DrivingVisionNews.com

GENEVA INTERNATIONAL MOTOR SHOW

2018REPORT

—— The 88th Geneva international show ——

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About the authors

Hector Fratty's entire career has been in automotive lighting.
From 1995 to 2006, he was Valeo Lighting's chief of R&D.
His level of expertise in lighting gained him recognition as one of Valeo's five Master Experts. In 2008, he initiated the launch of his own company, Driving Vision News, which has become the automotive lighting and driver assistance industry's journal of record dedicated to keeping the community informed and communicating about the latest progress and developments.

Patrice Minol is an automotive design student at the International School of Design in 5th year, he discovered the world of lighting during an internship at Valeo Vision and he will integrate the Jaguar design team in few months. His passion for photography combined with his design approach allowed him to works with DVN as a reporter during the autoshow.

GIMS2018

Four Takeaways from the Geneva Auto Show

1.
Proliferation of rectangular light modules

2.
Thinner headlamps and rear lamps

3.
Communication by light from the front and the rear ends

4.
Endless innovation in front and rear lights

The Geneva International Motor Show

Unlike the last big auto show NAIAS two months ago, in Geneva there were many concept cars. On top of that, the pre-production prototypes and newly-unveiled production cars are themselves dream cars, bristling with levels of technology and capability well outside yesterday's bounds of practicability. Another trend on the obvious increase is the use of lighting for brand and model-range identity advertisement.

This, DVN's 126th report, is a close and focused look at the new and notable lights on the vehicles at the 2018 Geneva motor show, to the near-total exclusion of other parts and views of the vehicle. Every model covered here can readily be viewed in its entirety elsewhere, but this is the only comprehensive report on the lights. This year we present an unprecedented more than 200 clear, colourful, sharp images at the perfect size whether you're viewing on a computer screen,a tablet, or you choose to print it out and carry it with you. Where warranted, we provide multiple views of the same lamp from different angles, annotated and described with text. Chapters are arranged by automakers; all of an automaker's marques are grouped together

Once again an enormous success for this 88th edition of the Geneva International Motor Show, with more than 660,000 entries registered. This year's show was set in motion by the Car of the Year award, won by the Volvo XC40, then the presentation of 150 new models and concept cars to a gathering of more than 10,000 media representatives from all over the world during the two press days. Visitors had the pleasure of viewing more than 900 exciting vehicles on display within the framework of what has become the largest event in Switzerland.

Rarely have so many car makers showed so many new electric cars and production-plausible EV studies as we saw this year at Geneva. EV range—distance that can be travelled on a charge—is growing high enough for buyers to stop worrying about it.

Aston Martin V8 Vantange

The new Vantage's front and rear lights are ultra-slim LEDs and have been used to stunning effect. Whether you're following or being followed, these visual signatures ensure the Vantage is unmistakable. Shape and drama define every aspect of the Vantage LED headlamps with integrated direction indicator, DRL and position lamps. The tail lamp signature is fully made with LEDs, including stop tail and dynamic indicator functions.


ASTON MARTIN
VANTAGE

Lagonda Vision Concept

The Lagonda Vision concept aims to be the world's first zero-emission luxury car. It's designed for level-4 autonomous driving, meaning the car is capable of driving itself in all routine circumstances and on all recognisable roads. As a result, the steering wheel can move not only from left- to right-hand drive, but also in autonomous mode it can retract entirely, allowing front seat passengers to swivel 180 degrees to engage in face-to-face conversation with those in the back.


LAGONDA

Audi A6

Audi offer the A6 with three different front lighting systems. Below, the top-of-the range version: HD matrix LED headlamps with five horizontal lines forming the DRL signature. Above the DRL, low beam modules look like pupils. The tail lights' signature is formed by a single horizontal line with vertical segments enclosing the stop light. Dynamic (sequential) turn signals are of course included. When unlocking and locking the doors, pulses of light send a welcome or farewell message. Inside the A6, ambient lighting makes the dashboard and centre console appear to float. The contour lighting reproduces the clear lines of the interior architecture and can be set to 30 different colours.


