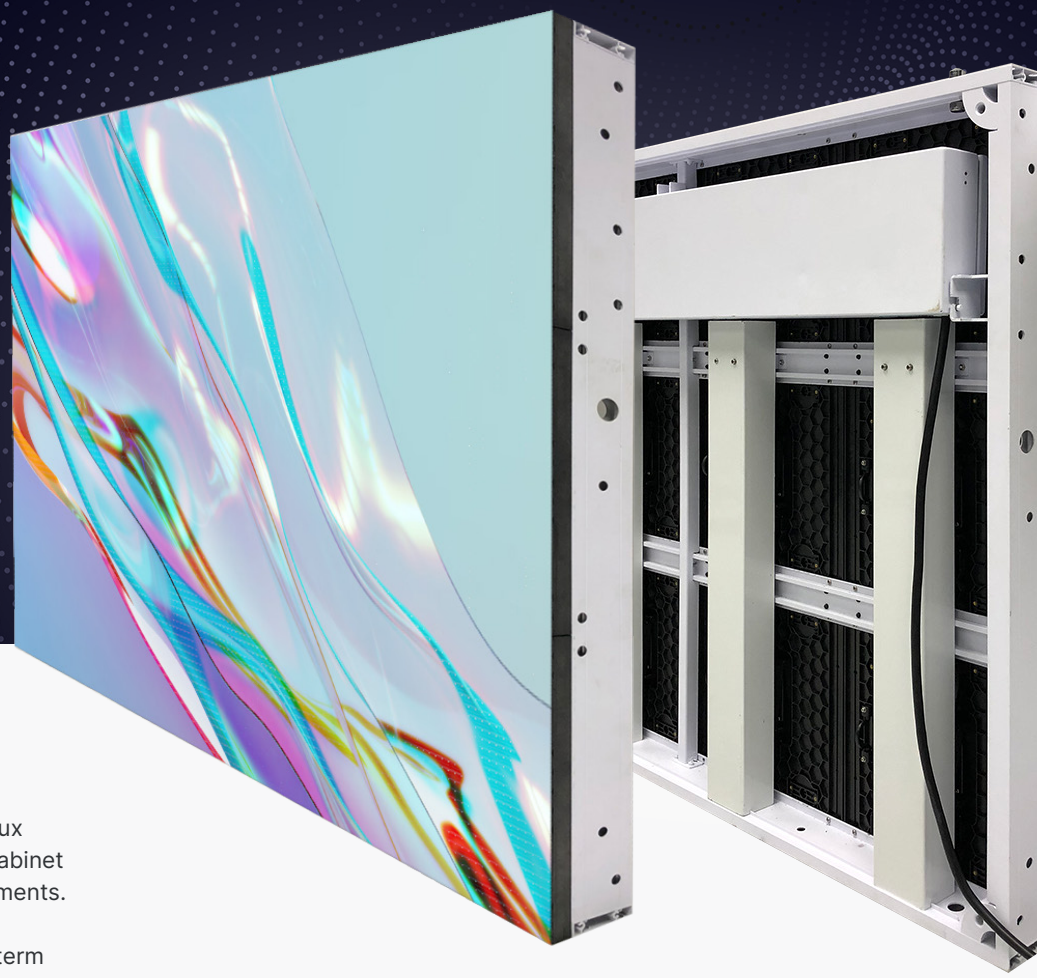
Outdoor LED

EcoLux Outdoor Series

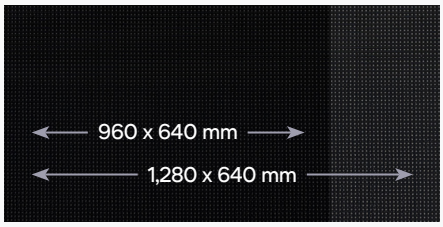
Built for the elements

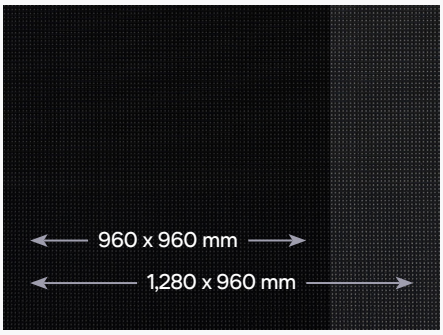
Designed to perform in any weather, the EcoLux Outdoor Series delivers uncompromising brightness, durability, and energy efficiency. With multiple cabinet sizes, front or rear serviceability, and automatic brightness control, it's the ideal LED solution for outdoor signage, scoreboards, and large-scale digital displays.



