



Editorial

Farewell Salomon, And Thank You! DVN—and I—Will Miss You

As you might already know, Salomon Berner will leave DVN at the end of this year, after working tirelessly at DVN since the beginning of the company. He has always done a marvellous job, and DVN's successful creation of this vibrant lighting community is largely on strength of his competence, expertise, and effort—the testimonials you'll read in this week's DVNewsletter really show it.

All of us on the DVN team heartily thank Salomon for his adept, helpful work.

I would like from my side to highlight his action and show how his advice and his actions made DVN what it is today. He was always available to us at all times, but one very important person was not happy about that; Mrs. Berner wanted to see her husband more than just once in a while. Fair point!

Thank you so very much, Salomon, for your great job; your wise counsel, and your expertise and computer training. DVN will miss you, and so will I! The DVN family heartily wishes you happy free time with your wife and family!

Sincerely yours

W. Frally
DVN CEO



In Depth Lighting Technology

Salomon Berner: Huge Job, Great Achievements



Today DVN pays homage to Salomon Berner and his achievements during 15 years' work at DVN.

Interview: Salomon on his life at DVN

DVN: You were at DVN since the beginning—nearly 15 years. Will you share your perspective?

Salomon Berner: I'm amazed by the size, the footprint, and quality of the DVN lighting community we have built since we started 15 years ago. When I say we, I sincerely mean the whole DVN team; it's impossible for me to separate out the impact of my own contribution on DVN achievements. Ask our DVN community members; they might have a better answer than myself, but I'm pleased to imagine I contributed to give the DVN team a friendly, reactive, and human face, especially during these pandemic times.

DVN: What has the pandemic changed in your day-to-day life and work at DVN?

Salomon Berner: Of course, this unusual Covid-19 situation has restricted, like for all of us, my possibilities to meet my relatives and friends. Unexpectedly, it also gave me the unique opportunity to

create for DVN this new online platform for our DVN workshops which helped in keeping our global lighting community in touch with one another, despite all the traveling restrictions. And as our DVN workshops became first virtual then hybrid events, it meant simultaneously taking care and organising two events in one—in person and online. Some speakers needed to be pre-recorded or to present through Zoom from remote locations, sometimes with a 6- or 7-hour time lag between Europe and Asia or North America, and you get a feeling of the hurdles and excitement I went through with my team. But the result was worth it!

DVN: What is your advice to your vehicle lighting colleagues?

Salomon Berner: Each problem you will be faced with is an opportunity to learn. Problems are to be considered as doors which open new horizons. These are exciting times when you consider each challenge as a new opportunity.

DVN: What will you do now after working 12 hours per day and almost 7 days by week?

Salomon Berner : I have never been working at DVN! Don't forget I really retired from my professional career 15 years ago when I was 63 years old. When I joined DVN, it was just for getting my thrills by embarking on this new adventure. I could not guess that thrill would last 15 years! As you know, I enjoy nothing more than learning and discovering new fields. I can already see plenty of new opportunities to learn which will keep me busy as long as I will enjoy learning.

DVN Colleagues on Salomon Berner

Carine Abouaf, DVN marketing director

I thought I would know my dad even better if I worked with him, but in the end, I realise he is exactly the same person at work and at home when I was a child: Best coach ever, results-driven, very outgoing and generous, and he is always the first when it comes to having a good meal!

Jean-Claude Lebrun, DVN President

I have really enjoyed working with Salomon; what I appreciated and what I admire about him is his patience, his listening, always friendly and helpful, his ability to analyze situations. and send us a message of caution when necessary or also optimize, an unusual feeling for Solomon.

Philippe Aumont, director of DVN Interior

When thinking about Salomon, three words pop up: experience, kindness, and wisdom. He is a great strategic thinker, while being able to deal with every administrative detail. He was incredibly supportive when I joined DVN; I'll never thank him enough for that. We'll miss you, Salomon!

Wolfgang Huhn, DVN senior advisor

Salomon, you always kept the big picture in mind. In our sometimes magnificently emotional discussions you brought us back to the point. We all counted on your timing and your schedules, like it was the most natural thing to do. In your calm and friendly manner, you guided the whole DVN team to meet our goals. Salomon, have a great time full of health and happiness in the most beautiful city of the world or wherever you are!

