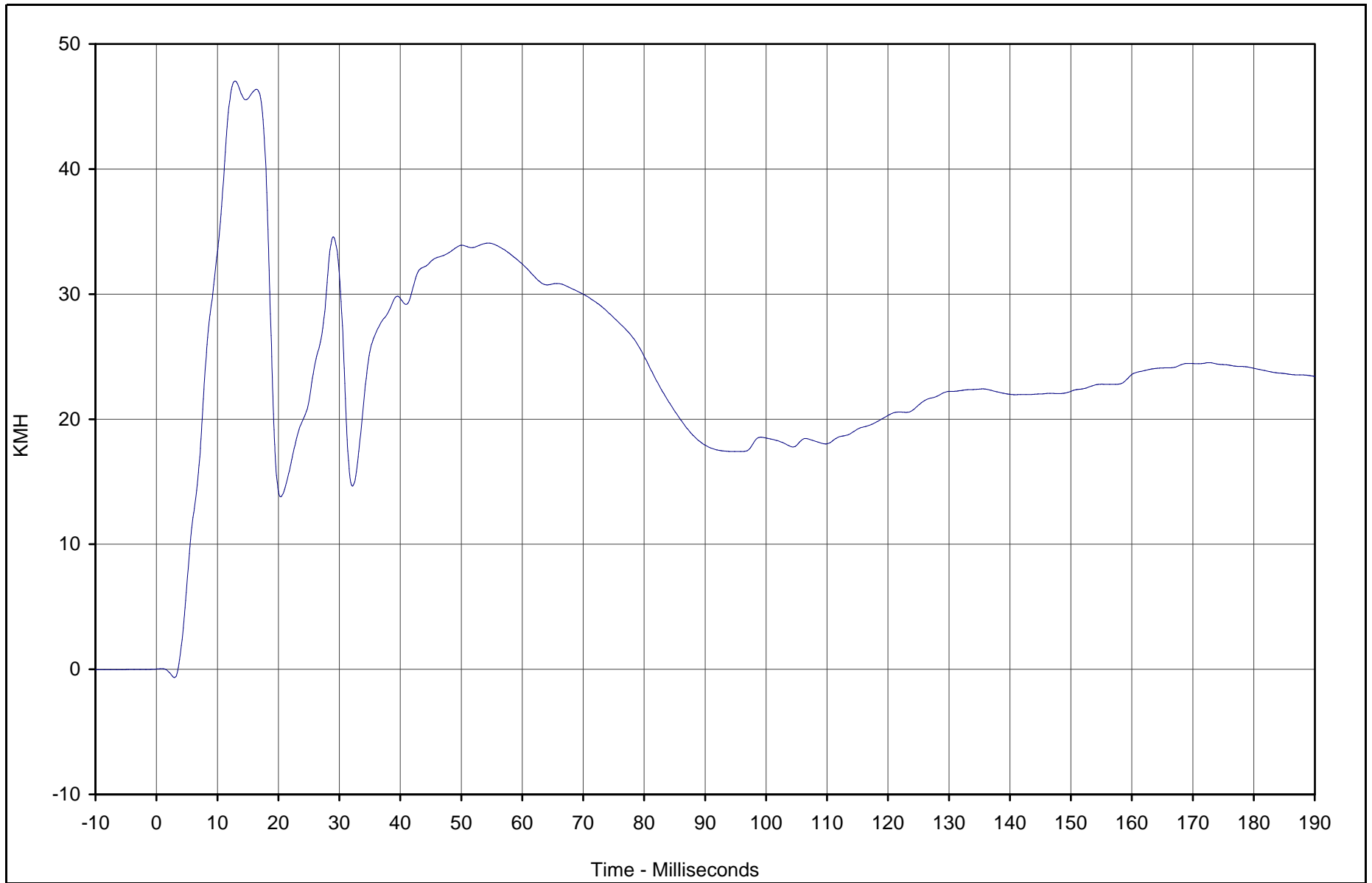
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-111



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Front Door Mid-Rear Y Velocity	058	IN1	KMH	47.0	12.9	-0.7	3.0	180



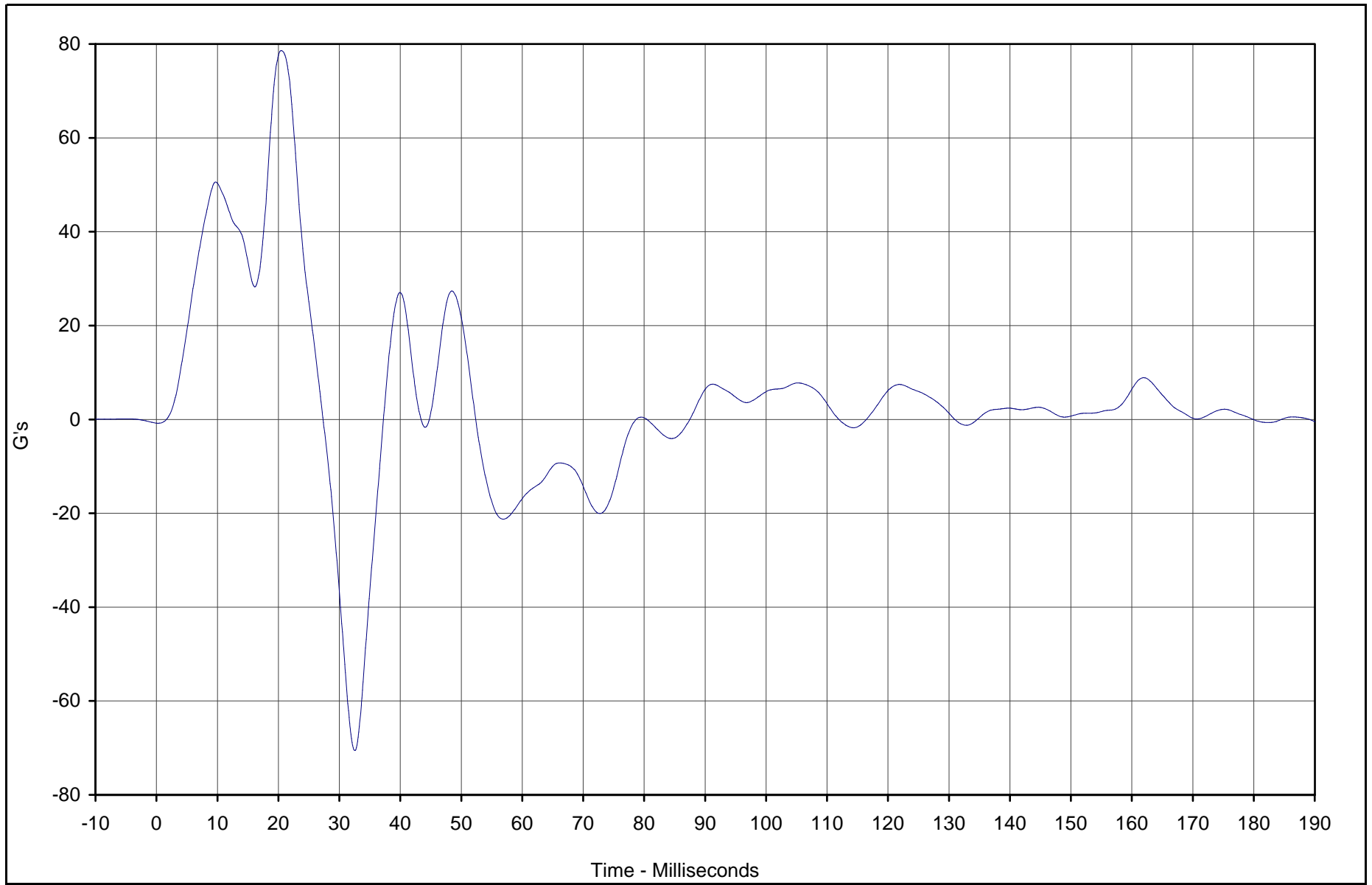
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Front Door Upper CL Y	059	FIL	G's	78.6	20.5	-70.5	32.6	60

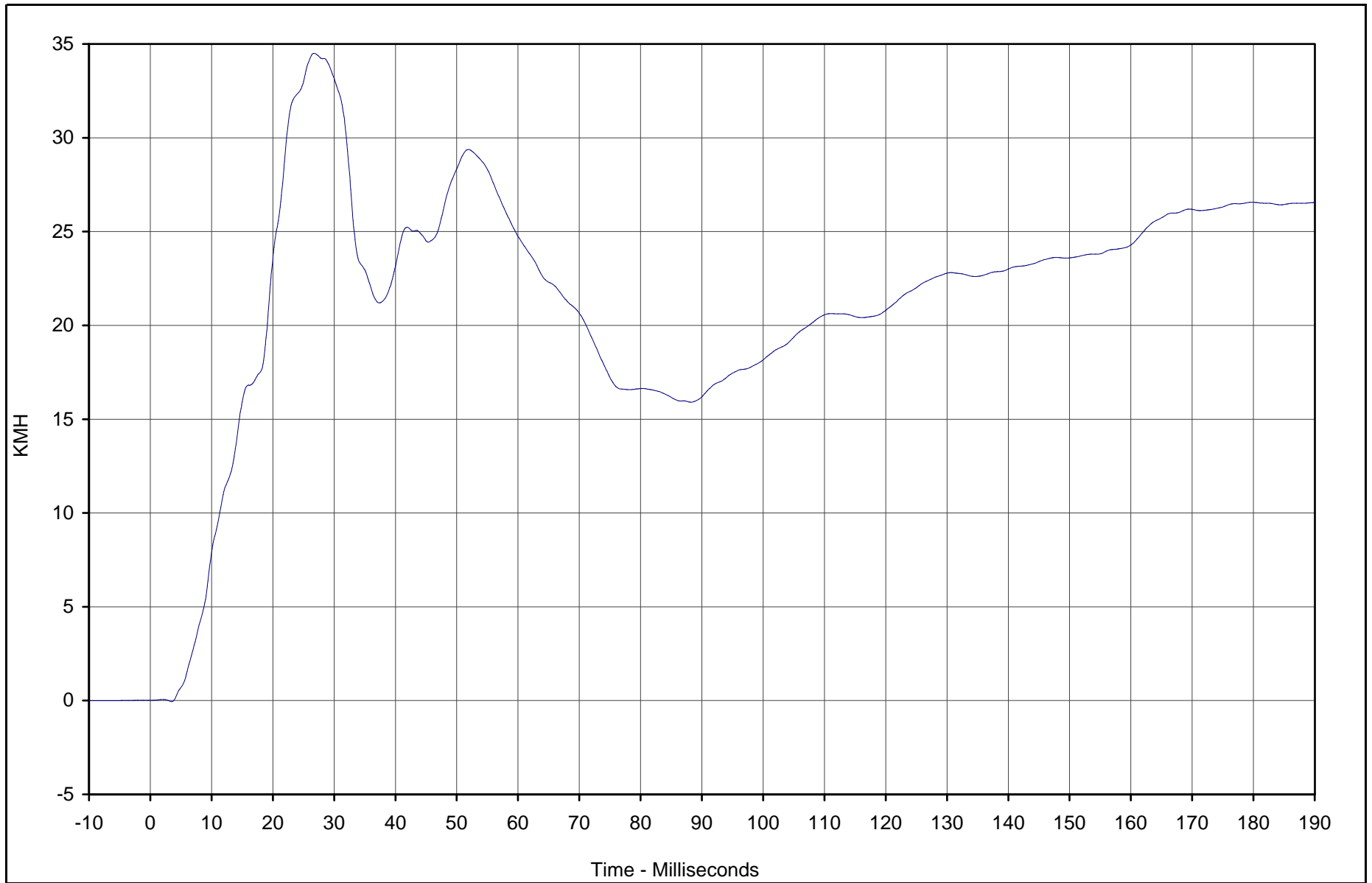


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Front Door Upper CL Y Velocity	059	IN1	KMH	34.5	26.7	-0.1	3.5	180

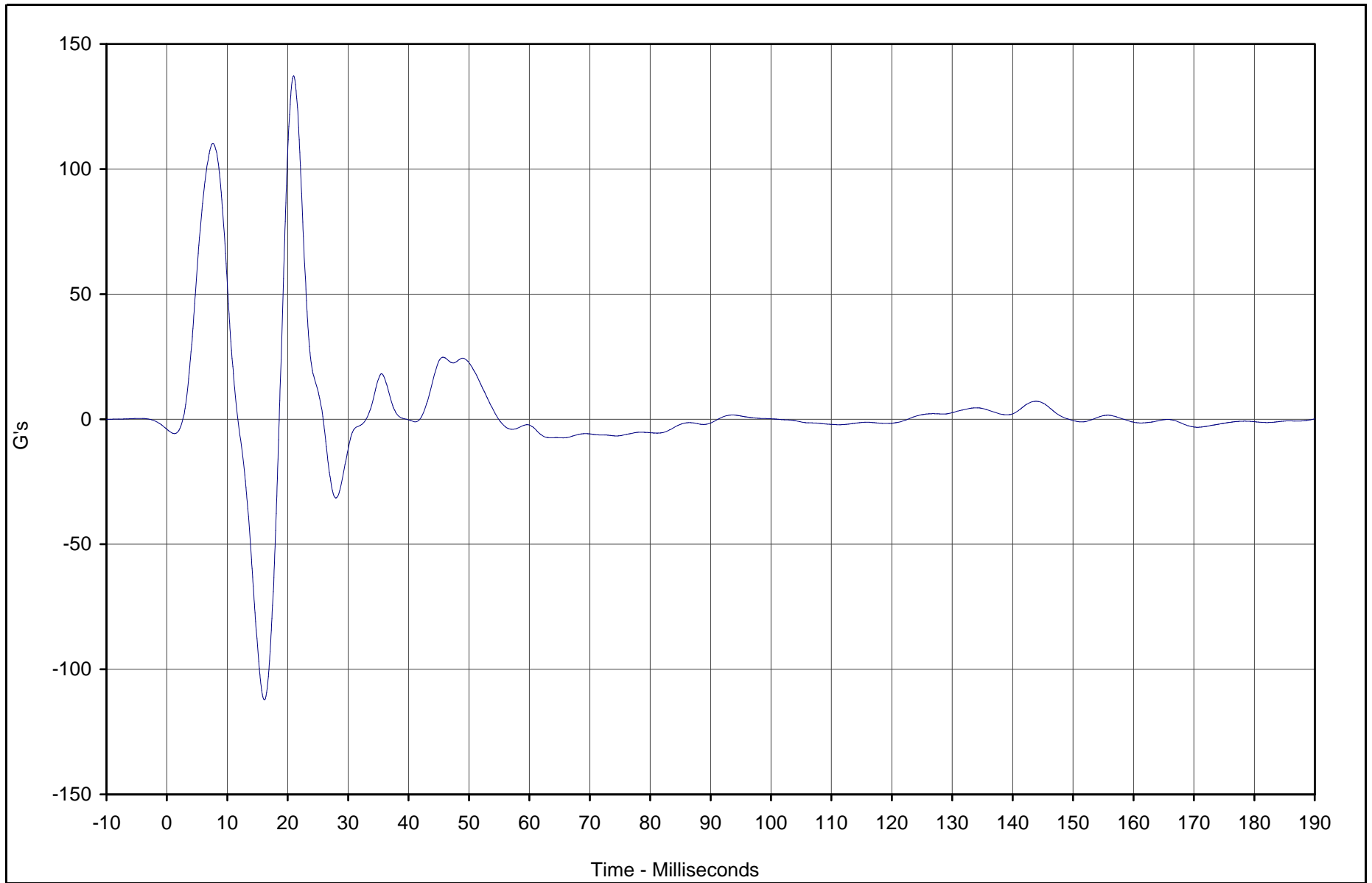


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear Door Mid-Rear Y	060	FIL	G's	137.3	21.0	-112.1	16.1	60

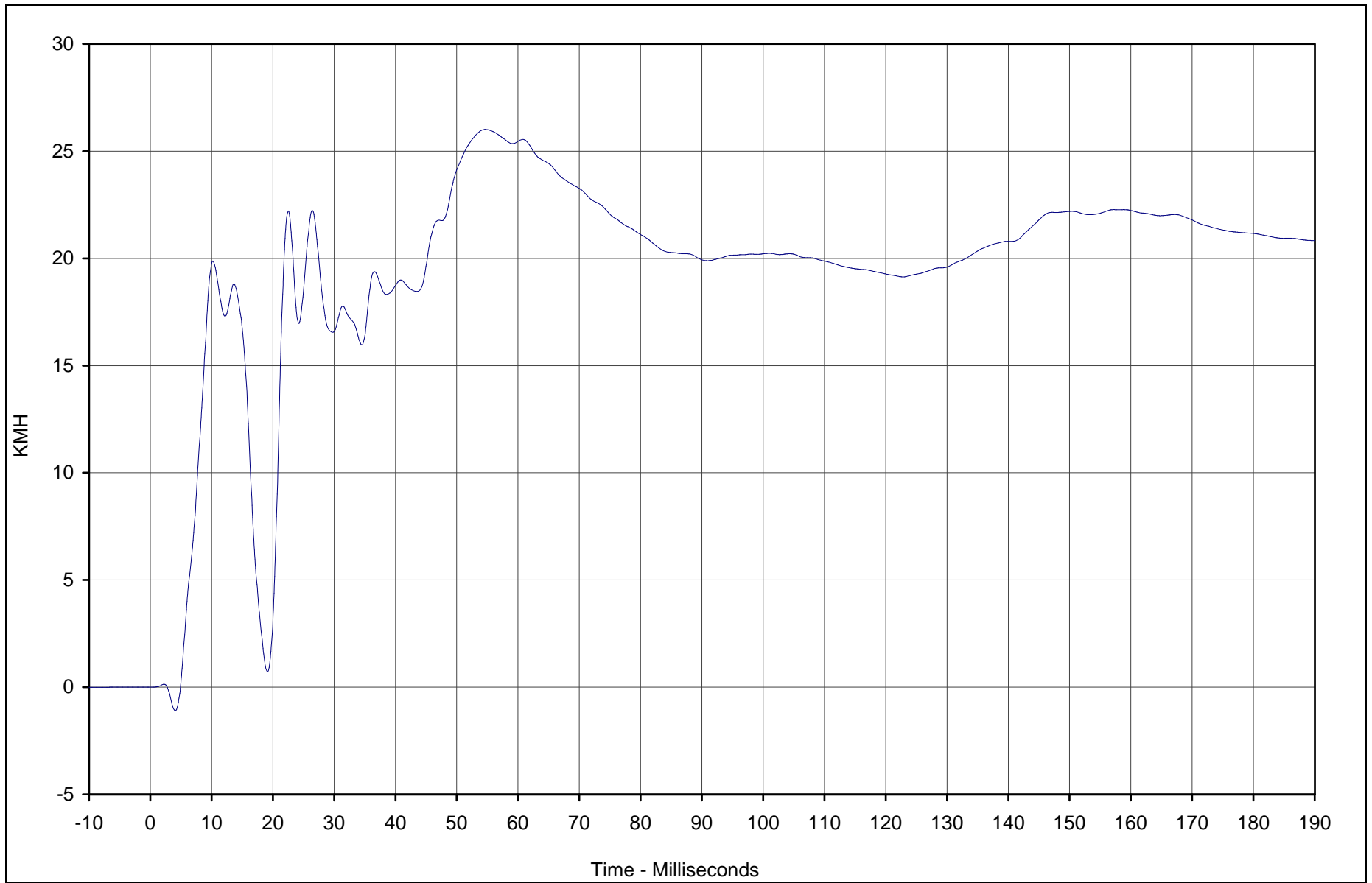


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear Door Mid-Rear Y Velocity	060	IN1	KMH	26.0	54.7	-1.1	4.1	180

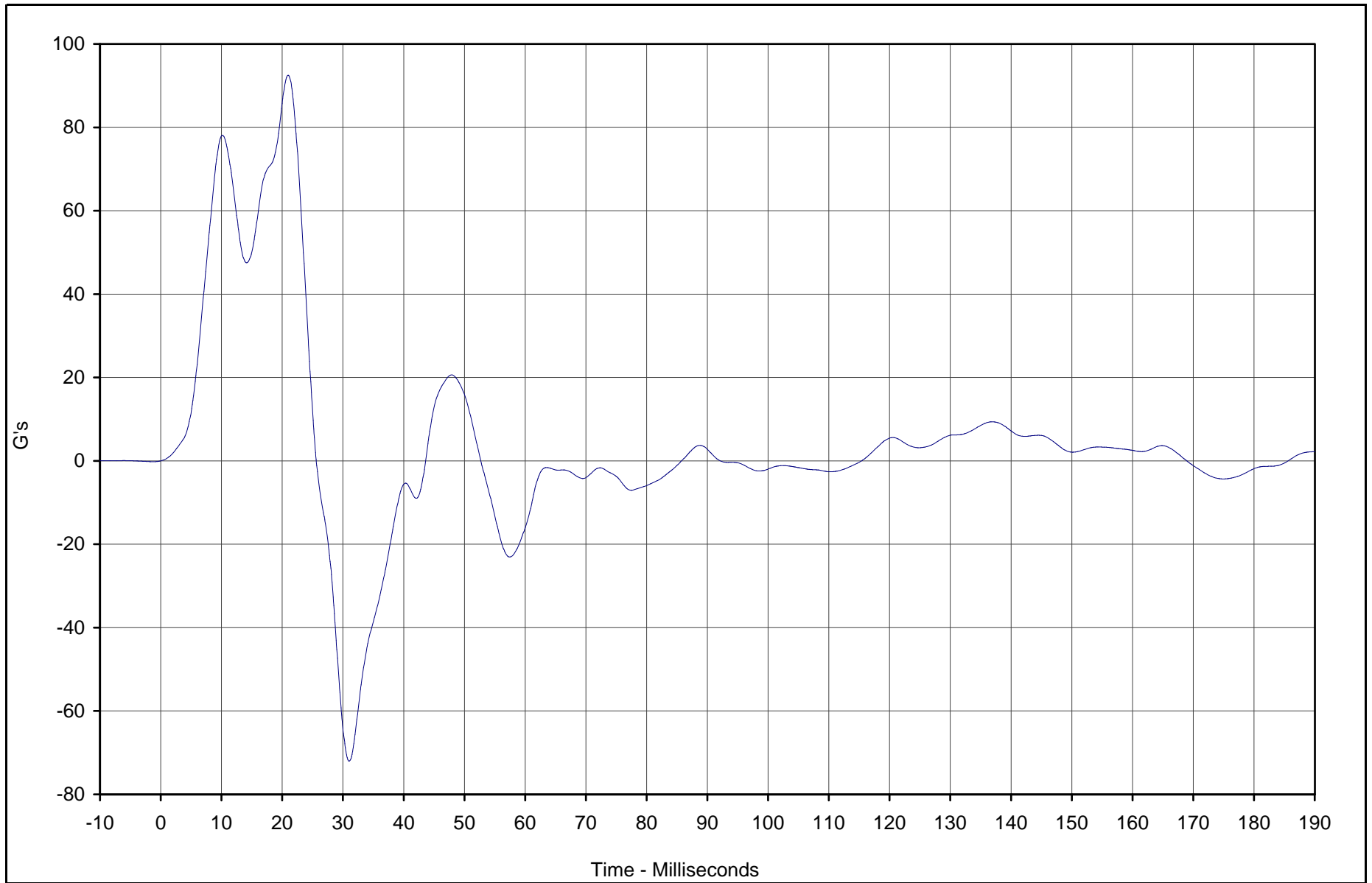


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear Door Upper CL Y	061	FIL	G's	92.5	21.0	-72.0	31.0	60

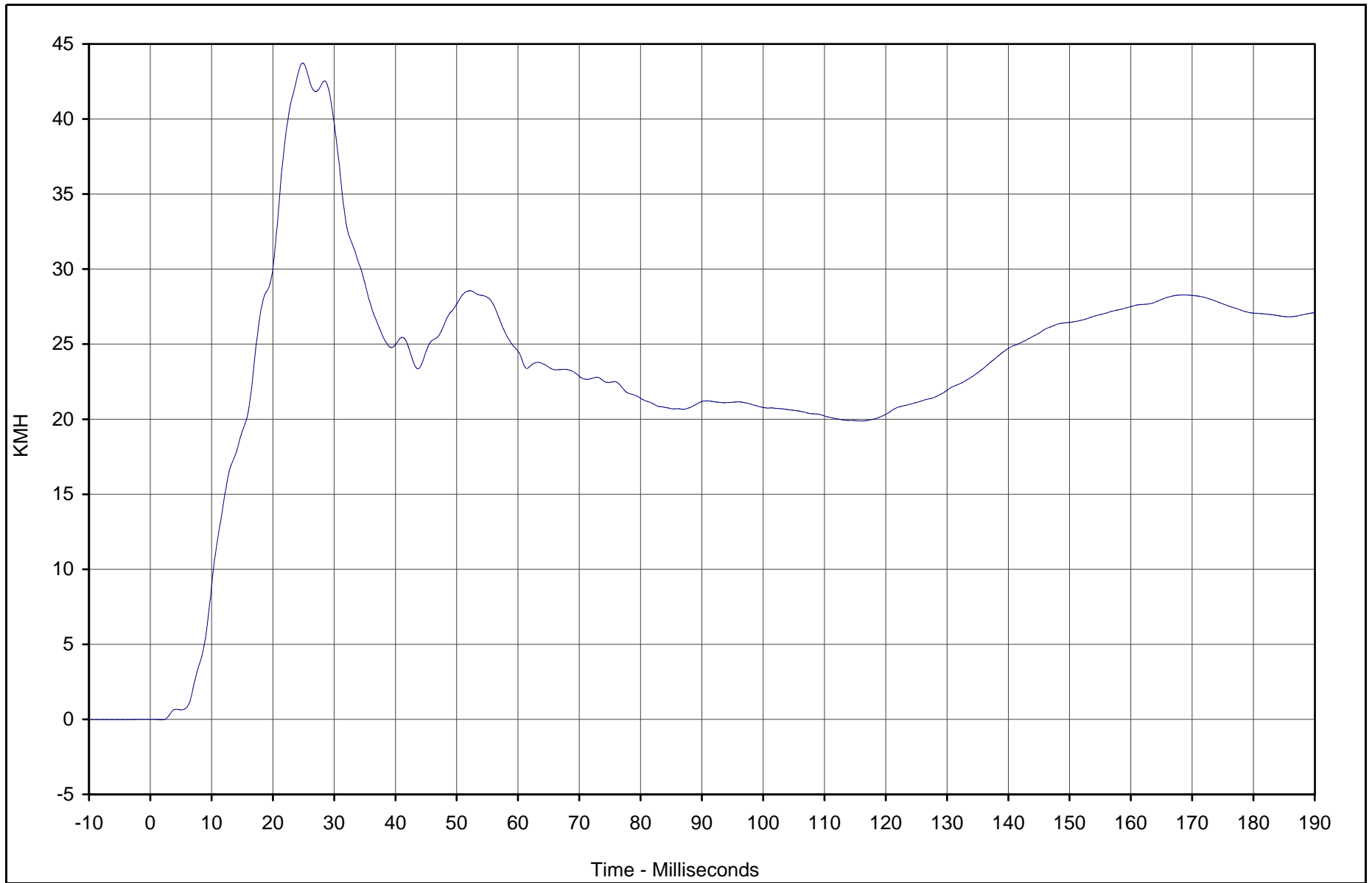


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear Door Upper CL Y Velocity	061	IN1	KMH	43.7	24.9	0.0	1.9	180

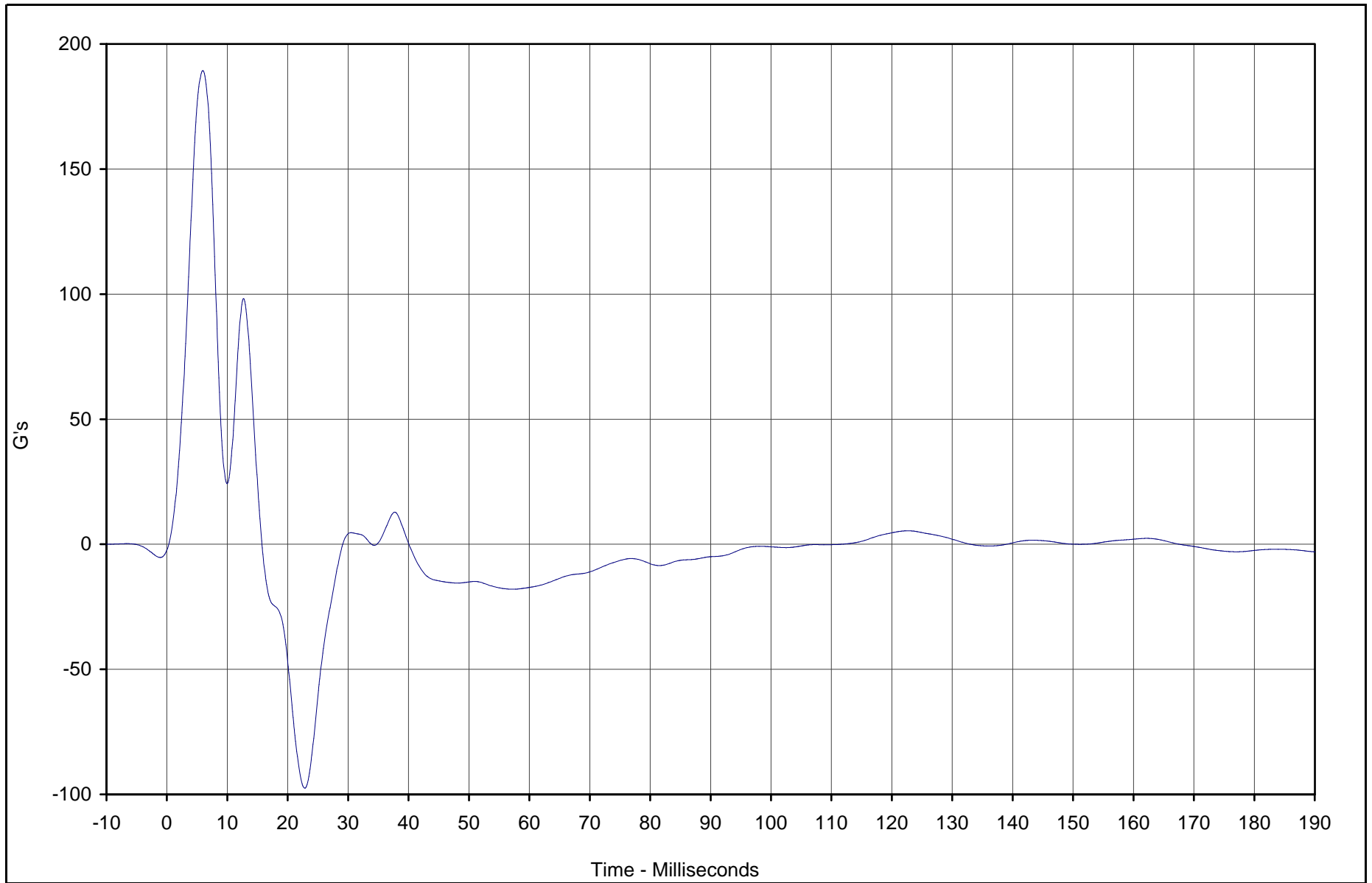


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
B-Post Lower Y	062	FIL	G's	189.4	5.9	-97.5	22.8	60

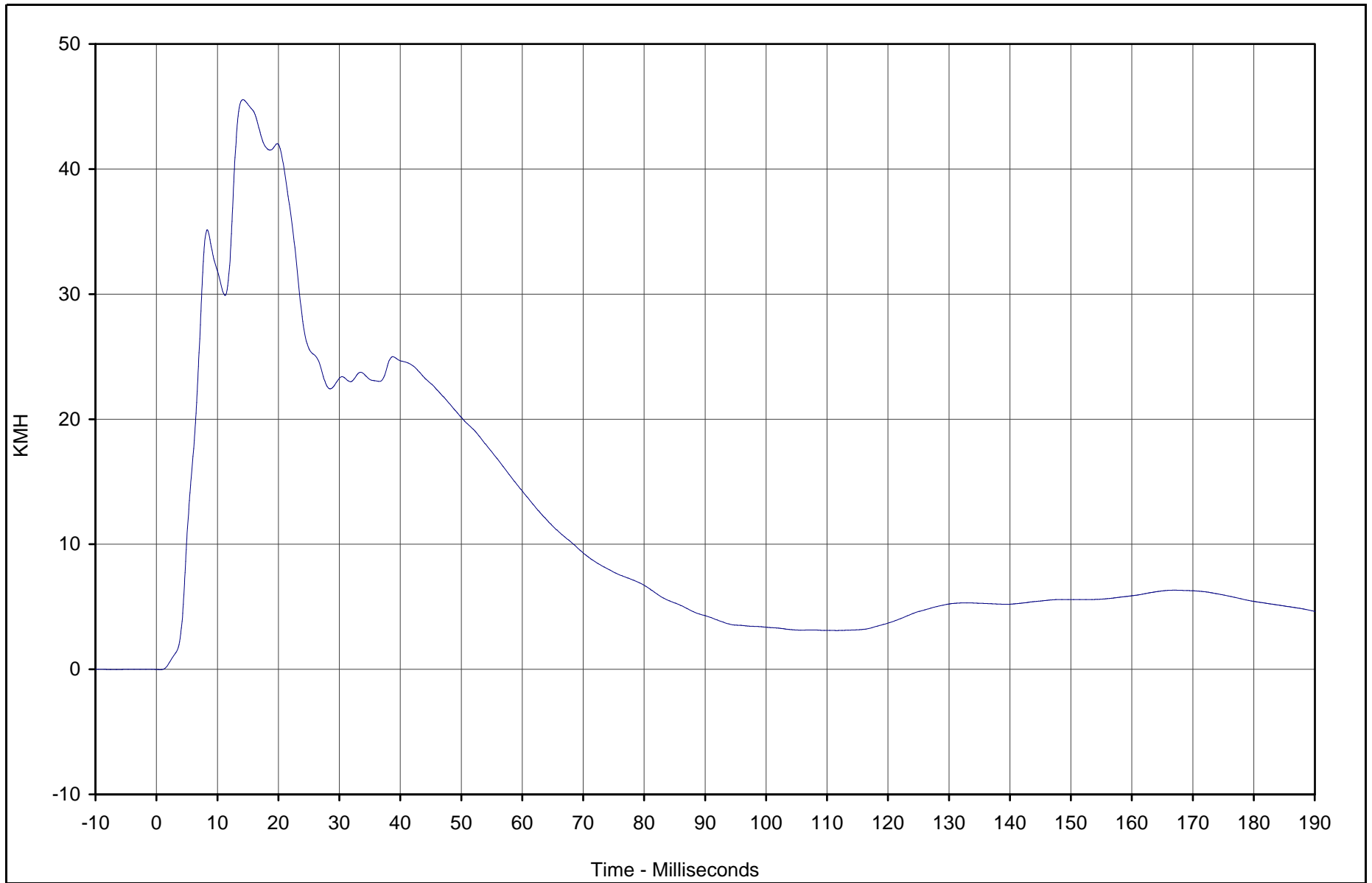


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
B-Post Lower Y Velocity	062	IN1	KMH	45.6	14.2	0.0	0.6	180



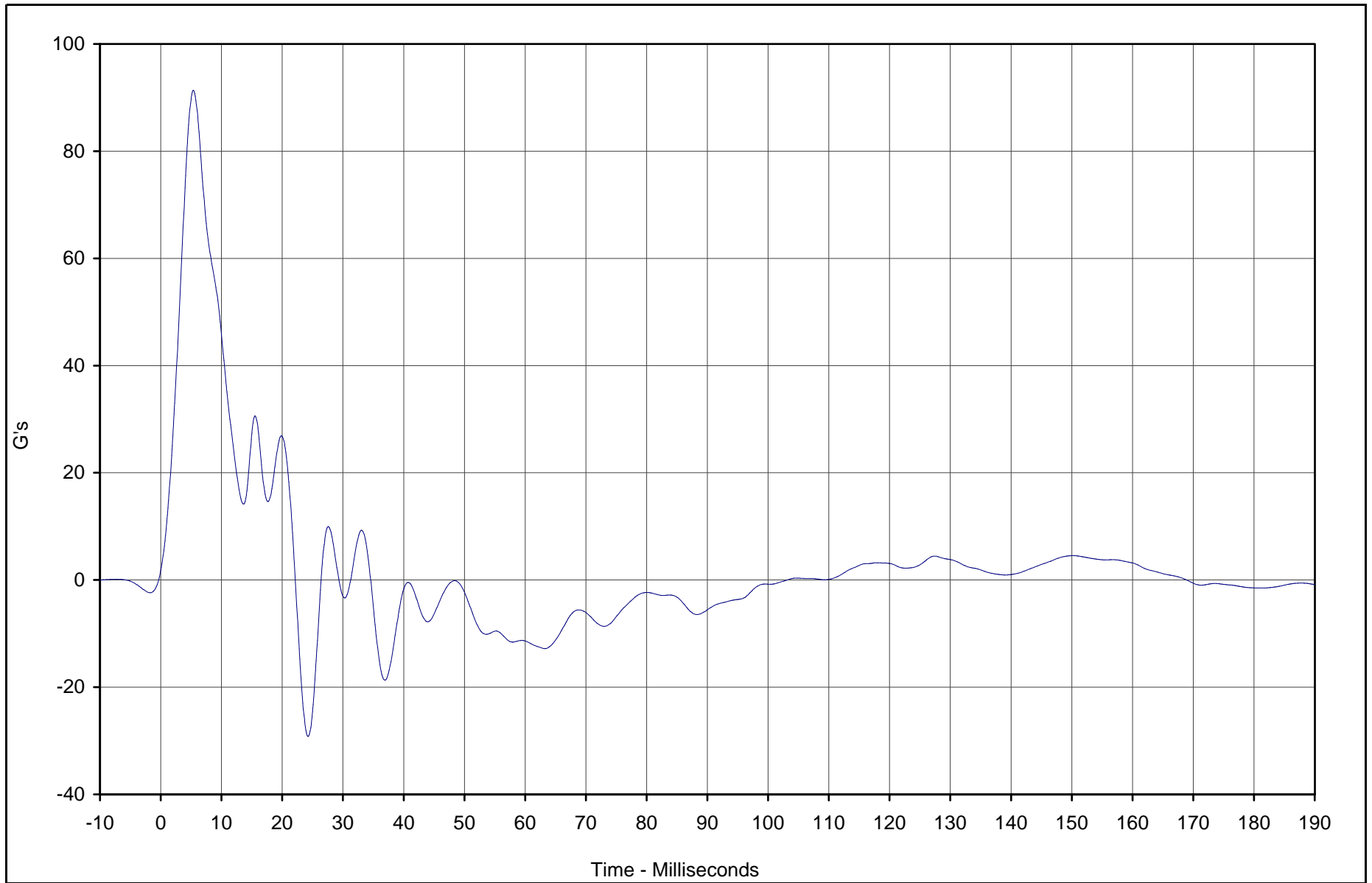
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-120



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
B-Post Middle Y	063	FIL	G's	91.4	5.4	-29.2	24.3	60



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

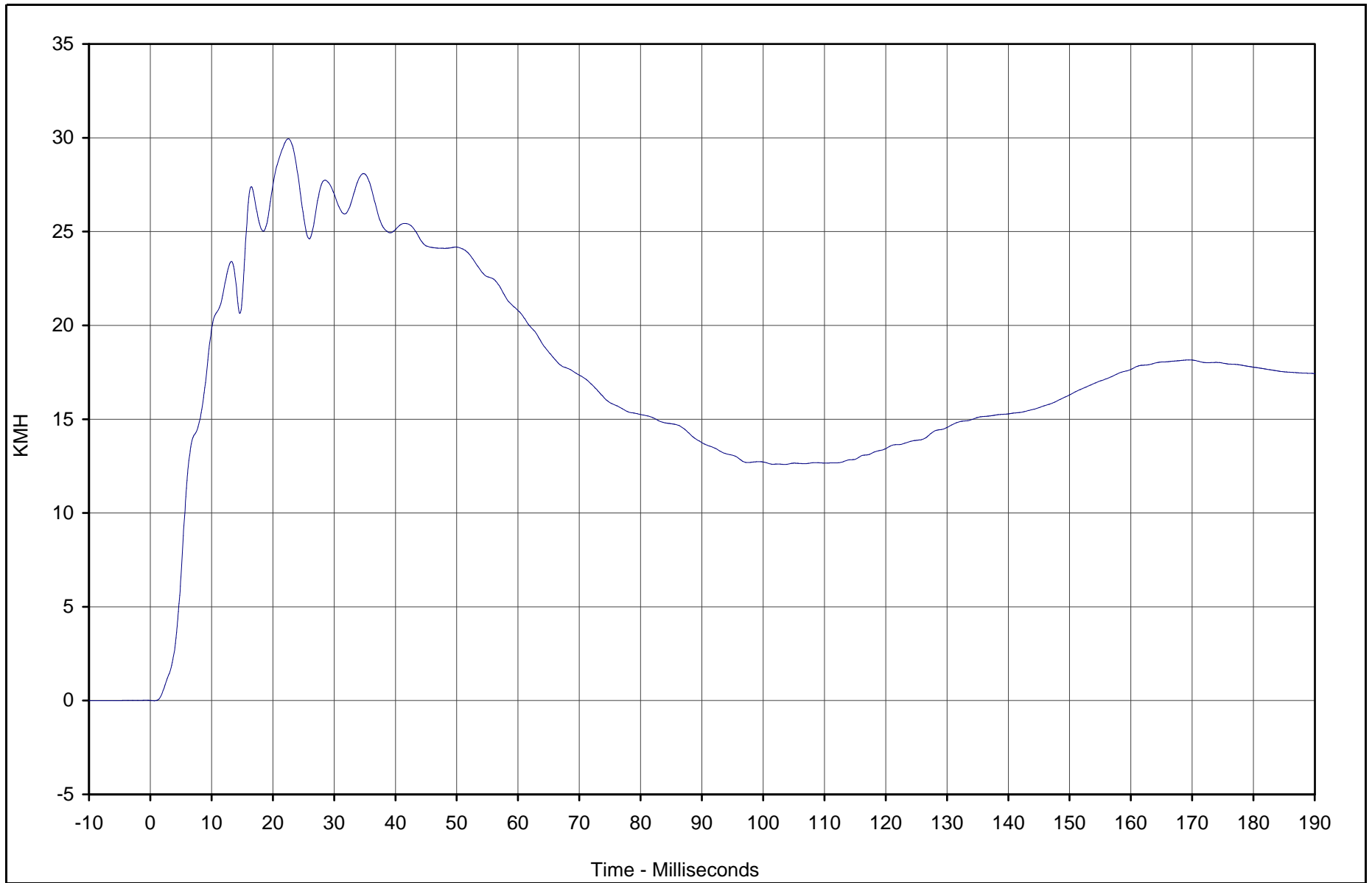
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

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B-121



TR-P23003-04-NC

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
B-Post Middle Y Velocity	063	IN1	KMH	29.9	22.5	0.0	0.7	180



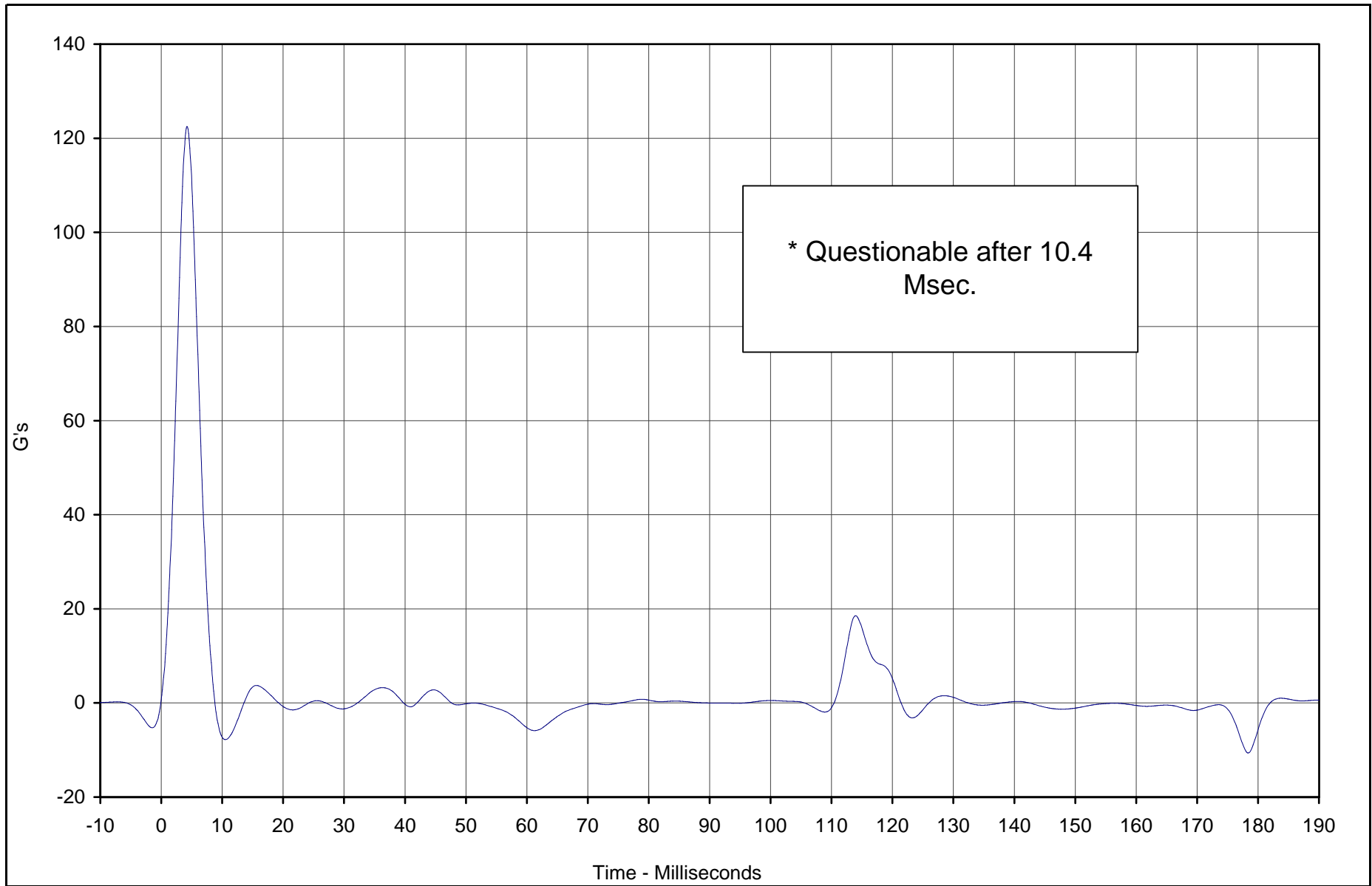
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-122



Questionable after 10.4 Msec.

