



MODEL

M701-5

Solar-Powered LED Marine Lanterns



Carmanah's Model M701-5 offers exceptional value in a compact, IP68 waterproof, user-friendly design, with optional GPS capabilities. This solar marine lantern features 3 nautical miles visibility and a removable battery pack that extends the lantern life beyond 5 years.

LIGHT OUTPUT AND OPERATION

Visibility ^{1,2}	3 nautical miles (5.4 kilometers)
Peak intensity (360-degree average, green LEDs)	~ 22 Candela
IP68 waterproof rating	Yes
Temperature range	-40° to +176° F (-40° to +80° C)
Vertical divergence	7°
Autonomy (flashing) at full charge	300 hrs
Horizontal output	360°
Available LED color	Red, green, amber or white
Flash patterns	250+
Programmable (infrared)	Yes
GPS capable	Yes (Optional)

CONSTRUCTION

Solar panels	Mono-crystalline potted with UV-protected polyurethane and domed for higher efficiency
Light source	LED
Lifespan of LEDs	Up to 100,000 hours
Lens material	UV stabilized polycarbonate
Battery (average 5-year life)	Replaceable
Battery amp-hour	15Ah
Battery venting	Vent at the bottom of the lantern
Lantern base	Marine grade aluminum
Sealing	Self-contained unit, sealed with gaskets
MICROSOURCE®	Yes
Scheduled maintenance	Up to 10 year lifespan
Mounting options	3, 4 or 5 bolt
Weight	11.5 lbs (5.21kg)

TRADEMARKS, PATENTS AND APPROVALS

WEEE compliant	Yes
RoHS compliant	Yes
CE Approval	As per EN 60945:1997
Trademarks and Patents	US Patents: 6,573,659 and 6,013,985 Other Patents Pending



Clients

- Australian Maritime Systems
- Brazilian Naval Commission
- Canadian Coast Guard
- CETMEF, France
- Indian Port of Kandla, India
- Maritime and Port Authority of Singapore
- NOAA – National Data Buoy Center
- Panama Canal
- Suez Canal, Egypt
- Trinity House Lighthouse Service, UK
- United States Coast Guard
- Vancouver Port Authority

Carmanah Technologies Corporation

Building 4-203 Harbour Rd.
Victoria, BC V9A 3S2

Toll Free: +1.877.722.8877
(US & Canada)

Worldwide: +1.250.380.0052

Fax: +1.250.380.0062

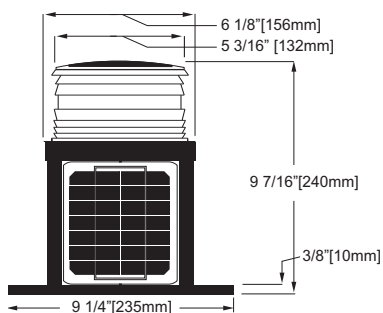
Email: info@carmanah.com

CHANGE THE WORLD WITH US™

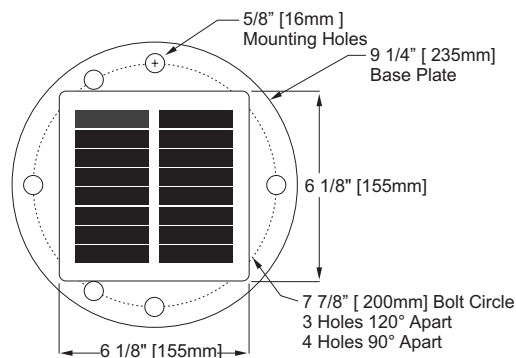
Solar-Powered LED Marine Lanterns Model M701-5 & M701-5 GPS



Side View



Top View



Accessories

Infrared Programmer



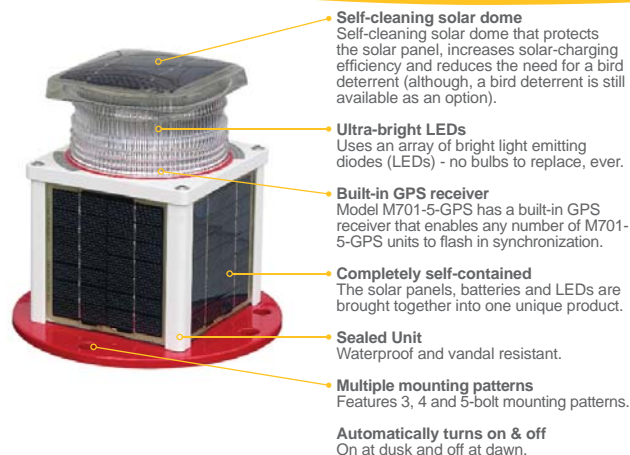
Security Bolt



Bird Deterrent



Mounting Plate



Originally designed and built under contract with the U.S. Coast Guard, Carmanah 700 series lanterns are the first solar-powered lanterns using light emitting diodes (LEDs) to enter the U.S. Navigational Aid System. As the smallest lantern in the 700 series, the Model M701-5 and M701-5 GPS is in use by Coast Guards, Navies and Ports Authorities in more than 110 countries, offering:

- **Synchronization Module** – optional GPS capabilities, enables two or more M701-5 lanterns to flash in unison
- **Maximum capacity with minimal life-cycle cost** – operates up to 5 years maintenance free
- **Field-proven durability** – technology tested over 15 years
- **Third-party testing** – passed extensive shock and vibration testing
- **IP68 certification** – tested to higher levels of water ingress protection standards
- **Vandal and theft resistant design** – high quality construction and mounting hardware
- **Patented technology** – innovative LED technology and energy management system
- **Dependable illumination** – a 10-year effective lifespan with LEDs operating up to 100,000 hours

The Model M701-5 and M701-5 GPS are also:

- Manufactured in accordance with ISO 9001:2000 Quality Assurance Standards
- RoHS and WEEE certified
- Engineered to meet requirements of the USCG in 33 CFR part 66 for Private Aids to Navigation

All of Carmanah's 700 series solar marine lanterns feature a colored base plate for easy identification of LED color

¹ Transmissivity of 0.74

² Actual range is dependant on flash pattern, intensity, and LED color.



Toll Free Canada & US: 1.877.722.8877 • carmanah.com • Worldwide: +1.250.380.0052