



carmanah®  
we put solar to work



MODEL

A650

SOLAR LED AVIATION AND OBSTRUCTION LIGHT

WHETHER FOR PERMANENT, TEMPORARY OR EMERGENCY LIGHTING, THE A650 OFFERS SOPHISTICATION, INTELLIGENCE AND PERFORMANCE THAT IS UNRIVALLED BY ANY OTHER LIGHT ON THE MARKET.

- **Easy installation and relocation:** no specialized work crew required, limited air traffic disruption and lights are immediately operational. The A650 can also be quickly relocated for temporary or emergency applications.
- **Self-contained and low maintenance:** all components are incorporated within a compact, stand-alone unit. The A650 also features a replaceable battery pack that extends the service life beyond five years, reducing the total cost of ownership and resulting in significant cost savings.
- **Intelligent settings:** the first solar product to incorporate intelligent deployment location settings that allow the A650 to be tuned to its location, protecting it against improper configuration.
- **Unprecedented Reliability:** microprocessor Energy Management System (EMS) monitors and adapts the brightness to environmental conditions for consistent operation and long life under the toughest conditions.
- **Designed and tested to toughest industrial standards:** MIL-STD-202G: Humidity, Immersion, Vibration, Shock; MIL-STD-810G: Solar Radiation, Salt Fog; EN 60945: ESD, EMI, EMC; IP68; L70. The A650 is acceptable for barricade and construction applications at Commercial Part 139 Airports under FAA Advisory Circular AC 150/5370-2E. The A650 Blue is compliant with the requirements of ICAO Annex 14, Volume 1, Fourth Edition dated July 2004.
- **User friendly:** easy configuration and programming options including: on-board user interface, infrared remote and Device Manager software through USB connection. Optional programmable external switch.
- **Green solution:** a clean, renewable and reliable energy source with the lightest environmental footprint. The A650 features recyclable batteries and is entirely RoHS compliant.

- Up to 10 cd of intensity (steady-on, green, equatorial)
- Replaceable and recyclable battery pack
- Intuitive on-board user interface
- Dusk-to-dawn operation
- Optional external switch
- Intelligent deployment location settings protect against improper configuration

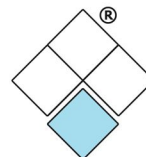
The A650 is a self-contained, high-performance, low-maintenance and easy-to-install solar-powered light source for aviation and industrial environments. Applications include: taxiway edge lighting; apron edge lighting; emergency airfield and helipad lighting; construction barricade lighting on airfields; and obstruction lighting.

#### TECHNICAL FEATURES AND SPECIFICATIONS

Solar Panel	High-efficiency cells with bypass and blocking diode function. Maximum power point tracking (MPPT) for optimal energy collection.
Battery	Tool-less replaceable and recyclable best-in-class battery pack with extreme temperature range. Battery status feedback of Good, Charge or Bad (Replace).
Light Source	High power LED. Colour-specific temperature corrected LED drivers provide consistent intensity under all operating conditions.
Intensity	10 cd intensity, steady-on (see photometric plot on reverse). 18 cd peak intensity, flashing, 12.5% duty cycle (Red LEDs).
Flash Patterns	256+
Construction	Premium grade UV resistant, polycarbonate/polysiloxane co-polymer body and lens material. Double O-ring sealing with waterproof vent.
Colours	Blue, Red, Yellow, Green and White. ICAO and SAE25050 (FAA) compliant chromaticity.
Operating Temperature	-45 to 124 °F (-43 to 51 °C) ambient temperature. The A650 will function up to 190 °F (88 °C) internal and surface temperatures.
Storage Temperature	-45 to 176 °F (-43 to 80 °C)
Colour Indicator	Yes, FAA Eng. Brief 67 compliant.
Weight	3.5 lb (1.58 kg)
Wind Loading	400 mph (180 m/s)
Automatic Light Control (ALC)	When enabled, ALC will dynamically reduce brightness in response to unusually low amounts of sunlight to ensure continued operation.