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
A-Post Lower Y	064	FIL	G's	122.5	4.2	-10.6	178.4	60



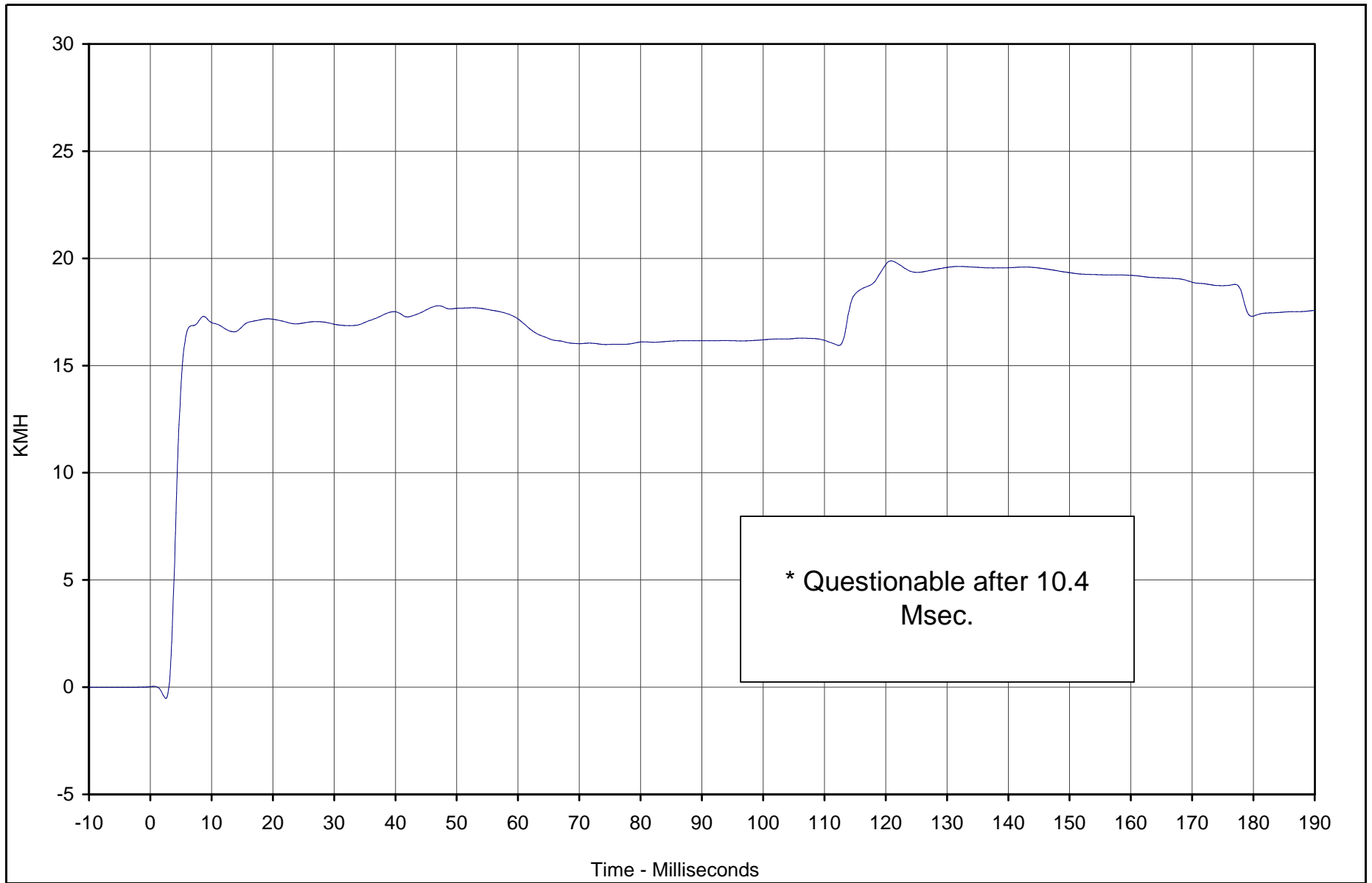
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Questionable after 10.4 Msec.

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
A-Post Lower Y Velocity	064	IN1	KMH	19.9	120.8	-0.5	2.5	180

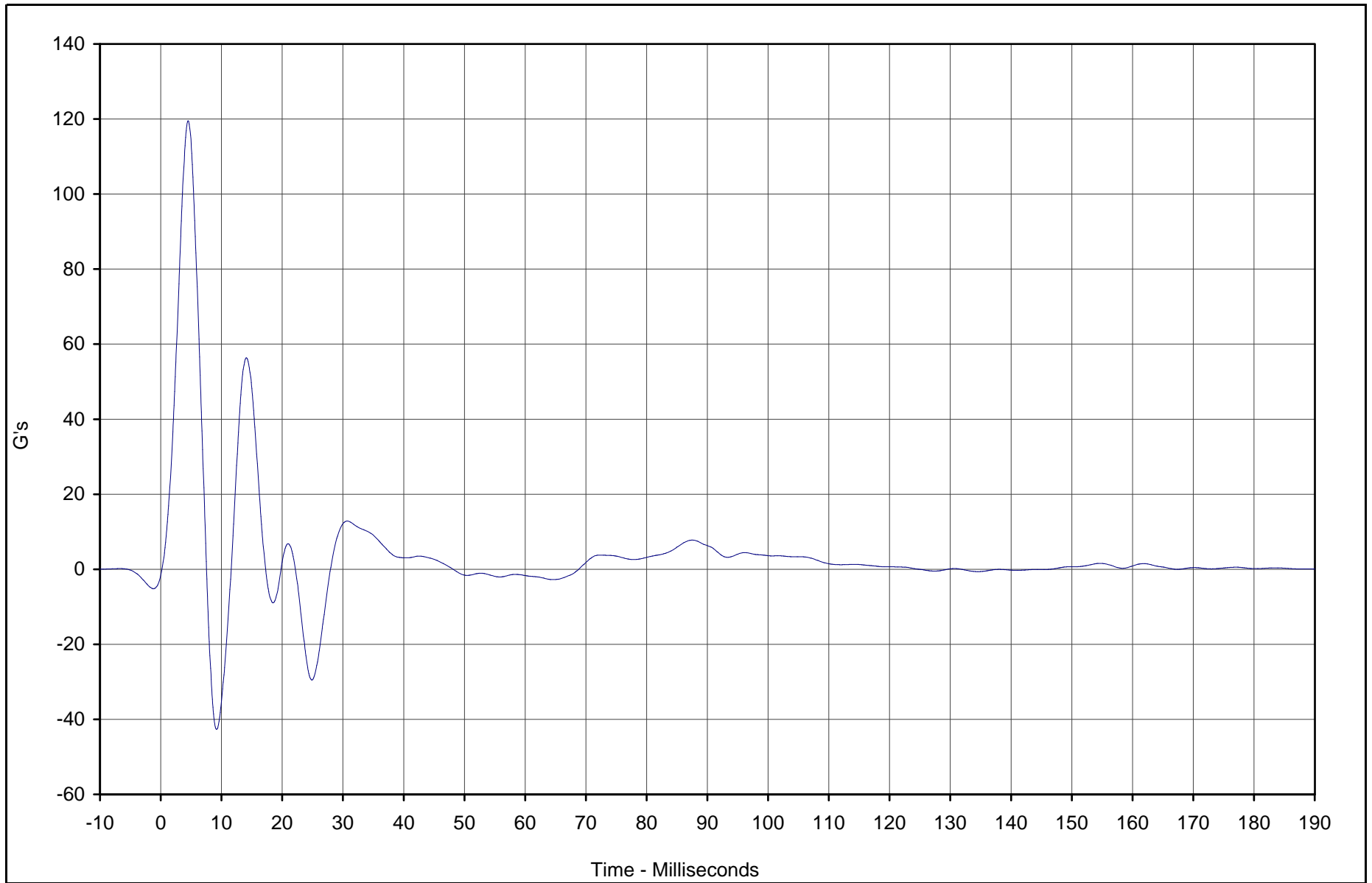


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
A-Post Middle Y	065	FIL	G's	119.5	4.5	-42.7	9.2	60



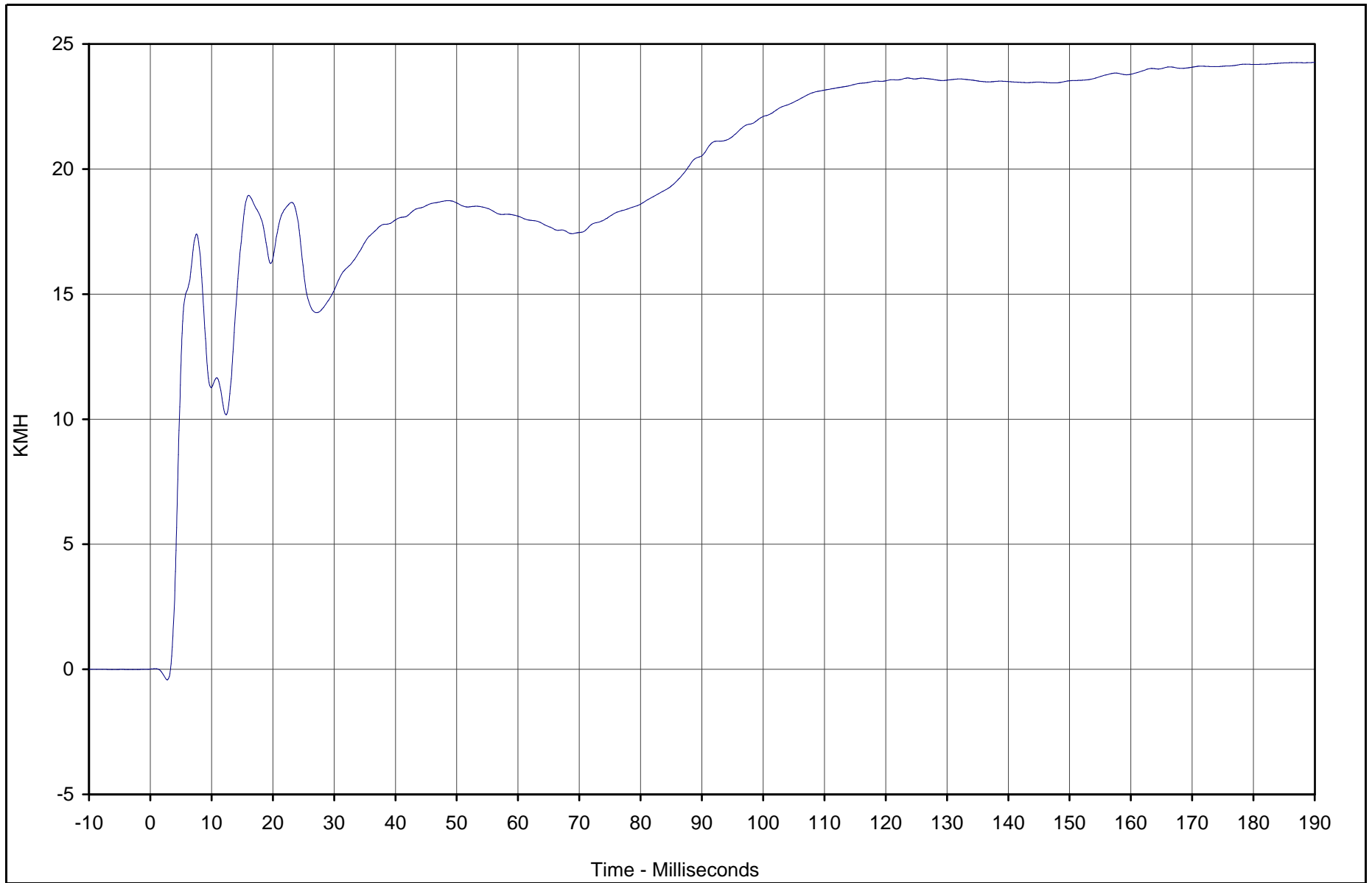
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-125



TR-P23003-04-NC

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
A-Post Middle Y Velocity	065	IN1	KMH	24.3	189.9	-0.4	2.8	180

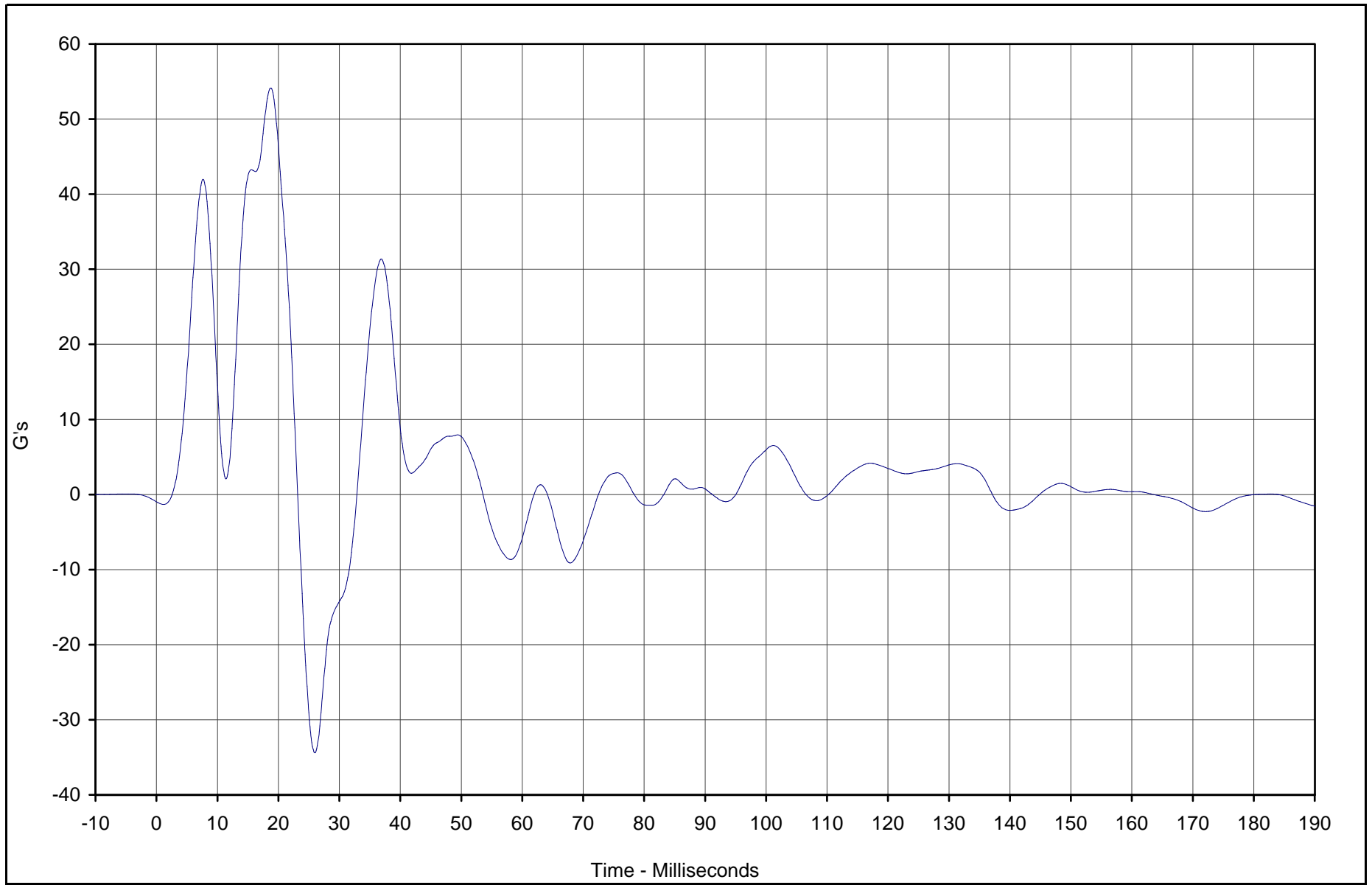


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Front Seat Track Y	066	FIL	G's	54.1	18.8	-34.4	26.0	60



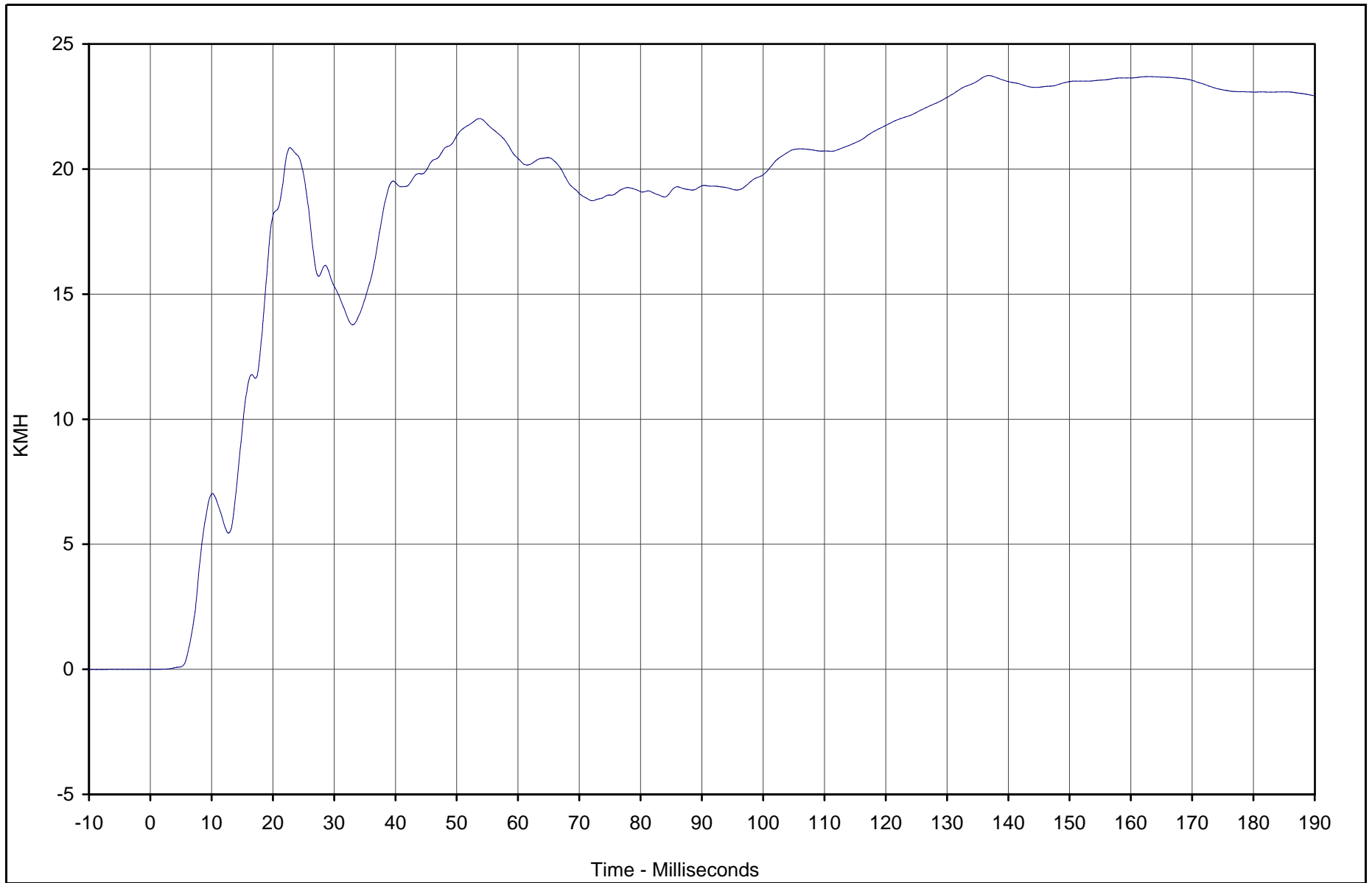
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-127



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Front Seat Track Y Velocity	066	IN1	KMH	23.7	136.8	0.0	0.6	180



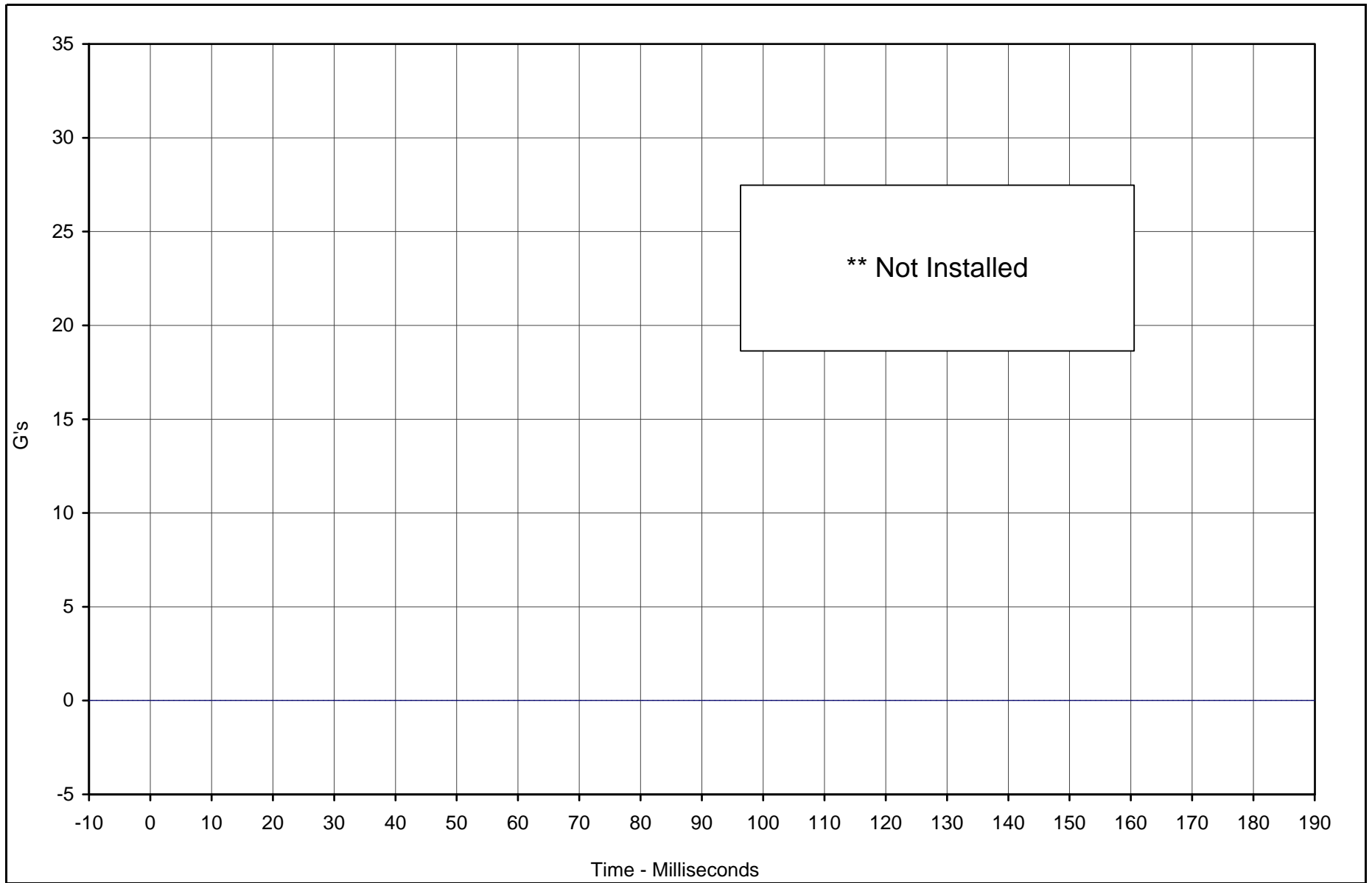
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



** Not installed

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Rear Seat Structure Y	067	FIL	G's	0.0	0.0	0.0	0.0	60

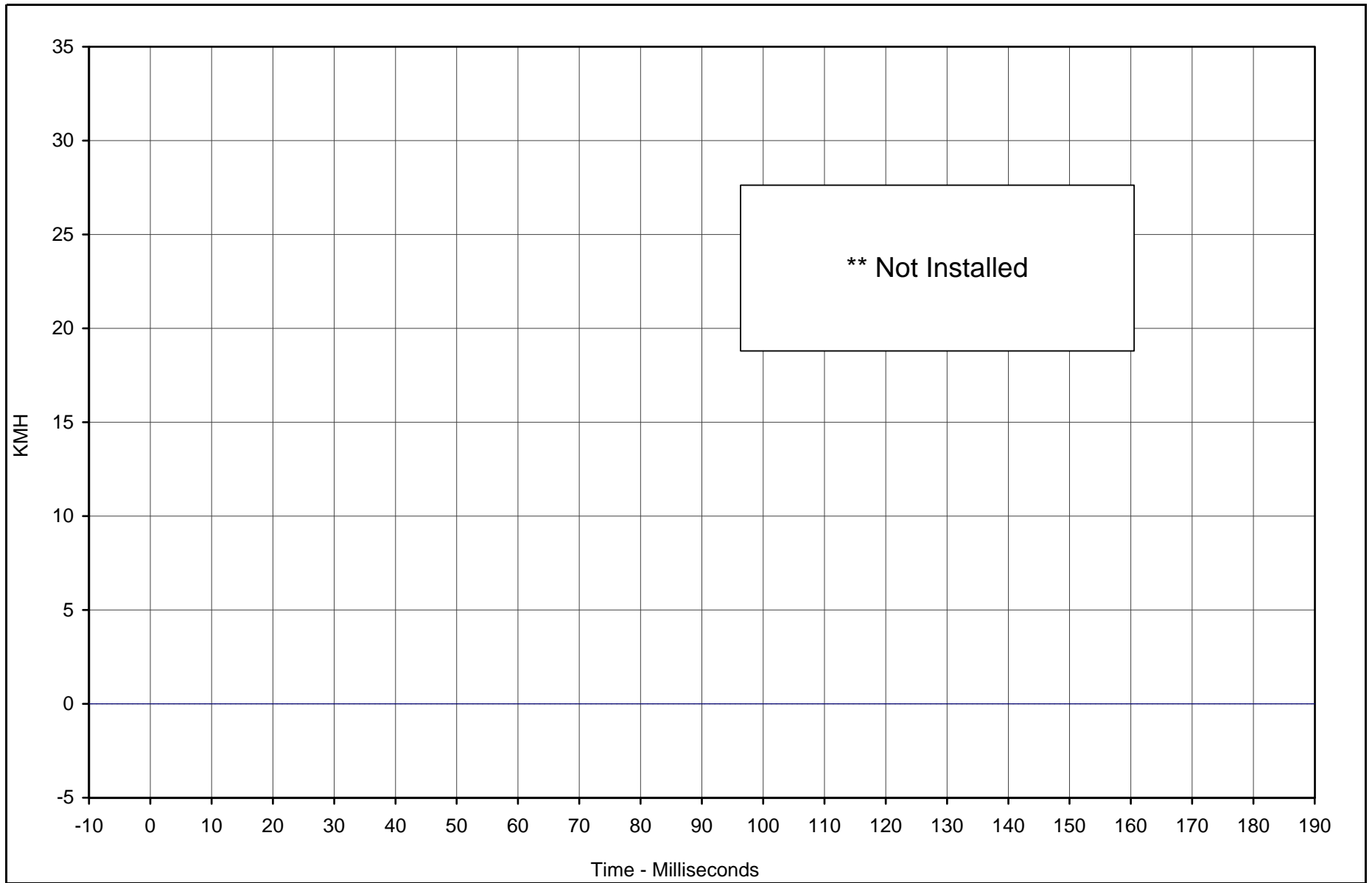


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



** Not installed

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Rear Seat Structure Y Velocity	067	IN1	KMH	0.0	0.0	0.0	0.0	180

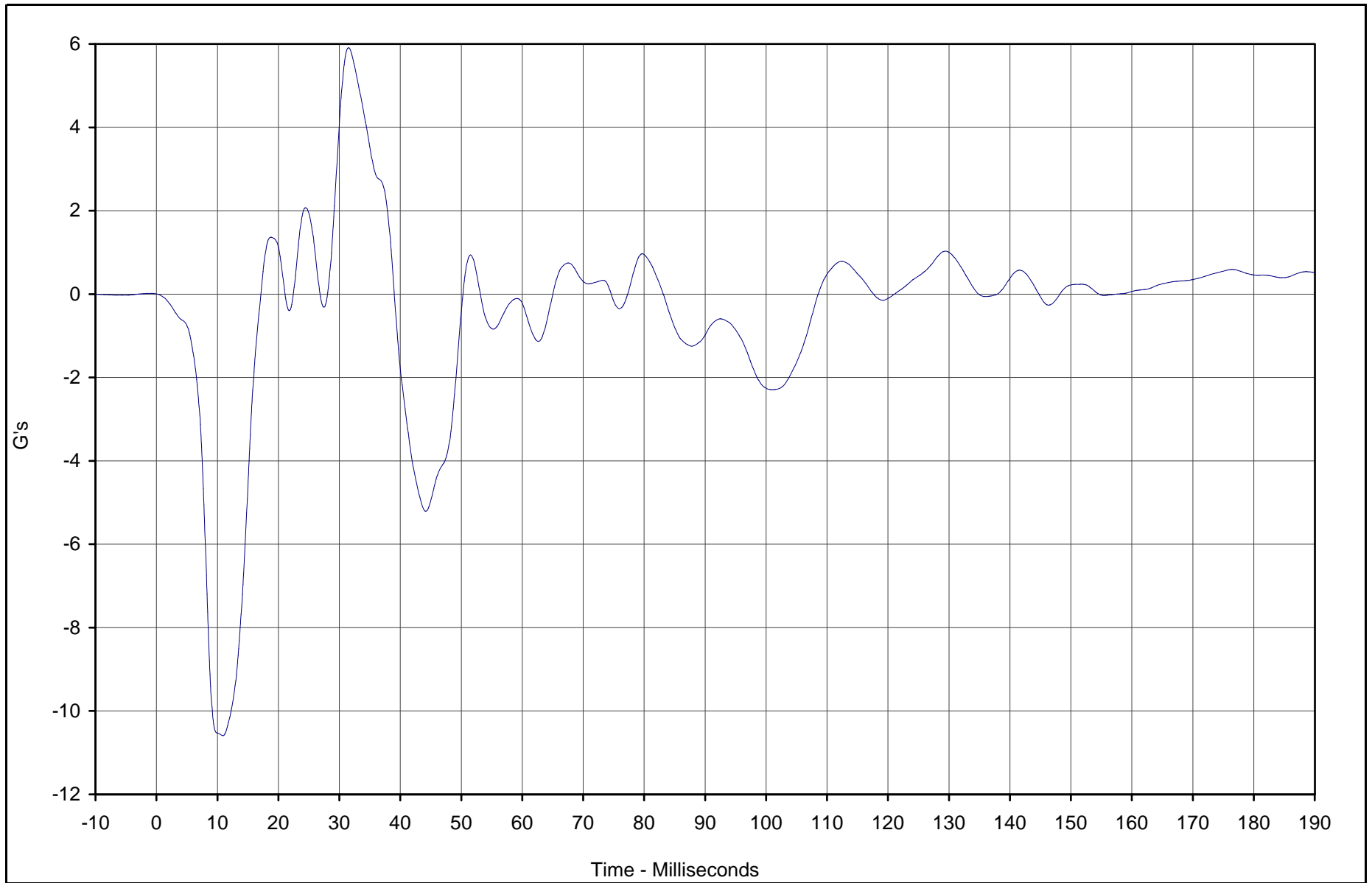


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle CG X	068	FIL	G's	5.9	31.5	-10.6	10.9	60



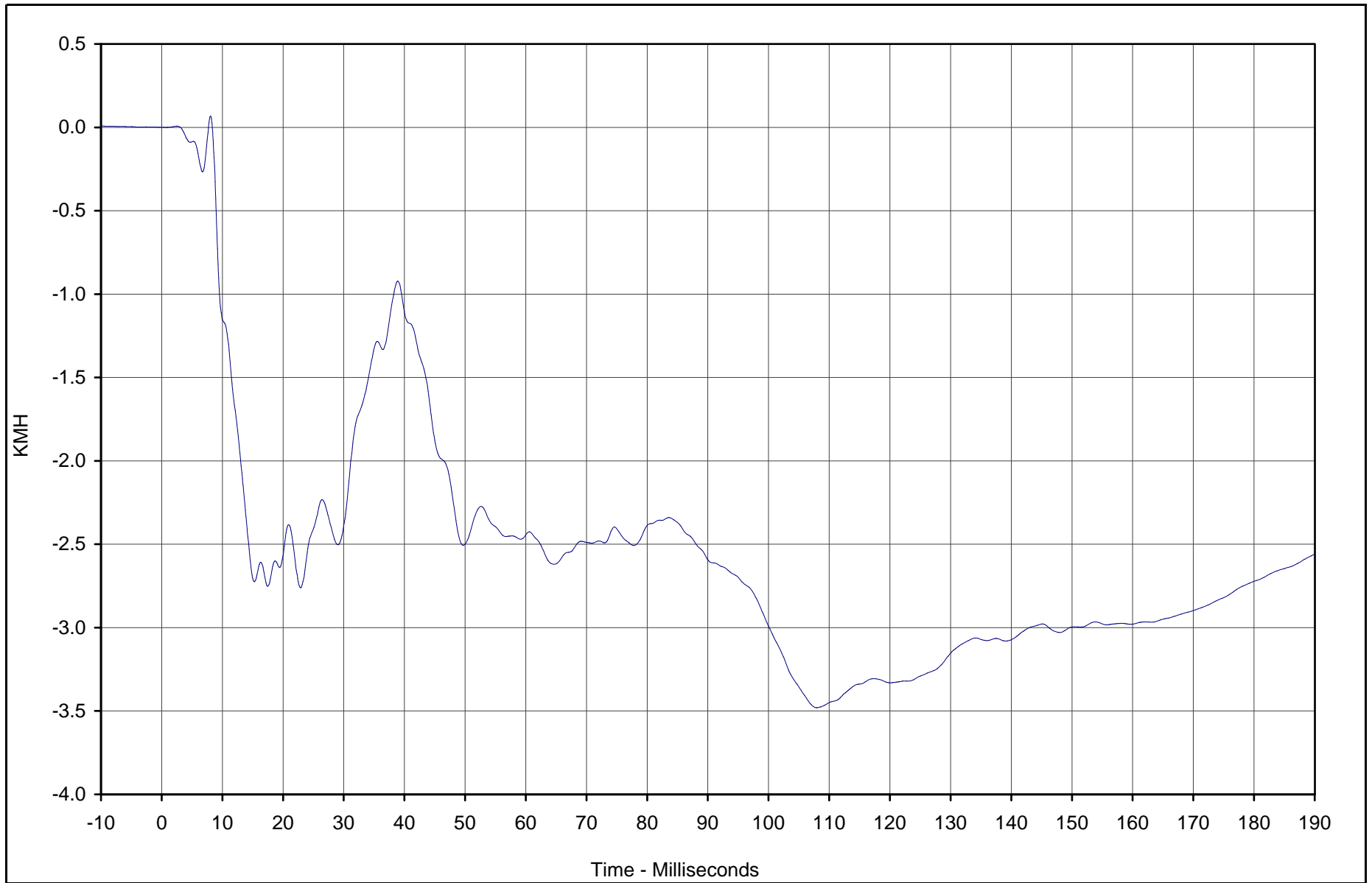
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-131



TR-P23003-04-NC

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle CG X Velocity	068	IN1	KMH	0.1	8.1	-3.5	107.9	180



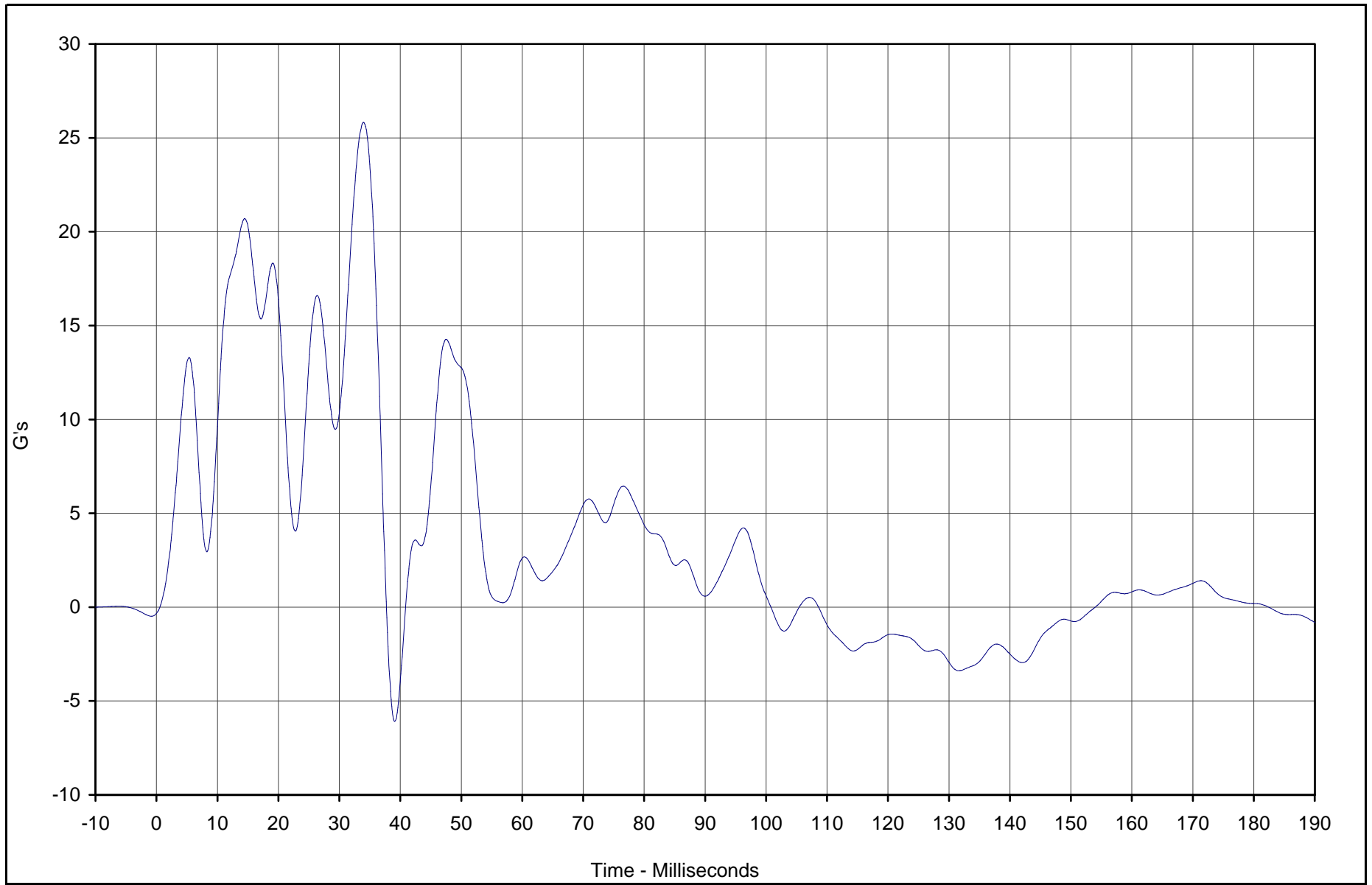
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-132



TR-P23003-04-NC

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle CG Y	069	FIL	G's	25.8	34.0	-6.1	39.1	60

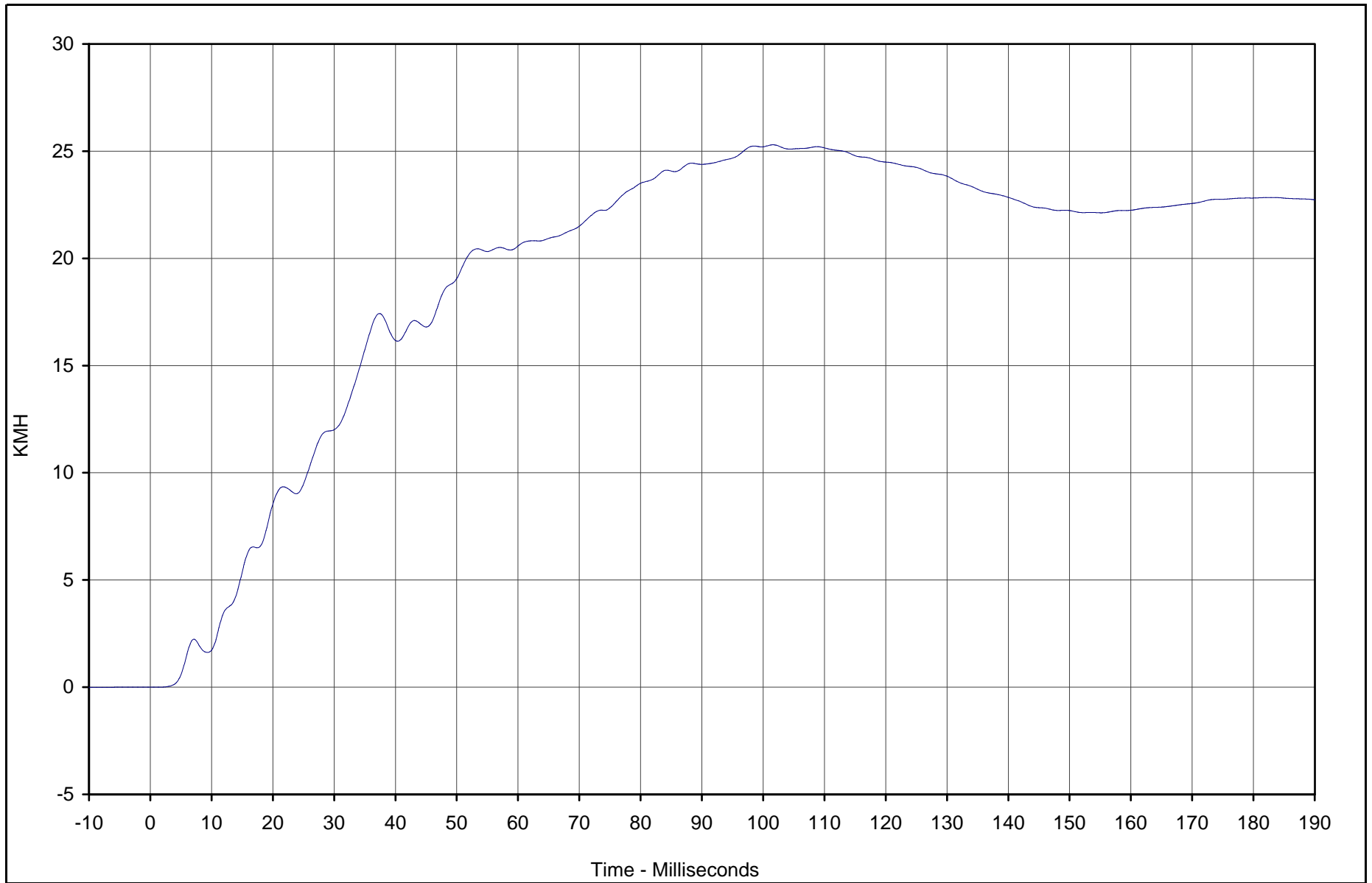


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle CG Y Velocity	069	IN1	KMH	25.3	101.6	0.0	0.3	180



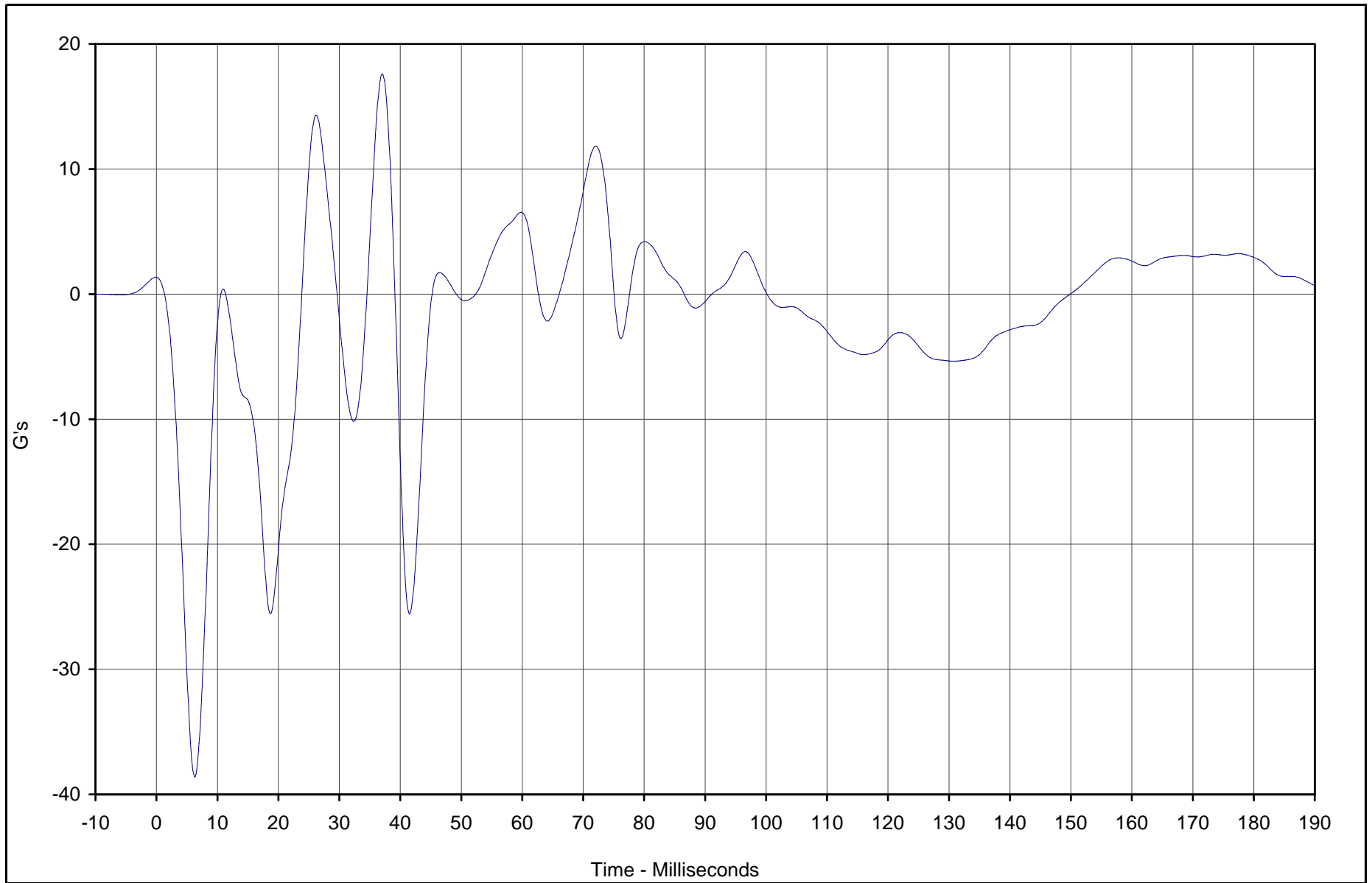
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-134



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle CG Z	070	FIL	G's	17.6	37.0	-38.6	6.3	60



