



# A704

SOLAR AIRFIELD LIGHT

Meets traditional airfield requirements in an easy-to-install, low maintenance package.

- ICAO and FAA compliant
- Omni and bi-directional options
- Third party tested
- Proven technology platform
- Available in three solar engine sizes

## Applications

Medium-intensity runway edge & threshold (MIRL)  
High-intensity runway edge & threshold (HIRL)  
Taxiway Lighting  
NVG operations  
Emergency airfields  
Helipads

## Advanced Design

- Improved optical efficiency with latest LEDs
- Up to 25% more power with high-efficiency solar panels
- Reduced standby power consumption
- Multiple solar engine sizes for best value-for-performance

## Easy Installation

Limited crew, no trenching, no airfield interruptions. Just place the A704 and it emits light dusk-to-dawn while maintaining its battery. Optional wireless control provides on-demand operation from up to 4 km (2.5 m) away.

## Low Maintenance

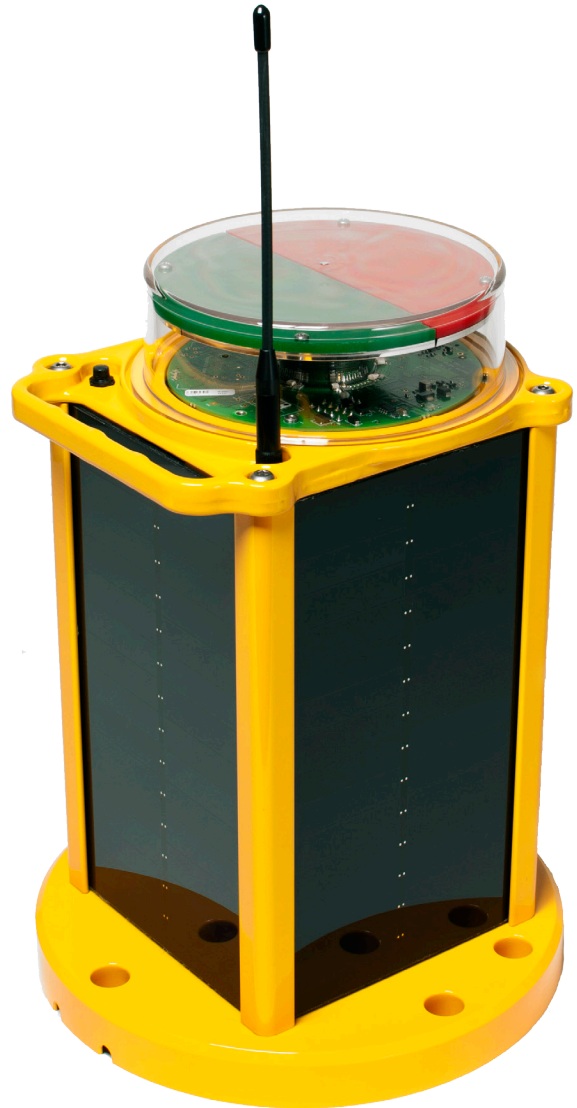
The A704 integrates solar panels, battery, electronics, and LED light source into a compact, stand-alone unit requiring minimal maintenance. The replaceable battery extends service life well beyond 5 years.

## Reliable

The Energy Management System (EMS) monitors all operations to provide consistent output in the harshest environments. Testing to ICAO, FAA and MIL specifications ensures high performance for many years.

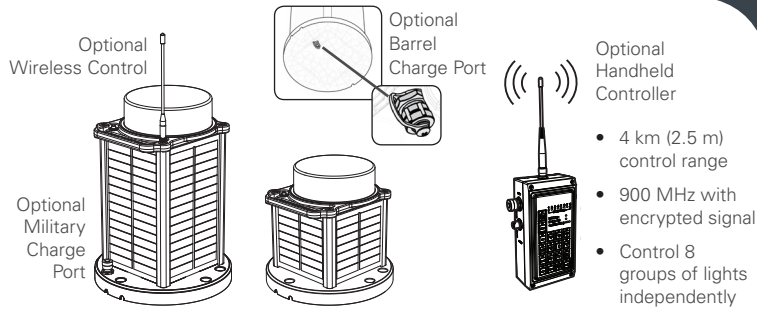
## Trusted

With thousands of installations worldwide, Carmanah solar LED lights operate year-round at permanent airfields and temporary military installations.



