

ARCO ILLUMINATION

en-vision

SERIES

AIS Linked · Gyro-Stabilized
LED Search Light Series

IP67 Rated

360° Rotation

AIS Linked

Patented

arco-illumination.com



3 km

Optical Span

270°

Vertical Arc

48V DC

Power Input

U.S. Patent No. 12,600,445 B1 · 11,096,254 B1

The Search Light Re-Imagined

The En-Vision Series is the product of three decades of marine lighting engineering, now brought to market directly under the Arco Illumination brand. Built for coast guard, search and rescue, commercial fishing, and offshore operations — where light is life.



Gyro-Stabilized Beam

Onboard gyroscope maintains precise beam projection regardless of vessel pitch and roll. Your target stays lit even in rough seas.



AIS Rescue Module

Integrates directly with AIS data. Automatically orients the beam to the GPS position of a vessel-in-distress — hands-free search capability.



Full Azimuth Control

360° continuous horizontal rotation with 270° vertical arc. Dual-input architecture: TCP/IP (RJ45) and RS-485 (Pelco-D), firmware selectable.

En-Vision Series Lineup

Three models. One architecture. Every mission.

Specification	En-Vision 6	En-Vision 18	En-vision 27*
Peak Intensity	1.5+ MCD	6.0+ MCD	9.0+ MCD
Power (Max)	115W / 12-24VDC	220W / 12-24VDC	290W / 48VDC
Optical Span (1 lux)	~1.2 km	~2.45 km	~3.0 km
Beam Angle (50%/10%)	1.8° / 3.9°	1.8° / 3.9°	1.8° / 3.9°
CCT	5700K	5700K	5700K
Horizontal Rotation	360°	360°	360°
Vertical Arc	270°	270°	270°
Ingress Protection	IP67	IP67	IP67
Shock Rating	IK08 / 30g	IK08 / 30g	IK08 / 30g
Dimensions (mm)	295×278×155	442×423×190	511×500×240
Weight	6.5 kg	16.5 kg	~25 kg (TBD)
AIS Linked	Yes	Yes	Yes
Control Protocol	TCP-IP / Pelco-D	TCP-IP / Pelco-D	TCP-IP / Pelco-D

*en-vision 27 specifications include calculated values. Actual results may vary.

Technology Highlights

● Dual-Input Architecture

Waterproof RJ45 (TCP/IP) + RS-485 (Pelco-D). Firmware-selectable. NMEA 2000 compatible via GL Digital Joystick controller.

● Patented Optical Design

U.S. Patent No. 12,600,445 B1 for dual-axis azimuth control and gyro-stabilized beam projection. Additional patents pending in EU, JP, CN, AU.

● Extreme Environmental Rating

IP67 sealed. IK08 impact-rated. Shock qualified to IEC 60068-2-27 (30g/11ms). ESD Level 4. Operates -40°C to $+55^{\circ}\text{C}$.

● Adjustable Zoom Optics

Built-in zoom structure allows field-adjustment of beam concentration for target range optimization.

Control & Connectivity

All En-Vision models share a unified control architecture, ensuring seamless integration across bridge and deck systems.

TCP/IP

RJ45 Waterproof

Network-ready bridge integration. Supports standard IP camera/PTZ protocols.

RS-485

Pelco-D Protocol

Industry-standard PTZ control. Compatible with all major bridge console systems.

NMEA 2000

Via GL Controller

Full marine network integration. AIS data feeds directly to searchlight targeting module.

48V DC

PoE++ Compatible

Low-voltage DC architecture simplifies installation and reduces cabling complexity.

Built for Every Mission

From search and rescue to offshore patrol — and now opening a new chapter for small commercial and recreational vessels. The En-Vision Series is built for every mission.

Search & Rescue

- AIS-linked auto-targeting
- Gyro beam stability in heavy seas
- 3 km+ range on en-vision 27

Coast Guard Patrol

- 360° continuous sweep
- Night operations at range
- Bridge-integrated control

Commercial Fishing

- Deck & water illumination
- Robust IP67 sealed housing
- Reliable in hosedown environments

Offshore & Port

- Platform & rig operations
- Vessel approach lighting
- Long-haul DC power

Research Vessels

- Precision beam control
- Low EMI design
- NMEA 2000 compatible

Naval & Security

- Durable IK08 impact rating
- ESD Level 4 protection
- Dual redundant control input

A New Market — Unlocked

Gyro-stabilized, AIS-linked searchlights at 1+ km range have historically cost \$15,000–\$50,000+, placing them out of reach for small vessels. The en-vision 6 changes that.

en-vision 6 entry target

<\$5K

USD · target retail

vs. \$15K–\$50K+ legacy systems

Small Commercial & Recreational Vessels

Charter boats, fishing vessels, patrol craft, and yachts — operators who previously had no viable gyro-stabilized search light option.

Professional Capability at Accessible Cost

1.2 km optical span · gyro-stabilized beam · AIS-linked targeting · IP67 sealed — all in a sub-\$5K package.

Made Possible by Arco's Integration Expertise

30 years of ODM manufacturing depth, now ingeniously packaged for a market that has never had access to this technology — until now.

Backed by 30 Years of Marine Lighting Heritage

Our Lineage

30+ Years

General Luminaire, our ODM parent company, has supplied private-label marine lights to coast guard, fishing, and offshore operators across Asia and North America.

2020

Arco Illumination Pte. Ltd. founded by Alex Wang and Brian A. Cook as an architectural illumination company, backed by deep manufacturing expertise.

2026

En-Vision Series launched — the first product line brought directly to market under the Arco Illumination brand, leveraging our ODM heritage.

2027

NMEA 2000 direct port planned for en-vision v2, deepening bridge integration capabilities.

Ready to Illuminate Your Fleet?

Product Enquiries: info@arco-illumination.com

Website: arco-illumination.com

Patent: [U.S. 12,600,445 B1](#)

Certification: [IP67 · IK08 · IEC 60068-2-27](#)

NMEA 2000: [System-level compatible \(v1\)](#)