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

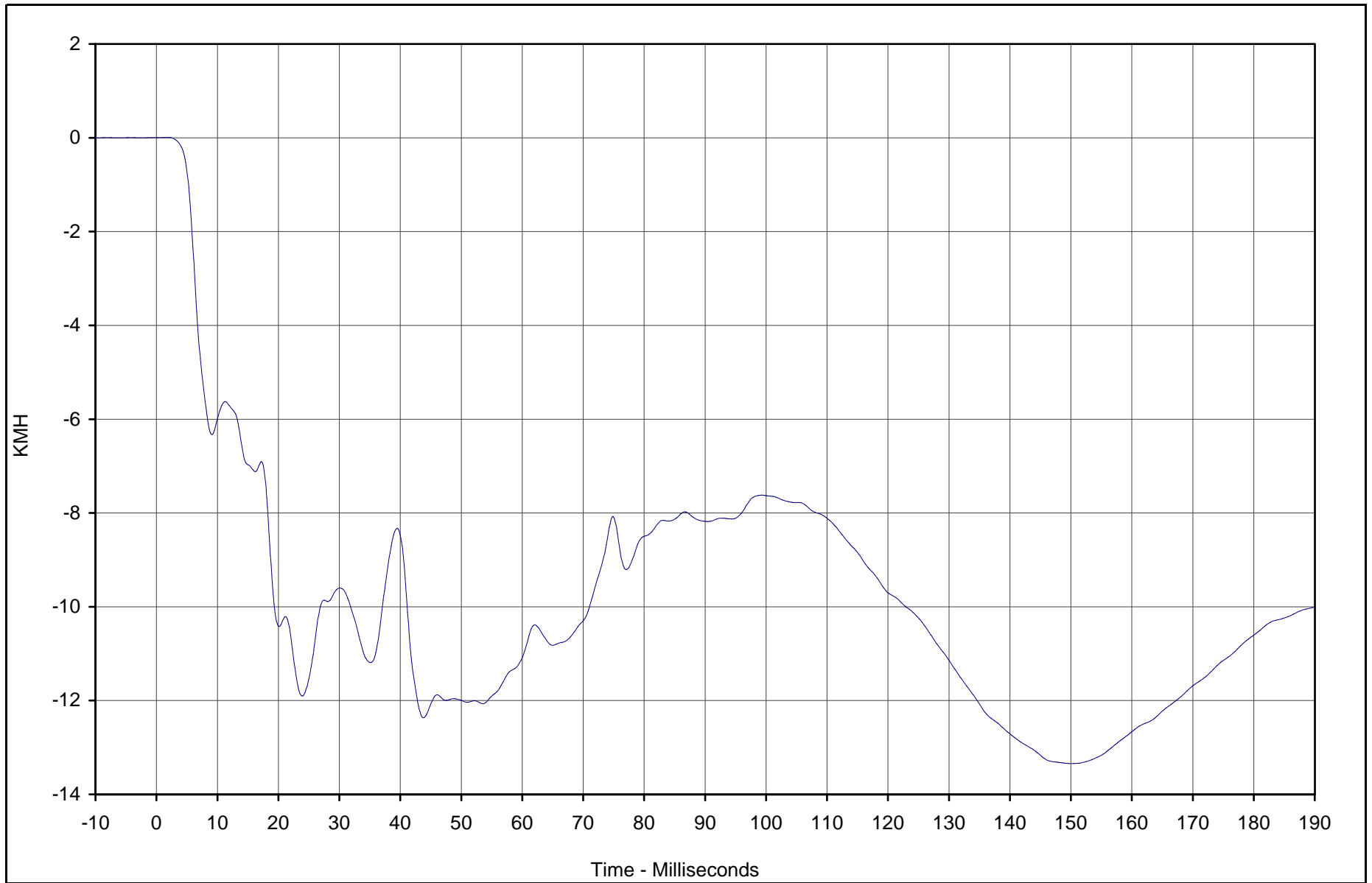
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-135



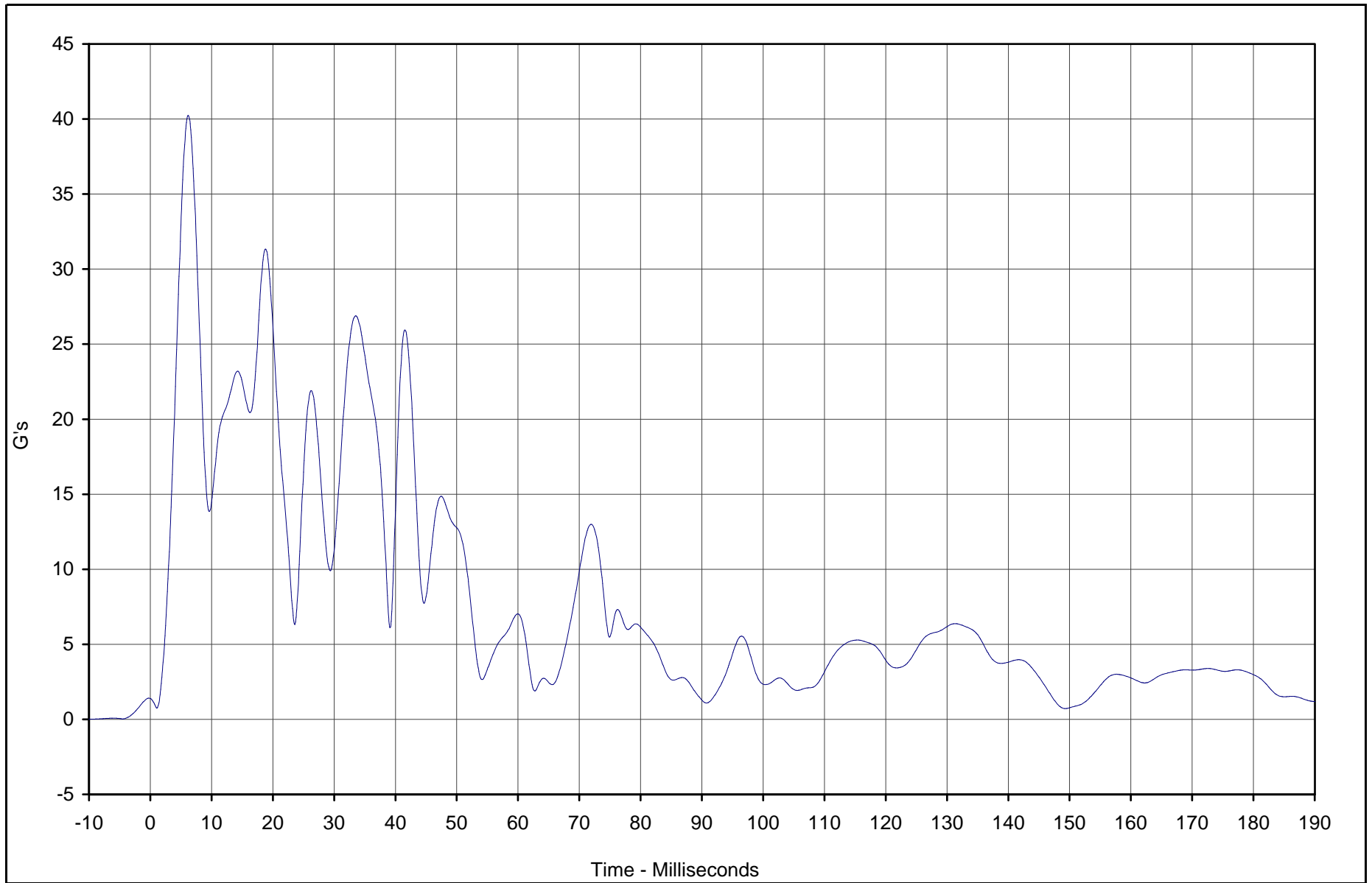
TR-P23003-04-NC

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle CG Z Velocity	070	IN1	KMH	0.0	1.8	-13.3	150.3	180



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
Test Program: 55/28 km/h Side Impact NCAP

Test Date: 11/14/02
NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle CG Resultant	068	RES	G's	40.2	6.2	0.7	149.3	60



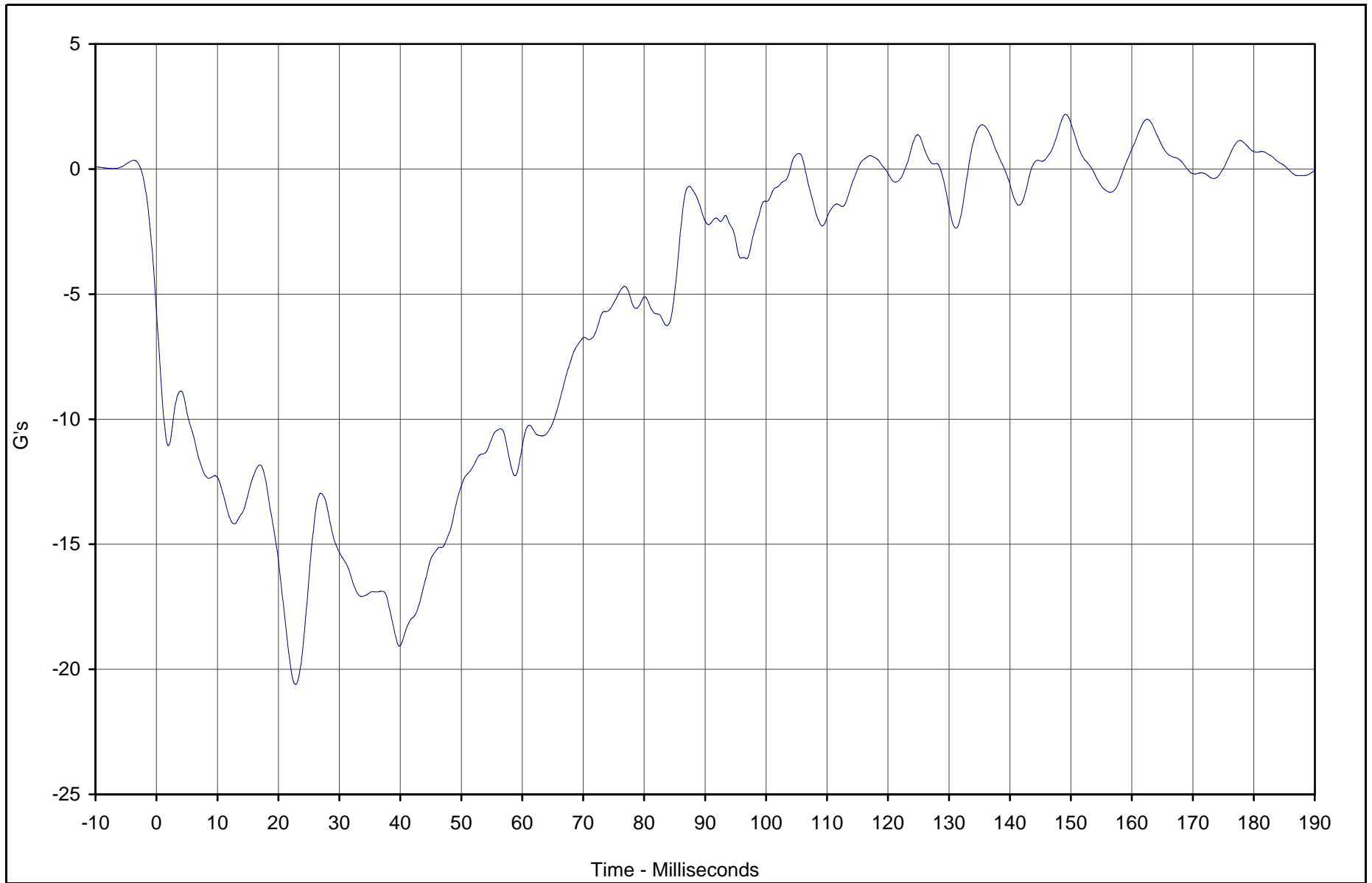
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-137



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB CG X	071	FIL	G's	2.2	149.1	-20.6	22.8	60



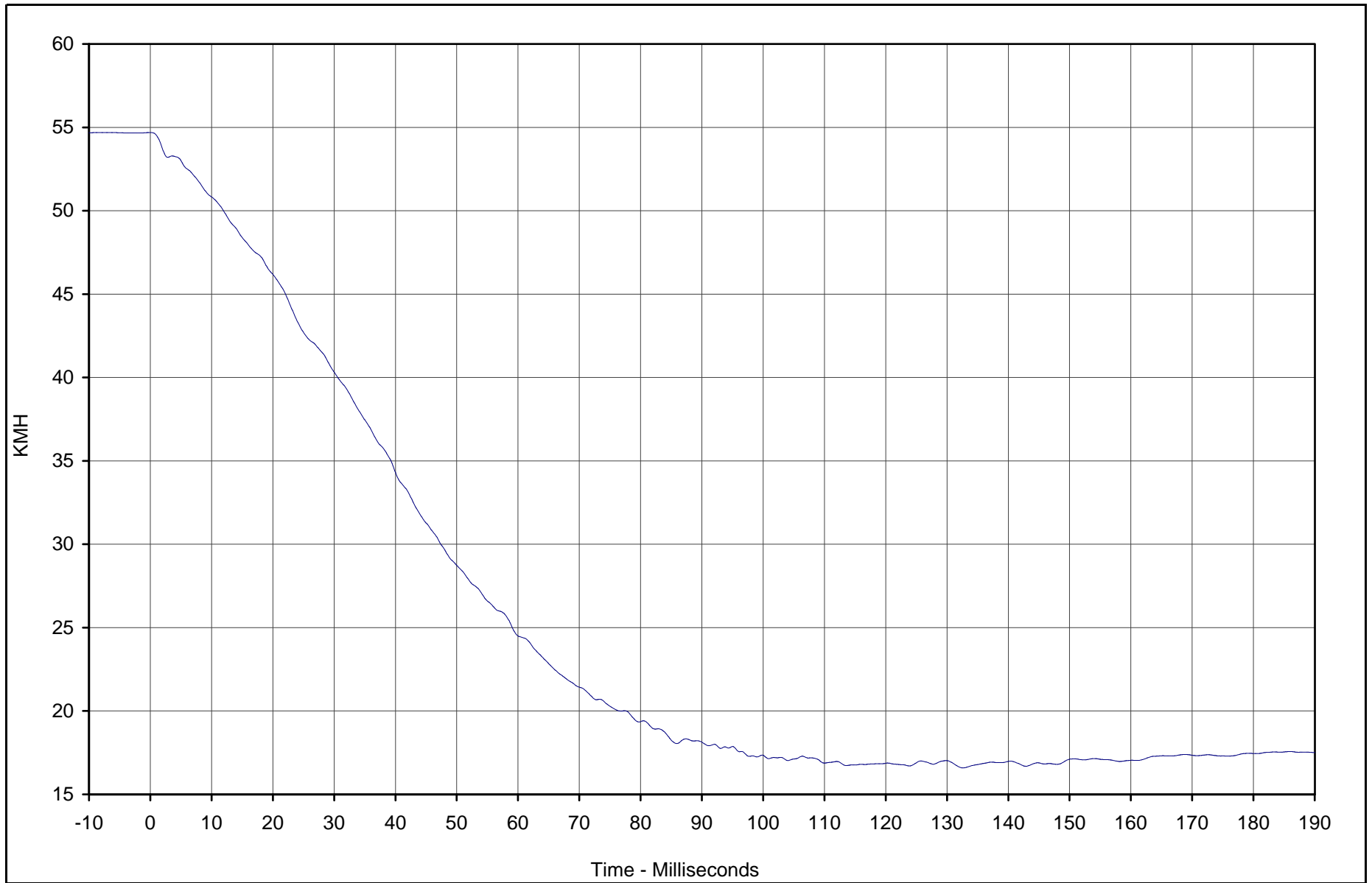
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB CG X Velocity	071	IN1	KMH	54.7	0.0	16.6	132.6	180



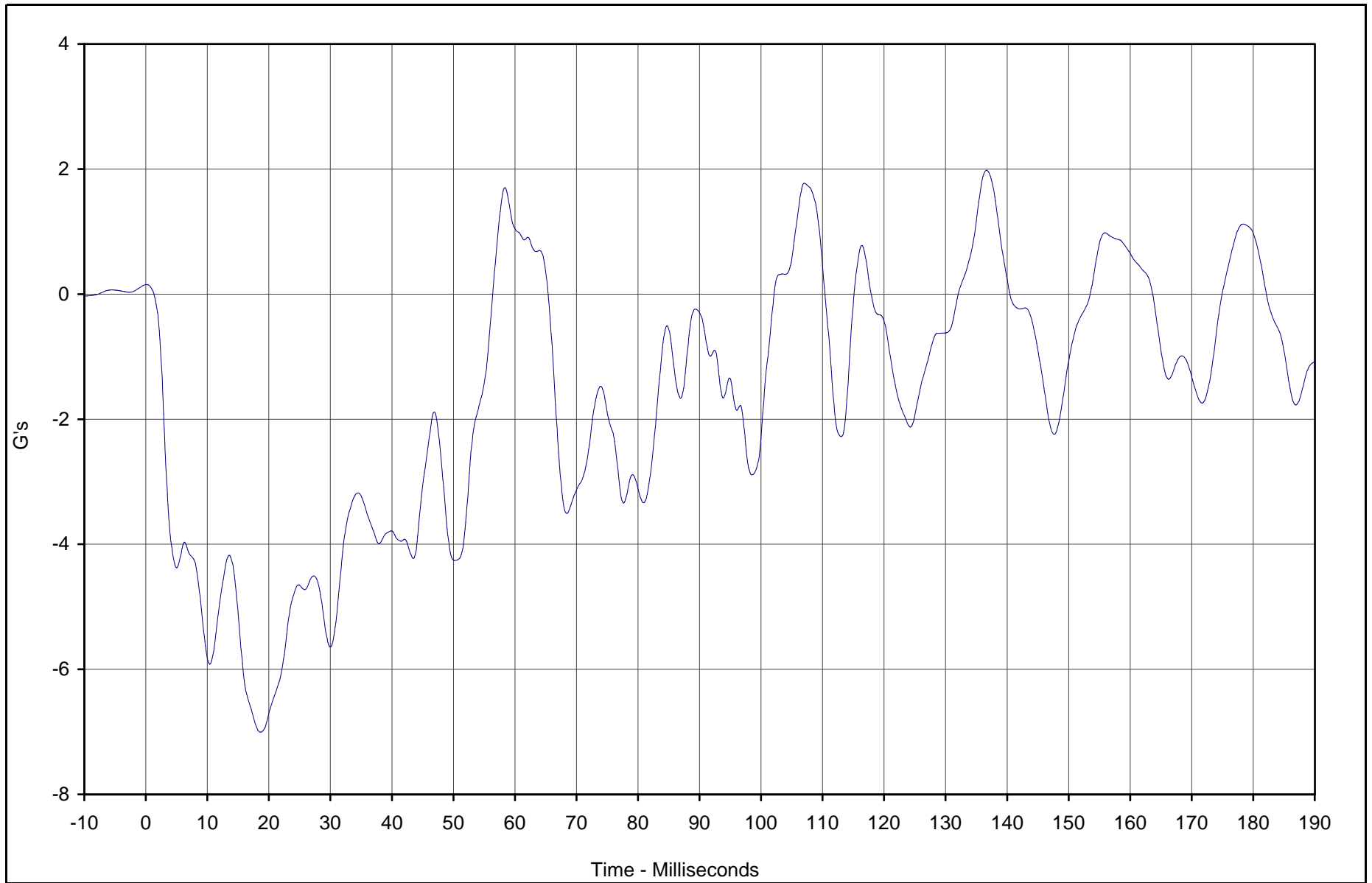
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-139



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB CG Y	072	FIL	G's	2.0	136.6	-7.0	18.7	60



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

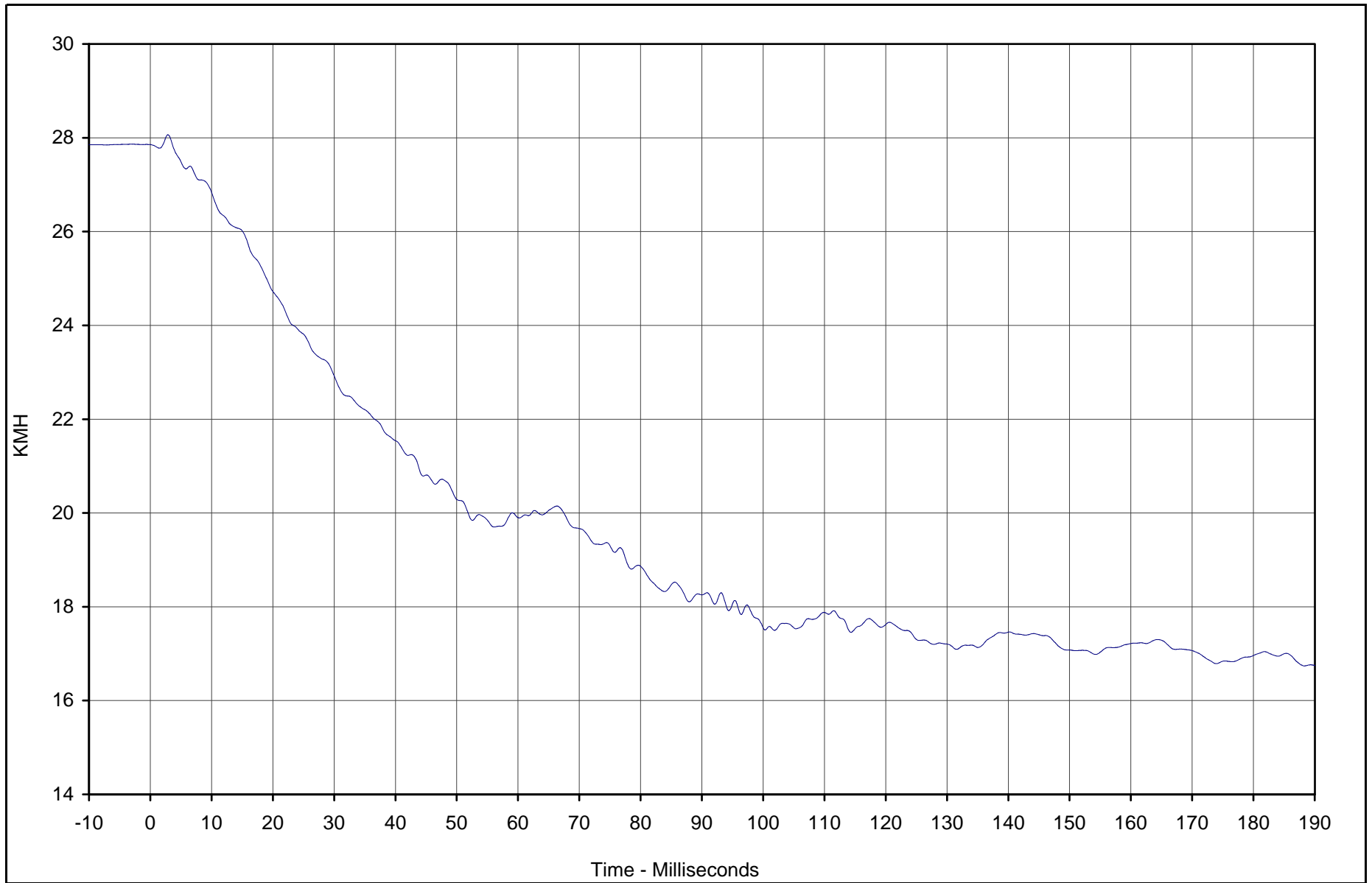
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-140



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB CG Y Velocity	072	IN1	KMH	28.1	2.9	16.7	188.3	180



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

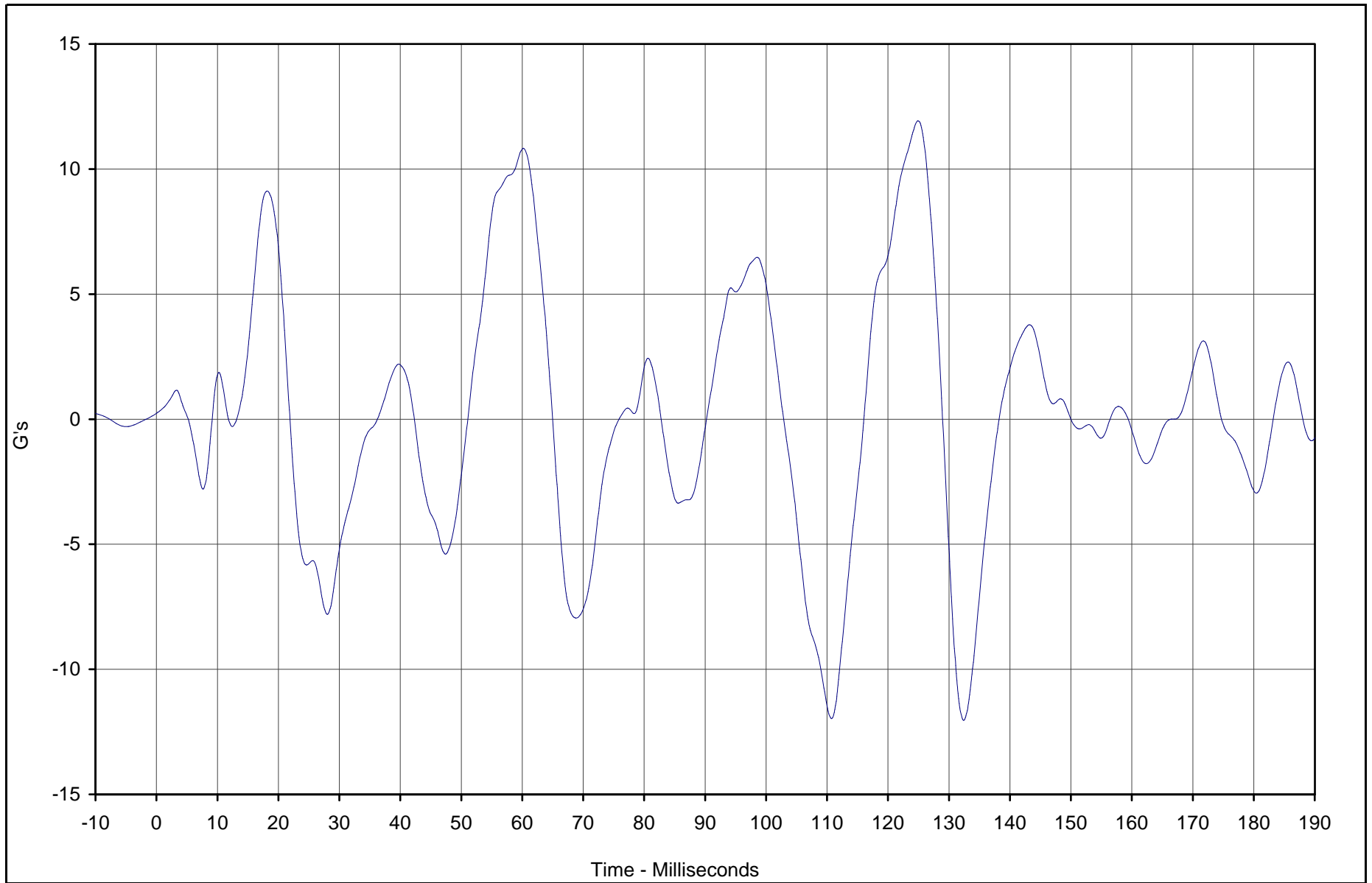
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-141



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB CG Z	073	FIL	G's	11.9	124.9	-12.0	132.4	60



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

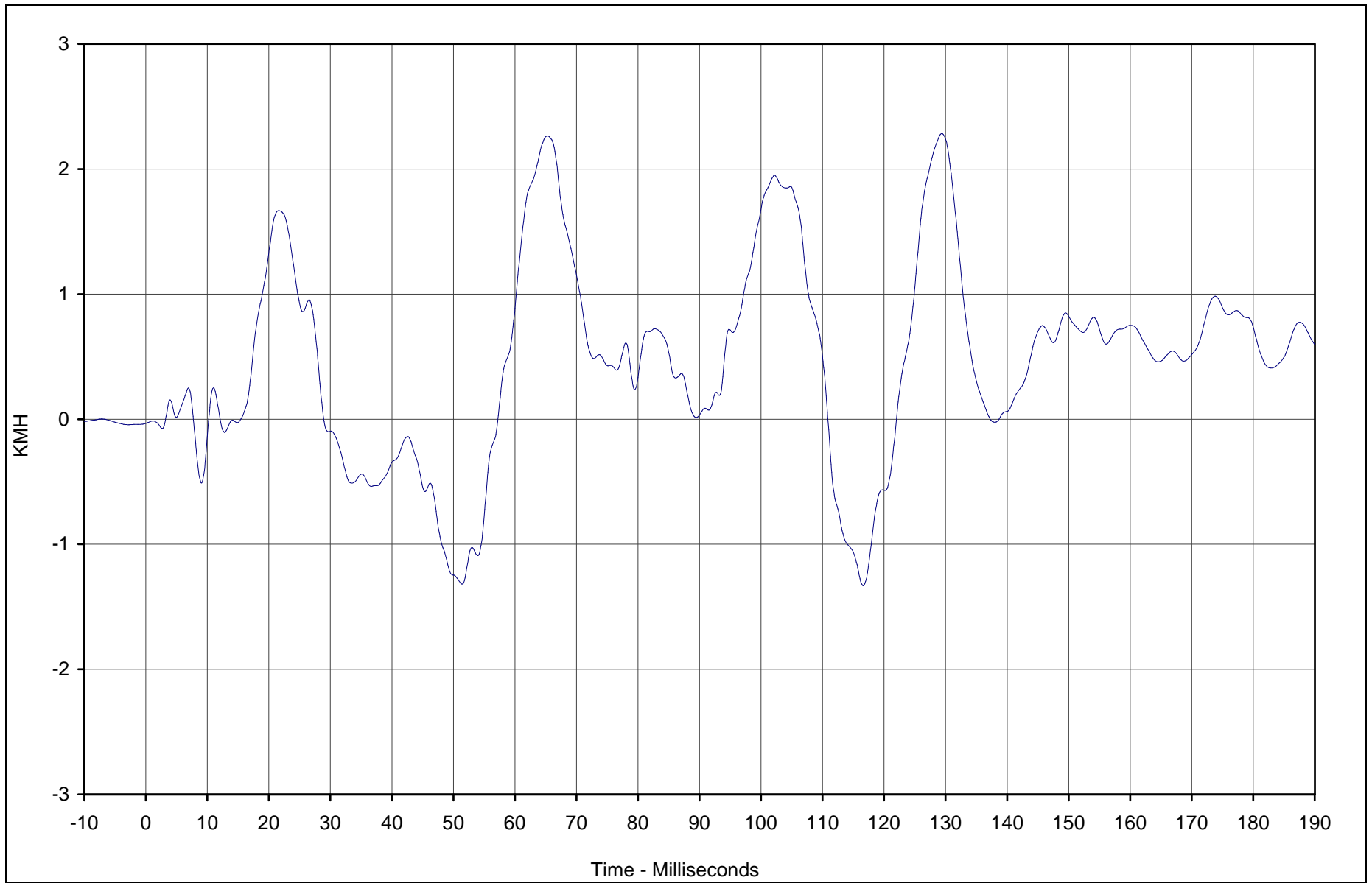
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-142



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB CG Z Velocity	073	IN1	KMH	2.3	129.4	-1.3	116.6	180



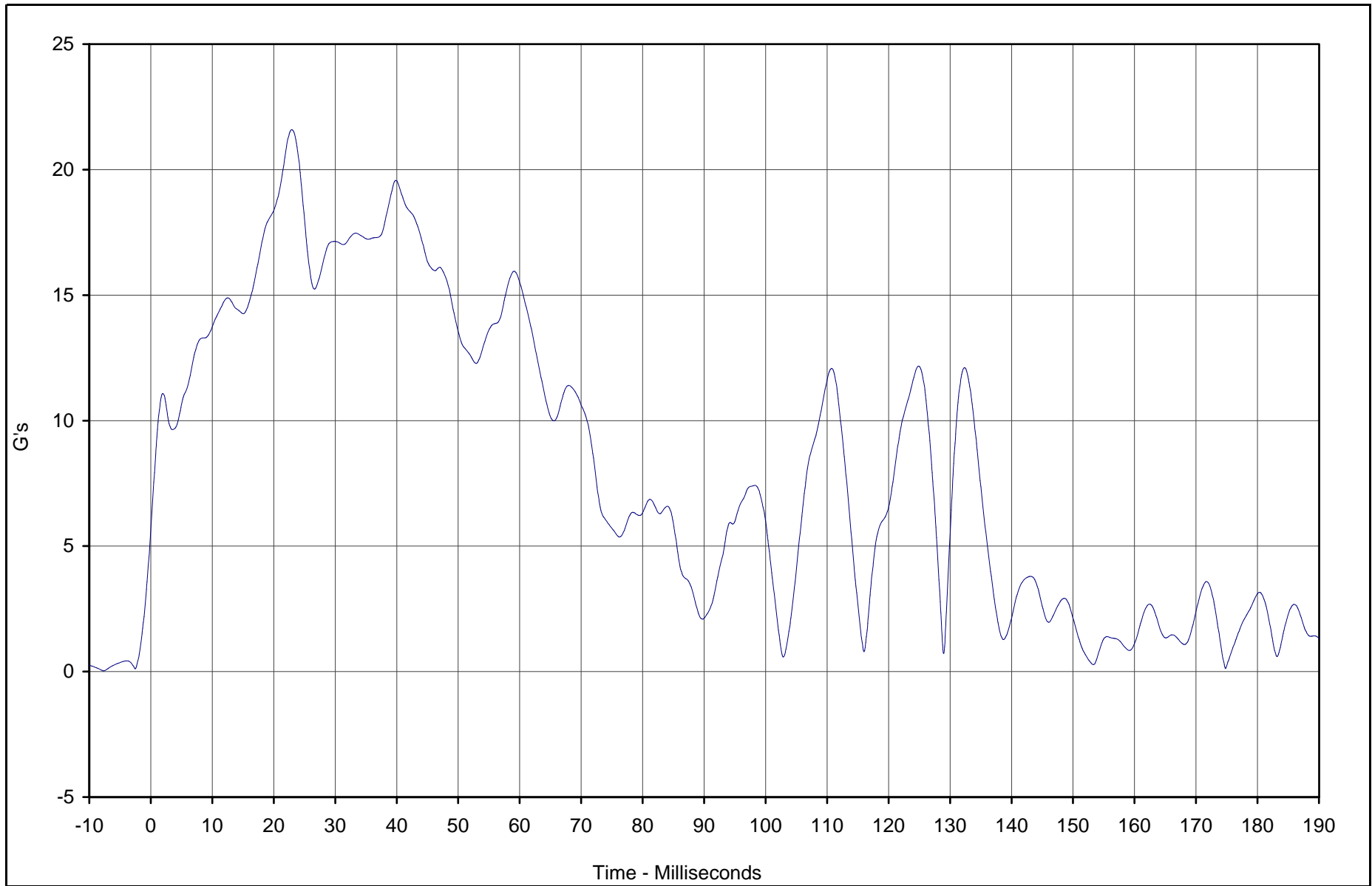
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB CG Resultant	071	RES	G's	21.6	22.9	0.1	174.8	60



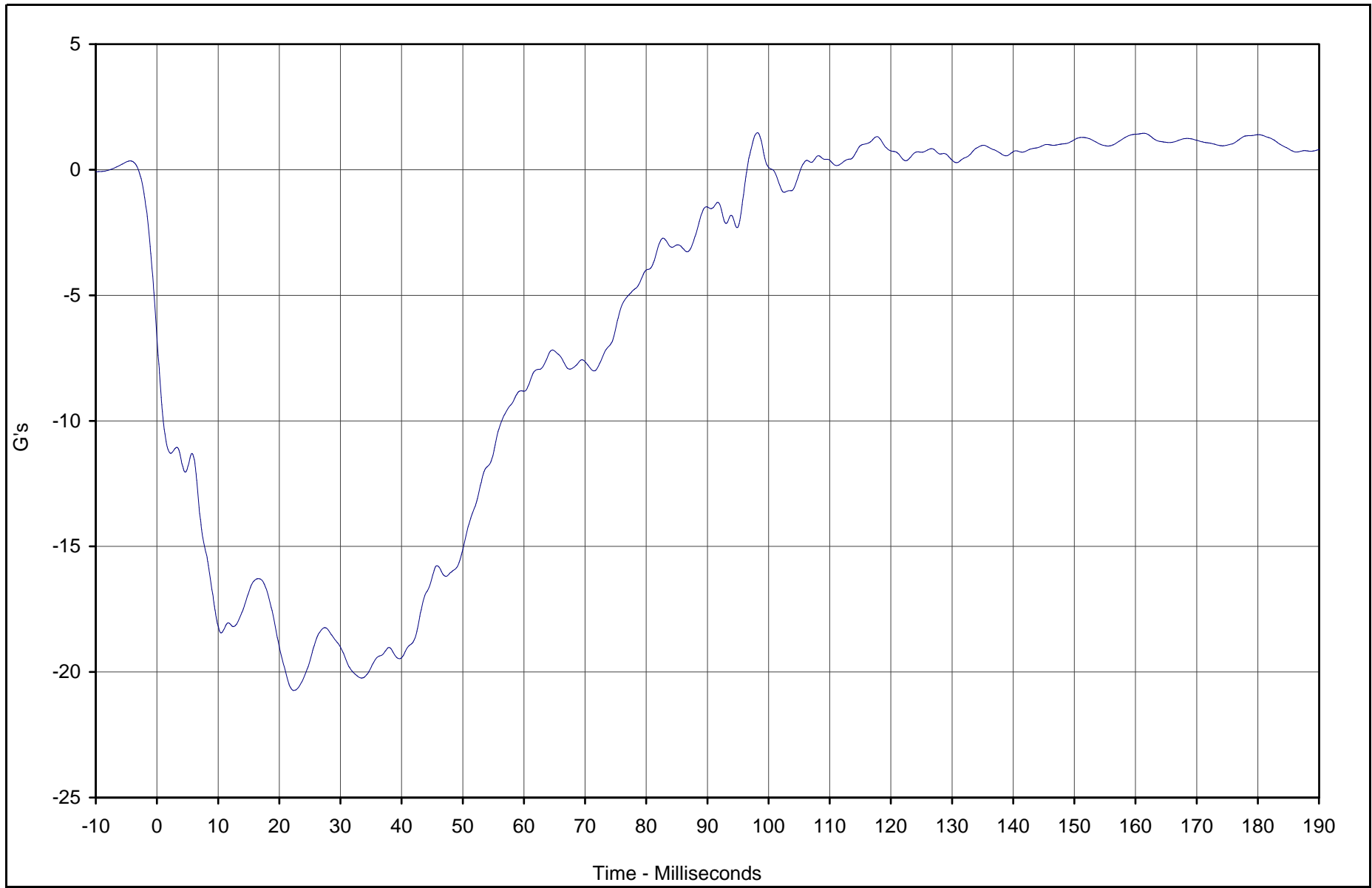
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-144



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB Rear X	074	FIL	G's	1.5	98.2	-20.7	22.4	60



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

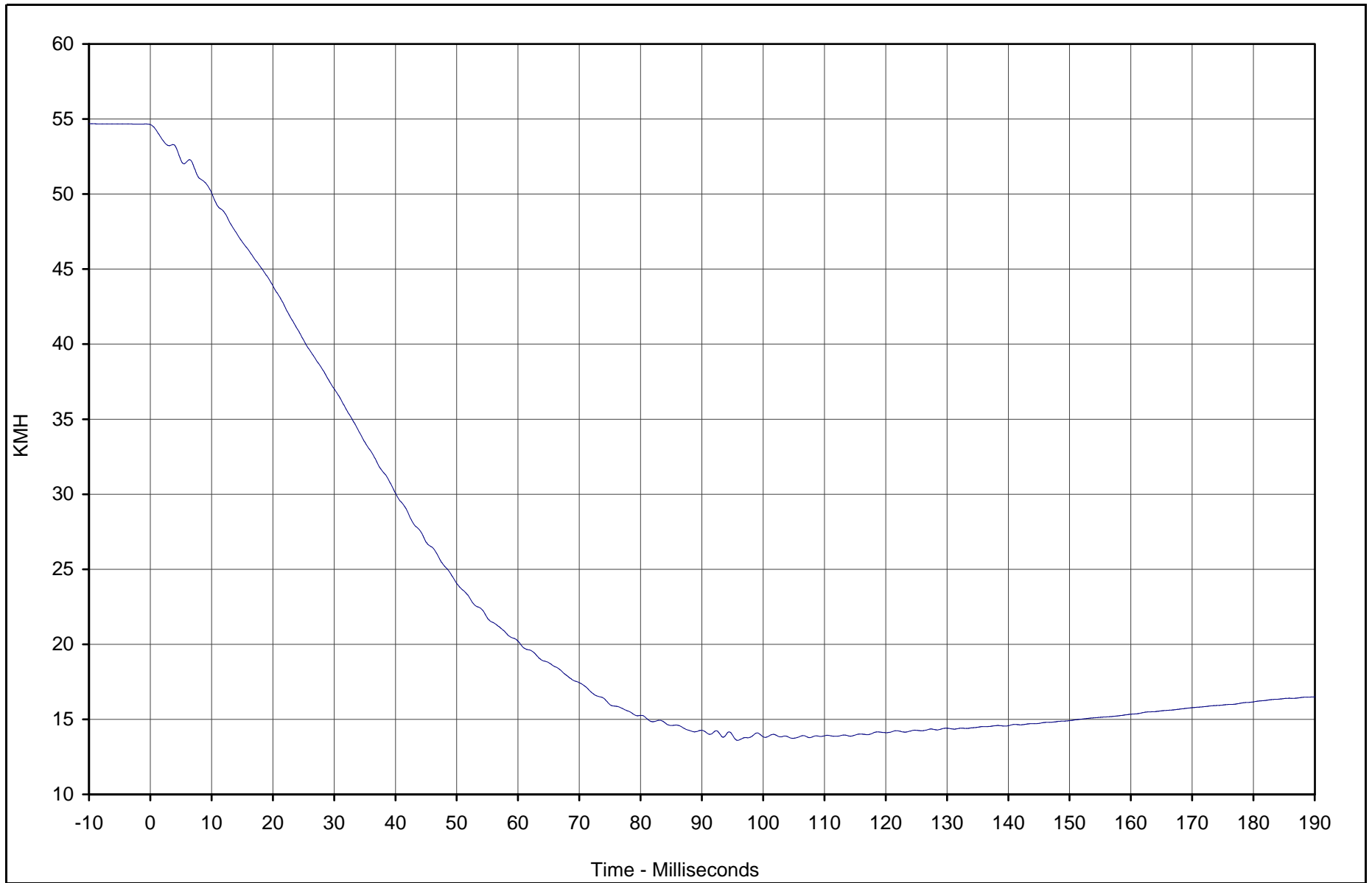
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-145



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB Rear X Velocity	074	IN1	KMH	54.6	0.0	13.6	95.8	180



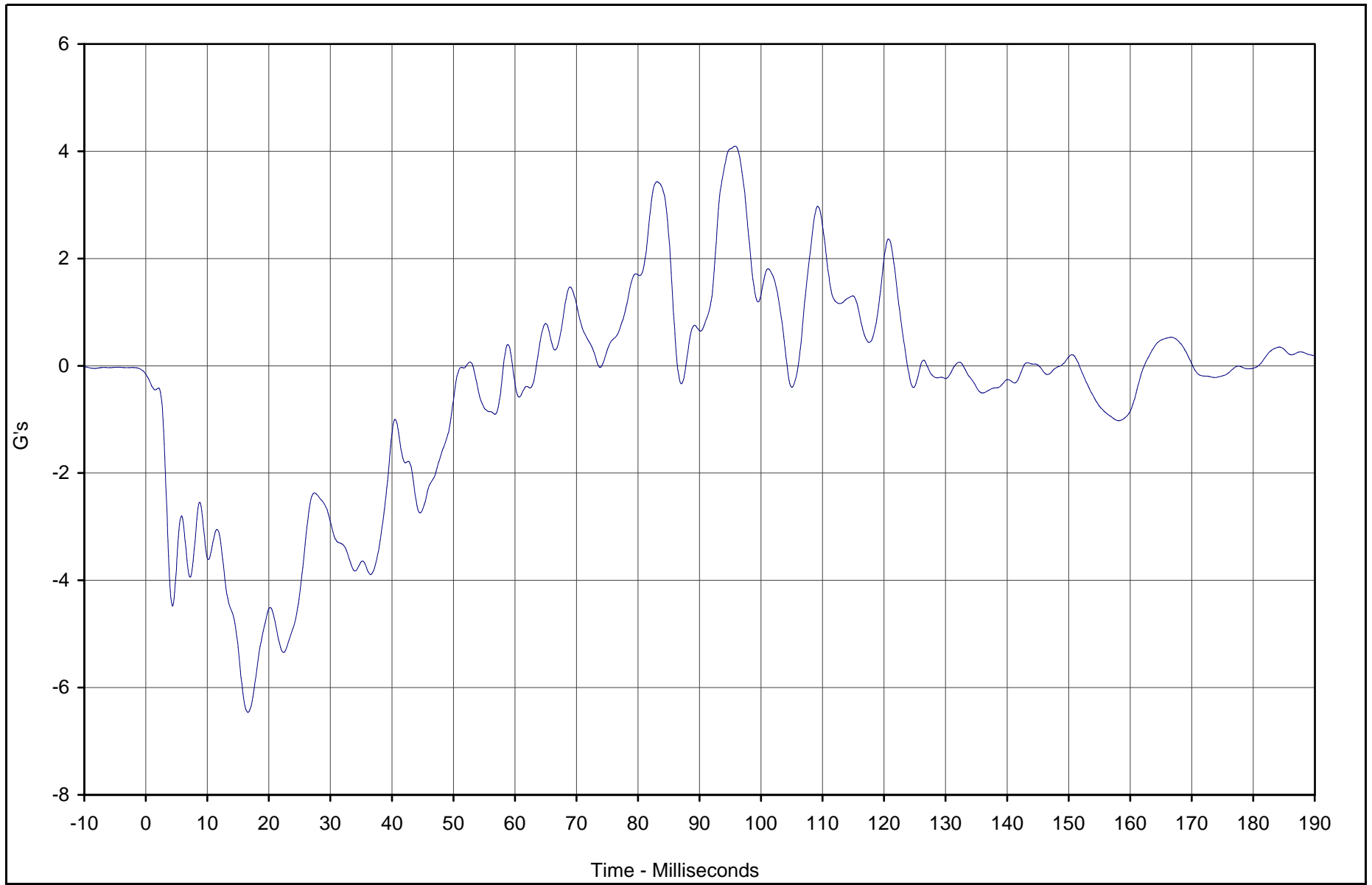
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB Rear Y	075	FIL	G's	4.1	95.8	-6.5	16.6	60



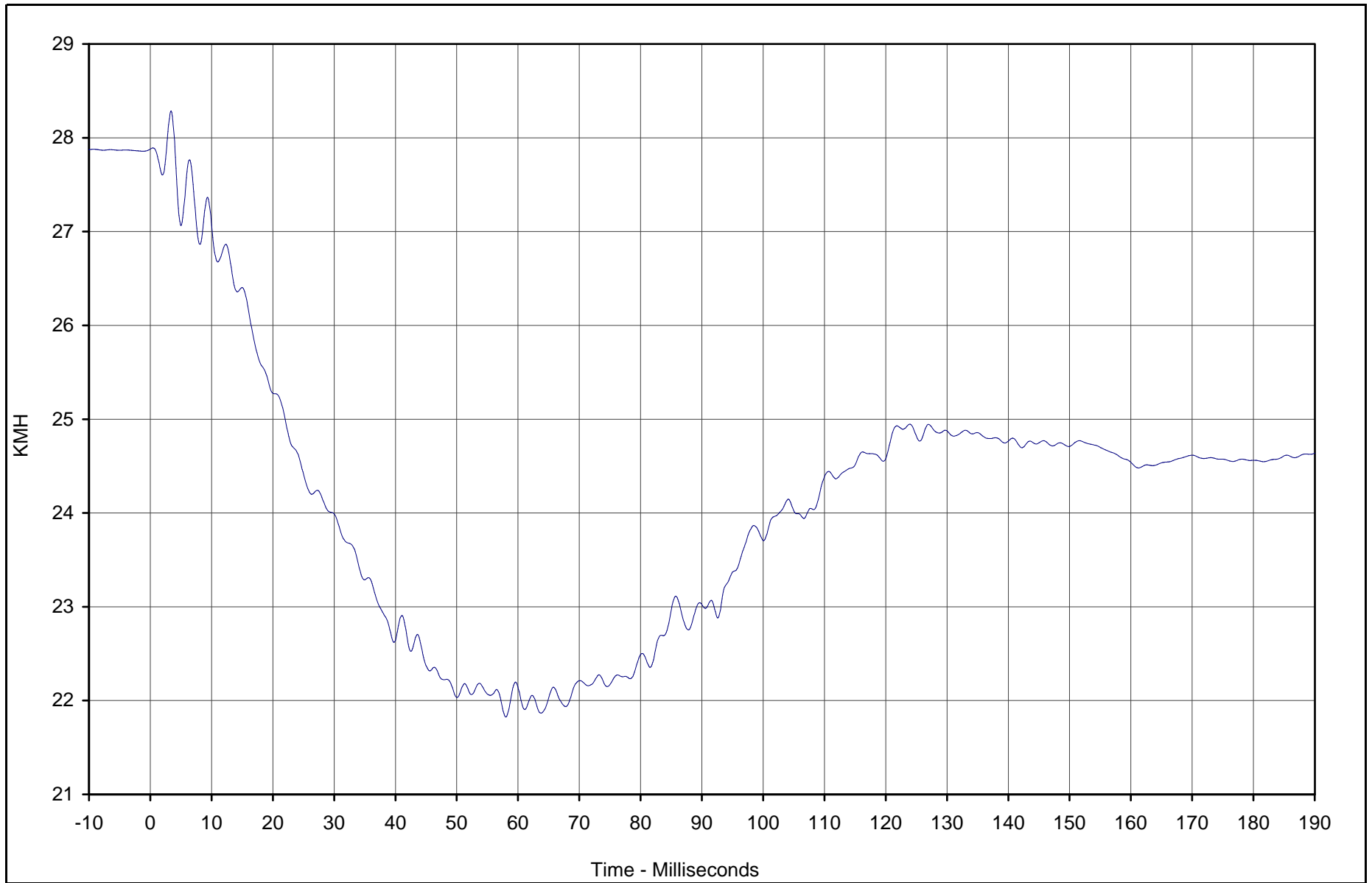
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-147