#### REPRESENTED BY:



SARTELCO® SISTEMI SRL

Via Torri Bianche, 1  
20871 Vimercate (MB)  
Tel. +39-039-62905.1 Fax.  
+39-039-62905.99

info: sistemi@sartelco.it  
ordini/promozioni:  
amministrazione@sartelco.it

www.sartelco.it

# MODEL

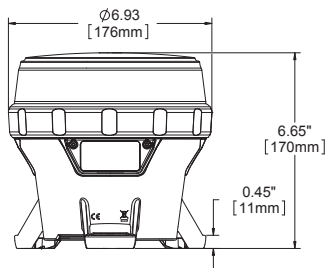
# A650

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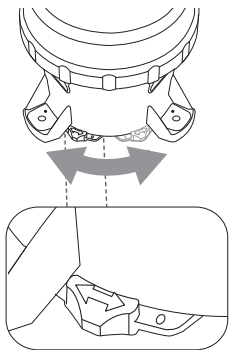


## TECHNICAL DRAWINGS AND DIMENSIONS

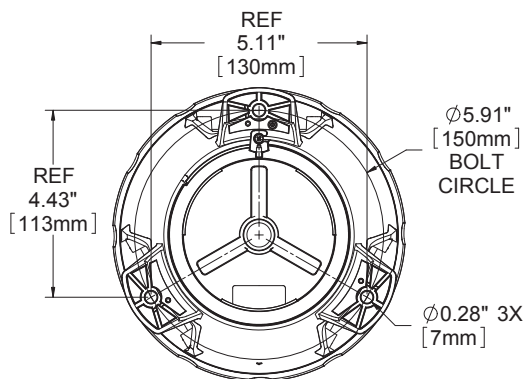
### SIDE VIEW



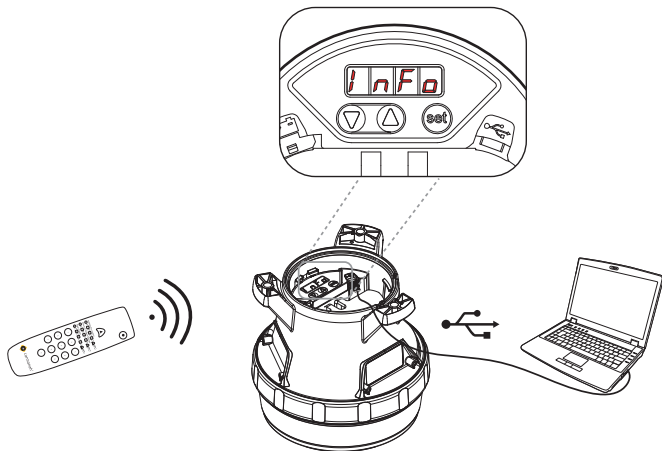
### SWITCHED VIEW



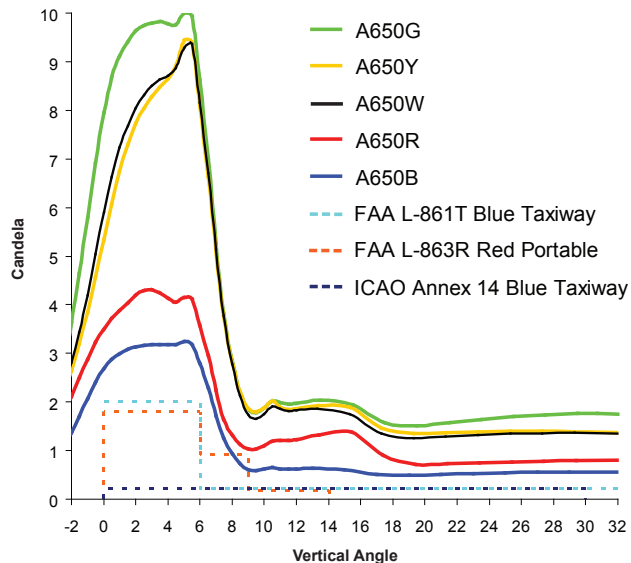
### BOTTOM VIEW



## PROGRAMMING AND CONFIGURATION OPTIONS



## PHOTOMETRIC PERFORMANCE



Note: Intensity dependant on location. Based on equatorial location of 12-hour night duration and steady-on (001) flash code.

## ORDERING CODES

### LIGHTS

	UNSWITCHED	SWITCHED
A650 Blue	A650B-0000	A650B-0001
A650 Red	A650R-0000	A650R-0001
A650 Yellow	A650Y-0000	A650Y-0001
A650 Green	A650G-0000	A650G-0001
A650 White	A650W-0000	A650W-0001

### ACCESSORIES

650 Bird Deterrent - Additional (1 ships with each light)	57003
650 Bottom Cover Replacement Kit	57392 (With Switch) 57393 (Without Switch)
650 Battery Replacement Pack	57383
650 Battery Charger	59648 (110V) 59188 (220V)
650 USB Cable	57394
650 Device Manager Software CD	61125
IR (Infrared) Programmer	56818

For a complete list of aviation light accessories, including mounting equipment, please refer to the Carmanah Aviation Light Accessories Sheet available on [carmanah.com](http://carmanah.com).

Specifications may be subject to change

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