50 TDI


50 TDI

Audi A7

The new A7 Sportback offers systematic digitalisation and a space concept that combines a wide range of customer requirements. The large four-door coupé is the essence of Audi's new design language.

Headlamps are available in three versions: in LED technology, as HD matrix LEDs, and as HD matrix LED with laser light.

The two Matrix variants are divided horizontally to make the headlamps appear slim and sporty. The dominant upper area houses the daytime running lights; the low beam module is in the «pupil.» With the two HD matrix variants, the DRL signature is digital in character: Twelve light segments are positioned vertically next to each other here, separated by narrow spaces—conjuring up an association with the 0 and 1 of the digital world. In the lower zone are the turning light and the two-line Matrix high beam, which is made up of 32 individually-controllable LEDs. They illuminate the road dynamically and precisely while keeping light away from other road users' eyes.

The LEDs also act as cornering lights. With the top-of-the-line headlights, the lower segment also includes the laser spot with is X-shaped metal aperture and the blue light guide. The laser spot is activated at a speed of 70 km/h and doubles the range of the high beam. The tail light of the big coupé also seems to be digital. Each unit comprises 13 vertical segments that alternate with the stop light, which is also segmented.

Audi A8

The new A8 features laser lighting used for the first time with HD matrix LED high beams. The laser spot is identified by an X-shaped shutter, and is also accentuated by blue surround lighting.
The DRLs with the vertical segments emphasise the technical elegance of the headlights. The laser spot is activated from a speed of 70 km/h, and doubles the range of the high beam.

Each HD matrix LED high beam unit consists of 32 small, individually-controlled LEDs that project the light in two lines. This new configuration ensures that the A8 provides even more dynamic and precise illumination together with the variable-control low-beam headlights. Other traffic participants are effectively shadowed out of the light beam. The high-precision control for the HD matrix LED high beam is based on data supplied by the front camera.

Cornering light is produced by displacing the light's focal point. It uses the navigation data to shine into a bend just before the steering is turned. The junction light equally comes on predictively just before a junction is reached. The segmented turning light also comes on dynamically in three stages up to a maximum angle of 90°. With all its functions complete with dynamic turn signals, each HD matrix LED headlight incorporates 138 LEDs and one high-performance laser diode. The innovative automatic lighting prevents incorrect operation and is controlled from a new light switch module with proximity sensors and a touchscreen surface.

The lights give the new A8 exceptional presence at the very first glance. This is substantially down to the animated dynamic lighting functions. They present the luxury sedan in a unique manner when it is unlocked with the remote control key. First a point of light in the headlights runs from the outside inwards, then the blue LED on the laser spot lights up, and finally the side lights come on from the inside outwards.

Two loops with the same dynamic aesthetics run in parallel in the OLED rear lights: The light runs in a circle, initially dimmed and then at full brightness. The light presentation continues inside when the door is opened. This is accompanied by a short audio jingle. When the driver locks and leaves the new A8, the light presentation in the headlights and rear lights runs in the opposite sequence.

BMW X2

The X2's headlamps reinforce the car's striking, sporty looks. Familiar twin circular elements, including LED DRLs, combine with the fog lamps to create the characteristic six-eyed face of the X family and make the vehicle instantly recognisable.

The horizontal design lines of the rear end tighten the visual distance between the car and the road, emphasising the car's width and therefore its sporty character. These lines continue into the high-set rear lights.


BMW X2


BMW LED

BMW X4

The all-new X4 has twin headlamp units with dynamic contours and horizontal fog lamps integrated into the outer air intakes, to form a new interpretation of the familiar six-eyed face of BMW X models. All of the light functions feature LED technology as standard. The LED rear lights, with their three-dimensional sculpture, are slim in design.


M40d

BMW M8 Concept

The BMW Concept M8 Gran Coupe is more than simply a luxury sports car with four doors. It symbolises a new and unique understanding of luxury.
For the concept car, BMW decided to keep the new BMW tail light design DNA' with a sculpted 3D wing.

The headlights are yellow, as a reminder for racing heritage, they got the «double U» shapes and nicely integrated modules.