REPRESENTED IN YOUR REGION BY:

**LED**  Airport Lighting



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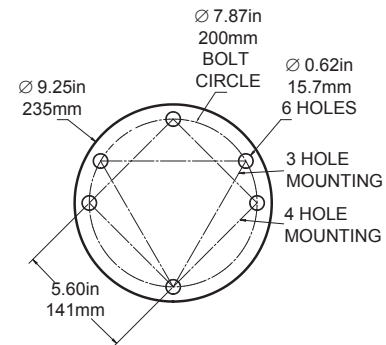
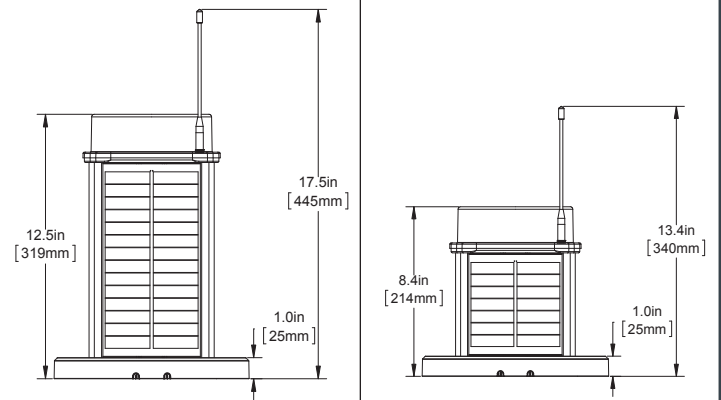
## SOLAR AIRFIELD LIGHT

### SPECIFICATIONS

Optical	High-power LEDs meet IES LM-80 lumen maintenance, ensuring consistent photometrics for life of product
	ICAO, SAE25050 (FAA), and FAA EB 67 compliant chromaticity
	NVG-compatible infrared (IR) LEDs
Energy Collection	Steady-on and flash
	High-efficiency cells with blocking diodes
	Maximum power point tracking with temperature compensation (MPPT-TC) for optimal energy collection in all solar conditions
Energy Storage	Pure-lead VRLA AGM battery with manufacturer operating range -65 to 80 °C (-85 to 176 °F)
	On-board battery status
	Designed for 5+ year battery life; Replaceable and recyclable
Energy Management System (EMS)	Optional port for battery charging and cabled operation
	Intelligent, microprocessor EMS
	On-board diagnostics and datalogger
Automatic Light Control (ALC)	Push button interface for local control
	Autonomous, Temporary, and Emergency Modes
	ALC adjusts output intensity in response to unusually low amounts of sunlight to ensure continued operation
Construction	Premium, UV-resistant polycarbonate lens
	Powder coated aluminum and polycarbonate chassis with integrated handle
	Waterproof, vented battery compartment
Temperature	-30 to 50 °C (-22 to 122 °F) Optimal
	-40 to 80 °C (-40 to 176 °F) Maximum
Wind & Ice Loading	644 kph (400 mph) wind; 0.03 psi (22 kg/m <sup>2</sup> ) ice
Shock & Vibration	MIL-STD-202G and MIL-STD-810G
Ingress	EN 60529 IP 67 immersion
	MIL-STD-202G immersion & damp heat cycling
	MIL-STD-810G rain & salt fog
Compliance	CE compliant (non-wireless model only)

### DIMENSIONS AND WEIGHTS

STANDARD		COMPACT	
Weight	6.7 kg (15 lb)	Weight	4.9 kg (11 lb)
Battery (96E)	4.2V, 24 Ahr	Battery (60X)	4.2V, 15 Ahr
LARGE			
Weight	10.5 kg (23 lb)		
Battery (200BC)	4.2V, 50 Ahr		