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
MDB Rear Y Velocity	075	IN1	KMH	28.3	3.4	21.8	58.0	180



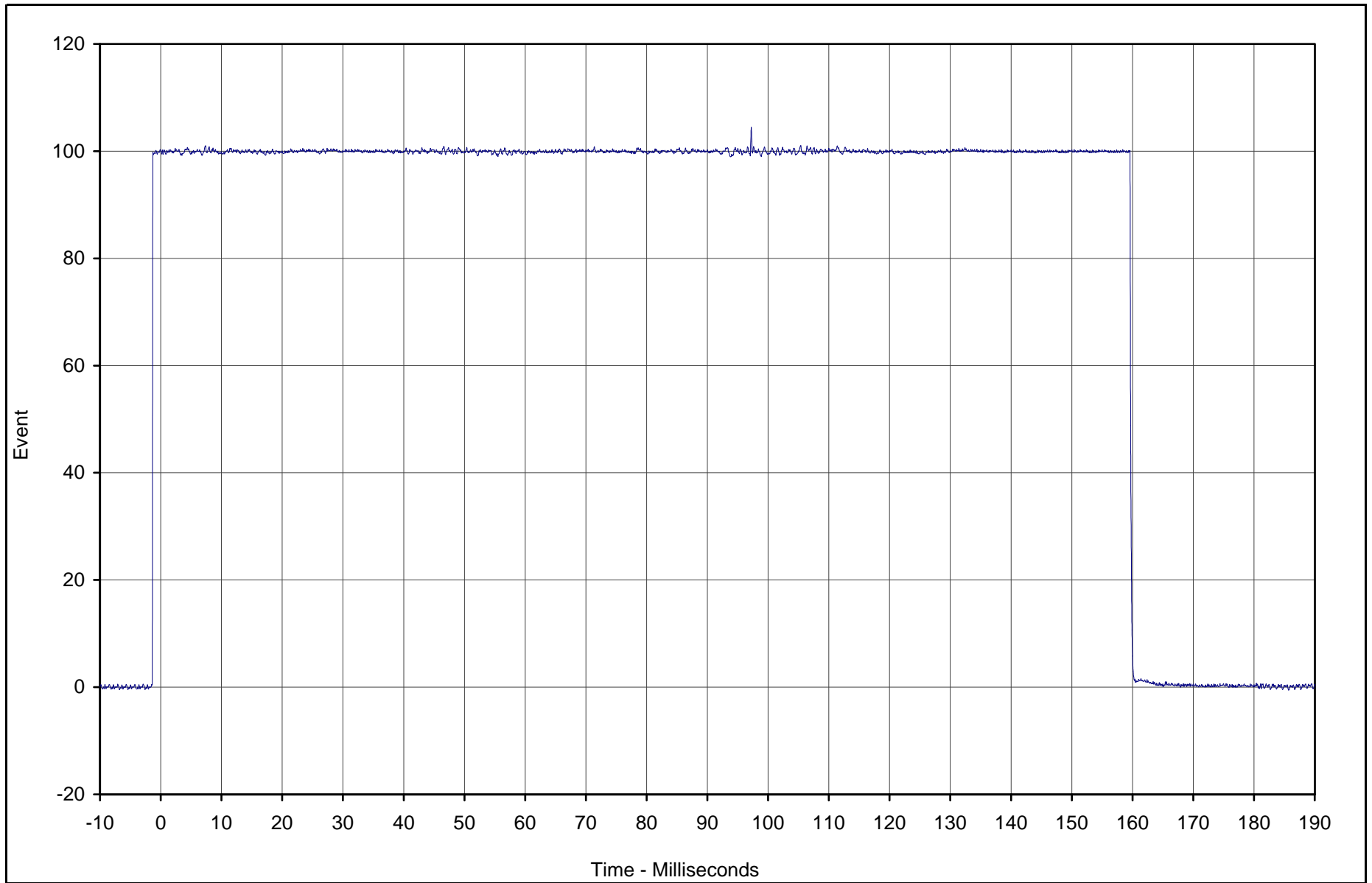
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Cross %	Time	SAE Class
MDB Right Bumper Contact	076	FIL	Event	104.4	97.2	50.0	-1.3	1000

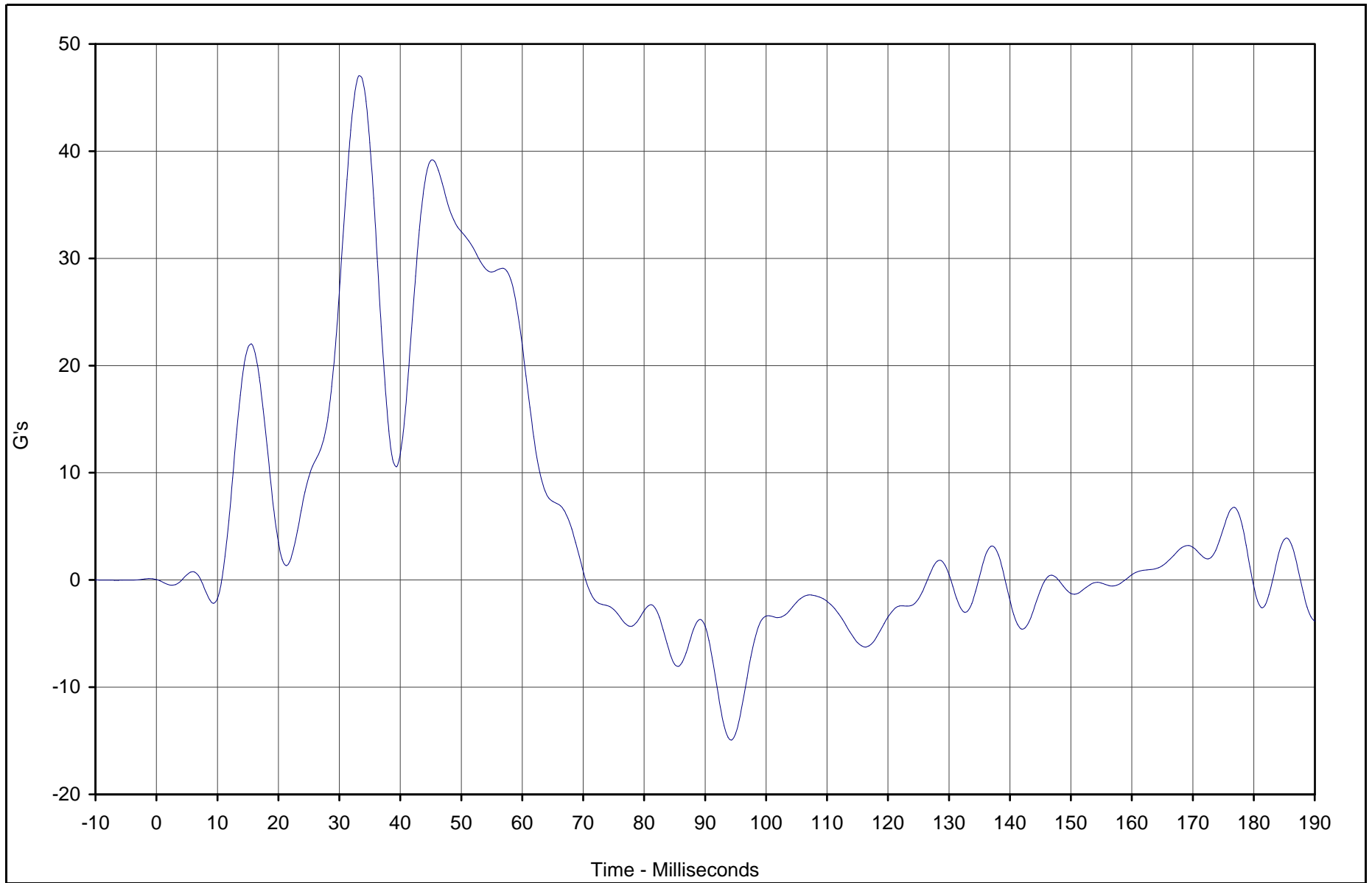


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Upper Rib Primary Y	013	FIR	G's	47.0	33.1	-14.9	94.4	FIR100



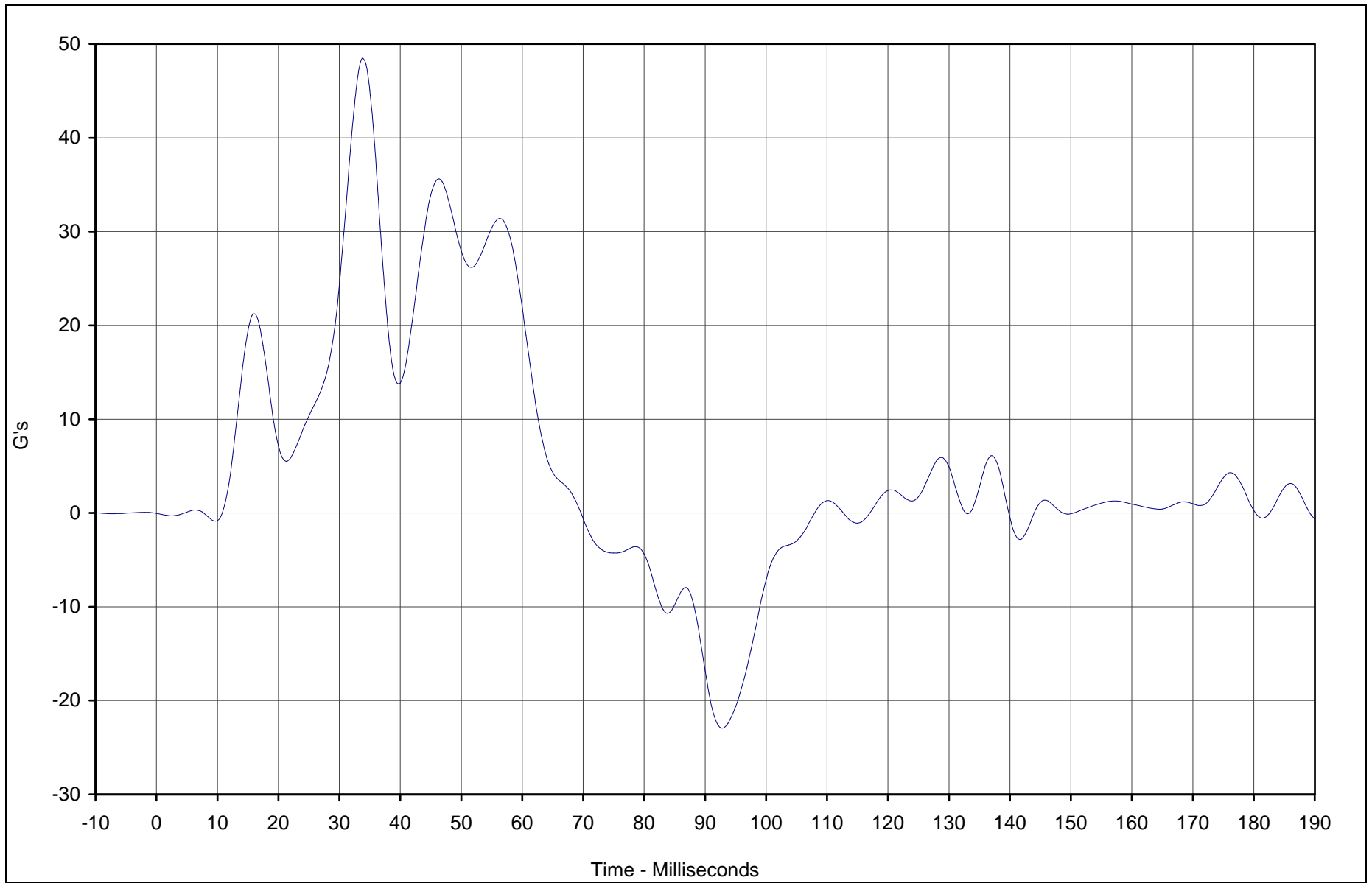
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-150



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Rib Primary Y	014	FIR	G's	48.5	33.8	-22.9	92.5	FIR100



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

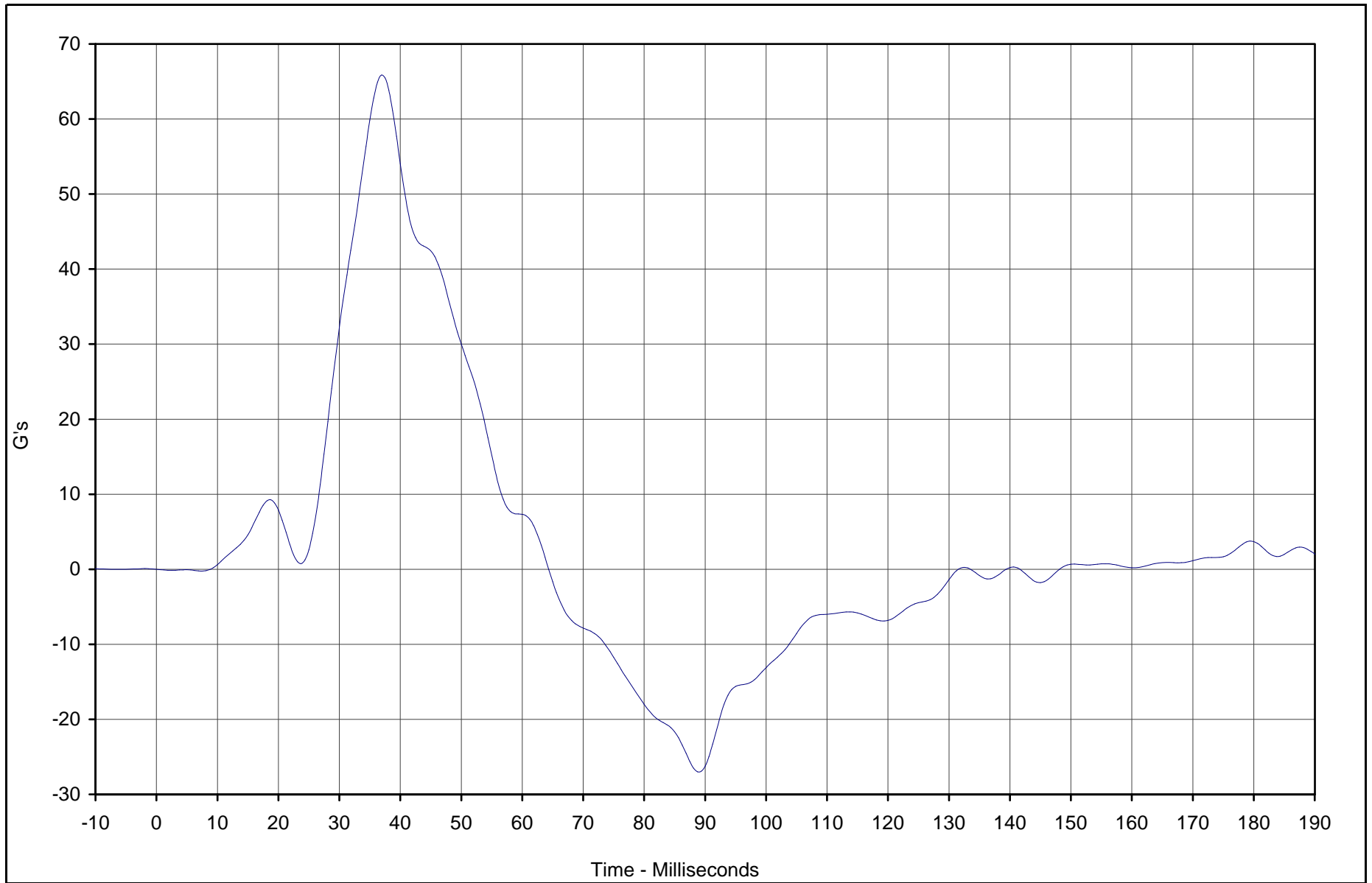
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-151



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Spine Primary Y	015	FIR	G's	65.8	36.9	-27.0	88.8	FIR100



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

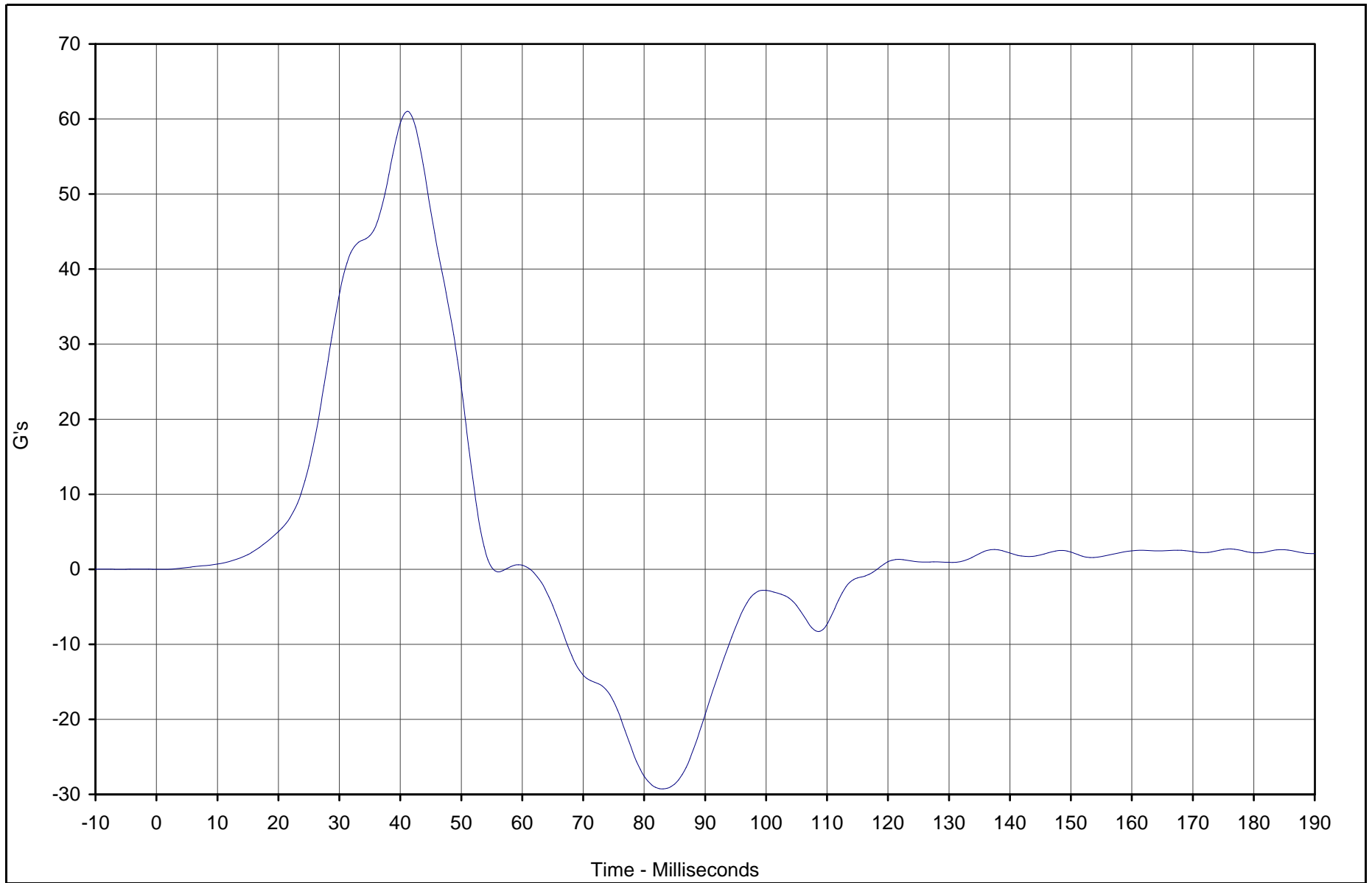
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-152



TR-P23003-04-NC

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis Primary Y	016	FIR	G's	61.0	41.3	-29.3	83.1	FIR100

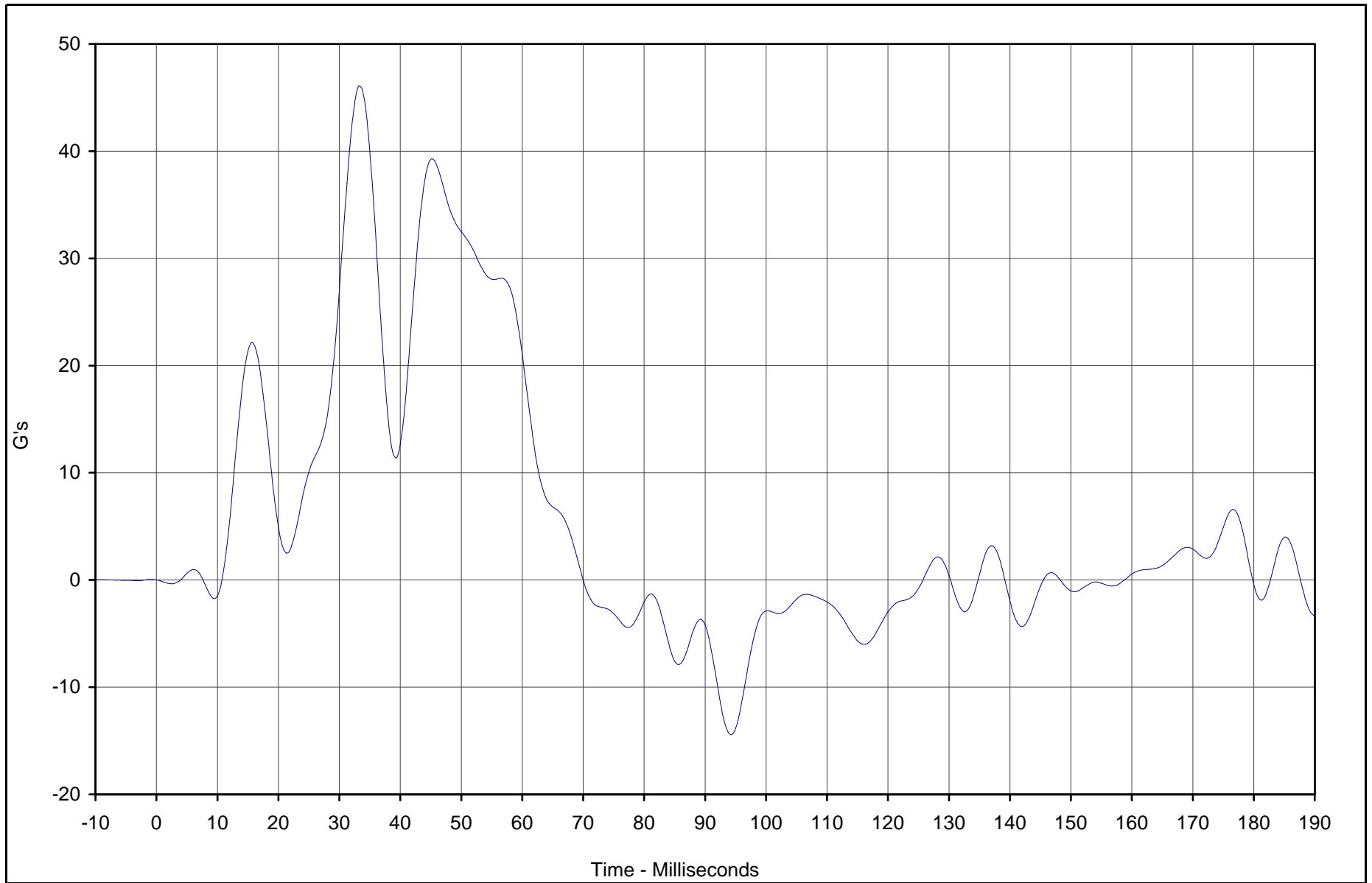


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Upper Rib Redundant Y	017	FIR	G's	46.0	33.1	-14.4	94.4	FIR100



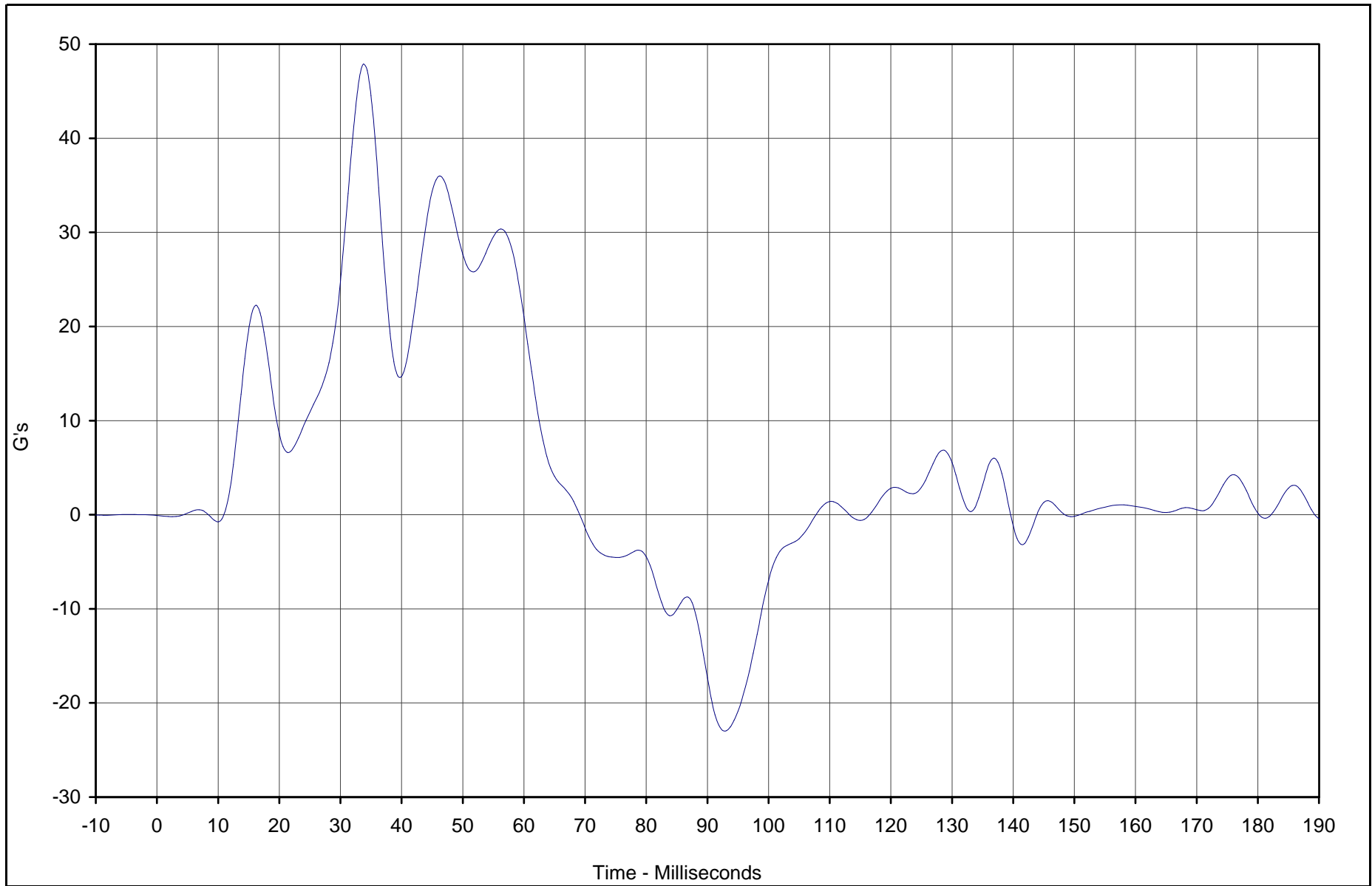
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-154



TR-P23003-04-NC

Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Rib Redundant Y	018	FIR	G's	47.9	33.8	-22.9	93.1	FIR100



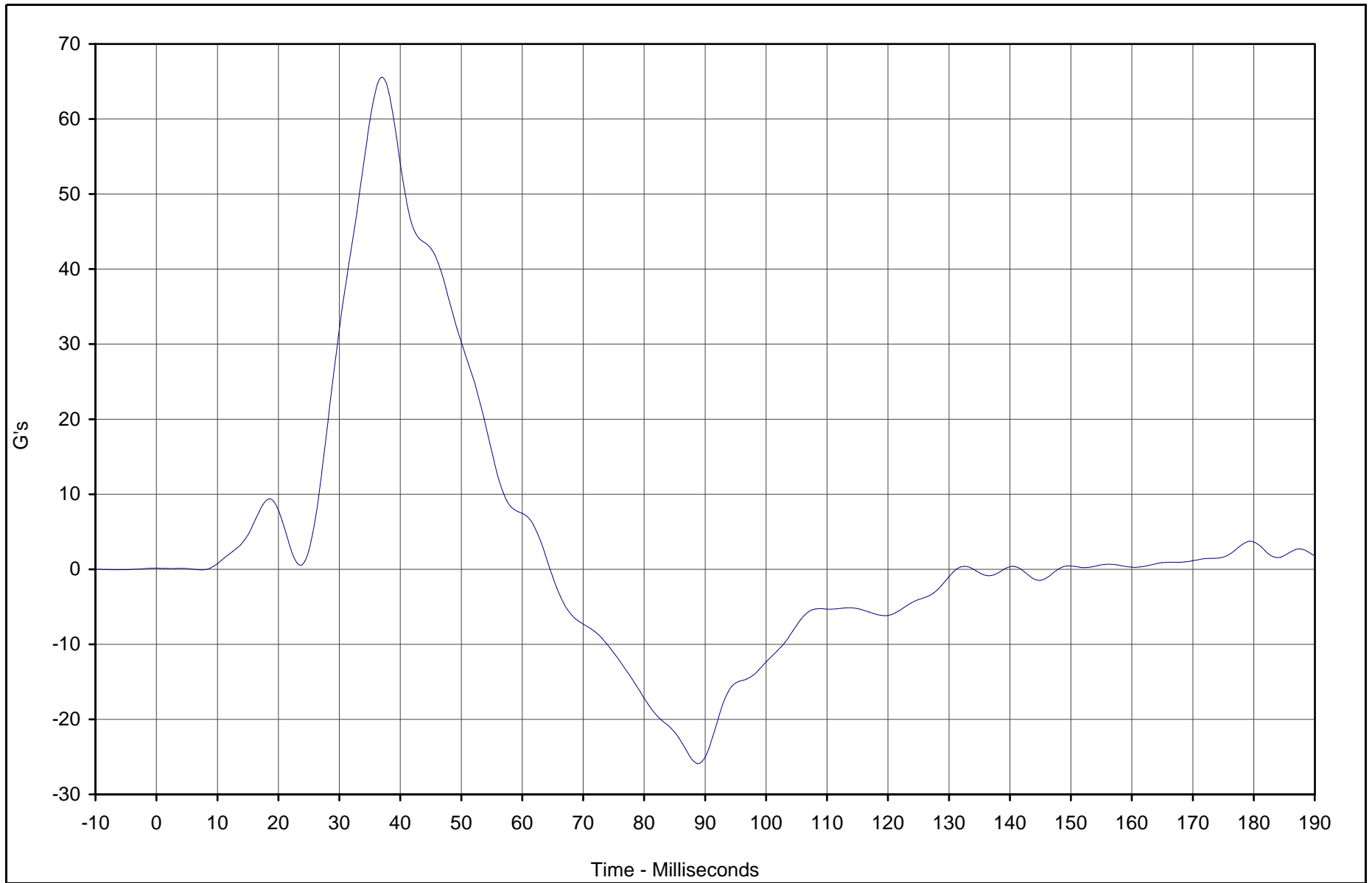
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-155



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lower Spine Redundant Y	019	FIR	G's	65.6	36.9	-25.9	88.8	FIR100



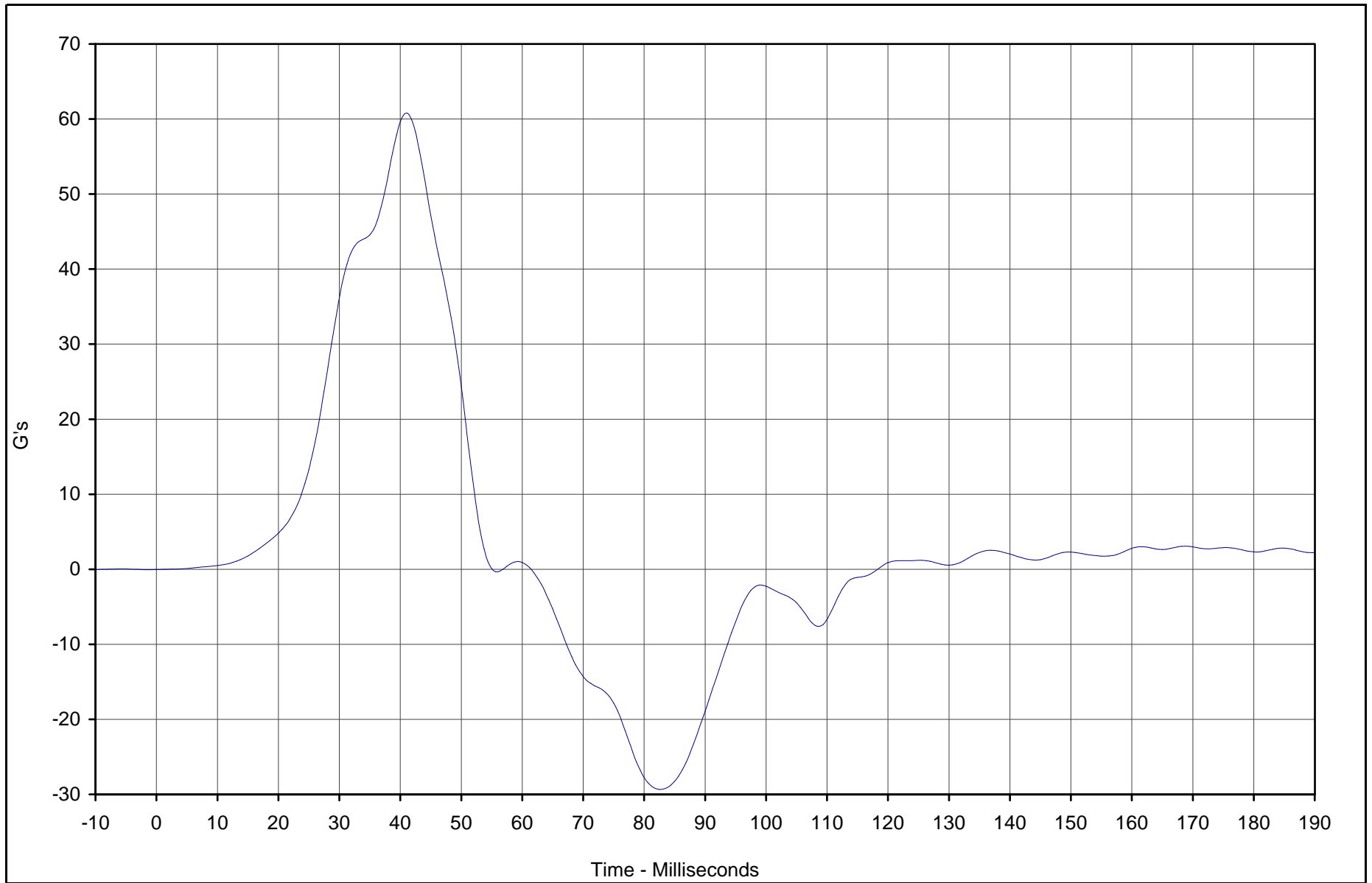
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis Redundant Y	020	FIR	G's	60.7	41.3	-29.3	82.5	FIR100



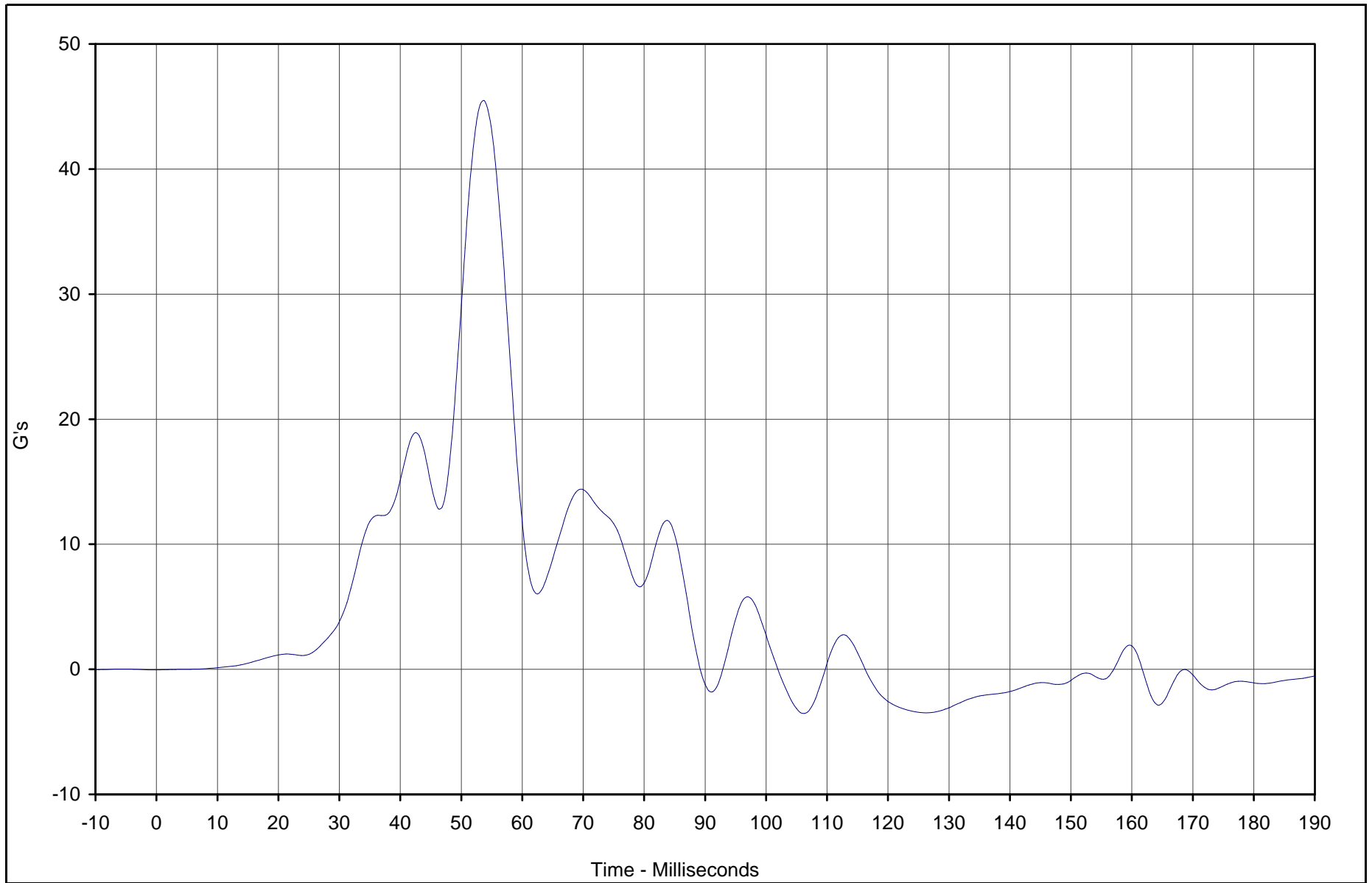
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-157



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Upper Rib Primary Y	035	FIR	G's	45.5	53.8	-3.5	106.3	FIR100



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

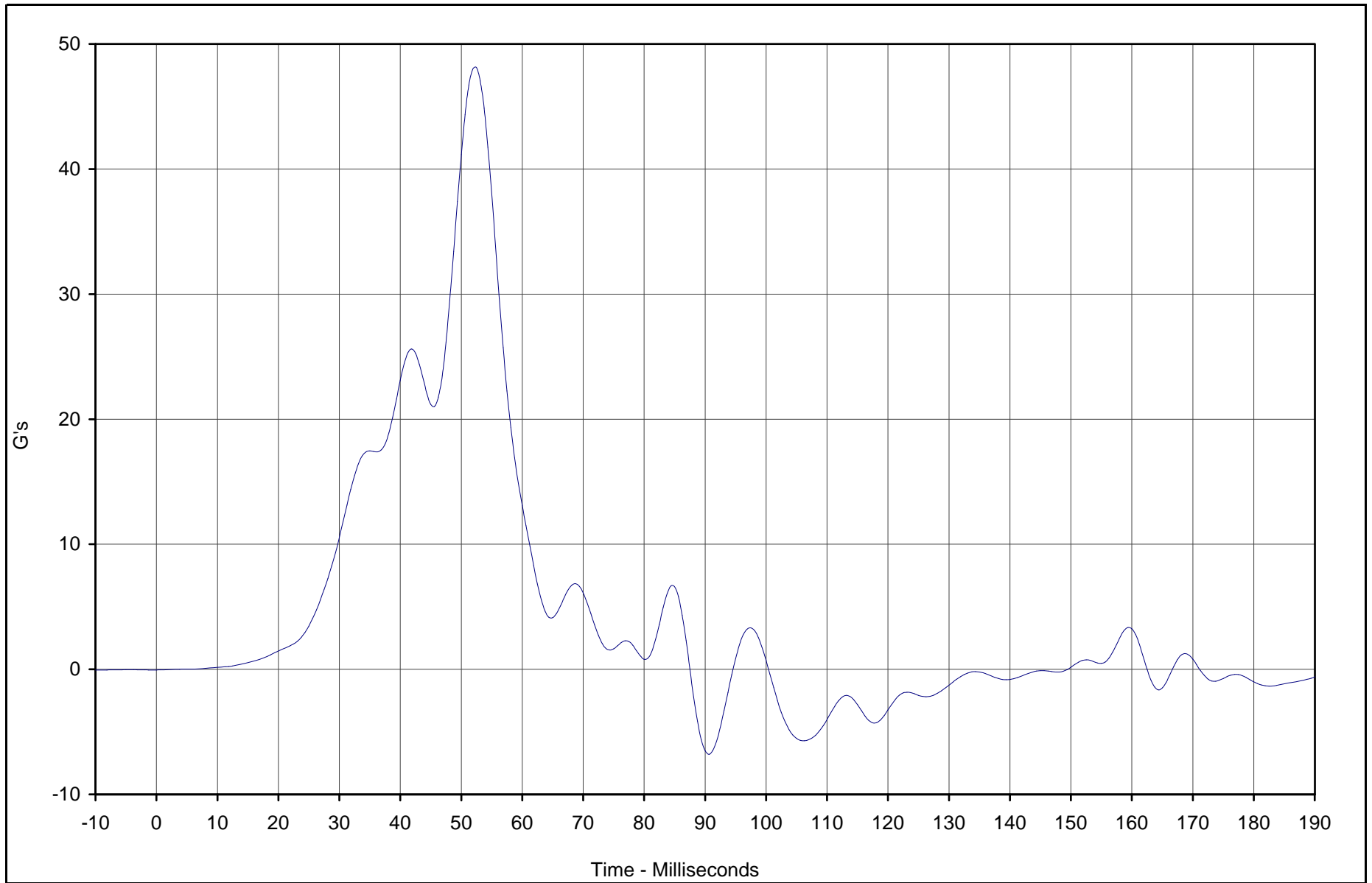
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-158



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Rib Primary Y	036	FIR	G's	48.1	52.5	-6.8	90.6	FIR100



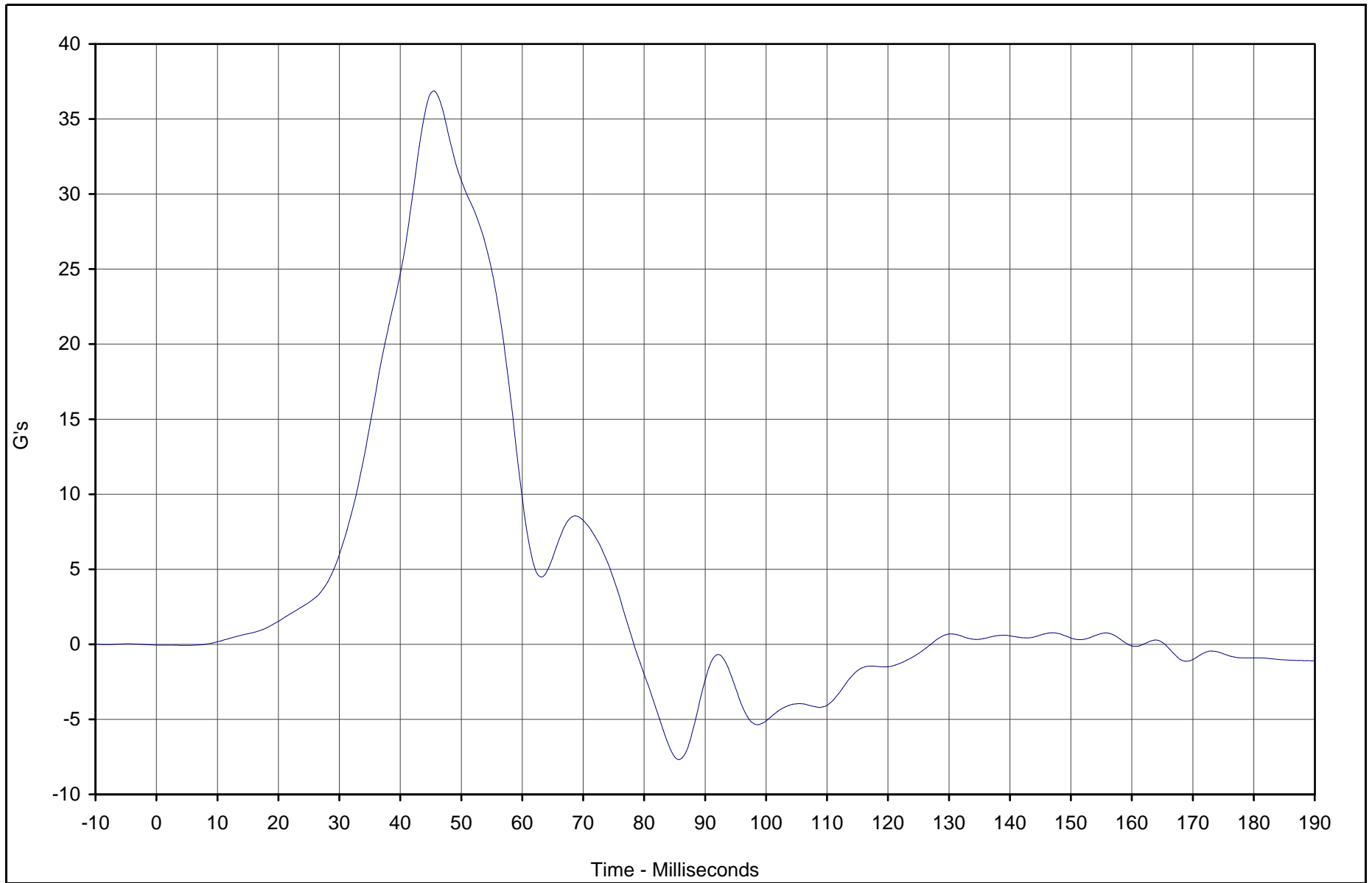
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Spine Primary Y	037	FIR	G's	36.9	45.6	-7.7	85.6	FIR100