BMW Laser


M8 GranCoupe

Citroën Berlingo

New Citroën Berlingo has gained a new look.
Resolutely modern and fully consistent with the identity of the Citroën brand, New Berlingo keep the successful Citroën Cactus lighting identity with the main function in the lower and the DRL as a main signature integrated to the chrome grille.

Citroën C4 Cactus

The new C4 Cactus naturally expresses its singular nature through a new, broad and expressive front end, restyled wings and doors, and a generous and smooth rear end home to new 3D-effect LED lights. It features a new, broader front end including new LED daytime running lights extending out from the chevrons and stretching across the entire width of the car, and headlamps underscored by gloss black inserts. At the rear, the smooth body-coloured tailgate is highlighted by new 3D-effect LED lamps whose slim and chiselled form seems to widen the vehicle.

Ferrari 488 Pista

Aerodynamic demands guided the work of the Ferrari Design Centre team. The 488 Pista's headlights are in the same style as the brand portfolio, they got a vertical LED layer as signature in a vertical shape. The aerodynamic is especially important in the rear of ther with a floating tail light.

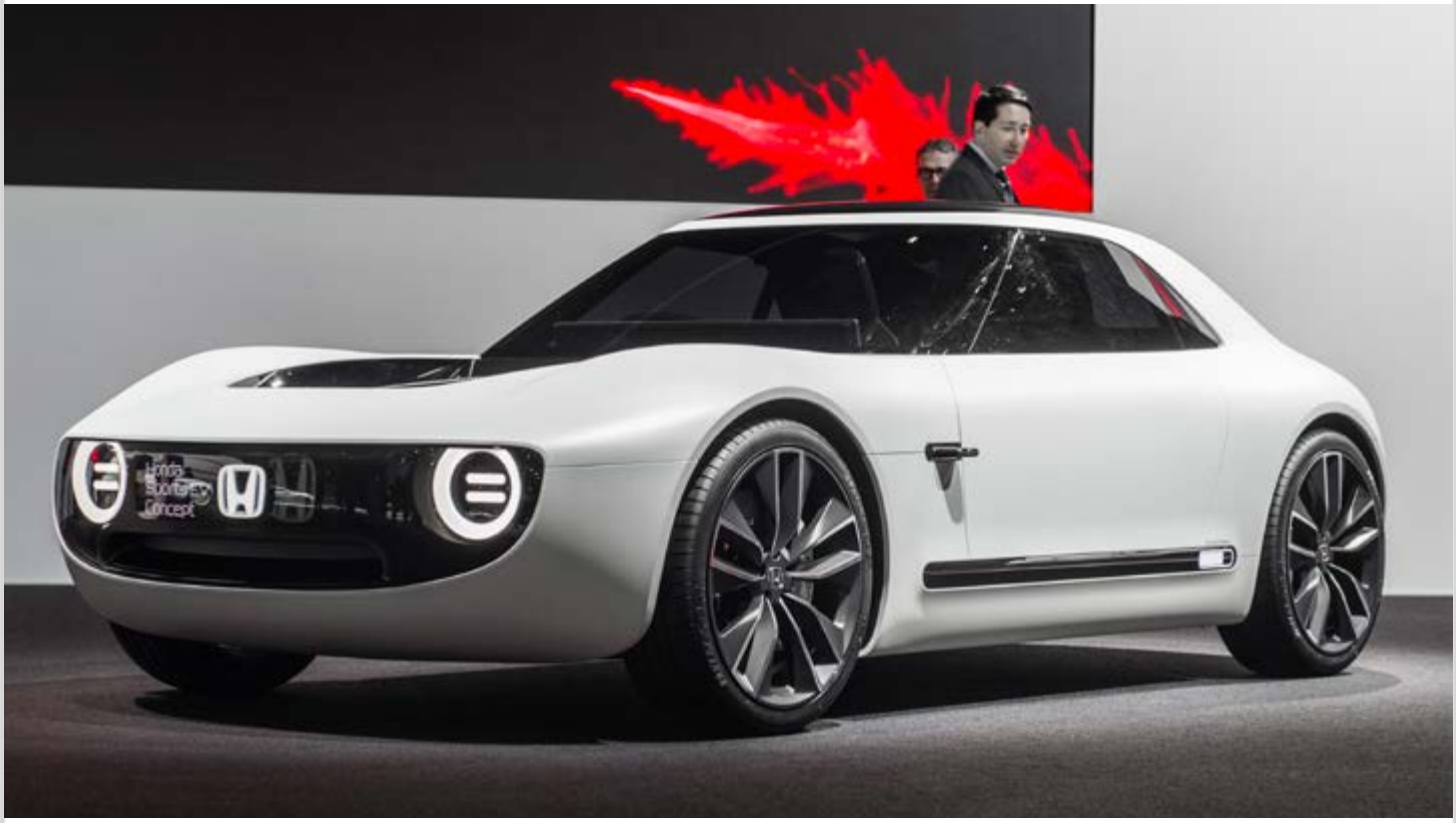
Ford Edge

Ford revealed the European version of their new Edge sport utility vehicle. Standard LED headlamps and taillamps can be complemented with available LED signature daytime running lamps.


AUTOSCOUT24
QUATTRORUOTE
EDGE

Honda Sport EV Concept

At the 2017 Tokyo Motor Show Honda exhibited the world premiere of the Honda Sports EV Concept, a concept model which combines EV performance and AI (artificial intelligence) inside a compact body with the aim to realise the joy of driving the user can feel with a sense of unity with the car. The piano black front and rear surfaces give a new vision of communication between cars with the possibility of putting messages on it.




Honda
Sports EV
Concept


Honda
Sports EV
Concept


Honda
Sports EV
Concept

Honda Urban EV Concept

The concept was officially introduced by Honda President and CEO Takahiro Hachigo, during his press conference speech: «This is not some vision of the distant future; a production version of this car will be here in Europe in 2019», he said. The Honda emblem on the concept is backlit in blue, which previews a new styling feature for the company's future EVs.