Geoff Draper, DVN senior advisor on regulations

When I started working with DVN I quickly realised that Salomon is a Wise Old Owl. This is not making any comment about Salomon's age or physical features, but to recognise his quiet analysis of situations, the wisdom of his judgements, and his friendly advice that I have greatly appreciated over the past twelve years.

Daniel Stern, DVN chief editor

Salomon's thoughtfully-applied expertise has made DVN run smoothly and efficiently since the very beginning. In a complex, fast-paced operation like DVN, Salomon's calm competence always quickly turned questions, conundrums, and even the occasional crisis into no problem. Even more than that, I have been inspired by his calm and friendly approachability. I will miss his wise counsel, and wish him every joy!

Jean-Paul Ravier, DVN technical consultant

We were so accustomed to count on your science of the organisation, alloying rigour and kindness, we were so pleased to meet you regularly always with your great friendliness and empathetic smile, you have done such a great job with Hector to create and develop DVN that we had the illusion that everything could continue eternally. Now it is time for a well-deserved rest that we wish very happy, but you will be sorely missed.

Ralf Schäfer, DVN technical consultant

I always appreciated when your input shed light on topics from another point of view. Your broad experience in other industries and as a coach strongly enriched our sometimes heated discussions and brainstorming. You took care not to lose the goal out of sight. As an extra important element, I enjoyed the lunch breaks with you and other DVN colleagues very much because of the amicable atmosphere which naturally appeared at the table. Enjoy your retirement!

Leo Metzemaekers, DVN technical consultant

It is sad for me to see you retiring at DVN, I will miss you. You were the oil in the DVN engine, you brought us back together when discussions were getting difficult, we could always rely on you. During the many workshops you talked to *all* of the companies and made them feel at home in the large DVN community. Enjoy your retirement and life after DVN. Au Revoir!

Carsten Befelein, DVN Interior technical consultant

I will miss Salomon very much! Salomon has always held the DVN community together and promoted it with his calm, considered and fatherly manner. I haven't told Salomon yet, but he has become a very good friend to me. I therefore wish Salomon all, all the best and much health and joy in life. I hope we will always stay in touch!

Geoffrey Lebrun, DVN Communication/Events

His ability to analyze and share have made him a key person in the successful development of DVN. I am sure that the teams that you have guided for so long will live up to your ambitions. I wish you to enjoy your new adventure which awaits you, it is not sure that it will be so much more relaxing than your professional life has been.

Christophe Lameiras, DVN sales administrator

Thank you for training me for this position. I will do my best to help DVN reach its goals and do as well as you did during these last years. Thanks for the motivation and encouragement! I wish you the best Salomon and take care of yourself.

Ann Ai, DVN China

Salomon is like a nice encyclopedia for us, he knows everything about lighting community, and most importantly, his great passion at work inspires us.

Eve Taberna, DVN document layout

After several years of collaboration with Salomon, I salute, among all its many qualities, his formidable efficiency!

A selection of DVN Gold members' feedback after Salomon's retirement announcement:

- So you have decided to go in real retirement. It is well earned, after the many years that you were instrumental in building the DVN community.
- I will keep good memories about you: your fine and well organised communication, your know-how, your professionalism, your personality.
- You had influenced my business at many crucial points, your experience and human attitude influenced me. I hope to stay in touch.
- It was so nice to work with you.
- I very appreciate your supporting in the past.
- Thank you so much for all these years guiding us through the DVN events.
- I appreciate all of your hard work and help within the DVN community
- I wish that you may enjoy a long well-deserved retirement period, in harmony with yourself and your loved ones.
- Thank you for all your great support! It was always a pleasure to connect to such a helpful person and gentle personality as you are! Wishing you indeed a well-earned and wonderful retirement. All the best!
- It will be different without you at DVN. I have a deep respect for your contribution to the family called DVN.

I wish you all the best and many healthy years to come.

