

Model A702 IR

Infrared Aviation Light

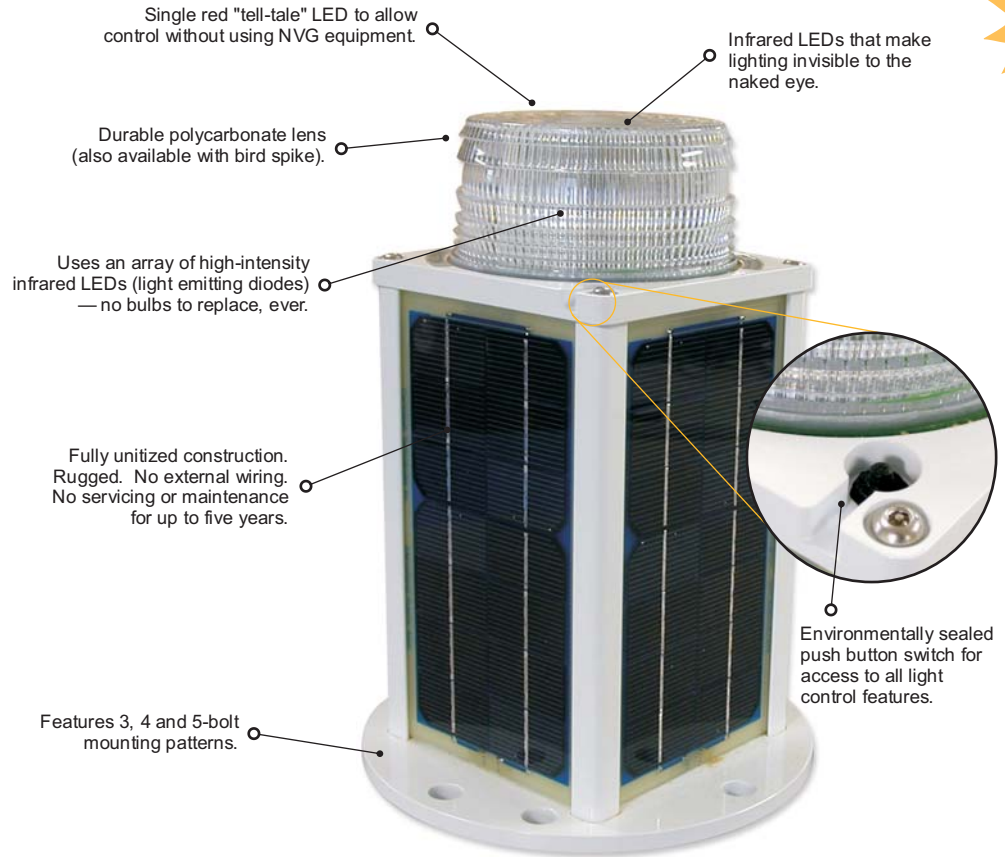
S O L A R A V I A T I O N L I G H T

Typical Applications

- Covert operations
- Drop zones
- Expedited airfields
- Runway edge lighting³
- Obstruction lighting
- Helipad lighting

Features & Benefits

- Operates dusk till dawn
- NVG compatible
- Simple unit control via environmentally sealed push-button switch
- Adjustable intensity plus high-intensity flash mode
- Provides up to five years of operation with no maintenance, servicing or infrastructure costs
- Installation takes minutes and requires minimal technical expertise
- Easily mounted to standard frangible coupling
- Completely self-contained and sealed against environmental conditions
- Extremely rugged, waterproof and vandal resistant
- Up to 6.5nm with Gen-III NVG Equipment (12km)
- Will charge under nearly all weather conditions
- Up to 270 hours of operating capacity from a full charge
- Features four bolt mounting patterns
- Replaceable battery packs available
- Manufactured under ISO:9001 Quality Assurance Practices
- Also Available in red, green, amber, white and blue (visible)
- 30-day satisfaction guarantee and three year warranty



The Carmanah Model A702 Infrared (IR) is the world's most advanced, fully-integrated, solar-powered LED portable distance aviation marking light. It installs in minutes and requires no maintenance or servicing for up to five years.

Typical Applications

The A702 infrared aviation light is designed for covert defense operations using Night Vision Goggle (NVG) technology. NVG compatible and invisible to the naked eye, the 702IR Aviation light can be seen from a distance of 6.5nm under clear conditions.

Fully integrated, self-contained and watertight, the A702 IR light is designed for rapid deployment and high performance. The light operates only when switched on by a user, maximizing available power and autonomy for when it is needed to support operational requirements.

