



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 NM (5.4 km)
Peak intensity (360° average, green LEDs)	~ 22 Candela
Ambient storage temperature	-40 to 176 °F (-40 to 80 °C)
Ambient operating temperature	-40 to 122 °F (-40 to 50 °C)
Vertical divergence	7°
Autonomy (flashing) at full charge	300 hours
Available LED color	Red, green, amber, or white
Flash patterns	250+
Programmable (infrared)	Yes
GPS capable	Yes (Optional)

CONSTRUCTION

Light source	High-powered LEDs
Lens material	UV stabilized
Battery (average 5-year life)	Replaceable and recyclable
Energy Management System MICROSOURCE® code suite	Yes
Mounting options	3, 4, or 5 bolt
Weight	11.5 lb (5.2 kg)

PATENTS AND APPROVALS

CE approval	As per EN 60945:1997
IP68 waterproof rating	Yes
Patents	US Patents: 6573659, 6013985 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

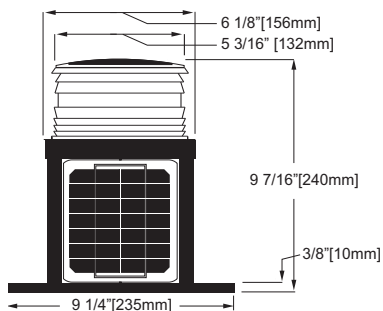
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we put solar to work™

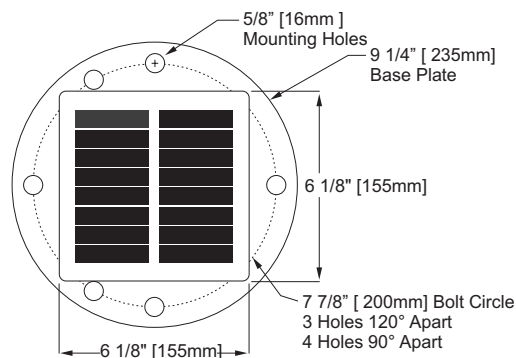
Solar-Powered LED Marine Lanterns Model M701-5 and M701-5 GPS



Side View



Top View



Accessories

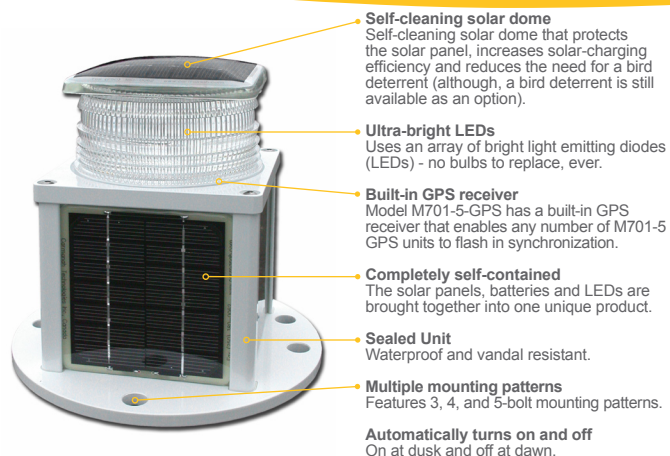
Infrared Programmer



Security Bolt



Bird Deterrent



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 lanterns are in use by Coast Guards, Navies, and Ports Authorities and offer:

- **Maximum capacity with minimal life-cycle cost** – operates up to 5 years maintenance free³
- **Field-proven durability** – over 250,000 solar installations worldwide
- **IP68 certification** – designed 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
- **Synchronization Module** – optional GPS capabilities, enables two or more M701-5 lanterns to flash in unison

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

- Manufactured in accordance with ISO 9001:2000 Quality Assurance Standards
- Engineered to meet requirements of the USCG in 33 CFR part 66 for Private Aids to Navigation
- Manufactured with a colored base plate for easy identification of LED color

¹ Transmissivity of 0.74

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

³ Dependent on location.



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