### CONFIGURATION

MODEL	OUTPUT ▼	SOLAR ENGINE ▼	CHASSIS ▼	CONTROL ▼	CHARGE PORT ▼
A704	WHITE / IR WHITE / YELLOW / IR RED / GREEN / IR BLUE / IR GREEN / IR YELLOW / IR RED / IR	COMPACT STANDARD LARGE	YELLOW OLIVE DRAB	NON-WIRELESS WIRELESS	NONE CHARGE PORT MILITARY CHARGE PORT



The management system governing the manufacture of this product is ISO 9001:2008 certified.

Specifications subject to local environmental conditions.  
 Specifications may be subject to change.

US and International patents apply. Other patents pending.  
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**THIRD PARTY VALIDATION: PHOTOMETRIC COMPLIANCE**

Refer to table below for additional details.

<sup>1</sup> ICAO MIRL (Annex 14, Vol.1, 5.3.9.9)  
 FAA L-861 MIRL (AC 150/5345-46, EB67)  
 FAA L-862 HIRL (AC 150/5345-46, EB67), step 3 of 5  
 Transport Canada MIRL (TP-312, 5.3.10.13)

<sup>3</sup> ICAO Type A (Annex 14, Vol. 1, 6-3)  
 ICAO Type B (Annex 14, Vol. 1, 6-3)  
 FAA L-810 (AC 150/5345-43, EB67)

<sup>2</sup> FAA L-861E & L-861SE MIRL (AC 150/5345-46, EB67)  
 FAA L-862E HIRL (AC 150/5345-46, EB67), step 3 of 5

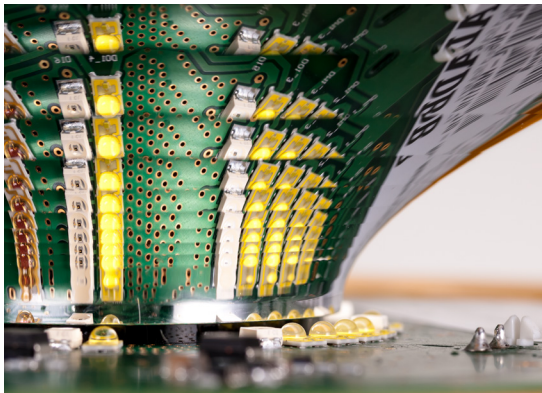
<sup>4</sup> FAA L-810 vertical divergence; 850 - 890 nm peak

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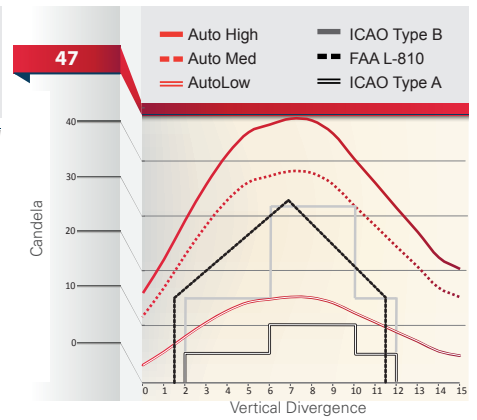
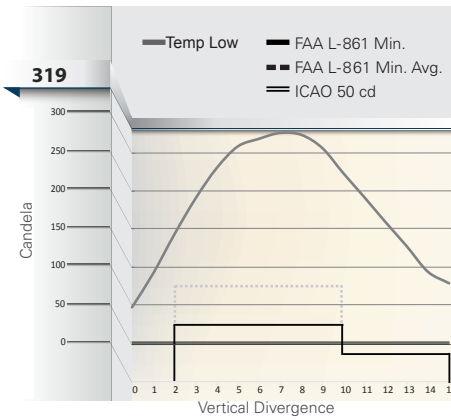
## SOLAR AIRFIELD LIGHT

