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## GLOSSARY OF TECHNICAL TERMS

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*This glossary of technical terms contains explanations of certain technical terms used in this prospectus. As such, these terms and their meanings may not correspond to standard industry meanings or usage of these terms.*

“ADAS”	advanced driver assistance systems, electronic systems developed to automate, adapt, and enhance vehicle systems for safety and better driving
“ADB”	adaptive driving beam, a technology that adjusts the direction and intensity of the light of the vehicle’s headlamps based on road conditions to enhance the driver’s view and minimize glare for other drivers
“automotive OEM”	the original equipment manufacturer, which assembles and installs automotive parts during the construction of a new vehicle
“AI”	artificial intelligence
“AR HUD”	augmented reality head-up display, an advanced version of a HUD that uses augmented reality technology to project virtual images onto the windshield
“AR navigation”	augmented reality navigation, a system that uses augmented reality technology to project virtual images onto the real-world environment, providing drivers with real-time, turn-by-turn directions and other relevant information
“CAGR”	compound annual growth rate
“CASN”	a substance with the same crystal structure as $\text{CaAlSiN}_3$ and a substance whose main component is crystal of $\text{CaAl}_{1-x}\text{Si}_{1-x}\text{N}_3-x\text{O}_x$ where part of each Ca, Al and Si may be substituted with a divalent metallic element (II metallic element value), a trivalent metallic element (III metallic element value) or a tetravalent metallic element (IV metallic element value)
“CNAS”	China National Accreditation Service for Conformity Assessment

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“COB”	chip-on-board, a packaging process that integrates multiple LED chips into a circuit board
“CRI”	color rendering index, a quantitative measure of the ability of a light source to reveal the colors of various objects faithfully in comparison with a natural or standard light source
“direct-lit”	a method of illumination used in LCD displays where a panel of LEDs is placed directly behind the display stack to produce the visuals on the screen
“DLP”	digital lighting processing, a set of chipsets based on optical micro-electro-mechanical technology that uses a digital micromirror device. DLP technology is used in a variety of display applications from traditional static displays to interactive displays and also non-traditional embedded applications including medical, security and industrial uses
“DOB”	driver-on-board, a technology used in LED lighting systems in which the driver is integrated directly onto the LED circuit board
“draft angle”	a slight incline on the vertical surfaces of a mold that facilitates the removal of the finished part
“edge-lit”	a method of illumination used in LCD displays where LEDs are placed along the edges of the screen to produce the visuals on the screen
“EMC”	epoxy molding compound, a type of epoxy material used in the production of compact, highly heat-resistant leadframes with high application power for LED devices through molding equipment and process
“EVs”	electric vehicles, primarily including battery electric passenger vehicles (BEVs), plug-in hybrid electric passenger vehicles (PHEVs) and fuel-cell electric vehicles (FCEVs)

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“flip-chip LED”	an LED structure installed in a flipped orientation compared to lateral LED without wires for electrical connections
“GFA”	gross floor area
“HCM”	headlamp control module, an advanced front lighting control system in vehicles that provide optimized illumination
“HD”	high definition
“HUD”	head-up display, a display that projects important information onto the windscreen without requiring the drivers to look away from their usual viewpoint
“IATF16949”	the international technical specification of automotive industry quality management system, prepared by the IATF (International Automotive Task Force) and the ISO
“IC”	integrated circuit, a small unit or package which is made as a single indivisible structure (such as a chip) and is electrically equivalent to a conventional circuit of many separate components
“ICE”	internal combustion engine
“IP”	intellectual property
“IR”	infrared, a type of electromagnetic radiation with wavelength just greater than that of the red end of the visible light spectrum but less than that of microwaves
“ISO”	the International Organization for Standardization, a worldwide federation of national standards bodies
“ISO14001”	the Environmental Management System published by the ISO
“ISO45001”	the Occupational Health and Safety Management System published by the ISO