Salomon at the DVN Workshops



TOKYO 2016 – OPENING THE EVENT



INDIA 2016 – COMBINING JOB AND PLEASURE



2019 SHANGHAI – RELAX TIME



2018 MUNICH – AWARD CEREMONY



2017 US – GREAT DISCUSSION



2020 MUNICH, WITH COLLEAGUES FROM LUMILEDS, NICHIA, DOCTER OPTICS, GEELY



SALOMON WITH DVN PRESIDENT, J.C. LEBRUN



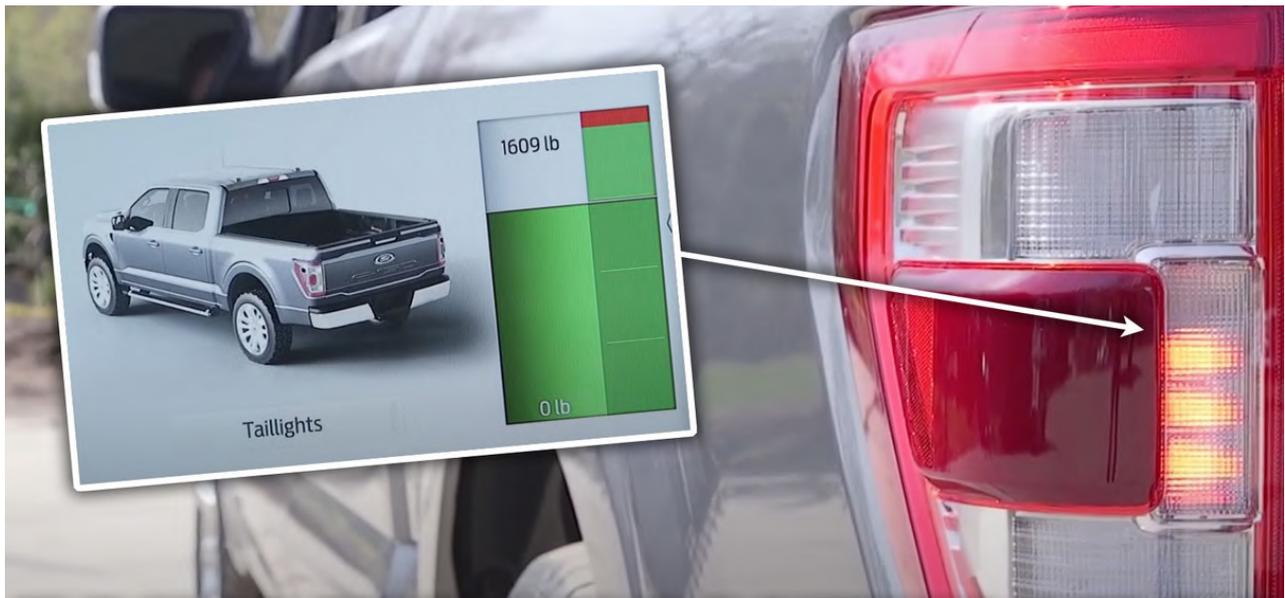
SALOMON BERNER WITH THE DVN TEAM

Salomon, DVN's great success could not have been possible without you. The vehicle lighting community, Driving Vision News, and everyone involved all thank you heartily!