**PEAK INTENSITY**

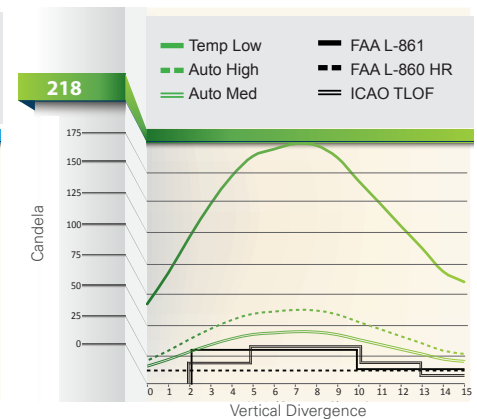
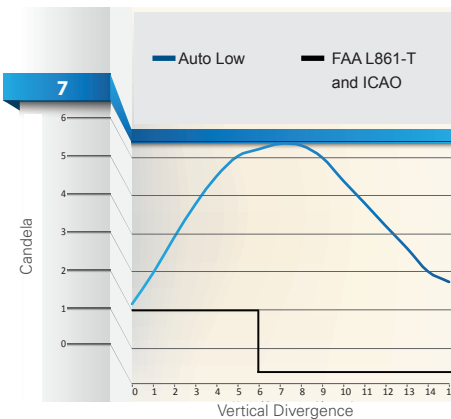
	Auto Low (cd)	Auto Medium (cd)	Auto High (cd)	Temp Low (cd)	Temp Medium (cd)	Temp High (cd)
Runway Edge, Approach, Helipad, FATO <sup>1</sup>	STEP 1 MIRL 19	STEP 1 MIRL+ 46	STEP 2 MIRL 76	STEP 3 MIRL 319	STEP 2 HIRL 446 446	STEP 3 HIRL 578 578
Runway Edge Caution	STEP 1 MIRL 19 17	STEP 1 MIRL+ 46 42	STEP 2 MIRL 76 68	STEP 3 MIRL 175 158	STEP 2 HIRL 181 163	STEP 3 HIRL 578 520
Runway Edge Threshold <sup>2</sup>	STEP 1 MIRL 33 14	STEP 1 MIRL+ 82 14	STEP 2 MIRL 130 14	STEP 3 MIRL 304 18	STEP 2 HIRL 371 142	STEP 3 HIRL 567 142
Taxiway and Apron Edge	ICAO/FAA 7			ICAO/FAA + 62	78	107
Helipad TLOF & FATO		L-860E/HR, TLOF 44	L-861 FATO 66	218	258	323
Helipad TLOF & FATO	22	36	56	190	235	315
Obstruction <sup>3</sup>	ICAO TYPE A 15	FAA L-810 37	ICAO TYPE B 47	ICAO TYPE A 15	FAA L-810 37	ICAO TYPE B 47
NVG Operations (mW/sr) <sup>4</sup>	16	34	80	16	34	80