Weatherproof Design

Boasting a double-waterproof design, EcoLux Outdoor is sealed at both the module and cabinet level for superior protection against the elements. Its fanless design eliminates moving parts, reducing maintenance while ensuring long-term reliability in all weather conditions.





Flexible Sizing For Any Installation

Four cabinet sizes allow for versatile configurations. Cabinets with the same pixel pitch can be combined seamlessly, provided that each row and column uses the same size. In addition, EcoLux Outdoor supports both front and rear maintenance access, allowing for fast, hassle-free servicing in any setup.

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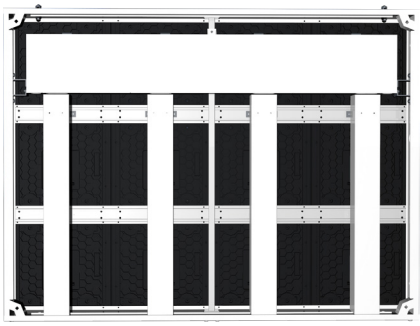
Precision, power, and all-weather durability

EcoLux Outdoor is engineered for reliability in any setting–rain or shine, day or night. With industry-leading brightness, energy-efficient performance, and a rugged weatherproof design, this series delivers stunning visuals while minimizing maintenance and power consumption.



Ultra-Bright Visibility

With up to 10,000 nits of brightness and advanced grayscale technology, EcoLux Outdoor ensures crisp, high-contrast visuals that remain clear even in direct sunlight. Ideal for high-traffic areas, this display grabs attention from any angle.

Energy-Efficient

Our 10,000-nit models consume 13% less power than lower brightness alternatives, offering brilliant performance while reducing energy costs. Perfect for billboards, transportation hubs, and stadiums, EcoLux Outdoor delivers high-impact visuals with lower operating expenses.

Smarter power management with LuxVision NEMA enclosures

All outdoor LED displays require a controller to convert video signals into the unique data format that displays can process. While indoor installations allow for easy placement of video sources near LED controllers, outdoor displays come with additional challenges. These may include managing brightness levels, overcoming distance limitations, integrating network connections, and ensuring a climate-controlled space for housing critical electronics.

To address these challenges, LuxVision has developed NEMA-rated enclosures equipped with active heating and cooling. These enclosures protect vital components, such as controllers and content players, from temperature extremes while ensuring reliable performance in any environment.

A key function of the NEMA enclosure is to house the brightness sensor, which must be positioned in the same sun exposure as the display. This sensor automatically adjusts screen brightness to match ambient lighting conditions–a requirement in many municipalities to ensure compliance with local regulations.

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Cabinet Specifications

Physical Parameters

Pixel Pitch (mm)	5.7	6.6	8.8	10
Resolution (px)	224 × 168	192 × 144	144 × 108	128 × 96
Pixel Configuration	3-in-1 SMD			
Cabinet Material	Aluminum and steel			
Cabinet Dimensions (W x H, mm)	1,280 × 960			
Weight Per Cabinet (kg)	38.1			
Service Access	Front or rear			

Optical Specifications

Brightness (nits)	10,000
Contrast Ratio	6,000:1
Viewing Angle (Horizontal / Vertical)	140° / 125°
Colours	281 trillion
Greyscale	16-bit
Refresh Rate (Hz)	3,840

Electrical Specifications

Power Consumption (Watts/Cabinet, Max.)	812	800
Power Consumption (Watts/Cabinet, Avg.	271	267
Power Supply (V)	AC 100-240	

Operation Specifications

Operating Temperature	-40°C~+50°C
Operating Humidity	10-90% non-condensing
Lifetime (Hours)	100,000
Standard Warranty	2 years
IP Rating (Front/Rear)	IP65 / IP54

Certification and Compliance

Safety	cETL, FCC, CE

Specifications are subject to change without notice. Specification report date: 03/01/2025.

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