Lighting News

Ford Truck Tail Lights Serve as Load Scale

LIGHTING NEWS



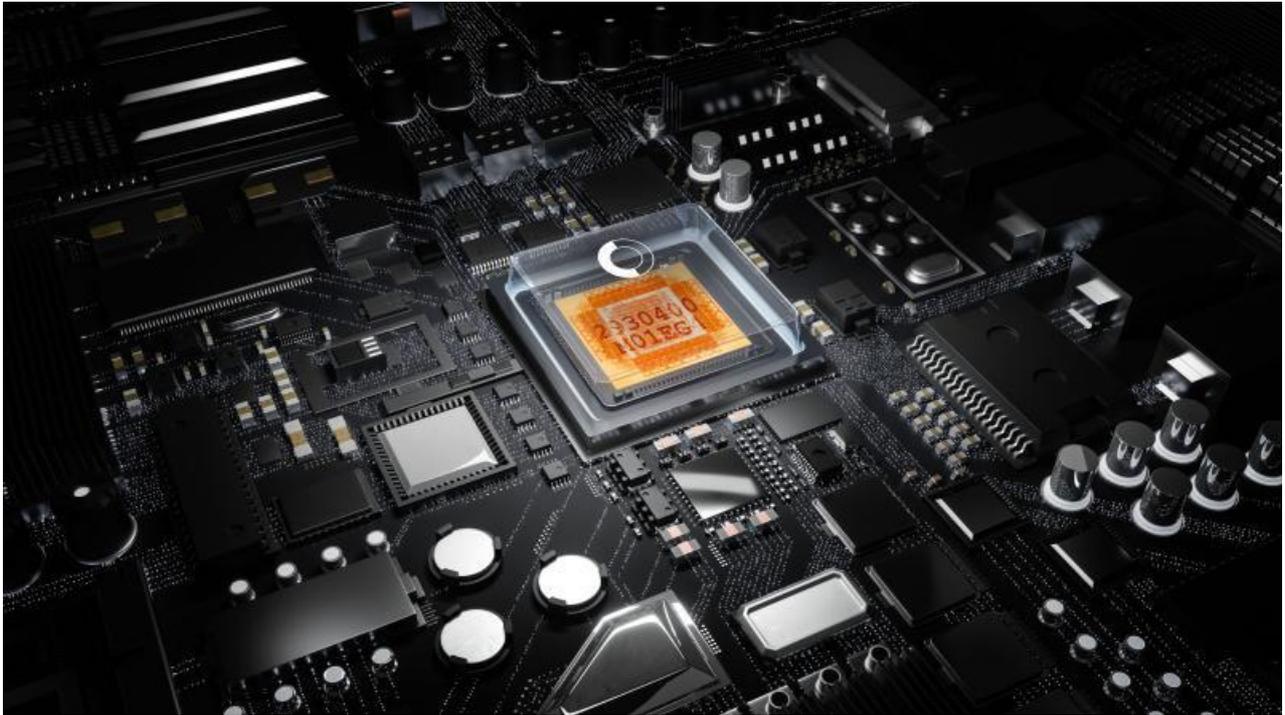
Packing new functionalities into existing kinds of lights—it's all the rage in the vehicle lighting space these days, and Ford have come up with a humdinger for their best-selling F-150 pickup truck. In their own words:

New available Onboard Scales measure and display the approximate weight of the payload in the truck. Load information is displayed in the center touch screen with a graphic representation of the truck, on a mobile phone through the FordPass app, and **in graphics within the truck's smart taillamps** which operate like the battery charge indicator on a mobile phone, displaying the percentage of payload capacity by illuminating LEDs arranged in a vertical bar. As the truck is loaded, all four lights illuminate, showing it's fully loaded. If the truck is overloaded, the top lights blink. The maximum payload based on the pickup's configuration is programmed into the system. Additionally, the truck can be set on scale mode, which zeroes out the current load and allows for approximate weighing of additional items loaded into the bed. The truck has giant rear lamp assemblies with a little miniature stack of four red LEDs to provide the stop (brake) light signal—perhaps not optimal for the basic task of alerting others to the truck's deceleration, but the new scale function is nifty. Here it is in action:



Continental's LED Driver Chip for Car Lights

LIGHTING NEWS



To try and work around the chip shortage-induced automobile bottleneck, and to meet the needs of future vehicle lighting for integration, adaptation, networking, and intelligence trends, Continental have developed, in house, a new "Celsius" range of LED driver chips.

The Celsius range has eight invention patents for failure protection in various application scenarios. The new chips have powerful and efficient driving capability and flexible configurability to facilitate a wide array of innovative functions and cost-optimize the entire lighting system. The Celsius chips are already in series production and are to find their first homes in as-yet-unspecified European vehicles.