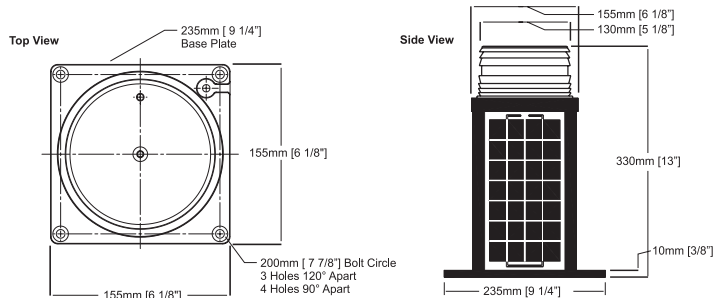
The Technology

Utilizing an innovative combination of solar-powered and LED technology, the 700 Series lights charge during the day, even under cloudy conditions. Instead of traditional incandescent bulbs, the 700 Series use durable, high-intensity light emitting diodes (LEDs), which have a lifespan of up to 100,000 hours. Therefore, other than replacing the battery packs approximately every five years, the 700 Series is designed to operate flawlessly without additional servicing or maintenance.

No external wiring, no battery or bulb replacement, no maintenance, no worries...

Model A702 IR

Infrared Aviation Light



SPECIFICATIONS

LIGHT OUTPUT

0-6 Deg	20mW/Sr minimum at 100% output
6-11 Deg	10mW/Sr minimum at 100% output
11-20 Deg	5mW/Sr minimum at 100% output
Horizontal Output	360°
Output modes	100%, 50% & high-intensity flash (60fpm)

EXPECTED RANGES with GEN-III NVG equipment (200pW/m² good visibility)

0-6Deg	6.5nm detection, 3.3nm good visibility
6-11Deg	5.4nm detection, 2.6nm good visibility
11-20 Deg	4.4nm detection, 2.0nm good visibility

OPERATION

Daily Operational Profile	For 60 minutes once switched on during the day. Until dawn once switched on at night.
Latitude Range ¹	55° N to 55° S
Illumination Technology	24 IR LEDs (870nm), Red "tell-tale" LED
Lifespan of LEDs	Up to 100,000 hrs.
Color Output	Infrared light (870nm)
On/Off Lux Level	23 lux average / 85 lux average Response to lux level change: approx. 10 sec.
FLASH MODE - On Time/Off Time	0.25 sec. / 0.75 sec.

AUTONOMY

ALC Disabled	120 hours @ full power (100% battery)
ALC Enabled	270 hours starting at full power (100% battery)

SOLAR PANELS & BATTERY

Solar Panels type	Mono-Crystalline
Battery type	Potted with UV-protected polyurethane Pure-lead thin plate with starved electrolyte

ENVIRONMENTAL

Maximum Temperature Range ³	-40 °C to +80 °C (-40 °F to +176 °C)
Waterproofing	As per IP67 (NEMA 6)

CONSTRUCTION

Lens Color	Clear
Lens Material	UV-resistant polycarbonate
Battery Venting	One-way 4 psi vent at bottom of light
Head Assembly Material	Powder coated aluminum
Housing Assembly Material	Powder coated aluminum
Sealing	Self-contained unit, sealed with NBR rubber gaskets
Weight	7.75 kg (17 lbs.)

PATENTS and TRADEMARKS

Patents and Trademarks	U.S. Patents	5,782,552 / 6,013,985 / 6,573,659
	Canadian Patents	2,241,044
	U.S. Trademarks	2,862,539
	Canadian Trademarks	TMA496,756
	Other Patents and Trademarks Pending	

REPRESENTED BY

Allister Wilmott

Sales & Marketing
awilmott@carmanah.com

Carmanah Technologies Inc.

Building 4, 203 Harbour Road
Victoria, British Columbia
Canada V9A 3S2

Toll-Free: 1-877-722-8877
(North America)

Worldwide: (250) 380-0052
General Fax: (250) 380-0062
Sales Fax: (250) 389-0040

Web Site: www.solarairportlights.com
www.obstructionlights.com

¹ Lights will function reliably at latitudes higher than 55° North or South, however solar performance will be diminished due to decreased incident solar insolation. Extra care should therefore be taken to preserve operational capacity when operating outside this latitude range.

² Consistent ambient temperatures above +25 °C (+77 °F) will affect overall battery life. Temperature above +60 °C (+140 °F) may affect output.

³ Not available for all applications. Please call your sales representative for clarification.

All specifications are subject to change without notice.

Carmanah is a Canadian public corporation - TSX VE: CMH

Carmanah is an ENERGY STAR® partner.

© 2005 Carmanah Technologies Inc.
"Carmanah" and Carmanah logo are trademarks of Carmanah Technologies Inc.
Document: SPC_AMA-A702IR_vA