At the front of the car, interactive multilingual messages can be displayed between the headlights, including greetings, advice for other drivers on the road, or charging status updates.

Hyundai Le Fil Rouge Concept

This new concept is an introduction to the brand's latest approach in design: the 'Sensuous Sportiness' theme will be embodied by all future Hyundai vehicles, ranging from sedans to SUVs. The Cascading Grille comes with a three-dimensional treatment, featuring parametric jewels inside the lighting parts. 3D-printing patterns offer a new vision of lighting design and can be used to put more details inside them.
The triangle lighting matrix in the front can be an idea of the future of car lighting, combining style and layout to maybe deliver messages thanks to the lighting technologies in the future.

Hyundai Kona Electric

The new Kona Electric has a closed grille which gives a clean and stylish appearance, while also enhancing aerodynamics. Another characteristic element of the front design is the composite light enhancing the visual impact, with the LED Daytime Running Lights positioned on top of the LED headlamps.


KONA Electric

Hyundai Nexo

The NEXO will spearhead Hyundai Motor's plans to accelerate development of low emission vehicles. The seamless front appears wide and clearly defined with horizontal LED DRLs linked by a continuous thin line of light underscoring the elegant front layout. Triangular headlamps are perched below the DRLs.

Hyundai Santa Fe

The Hyundai Santa Fe is characterised by its strong stance and sporty, elongated lines. The face of the new SUV is highlighted by Hyundai's signature Cascading Grille and a Composite Light design comprising LED Daytime Running Lights positioned on top of the LED headlights.
The rear lights are horizontal with a nice square pattern inside.


HYUNDAI

Jaguar i-Pace

Jaguar Land Rover's new matrix LED lighting technology emphasises the lines of Jaguar I-Pace, resulting in compact headlamps that incorporate Jaguar's trademark double-J graphic with sweeping indicators. Jaguar tail lights get a «chicane» signature and LED technologies.


EV400
AWD


TECHNOLOGY

Kia Ceed SW

Kia showed a wagon version of the Cee'd, sharing the same front lights but with a new rear light design that works with the wagon design.

