

# ANCAP Safety Rating

## LEXUS IS (October 2016 - onwards)



Lexus IS

### This ANCAP safety rating applies to:

Make / Model	Lexus IS
Year Range	October 2016 - onwards
Variant(s)*	All variants
Vehicle Type	Medium Car

The tested model of Lexus IS was introduced in Australia and New Zealand in mid 2013. Toyota introduced a number of safety upgrades to the IS from October 2016. This ANCAP safety rating therefore applies to all variants built from October 2016.

Dual frontal side chest, side head (curtains), driver knee and front passenger knee airbags are standard. Autonomous emergency braking (City & Interurban) and lane support systems are standard. Vehicles built from October 2017 are also fitted with AEB Vulnerable Road User as standard. Vehicles built prior to this are not fitted with this feature.

A full list of safety features and technologies can be viewed within the *Safety Features & Technologies* table on page 2 of this report.

### Injury Outcomes.

#### Frontal Offset



#### Side Impact & Pole#



#### Whiplash Protection



# Head protection only.

### Test Results Summary.

Airbags	Dual Frontal, Side, Head, Knee
Frontal Offset Test	14.00 (out of 16)
Side Impact Test	16.00 (out of 16)
Pole Test	2.00 (out of 2)
Whiplash Protection	Good
Pedestrian Protection	Good
ESC	Standard
Seat Belt Reminders	3.00 (out of 3)
Overall Score	35.00 (out of 37)
ANCAP Safety Rating	★★★★★
Rating Year^	2016

### Occupant Protection.

#### Frontal Offset Test

Each body region is scored out of 4 points

Head / neck:	4.00 points
Chest:	3.22 points
Upper legs:	4.00 points
Lower legs:	2.78 points

The passenger compartment held its shape well in the frontal offset test. Pedal and steering wheel displacements were well controlled. Driver and passenger contact with the airbags was stable. All doors remained closed during the crash.

#### Side Impact Test

Each body region is scored out of 4 points

Head:	4.00 points
Chest:	4.00 points
Abdomen:	4.00 points
Pelvis:	4.00 points

Good protection was provided for the driver in the side impact test. The side airbags performed well.

#### Pole Test

Scored out of 2 points

Score:	2.00 points
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The vehicle was eligible for a side pole test because it has side curtain airbags. The vehicle scored the maximum 2 points for head protection in this test.

#### Whiplash Protection Test

Whiplash protection is assessed to the RCAR Protocol

Geometric test:	Good
Dynamic test:	Good
Overall whiplash rating:	Good

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### Pedestrian Protection.

#### Pedestrian Test

Scored out of 36 points

Adult & child head impacts: 16.93 points  
 Upper leg impacts: 6.00 points  
 Lower leg impacts: 6.00 points

The Lexus IS scored 28.93 out of 36.00 points ('Good'). The IS has an 'active' bonnet which provides additional head protection for struck pedestrians. This provided good or adequate levels of protection over most of the bonnet surface. The bumper and the leading edge of the bonnet also performed well, the car scoring maximum points for the protection it offered to the legs and pelvis of a struck pedestrian. (Euro NCAP V6.0)



### Score Deductions.

#### Deductions from frontal offset test scores

Head / neck: No deductions  
 Chest: No deductions  
 Upper legs: No deductions  
 Lower legs: -0.11 points from foot score (blocked brake pedal)

#### Deductions from side impact test score

Head / neck: No deductions  
 Chest: No deductions  
 Abdomen: No deductions  
 Pelvis: No deductions

#### Deductions from pole test score

Head: No deductions

### Safety Features & Technologies.

Descriptions of each of these safety features and safety assist technologies (SAT) and detail on fitting requirements for each star rating level can be found at [ancap.com.au](http://ancap.com.au).