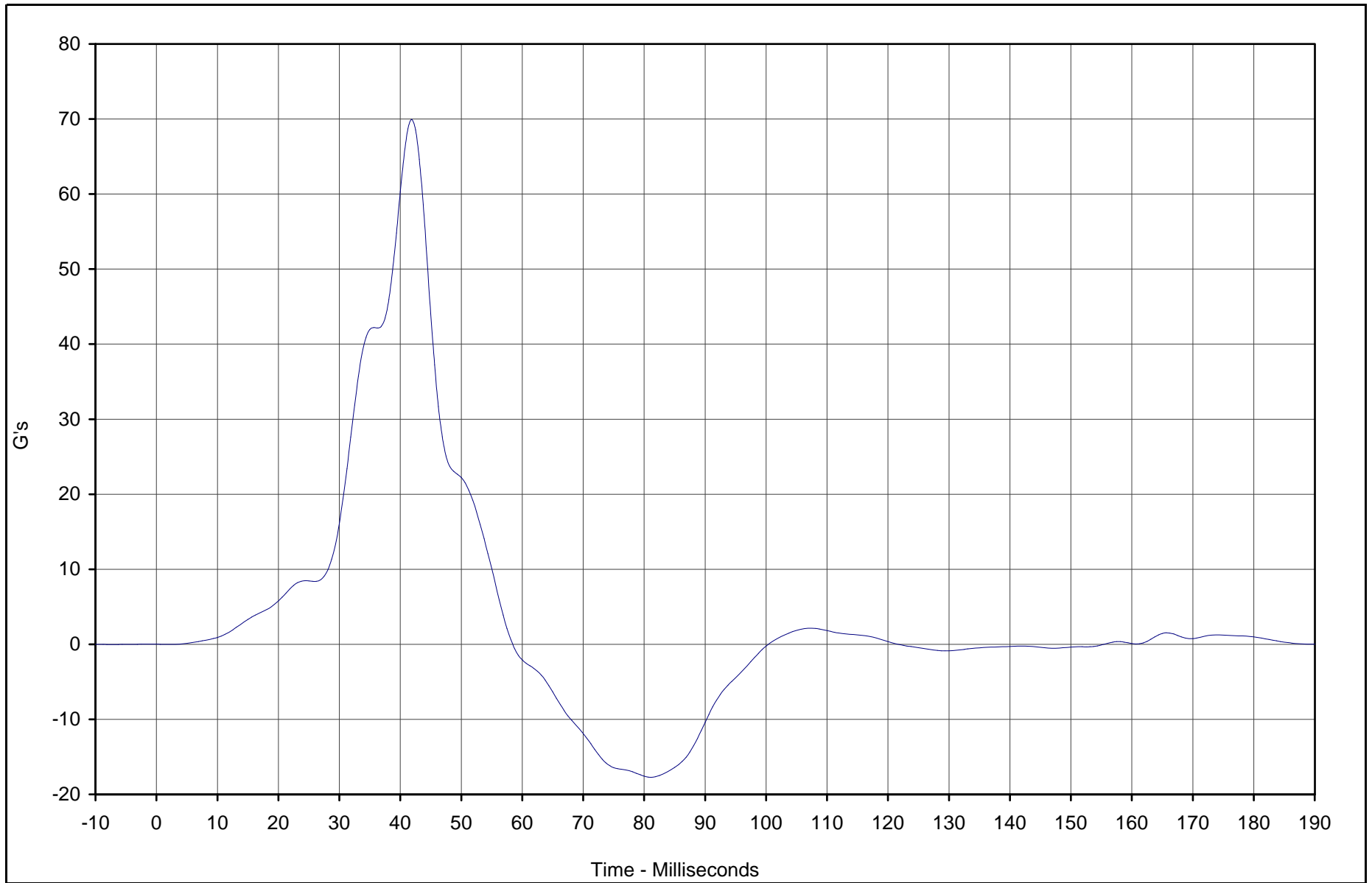


Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 11/14/02
 NHTSA No.: M30203

B-160

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Pelvis Primary Y	038	FIR	G's	69.9	41.9	-17.7	81.3	FIR100



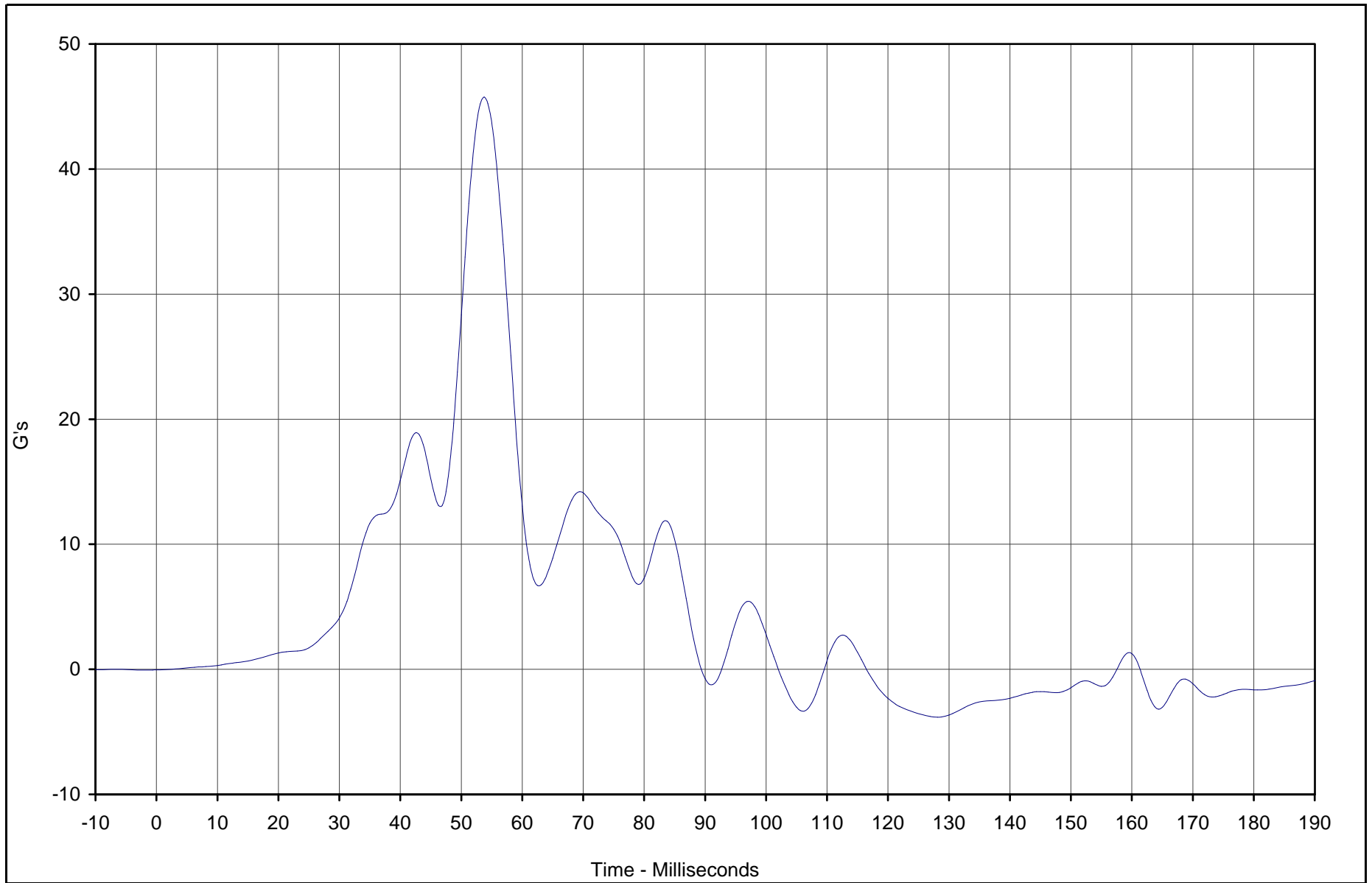
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

B-161



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Upper Rib Redundant Y	039	FIR	G's	45.8	53.8	-3.8	128.1	FIR100



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

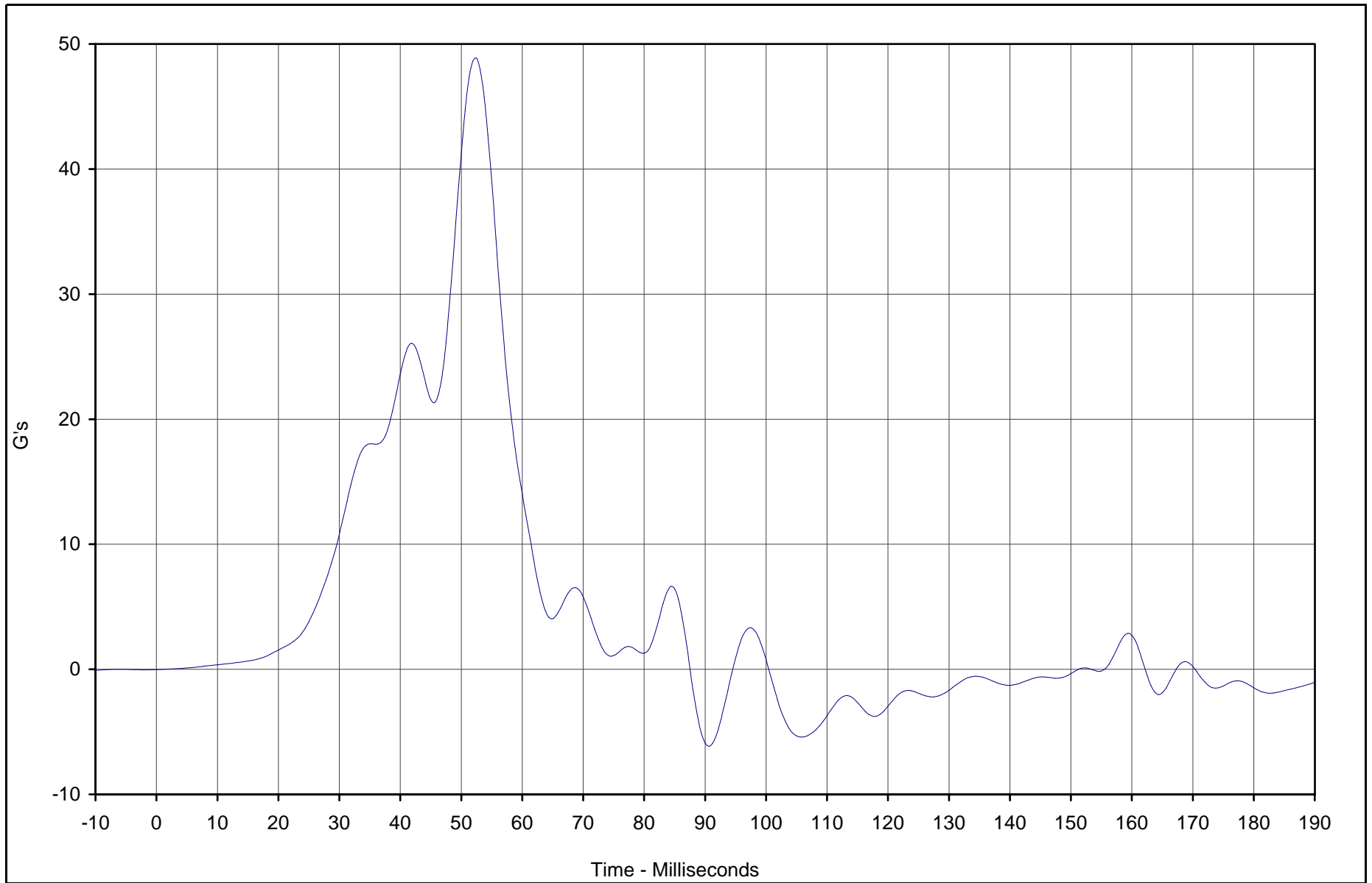
Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

B-162



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Rib Redundant Y	040	FIR	G's	48.9	52.5	-6.2	90.6	FIR100



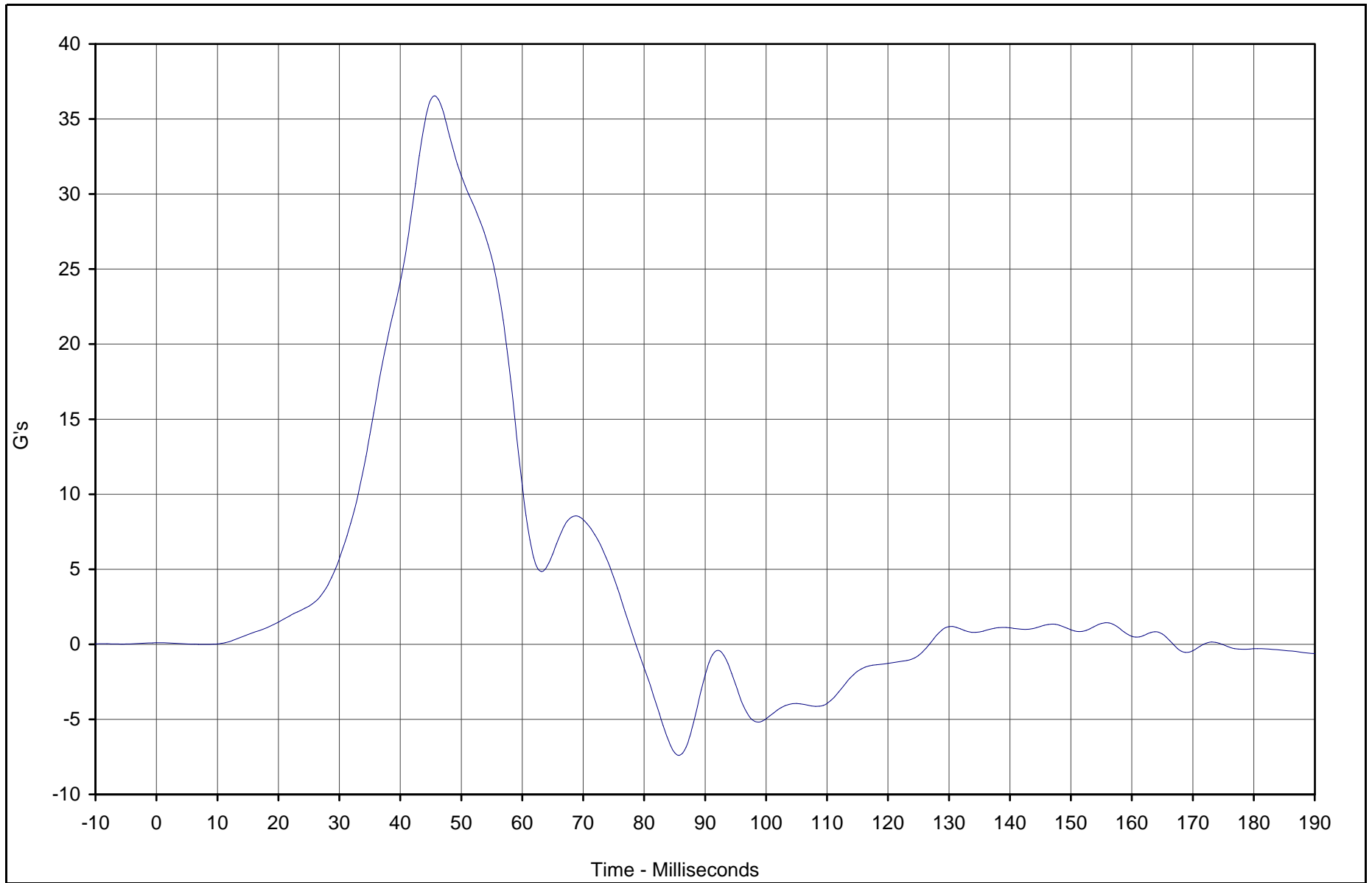
Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC



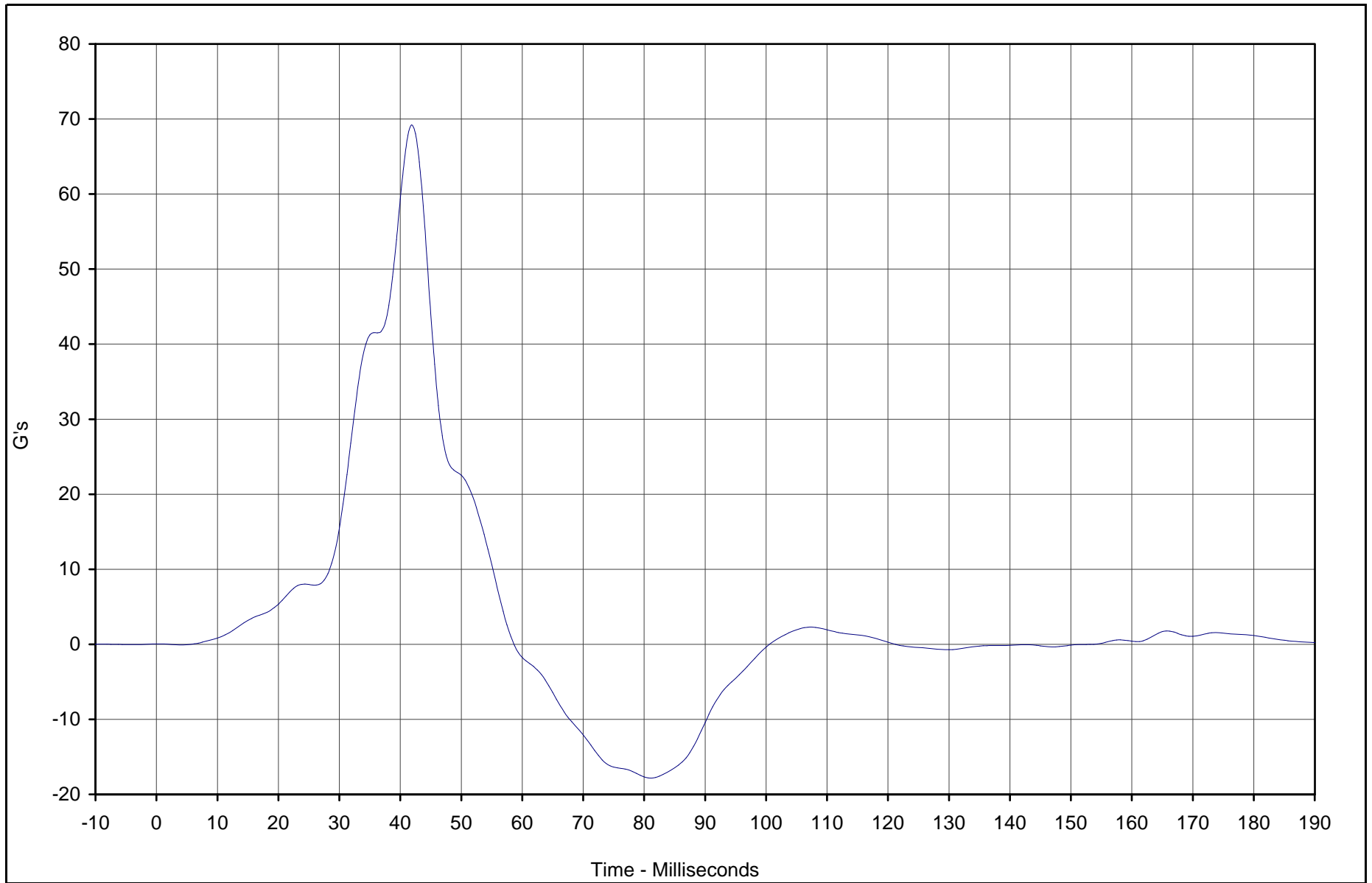
Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Lower Spine Redundant Y	041	FIR	G's	36.5	45.6	-7.4	85.6	FIR100



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 11/14/02
 NHTSA No.: M30203

B-164



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pass. Pelvis Redundant Y	042	FIR	G's	69.2	41.9	-17.8	81.3	FIR100



Test Vehicle: 2003 Lincoln Town Car 4 Door Sedan

Test Date: 11/14/02

Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: M30203

TR-P23003-04-NC

APPENDIX C
SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA

APPENDIX C
PRE-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA



Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) External Measurements

ATD Serial No.: 274

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	905	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	515	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	515	Pass
KV- Knee Pivot From Floor	mm	490 to 505	495	Pass
HW- Hip Width	mm	356 to 391	375	Pass
Overall Test Results				Pass

C-1

TR-P23003-04-NC

Laboratory Technician

November 13, 2002

Test Date



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Thorax Lateral Impact

ATD Serial No.: 274

Test I.D.: TI11A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.24	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	40.1	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	39.5	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	17.0	Pass
Overall Test Results				Pass

C-2

TR-P23003-04-NC

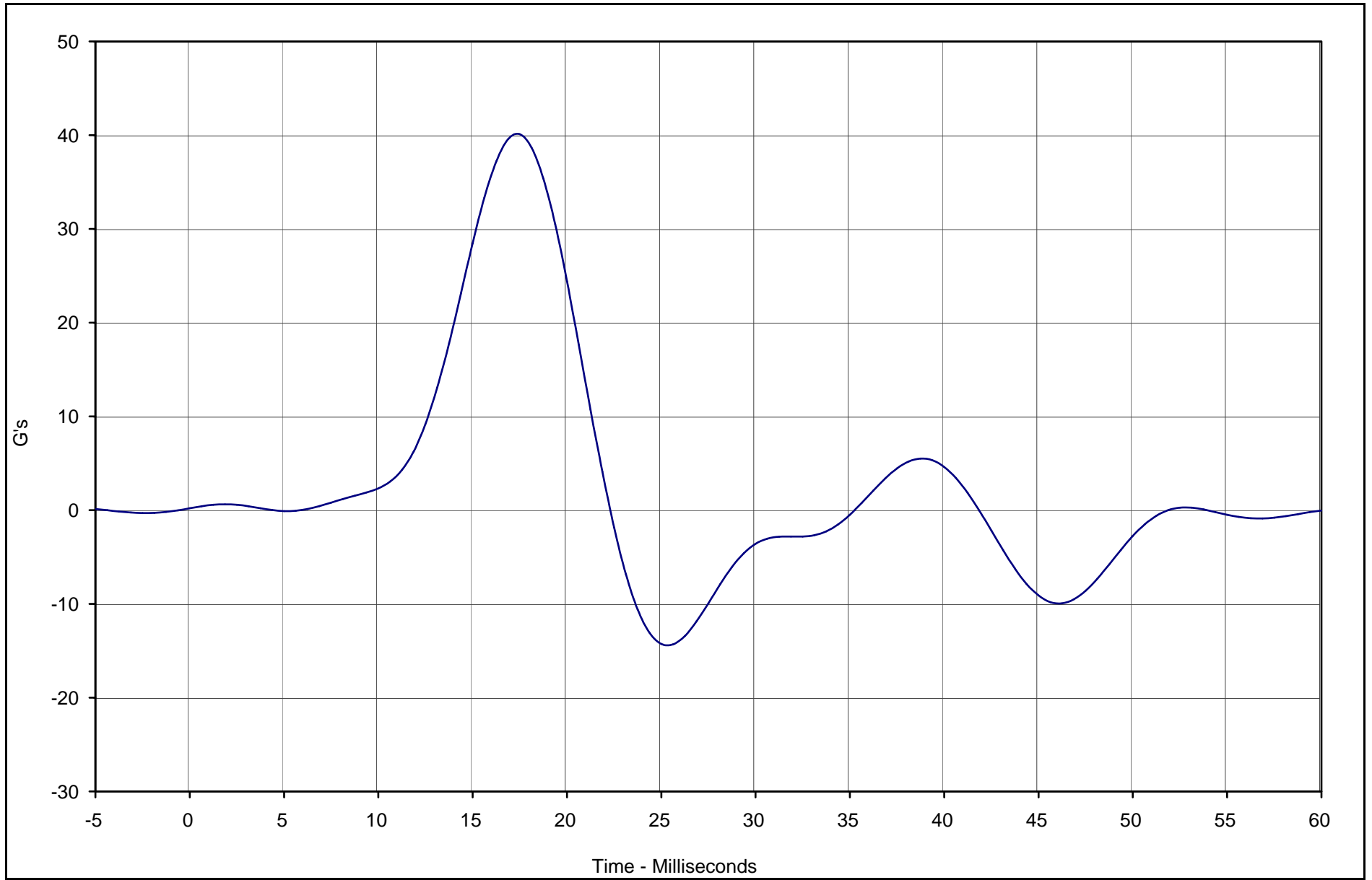
Laboratory Technician

November 13, 2002

Test Date

C-3

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Upper Rib Y Acceleration	001	FIL	G's	40.1	17.5	-14.3	25.6	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

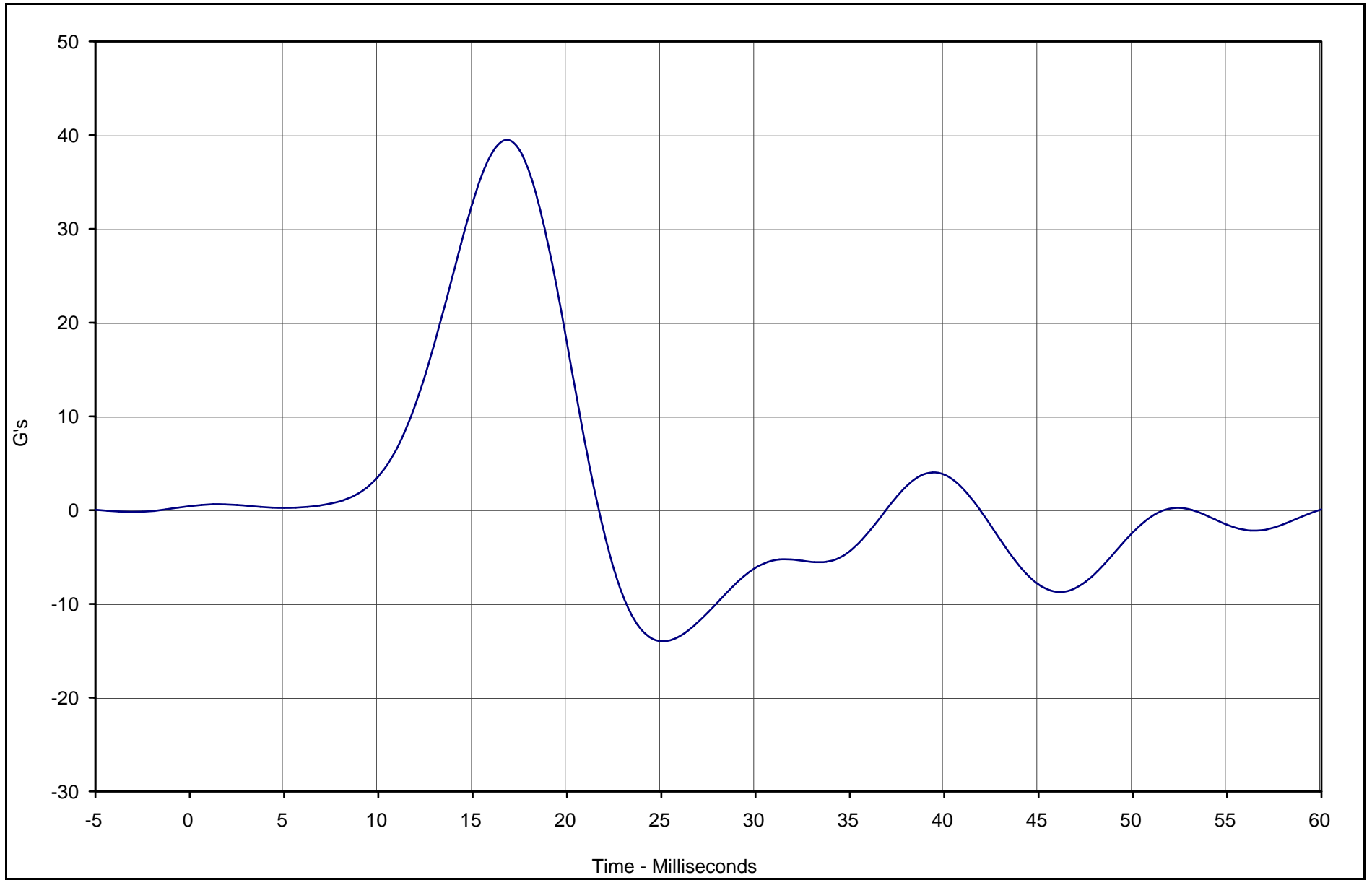
SID Serial No.: 274

Test Date: 11/13/02

Test I.D.: T111A

C-4

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Rib Y Acceleration	002	FIL	G's	39.5	16.9	-14.0	25.0	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

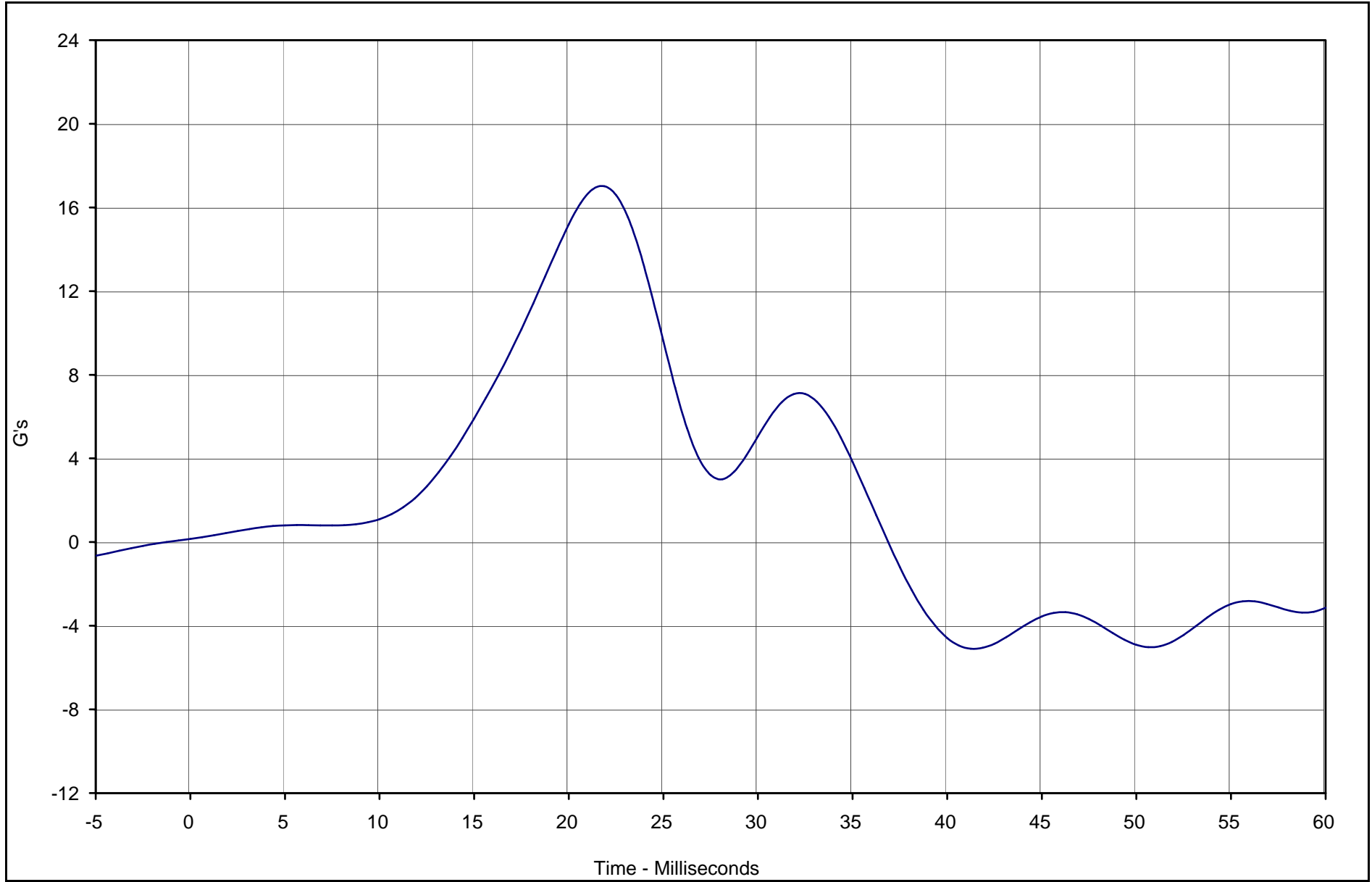
SID Serial No.: 274

Test Date: 11/13/02

Test I.D.: T111A

C-5

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Spine Y Acceleration	003	FIL	G's	17.0	21.9	-5.1	41.3	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 11/13/02

Test I.D.: T111A



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Pelvis Lateral Impact

ATD Serial No.: 274

Test I.D.: PI11B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	54.2	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.9	Pass
Overall Test Results				Pass

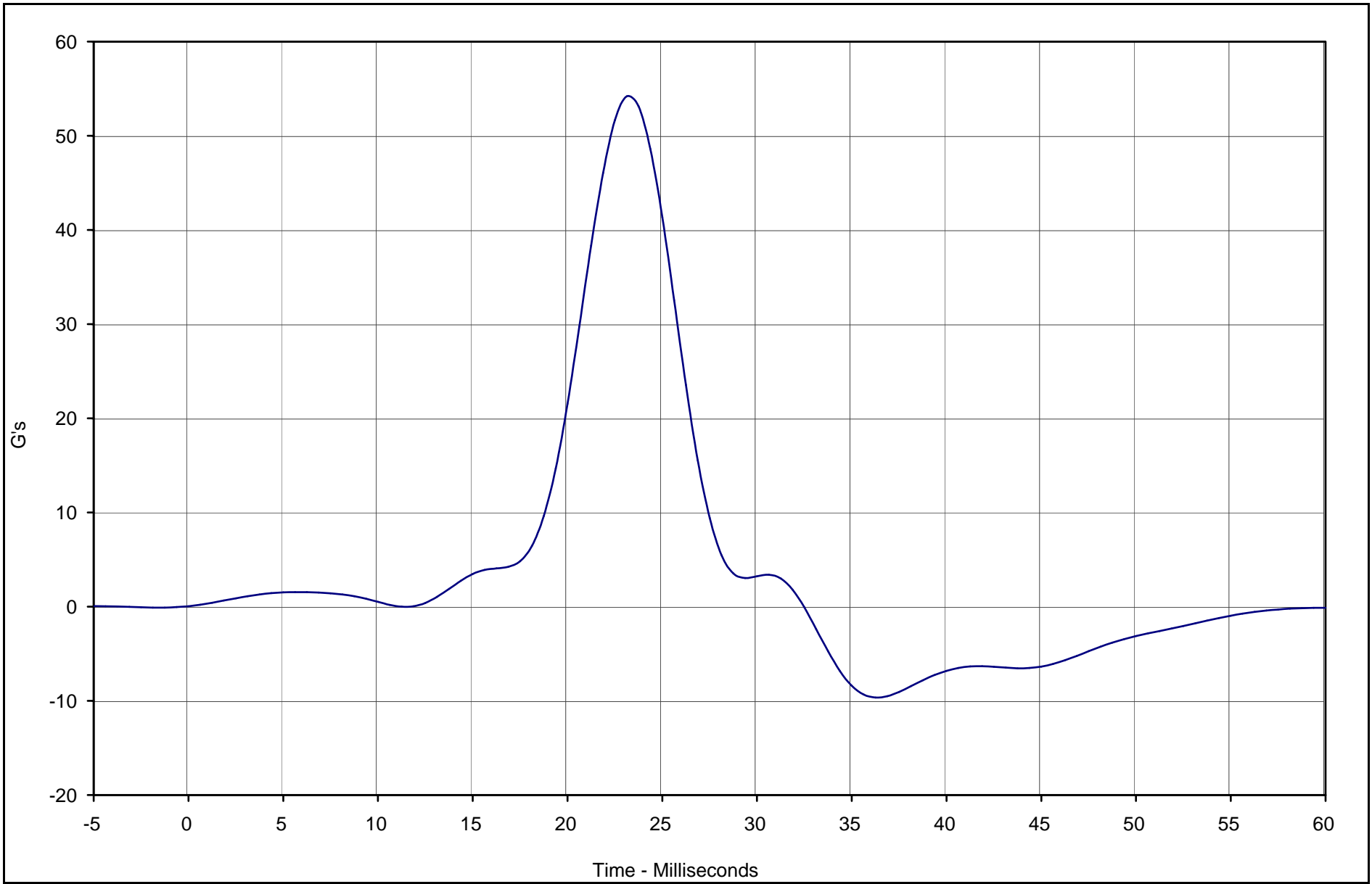
C-6

TR-P23003-04-NC

Laboratory Technician

November 13, 2002

Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pelvis Y Acceleration	001	FIL	G's	54.2	23.1	-9.7	0.0	FIR100



Test Vehicle: Side Impact Dummy (SID) Pelvis Lateral Impact

SID Serial No.: 274

Test Date: 11/13/02

Test I.D.: PI11B



Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Head Drop Lateral Impact Test

ATD Serial No.: 274

Test I.D.: SH12A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	128.0	Pass
Peak Longitudinal Acceleration	G's	≤15.0	8.3	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	1.8	Pass
Overall Test Results				Pass

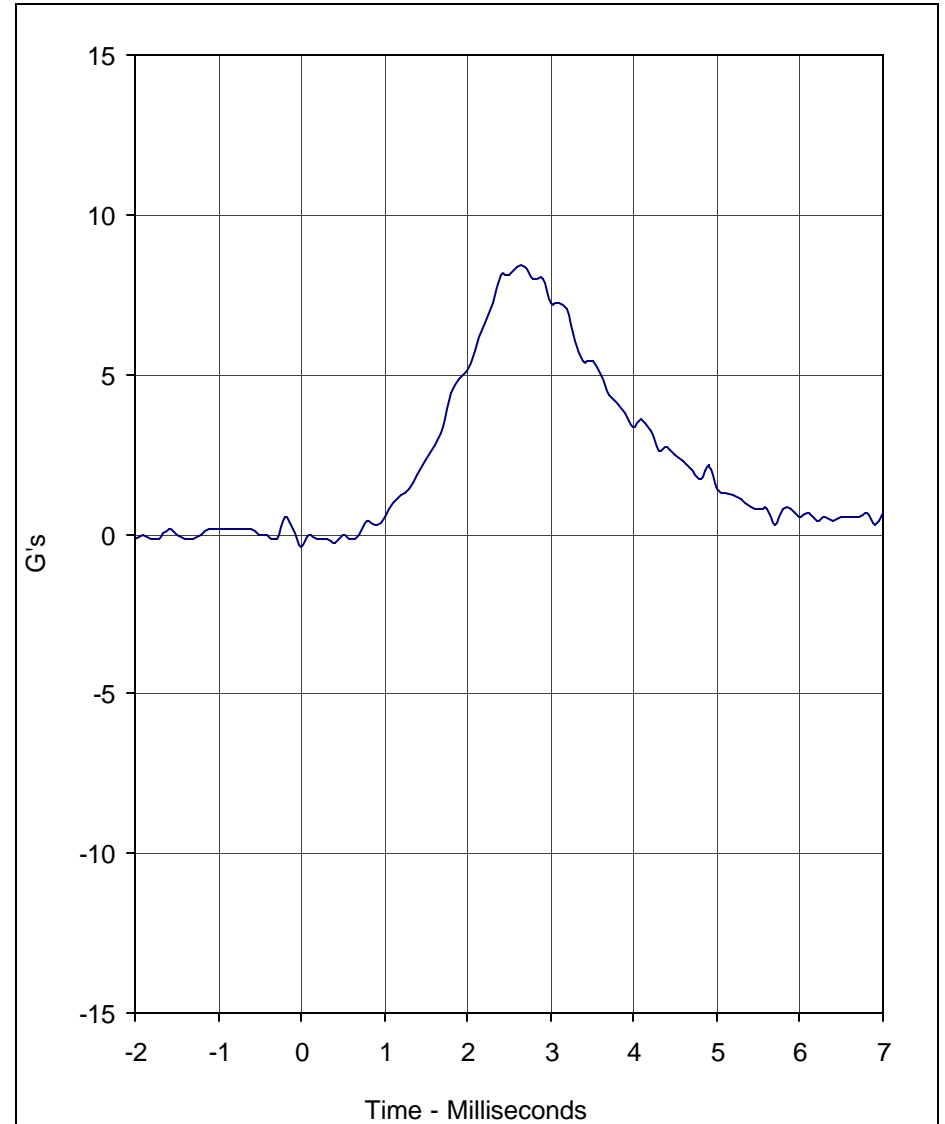
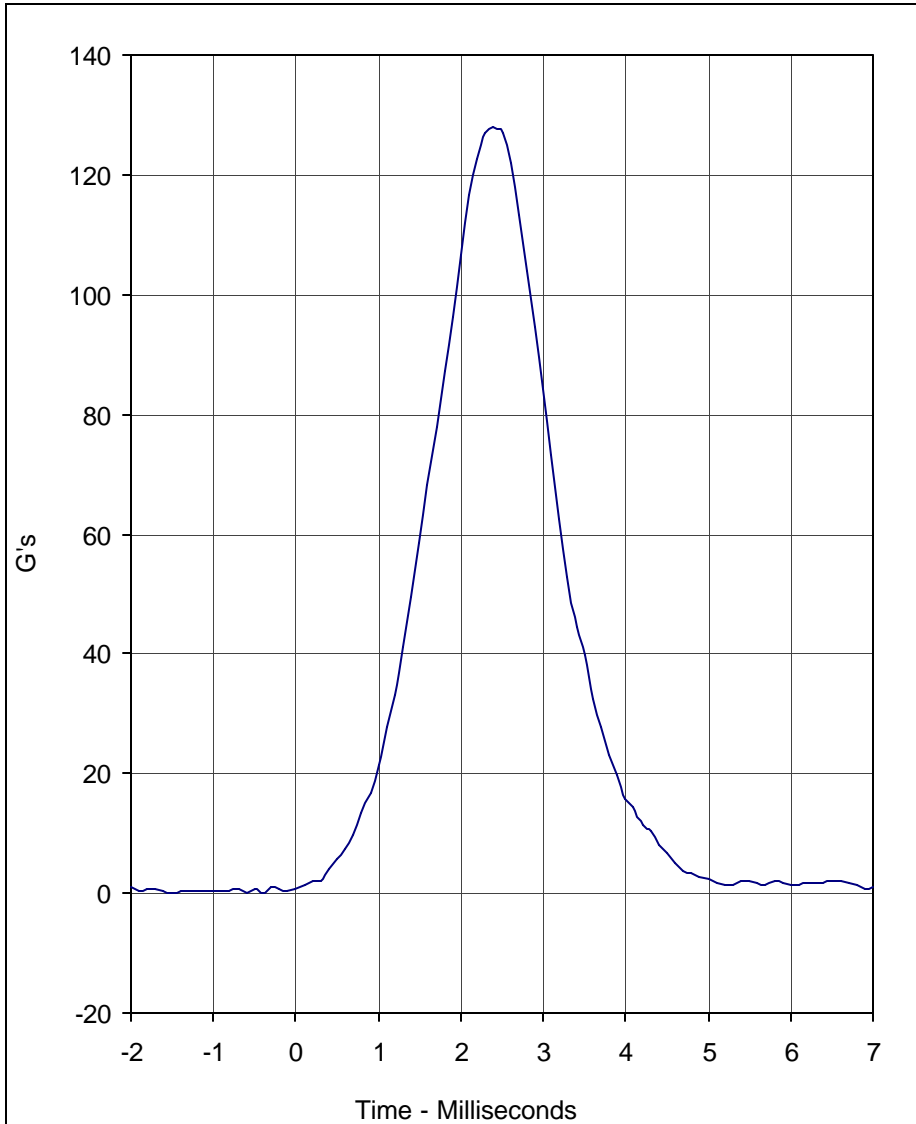
C-8

TR-P23003-04-NC

Laboratory Technician

November 13, 2002

Test Date



Curve Description	CURNO	Type
Head Resultant	001	RES

Units	Max	Time	Min	Time	SAE Class
G's	128.0	2.4	0.0	-1.5	1000

Curve Description	CURNO	Type
Head X	002	FIL

Units	Max	Time	Min	Time	SAE Class
G's	8.3	2.6	-0.4	0.0	1000

Test Program: SID / HIII Head Drop Lateral Impact Test
 Test Date: 11/13/02

A.T.D. Serial No.: 274
 Test I.D.: SH12A





Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Neck Pendulum Lateral Test

ATD Serial No.: 274

Test I.D.: NB11C

Tested Parameter	Units	Specification	Result	Pass/Fail	
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass	
Laboratory Relative Humidity	%	10 to 70	30	Pass	
Pendulum Velocity	m/s	6.89 to 7.13	6.97	Pass	
Pendulum Deceleration	10	Msec.	1.96 to 2.55	2.28	Pass
	20	Msec.	4.12 to 5.10	4.66	Pass
	30	Msec.	5.73 to 7.01	6.71	Pass
	40 to 70	Msec.	6.27 to 7.64	7.11	Pass
Maximum "D" Plane Rotation	Degrees	66.0 to 82.0	74.5	Pass	
Maximum "D" Plane Rotation Time After Peak Moment	Msec.	2.0 to 15.0	13.6	Pass	
"D" Plane Rotation Decay Time From Peak Angle to Zero Angle	Msec.	58.0 to 67.0	61.2	Pass	
Calculated Moment About Occipital Condyle	N•m	73.0 to 88.0	83.8	Pass	
Moment About Occipital Condyle Decay, Time From Positive Peak Value To 0 N•m	Msec.	49.0 to 64.0	49.5	Pass	
			Overall Test Results	Pass	