Marelli AL's Lighting Goodies at CES

LIGHTING NEWS



CES 2022
JANUARY 5 - 7, 2022



At CES 2022, Marelli AL will present innovative lighting solutions to meet a wide range of requirements and styles, including:

Tail lamps as a communication device, while maintaining all the functionality required for a stop lamp. The proof of concept incorporates 7,680 mini-LEDs mounted on a frame, which seamlessly integrates into the existing housing of a series production tail lamp. The lamp can produce freeform custom signatures, stop patterns, and communicate with the environment using symbols and text messages.

Illuminated front panel representing a strong starting point for illuminated signatures on EVs. It is a continuation of the unique front face styling the ID family is known for and it is in production for FAW VW in China. For the headlamps, the IQ.Light was designed with bi-projection light modules to generate the desired ADB and wiping turn functionality.

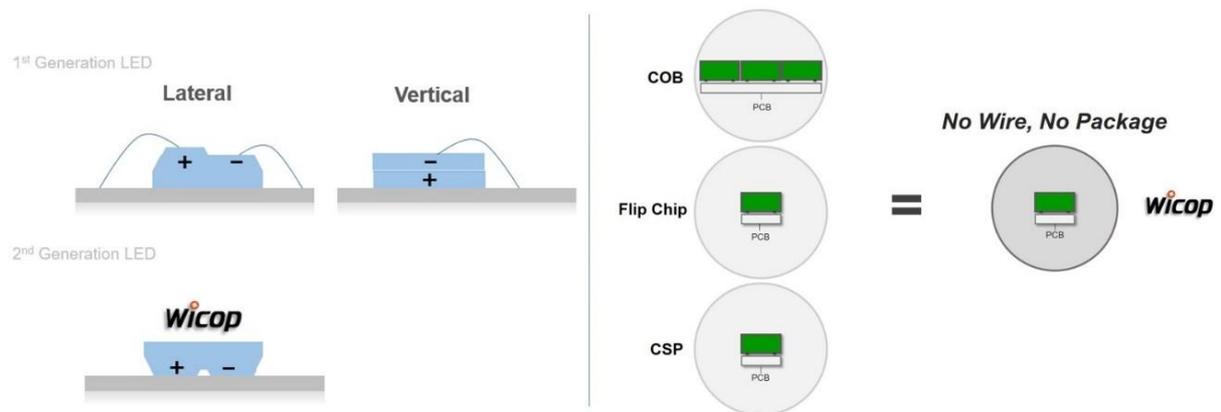
Concepts for illuminated logos permeable to radar rays, to address the growing trend for front panel illumination. Options for various animated functions make it possible to create and support brand signatures using light.

Fully illuminated front faces, including integrated sensors to support autonomous driving. To bring smart illuminated exterior body panels to market, Marelli AL have partnered with Samvardhana Motherson. While initially focused on front panels and bumpers, other areas of the car such as rear ends, fenders and rocker panels will be explored to achieve a 360° lighting experience around the vehicle.

Modular lighting systems with maximum flexibility. MAL's portfolio of standard light modules offers a variety of solutions and plenty of combinations to meet desired styling and technical requirements. e-Light modules provide low beam and high performance ADB functionality, and are an ideal standalone module for smaller headlamps. Their small front aperture of 35 x 65 mm can be configured to meet a variety of performance and styling requirements, and they can be combined with a high-definition module to create a matrix solution. They offer flexible ADB setup, and 12-16 segments with sharp segmentation, with high output of up to 1,000 and 900 lumens respectively for low beam and ADB.

Seoul Semiconductor Micro Display at CES

LIGHTING NEWS



WICOP 2ND-GENERATION TECHNOLOGY VERSUS GEN-1 LEDS

Seoul Semiconductor will demonstrate their WICOP MC micro display for vehicles, to communicate with pedestrians and other drivers during autonomous driving. They will also be showcasing their WICOP ADB which improves the visibility of oncoming vehicles or pedestrians while driving. These two products in Seoul Semi's WICOP product range already have been applied to about 10 per cent of vehicles worldwide.

So far, the focus has been on developing technologies for preventing automobile accidents and ensuring driver safety. However, technology is becoming very important to maximise the convenience and safety of all vehicle occupants as well as pedestrians, bicyclists, other drivers, and other road users. In particular, lighting communication technology is receiving great attention for its potential to reassure drivers and pedestrians when the "driver" of an autonomous vehicle is either absent or distracted.