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“ISO9001”	the International Quality Management System published by the ISO
“ISD”	interactive signal display
“IT”	information technology
“lateral LED”	an LED structure that necessitates the use of wires for electrical connections, featuring P and N metal electrodes on the same side from which light is emitted. Its structural composition, from top to bottom, includes P-GaN, a light-emitting layer, N-GaN and a substrate
“‘LED+’ technologies”	technologies which integrate LED technologies with integrated circuits (ICs), electronic control, software, sensors, optics and others, which are rapidly changing the landscape of the high-end LED intelligent vision industry
“LCD”	liquid-crystal display, a flat-panel display or other electronically modulated optical device that uses the light-modulating properties of liquid crystals combined with polarizers
“leadframe”	a packaging carrier in LED or IC devices that secures LED or IC chips, offering mechanical support, electrical connection and heat conduction. It typically comprises a metal sheet, plastic materials, etc.
“LED”	light-emitting diode, a semiconductor diode that emits light when current flows through it
“LED device”	a semiconductor device that emits light, manufactured through the LED packaging process
“LED module”	an integral unit assembled by single or multiple LED devices, driving circuits, control circuits, etc.
“lm/W”	lumen per watt

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“local dimming”	an LED backlight technology used in LCD display to improve picture quality. It works by dimming the backlight areas of the screen that need to be dark, while keeping the backlight bright parts of the screen bright, thereby increasing the contrast ratio and creating a better image
“L <sub>70</sub> ”	a metric indicating the time (in hours) when the luminous flux output from the LED has dropped to 70% of initial
“Micro LED”	light-emitting diodes with chip size smaller than 100µm
“Mini LED”	light-emitting diodes with chip size ranging from 100µm to 300µm
“MSRP”	manufacturer suggested retail price
“N-GaN”	N-type gallium nitride, a semiconductor material with specific impurities to create an abundance of free electrons, which effectively carry a negative charge
“OEE”	overall equipment effectiveness, a standard for measuring the productivity of manufacturing equipment
“OHSAS18001”	the requirements for occupational health and safety management systems developed for managing health and safety risks associated with a business
“OTA”	over-the-air, a technology that updates vehicle software and firmware remotely through network
“PAR”	photosynthetically active radiation, the wavelengths of light (between 400nm and 700nm) that plants use for photosynthesis
“PCB”	printed circuit board
“PCBA”	printed circuit board assembly, the process of mounting or placing electronic components which give the board its functionality on a PCB

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“photoelectric conversion efficiency”	the percentage of electrical energy that a lighting product converts into visible light, serving as a crucial metric for measuring performance and energy efficiency of lighting products
“PPE”	photosynthetic photon efficiency, a metric that measures the total amount of PAR produced by a lighting system each second per electrical power
“PPF”	photosynthetic photon flux, a metric that measures the total amount of PAR produced by a lighting system each second. PPF is crucial in horticultural applications to understand the effectiveness of a lighting system for plant growth
“P-GaN”	P-type gallium nitride, a semiconductor material with specific impurities to create an abundance of spaces where there is a lack of electrons, which effectively carry a positive charge
“Q <sub>70</sub> ”	a metric indicating the time (in hours) when the photon flux output from the LED has dropped to 70% of initial
“R&D”	research and development
“SMD”	surface-mounted device, an LED packaging device with positive and negative electrodes on the package substrate, which can be assembled onto PCB through SMT process
“SMT”	surface mount technology, a method used in the assembly of PCBs where components are directly attached onto the designated position on the surface of the boards
“sq.m.”	square meter
“substrate”	a foundational material used in the manufacturing of semiconductor components and PCBs

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“Tier-1 supplier”	a company that supplies parts or systems directly to automotive OEMs. Other types of suppliers in the automotive industry include Tier-2 and Tier-3 suppliers. Tier-2 suppliers supply to Tier-1 suppliers. Tier-3 suppliers supply to Tier-2 suppliers
“UV”	ultraviolet, a type of electromagnetic radiation with wavelength less than that of visible light, but greater than X-rays
“UVC”	ultraviolet rays with a wavelength between 200nm and 280nm
“W”	watt