Lamborghini Urus

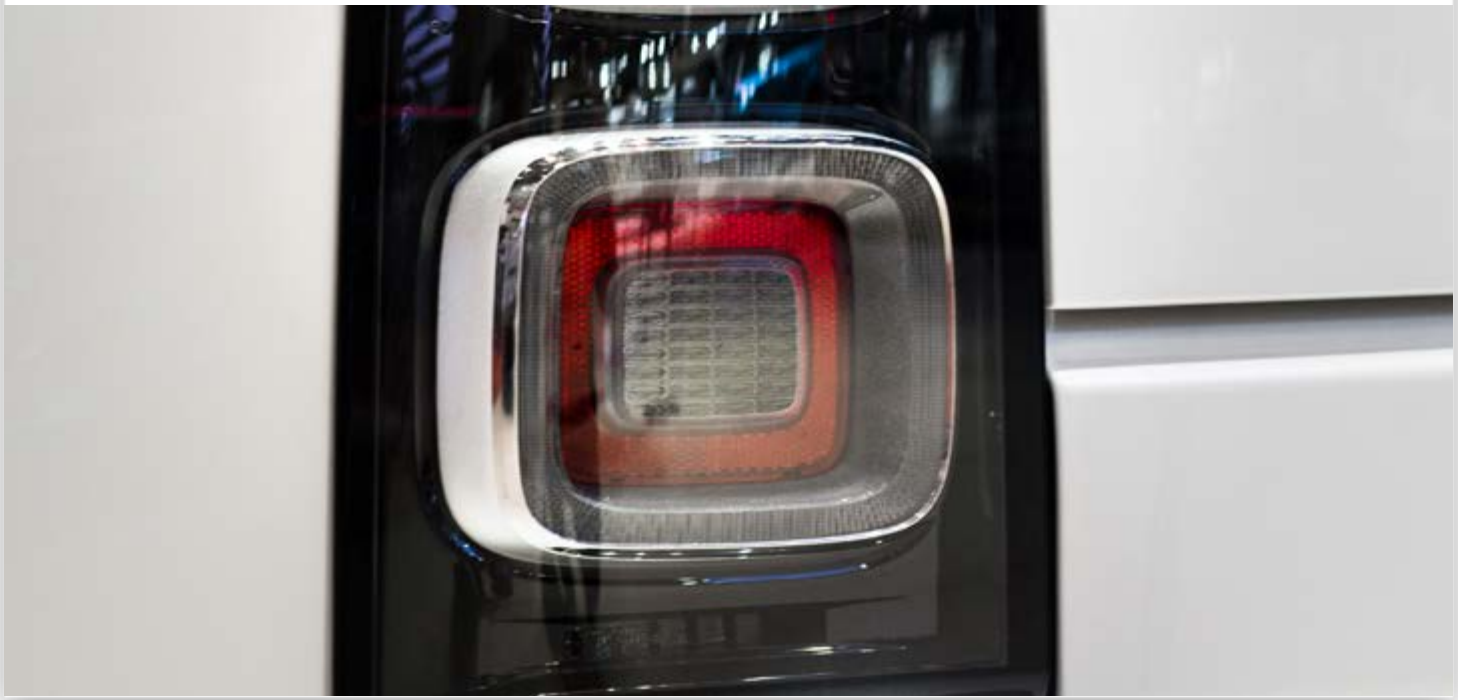
The Urus is a novel thing: a Lamborghini SUV. The imposing front of the Urus clearly identifies the Lamborghini lighting design language, the front lights are sleek, slim and very sporty, set in a horizontal position and with LED headlights and tail lights in the familiar Lamborghini Y-shape.


Lamborghini


Lamborghini

Land Rover SV Coupe

The limited-edition 2-door Range Rover SV Coupé has pixel-laser LED headlamps with 144 LEDs and four laser diodes (depending on market) to provide five times higher luminance than standard LED lights. The laser high beam booster shines a beam over 500 metres long. It's operational above 80 km/h when no other traffic is detected.



Lexus LF-1 Limitless Concept

The LF-1 uses LED lighting around the grille that greets you on arrival. Lighting also plays a key role in the look and feel of the interior. Engaging the start button initiates a dramatic lighting sequence based on which of the several available driving modes is engaged.
For a more subtle effect, the wooden door trim has tiny perforations that allow indirect light from miniature LEDs to shine in a variety of colours that complement the overhead lights.