Safety Feature / Safety Assist Technology	Availability
Seat belts (three-point, lap/sash) for all forward-facing seats	S
Seat belt pretensioners (front)	S
Seat belt pretensioners (rear outboard)	S
Intelligent seat belt reminder (driver)	S
Intelligent seat belt reminder (front passenger)	S
Intelligent seat belt reminder (2 <sup>nd</sup> row seats)	S
Airbag - Frontal (driver)	S
Airbag - Frontal (passenger)	S
Airbag - Side, chest protection (front seats)	S
Airbag - Side, chest protection (2 <sup>nd</sup> row seats)	X
Airbag - Side, head protection (front seats)	S
Airbag - Side, head protection (2 <sup>nd</sup> row seats)	S
Airbag - Knee (driver)	S
Airbag - Knee (front passenger)	X
Head restraints for all seats	S
Adaptive cruise control (ACC)	S
Antilock braking system (ABS)	S
Attention assist (fatigue detection)	S
Autonomous emergency braking (AEB)	
- City	S
- Interurban	S
- Vulnerable road user	X / S*
Active bonnet	S
Automatic headlights	S
Automatic high beam	S
Blind spot monitoring (BSM)	V
Electronic brakeforce distribution (EBD)	S
Electronic stability control (ESC)	S
Emergency brake assist (EBA)	S
Emergency stop signal (ESS)	S
Lane support system (LSS)	S
Daytime running lights (DRL)	S
Hill launch assist	S
Rain sensing windscreen wipers	S
Reversing collision avoidance	S
Speed assistance – automatic / intelligent speed limiting (ISA)	X
Speed assistance - manual speed limiting / alarm	X
Speed assistance - speed sign recognition / map	X
Tyre pressure monitoring system (TPMS)	S

**S** = Standard on all variants.

**O** = Optional on base variant. May be standard on higher variants.

**V** = Not available on base variant but standard or optional on higher variants.

**X** = Not available on any variant.

**\*** = Standard on vehicles built from October 2017. Not available on vehicles built prior.

These specifications are subject to change. Please check with the manufacturer for the latest specifications.

## Injury Values & Measurements.

Body Region	Frontal offset test at 64 km/h (v5.1)		Side impact test at 50 km/h (v5.1)
	Driver	Passenger	Driver
<b>Head</b>			
HIC	332.00	256.00	26.00
Acceleration (g for 3ms)	44.20	43.80	15.80
<b>Neck</b>			
Shear (kN)	0.40	0.73	-
Tension (kN)	1.49	0.57	-
Extension (Nm)	5.80	33.60	-
<b>Chest</b>			
Acceleration (g for 3ms)	-	-	-
Compression (mm)	27.48	18.31	6.11
Viscous criterion (m/s)	0.10	0.07	0.01
<b>Abdomen</b>			
Force (kN)	-	-	0.41
<b>Pelvis</b>			
Force (kN)	-	-	1.33
<b>Upper legs</b>			
Femur force left (kN)	1.76	1.15	
Femur force right (kN)	1.29	1.01	
Knee displacement left (mm)	4.19	1.51	
Knee displacement right (mm)	2.88	2.26	
<b>Lower legs</b>			
Force left (kN)	3.83	2.54	
Force right (kN)	2.88	2.42	
Index (upper / lower) left	0.32 / 0.64	0.18 / 0.27	
Index (upper / lower) right	0.39 / 0.44	0.19 / 0.29	
<b>Intrusion Measurements*</b>			
<b>Steering column</b>			
Forward (mm)	63		
Downward (mm)	31		
Sideways (mm)	15		
<b>Pedals</b>			
Brake - rearward (mm)	66		
Brake - upward (mm)	9		
<b>A-Pillar</b>			
Rearward (mm)	11		

+ Steering column and pedal movements are measured relative to the driver's seat.

\* **Model Variants:** ANCAP safety ratings do not automatically extend to variants that have different body styles, engine configurations, driven wheels or occupant restraint systems (e.g. fewer airbags). In these cases, ANCAP considers technical evidence submitted by manufacturers before deciding on extending a rating to additional variants of a model. For further information about the application of ANCAP safety ratings to model variants, see the ANCAP Variant Policy.

^ **Rating Year:** The Rating Year denotes the year requirements against which a vehicle has been assessed. The Rating Year is determined by ANCAP and may be based on the year in which a new vehicle model is first launched into the Australian and/or New Zealand markets; the year in which the vehicle was tested (if tested by Euro NCAP); or, for vehicles which hold an existing ANCAP safety rating, the year in which the rating was updated (or earlier applicable year).

### Assessment Details.

Tested Make / Model	Lexus IS 300h
Tested Vehicle(s) Built	2013
Tested Body Type	5 door hatch
Tested Vehicle Kerb Weight	1670kg
Tested Vehicle Engine	2.5 litre petrol / hybrid
Tested By	Euro NCAP
Assessed By	ANCAP
Document Reference	LexusIS16
Document Created / Revised	12 Dec 16 / 8 Feb 17 / 15Feb18
Rating Published	December 2016
Rating Updated	15 February 2018



Frontal offset test at 64km/h