With the development of autonomous driving systems, technology to allow vehicles to recognise surrounding objects is also in the process of development. Seoul Semiconductor's dust- and moisture-proof WICOP mc is a 5000-nit display, eight times brighter than existing LCDs to display clear messages even in broad daylight.

Marelli, Chang'an Open Co-Innovation Centre

LIGHTING NEWS



Marelli Automotive Lighting Xiaogan have agreed with Chang'an Automobile to set up a joint innovation centre meant to develop advanced technologies and strengthen the cooperative relationship between Chang'an and Marelli.

It will be located inside Chang'an's R&D Centre in Chongqing, and will focus on new vehicles lighting and sensing technologies. The plant in Xiaogan is a joint venture by Hubei Huazhong and Marelli Automotive Lighting, established in 2014, targeting customers in middle and southwest China area, including Chang'an, to provide headlamps, rear lamps and fog lamps. The collaboration will take advantage of the Chang'an's technology and expertise in intelligent driving and mobility; and Marelli's aptitude in vehicle lighting and sensing.

Chang'an Vice President Wei Li commented at the opening ceremony of the joint centre: *"The establishment of the joint innovation centre implements the spirit of deepening collaborative innovation of the group and introduces advanced joint ventures into the system for in-depth cooperation. In response to the current changes in the automotive industry, we fully support and implement the 'new car + new ecology' strategic goal issued by Chang'an".*

And Marelli's Automotive Lighting divisional president Sylvain Dubois said *"We are always committed to being ahead of the evolution of our sector. We are already going beyond what we can call 'traditional lighting', constantly working to find new functionalities and leading-edge solutions, that enable 360° illumination and advanced sensing technologies for the mobility of the future. This strategy is perfectly embodied by the new joint innovation center with Chang'an, which further extends our close collaboration with such a strong partner in China".*

Driver Assistance News

Luminar, Volvo Cars to Host Presser at CES

DRIVER ASSISTANCE NEWS



Luminar Technologies and Volvo Cars will co-host a joint press conference at CES in Las Vegas on Wednesday, 5 January.

The event will showcase the Volvo Concept Recharge car with Luminar's Iris lidar seamlessly integrated into the roofline, which will be standard on the Volvo's next full-electric SUV. Executives from both companies will discuss the significance of this and share their vision for the future of automotive safety and autonomy.

Velodyne COO Lists '21 Achievements

DRIVER ASSISTANCE NEWS



In an interview with LEDinside magazine, Velodyne Lidar COO Jim Barnhart listed highlights of his company's achievements in 2021, including:

- Launch of Intelligent Infrastructure Solution (IIS), which reliably collects data in any lighting or weather condition, creating a real-time 3D map of roads and intersections to provide precise traffic monitoring and analytics that are not possible with other types of sensors such as cameras or radar;
- Launch of the Vella Development Kit which simplifies building autonomous solutions and provides access to Velodyne's breakthrough Vella perception software paired with its world-class lidar sensors;
- Partnering with the Nvidia Metropolis program for traffic monitoring and analytics, which is designed to nurture and bring to market a new generation of applications and solutions that make the world's most important spaces and operations safer and more efficient with advancements in AI vision;
- Collaborating with Mov.ai in lidar to provide robot manufacturers with enterprise-grade automation solutions, including mapping, navigation, obstacle avoidance and risk avoidance, and
- Bolstering the Pedestrian Automated Emergency Braking System, which can detect and react to objects from tractors to humans.

General News

Nio Sport Sedan Targets Euro Markets

GENERAL NEWS



Chinese EV-maker Nio have unveiled their newest model, the ET5 sport sedan. They plan to try selling in Europe and say it has been designed to meet five-star C-NCAP and Euro NCAP standards.

After entering the market in Norway this year, Nio will introduce their car and related services in Germany, the Netherlands, Sweden, and Denmark in 2022.

By 2025, they want to establish a presence in at least 25 countries and regions around the world.