A704 Lens Design



A704 Standard/Large & Compact Models



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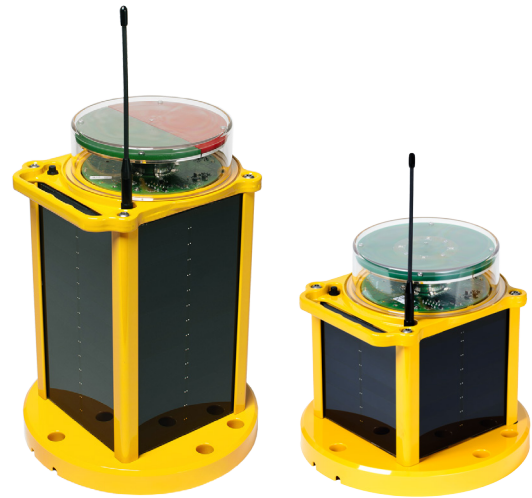
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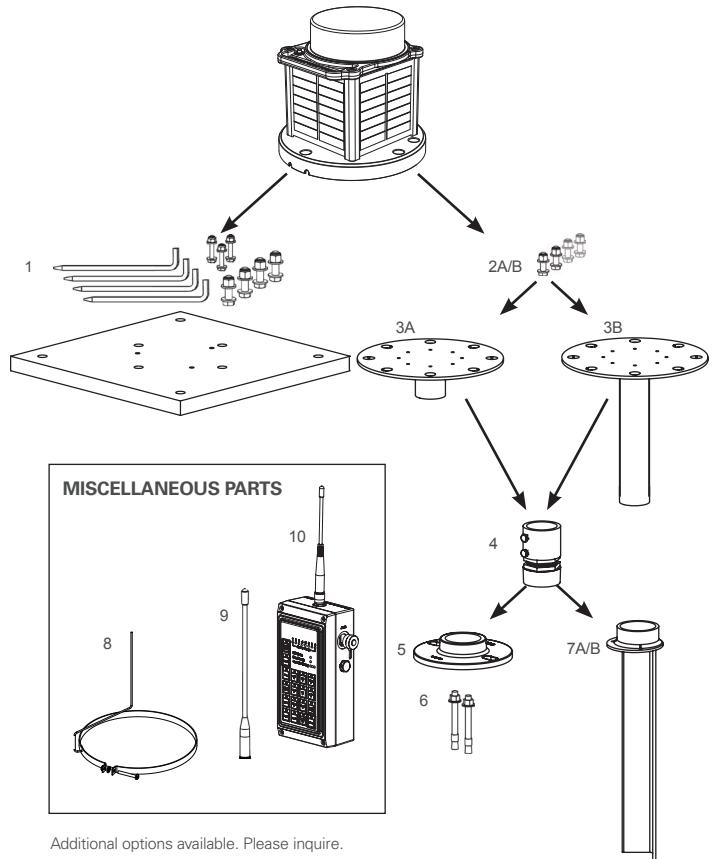
# ACCESSORIES

## A704 SERIES AIRFIELD LIGHTS

Carmanah's A704 Series Airfield Lights come with a range of accessories including durable mounting hardware, frangible couplings and a selection of replacement parts.



A704 SERIES MOUNTING HARDWARE OPTIONS



Additional options available. Please inquire.

### MOUNTING HARDWARE

REF	PART NO.	DESCRIPTION
1	64559	16 x 16" rubber mat and hardware
2A	71757	Standard bolt kit, 700 series (4x stainless steel bolts)
2B	71884	Security bolt kit, 700 series (2x bolts, not including keys)
-	53288	Security bolt kit, bolt key/driver bit
-	53289	Security bolt kit, nut key/driver bit
3A	65714	Standard mounting plate (18" installed height)
3B	65717	Extended mounting plate (26" installed height)
-	74239	Helipad mounting bracket
4	65711	Frangible coupling, 1.5" pipe x 2 thread
5	50144	Floor flange, 2" thread
6	46397	Anchor bolt kit
7A	38925	2" hub stake - 15" long
7B	38964	2" hub stake - 30" long
-	Inquire	Grass guard kit

### BATTERY/CHARGER

REF	PART NO.	DESCRIPTION
-	72890	Battery kit, A704 Compact
-	72891	Battery kit, A704 Standard
-	72892	Battery kit, A704 Large
-	74314	Battery charger, A704 with military charge port, 100-240 VAC, 50/60 Hz
-	69885	Battery charger, A704 battery pack and barrel charge port, 100-240 VAC, 50/60 Hz

### OPTICS

REF	PART NO.	DESCRIPTION
-	74690	Optical shield, 180 degree, several models
-	Inquire	Head kit, several models

### MISCELLANEOUS PARTS

REF	PART NO.	DESCRIPTION
8	40865	A704 series bird deterrent
9	56150	Replacement antenna
10	48473	Handheld Controller
-	48984	Installation tool kit with 5/32" security bit for head/battery changes and small socket set

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