LEXUS UX
WORLD PREMIERE
MASERATI
LF-1
Limitless

Lexus UX

Lexus' UX made its world debut here at the Geneva show. Details include DRLs arranged in an arrowhead motif above the headlamps to emphasise the Lexus L-shaped illumination signature. The rear combination lamps have an original, advanced design. The right and left units are connected by a continuous, single line of light across the rear hatch. Formed by a sequence of 120 LEDs, this tapers gently towards the centre, measuring just 3 mm thick at its narrowest point.
This design is set to become a Lexus signature feature.


LEXUS

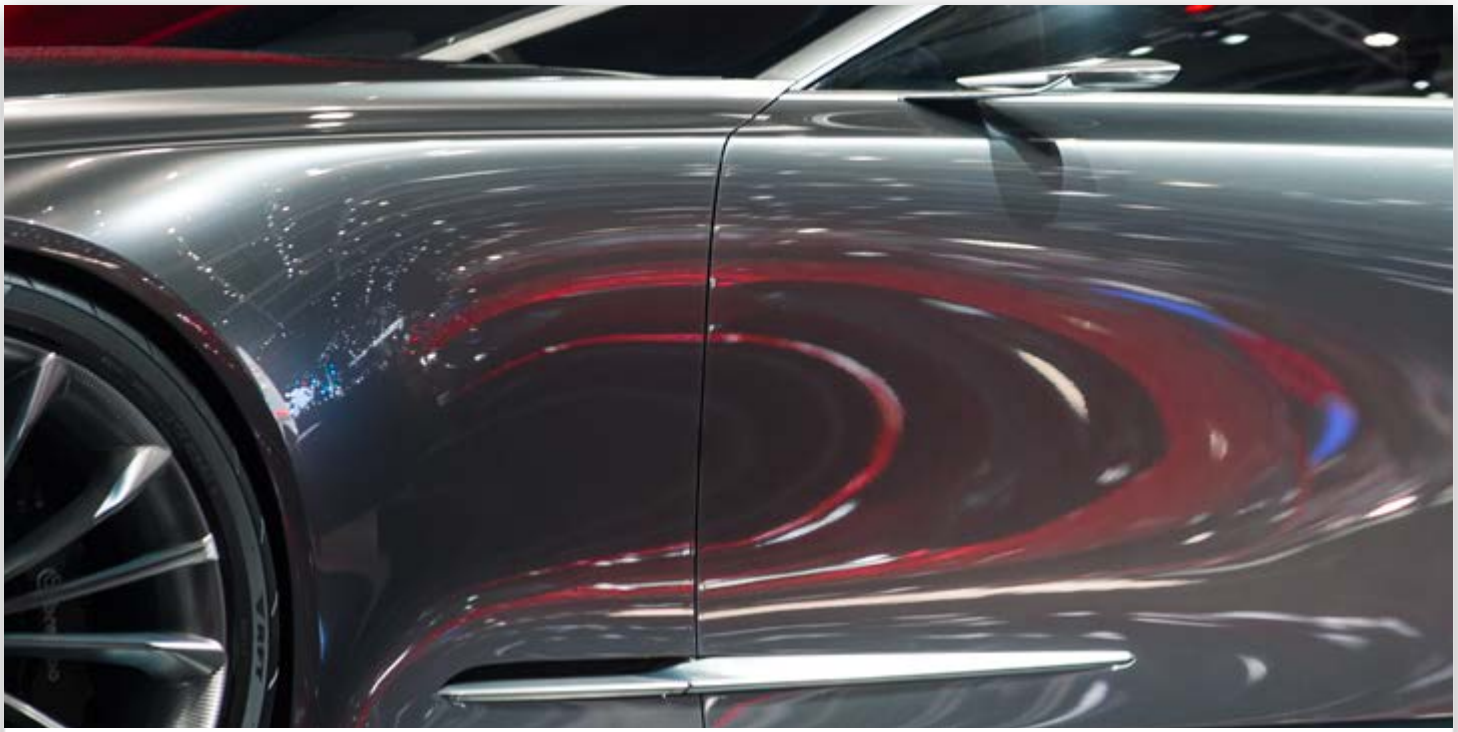
Mazda-6

The new Mazda sedan's standard LED headlamps integrate fog lamps and present a wide lighting signature. The rear lights use the same design language as recent Mazda concept cars, with the circular signature.


