

# Solar-Powered LED Aviation Lights Model A704-5 Wireless



## Model A704-5 Wireless

### Built to Perform in Harsh Environments

The Carmanah A704-5 self-contained wireless solar-powered LED aviation lights are the world's most advanced airfield lighting solution for permanent, temporary and emergency applications. They are completely self-contained, install in minutes and require no maintenance or servicing for up to five years.

### Quality Manufacturing

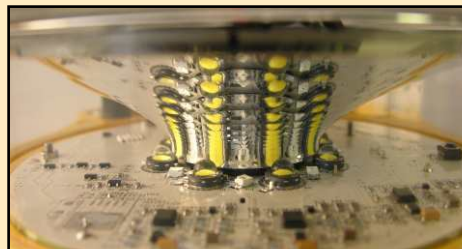
The A704-5 wireless is designed to work flawlessly through the hottest summers and coldest winters, reliably delivering performance in the harshest environments. Manufactured under ISO 9001:2000 Quality Assurance Standards, the A704-5 wireless applies the best technology to the challenges of airfield lighting as proven in defense, civilian and humanitarian aid applications.

### Reliable Technology

The A704-5 features an innovative combination of solar power, LEDs, and an optional 900 Mhz secure wireless communications technology. The light charges during the day, even under cloudy conditions, and can be configured to turn on automatically at night or on-demand using a handheld wireless controller. Instead of relying on short-lived incandescent bulbs, the A704-5 uses durable, ultra bright light emitting diodes (LEDs), which have an operating life span of up to 100,000 hours. As an added feature, a DC cable connector allows for external charging or the use of a supplementary power source.

### Applications:

- Portable airfield lighting
- Emergency runway lighting
- Expedited airfields for Humanitarian aid and Defense operations
- NVG compatible for covert operations using infrared LEDs
- Runway Edge Lighting - (ICAO Annex 14<sup>1</sup>)
- Helipad edge lighting



Carmanah's new optics are designed to meet international aviation lighting standards.

**30 day satisfaction guarantee  
and three year warranty!**



Defense Applications



Emergency Runway Edge Lighting



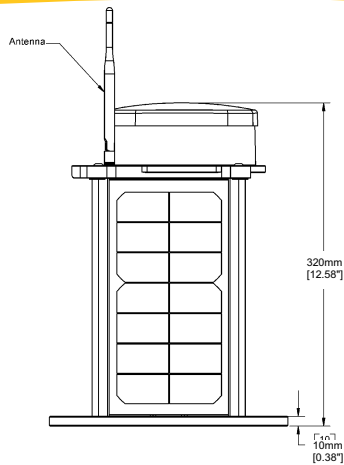
Commercial Applications



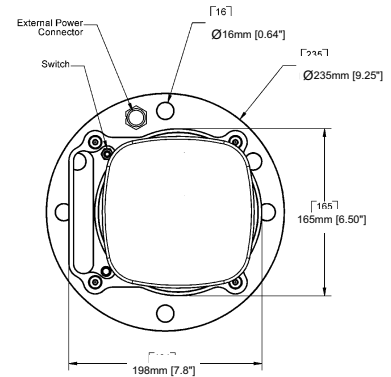
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Side View



Top View



## SPECIFICATIONS

### LIGHT OUTPUT

	STEADY
Sustained Output Intensity (Location dependent typically)	15 cd
Peak Available Output Intensity	
Temporary Low	50 cd
Temporary High	100 cd
Range (Infrared LEDs)	7 NM
Color Specifications (Red, Amber, Green, Blue, White)	All meet ICAO and FAA <sup>6</sup> color specifications
Horizontal Output	360°
Vertical Divergence	0-30°

### OPERATION

Maximum Autonomy at Full Charge - Sustainable Output <sup>2</sup>	200 hours
Autonomy <sup>2</sup> at Full Charge	
Temporary Low	45 hours
Temporary High	15 hours
Latitude Range <sup>3</sup>	40° S to 40° N
On / Off Level	70 / 100 Lux
Illumination Technology	8 High Power Light Emitting Diodes
Lifespan of LEDs <sup>4</sup>	Up to 100,000 hours
Chromaticity of Color Output	Meets FAA <sup>6</sup> , ICAO specifications
Power Management System	MICROSOURCE <sup>®</sup>

### CONSTRUCTION

Solar Panels	Mono-Crystalline
Battery	Potted with UV-protected polyurethane
Lens Material	Sealed pure lead-tin - recyclable
Battery Venting	UV stabilized polycarbonate
Sealing	Vent at the bottom of the lantern
Weight	Self-contained unit, sealed with gaskets
Lantern base	26 lbs (11.75 kg)
Mounting	Marine grade aluminum
	3, 4 & 5 bolt mounting pattern

### ENVIRONMENTAL and ELECTRICAL

Temperature Range <sup>5</sup>	-40° to +176° F (-40° to +80° C)
Waterproof	As per IP67 (NEMA 6)
CE Approval	As per EN 60945:1997

### TRADEMARKS and PATENTS

Trademarks and Patents

US Patents: 5,782,552 & 6,013,985  
European Patent Application: 96925627.0  
Other Patents Pending

<sup>1</sup> Appendix 1, Figure A1-1; Paragraph 5.3.9.9 (25 cd minimum) at Temporary High Setting

<sup>2</sup> Actual figures for autonomy depend on the intensity level setting.

<sup>3</sup> Lights will function reliably at higher latitudes than 55° North or South when operating at low intensity settings.

<sup>4</sup> Amber, Red, Green: ~14 years to 80% of original effective intensity when operated at night with a 12.5% duty cycle..

<sup>5</sup> Consistent ambient temperatures above +77°F (+25°C) may affect overall battery life. Temperatures above +140°F (+60°C) may affect output.

<sup>6</sup> FAA AC 150 5345/46B, ICAO Annex 14, AC 150 5345/50A

