

Model 501 Marine Hazard Light

Solar Powered • Self-Contained • Maintenance Free • Compact

The 501 Carmanah Light is the world's most advanced one nautical mile (1.8km) marine hazard light. Designed for industrial/commercial uses such as marinas, dredging, buoys, aquaculture farms and dock owners, it is a multi-purpose marine light suitable for virtually any requirement up to a 1 nautical mile range.

Solar-powered, self-contained and completely sealed, the 501 requires no maintenance or servicing for its entire life span. It charges during the day, even under cloudy conditions, and turns on automatically at night. Instead of traditional incandescent bulbs, the 501 uses durable, high-intensity light-emitting diodes (LEDs), which last approximately 100,000 hours.

The solar panel is protected under a clear, patented polymer dome that traps sunlight and keeps the solar panel clean. Due to its unique construction, the light can withstand collisions, submersion, vandalism, vibration and many years of intense sunlight. It has no moving parts, no wires, no openings or O-rings - not even an on/off switch. It can be installed with two screws and requires no further attention for up to 5 years.

Order your 501 Carmanah Light in red, green, amber, blue or white with one of seven common IALA flash types.

Benefits & Features

- Simple, fast installation using two screws or bolts
- Extremely rugged, vandal-resistant and waterproof
- Five year maintenance-free: no bulbs or batteries to replace
- Self-contained, completely sealed construction
- No wiring required. Solar powered.
- Uses multiple high-intensity LEDs (light emitting diodes)
- Available in red, green, amber, blue or white
- Range of up to 1 nautical mile (1.8 kilometers)
- 7 common flash types available
- Automatically turns on at dusk and off at dawn
- Patented dome protects solar panel while trapping solar energy
- Autonomy - runs for at least 14 days without any solar charging
- Manufactured under certified ISO 9001 quality controls
- Three year pro-rated warranty and 30 day money-back guarantee
- Volume discounts available



500 SERIES



Carmanah
The Leader in Solar LED Lighting Solutions.

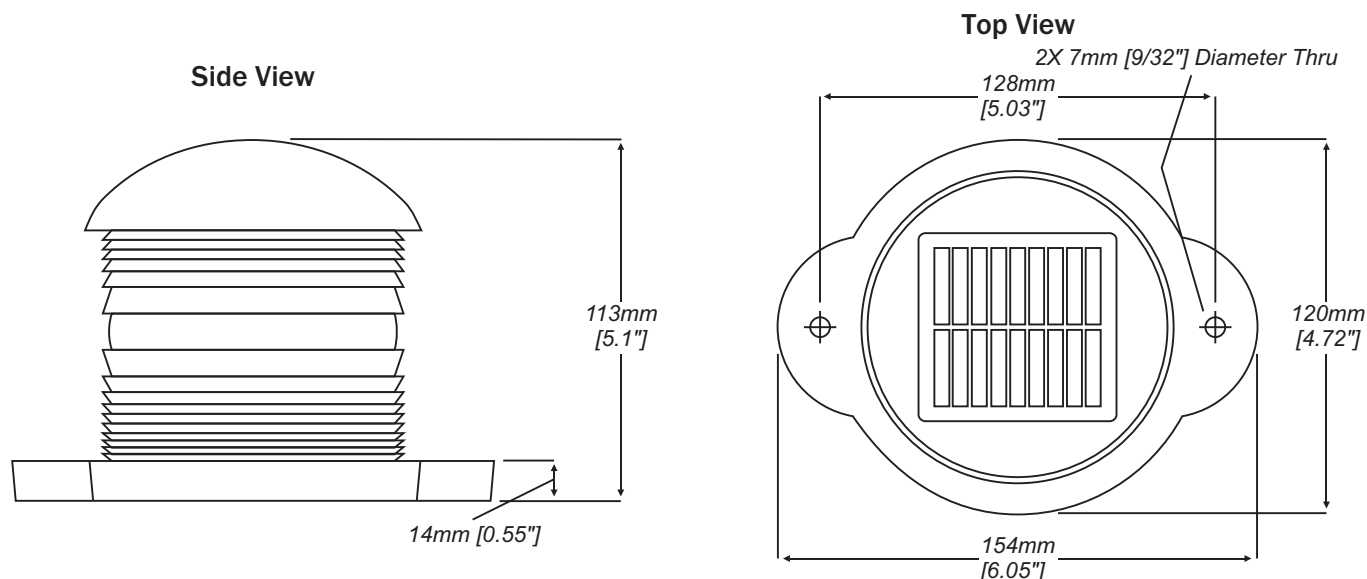
Carmanah Technologies Inc. Copyright © 2001
Carmanah and Carmanah Logo are Trademarks of Carmanah Technologies Inc.
Printed in Canada. Document 21T54-E. Last Printed March 02, 2001

Typical Applications

- Aquaculture Sites
- Marinas and Docks
- Breakwaters and Piers
- Navigational Aids
- Channel and Hazard Markers
- Navigation and Mooring Buoys
- Dredging Operations
- Offshore Structures

Model 501

Ultra Compact and Feature Rich...



Specification	Parameter	Value
Range (NM)	12.5% Duty Cycle	1 Nautical Mile (1.8km)
Light Source	Series of High-Intensity LEDs	100,000 Hours of Life
Equivalent Peak Intensity	12.5% Duty Cycle, Uniform Flash Pulse	1.3 Candela
Effective Intensity	0.5 Second Flash Duration	1 Candela
Uniformity of Output	Horizontal Plane, 360°	+/- 50%
Vertical Divergence	Vertical Plane, FWHM	8°
Signal Color	White, Blue, Amber, Red and Green	Meets IALA Standards
Daylight Control	On/Off	350/250 Lux
Autonomy	100% Charge, Heavy Overcast, 16 Hour Night	240 hours
Flash Timing Accuracy	Over Full Temperature Range	+/-5%
Life Expectancy	4800 Hours/Year Operation, 12.5% Duty Cycle	5 Years
Ambient Temperature Range	-30° to +50° C (-22° to 122° F)
Waterproof	10 m (33 ft) Underwater
EMI Immunity	VHF, Radar, and Static Discharge Protection	CE Approved
Mass	1.1kg (2.45 lbs)
Solar Panel	Mono-crystalline, 14% Efficiency	0.3 Watt
Latitude	Recommended Range of Latitudes for Effective Winter Performance	50° South to 50° North
Minimum Daily Hours of Winter Sunlight Required	For 1 Nautical Mile Range at 12.5% Duty Cycle	1.5 Hours
Patents	U.S. Patent Approved Other Patents Pending
Testing and Certification	Quality Assurance	ISO 9001
	Electrical Certification	CE approved

The above specifications are all based on a green LED with 12.5% duty cycle (0.5 sec on, 3.5 sec off), for a location with 1.5 hours of winter sunlight. The light output varies inversely with the duty cycle.

Represented by:

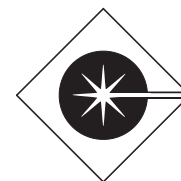
Gilman Corporation

PO Box 68, Gilman, CT 06336-0068

Phone: 1-800-622-3626 or 1-860-887-7080

Fax: 1-860-886-5402

Web: www.gilmancorp.com Email: gilmancorp@aol.com



Carmanah
www.carmanah.com