MAZDA 6

Mazda Vision Coupe Concept

In creating the form of the body, the focus has been on stripping away everything that is unnecessary. The headlights signature is a circle sublimized by two LED, graphicaly as a concept car the stripes around the circle are interesting, a blade is going accross the headlights and the chrome finisher in the front.
The tail lights keept the same identity as the front one.



Mazda Kai Concept

The Mazda Kai Concept compact hatchback heralds a new generation of Mazda cars.
Featuring the same circle signature as the Vision Coupé, the Kai get a double tail light signature with interesting 3D volumes and without any glass.

Mercedes AMG GT 4 Door

Slim Multibeam LED headlamps are up front, while the rear view of the new 4-door coupé picks up on familiar features of the AMG GT design idiom with extremely slim LED tail lights.


GT 53

Mercedes A Class

The purist, surface-accentuating design of the new Mercedes-Benz A-Class is the next step in the Mercedes-Benz design philosophy of Sensual Purity.
The progressive front design with a low bonnet, flat LED headlamps with chrome elements and torch-like daytime driving lamps ensures an emotionally appealing and alluring appearance, The slim, two-section tail lights ensure an emotionally appealing, alluring appearance.

Mitsubishi e-Evolution Concept

The e-Evolution is a technical prototype to illustrate a strategic direction incorporating the strengths of SUVs and EVs, and the ability to integrate new systems for a connected mobility customer experience. The headlamps comprise nine graphic stripes and the rear lamps get a nice Y-shape fully integrated in the shape of the car.

Mitsubishi Eclipse Cross

The Eclipse Cross compact SUV's rear design is distinguished by the almost cubist styling created around the high-mounted, stretched rear lamps and by how it horizontally divides the forward-rake rear window into two. When illuminated, the tubular LED brake lights and the central LED high-mount stop light form a single bar of light running across the tail.
The headlights get integrated DRL, sharp and powerful headlights are augmented by integrated DRL's, shaped to maximise their effect and style.


S-AWC

Nissan iMX Kuro Concept

The iMx Kuro was unveiled at this year's Geneva show, marking the European debut of this electric crossover concept. The intention behind the changes to the styling was to test whether the concept, as a showcase for Nissan's autonomous driving and electric vehicle leadership, could work with a different, more robust personality.
The headlights and tail lights both allow air to flow through them.

Nissan Leaf

Nissan revealed its new Nissan LEAF - the world's most advanced mass-market electric vehicle (EV) and icon of the company's Intelligent Mobility vision. The sleek LED headlamps feature Nissan's characteristic boomerang design. The tail lamps are in vertical position and integrated to the black body.


Zero Emission


Zero Emission

Pininfarina HK GT Concept

The headlights signature is symbolized by 3 dots and line in the grille,
The rear lights are think and give a wider look to the car.

Peugeot 508

The new 508 presents a vertical visual signature with opalescent LED DRLs. Sharp and slender, they frame the car's front end, running from the headlights to the bumper's air intakes. In back are prominent three-dimensional full-LED rear lights. Taken straight from the design of the most recent Peugeot concept cars and first seen on the Quartz, these lights—which are illuminated throughout the night and day with adaptive intensity—make the coloured Peugeot signature «claws» constantly visible. To further impress, these iconic lights will differ in appearance depending on side or full rear view. They are instantly identifiable and a clear signature of the brand.


508 G


2600 lm / 4000 lm


508

Porsche Mission E Cross Turismo Concept

The Mission E Cross Turismo shows off unmistakable Porsche lineage; a stylistic highlight is the matrix LED headlamps. The typical Porsche four-dot DRLs have evolved into narrow, three-dimensional glass elements. Embedded in four sweeping wings, these also contain an innovative four-dot turn signal.