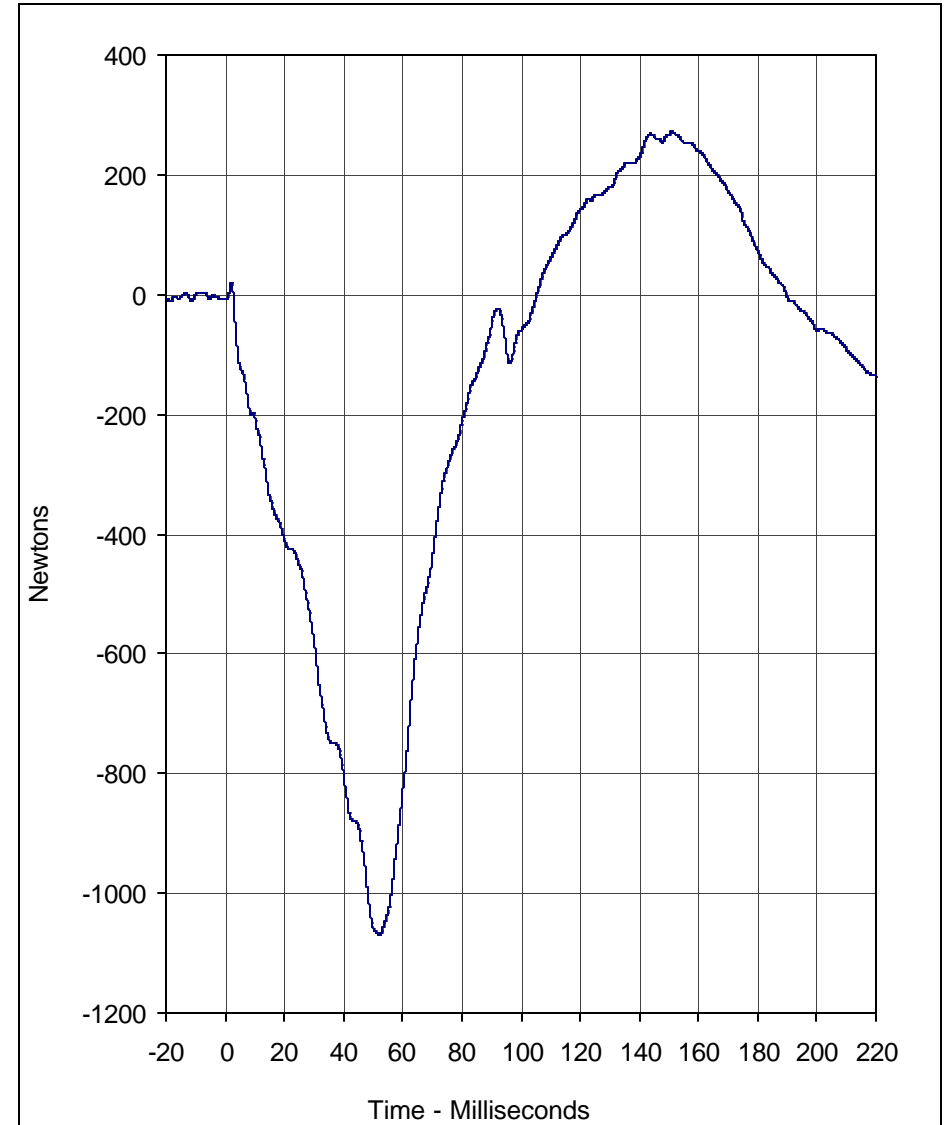
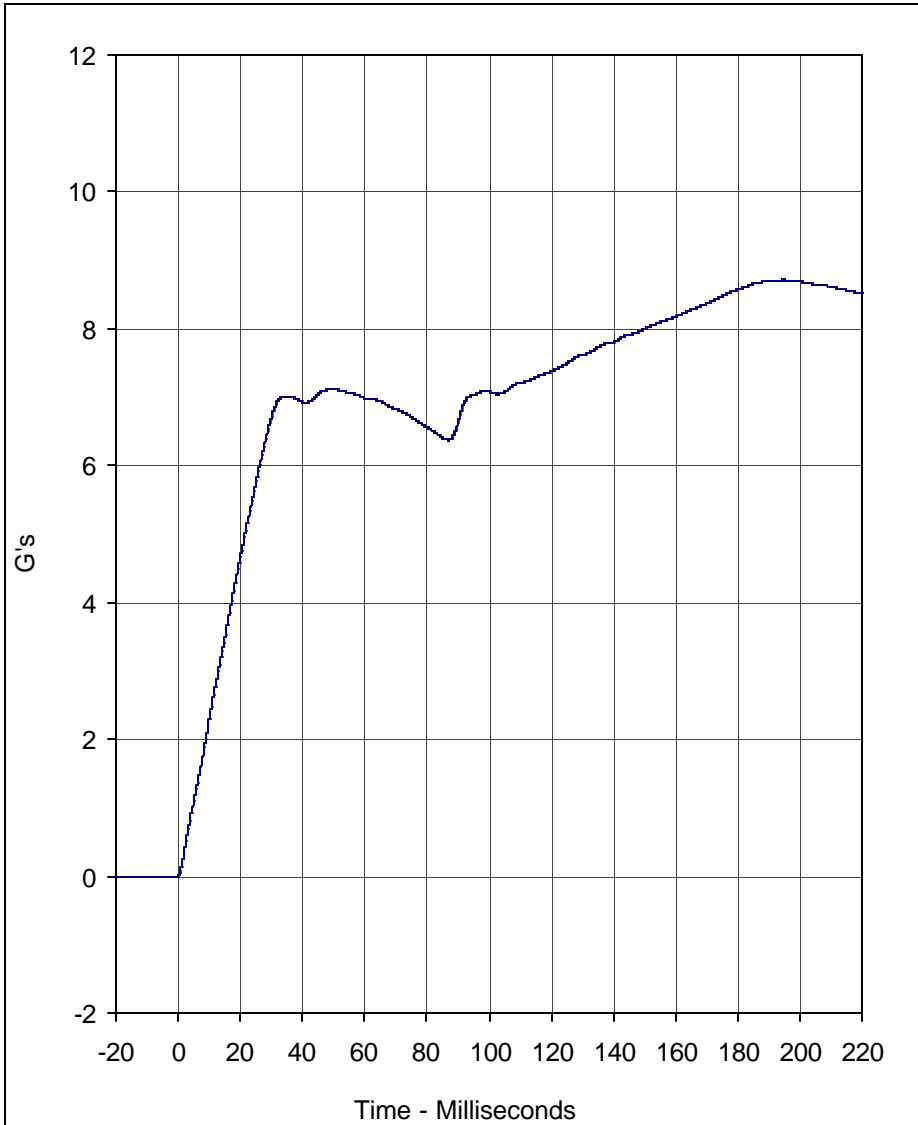
C-10

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Curve Description	CURNO	Type
Pendulum Velocity	001	FIL

Curve Description	CURNO	Type
Neck Force Y	002	FIL

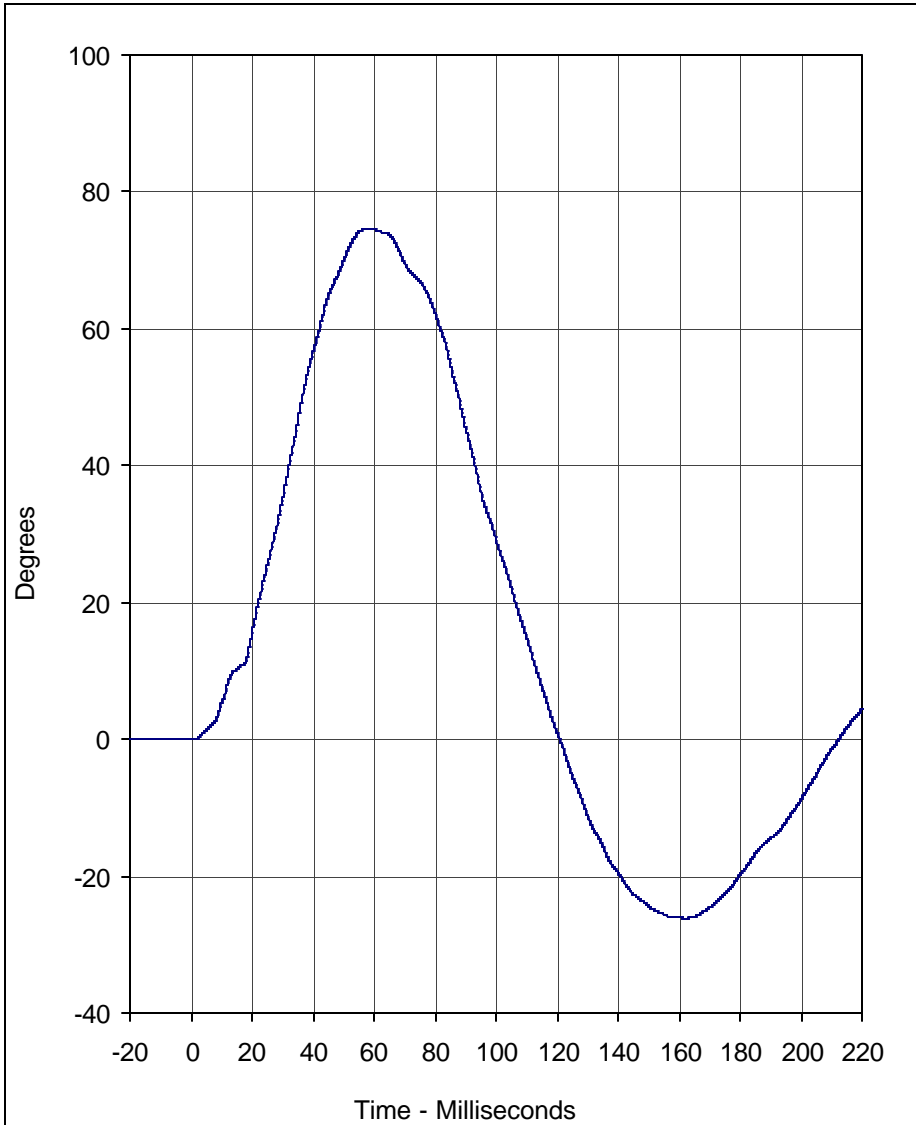
Units	Max	Time	Min	Time	SAE Class
G's	8.7	194.7	0.0	-0.6	180

Units	Max	Time	Min	Time	SAE Class
Newtons	271.7	150.9	-1069.2	52.0	180

Test Program: SID / HIII Neck Pendulum Lateral Test
 Test Date: 11/13/02

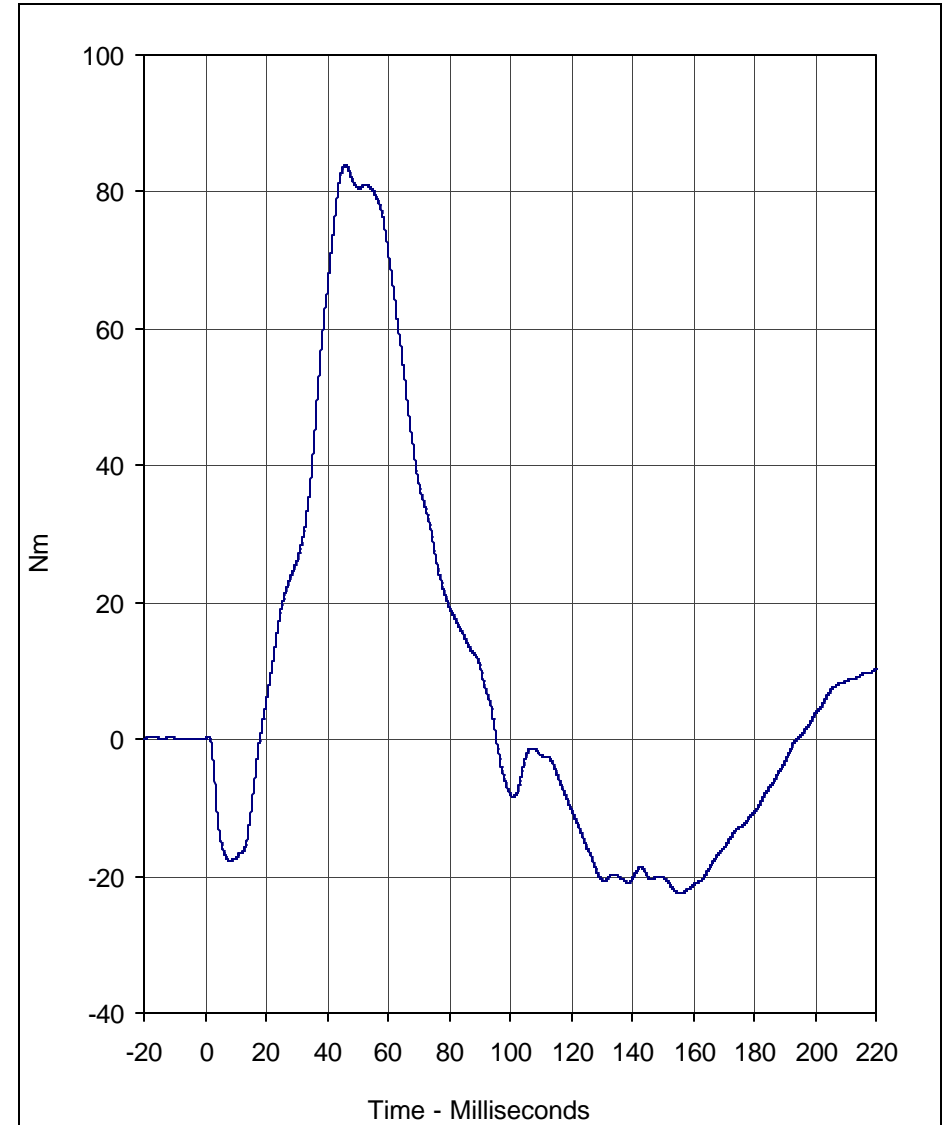
A.T.D. Serial No.: 274
 Test I.D.: NB11C





Curve Description	CURNO	Type
"D" Plane Rotation	003	FIL

Units	Max	Time	Min	Time	SAE Class
Degrees	74.5	59.7	-26.2	162.0	180



Curve Description	CURNO	Type
Moment About Occipital Condyle	004	FIL

Units	Max	Time	Min	Time	SAE Class
Nm	83.8	46.1	-22.5	156.1	180

Test Program: SID / HIII Neck Pendulum Lateral Test
 Test Date: 11/13/02

A.T.D. Serial No.: 274
 Test I.D.: NB11C





Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) External Measurements

ATD Serial No.: 275

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	380	Pass
Overall Test Results				Pass

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Laboratory Technician

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Test Date



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Thorax Lateral Impact

ATD Serial No.: 275

Test I.D.: TI10G

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	42.2	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	41.3	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.1	Pass
Overall Test Results				Pass

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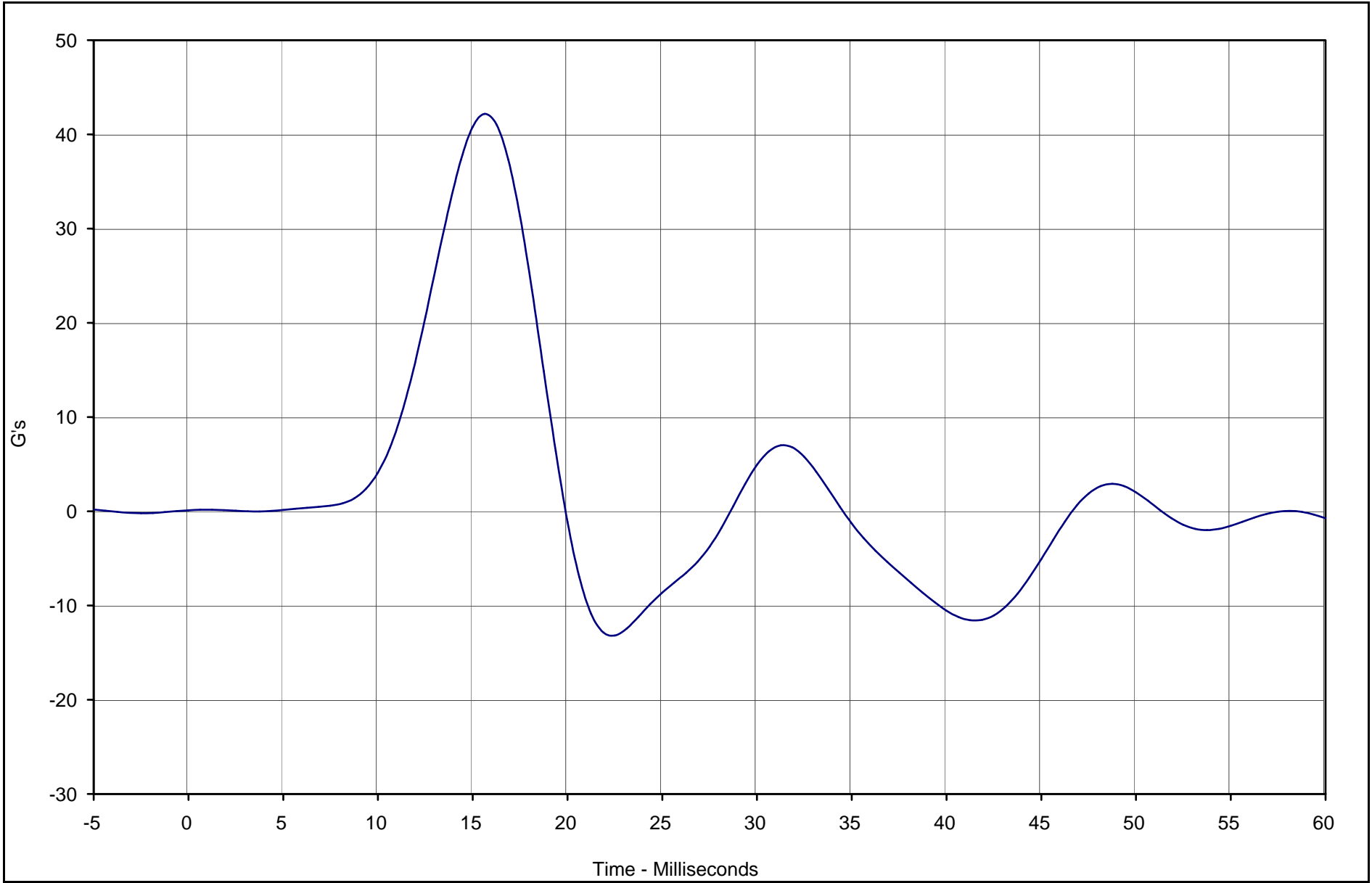
Laboratory Technician

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Test Date

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Upper Rib Y Acceleration	001	FIL	G's	42.2	15.6	-13.2	22.5	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

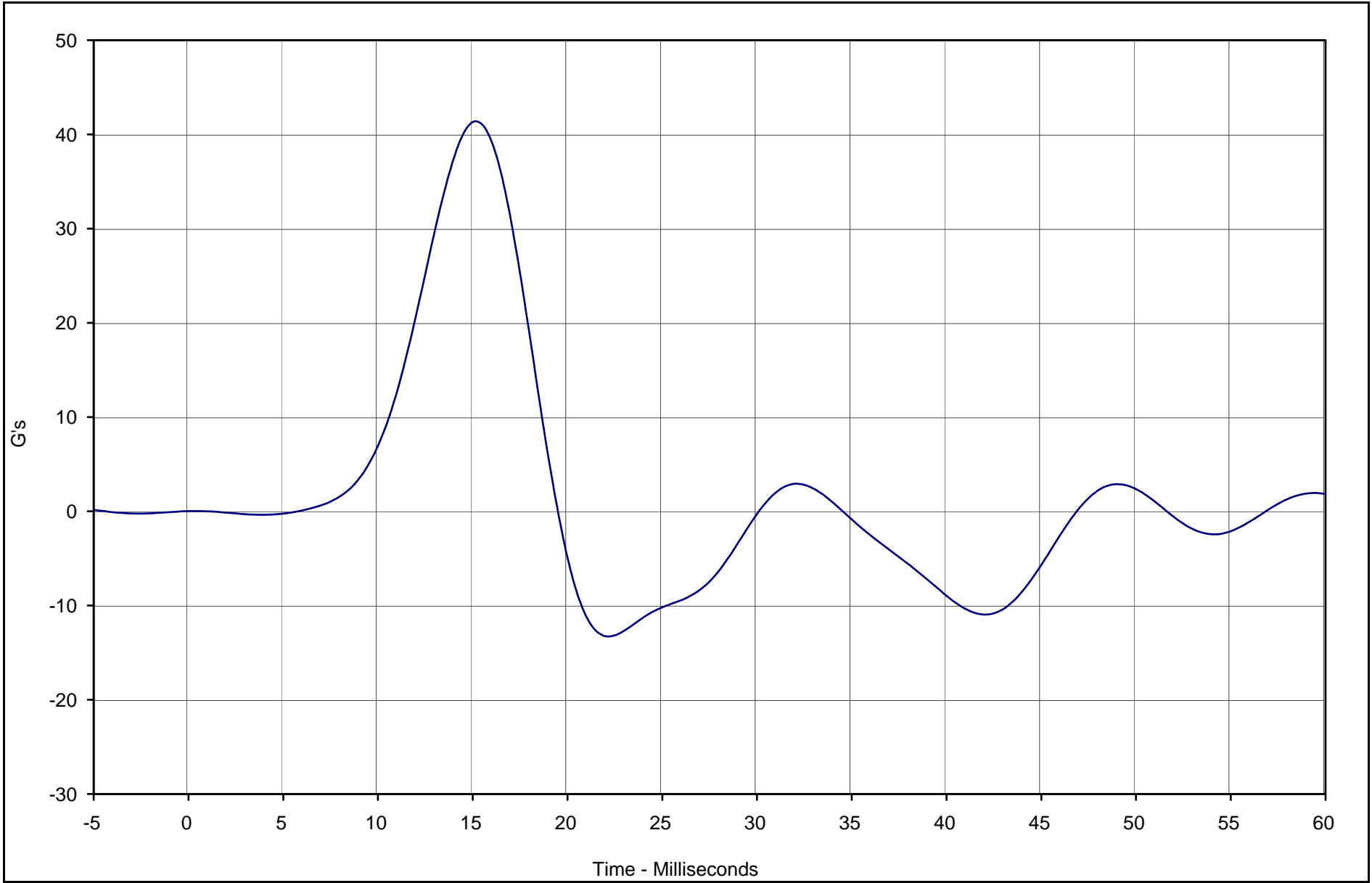
SID Serial No.: 275

Test Date: 11/13/02

Test I.D.: T110G

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Rib Y Acceleration	002	FIL	G's	41.3	15.0	-13.2	21.9	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

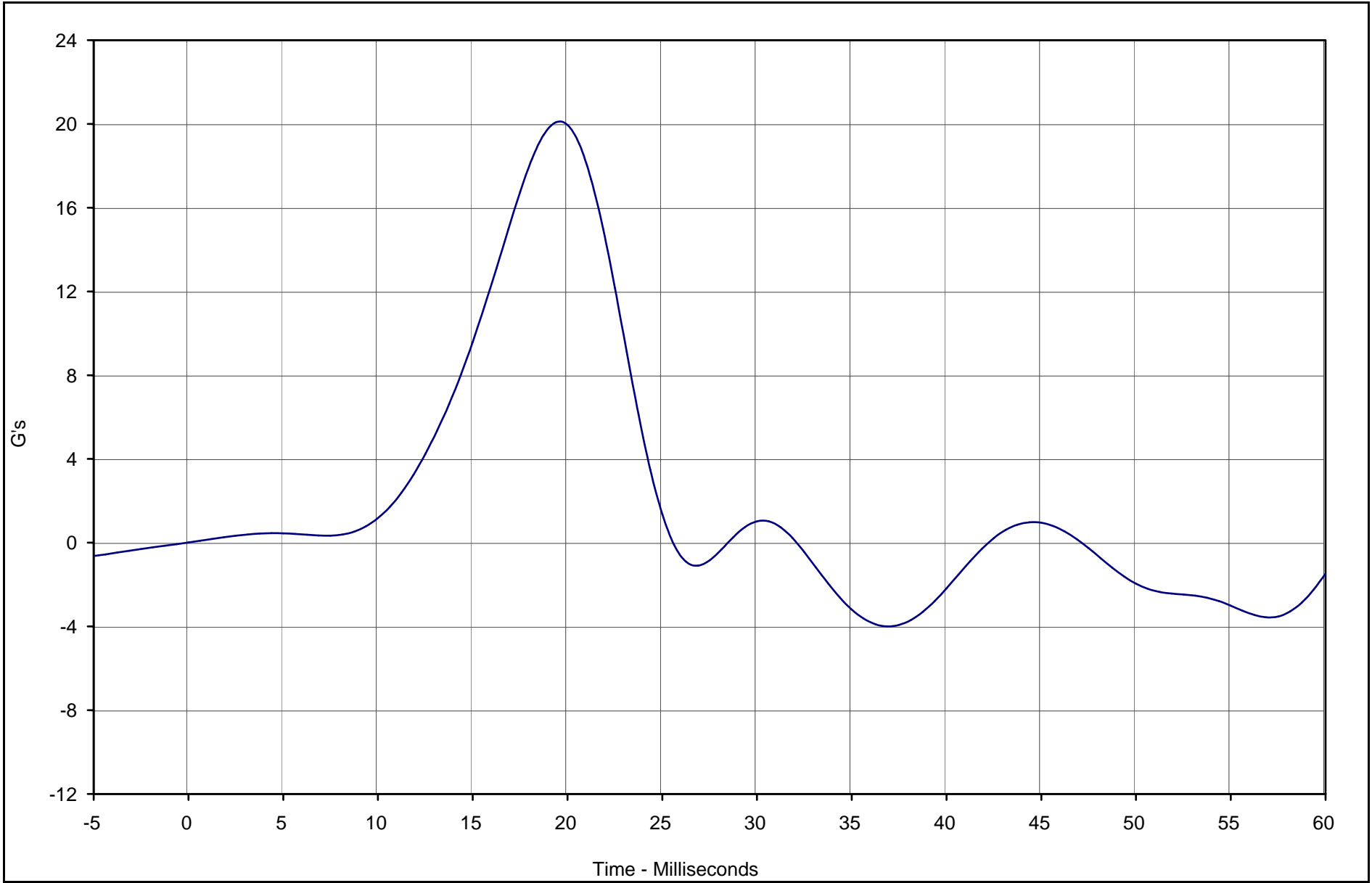
SID Serial No.: 275

Test Date: 11/13/02

Test I.D.: T110G

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Spine Y Acceleration	003	FIL	G's	20.1	19.4	-4.0	36.9	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 275

Test Date: 11/13/02

Test I.D.: T110G



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Pelvis Lateral Impact

ATD Serial No.: 275

Test I.D.: PI11C

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.28	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	46.5	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.9	Pass
Overall Test Results				Pass

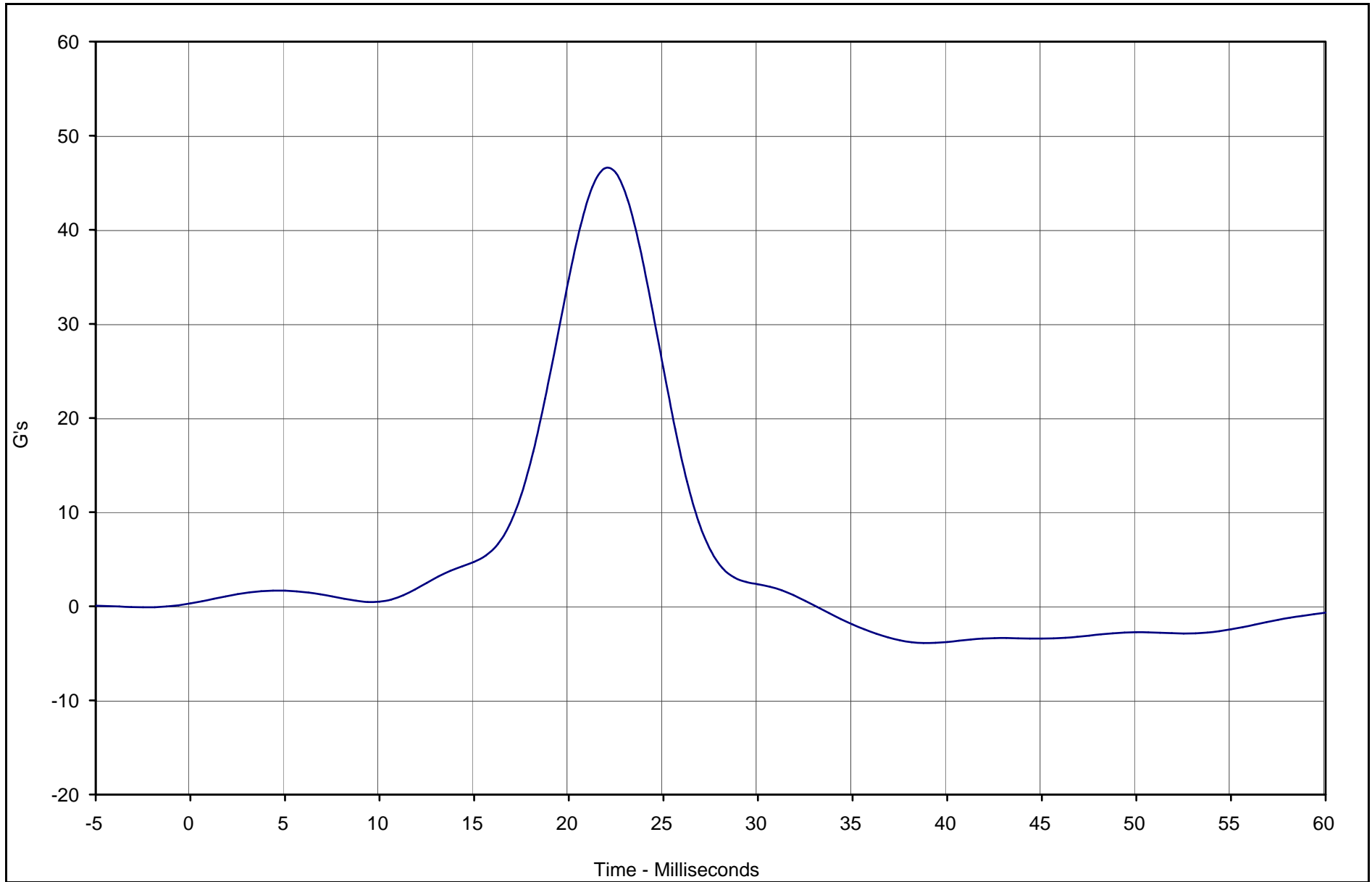
C-18

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Laboratory Technician

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Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pelvis Y Acceleration	001	FIL	G's	46.5	21.9	-9.3	0.0	FIR100



Test Vehicle: Side Impact Dummy (SID) Pelvis Lateral Impact

SID Serial No.: 275

Test Date: 11/13/02

Test I.D.: PI11C



Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Head Drop Lateral Impact Test

ATD Serial No.: 275

Test I.D.: SH12B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	131.7	Pass
Peak Longitudinal Acceleration	G's	≤15.0	8.9	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	3.9	Pass
Overall Test Results				Pass

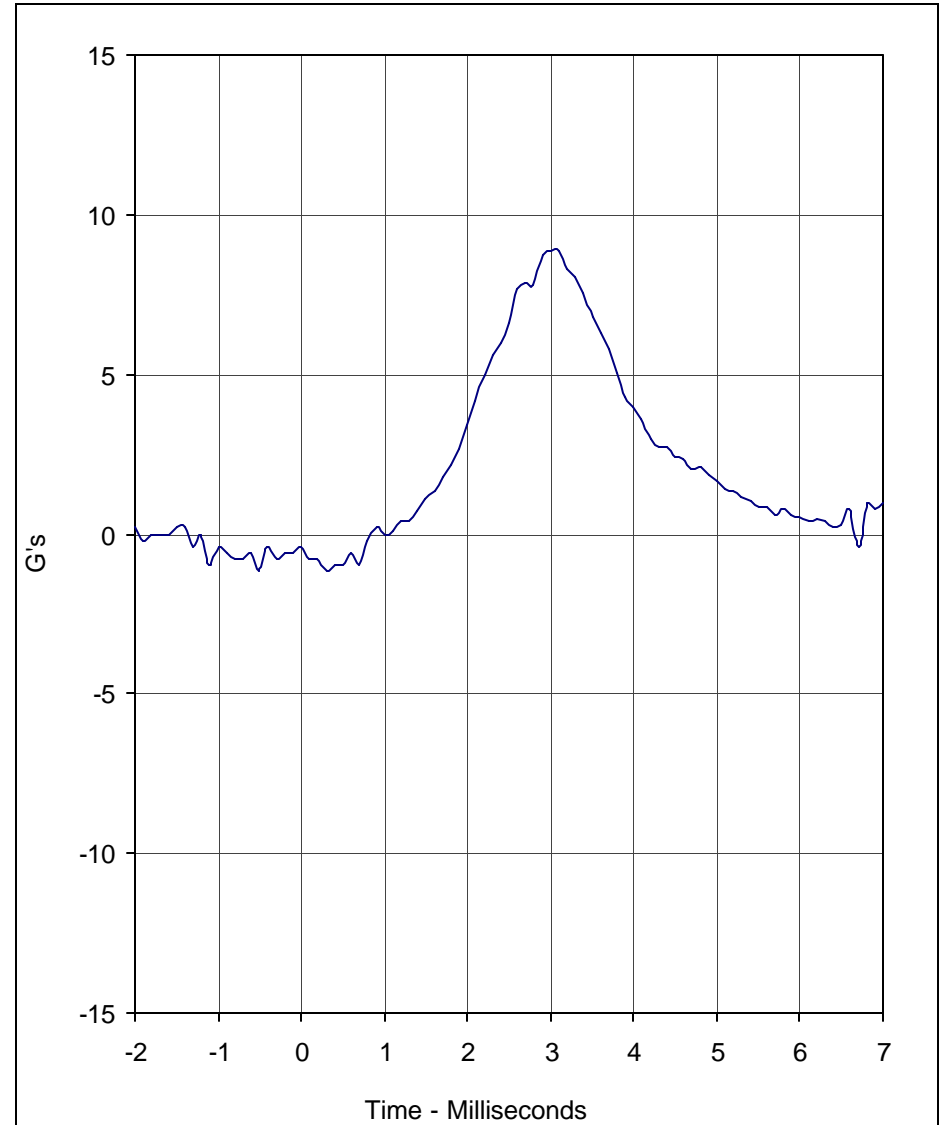
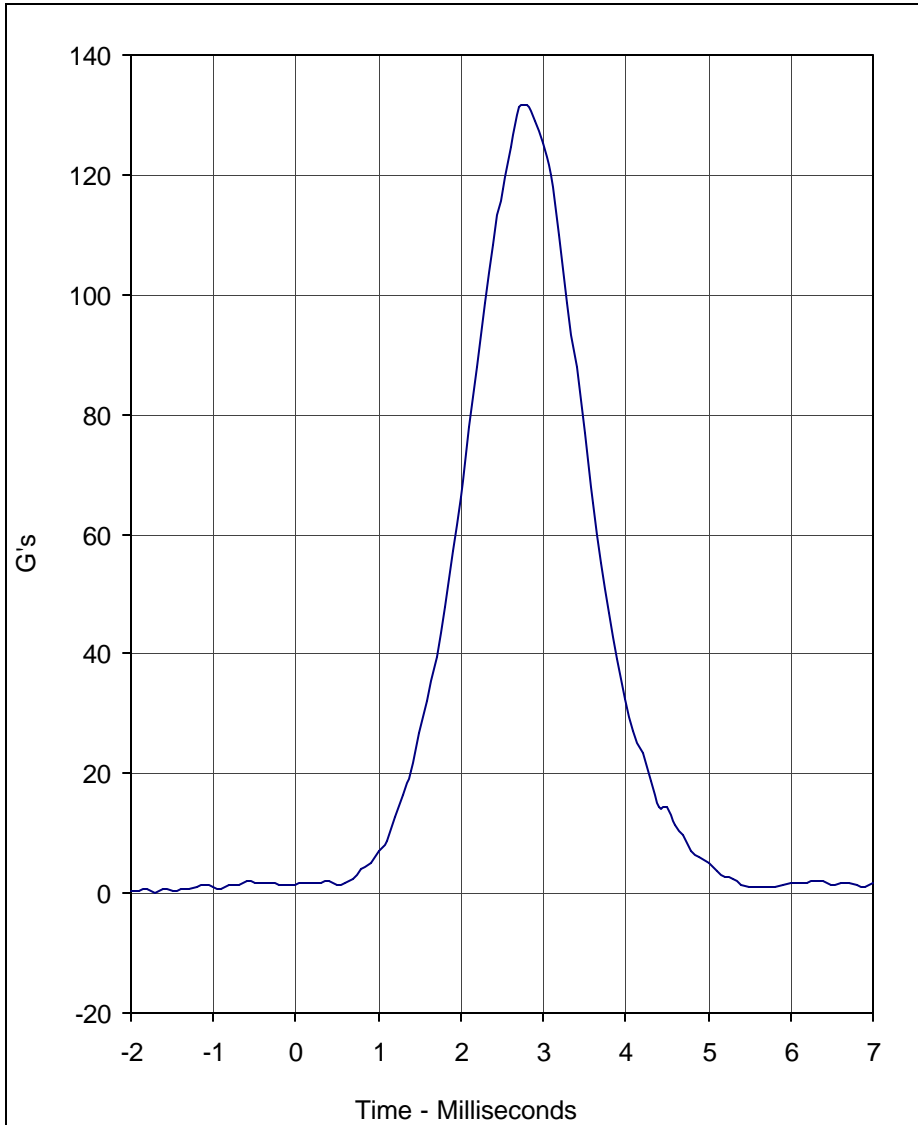
C-20

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Test Date



Curve Description	CURNO	Type
Head Resultant	001	RES

Units	Max	Time	Min	Time	SAE Class
G's	131.7	2.8	0.0	-1.7	1000

Curve Description	CURNO	Type
Head X	002	FIL

Units	Max	Time	Min	Time	SAE Class
G's	8.9	3.0	-1.2	-0.5	1000

Test Program: SID / HIII Head Drop Lateral Impact Test
 Test Date: 11/13/02

A.T.D. Serial No.: 275
 Test I.D.: SH12B





Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Neck Pendulum Lateral Test

ATD Serial No.: 275

Test I.D.: NB11D

Tested Parameter	Units	Specification	Result	Pass/Fail	
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass	
Laboratory Relative Humidity	%	10 to 70	30	Pass	
Pendulum Velocity	m/s	6.89 to 7.13	7.03	Pass	
Pendulum Deceleration	10	Msec.	1.96 to 2.55	2.27	Pass
	20	Msec.	4.12 to 5.10	4.67	Pass
	30	Msec.	5.73 to 7.01	6.75	Pass
	40 to 70	Msec.	6.27 to 7.64	7.04	Pass
Maximum "D" Plane Rotation	Degrees	66.0 to 82.0	73.5	Pass	
Maximum "D" Plane Rotation Time After Peak Moment	Msec.	2.0 to 15.0	14.8	Pass	
"D" Plane Rotation Decay Time From Peak Angle to Zero Angle	Msec.	58.0 to 67.0	63.2	Pass	
Calculated Moment About Occipital Condyle	N•m	73.0 to 88.0	79.4	Pass	
Moment About Occipital Condyle Decay, Time From Positive Peak Value To 0 N•m	Msec.	49.0 to 64.0	50.4	Pass	
			Overall Test Results	Pass	

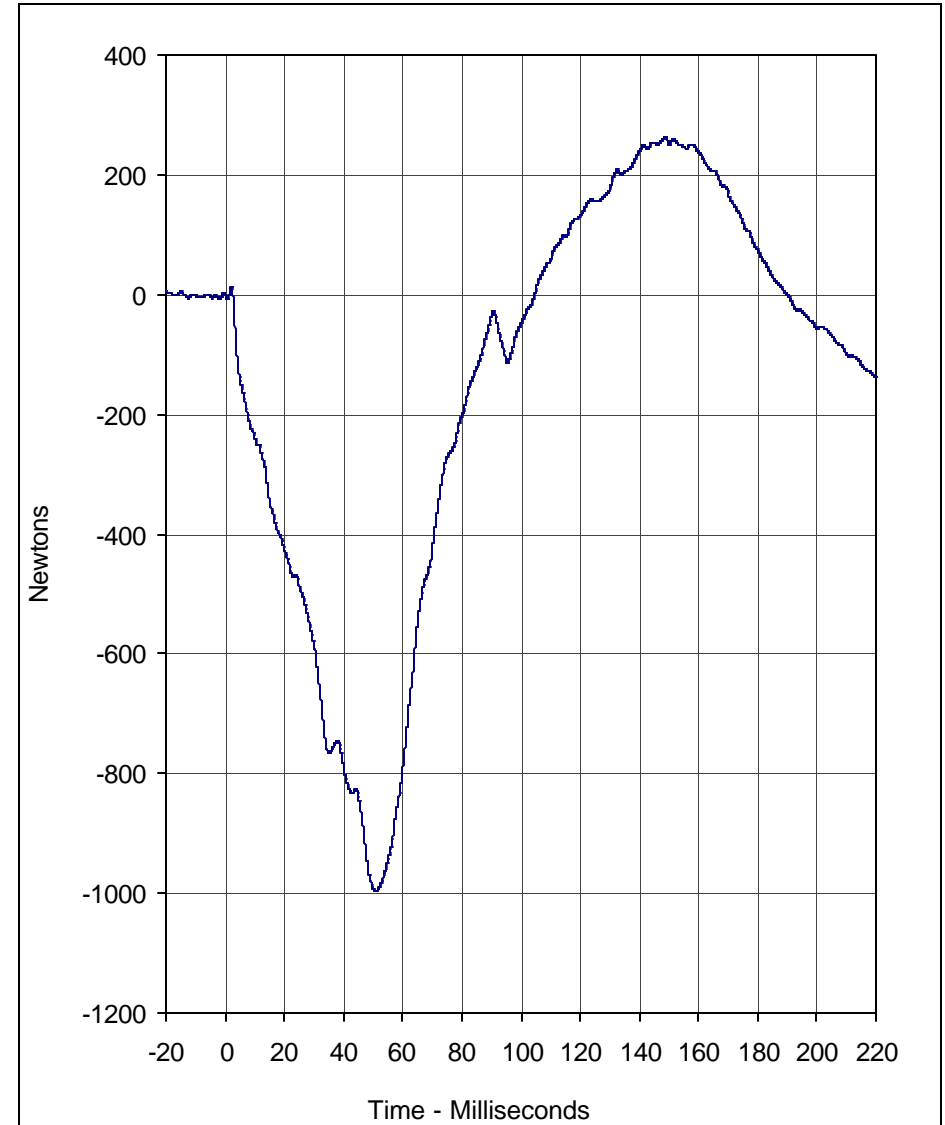
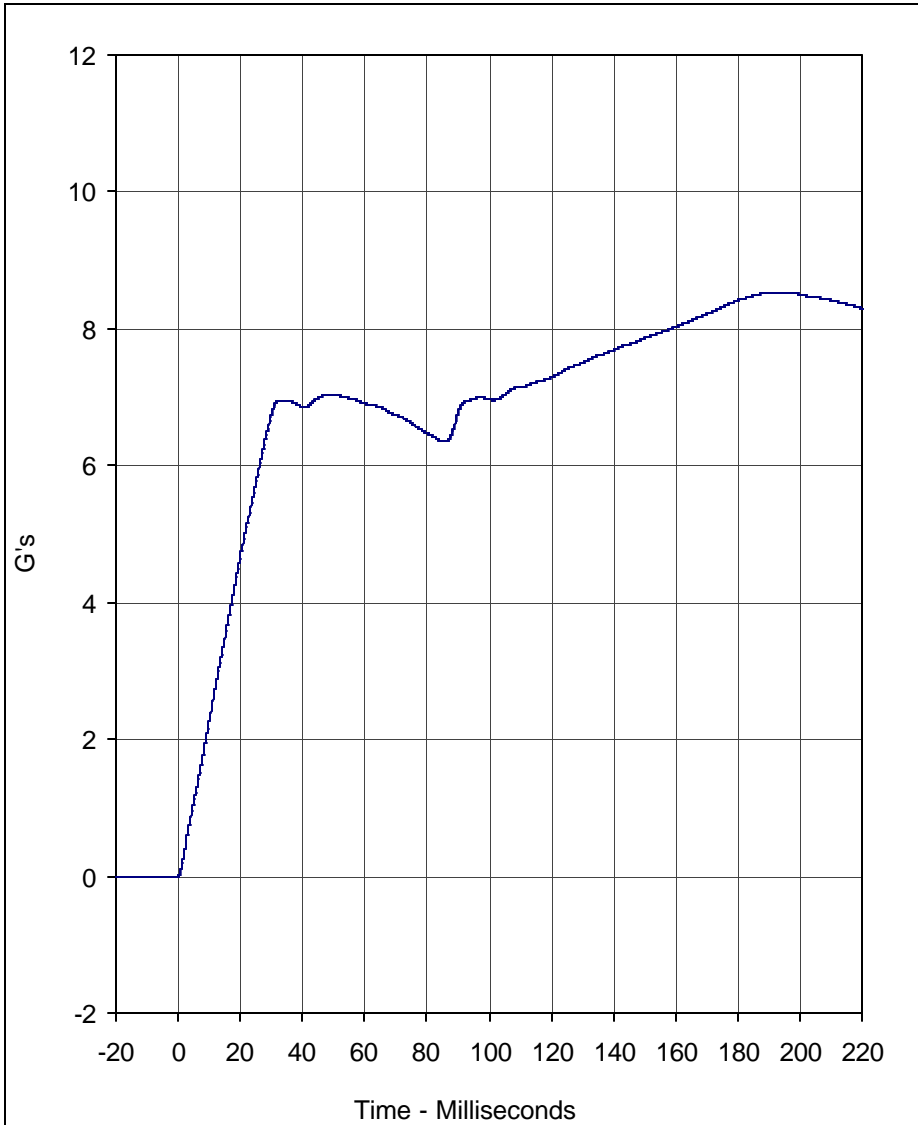
C-22

