



## AL1000 Autonomous Aerial Light Spec Sheet

Blue Vigil is revolutionizing the illumination of nighttime construction sites and emergency scenes. Blue Vigil has created an autonomous aerial light – the AL1000 – that will make night worksites safer, more productive, and greener. The AL1000 utilizes a permanently tethered, hovering machine to optimally position a high intensity LED array up to 100' (30m) above a work area.

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### **Illumination (@ 80' (24m) operating height)**

Useable Light Field 8,000sq/ft (742 sq/m) @ 5ft/c

Total Light Field 10,000sq/ft (929 sq/m)

LED fixtures: 4

Fixture Mounting: 2-axis gimbal

Lumens: 140,000

Brightness adjustable 25% to 100%

LED Angle adjustable to max 20° in all directions

### **Ground Base**

Wheeled case

Dimensions: 42"X31"X20" (106cmX78cmX50cm)

Weight: 90lbs (41kg) (including air unit)

Color: Safety Orange

Finish: Scuff/Scratch/Puncture resistant

Visibility: 360° status/warning lights, and Horn

Tether: Active Tether Management

Tether Cord: Safety orange; 250lbs (113kg)

tensile strength

### **ALED Hovering Machine**

Dimensions 22"X22"X8" (71cmX71cmX8cm)

Construction: Carbon Fiber Tube and composite

Gross Weight 9.5lbs (4.3kg) (including LEDs)

Color: Dark Gray

Strobe lighting visible beyond 3 nautical miles

360° LED status/warning lights

Remote ID (Broadcast Beacon)

2800mAH Back-up battery

### **ALED Controller**

8-button (illuminated) pendant

10' (3M) cable

Emergency Stop button

Permanently wired to Ground Base station

### **Input Power Requirements (from external source)**

Min 3,000W continuous

220V (15 amp) or 110V (30 amp) auto-switching

Source: Generator, Inverter, battery pack or

Shore power

### **Operating Characteristics**

Maximum operating Height: 110' (30m) AGL

Optimal Operating Height: 80' (24m)

Maximum Continuous Operating time: 18 hours

Environmental: operates in snow, rain, and dust

Temperature Range: 10F to 110F

### **Key Safety Features**

Requires continuous tether power to operate

Incapable of untethered operation

Incapable of lateral flight

Geo-fenced vertical operating area

360° status/warning lights on Air unit and Base

Safety orange tether cord with reflective fibers

Airside emergency backup battery

Groundside emergency backup battery

Loss of Power: automatic controlled auto-land

Loss of Comms: automatic controlled auto-land

Excess Wind: automatic controlled auto-land

GFI circuit protected

Audible alert during landing (base and air unit)

Audible Warning & loss of lighting on power loss

Redundant global positioning systems

Redundant Inertial Measurement Units

Redundant compasses

Redundant altitude sensors

Secure, wired, communications system

ADS-B (In)

### **Required Maintenance**

Props: replace quarterly, or if damaged

Motors: replace motors every 2000 hours

Clean case interior bi-Monthly

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\*These specifications are for the first-generation unit being released in Q2 2026.