PORSCHE


PORSCHE

Renault EZ-GO

Renault's EZ-GO is a robo-vehicle: a shared, electric, driverless vehicle. Driving in towns and suburbs, it is designed to transport up to six passengers simultaneously. It is accompanied by a dedicated station, which blends in with the surrounding environment. EZ-GO is conceived as both a vehicle and a service to become a part of the smart city ecosystems being developed.
Both front and rear lights are similar, they are able to give messages during drive thanks to a LED matrix horizontal layer.

Subaru Viziv

Since the debut of the Subaru VIZIV Concept in 2013, Subaru has produced a series of themed concept models embodying the brand's vision for the future, front headlights are composed of a blade and a line, the main function are 6 dots in triangle shape, rear lights keep the same design.

Tata 45X

Tata's «Agile Light Flexible Advanced» architecture allows for multiple body styles with minimal development cost. With light weight, modular and flexible characteristics, the car can evolve into a range of modern, youthful and agile vehicles in a short development cycle. There's a signature line accentuated by dual ultra-slim LED headlamps, along with a digitally inspired lower grill give the front of the Tata 45X signature look. The rear lighting bar is fully integrated to the trunk and get stripes as function.

Tata H5X Concept

The H5X concept provides a glimpse of what future Tata SUVs might look like in terms of design, technology, and capability. It will offer extraordinary exteriors, intelligently designed plush interiors, and future-ready connectivity and infotainment.
The headlights signature are in the upper parts with a blade shape, the main function are in the lower of the bumper giving a more SUV look,
Rear lights are integrated in an horizontal layer going all across the concept and they get interesting pattern details.

Toyota Auris

On the new Toyota Auris the narrow upper grille incorporates a central Toyota logo and, at its extremities, new, all-LED headlamp clusters with integral DRLs. The rear all-LED lamp clusters feature light guides designed to emphasise the new Auris' wide, planted rear stance.


HYBRID

Toyota Supra Racing

The GR Supra Racing Concept made its world debut at the 2018 Geneva Motor Show,
The lend returns with nicely integrated headlights composed of a big blade as DRL and six individual modules, the tail lamps get nice 3D volumes shape and signatures.


TOYOTA GAZOO Racing
Supra
Concept
GR
TOYOTA GAZOO Racing


TOYOTA GAZOO Racing

Volvo XC40

Volvo have expanded their range of SUVs with the XC40 small premium SUV. LED headlamps with active high beam are standard equipment, and we see another instantiation of Volvo's «Thor's Hammer» DRL signature.
Tail lights retain the heritage of Volvo with their vertical style. Rear signature is an iconic feature for every Volvo.


VOLVO

Volvo V60

The new V60 midsize premium wagon offers the Pilot Assist system, which supports the driver with steering, acceleration, and braking on well-marked roads up to 125 km/h; that system has been upgraded with improved cornering performance.
Headlights and rear lights are both in the Volvo lighting DNA' with the «Thor's hammer» for the front and a nice «U shape» vertical light for the rear.


V60

Volvo Polestar 1

Polestar is Volvo's new tech/performance halo brand.
The front lights are carry-over from Volvo portfolio and give to the car a strong volvo identity,
The tail lamps get a «U-shape» with a nice signature and well integrated function.


Polestar 1

Volkswagen ID Vizzion Concept

The lighting on the ID Vizzion is designed to be interactive. In the front end area, for instance, active lighting elements adapt to the environment according to the driving situation. Lights being used for the first time in a Volkswagen concept car are making a large technical leap here: it's VW's first go at HD matrix headlamps; these have 8,000 pixels. They are designed to draw the attention of pedestrians even when the animated function is not activated, because of the design of their light facets, which make the Vizzion look more like an intelligent being that is 'gazing'.
In the future, VW's top-of-the-range headlighting systems will get the name 'IQ Light'. A low-profile strip of LEDs spans the sides of the car into the rear wings, emphasising the large width of the vehicle. Immediately above the white band of LEDs, a red LED strip provides tail and stop light functions.

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55 Lighting Suppliers

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List of Main DVN published Reports

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