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Test Date



Curve Description	CURNO	Type
Pendulum Velocity	001	FIL

Curve Description	CURNO	Type
Neck Force Y	002	FIL

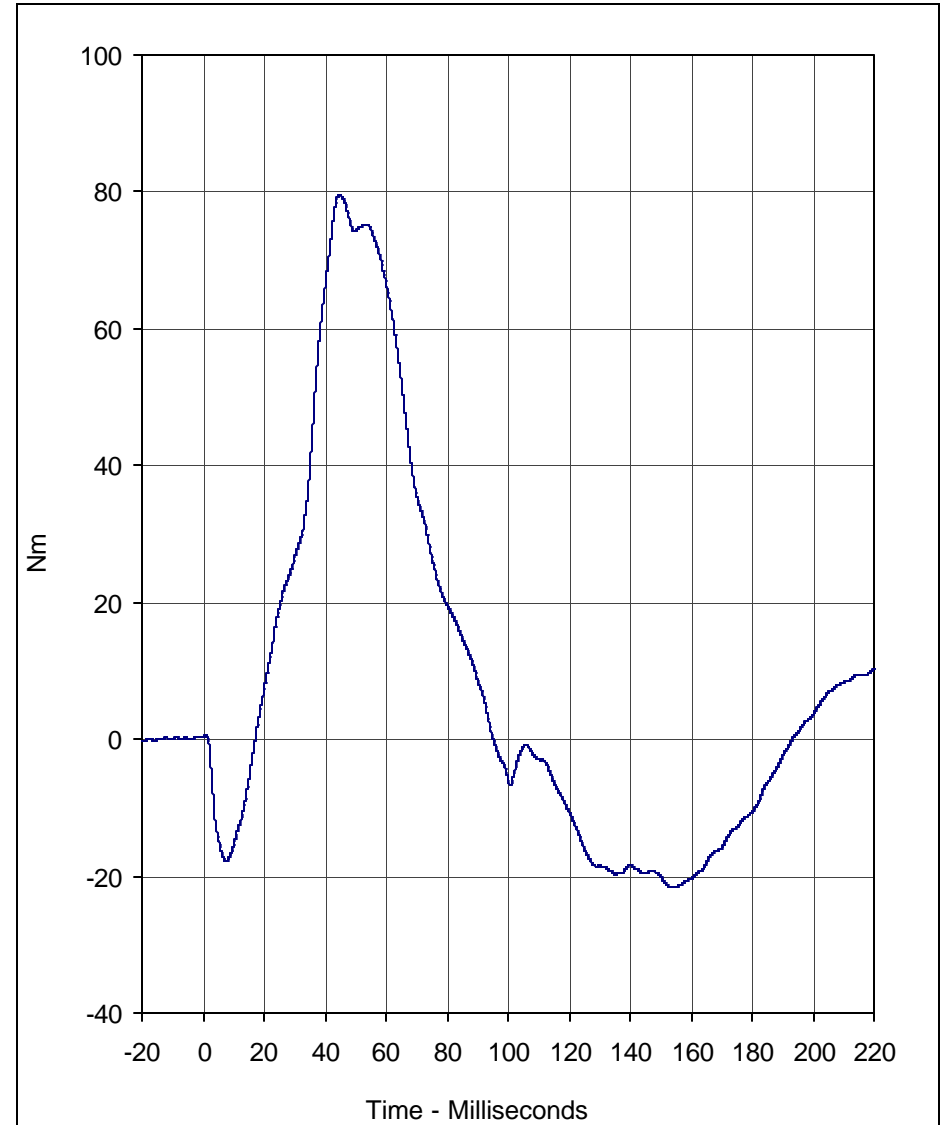
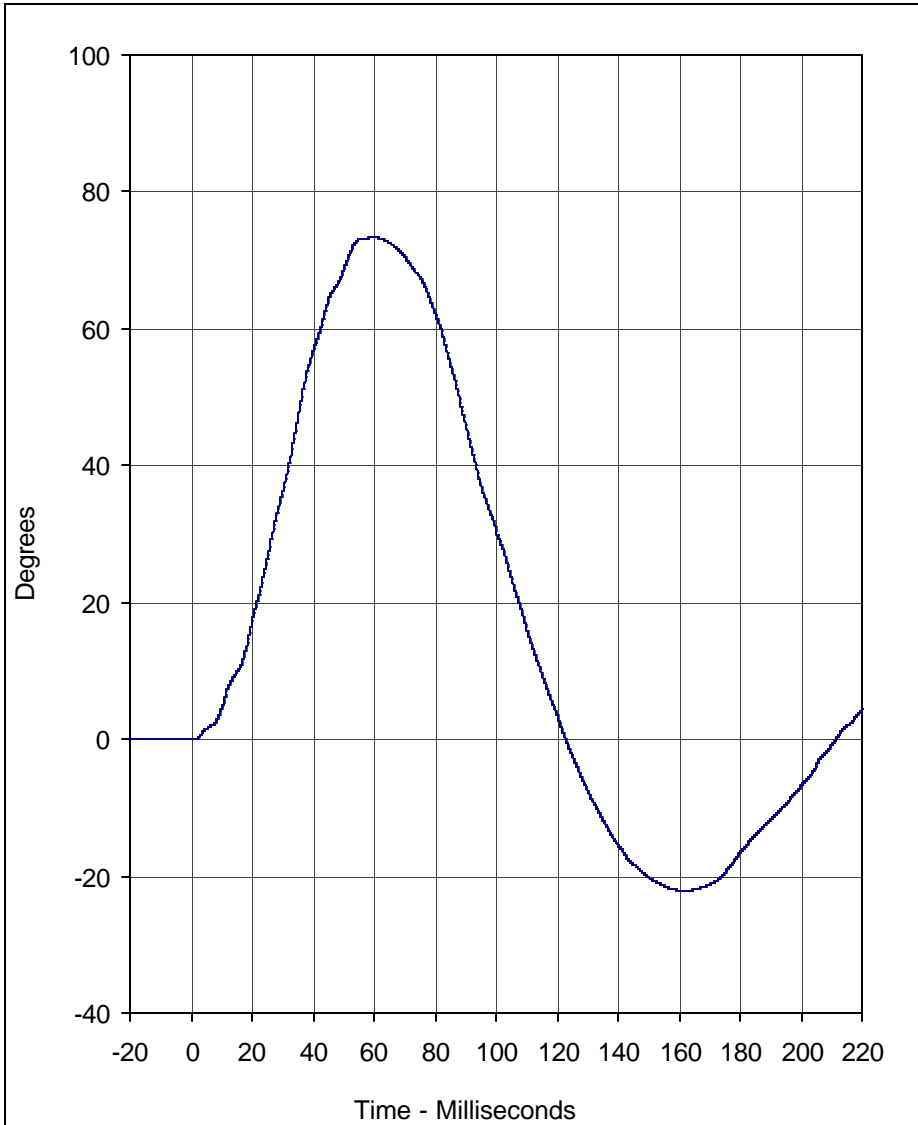
Units	Max	Time	Min	Time	SAE Class
G's	8.5	194.5	0.0	-0.6	180

Units	Max	Time	Min	Time	SAE Class
Newtons	263.5	148.5	-996.7	50.8	180

Test Program: SID / HIII Neck Pendulum Lateral Test
 Test Date: 11/13/02

A.T.D. Serial No.: 275
 Test I.D.: NB11D





Curve Description	CURNO	Type
"D" Plane Rotation	003	FIL

Curve Description	CURNO	Type
Moment About Occipital Condyle	004	FIL

Units	Max	Time	Min	Time	SAE Class
Degrees	73.5	59.6	-22.1	160.2	180

Units	Max	Time	Min	Time	SAE Class
Nm	79.4	44.8	-21.6	153.8	180

Test Program: SID / HIII Neck Pendulum Lateral Test
 Test Date: 11/13/02

A.T.D. Serial No.: 275
 Test I.D.: NB11D



APPENDIX C
POST-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA



Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) External Measurements

ATD Serial No.: 274

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	515	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	525	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	365	Pass
Overall Test Results				Pass

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Test Date



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Thorax Lateral Impact

ATD Serial No.: 274

Test I.D.: TI11B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	39.0	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	39.2	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	18.2	Pass
Overall Test Results				Pass

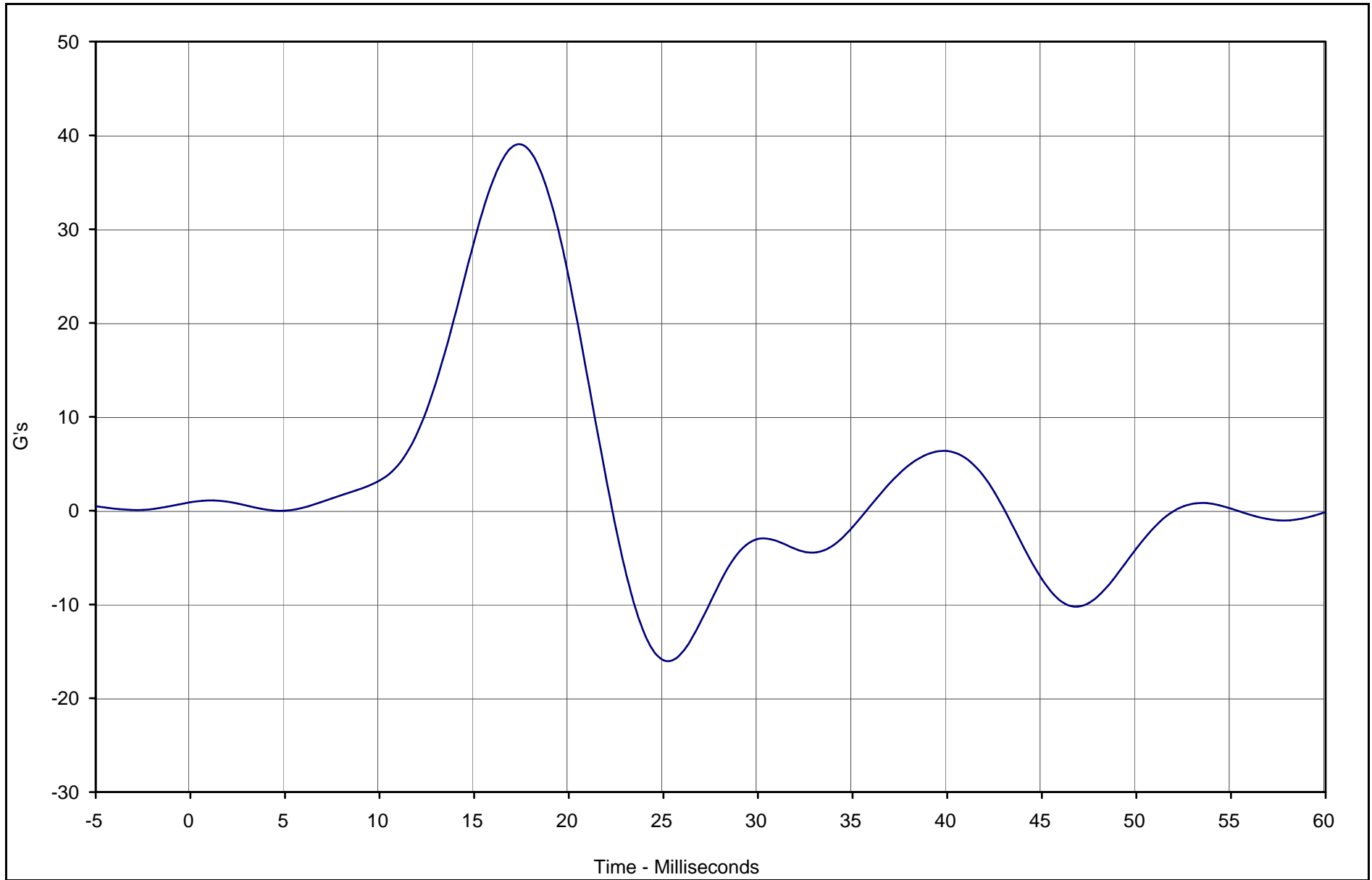
C-26

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Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Upper Rib Y Acceleration	001	FIL	G's	39.0	17.5	-15.9	25.0	FIR100

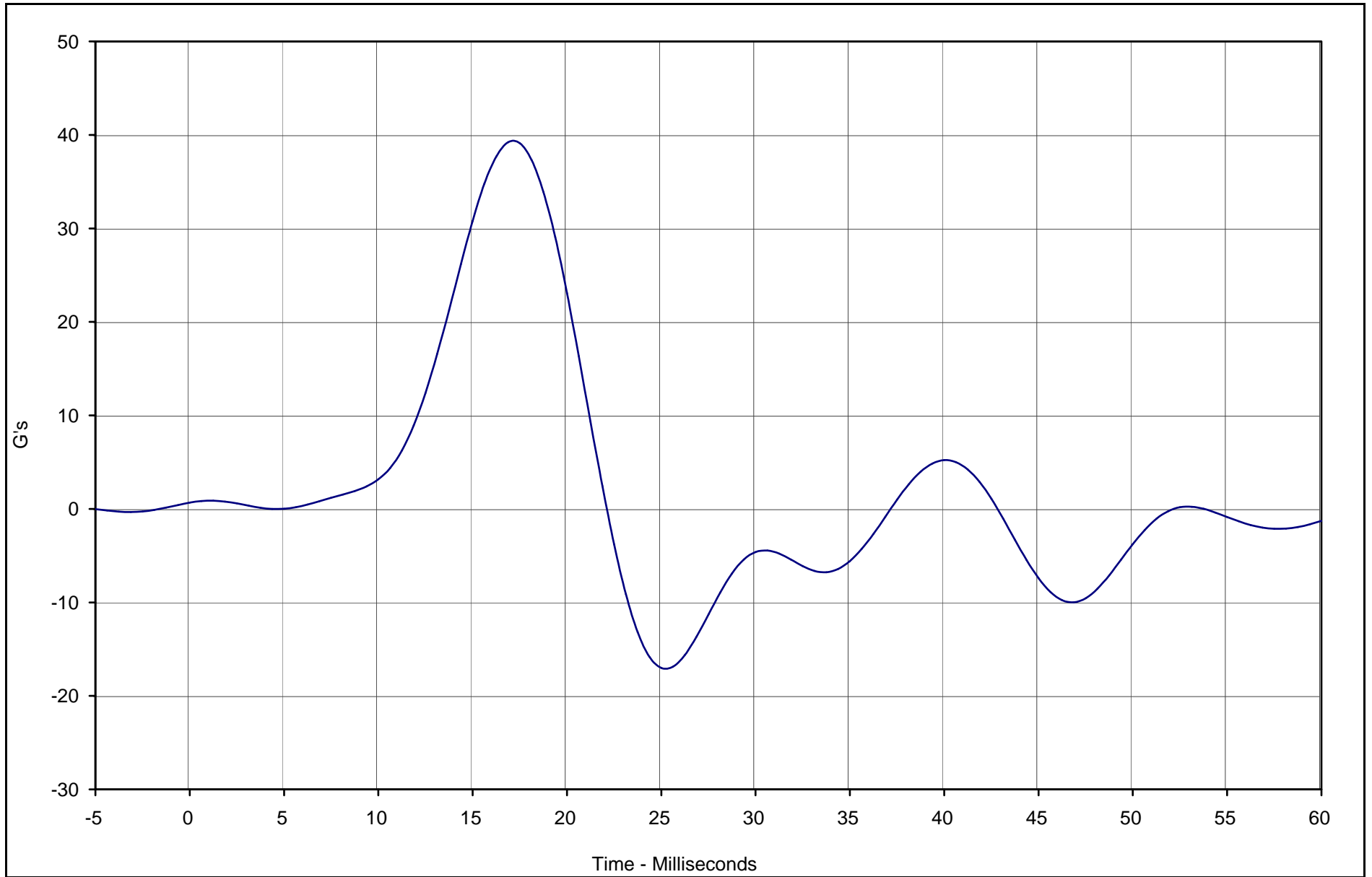


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 11/15/02

Test I.D.: TI11B



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Rib Y Acceleration	002	FIL	G's	39.2	16.9	-17.0	25.0	FIR100

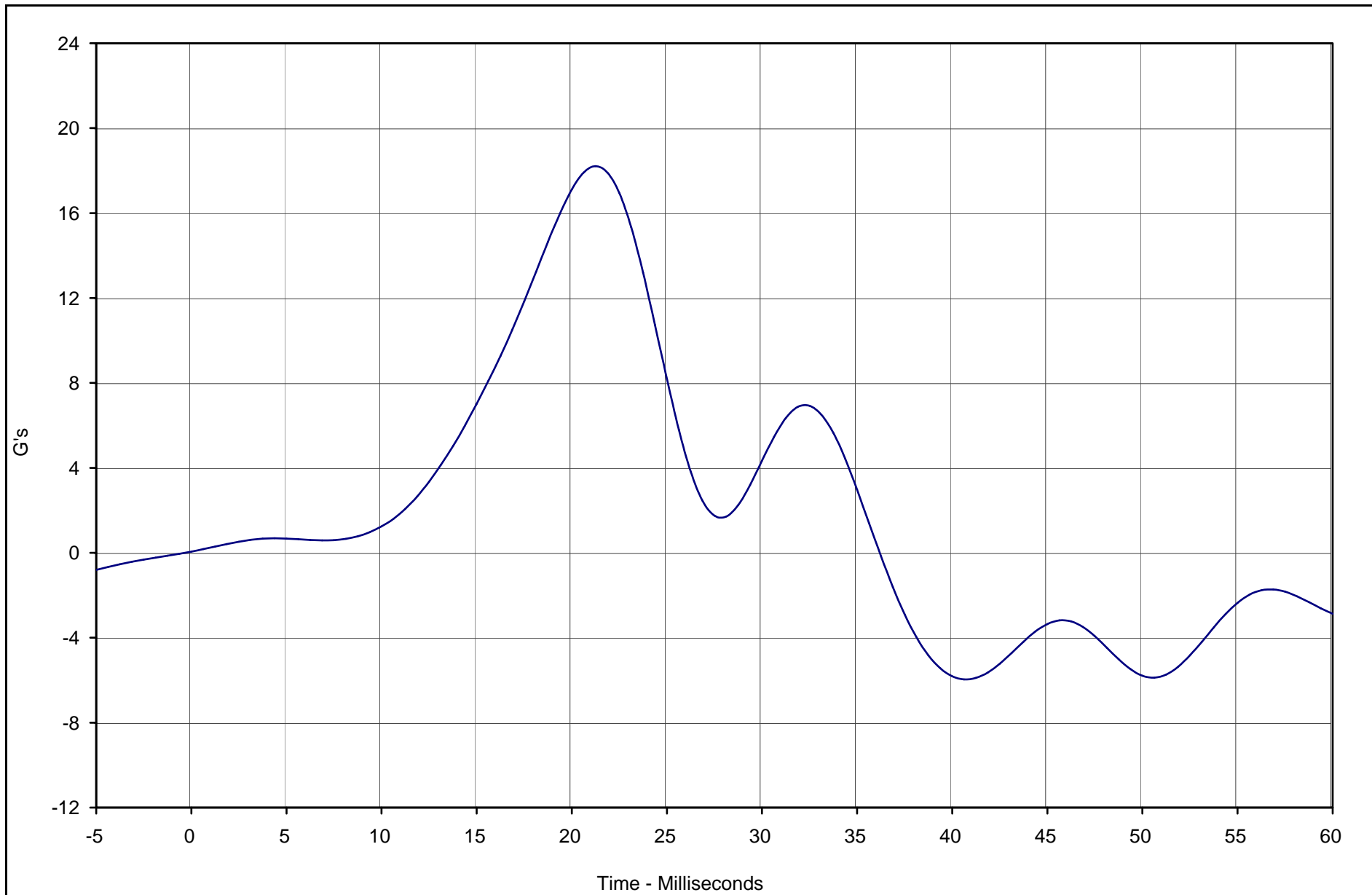


Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 11/15/02

Test I.D.: TI11B



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Spine Y Acceleration	003	FIL	G's	18.2	21.3	-6.0	40.6	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 274

Test Date: 11/15/02

Test I.D.: TI11B



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Pelvis Lateral Impact

ATD Serial No.: 274

Test I.D.: PI10F

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.23	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	40.8	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.3	Pass
Overall Test Results				Pass

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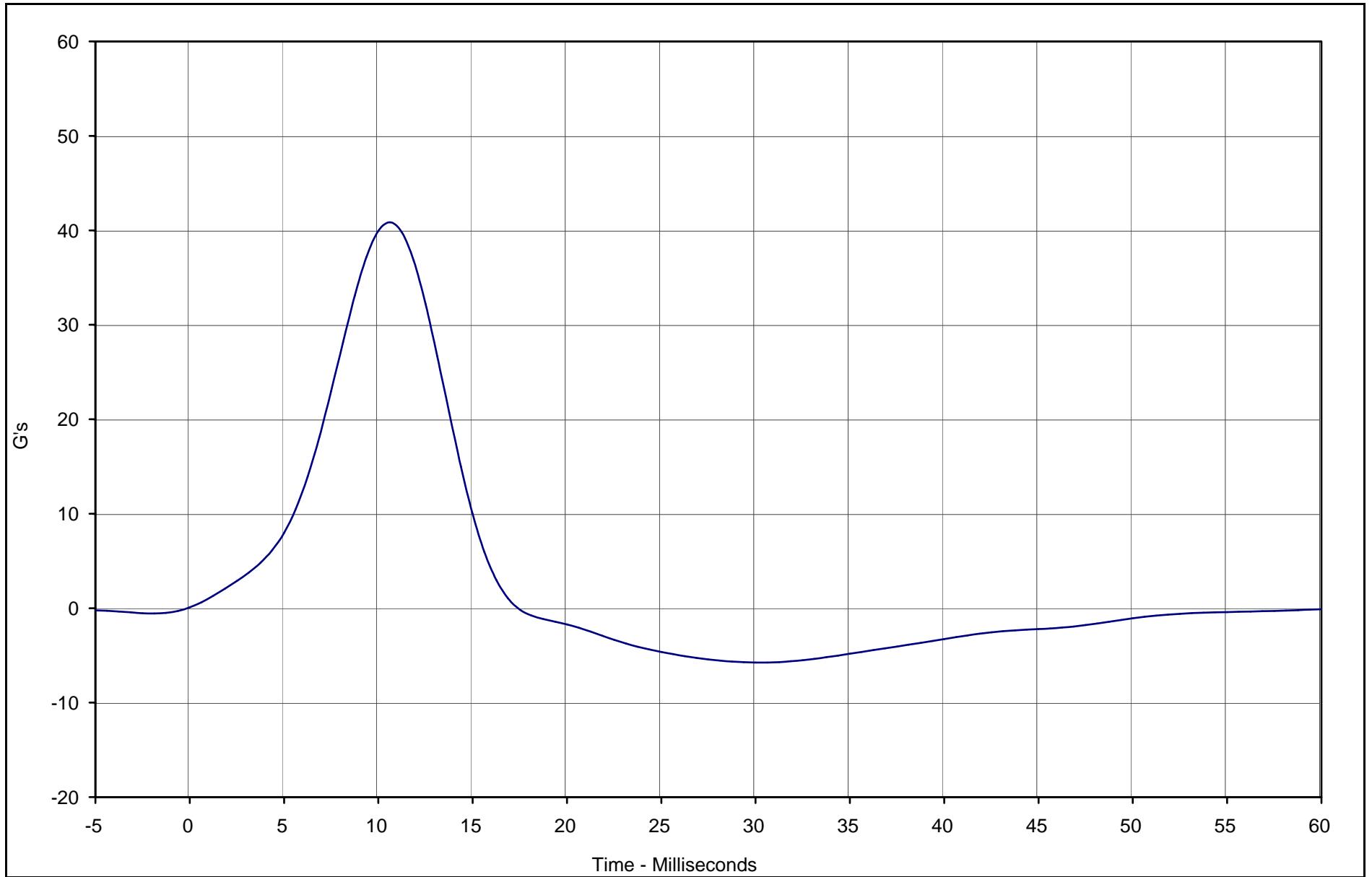
Laboratory Technician

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Test Date

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pelvis Y Acceleration	001	FIL	G's	40.8	10.6	-8.5	0.0	FIR100



Test Vehicle: Side Impact Dummy (SID) Pelvis Lateral Impact

SID Serial No.: 274

Test Date: 11/15/02

Test I.D.: PI10F



Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Head Drop Lateral Impact Test

ATD Serial No.: 274

Test I.D.: SD05A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	128.0	Pass
Peak Longitudinal Acceleration	G's	≤15.0	4.2	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	1.8	Pass
Overall Test Results				Pass

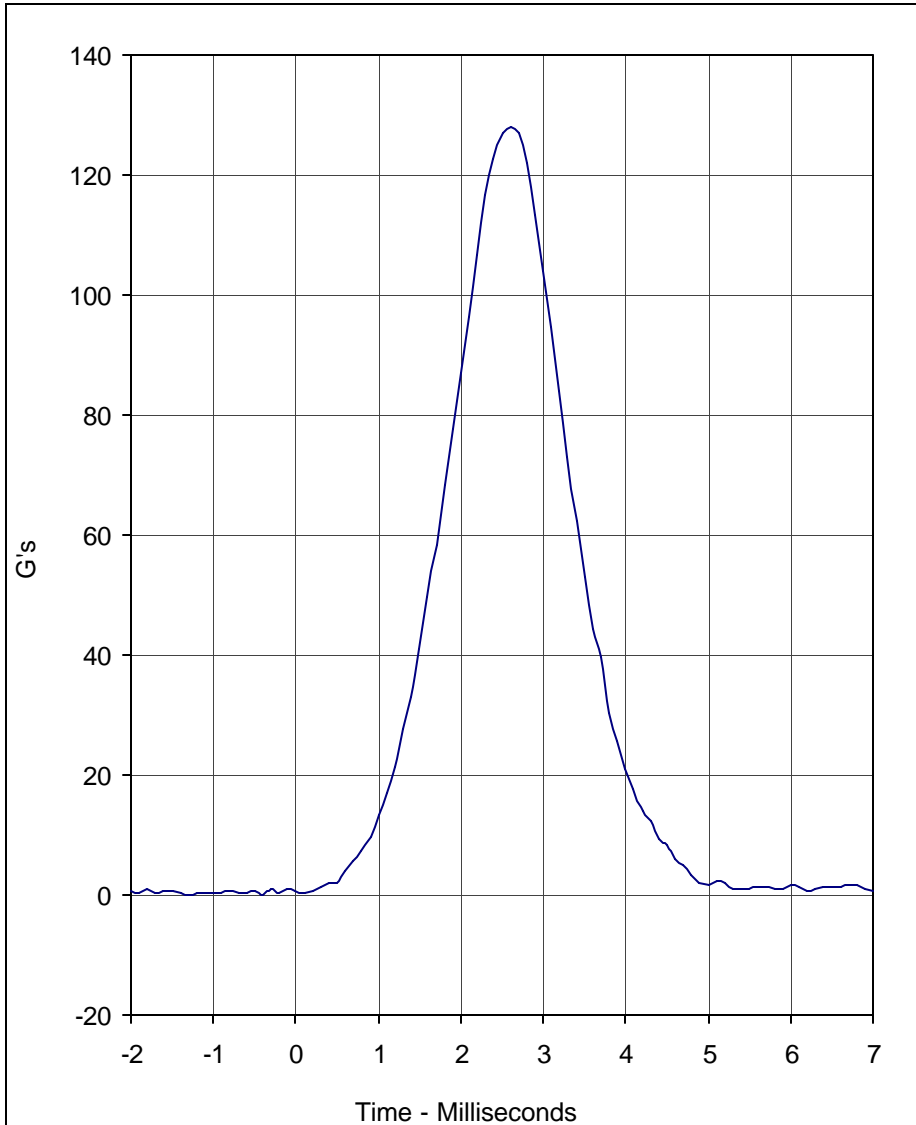
C-32

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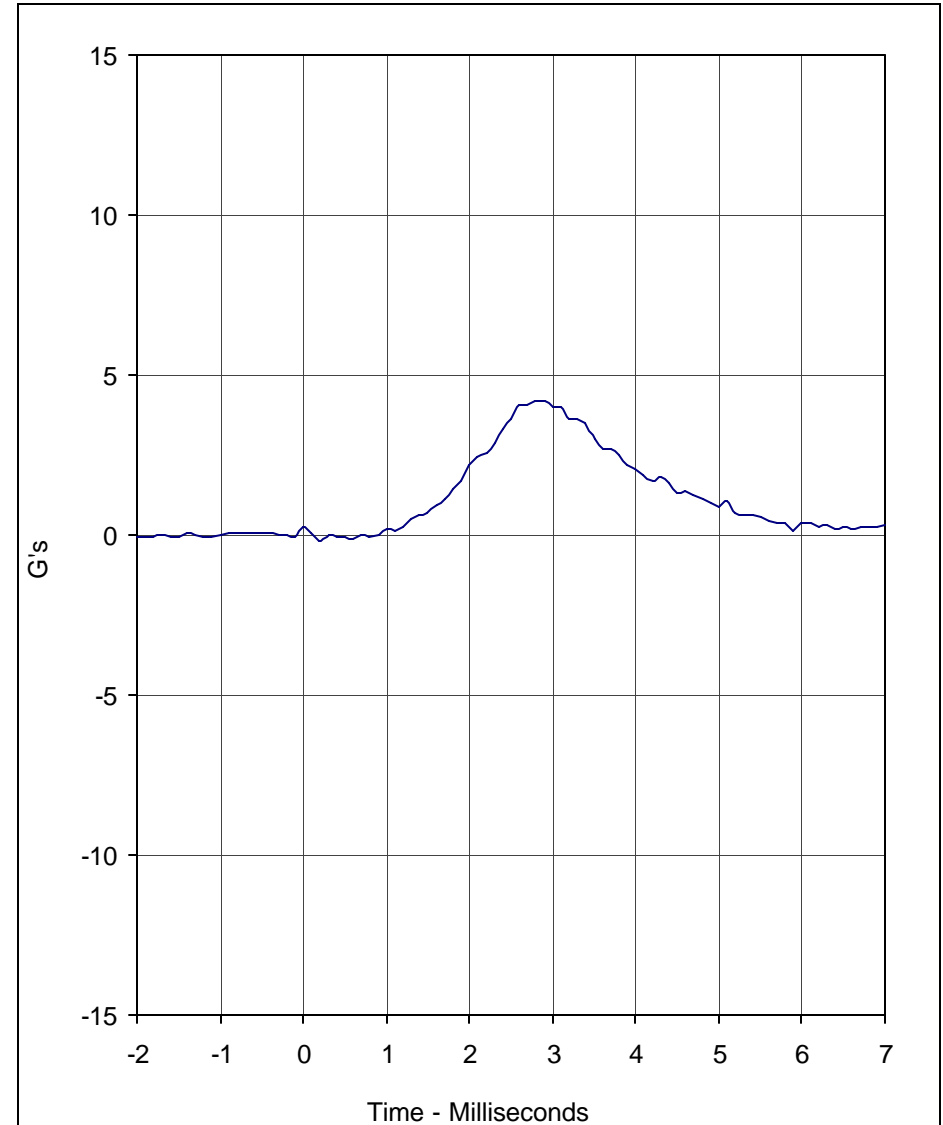
November 15, 2002

Test Date



Curve Description	CURNO	Type
Head Resultant	001	RES

Units	Max	Time	Min	Time	SAE Class
G's	128.0	2.6	0.0	-1.3	1000



Curve Description	CURNO	Type
Head X	002	FIL

Units	Max	Time	Min	Time	SAE Class
G's	4.2	2.8	-0.2	0.2	1000

Test Program: SID / HIII Head Drop Lateral Impact Test
 Test Date: 11/15/02

A.T.D. Serial No.: 274
 Test I.D.: SD05A





Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Neck Pendulum Lateral Test

ATD Serial No.: 274

Test I.D.: NB10H

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	7.05	Pass
Pendulum Deceleration	10	Msec.	1.96 to 2.55	2.30	Pass
	20	Msec.	4.12 to 5.10	4.78	Pass
	30	Msec.	5.73 to 7.01	6.86	Pass
	40 to 70	Msec.	6.27 to 7.64	7.13	Pass
Maximum "D" Plane Rotation		Degrees	66.0 to 82.0	79.9	Pass
Maximum "D" Plane Rotation Time After Peak Moment		Msec.	2.0 to 15.0	15.0	Pass
"D" Plane Rotation Decay Time From Peak Angle to Zero Angle		Msec.	58.0 to 67.0	62.8	Pass
Calculated Moment About Occipital Condyle		N•m	73.0 to 88.0	85.9	Pass
Moment About Occipital Condyle Decay, Time From Positive Peak Value To 0 N•m		Msec.	49.0 to 64.0	51.1	Pass
Overall Test Results					Pass

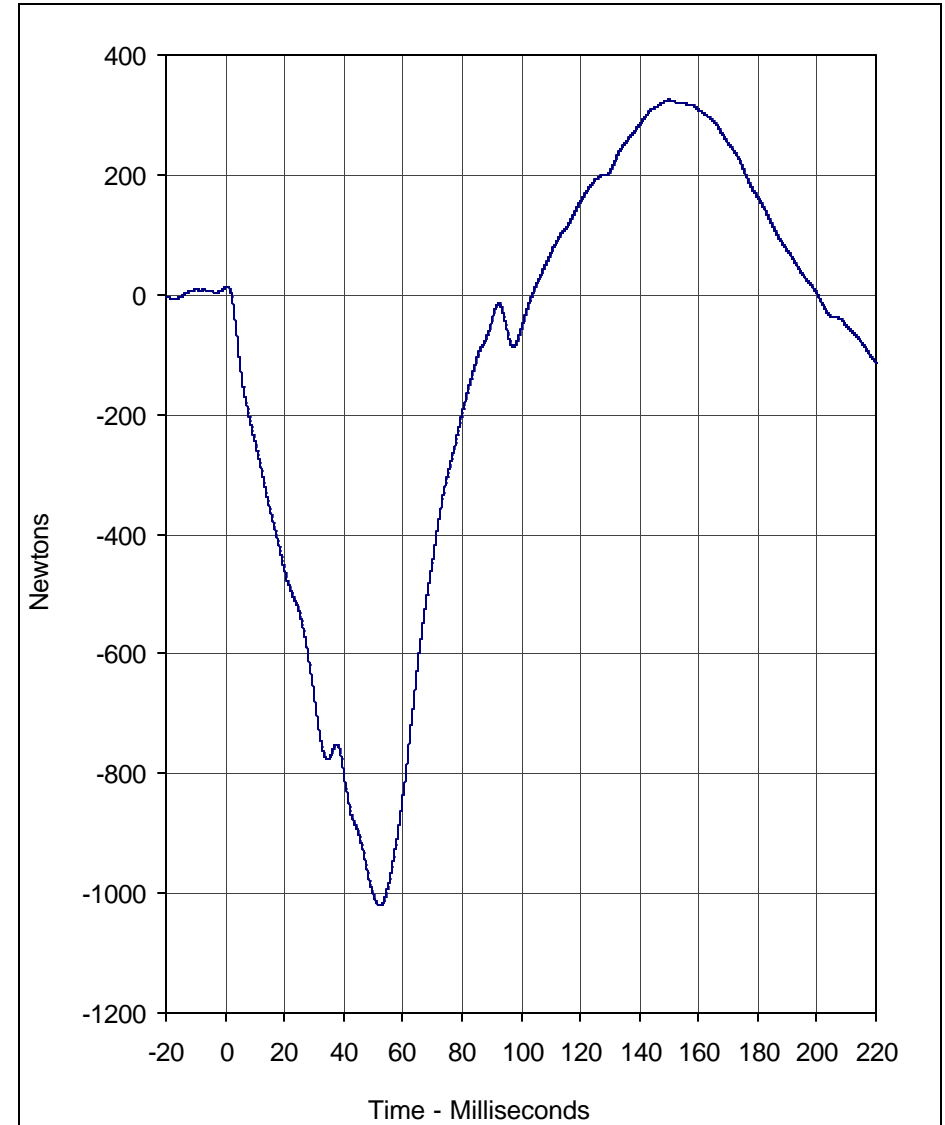
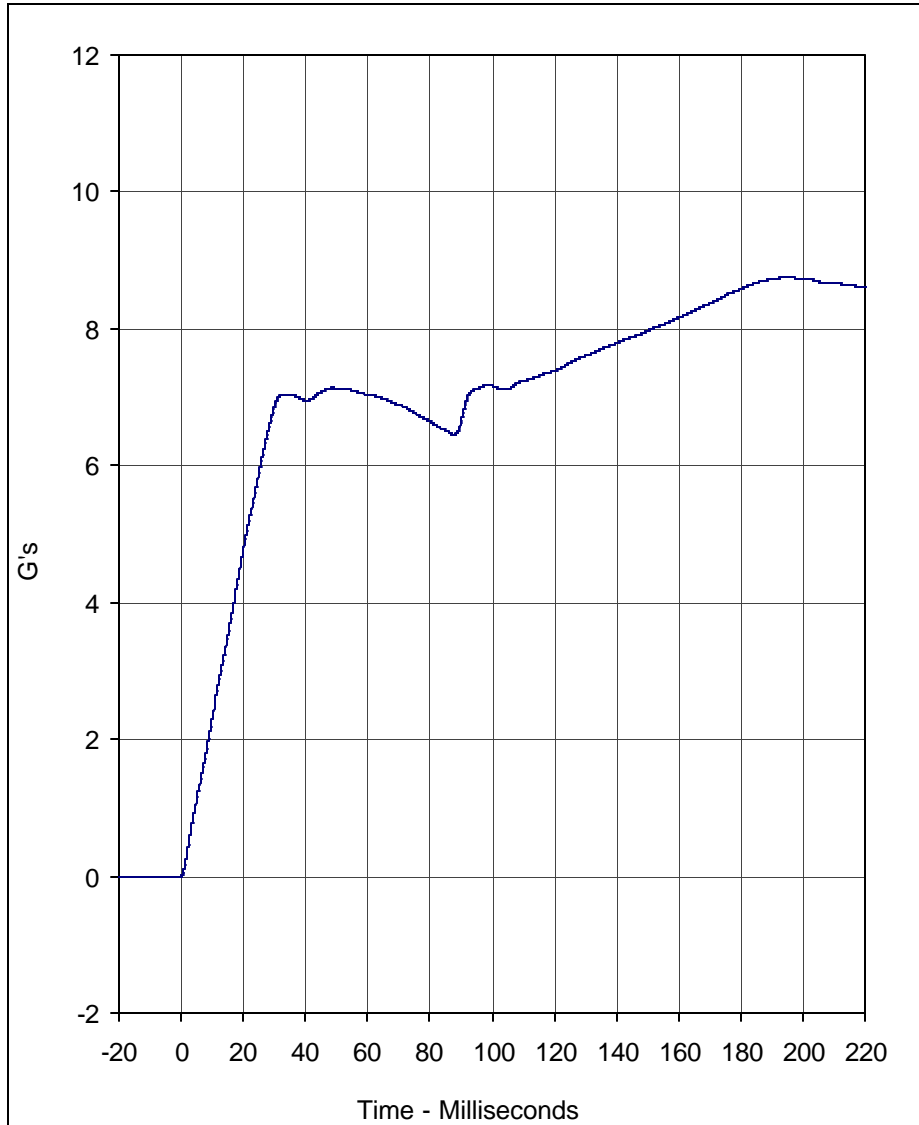
C-34

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Test Date



Curve Description	CURNO	Type
Pendulum Velocity	001	FIL

Units	Max	Time	Min	Time	SAE Class
G's	8.7	195.0	0.0	-0.5	180

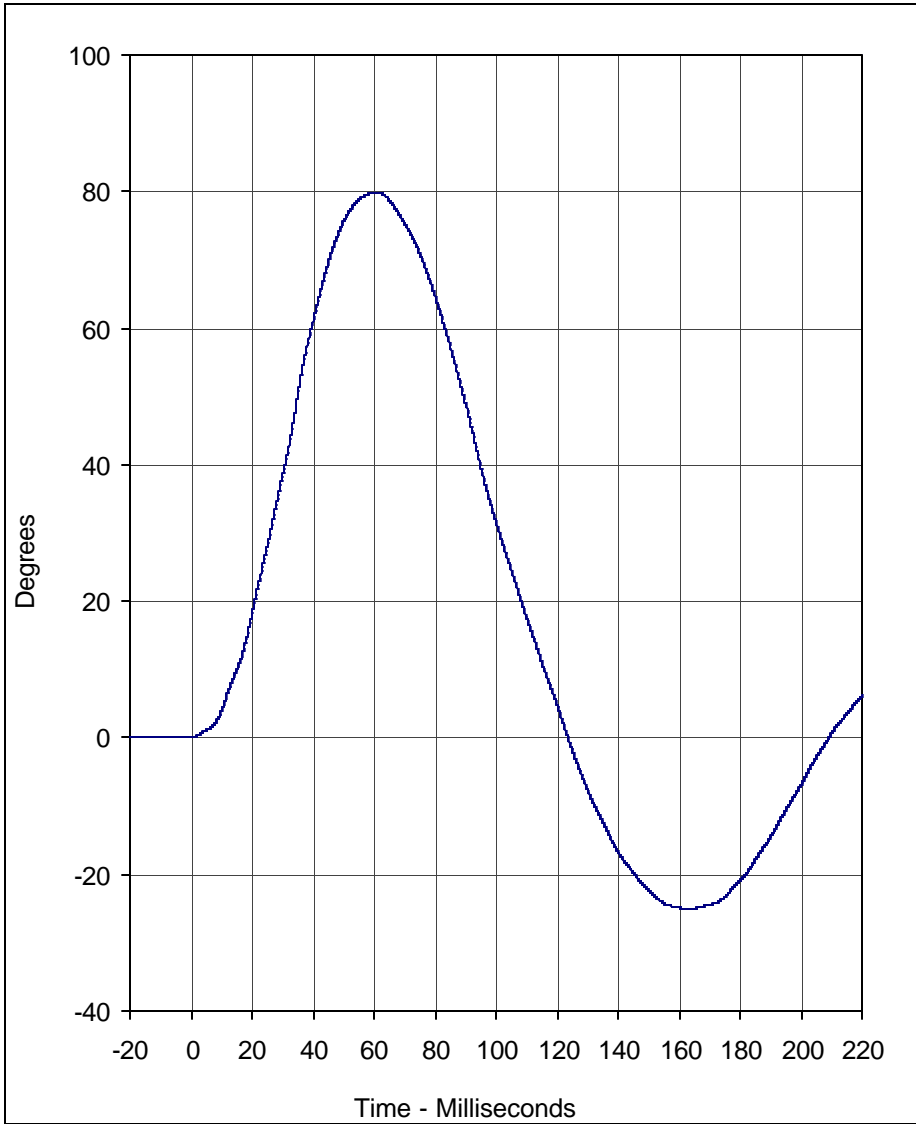
Curve Description	CURNO	Type
Neck Force Y	002	FIL

Units	Max	Time	Min	Time	SAE Class
Newtons	324.9	149.9	-1020.7	52.2	60

Test Program: SID / HIII Neck Pendulum Lateral Test
 Test Date: 11/15/02

A.T.D. Serial No.: 274
 Test I.D.: NB10H

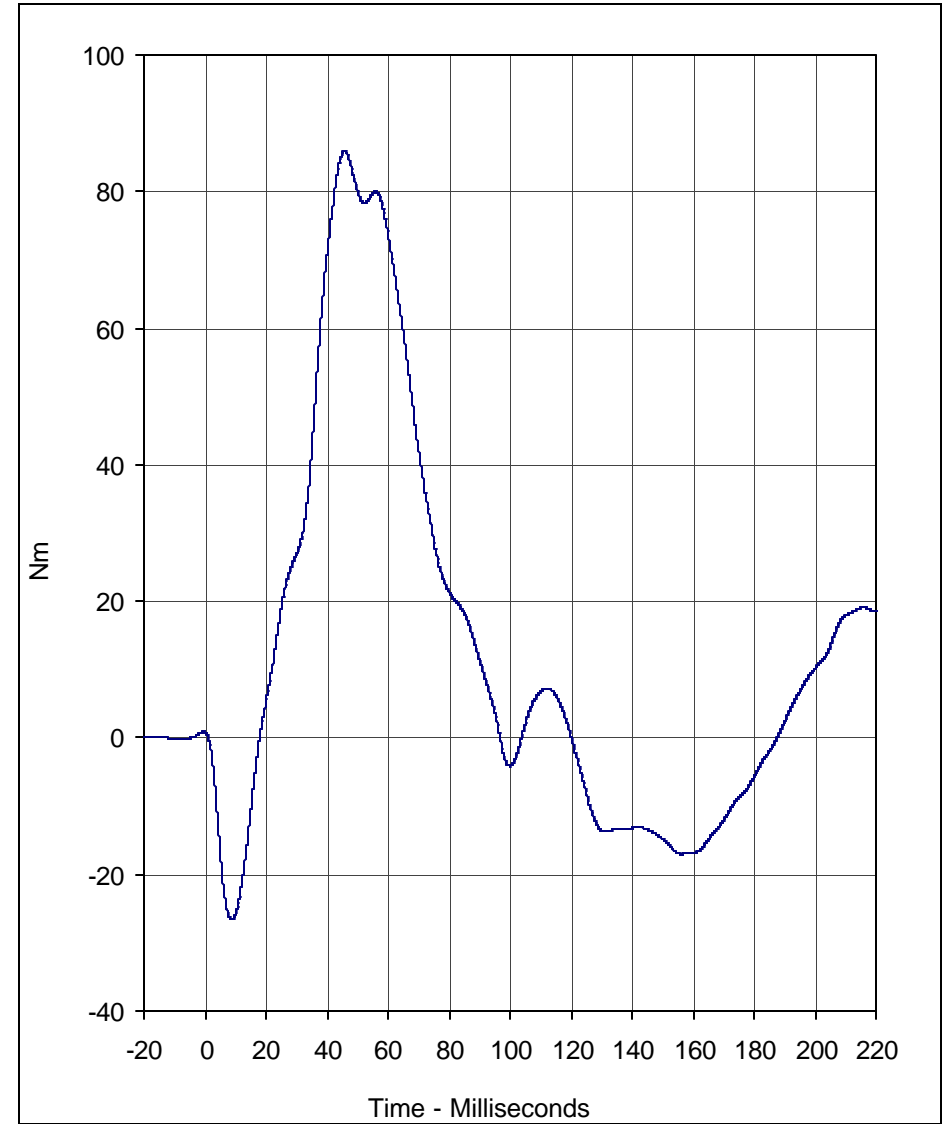




Curve Description	CURNO	Type
"D" Plane Rotation	003	FIL

Units	Max	Time	Min	Time	SAE Class
Degrees	79.9	60.8	-25.2	163.2	60

Test Program: SID / HIII Neck Pendulum Lateral Test
 Test Date: 11/15/02



Curve Description	CURNO	Type
Moment About Occipital Condyle	004	FIL

Units	Max	Time	Min	Time	SAE Class
Nm	85.9	45.7	-26.6	8.7	60

A.T.D. Serial No.: 274
 Test I.D.: NB10H





Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) External Measurements

ATD Serial No.: 275

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	515	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	515	Pass
KV- Knee Pivot From Floor	mm	490 to 505	495	Pass
HW- Hip Width	mm	356 to 391	380	Pass
Overall Test Results				Pass

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November 15, 2002

Test Date



Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Thorax Lateral Impact

ATD Serial No.: 275

Test I.D.: TI11C

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.23	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	39.6	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	39.5	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	18.4	Pass
Overall Test Results				Pass

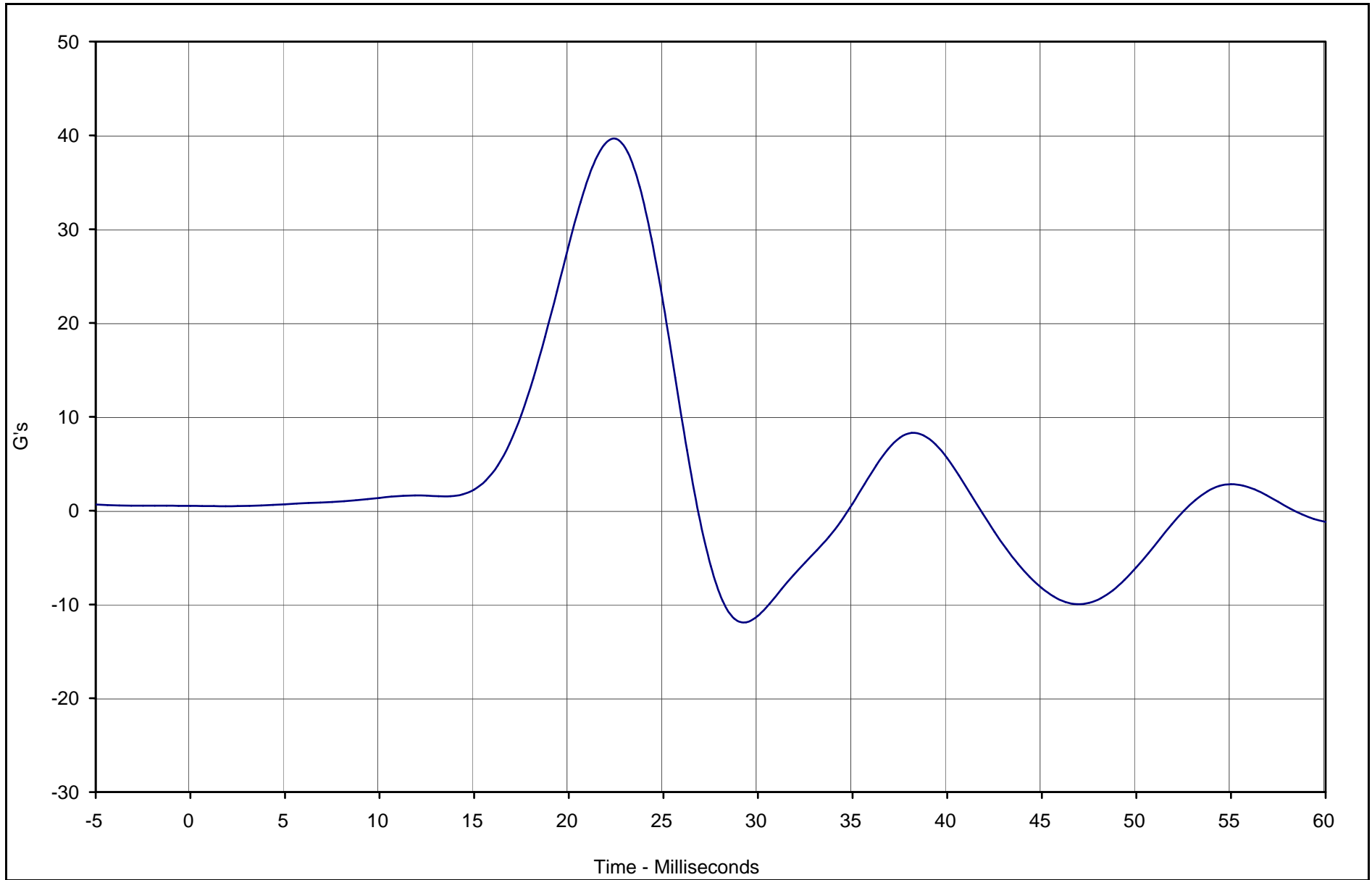
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Test Date



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Upper Rib Y Acceleration	001	FIL	G's	39.6	22.5	-11.9	29.4	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

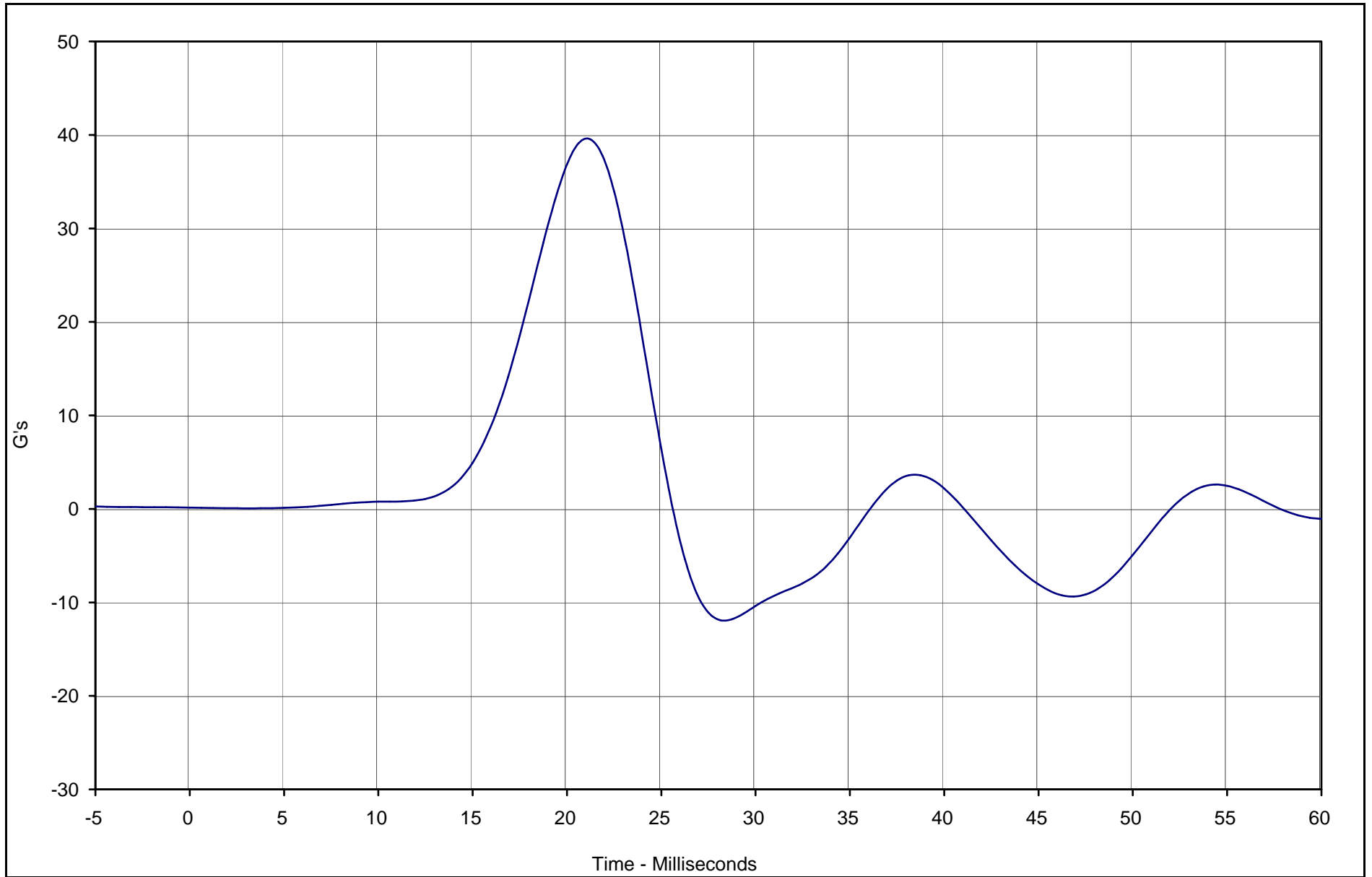
SID Serial No.: 275

Test Date: 11/15/02

Test I.D.: TI11C

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Rib Y Acceleration	002	FIL	G's	39.5	21.3	-11.9	28.1	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

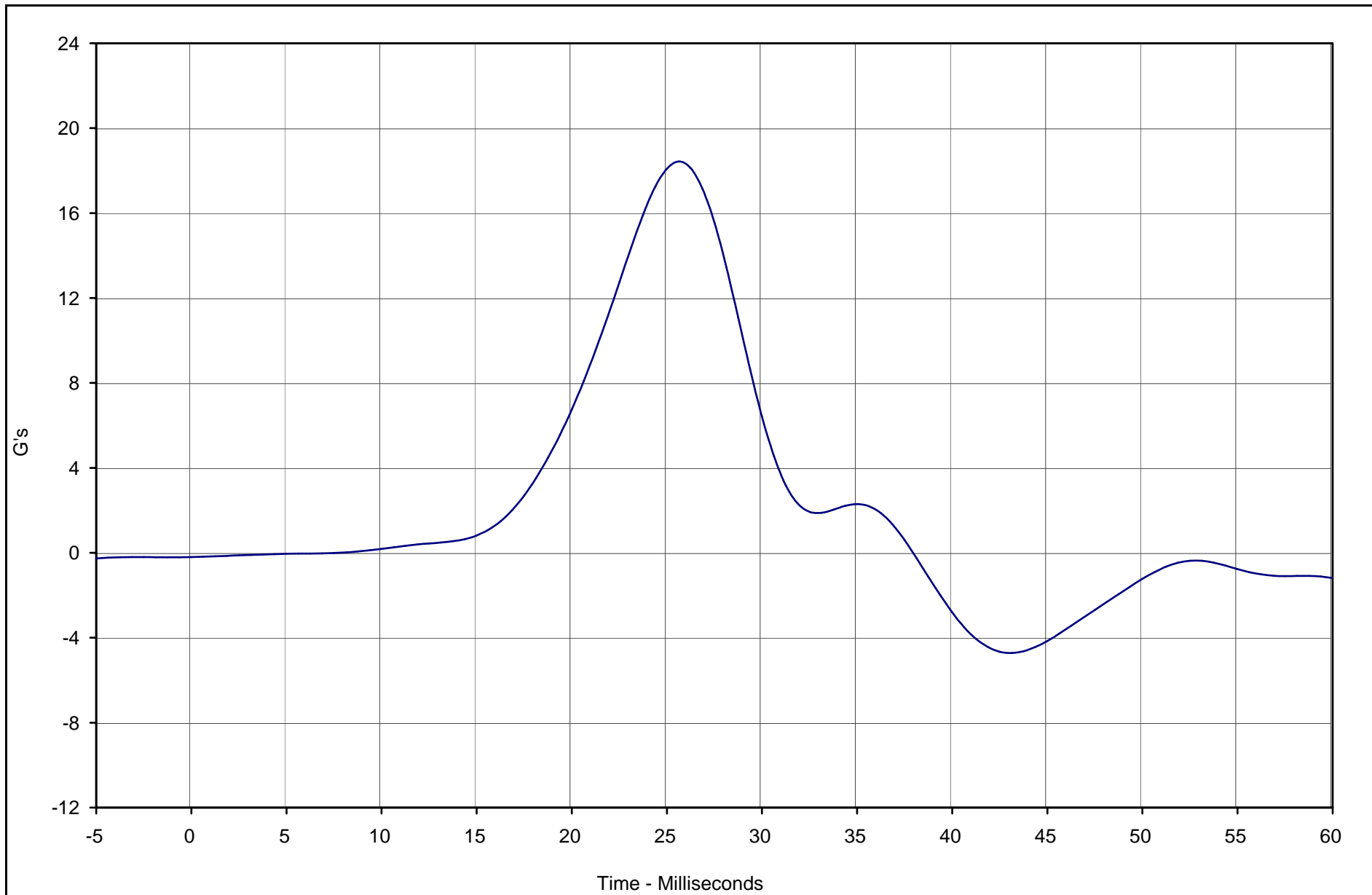
SID Serial No.: 275

Test Date: 11/15/02

Test I.D.: TI11C

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TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Lower Spine Y Acceleration	003	FIL	G's	18.4	25.6	-4.7	43.1	FIR100



Test Vehicle: SID / HIII Thorax Lateral Impact

SID Serial No.: 275

Test Date: 11/15/02

Test I.D.: TI11C



Calibration Data Sheet

Side Impact Hybrid Dummy (SID/HIII)

Pelvis Lateral Impact

ATD Serial No.: 275

Test I.D.: PI10G

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	40.5	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	5.6	Pass
Overall Test Results				Pass

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TR-P23003-04-NC

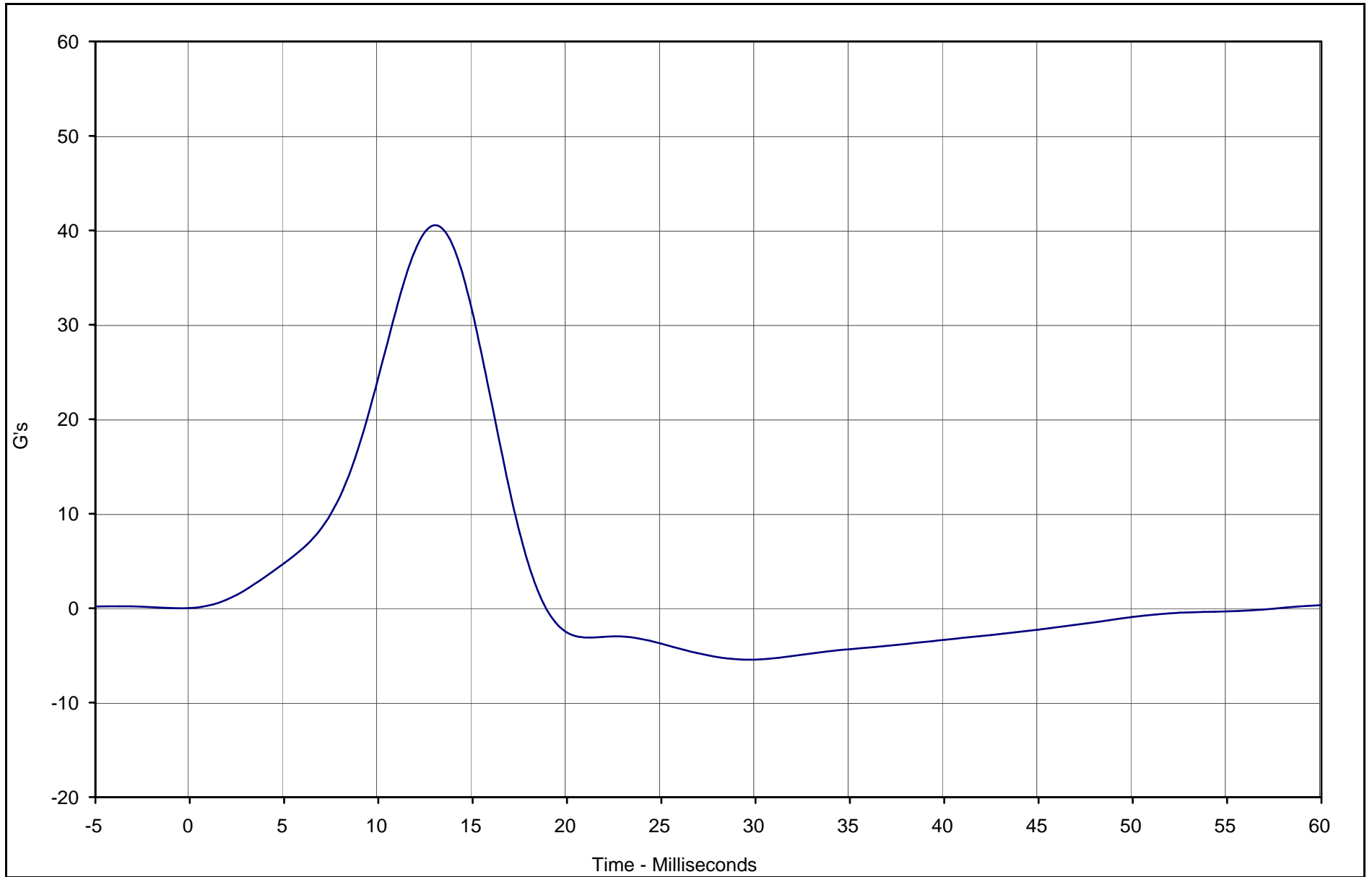
Laboratory Technician

November 15, 2002

Test Date

C-43

TR-P23003-04-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Pelvis Y Acceleration	001	FIL	G's	40.5	13.1	-5.4	29.4	FIR100



Test Vehicle: Side Impact Dummy (SID) Pelvis Lateral Impact

SID Serial No.: 275

Test Date: 11/15/02

Test I.D.: PI10G



Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Head Drop Lateral Impact Test

ATD Serial No.: 275

Test I.D.: SD05B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	138.3	Pass
Peak Longitudinal Acceleration	G's	≤15.0	8.9	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	2.0	Pass
Overall Test Results				Pass

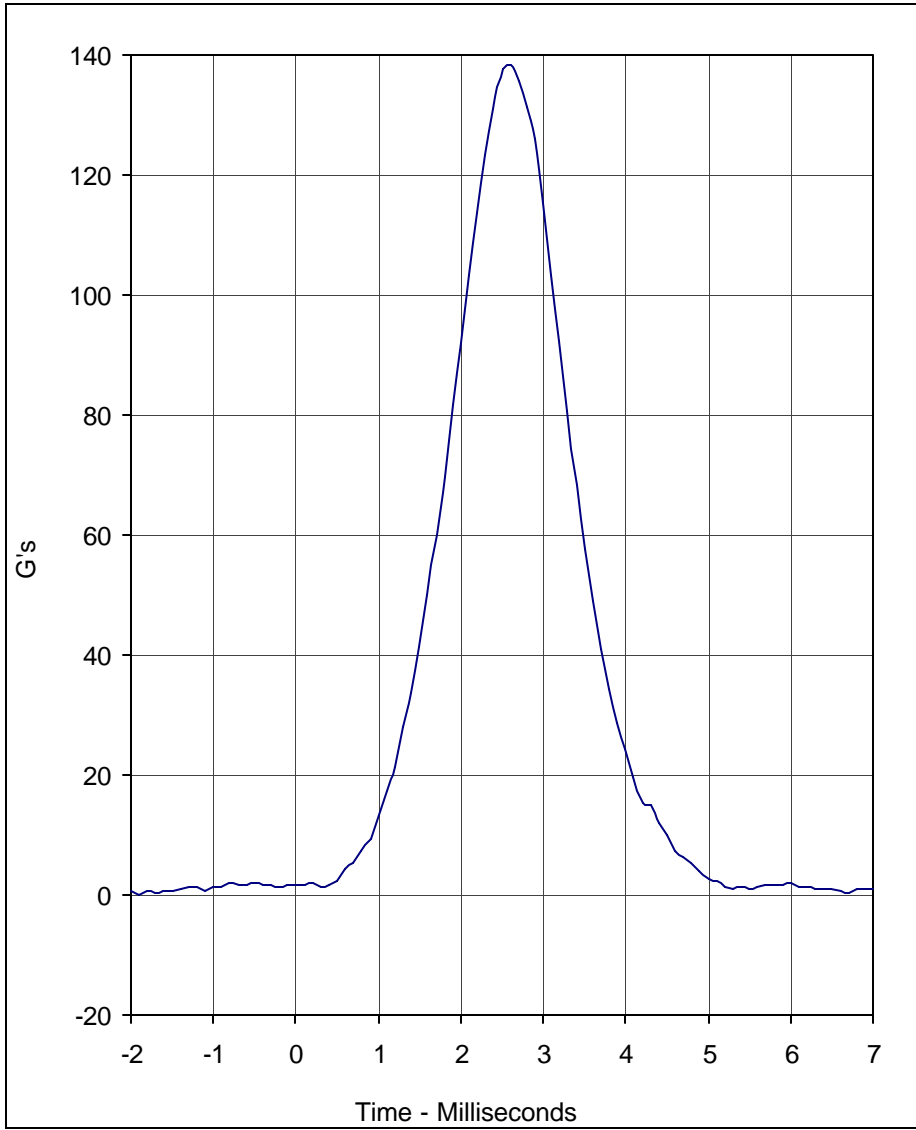
C-44

TR-P23003-04-NC

Laboratory Technician

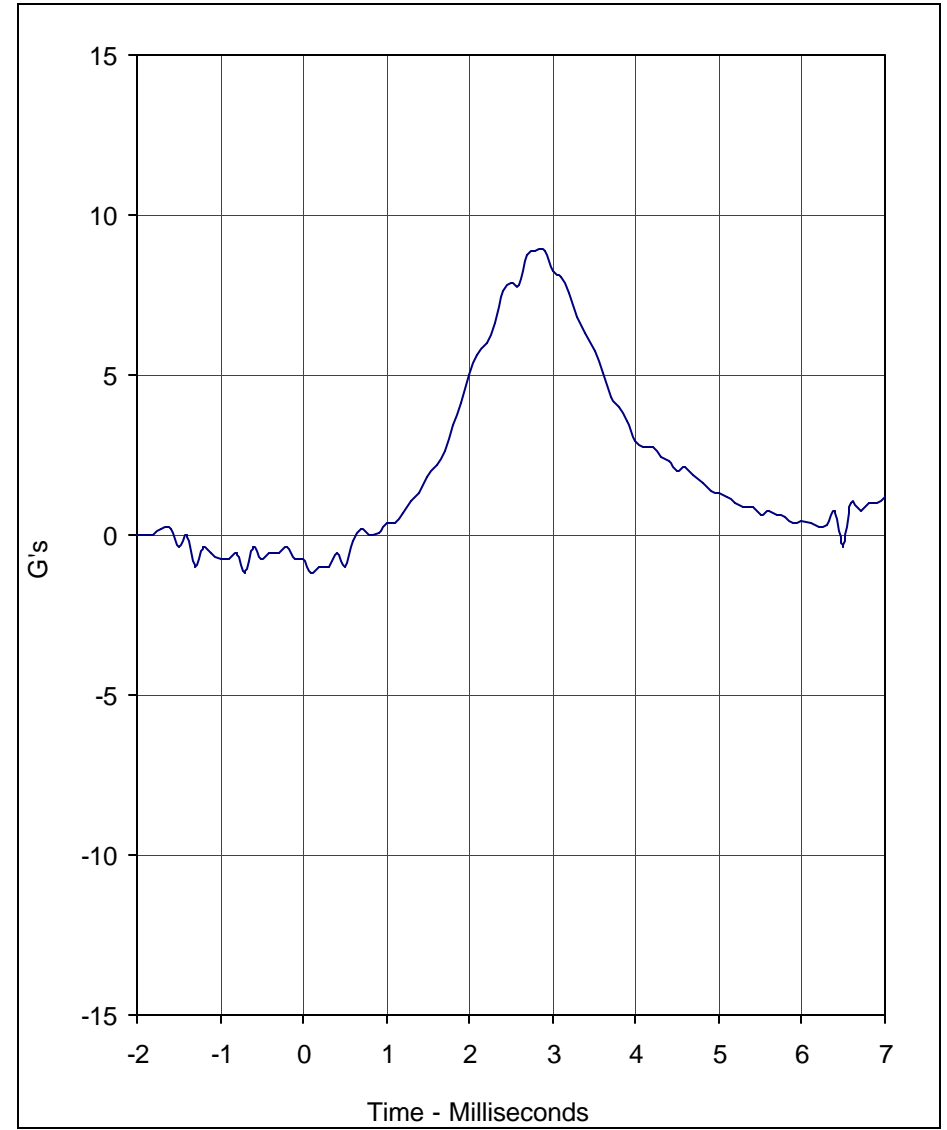
November 15, 2002

Test Date



Curve Description	CURNO	Type
Head Resultant	001	RES

Units	Max	Time	Min	Time	SAE Class
G's	138.3	2.6	0.0	-1.9	1000



Curve Description	CURNO	Type
Head X	002	FIL

Units	Max	Time	Min	Time	SAE Class
G's	8.9	2.8	-1.2	-0.7	1000

Test Program: SID / HIII Head Drop Lateral Impact Test
 Test Date: 11/15/02

A.T.D. Serial No.: 275
 Test I.D.: SD05B





Calibration Data Sheet Side Impact Hybrid Dummy (SID/HIII) Neck Pendulum Lateral Test

ATD Serial No.: 275

Test I.D.: NB11B

Tested Parameter	Units	Specification	Result	Pass/Fail	
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass	
Laboratory Relative Humidity	%	10 to 70	30	Pass	
Pendulum Velocity	m/s	6.89 to 7.13	7.11	Pass	
Pendulum Deceleration	10	Msec.	1.96 to 2.55	2.28	Pass
	20	Msec.	4.12 to 5.10	4.72	Pass
	30	Msec.	5.73 to 7.01	6.85	Pass
	40 to 70	Msec.	6.27 to 7.64	7.60	Pass
Maximum "D" Plane Rotation	Degrees	66.0 to 82.0	72.2	Pass	
Maximum "D" Plane Rotation Time After Peak Moment	Msec.	2.0 to 15.0	11.4	Pass	
"D" Plane Rotation Decay Time From Peak Angle to Zero Angle	Msec.	58.0 to 67.0	61.3	Pass	
Calculated Moment About Occipital Condyle	N•m	73.0 to 88.0	83.9	Pass	
Moment About Occipital Condyle Decay, Time From Positive Peak Value To 0 N•m	Msec.	49.0 to 64.0	49.4	Pass	
			Overall Test Results	Pass	

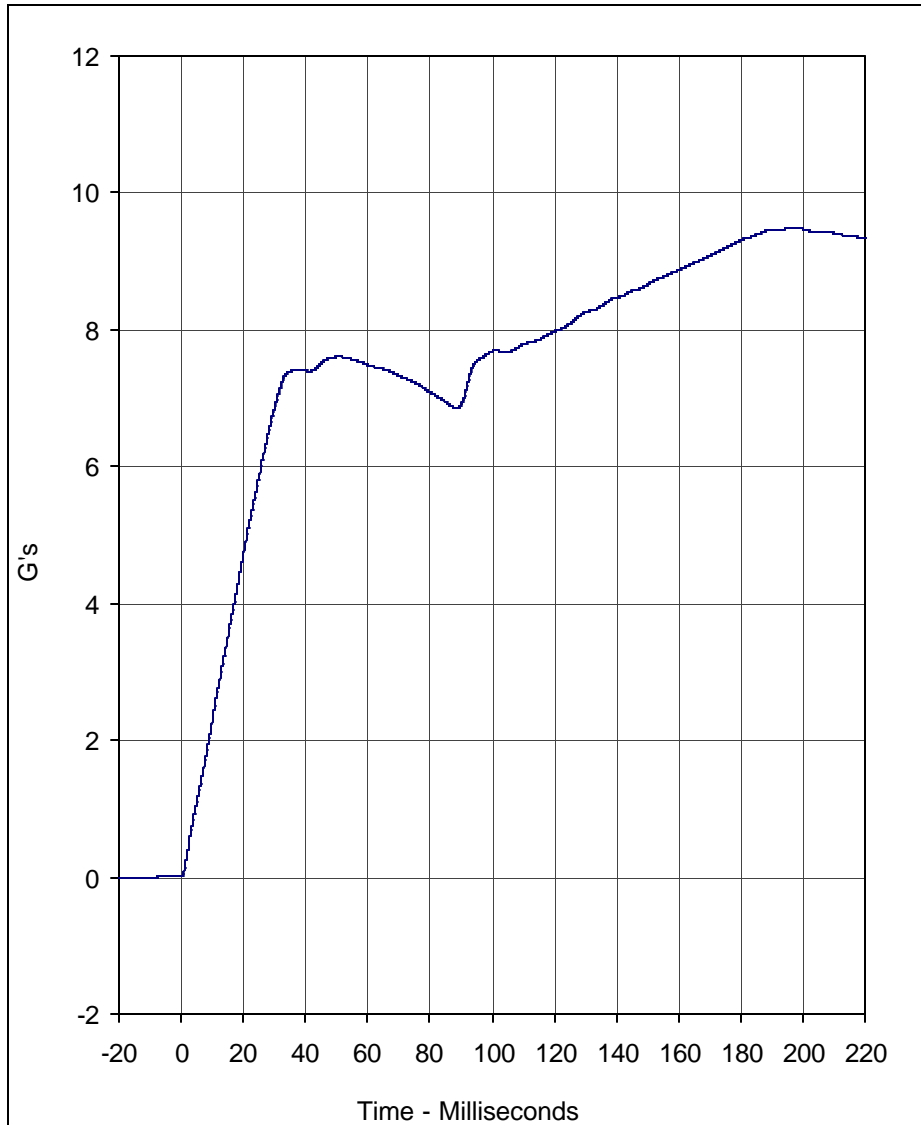
C-46

TR-P23003-04-NC

Laboratory Technician

November 15, 2002

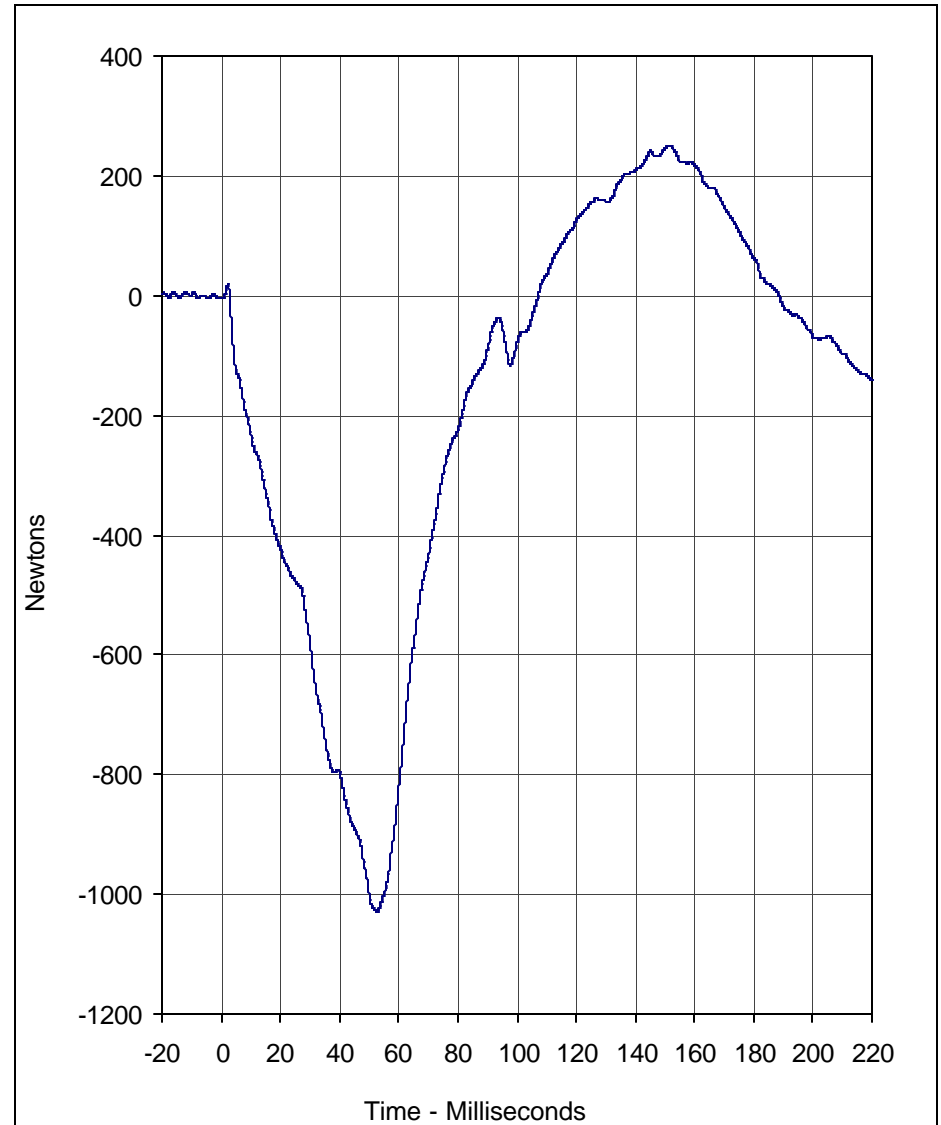
Test Date



Curve Description	CURNO	Type
Pendulum Velocity	001	FIL

Units	Max	Time	Min	Time	SAE Class
G's	9.5	197.5	0.0	-20.0	180

Test Program: SID / HIII Neck Pendulum Lateral Test
 Test Date: 11/15/02

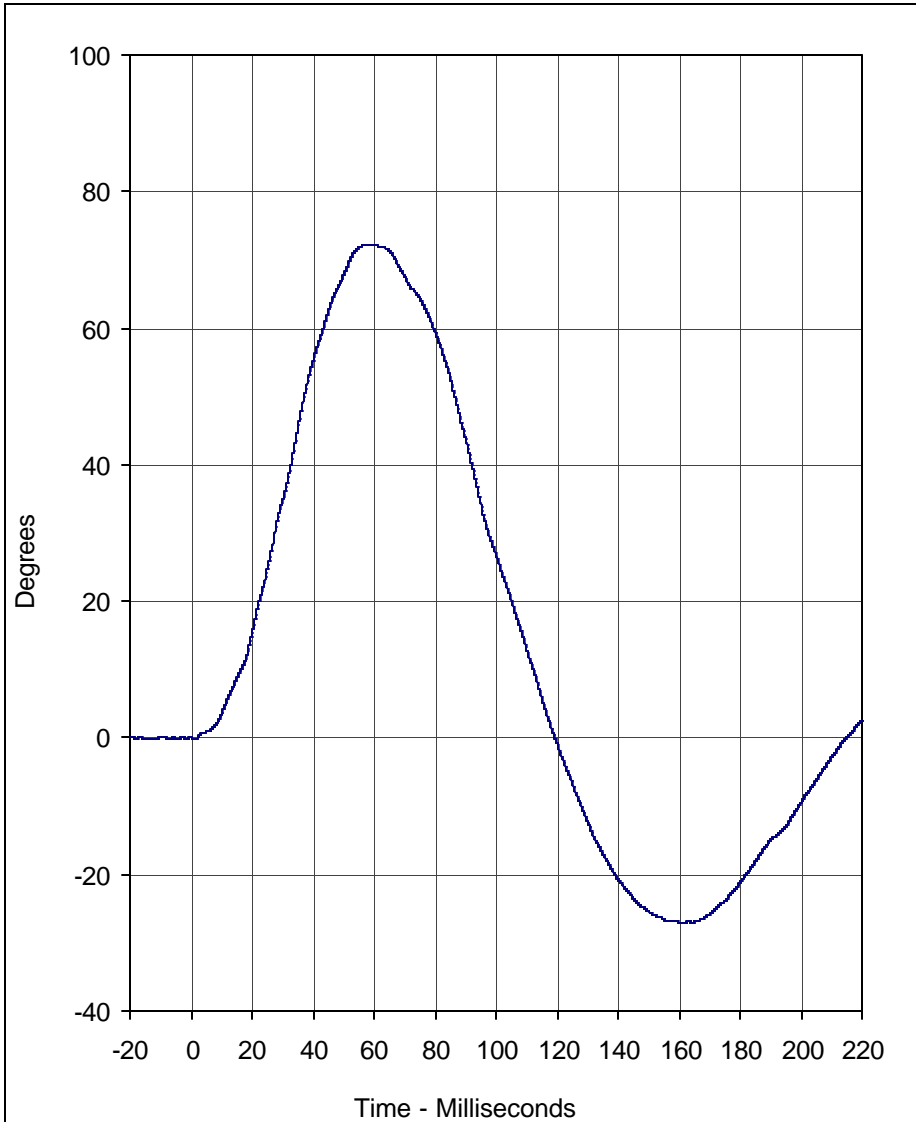


Curve Description	CURNO	Type
Neck Force Y	002	FIL

Units	Max	Time	Min	Time	SAE Class
Newtons	249.9	151.8	-1028.8	52.7	180

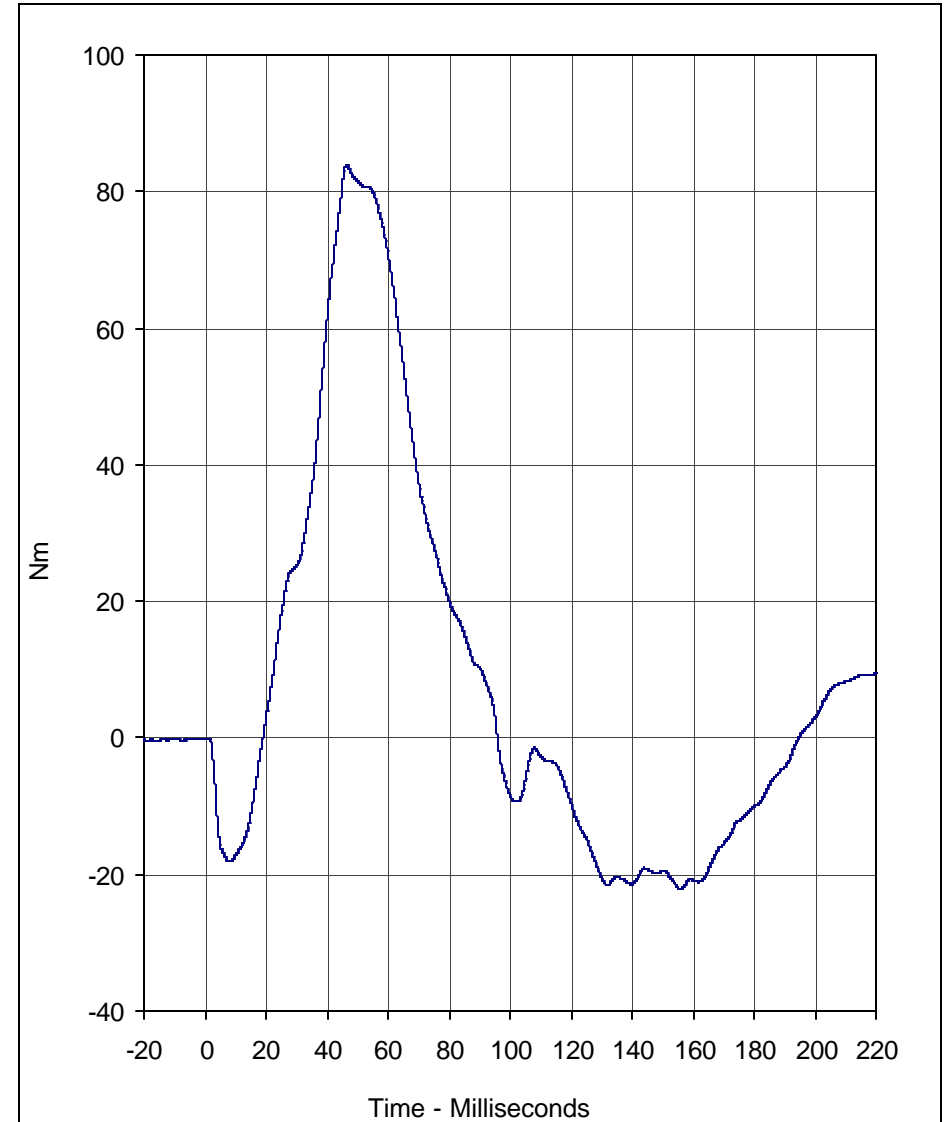
A.T.D. Serial No.: 275
 Test I.D.: NB11B





Curve Description	CURNO	Type
"D" Plane Rotation	003	FIL

Units	Max	Time	Min	Time	SAE Class
Degrees	72.2	58.0	-27.2	161.3	180



Curve Description	CURNO	Type
Moment About Occipital Condyle	004	FIL

Units	Max	Time	Min	Time	SAE Class
Nm	83.9	46.6	-22.3	155.7	180

Test Program: SID / HIII Neck Pendulum Lateral Test
 Test Date: 11/15/02

A.T.D. Serial No.: 275
 Test I.D.: NB11B



APPENDIX D
TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Driver HIII/SID Serial Number 275
11/14/02
2003 Lincoln Town Car 4 Door Sedan**

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
1	Head CG	X	GPAC027	Accel., 1/2 bridge	Endevco	7264-2000	G
2	Head CG	Y	GPAC002	Accel., 1/2 bridge	Endevco	7264-2000	G
3	Head CG	Z	GPAC003	Accel., 1/2 bridge	Endevco	7264-2000	G
4	Head CG, Redundant	X	GPAC032	Accel., 1/2 bridge	Endevco	7264-2000	G
5	Head CG, Redundant	Y	GPAC021	Accel., 1/2 bridge	Endevco	7264-2000	G
6	Head CG, Redundant	Z	GPAC026	Accel., 1/2 bridge	Endevco	7264-2000	G
7	Neck Force	X	GPUN02FX	Load cell, six axis neck	R. A. Denton	1716A	N
8	Neck Force	Y	GPUN02FY	Load cell, six axis neck	R. A. Denton	1716A	N
9	Neck Force	Z	GPUN02FZ	Load cell, six axis neck	R. A. Denton	1716A	N
10	Neck Moment	X	GPUN02MX	Load cell, six axis neck	R. A. Denton	1716A	Nm
11	Neck Moment	Y	GPUN02MY	Load cell, six axis neck	R. A. Denton	1716A	Nm
12	Neck Moment	Z	GPUN02MZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
13	Upper Rib Primary	Y	KEAC066	Accel.,1/2 bridge	Endevco	7264-2000X	G
14	Lower Rib, Primary	Y	KEAC067	Accel.,1/2 bridge	Endevco	7264-2000Y	G
15	Lower Spine, Primary	Y	KEAC068	Accel.,1/2 bridge	Endevco	7264-2000Z	G
16	Pelvis, Primary	Y	KEAC079	Accel.,1/2 bridge	Endevco	7264-2000X	G
17	Upper Rib Redundant	Y	KEAC073	Accel.,1/2 bridge	Endevco	7264-2000X	G
18	Lower Rib, Redundant	Y	KEAC074	Accel.,1/2 bridge	Endevco	7264-2000Y	G
19	Lower Spine, Redundant	Y	KEAC075	Accel.,1/2 bridge	Endevco	7264-2000Z	G
20	Pelvis, Redundant	Y	KEAC081	Accel.,1/2 bridge	Endevco	7264-2000X	G
21	Thorax Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%
22	Pelvis Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Passenger HIII/SID Serial Number 274
11/14/02
2003 Lincoln Town Car 4 Door Sedan**

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
23	Head CG	X	KEAC039	Accel.,1/2 bridge	Endevco	7264-2000	G
24	Head CG	Y	KEAC038	Accel.,1/2 bridge	Endevco	7264-2000	G
25	Head CG	Z	KEAC027	Accel.,1/2 bridge	Endevco	7264-2000	G
26	Head CG, Redundant	X	GPAC038	Accel., 1/2 bridge	Endevco	7264-2000	G
27	Head CG, Redundant	Y	GPAC039	Accel., 1/2 bridge	Endevco	7264-2000	G
28	Head CG, Redundant	Z	GPAC040	Accel., 1/2 bridge	Endevco	7264-2000	G
29	Neck Force	X	GPUN01FX	Load cell, six axis neck	R. A. Denton	1716A	N
30	Neck Force	Y	GPUN01FY	Load cell, six axis neck	R. A. Denton	1716A	N
31	Neck Force	Z	GPUN01FZ	Load cell, six axis neck	R. A. Denton	1716A	N
32	Neck Moment	X	GPUN01MX	Load cell, six axis neck	R. A. Denton	1716A	Nm
33	Neck Moment	Y	GPUN01MY	Load cell, six axis neck	R. A. Denton	1716A	Nm
34	Neck Moment	Z	GPUN01MZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
35	Upper Rib Primary	Y	KEAC070	Accel.,1/2 bridge	Endevco	7264-2000X	G
36	Lower Rib, Primary	Y	KEAC071	Accel.,1/2 bridge	Endevco	7264-2000Y	G
37	Lower Spine, Primary	Y	KEAC072	Accel.,1/2 bridge	Endevco	7264-2000Z	G
38	Pelvis, Primary	Y	KEAC090	Accel.,Full bridge	Endevco	7264-2000X	G
39	Upper Rib Redundant	Y	KEAC076	Accel.,1/2 bridge	Endevco	7264-2000X	G
40	Lower Rib, Redundant	Y	KEAC077	Accel.,1/2 bridge	Endevco	7264-2000Y	G
41	Lower Spine, Redundant	Y	KEAC078	Accel.,1/2 bridge	Endevco	7264-2000Z	G
42	Pelvis, Redundant	Y	KEAC089	Accel.,1/2 bridge	Endevco	7264-2000X	G
43	Thorax Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%
44	Pelvis Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Vehicle Accelerometers
11/14/02
2003 Lincoln Town Car 4 Door Sedan**

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
45	Right at Sill Front Seat	X	KETX2A	Accel., Triax	I.C. Sensor	3031-200	G
46	Right at Sill Front Seat	Y	KETX2B	Accel., Triax	I.C. Sensor	3031-200	G
47	Right at Sill Front Seat	Z	KETX2C	Accel., Triax	I.C. Sensor	3031-200	G
48	Right at Sill Rear Seat	X	KETX3A	Accel., Triax	I.C. Sensor	3031-500	G
49	Right at Sill Rear Seat	Y	KETX3B	Accel., Triax	I.C. Sensor	3031-500	G
50	Right at Sill Rear Seat	Z	KETX3C	Accel., Triax	I.C. Sensor	3031-500	G
51	Rear Floorpan Above Axle	X	KETX4A	Accel., Triax	I.C. Sensor	3031-500	G
52	Rear Floorpan Above Axle	Y	KETX4B	Accel., Triax	I.C. Sensor	3031-500	G
53	Rear Floorpan Above Axle	Z	KETX4C	Accel., Triax	I.C. Sensor	3031-500	G
54	Left Sill at Rear Door	Y	KEVA012	Accel., Vehicle block	I.C. Sensor	3031-500	G
55	Left Sill at Front Door	Y	KEVA001	Accel., Vehicle block	I.C. Sensor	3031-500	G
56	Left Front Door Centerline	Y	ICST004X	Accel., Triax	I.C. Sensor	3031-500	G
57	Rear Occupant Compartment	Y	KEVA006	Accel., Vehicle block	I.C. Sensor	3031-200	G
58	Left Front Door Mid-Rear	Y	ICST004Y	Accel., Triax	I.C. Sensor	3031-500	G
59	Left Front Door Upper Centerline	Y	ICST004Z	Accel., Triax	I.C. Sensor	3031-500	G
60	Rear Door Mid-Rear	Y	ICST005X	Accel., Triax	I.C. Sensor	3031-500	G
61	Rear Door Upper Centerline	Y	ICST005Y	Accel., Triax	I.C. Sensor	3031-500	G
62	B-Post Lower	Y	KEBX2A	Accel., Biax	I.C. Sensor	3031-500	G
63	B-Post Middle	Y	KEBX2B	Accel., Biax	I.C. Sensor	3031-500	G
64	A-Post Lower	Y	KEBX1A	Accel., Biax	I.C. Sensor	3031-200	G
65	A-Post Middle	Y	KEBX1B	Accel., Biax	I.C. Sensor	3031-500	G
66	Front Seat Track	Y	KEIC008Y	Single	I.C. Sensor	3031-500	G
67	Rear Seat Structure	Y	N/A	N/A	N/A	N/A	N/A
68	Vehicle CG	X	KETX2A	Accel., Triax	I.C. Sensor	3031-200	G
69	Vehicle CG	Y	KETX2B	Accel., Triax	I.C. Sensor	3031-200	G
70	Vehicle CG	Z	KETX2C	Accel., Triax	I.C. Sensor	3031-200	G

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Moving Deformable Barrier
11/14/02
2003 Lincoln Town Car 4 Door Sedan**

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
71	MDB CG	X	ICST001X	Accel., Triax	I.C. Sensor	3031-500	G
72	MDB CG	Y	ICST001Y	Accel., Triax	I.C. Sensor	3031-500	G
73	MDB CG	Z	ICST001Z	Accel., Triax	I.C. Sensor	3031-500	G
74	MDB Rear Centerline	X	ICST002X	Accel., Triax	I.C. Sensor	3031-50	G
75	MDB Rear Centerline	Y	ICST002Y	Accel., Triax	I.C. Sensor	3031-50	G
76	Right Bumper Contact	N/A	T0	Contact Switch	Tapeswitch	40 oz. Grey	%

**55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Nine Accelerometer Head Array Channels
11/14/02
2003 Lincoln Town Car 4 Door Sedan**

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
77	Driver Head CG	X	GPAC027	Accel., 1/2 bridge	Endevco	7264-2000	G *
78	Driver Head CG	Y	GPAC002	Accel., 1/2 bridge	Endevco	7264-2000	G *
79	Driver Head CG	Z	GPAC003	Accel., 1/2 bridge	Endevco	7264-2000	G *
80	Driver Y-arm	Z	GPAC012	Accel., 1/2 bridge	Endevco	7264-2000	G
81	Driver Y-arm	X	GPAC001	Accel., 1/2 bridge	Endevco	7264-2000	G
82	Driver X-arm	Z	GPAC036	Accel., 1/2 bridge	Endevco	7264-2000	G
83	Driver X-arm	Y	GPAC014	Accel., 1/2 bridge	Endevco	7264-2000	G
84	Driver Z-arm	X	GPAC030	Accel., 1/2 bridge	Endevco	7264-2000	G
85	Driver Z-arm	Y	GPAC037	Accel., 1/2 bridge	Endevco	7264-2000	G
86	Passenger Head CG	X	KEAC039	Accel.,1/2 bridge	Endevco	7264-2000	G *
87	Passenger Head CG	Y	KEAC038	Accel.,1/2 bridge	Endevco	7264-2000	G *
88	Passenger Head CG	Z	KEAC027	Accel.,1/2 bridge	Endevco	7264-2000	G *
89	Passenger Y-arm	Z	GPAC016	Accel., 1/2 bridge	Endevco	7264-2000	G
90	Passenger Y-arm	X	GPAC015	Accel., 1/2 bridge	Endevco	7264-2000	G
91	Passenger X-arm	Z	GPAC004	Accel., 1/2 bridge	Endevco	7264-2000	G
92	Passenger X-arm	Y	GPAC018	Accel., 1/2 bridge	Endevco	7264-2000	G
93	Passenger Z-arm	X	GPAC006	Accel., 1/2 bridge	Endevco	7264-2000	G
94	Passenger Z-arm	Y	GPAC007	Accel., 1/2 bridge	Endevco	7264-2000	G

* Duplicate of Head CG Primary Channels